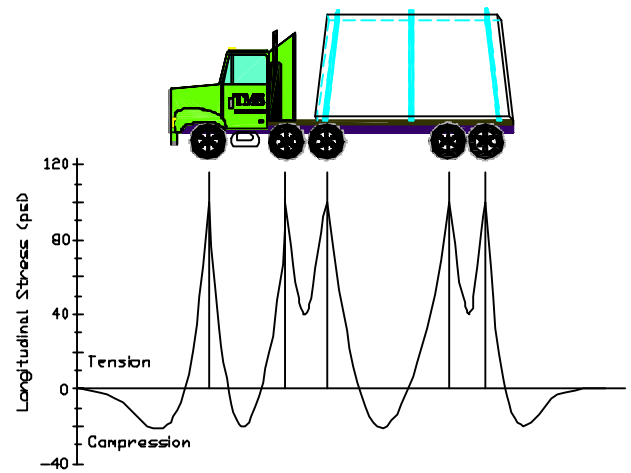


# ***TMS*** Consultants

## **Non-Divisional Load Study**

Appendices 6E-a thru 6E-c



TMS Consultants, LLC  
4901 E. Dry Creek Rd.  
Suite 102  
Littleton, CO 80122  
720.493.0137  
Fax 720.493.0145  
Joek@tmsconsultants.com



Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 3900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.71 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00

Appendix 6E-a Full Depth HBP

5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1253E+03	.1316E+03	.1376E+03	.1438E+03	.1504E+03	.1577E+03	.1661E+03	.1759E+03	.1872E+03
SYX	.1763E+03	.1828E+03	.1894E+03	.1963E+03	.2034E+03	.2108E+03	.2185E+03	.2265E+03	.2349E+03
SZZ	-.6588E+01	-.6748E+01	-.6889E+01	-.7033E+01	-.7195E+01	-.7372E+01	-.7555E+01	-.7739E+01	-.7917E+01

SHEAR STRESSES

SXY	-.1082E-06	.3366E-08	-.1239E-07	.1811E-06	-.3296E-06	-.2244E-06	-.2316E-06	.3437E-06	-.2777E-06
SXZ	.1119E+01	.1084E+01	.1051E+01	.1023E+01	.1001E+01	.9847E+00	.9709E+00	.9560E+00	.9343E+00
SYZ	-.1734E-08	-.4210E-08	.1152E-10	.1743E-08	.5965E-08	.2189E-08	.6235E-08	.1695E-07	-.5348E-08

PRINCIPAL STRESSES

PS 1	.1763E+03	.1828E+03	.1894E+03	.1963E+03	.2034E+03	.2108E+03	.2185E+03	.2265E+03	.2349E+03
PS 2	.1253E+03	.1316E+03	.1376E+03	.1438E+03	.1504E+03	.1577E+03	.1661E+03	.1759E+03	.1872E+03
PS 3	-.6598E+01	-.6757E+01	-.6896E+01	-.7040E+01	-.7201E+01	-.7378E+01	-.7561E+01	-.7744E+01	-.7921E+01

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.9147E+02	.9480E+02	.9816E+02	.1017E+03	.1053E+03	.1091E+03	.1130E+03	.1171E+03	.1214E+03
PSS 2	.2552E+02	.2562E+02	.2589E+02	.2624E+02	.2652E+02	.2656E+02	.2621E+02	.2533E+02	.2385E+02
PSS 3	.6595E+02	.6918E+02	.7226E+02	.7542E+02	.7879E+02	.8254E+02	.8682E+02	.9180E+02	.9754E+02

## DISPLACEMENTS

UX	-.4161E-02	-.3992E-02	-.3812E-02	-.3622E-02	-.3421E-02	-.3209E-02	-.2984E-02	-.2745E-02	-.2485E-02
UY	-.1196E-10	-.9939E-12	-.6807E-11	.6442E-11	-.6821E-11	.1541E-11	-.4078E-12	.3035E-10	-.2536E-11
UZ	.7770E-01	.7834E-01	.7872E-01	.7901E-01	.7933E-01	.7974E-01	.8021E-01	.8067E-01	.8111E-01

## NORMAL STRAINS

EXX	.1647E-03	.1749E-03	.1843E-03	.1939E-03	.2042E-03	.2162E-03	.2306E-03	.2482E-03	.2693E-03
EYY	.3370E-03	.3478E-03	.3592E-03	.3710E-03	.3833E-03	.3955E-03	.4076E-03	.4192E-03	.4303E-03
EZZ	-.2804E-03	-.2920E-03	-.3034E-03	-.3151E-03	-.3276E-03	-.3409E-03	-.3554E-03	-.3714E-03	-.3891E-03

## SHEAR STRAINS

EXY	-.7305E-12	.2272E-13	-.8365E-13	.1223E-11	-.2225E-11	-.1515E-11	-.1563E-11	.2320E-11	-.1875E-11
EXZ	.7551E-05	.7314E-05	.7095E-05	.6908E-05	.6760E-05	.6647E-05	.6554E-05	.6453E-05	.6307E-05
EYZ	-.1170E-13	-.2842E-13	.7775E-16	.1177E-13	.4026E-13	.1478E-13	.4209E-13	.1144E-12	-.3610E-13

## PRINCIPAL STRAINS

PE 1	.3370E-03	.3478E-03	.3592E-03	.3710E-03	.3833E-03	.3955E-03	.4076E-03	.4192E-03	.4303E-03
PE 2	.1647E-03	.1749E-03	.1844E-03	.1939E-03	.2043E-03	.2162E-03	.2306E-03	.2482E-03	.2693E-03
PE 3	-.2804E-03	-.2920E-03	-.3034E-03	-.3152E-03	-.3276E-03	-.3409E-03	-.3554E-03	-.3715E-03	-.3891E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.6174E-03	.6399E-03	.6626E-03	.6862E-03	.7109E-03	.7364E-03	.7630E-03	.7907E-03	.8194E-03
PSE 2	.1723E-03	.1729E-03	.1748E-03	.1772E-03	.1790E-03	.1793E-03	.1769E-03	.1710E-03	.1610E-03
PSE 3	.4452E-03	.4670E-03	.4878E-03	.5091E-03	.5318E-03	.5571E-03	.5861E-03	.6197E-03	.6584E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 3900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.71 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00

Appendix 6E-a Full Depth HBP

14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
 9.00 4.00  
 10.00 4.00  
 11.00 4.00  
 12.00 4.00  
 13.00 4.00  
 14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

NORMAL STRESSES

SXX .1998E+03 .2134E+03 .2274E+03 .2412E+03 .2543E+03 .2656E+03 .2734E+03 .2773E+03 .2775E+03  
 SYY .2433E+03 .2515E+03 .2592E+03 .2663E+03 .2728E+03 .2780E+03 .2810E+03 .2818E+03 .2810E+03  
 SZZ -.8087E+01 -.8253E+01 -.8426E+01 -.8626E+01 -.8842E+01 -.8971E+01 -.9064E+01 -.9128E+01 -.9167E+01

SHEAR STRESSES

SXY -.2400E-06 -.2866E-06 .1735E-07 .6082E-07 -.4007E-06 -.6065E-07 .7179E-07 -.5416E-07 .7610E-07  
 SXZ .8995E+00 .8450E+00 .7653E+00 .6567E+00 .5180E+00 .3505E+00 .1571E+00 -.5529E-01 -.2771E+00  
 SYZ -.1827E-08 -.4778E-08 -.2311E-08 -.5683E-08 -.1578E-07 -.4004E-08 -.2382E-08 .1065E-07 -.9225E-08

PRINCIPAL STRESSES

PS 1 .2433E+03 .2515E+03 .2592E+03 .2663E+03 .2728E+03 .2780E+03 .2810E+03 .2818E+03 .2810E+03  
 PS 2 .1998E+03 .2134E+03 .2274E+03 .2412E+03 .2543E+03 .2656E+03 .2734E+03 .2773E+03 .2775E+03  
 PS 3 -.8091E+01 -.8256E+01 -.8429E+01 -.8628E+01 -.8843E+01 -.8972E+01 -.9064E+01 -.9128E+01 -.9167E+01

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1257E+03	.1299E+03	.1338E+03	.1375E+03	.1408E+03	.1435E+03	.1450E+03	.1455E+03	.1451E+03
PSS 2	.2173E+02	.1904E+02	.1591E+02	.1255E+02	.9211E+01	.6199E+01	.3795E+01	.2244E+01	.1713E+01
PSS 3	.1040E+03	.1109E+03	.1179E+03	.1249E+03	.1316E+03	.1373E+03	.1412E+03	.1432E+03	.1433E+03

## DISPLACEMENTS

UX	-.2200E-02	-.1884E-02	-.1538E-02	-.1163E-02	-.7611E-03	-.3325E-03	.1177E-03	.5789E-03	.1040E-02
UY	.3442E-10	-.8511E-11	.2005E-10	.3347E-10	.2049E-10	-.3912E-11	.7962E-11	.1411E-10	-.1049E-10
UZ	.8156E-01	.8213E-01	.8295E-01	.8412E-01	.8536E-01	.8606E-01	.8680E-01	.8758E-01	.8810E-01

## NORMAL STRAINS

EXX	.2938E-03	.3207E-03	.3491E-03	.3775E-03	.4049E-03	.4286E-03	.4456E-03	.4547E-03	.4560E-03
EYY	.4405E-03	.4493E-03	.4565E-03	.4622E-03	.4671E-03	.4704E-03	.4712E-03	.4699E-03	.4676E-03
EZZ	-.4080E-03	-.4275E-03	-.4469E-03	-.4656E-03	-.4833E-03	-.4980E-03	-.5078E-03	-.5121E-03	-.5116E-03

## SHEAR STRAINS

EXY	-.1620E-11	-.1934E-11	.1171E-12	.4105E-12	-.2704E-11	-.4094E-12	.4846E-12	-.3655E-12	.5136E-12
EXZ	.6072E-05	.5704E-05	.5166E-05	.4433E-05	.3497E-05	.2366E-05	.1060E-05	-.3732E-06	-.1870E-05
EYZ	-.1233E-13	-.3225E-13	-.1560E-13	-.3836E-13	-.1065E-12	-.2702E-13	-.1608E-13	.7190E-13	-.6227E-13

## PRINCIPAL STRAINS

PE 1	.4405E-03	.4493E-03	.4565E-03	.4622E-03	.4671E-03	.4704E-03	.4712E-03	.4699E-03	.4676E-03
PE 2	.2938E-03	.3208E-03	.3491E-03	.3775E-03	.4049E-03	.4286E-03	.4456E-03	.4547E-03	.4560E-03
PE 3	-.4080E-03	-.4275E-03	-.4469E-03	-.4656E-03	-.4833E-03	-.4980E-03	-.5078E-03	-.5121E-03	-.5116E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.8484E-03	.8768E-03	.9034E-03	.9278E-03	.9504E-03	.9684E-03	.9790E-03	.9819E-03	.9792E-03
PSE 2	.1467E-03	.1285E-03	.1074E-03	.8468E-04	.6217E-04	.4184E-04	.2562E-04	.1515E-04	.1156E-04
PSE 3	.7017E-03	.7483E-03	.7960E-03	.8431E-03	.8883E-03	.9266E-03	.9534E-03	.9668E-03	.9676E-03



Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 3900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.71 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-a Full Depth HBP

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Z= 12.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.2742E+03	.2670E+03
SYY	.2787E+03	.2747E+03
SZZ	-.9041E+01	-.8891E+01

## SHEAR STRESSES

SXY	.1173E-06	-.7179E-07
SXZ	-.4990E+00	-.7115E+00
SYZ	.1231E-07	.0000E+00

## PRINCIPAL STRESSES

PS 1	.2787E+03	.2747E+03
PS 2	.2742E+03	.2670E+03
PS 3	-.9042E+01	-.8893E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.1439E+03	.1418E+03
PSS 2	.2264E+01	.3851E+01
PSS 3	.1416E+03	.1380E+03

## DISPLACEMENTS

UX	.1499E-02	.1953E-02
UY	.4650E-11	.1455E-10
UZ	.8718E-01	.8601E-01

Appendix 6E-a Full Depth HBP

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## NORMAL STRAINS

EXX	.4495E-03	.4350E-03
EYY	.4647E-03	.4610E-03
EZZ	-.5064E-03	-.4963E-03

## SHEAR STRAINS

EXY	.7918E-12	-.4846E-12
EXZ	-.3368E-05	-.4803E-05
EYZ	.8307E-13	.0000E+00

## PRINCIPAL STRAINS

PE 1	.4647E-03	.4610E-03
PE 2	.4495E-03	.4350E-03
PE 3	-.5064E-03	-.4963E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9711E-03	.9573E-03
PSE 2	.1528E-04	.2600E-04
PSE 3	.9558E-03	.9313E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00

Appendix 6E-a Full Depth HBP

22.00 4.00  
23.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.2414E+03	.2480E+03	.2516E+03	.2513E+03	.2481E+03	.2419E+03	.2324E+03	.2204E+03	.2078E+03
SYX	.2780E+03	.2826E+03	.2860E+03	.2872E+03	.2874E+03	.2860E+03	.2825E+03	.2773E+03	.2719E+03
SZZ	-.9637E+01	-.9797E+01	-.9914E+01	-.9982E+01	-.1001E+02	-.1001E+02	-.9990E+01	-.9933E+01	-.9851E+01

SHEAR STRESSES

SXY	.1130E-06	.4185E-07	-.3834E-07	-.6795E-07	-.1147E-06	.4537E-07	-.1038E-06	.1918E-06	-.1625E-06
SXZ	.1090E+01	.9138E+00	.7314E+00	.5493E+00	.3742E+00	.2133E+00	.7317E-01	-.4249E-01	-.1328E+00
SYZ	.1415E-08	.4941E-09	.4151E-08	.3389E-08	.5252E-09	.3489E-08	.3988E-08	-.7293E-09	.7838E-09

PRINCIPAL STRESSES

PS 1	.2780E+03	.2826E+03	.2860E+03	.2872E+03	.2874E+03	.2860E+03	.2825E+03	.2773E+03	.2719E+03
PS 2	.2414E+03	.2480E+03	.2516E+03	.2513E+03	.2481E+03	.2419E+03	.2324E+03	.2204E+03	.2078E+03
PS 3	-.9642E+01	-.9800E+01	-.9916E+01	-.9983E+01	-.1001E+02	-.1001E+02	-.9990E+01	-.9933E+01	-.9851E+01

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1438E+03	.1462E+03	.1480E+03	.1486E+03	.1487E+03	.1480E+03	.1462E+03	.1436E+03	.1409E+03
PSS 2	.1828E+02	.1730E+02	.1718E+02	.1797E+02	.1962E+02	.2204E+02	.2504E+02	.2845E+02	.3205E+02
PSS 3	.1255E+03	.1289E+03	.1308E+03	.1306E+03	.1291E+03	.1260E+03	.1212E+03	.1152E+03	.1088E+03

## DISPLACEMENTS

UX	-.4818E-02	-.4437E-02	-.4052E-02	-.3665E-02	-.3277E-02	-.2895E-02	-.2533E-02	-.2198E-02	-.1887E-02
UY	-.2009E-11	-.2925E-11	-.1080E-10	.1781E-12	-.3877E-12	-.3826E-12	-.1177E-10	-.1376E-11	-.1143E-10
UZ	.1132E+00	.1144E+00	.1151E+00	.1158E+00	.1160E+00	.1162E+00	.1165E+00	.1169E+00	.1170E+00

## NORMAL STRAINS

EXX	.3688E-03	.3813E-03	.3875E-03	.3857E-03	.3776E-03	.3633E-03	.3426E-03	.3171E-03	.2902E-03
EYY	.4922E-03	.4980E-03	.5035E-03	.5070E-03	.5100E-03	.5120E-03	.5116E-03	.5091E-03	.5065E-03
EZZ	-.4786E-03	-.4887E-03	-.4952E-03	-.4962E-03	-.4935E-03	-.4869E-03	-.4755E-03	-.4603E-03	-.4443E-03

## SHEAR STRAINS

EXY	.7625E-12	.2825E-12	-.2588E-12	-.4587E-12	-.7740E-12	.3063E-12	-.7005E-12	.1295E-11	-.1097E-11
EXZ	.7357E-05	.6168E-05	.4937E-05	.3708E-05	.2526E-05	.1440E-05	.4939E-06	-.2868E-06	-.8961E-06
EYZ	.9552E-14	.3335E-14	.2802E-13	.2287E-13	.3545E-14	.2355E-13	.2692E-13	-.4923E-14	.5291E-14

## PRINCIPAL STRAINS

PE 1	.4922E-03	.4980E-03	.5035E-03	.5070E-03	.5100E-03	.5120E-03	.5116E-03	.5091E-03	.5065E-03
PE 2	.3688E-03	.3813E-03	.3875E-03	.3857E-03	.3776E-03	.3633E-03	.3426E-03	.3171E-03	.2902E-03
PE 3	-.4786E-03	-.4887E-03	-.4952E-03	-.4962E-03	-.4935E-03	-.4869E-03	-.4755E-03	-.4603E-03	-.4443E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9708E-03	.9868E-03	.9988E-03	.1003E-02	.1004E-02	.9990E-03	.9872E-03	.9694E-03	.9509E-03
PSE 2	.1234E-03	.1167E-03	.1160E-03	.1213E-03	.1325E-03	.1487E-03	.1690E-03	.1920E-03	.2163E-03
PSE 3	.8474E-03	.8700E-03	.8828E-03	.8818E-03	.8711E-03	.8502E-03	.8181E-03	.7774E-03	.7345E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-a Full Depth HBP

31.00 4.00  
32.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
24.00 4.00  
25.00 4.00  
26.00 4.00  
27.00 4.00  
28.00 4.00  
29.00 4.00  
30.00 4.00  
31.00 4.00  
32.00 4.00

NORMAL STRESSES

SXX .1950E+03 .1819E+03 .1692E+03 .1574E+03 .1470E+03 .1382E+03 .1311E+03 .1257E+03 .1219E+03  
 SYX .2663E+03 .2601E+03 .2536E+03 .2473E+03 .2415E+03 .2365E+03 .2323E+03 .2290E+03 .2267E+03  
 SZZ -.9771E+01 -.9688E+01 -.9598E+01 -.9504E+01 -.9411E+01 -.9325E+01 -.9250E+01 -.9190E+01 -.9147E+01

SHEAR STRESSES

SXY .1559E-06 .5037E-07 -.1697E-06 .9070E-07 .1022E-06 .2580E-07 -.1826E-06 -.3155E-08 .9433E-07  
 SXZ -.1975E+00 -.2374E+00 -.2551E+00 -.2543E+00 -.2387E+00 -.2121E+00 -.1773E+00 -.1369E+00 -.9300E-01  
 SYZ -.8853E-09 -.1759E-08 .7350E-08 .4793E-08 -.4148E-08 -.1155E-08 .2350E-08 -.4508E-08 .1232E-08

PRINCIPAL STRESSES

PS 1 .2663E+03 .2601E+03 .2536E+03 .2473E+03 .2415E+03 .2365E+03 .2323E+03 .2290E+03 .2267E+03  
 PS 2 .1950E+03 .1819E+03 .1692E+03 .1574E+03 .1470E+03 .1382E+03 .1311E+03 .1257E+03 .1219E+03  
 PS 3 -.9771E+01 -.9688E+01 -.9598E+01 -.9504E+01 -.9411E+01 -.9325E+01 -.9250E+01 -.9191E+01 -.9147E+01



## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1380E+03	.1349E+03	.1316E+03	.1284E+03	.1255E+03	.1229E+03	.1208E+03	.1191E+03	.1179E+03
PSS 2	.3565E+02	.3907E+02	.4220E+02	.4493E+02	.4725E+02	.4913E+02	.5060E+02	.5169E+02	.5243E+02
PSS 3	.1024E+03	.9580E+02	.8940E+02	.8347E+02	.7822E+02	.7377E+02	.7018E+02	.6743E+02	.6551E+02

## DISPLACEMENTS

UX	-.1600E-02	-.1344E-02	-.1119E-02	-.9216E-03	-.7491E-03	-.5967E-03	-.4602E-03	-.3354E-03	-.2192E-03
UY	-.3032E-10	.1385E-11	-.3210E-10	-.9275E-11	-.3723E-11	.9199E-11	-.1156E-10	.1289E-10	.4468E-11
UZ	.1170E+00	.1172E+00	.1174E+00	.1177E+00	.1179E+00	.1181E+00	.1182E+00	.1182E+00	.1183E+00

## NORMAL STRAINS

EXX	.2630E-03	.2357E-03	.2095E-03	.1855E-03	.1645E-03	.1468E-03	.1326E-03	.1218E-03	.1143E-03
EYY	.5036E-03	.4994E-03	.4943E-03	.4888E-03	.4834E-03	.4784E-03	.4741E-03	.4707E-03	.4682E-03
EZZ	-.4280E-03	-.4109E-03	-.3939E-03	-.3779E-03	-.3635E-03	-.3512E-03	-.3411E-03	-.3334E-03	-.3279E-03

## SHEAR STRAINS

EXY	.1053E-11	.3400E-12	-.1146E-11	.6122E-12	.6897E-12	.1742E-12	-.1233E-11	-.2129E-13	.6368E-12
EXZ	-.1333E-05	-.1602E-05	-.1722E-05	-.1717E-05	-.1611E-05	-.1431E-05	-.1197E-05	-.9243E-06	-.6277E-06
EYZ	-.5975E-14	-.1188E-13	.4962E-13	.3235E-13	-.2800E-13	-.7800E-14	.1586E-13	-.3043E-13	.8314E-14

## PRINCIPAL STRAINS

PE 1	.5036E-03	.4994E-03	.4943E-03	.4888E-03	.4834E-03	.4784E-03	.4741E-03	.4707E-03	.4682E-03
PE 2	.2630E-03	.2357E-03	.2095E-03	.1855E-03	.1645E-03	.1468E-03	.1326E-03	.1218E-03	.1143E-03
PE 3	-.4280E-03	-.4110E-03	-.3939E-03	-.3779E-03	-.3635E-03	-.3512E-03	-.3411E-03	-.3334E-03	-.3279E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9317E-03	.9104E-03	.8883E-03	.8667E-03	.8469E-03	.8296E-03	.8152E-03	.8041E-03	.7961E-03
PSE 2	.2406E-03	.2637E-03	.2848E-03	.3033E-03	.3189E-03	.3316E-03	.3415E-03	.3489E-03	.3539E-03
PSE 3	.6911E-03	.6467E-03	.6035E-03	.5634E-03	.5280E-03	.4979E-03	.4737E-03	.4552E-03	.4422E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00

Appendix 6E-a Full Depth HBP

40.00        4.00  
41.00        4.00

Z= 12.00 LAYER NO, 1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.1196E+03	.1189E+03	.1196E+03	.1219E+03	.1257E+03	.1311E+03	.1382E+03	.1470E+03	.1574E+03
SYX	.2254E+03	.2249E+03	.2254E+03	.2267E+03	.2290E+03	.2323E+03	.2365E+03	.2415E+03	.2473E+03
SZZ	-.9121E+01	-.9112E+01	-.9121E+01	-.9147E+01	-.9190E+01	-.9250E+01	-.9325E+01	-.9411E+01	-.9504E+01

SHEAR STRESSES

SXY	-.4322E-07	.9951E-08	-.6487E-07	.9724E-08	-.6584E-08	.4157E-07	.3886E-07	.8086E-07	.7542E-08
SXZ	-.4702E-01	-.1448E-09	.4702E-01	.9300E-01	.1369E+00	.1773E+00	.2121E+00	.2387E+00	.2543E+00
SYZ	-.1741E-08	-.1631E-08	-.4384E-08	.3349E-10	.4588E-08	.1842E-10	-.2879E-08	-.7263E-08	.1944E-08

PRINCIPAL STRESSES

PS 1	.2254E+03	.2249E+03	.2254E+03	.2267E+03	.2290E+03	.2323E+03	.2365E+03	.2415E+03	.2473E+03
PS 2	.1196E+03	.1189E+03	.1196E+03	.1219E+03	.1257E+03	.1311E+03	.1382E+03	.1470E+03	.1574E+03
PS 3	-.9121E+01	-.9112E+01	-.9121E+01	-.9147E+01	-.9191E+01	-.9250E+01	-.9325E+01	-.9411E+01	-.9504E+01

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1172E+03	.1170E+03	.1172E+03	.1179E+03	.1191E+03	.1208E+03	.1229E+03	.1255E+03	.1284E+03
PSS 2	.5287E+02	.5301E+02	.5287E+02	.5243E+02	.5169E+02	.5060E+02	.4913E+02	.4725E+02	.4493E+02
PSS 3	.6438E+02	.6400E+02	.6438E+02	.6551E+02	.6743E+02	.7018E+02	.7377E+02	.7822E+02	.8347E+02

## DISPLACEMENTS

UX	-.1083E-03	-.1966E-09	.1083E-03	.2192E-03	.3354E-03	.4602E-03	.5967E-03	.7491E-03	.9216E-03
UY	.9069E-11	.6016E-11	.4318E-11	.2103E-12	.3449E-11	.2885E-10	-.1566E-11	-.5185E-11	-.1141E-10
UZ	.1183E+00	.1183E+00	.1183E+00	.1183E+00	.1182E+00	.1182E+00	.1181E+00	.1179E+00	.1177E+00

## NORMAL STRAINS

EXX	.1099E-03	.1084E-03	.1099E-03	.1143E-03	.1218E-03	.1326E-03	.1468E-03	.1645E-03	.1855E-03
EYY	.4667E-03	.4662E-03	.4667E-03	.4682E-03	.4707E-03	.4741E-03	.4784E-03	.4834E-03	.4888E-03
EZZ	-.3247E-03	-.3236E-03	-.3247E-03	-.3279E-03	-.3334E-03	-.3411E-03	-.3512E-03	-.3635E-03	-.3779E-03

## SHEAR STRAINS

EXY	-.2918E-12	.6717E-13	-.4379E-12	.6564E-13	-.4444E-13	.2806E-12	.2623E-12	.5458E-12	.5091E-13
EXZ	-.3174E-06	-.9776E-15	.3174E-06	.6277E-06	.9243E-06	.1197E-05	.1431E-05	.1611E-05	.1717E-05
EYZ	-.1175E-13	-.1101E-13	-.2959E-13	.2261E-15	.3097E-13	.1243E-15	-.1943E-13	-.4902E-13	.1312E-13

## PRINCIPAL STRAINS

PE 1	.4667E-03	.4662E-03	.4667E-03	.4682E-03	.4707E-03	.4741E-03	.4784E-03	.4834E-03	.4888E-03
PE 2	.1099E-03	.1084E-03	.1099E-03	.1143E-03	.1218E-03	.1326E-03	.1468E-03	.1645E-03	.1855E-03
PE 3	-.3247E-03	-.3236E-03	-.3247E-03	-.3279E-03	-.3334E-03	-.3411E-03	-.3512E-03	-.3635E-03	-.3779E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.7914E-03	.7898E-03	.7914E-03	.7961E-03	.8041E-03	.8152E-03	.8296E-03	.8469E-03	.8667E-03
PSE 2	.3568E-03	.3578E-03	.3568E-03	.3539E-03	.3489E-03	.3415E-03	.3316E-03	.3189E-03	.3033E-03
PSE 3	.4345E-03	.4320E-03	.4345E-03	.4422E-03	.4552E-03	.4737E-03	.4979E-03	.5280E-03	.5634E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00

Appendix 6E-a Full Depth HBP

49.00        4.00  
50.00        4.00

Z= 12.00 LAYER NO, 1

X            Y  
42.00       4.00  
43.00       4.00  
44.00       4.00  
45.00       4.00  
46.00       4.00  
47.00       4.00  
48.00       4.00  
49.00       4.00  
50.00       4.00

NORMAL STRESSES

SXX    .1692E+03   .1819E+03   .1950E+03   .2078E+03   .2204E+03   .2324E+03   .2419E+03   .2481E+03   .2513E+03  
SYY    .2536E+03   .2601E+03   .2663E+03   .2719E+03   .2773E+03   .2825E+03   .2860E+03   .2874E+03   .2872E+03  
SZZ    -.9598E+01   -.9688E+01   -.9771E+01   -.9851E+01   -.9933E+01   -.9990E+01   -.1001E+02   -.1001E+02   -.9982E+01

SHEAR STRESSES

SXY    -.3431E-06   .6829E-08   -.5869E-07   .2013E-07   -.1925E-06   .6822E-07   -.5009E-07   .1181E-06   .3109E-08  
SXZ    .2551E+00   .2374E+00   .1975E+00   .1328E+00   .4249E-01   -.7317E-01   -.2133E+00   -.3742E+00   -.5493E+00  
SYZ    .1261E-08   -.3415E-08   -.3603E-08   .2624E-08   .4825E-08   -.1213E-08   .7503E-09   -.1234E-09   .1104E-09

PRINCIPAL STRESSES

PS 1    .2536E+03   .2601E+03   .2663E+03   .2719E+03   .2773E+03   .2825E+03   .2860E+03   .2874E+03   .2872E+03  
PS 2    .1692E+03   .1819E+03   .1950E+03   .2078E+03   .2204E+03   .2324E+03   .2419E+03   .2481E+03   .2513E+03  
PS 3    -.9598E+01   -.9688E+01   -.9771E+01   -.9851E+01   -.9933E+01   -.9990E+01   -.1001E+02   -.1001E+02   -.9983E+01

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1316E+03	.1349E+03	.1380E+03	.1409E+03	.1436E+03	.1462E+03	.1480E+03	.1487E+03	.1486E+03
PSS 2	.4220E+02	.3907E+02	.3565E+02	.3205E+02	.2845E+02	.2504E+02	.2204E+02	.1962E+02	.1797E+02
PSS 3	.8940E+02	.9580E+02	.1024E+03	.1088E+03	.1152E+03	.1212E+03	.1260E+03	.1291E+03	.1306E+03

## DISPLACEMENTS

UX	.1119E-02	.1344E-02	.1600E-02	.1887E-02	.2198E-02	.2533E-02	.2895E-02	.3277E-02	.3665E-02
UY	.1511E-10	.1947E-11	.1461E-10	-.1374E-10	.9384E-11	-.1951E-11	.2203E-11	-.2568E-11	-.5777E-12
UZ	.1174E+00	.1172E+00	.1170E+00	.1170E+00	.1169E+00	.1165E+00	.1162E+00	.1160E+00	.1158E+00

## NORMAL STRAINS

EXX	.2095E-03	.2357E-03	.2630E-03	.2902E-03	.3171E-03	.3426E-03	.3633E-03	.3776E-03	.3857E-03
EYY	.4943E-03	.4994E-03	.5036E-03	.5065E-03	.5091E-03	.5116E-03	.5120E-03	.5100E-03	.5070E-03
EZZ	-.3939E-03	-.4109E-03	-.4280E-03	-.4443E-03	-.4603E-03	-.4755E-03	-.4869E-03	-.4935E-03	-.4962E-03

## SHEAR STRAINS

EXY	-.2316E-11	.4609E-13	-.3961E-12	.1359E-12	-.1299E-11	.4605E-12	-.3381E-12	.7973E-12	.2098E-13
EXZ	.1722E-05	.1602E-05	.1333E-05	.8961E-06	.2868E-06	-.4939E-06	-.1440E-05	-.2526E-05	-.3708E-05
EYZ	.8511E-14	-.2305E-13	-.2432E-13	.1771E-13	.3257E-13	-.8191E-14	.5064E-14	-.8329E-15	.7450E-15

## PRINCIPAL STRAINS

PE 1	.4943E-03	.4994E-03	.5036E-03	.5065E-03	.5091E-03	.5116E-03	.5120E-03	.5100E-03	.5070E-03
PE 2	.2095E-03	.2357E-03	.2630E-03	.2902E-03	.3171E-03	.3426E-03	.3633E-03	.3776E-03	.3857E-03
PE 3	-.3939E-03	-.4110E-03	-.4280E-03	-.4443E-03	-.4603E-03	-.4755E-03	-.4869E-03	-.4935E-03	-.4962E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.8883E-03	.9104E-03	.9317E-03	.9509E-03	.9694E-03	.9872E-03	.9990E-03	.1004E-02	.1003E-02
PSE 2	.2848E-03	.2637E-03	.2406E-03	.2163E-03	.1920E-03	.1690E-03	.1487E-03	.1325E-03	.1213E-03
PSE 3	.6035E-03	.6467E-03	.6911E-03	.7345E-03	.7774E-03	.8181E-03	.8502E-03	.8711E-03	.8818E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00



Appendix 6E-a Full Depth HBP

58.00 4.00  
59.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.2516E+03	.2480E+03	.2414E+03	.2319E+03	.2190E+03	.2034E+03	.1872E+03	.1708E+03	.1539E+03
SYX	.2860E+03	.2826E+03	.2780E+03	.2719E+03	.2637E+03	.2537E+03	.2434E+03	.2328E+03	.2215E+03
SZZ	-.9914E+01	-.9797E+01	-.9637E+01	-.9457E+01	-.9248E+01	-.9003E+01	-.8732E+01	-.8463E+01	-.8188E+01

SHEAR STRESSES

SXY	-.4991E-07	-.1290E-07	-.1181E-06	.7251E-07	-.6930E-07	.2353E-06	-.1181E-06	.5009E-07	-.6822E-07
SXZ	-.7314E+00	-.9138E+00	-.1090E+01	-.1253E+01	-.1395E+01	-.1514E+01	-.1608E+01	-.1677E+01	-.1722E+01
SYZ	.4735E-08	.3336E-08	.0000E+00	.3336E-08	.4735E-08	.1104E-09	-.1234E-09	.7503E-09	-.1213E-08

PRINCIPAL STRESSES

PS 1	.2860E+03	.2826E+03	.2780E+03	.2719E+03	.2637E+03	.2537E+03	.2434E+03	.2328E+03	.2215E+03
PS 2	.2516E+03	.2480E+03	.2414E+03	.2319E+03	.2190E+03	.2035E+03	.1873E+03	.1708E+03	.1539E+03
PS 3	-.9916E+01	-.9800E+01	-.9642E+01	-.9464E+01	-.9256E+01	-.9014E+01	-.8746E+01	-.8478E+01	-.8207E+01

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1480E+03	.1462E+03	.1438E+03	.1407E+03	.1365E+03	.1313E+03	.1260E+03	.1206E+03	.1148E+03
PSS 2	.1718E+02	.1730E+02	.1828E+02	.2002E+02	.2235E+02	.2510E+02	.2805E+02	.3100E+02	.3380E+02
PSS 3	.1308E+03	.1289E+03	.1255E+03	.1207E+03	.1141E+03	.1062E+03	.9800E+02	.8962E+02	.8104E+02

## DISPLACEMENTS

UX	.4052E-02	.4437E-02	.4818E-02	.5189E-02	.5536E-02	.5851E-02	.6137E-02	.6394E-02	.6615E-02
UY	-.1148E-10	.2988E-11	.0000E+00	.2988E-11	-.1148E-10	-.5777E-12	-.2568E-11	.2203E-11	-.1951E-11
UZ	.1151E+00	.1144E+00	.1132E+00	.1119E+00	.1108E+00	.1098E+00	.1084E+00	.1070E+00	.1058E+00

## NORMAL STRAINS

EXX	.3875E-03	.3813E-03	.3688E-03	.3500E-03	.3248E-03	.2945E-03	.2628E-03	.2306E-03	.1980E-03
EYY	.5035E-03	.4980E-03	.4922E-03	.4851E-03	.4757E-03	.4640E-03	.4522E-03	.4399E-03	.4262E-03
EZZ	-.4952E-03	-.4887E-03	-.4786E-03	-.4644E-03	-.4454E-03	-.4225E-03	-.3986E-03	-.3742E-03	-.3489E-03

## SHEAR STRAINS

EXY	-.3369E-12	-.8709E-13	-.7973E-12	.4894E-12	-.4678E-12	.1588E-11	-.7973E-12	.3381E-12	-.4605E-12
EXZ	-.4937E-05	-.6168E-05	-.7357E-05	-.8455E-05	-.9417E-05	-.1022E-04	-.1085E-04	-.1132E-04	-.1162E-04
EYZ	.3196E-13	.2252E-13	.0000E+00	.2252E-13	.3196E-13	.7450E-15	-.8329E-15	.5064E-14	-.8191E-14

## PRINCIPAL STRAINS

PE 1	.5035E-03	.4980E-03	.4922E-03	.4851E-03	.4757E-03	.4640E-03	.4522E-03	.4399E-03	.4262E-03
PE 2	.3875E-03	.3813E-03	.3688E-03	.3500E-03	.3248E-03	.2946E-03	.2629E-03	.2307E-03	.1981E-03
PE 3	-.4952E-03	-.4887E-03	-.4786E-03	-.4645E-03	-.4454E-03	-.4225E-03	-.3987E-03	-.3743E-03	-.3489E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9988E-03	.9868E-03	.9708E-03	.9496E-03	.9211E-03	.8865E-03	.8508E-03	.8142E-03	.7751E-03
PSE 2	.1160E-03	.1167E-03	.1234E-03	.1351E-03	.1509E-03	.1694E-03	.1893E-03	.2093E-03	.2281E-03
PSE 3	.8828E-03	.8700E-03	.8474E-03	.8145E-03	.7702E-03	.7171E-03	.6615E-03	.6050E-03	.5470E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.85 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00

Appendix 6E-a Full Depth HBP

5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1347E+03	.1415E+03	.1481E+03	.1548E+03	.1620E+03	.1699E+03	.1790E+03	.1896E+03	.2017E+03
SYX	.1897E+03	.1967E+03	.2038E+03	.2112E+03	.2189E+03	.2269E+03	.2351E+03	.2438E+03	.2527E+03
SZZ	-.7091E+01	-.7263E+01	-.7415E+01	-.7571E+01	-.7746E+01	-.7936E+01	-.8135E+01	-.8332E+01	-.8523E+01

SHEAR STRESSES

SXY	-.5748E-07	.1662E-07	-.3309E-06	.2462E-06	.6532E-07	.3383E-07	.1623E-06	-.2209E-06	-.2939E-06
SXZ	.1204E+01	.1167E+01	.1132E+01	.1102E+01	.1079E+01	.1060E+01	.1045E+01	.1028E+01	.1003E+01
SYZ	.4700E-08	.4234E-08	-.3491E-08	.7839E-08	.3350E-08	.2450E-08	.4996E-08	.7025E-08	.7344E-08

PRINCIPAL STRESSES

PS 1	.1897E+03	.1967E+03	.2038E+03	.2112E+03	.2189E+03	.2269E+03	.2351E+03	.2438E+03	.2527E+03
PS 2	.1347E+03	.1416E+03	.1481E+03	.1548E+03	.1620E+03	.1699E+03	.1790E+03	.1896E+03	.2017E+03
PS 3	-.7101E+01	-.7272E+01	-.7423E+01	-.7579E+01	-.7753E+01	-.7943E+01	-.8141E+01	-.8338E+01	-.8528E+01

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.9838E+02	.1020E+03	.1056E+03	.1094E+03	.1133E+03	.1174E+03	.1216E+03	.1261E+03	.1306E+03
PSS 2	.2747E+02	.2756E+02	.2783E+02	.2818E+02	.2845E+02	.2846E+02	.2805E+02	.2709E+02	.2548E+02
PSS 3	.7092E+02	.7441E+02	.7776E+02	.8120E+02	.8487E+02	.8895E+02	.9359E+02	.9897E+02	.1051E+03

## DISPLACEMENTS

UX	-.4478E-02	-.4296E-02	-.4103E-02	-.3898E-02	-.3681E-02	-.3453E-02	-.3210E-02	-.2952E-02	-.2671E-02
UY	-.1113E-10	.1773E-10	-.4416E-11	.2322E-10	-.3892E-10	-.1128E-10	.2833E-10	-.1107E-10	-.1739E-10
UZ	.8366E-01	.8435E-01	.8476E-01	.8507E-01	.8542E-01	.8586E-01	.8636E-01	.8686E-01	.8733E-01

## NORMAL STRAINS

EXX	.1771E-03	.1881E-03	.1984E-03	.2089E-03	.2202E-03	.2333E-03	.2490E-03	.2680E-03	.2907E-03
EYY	.3625E-03	.3742E-03	.3863E-03	.3991E-03	.4123E-03	.4254E-03	.4383E-03	.4508E-03	.4627E-03
EZZ	-.3016E-03	-.3141E-03	-.3264E-03	-.3392E-03	-.3526E-03	-.3670E-03	-.3827E-03	-.4000E-03	-.4189E-03

## SHEAR STRAINS

EXY	-.3880E-12	.1122E-12	-.2234E-11	.1662E-11	.4409E-12	.2283E-12	.1096E-11	-.1491E-11	-.1984E-11
EXZ	.8127E-05	.7876E-05	.7642E-05	.7442E-05	.7280E-05	.7156E-05	.7051E-05	.6936E-05	.6772E-05
EYZ	.3172E-13	.2858E-13	-.2357E-13	.5291E-13	.2261E-13	.1654E-13	.3372E-13	.4742E-13	.4957E-13

## PRINCIPAL STRAINS

PE 1	.3625E-03	.3742E-03	.3863E-03	.3991E-03	.4123E-03	.4254E-03	.4383E-03	.4508E-03	.4627E-03
PE 2	.1771E-03	.1882E-03	.1985E-03	.2089E-03	.2202E-03	.2333E-03	.2490E-03	.2680E-03	.2907E-03
PE 3	-.3016E-03	-.3141E-03	-.3264E-03	-.3392E-03	-.3526E-03	-.3671E-03	-.3828E-03	-.4000E-03	-.4190E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.6641E-03	.6883E-03	.7128E-03	.7383E-03	.7649E-03	.7925E-03	.8211E-03	.8509E-03	.8817E-03
PSE 2	.1854E-03	.1860E-03	.1879E-03	.1902E-03	.1920E-03	.1921E-03	.1893E-03	.1828E-03	.1720E-03
PSE 3	.4787E-03	.5023E-03	.5249E-03	.5481E-03	.5729E-03	.6004E-03	.6317E-03	.6680E-03	.7097E-03

Appendix 6E-a Full Depth HBP

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ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.85 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00

Appendix 6E-a Full Depth HBP

14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.2153E+03	.2299E+03	.2448E+03	.2594E+03	.2734E+03	.2853E+03	.2936E+03	.2977E+03	.2979E+03
SYX	.2617E+03	.2705E+03	.2787E+03	.2862E+03	.2931E+03	.2986E+03	.3018E+03	.3026E+03	.3018E+03
SZZ	-.8706E+01	-.8883E+01	-.9068E+01	-.9281E+01	-.9489E+01	-.9626E+01	-.9725E+01	-.9792E+01	-.9812E+01

SHEAR STRESSES

SXY	-.5635E-07	-.7352E-07	.3555E-06	.5681E-07	.1255E-06	-.1321E-06	-.1623E-06	-.3101E-07	.3006E-07
SXZ	.9647E+00	.9051E+00	.8186E+00	.7013E+00	.5525E+00	.3728E+00	.1657E+00	-.6143E-01	-.2983E+00
SYZ	-.8210E-08	.5822E-08	.4804E-08	-.7130E-08	-.7619E-08	.1137E-08	.4552E-08	-.4132E-08	.2442E-09

PRINCIPAL STRESSES

PS 1	.2617E+03	.2705E+03	.2787E+03	.2862E+03	.2931E+03	.2986E+03	.3018E+03	.3026E+03	.3018E+03
PS 2	.2153E+03	.2299E+03	.2448E+03	.2594E+03	.2734E+03	.2853E+03	.2936E+03	.2977E+03	.2979E+03
PS 3	-.8710E+01	-.8886E+01	-.9070E+01	-.9282E+01	-.9490E+01	-.9627E+01	-.9725E+01	-.9792E+01	-.9812E+01

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1352E+03	.1397E+03	.1439E+03	.1477E+03	.1513E+03	.1541E+03	.1558E+03	.1562E+03	.1558E+03
PSS 2	.2321E+02	.2033E+02	.1699E+02	.1341E+02	.9871E+01	.6677E+01	.4131E+01	.2490E+01	.1930E+01
PSS 3	.1120E+03	.1194E+03	.1269E+03	.1343E+03	.1414E+03	.1475E+03	.1516E+03	.1537E+03	.1539E+03

## DISPLACEMENTS

UX	-.2363E-02	-.2023E-02	-.1651E-02	-.1247E-02	-.8144E-03	-.3538E-03	.1297E-03	.6246E-03	.1120E-02
UY	.1146E-10	.7926E-11	-.4955E-11	-.4555E-11	.1254E-10	-.1857E-11	-.3501E-10	.2224E-11	-.1217E-11
UZ	.8781E-01	.8842E-01	.8931E-01	.9056E-01	.9171E-01	.9246E-01	.9326E-01	.9410E-01	.9448E-01

## NORMAL STRAINS

EXX	.3169E-03	.3457E-03	.3759E-03	.4062E-03	.4353E-03	.4603E-03	.4783E-03	.4879E-03	.4893E-03
EYY	.4736E-03	.4830E-03	.4906E-03	.4967E-03	.5019E-03	.5054E-03	.5062E-03	.5047E-03	.5023E-03
EZZ	-.4392E-03	-.4601E-03	-.4807E-03	-.5006E-03	-.5195E-03	-.5350E-03	-.5453E-03	-.5497E-03	-.5492E-03

## SHEAR STRAINS

EXY	-.3804E-12	-.4963E-12	.2400E-11	.3835E-12	.8473E-12	-.8914E-12	-.1095E-11	-.2093E-12	.2029E-12
EXZ	.6512E-05	.6109E-05	.5525E-05	.4734E-05	.3729E-05	.2516E-05	.1118E-05	-.4146E-06	-.2013E-05
EYZ	-.5541E-13	.3930E-13	.3243E-13	-.4813E-13	-.5143E-13	.7676E-14	.3073E-13	-.2789E-13	.1649E-14

## PRINCIPAL STRAINS

PE 1	.4736E-03	.4830E-03	.4906E-03	.4967E-03	.5019E-03	.5054E-03	.5062E-03	.5047E-03	.5023E-03
PE 2	.3169E-03	.3457E-03	.3759E-03	.4062E-03	.4353E-03	.4603E-03	.4783E-03	.4879E-03	.4893E-03
PE 3	-.4392E-03	-.4601E-03	-.4807E-03	-.5006E-03	-.5195E-03	-.5350E-03	-.5453E-03	-.5497E-03	-.5492E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9128E-03	.9430E-03	.9714E-03	.9973E-03	.1021E-02	.1040E-02	.1052E-02	.1054E-02	.1052E-02
PSE 2	.1567E-03	.1372E-03	.1147E-03	.9053E-04	.6663E-04	.4507E-04	.2788E-04	.1681E-04	.1303E-04
PSE 3	.7561E-03	.8058E-03	.8567E-03	.9068E-03	.9548E-03	.9954E-03	.1024E-02	.1038E-02	.1039E-02



Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.85 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-a Full Depth HBP

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Z= 12.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.2943E+03	.2867E+03
SYY	.2993E+03	.2951E+03
SZZ	-.9699E+01	-.9538E+01

## SHEAR STRESSES

SXY	.3705E-07	.1623E-06
SXZ	-.5352E+00	-.7624E+00
SYZ	-.1726E-08	.0000E+00

## PRINCIPAL STRESSES

PS 1	.2993E+03	.2951E+03
PS 2	.2943E+03	.2867E+03
PS 3	-.9700E+01	-.9540E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.1545E+03	.1523E+03
PSS 2	.2516E+01	.4200E+01
PSS 3	.1520E+03	.1481E+03

## DISPLACEMENTS

UX	.1612E-02	.2098E-02
UY	.1280E-11	-.2910E-10
UZ	.9367E-01	.9241E-01

Appendix 6E-a Full Depth HBP

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## NORMAL STRAINS

EXX	.4822E-03	.4669E-03
EYY	.4992E-03	.4952E-03
EZZ	-.5436E-03	-.5329E-03

## SHEAR STRAINS

EXY	.2501E-12	.1095E-11
EXZ	-.3612E-05	-.5146E-05
EYZ	-.1165E-13	.0000E+00

## PRINCIPAL STRAINS

PE 1	.4992E-03	.4952E-03
PE 2	.4822E-03	.4669E-03
PE 3	-.5436E-03	-.5329E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1043E-02	.1028E-02
PSE 2	.1698E-04	.2835E-04
PSE 3	.1026E-02	.9998E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00

Appendix 6E-a Full Depth HBP

23.00            4.00

Z= 12.00 LAYER NO, 1

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.2590E+03	.2664E+03	.2703E+03	.2700E+03	.2662E+03	.2597E+03	.2498E+03	.2372E+03	.2234E+03
SYX	.2986E+03	.3040E+03	.3076E+03	.3090E+03	.3087E+03	.3073E+03	.3037E+03	.2983E+03	.2921E+03
SZZ	-.1036E+02	-.1053E+02	-.1065E+02	-.1073E+02	-.1075E+02	-.1076E+02	-.1074E+02	-.1068E+02	-.1060E+02

SHEAR STRESSES

SXY	-.7466E-07	.5838E-07	.1326E-06	-.5449E-07	.1387E-06	.4933E-08	.8512E-07	.1598E-06	-.2955E-07
SXZ	.1168E+01	.9811E+00	.7874E+00	.5942E+00	.4086E+00	.2375E+00	.8787E-01	-.3610E-01	-.1329E+00
SYZ	.6533E-08	.2986E-08	-.1886E-08	-.1766E-09	-.1001E-08	-.1062E-08	.2414E-09	-.1075E-07	.5183E-08

PRINCIPAL STRESSES

PS 1	.2986E+03	.3040E+03	.3076E+03	.3090E+03	.3087E+03	.3073E+03	.3037E+03	.2983E+03	.2921E+03
PS 2	.2590E+03	.2664E+03	.2703E+03	.2700E+03	.2662E+03	.2597E+03	.2498E+03	.2372E+03	.2234E+03
PS 3	-.1036E+02	-.1053E+02	-.1066E+02	-.1073E+02	-.1076E+02	-.1076E+02	-.1074E+02	-.1068E+02	-.1060E+02

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1545E+03	.1573E+03	.1592E+03	.1599E+03	.1597E+03	.1590E+03	.1572E+03	.1545E+03	.1513E+03
PSS 2	.1980E+02	.1879E+02	.1868E+02	.1951E+02	.2125E+02	.2378E+02	.2694E+02	.3053E+02	.3433E+02
PSS 3	.1347E+03	.1385E+03	.1405E+03	.1404E+03	.1385E+03	.1353E+03	.1303E+03	.1239E+03	.1170E+03

## DISPLACEMENTS

UX	-.5181E-02	-.4775E-02	-.4362E-02	-.3946E-02	-.3533E-02	-.3124E-02	-.2735E-02	-.2374E-02	-.2042E-02
UY	-.2404E-11	-.2122E-11	-.1602E-10	.4353E-11	-.3527E-12	.1114E-10	-.1311E-10	.5057E-12	-.7751E-11
UZ	.1216E+00	.1227E+00	.1235E+00	.1242E+00	.1247E+00	.1248E+00	.1252E+00	.1256E+00	.1259E+00

## NORMAL STRAINS

EXX	.3952E-03	.4092E-03	.4158E-03	.4140E-03	.4047E-03	.3899E-03	.3682E-03	.3414E-03	.3122E-03
EYY	.5289E-03	.5361E-03	.5419E-03	.5457E-03	.5482E-03	.5504E-03	.5501E-03	.5475E-03	.5440E-03
EZZ	-.5137E-03	-.5254E-03	-.5323E-03	-.5334E-03	-.5298E-03	-.5231E-03	-.5112E-03	-.4952E-03	-.4775E-03

## SHEAR STRAINS

EXY	-.5040E-12	.3940E-12	.8953E-12	-.3678E-12	.9365E-12	.3330E-13	.5746E-12	.1078E-11	-.1995E-12
EXZ	.7882E-05	.6623E-05	.5315E-05	.4011E-05	.2758E-05	.1603E-05	.5931E-06	-.2437E-06	-.8974E-06
EYZ	.4409E-13	.2016E-13	-.1273E-13	-.1192E-14	-.6758E-14	-.7171E-14	.1629E-14	-.7258E-13	.3499E-13

## PRINCIPAL STRAINS

PE 1	.5289E-03	.5361E-03	.5419E-03	.5457E-03	.5482E-03	.5504E-03	.5501E-03	.5475E-03	.5440E-03
PE 2	.3953E-03	.4092E-03	.4159E-03	.4140E-03	.4047E-03	.3899E-03	.3682E-03	.3414E-03	.3122E-03
PE 3	-.5138E-03	-.5254E-03	-.5323E-03	-.5334E-03	-.5299E-03	-.5231E-03	-.5112E-03	-.4952E-03	-.4775E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1043E-02	.1061E-02	.1074E-02	.1079E-02	.1078E-02	.1073E-02	.1061E-02	.1043E-02	.1021E-02
PSE 2	.1337E-03	.1268E-03	.1261E-03	.1317E-03	.1434E-03	.1605E-03	.1818E-03	.2061E-03	.2317E-03
PSE 3	.9090E-03	.9346E-03	.9482E-03	.9474E-03	.9346E-03	.9129E-03	.8794E-03	.8366E-03	.7898E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00

Appendix 6E-a Full Depth HBP

32.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.2099E+03	.1960E+03	.1825E+03	.1699E+03	.1587E+03	.1493E+03	.1416E+03	.1358E+03	.1317E+03
SYX	.2862E+03	.2796E+03	.2728E+03	.2661E+03	.2599E+03	.2545E+03	.2500E+03	.2465E+03	.2441E+03
SZZ	-.1051E+02	-.1043E+02	-.1033E+02	-.1023E+02	-.1013E+02	-.1004E+02	-.9961E+01	-.9897E+01	-.9850E+01

SHEAR STRESSES

SXY	.3455E-07	.6236E-07	-.2813E-06	-.9987E-08	-.3398E-08	-.4633E-06	.3790E-06	.2795E-07	-.1967E-07
SXZ	-.2033E+00	-.2473E+00	-.2677E+00	-.2682E+00	-.2527E+00	-.2250E+00	-.1885E+00	-.1458E+00	-.9916E-01
SYZ	-.7911E-08	.4709E-08	-.3038E-08	.4854E-08	-.3580E-08	-.9119E-08	-.7763E-09	-.2466E-08	-.8019E-09

PRINCIPAL STRESSES

PS 1	.2862E+03	.2796E+03	.2728E+03	.2661E+03	.2599E+03	.2545E+03	.2500E+03	.2465E+03	.2441E+03
PS 2	.2099E+03	.1960E+03	.1825E+03	.1699E+03	.1588E+03	.1493E+03	.1416E+03	.1358E+03	.1317E+03
PS 3	-.1051E+02	-.1043E+02	-.1033E+02	-.1023E+02	-.1013E+02	-.1004E+02	-.9961E+01	-.9897E+01	-.9850E+01

PRINCIPAL SHEAR STRESSES



## Appendix 6E-a Full Depth HBP

PSS 1	.1484E+03	.1450E+03	.1415E+03	.1381E+03	.1350E+03	.1323E+03	.1300E+03	.1282E+03	.1270E+03
PSS 2	.3815E+02	.4179E+02	.4513E+02	.4807E+02	.5057E+02	.5260E+02	.5420E+02	.5539E+02	.5620E+02
PSS 3	.1102E+03	.1032E+03	.9641E+02	.9007E+02	.8444E+02	.7966E+02	.7579E+02	.7283E+02	.7076E+02

## DISPLACEMENTS

UX	-.1734E-02	-.1458E-02	-.1214E-02	-.1001E-02	-.8138E-03	-.6484E-03	-.5001E-03	-.3646E-03	-.2382E-03
UY	.1012E-10	.5674E-11	-.2389E-10	-.1823E-11	.4664E-11	.1846E-10	-.1916E-10	-.1945E-10	-.1044E-10
UZ	.1259E+00	.1261E+00	.1264E+00	.1267E+00	.1269E+00	.1271E+00	.1272E+00	.1273E+00	.1273E+00

## NORMAL STRAINS

EXX	.2835E-03	.2545E-03	.2266E-03	.2009E-03	.1783E-03	.1593E-03	.1440E-03	.1324E-03	.1242E-03
EYY	.5410E-03	.5366E-03	.5313E-03	.5254E-03	.5197E-03	.5144E-03	.5099E-03	.5062E-03	.5036E-03
EZZ	-.4604E-03	-.4423E-03	-.4242E-03	-.4071E-03	-.3916E-03	-.3784E-03	-.3676E-03	-.3593E-03	-.3534E-03

## SHEAR STRAINS

EXY	.2332E-12	.4209E-12	-.1899E-11	-.6741E-13	-.2294E-13	-.3127E-11	.2558E-11	.1886E-12	-.1328E-12
EXZ	-.1372E-05	-.1669E-05	-.1807E-05	-.1810E-05	-.1705E-05	-.1519E-05	-.1272E-05	-.9843E-06	-.6693E-06
EYZ	-.5340E-13	.3179E-13	-.2051E-13	.3277E-13	-.2417E-13	-.6155E-13	-.5240E-14	-.1665E-13	-.5413E-14

## PRINCIPAL STRAINS

PE 1	.5410E-03	.5366E-03	.5313E-03	.5254E-03	.5197E-03	.5144E-03	.5099E-03	.5062E-03	.5036E-03
PE 2	.2835E-03	.2545E-03	.2266E-03	.2009E-03	.1783E-03	.1593E-03	.1440E-03	.1324E-03	.1242E-03
PE 3	-.4604E-03	-.4423E-03	-.4242E-03	-.4071E-03	-.3916E-03	-.3784E-03	-.3676E-03	-.3593E-03	-.3534E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1001E-02	.9789E-03	.9554E-03	.9325E-03	.9113E-03	.8928E-03	.8775E-03	.8655E-03	.8570E-03
PSE 2	.2575E-03	.2821E-03	.3046E-03	.3245E-03	.3413E-03	.3551E-03	.3658E-03	.3739E-03	.3794E-03
PSE 3	.7439E-03	.6968E-03	.6508E-03	.6080E-03	.5700E-03	.5377E-03	.5116E-03	.4916E-03	.4776E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00

Appendix 6E-a Full Depth HBP

41.00          4.00

Z= 12.00 LAYER NO, 1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.1292E+03	.1284E+03	.1292E+03	.1317E+03	.1358E+03	.1416E+03	.1493E+03	.1587E+03	.1699E+03
SYX	.2426E+03	.2421E+03	.2426E+03	.2441E+03	.2465E+03	.2500E+03	.2545E+03	.2599E+03	.2661E+03
SZZ	-.9822E+01	-.9813E+01	-.9822E+01	-.9850E+01	-.9897E+01	-.9961E+01	-.1004E+02	-.1013E+02	-.1023E+02

SHEAR STRESSES

SXY	-.1184E-06	.3793E-06	.6284E-07	.2984E-07	-.1694E-06	.2961E-06	-.3455E-06	.5273E-07	-.7459E-07
SXZ	-.5015E-01	-.6161E-07	.5015E-01	.9916E-01	.1458E+00	.1885E+00	.2250E+00	.2527E+00	.2682E+00
SYZ	-.6300E-08	-.2827E-08	.5193E-08	.8174E-09	.2932E-08	-.2418E-08	.3827E-08	-.6977E-08	.3420E-09

PRINCIPAL STRESSES

PS 1	.2426E+03	.2421E+03	.2426E+03	.2441E+03	.2465E+03	.2500E+03	.2545E+03	.2599E+03	.2661E+03
PS 2	.1292E+03	.1284E+03	.1292E+03	.1317E+03	.1358E+03	.1416E+03	.1493E+03	.1588E+03	.1699E+03
PS 3	-.9822E+01	-.9813E+01	-.9822E+01	-.9850E+01	-.9897E+01	-.9961E+01	-.1004E+02	-.1013E+02	-.1023E+02

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1262E+03	.1260E+03	.1262E+03	.1270E+03	.1282E+03	.1300E+03	.1323E+03	.1350E+03	.1381E+03
PSS 2	.5668E+02	.5683E+02	.5668E+02	.5620E+02	.5539E+02	.5420E+02	.5260E+02	.5057E+02	.4807E+02
PSS 3	.6953E+02	.6912E+02	.6953E+02	.7076E+02	.7283E+02	.7579E+02	.7966E+02	.8444E+02	.9007E+02

## DISPLACEMENTS

UX	-.1177E-03	.3278E-10	.1177E-03	.2382E-03	.3646E-03	.5001E-03	.6484E-03	.8138E-03	.1001E-02
UY	-.3811E-10	.2284E-11	.1472E-10	.1681E-10	-.5667E-11	.3695E-11	.7113E-11	.7934E-11	-.1171E-10
UZ	.1273E+00	.1273E+00	.1273E+00	.1273E+00	.1273E+00	.1272E+00	.1271E+00	.1269E+00	.1267E+00

## NORMAL STRAINS

EXX	.1194E-03	.1178E-03	.1194E-03	.1242E-03	.1324E-03	.1440E-03	.1593E-03	.1783E-03	.2009E-03
EYY	.5020E-03	.5014E-03	.5020E-03	.5036E-03	.5062E-03	.5099E-03	.5144E-03	.5197E-03	.5254E-03
EZZ	-.3499E-03	-.3487E-03	-.3499E-03	-.3534E-03	-.3593E-03	-.3676E-03	-.3784E-03	-.3916E-03	-.4071E-03

## SHEAR STRAINS

EXY	-.7993E-12	.2560E-11	.4242E-12	.2014E-12	-.1144E-11	.1999E-11	-.2332E-11	.3559E-12	-.5035E-12
EXZ	-.3385E-06	-.4159E-12	.3385E-06	.6693E-06	.9843E-06	.1272E-05	.1519E-05	.1705E-05	.1810E-05
EYZ	-.4252E-13	-.1908E-13	.3505E-13	.5517E-14	.1979E-13	-.1632E-13	.2583E-13	-.4709E-13	.2309E-14

## PRINCIPAL STRAINS

PE 1	.5020E-03	.5014E-03	.5020E-03	.5036E-03	.5062E-03	.5099E-03	.5144E-03	.5197E-03	.5254E-03
PE 2	.1194E-03	.1178E-03	.1194E-03	.1242E-03	.1324E-03	.1440E-03	.1593E-03	.1783E-03	.2009E-03
PE 3	-.3499E-03	-.3487E-03	-.3499E-03	-.3534E-03	-.3593E-03	-.3676E-03	-.3784E-03	-.3916E-03	-.4071E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.8519E-03	.8502E-03	.8519E-03	.8570E-03	.8655E-03	.8775E-03	.8928E-03	.9113E-03	.9325E-03
PSE 2	.3826E-03	.3836E-03	.3826E-03	.3794E-03	.3739E-03	.3658E-03	.3551E-03	.3413E-03	.3245E-03
PSE 3	.4693E-03	.4666E-03	.4693E-03	.4776E-03	.4916E-03	.5116E-03	.5377E-03	.5700E-03	.6080E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00

Appendix 6E-a Full Depth HBP

50.00            4.00

Z= 12.00 LAYER NO, 1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.1825E+03	.1960E+03	.2099E+03	.2234E+03	.2372E+03	.2498E+03	.2597E+03	.2662E+03	.2700E+03
SYX	.2728E+03	.2796E+03	.2862E+03	.2921E+03	.2983E+03	.3037E+03	.3073E+03	.3087E+03	.3090E+03
SZZ	-.1033E+02	-.1043E+02	-.1051E+02	-.1060E+02	-.1068E+02	-.1074E+02	-.1076E+02	-.1075E+02	-.1073E+02

SHEAR STRESSES

SXY	.1591E-06	-.1530E-06	-.7925E-08	.2675E-07	-.1710E-06	-.4962E-07	-.2136E-07	.1235E-06	-.3201E-07
SXZ	.2677E+00	.2473E+00	.2033E+00	.1329E+00	.3610E-01	-.8787E-01	-.2375E+00	-.4086E+00	-.5942E+00
SYZ	-.6394E-08	.4554E-08	.1070E-07	.3787E-08	.9888E-08	-.7426E-08	.6034E-08	.5748E-08	.3281E-08

PRINCIPAL STRESSES

PS 1	.2728E+03	.2796E+03	.2862E+03	.2921E+03	.2983E+03	.3037E+03	.3073E+03	.3087E+03	.3090E+03
PS 2	.1825E+03	.1960E+03	.2099E+03	.2234E+03	.2372E+03	.2498E+03	.2597E+03	.2662E+03	.2700E+03
PS 3	-.1033E+02	-.1043E+02	-.1051E+02	-.1060E+02	-.1068E+02	-.1074E+02	-.1076E+02	-.1076E+02	-.1073E+02

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1415E+03	.1450E+03	.1484E+03	.1513E+03	.1545E+03	.1572E+03	.1590E+03	.1597E+03	.1599E+03
PSS 2	.4513E+02	.4179E+02	.3815E+02	.3433E+02	.3053E+02	.2694E+02	.2378E+02	.2125E+02	.1951E+02
PSS 3	.9641E+02	.1032E+03	.1102E+03	.1170E+03	.1239E+03	.1303E+03	.1353E+03	.1385E+03	.1404E+03

## DISPLACEMENTS

UX	.1214E-02	.1458E-02	.1734E-02	.2042E-02	.2374E-02	.2735E-02	.3124E-02	.3533E-02	.3946E-02
UY	.2001E-10	-.1222E-10	-.2157E-10	-.1084E-10	.7014E-11	.2740E-10	.6680E-11	.4386E-12	-.1043E-11
UZ	.1264E+00	.1261E+00	.1259E+00	.1259E+00	.1256E+00	.1252E+00	.1248E+00	.1247E+00	.1242E+00

## NORMAL STRAINS

EXX	.2266E-03	.2545E-03	.2835E-03	.3122E-03	.3414E-03	.3682E-03	.3899E-03	.4047E-03	.4140E-03
EYY	.5313E-03	.5366E-03	.5410E-03	.5440E-03	.5475E-03	.5501E-03	.5504E-03	.5482E-03	.5457E-03
EZZ	-.4242E-03	-.4423E-03	-.4604E-03	-.4775E-03	-.4952E-03	-.5112E-03	-.5231E-03	-.5298E-03	-.5334E-03

## SHEAR STRAINS

EXY	.1074E-11	-.1033E-11	-.5350E-13	.1806E-12	-.1154E-11	-.3350E-12	-.1442E-12	.8338E-12	-.2161E-12
EXZ	.1807E-05	.1669E-05	.1372E-05	.8974E-06	.2437E-06	-.5931E-06	-.1603E-05	-.2758E-05	-.4011E-05
EYZ	-.4316E-13	.3074E-13	.7219E-13	.2557E-13	.6674E-13	-.5013E-13	.4073E-13	.3880E-13	.2215E-13

## PRINCIPAL STRAINS

PE 1	.5313E-03	.5366E-03	.5410E-03	.5440E-03	.5475E-03	.5501E-03	.5504E-03	.5482E-03	.5457E-03
PE 2	.2266E-03	.2545E-03	.2835E-03	.3122E-03	.3414E-03	.3682E-03	.3899E-03	.4047E-03	.4140E-03
PE 3	-.4242E-03	-.4423E-03	-.4604E-03	-.4775E-03	-.4952E-03	-.5112E-03	-.5231E-03	-.5299E-03	-.5334E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9554E-03	.9789E-03	.1001E-02	.1021E-02	.1043E-02	.1061E-02	.1073E-02	.1078E-02	.1079E-02
PSE 2	.3046E-03	.2821E-03	.2575E-03	.2317E-03	.2061E-03	.1818E-03	.1605E-03	.1434E-03	.1317E-03
PSE 3	.6508E-03	.6968E-03	.7439E-03	.7898E-03	.8366E-03	.8794E-03	.9129E-03	.9346E-03	.9474E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00



Appendix 6E-a Full Depth HBP

59.00          4.00

Z= 12.00 LAYER NO, 1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.2703E+03	.2664E+03	.2590E+03	.2489E+03	.2353E+03	.2189E+03	.2013E+03	.1838E+03	.1658E+03
SYX	.3076E+03	.3040E+03	.2986E+03	.2921E+03	.2834E+03	.2728E+03	.2614E+03	.2501E+03	.2381E+03
SZZ	-.1065E+02	-.1053E+02	-.1036E+02	-.1016E+02	-.9942E+01	-.9682E+01	-.9392E+01	-.9105E+01	-.8812E+01

SHEAR STRESSES

SXY	.7120E-07	-.2695E-07	-.1235E-06	.2695E-07	.4801E-07	.2704E-06	-.1235E-06	.2136E-07	.4962E-07
SXZ	-.7874E+00	-.9811E+00	-.1168E+01	-.1341E+01	-.1493E+01	-.1620E+01	-.1721E+01	-.1796E+01	-.1846E+01
SYZ	-.7657E-09	.1803E-09	.0000E+00	.1803E-09	-.7657E-09	-.1162E-07	.5748E-08	-.8867E-08	.7475E-08

PRINCIPAL STRESSES

PS 1	.3076E+03	.3040E+03	.2986E+03	.2921E+03	.2834E+03	.2728E+03	.2614E+03	.2501E+03	.2381E+03
PS 2	.2703E+03	.2664E+03	.2590E+03	.2489E+03	.2353E+03	.2189E+03	.2013E+03	.1838E+03	.1658E+03
PS 3	-.1066E+02	-.1053E+02	-.1036E+02	-.1017E+02	-.9951E+01	-.9693E+01	-.9406E+01	-.9121E+01	-.8831E+01

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1592E+03	.1573E+03	.1545E+03	.1512E+03	.1467E+03	.1413E+03	.1354E+03	.1296E+03	.1234E+03
PSS 2	.1868E+02	.1879E+02	.1980E+02	.2161E+02	.2406E+02	.2694E+02	.3004E+02	.3317E+02	.3614E+02
PSS 3	.1405E+03	.1385E+03	.1347E+03	.1295E+03	.1226E+03	.1143E+03	.1053E+03	.9645E+02	.8730E+02

## DISPLACEMENTS

UX	.4362E-02	.4775E-02	.5181E-02	.5578E-02	.5951E-02	.6290E-02	.6594E-02	.6871E-02	.7109E-02
UY	.1499E-10	.5173E-11	.0000E+00	.5173E-11	-.1411E-10	-.1043E-11	.4386E-12	.6680E-11	.2740E-10
UZ	.1235E+00	.1227E+00	.1216E+00	.1203E+00	.1191E+00	.1180E+00	.1168E+00	.1152E+00	.1139E+00

## NORMAL STRAINS

EXX	.4158E-03	.4092E-03	.3952E-03	.3755E-03	.3490E-03	.3171E-03	.2827E-03	.2485E-03	.2138E-03
EYY	.5419E-03	.5361E-03	.5289E-03	.5215E-03	.5114E-03	.4989E-03	.4855E-03	.4725E-03	.4578E-03
EZZ	-.5323E-03	-.5254E-03	-.5137E-03	-.4988E-03	-.4788E-03	-.4545E-03	-.4283E-03	-.4024E-03	-.3754E-03

## SHEAR STRAINS

EXY	.4806E-12	-.1819E-12	-.8338E-12	.1819E-12	.3241E-12	.1825E-11	-.8338E-12	.1442E-12	.3350E-12
EXZ	-.5315E-05	-.6623E-05	-.7882E-05	-.9050E-05	-.1008E-04	-.1094E-04	-.1162E-04	-.1212E-04	-.1246E-04
EYZ	-.5169E-14	.1217E-14	.0000E+00	.1217E-14	-.5169E-14	-.7844E-13	.3880E-13	-.5985E-13	.5046E-13

## PRINCIPAL STRAINS

PE 1	.5419E-03	.5361E-03	.5289E-03	.5215E-03	.5114E-03	.4989E-03	.4855E-03	.4725E-03	.4578E-03
PE 2	.4159E-03	.4092E-03	.3953E-03	.3756E-03	.3490E-03	.3171E-03	.2827E-03	.2486E-03	.2139E-03
PE 3	-.5323E-03	-.5254E-03	-.5138E-03	-.4989E-03	-.4788E-03	-.4545E-03	-.4283E-03	-.4025E-03	-.3754E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1074E-02	.1061E-02	.1043E-02	.1020E-02	.9902E-03	.9535E-03	.9138E-03	.8749E-03	.8333E-03
PSE 2	.1261E-03	.1268E-03	.1337E-03	.1459E-03	.1624E-03	.1818E-03	.2028E-03	.2239E-03	.2440E-03
PSE 3	.9482E-03	.9346E-03	.9090E-03	.8744E-03	.8278E-03	.7716E-03	.7110E-03	.6510E-03	.5893E-03

Appendix 6E-a Full Depth HBP

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ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.99 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00

Appendix 6E-a Full Depth HBP

5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1441E+03	.1515E+03	.1586E+03	.1658E+03	.1736E+03	.1822E+03	.1920E+03	.2033E+03	.2163E+03
SYX	.2030E+03	.2105E+03	.2181E+03	.2260E+03	.2343E+03	.2429E+03	.2518E+03	.2610E+03	.2705E+03
SZZ	-.7593E+01	-.7778E+01	-.7940E+01	-.8108E+01	-.8296E+01	-.8501E+01	-.8714E+01	-.8925E+01	-.9130E+01

SHEAR STRESSES

SXY	-.9183E-07	.3132E-06	.1804E-06	-.1025E-06	.7491E-07	-.1218E-06	.2275E-06	-.2266E-07	.4350E-06
SXZ	.1289E+01	.1250E+01	.1213E+01	.1181E+01	.1156E+01	.1135E+01	.1118E+01	.1099E+01	.1072E+01
SYZ	-.3320E-08	-.4433E-08	-.2817E-08	-.5561E-10	.3207E-08	-.5600E-08	.4778E-08	-.1411E-08	.1650E-08

PRINCIPAL STRESSES

PS 1	.2030E+03	.2105E+03	.2181E+03	.2260E+03	.2343E+03	.2429E+03	.2518E+03	.2610E+03	.2705E+03
PS 2	.1441E+03	.1515E+03	.1586E+03	.1658E+03	.1736E+03	.1822E+03	.1920E+03	.2033E+03	.2163E+03
PS 3	-.7604E+01	-.7787E+01	-.7949E+01	-.8116E+01	-.8303E+01	-.8508E+01	-.8720E+01	-.8931E+01	-.9135E+01

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1053E+03	.1091E+03	.1130E+03	.1171E+03	.1213E+03	.1257E+03	.1302E+03	.1350E+03	.1398E+03
PSS 2	.2941E+02	.2949E+02	.2976E+02	.3010E+02	.3035E+02	.3033E+02	.2987E+02	.2882E+02	.2709E+02
PSS 3	.7587E+02	.7963E+02	.8326E+02	.8697E+02	.9096E+02	.9536E+02	.1004E+03	.1061E+03	.1127E+03

## DISPLACEMENTS

UX	-.4795E-02	-.4600E-02	-.4393E-02	-.4174E-02	-.3941E-02	-.3696E-02	-.3436E-02	-.3158E-02	-.2857E-02
UY	-.9991E-11	.5498E-11	.2746E-10	-.1071E-10	.2376E-10	-.7401E-12	-.6287E-11	.6539E-11	.1027E-10
UZ	.8963E-01	.9036E-01	.9080E-01	.9113E-01	.9151E-01	.9198E-01	.9251E-01	.9304E-01	.9355E-01

## NORMAL STRAINS

EXX	.1894E-03	.2013E-03	.2125E-03	.2239E-03	.2362E-03	.2504E-03	.2674E-03	.2878E-03	.3121E-03
EYY	.3879E-03	.4004E-03	.4134E-03	.4271E-03	.4411E-03	.4552E-03	.4690E-03	.4823E-03	.4950E-03
EZZ	-.3227E-03	-.3361E-03	-.3494E-03	-.3631E-03	-.3777E-03	-.3932E-03	-.4101E-03	-.4286E-03	-.4488E-03

## SHEAR STRAINS

EXY	-.6198E-12	.2114E-11	.1218E-11	-.6916E-12	.5056E-12	-.8224E-12	.1535E-11	-.1530E-12	.2936E-11
EXZ	.8703E-05	.8437E-05	.8189E-05	.7975E-05	.7801E-05	.7664E-05	.7547E-05	.7417E-05	.7234E-05
EYZ	-.2241E-13	-.2992E-13	-.1902E-13	-.3753E-15	.2165E-13	-.3780E-13	.3225E-13	-.9527E-14	.1114E-13

## PRINCIPAL STRAINS

PE 1	.3879E-03	.4004E-03	.4134E-03	.4271E-03	.4411E-03	.4552E-03	.4690E-03	.4823E-03	.4950E-03
PE 2	.1894E-03	.2014E-03	.2125E-03	.2239E-03	.2363E-03	.2505E-03	.2674E-03	.2878E-03	.3122E-03
PE 3	-.3227E-03	-.3362E-03	-.3494E-03	-.3632E-03	-.3777E-03	-.3932E-03	-.4101E-03	-.4286E-03	-.4488E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.7107E-03	.7366E-03	.7629E-03	.7903E-03	.8188E-03	.8484E-03	.8791E-03	.9110E-03	.9438E-03
PSE 2	.1985E-03	.1991E-03	.2009E-03	.2032E-03	.2049E-03	.2047E-03	.2016E-03	.1945E-03	.1828E-03
PSE 3	.5121E-03	.5375E-03	.5620E-03	.5871E-03	.6140E-03	.6437E-03	.6775E-03	.7164E-03	.7610E-03

Appendix 6E-a Full Depth HBP

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ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.99 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00

Appendix 6E-a Full Depth HBP

14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
 9.00 4.00  
 10.00 4.00  
 11.00 4.00  
 12.00 4.00  
 13.00 4.00  
 14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

NORMAL STRESSES

SXX .2308E+03 .2463E+03 .2621E+03 .2775E+03 .2924E+03 .3050E+03 .3137E+03 .3179E+03 .3182E+03  
 SYY .2801E+03 .2895E+03 .2982E+03 .3061E+03 .3135E+03 .3193E+03 .3226E+03 .3234E+03 .3225E+03  
 SZZ -.9324E+01 -.9512E+01 -.9708E+01 -.9934E+01 -.1014E+02 -.1028E+02 -.1038E+02 -.1046E+02 -.1046E+02

SHEAR STRESSES

SXY -.2838E-06 .1026E-06 -.6937E-07 -.1196E-06 .1200E-06 .1156E-07 -.1581E-06 .9725E-07 .3165E-07  
 SXZ .1029E+01 .9645E+00 .8711E+00 .7452E+00 .5861E+00 .3944E+00 .1738E+00 -.6780E-01 -.3194E+00  
 SYZ -.7373E-08 -.1374E-07 -.1081E-08 .1555E-08 .1704E-09 -.4844E-08 -.7701E-08 -.6998E-08 -.2188E-08

PRINCIPAL STRESSES

PS 1 .2801E+03 .2895E+03 .2982E+03 .3061E+03 .3135E+03 .3193E+03 .3226E+03 .3234E+03 .3225E+03  
 PS 2 .2308E+03 .2463E+03 .2621E+03 .2775E+03 .2924E+03 .3050E+03 .3137E+03 .3179E+03 .3182E+03  
 PS 3 -.9328E+01 -.9516E+01 -.9711E+01 -.9936E+01 -.1014E+02 -.1028E+02 -.1038E+02 -.1046E+02 -.1046E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1447E+03	.1495E+03	.1539E+03	.1580E+03	.1618E+03	.1648E+03	.1665E+03	.1669E+03	.1665E+03
PSS 2	.2466E+02	.2160E+02	.1805E+02	.1426E+02	.1052E+02	.7154E+01	.4471E+01	.2744E+01	.2156E+01
PSS 3	.1201E+03	.1279E+03	.1359E+03	.1437E+03	.1513E+03	.1576E+03	.1620E+03	.1642E+03	.1643E+03

## DISPLACEMENTS

UX	-.2526E-02	-.2162E-02	-.1762E-02	-.1329E-02	-.8672E-03	-.3746E-03	.1420E-03	.6706E-03	.1199E-02
UY	.8270E-11	-.2896E-10	.7225E-11	.7753E-11	-.2428E-10	-.1107E-10	-.1072E-10	.1983E-11	.1029E-10
UZ	.9406E-01	.9472E-01	.9566E-01	.9701E-01	.9805E-01	.9885E-01	.9970E-01	.1006E+00	.1008E+00

## NORMAL STRAINS

EXX	.3401E-03	.3708E-03	.4028E-03	.4347E-03	.4657E-03	.4920E-03	.5109E-03	.5210E-03	.5225E-03
EYY	.5065E-03	.5165E-03	.5246E-03	.5310E-03	.5367E-03	.5403E-03	.5411E-03	.5395E-03	.5370E-03
EZZ	-.4704E-03	-.4926E-03	-.5145E-03	-.5355E-03	-.5555E-03	-.5719E-03	-.5827E-03	-.5873E-03	-.5868E-03

## SHEAR STRAINS

EXY	-.1916E-11	.6924E-12	-.4682E-12	-.8072E-12	.8100E-12	.7801E-13	-.1067E-11	.6564E-12	.2136E-12
EXZ	.6948E-05	.6510E-05	.5880E-05	.5030E-05	.3956E-05	.2662E-05	.1173E-05	-.4577E-06	-.2156E-05
EYZ	-.4977E-13	-.9275E-13	-.7297E-14	.1050E-13	.1150E-14	-.3270E-13	-.5198E-13	-.4724E-13	-.1477E-13

## PRINCIPAL STRAINS

PE 1	.5065E-03	.5165E-03	.5246E-03	.5310E-03	.5367E-03	.5403E-03	.5411E-03	.5395E-03	.5370E-03
PE 2	.3401E-03	.3708E-03	.4028E-03	.4347E-03	.4657E-03	.4920E-03	.5109E-03	.5210E-03	.5225E-03
PE 3	-.4704E-03	-.4926E-03	-.5145E-03	-.5355E-03	-.5555E-03	-.5719E-03	-.5827E-03	-.5873E-03	-.5868E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9770E-03	.1009E-02	.1039E-02	.1067E-02	.1092E-02	.1112E-02	.1124E-02	.1127E-02	.1124E-02
PSE 2	.1664E-03	.1458E-03	.1219E-03	.9628E-04	.7103E-04	.4829E-04	.3018E-04	.1852E-04	.1455E-04
PSE 3	.8105E-03	.8634E-03	.9173E-03	.9702E-03	.1021E-02	.1064E-02	.1094E-02	.1108E-02	.1109E-02



Appendix 6E-a Full Depth HBP

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ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.99 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-a Full Depth HBP

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Z= 12.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.3143E+03	.3063E+03
SYY	.3198E+03	.3154E+03
SZZ	-.1036E+02	-.1018E+02

## SHEAR STRESSES

SXY	.1743E-06	-.8034E-07
SXZ	-.5711E+00	-.8128E+00
SYZ	.9013E-08	.0000E+00

## PRINCIPAL STRESSES

PS 1	.3198E+03	.3154E+03
PS 2	.3143E+03	.3063E+03
PS 3	-.1036E+02	-.1019E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.1651E+03	.1628E+03
PSS 2	.2776E+01	.4554E+01
PSS 3	.1623E+03	.1582E+03

## DISPLACEMENTS

UX	.1724E-02	.2243E-02
UY	.2315E-10	-.2910E-10
UZ	.1001E+00	.9879E-01

Appendix 6E-a Full Depth HBP

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## NORMAL STRAINS

EXX	.5149E-03	.4986E-03
EYY	.5336E-03	.5294E-03
EZZ	-.5807E-03	-.5694E-03

## SHEAR STRAINS

EXY	.1177E-11	-.5423E-12
EXZ	-.3855E-05	-.5486E-05
EYZ	.6084E-13	.0000E+00

## PRINCIPAL STRAINS

PE 1	.5336E-03	.5294E-03
PE 2	.5149E-03	.4986E-03
PE 3	-.5807E-03	-.5694E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1114E-02	.1099E-02
PSE 2	.1874E-04	.3074E-04
PSE 3	.1096E-02	.1068E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00

Appendix 6E-a Full Depth HBP

23.00            4.00

Z= 12.00 LAYER NO, 1

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.2763E+03	.2846E+03	.2887E+03	.2885E+03	.2840E+03	.2774E+03	.2671E+03	.2539E+03	.2390E+03
SYX	.3190E+03	.3252E+03	.3291E+03	.3306E+03	.3298E+03	.3285E+03	.3248E+03	.3191E+03	.3121E+03
SZZ	-.1107E+02	-.1126E+02	-.1140E+02	-.1147E+02	-.1150E+02	-.1151E+02	-.1149E+02	-.1143E+02	-.1134E+02

SHEAR STRESSES

SXY	-.2158E-07	-.5368E-07	.1262E-06	.6187E-07	.6379E-07	-.1692E-06	-.1533E-06	-.1587E-06	.1783E-06
SXZ	.1245E+01	.1048E+01	.8434E+00	.6393E+00	.4437E+00	.2625E+00	.1037E+00	-.2840E-01	-.1318E+00
SYZ	.1933E-08	.1018E-07	-.4884E-08	-.9150E-08	.8480E-09	.6423E-08	-.4792E-08	-.5292E-08	.2736E-08

PRINCIPAL STRESSES

PS 1	.3190E+03	.3252E+03	.3291E+03	.3306E+03	.3298E+03	.3285E+03	.3248E+03	.3191E+03	.3121E+03
PS 2	.2763E+03	.2846E+03	.2887E+03	.2885E+03	.2840E+03	.2774E+03	.2671E+03	.2539E+03	.2390E+03
PS 3	-.1108E+02	-.1126E+02	-.1140E+02	-.1148E+02	-.1150E+02	-.1151E+02	-.1149E+02	-.1143E+02	-.1134E+02

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1650E+03	.1682E+03	.1703E+03	.1710E+03	.1706E+03	.1700E+03	.1681E+03	.1653E+03	.1617E+03
PSS 2	.2134E+02	.2029E+02	.2019E+02	.2107E+02	.2288E+02	.2553E+02	.2883E+02	.3259E+02	.3659E+02
PSS 3	.1437E+03	.1480E+03	.1501E+03	.1500E+03	.1478E+03	.1445E+03	.1393E+03	.1327E+03	.1251E+03

## DISPLACEMENTS

UX	-.5543E-02	-.5112E-02	-.4671E-02	-.4228E-02	-.3790E-02	-.3353E-02	-.2938E-02	-.2552E-02	-.2199E-02
UY	.3059E-11	-.1880E-10	.2089E-10	.2779E-11	.2396E-11	-.1047E-10	-.3017E-10	-.1776E-10	.6889E-11
UZ	.1301E+00	.1311E+00	.1319E+00	.1327E+00	.1333E+00	.1335E+00	.1339E+00	.1344E+00	.1349E+00

## NORMAL STRAINS

EXX	.4214E-03	.4369E-03	.4438E-03	.4420E-03	.4316E-03	.4162E-03	.3937E-03	.3656E-03	.3342E-03
EYY	.5654E-03	.5739E-03	.5801E-03	.5841E-03	.5860E-03	.5885E-03	.5883E-03	.5856E-03	.5812E-03
EZZ	-.5486E-03	-.5618E-03	-.5691E-03	-.5704E-03	-.5659E-03	-.5589E-03	-.5466E-03	-.5300E-03	-.5106E-03

## SHEAR STRAINS

EXY	-.1457E-12	-.3623E-12	.8521E-12	.4176E-12	.4306E-12	-.1142E-11	-.1035E-11	-.1071E-11	.1204E-11
EXZ	.8402E-05	.7073E-05	.5693E-05	.4316E-05	.2995E-05	.1772E-05	.7002E-06	-.1917E-06	-.8900E-06
EYZ	.1305E-13	.6870E-13	-.3297E-13	-.6176E-13	.5724E-14	.4335E-13	-.3235E-13	-.3572E-13	.1847E-13

## PRINCIPAL STRAINS

PE 1	.5654E-03	.5739E-03	.5801E-03	.5841E-03	.5860E-03	.5885E-03	.5883E-03	.5856E-03	.5812E-03
PE 2	.4214E-03	.4369E-03	.4439E-03	.4420E-03	.4316E-03	.4162E-03	.3937E-03	.3656E-03	.3342E-03
PE 3	-.5486E-03	-.5618E-03	-.5691E-03	-.5704E-03	-.5659E-03	-.5589E-03	-.5466E-03	-.5300E-03	-.5106E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1114E-02	.1136E-02	.1149E-02	.1155E-02	.1152E-02	.1147E-02	.1135E-02	.1116E-02	.1092E-02
PSE 2	.1440E-03	.1370E-03	.1363E-03	.1422E-03	.1544E-03	.1723E-03	.1946E-03	.2200E-03	.2470E-03
PSE 3	.9700E-03	.9987E-03	.1013E-02	.1012E-02	.9974E-03	.9751E-03	.9403E-03	.8956E-03	.8447E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00

Appendix 6E-a Full Depth HBP

32.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.2248E+03	.2101E+03	.1958E+03	.1824E+03	.1705E+03	.1604E+03	.1522E+03	.1459E+03	.1415E+03
SYX	.3060E+03	.2991E+03	.2919E+03	.2848E+03	.2782E+03	.2725E+03	.2677E+03	.2640E+03	.2614E+03
SZZ	-.1125E+02	-.1116E+02	-.1106E+02	-.1096E+02	-.1085E+02	-.1076E+02	-.1067E+02	-.1060E+02	-.1055E+02

SHEAR STRESSES

SXY	-.1357E-06	-.1831E-06	-.1748E-06	-.6796E-07	.1149E-06	.1945E-06	-.3501E-07	.2078E-06	-.8511E-07
SXZ	-.2078E+00	-.2561E+00	-.2793E+00	-.2812E+00	-.2659E+00	-.2375E+00	-.1994E+00	-.1545E+00	-.1051E+00
SYZ	-.1237E-07	-.4824E-08	-.8405E-09	-.8803E-09	-.7598E-08	-.2702E-08	-.6431E-09	-.1508E-08	-.2239E-08

PRINCIPAL STRESSES

PS 1	.3060E+03	.2991E+03	.2919E+03	.2848E+03	.2782E+03	.2725E+03	.2677E+03	.2640E+03	.2614E+03
PS 2	.2248E+03	.2101E+03	.1958E+03	.1824E+03	.1705E+03	.1604E+03	.1522E+03	.1459E+03	.1415E+03
PS 3	-.1125E+02	-.1116E+02	-.1107E+02	-.1096E+02	-.1085E+02	-.1076E+02	-.1067E+02	-.1060E+02	-.1055E+02

PRINCIPAL SHEAR STRESSES



## Appendix 6E-a Full Depth HBP

PSS 1	.1586E+03	.1551E+03	.1515E+03	.1479E+03	.1445E+03	.1416E+03	.1392E+03	.1373E+03	.1360E+03
PSS 2	.4062E+02	.4448E+02	.4803E+02	.5117E+02	.5384E+02	.5604E+02	.5776E+02	.5905E+02	.5993E+02
PSS 3	.1180E+03	.1107E+03	.1034E+03	.9670E+02	.9069E+02	.8559E+02	.8144E+02	.7826E+02	.7603E+02

## DISPLACEMENTS

UX	-.1869E-02	-.1572E-02	-.1311E-02	-.1081E-02	-.8794E-03	-.7009E-03	-.5406E-03	-.3942E-03	-.2576E-03
UY	-.6089E-11	.1773E-10	-.5448E-11	-.1726E-10	.8470E-12	-.2014E-10	-.7141E-11	.1139E-10	-.5062E-11
UZ	.1349E+00	.1351E+00	.1354E+00	.1357E+00	.1360E+00	.1362E+00	.1363E+00	.1363E+00	.1364E+00

## NORMAL STRAINS

EXX	.3040E-03	.2734E-03	.2438E-03	.2165E-03	.1924E-03	.1720E-03	.1556E-03	.1431E-03	.1343E-03
EYY	.5782E-03	.5736E-03	.5680E-03	.5619E-03	.5558E-03	.5503E-03	.5455E-03	.5416E-03	.5388E-03
EZZ	-.4926E-03	-.4735E-03	-.4544E-03	-.4362E-03	-.4198E-03	-.4057E-03	-.3941E-03	-.3852E-03	-.3789E-03

## SHEAR STRAINS

EXY	-.9160E-12	-.1236E-11	-.1180E-11	-.4587E-12	.7759E-12	.1313E-11	-.2363E-12	.1403E-11	-.5745E-12
EXZ	-.1403E-05	-.1728E-05	-.1885E-05	-.1898E-05	-.1795E-05	-.1603E-05	-.1346E-05	-.1043E-05	-.7097E-06
EYZ	-.8352E-13	-.3256E-13	-.5673E-14	-.5942E-14	-.5128E-13	-.1824E-13	-.4341E-14	-.1018E-13	-.1511E-13

## PRINCIPAL STRAINS

PE 1	.5782E-03	.5736E-03	.5680E-03	.5619E-03	.5558E-03	.5503E-03	.5455E-03	.5416E-03	.5388E-03
PE 2	.3040E-03	.2734E-03	.2438E-03	.2165E-03	.1924E-03	.1720E-03	.1556E-03	.1431E-03	.1343E-03
PE 3	-.4926E-03	-.4735E-03	-.4544E-03	-.4362E-03	-.4198E-03	-.4057E-03	-.3941E-03	-.3852E-03	-.3789E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1071E-02	.1047E-02	.1022E-02	.9981E-03	.9756E-03	.9560E-03	.9396E-03	.9268E-03	.9177E-03
PSE 2	.2742E-03	.3002E-03	.3242E-03	.3454E-03	.3635E-03	.3783E-03	.3899E-03	.3986E-03	.4046E-03
PSE 3	.7966E-03	.7469E-03	.6982E-03	.6527E-03	.6122E-03	.5777E-03	.5497E-03	.5283E-03	.5132E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00

Appendix 6E-a Full Depth HBP

41.00          4.00

Z= 12.00 LAYER NO, 1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.1389E+03	.1380E+03	.1389E+03	.1415E+03	.1459E+03	.1522E+03	.1604E+03	.1705E+03	.1824E+03
SYX	.2598E+03	.2593E+03	.2598E+03	.2614E+03	.2640E+03	.2677E+03	.2725E+03	.2782E+03	.2848E+03
SZZ	-.1052E+02	-.1051E+02	-.1052E+02	-.1055E+02	-.1060E+02	-.1067E+02	-.1076E+02	-.1085E+02	-.1096E+02

SHEAR STRESSES

SXY	.2099E-06	.1679E-06	-.1124E-06	.2784E-06	.1448E-06	.1153E-06	.3496E-06	.1941E-06	-.6163E-07
SXZ	-.5317E-01	-.2895E-08	.5317E-01	.1051E+00	.1545E+00	.1994E+00	.2375E+00	.2659E+00	.2812E+00
SYZ	.7776E-09	-.1466E-08	-.6542E-09	-.5089E-09	-.6623E-09	-.1959E-08	-.2605E-08	-.3529E-08	-.4104E-08

PRINCIPAL STRESSES

PS 1	.2598E+03	.2593E+03	.2598E+03	.2614E+03	.2640E+03	.2677E+03	.2725E+03	.2782E+03	.2848E+03
PS 2	.1389E+03	.1380E+03	.1389E+03	.1415E+03	.1459E+03	.1522E+03	.1604E+03	.1705E+03	.1824E+03
PS 3	-.1052E+02	-.1051E+02	-.1052E+02	-.1055E+02	-.1060E+02	-.1067E+02	-.1076E+02	-.1085E+02	-.1096E+02

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1352E+03	.1349E+03	.1352E+03	.1360E+03	.1373E+03	.1392E+03	.1416E+03	.1445E+03	.1479E+03
PSS 2	.6045E+02	.6062E+02	.6045E+02	.5993E+02	.5905E+02	.5776E+02	.5604E+02	.5384E+02	.5117E+02
PSS 3	.7471E+02	.7427E+02	.7471E+02	.7603E+02	.7826E+02	.8144E+02	.8559E+02	.9069E+02	.9670E+02

## DISPLACEMENTS

UX	-.1272E-03	.1447E-10	.1272E-03	.2576E-03	.3942E-03	.5406E-03	.7009E-03	.8794E-03	.1081E-02
UY	.4763E-11	.2683E-13	.9193E-11	-.1151E-10	.1132E-10	.8714E-11	-.8140E-11	-.6487E-11	.1784E-10
UZ	.1364E+00	.1364E+00	.1364E+00	.1364E+00	.1363E+00	.1363E+00	.1362E+00	.1360E+00	.1357E+00

## NORMAL STRAINS

EXX	.1291E-03	.1274E-03	.1291E-03	.1343E-03	.1431E-03	.1556E-03	.1720E-03	.1924E-03	.2165E-03
EYY	.5372E-03	.5366E-03	.5372E-03	.5388E-03	.5416E-03	.5455E-03	.5503E-03	.5558E-03	.5619E-03
EZZ	-.3752E-03	-.3739E-03	-.3752E-03	-.3789E-03	-.3852E-03	-.3941E-03	-.4057E-03	-.4198E-03	-.4362E-03

## SHEAR STRAINS

EXY	.1417E-11	.1134E-11	-.7584E-12	.1879E-11	.9777E-12	.7783E-12	.2360E-11	.1310E-11	-.4160E-12
EXZ	-.3589E-06	-.1954E-13	.3589E-06	.7097E-06	.1043E-05	.1346E-05	.1603E-05	.1795E-05	.1898E-05
EYZ	.5249E-14	-.9894E-14	-.4416E-14	-.3435E-14	-.4471E-14	-.1323E-13	-.1758E-13	-.2382E-13	-.2770E-13

## PRINCIPAL STRAINS

PE 1	.5372E-03	.5366E-03	.5372E-03	.5388E-03	.5416E-03	.5455E-03	.5503E-03	.5558E-03	.5619E-03
PE 2	.1291E-03	.1274E-03	.1291E-03	.1343E-03	.1431E-03	.1556E-03	.1720E-03	.1924E-03	.2165E-03
PE 3	-.3752E-03	-.3739E-03	-.3752E-03	-.3789E-03	-.3852E-03	-.3941E-03	-.4057E-03	-.4198E-03	-.4362E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9123E-03	.9105E-03	.9123E-03	.9177E-03	.9268E-03	.9396E-03	.9560E-03	.9756E-03	.9981E-03
PSE 2	.4080E-03	.4092E-03	.4080E-03	.4046E-03	.3986E-03	.3899E-03	.3783E-03	.3635E-03	.3454E-03
PSE 3	.5043E-03	.5013E-03	.5043E-03	.5132E-03	.5283E-03	.5497E-03	.5777E-03	.6122E-03	.6527E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00

Appendix 6E-a Full Depth HBP

50.00          4.00

Z= 12.00 LAYER NO, 1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.1958E+03	.2101E+03	.2248E+03	.2390E+03	.2539E+03	.2671E+03	.2774E+03	.2840E+03	.2885E+03
SYX	.2919E+03	.2991E+03	.3060E+03	.3121E+03	.3191E+03	.3248E+03	.3285E+03	.3298E+03	.3306E+03
SZZ	-.1106E+02	-.1116E+02	-.1125E+02	-.1134E+02	-.1143E+02	-.1149E+02	-.1151E+02	-.1150E+02	-.1147E+02

SHEAR STRESSES

SXY	.7725E-07	.2295E-06	-.4097E-07	-.6228E-07	-.2961E-06	.2365E-06	.1698E-06	.1286E-06	.1623E-06
SXZ	.2793E+00	.2561E+00	.2078E+00	.1318E+00	.2840E-01	-.1037E+00	-.2625E+00	-.4437E+00	-.6393E+00
SYZ	.5181E-09	-.2558E-08	.1026E-07	-.2086E-08	-.2398E-08	-.5032E-08	.4824E-08	.3031E-08	.9426E-08

PRINCIPAL STRESSES

PS 1	.2919E+03	.2991E+03	.3060E+03	.3121E+03	.3191E+03	.3248E+03	.3285E+03	.3298E+03	.3306E+03
PS 2	.1958E+03	.2101E+03	.2248E+03	.2390E+03	.2539E+03	.2671E+03	.2774E+03	.2840E+03	.2885E+03
PS 3	-.1107E+02	-.1116E+02	-.1125E+02	-.1134E+02	-.1143E+02	-.1149E+02	-.1151E+02	-.1150E+02	-.1148E+02

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1515E+03	.1551E+03	.1586E+03	.1617E+03	.1653E+03	.1681E+03	.1700E+03	.1706E+03	.1710E+03
PSS 2	.4803E+02	.4448E+02	.4062E+02	.3659E+02	.3259E+02	.2883E+02	.2553E+02	.2288E+02	.2107E+02
PSS 3	.1034E+03	.1107E+03	.1180E+03	.1251E+03	.1327E+03	.1393E+03	.1445E+03	.1478E+03	.1500E+03

## DISPLACEMENTS

UX	.1311E-02	.1572E-02	.1869E-02	.2199E-02	.2552E-02	.2938E-02	.3353E-02	.3790E-02	.4228E-02
UY	-.2748E-11	.9863E-11	-.7102E-11	.6392E-11	-.1337E-10	.1910E-10	.1739E-12	.7679E-11	-.1897E-10
UZ	.1354E+00	.1351E+00	.1349E+00	.1349E+00	.1344E+00	.1339E+00	.1335E+00	.1333E+00	.1327E+00

## NORMAL STRAINS

EXX	.2438E-03	.2734E-03	.3040E-03	.3342E-03	.3656E-03	.3937E-03	.4162E-03	.4316E-03	.4420E-03
EYY	.5680E-03	.5736E-03	.5782E-03	.5812E-03	.5856E-03	.5883E-03	.5885E-03	.5860E-03	.5841E-03
EZZ	-.4544E-03	-.4735E-03	-.4926E-03	-.5106E-03	-.5300E-03	-.5466E-03	-.5589E-03	-.5659E-03	-.5704E-03

## SHEAR STRAINS

EXY	.5214E-12	.1549E-11	-.2766E-12	-.4204E-12	-.1999E-11	.1596E-11	.1146E-11	.8678E-12	.1095E-11
EXZ	.1885E-05	.1728E-05	.1403E-05	.8900E-06	.1917E-06	-.7002E-06	-.1772E-05	-.2995E-05	-.4316E-05
EYZ	.3497E-14	-.1727E-13	.6925E-13	-.1408E-13	-.1618E-13	-.3397E-13	.3256E-13	.2046E-13	.6362E-13

## PRINCIPAL STRAINS

PE 1	.5680E-03	.5736E-03	.5782E-03	.5812E-03	.5856E-03	.5883E-03	.5885E-03	.5860E-03	.5841E-03
PE 2	.2438E-03	.2734E-03	.3040E-03	.3342E-03	.3656E-03	.3937E-03	.4162E-03	.4316E-03	.4420E-03
PE 3	-.4544E-03	-.4735E-03	-.4926E-03	-.5106E-03	-.5300E-03	-.5466E-03	-.5589E-03	-.5659E-03	-.5704E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1022E-02	.1047E-02	.1071E-02	.1092E-02	.1116E-02	.1135E-02	.1147E-02	.1152E-02	.1155E-02
PSE 2	.3242E-03	.3002E-03	.2742E-03	.2470E-03	.2200E-03	.1946E-03	.1723E-03	.1544E-03	.1422E-03
PSE 3	.6982E-03	.7469E-03	.7966E-03	.8447E-03	.8956E-03	.9403E-03	.9751E-03	.9974E-03	.1012E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00



Appendix 6E-a Full Depth HBP

59.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.2887E+03	.2846E+03	.2763E+03	.2658E+03	.2515E+03	.2343E+03	.2152E+03	.1967E+03	.1777E+03
SYX	.3291E+03	.3252E+03	.3190E+03	.3122E+03	.3031E+03	.2919E+03	.2792E+03	.2674E+03	.2546E+03
SZZ	-.1140E+02	-.1126E+02	-.1107E+02	-.1087E+02	-.1064E+02	-.1036E+02	-.1005E+02	-.9745E+01	-.9434E+01

SHEAR STRESSES

SXY	.4910E-07	.4697E-07	.1099E-06	-.1662E-06	-.2875E-06	-.1623E-06	.1099E-06	-.1698E-06	-.2365E-06
SXZ	-.8434E+00	-.1048E+01	-.1245E+01	-.1428E+01	-.1589E+01	-.1725E+01	-.1833E+01	-.1914E+01	-.1968E+01
SYZ	-.4601E-08	-.8638E-08	.0000E+00	.6263E-08	-.4601E-08	-.5475E-08	.3031E-08	-.1008E-07	-.5032E-08

PRINCIPAL STRESSES

PS 1	.3291E+03	.3252E+03	.3190E+03	.3122E+03	.3031E+03	.2919E+03	.2792E+03	.2674E+03	.2546E+03
PS 2	.2887E+03	.2846E+03	.2763E+03	.2658E+03	.2515E+03	.2343E+03	.2152E+03	.1967E+03	.1777E+03
PS 3	-.1140E+02	-.1126E+02	-.1108E+02	-.1088E+02	-.1065E+02	-.1037E+02	-.1006E+02	-.9763E+01	-.9455E+01

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1703E+03	.1682E+03	.1650E+03	.1616E+03	.1569E+03	.1511E+03	.1447E+03	.1386E+03	.1320E+03
PSS 2	.2019E+02	.2029E+02	.2134E+02	.2322E+02	.2576E+02	.2877E+02	.3202E+02	.3532E+02	.3846E+02
PSS 3	.1501E+03	.1480E+03	.1437E+03	.1383E+03	.1311E+03	.1224E+03	.1126E+03	.1032E+03	.9357E+02

## DISPLACEMENTS

UX	.4671E-02	.5112E-02	.5543E-02	.5966E-02	.6364E-02	.6727E-02	.7050E-02	.7346E-02	.7601E-02
UY	.2525E-10	-.4560E-11	.0000E+00	-.4560E-11	.2525E-10	-.1897E-10	.7679E-11	.1739E-12	.1910E-10
UZ	.1319E+00	.1311E+00	.1301E+00	.1286E+00	.1274E+00	.1262E+00	.1250E+00	.1234E+00	.1220E+00

## NORMAL STRAINS

EXX	.4438E-03	.4369E-03	.4214E-03	.4008E-03	.3730E-03	.3395E-03	.3024E-03	.2664E-03	.2296E-03
EYY	.5801E-03	.5739E-03	.5654E-03	.5575E-03	.5469E-03	.5337E-03	.5186E-03	.5048E-03	.4893E-03
EZZ	-.5691E-03	-.5618E-03	-.5486E-03	-.5330E-03	-.5119E-03	-.4863E-03	-.4577E-03	-.4304E-03	-.4018E-03

## SHEAR STRAINS

EXY	.3314E-12	.3170E-12	.7415E-12	-.1122E-11	-.1941E-11	-.1095E-11	.7415E-12	-.1146E-11	-.1596E-11
EXZ	-.5693E-05	-.7073E-05	-.8402E-05	-.9638E-05	-.1073E-04	-.1164E-04	-.1237E-04	-.1292E-04	-.1328E-04
EYZ	-.3105E-13	-.5831E-13	.0000E+00	.4228E-13	-.3105E-13	-.3696E-13	.2046E-13	-.6802E-13	-.3397E-13

## PRINCIPAL STRAINS

PE 1	.5801E-03	.5739E-03	.5654E-03	.5575E-03	.5469E-03	.5337E-03	.5186E-03	.5048E-03	.4893E-03
PE 2	.4439E-03	.4369E-03	.4214E-03	.4008E-03	.3730E-03	.3395E-03	.3025E-03	.2664E-03	.2297E-03
PE 3	-.5691E-03	-.5618E-03	-.5486E-03	-.5330E-03	-.5119E-03	-.4864E-03	-.4578E-03	-.4305E-03	-.4019E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1149E-02	.1136E-02	.1114E-02	.1091E-02	.1059E-02	.1020E-02	.9764E-03	.9353E-03	.8912E-03
PSE 2	.1363E-03	.1370E-03	.1440E-03	.1567E-03	.1739E-03	.1942E-03	.2162E-03	.2384E-03	.2596E-03
PSE 3	.1013E-02	.9987E-03	.9700E-03	.9338E-03	.8849E-03	.8259E-03	.7603E-03	.6969E-03	.6316E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4750.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.10 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00

Appendix 6E-a Full Depth HBP

5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1521E+03	.1597E+03	.1673E+03	.1750E+03	.1833E+03	.1924E+03	.2028E+03	.2148E+03	.2285E+03
SYX	.2141E+03	.2219E+03	.2300E+03	.2384E+03	.2472E+03	.2562E+03	.2656E+03	.2753E+03	.2853E+03
SZZ	-.7998E+01	-.8206E+01	-.8378E+01	-.8556E+01	-.8754E+01	-.8971E+01	-.9196E+01	-.9419E+01	-.9634E+01

SHEAR STRESSES

SXY	.6871E-07	-.2594E-06	.1445E-06	.8390E-07	-.7391E-07	-.8065E-07	-.3988E-06	-.3026E-06	-.6098E-06
SXZ	.1360E+01	.1319E+01	.1281E+01	.1247E+01	.1220E+01	.1198E+01	.1179E+01	.1158E+01	.1128E+01
SYZ	-.1398E-08	.9798E-08	-.8993E-08	.3909E-08	.6480E-08	.5407E-08	-.9211E-08	.9573E-08	.2631E-08

PRINCIPAL STRESSES

PS 1	.2141E+03	.2219E+03	.2300E+03	.2384E+03	.2472E+03	.2562E+03	.2656E+03	.2753E+03	.2853E+03
PS 2	.1521E+03	.1597E+03	.1673E+03	.1750E+03	.1833E+03	.1925E+03	.2028E+03	.2148E+03	.2285E+03
PS 3	-.8010E+01	-.8216E+01	-.8387E+01	-.8564E+01	-.8762E+01	-.8978E+01	-.9202E+01	-.9425E+01	-.9640E+01

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1111E+03	.1151E+03	.1192E+03	.1235E+03	.1280E+03	.1326E+03	.1374E+03	.1424E+03	.1475E+03
PSS 2	.3103E+02	.3110E+02	.3136E+02	.3169E+02	.3193E+02	.3188E+02	.3137E+02	.3024E+02	.2840E+02
PSS 3	.8004E+02	.8398E+02	.8783E+02	.9179E+02	.9603E+02	.1007E+03	.1060E+03	.1121E+03	.1191E+03

## DISPLACEMENTS

UX	-.5058E-02	-.4853E-02	-.4635E-02	-.4403E-02	-.4158E-02	-.3898E-02	-.3623E-02	-.3329E-02	-.3011E-02
UY	-.1826E-11	-.1429E-10	-.3793E-11	-.3208E-10	-.3225E-10	-.1543E-10	.7404E-11	-.1682E-10	.8464E-11
UZ	.9445E-01	.9537E-01	.9583E-01	.9618E-01	.9658E-01	.9707E-01	.9763E-01	.9819E-01	.9873E-01

## NORMAL STRAINS

EXX	.1998E-03	.2123E-03	.2242E-03	.2364E-03	.2496E-03	.2648E-03	.2828E-03	.3044E-03	.3301E-03
EYY	.4092E-03	.4222E-03	.4360E-03	.4504E-03	.4652E-03	.4800E-03	.4945E-03	.5085E-03	.5218E-03
EZZ	-.3404E-03	-.3545E-03	-.3685E-03	-.3831E-03	-.3985E-03	-.4150E-03	-.4329E-03	-.4524E-03	-.4737E-03

## SHEAR STRAINS

EXY	.4638E-12	-.1751E-11	.9753E-12	.5663E-12	-.4989E-12	-.5444E-12	-.2692E-11	-.2042E-11	-.4116E-11
EXZ	.9183E-05	.8904E-05	.8645E-05	.8420E-05	.8235E-05	.8088E-05	.7959E-05	.7817E-05	.7617E-05
EYZ	-.9434E-14	.6614E-13	-.6070E-13	.2639E-13	.4374E-13	.3650E-13	-.6217E-13	.6462E-13	.1776E-13

## PRINCIPAL STRAINS

PE 1	.4092E-03	.4222E-03	.4360E-03	.4504E-03	.4652E-03	.4800E-03	.4945E-03	.5085E-03	.5218E-03
PE 2	.1998E-03	.2123E-03	.2243E-03	.2364E-03	.2497E-03	.2648E-03	.2828E-03	.3044E-03	.3301E-03
PE 3	-.3404E-03	-.3545E-03	-.3686E-03	-.3831E-03	-.3986E-03	-.4150E-03	-.4329E-03	-.4524E-03	-.4737E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.7497E-03	.7767E-03	.8045E-03	.8335E-03	.8637E-03	.8950E-03	.9274E-03	.9610E-03	.9956E-03
PSE 2	.2094E-03	.2099E-03	.2117E-03	.2139E-03	.2155E-03	.2152E-03	.2117E-03	.2041E-03	.1917E-03
PSE 3	.5403E-03	.5668E-03	.5928E-03	.6196E-03	.6482E-03	.6798E-03	.7157E-03	.7568E-03	.8038E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4750.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.10 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00

Appendix 6E-a Full Depth HBP

15.00 4.00  
16.00 4.00  
17.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
9.00 4.00  
10.00 4.00  
11.00 4.00  
12.00 4.00  
13.00 4.00  
14.00 4.00  
15.00 4.00  
16.00 4.00  
17.00 4.00

NORMAL STRESSES

SXX .2438E+03 .2600E+03 .2765E+03 .2926E+03 .3083E+03 .3213E+03 .3304E+03 .3347E+03 .3351E+03  
 SYY .2954E+03 .3052E+03 .3143E+03 .3226E+03 .3304E+03 .3364E+03 .3399E+03 .3406E+03 .3398E+03  
 SZZ -.9838E+01 -.1004E+02 -.1024E+02 -.1048E+02 -.1067E+02 -.1083E+02 -.1092E+02 -.1101E+02 -.1100E+02

SHEAR STRESSES

SXY -.2158E-06 -.1497E-06 -.3043E-06 -.2739E-06 -.2146E-06 .4392E-07 .3222E-06 -.2599E-06 .8061E-07  
 SXZ .1083E+01 .1013E+01 .9143E+00 .7812E+00 .6137E+00 .4119E+00 .1802E+00 -.7330E-01 -.3370E+00  
 SYZ .2028E-07 -.6282E-08 .8523E-08 .4886E-08 -.3322E-08 .1023E-08 -.1237E-07 .5017E-08 -.6782E-08

PRINCIPAL STRESSES

PS 1 .2954E+03 .3052E+03 .3143E+03 .3226E+03 .3304E+03 .3364E+03 .3399E+03 .3406E+03 .3398E+03  
 PS 2 .2438E+03 .2600E+03 .2765E+03 .2926E+03 .3083E+03 .3213E+03 .3304E+03 .3347E+03 .3351E+03  
 PS 3 -.9843E+01 -.1004E+02 -.1024E+02 -.1048E+02 -.1068E+02 -.1083E+02 -.1092E+02 -.1101E+02 -.1100E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1526E+03	.1576E+03	.1623E+03	.1665E+03	.1705E+03	.1736E+03	.1754E+03	.1758E+03	.1754E+03
PSS 2	.2585E+02	.2263E+02	.1892E+02	.1496E+02	.1106E+02	.7550E+01	.4758E+01	.2962E+01	.2352E+01
PSS 3	.1268E+03	.1350E+03	.1434E+03	.1516E+03	.1595E+03	.1661E+03	.1707E+03	.1729E+03	.1731E+03

## DISPLACEMENTS

UX	-.2661E-02	-.2276E-02	-.1854E-02	-.1397E-02	-.9107E-03	-.3916E-03	.1526E-03	.7091E-03	.1265E-02
UY	.3377E-10	.2213E-11	-.1093E-10	-.6233E-11	.1220E-10	.3886E-10	.1762E-10	.2507E-10	.1615E-11
UZ	.9927E-01	.9996E-01	.1010E+00	.1024E+00	.1033E+00	.1042E+00	.1049E+00	.1060E+00	.1061E+00

## NORMAL STRAINS

EXX	.3595E-03	.3916E-03	.4251E-03	.4585E-03	.4909E-03	.5184E-03	.5382E-03	.5484E-03	.5501E-03
EYY	.5339E-03	.5444E-03	.5529E-03	.5595E-03	.5656E-03	.5694E-03	.5703E-03	.5684E-03	.5659E-03
EZZ	-.4964E-03	-.5197E-03	-.5426E-03	-.5645E-03	-.5855E-03	-.6026E-03	-.6139E-03	-.6185E-03	-.6181E-03

## SHEAR STRAINS

EXY	-.1457E-11	-.1011E-11	-.2054E-11	-.1849E-11	-.1449E-11	.2965E-12	.2175E-11	-.1754E-11	.5441E-12
EXZ	.7308E-05	.6841E-05	.6171E-05	.5273E-05	.4142E-05	.2780E-05	.1216E-05	-.4947E-06	-.2275E-05
EYZ	.1369E-12	-.4240E-13	.5753E-13	.3298E-13	-.2243E-13	.6904E-14	-.8347E-13	.3387E-13	-.4578E-13

## PRINCIPAL STRAINS

PE 1	.5339E-03	.5444E-03	.5529E-03	.5595E-03	.5656E-03	.5694E-03	.5703E-03	.5684E-03	.5659E-03
PE 2	.3595E-03	.3916E-03	.4251E-03	.4585E-03	.4909E-03	.5184E-03	.5382E-03	.5484E-03	.5501E-03
PE 3	-.4964E-03	-.5197E-03	-.5426E-03	-.5645E-03	-.5855E-03	-.6026E-03	-.6139E-03	-.6185E-03	-.6181E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1030E-02	.1064E-02	.1095E-02	.1124E-02	.1151E-02	.1172E-02	.1184E-02	.1187E-02	.1184E-02
PSE 2	.1745E-03	.1528E-03	.1277E-03	.1010E-03	.7466E-04	.5097E-04	.3212E-04	.1999E-04	.1587E-04
PSE 3	.8559E-03	.9113E-03	.9677E-03	.1023E-02	.1076E-02	.1121E-02	.1152E-02	.1167E-02	.1168E-02



Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4750.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.10 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Z= 12.00 LAYER NO, 1

Appendix 6E-a Full Depth HBP

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X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.3308E+03	.3226E+03
SYY	.3368E+03	.3323E+03
SZZ	-.1090E+02	-.1071E+02

## SHEAR STRESSES

SXY	-.1043E-07	.1547E-06
SXZ	-.6008E+00	-.8544E+00
SYZ	.2696E-08	-.1490E-07

## PRINCIPAL STRESSES

PS 1	.3368E+03	.3323E+03
PS 2	.3309E+03	.3226E+03
PS 3	-.1090E+02	-.1071E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.1739E+03	.1715E+03
PSS 2	.2999E+01	.4853E+01
PSS 3	.1709E+03	.1667E+03

## DISPLACEMENTS

UX	.1817E-02	.2364E-02
UY	.3276E-10	.2910E-10
UZ	.1055E+00	.1040E+00

## NORMAL STRAINS

Appendix 6E-a Full Depth HBP

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EXX .5419E-03 .5251E-03  
EYY .5622E-03 .5579E-03  
EZZ -.6115E-03 -.5999E-03

SHEAR STRAINS

EXY -.7040E-13 .1044E-11  
EXZ -.4055E-05 -.5767E-05  
EYZ .1820E-13 -.1006E-12

PRINCIPAL STRAINS

PE 1 .5622E-03 .5579E-03  
PE 2 .5419E-03 .5251E-03  
PE 3 -.6115E-03 -.5999E-03

PRINCIPAL SHEAR STRAINS

PSE 1 .1174E-02 .1158E-02  
PSE 2 .2025E-04 .3276E-04  
PSE 3 .1153E-02 .1125E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00

Appendix 6E-a Full Depth HBP

23.00          4.00

Z= 12.00 LAYER NO, 1

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.2910E+03	.2997E+03	.3040E+03	.3037E+03	.2992E+03	.2920E+03	.2814E+03	.2678E+03	.2522E+03
SYX	.3363E+03	.3428E+03	.3469E+03	.3485E+03	.3477E+03	.3460E+03	.3422E+03	.3364E+03	.3292E+03
SZZ	-.1168E+02	-.1187E+02	-.1202E+02	-.1210E+02	-.1213E+02	-.1214E+02	-.1212E+02	-.1206E+02	-.1196E+02

SHEAR STRESSES

SXY	-.1195E-06	.9932E-07	.8406E-07	-.1257E-08	.1158E-06	.4746E-07	-.1411E-06	-.1153E-06	-.1229E-07
SXZ	.1309E+01	.1103E+01	.8901E+00	.6773E+00	.4731E+00	.2841E+00	.1178E+00	-.2104E-01	-.1303E+00
SYZ	-.7187E-08	-.1544E-08	.3222E-08	-.5919E-08	-.1431E-08	-.5451E-08	.2124E-08	-.3584E-08	.9565E-08

PRINCIPAL STRESSES

PS 1	.3363E+03	.3428E+03	.3469E+03	.3485E+03	.3477E+03	.3460E+03	.3422E+03	.3364E+03	.3292E+03
PS 2	.2910E+03	.2997E+03	.3040E+03	.3037E+03	.2992E+03	.2920E+03	.2814E+03	.2678E+03	.2522E+03
PS 3	-.1168E+02	-.1188E+02	-.1202E+02	-.1210E+02	-.1213E+02	-.1214E+02	-.1212E+02	-.1206E+02	-.1196E+02

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1740E+03	.1773E+03	.1795E+03	.1803E+03	.1799E+03	.1791E+03	.1772E+03	.1742E+03	.1706E+03
PSS 2	.2263E+02	.2156E+02	.2146E+02	.2237E+02	.2425E+02	.2698E+02	.3041E+02	.3430E+02	.3846E+02
PSS 3	.1514E+03	.1558E+03	.1580E+03	.1579E+03	.1556E+03	.1521E+03	.1468E+03	.1399E+03	.1321E+03

## DISPLACEMENTS

UX	-.5845E-02	-.5393E-02	-.4929E-02	-.4462E-02	-.4002E-02	-.3545E-02	-.3108E-02	-.2701E-02	-.2329E-02
UY	.4198E-11	.2026E-10	-.2935E-11	.2356E-10	-.2908E-11	-.2512E-10	-.2111E-10	.2268E-10	-.1105E-10
UZ	.1370E+00	.1380E+00	.1390E+00	.1398E+00	.1405E+00	.1408E+00	.1412E+00	.1417E+00	.1422E+00

## NORMAL STRAINS

EXX	.4435E-03	.4596E-03	.4669E-03	.4650E-03	.4543E-03	.4379E-03	.4147E-03	.3857E-03	.3531E-03
EYY	.5963E-03	.6052E-03	.6118E-03	.6160E-03	.6180E-03	.6201E-03	.6199E-03	.6173E-03	.6127E-03
EZZ	-.5781E-03	-.5919E-03	-.5995E-03	-.6010E-03	-.5963E-03	-.5886E-03	-.5760E-03	-.5589E-03	-.5386E-03

## SHEAR STRAINS

EXY	-.8065E-12	.6704E-12	.5674E-12	-.8486E-14	.7814E-12	.3204E-12	-.9524E-12	-.7782E-12	-.8299E-13
EXZ	.8833E-05	.7447E-05	.6008E-05	.4572E-05	.3194E-05	.1918E-05	.7953E-06	-.1420E-06	-.8793E-06
EYZ	-.4851E-13	-.1042E-13	.2175E-13	-.3996E-13	-.9661E-14	-.3679E-13	.1434E-13	-.2419E-13	.6457E-13

## PRINCIPAL STRAINS

PE 1	.5963E-03	.6052E-03	.6118E-03	.6160E-03	.6180E-03	.6201E-03	.6199E-03	.6173E-03	.6127E-03
PE 2	.4435E-03	.4597E-03	.4669E-03	.4650E-03	.4543E-03	.4379E-03	.4147E-03	.3857E-03	.3531E-03
PE 3	-.5781E-03	-.5919E-03	-.5996E-03	-.6010E-03	-.5963E-03	-.5886E-03	-.5760E-03	-.5589E-03	-.5386E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1174E-02	.1197E-02	.1211E-02	.1217E-02	.1214E-02	.1209E-02	.1196E-02	.1176E-02	.1151E-02
PSE 2	.1527E-03	.1455E-03	.1449E-03	.1510E-03	.1637E-03	.1821E-03	.2052E-03	.2315E-03	.2596E-03
PSE 3	.1022E-02	.1052E-02	.1066E-02	.1066E-02	.1051E-02	.1027E-02	.9907E-03	.9446E-03	.8917E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00

Appendix 6E-a Full Depth HBP

32.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.2371E+03	.2219E+03	.2069E+03	.1929E+03	.1804E+03	.1697E+03	.1611E+03	.1544E+03	.1497E+03
SYX	.3224E+03	.3153E+03	.3077E+03	.3003E+03	.2935E+03	.2875E+03	.2825E+03	.2786E+03	.2758E+03
SZZ	-.1187E+02	-.1178E+02	-.1168E+02	-.1157E+02	-.1146E+02	-.1135E+02	-.1126E+02	-.1119E+02	-.1114E+02

SHEAR STRESSES

SXY	-.1992E-06	-.1469E-06	-.8057E-07	-.2716E-07	-.2984E-06	.1992E-06	-.2851E-06	.3374E-06	.3081E-07
SXZ	-.2107E+00	-.2625E+00	-.2882E+00	-.2914E+00	-.2764E+00	-.2475E+00	-.2081E+00	-.1615E+00	-.1100E+00
SYZ	.1229E-08	-.4500E-08	-.7571E-08	.4686E-08	.8969E-08	.1488E-08	-.6291E-08	.4969E-09	-.2409E-08

PRINCIPAL STRESSES

PS 1	.3224E+03	.3153E+03	.3077E+03	.3003E+03	.2935E+03	.2875E+03	.2825E+03	.2786E+03	.2758E+03
PS 2	.2371E+03	.2219E+03	.2069E+03	.1929E+03	.1804E+03	.1697E+03	.1611E+03	.1544E+03	.1497E+03
PS 3	-.1187E+02	-.1178E+02	-.1168E+02	-.1157E+02	-.1146E+02	-.1135E+02	-.1126E+02	-.1119E+02	-.1114E+02

PRINCIPAL SHEAR STRESSES



## Appendix 6E-a Full Depth HBP

PSS 1	.1672E+03	.1635E+03	.1597E+03	.1560E+03	.1525E+03	.1494E+03	.1469E+03	.1449E+03	.1435E+03
PSS 2	.4265E+02	.4669E+02	.5041E+02	.5372E+02	.5654E+02	.5887E+02	.6070E+02	.6207E+02	.6301E+02
PSS 3	.1245E+03	.1168E+03	.1093E+03	.1022E+03	.9592E+02	.9054E+02	.8617E+02	.8281E+02	.8044E+02

## DISPLACEMENTS

UX	-.1982E-02	-.1669E-02	-.1392E-02	-.1149E-02	-.9348E-03	-.7452E-03	-.5749E-03	-.4192E-03	-.2739E-03
UY	-.1238E-10	-.1496E-10	.1050E-11	.5327E-11	-.5843E-12	-.1112E-10	-.3714E-10	.2141E-10	-.5119E-11
UZ	.1423E+00	.1426E+00	.1429E+00	.1432E+00	.1435E+00	.1437E+00	.1438E+00	.1439E+00	.1439E+00

## NORMAL STRAINS

EXX	.3211E-03	.2892E-03	.2582E-03	.2296E-03	.2042E-03	.1827E-03	.1654E-03	.1521E-03	.1428E-03
EYY	.6090E-03	.6043E-03	.5985E-03	.5922E-03	.5859E-03	.5801E-03	.5751E-03	.5711E-03	.5682E-03
EZZ	-.5193E-03	-.4995E-03	-.4795E-03	-.4605E-03	-.4433E-03	-.4284E-03	-.4163E-03	-.4068E-03	-.4002E-03

## SHEAR STRAINS

EXY	-.1345E-11	-.9916E-12	-.5439E-12	-.1834E-12	-.2014E-11	.1345E-11	-.1924E-11	.2278E-11	.2080E-12
EXZ	-.1422E-05	-.1772E-05	-.1945E-05	-.1967E-05	-.1866E-05	-.1670E-05	-.1405E-05	-.1090E-05	-.7425E-06
EYZ	.8299E-14	-.3037E-13	-.5111E-13	.3163E-13	.6054E-13	.1004E-13	-.4246E-13	.3354E-14	-.1626E-13

## PRINCIPAL STRAINS

PE 1	.6090E-03	.6043E-03	.5985E-03	.5922E-03	.5859E-03	.5801E-03	.5751E-03	.5711E-03	.5682E-03
PE 2	.3211E-03	.2892E-03	.2583E-03	.2296E-03	.2042E-03	.1827E-03	.1654E-03	.1521E-03	.1428E-03
PE 3	-.5193E-03	-.4995E-03	-.4795E-03	-.4605E-03	-.4433E-03	-.4284E-03	-.4163E-03	-.4068E-03	-.4002E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1128E-02	.1104E-02	.1078E-02	.1053E-02	.1029E-02	.1009E-02	.9913E-03	.9779E-03	.9683E-03
PSE 2	.2879E-03	.3151E-03	.3403E-03	.3626E-03	.3817E-03	.3973E-03	.4097E-03	.4190E-03	.4254E-03
PSE 3	.8404E-03	.7887E-03	.7378E-03	.6901E-03	.6475E-03	.6112E-03	.5816E-03	.5589E-03	.5430E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00

Appendix 6E-a Full Depth HBP

41.00          4.00

Z= 12.00 LAYER NO, 1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.1470E+03	.1461E+03	.1470E+03	.1497E+03	.1544E+03	.1611E+03	.1697E+03	.1804E+03	.1929E+03
SYX	.2741E+03	.2736E+03	.2741E+03	.2758E+03	.2786E+03	.2825E+03	.2875E+03	.2935E+03	.3003E+03
SZZ	-.1111E+02	-.1110E+02	-.1111E+02	-.1114E+02	-.1119E+02	-.1126E+02	-.1135E+02	-.1146E+02	-.1157E+02

SHEAR STRESSES

SXY	-.2135E-06	-.6459E-07	.3274E-06	-.9256E-09	.3508E-06	-.8319E-08	-.2079E-06	-.1586E-07	.1397E-06
SXZ	-.5565E-01	.5789E-07	.5565E-01	.1100E+00	.1615E+00	.2081E+00	.2475E+00	.2764E+00	.2914E+00
SYZ	.1065E-08	.1673E-08	-.4638E-09	-.1439E-08	-.9281E-09	.6350E-08	-.1121E-10	-.3958E-08	.7867E-08

PRINCIPAL STRESSES

PS 1	.2741E+03	.2736E+03	.2741E+03	.2758E+03	.2786E+03	.2825E+03	.2875E+03	.2935E+03	.3003E+03
PS 2	.1470E+03	.1461E+03	.1470E+03	.1497E+03	.1544E+03	.1611E+03	.1697E+03	.1804E+03	.1929E+03
PS 3	-.1111E+02	-.1110E+02	-.1111E+02	-.1114E+02	-.1119E+02	-.1126E+02	-.1135E+02	-.1146E+02	-.1157E+02

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1426E+03	.1423E+03	.1426E+03	.1435E+03	.1449E+03	.1469E+03	.1494E+03	.1525E+03	.1560E+03
PSS 2	.6357E+02	.6375E+02	.6357E+02	.6301E+02	.6207E+02	.6070E+02	.5887E+02	.5654E+02	.5372E+02
PSS 3	.7904E+02	.7858E+02	.7904E+02	.8044E+02	.8281E+02	.8617E+02	.9054E+02	.9592E+02	.1022E+03

## DISPLACEMENTS

UX	-.1353E-03	.2762E-10	.1353E-03	.2739E-03	.4192E-03	.5749E-03	.7452E-03	.9348E-03	.1149E-02
UY	-.5976E-11	-.8510E-11	-.5951E-11	-.2558E-12	-.1531E-10	.4514E-10	-.1213E-11	.3782E-11	-.3706E-11
UZ	.1440E+00	.1440E+00	.1440E+00	.1439E+00	.1439E+00	.1438E+00	.1437E+00	.1435E+00	.1432E+00

## NORMAL STRAINS

EXX	.1373E-03	.1355E-03	.1373E-03	.1428E-03	.1521E-03	.1654E-03	.1827E-03	.2042E-03	.2296E-03
EYY	.5664E-03	.5658E-03	.5664E-03	.5682E-03	.5711E-03	.5751E-03	.5801E-03	.5859E-03	.5922E-03
EZZ	-.3962E-03	-.3949E-03	-.3962E-03	-.4002E-03	-.4068E-03	-.4163E-03	-.4284E-03	-.4433E-03	-.4605E-03

## SHEAR STRAINS

EXY	-.1441E-11	-.4360E-12	.2210E-11	-.6248E-14	.2368E-11	-.5615E-13	-.1404E-11	-.1071E-12	.9429E-12
EXZ	-.3756E-06	.3907E-12	.3756E-06	.7425E-06	.1090E-05	.1405E-05	.1670E-05	.1866E-05	.1967E-05
EYZ	.7186E-14	.1129E-13	-.3131E-14	-.9711E-14	-.6265E-14	.4286E-13	-.7564E-16	-.2672E-13	.5310E-13

## PRINCIPAL STRAINS

PE 1	.5664E-03	.5658E-03	.5664E-03	.5682E-03	.5711E-03	.5751E-03	.5801E-03	.5859E-03	.5922E-03
PE 2	.1373E-03	.1355E-03	.1373E-03	.1428E-03	.1521E-03	.1654E-03	.1827E-03	.2042E-03	.2296E-03
PE 3	-.3962E-03	-.3949E-03	-.3962E-03	-.4002E-03	-.4068E-03	-.4163E-03	-.4284E-03	-.4433E-03	-.4605E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9626E-03	.9607E-03	.9626E-03	.9683E-03	.9779E-03	.9913E-03	.1009E-02	.1029E-02	.1053E-02
PSE 2	.4291E-03	.4303E-03	.4291E-03	.4254E-03	.4190E-03	.4097E-03	.3973E-03	.3817E-03	.3626E-03
PSE 3	.5335E-03	.5304E-03	.5335E-03	.5430E-03	.5589E-03	.5816E-03	.6112E-03	.6475E-03	.6901E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00

Appendix 6E-a Full Depth HBP

50.00          4.00

Z= 12.00 LAYER NO, 1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.2069E+03	.2219E+03	.2371E+03	.2522E+03	.2678E+03	.2814E+03	.2920E+03	.2992E+03	.3037E+03
SYX	.3077E+03	.3153E+03	.3224E+03	.3292E+03	.3364E+03	.3422E+03	.3460E+03	.3477E+03	.3485E+03
SZZ	-.1168E+02	-.1178E+02	-.1187E+02	-.1196E+02	-.1206E+02	-.1212E+02	-.1214E+02	-.1213E+02	-.1210E+02

SHEAR STRESSES

SXY	.2237E-06	-.1944E-06	-.3161E-06	.1335E-06	.1070E-06	-.6280E-07	-.9364E-07	-.1059E-06	.4318E-07
SXZ	.2882E+00	.2625E+00	.2107E+00	.1303E+00	.2104E-01	-.1178E+00	-.2841E+00	-.4731E+00	-.6773E+00
SYZ	.7924E-08	.8259E-09	-.4636E-08	-.9640E-08	-.7408E-08	.9735E-08	.1274E-08	-.7377E-08	-.2346E-08

PRINCIPAL STRESSES

PS 1	.3077E+03	.3153E+03	.3224E+03	.3292E+03	.3364E+03	.3422E+03	.3460E+03	.3477E+03	.3485E+03
PS 2	.2069E+03	.2219E+03	.2371E+03	.2522E+03	.2678E+03	.2814E+03	.2920E+03	.2992E+03	.3037E+03
PS 3	-.1168E+02	-.1178E+02	-.1187E+02	-.1196E+02	-.1206E+02	-.1212E+02	-.1214E+02	-.1213E+02	-.1210E+02

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1597E+03	.1635E+03	.1672E+03	.1706E+03	.1742E+03	.1772E+03	.1791E+03	.1799E+03	.1803E+03
PSS 2	.5041E+02	.4669E+02	.4265E+02	.3846E+02	.3430E+02	.3041E+02	.2698E+02	.2425E+02	.2237E+02
PSS 3	.1093E+03	.1168E+03	.1245E+03	.1321E+03	.1399E+03	.1468E+03	.1521E+03	.1556E+03	.1579E+03

## DISPLACEMENTS

UX	.1392E-02	.1669E-02	.1982E-02	.2329E-02	.2701E-02	.3108E-02	.3545E-02	.4002E-02	.4462E-02
UY	.4222E-11	.6434E-11	-.2918E-10	.2108E-11	.2346E-11	-.7809E-11	.3814E-10	-.3028E-11	-.4263E-10
UZ	.1429E+00	.1426E+00	.1423E+00	.1422E+00	.1417E+00	.1412E+00	.1408E+00	.1405E+00	.1398E+00

## NORMAL STRAINS

EXX	.2582E-03	.2892E-03	.3211E-03	.3531E-03	.3857E-03	.4147E-03	.4379E-03	.4543E-03	.4650E-03
EYY	.5985E-03	.6043E-03	.6090E-03	.6127E-03	.6173E-03	.6199E-03	.6201E-03	.6180E-03	.6160E-03
EZZ	-.4795E-03	-.4995E-03	-.5193E-03	-.5386E-03	-.5589E-03	-.5760E-03	-.5886E-03	-.5963E-03	-.6010E-03

## SHEAR STRAINS

EXY	.1510E-11	-.1312E-11	-.2134E-11	.9013E-12	.7221E-12	-.4239E-12	-.6321E-12	-.7151E-12	.2914E-12
EXZ	.1945E-05	.1772E-05	.1422E-05	.8793E-06	.1420E-06	-.7953E-06	-.1918E-05	-.3194E-05	-.4572E-05
EYZ	.5349E-13	.5575E-14	-.3129E-13	-.6507E-13	-.5000E-13	.6571E-13	.8600E-14	-.4980E-13	-.1584E-13

## PRINCIPAL STRAINS

PE 1	.5985E-03	.6043E-03	.6090E-03	.6127E-03	.6173E-03	.6199E-03	.6201E-03	.6180E-03	.6160E-03
PE 2	.2583E-03	.2892E-03	.3211E-03	.3531E-03	.3857E-03	.4147E-03	.4379E-03	.4543E-03	.4650E-03
PE 3	-.4795E-03	-.4995E-03	-.5193E-03	-.5386E-03	-.5589E-03	-.5760E-03	-.5886E-03	-.5963E-03	-.6010E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1078E-02	.1104E-02	.1128E-02	.1151E-02	.1176E-02	.1196E-02	.1209E-02	.1214E-02	.1217E-02
PSE 2	.3403E-03	.3151E-03	.2879E-03	.2596E-03	.2315E-03	.2052E-03	.1821E-03	.1637E-03	.1510E-03
PSE 3	.7378E-03	.7887E-03	.8404E-03	.8917E-03	.9446E-03	.9907E-03	.1027E-02	.1051E-02	.1066E-02

Appendix 6E-a Full Depth HBP

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ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00



Appendix 6E-a Full Depth HBP

59.00            4.00

Z= 12.00 LAYER NO, 1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.3040E+03	.2997E+03	.2910E+03	.2798E+03	.2650E+03	.2471E+03	.2271E+03	.2075E+03	.1876E+03
SYX	.3469E+03	.3428E+03	.3363E+03	.3289E+03	.3193E+03	.3077E+03	.2944E+03	.2817E+03	.2683E+03
SZZ	-.1202E+02	-.1187E+02	-.1168E+02	-.1146E+02	-.1122E+02	-.1093E+02	-.1060E+02	-.1028E+02	-.9952E+01

SHEAR STRESSES

SXY	.5044E-07	-.4588E-08	.1059E-06	.1238E-06	-.5044E-07	-.4318E-07	-.1325E-06	-.3832E-06	.6280E-07
SXZ	-.8901E+00	-.1103E+01	-.1309E+01	-.1500E+01	-.1669E+01	-.1811E+01	-.1925E+01	-.2011E+01	-.2069E+01
SYZ	.3327E-08	-.4956E-08	.0000E+00	-.4956E-08	.3327E-08	.1256E-07	.7524E-08	.1274E-08	-.5166E-08

PRINCIPAL STRESSES

PS 1	.3469E+03	.3428E+03	.3363E+03	.3289E+03	.3193E+03	.3077E+03	.2944E+03	.2817E+03	.2683E+03
PS 2	.3040E+03	.2997E+03	.2910E+03	.2798E+03	.2650E+03	.2471E+03	.2271E+03	.2075E+03	.1876E+03
PS 3	-.1202E+02	-.1188E+02	-.1168E+02	-.1147E+02	-.1123E+02	-.1094E+02	-.1062E+02	-.1030E+02	-.9974E+01

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1795E+03	.1773E+03	.1740E+03	.1702E+03	.1653E+03	.1593E+03	.1525E+03	.1460E+03	.1392E+03
PSS 2	.2146E+02	.2156E+02	.2263E+02	.2456E+02	.2718E+02	.3028E+02	.3366E+02	.3708E+02	.4037E+02
PSS 3	.1580E+03	.1558E+03	.1514E+03	.1456E+03	.1381E+03	.1290E+03	.1189E+03	.1089E+03	.9879E+02

## DISPLACEMENTS

UX	.4929E-02	.5393E-02	.5845E-02	.6289E-02	.6707E-02	.7089E-02	.7431E-02	.7740E-02	.8010E-02
UY	-.1357E-10	.2897E-10	.0000E+00	-.2924E-10	-.1357E-10	.1558E-10	-.3028E-11	-.2007E-10	-.7809E-11
UZ	.1390E+00	.1380E+00	.1370E+00	.1356E+00	.1343E+00	.1331E+00	.1318E+00	.1303E+00	.1288E+00

## NORMAL STRAINS

EXX	.4669E-03	.4596E-03	.4435E-03	.4216E-03	.3928E-03	.3581E-03	.3194E-03	.2813E-03	.2429E-03
EYY	.6118E-03	.6052E-03	.5963E-03	.5874E-03	.5763E-03	.5625E-03	.5467E-03	.5316E-03	.5154E-03
EZZ	-.5996E-03	-.5919E-03	-.5781E-03	-.5612E-03	-.5393E-03	-.5127E-03	-.4829E-03	-.4537E-03	-.4238E-03

## SHEAR STRAINS

EXY	.3405E-12	-.3097E-13	.7151E-12	.8356E-12	-.3405E-12	-.2914E-12	-.8942E-12	-.2587E-11	.4239E-12
EXZ	-.6008E-05	-.7447E-05	-.8833E-05	-.1012E-04	-.1127E-04	-.1223E-04	-.1300E-04	-.1357E-04	-.1397E-04
EYZ	.2246E-13	-.3345E-13	.0000E+00	-.3345E-13	.2246E-13	.8475E-13	.5079E-13	.8600E-14	-.3487E-13

## PRINCIPAL STRAINS

PE 1	.6118E-03	.6052E-03	.5963E-03	.5874E-03	.5763E-03	.5625E-03	.5467E-03	.5316E-03	.5154E-03
PE 2	.4669E-03	.4597E-03	.4435E-03	.4217E-03	.3929E-03	.3581E-03	.3195E-03	.2813E-03	.2429E-03
PE 3	-.5996E-03	-.5919E-03	-.5781E-03	-.5612E-03	-.5393E-03	-.5128E-03	-.4829E-03	-.4538E-03	-.4239E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1211E-02	.1197E-02	.1174E-02	.1149E-02	.1116E-02	.1075E-02	.1030E-02	.9854E-03	.9393E-03
PSE 2	.1449E-03	.1455E-03	.1527E-03	.1658E-03	.1834E-03	.2044E-03	.2272E-03	.2503E-03	.2725E-03
PSE 3	.1066E-02	.1052E-02	.1022E-02	.9829E-03	.9322E-03	.8709E-03	.8024E-03	.7351E-03	.6668E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.21 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00

Appendix 6E-a Full Depth HBP

5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1600E+03	.1681E+03	.1759E+03	.1842E+03	.1930E+03	.2027E+03	.2137E+03	.2263E+03	.2407E+03
SYX	.2253E+03	.2335E+03	.2419E+03	.2507E+03	.2600E+03	.2695E+03	.2794E+03	.2896E+03	.3001E+03
SZZ	-.8403E+01	-.8624E+01	-.8815E+01	-.9003E+01	-.9212E+01	-.9441E+01	-.9678E+01	-.9913E+01	-.1014E+02

SHEAR STRESSES

SXY	-.8982E-07	-.1602E-06	.1039E-06	-.2346E-06	-.2188E-06	-.1385E-06	.4573E-07	-.1057E-06	-.6562E-07
SXZ	.1431E+01	.1388E+01	.1348E+01	.1313E+01	.1284E+01	.1261E+01	.1240E+01	.1217E+01	.1185E+01
SYZ	-.6370E-09	.5230E-08	.2274E-08	.6110E-08	.6416E-08	.7956E-08	-.9481E-08	.1180E-08	.3921E-08

PRINCIPAL STRESSES

PS 1	.2253E+03	.2335E+03	.2419E+03	.2507E+03	.2600E+03	.2695E+03	.2794E+03	.2896E+03	.3001E+03
PS 2	.1600E+03	.1681E+03	.1760E+03	.1842E+03	.1930E+03	.2027E+03	.2137E+03	.2263E+03	.2407E+03
PS 3	-.8415E+01	-.8635E+01	-.8825E+01	-.9012E+01	-.9221E+01	-.9448E+01	-.9685E+01	-.9919E+01	-.1014E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1169E+03	.1211E+03	.1253E+03	.1299E+03	.1346E+03	.1395E+03	.1445E+03	.1498E+03	.1551E+03
PSS 2	.3264E+02	.3270E+02	.3296E+02	.3328E+02	.3349E+02	.3341E+02	.3285E+02	.3164E+02	.2970E+02
PSS 3	.8421E+02	.8836E+02	.9239E+02	.9660E+02	.1011E+03	.1061E+03	.1117E+03	.1181E+03	.1254E+03

## DISPLACEMENTS

UX	-.5322E-02	-.5105E-02	-.4876E-02	-.4632E-02	-.4374E-02	-.4100E-02	-.3810E-02	-.3500E-02	-.3164E-02
UY	-.1696E-10	-.2018E-10	.1836E-10	.4045E-11	-.1417E-10	-.2825E-10	.2182E-11	-.1159E-12	-.2957E-11
UZ	.9926E-01	.1003E+00	.1009E+00	.1012E+00	.1016E+00	.1022E+00	.1028E+00	.1033E+00	.1039E+00

## NORMAL STRAINS

EXX	.2102E-03	.2234E-03	.2359E-03	.2489E-03	.2630E-03	.2791E-03	.2982E-03	.3211E-03	.3481E-03
EYY	.4306E-03	.4442E-03	.4584E-03	.4736E-03	.4891E-03	.5047E-03	.5199E-03	.5347E-03	.5486E-03
EZZ	-.3581E-03	-.3729E-03	-.3876E-03	-.4031E-03	-.4194E-03	-.4368E-03	-.4556E-03	-.4762E-03	-.4986E-03

## SHEAR STRAINS

EXY	-.6063E-12	-.1081E-11	.7014E-12	-.1583E-11	-.1477E-11	-.9346E-12	.3087E-12	-.7133E-12	-.4430E-12
EXZ	.9661E-05	.9371E-05	.9101E-05	.8864E-05	.8669E-05	.8511E-05	.8371E-05	.8215E-05	.7998E-05
EYZ	-.4300E-14	.3531E-13	.1535E-13	.4124E-13	.4331E-13	.5370E-13	-.6400E-13	.7962E-14	.2646E-13

## PRINCIPAL STRAINS

PE 1	.4306E-03	.4442E-03	.4584E-03	.4736E-03	.4891E-03	.5047E-03	.5199E-03	.5347E-03	.5486E-03
PE 2	.2103E-03	.2235E-03	.2360E-03	.2489E-03	.2631E-03	.2792E-03	.2982E-03	.3211E-03	.3481E-03
PE 3	-.3582E-03	-.3730E-03	-.3877E-03	-.4031E-03	-.4194E-03	-.4368E-03	-.4556E-03	-.4762E-03	-.4986E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.7888E-03	.8172E-03	.8461E-03	.8767E-03	.9085E-03	.9415E-03	.9756E-03	.1011E-02	.1047E-02
PSE 2	.2203E-03	.2207E-03	.2225E-03	.2246E-03	.2261E-03	.2255E-03	.2217E-03	.2136E-03	.2005E-03
PSE 3	.5684E-03	.5964E-03	.6236E-03	.6520E-03	.6825E-03	.7160E-03	.7539E-03	.7973E-03	.8467E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.21 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00

Appendix 6E-a Full Depth HBP

15.00      4.00  
16.00      4.00  
17.00      4.00

Z= 12.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.2567E+03	.2737E+03	.2909E+03	.3077E+03	.3241E+03	.3377E+03	.3472E+03	.3516E+03	.3520E+03
SYX	.3107E+03	.3210E+03	.3304E+03	.3390E+03	.3473E+03	.3536E+03	.3573E+03	.3579E+03	.3571E+03
SZZ	-.1035E+02	-.1056E+02	-.1077E+02	-.1102E+02	-.1121E+02	-.1136E+02	-.1146E+02	-.1155E+02	-.1153E+02

SHEAR STRESSES

SXY	-.9027E-07	-.1784E-06	.1760E-06	.1183E-06	.1661E-06	-.3832E-06	.8704E-07	.2214E-07	-.3235E-06
SXZ	.1136E+01	.1062E+01	.9569E+00	.8166E+00	.6407E+00	.4291E+00	.1863E+00	-.7901E-01	-.3546E+00
SYZ	.3653E-08	-.3916E-08	-.3263E-09	-.4952E-08	-.1423E-07	.2052E-07	.3646E-08	.5110E-08	-.1660E-07

PRINCIPAL STRESSES

PS 1	.3107E+03	.3210E+03	.3304E+03	.3390E+03	.3473E+03	.3536E+03	.3573E+03	.3579E+03	.3571E+03
PS 2	.2567E+03	.2737E+03	.2909E+03	.3077E+03	.3241E+03	.3377E+03	.3472E+03	.3516E+03	.3520E+03
PS 3	-.1036E+02	-.1056E+02	-.1078E+02	-.1102E+02	-.1121E+02	-.1136E+02	-.1146E+02	-.1155E+02	-.1153E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1605E+03	.1658E+03	.1706E+03	.1750E+03	.1792E+03	.1825E+03	.1844E+03	.1847E+03	.1843E+03
PSS 2	.2702E+02	.2365E+02	.1978E+02	.1566E+02	.1159E+02	.7946E+01	.5047E+01	.3185E+01	.2554E+01
PSS 3	.1335E+03	.1421E+03	.1508E+03	.1594E+03	.1677E+03	.1745E+03	.1793E+03	.1816E+03	.1818E+03

## DISPLACEMENTS

UX	-.2796E-02	-.2390E-02	-.1946E-02	-.1465E-02	-.9539E-03	-.4084E-03	.1634E-03	.7479E-03	.1330E-02
UY	.5529E-11	.1626E-10	-.3564E-11	.2433E-10	.2114E-11	.1743E-10	.4159E-10	.2487E-10	.9819E-11
UZ	.1045E+00	.1052E+00	.1062E+00	.1077E+00	.1086E+00	.1094E+00	.1101E+00	.1113E+00	.1113E+00

## NORMAL STRAINS

EXX	.3789E-03	.4125E-03	.4475E-03	.4822E-03	.5162E-03	.5448E-03	.5654E-03	.5758E-03	.5776E-03
EYY	.5613E-03	.5722E-03	.5810E-03	.5879E-03	.5944E-03	.5985E-03	.5995E-03	.5973E-03	.5948E-03
EZZ	-.5224E-03	-.5467E-03	-.5706E-03	-.5934E-03	-.6155E-03	-.6333E-03	-.6451E-03	-.6497E-03	-.6493E-03

## SHEAR STRAINS

EXY	-.6093E-12	-.1204E-11	.1188E-11	.7985E-12	.1121E-11	-.2587E-11	.5875E-12	.1495E-12	-.2183E-11
EXZ	.7666E-05	.7168E-05	.6459E-05	.5512E-05	.4325E-05	.2896E-05	.1258E-05	-.5333E-06	-.2394E-05
EYZ	.2466E-13	-.2644E-13	-.2203E-14	-.3343E-13	-.9607E-13	.1385E-12	.2461E-13	.3449E-13	-.1121E-12

## PRINCIPAL STRAINS

PE 1	.5613E-03	.5722E-03	.5810E-03	.5879E-03	.5944E-03	.5985E-03	.5995E-03	.5973E-03	.5948E-03
PE 2	.3789E-03	.4125E-03	.4475E-03	.4822E-03	.5162E-03	.5448E-03	.5654E-03	.5758E-03	.5776E-03
PE 3	-.5224E-03	-.5467E-03	-.5706E-03	-.5934E-03	-.6155E-03	-.6333E-03	-.6451E-03	-.6497E-03	-.6493E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1084E-02	.1119E-02	.1152E-02	.1181E-02	.1210E-02	.1232E-02	.1245E-02	.1247E-02	.1244E-02
PSE 2	.1824E-03	.1597E-03	.1335E-03	.1057E-03	.7826E-04	.5364E-04	.3407E-04	.2150E-04	.1724E-04
PSE 3	.9013E-03	.9592E-03	.1018E-02	.1076E-02	.1132E-02	.1178E-02	.1210E-02	.1226E-02	.1227E-02



Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.21 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Z= 12.00 LAYER NO, 1

Appendix 6E-a Full Depth HBP

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X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.3475E+03	.3390E+03
SYY	.3539E+03	.3493E+03
SZZ	-.1144E+02	-.1123E+02

## SHEAR STRESSES

SXY	-.1627E-07	-.8704E-07
SXZ	-.6302E+00	-.8957E+00
SYZ	.1982E-07	.0000E+00

## PRINCIPAL STRESSES

PS 1	.3539E+03	.3493E+03
PS 2	.3475E+03	.3390E+03
PS 3	-.1144E+02	-.1124E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.1827E+03	.1803E+03
PSS 2	.3228E+01	.5156E+01
PSS 3	.1795E+03	.1751E+03

## DISPLACEMENTS

UX	.1910E-02	.2484E-02
UY	.2880E-10	-.5821E-10
UZ	.1108E+00	.1091E+00

## NORMAL STRAINS

Appendix 6E-a Full Depth HBP

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EXX .5690E-03 .5516E-03  
EYY .5908E-03 .5864E-03  
EZZ -.6423E-03 -.6303E-03

SHEAR STRAINS

EXY -.1098E-12 -.5875E-12  
EXZ -.4254E-05 -.6046E-05  
EYZ .1338E-12 .0000E+00

PRINCIPAL STRAINS

PE 1 .5908E-03 .5864E-03  
PE 2 .5690E-03 .5516E-03  
PE 3 -.6424E-03 -.6303E-03

PRINCIPAL SHEAR STRAINS

PSE 1 .1233E-02 .1217E-02  
PSE 2 .2179E-04 .3480E-04  
PSE 3 .1211E-02 .1182E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00

Appendix 6E-a Full Depth HBP

23.00            4.00

Z= 12.00 LAYER NO, 1

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.3056E+03	.3146E+03	.3191E+03	.3189E+03	.3142E+03	.3065E+03	.2956E+03	.2816E+03	.2655E+03
SYX	.3535E+03	.3603E+03	.3645E+03	.3662E+03	.3654E+03	.3634E+03	.3596E+03	.3536E+03	.3461E+03
SZZ	-.1228E+02	-.1249E+02	-.1264E+02	-.1272E+02	-.1276E+02	-.1276E+02	-.1275E+02	-.1269E+02	-.1259E+02

SHEAR STRESSES

SXY	-.1556E-06	.7175E-07	.3896E-07	-.2595E-06	.1165E-06	.6236E-07	-.2132E-06	.2130E-07	-.1556E-06
SXZ	.1372E+01	.1158E+01	.9367E+00	.7154E+00	.5030E+00	.3064E+00	.1327E+00	-.1283E-01	-.1278E+00
SYZ	.4125E-08	.1610E-07	-.9823E-08	-.1968E-07	.8703E-09	.9684E-08	-.8701E-08	.1381E-07	.4570E-08

PRINCIPAL STRESSES

PS 1	.3535E+03	.3603E+03	.3645E+03	.3662E+03	.3654E+03	.3634E+03	.3596E+03	.3536E+03	.3461E+03
PS 2	.3056E+03	.3146E+03	.3191E+03	.3189E+03	.3142E+03	.3065E+03	.2956E+03	.2816E+03	.2655E+03
PS 3	-.1229E+02	-.1249E+02	-.1264E+02	-.1273E+02	-.1276E+02	-.1276E+02	-.1275E+02	-.1269E+02	-.1259E+02

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1829E+03	.1864E+03	.1886E+03	.1895E+03	.1891E+03	.1881E+03	.1862E+03	.1832E+03	.1794E+03
PSS 2	.2392E+02	.2283E+02	.2274E+02	.2368E+02	.2562E+02	.2844E+02	.3197E+02	.3600E+02	.4031E+02
PSS 3	.1590E+03	.1635E+03	.1658E+03	.1658E+03	.1635E+03	.1596E+03	.1542E+03	.1472E+03	.1391E+03

## DISPLACEMENTS

UX	-.6148E-02	-.5673E-02	-.5187E-02	-.4697E-02	-.4214E-02	-.3737E-02	-.3278E-02	-.2850E-02	-.2459E-02
UY	-.1896E-10	-.1066E-10	.2968E-11	.6746E-11	.2564E-11	-.4173E-10	.9026E-11	-.2302E-11	-.1900E-10
UZ	.1440E+00	.1450E+00	.1460E+00	.1469E+00	.1476E+00	.1480E+00	.1485E+00	.1490E+00	.1495E+00

## NORMAL STRAINS

EXX	.4655E-03	.4822E-03	.4897E-03	.4879E-03	.4769E-03	.4595E-03	.4356E-03	.4057E-03	.3720E-03
EYY	.6270E-03	.6363E-03	.6432E-03	.6477E-03	.6498E-03	.6515E-03	.6514E-03	.6488E-03	.6440E-03
EZZ	-.6074E-03	-.6217E-03	-.6297E-03	-.6313E-03	-.6266E-03	-.6181E-03	-.6052E-03	-.5876E-03	-.5667E-03

## SHEAR STRAINS

EXY	-.1051E-11	.4843E-12	.2630E-12	-.1751E-11	.7863E-12	.4209E-12	-.1439E-11	.1438E-12	-.1050E-11
EXZ	.9261E-05	.7819E-05	.6322E-05	.4829E-05	.3395E-05	.2068E-05	.8956E-06	-.8661E-07	-.8629E-06
EYZ	.2784E-13	.1086E-12	-.6630E-13	-.1329E-12	.5875E-14	.6537E-13	-.5873E-13	.9324E-13	.3085E-13

## PRINCIPAL STRAINS

PE 1	.6270E-03	.6363E-03	.6432E-03	.6477E-03	.6498E-03	.6515E-03	.6514E-03	.6488E-03	.6440E-03
PE 2	.4655E-03	.4822E-03	.4897E-03	.4879E-03	.4769E-03	.4595E-03	.4356E-03	.4057E-03	.3720E-03
PE 3	-.6074E-03	-.6217E-03	-.6297E-03	-.6313E-03	-.6266E-03	-.6181E-03	-.6052E-03	-.5876E-03	-.5667E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1234E-02	.1258E-02	.1273E-02	.1279E-02	.1276E-02	.1270E-02	.1257E-02	.1236E-02	.1211E-02
PSE 2	.1615E-03	.1541E-03	.1535E-03	.1599E-03	.1729E-03	.1920E-03	.2158E-03	.2430E-03	.2721E-03
PSE 3	.1073E-02	.1104E-02	.1119E-02	.1119E-02	.1103E-02	.1078E-02	.1041E-02	.9933E-03	.9386E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00

Appendix 6E-a Full Depth HBP

32.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.2495E+03	.2337E+03	.2180E+03	.2034E+03	.1903E+03	.1791E+03	.1700E+03	.1630E+03	.1580E+03
SYX	.3388E+03	.3314E+03	.3236E+03	.3159E+03	.3087E+03	.3024E+03	.2972E+03	.2931E+03	.2902E+03
SZZ	-.1249E+02	-.1239E+02	-.1228E+02	-.1217E+02	-.1206E+02	-.1195E+02	-.1185E+02	-.1178E+02	-.1172E+02

SHEAR STRESSES

SXY	.1078E-06	-.1917E-06	-.2561E-06	.3968E-06	.3175E-06	-.4742E-07	.2068E-06	-.2768E-06	-.3452E-06
SXZ	-.2127E+00	-.2682E+00	-.2964E+00	-.3011E+00	-.2865E+00	-.2571E+00	-.2166E+00	-.1683E+00	-.1147E+00
SYZ	.2011E-08	.9073E-08	-.6817E-08	-.2790E-08	.4265E-08	.4387E-08	-.4571E-09	.8553E-09	.1048E-08

PRINCIPAL STRESSES

PS 1	.3388E+03	.3314E+03	.3236E+03	.3159E+03	.3087E+03	.3024E+03	.2972E+03	.2931E+03	.2902E+03
PS 2	.2495E+03	.2337E+03	.2180E+03	.2034E+03	.1903E+03	.1791E+03	.1700E+03	.1630E+03	.1580E+03
PS 3	-.1249E+02	-.1239E+02	-.1229E+02	-.1217E+02	-.1206E+02	-.1195E+02	-.1185E+02	-.1178E+02	-.1172E+02

PRINCIPAL SHEAR STRESSES



## Appendix 6E-a Full Depth HBP

PSS 1	.1757E+03	.1719E+03	.1679E+03	.1640E+03	.1604E+03	.1572E+03	.1545E+03	.1524E+03	.1509E+03
PSS 2	.4467E+02	.4887E+02	.5277E+02	.5624E+02	.5921E+02	.6167E+02	.6361E+02	.6506E+02	.6607E+02
PSS 3	.1310E+03	.1230E+03	.1152E+03	.1078E+03	.1012E+03	.9552E+02	.9091E+02	.8737E+02	.8487E+02

## DISPLACEMENTS

UX	-.2097E-02	-.1767E-02	-.1474E-02	-.1217E-02	-.9908E-03	-.7901E-03	-.6096E-03	-.4446E-03	-.2905E-03
UY	.4412E-10	.9135E-11	-.5722E-11	.9400E-11	.8253E-11	-.2485E-10	.9912E-11	.5198E-11	.3354E-11
UZ	.1498E+00	.1500E+00	.1504E+00	.1507E+00	.1510E+00	.1512E+00	.1514E+00	.1514E+00	.1515E+00

## NORMAL STRAINS

EXX	.3382E-03	.3050E-03	.2727E-03	.2427E-03	.2161E-03	.1936E-03	.1752E-03	.1613E-03	.1514E-03
EYY	.6397E-03	.6349E-03	.6289E-03	.6224E-03	.6158E-03	.6098E-03	.6046E-03	.6004E-03	.5974E-03
EZZ	-.5460E-03	-.5254E-03	-.5046E-03	-.4848E-03	-.4668E-03	-.4512E-03	-.4384E-03	-.4285E-03	-.4215E-03

## SHEAR STRAINS

EXY	.7275E-12	-.1294E-11	-.1729E-11	.2678E-11	.2143E-11	-.3201E-12	.1396E-11	-.1868E-11	-.2330E-11
EXZ	-.1436E-05	-.1811E-05	-.2001E-05	-.2032E-05	-.1934E-05	-.1735E-05	-.1462E-05	-.1136E-05	-.7745E-06
EYZ	.1357E-13	.6124E-13	-.4602E-13	-.1883E-13	.2879E-13	.2961E-13	-.3086E-14	.5773E-14	.7073E-14

## PRINCIPAL STRAINS

PE 1	.6397E-03	.6349E-03	.6289E-03	.6224E-03	.6158E-03	.6098E-03	.6046E-03	.6004E-03	.5974E-03
PE 2	.3382E-03	.3050E-03	.2727E-03	.2427E-03	.2161E-03	.1936E-03	.1752E-03	.1613E-03	.1514E-03
PE 3	-.5460E-03	-.5254E-03	-.5046E-03	-.4848E-03	-.4668E-03	-.4512E-03	-.4384E-03	-.4285E-03	-.4215E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1186E-02	.1160E-02	.1134E-02	.1107E-02	.1083E-02	.1061E-02	.1043E-02	.1029E-02	.1019E-02
PSE 2	.3015E-03	.3299E-03	.3562E-03	.3796E-03	.3997E-03	.4162E-03	.4294E-03	.4392E-03	.4460E-03
PSE 3	.8842E-03	.8304E-03	.7774E-03	.7275E-03	.6829E-03	.6448E-03	.6136E-03	.5898E-03	.5729E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00

Appendix 6E-a Full Depth HBP

41.00          4.00

Z= 12.00 LAYER NO, 1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.1551E+03	.1541E+03	.1551E+03	.1580E+03	.1630E+03	.1700E+03	.1791E+03	.1903E+03	.2034E+03
SYX	.2884E+03	.2878E+03	.2884E+03	.2902E+03	.2931E+03	.2972E+03	.3024E+03	.3087E+03	.3159E+03
SZZ	-.1169E+02	-.1168E+02	-.1169E+02	-.1172E+02	-.1178E+02	-.1185E+02	-.1195E+02	-.1206E+02	-.1217E+02

SHEAR STRESSES

SXY	.1518E-06	.4079E-06	-.1163E-06	.1631E-06	.1362E-06	.2954E-06	-.1358E-06	.2893E-06	.3408E-06
SXZ	-.5808E-01	.1062E-07	.5808E-01	.1147E+00	.1683E+00	.2166E+00	.2571E+00	.2865E+00	.3011E+00
SYZ	-.3624E-08	.1281E-08	-.1344E-09	.1021E-08	-.3466E-09	.1708E-08	-.1412E-08	.7389E-08	-.1645E-08

PRINCIPAL STRESSES

PS 1	.2884E+03	.2878E+03	.2884E+03	.2902E+03	.2931E+03	.2972E+03	.3024E+03	.3087E+03	.3159E+03
PS 2	.1551E+03	.1541E+03	.1551E+03	.1580E+03	.1630E+03	.1700E+03	.1791E+03	.1903E+03	.2034E+03
PS 3	-.1169E+02	-.1168E+02	-.1169E+02	-.1172E+02	-.1178E+02	-.1185E+02	-.1195E+02	-.1206E+02	-.1217E+02

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1501E+03	.1498E+03	.1501E+03	.1509E+03	.1524E+03	.1545E+03	.1572E+03	.1604E+03	.1640E+03
PSS 2	.6666E+02	.6685E+02	.6666E+02	.6607E+02	.6506E+02	.6361E+02	.6167E+02	.5921E+02	.5624E+02
PSS 3	.8340E+02	.8291E+02	.8340E+02	.8487E+02	.8737E+02	.9091E+02	.9552E+02	.1012E+03	.1078E+03

## DISPLACEMENTS

UX	-.1435E-03	.1968E-09	.1435E-03	.2905E-03	.4446E-03	.6096E-03	.7901E-03	.9908E-03	.1217E-02
UY	-.2052E-10	.9677E-11	.3116E-10	.9229E-11	-.8340E-11	.1028E-10	.1829E-10	.3367E-11	-.6285E-11
UZ	.1515E+00	.1515E+00	.1515E+00	.1515E+00	.1514E+00	.1514E+00	.1512E+00	.1510E+00	.1507E+00

## NORMAL STRAINS

EXX	.1456E-03	.1437E-03	.1456E-03	.1514E-03	.1613E-03	.1752E-03	.1936E-03	.2161E-03	.2427E-03
EYY	.5956E-03	.5950E-03	.5956E-03	.5974E-03	.6004E-03	.6046E-03	.6098E-03	.6158E-03	.6224E-03
EZZ	-.4173E-03	-.4159E-03	-.4173E-03	-.4215E-03	-.4285E-03	-.4384E-03	-.4512E-03	-.4668E-03	-.4848E-03

## SHEAR STRAINS

EXY	.1025E-11	.2754E-11	-.7850E-12	.1101E-11	.9192E-12	.1994E-11	-.9164E-12	.1952E-11	.2300E-11
EXZ	-.3920E-06	.7171E-13	.3920E-06	.7745E-06	.1136E-05	.1462E-05	.1735E-05	.1934E-05	.2032E-05
EYZ	-.2446E-13	.8647E-14	-.9069E-15	.6891E-14	-.2340E-14	.1153E-13	-.9532E-14	.4987E-13	-.1111E-13

## PRINCIPAL STRAINS

PE 1	.5956E-03	.5950E-03	.5956E-03	.5974E-03	.6004E-03	.6046E-03	.6098E-03	.6158E-03	.6224E-03
PE 2	.1456E-03	.1437E-03	.1456E-03	.1514E-03	.1613E-03	.1752E-03	.1936E-03	.2161E-03	.2427E-03
PE 3	-.4173E-03	-.4159E-03	-.4173E-03	-.4215E-03	-.4285E-03	-.4384E-03	-.4512E-03	-.4668E-03	-.4848E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1013E-02	.1011E-02	.1013E-02	.1019E-02	.1029E-02	.1043E-02	.1061E-02	.1083E-02	.1107E-02
PSE 2	.4499E-03	.4512E-03	.4499E-03	.4460E-03	.4392E-03	.4294E-03	.4162E-03	.3997E-03	.3796E-03
PSE 3	.5630E-03	.5597E-03	.5630E-03	.5729E-03	.5898E-03	.6136E-03	.6448E-03	.6829E-03	.7275E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00

Appendix 6E-a Full Depth HBP

50.00            4.00

Z= 12.00 LAYER NO, 1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.2180E+03	.2337E+03	.2495E+03	.2655E+03	.2816E+03	.2956E+03	.3065E+03	.3142E+03	.3189E+03
SYX	.3236E+03	.3314E+03	.3388E+03	.3461E+03	.3536E+03	.3596E+03	.3634E+03	.3654E+03	.3662E+03
SZZ	-.1228E+02	-.1239E+02	-.1249E+02	-.1259E+02	-.1269E+02	-.1275E+02	-.1276E+02	-.1276E+02	-.1272E+02

SHEAR STRESSES

SXY	.2279E-06	-.1005E-07	.9189E-07	-.3384E-06	.2240E-06	.1884E-06	-.2007E-07	-.1023E-06	.1151E-06
SXZ	.2964E+00	.2682E+00	.2127E+00	.1278E+00	.1283E-01	-.1327E+00	-.3064E+00	-.5030E+00	-.7154E+00
SYZ	.1335E-07	.7180E-09	.4256E-08	-.1519E-08	-.8027E-08	-.7339E-08	.1499E-07	.4730E-08	.1568E-07

PRINCIPAL STRESSES

PS 1	.3236E+03	.3314E+03	.3388E+03	.3461E+03	.3536E+03	.3596E+03	.3634E+03	.3654E+03	.3662E+03
PS 2	.2180E+03	.2337E+03	.2495E+03	.2655E+03	.2816E+03	.2956E+03	.3065E+03	.3142E+03	.3189E+03
PS 3	-.1229E+02	-.1239E+02	-.1249E+02	-.1259E+02	-.1269E+02	-.1275E+02	-.1276E+02	-.1276E+02	-.1273E+02

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1679E+03	.1719E+03	.1757E+03	.1794E+03	.1832E+03	.1862E+03	.1881E+03	.1891E+03	.1895E+03
PSS 2	.5277E+02	.4887E+02	.4467E+02	.4031E+02	.3600E+02	.3197E+02	.2844E+02	.2562E+02	.2368E+02
PSS 3	.1152E+03	.1230E+03	.1310E+03	.1391E+03	.1472E+03	.1542E+03	.1596E+03	.1635E+03	.1658E+03

## DISPLACEMENTS

UX	.1474E-02	.1767E-02	.2097E-02	.2459E-02	.2850E-02	.3278E-02	.3737E-02	.4214E-02	.4697E-02
UY	-.1901E-11	.4560E-11	-.1615E-10	-.2762E-10	.1186E-11	.2534E-11	.3681E-10	-.1421E-10	-.8078E-11
UZ	.1504E+00	.1500E+00	.1498E+00	.1495E+00	.1490E+00	.1485E+00	.1480E+00	.1476E+00	.1469E+00

## NORMAL STRAINS

EXX	.2727E-03	.3050E-03	.3382E-03	.3720E-03	.4057E-03	.4356E-03	.4595E-03	.4769E-03	.4879E-03
EYY	.6289E-03	.6349E-03	.6397E-03	.6440E-03	.6488E-03	.6514E-03	.6515E-03	.6498E-03	.6477E-03
EZZ	-.5046E-03	-.5254E-03	-.5460E-03	-.5667E-03	-.5876E-03	-.6052E-03	-.6181E-03	-.6266E-03	-.6313E-03

## SHEAR STRAINS

EXY	.1539E-11	-.6787E-13	.6202E-12	-.2284E-11	.1512E-11	.1272E-11	-.1355E-12	-.6904E-12	.7772E-12
EXZ	.2001E-05	.1811E-05	.1436E-05	.8629E-06	.8661E-07	-.8956E-06	-.2068E-05	-.3395E-05	-.4829E-05
EYZ	.9013E-13	.4847E-14	.2873E-13	-.1025E-13	-.5418E-13	-.4954E-13	.1012E-12	.3193E-13	.1058E-12

## PRINCIPAL STRAINS

PE 1	.6289E-03	.6349E-03	.6397E-03	.6440E-03	.6488E-03	.6514E-03	.6515E-03	.6498E-03	.6477E-03
PE 2	.2727E-03	.3050E-03	.3382E-03	.3720E-03	.4057E-03	.4356E-03	.4595E-03	.4769E-03	.4879E-03
PE 3	-.5046E-03	-.5254E-03	-.5460E-03	-.5667E-03	-.5876E-03	-.6052E-03	-.6181E-03	-.6266E-03	-.6313E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1134E-02	.1160E-02	.1186E-02	.1211E-02	.1236E-02	.1257E-02	.1270E-02	.1276E-02	.1279E-02
PSE 2	.3562E-03	.3299E-03	.3015E-03	.2721E-03	.2430E-03	.2158E-03	.1920E-03	.1729E-03	.1599E-03
PSE 3	.7774E-03	.8304E-03	.8842E-03	.9386E-03	.9933E-03	.1041E-02	.1078E-02	.1103E-02	.1119E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00



Appendix 6E-a Full Depth HBP

59.00            4.00

Z= 12.00 LAYER NO, 1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.3191E+03	.3146E+03	.3056E+03	.2936E+03	.2783E+03	.2598E+03	.2390E+03	.2182E+03	.1975E+03
SYX	.3645E+03	.3603E+03	.3535E+03	.3454E+03	.3355E+03	.3234E+03	.3096E+03	.2959E+03	.2820E+03
SZZ	-.1264E+02	-.1249E+02	-.1228E+02	-.1205E+02	-.1179E+02	-.1150E+02	-.1116E+02	-.1081E+02	-.1047E+02

SHEAR STRESSES

SXY	.5169E-07	-.6875E-08	.1023E-06	.6875E-08	-.2901E-06	-.2931E-07	-.1361E-06	-.2645E-07	.2517E-06
SXZ	-.9367E+00	-.1158E+01	-.1372E+01	-.1571E+01	-.1748E+01	-.1897E+01	-.2017E+01	-.2107E+01	-.2169E+01
SYZ	.1266E-07	-.1500E-07	.0000E+00	-.1500E-07	.1266E-07	-.8161E-08	.1470E-07	-.2901E-08	-.7315E-08

PRINCIPAL STRESSES

PS 1	.3645E+03	.3603E+03	.3535E+03	.3454E+03	.3355E+03	.3234E+03	.3096E+03	.2959E+03	.2820E+03
PS 2	.3191E+03	.3146E+03	.3056E+03	.2936E+03	.2783E+03	.2598E+03	.2391E+03	.2183E+03	.1975E+03
PS 3	-.1264E+02	-.1249E+02	-.1229E+02	-.1206E+02	-.1180E+02	-.1151E+02	-.1117E+02	-.1083E+02	-.1049E+02

PRINCIPAL SHEAR STRESSES

## Appendix 6E-a Full Depth HBP

PSS 1	.1886E+03	.1864E+03	.1829E+03	.1787E+03	.1736E+03	.1674E+03	.1604E+03	.1534E+03	.1463E+03
PSS 2	.2274E+02	.2283E+02	.2392E+02	.2590E+02	.2859E+02	.3179E+02	.3528E+02	.3883E+02	.4225E+02
PSS 3	.1658E+03	.1635E+03	.1590E+03	.1528E+03	.1451E+03	.1356E+03	.1251E+03	.1145E+03	.1040E+03

## DISPLACEMENTS

UX	.5187E-02	.5673E-02	.6148E-02	.6610E-02	.7049E-02	.7451E-02	.7810E-02	.8133E-02	.8418E-02
UY	.1249E-10	.1004E-10	.0000E+00	.1004E-10	.1249E-10	.1520E-10	-.1421E-10	-.1407E-10	-.3834E-11
UZ	.1460E+00	.1450E+00	.1440E+00	.1426E+00	.1412E+00	.1399E+00	.1386E+00	.1371E+00	.1355E+00

## NORMAL STRAINS

EXX	.4897E-03	.4822E-03	.4655E-03	.4423E-03	.4125E-03	.3765E-03	.3365E-03	.2961E-03	.2561E-03
EYY	.6432E-03	.6363E-03	.6270E-03	.6171E-03	.6055E-03	.5912E-03	.5747E-03	.5583E-03	.5414E-03
EZZ	-.6297E-03	-.6217E-03	-.6074E-03	-.5892E-03	-.5666E-03	-.5390E-03	-.5080E-03	-.4769E-03	-.4457E-03

## SHEAR STRAINS

EXY	.3489E-12	-.4641E-13	.6904E-12	.4641E-13	-.1958E-11	-.1978E-12	-.9189E-12	-.1785E-12	.1699E-11
EXZ	-.6322E-05	-.7819E-05	-.9261E-05	-.1060E-04	-.1180E-04	-.1280E-04	-.1361E-04	-.1422E-04	-.1464E-04
EYZ	.8545E-13	-.1013E-12	.0000E+00	-.1013E-12	.8545E-13	-.5509E-13	.9922E-13	-.1958E-13	-.4938E-13

## PRINCIPAL STRAINS

PE 1	.6432E-03	.6363E-03	.6270E-03	.6171E-03	.6055E-03	.5912E-03	.5747E-03	.5583E-03	.5414E-03
PE 2	.4897E-03	.4822E-03	.4655E-03	.4423E-03	.4126E-03	.3766E-03	.3365E-03	.2962E-03	.2562E-03
PE 3	-.6297E-03	-.6217E-03	-.6074E-03	-.5893E-03	-.5666E-03	-.5390E-03	-.5080E-03	-.4770E-03	-.4458E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1273E-02	.1258E-02	.1234E-02	.1206E-02	.1172E-02	.1130E-02	.1083E-02	.1035E-02	.9872E-03
PSE 2	.1535E-03	.1541E-03	.1615E-03	.1748E-03	.1930E-03	.2146E-03	.2381E-03	.2621E-03	.2852E-03
PSE 3	.1119E-02	.1104E-02	.1073E-02	.1032E-02	.9792E-03	.9156E-03	.8445E-03	.7732E-03	.7020E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5250.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.31 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00

Appendix 6E-a Full Depth HBP

5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1680E+03	.1765E+03	.1846E+03	.1933E+03	.2027E+03	.2129E+03	.2245E+03	.2378E+03	.2529E+03
SYX	.2365E+03	.2451E+03	.2537E+03	.2631E+03	.2728E+03	.2828E+03	.2932E+03	.3039E+03	.3149E+03
SZZ	-.8808E+01	-.9041E+01	-.9252E+01	-.9450E+01	-.9670E+01	-.9911E+01	-.1016E+02	-.1041E+02	-.1064E+02

SHEAR STRESSES

SXY	-.1636E-06	-.1480E-06	.2713E-06	-.1043E-06	-.5803E-06	-.1783E-06	.6100E-06	-.9957E-07	-.3444E-06
SXZ	.1502E+01	.1457E+01	.1416E+01	.1379E+01	.1348E+01	.1323E+01	.1301E+01	.1276E+01	.1241E+01
SYZ	.1981E-12	-.5049E-08	.2424E-09	-.1186E-07	.2442E-08	-.1636E-08	.5498E-08	.7029E-08	.4015E-08

PRINCIPAL STRESSES

PS 1	.2365E+03	.2451E+03	.2537E+03	.2631E+03	.2728E+03	.2828E+03	.2932E+03	.3039E+03	.3149E+03
PS 2	.1680E+03	.1765E+03	.1846E+03	.1934E+03	.2027E+03	.2129E+03	.2245E+03	.2378E+03	.2529E+03
PS 3	-.8821E+01	-.9052E+01	-.9262E+01	-.9459E+01	-.9679E+01	-.9918E+01	-.1017E+02	-.1041E+02	-.1065E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1226E+03	.1271E+03	.1315E+03	.1363E+03	.1412E+03	.1464E+03	.1517E+03	.1571E+03	.1628E+03
PSS 2	.3425E+02	.3430E+02	.3455E+02	.3485E+02	.3505E+02	.3493E+02	.3431E+02	.3303E+02	.3099E+02
PSS 3	.8839E+02	.9276E+02	.9695E+02	.1014E+03	.1062E+03	.1114E+03	.1174E+03	.1241E+03	.1318E+03

## DISPLACEMENTS

UX	-.5584E-02	-.5357E-02	-.5117E-02	-.4861E-02	-.4589E-02	-.4302E-02	-.3997E-02	-.3671E-02	-.3317E-02
UY	.6193E-11	-.2177E-10	.6601E-11	.3858E-10	-.2877E-10	-.1441E-10	.2940E-10	-.6896E-12	-.2159E-10
UZ	.1041E+00	.1051E+00	.1059E+00	.1063E+00	.1067E+00	.1073E+00	.1079E+00	.1085E+00	.1091E+00

## NORMAL STRAINS

EXX	.2207E-03	.2346E-03	.2477E-03	.2615E-03	.2765E-03	.2936E-03	.3137E-03	.3378E-03	.3661E-03
EYY	.4519E-03	.4662E-03	.4809E-03	.4967E-03	.5131E-03	.5294E-03	.5453E-03	.5607E-03	.5753E-03
EZZ	-.3759E-03	-.3914E-03	-.4067E-03	-.4230E-03	-.4402E-03	-.4586E-03	-.4784E-03	-.5000E-03	-.5235E-03

## SHEAR STRAINS

EXY	-.1105E-11	-.9988E-12	.1831E-11	-.7037E-12	-.3917E-11	-.1204E-11	.4118E-11	-.6721E-12	-.2325E-11
EXZ	.1014E-04	.9838E-05	.9557E-05	.9309E-05	.9102E-05	.8933E-05	.8782E-05	.8612E-05	.8377E-05
EYZ	.1337E-17	-.3408E-13	.1636E-14	-.8004E-13	.1648E-13	-.1105E-13	.3711E-13	.4744E-13	.2710E-13

## PRINCIPAL STRAINS

PE 1	.4519E-03	.4662E-03	.4809E-03	.4967E-03	.5131E-03	.5294E-03	.5453E-03	.5607E-03	.5753E-03
PE 2	.2207E-03	.2347E-03	.2477E-03	.2615E-03	.2765E-03	.2936E-03	.3137E-03	.3378E-03	.3661E-03
PE 3	-.3759E-03	-.3915E-03	-.4067E-03	-.4230E-03	-.4402E-03	-.4586E-03	-.4784E-03	-.5000E-03	-.5235E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.8278E-03	.8577E-03	.8876E-03	.9198E-03	.9533E-03	.9879E-03	.1024E-02	.1061E-02	.1099E-02
PSE 2	.2312E-03	.2315E-03	.2332E-03	.2353E-03	.2366E-03	.2358E-03	.2316E-03	.2229E-03	.2092E-03
PSE 3	.5967E-03	.6262E-03	.6544E-03	.6845E-03	.7167E-03	.7522E-03	.7921E-03	.8378E-03	.8896E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5250.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.31 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00

Appendix 6E-a Full Depth HBP

14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.2696E+03	.2873E+03	.3052E+03	.3228E+03	.3399E+03	.3541E+03	.3639E+03	.3685E+03	.3688E+03
SYX	.3260E+03	.3366E+03	.3465E+03	.3555E+03	.3641E+03	.3708E+03	.3746E+03	.3753E+03	.3743E+03
SZZ	-.1087E+02	-.1108E+02	-.1131E+02	-.1156E+02	-.1175E+02	-.1189E+02	-.1199E+02	-.1208E+02	-.1207E+02

SHEAR STRESSES

SXY	.5779E-06	.4025E-06	.1794E-06	.1166E-07	.3636E-06	.1433E-06	-.1482E-06	.1040E-06	-.6002E-07
SXZ	.1188E+01	.1110E+01	.9991E+00	.8517E+00	.6673E+00	.4459E+00	.1922E+00	-.8475E-01	-.3722E+00
SYZ	-.2123E-08	.1237E-08	-.5365E-08	-.4660E-08	.2065E-07	-.1375E-07	-.3667E-07	-.3652E-07	.1948E-07

PRINCIPAL STRESSES

PS 1	.3260E+03	.3366E+03	.3465E+03	.3555E+03	.3641E+03	.3708E+03	.3746E+03	.3753E+03	.3743E+03
PS 2	.2696E+03	.2873E+03	.3052E+03	.3228E+03	.3399E+03	.3541E+03	.3639E+03	.3685E+03	.3688E+03
PS 3	-.1087E+02	-.1109E+02	-.1131E+02	-.1156E+02	-.1175E+02	-.1190E+02	-.1199E+02	-.1208E+02	-.1207E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1684E+03	.1739E+03	.1789E+03	.1835E+03	.1879E+03	.1914E+03	.1933E+03	.1937E+03	.1932E+03
PSS 2	.2817E+02	.2466E+02	.2062E+02	.1634E+02	.1212E+02	.8341E+01	.5340E+01	.3413E+01	.2761E+01
PSS 3	.1403E+03	.1492E+03	.1583E+03	.1672E+03	.1758E+03	.1830E+03	.1880E+03	.1903E+03	.1904E+03

## DISPLACEMENTS

UX	-.2930E-02	-.2503E-02	-.2036E-02	-.1533E-02	-.9966E-03	-.4250E-03	.1745E-03	.7865E-03	.1396E-02
UY	.2668E-10	.7780E-11	-.4327E-10	.4415E-10	.1412E-10	-.2285E-11	-.3999E-10	.3631E-10	.3234E-10
UZ	.1097E+00	.1104E+00	.1115E+00	.1130E+00	.1138E+00	.1145E+00	.1153E+00	.1164E+00	.1166E+00

## NORMAL STRAINS

EXX	.3984E-03	.4334E-03	.4698E-03	.5061E-03	.5414E-03	.5713E-03	.5925E-03	.6034E-03	.6050E-03
EYY	.5885E-03	.5999E-03	.6090E-03	.6164E-03	.6232E-03	.6276E-03	.6286E-03	.6265E-03	.6237E-03
EZZ	-.5483E-03	-.5737E-03	-.5985E-03	-.6224E-03	-.6454E-03	-.6641E-03	-.6762E-03	-.6811E-03	-.6804E-03

## SHEAR STRAINS

EXY	.3901E-11	.2717E-11	.1211E-11	.7872E-13	.2454E-11	.9672E-12	-.1000E-11	.7020E-12	-.4051E-12
EXZ	.8022E-05	.7493E-05	.6744E-05	.5749E-05	.4504E-05	.3010E-05	.1297E-05	-.5720E-06	-.2512E-05
EYZ	-.1433E-13	.8349E-14	-.3622E-13	-.3146E-13	.1394E-12	-.9283E-13	-.2475E-12	-.2465E-12	.1315E-12

## PRINCIPAL STRAINS

PE 1	.5885E-03	.5999E-03	.6090E-03	.6164E-03	.6232E-03	.6276E-03	.6286E-03	.6265E-03	.6237E-03
PE 2	.3984E-03	.4335E-03	.4698E-03	.5061E-03	.5414E-03	.5713E-03	.5925E-03	.6034E-03	.6050E-03
PE 3	-.5483E-03	-.5737E-03	-.5985E-03	-.6224E-03	-.6454E-03	-.6641E-03	-.6762E-03	-.6811E-03	-.6804E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1137E-02	.1174E-02	.1208E-02	.1239E-02	.1269E-02	.1292E-02	.1305E-02	.1308E-02	.1304E-02
PSE 2	.1901E-03	.1664E-03	.1392E-03	.1103E-03	.8183E-04	.5630E-04	.3604E-04	.2304E-04	.1864E-04
PSE 3	.9467E-03	.1007E-02	.1068E-02	.1128E-02	.1187E-02	.1235E-02	.1269E-02	.1284E-02	.1285E-02



Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5250.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.31 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-a Full Depth HBP

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Z= 12.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.3642E+03	.3553E+03
SYY	.3711E+03	.3662E+03
SZZ	-.1197E+02	-.1176E+02

## SHEAR STRESSES

SXY	-.1798E-06	.1482E-06
SXZ	-.6597E+00	-.9366E+00
SYZ	-.2022E-07	-.1490E-07

## PRINCIPAL STRESSES

PS 1	.3711E+03	.3662E+03
PS 2	.3642E+03	.3553E+03
PS 3	-.1197E+02	-.1176E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.1916E+03	.1890E+03
PSS 2	.3462E+01	.5462E+01
PSS 3	.1881E+03	.1835E+03

## DISPLACEMENTS

UX	.2002E-02	.2604E-02
UY	.7705E-10	.2910E-10
UZ	.1159E+00	.1142E+00

Appendix 6E-a Full Depth HBP

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NORMAL STRAINS

EXX .5963E-03 .5780E-03  
EYY .6196E-03 .6149E-03  
EZZ -.6733E-03 -.6607E-03

SHEAR STRAINS

EXY -.1214E-11 .1000E-11  
EXZ -.4453E-05 -.6322E-05  
EYZ -.1365E-12 -.1006E-12

PRINCIPAL STRAINS

PE 1 .6196E-03 .6149E-03  
PE 2 .5963E-03 .5780E-03  
PE 3 -.6734E-03 -.6607E-03

PRINCIPAL SHEAR STRAINS

PSE 1 .1293E-02 .1276E-02  
PSE 2 .2337E-04 .3687E-04  
PSE 3 .1270E-02 .1239E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00

Appendix 6E-a Full Depth HBP

22.00      4.00  
23.00      4.00

Z= 12.00 LAYER NO, 1

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.3201E+03	.3294E+03	.3340E+03	.3339E+03	.3291E+03	.3209E+03	.3098E+03	.2954E+03	.2788E+03
SYX	.3705E+03	.3776E+03	.3821E+03	.3839E+03	.3831E+03	.3807E+03	.3768E+03	.3708E+03	.3631E+03
SZZ	-.1289E+02	-.1310E+02	-.1326E+02	-.1335E+02	-.1339E+02	-.1339E+02	-.1337E+02	-.1331E+02	-.1321E+02

SHEAR STRESSES

SXY	.1201E-06	.6836E-07	-.7301E-07	.1689E-07	.8952E-08	.3183E-06	-.2946E-06	-.2234E-06	-.2239E-07
SXZ	.1435E+01	.1213E+01	.9832E+00	.7537E+00	.5333E+00	.3293E+00	.1483E+00	-.3786E-02	-.1245E+00
SYZ	-.5485E-08	.1441E-07	-.8714E-08	-.2652E-07	.1063E-08	.1937E-08	-.4128E-08	-.1230E-07	-.6940E-08

PRINCIPAL STRESSES

PS 1	.3705E+03	.3776E+03	.3821E+03	.3839E+03	.3831E+03	.3807E+03	.3768E+03	.3708E+03	.3631E+03
PS 2	.3201E+03	.3294E+03	.3340E+03	.3339E+03	.3291E+03	.3209E+03	.3098E+03	.2954E+03	.2788E+03
PS 3	-.1289E+02	-.1311E+02	-.1326E+02	-.1335E+02	-.1339E+02	-.1339E+02	-.1337E+02	-.1331E+02	-.1321E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1917E+03	.1953E+03	.1977E+03	.1986E+03	.1982E+03	.1970E+03	.1951E+03	.1920E+03	.1881E+03
PSS 2	.2522E+02	.2412E+02	.2403E+02	.2501E+02	.2700E+02	.2990E+02	.3354E+02	.3769E+02	.4215E+02
PSS 3	.1665E+03	.1712E+03	.1736E+03	.1736E+03	.1712E+03	.1671E+03	.1616E+03	.1543E+03	.1460E+03

## DISPLACEMENTS

UX	-.6450E-02	-.5953E-02	-.5444E-02	-.4932E-02	-.4426E-02	-.3930E-02	-.3449E-02	-.3001E-02	-.2590E-02
UY	.1563E-10	-.5334E-11	.2656E-10	-.3191E-11	.1715E-11	-.1557E-11	.3180E-10	-.1786E-10	.2106E-10
UZ	.1509E+00	.1521E+00	.1531E+00	.1540E+00	.1548E+00	.1553E+00	.1557E+00	.1563E+00	.1569E+00

## NORMAL STRAINS

EXX	.4873E-03	.5045E-03	.5123E-03	.5104E-03	.4992E-03	.4808E-03	.4564E-03	.4257E-03	.3908E-03
EYY	.6575E-03	.6673E-03	.6745E-03	.6792E-03	.6815E-03	.6827E-03	.6828E-03	.6801E-03	.6753E-03
EZZ	-.6365E-03	-.6513E-03	-.6597E-03	-.6614E-03	-.6566E-03	-.6473E-03	-.6342E-03	-.6161E-03	-.5946E-03

## SHEAR STRAINS

EXY	.8107E-12	.4614E-12	-.4928E-12	.1140E-12	.6042E-13	.2148E-11	-.1988E-11	-.1508E-11	-.1511E-12
EXZ	.9686E-05	.8189E-05	.6637E-05	.5088E-05	.3600E-05	.2222E-05	.1001E-05	-.2556E-07	-.8402E-06
EYZ	-.3702E-13	.9725E-13	-.5882E-13	-.1790E-12	.7177E-14	.1307E-13	-.2787E-13	-.8305E-13	-.4685E-13

## PRINCIPAL STRAINS

PE 1	.6575E-03	.6673E-03	.6745E-03	.6792E-03	.6815E-03	.6827E-03	.6828E-03	.6801E-03	.6753E-03
PE 2	.4873E-03	.5045E-03	.5123E-03	.5104E-03	.4992E-03	.4808E-03	.4564E-03	.4257E-03	.3908E-03
PE 3	-.6365E-03	-.6513E-03	-.6597E-03	-.6614E-03	-.6566E-03	-.6473E-03	-.6342E-03	-.6161E-03	-.5946E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1294E-02	.1319E-02	.1334E-02	.1341E-02	.1338E-02	.1330E-02	.1317E-02	.1296E-02	.1270E-02
PSE 2	.1703E-03	.1628E-03	.1622E-03	.1688E-03	.1823E-03	.2018E-03	.2264E-03	.2544E-03	.2845E-03
PSE 3	.1124E-02	.1156E-02	.1172E-02	.1172E-02	.1156E-02	.1128E-02	.1091E-02	.1042E-02	.9854E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-a Full Depth HBP

31.00      4.00  
32.00      4.00

Z= 12.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.2618E+03	.2454E+03	.2292E+03	.2139E+03	.2002E+03	.1885E+03	.1789E+03	.1715E+03	.1663E+03
SYX	.3551E+03	.3475E+03	.3394E+03	.3314E+03	.3239E+03	.3174E+03	.3119E+03	.3076E+03	.3046E+03
SZZ	-.1310E+02	-.1300E+02	-.1289E+02	-.1278E+02	-.1266E+02	-.1254E+02	-.1245E+02	-.1237E+02	-.1231E+02

SHEAR STRESSES

SXY	.1135E-06	.5121E-06	-.3547E-07	-.5997E-07	-.7829E-07	.1635E-06	-.1063E-06	.5313E-07	-.1755E-06
SXZ	-.2139E+00	-.2733E+00	-.3039E+00	-.3101E+00	-.2961E+00	-.2665E+00	-.2249E+00	-.1750E+00	-.1194E+00
SYZ	-.8818E-08	.5752E-08	.1550E-08	.1403E-07	-.5827E-08	.6245E-08	.4374E-08	.5608E-08	.7967E-09

PRINCIPAL STRESSES

PS 1	.3551E+03	.3475E+03	.3394E+03	.3314E+03	.3239E+03	.3174E+03	.3119E+03	.3076E+03	.3046E+03
PS 2	.2618E+03	.2454E+03	.2292E+03	.2139E+03	.2002E+03	.1885E+03	.1789E+03	.1715E+03	.1663E+03
PS 3	-.1310E+02	-.1300E+02	-.1289E+02	-.1278E+02	-.1266E+02	-.1254E+02	-.1245E+02	-.1237E+02	-.1231E+02



## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1841E+03	.1802E+03	.1761E+03	.1721E+03	.1683E+03	.1650E+03	.1622E+03	.1600E+03	.1584E+03
PSS 2	.4666E+02	.5104E+02	.5510E+02	.5873E+02	.6185E+02	.6444E+02	.6649E+02	.6803E+02	.6910E+02
PSS 3	.1375E+03	.1292E+03	.1210E+03	.1133E+03	.1064E+03	.1005E+03	.9567E+02	.9196E+02	.8933E+02

## DISPLACEMENTS

UX	-.2212E-02	-.1865E-02	-.1557E-02	-.1286E-02	-.1048E-02	-.8355E-03	-.6448E-03	-.4703E-03	-.3073E-03
UY	.2477E-11	.1079E-10	-.2777E-10	.5052E-12	-.4775E-11	-.1424E-10	-.2817E-10	.2157E-11	-.1698E-11
UZ	.1572E+00	.1575E+00	.1579E+00	.1582E+00	.1585E+00	.1588E+00	.1589E+00	.1590E+00	.1590E+00

## NORMAL STRAINS

EXX	.3553E-03	.3209E-03	.2873E-03	.2560E-03	.2282E-03	.2045E-03	.1852E-03	.1705E-03	.1602E-03
EYY	.6702E-03	.6654E-03	.6592E-03	.6524E-03	.6457E-03	.6395E-03	.6341E-03	.6297E-03	.6266E-03
EZZ	-.5726E-03	-.5513E-03	-.5297E-03	-.5091E-03	-.4903E-03	-.4740E-03	-.4606E-03	-.4502E-03	-.4428E-03

## SHEAR STRAINS

EXY	.7658E-12	.3457E-11	-.2394E-12	-.4048E-12	-.5284E-12	.1103E-11	-.7173E-12	.3586E-12	-.1184E-11
EXZ	-.1444E-05	-.1844E-05	-.2052E-05	-.2093E-05	-.1999E-05	-.1799E-05	-.1518E-05	-.1181E-05	-.8057E-06
EYZ	-.5952E-13	.3883E-13	.1046E-13	.9468E-13	-.3933E-13	.4215E-13	.2952E-13	.3786E-13	.5378E-14

## PRINCIPAL STRAINS

PE 1	.6702E-03	.6654E-03	.6592E-03	.6524E-03	.6457E-03	.6395E-03	.6341E-03	.6297E-03	.6266E-03
PE 2	.3553E-03	.3209E-03	.2873E-03	.2560E-03	.2282E-03	.2045E-03	.1852E-03	.1705E-03	.1602E-03
PE 3	-.5726E-03	-.5513E-03	-.5297E-03	-.5091E-03	-.4903E-03	-.4740E-03	-.4606E-03	-.4502E-03	-.4428E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1243E-02	.1217E-02	.1189E-02	.1162E-02	.1136E-02	.1113E-02	.1095E-02	.1080E-02	.1069E-02
PSE 2	.3150E-03	.3445E-03	.3719E-03	.3964E-03	.4175E-03	.4350E-03	.4488E-03	.4592E-03	.4664E-03
PSE 3	.9278E-03	.8722E-03	.8170E-03	.7651E-03	.7184E-03	.6784E-03	.6458E-03	.6207E-03	.6030E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00

Appendix 6E-a Full Depth HBP

40.00        4.00  
41.00        4.00

Z= 12.00 LAYER NO, 1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.1633E+03	.1623E+03	.1633E+03	.1663E+03	.1715E+03	.1789E+03	.1885E+03	.2002E+03	.2139E+03
SYX	.3027E+03	.3021E+03	.3027E+03	.3046E+03	.3076E+03	.3119E+03	.3174E+03	.3239E+03	.3314E+03
SZZ	-.1227E+02	-.1226E+02	-.1227E+02	-.1231E+02	-.1237E+02	-.1245E+02	-.1254E+02	-.1266E+02	-.1278E+02

SHEAR STRESSES

SXY	-.5141E-07	-.2968E-07	.9400E-08	-.2762E-06	-.2218E-07	.5702E-07	-.2347E-06	.1068E-06	.1603E-06
SXZ	-.6045E-01	-.6718E-07	.6045E-01	.1194E+00	.1750E+00	.2249E+00	.2665E+00	.2961E+00	.3101E+00
SYZ	-.2953E-08	-.3187E-08	-.3292E-08	-.2593E-08	-.1226E-07	.2814E-08	.6132E-08	-.3665E-08	-.9309E-08

PRINCIPAL STRESSES

PS 1	.3027E+03	.3021E+03	.3027E+03	.3046E+03	.3076E+03	.3119E+03	.3174E+03	.3239E+03	.3314E+03
PS 2	.1633E+03	.1623E+03	.1633E+03	.1663E+03	.1715E+03	.1789E+03	.1885E+03	.2002E+03	.2139E+03
PS 3	-.1227E+02	-.1226E+02	-.1227E+02	-.1231E+02	-.1237E+02	-.1245E+02	-.1254E+02	-.1266E+02	-.1278E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1575E+03	.1572E+03	.1575E+03	.1584E+03	.1600E+03	.1622E+03	.1650E+03	.1683E+03	.1721E+03
PSS 2	.6972E+02	.6993E+02	.6972E+02	.6910E+02	.6803E+02	.6649E+02	.6444E+02	.6185E+02	.5873E+02
PSS 3	.8778E+02	.8726E+02	.8778E+02	.8933E+02	.9196E+02	.9567E+02	.1005E+03	.1064E+03	.1133E+03

## DISPLACEMENTS

UX	-.1519E-03	-.1840E-09	.1519E-03	.3073E-03	.4703E-03	.6448E-03	.8355E-03	.1048E-02	.1286E-02
UY	-.1402E-10	.1012E-10	.6255E-11	-.8706E-11	-.3823E-11	.2858E-10	.6883E-11	.8430E-12	.4129E-11
UZ	.1591E+00	.1591E+00	.1591E+00	.1590E+00	.1590E+00	.1589E+00	.1588E+00	.1585E+00	.1582E+00

## NORMAL STRAINS

EXX	.1541E-03	.1520E-03	.1541E-03	.1602E-03	.1705E-03	.1852E-03	.2045E-03	.2282E-03	.2560E-03
EYY	.6247E-03	.6240E-03	.6247E-03	.6266E-03	.6297E-03	.6341E-03	.6395E-03	.6457E-03	.6524E-03
EZZ	-.4384E-03	-.4370E-03	-.4384E-03	-.4428E-03	-.4502E-03	-.4606E-03	-.4740E-03	-.4903E-03	-.5091E-03

## SHEAR STRAINS

EXY	-.3470E-12	-.2004E-12	.6345E-13	-.1864E-11	-.1497E-12	.3849E-12	-.1584E-11	.7210E-12	.1082E-11
EXZ	-.4080E-06	-.4534E-12	.4080E-06	.8057E-06	.1181E-05	.1518E-05	.1799E-05	.1999E-05	.2093E-05
EYZ	-.1993E-13	-.2151E-13	-.2222E-13	-.1750E-13	-.8277E-13	.1899E-13	.4139E-13	-.2474E-13	-.6283E-13

## PRINCIPAL STRAINS

PE 1	.6247E-03	.6240E-03	.6247E-03	.6266E-03	.6297E-03	.6341E-03	.6395E-03	.6457E-03	.6524E-03
PE 2	.1541E-03	.1520E-03	.1541E-03	.1602E-03	.1705E-03	.1852E-03	.2045E-03	.2282E-03	.2560E-03
PE 3	-.4384E-03	-.4370E-03	-.4384E-03	-.4428E-03	-.4502E-03	-.4606E-03	-.4740E-03	-.4903E-03	-.5091E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1063E-02	.1061E-02	.1063E-02	.1069E-02	.1080E-02	.1095E-02	.1113E-02	.1136E-02	.1162E-02
PSE 2	.4706E-03	.4720E-03	.4706E-03	.4664E-03	.4592E-03	.4488E-03	.4350E-03	.4175E-03	.3964E-03
PSE 3	.5925E-03	.5890E-03	.5925E-03	.6030E-03	.6207E-03	.6458E-03	.6784E-03	.7184E-03	.7651E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00

Appendix 6E-a Full Depth HBP

49.00      4.00  
50.00      4.00

Z= 12.00 LAYER NO, 1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.2292E+03	.2454E+03	.2618E+03	.2788E+03	.2954E+03	.3098E+03	.3209E+03	.3291E+03	.3339E+03
SYX	.3394E+03	.3475E+03	.3551E+03	.3631E+03	.3708E+03	.3768E+03	.3807E+03	.3831E+03	.3839E+03
SZZ	-.1289E+02	-.1300E+02	-.1310E+02	-.1321E+02	-.1331E+02	-.1337E+02	-.1339E+02	-.1339E+02	-.1335E+02

SHEAR STRESSES

SXY	-.3927E-08	.3551E-06	-.2032E-06	.4776E-07	.1943E-06	-.2937E-06	.2626E-06	.1396E-06	.2527E-07
SXZ	.3039E+00	.2733E+00	.2139E+00	.1245E+00	.3786E-02	-.1483E+00	-.3293E+00	-.5333E+00	-.7537E+00
SYZ	.2040E-08	-.1180E-07	-.5078E-08	-.2981E-08	-.1565E-07	-.7530E-08	.6190E-08	-.7197E-08	.1582E-07

PRINCIPAL STRESSES

PS 1	.3394E+03	.3475E+03	.3551E+03	.3631E+03	.3708E+03	.3768E+03	.3807E+03	.3831E+03	.3839E+03
PS 2	.2292E+03	.2454E+03	.2618E+03	.2788E+03	.2954E+03	.3098E+03	.3209E+03	.3291E+03	.3339E+03
PS 3	-.1289E+02	-.1300E+02	-.1310E+02	-.1321E+02	-.1331E+02	-.1337E+02	-.1339E+02	-.1339E+02	-.1335E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1761E+03	.1802E+03	.1841E+03	.1881E+03	.1920E+03	.1951E+03	.1970E+03	.1982E+03	.1986E+03
PSS 2	.5510E+02	.5104E+02	.4666E+02	.4215E+02	.3769E+02	.3354E+02	.2990E+02	.2700E+02	.2501E+02
PSS 3	.1210E+03	.1292E+03	.1375E+03	.1460E+03	.1543E+03	.1616E+03	.1671E+03	.1712E+03	.1736E+03

## DISPLACEMENTS

UX	.1557E-02	.1865E-02	.2212E-02	.2590E-02	.3001E-02	.3449E-02	.3930E-02	.4426E-02	.4932E-02
UY	.1600E-10	-.4848E-11	-.1153E-10	.3521E-12	-.2910E-10	-.4862E-10	-.1758E-11	.1838E-10	-.8449E-11
UZ	.1579E+00	.1575E+00	.1572E+00	.1569E+00	.1563E+00	.1557E+00	.1553E+00	.1548E+00	.1540E+00

## NORMAL STRAINS

EXX	.2873E-03	.3209E-03	.3553E-03	.3908E-03	.4257E-03	.4564E-03	.4808E-03	.4992E-03	.5104E-03
EYY	.6592E-03	.6654E-03	.6702E-03	.6753E-03	.6801E-03	.6828E-03	.6827E-03	.6815E-03	.6792E-03
EZZ	-.5297E-03	-.5513E-03	-.5726E-03	-.5946E-03	-.6161E-03	-.6342E-03	-.6473E-03	-.6566E-03	-.6614E-03

## SHEAR STRAINS

EXY	-.2651E-13	.2397E-11	-.1372E-11	.3224E-12	.1312E-11	-.1982E-11	.1773E-11	.9422E-12	.1706E-12
EXZ	.2052E-05	.1844E-05	.1444E-05	.8402E-06	.2556E-07	-.1001E-05	-.2222E-05	-.3600E-05	-.5088E-05
EYZ	.1377E-13	-.7964E-13	-.3427E-13	-.2012E-13	-.1056E-12	-.5083E-13	.4178E-13	-.4858E-13	.1068E-12

## PRINCIPAL STRAINS

PE 1	.6592E-03	.6654E-03	.6702E-03	.6753E-03	.6801E-03	.6828E-03	.6827E-03	.6815E-03	.6792E-03
PE 2	.2873E-03	.3209E-03	.3553E-03	.3908E-03	.4257E-03	.4564E-03	.4808E-03	.4992E-03	.5104E-03
PE 3	-.5297E-03	-.5513E-03	-.5726E-03	-.5946E-03	-.6161E-03	-.6342E-03	-.6473E-03	-.6566E-03	-.6614E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1189E-02	.1217E-02	.1243E-02	.1270E-02	.1296E-02	.1317E-02	.1330E-02	.1338E-02	.1341E-02
PSE 2	.3719E-03	.3445E-03	.3150E-03	.2845E-03	.2544E-03	.2264E-03	.2018E-03	.1823E-03	.1688E-03
PSE 3	.8170E-03	.8722E-03	.9278E-03	.9854E-03	.1042E-02	.1091E-02	.1128E-02	.1156E-02	.1172E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00



Appendix 6E-a Full Depth HBP

58.00 4.00  
59.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.3340E+03	.3294E+03	.3201E+03	.3073E+03	.2915E+03	.2724E+03	.2509E+03	.2290E+03	.2074E+03
SYX	.3821E+03	.3776E+03	.3705E+03	.3618E+03	.3516E+03	.3390E+03	.3247E+03	.3101E+03	.2956E+03
SZZ	-.1326E+02	-.1310E+02	-.1289E+02	-.1264E+02	-.1237E+02	-.1206E+02	-.1171E+02	-.1134E+02	-.1099E+02

SHEAR STRESSES

SXY	.1005E-06	-.8991E-08	-.1396E-06	.2474E-06	-.1005E-06	.2131E-06	-.1396E-06	.2142E-06	.2937E-06
SXZ	-.9832E+00	-.1213E+01	-.1435E+01	-.1641E+01	-.1825E+01	-.1982E+01	-.2107E+01	-.2203E+01	-.2268E+01
SYZ	-.6019E-08	-.2702E-07	.0000E+00	.2782E-08	-.6019E-08	-.1398E-07	-.7197E-08	-.8711E-08	.7371E-08

PRINCIPAL STRESSES

PS 1	.3821E+03	.3776E+03	.3705E+03	.3618E+03	.3516E+03	.3390E+03	.3247E+03	.3101E+03	.2956E+03
PS 2	.3340E+03	.3294E+03	.3201E+03	.3073E+03	.2916E+03	.2724E+03	.2509E+03	.2290E+03	.2074E+03
PS 3	-.1326E+02	-.1311E+02	-.1289E+02	-.1265E+02	-.1238E+02	-.1208E+02	-.1173E+02	-.1136E+02	-.1101E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1977E+03	.1953E+03	.1917E+03	.1872E+03	.1820E+03	.1755E+03	.1682E+03	.1607E+03	.1533E+03
PSS 2	.2403E+02	.2412E+02	.2522E+02	.2724E+02	.3000E+02	.3329E+02	.3689E+02	.4056E+02	.4412E+02
PSS 3	.1736E+03	.1712E+03	.1665E+03	.1600E+03	.1520E+03	.1422E+03	.1313E+03	.1202E+03	.1092E+03

## DISPLACEMENTS

UX	.5444E-02	.5953E-02	.6450E-02	.6931E-02	.7390E-02	.7811E-02	.8188E-02	.8525E-02	.8824E-02
UY	.2543E-10	.2923E-12	.0000E+00	.2923E-12	.2543E-10	.4976E-10	.1838E-10	-.1758E-11	.9588E-11
UZ	.1531E+00	.1521E+00	.1509E+00	.1496E+00	.1481E+00	.1468E+00	.1454E+00	.1439E+00	.1423E+00

## NORMAL STRAINS

EXX	.5123E-03	.5045E-03	.4873E-03	.4627E-03	.4321E-03	.3949E-03	.3534E-03	.3110E-03	.2694E-03
EYY	.6745E-03	.6673E-03	.6575E-03	.6466E-03	.6346E-03	.6197E-03	.6025E-03	.5849E-03	.5673E-03
EZZ	-.6597E-03	-.6513E-03	-.6365E-03	-.6170E-03	-.5936E-03	-.5651E-03	-.5330E-03	-.5001E-03	-.4676E-03

## SHEAR STRAINS

EXY	.6786E-12	-.6069E-13	-.9422E-12	.1670E-11	-.6786E-12	.1439E-11	-.9422E-12	.1446E-11	.1982E-11
EXZ	-.6637E-05	-.8189E-05	-.9686E-05	-.1108E-04	-.1232E-04	-.1338E-04	-.1422E-04	-.1487E-04	-.1531E-04
EYZ	-.4063E-13	-.1824E-12	.0000E+00	.1878E-13	-.4063E-13	-.9437E-13	-.4858E-13	-.5880E-13	.4975E-13

## PRINCIPAL STRAINS

PE 1	.6745E-03	.6673E-03	.6575E-03	.6466E-03	.6346E-03	.6197E-03	.6025E-03	.5849E-03	.5673E-03
PE 2	.5123E-03	.5045E-03	.4873E-03	.4628E-03	.4321E-03	.3950E-03	.3535E-03	.3111E-03	.2695E-03
PE 3	-.6597E-03	-.6513E-03	-.6365E-03	-.6171E-03	-.5937E-03	-.5652E-03	-.5330E-03	-.5001E-03	-.4677E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1334E-02	.1319E-02	.1294E-02	.1264E-02	.1228E-02	.1185E-02	.1136E-02	.1085E-02	.1035E-02
PSE 2	.1622E-03	.1628E-03	.1703E-03	.1839E-03	.2025E-03	.2247E-03	.2490E-03	.2738E-03	.2978E-03
PSE 3	.1172E-02	.1156E-02	.1124E-02	.1080E-02	.1026E-02	.9601E-03	.8865E-03	.8112E-03	.7372E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.41 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00

Appendix 6E-a Full Depth HBP

5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1759E+03	.1849E+03	.1933E+03	.2025E+03	.2124E+03	.2232E+03	.2354E+03	.2494E+03	.2652E+03
SYX	.2476E+03	.2567E+03	.2656E+03	.2754E+03	.2856E+03	.2961E+03	.3069E+03	.3181E+03	.3297E+03
SZZ	-.9214E+01	-.9458E+01	-.9688E+01	-.9896E+01	-.1013E+02	-.1038E+02	-.1064E+02	-.1090E+02	-.1115E+02

SHEAR STRESSES

SXY	-.2972E-07	.9708E-07	-.2070E-06	-.3525E-06	.6906E-08	.7871E-07	.3675E-06	-.1412E-06	-.1445E-06
SXZ	.1573E+01	.1527E+01	.1483E+01	.1445E+01	.1413E+01	.1386E+01	.1362E+01	.1334E+01	.1297E+01
SYZ	-.3594E-08	.9473E-08	-.8062E-08	.4736E-10	-.3448E-09	.7620E-08	.1009E-07	-.1279E-07	.1245E-07

PRINCIPAL STRESSES

PS 1	.2476E+03	.2567E+03	.2656E+03	.2754E+03	.2856E+03	.2961E+03	.3069E+03	.3181E+03	.3297E+03
PS 2	.1759E+03	.1849E+03	.1933E+03	.2025E+03	.2124E+03	.2232E+03	.2354E+03	.2494E+03	.2652E+03
PS 3	-.9227E+01	-.9470E+01	-.9699E+01	-.9906E+01	-.1014E+02	-.1039E+02	-.1065E+02	-.1091E+02	-.1115E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1284E+03	.1331E+03	.1376E+03	.1426E+03	.1478E+03	.1532E+03	.1588E+03	.1645E+03	.1704E+03
PSS 2	.3586E+02	.3589E+02	.3613E+02	.3642E+02	.3659E+02	.3643E+02	.3576E+02	.3439E+02	.3225E+02
PSS 3	.9258E+02	.9717E+02	.1015E+03	.1062E+03	.1113E+03	.1168E+03	.1230E+03	.1301E+03	.1382E+03

## DISPLACEMENTS

UX	-.5847E-02	-.5609E-02	-.5358E-02	-.5090E-02	-.4805E-02	-.4503E-02	-.4183E-02	-.3841E-02	-.3470E-02
UY	.2060E-10	-.2979E-10	-.5078E-11	.1071E-10	-.1071E-10	.1296E-11	-.5103E-11	-.3606E-11	-.6181E-11
UZ	.1089E+00	.1100E+00	.1109E+00	.1113E+00	.1118E+00	.1123E+00	.1130E+00	.1136E+00	.1143E+00

## NORMAL STRAINS

EXX	.2312E-03	.2459E-03	.2594E-03	.2740E-03	.2899E-03	.3080E-03	.3293E-03	.3545E-03	.3842E-03
EYY	.4732E-03	.4882E-03	.5033E-03	.5199E-03	.5369E-03	.5540E-03	.5706E-03	.5867E-03	.6019E-03
EZZ	-.3937E-03	-.4100E-03	-.4257E-03	-.4429E-03	-.4610E-03	-.4803E-03	-.5011E-03	-.5238E-03	-.5483E-03

## SHEAR STRAINS

EXY	-.2006E-12	.6553E-12	-.1397E-11	-.2380E-11	.4662E-13	.5313E-12	.2480E-11	-.9531E-12	-.9757E-12
EXZ	.1062E-04	.1030E-04	.1001E-04	.9753E-05	.9536E-05	.9356E-05	.9192E-05	.9007E-05	.8754E-05
EYZ	-.2426E-13	.6395E-13	-.5442E-13	.3197E-15	-.2327E-14	.5144E-13	.6810E-13	-.8631E-13	.8404E-13

## PRINCIPAL STRAINS

PE 1	.4732E-03	.4882E-03	.5033E-03	.5199E-03	.5369E-03	.5540E-03	.5706E-03	.5867E-03	.6019E-03
PE 2	.2312E-03	.2459E-03	.2594E-03	.2740E-03	.2900E-03	.3080E-03	.3293E-03	.3546E-03	.3842E-03
PE 3	-.3937E-03	-.4100E-03	-.4258E-03	-.4429E-03	-.4610E-03	-.4803E-03	-.5012E-03	-.5238E-03	-.5484E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.8669E-03	.8982E-03	.9290E-03	.9628E-03	.9980E-03	.1034E-02	.1072E-02	.1111E-02	.1150E-02
PSE 2	.2420E-03	.2423E-03	.2439E-03	.2458E-03	.2470E-03	.2459E-03	.2414E-03	.2322E-03	.2177E-03
PSE 3	.6249E-03	.6559E-03	.6852E-03	.7169E-03	.7510E-03	.7884E-03	.8305E-03	.8784E-03	.9326E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.41 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00

Appendix 6E-a Full Depth HBP

15.00      4.00  
16.00      4.00  
17.00      4.00

Z= 12.00 LAYER NO, 1

X            Y  
9.00        4.00  
10.00       4.00  
11.00       4.00  
12.00       4.00  
13.00       4.00  
14.00       4.00  
15.00       4.00  
16.00       4.00  
17.00       4.00

NORMAL STRESSES

SXX    .2826E+03   .3010E+03   .3196E+03   .3380E+03   .3556E+03   .3705E+03   .3806E+03   .3855E+03   .3856E+03  
SYY    .3412E+03   .3523E+03   .3625E+03   .3720E+03   .3809E+03   .3880E+03   .3919E+03   .3928E+03   .3915E+03  
SZZ    -.1138E+02   -.1160E+02   -.1184E+02   -.1209E+02   -.1229E+02   -.1243E+02   -.1253E+02   -.1261E+02   -.1261E+02

SHEAR STRESSES

SXY    -.3693E-08   -.1081E-06   -.1987E-06   -.1903E-06   .6161E-06   -.2258E-06   -.1451E-06   .6199E-07   .3650E-07  
SXZ    .1241E+01   .1158E+01   .1041E+01   .8863E+00   .6933E+00   .4623E+00   .1977E+00   -.9055E-01   -.3897E+00  
SYZ    .5102E-08   -.7983E-08   -.4606E-08   -.3356E-08   .6457E-08   .6101E-08   -.6084E-08   -.9609E-08   -.2225E-07

PRINCIPAL STRESSES

PS 1    .3412E+03   .3523E+03   .3625E+03   .3720E+03   .3809E+03   .3880E+03   .3919E+03   .3928E+03   .3915E+03  
PS 2    .2826E+03   .3010E+03   .3196E+03   .3380E+03   .3556E+03   .3705E+03   .3806E+03   .3855E+03   .3856E+03  
PS 3    -.1139E+02   -.1161E+02   -.1184E+02   -.1209E+02   -.1229E+02   -.1243E+02   -.1253E+02   -.1261E+02   -.1261E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1763E+03	.1819E+03	.1872E+03	.1920E+03	.1966E+03	.2002E+03	.2022E+03	.2027E+03	.2021E+03
PSS 2	.2930E+02	.2565E+02	.2146E+02	.1701E+02	.1265E+02	.8735E+01	.5634E+01	.3645E+01	.2975E+01
PSS 3	.1470E+03	.1563E+03	.1657E+03	.1750E+03	.1840E+03	.1915E+03	.1966E+03	.1990E+03	.1991E+03

## DISPLACEMENTS

UX	-.3063E-02	-.2616E-02	-.2127E-02	-.1600E-02	-.1039E-02	-.4412E-03	.1858E-03	.8249E-03	.1462E-02
UY	-.1254E-10	-.1052E-10	-.2593E-10	.1228E-10	-.6359E-11	-.2367E-10	-.3959E-10	-.5119E-10	-.1019E-10
UZ	.1149E+00	.1157E+00	.1168E+00	.1182E+00	.1191E+00	.1196E+00	.1205E+00	.1215E+00	.1218E+00

## NORMAL STRAINS

EXX	.4179E-03	.4544E-03	.4921E-03	.5300E-03	.5665E-03	.5977E-03	.6196E-03	.6310E-03	.6323E-03
EYY	.6157E-03	.6275E-03	.6370E-03	.6448E-03	.6519E-03	.6567E-03	.6576E-03	.6556E-03	.6524E-03
EZZ	-.5742E-03	-.6006E-03	-.6264E-03	-.6514E-03	-.6752E-03	-.6948E-03	-.7073E-03	-.7125E-03	-.7114E-03

## SHEAR STRAINS

EXY	-.2493E-13	-.7294E-12	-.1341E-11	-.1285E-11	.4159E-11	-.1524E-11	-.9792E-12	.4184E-12	.2464E-12
EXZ	.8374E-05	.7814E-05	.7025E-05	.5983E-05	.4680E-05	.3120E-05	.1334E-05	-.6112E-06	-.2631E-05
EYZ	.3444E-13	-.5389E-13	-.3109E-13	-.2266E-13	.4358E-13	.4118E-13	-.4107E-13	-.6486E-13	-.1502E-12

## PRINCIPAL STRAINS

PE 1	.6157E-03	.6275E-03	.6370E-03	.6448E-03	.6519E-03	.6567E-03	.6576E-03	.6556E-03	.6524E-03
PE 2	.4179E-03	.4544E-03	.4921E-03	.5300E-03	.5665E-03	.5977E-03	.6196E-03	.6310E-03	.6323E-03
PE 3	-.5743E-03	-.6006E-03	-.6264E-03	-.6514E-03	-.6752E-03	-.6948E-03	-.7073E-03	-.7125E-03	-.7115E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1190E-02	.1228E-02	.1263E-02	.1296E-02	.1327E-02	.1351E-02	.1365E-02	.1368E-02	.1364E-02
PSE 2	.1978E-03	.1731E-03	.1448E-03	.1148E-03	.8537E-04	.5896E-04	.3803E-04	.2461E-04	.2008E-04
PSE 3	.9921E-03	.1055E-02	.1119E-02	.1181E-02	.1242E-02	.1293E-02	.1327E-02	.1344E-02	.1344E-02



Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.41 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-a Full Depth HBP

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Z= 12.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.3810E+03	.3715E+03
SYY	.3884E+03	.3831E+03
SZZ	-.1249E+02	-.1229E+02

## SHEAR STRESSES

SXY	.7357E-08	.1451E-06
SXZ	-.6890E+00	-.9773E+00
SYZ	-.2358E-07	.0000E+00

## PRINCIPAL STRESSES

PS 1	.3884E+03	.3831E+03
PS 2	.3810E+03	.3715E+03
PS 3	-.1249E+02	-.1229E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2004E+03	.1977E+03
PSS 2	.3702E+01	.5771E+01
PSS 3	.1967E+03	.1919E+03

## DISPLACEMENTS

UX	.2095E-02	.2723E-02
UY	.5043E-10	.5821E-10
UZ	.1210E+00	.1194E+00

Appendix 6E-a Full Depth HBP

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NORMAL STRAINS

EXX .6235E-03 .6044E-03  
EYY .6485E-03 .6433E-03  
EZZ -.7044E-03 -.6910E-03

SHEAR STRAINS

EXY .4966E-13 .9792E-12  
EXZ -.4651E-05 -.6597E-05  
EYZ -.1592E-12 .0000E+00

PRINCIPAL STRAINS

PE 1 .6485E-03 .6433E-03  
PE 2 .6235E-03 .6044E-03  
PE 3 -.7044E-03 -.6910E-03

PRINCIPAL SHEAR STRAINS

PSE 1 .1353E-02 .1334E-02  
PSE 2 .2499E-04 .3895E-04  
PSE 3 .1328E-02 .1295E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00

Appendix 6E-a Full Depth HBP

22.00 4.00  
23.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.3344E+03	.3440E+03	.3488E+03	.3487E+03	.3439E+03	.3351E+03	.3238E+03	.3090E+03	.2920E+03
SYX	.3875E+03	.3948E+03	.3994E+03	.4014E+03	.4006E+03	.3979E+03	.3940E+03	.3878E+03	.3799E+03
SZZ	-.1349E+02	-.1371E+02	-.1388E+02	-.1398E+02	-.1401E+02	-.1401E+02	-.1400E+02	-.1394E+02	-.1384E+02

SHEAR STRESSES

SXY	.1845E-06	.2014E-07	.8323E-07	.1766E-06	-.6903E-07	.1819E-07	.1156E-06	.3669E-06	-.1006E-06
SXZ	.1497E+01	.1268E+01	.1030E+01	.7923E+00	.5641E+00	.3527E+00	.1646E+00	.6073E-02	-.1203E+00
SYZ	-.2883E-08	-.8331E-08	-.1202E-07	-.4309E-08	-.4520E-10	-.4478E-08	-.1184E-07	-.8406E-08	-.3967E-08

PRINCIPAL STRESSES

PS 1	.3875E+03	.3948E+03	.3994E+03	.4014E+03	.4006E+03	.3979E+03	.3940E+03	.3878E+03	.3799E+03
PS 2	.3344E+03	.3440E+03	.3488E+03	.3487E+03	.3439E+03	.3351E+03	.3238E+03	.3090E+03	.2920E+03
PS 3	-.1350E+02	-.1372E+02	-.1388E+02	-.1398E+02	-.1402E+02	-.1401E+02	-.1400E+02	-.1394E+02	-.1384E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2005E+03	.2043E+03	.2067E+03	.2077E+03	.2073E+03	.2059E+03	.2040E+03	.2009E+03	.1969E+03
PSS 2	.2653E+02	.2541E+02	.2533E+02	.2634E+02	.2839E+02	.3136E+02	.3510E+02	.3937E+02	.4397E+02
PSS 3	.1740E+03	.1788E+03	.1813E+03	.1813E+03	.1789E+03	.1746E+03	.1689E+03	.1615E+03	.1529E+03

## DISPLACEMENTS

UX	-.6751E-02	-.6233E-02	-.5701E-02	-.5167E-02	-.4639E-02	-.4124E-02	-.3621E-02	-.3152E-02	-.2722E-02
UY	.2065E-10	.2549E-10	.7553E-11	.2734E-11	-.1656E-11	.1136E-10	-.1100E-10	.3215E-10	.1307E-10
UZ	.1579E+00	.1591E+00	.1602E+00	.1611E+00	.1619E+00	.1625E+00	.1630E+00	.1636E+00	.1642E+00

## NORMAL STRAINS

EXX	.5088E-03	.5265E-03	.5346E-03	.5328E-03	.5214E-03	.5020E-03	.4770E-03	.4455E-03	.4096E-03
EYY	.6879E-03	.6980E-03	.7056E-03	.7105E-03	.7130E-03	.7137E-03	.7139E-03	.7113E-03	.7064E-03
EZZ	-.6654E-03	-.6807E-03	-.6894E-03	-.6912E-03	-.6865E-03	-.6764E-03	-.6631E-03	-.6446E-03	-.6225E-03

## SHEAR STRAINS

EXY	.1246E-11	.1359E-12	.5618E-12	.1192E-11	-.4660E-12	.1228E-12	.7803E-12	.2477E-11	-.6789E-12
EXZ	.1011E-04	.8557E-05	.6951E-05	.5348E-05	.3808E-05	.2381E-05	.1111E-05	.4099E-07	-.8121E-06
EYZ	-.1946E-13	-.5624E-13	-.8117E-13	-.2909E-13	-.3051E-15	-.3022E-13	-.7992E-13	-.5674E-13	-.2677E-13

## PRINCIPAL STRAINS

PE 1	.6879E-03	.6980E-03	.7056E-03	.7105E-03	.7130E-03	.7137E-03	.7139E-03	.7113E-03	.7064E-03
PE 2	.5088E-03	.5265E-03	.5346E-03	.5328E-03	.5214E-03	.5020E-03	.4770E-03	.4455E-03	.4096E-03
PE 3	-.6654E-03	-.6807E-03	-.6894E-03	-.6912E-03	-.6865E-03	-.6764E-03	-.6631E-03	-.6446E-03	-.6225E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1353E-02	.1379E-02	.1395E-02	.1402E-02	.1399E-02	.1390E-02	.1377E-02	.1356E-02	.1329E-02
PSE 2	.1791E-03	.1715E-03	.1710E-03	.1778E-03	.1916E-03	.2117E-03	.2369E-03	.2658E-03	.2968E-03
PSE 3	.1174E-02	.1207E-02	.1224E-02	.1224E-02	.1208E-02	.1178E-02	.1140E-02	.1090E-02	.1032E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-a Full Depth HBP

31.00      4.00  
32.00      4.00

Z= 12.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.2741E+03	.2572E+03	.2403E+03	.2245E+03	.2102E+03	.1979E+03	.1879E+03	.1802E+03	.1747E+03
SYX	.3714E+03	.3635E+03	.3552E+03	.3468E+03	.3391E+03	.3323E+03	.3266E+03	.3221E+03	.3189E+03
SZZ	-.1371E+02	-.1361E+02	-.1350E+02	-.1338E+02	-.1326E+02	-.1314E+02	-.1304E+02	-.1295E+02	-.1289E+02

SHEAR STRESSES

SXY	-.1023E-06	.1287E-06	-.2129E-06	.5523E-07	-.2478E-07	.1874E-06	.3960E-06	-.3513E-06	-.7720E-07
SXZ	-.2143E+00	-.2774E+00	-.3108E+00	-.3186E+00	-.3052E+00	-.2753E+00	-.2328E+00	-.1813E+00	-.1239E+00
SYZ	.5394E-08	-.8388E-09	.4458E-09	-.1111E-07	-.8634E-08	.4764E-08	-.3076E-08	.1295E-07	-.9109E-08

PRINCIPAL STRESSES

PS 1	.3714E+03	.3635E+03	.3552E+03	.3468E+03	.3391E+03	.3323E+03	.3266E+03	.3221E+03	.3189E+03
PS 2	.2741E+03	.2572E+03	.2403E+03	.2245E+03	.2102E+03	.1979E+03	.1879E+03	.1802E+03	.1747E+03
PS 3	-.1371E+02	-.1361E+02	-.1350E+02	-.1338E+02	-.1326E+02	-.1314E+02	-.1304E+02	-.1296E+02	-.1289E+02



## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1926E+03	.1886E+03	.1843E+03	.1801E+03	.1762E+03	.1727E+03	.1698E+03	.1675E+03	.1659E+03
PSS 2	.4864E+02	.5318E+02	.5740E+02	.6119E+02	.6447E+02	.6718E+02	.6935E+02	.7097E+02	.7210E+02
PSS 3	.1439E+03	.1354E+03	.1269E+03	.1189E+03	.1117E+03	.1055E+03	.1005E+03	.9656E+02	.9382E+02

## DISPLACEMENTS

UX	-.2329E-02	-.1965E-02	-.1641E-02	-.1356E-02	-.1105E-02	-.8816E-03	-.6804E-03	-.4963E-03	-.3244E-03
UY	-.2028E-10	-.2189E-10	.2138E-11	.3250E-10	-.4503E-11	.9102E-11	.8612E-11	-.2013E-11	-.5631E-11
UZ	.1647E+00	.1650E+00	.1654E+00	.1657E+00	.1661E+00	.1663E+00	.1664E+00	.1665E+00	.1666E+00

## NORMAL STRAINS

EXX	.3723E-03	.3368E-03	.3019E-03	.2694E-03	.2403E-03	.2155E-03	.1954E-03	.1799E-03	.1691E-03
EYY	.7006E-03	.6957E-03	.6894E-03	.6824E-03	.6755E-03	.6690E-03	.6634E-03	.6590E-03	.6557E-03
EZZ	-.5991E-03	-.5771E-03	-.5548E-03	-.5333E-03	-.5138E-03	-.4968E-03	-.4827E-03	-.4719E-03	-.4642E-03

## SHEAR STRAINS

EXY	-.6907E-12	.8688E-12	-.1437E-11	.3728E-12	-.1673E-12	.1265E-11	.2673E-11	-.2371E-11	-.5211E-12
EXZ	-.1446E-05	-.1873E-05	-.2098E-05	-.2151E-05	-.2060E-05	-.1858E-05	-.1571E-05	-.1224E-05	-.8360E-06
EYZ	.3641E-13	-.5662E-14	.3009E-14	-.7502E-13	-.5828E-13	.3216E-13	-.2076E-13	.8744E-13	-.6148E-13

## PRINCIPAL STRAINS

PE 1	.7006E-03	.6957E-03	.6894E-03	.6824E-03	.6755E-03	.6690E-03	.6634E-03	.6590E-03	.6557E-03
PE 2	.3723E-03	.3368E-03	.3019E-03	.2694E-03	.2403E-03	.2155E-03	.1954E-03	.1799E-03	.1691E-03
PE 3	-.5991E-03	-.5771E-03	-.5548E-03	-.5333E-03	-.5138E-03	-.4968E-03	-.4827E-03	-.4719E-03	-.4642E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1300E-02	.1273E-02	.1244E-02	.1216E-02	.1189E-02	.1166E-02	.1146E-02	.1131E-02	.1120E-02
PSE 2	.3283E-03	.3589E-03	.3875E-03	.4131E-03	.4351E-03	.4535E-03	.4681E-03	.4791E-03	.4867E-03
PSE 3	.9714E-03	.9139E-03	.8567E-03	.8027E-03	.7541E-03	.7123E-03	.6781E-03	.6518E-03	.6333E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00

Appendix 6E-a Full Depth HBP

40.00      4.00  
41.00      4.00

Z= 12.00 LAYER NO, 1

X            Y  
33.00      4.00  
34.00      4.00  
35.00      4.00  
36.00      4.00  
37.00      4.00  
38.00      4.00  
39.00      4.00  
40.00      4.00  
41.00      4.00

NORMAL STRESSES

SXX	.1715E+03	.1704E+03	.1715E+03	.1747E+03	.1802E+03	.1879E+03	.1979E+03	.2102E+03	.2245E+03
SYX	.3170E+03	.3164E+03	.3170E+03	.3189E+03	.3221E+03	.3266E+03	.3323E+03	.3391E+03	.3468E+03
SZZ	-.1286E+02	-.1285E+02	-.1286E+02	-.1289E+02	-.1295E+02	-.1304E+02	-.1314E+02	-.1326E+02	-.1338E+02

SHEAR STRESSES

SXY	.5714E-07	.4376E-06	.2291E-07	-.1478E-06	-.4048E-06	.2420E-06	-.1178E-06	-.2449E-07	-.2112E-06
SXZ	-.6274E-01	.6394E-07	.6274E-01	.1239E+00	.1813E+00	.2328E+00	.2753E+00	.3052E+00	.3186E+00
SYZ	.4497E-08	-.3672E-08	-.5502E-08	-.1045E-07	-.4647E-08	-.4407E-08	.2627E-08	.7617E-08	.9843E-08

PRINCIPAL STRESSES

PS 1	.3170E+03	.3164E+03	.3170E+03	.3189E+03	.3221E+03	.3266E+03	.3323E+03	.3391E+03	.3468E+03
PS 2	.1715E+03	.1704E+03	.1715E+03	.1747E+03	.1802E+03	.1879E+03	.1979E+03	.2102E+03	.2245E+03
PS 3	-.1286E+02	-.1285E+02	-.1286E+02	-.1289E+02	-.1296E+02	-.1304E+02	-.1314E+02	-.1326E+02	-.1338E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1649E+03	.1646E+03	.1649E+03	.1659E+03	.1675E+03	.1698E+03	.1727E+03	.1762E+03	.1801E+03
PSS 2	.7276E+02	.7298E+02	.7276E+02	.7210E+02	.7097E+02	.6935E+02	.6718E+02	.6447E+02	.6119E+02
PSS 3	.9218E+02	.9163E+02	.9218E+02	.9382E+02	.9656E+02	.1005E+03	.1055E+03	.1117E+03	.1189E+03

## DISPLACEMENTS

UX	-.1603E-03	-.4195E-10	.1603E-03	.3244E-03	.4963E-03	.6804E-03	.8816E-03	.1105E-02	.1356E-02
UY	.5483E-11	-.1418E-10	.9897E-11	-.6834E-12	-.1760E-11	.1183E-10	.7684E-11	.1343E-11	.1212E-10
UZ	.1666E+00	.1666E+00	.1666E+00	.1666E+00	.1665E+00	.1664E+00	.1663E+00	.1661E+00	.1657E+00

## NORMAL STRAINS

EXX	.1626E-03	.1605E-03	.1626E-03	.1691E-03	.1799E-03	.1954E-03	.2155E-03	.2403E-03	.2694E-03
EYY	.6537E-03	.6531E-03	.6537E-03	.6557E-03	.6590E-03	.6634E-03	.6690E-03	.6755E-03	.6824E-03
EZZ	-.4596E-03	-.4581E-03	-.4596E-03	-.4642E-03	-.4719E-03	-.4827E-03	-.4968E-03	-.5138E-03	-.5333E-03

## SHEAR STRAINS

EXY	.3857E-12	.2954E-11	.1546E-12	-.9977E-12	-.2732E-11	.1634E-11	-.7950E-12	-.1653E-12	-.1425E-11
EXZ	-.4235E-06	.4316E-12	.4235E-06	.8360E-06	.1224E-05	.1571E-05	.1858E-05	.2060E-05	.2151E-05
EYZ	.3036E-13	-.2478E-13	-.3714E-13	-.7057E-13	-.3137E-13	-.2975E-13	.1773E-13	.5141E-13	.6644E-13

## PRINCIPAL STRAINS

PE 1	.6537E-03	.6531E-03	.6537E-03	.6557E-03	.6590E-03	.6634E-03	.6690E-03	.6755E-03	.6824E-03
PE 2	.1626E-03	.1605E-03	.1626E-03	.1691E-03	.1799E-03	.1954E-03	.2155E-03	.2403E-03	.2694E-03
PE 3	-.4596E-03	-.4581E-03	-.4596E-03	-.4642E-03	-.4719E-03	-.4827E-03	-.4968E-03	-.5138E-03	-.5333E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1113E-02	.1111E-02	.1113E-02	.1120E-02	.1131E-02	.1146E-02	.1166E-02	.1189E-02	.1216E-02
PSE 2	.4911E-03	.4926E-03	.4911E-03	.4867E-03	.4791E-03	.4681E-03	.4535E-03	.4351E-03	.4131E-03
PSE 3	.6222E-03	.6185E-03	.6222E-03	.6333E-03	.6518E-03	.6781E-03	.7123E-03	.7541E-03	.8027E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00

Appendix 6E-a Full Depth HBP

49.00      4.00  
50.00      4.00

Z= 12.00 LAYER NO, 1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.2403E+03	.2572E+03	.2741E+03	.2920E+03	.3090E+03	.3238E+03	.3351E+03	.3439E+03	.3487E+03
SYX	.3552E+03	.3635E+03	.3714E+03	.3799E+03	.3878E+03	.3940E+03	.3979E+03	.4006E+03	.4014E+03
SZZ	-.1350E+02	-.1361E+02	-.1371E+02	-.1384E+02	-.1394E+02	-.1400E+02	-.1401E+02	-.1401E+02	-.1398E+02

SHEAR STRESSES

SXY	.1476E-06	.2597E-06	.1701E-06	-.4307E-07	.2673E-06	-.1886E-06	-.5964E-07	-.3340E-06	-.2932E-06
SXZ	.3108E+00	.2774E+00	.2143E+00	.1203E+00	-.6073E-02	-.1646E+00	-.3527E+00	-.5641E+00	-.7923E+00
SYZ	-.3117E-08	.2035E-08	.4590E-08	.3670E-08	-.1312E-07	-.1708E-07	-.8470E-08	-.3583E-08	-.7883E-08

PRINCIPAL STRESSES

PS 1	.3552E+03	.3635E+03	.3714E+03	.3799E+03	.3878E+03	.3940E+03	.3979E+03	.4006E+03	.4014E+03
PS 2	.2403E+03	.2572E+03	.2741E+03	.2920E+03	.3090E+03	.3238E+03	.3351E+03	.3439E+03	.3487E+03
PS 3	-.1350E+02	-.1361E+02	-.1371E+02	-.1384E+02	-.1394E+02	-.1400E+02	-.1401E+02	-.1402E+02	-.1398E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1843E+03	.1886E+03	.1926E+03	.1969E+03	.2009E+03	.2040E+03	.2059E+03	.2073E+03	.2077E+03
PSS 2	.5740E+02	.5318E+02	.4864E+02	.4397E+02	.3937E+02	.3510E+02	.3136E+02	.2839E+02	.2634E+02
PSS 3	.1269E+03	.1354E+03	.1439E+03	.1529E+03	.1615E+03	.1689E+03	.1746E+03	.1789E+03	.1813E+03

## DISPLACEMENTS

UX	.1641E-02	.1965E-02	.2329E-02	.2722E-02	.3152E-02	.3621E-02	.4124E-02	.4639E-02	.5167E-02
UY	.1840E-10	-.1843E-10	.3180E-11	.2525E-10	.1520E-10	-.1127E-10	-.2470E-10	.2331E-10	.2611E-10
UZ	.1654E+00	.1650E+00	.1647E+00	.1642E+00	.1636E+00	.1630E+00	.1625E+00	.1619E+00	.1611E+00

## NORMAL STRAINS

EXX	.3019E-03	.3368E-03	.3723E-03	.4096E-03	.4455E-03	.4770E-03	.5020E-03	.5214E-03	.5328E-03
EYY	.6894E-03	.6957E-03	.7006E-03	.7064E-03	.7113E-03	.7139E-03	.7137E-03	.7130E-03	.7105E-03
EZZ	-.5548E-03	-.5771E-03	-.5991E-03	-.6225E-03	-.6446E-03	-.6631E-03	-.6764E-03	-.6865E-03	-.6912E-03

## SHEAR STRAINS

EXY	.9962E-12	.1753E-11	.1148E-11	-.2907E-12	.1805E-11	-.1273E-11	-.4025E-12	-.2255E-11	-.1979E-11
EXZ	.2098E-05	.1873E-05	.1446E-05	.8121E-06	-.4099E-07	-.1111E-05	-.2381E-05	-.3808E-05	-.5348E-05
EYZ	-.2104E-13	.1374E-13	.3098E-13	.2477E-13	-.8859E-13	-.1153E-12	-.5717E-13	-.2418E-13	-.5321E-13

## PRINCIPAL STRAINS

PE 1	.6894E-03	.6957E-03	.7006E-03	.7064E-03	.7113E-03	.7139E-03	.7137E-03	.7130E-03	.7105E-03
PE 2	.3019E-03	.3368E-03	.3723E-03	.4096E-03	.4455E-03	.4770E-03	.5020E-03	.5214E-03	.5328E-03
PE 3	-.5548E-03	-.5771E-03	-.5991E-03	-.6225E-03	-.6446E-03	-.6631E-03	-.6764E-03	-.6865E-03	-.6912E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1244E-02	.1273E-02	.1300E-02	.1329E-02	.1356E-02	.1377E-02	.1390E-02	.1399E-02	.1402E-02
PSE 2	.3875E-03	.3589E-03	.3283E-03	.2968E-03	.2658E-03	.2369E-03	.2117E-03	.1916E-03	.1778E-03
PSE 3	.8567E-03	.9139E-03	.9714E-03	.1032E-02	.1090E-02	.1140E-02	.1178E-02	.1208E-02	.1224E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00



Appendix 6E-a Full Depth HBP

58.00 4.00  
59.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.3488E+03	.3440E+03	.3344E+03	.3209E+03	.3047E+03	.2849E+03	.2628E+03	.2397E+03	.2173E+03
SYX	.3994E+03	.3948E+03	.3875E+03	.3781E+03	.3675E+03	.3545E+03	.3397E+03	.3242E+03	.3092E+03
SZZ	-.1388E+02	-.1371E+02	-.1349E+02	-.1322E+02	-.1295E+02	-.1263E+02	-.1226E+02	-.1187E+02	-.1150E+02

SHEAR STRESSES

SXY	.1493E-06	.5918E-07	-.1428E-06	.6003E-07	-.3877E-06	.2932E-06	-.1428E-06	.5964E-07	.1886E-06
SXZ	-.1030E+01	-.1268E+01	-.1497E+01	-.1711E+01	-.1903E+01	-.2065E+01	-.2197E+01	-.2297E+01	-.2367E+01
SYZ	-.1191E-07	-.4200E-08	.0000E+00	-.4200E-08	-.1191E-07	-.7883E-08	-.3583E-08	.6431E-08	-.2176E-08

PRINCIPAL STRESSES

PS 1	.3994E+03	.3948E+03	.3875E+03	.3781E+03	.3675E+03	.3545E+03	.3397E+03	.3242E+03	.3092E+03
PS 2	.3488E+03	.3440E+03	.3344E+03	.3209E+03	.3047E+03	.2850E+03	.2628E+03	.2397E+03	.2173E+03
PS 3	-.1388E+02	-.1372E+02	-.1350E+02	-.1323E+02	-.1296E+02	-.1264E+02	-.1228E+02	-.1189E+02	-.1153E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2067E+03	.2043E+03	.2005E+03	.1957E+03	.1902E+03	.1836E+03	.1760E+03	.1681E+03	.1604E+03
PSS 2	.2533E+02	.2541E+02	.2653E+02	.2859E+02	.3141E+02	.3478E+02	.3848E+02	.4228E+02	.4596E+02
PSS 3	.1813E+03	.1788E+03	.1740E+03	.1671E+03	.1588E+03	.1488E+03	.1375E+03	.1258E+03	.1144E+03

## DISPLACEMENTS

UX	.5701E-02	.6233E-02	.6751E-02	.7250E-02	.7730E-02	.8171E-02	.8565E-02	.8915E-02	.9229E-02
UY	-.7002E-12	-.5502E-10	.0000E+00	.3187E-11	-.7002E-12	.2611E-10	.2331E-10	-.2470E-10	-.1127E-10
UZ	.1602E+00	.1591E+00	.1579E+00	.1566E+00	.1550E+00	.1537E+00	.1523E+00	.1507E+00	.1490E+00

## NORMAL STRAINS

EXX	.5346E-03	.5265E-03	.5088E-03	.4830E-03	.4515E-03	.4132E-03	.3704E-03	.3258E-03	.2827E-03
EYY	.7056E-03	.6980E-03	.6879E-03	.6760E-03	.6635E-03	.6480E-03	.6302E-03	.6113E-03	.5930E-03
EZZ	-.6894E-03	-.6807E-03	-.6654E-03	-.6447E-03	-.6205E-03	-.5911E-03	-.5578E-03	-.5231E-03	-.4895E-03

## SHEAR STRAINS

EXY	.1008E-11	.3995E-12	-.9639E-12	.4052E-12	-.2617E-11	.1979E-11	-.9639E-12	.4025E-12	.1273E-11
EXZ	-.6951E-05	-.8557E-05	-.1011E-04	-.1155E-04	-.1284E-04	-.1394E-04	-.1483E-04	-.1551E-04	-.1598E-04
EYZ	-.8038E-13	-.2835E-13	.0000E+00	-.2835E-13	-.8038E-13	-.5321E-13	-.2418E-13	.4341E-13	-.1469E-13

## PRINCIPAL STRAINS

PE 1	.7056E-03	.6980E-03	.6879E-03	.6760E-03	.6635E-03	.6480E-03	.6302E-03	.6113E-03	.5930E-03
PE 2	.5346E-03	.5265E-03	.5088E-03	.4830E-03	.4515E-03	.4132E-03	.3704E-03	.3259E-03	.2828E-03
PE 3	-.6894E-03	-.6807E-03	-.6654E-03	-.6447E-03	-.6206E-03	-.5911E-03	-.5579E-03	-.5232E-03	-.4895E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1395E-02	.1379E-02	.1353E-02	.1321E-02	.1284E-02	.1239E-02	.1188E-02	.1134E-02	.1083E-02
PSE 2	.1710E-03	.1715E-03	.1791E-03	.1930E-03	.2120E-03	.2348E-03	.2598E-03	.2854E-03	.3102E-03
PSE 3	.1224E-02	.1207E-02	.1174E-02	.1128E-02	.1072E-02	.1004E-02	.9283E-03	.8491E-03	.7723E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.53 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00

Appendix 6E-a Full Depth HBP

5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1855E+03	.1950E+03	.2038E+03	.2135E+03	.2240E+03	.2355E+03	.2485E+03	.2632E+03	.2798E+03
SYX	.2611E+03	.2706E+03	.2799E+03	.2901E+03	.3009E+03	.3120E+03	.3234E+03	.3352E+03	.3473E+03
SZZ	-.9701E+01	-.9959E+01	-.1021E+02	-.1043E+02	-.1068E+02	-.1094E+02	-.1122E+02	-.1149E+02	-.1175E+02

SHEAR STRESSES

SXY	-.1015E-06	.2689E-06	.2425E-08	.4631E-06	-.3497E-07	.3831E-08	-.3580E-06	-.2770E-06	.6663E-07
SXZ	.1658E+01	.1609E+01	.1564E+01	.1524E+01	.1490E+01	.1461E+01	.1434E+01	.1404E+01	.1363E+01
SYZ	-.5169E-09	.6179E-08	.3529E-08	.6648E-08	.9615E-10	.9592E-09	-.5633E-08	.6375E-08	.1432E-08

PRINCIPAL STRESSES

PS 1	.2611E+03	.2706E+03	.2799E+03	.2901E+03	.3009E+03	.3120E+03	.3234E+03	.3352E+03	.3473E+03
PS 2	.1855E+03	.1950E+03	.2038E+03	.2135E+03	.2240E+03	.2355E+03	.2485E+03	.2632E+03	.2798E+03
PS 3	-.9715E+01	-.9971E+01	-.1022E+02	-.1044E+02	-.1069E+02	-.1095E+02	-.1123E+02	-.1150E+02	-.1176E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1354E+03	.1403E+03	.1450E+03	.1503E+03	.1558E+03	.1615E+03	.1673E+03	.1734E+03	.1795E+03
PSS 2	.3778E+02	.3780E+02	.3802E+02	.3829E+02	.3843E+02	.3822E+02	.3747E+02	.3601E+02	.3374E+02
PSS 3	.9760E+02	.1025E+03	.1070E+03	.1120E+03	.1174E+03	.1232E+03	.1299E+03	.1374E+03	.1458E+03

## DISPLACEMENTS

UX	-.6162E-02	-.5911E-02	-.5646E-02	-.5364E-02	-.5063E-02	-.4744E-02	-.4406E-02	-.4044E-02	-.3652E-02
UY	-.8429E-11	.1572E-10	-.1763E-10	.1539E-11	-.2118E-10	.5246E-11	-.4707E-11	.5223E-10	.2467E-10
UZ	.1146E+00	.1158E+00	.1169E+00	.1174E+00	.1178E+00	.1185E+00	.1191E+00	.1198E+00	.1205E+00

## NORMAL STRAINS

EXX	.2438E-03	.2593E-03	.2736E-03	.2891E-03	.3061E-03	.3254E-03	.3480E-03	.3747E-03	.4060E-03
EYY	.4988E-03	.5145E-03	.5302E-03	.5475E-03	.5655E-03	.5834E-03	.6010E-03	.6178E-03	.6337E-03
EZZ	-.4150E-03	-.4322E-03	-.4487E-03	-.4667E-03	-.4860E-03	-.5064E-03	-.5285E-03	-.5524E-03	-.5781E-03

## SHEAR STRAINS

EXY	-.6853E-12	.1815E-11	.1637E-13	.3126E-11	-.2360E-12	.2586E-13	-.2417E-11	-.1870E-11	.4497E-12
EXZ	.1119E-04	.1086E-04	.1056E-04	.1029E-04	.1006E-04	.9862E-05	.9682E-05	.9480E-05	.9204E-05
EYZ	-.3489E-14	.4171E-13	.2382E-13	.4488E-13	.6490E-15	.6474E-14	-.3802E-13	.4303E-13	.9667E-14

## PRINCIPAL STRAINS

PE 1	.4988E-03	.5145E-03	.5302E-03	.5475E-03	.5655E-03	.5834E-03	.6010E-03	.6178E-03	.6337E-03
PE 2	.2438E-03	.2594E-03	.2736E-03	.2891E-03	.3061E-03	.3254E-03	.3480E-03	.3748E-03	.4060E-03
PE 3	-.4150E-03	-.4323E-03	-.4488E-03	-.4668E-03	-.4860E-03	-.5065E-03	-.5285E-03	-.5524E-03	-.5782E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9138E-03	.9468E-03	.9790E-03	.1014E-02	.1051E-02	.1090E-02	.1129E-02	.1170E-02	.1212E-02
PSE 2	.2550E-03	.2552E-03	.2566E-03	.2584E-03	.2594E-03	.2580E-03	.2529E-03	.2431E-03	.2278E-03
PSE 3	.6588E-03	.6917E-03	.7224E-03	.7559E-03	.7921E-03	.8319E-03	.8765E-03	.9271E-03	.9842E-03

Appendix 6E-a Full Depth HBP

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ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.53 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00

Appendix 6E-a Full Depth HBP

14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
 9.00 4.00  
 10.00 4.00  
 11.00 4.00  
 12.00 4.00  
 13.00 4.00  
 14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

NORMAL STRESSES

SXX .2981E+03 .3174E+03 .3368E+03 .3561E+03 .3746E+03 .3902E+03 .4006E+03 .4058E+03 .4058E+03  
 SYY .3594E+03 .3710E+03 .3817E+03 .3917E+03 .4011E+03 .4086E+03 .4126E+03 .4136E+03 .4123E+03  
 SZZ -.1200E+02 -.1223E+02 -.1247E+02 -.1272E+02 -.1293E+02 -.1307E+02 -.1317E+02 -.1325E+02 -.1325E+02

SHEAR STRESSES

SXY .1880E-06 -.6743E-07 -.4075E-08 .3192E-06 -.2874E-06 .4521E-07 .3354E-06 .3627E-06 .6168E-07  
 SXZ .1303E+01 .1214E+01 .1090E+01 .9272E+00 .7241E+00 .4814E+00 .2039E+00 -.9770E-01 -.4108E+00  
 SYZ -.1223E-07 -.6990E-08 .8427E-09 -.2778E-07 -.1849E-07 .1846E-07 .7414E-09 .1136E-07 -.1656E-07

PRINCIPAL STRESSES

PS 1 .3594E+03 .3710E+03 .3817E+03 .3917E+03 .4011E+03 .4086E+03 .4126E+03 .4136E+03 .4123E+03  
 PS 2 .2981E+03 .3174E+03 .3368E+03 .3561E+03 .3746E+03 .3902E+03 .4006E+03 .4058E+03 .4058E+03  
 PS 3 -.1200E+02 -.1223E+02 -.1248E+02 -.1273E+02 -.1293E+02 -.1307E+02 -.1317E+02 -.1325E+02 -.1325E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1857E+03	.1916E+03	.1971E+03	.2022E+03	.2070E+03	.2108E+03	.2129E+03	.2134E+03	.2128E+03
PSS 2	.3064E+02	.2681E+02	.2244E+02	.1781E+02	.1327E+02	.9207E+01	.5991E+01	.3931E+01	.3239E+01
PSS 3	.1551E+03	.1648E+03	.1746E+03	.1844E+03	.1938E+03	.2016E+03	.2069E+03	.2095E+03	.2095E+03

## DISPLACEMENTS

UX	-.3223E-02	-.2751E-02	-.2235E-02	-.1681E-02	-.1090E-02	-.4603E-03	.1997E-03	.8710E-03	.1541E-02
UY	.3372E-10	-.4994E-11	-.7646E-11	.6960E-10	.2082E-10	-.6015E-10	-.4285E-10	-.2814E-10	.1253E-10
UZ	.1211E+00	.1219E+00	.1232E+00	.1245E+00	.1253E+00	.1258E+00	.1267E+00	.1276E+00	.1280E+00

## NORMAL STRAINS

EXX	.4413E-03	.4795E-03	.5189E-03	.5587E-03	.5968E-03	.6294E-03	.6520E-03	.6641E-03	.6654E-03
EYY	.6482E-03	.6605E-03	.6704E-03	.6789E-03	.6864E-03	.6915E-03	.6924E-03	.6906E-03	.6872E-03
EZZ	-.6053E-03	-.6329E-03	-.6598E-03	-.6862E-03	-.7111E-03	-.7316E-03	-.7444E-03	-.7501E-03	-.7490E-03

## SHEAR STRAINS

EXY	.1269E-11	-.4551E-12	-.2751E-13	.2155E-11	-.1940E-11	.3052E-12	.2264E-11	.2448E-11	.4163E-12
EXZ	.8795E-05	.8195E-05	.7358E-05	.6259E-05	.4888E-05	.3249E-05	.1376E-05	-.6595E-06	-.2773E-05
EYZ	-.8253E-13	-.4718E-13	.5688E-14	-.1875E-12	-.1248E-12	.1246E-12	.5005E-14	.7667E-13	-.1118E-12

## PRINCIPAL STRAINS

PE 1	.6482E-03	.6605E-03	.6704E-03	.6789E-03	.6864E-03	.6915E-03	.6924E-03	.6906E-03	.6872E-03
PE 2	.4413E-03	.4795E-03	.5189E-03	.5587E-03	.5968E-03	.6294E-03	.6520E-03	.6641E-03	.6654E-03
PE 3	-.6054E-03	-.6329E-03	-.6598E-03	-.6862E-03	-.7111E-03	-.7316E-03	-.7444E-03	-.7501E-03	-.7490E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1254E-02	.1293E-02	.1330E-02	.1365E-02	.1397E-02	.1423E-02	.1437E-02	.1441E-02	.1436E-02
PSE 2	.2069E-03	.1810E-03	.1515E-03	.1202E-03	.8956E-04	.6215E-04	.4044E-04	.2653E-04	.2186E-04
PSE 3	.1047E-02	.1112E-02	.1179E-02	.1245E-02	.1308E-02	.1361E-02	.1396E-02	.1414E-02	.1414E-02



Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.53 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-a Full Depth HBP

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Z= 12.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.4010E+03	.3910E+03
SYY	.4090E+03	.4033E+03
SZZ	-.1312E+02	-.1292E+02

## SHEAR STRESSES

SXY	-.3668E-06	.1414E-06
SXZ	-.7239E+00	-.1026E+01
SYZ	-.1605E-07	-.1490E-07

## PRINCIPAL STRESSES

PS 1	.4090E+03	.4033E+03
PS 2	.4010E+03	.3910E+03
PS 3	-.1312E+02	-.1292E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2111E+03	.2081E+03
PSS 2	.3996E+01	.6147E+01
PSS 3	.2071E+03	.2019E+03

## DISPLACEMENTS

UX	.2206E-02	.2866E-02
UY	.3222E-10	.0000E+00
UZ	.1270E+00	.1255E+00

Appendix 6E-a Full Depth HBP

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## NORMAL STRAINS

EXX	.6562E-03	.6359E-03
EYY	.6831E-03	.6774E-03
EZZ	-.7416E-03	-.7273E-03

## SHEAR STRAINS

EXY	-.2476E-11	.9547E-12
EXZ	-.4886E-05	-.6923E-05
EYZ	-.1084E-12	-.1006E-12

## PRINCIPAL STRAINS

PE 1	.6831E-03	.6774E-03
PE 2	.6562E-03	.6359E-03
PE 3	-.7416E-03	-.7273E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1425E-02	.1405E-02
PSE 2	.2697E-04	.4149E-04
PSE 3	.1398E-02	.1363E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00

Appendix 6E-a Full Depth HBP

22.00 4.00  
23.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.3514E+03	.3613E+03	.3663E+03	.3663E+03	.3614E+03	.3521E+03	.3405E+03	.3253E+03	.3077E+03
SYX	.4076E+03	.4152E+03	.4201E+03	.4222E+03	.4215E+03	.4183E+03	.4144E+03	.4081E+03	.4000E+03
SZZ	-.1422E+02	-.1445E+02	-.1462E+02	-.1473E+02	-.1477E+02	-.1475E+02	-.1475E+02	-.1469E+02	-.1459E+02

SHEAR STRESSES

SXY	.2226E-06	-.2980E-06	-.1878E-06	.5551E-07	-.2746E-06	-.1430E-07	.9177E-08	.6621E-08	-.1344E-07
SXZ	.1572E+01	.1333E+01	.1086E+01	.8389E+00	.6015E+00	.3816E+00	.1852E+00	.1904E-01	-.1142E+00
SYZ	-.3359E-08	.4948E-08	.1528E-07	-.1324E-08	-.2731E-08	-.2398E-08	.1212E-07	.5513E-08	-.9250E-09

PRINCIPAL STRESSES

PS 1	.4076E+03	.4152E+03	.4201E+03	.4222E+03	.4215E+03	.4183E+03	.4144E+03	.4081E+03	.4000E+03
PS 2	.3514E+03	.3613E+03	.3663E+03	.3663E+03	.3614E+03	.3521E+03	.3405E+03	.3253E+03	.3077E+03
PS 3	-.1423E+02	-.1446E+02	-.1462E+02	-.1473E+02	-.1477E+02	-.1475E+02	-.1475E+02	-.1469E+02	-.1459E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2109E+03	.2148E+03	.2174E+03	.2184E+03	.2181E+03	.2165E+03	.2146E+03	.2114E+03	.2073E+03
PSS 2	.2810E+02	.2696E+02	.2690E+02	.2794E+02	.3005E+02	.3311E+02	.3696E+02	.4138E+02	.4613E+02
PSS 3	.1828E+03	.1879E+03	.1905E+03	.1905E+03	.1881E+03	.1834E+03	.1776E+03	.1700E+03	.1612E+03

## DISPLACEMENTS

UX	-.7111E-02	-.6567E-02	-.6009E-02	-.5449E-02	-.4894E-02	-.4356E-02	-.3828E-02	-.3335E-02	-.2881E-02
UY	-.1099E-11	.2328E-10	-.2244E-10	.1089E-11	.4515E-11	.4543E-11	-.2818E-10	.1052E-10	.6424E-11
UZ	.1663E+00	.1676E+00	.1687E+00	.1697E+00	.1705E+00	.1713E+00	.1718E+00	.1724E+00	.1730E+00

## NORMAL STRAINS

EXX	.5343E-03	.5526E-03	.5610E-03	.5592E-03	.5476E-03	.5271E-03	.5015E-03	.4691E-03	.4321E-03
EYY	.7240E-03	.7346E-03	.7425E-03	.7478E-03	.7504E-03	.7507E-03	.7510E-03	.7484E-03	.7435E-03
EZZ	-.6997E-03	-.7156E-03	-.7247E-03	-.7267E-03	-.7220E-03	-.7110E-03	-.6974E-03	-.6785E-03	-.6557E-03

## SHEAR STRAINS

EXY	.1503E-11	-.2012E-11	-.1268E-11	.3747E-12	-.1854E-11	-.9650E-13	.6194E-13	.4469E-13	-.9071E-13
EXZ	.1061E-04	.8997E-05	.7328E-05	.5663E-05	.4060E-05	.2576E-05	.1250E-05	.1285E-06	-.7709E-06
EYZ	-.2267E-13	.3340E-13	.1031E-12	-.8938E-14	-.1844E-13	-.1618E-13	.8184E-13	.3721E-13	-.6244E-14

## PRINCIPAL STRAINS

PE 1	.7240E-03	.7346E-03	.7425E-03	.7478E-03	.7504E-03	.7507E-03	.7510E-03	.7484E-03	.7435E-03
PE 2	.5343E-03	.5526E-03	.5610E-03	.5592E-03	.5476E-03	.5271E-03	.5015E-03	.4691E-03	.4321E-03
PE 3	-.6997E-03	-.7156E-03	-.7247E-03	-.7267E-03	-.7220E-03	-.7110E-03	-.6974E-03	-.6785E-03	-.6557E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1424E-02	.1450E-02	.1467E-02	.1474E-02	.1472E-02	.1462E-02	.1448E-02	.1427E-02	.1399E-02
PSE 2	.1897E-03	.1820E-03	.1816E-03	.1886E-03	.2028E-03	.2235E-03	.2495E-03	.2793E-03	.3114E-03
PSE 3	.1234E-02	.1268E-02	.1286E-02	.1286E-02	.1270E-02	.1238E-02	.1199E-02	.1148E-02	.1088E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-a Full Depth HBP

31.00 4.00  
32.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.2889E+03	.2713E+03	.2537E+03	.2371E+03	.2222E+03	.2093E+03	.1987E+03	.1906E+03	.1848E+03
SYX	.3908E+03	.3827E+03	.3740E+03	.3654E+03	.3573E+03	.3502E+03	.3442E+03	.3395E+03	.3362E+03
SZZ	-.1445E+02	-.1435E+02	-.1423E+02	-.1411E+02	-.1398E+02	-.1385E+02	-.1375E+02	-.1366E+02	-.1360E+02

SHEAR STRESSES

SXY	.2189E-06	-.4553E-06	-.1166E-06	.3167E-07	-.3436E-07	-.1022E-06	.5063E-06	.1282E-06	.2066E-06
SXZ	-.2138E+00	-.2815E+00	-.3182E+00	-.3280E+00	-.3157E+00	-.2855E+00	-.2420E+00	-.1887E+00	-.1291E+00
SYZ	-.8302E-08	-.2320E-08	-.9440E-08	.1103E-08	-.2401E-08	.6309E-08	.1119E-07	-.5791E-09	.5245E-08

PRINCIPAL STRESSES

PS 1	.3908E+03	.3827E+03	.3740E+03	.3654E+03	.3573E+03	.3502E+03	.3442E+03	.3395E+03	.3362E+03
PS 2	.2889E+03	.2713E+03	.2537E+03	.2371E+03	.2222E+03	.2093E+03	.1987E+03	.1906E+03	.1848E+03
PS 3	-.1445E+02	-.1435E+02	-.1423E+02	-.1411E+02	-.1398E+02	-.1385E+02	-.1375E+02	-.1366E+02	-.1360E+02



## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2026E+03	.1985E+03	.1941E+03	.1897E+03	.1856E+03	.1820E+03	.1790E+03	.1766E+03	.1749E+03
PSS 2	.5098E+02	.5571E+02	.6014E+02	.6412E+02	.6756E+02	.7044E+02	.7273E+02	.7447E+02	.7567E+02
PSS 3	.1517E+03	.1428E+03	.1340E+03	.1256E+03	.1181E+03	.1116E+03	.1062E+03	.1021E+03	.9921E+02

## DISPLACEMENTS

UX	-.2470E-02	-.2085E-02	-.1743E-02	-.1441E-02	-.1175E-02	-.9375E-03	-.7238E-03	-.5280E-03	-.3451E-03
UY	.3465E-10	-.1982E-10	.8631E-11	-.3547E-10	-.5041E-12	-.2685E-10	-.2533E-10	.2141E-10	.1017E-10
UZ	.1736E+00	.1739E+00	.1743E+00	.1747E+00	.1751E+00	.1753E+00	.1755E+00	.1756E+00	.1756E+00

## NORMAL STRAINS

EXX	.3928E-03	.3559E-03	.3195E-03	.2855E-03	.2550E-03	.2289E-03	.2077E-03	.1913E-03	.1798E-03
EYY	.7370E-03	.7319E-03	.7255E-03	.7183E-03	.7111E-03	.7044E-03	.6986E-03	.6940E-03	.6906E-03
EZZ	-.6309E-03	-.6081E-03	-.5849E-03	-.5625E-03	-.5420E-03	-.5241E-03	-.5094E-03	-.4979E-03	-.4899E-03

## SHEAR STRAINS

EXY	.1477E-11	-.3073E-11	-.7868E-12	.2138E-12	-.2320E-12	-.6901E-12	.3417E-11	.8657E-12	.1394E-11
EXZ	-.1443E-05	-.1900E-05	-.2148E-05	-.2214E-05	-.2131E-05	-.1927E-05	-.1633E-05	-.1274E-05	-.8714E-06
EYZ	-.5604E-13	-.1566E-13	-.6372E-13	.7446E-14	-.1621E-13	.4258E-13	.7553E-13	-.3909E-14	.3540E-13

## PRINCIPAL STRAINS

PE 1	.7370E-03	.7319E-03	.7255E-03	.7183E-03	.7111E-03	.7044E-03	.6986E-03	.6940E-03	.6906E-03
PE 2	.3928E-03	.3559E-03	.3196E-03	.2855E-03	.2550E-03	.2289E-03	.2077E-03	.1913E-03	.1798E-03
PE 3	-.6309E-03	-.6081E-03	-.5849E-03	-.5625E-03	-.5420E-03	-.5241E-03	-.5094E-03	-.4979E-03	-.4899E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1368E-02	.1340E-02	.1310E-02	.1281E-02	.1253E-02	.1229E-02	.1208E-02	.1192E-02	.1180E-02
PSE 2	.3441E-03	.3761E-03	.4059E-03	.4328E-03	.4560E-03	.4754E-03	.4910E-03	.5027E-03	.5107E-03
PSE 3	.1024E-02	.9640E-03	.9044E-03	.8479E-03	.7970E-03	.7531E-03	.7171E-03	.6892E-03	.6697E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00

Appendix 6E-a Full Depth HBP

40.00      4.00  
41.00      4.00

Z= 12.00 LAYER NO, 1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.1814E+03	.1803E+03	.1814E+03	.1848E+03	.1906E+03	.1987E+03	.2093E+03	.2222E+03	.2371E+03
SYX	.3342E+03	.3335E+03	.3342E+03	.3362E+03	.3395E+03	.3442E+03	.3502E+03	.3573E+03	.3654E+03
SZZ	-.1356E+02	-.1355E+02	-.1356E+02	-.1360E+02	-.1366E+02	-.1375E+02	-.1385E+02	-.1398E+02	-.1411E+02

SHEAR STRESSES

SXY	-.5132E-06	.4533E-06	-.3008E-06	.2572E-06	.5556E-06	.2491E-06	.1807E-06	.1865E-06	-.1040E-06
SXZ	-.6544E-01	-.4818E-07	.6544E-01	.1291E+00	.1887E+00	.2420E+00	.2855E+00	.3157E+00	.3280E+00
SYZ	-.1114E-08	-.3573E-08	-.1598E-08	.2272E-08	.4485E-09	-.5546E-08	.5066E-08	-.1288E-08	.1057E-08

PRINCIPAL STRESSES

PS 1	.3342E+03	.3335E+03	.3342E+03	.3362E+03	.3395E+03	.3442E+03	.3502E+03	.3573E+03	.3654E+03
PS 2	.1814E+03	.1803E+03	.1814E+03	.1848E+03	.1906E+03	.1987E+03	.2093E+03	.2222E+03	.2371E+03
PS 3	-.1356E+02	-.1355E+02	-.1356E+02	-.1360E+02	-.1366E+02	-.1375E+02	-.1385E+02	-.1398E+02	-.1411E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1739E+03	.1735E+03	.1739E+03	.1749E+03	.1766E+03	.1790E+03	.1820E+03	.1856E+03	.1897E+03
PSS 2	.7638E+02	.7661E+02	.7638E+02	.7567E+02	.7447E+02	.7273E+02	.7044E+02	.6756E+02	.6412E+02
PSS 3	.9748E+02	.9690E+02	.9748E+02	.9921E+02	.1021E+03	.1062E+03	.1116E+03	.1181E+03	.1256E+03

## DISPLACEMENTS

UX	-.1705E-03	-.2589E-09	.1705E-03	.3451E-03	.5280E-03	.7238E-03	.9375E-03	.1175E-02	.1441E-02
UY	.4338E-11	.8378E-11	-.1400E-10	.8648E-13	-.1999E-10	.2823E-10	.2516E-10	-.1833E-11	.1458E-10
UZ	.1756E+00	.1757E+00	.1756E+00	.1756E+00	.1756E+00	.1755E+00	.1753E+00	.1751E+00	.1747E+00

## NORMAL STRAINS

EXX	.1730E-03	.1707E-03	.1730E-03	.1798E-03	.1913E-03	.2077E-03	.2289E-03	.2550E-03	.2855E-03
EYY	.6885E-03	.6878E-03	.6885E-03	.6906E-03	.6940E-03	.6986E-03	.7044E-03	.7111E-03	.7183E-03
EZZ	-.4850E-03	-.4834E-03	-.4850E-03	-.4899E-03	-.4979E-03	-.5094E-03	-.5241E-03	-.5420E-03	-.5625E-03

## SHEAR STRAINS

EXY	-.3464E-11	.3060E-11	-.2030E-11	.1736E-11	.3751E-11	.1682E-11	.1220E-11	.1259E-11	-.7020E-12
EXZ	-.4417E-06	-.3252E-12	.4417E-06	.8714E-06	.1274E-05	.1633E-05	.1927E-05	.2131E-05	.2214E-05
EYZ	-.7521E-14	-.2412E-13	-.1079E-13	.1534E-13	.3027E-14	-.3743E-13	.3419E-13	-.8693E-14	.7137E-14

## PRINCIPAL STRAINS

PE 1	.6885E-03	.6878E-03	.6885E-03	.6906E-03	.6940E-03	.6986E-03	.7044E-03	.7111E-03	.7183E-03
PE 2	.1730E-03	.1707E-03	.1730E-03	.1798E-03	.1913E-03	.2077E-03	.2289E-03	.2550E-03	.2855E-03
PE 3	-.4850E-03	-.4834E-03	-.4850E-03	-.4899E-03	-.4979E-03	-.5094E-03	-.5241E-03	-.5420E-03	-.5625E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1174E-02	.1171E-02	.1174E-02	.1180E-02	.1192E-02	.1208E-02	.1229E-02	.1253E-02	.1281E-02
PSE 2	.5155E-03	.5171E-03	.5155E-03	.5107E-03	.5027E-03	.4910E-03	.4754E-03	.4560E-03	.4328E-03
PSE 3	.6580E-03	.6541E-03	.6580E-03	.6697E-03	.6892E-03	.7171E-03	.7531E-03	.7970E-03	.8479E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00

Appendix 6E-a Full Depth HBP

49.00      4.00  
50.00      4.00

Z= 12.00 LAYER NO, 1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.2537E+03	.2713E+03	.2889E+03	.3077E+03	.3253E+03	.3405E+03	.3521E+03	.3614E+03	.3663E+03
SYX	.3740E+03	.3827E+03	.3908E+03	.4000E+03	.4081E+03	.4144E+03	.4183E+03	.4215E+03	.4222E+03
SZZ	-.1423E+02	-.1435E+02	-.1445E+02	-.1459E+02	-.1469E+02	-.1475E+02	-.1475E+02	-.1477E+02	-.1473E+02

SHEAR STRESSES

SXY	.1595E-06	-.4106E-06	.3282E-07	.2482E-06	-.2686E-06	-.2310E-06	-.1605E-06	.1464E-06	-.1352E-06
SXZ	.3182E+00	.2815E+00	.2138E+00	.1142E+00	-.1904E-01	-.1852E+00	-.3816E+00	-.6015E+00	-.8389E+00
SYZ	.8406E-08	.4145E-08	-.1580E-07	.8021E-09	-.1178E-07	-.1851E-08	-.8963E-08	.1881E-08	-.7723E-08

PRINCIPAL STRESSES

PS 1	.3740E+03	.3827E+03	.3908E+03	.4000E+03	.4081E+03	.4144E+03	.4183E+03	.4215E+03	.4222E+03
PS 2	.2537E+03	.2713E+03	.2889E+03	.3077E+03	.3253E+03	.3405E+03	.3521E+03	.3614E+03	.3663E+03
PS 3	-.1423E+02	-.1435E+02	-.1445E+02	-.1459E+02	-.1469E+02	-.1475E+02	-.1475E+02	-.1477E+02	-.1473E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1941E+03	.1985E+03	.2026E+03	.2073E+03	.2114E+03	.2146E+03	.2165E+03	.2181E+03	.2184E+03
PSS 2	.6014E+02	.5571E+02	.5098E+02	.4613E+02	.4138E+02	.3696E+02	.3311E+02	.3005E+02	.2794E+02
PSS 3	.1340E+03	.1428E+03	.1517E+03	.1612E+03	.1700E+03	.1776E+03	.1834E+03	.1881E+03	.1905E+03

## DISPLACEMENTS

UX	.1743E-02	.2085E-02	.2470E-02	.2881E-02	.3335E-02	.3828E-02	.4356E-02	.4894E-02	.5449E-02
UY	-.9230E-11	.3205E-10	-.5430E-10	.1519E-10	-.5346E-11	-.2857E-10	-.2822E-10	.2497E-10	-.3253E-10
UZ	.1743E+00	.1739E+00	.1736E+00	.1730E+00	.1724E+00	.1718E+00	.1713E+00	.1705E+00	.1697E+00

## NORMAL STRAINS

EXX	.3195E-03	.3559E-03	.3928E-03	.4321E-03	.4691E-03	.5015E-03	.5271E-03	.5476E-03	.5592E-03
EYY	.7255E-03	.7319E-03	.7370E-03	.7435E-03	.7484E-03	.7510E-03	.7507E-03	.7504E-03	.7478E-03
EZZ	-.5849E-03	-.6081E-03	-.6309E-03	-.6557E-03	-.6785E-03	-.6974E-03	-.7110E-03	-.7220E-03	-.7267E-03

## SHEAR STRAINS

EXY	.1077E-11	-.2772E-11	.2215E-12	.1676E-11	-.1813E-11	-.1559E-11	-.1083E-11	.9882E-12	-.9129E-12
EXZ	.2148E-05	.1900E-05	.1443E-05	.7709E-06	-.1285E-06	-.1250E-05	-.2576E-05	-.4060E-05	-.5663E-05
EYZ	.5674E-13	.2798E-13	-.1067E-12	.5414E-14	-.7949E-13	-.1249E-13	-.6050E-13	.1270E-13	-.5213E-13

## PRINCIPAL STRAINS

PE 1	.7255E-03	.7319E-03	.7370E-03	.7435E-03	.7484E-03	.7510E-03	.7507E-03	.7504E-03	.7478E-03
PE 2	.3196E-03	.3559E-03	.3928E-03	.4321E-03	.4691E-03	.5015E-03	.5271E-03	.5476E-03	.5592E-03
PE 3	-.5849E-03	-.6081E-03	-.6309E-03	-.6557E-03	-.6785E-03	-.6974E-03	-.7110E-03	-.7220E-03	-.7267E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1310E-02	.1340E-02	.1368E-02	.1399E-02	.1427E-02	.1448E-02	.1462E-02	.1472E-02	.1474E-02
PSE 2	.4059E-03	.3761E-03	.3441E-03	.3114E-03	.2793E-03	.2495E-03	.2235E-03	.2028E-03	.1886E-03
PSE 3	.9044E-03	.9640E-03	.1024E-02	.1088E-02	.1148E-02	.1199E-02	.1238E-02	.1270E-02	.1286E-02

Appendix 6E-a Full Depth HBP

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ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00



Appendix 6E-a Full Depth HBP

58.00 4.00  
59.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.3663E+03	.3613E+03	.3514E+03	.3371E+03	.3203E+03	.2999E+03	.2769E+03	.2525E+03	.2291E+03
SYX	.4201E+03	.4152E+03	.4076E+03	.3975E+03	.3865E+03	.3730E+03	.3577E+03	.3411E+03	.3255E+03
SZZ	-.1462E+02	-.1445E+02	-.1422E+02	-.1393E+02	-.1364E+02	-.1331E+02	-.1293E+02	-.1251E+02	-.1212E+02

SHEAR STRESSES

SXY	.1505E-06	.1622E-06	-.1464E-06	.1954E-06	.3264E-06	-.1032E-06	.3304E-06	.1605E-06	-.2459E-06
SXZ	-.1086E+01	-.1333E+01	-.1572E+01	-.1794E+01	-.1994E+01	-.2165E+01	-.2303E+01	-.2409E+01	-.2484E+01
SYZ	-.3706E-08	-.4222E-08	.0000E+00	-.4222E-08	-.3706E-08	-.7723E-08	.1881E-08	-.8963E-08	-.1851E-08

PRINCIPAL STRESSES

PS 1	.4201E+03	.4152E+03	.4076E+03	.3975E+03	.3865E+03	.3730E+03	.3577E+03	.3411E+03	.3255E+03
PS 2	.3663E+03	.3613E+03	.3514E+03	.3371E+03	.3203E+03	.2999E+03	.2769E+03	.2525E+03	.2292E+03
PS 3	-.1462E+02	-.1446E+02	-.1423E+02	-.1394E+02	-.1365E+02	-.1332E+02	-.1294E+02	-.1253E+02	-.1215E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2174E+03	.2148E+03	.2109E+03	.2057E+03	.2001E+03	.1932E+03	.1853E+03	.1768E+03	.1688E+03
PSS 2	.2690E+02	.2696E+02	.2810E+02	.3020E+02	.3309E+02	.3656E+02	.4038E+02	.4432E+02	.4815E+02
PSS 3	.1905E+03	.1879E+03	.1828E+03	.1755E+03	.1670E+03	.1566E+03	.1449E+03	.1325E+03	.1207E+03

## DISPLACEMENTS

UX	.6009E-02	.6567E-02	.7111E-02	.7633E-02	.8137E-02	.8600E-02	.9016E-02	.9382E-02	.9713E-02
UY	-.1794E-10	.5424E-10	-.5821E-10	.5424E-10	-.1794E-10	-.3253E-10	.2497E-10	.2999E-10	-.2857E-10
UZ	.1687E+00	.1676E+00	.1663E+00	.1649E+00	.1634E+00	.1619E+00	.1604E+00	.1589E+00	.1571E+00

## NORMAL STRAINS

EXX	.5610E-03	.5526E-03	.5343E-03	.5070E-03	.4745E-03	.4350E-03	.3906E-03	.3436E-03	.2987E-03
EYY	.7425E-03	.7346E-03	.7240E-03	.7109E-03	.6979E-03	.6818E-03	.6632E-03	.6428E-03	.6238E-03
EZZ	-.7247E-03	-.7156E-03	-.6997E-03	-.6775E-03	-.6526E-03	-.6221E-03	-.5876E-03	-.5507E-03	-.5156E-03

## SHEAR STRAINS

EXY	.1016E-11	.1095E-11	-.9882E-12	.1319E-11	.2203E-11	-.6965E-12	.2230E-11	.1083E-11	-.1660E-11
EXZ	-.7328E-05	-.8997E-05	-.1061E-04	-.1211E-04	-.1346E-04	-.1461E-04	-.1555E-04	-.1626E-04	-.1677E-04
EYZ	-.2502E-13	-.2850E-13	.0000E+00	-.2850E-13	-.2502E-13	-.5213E-13	.1270E-13	-.6050E-13	-.1249E-13

## PRINCIPAL STRAINS

PE 1	.7425E-03	.7346E-03	.7240E-03	.7109E-03	.6979E-03	.6818E-03	.6632E-03	.6428E-03	.6238E-03
PE 2	.5610E-03	.5526E-03	.5343E-03	.5071E-03	.4746E-03	.4350E-03	.3906E-03	.3437E-03	.2988E-03
PE 3	-.7247E-03	-.7156E-03	-.6997E-03	-.6776E-03	-.6526E-03	-.6221E-03	-.5876E-03	-.5507E-03	-.5157E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1467E-02	.1450E-02	.1424E-02	.1388E-02	.1351E-02	.1304E-02	.1251E-02	.1194E-02	.1139E-02
PSE 2	.1816E-03	.1820E-03	.1897E-03	.2039E-03	.2234E-03	.2468E-03	.2726E-03	.2991E-03	.3250E-03
PSE 3	.1286E-02	.1268E-02	.1234E-02	.1185E-02	.1127E-02	.1057E-02	.9783E-03	.8944E-03	.8144E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 6100.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.64 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00

Appendix 6E-a Full Depth HBP

5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1950E+03	.2050E+03	.2144E+03	.2245E+03	.2357E+03	.2479E+03	.2616E+03	.2771E+03	.2945E+03
SYX	.2745E+03	.2845E+03	.2943E+03	.3048E+03	.3162E+03	.3279E+03	.3399E+03	.3523E+03	.3650E+03
SZZ	-.1019E+02	-.1046E+02	-.1072E+02	-.1097E+02	-.1122E+02	-.1151E+02	-.1180E+02	-.1208E+02	-.1235E+02

SHEAR STRESSES

SXY	.8781E-07	.3078E-08	.2486E-06	-.2638E-06	.2991E-06	.9985E-07	.5423E-07	-.4130E-06	.1370E-06
SXZ	.1743E+01	.1692E+01	.1645E+01	.1603E+01	.1567E+01	.1536E+01	.1507E+01	.1474E+01	.1430E+01
SYZ	-.4202E-08	.7132E-08	.4271E-09	.3875E-08	.3152E-08	.1096E-08	.6985E-09	.2504E-08	.1694E-08

PRINCIPAL STRESSES

PS 1	.2745E+03	.2845E+03	.2943E+03	.3048E+03	.3162E+03	.3279E+03	.3399E+03	.3523E+03	.3650E+03
PS 2	.1951E+03	.2051E+03	.2145E+03	.2245E+03	.2357E+03	.2479E+03	.2616E+03	.2771E+03	.2945E+03
PS 3	-.1020E+02	-.1047E+02	-.1073E+02	-.1098E+02	-.1123E+02	-.1151E+02	-.1180E+02	-.1209E+02	-.1236E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1423E+03	.1475E+03	.1525E+03	.1579E+03	.1637E+03	.1697E+03	.1758E+03	.1822E+03	.1887E+03
PSS 2	.3970E+02	.3970E+02	.3990E+02	.4014E+02	.4024E+02	.3999E+02	.3916E+02	.3761E+02	.3521E+02
PSS 3	.1026E+03	.1078E+03	.1126E+03	.1177E+03	.1234E+03	.1297E+03	.1367E+03	.1446E+03	.1535E+03

## DISPLACEMENTS

UX	-.6476E-02	-.6212E-02	-.5933E-02	-.5637E-02	-.5321E-02	-.4985E-02	-.4629E-02	-.4247E-02	-.3834E-02
UY	.2321E-10	-.3882E-10	.1019E-10	.3074E-12	.6254E-11	.1209E-10	-.1894E-10	-.5207E-10	.5605E-10
UZ	.1204E+00	.1216E+00	.1227E+00	.1234E+00	.1239E+00	.1246E+00	.1253E+00	.1260E+00	.1267E+00

## NORMAL STRAINS

EXX	.2564E-03	.2729E-03	.2880E-03	.3041E-03	.3223E-03	.3429E-03	.3668E-03	.3950E-03	.4278E-03
EYY	.5244E-03	.5409E-03	.5574E-03	.5752E-03	.5940E-03	.6128E-03	.6312E-03	.6489E-03	.6655E-03
EZZ	-.4363E-03	-.4545E-03	-.4719E-03	-.4906E-03	-.5109E-03	-.5325E-03	-.5557E-03	-.5809E-03	-.6080E-03

## SHEAR STRAINS

EXY	.5927E-12	.2078E-13	.1678E-11	-.1781E-11	.2019E-11	.6740E-12	.3661E-12	-.2788E-11	.9250E-12
EXZ	.1176E-04	.1142E-04	.1110E-04	.1082E-04	.1058E-04	.1037E-04	.1017E-04	.9951E-05	.9651E-05
EYZ	-.2837E-13	.4814E-13	.2883E-14	.2616E-13	.2128E-13	.7401E-14	.4715E-14	.1690E-13	.1143E-13

## PRINCIPAL STRAINS

PE 1	.5244E-03	.5409E-03	.5574E-03	.5752E-03	.5940E-03	.6128E-03	.6312E-03	.6489E-03	.6655E-03
PE 2	.2564E-03	.2729E-03	.2881E-03	.3042E-03	.3224E-03	.3429E-03	.3668E-03	.3950E-03	.4278E-03
PE 3	-.4363E-03	-.4545E-03	-.4720E-03	-.4906E-03	-.5109E-03	-.5326E-03	-.5558E-03	-.5809E-03	-.6080E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9607E-03	.9954E-03	.1029E-02	.1066E-02	.1105E-02	.1145E-02	.1187E-02	.1230E-02	.1273E-02
PSE 2	.2680E-03	.2680E-03	.2693E-03	.2710E-03	.2717E-03	.2699E-03	.2644E-03	.2538E-03	.2377E-03
PSE 3	.6927E-03	.7274E-03	.7600E-03	.7948E-03	.8333E-03	.8754E-03	.9226E-03	.9759E-03	.1036E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 6100.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.64 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00

Appendix 6E-a Full Depth HBP

14.00 4.00  
15.00 4.00  
16.00 4.00  
17.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
9.00 4.00  
10.00 4.00  
11.00 4.00  
12.00 4.00  
13.00 4.00  
14.00 4.00  
15.00 4.00  
16.00 4.00  
17.00 4.00

NORMAL STRESSES

SXX .3137E+03 .3338E+03 .3540E+03 .3743E+03 .3937E+03 .4098E+03 .4205E+03 .4260E+03 .4263E+03  
 SYY .3776E+03 .3897E+03 .4008E+03 .4115E+03 .4214E+03 .4291E+03 .4332E+03 .4345E+03 .4333E+03  
 SZZ -.1261E+02 -.1286E+02 -.1311E+02 -.1336E+02 -.1357E+02 -.1371E+02 -.1382E+02 -.1389E+02 -.1388E+02

SHEAR STRESSES

SXY -.2946E-06 .3369E-06 -.3340E-06 .3282E-07 .1113E-06 -.1025E-06 -.1379E-06 .9136E-07 .8680E-07  
 SXZ .1365E+01 .1270E+01 .1139E+01 .9674E+00 .7543E+00 .4999E+00 .2098E+00 -.1051E+00 -.4318E+00  
 SYZ .1775E-07 .1984E-07 -.4983E-08 -.7881E-09 .8300E-08 .1324E-07 -.3125E-07 .2523E-08 .1358E-08

PRINCIPAL STRESSES

PS 1 .3776E+03 .3897E+03 .4008E+03 .4115E+03 .4214E+03 .4291E+03 .4332E+03 .4345E+03 .4333E+03  
 PS 2 .3137E+03 .3338E+03 .3540E+03 .3743E+03 .3937E+03 .4098E+03 .4205E+03 .4260E+03 .4263E+03  
 PS 3 -.1262E+02 -.1286E+02 -.1311E+02 -.1336E+02 -.1357E+02 -.1371E+02 -.1382E+02 -.1389E+02 -.1388E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1951E+03	.2013E+03	.2069E+03	.2124E+03	.2175E+03	.2214E+03	.2235E+03	.2242E+03	.2236E+03
PSS 2	.3196E+02	.2796E+02	.2340E+02	.1859E+02	.1388E+02	.9677E+01	.6350E+01	.4222E+01	.3510E+01
PSS 3	.1631E+03	.1733E+03	.1835E+03	.1938E+03	.2036E+03	.2117E+03	.2172E+03	.2200E+03	.2201E+03

## DISPLACEMENTS

UX	-.3382E-02	-.2884E-02	-.2342E-02	-.1761E-02	-.1140E-02	-.4790E-03	.2140E-03	.9172E-03	.1619E-02
UY	-.1745E-10	.4650E-10	.1237E-10	.4972E-10	-.6598E-10	-.1792E-10	.9892E-11	.6551E-11	-.4004E-10
UZ	.1274E+00	.1282E+00	.1295E+00	.1307E+00	.1314E+00	.1320E+00	.1329E+00	.1337E+00	.1339E+00

## NORMAL STRAINS

EXX	.4648E-03	.5047E-03	.5457E-03	.5874E-03	.6273E-03	.6609E-03	.6843E-03	.6971E-03	.6987E-03
EYY	.6806E-03	.6934E-03	.7037E-03	.7128E-03	.7210E-03	.7263E-03	.7271E-03	.7256E-03	.7224E-03
EZZ	-.6364E-03	-.6652E-03	-.6931E-03	-.7209E-03	-.7471E-03	-.7683E-03	-.7815E-03	-.7877E-03	-.7868E-03

## SHEAR STRAINS

EXY	-.1988E-11	.2274E-11	-.2255E-11	.2215E-12	.7510E-12	-.6921E-12	-.9311E-12	.6167E-12	.5859E-12
EXZ	.9211E-05	.8573E-05	.7687E-05	.6530E-05	.5091E-05	.3375E-05	.1416E-05	-.7092E-06	-.2915E-05
EYZ	.1198E-12	.1339E-12	-.3364E-13	-.5320E-14	.5603E-13	.8935E-13	-.2109E-12	.1703E-13	.9166E-14

## PRINCIPAL STRAINS

PE 1	.6806E-03	.6934E-03	.7037E-03	.7128E-03	.7210E-03	.7263E-03	.7271E-03	.7256E-03	.7224E-03
PE 2	.4648E-03	.5047E-03	.5457E-03	.5874E-03	.6273E-03	.6609E-03	.6843E-03	.6971E-03	.6987E-03
PE 3	-.6364E-03	-.6652E-03	-.6932E-03	-.7209E-03	-.7471E-03	-.7683E-03	-.7815E-03	-.7877E-03	-.7868E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1317E-02	.1359E-02	.1397E-02	.1434E-02	.1468E-02	.1495E-02	.1509E-02	.1513E-02	.1509E-02
PSE 2	.2157E-03	.1887E-03	.1580E-03	.1255E-03	.9371E-04	.6532E-04	.4286E-04	.2850E-04	.2369E-04
PSE 3	.1101E-02	.1170E-02	.1239E-02	.1308E-02	.1374E-02	.1429E-02	.1466E-02	.1485E-02	.1485E-02



Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 6100.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.64 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-a Full Depth HBP

---

Z= 12.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.4210E+03	.4104E+03
SYY	.4296E+03	.4234E+03
SZZ	-.1376E+02	-.1355E+02

## SHEAR STRESSES

SXY	-.1518E-06	.1379E-06
SXZ	-.7586E+00	-.1073E+01
SYZ	-.8479E-08	-.1490E-07

## PRINCIPAL STRESSES

PS 1	.4296E+03	.4234E+03
PS 2	.4210E+03	.4104E+03
PS 3	-.1376E+02	-.1355E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2217E+03	.2185E+03
PSS 2	.4297E+01	.6526E+01
PSS 3	.2174E+03	.2120E+03

## DISPLACEMENTS

UX	.2317E-02	.3008E-02
UY	-.2501E-10	-.5821E-10
UZ	.1331E+00	.1317E+00

Appendix 6E-a Full Depth HBP

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NORMAL STRAINS

EXX .6887E-03 .6673E-03  
EYY .7177E-03 .7113E-03  
EZZ -.7787E-03 -.7634E-03

SHEAR STRAINS

EXY -.1025E-11 .9311E-12  
EXZ -.5121E-05 -.7246E-05  
EYZ -.5724E-13 -.1006E-12

PRINCIPAL STRAINS

PE 1 .7177E-03 .7113E-03  
PE 2 .6887E-03 .6673E-03  
PE 3 -.7787E-03 -.7634E-03

PRINCIPAL SHEAR STRAINS

PSE 1 .1496E-02 .1475E-02  
PSE 2 .2900E-04 .4405E-04  
PSE 3 .1467E-02 .1431E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00

Appendix 6E-a Full Depth HBP

22.00 4.00  
23.00 4.00

Z= 12.00 LAYER NO, 1

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.3682E+03	.3784E+03	.3836E+03	.3836E+03	.3787E+03	.3693E+03	.3571E+03	.3415E+03	.3234E+03
SYX	.4276E+03	.4355E+03	.4406E+03	.4428E+03	.4422E+03	.4390E+03	.4347E+03	.4283E+03	.4200E+03
SZZ	-.1494E+02	-.1519E+02	-.1536E+02	-.1548E+02	-.1552E+02	-.1551E+02	-.1549E+02	-.1544E+02	-.1534E+02

SHEAR STRESSES

SXY	.2342E-06	-.9070E-07	.1997E-06	.1210E-07	-.2829E-06	-.3554E-07	-.1864E-08	.5483E-08	-.1896E-07
SXZ	.1645E+01	.1398E+01	.1141E+01	.8858E+00	.6396E+00	.4111E+00	.2068E+00	.3306E-01	-.1069E+00
SYZ	.5094E-08	.6151E-08	-.6009E-09	.3780E-08	.1592E-08	.1944E-08	-.9924E-09	.4383E-08	.1089E-08

PRINCIPAL STRESSES

PS 1	.4276E+03	.4355E+03	.4406E+03	.4428E+03	.4422E+03	.4390E+03	.4347E+03	.4283E+03	.4200E+03
PS 2	.3682E+03	.3784E+03	.3836E+03	.3836E+03	.3787E+03	.3693E+03	.3571E+03	.3415E+03	.3234E+03
PS 3	-.1495E+02	-.1519E+02	-.1537E+02	-.1548E+02	-.1552E+02	-.1551E+02	-.1549E+02	-.1544E+02	-.1534E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2213E+03	.2253E+03	.2280E+03	.2291E+03	.2288E+03	.2273E+03	.2251E+03	.2219E+03	.2176E+03
PSS 2	.2968E+02	.2853E+02	.2848E+02	.2955E+02	.3172E+02	.3487E+02	.3883E+02	.4337E+02	.4828E+02
PSS 3	.1916E+03	.1968E+03	.1995E+03	.1996E+03	.1971E+03	.1924E+03	.1863E+03	.1785E+03	.1694E+03

## DISPLACEMENTS

UX	-.7471E-02	-.6901E-02	-.6318E-02	-.5731E-02	-.5150E-02	-.4586E-02	-.4036E-02	-.3518E-02	-.3042E-02
UY	.3451E-10	-.5557E-11	.9828E-11	.4364E-11	-.1780E-11	-.4552E-11	.1587E-10	-.1878E-11	-.3375E-10
UZ	.1747E+00	.1760E+00	.1772E+00	.1783E+00	.1792E+00	.1799E+00	.1805E+00	.1812E+00	.1819E+00

## NORMAL STRAINS

EXX	.5595E-03	.5783E-03	.5869E-03	.5852E-03	.5735E-03	.5526E-03	.5258E-03	.4926E-03	.4545E-03
EYY	.7598E-03	.7709E-03	.7792E-03	.7847E-03	.7876E-03	.7880E-03	.7879E-03	.7853E-03	.7803E-03
EZZ	-.7337E-03	-.7501E-03	-.7595E-03	-.7618E-03	-.7571E-03	-.7460E-03	-.7315E-03	-.7122E-03	-.6888E-03

## SHEAR STRAINS

EXY	.1581E-11	-.6122E-12	.1348E-11	.8164E-13	-.1910E-11	-.2399E-12	-.1258E-13	.3701E-13	-.1280E-12
EXZ	.1111E-04	.9434E-05	.7705E-05	.5979E-05	.4317E-05	.2775E-05	.1396E-05	.2232E-06	-.7218E-06
EYZ	.3438E-13	.4152E-13	-.4056E-14	.2551E-13	.1074E-13	.1312E-13	-.6699E-14	.2959E-13	.7348E-14

## PRINCIPAL STRAINS

PE 1	.7598E-03	.7709E-03	.7792E-03	.7847E-03	.7876E-03	.7880E-03	.7879E-03	.7853E-03	.7803E-03
PE 2	.5595E-03	.5783E-03	.5870E-03	.5853E-03	.5735E-03	.5526E-03	.5258E-03	.4926E-03	.4545E-03
PE 3	-.7337E-03	-.7501E-03	-.7596E-03	-.7618E-03	-.7571E-03	-.7460E-03	-.7315E-03	-.7122E-03	-.6888E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1494E-02	.1521E-02	.1539E-02	.1547E-02	.1545E-02	.1534E-02	.1519E-02	.1498E-02	.1469E-02
PSE 2	.2003E-03	.1926E-03	.1922E-03	.1995E-03	.2141E-03	.2353E-03	.2621E-03	.2928E-03	.3259E-03
PSE 3	.1293E-02	.1328E-02	.1347E-02	.1347E-02	.1331E-02	.1299E-02	.1257E-02	.1205E-02	.1143E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-a Full Depth HBP

31.00      4.00  
32.00      4.00

Z= 12.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.3039E+03	.2854E+03	.2672E+03	.2499E+03	.2342E+03	.2207E+03	.2096E+03	.2010E+03	.1950E+03
SYX	.4105E+03	.4018E+03	.3928E+03	.3838E+03	.3755E+03	.3680E+03	.3618E+03	.3569E+03	.3534E+03
SZZ	-.1519E+02	-.1508E+02	-.1496E+02	-.1483E+02	-.1470E+02	-.1457E+02	-.1446E+02	-.1437E+02	-.1430E+02

SHEAR STRESSES

SXY	-.3335E-06	.3817E-06	.1929E-06	.1735E-06	.1557E-07	.2267E-06	.6611E-06	.1348E-06	-.7983E-07
SXZ	-.2123E+00	-.2845E+00	-.3246E+00	-.3367E+00	-.3253E+00	-.2952E+00	-.2507E+00	-.1959E+00	-.1342E+00
SYZ	.3777E-08	-.4018E-08	.8601E-08	-.1026E-07	-.9740E-08	-.2814E-08	-.8819E-10	-.3664E-08	-.8847E-08

PRINCIPAL STRESSES

PS 1	.4105E+03	.4018E+03	.3928E+03	.3838E+03	.3755E+03	.3680E+03	.3618E+03	.3569E+03	.3534E+03
PS 2	.3039E+03	.2854E+03	.2672E+03	.2499E+03	.2342E+03	.2207E+03	.2096E+03	.2010E+03	.1950E+03
PS 3	-.1519E+02	-.1508E+02	-.1496E+02	-.1483E+02	-.1470E+02	-.1457E+02	-.1446E+02	-.1437E+02	-.1430E+02



## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2129E+03	.2084E+03	.2039E+03	.1993E+03	.1951E+03	.1913E+03	.1881E+03	.1856E+03	.1838E+03
PSS 2	.5330E+02	.5822E+02	.6283E+02	.6700E+02	.7062E+02	.7365E+02	.7608E+02	.7792E+02	.7920E+02
PSS 3	.1596E+03	.1502E+03	.1411E+03	.1323E+03	.1245E+03	.1176E+03	.1120E+03	.1077E+03	.1046E+03

## DISPLACEMENTS

UX	-.2609E-02	-.2207E-02	-.1846E-02	-.1528E-02	-.1245E-02	-.9943E-03	-.7678E-03	-.5602E-03	-.3661E-03
UY	-.3476E-10	.4440E-10	.3989E-10	.1950E-10	.5186E-10	-.1339E-10	.3687E-10	-.4218E-12	.8314E-11
UZ	.1824E+00	.1828E+00	.1833E+00	.1837E+00	.1841E+00	.1843E+00	.1845E+00	.1846E+00	.1847E+00

## NORMAL STRAINS

EXX	.4139E-03	.3750E-03	.3373E-03	.3017E-03	.2699E-03	.2425E-03	.2201E-03	.2029E-03	.1908E-03
EYY	.7737E-03	.7680E-03	.7614E-03	.7540E-03	.7465E-03	.7396E-03	.7337E-03	.7288E-03	.7253E-03
EZZ	-.6632E-03	-.6390E-03	-.6149E-03	-.5916E-03	-.5702E-03	-.5515E-03	-.5361E-03	-.5241E-03	-.5156E-03

## SHEAR STRAINS

EXY	-.2251E-11	.2576E-11	.1302E-11	.1171E-11	.1051E-12	.1530E-11	.4463E-11	.9097E-12	-.5389E-12
EXZ	-.1433E-05	-.1920E-05	-.2191E-05	-.2272E-05	-.2196E-05	-.1993E-05	-.1692E-05	-.1322E-05	-.9056E-06
EYZ	.2550E-13	-.2712E-13	.5806E-13	-.6924E-13	-.6575E-13	-.1899E-13	-.5953E-15	-.2473E-13	-.5972E-13

## PRINCIPAL STRAINS

PE 1	.7737E-03	.7680E-03	.7614E-03	.7540E-03	.7465E-03	.7396E-03	.7337E-03	.7288E-03	.7253E-03
PE 2	.4139E-03	.3750E-03	.3373E-03	.3017E-03	.2699E-03	.2425E-03	.2201E-03	.2029E-03	.1908E-03
PE 3	-.6632E-03	-.6390E-03	-.6149E-03	-.5916E-03	-.5702E-03	-.5515E-03	-.5361E-03	-.5241E-03	-.5156E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1437E-02	.1407E-02	.1376E-02	.1346E-02	.1317E-02	.1291E-02	.1270E-02	.1253E-02	.1241E-02
PSE 2	.3598E-03	.3930E-03	.4241E-03	.4522E-03	.4767E-03	.4971E-03	.5136E-03	.5260E-03	.5346E-03
PSE 3	.1077E-02	.1014E-02	.9522E-03	.8933E-03	.8401E-03	.7940E-03	.7562E-03	.7269E-03	.7063E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00

Appendix 6E-a Full Depth HBP

40.00      4.00  
41.00      4.00

Z= 12.00 LAYER NO, 1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.1914E+03	.1901E+03	.1914E+03	.1950E+03	.2010E+03	.2096E+03	.2207E+03	.2342E+03	.2499E+03
SYX	.3513E+03	.3506E+03	.3513E+03	.3534E+03	.3569E+03	.3618E+03	.3680E+03	.3755E+03	.3838E+03
SZZ	-.1426E+02	-.1424E+02	-.1426E+02	-.1430E+02	-.1437E+02	-.1446E+02	-.1457E+02	-.1470E+02	-.1483E+02

SHEAR STRESSES

SXY	-.1848E-06	-.3519E-06	.4309E-07	-.1882E-06	-.2228E-06	.2661E-06	.2451E-06	.2576E-07	-.1879E-06
SXZ	-.6805E-01	-.5101E-07	.6805E-01	.1342E+00	.1959E+00	.2507E+00	.2952E+00	.3253E+00	.3367E+00
SYZ	.3948E-08	-.7368E-10	.2614E-08	-.6508E-08	-.9144E-08	.3149E-08	.3395E-08	.1121E-07	.7838E-08

PRINCIPAL STRESSES

PS 1	.3513E+03	.3506E+03	.3513E+03	.3534E+03	.3569E+03	.3618E+03	.3680E+03	.3755E+03	.3838E+03
PS 2	.1914E+03	.1901E+03	.1914E+03	.1950E+03	.2010E+03	.2096E+03	.2207E+03	.2342E+03	.2499E+03
PS 3	-.1426E+02	-.1424E+02	-.1426E+02	-.1430E+02	-.1437E+02	-.1446E+02	-.1457E+02	-.1470E+02	-.1483E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1828E+03	.1824E+03	.1828E+03	.1838E+03	.1856E+03	.1881E+03	.1913E+03	.1951E+03	.1993E+03
PSS 2	.7995E+02	.8021E+02	.7995E+02	.7920E+02	.7792E+02	.7608E+02	.7365E+02	.7062E+02	.6700E+02
PSS 3	.1028E+03	.1022E+03	.1028E+03	.1046E+03	.1077E+03	.1120E+03	.1176E+03	.1245E+03	.1323E+03

## DISPLACEMENTS

UX	-.1809E-03	-.5221E-10	.1809E-03	.3661E-03	.5602E-03	.7678E-03	.9943E-03	.1245E-02	.1528E-02
UY	-.4613E-11	-.5468E-11	-.9712E-11	-.5464E-11	.1003E-10	.3355E-10	.1518E-10	-.1546E-10	.3261E-10
UZ	.1847E+00	.1847E+00	.1847E+00	.1847E+00	.1846E+00	.1845E+00	.1843E+00	.1841E+00	.1837E+00

## NORMAL STRAINS

EXX	.1835E-03	.1811E-03	.1835E-03	.1908E-03	.2029E-03	.2201E-03	.2425E-03	.2699E-03	.3017E-03
EYY	.7232E-03	.7225E-03	.7232E-03	.7253E-03	.7288E-03	.7337E-03	.7396E-03	.7465E-03	.7540E-03
EZZ	-.5104E-03	-.5087E-03	-.5104E-03	-.5156E-03	-.5241E-03	-.5361E-03	-.5515E-03	-.5702E-03	-.5916E-03

## SHEAR STRAINS

EXY	-.1248E-11	-.2376E-11	.2909E-12	-.1270E-11	-.1504E-11	.1796E-11	.1654E-11	.1739E-12	-.1268E-11
EXZ	-.4594E-06	-.3443E-12	.4594E-06	.9056E-06	.1322E-05	.1692E-05	.1993E-05	.2196E-05	.2272E-05
EYZ	.2665E-13	-.4973E-15	.1765E-13	-.4393E-13	-.6172E-13	.2126E-13	.2292E-13	.7563E-13	.5291E-13

## PRINCIPAL STRAINS

PE 1	.7232E-03	.7225E-03	.7232E-03	.7253E-03	.7288E-03	.7337E-03	.7396E-03	.7465E-03	.7540E-03
PE 2	.1835E-03	.1811E-03	.1835E-03	.1908E-03	.2029E-03	.2201E-03	.2425E-03	.2699E-03	.3017E-03
PE 3	-.5104E-03	-.5087E-03	-.5104E-03	-.5156E-03	-.5241E-03	-.5361E-03	-.5515E-03	-.5702E-03	-.5916E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1234E-02	.1231E-02	.1234E-02	.1241E-02	.1253E-02	.1270E-02	.1291E-02	.1317E-02	.1346E-02
PSE 2	.5397E-03	.5414E-03	.5397E-03	.5346E-03	.5260E-03	.5136E-03	.4971E-03	.4767E-03	.4522E-03
PSE 3	.6940E-03	.6898E-03	.6940E-03	.7063E-03	.7269E-03	.7562E-03	.7940E-03	.8401E-03	.8933E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00

Appendix 6E-a Full Depth HBP

49.00      4.00  
50.00      4.00

Z= 12.00 LAYER NO, 1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.2672E+03	.2854E+03	.3039E+03	.3234E+03	.3415E+03	.3571E+03	.3693E+03	.3787E+03	.3836E+03
SYX	.3928E+03	.4018E+03	.4105E+03	.4200E+03	.4283E+03	.4347E+03	.4390E+03	.4422E+03	.4428E+03
SZZ	-.1496E+02	-.1508E+02	-.1519E+02	-.1534E+02	-.1544E+02	-.1549E+02	-.1551E+02	-.1552E+02	-.1548E+02

SHEAR STRESSES

SXY	.9560E-07	.2508E-06	-.4733E-06	.3486E-06	-.1002E-06	.1305E-06	.2384E-06	.1497E-06	.1089E-06
SXZ	.3246E+00	.2845E+00	.2123E+00	.1069E+00	-.3306E-01	-.2068E+00	-.4111E+00	-.6396E+00	-.8858E+00
SYZ	.2232E-08	-.1156E-08	.3834E-08	-.9723E-08	-.7928E-08	-.4413E-08	-.2448E-07	-.1073E-07	-.1608E-08

PRINCIPAL STRESSES

PS 1	.3928E+03	.4018E+03	.4105E+03	.4200E+03	.4283E+03	.4347E+03	.4390E+03	.4422E+03	.4428E+03
PS 2	.2672E+03	.2854E+03	.3039E+03	.3234E+03	.3415E+03	.3571E+03	.3693E+03	.3787E+03	.3836E+03
PS 3	-.1496E+02	-.1508E+02	-.1519E+02	-.1534E+02	-.1544E+02	-.1549E+02	-.1551E+02	-.1552E+02	-.1548E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2039E+03	.2084E+03	.2129E+03	.2176E+03	.2219E+03	.2251E+03	.2273E+03	.2288E+03	.2291E+03
PSS 2	.6283E+02	.5822E+02	.5330E+02	.4828E+02	.4337E+02	.3883E+02	.3487E+02	.3172E+02	.2955E+02
PSS 3	.1411E+03	.1502E+03	.1596E+03	.1694E+03	.1785E+03	.1863E+03	.1924E+03	.1971E+03	.1996E+03

## DISPLACEMENTS

UX	.1846E-02	.2207E-02	.2609E-02	.3042E-02	.3518E-02	.4036E-02	.4586E-02	.5150E-02	.5731E-02
UY	-.3527E-10	-.4887E-10	-.2292E-10	-.3609E-10	-.1176E-10	-.2183E-10	-.2733E-10	-.2475E-10	.1360E-10
UZ	.1833E+00	.1828E+00	.1824E+00	.1819E+00	.1812E+00	.1805E+00	.1799E+00	.1792E+00	.1783E+00

## NORMAL STRAINS

EXX	.3373E-03	.3750E-03	.4139E-03	.4545E-03	.4926E-03	.5258E-03	.5526E-03	.5735E-03	.5852E-03
EYY	.7614E-03	.7680E-03	.7737E-03	.7803E-03	.7853E-03	.7879E-03	.7880E-03	.7876E-03	.7847E-03
EZZ	-.6149E-03	-.6390E-03	-.6632E-03	-.6888E-03	-.7122E-03	-.7315E-03	-.7460E-03	-.7571E-03	-.7618E-03

## SHEAR STRAINS

EXY	.6453E-12	.1693E-11	-.3195E-11	.2353E-11	-.6762E-12	.8810E-12	.1609E-11	.1011E-11	.7351E-12
EXZ	.2191E-05	.1920E-05	.1433E-05	.7218E-06	-.2232E-06	-.1396E-05	-.2775E-05	-.4317E-05	-.5979E-05
EYZ	.1507E-13	-.7800E-14	.2588E-13	-.6563E-13	-.5351E-13	-.2979E-13	-.1652E-12	-.7245E-13	-.1085E-13

## PRINCIPAL STRAINS

PE 1	.7614E-03	.7680E-03	.7737E-03	.7803E-03	.7853E-03	.7879E-03	.7880E-03	.7876E-03	.7847E-03
PE 2	.3373E-03	.3750E-03	.4139E-03	.4545E-03	.4926E-03	.5258E-03	.5526E-03	.5735E-03	.5853E-03
PE 3	-.6149E-03	-.6390E-03	-.6632E-03	-.6888E-03	-.7122E-03	-.7315E-03	-.7460E-03	-.7571E-03	-.7618E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1376E-02	.1407E-02	.1437E-02	.1469E-02	.1498E-02	.1519E-02	.1534E-02	.1545E-02	.1547E-02
PSE 2	.4241E-03	.3930E-03	.3598E-03	.3259E-03	.2928E-03	.2621E-03	.2353E-03	.2141E-03	.1995E-03
PSE 3	.9522E-03	.1014E-02	.1077E-02	.1143E-02	.1205E-02	.1257E-02	.1299E-02	.1331E-02	.1347E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00



Appendix 6E-a Full Depth HBP

58.00      4.00  
59.00      4.00

Z= 12.00 LAYER NO, 1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.3836E+03	.3784E+03	.3682E+03	.3534E+03	.3358E+03	.3147E+03	.2909E+03	.2656E+03	.2410E+03
SYX	.4406E+03	.4355E+03	.4276E+03	.4171E+03	.4054E+03	.3914E+03	.3755E+03	.3583E+03	.3416E+03
SZZ	-.1536E+02	-.1519E+02	-.1494E+02	-.1464E+02	-.1433E+02	-.1399E+02	-.1359E+02	-.1315E+02	-.1274E+02

SHEAR STRESSES

SXY	-.3920E-07	-.1132E-06	-.1497E-06	.2324E-06	-.1992E-06	.1295E-06	.3271E-06	-.2384E-06	.3463E-06
SXZ	-.1141E+01	-.1398E+01	-.1645E+01	-.1877E+01	-.2085E+01	-.2263E+01	-.2409E+01	-.2521E+01	-.2600E+01
SYZ	-.9677E-09	-.1190E-07	.0000E+00	.1790E-07	-.9677E-09	-.1608E-08	.1907E-07	.5325E-08	-.4413E-08

PRINCIPAL STRESSES

PS 1	.4406E+03	.4355E+03	.4276E+03	.4171E+03	.4054E+03	.3914E+03	.3755E+03	.3583E+03	.3416E+03
PS 2	.3836E+03	.3784E+03	.3682E+03	.3534E+03	.3358E+03	.3147E+03	.2910E+03	.2656E+03	.2410E+03
PS 3	-.1537E+02	-.1519E+02	-.1495E+02	-.1465E+02	-.1435E+02	-.1400E+02	-.1361E+02	-.1317E+02	-.1276E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2280E+03	.2253E+03	.2213E+03	.2159E+03	.2099E+03	.2027E+03	.1945E+03	.1857E+03	.1772E+03
PSS 2	.2848E+02	.2853E+02	.2968E+02	.3181E+02	.3477E+02	.3833E+02	.4226E+02	.4633E+02	.5031E+02
PSS 3	.1995E+03	.1968E+03	.1916E+03	.1840E+03	.1751E+03	.1644E+03	.1523E+03	.1394E+03	.1269E+03

## DISPLACEMENTS

UX	.6318E-02	.6901E-02	.7471E-02	.8017E-02	.8542E-02	.9028E-02	.9465E-02	.9850E-02	.1020E-01
UY	-.4925E-12	-.5486E-11	.0000E+00	.5272E-10	-.4925E-12	.1360E-10	.3345E-10	-.2733E-10	.3637E-10
UZ	.1772E+00	.1760E+00	.1747E+00	.1733E+00	.1717E+00	.1702E+00	.1686E+00	.1670E+00	.1652E+00

## NORMAL STRAINS

EXX	.5869E-03	.5783E-03	.5595E-03	.5314E-03	.4974E-03	.4566E-03	.4107E-03	.3620E-03	.3147E-03
EYY	.7792E-03	.7709E-03	.7598E-03	.7462E-03	.7321E-03	.7154E-03	.6960E-03	.6748E-03	.6544E-03
EZZ	-.7595E-03	-.7501E-03	-.7337E-03	-.7108E-03	-.6843E-03	-.6528E-03	-.6171E-03	-.5788E-03	-.5416E-03

## SHEAR STRAINS

EXY	-.2646E-12	-.7641E-12	-.1011E-11	.1569E-11	-.1345E-11	.8742E-12	.2208E-11	-.1609E-11	.2338E-11
EXZ	-.7705E-05	-.9434E-05	-.1111E-04	-.1267E-04	-.1407E-04	-.1528E-04	-.1626E-04	-.1701E-04	-.1755E-04
EYZ	-.6532E-14	-.8031E-13	.0000E+00	.1209E-12	-.6532E-14	-.1085E-13	.1287E-12	.3594E-13	-.2979E-13

## PRINCIPAL STRAINS

PE 1	.7792E-03	.7709E-03	.7598E-03	.7462E-03	.7321E-03	.7154E-03	.6960E-03	.6748E-03	.6544E-03
PE 2	.5869E-03	.5783E-03	.5595E-03	.5315E-03	.4974E-03	.4566E-03	.4107E-03	.3621E-03	.3148E-03
PE 3	-.7596E-03	-.7501E-03	-.7337E-03	-.7108E-03	-.6844E-03	-.6529E-03	-.6171E-03	-.5789E-03	-.5417E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1539E-02	.1521E-02	.1494E-02	.1457E-02	.1416E-02	.1368E-02	.1313E-02	.1254E-02	.1196E-02
PSE 2	.1922E-03	.1926E-03	.2003E-03	.2147E-03	.2347E-03	.2587E-03	.2853E-03	.3127E-03	.3396E-03
PSE 3	.1347E-02	.1328E-02	.1293E-02	.1242E-02	.1182E-02	.1110E-02	.1028E-02	.9410E-03	.8565E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5225.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.30 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00

Appendix 6E-a Full Depth HBP

5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1672E+03	.1756E+03	.1838E+03	.1924E+03	.2017E+03	.2119E+03	.2235E+03	.2367E+03	.2517E+03
SYX	.2353E+03	.2439E+03	.2525E+03	.2618E+03	.2715E+03	.2815E+03	.2918E+03	.3025E+03	.3134E+03
SZZ	-.8767E+01	-.8999E+01	-.9208E+01	-.9405E+01	-.9624E+01	-.9864E+01	-.1011E+02	-.1036E+02	-.1059E+02

SHEAR STRESSES

SXY	-.2012E-06	.1495E-06	-.8657E-07	-.3417E-06	-.1767E-06	.1631E-06	-.2427E-07	-.2432E-06	-.9416E-07
SXZ	.1495E+01	.1451E+01	.1409E+01	.1372E+01	.1342E+01	.1317E+01	.1295E+01	.1270E+01	.1235E+01
SYZ	.6977E-08	.7303E-08	-.2832E-08	.2982E-08	.1757E-08	.6448E-08	.3993E-09	-.1065E-09	.3302E-08

PRINCIPAL STRESSES

PS 1	.2353E+03	.2439E+03	.2525E+03	.2618E+03	.2715E+03	.2815E+03	.2918E+03	.3025E+03	.3134E+03
PS 2	.1672E+03	.1756E+03	.1838E+03	.1924E+03	.2017E+03	.2119E+03	.2235E+03	.2367E+03	.2517E+03
PS 3	-.8780E+01	-.9010E+01	-.9218E+01	-.9414E+01	-.9633E+01	-.9871E+01	-.1012E+02	-.1036E+02	-.1060E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1221E+03	.1265E+03	.1309E+03	.1356E+03	.1406E+03	.1457E+03	.1510E+03	.1564E+03	.1620E+03
PSS 2	.3409E+02	.3414E+02	.3439E+02	.3470E+02	.3489E+02	.3478E+02	.3416E+02	.3289E+02	.3086E+02
PSS 3	.8798E+02	.9232E+02	.9650E+02	.1009E+03	.1057E+03	.1109E+03	.1168E+03	.1235E+03	.1312E+03

## DISPLACEMENTS

UX	-.5558E-02	-.5332E-02	-.5093E-02	-.4838E-02	-.4568E-02	-.4282E-02	-.3978E-02	-.3654E-02	-.3302E-02
UY	.9871E-11	-.1972E-10	.1455E-10	.1799E-10	-.1649E-10	-.6284E-11	.1409E-10	-.1019E-10	-.1770E-10
UZ	.1036E+00	.1046E+00	.1054E+00	.1058E+00	.1062E+00	.1067E+00	.1074E+00	.1080E+00	.1086E+00

## NORMAL STRAINS

EXX	.2196E-03	.2335E-03	.2465E-03	.2602E-03	.2751E-03	.2921E-03	.3122E-03	.3361E-03	.3643E-03
EYY	.4498E-03	.4640E-03	.4786E-03	.4944E-03	.5107E-03	.5269E-03	.5428E-03	.5581E-03	.5726E-03
EZZ	-.3741E-03	-.3896E-03	-.4048E-03	-.4210E-03	-.4381E-03	-.4564E-03	-.4761E-03	-.4976E-03	-.5210E-03

## SHEAR STRAINS

EXY	-.1358E-11	.1009E-11	-.5844E-12	-.2306E-11	-.1193E-11	.1101E-11	-.1638E-12	-.1642E-11	-.6356E-12
EXZ	.1009E-04	.9791E-05	.9511E-05	.9264E-05	.9059E-05	.8891E-05	.8740E-05	.8572E-05	.8339E-05
EYZ	.4709E-13	.4929E-13	-.1912E-13	.2013E-13	.1186E-13	.4352E-13	.2696E-14	-.7191E-15	.2229E-13

## PRINCIPAL STRAINS

PE 1	.4498E-03	.4640E-03	.4786E-03	.4944E-03	.5107E-03	.5269E-03	.5428E-03	.5581E-03	.5726E-03
PE 2	.2197E-03	.2335E-03	.2465E-03	.2602E-03	.2752E-03	.2921E-03	.3122E-03	.3361E-03	.3643E-03
PE 3	-.3742E-03	-.3896E-03	-.4048E-03	-.4210E-03	-.4381E-03	-.4564E-03	-.4761E-03	-.4977E-03	-.5210E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.8239E-03	.8536E-03	.8835E-03	.9155E-03	.9488E-03	.9833E-03	.1019E-02	.1056E-02	.1094E-02
PSE 2	.2301E-03	.2304E-03	.2321E-03	.2342E-03	.2355E-03	.2348E-03	.2306E-03	.2220E-03	.2083E-03
PSE 3	.5938E-03	.6232E-03	.6514E-03	.6813E-03	.7133E-03	.7486E-03	.7883E-03	.8338E-03	.8853E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5225.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.30 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00

Appendix 6E-a Full Depth HBP

14.00 4.00  
15.00 4.00  
16.00 4.00  
17.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
9.00 4.00  
10.00 4.00  
11.00 4.00  
12.00 4.00  
13.00 4.00  
14.00 4.00  
15.00 4.00  
16.00 4.00  
17.00 4.00

NORMAL STRESSES

SXX .2683E+03 .2860E+03 .3038E+03 .3213E+03 .3383E+03 .3525E+03 .3622E+03 .3668E+03 .3671E+03  
 SYY .3245E+03 .3351E+03 .3449E+03 .3538E+03 .3624E+03 .3691E+03 .3729E+03 .3736E+03 .3726E+03  
 SZZ -.1082E+02 -.1103E+02 -.1125E+02 -.1150E+02 -.1170E+02 -.1184E+02 -.1194E+02 -.1203E+02 -.1202E+02

SHEAR STRESSES

SXY -.1541E-06 .2940E-06 .4175E-06 -.2984E-08 .1554E-07 .2069E-06 -.1485E-06 .1902E-06 -.1246E-07  
 SXZ .1183E+01 .1105E+01 .9949E+00 .8482E+00 .6646E+00 .4442E+00 .1916E+00 -.8417E-01 -.3704E+00  
 SYZ -.1048E-07 .1481E-07 .1809E-07 .7890E-08 .7131E-08 .3664E-08 .7026E-08 .5192E-08 .4208E-08

PRINCIPAL STRESSES

PS 1 .3245E+03 .3351E+03 .3449E+03 .3538E+03 .3624E+03 .3691E+03 .3729E+03 .3736E+03 .3726E+03  
 PS 2 .2683E+03 .2860E+03 .3038E+03 .3213E+03 .3383E+03 .3525E+03 .3622E+03 .3668E+03 .3671E+03  
 PS 3 -.1082E+02 -.1103E+02 -.1126E+02 -.1150E+02 -.1170E+02 -.1184E+02 -.1194E+02 -.1203E+02 -.1202E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1676E+03	.1731E+03	.1781E+03	.1827E+03	.1871E+03	.1905E+03	.1924E+03	.1928E+03	.1923E+03
PSS 2	.2805E+02	.2456E+02	.2054E+02	.1627E+02	.1207E+02	.8302E+01	.5310E+01	.3390E+01	.2740E+01
PSS 3	.1396E+03	.1485E+03	.1575E+03	.1664E+03	.1750E+03	.1822E+03	.1871E+03	.1894E+03	.1896E+03

## DISPLACEMENTS

UX	-.2916E-02	-.2492E-02	-.2027E-02	-.1526E-02	-.9924E-03	-.4233E-03	.1734E-03	.7827E-03	.1390E-02
UY	.5289E-10	.7977E-11	-.1306E-10	-.9497E-11	.3198E-10	.2087E-10	-.7130E-10	.5962E-10	.1119E-10
UZ	.1092E+00	.1099E+00	.1110E+00	.1125E+00	.1133E+00	.1140E+00	.1148E+00	.1159E+00	.1161E+00

## NORMAL STRAINS

EXX	.3964E-03	.4314E-03	.4676E-03	.5037E-03	.5388E-03	.5686E-03	.5898E-03	.6006E-03	.6023E-03
EYY	.5858E-03	.5971E-03	.6062E-03	.6135E-03	.6203E-03	.6247E-03	.6257E-03	.6235E-03	.6208E-03
EZZ	-.5457E-03	-.5710E-03	-.5957E-03	-.6195E-03	-.6424E-03	-.6610E-03	-.6731E-03	-.6779E-03	-.6773E-03

## SHEAR STRAINS

EXY	-.1040E-11	.1984E-11	.2818E-11	-.2014E-13	.1049E-12	.1397E-11	-.1002E-11	.1284E-11	-.8407E-13
EXZ	.7986E-05	.7460E-05	.6716E-05	.5725E-05	.4486E-05	.2998E-05	.1293E-05	-.5682E-06	-.2500E-05
EYZ	-.7077E-13	.9994E-13	.1221E-12	.5326E-13	.4813E-13	.2473E-13	.4742E-13	.3505E-13	.2841E-13

## PRINCIPAL STRAINS

PE 1	.5858E-03	.5971E-03	.6062E-03	.6135E-03	.6203E-03	.6247E-03	.6257E-03	.6235E-03	.6208E-03
PE 2	.3964E-03	.4314E-03	.4676E-03	.5037E-03	.5388E-03	.5686E-03	.5898E-03	.6006E-03	.6023E-03
PE 3	-.5457E-03	-.5710E-03	-.5957E-03	-.6195E-03	-.6424E-03	-.6610E-03	-.6731E-03	-.6779E-03	-.6773E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1132E-02	.1168E-02	.1202E-02	.1233E-02	.1263E-02	.1286E-02	.1299E-02	.1301E-02	.1298E-02
PSE 2	.1894E-03	.1658E-03	.1386E-03	.1098E-03	.8148E-04	.5604E-04	.3584E-04	.2288E-04	.1850E-04
PSE 3	.9422E-03	.1002E-02	.1063E-02	.1123E-02	.1181E-02	.1230E-02	.1263E-02	.1279E-02	.1280E-02



Appendix 6E-a Full Depth HBP

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ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5225.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.30 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-a Full Depth HBP

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Z= 12.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.3625E+03	.3536E+03
SYY	.3694E+03	.3645E+03
SZZ	-.1191E+02	-.1171E+02

## SHEAR STRESSES

SXY	.2027E-07	-.3283E-06
SXZ	-.6567E+00	-.9326E+00
SYZ	.5175E-08	-.1490E-07

## PRINCIPAL STRESSES

PS 1	.3694E+03	.3645E+03
PS 2	.3625E+03	.3536E+03
PS 3	-.1192E+02	-.1171E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.1907E+03	.1881E+03
PSS 2	.3439E+01	.5431E+01
PSS 3	.1872E+03	.1827E+03

## DISPLACEMENTS

UX	.1993E-02	.2592E-02
UY	.2710E-10	-.2910E-10
UZ	.1154E+00	.1137E+00

Appendix 6E-a Full Depth HBP

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NORMAL STRAINS

EXX .5935E-03 .5754E-03  
EYY .6167E-03 .6121E-03  
EZZ -.6702E-03 -.6576E-03

SHEAR STRAINS

EXY .1368E-12 -.2216E-11  
EXZ -.4433E-05 -.6295E-05  
EYZ .3493E-13 -.1006E-12

PRINCIPAL STRAINS

PE 1 .6167E-03 .6121E-03  
PE 2 .5935E-03 .5754E-03  
PE 3 -.6702E-03 -.6576E-03

PRINCIPAL SHEAR STRAINS

PSE 1 .1287E-02 .1270E-02  
PSE 2 .2321E-04 .3666E-04  
PSE 3 .1264E-02 .1233E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00

Appendix 6E-a Full Depth HBP

20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

NORMAL STRESSES

SXX .3242E+03 .3350E+03 .3413E+03 .3430E+03 .3401E+03 .3341E+03 .3253E+03 .3133E+03 .2994E+03  
 SYY .4066E+03 .4156E+03 .4221E+03 .4261E+03 .4277E+03 .4278E+03 .4265E+03 .4232E+03 .4184E+03  
 SZZ -.1470E+02 -.1498E+02 -.1521E+02 -.1538E+02 -.1549E+02 -.1558E+02 -.1565E+02 -.1568E+02 -.1567E+02

SHEAR STRESSES

SXY .2182E-06 -.8626E-07 .1036E-06 -.7171E-09 .3481E-08 -.2856E-06 .1416E-06 .2028E-06 -.2494E-08  
 SXZ .1970E+01 .1763E+01 .1547E+01 .1333E+01 .1127E+01 .9385E+00 .7729E+00 .6363E+00 .5313E+00  
 SYZ .6554E-08 .2602E-07 .5643E-08 -.1947E-07 -.1075E-08 -.1790E-07 .8894E-08 -.4567E-08 .5901E-08

PRINCIPAL STRESSES

PS 1 .4066E+03 .4156E+03 .4221E+03 .4261E+03 .4277E+03 .4278E+03 .4265E+03 .4232E+03 .4184E+03  
 PS 2 .3242E+03 .3350E+03 .3413E+03 .3430E+03 .3402E+03 .3341E+03 .3253E+03 .3133E+03 .2994E+03  
 PS 3 -.1471E+02 -.1499E+02 -.1522E+02 -.1539E+02 -.1550E+02 -.1558E+02 -.1565E+02 -.1568E+02 -.1567E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2107E+03	.2153E+03	.2187E+03	.2208E+03	.2216E+03	.2217E+03	.2211E+03	.2194E+03	.2170E+03
PSS 2	.4122E+02	.4032E+02	.4043E+02	.4159E+02	.4376E+02	.4683E+02	.5061E+02	.5491E+02	.5947E+02
PSS 3	.1695E+03	.1750E+03	.1783E+03	.1792E+03	.1778E+03	.1748E+03	.1705E+03	.1645E+03	.1576E+03

## DISPLACEMENTS

UX	-.9217E-02	-.8739E-02	-.8246E-02	-.7748E-02	-.7253E-02	-.6765E-02	-.6288E-02	-.5841E-02	-.5426E-02
UY	.3130E-10	.5002E-11	-.1650E-10	.8938E-11	.4314E-11	-.6020E-11	-.1719E-10	.3253E-11	.1215E-10
UZ	.1831E+00	.1848E+00	.1863E+00	.1877E+00	.1889E+00	.1900E+00	.1909E+00	.1920E+00	.1931E+00

## NORMAL STRAINS

EXX	.4675E-03	.4869E-03	.4971E-03	.4980E-03	.4897E-03	.4746E-03	.4537E-03	.4268E-03	.3962E-03
EYY	.7458E-03	.7591E-03	.7701E-03	.7787E-03	.7851E-03	.7907E-03	.7953E-03	.7974E-03	.7977E-03
EZZ	-.6762E-03	-.6942E-03	-.7060E-03	-.7114E-03	-.7106E-03	-.7056E-03	-.6969E-03	-.6836E-03	-.6673E-03

## SHEAR STRAINS

EXY	.1473E-11	-.5822E-12	.6990E-12	-.4840E-14	.2350E-13	-.1928E-11	.9559E-12	.1369E-11	-.1684E-13
EXZ	.1330E-04	.1190E-04	.1044E-04	.8996E-05	.7610E-05	.6335E-05	.5217E-05	.4295E-05	.3586E-05
EYZ	.4424E-13	.1756E-12	.3809E-13	-.1315E-12	-.7259E-14	-.1208E-12	.6004E-13	-.3083E-13	.3983E-13

## PRINCIPAL STRAINS

PE 1	.7458E-03	.7591E-03	.7701E-03	.7787E-03	.7851E-03	.7907E-03	.7953E-03	.7974E-03	.7977E-03
PE 2	.4676E-03	.4869E-03	.4972E-03	.4980E-03	.4897E-03	.4746E-03	.4537E-03	.4268E-03	.3962E-03
PE 3	-.6762E-03	-.6943E-03	-.7060E-03	-.7114E-03	-.7106E-03	-.7056E-03	-.6969E-03	-.6836E-03	-.6673E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1422E-02	.1453E-02	.1476E-02	.1490E-02	.1496E-02	.1496E-02	.1492E-02	.1481E-02	.1465E-02
PSE 2	.2782E-03	.2721E-03	.2729E-03	.2807E-03	.2954E-03	.3161E-03	.3416E-03	.3706E-03	.4014E-03
PSE 3	.1144E-02	.1181E-02	.1203E-02	.1209E-02	.1200E-02	.1180E-02	.1151E-02	.1110E-02	.1063E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00

Appendix 6E-a Full Depth HBP

29.00 4.00  
30.00 4.00  
31.00 4.00  
32.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
24.00 4.00  
25.00 4.00  
26.00 4.00  
27.00 4.00  
28.00 4.00  
29.00 4.00  
30.00 4.00  
31.00 4.00  
32.00 4.00

NORMAL STRESSES

SXX .2855E+03 .2723E+03 .2595E+03 .2481E+03 .2386E+03 .2316E+03 .2273E+03 .2259E+03 .2274E+03  
 SYY .4136E+03 .4093E+03 .4047E+03 .4004E+03 .3970E+03 .3947E+03 .3939E+03 .3946E+03 .3970E+03  
 SZZ -.1566E+02 -.1566E+02 -.1565E+02 -.1564E+02 -.1564E+02 -.1564E+02 -.1567E+02 -.1572E+02 -.1581E+02

SHEAR STRESSES

SXY .1350E-06 -.3937E-06 -.3013E-06 -.3413E-06 -.2610E-07 -.4305E-06 .3655E-07 -.3716E-06 .3834E-06  
 SXZ .4576E+00 .4143E+00 .3994E+00 .4092E+00 .4391E+00 .4844E+00 .5407E+00 .6042E+00 .6715E+00  
 SYZ -.2548E-08 .2110E-08 .8266E-09 .1077E-07 .5527E-08 .8323E-08 -.4963E-08 -.5351E-08 .5022E-08

PRINCIPAL STRESSES

PS 1 .4136E+03 .4093E+03 .4047E+03 .4004E+03 .3970E+03 .3947E+03 .3939E+03 .3946E+03 .3970E+03  
 PS 2 .2855E+03 .2723E+03 .2595E+03 .2481E+03 .2386E+03 .2316E+03 .2273E+03 .2259E+03 .2274E+03  
 PS 3 -.1566E+02 -.1566E+02 -.1565E+02 -.1564E+02 -.1564E+02 -.1564E+02 -.1567E+02 -.1572E+02 -.1581E+02



## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2146E+03	.2125E+03	.2102E+03	.2080E+03	.2063E+03	.2052E+03	.2048E+03	.2052E+03	.2064E+03
PSS 2	.6407E+02	.6850E+02	.7258E+02	.7617E+02	.7918E+02	.8157E+02	.8331E+02	.8438E+02	.8480E+02
PSS 3	.1506E+03	.1440E+03	.1376E+03	.1319E+03	.1271E+03	.1236E+03	.1215E+03	.1208E+03	.1216E+03

## DISPLACEMENTS

UX	-.5041E-02	-.4681E-02	-.4354E-02	-.4059E-02	-.3789E-02	-.3538E-02	-.3301E-02	-.3070E-02	-.2840E-02
UY	.2397E-10	-.8431E-11	.5862E-12	.1325E-10	-.8159E-11	-.3488E-10	.8193E-12	.4476E-10	-.1308E-10
UZ	.1940E+00	.1948E+00	.1957E+00	.1965E+00	.1974E+00	.1981E+00	.1988E+00	.1994E+00	.1999E+00

## NORMAL STRAINS

EXX	.3654E-03	.3362E-03	.3084E-03	.2835E-03	.2629E-03	.2473E-03	.2373E-03	.2331E-03	.2349E-03
EYY	.7979E-03	.7986E-03	.7983E-03	.7977E-03	.7973E-03	.7979E-03	.7996E-03	.8027E-03	.8073E-03
EZZ	-.6508E-03	-.6355E-03	-.6203E-03	-.6065E-03	-.5952E-03	-.5872E-03	-.5827E-03	-.5822E-03	-.5858E-03

## SHEAR STRAINS

EXY	.9111E-12	-.2658E-11	-.2034E-11	-.2304E-11	-.1762E-12	-.2906E-11	.2467E-12	-.2509E-11	.2588E-11
EXZ	.3089E-05	.2796E-05	.2696E-05	.2762E-05	.2964E-05	.3269E-05	.3650E-05	.4079E-05	.4532E-05
EYZ	-.1720E-13	.1425E-13	.5580E-14	.7272E-13	.3731E-13	.5618E-13	-.3350E-13	-.3612E-13	.3390E-13

## PRINCIPAL STRAINS

PE 1	.7979E-03	.7986E-03	.7983E-03	.7977E-03	.7973E-03	.7979E-03	.7996E-03	.8027E-03	.8073E-03
PE 2	.3654E-03	.3362E-03	.3084E-03	.2835E-03	.2629E-03	.2473E-03	.2373E-03	.2331E-03	.2349E-03
PE 3	-.6508E-03	-.6355E-03	-.6203E-03	-.6065E-03	-.5952E-03	-.5872E-03	-.5827E-03	-.5822E-03	-.5858E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1449E-02	.1434E-02	.1419E-02	.1404E-02	.1393E-02	.1385E-02	.1382E-02	.1385E-02	.1393E-02
PSE 2	.4325E-03	.4624E-03	.4899E-03	.5141E-03	.5345E-03	.5506E-03	.5623E-03	.5696E-03	.5724E-03
PSE 3	.1016E-02	.9717E-03	.9287E-03	.8901E-03	.8581E-03	.8345E-03	.8200E-03	.8154E-03	.8207E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00

Appendix 6E-a Full Depth HBP

38.00 4.00  
39.00 4.00  
40.00 4.00  
41.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
33.00 4.00  
34.00 4.00  
35.00 4.00  
36.00 4.00  
37.00 4.00  
38.00 4.00  
39.00 4.00  
40.00 4.00  
41.00 4.00

NORMAL STRESSES

SXX .2319E+03 .2394E+03 .2499E+03 .2634E+03 .2796E+03 .2982E+03 .3187E+03 .3402E+03 .3633E+03  
 SYY .4010E+03 .4067E+03 .4140E+03 .4228E+03 .4329E+03 .4441E+03 .4559E+03 .4677E+03 .4803E+03  
 SZZ -.1592E+02 -.1606E+02 -.1623E+02 -.1642E+02 -.1663E+02 -.1684E+02 -.1706E+02 -.1727E+02 -.1750E+02

SHEAR STRESSES

SXY -.4364E-06 -.2943E-07 -.4503E-06 -.6189E-07 -.3570E-06 -.5784E-07 -.3435E-06 .3516E-06 .1593E-06  
 SXZ .7389E+00 .8030E+00 .8603E+00 .9067E+00 .9377E+00 .9482E+00 .9330E+00 .8876E+00 .8090E+00  
 SYZ -.8330E-08 -.4407E-08 .2592E-09 .2458E-08 .3895E-08 -.1723E-07 -.2199E-08 .2038E-07 -.8357E-08

PRINCIPAL STRESSES

PS 1 .4010E+03 .4067E+03 .4140E+03 .4228E+03 .4329E+03 .4441E+03 .4559E+03 .4677E+03 .4803E+03  
 PS 2 .2319E+03 .2394E+03 .2499E+03 .2634E+03 .2796E+03 .2982E+03 .3187E+03 .3402E+03 .3633E+03  
 PS 3 -.1592E+02 -.1606E+02 -.1623E+02 -.1642E+02 -.1663E+02 -.1685E+02 -.1706E+02 -.1727E+02 -.1751E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2085E+03	.2114E+03	.2151E+03	.2196E+03	.2248E+03	.2305E+03	.2365E+03	.2425E+03	.2489E+03
PSS 2	.8455E+02	.8363E+02	.8202E+02	.7970E+02	.7667E+02	.7296E+02	.6862E+02	.6375E+02	.5848E+02
PSS 3	.1239E+03	.1277E+03	.1331E+03	.1399E+03	.1481E+03	.1575E+03	.1679E+03	.1787E+03	.1904E+03

## DISPLACEMENTS

UX	-.2605E-02	-.2359E-02	-.2097E-02	-.1812E-02	-.1497E-02	-.1145E-02	-.7494E-03	-.3074E-03	.1749E-03
UY	-.3331E-10	.2340E-12	.3203E-10	-.1631E-11	-.7859E-10	-.3358E-11	-.4441E-11	.2916E-10	-.6529E-10
UZ	.2004E+00	.2009E+00	.2012E+00	.2015E+00	.2017E+00	.2019E+00	.2020E+00	.2022E+00	.2023E+00

## NORMAL STRAINS

EXX	.2428E-03	.2567E-03	.2768E-03	.3029E-03	.3347E-03	.3716E-03	.4127E-03	.4564E-03	.5033E-03
EYY	.8135E-03	.8212E-03	.8304E-03	.8409E-03	.8523E-03	.8641E-03	.8758E-03	.8867E-03	.8981E-03
EZZ	-.5936E-03	-.6054E-03	-.6215E-03	-.6414E-03	-.6650E-03	-.6916E-03	-.7204E-03	-.7501E-03	-.7819E-03

## SHEAR STRAINS

EXY	-.2946E-11	-.1986E-12	-.3039E-11	-.4177E-12	-.2410E-11	-.3904E-12	-.2319E-11	.2374E-11	.1075E-11
EXZ	.4987E-05	.5420E-05	.5807E-05	.6120E-05	.6330E-05	.6400E-05	.6298E-05	.5991E-05	.5461E-05
EYZ	-.5623E-13	-.2975E-13	.1749E-14	.1659E-13	.2629E-13	-.1163E-12	-.1484E-13	.1376E-12	-.5641E-13

## PRINCIPAL STRAINS

PE 1	.8135E-03	.8212E-03	.8304E-03	.8409E-03	.8523E-03	.8641E-03	.8758E-03	.8867E-03	.8981E-03
PE 2	.2428E-03	.2567E-03	.2768E-03	.3029E-03	.3347E-03	.3716E-03	.4127E-03	.4564E-03	.5034E-03
PE 3	-.5936E-03	-.6054E-03	-.6215E-03	-.6414E-03	-.6651E-03	-.6917E-03	-.7204E-03	-.7501E-03	-.7819E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1407E-02	.1427E-02	.1452E-02	.1482E-02	.1517E-02	.1556E-02	.1596E-02	.1637E-02	.1680E-02
PSE 2	.5707E-03	.5645E-03	.5536E-03	.5380E-03	.5175E-03	.4925E-03	.4632E-03	.4303E-03	.3948E-03
PSE 3	.8363E-03	.8621E-03	.8982E-03	.9443E-03	.9998E-03	.1063E-02	.1133E-02	.1207E-02	.1285E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00

Appendix 6E-a Full Depth HBP

47.00 4.00  
48.00 4.00  
49.00 4.00  
50.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
42.00 4.00  
43.00 4.00  
44.00 4.00  
45.00 4.00  
46.00 4.00  
47.00 4.00  
48.00 4.00  
49.00 4.00  
50.00 4.00

NORMAL STRESSES

SXX .3872E+03 .4100E+03 .4304E+03 .4487E+03 .4638E+03 .4741E+03 .4786E+03 .4781E+03 .4734E+03  
 SYY .4932E+03 .5050E+03 .5149E+03 .5236E+03 .5305E+03 .5342E+03 .5343E+03 .5318E+03 .5274E+03  
 SZZ -.1774E+02 -.1793E+02 -.1808E+02 -.1821E+02 -.1829E+02 -.1830E+02 -.1823E+02 -.1811E+02 -.1796E+02

SHEAR STRESSES

SXY -.2975E-06 -.2536E-06 .4354E-06 .2380E-06 -.2091E-06 -.3639E-07 .2158E-06 -.3376E-06 .2355E-06  
 SXZ .6945E+00 .5418E+00 .3509E+00 .1248E+00 -.1323E+00 -.4157E+00 -.7182E+00 -.1030E+01 -.1342E+01  
 SYZ -.2812E-09 .1521E-07 .1690E-07 .7106E-08 .3383E-07 .1049E-07 -.1877E-07 .5969E-08 -.2074E-08

PRINCIPAL STRESSES

PS 1 .4932E+03 .5050E+03 .5149E+03 .5236E+03 .5305E+03 .5342E+03 .5343E+03 .5318E+03 .5274E+03  
 PS 2 .3872E+03 .4100E+03 .4304E+03 .4487E+03 .4638E+03 .4741E+03 .4786E+03 .4781E+03 .4734E+03  
 PS 3 -.1774E+02 -.1793E+02 -.1808E+02 -.1821E+02 -.1829E+02 -.1830E+02 -.1823E+02 -.1811E+02 -.1796E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2555E+03	.2615E+03	.2665E+03	.2709E+03	.2744E+03	.2763E+03	.2763E+03	.2750E+03	.2727E+03
PSS 2	.5300E+02	.4752E+02	.4225E+02	.3744E+02	.3331E+02	.3008E+02	.2789E+02	.2686E+02	.2703E+02
PSS 3	.2025E+03	.2139E+03	.2243E+03	.2334E+03	.2411E+03	.2462E+03	.2484E+03	.2481E+03	.2457E+03

## DISPLACEMENTS

UX	.7022E-03	.1282E-02	.1911E-02	.2577E-02	.3275E-02	.4006E-02	.4758E-02	.5509E-02	.6258E-02
UY	-.8516E-11	.5084E-10	.3264E-10	.4647E-11	.4536E-11	.4844E-11	.2411E-10	-.2964E-10	-.4334E-10
UZ	.2022E+00	.2020E+00	.2018E+00	.2015E+00	.2009E+00	.2002E+00	.1996E+00	.1989E+00	.1977E+00

## NORMAL STRAINS

EXX	.5519E-03	.5987E-03	.6413E-03	.6795E-03	.7114E-03	.7337E-03	.7448E-03	.7457E-03	.7376E-03
EYY	.9097E-03	.9194E-03	.9265E-03	.9323E-03	.9363E-03	.9368E-03	.9331E-03	.9270E-03	.9201E-03
EZZ	-.8147E-03	-.8454E-03	-.8724E-03	-.8962E-03	-.9157E-03	-.9280E-03	-.9319E-03	-.9289E-03	-.9206E-03

## SHEAR STRAINS

EXY	-.2008E-11	-.1712E-11	.2939E-11	.1607E-11	-.1412E-11	-.2456E-12	.1456E-11	-.2279E-11	.1589E-11
EXZ	.4688E-05	.3657E-05	.2368E-05	.8427E-06	-.8933E-06	-.2806E-05	-.4848E-05	-.6953E-05	-.9061E-05
EYZ	-.1898E-14	.1027E-12	.1140E-12	.4796E-13	.2283E-12	.7083E-13	-.1267E-12	.4029E-13	-.1400E-13

## PRINCIPAL STRAINS

PE 1	.9097E-03	.9194E-03	.9265E-03	.9323E-03	.9363E-03	.9368E-03	.9331E-03	.9270E-03	.9201E-03
PE 2	.5519E-03	.5987E-03	.6413E-03	.6795E-03	.7114E-03	.7337E-03	.7448E-03	.7457E-03	.7376E-03
PE 3	-.8147E-03	-.8454E-03	-.8724E-03	-.8962E-03	-.9157E-03	-.9280E-03	-.9319E-03	-.9289E-03	-.9206E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1724E-02	.1765E-02	.1799E-02	.1829E-02	.1852E-02	.1865E-02	.1865E-02	.1856E-02	.1841E-02
PSE 2	.3578E-03	.3207E-03	.2852E-03	.2527E-03	.2249E-03	.2030E-03	.1883E-03	.1813E-03	.1824E-03
PSE 3	.1367E-02	.1444E-02	.1514E-02	.1576E-02	.1627E-02	.1662E-02	.1677E-02	.1675E-02	.1658E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00



Appendix 6E-a Full Depth HBP

56.00 4.00  
57.00 4.00  
58.00 4.00  
59.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
51.00 4.00  
52.00 4.00  
53.00 4.00  
54.00 4.00  
55.00 4.00  
56.00 4.00  
57.00 4.00  
58.00 4.00  
59.00 4.00

NORMAL STRESSES

SXX .4636E+03 .4481E+03 .4276E+03 .4038E+03 .3777E+03 .3491E+03 .3192E+03 .2898E+03 .2616E+03  
 SYY .5203E+03 .5096E+03 .4956E+03 .4798E+03 .4626E+03 .4434E+03 .4229E+03 .4026E+03 .3828E+03  
 SZZ -.1777E+02 -.1749E+02 -.1715E+02 -.1675E+02 -.1633E+02 -.1586E+02 -.1535E+02 -.1484E+02 -.1435E+02

SHEAR STRESSES

SXY .1481E-06 -.2192E-06 -.1392E-06 .2192E-06 .9032E-07 -.2355E-06 -.1392E-06 .2611E-06 -.4404E-06  
 SXZ -.1646E+01 -.1932E+01 -.2192E+01 -.2422E+01 -.2618E+01 -.2776E+01 -.2897E+01 -.2983E+01 -.3037E+01  
 SYZ .7068E-08 -.1602E-07 .0000E+00 -.1602E-07 .7068E-08 -.2074E-08 .5969E-08 -.3865E-08 -.4407E-08

PRINCIPAL STRESSES

PS 1 .5203E+03 .5096E+03 .4956E+03 .4798E+03 .4626E+03 .4434E+03 .4229E+03 .4026E+03 .3828E+03  
 PS 2 .4636E+03 .4481E+03 .4276E+03 .4038E+03 .3777E+03 .3491E+03 .3192E+03 .2898E+03 .2616E+03  
 PS 3 -.1777E+02 -.1750E+02 -.1716E+02 -.1676E+02 -.1634E+02 -.1588E+02 -.1538E+02 -.1487E+02 -.1438E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2691E+03	.2635E+03	.2564E+03	.2483E+03	.2395E+03	.2296E+03	.2191E+03	.2087E+03	.1986E+03
PSS 2	.2836E+02	.3074E+02	.3403E+02	.3801E+02	.4246E+02	.4715E+02	.5186E+02	.5639E+02	.6057E+02
PSS 3	.2407E+03	.2328E+03	.2224E+03	.2103E+03	.1970E+03	.1825E+03	.1673E+03	.1523E+03	.1380E+03

## DISPLACEMENTS

UX	.6999E-02	.7711E-02	.8384E-02	.9016E-02	.9605E-02	.1013E-01	.1060E-01	.1102E-01	.1139E-01
UY	-.2081E-10	-.1417E-11	.0000E+00	-.1417E-11	-.2081E-10	.1487E-10	.2857E-10	.2411E-10	.4844E-11
UZ	.1964E+00	.1951E+00	.1937E+00	.1921E+00	.1904E+00	.1886E+00	.1869E+00	.1848E+00	.1827E+00

## NORMAL STRAINS

EXX	.7193E-03	.6896E-03	.6502E-03	.6043E-03	.5537E-03	.4986E-03	.4413E-03	.3851E-03	.3316E-03
EYY	.9107E-03	.8972E-03	.8799E-03	.8609E-03	.8403E-03	.8169E-03	.7914E-03	.7659E-03	.7406E-03
EZZ	-.9054E-03	-.8817E-03	-.8506E-03	-.8150E-03	-.7761E-03	-.7331E-03	-.6877E-03	-.6429E-03	-.5997E-03

## SHEAR STRAINS

EXY	.9997E-12	-.1479E-11	-.9399E-12	.1479E-11	.6096E-12	-.1589E-11	-.9399E-12	.1762E-11	-.2973E-11
EXZ	-.1111E-04	-.1304E-04	-.1480E-04	-.1635E-04	-.1767E-04	-.1874E-04	-.1956E-04	-.2014E-04	-.2050E-04
EYZ	.4771E-13	-.1081E-12	.0000E+00	-.1081E-12	.4771E-13	-.1400E-13	.4029E-13	-.2609E-13	-.2975E-13

## PRINCIPAL STRAINS

PE 1	.9107E-03	.8972E-03	.8799E-03	.8609E-03	.8403E-03	.8169E-03	.7914E-03	.7659E-03	.7406E-03
PE 2	.7193E-03	.6897E-03	.6503E-03	.6043E-03	.5537E-03	.4987E-03	.4414E-03	.3852E-03	.3317E-03
PE 3	-.9054E-03	-.8817E-03	-.8507E-03	-.8151E-03	-.7761E-03	-.7331E-03	-.6878E-03	-.6430E-03	-.5998E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1816E-02	.1779E-02	.1731E-02	.1676E-02	.1616E-02	.1550E-02	.1479E-02	.1409E-02	.1340E-02
PSE 2	.1914E-03	.2075E-03	.2297E-03	.2565E-03	.2866E-03	.3183E-03	.3501E-03	.3806E-03	.4089E-03
PSE 3	.1625E-02	.1571E-02	.1501E-02	.1419E-02	.1330E-02	.1232E-02	.1129E-02	.1028E-02	.9315E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.39 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00

Appendix 6E-a Full Depth HBP

5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1743E+03	.1832E+03	.1916E+03	.2007E+03	.2104E+03	.2211E+03	.2332E+03	.2470E+03	.2627E+03
SYX	.2454E+03	.2543E+03	.2632E+03	.2729E+03	.2830E+03	.2934E+03	.3042E+03	.3153E+03	.3267E+03
SZZ	-.9132E+01	-.9374E+01	-.9601E+01	-.9807E+01	-.1004E+02	-.1029E+02	-.1054E+02	-.1080E+02	-.1105E+02

SHEAR STRESSES

SXY	.3309E-06	-.6525E-07	.1857E-06	-.3225E-06	.3253E-06	-.1697E-06	-.1717E-06	.6498E-09	.5318E-06
SXZ	.1559E+01	.1513E+01	.1470E+01	.1432E+01	.1400E+01	.1374E+01	.1350E+01	.1323E+01	.1286E+01
SYZ	.4765E-08	.7467E-08	.2408E-09	-.1690E-08	.9262E-09	-.1167E-07	.1983E-08	.1492E-07	-.3024E-08

PRINCIPAL STRESSES

PS 1	.2454E+03	.2543E+03	.2632E+03	.2729E+03	.2830E+03	.2934E+03	.3042E+03	.3153E+03	.3267E+03
PS 2	.1743E+03	.1832E+03	.1916E+03	.2007E+03	.2104E+03	.2212E+03	.2332E+03	.2471E+03	.2627E+03
PS 3	-.9146E+01	-.9386E+01	-.9612E+01	-.9816E+01	-.1005E+02	-.1029E+02	-.1055E+02	-.1081E+02	-.1105E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1273E+03	.1319E+03	.1364E+03	.1414E+03	.1465E+03	.1519E+03	.1574E+03	.1631E+03	.1689E+03
PSS 2	.3554E+02	.3557E+02	.3581E+02	.3611E+02	.3628E+02	.3613E+02	.3547E+02	.3412E+02	.3200E+02
PSS 3	.9174E+02	.9629E+02	.1006E+03	.1053E+03	.1102E+03	.1157E+03	.1219E+03	.1289E+03	.1369E+03

## DISPLACEMENTS

UX	-.5794E-02	-.5559E-02	-.5310E-02	-.5044E-02	-.4762E-02	-.4463E-02	-.4146E-02	-.3807E-02	-.3439E-02
UY	.2544E-10	.2599E-10	.1293E-10	.1233E-10	.1704E-10	-.3044E-11	-.1655E-10	.2343E-10	.1071E-11
UZ	.1079E+00	.1090E+00	.1099E+00	.1103E+00	.1108E+00	.1113E+00	.1120E+00	.1126E+00	.1132E+00

## NORMAL STRAINS

EXX	.2291E-03	.2436E-03	.2570E-03	.2715E-03	.2872E-03	.3051E-03	.3262E-03	.3512E-03	.3806E-03
EYY	.4690E-03	.4838E-03	.4988E-03	.5152E-03	.5322E-03	.5491E-03	.5656E-03	.5815E-03	.5966E-03
EZZ	-.3901E-03	-.4063E-03	-.4219E-03	-.4389E-03	-.4568E-03	-.4760E-03	-.4966E-03	-.5190E-03	-.5434E-03

## SHEAR STRAINS

EXY	.2234E-11	-.4404E-12	.1254E-11	-.2177E-11	.2196E-11	-.1146E-11	-.1159E-11	.4386E-14	.3589E-11
EXZ	.1052E-04	.1021E-04	.9921E-05	.9664E-05	.9449E-05	.9271E-05	.9110E-05	.8928E-05	.8678E-05
EYZ	.3216E-13	.5040E-13	.1626E-14	-.1141E-13	.6252E-14	-.7881E-13	.1338E-13	.1007E-12	-.2041E-13

## PRINCIPAL STRAINS

PE 1	.4690E-03	.4838E-03	.4988E-03	.5152E-03	.5322E-03	.5491E-03	.5656E-03	.5815E-03	.5966E-03
PE 2	.2291E-03	.2436E-03	.2571E-03	.2715E-03	.2873E-03	.3052E-03	.3262E-03	.3512E-03	.3806E-03
PE 3	-.3901E-03	-.4063E-03	-.4220E-03	-.4389E-03	-.4569E-03	-.4760E-03	-.4966E-03	-.5191E-03	-.5434E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.8591E-03	.8901E-03	.9208E-03	.9542E-03	.9890E-03	.1025E-02	.1062E-02	.1101E-02	.1140E-02
PSE 2	.2399E-03	.2401E-03	.2417E-03	.2437E-03	.2449E-03	.2439E-03	.2394E-03	.2303E-03	.2160E-03
PSE 3	.6193E-03	.6500E-03	.6790E-03	.7105E-03	.7441E-03	.7811E-03	.8228E-03	.8703E-03	.9240E-03

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.39 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00

Appendix 6E-a Full Depth HBP

14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
 9.00 4.00  
 10.00 4.00  
 11.00 4.00  
 12.00 4.00  
 13.00 4.00  
 14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

NORMAL STRESSES

SXX .2800E+03 .2983E+03 .3167E+03 .3349E+03 .3525E+03 .3673E+03 .3773E+03 .3821E+03 .3822E+03  
 SYY .3382E+03 .3492E+03 .3593E+03 .3687E+03 .3776E+03 .3846E+03 .3884E+03 .3893E+03 .3881E+03  
 SZZ -.1128E+02 -.1150E+02 -.1173E+02 -.1198E+02 -.1218E+02 -.1232E+02 -.1242E+02 -.1251E+02 -.1250E+02

SHEAR STRESSES

SXY .1439E-06 -.1726E-06 -.5332E-06 .2242E-06 -.1717E-06 -.2439E-06 -.3841E-06 .1104E-06 -.5910E-07  
 SXZ .1230E+01 .1148E+01 .1032E+01 .8794E+00 .6882E+00 .4590E+00 .1966E+00 -.8938E-01 -.3862E+00  
 SYZ .6601E-08 -.1491E-08 .2052E-07 -.2996E-08 -.9897E-08 .1654E-07 .9619E-08 -.6867E-09 -.1274E-07

PRINCIPAL STRESSES

PS 1 .3382E+03 .3492E+03 .3593E+03 .3687E+03 .3776E+03 .3846E+03 .3884E+03 .3893E+03 .3881E+03  
 PS 2 .2800E+03 .2983E+03 .3167E+03 .3349E+03 .3525E+03 .3673E+03 .3773E+03 .3821E+03 .3822E+03  
 PS 3 -.1128E+02 -.1150E+02 -.1173E+02 -.1198E+02 -.1218E+02 -.1232E+02 -.1242E+02 -.1251E+02 -.1250E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1747E+03	.1803E+03	.1855E+03	.1903E+03	.1949E+03	.1984E+03	.2004E+03	.2009E+03	.2003E+03
PSS 2	.2908E+02	.2545E+02	.2129E+02	.1688E+02	.1254E+02	.8657E+01	.5575E+01	.3599E+01	.2932E+01
PSS 3	.1456E+03	.1549E+03	.1642E+03	.1735E+03	.1823E+03	.1898E+03	.1948E+03	.1973E+03	.1974E+03

## DISPLACEMENTS

UX	-.3037E-02	-.2593E-02	-.2109E-02	-.1587E-02	-.1031E-02	-.4380E-03	.1835E-03	.8172E-03	.1449E-02
UY	-.7779E-11	-.8255E-11	.9759E-11	.9597E-11	-.1092E-10	-.6907E-10	.1374E-10	-.4533E-10	.7358E-11
UZ	.1138E+00	.1146E+00	.1158E+00	.1172E+00	.1180E+00	.1186E+00	.1195E+00	.1205E+00	.1208E+00

## NORMAL STRAINS

EXX	.4140E-03	.4502E-03	.4877E-03	.5252E-03	.5615E-03	.5924E-03	.6142E-03	.6255E-03	.6269E-03
EYY	.6103E-03	.6220E-03	.6314E-03	.6391E-03	.6461E-03	.6509E-03	.6518E-03	.6498E-03	.6467E-03
EZZ	-.5691E-03	-.5952E-03	-.6208E-03	-.6456E-03	-.6692E-03	-.6887E-03	-.7010E-03	-.7062E-03	-.7052E-03

## SHEAR STRAINS

EXY	.9711E-12	-.1165E-11	-.3599E-11	.1513E-11	-.1159E-11	-.1646E-11	-.2593E-11	.7454E-12	-.3989E-12
EXZ	.8304E-05	.7750E-05	.6969E-05	.5936E-05	.4645E-05	.3098E-05	.1327E-05	-.6033E-06	-.2607E-05
EYZ	.4456E-13	-.1007E-13	.1385E-12	-.2022E-13	-.6681E-13	.1116E-12	.6493E-13	-.4635E-14	-.8600E-13

## PRINCIPAL STRAINS

PE 1	.6103E-03	.6220E-03	.6314E-03	.6391E-03	.6461E-03	.6509E-03	.6518E-03	.6498E-03	.6467E-03
PE 2	.4140E-03	.4502E-03	.4877E-03	.5252E-03	.5615E-03	.5924E-03	.6142E-03	.6255E-03	.6269E-03
PE 3	-.5691E-03	-.5953E-03	-.6209E-03	-.6456E-03	-.6692E-03	-.6887E-03	-.7010E-03	-.7062E-03	-.7052E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1179E-02	.1217E-02	.1252E-02	.1285E-02	.1315E-02	.1340E-02	.1353E-02	.1356E-02	.1352E-02
PSE 2	.1963E-03	.1718E-03	.1437E-03	.1139E-03	.8466E-04	.5843E-04	.3763E-04	.2429E-04	.1979E-04
PSE 3	.9831E-03	.1045E-02	.1109E-02	.1171E-02	.1231E-02	.1281E-02	.1315E-02	.1332E-02	.1332E-02



Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.39 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-a Full Depth HBP

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Z= 12.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.3776E+03	.3683E+03
SYY	.3849E+03	.3797E+03
SZZ	-.1239E+02	-.1218E+02

## SHEAR STRESSES

SXY	.4986E-07	-.9274E-07
SXZ	-.6831E+00	-.9692E+00
SYZ	.1952E-07	.1490E-07

## PRINCIPAL STRESSES

PS 1	.3849E+03	.3797E+03
PS 2	.3776E+03	.3683E+03
PS 3	-.1239E+02	-.1218E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.1987E+03	.1959E+03
PSS 2	.3654E+01	.5709E+01
PSS 3	.1950E+03	.1902E+03

## DISPLACEMENTS

UX	.2077E-02	.2699E-02
UY	.1268E-10	-.2910E-10
UZ	.1200E+00	.1183E+00

Appendix 6E-a Full Depth HBP

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## NORMAL STRAINS

EXX	.6181E-03	.5991E-03
EYY	.6427E-03	.6377E-03
EZZ	-.6982E-03	-.6849E-03

## SHEAR STRAINS

EXY	.3366E-12	-.6260E-12
EXZ	-.4611E-05	-.6542E-05
EYZ	.1318E-12	.1006E-12

## PRINCIPAL STRAINS

PE 1	.6427E-03	.6377E-03
PE 2	.6181E-03	.5991E-03
PE 3	-.6982E-03	-.6849E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1341E-02	.1323E-02
PSE 2	.2466E-04	.3854E-04
PSE 3	.1316E-02	.1284E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00

Appendix 6E-a Full Depth HBP

20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

NORMAL STRESSES

SXX .3374E+03 .3485E+03 .3550E+03 .3568E+03 .3540E+03 .3476E+03 .3387E+03 .3265E+03 .3123E+03  
 SYY .4235E+03 .4328E+03 .4396E+03 .4438E+03 .4455E+03 .4453E+03 .4441E+03 .4408E+03 .4360E+03  
 SZZ -.1532E+02 -.1562E+02 -.1585E+02 -.1603E+02 -.1615E+02 -.1624E+02 -.1631E+02 -.1635E+02 -.1634E+02

SHEAR STRESSES

SXY -.1184E-07 -.2770E-07 .6419E-07 -.5001E-07 -.2372E-06 -.4034E-07 .2837E-06 -.2303E-06 .2630E-06  
 SXZ .2049E+01 .1835E+01 .1613E+01 .1392E+01 .1181E+01 .9856E+00 .8141E+00 .6723E+00 .5628E+00  
 SYZ .5499E-08 -.1581E-07 .5422E-08 -.2619E-08 -.1900E-08 -.4736E-08 .5605E-08 .1513E-07 .6196E-08

PRINCIPAL STRESSES

PS 1 .4235E+03 .4328E+03 .4396E+03 .4438E+03 .4455E+03 .4453E+03 .4441E+03 .4408E+03 .4360E+03  
 PS 2 .3374E+03 .3485E+03 .3550E+03 .3568E+03 .3540E+03 .3476E+03 .3387E+03 .3265E+03 .3123E+03  
 PS 3 -.1533E+02 -.1563E+02 -.1586E+02 -.1604E+02 -.1616E+02 -.1624E+02 -.1631E+02 -.1635E+02 -.1634E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2194E+03	.2242E+03	.2277E+03	.2299E+03	.2308E+03	.2308E+03	.2302E+03	.2286E+03	.2262E+03
PSS 2	.4307E+02	.4216E+02	.4229E+02	.4349E+02	.4571E+02	.4885E+02	.5274E+02	.5714E+02	.6183E+02
PSS 3	.1764E+03	.1821E+03	.1854E+03	.1864E+03	.1851E+03	.1819E+03	.1775E+03	.1714E+03	.1643E+03

## DISPLACEMENTS

UX	-.9607E-02	-.9110E-02	-.8598E-02	-.8080E-02	-.7566E-02	-.7060E-02	-.6564E-02	-.6098E-02	-.5666E-02
UY	.2944E-10	-.2445E-10	.1883E-10	.3702E-10	.1562E-10	.6282E-12	.3076E-10	.2903E-10	.3827E-10
UZ	.1908E+00	.1925E+00	.1941E+00	.1956E+00	.1969E+00	.1980E+00	.1990E+00	.2002E+00	.2013E+00

## NORMAL STRAINS

EXX	.4862E-03	.5062E-03	.5168E-03	.5177E-03	.5094E-03	.4936E-03	.4723E-03	.4449E-03	.4136E-03
EYY	.7770E-03	.7908E-03	.8022E-03	.8113E-03	.8180E-03	.8233E-03	.8283E-03	.8306E-03	.8310E-03
EZZ	-.7041E-03	-.7227E-03	-.7349E-03	-.7406E-03	-.7399E-03	-.7344E-03	-.7257E-03	-.7123E-03	-.6956E-03

## SHEAR STRAINS

EXY	-.7990E-13	-.1869E-12	.4333E-12	-.3376E-12	-.1601E-11	-.2723E-12	.1915E-11	-.1554E-11	.1775E-11
EXZ	.1383E-04	.1239E-04	.1089E-04	.9398E-05	.7968E-05	.6653E-05	.5495E-05	.4538E-05	.3799E-05
EYZ	.3712E-13	-.1067E-12	.3660E-13	-.1768E-13	-.1282E-13	-.3197E-13	.3783E-13	.1021E-12	.4182E-13

## PRINCIPAL STRAINS

PE 1	.7770E-03	.7908E-03	.8022E-03	.8113E-03	.8180E-03	.8233E-03	.8283E-03	.8306E-03	.8310E-03
PE 2	.4863E-03	.5062E-03	.5168E-03	.5178E-03	.5094E-03	.4936E-03	.4723E-03	.4449E-03	.4136E-03
PE 3	-.7041E-03	-.7227E-03	-.7349E-03	-.7406E-03	-.7400E-03	-.7344E-03	-.7257E-03	-.7123E-03	-.6956E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1481E-02	.1514E-02	.1537E-02	.1552E-02	.1558E-02	.1558E-02	.1554E-02	.1543E-02	.1527E-02
PSE 2	.2907E-03	.2846E-03	.2855E-03	.2935E-03	.3086E-03	.3298E-03	.3560E-03	.3857E-03	.4174E-03
PSE 3	.1190E-02	.1229E-02	.1252E-02	.1258E-02	.1249E-02	.1228E-02	.1198E-02	.1157E-02	.1109E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00

Appendix 6E-a Full Depth HBP

29.00 4.00  
30.00 4.00  
31.00 4.00  
32.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
24.00 4.00  
25.00 4.00  
26.00 4.00  
27.00 4.00  
28.00 4.00  
29.00 4.00  
30.00 4.00  
31.00 4.00  
32.00 4.00

NORMAL STRESSES

SXX .2977E+03 .2841E+03 .2710E+03 .2592E+03 .2494E+03 .2421E+03 .2376E+03 .2361E+03 .2377E+03  
 SYY .4308E+03 .4264E+03 .4217E+03 .4174E+03 .4138E+03 .4115E+03 .4107E+03 .4115E+03 .4139E+03  
 SZZ -.1632E+02 -.1632E+02 -.1632E+02 -.1631E+02 -.1631E+02 -.1631E+02 -.1634E+02 -.1640E+02 -.1649E+02

SHEAR STRESSES

SXY .1875E-06 -.2905E-06 -.2492E-06 -.6384E-06 -.9300E-08 -.1112E-06 -.2112E-06 -.5829E-07 .5549E-06  
 SXZ .4857E+00 .4395E+00 .4230E+00 .4319E+00 .4619E+00 .5078E+00 .5655E+00 .6308E+00 .7000E+00  
 SYZ .4342E-08 .3404E-08 -.8842E-08 -.1210E-09 .2755E-08 -.2500E-08 -.6994E-08 -.7917E-08 -.5424E-08

PRINCIPAL STRESSES

PS 1 .4308E+03 .4264E+03 .4217E+03 .4174E+03 .4138E+03 .4115E+03 .4107E+03 .4115E+03 .4139E+03  
 PS 2 .2977E+03 .2841E+03 .2710E+03 .2592E+03 .2494E+03 .2421E+03 .2376E+03 .2361E+03 .2377E+03  
 PS 3 -.1632E+02 -.1633E+02 -.1632E+02 -.1631E+02 -.1631E+02 -.1632E+02 -.1634E+02 -.1640E+02 -.1649E+02



## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2236E+03	.2214E+03	.2190E+03	.2168E+03	.2151E+03	.2139E+03	.2135E+03	.2139E+03	.2152E+03
PSS 2	.6658E+02	.7115E+02	.7537E+02	.7910E+02	.8223E+02	.8472E+02	.8654E+02	.8766E+02	.8809E+02
PSS 3	.1570E+03	.1502E+03	.1436E+03	.1377E+03	.1328E+03	.1292E+03	.1270E+03	.1263E+03	.1271E+03

## DISPLACEMENTS

UX	-.5265E-02	-.4889E-02	-.4548E-02	-.4239E-02	-.3956E-02	-.3693E-02	-.3444E-02	-.3201E-02	-.2960E-02
UY	-.2816E-10	.4692E-11	.1192E-11	-.2506E-10	-.2953E-10	.3429E-12	.6539E-11	.2288E-11	.1335E-11
UZ	.2023E+00	.2031E+00	.2040E+00	.2050E+00	.2058E+00	.2066E+00	.2073E+00	.2079E+00	.2085E+00

## NORMAL STRAINS

EXX	.3815E-03	.3514E-03	.3227E-03	.2970E-03	.2756E-03	.2594E-03	.2490E-03	.2447E-03	.2466E-03
EYY	.8309E-03	.8317E-03	.8315E-03	.8309E-03	.8307E-03	.8313E-03	.8331E-03	.8364E-03	.8412E-03
EZZ	-.6782E-03	-.6625E-03	-.6469E-03	-.6327E-03	-.6211E-03	-.6127E-03	-.6081E-03	-.6076E-03	-.6114E-03

## SHEAR STRAINS

EXY	.1266E-11	-.1961E-11	-.1682E-11	-.4309E-11	-.6278E-13	-.7507E-12	-.1426E-11	-.3934E-12	.3745E-11
EXZ	.3279E-05	.2967E-05	.2855E-05	.2916E-05	.3118E-05	.3428E-05	.3817E-05	.4258E-05	.4725E-05
EYZ	.2931E-13	.2298E-13	-.5968E-13	-.8171E-15	.1860E-13	-.1688E-13	-.4721E-13	-.5344E-13	-.3661E-13

## PRINCIPAL STRAINS

PE 1	.8309E-03	.8317E-03	.8315E-03	.8309E-03	.8307E-03	.8313E-03	.8331E-03	.8364E-03	.8412E-03
PE 2	.3815E-03	.3514E-03	.3227E-03	.2970E-03	.2756E-03	.2594E-03	.2490E-03	.2447E-03	.2466E-03
PE 3	-.6782E-03	-.6625E-03	-.6469E-03	-.6327E-03	-.6211E-03	-.6127E-03	-.6081E-03	-.6077E-03	-.6114E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1509E-02	.1494E-02	.1478E-02	.1464E-02	.1452E-02	.1444E-02	.1441E-02	.1444E-02	.1453E-02
PSE 2	.4494E-03	.4803E-03	.5088E-03	.5339E-03	.5551E-03	.5719E-03	.5841E-03	.5917E-03	.5946E-03
PSE 3	.1060E-02	.1014E-02	.9696E-03	.9297E-03	.8967E-03	.8721E-03	.8571E-03	.8523E-03	.8580E-03

Appendix 6E-a Full Depth HBP

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ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00

Appendix 6E-a Full Depth HBP

38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

Z= 12.00 LAYER NO, 1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.2424E+03	.2503E+03	.2612E+03	.2753E+03	.2921E+03	.3114E+03	.3326E+03	.3549E+03	.3791E+03
SYX	.4181E+03	.4240E+03	.4316E+03	.4407E+03	.4513E+03	.4629E+03	.4750E+03	.4872E+03	.5005E+03
SZZ	-.1660E+02	-.1675E+02	-.1693E+02	-.1712E+02	-.1734E+02	-.1756E+02	-.1778E+02	-.1800E+02	-.1825E+02

SHEAR STRESSES

SXY	-.7094E-07	-.7331E-06	.3938E-06	.4403E-06	-.4573E-06	-.5595E-06	.1863E-06	.2023E-06	-.3085E-06
SXZ	.7694E+00	.8352E+00	.8939E+00	.9411E+00	.9720E+00	.9816E+00	.9644E+00	.9158E+00	.8332E+00
SYZ	-.1064E-07	.8829E-08	-.1163E-08	-.7238E-08	-.9823E-08	.1170E-07	.3216E-09	-.6161E-08	.8591E-08

PRINCIPAL STRESSES

PS 1	.4181E+03	.4240E+03	.4316E+03	.4407E+03	.4513E+03	.4629E+03	.4750E+03	.4872E+03	.5005E+03
PS 2	.2424E+03	.2503E+03	.2612E+03	.2753E+03	.2921E+03	.3114E+03	.3326E+03	.3549E+03	.3791E+03
PS 3	-.1660E+02	-.1675E+02	-.1693E+02	-.1713E+02	-.1734E+02	-.1757E+02	-.1779E+02	-.1801E+02	-.1826E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2173E+03	.2204E+03	.2242E+03	.2289E+03	.2343E+03	.2402E+03	.2464E+03	.2526E+03	.2594E+03
PSS 2	.8783E+02	.8686E+02	.8517E+02	.8274E+02	.7958E+02	.7571E+02	.7120E+02	.6615E+02	.6070E+02
PSS 3	.1295E+03	.1335E+03	.1391E+03	.1462E+03	.1547E+03	.1645E+03	.1752E+03	.1865E+03	.1987E+03

## DISPLACEMENTS

UX	-.2714E-02	-.2456E-02	-.2181E-02	-.1882E-02	-.1551E-02	-.1183E-02	-.7693E-03	-.3074E-03	.1939E-03
UY	.1116E-10	.7317E-12	.2341E-11	.4125E-10	.2687E-10	.3158E-11	.2485E-10	-.1256E-10	.2234E-10
UZ	.2090E+00	.2095E+00	.2099E+00	.2102E+00	.2104E+00	.2105E+00	.2106E+00	.2109E+00	.2109E+00

## NORMAL STRAINS

EXX	.2548E-03	.2693E-03	.2903E-03	.3175E-03	.3506E-03	.3889E-03	.4314E-03	.4767E-03	.5257E-03
EYY	.8476E-03	.8556E-03	.8652E-03	.8760E-03	.8878E-03	.9000E-03	.9121E-03	.9232E-03	.9355E-03
EZZ	-.6195E-03	-.6318E-03	-.6485E-03	-.6693E-03	-.6938E-03	-.7214E-03	-.7511E-03	-.7818E-03	-.8153E-03

## SHEAR STRAINS

EXY	-.4788E-12	-.4948E-11	.2658E-11	.2972E-11	-.3087E-11	-.3777E-11	.1258E-11	.1366E-11	-.2083E-11
EXZ	.5193E-05	.5638E-05	.6034E-05	.6352E-05	.6561E-05	.6626E-05	.6510E-05	.6182E-05	.5624E-05
EYZ	-.7183E-13	.5960E-13	-.7847E-14	-.4886E-13	-.6630E-13	.7900E-13	.2171E-14	-.4159E-13	.5799E-13

## PRINCIPAL STRAINS

PE 1	.8476E-03	.8556E-03	.8652E-03	.8760E-03	.8878E-03	.9000E-03	.9121E-03	.9232E-03	.9355E-03
PE 2	.2548E-03	.2693E-03	.2903E-03	.3175E-03	.3506E-03	.3889E-03	.4315E-03	.4767E-03	.5257E-03
PE 3	-.6195E-03	-.6318E-03	-.6485E-03	-.6693E-03	-.6938E-03	-.7214E-03	-.7511E-03	-.7819E-03	-.8153E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1467E-02	.1487E-02	.1514E-02	.1545E-02	.1582E-02	.1621E-02	.1663E-02	.1705E-02	.1751E-02
PSE 2	.5929E-03	.5863E-03	.5749E-03	.5585E-03	.5372E-03	.5111E-03	.4806E-03	.4465E-03	.4097E-03
PSE 3	.8742E-03	.9012E-03	.9388E-03	.9868E-03	.1044E-02	.1110E-02	.1183E-02	.1259E-02	.1341E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00

Appendix 6E-a Full Depth HBP

47.00 4.00  
48.00 4.00  
49.00 4.00  
50.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
42.00 4.00  
43.00 4.00  
44.00 4.00  
45.00 4.00  
46.00 4.00  
47.00 4.00  
48.00 4.00  
49.00 4.00  
50.00 4.00

NORMAL STRESSES

SXX .4037E+03 .4271E+03 .4482E+03 .4673E+03 .4828E+03 .4933E+03 .4979E+03 .4976E+03 .4925E+03  
 SYY .5138E+03 .5259E+03 .5361E+03 .5453E+03 .5523E+03 .5562E+03 .5562E+03 .5539E+03 .5490E+03  
 SZZ -.1849E+02 -.1869E+02 -.1884E+02 -.1898E+02 -.1907E+02 -.1907E+02 -.1899E+02 -.1888E+02 -.1872E+02

SHEAR STRESSES

SXY .6155E-07 .2097E-06 .2675E-06 .3375E-06 .1720E-06 .2525E-06 .5601E-07 -.3347E-06 -.5405E-07  
 SXZ .7132E+00 .5541E+00 .3555E+00 .1212E+00 -.1453E+00 -.4387E+00 -.7517E+00 -.1074E+01 -.1397E+01  
 SYZ -.4547E-08 -.4070E-10 -.1721E-07 .1294E-07 -.8475E-08 .2912E-08 -.1295E-07 .7012E-08 -.1387E-07

PRINCIPAL STRESSES

PS 1 .5138E+03 .5259E+03 .5361E+03 .5453E+03 .5523E+03 .5562E+03 .5562E+03 .5539E+03 .5490E+03  
 PS 2 .4037E+03 .4271E+03 .4482E+03 .4673E+03 .4828E+03 .4933E+03 .4979E+03 .4977E+03 .4925E+03  
 PS 3 -.1849E+02 -.1869E+02 -.1884E+02 -.1898E+02 -.1907E+02 -.1907E+02 -.1900E+02 -.1888E+02 -.1872E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2661E+03	.2723E+03	.2775E+03	.2821E+03	.2857E+03	.2876E+03	.2876E+03	.2864E+03	.2839E+03
PSS 2	.5505E+02	.4939E+02	.4396E+02	.3900E+02	.3475E+02	.3142E+02	.2917E+02	.2811E+02	.2827E+02
PSS 3	.2111E+03	.2229E+03	.2335E+03	.2431E+03	.2510E+03	.2562E+03	.2584E+03	.2583E+03	.2556E+03

## DISPLACEMENTS

UX	.7444E-03	.1349E-02	.2005E-02	.2695E-02	.3423E-02	.4183E-02	.4965E-02	.5745E-02	.6520E-02
UY	.8091E-11	.2529E-10	-.2518E-10	.2277E-10	-.5394E-10	.1471E-10	.3411E-10	.1759E-10	-.3203E-10
UZ	.2108E+00	.2105E+00	.2104E+00	.2100E+00	.2094E+00	.2087E+00	.2080E+00	.2072E+00	.2060E+00

## NORMAL STRAINS

EXX	.5759E-03	.6240E-03	.6679E-03	.7077E-03	.7405E-03	.7633E-03	.7746E-03	.7760E-03	.7671E-03
EYY	.9474E-03	.9574E-03	.9646E-03	.9710E-03	.9751E-03	.9754E-03	.9715E-03	.9657E-03	.9580E-03
EZZ	-.8490E-03	-.8806E-03	-.9084E-03	-.9335E-03	-.9535E-03	-.9660E-03	-.9698E-03	-.9673E-03	-.9581E-03

## SHEAR STRAINS

EXY	.4154E-12	.1416E-11	.1805E-11	.2278E-11	.1161E-11	.1704E-11	.3780E-12	-.2259E-11	-.3648E-12
EXZ	.4814E-05	.3740E-05	.2400E-05	.8182E-06	-.9809E-06	-.2961E-05	-.5074E-05	-.7250E-05	-.9430E-05
EYZ	-.3069E-13	-.2747E-15	-.1161E-12	.8735E-13	-.5721E-13	.1966E-13	-.8739E-13	.4733E-13	-.9363E-13

## PRINCIPAL STRAINS

PE 1	.9474E-03	.9574E-03	.9646E-03	.9710E-03	.9751E-03	.9754E-03	.9715E-03	.9657E-03	.9580E-03
PE 2	.5759E-03	.6240E-03	.6679E-03	.7077E-03	.7405E-03	.7633E-03	.7746E-03	.7760E-03	.7671E-03
PE 3	-.8490E-03	-.8806E-03	-.9084E-03	-.9335E-03	-.9535E-03	-.9660E-03	-.9698E-03	-.9673E-03	-.9581E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1796E-02	.1838E-02	.1873E-02	.1904E-02	.1929E-02	.1941E-02	.1941E-02	.1933E-02	.1916E-02
PSE 2	.3716E-03	.3334E-03	.2967E-03	.2633E-03	.2346E-03	.2121E-03	.1969E-03	.1897E-03	.1908E-03
PSE 3	.1425E-02	.1505E-02	.1576E-02	.1641E-02	.1694E-02	.1729E-02	.1744E-02	.1743E-02	.1725E-02

Appendix 6E-a Full Depth HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	12.000 IN
2	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00



Appendix 6E-a Full Depth HBP

56.00 4.00  
57.00 4.00  
58.00 4.00  
59.00 4.00

Z= 12.00 LAYER NO, 1

X Y  
51.00 4.00  
52.00 4.00  
53.00 4.00  
54.00 4.00  
55.00 4.00  
56.00 4.00  
57.00 4.00  
58.00 4.00  
59.00 4.00

NORMAL STRESSES

SXX .4824E+03 .4664E+03 .4452E+03 .4204E+03 .3934E+03 .3639E+03 .3330E+03 .3022E+03 .2730E+03  
 SYY .5417E+03 .5306E+03 .5161E+03 .4995E+03 .4817E+03 .4619E+03 .4407E+03 .4193E+03 .3988E+03  
 SZZ -.1852E+02 -.1824E+02 -.1787E+02 -.1745E+02 -.1702E+02 -.1654E+02 -.1601E+02 -.1547E+02 -.1496E+02

SHEAR STRESSES

SXY -.1847E-06 -.2420E-06 .3347E-06 .3554E-08 .1847E-06 -.1844E-06 -.1422E-06 .4208E-06 -.2525E-06  
 SXZ -.1711E+01 -.2007E+01 -.2277E+01 -.2515E+01 -.2719E+01 -.2884E+01 -.3011E+01 -.3101E+01 -.3158E+01  
 SYZ .8439E-08 .2409E-07 .0000E+00 -.5708E-08 .8439E-08 -.1387E-07 .7012E-08 .1955E-08 .2912E-08

PRINCIPAL STRESSES

PS 1 .5417E+03 .5306E+03 .5161E+03 .4995E+03 .4817E+03 .4619E+03 .4407E+03 .4193E+03 .3988E+03  
 PS 2 .4824E+03 .4664E+03 .4452E+03 .4204E+03 .3935E+03 .3639E+03 .3330E+03 .3022E+03 .2730E+03  
 PS 3 -.1852E+02 -.1824E+02 -.1788E+02 -.1747E+02 -.1704E+02 -.1656E+02 -.1604E+02 -.1550E+02 -.1500E+02

## Appendix 6E-a Full Depth HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2801E+03	.2744E+03	.2670E+03	.2585E+03	.2494E+03	.2392E+03	.2284E+03	.2174E+03	.2069E+03
PSS 2	.2963E+02	.3208E+02	.3546E+02	.3955E+02	.4413E+02	.4897E+02	.5384E+02	.5852E+02	.6286E+02
PSS 3	.2505E+03	.2423E+03	.2316E+03	.2189E+03	.2052E+03	.1902E+03	.1745E+03	.1589E+03	.1440E+03

## DISPLACEMENTS

UX	.7291E-02	.8033E-02	.8733E-02	.9389E-02	.1000E-01	.1055E-01	.1104E-01	.1148E-01	.1186E-01
UY	.1527E-10	.5056E-10	.0000E+00	.5056E-10	.1527E-10	.2618E-10	-.4062E-10	-.2410E-10	.1471E-10
UZ	.2046E+00	.2033E+00	.2019E+00	.2003E+00	.1984E+00	.1967E+00	.1948E+00	.1928E+00	.1906E+00

## NORMAL STRAINS

EXX	.7483E-03	.7177E-03	.6771E-03	.6292E-03	.5770E-03	.5201E-03	.4609E-03	.4022E-03	.3467E-03
EYY	.9483E-03	.9343E-03	.9164E-03	.8962E-03	.8749E-03	.8507E-03	.8243E-03	.7973E-03	.7711E-03
EZZ	-.9424E-03	-.9179E-03	-.8859E-03	-.8485E-03	-.8083E-03	-.7639E-03	-.7170E-03	-.6700E-03	-.6252E-03

## SHEAR STRAINS

EXY	-.1247E-11	-.1633E-11	.2259E-11	.2399E-13	.1247E-11	-.1244E-11	-.9597E-12	.2841E-11	-.1704E-11
EXZ	-.1155E-04	-.1355E-04	-.1537E-04	-.1698E-04	-.1835E-04	-.1947E-04	-.2032E-04	-.2093E-04	-.2132E-04
EYZ	.5697E-13	.1626E-12	.0000E+00	-.3853E-13	.5697E-13	-.9363E-13	.4733E-13	.1320E-13	.1966E-13

## PRINCIPAL STRAINS

PE 1	.9483E-03	.9343E-03	.9164E-03	.8962E-03	.8749E-03	.8507E-03	.8243E-03	.7973E-03	.7711E-03
PE 2	.7483E-03	.7177E-03	.6771E-03	.6292E-03	.5770E-03	.5202E-03	.4609E-03	.4023E-03	.3468E-03
PE 3	-.9424E-03	-.9180E-03	-.8859E-03	-.8486E-03	-.8084E-03	-.7640E-03	-.7171E-03	-.6701E-03	-.6253E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1891E-02	.1852E-02	.1802E-02	.1745E-02	.1683E-02	.1615E-02	.1541E-02	.1467E-02	.1396E-02
PSE 2	.2000E-03	.2166E-03	.2393E-03	.2670E-03	.2979E-03	.3306E-03	.3634E-03	.3950E-03	.4243E-03
PSE 3	.1691E-02	.1636E-02	.1563E-02	.1478E-02	.1385E-02	.1284E-02	.1178E-02	.1072E-02	.9721E-03

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 3900.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 3.71 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-b Average HBP

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.9768E+02	.9739E+02	.9162E+02	.8263E+02	.7365E+02	.6782E+02	.6780E+02	.7528E+02	.9167E+02
SYX	.1648E+03	.1714E+03	.1764E+03	.1807E+03	.1854E+03	.1916E+03	.2004E+03	.2123E+03	.2278E+03
SZZ	-.2206E+02	-.2285E+02	-.2330E+02	-.2358E+02	-.2393E+02	-.2456E+02	-.2567E+02	-.2738E+02	-.2977E+02

SHEAR STRESSES

SXY	.1121E-06	-.1551E-06	.3558E-06	.1217E-05	.4038E-06	.3561E-06	.5658E-06	-.7579E-06	-.6471E-06
SXZ	.1314E+02	.1237E+02	.1179E+02	.1155E+02	.1170E+02	.1220E+02	.1296E+02	.1388E+02	.1481E+02
SYZ	.2192E-08	-.6116E-07	-.2005E-08	-.1022E-06	.4541E-07	.3373E-07	.1091E-06	.3019E-09	-.1545E-06

PRINCIPAL STRESSES

PS 1	.1648E+03	.1714E+03	.1764E+03	.1807E+03	.1854E+03	.1916E+03	.2004E+03	.2123E+03	.2278E+03
PS 2	.9911E+02	.9865E+02	.9282E+02	.8387E+02	.7503E+02	.6940E+02	.6956E+02	.7712E+02	.9345E+02

## Appendix 6E-b Average HBP

PS 3   -.2348E+02   -.2411E+02   -.2450E+02   -.2482E+02   -.2531E+02   -.2615E+02   -.2744E+02   -.2922E+02   -.3155E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .9415E+02   .9778E+02   .1005E+03   .1028E+03   .1053E+03   .1089E+03   .1139E+03   .1208E+03   .1297E+03  
PSS 2   .3285E+02   .3640E+02   .4181E+02   .4841E+02   .5517E+02   .6111E+02   .6542E+02   .6759E+02   .6718E+02  
PSS 3   .6130E+02   .6138E+02   .5866E+02   .5435E+02   .5017E+02   .4777E+02   .4850E+02   .5317E+02   .6250E+02

## DISPLACEMENTS

UX     -.3652E-02   -.3535E-02   -.3429E-02   -.3346E-02   -.3289E-02   -.3257E-02   -.3238E-02   -.3219E-02   -.3181E-02  
UY     -.1552E-11   -.3502E-11   -.6880E-11   -.3063E-10   -.1842E-11   -.1258E-10   -.1009E-10   .4454E-11   -.3160E-10  
UZ     .9369E-01   .9513E-01   .9639E-01   .9759E-01   .9882E-01   .1001E+00   .1014E+00   .1027E+00   .1040E+00

## NORMAL STRAINS

EXX     .1193E-03   .1135E-03   .9505E-04   .6910E-04   .4285E-04   .2337E-04   .1661E-04   .2638E-04   .5591E-04  
EYY     .3459E-03   .3634E-03   .3813E-03   .4001E-03   .4199E-03   .4412E-03   .4641E-03   .4888E-03   .5154E-03  
EZZ     -.2848E-03   -.2924E-03   -.2928E-03   -.2894E-03   -.2865E-03   -.2884E-03   -.2989E-03   -.3201E-03   -.3540E-03

## SHEAR STRAINS

EXY     .7565E-12   -.1047E-11   .2402E-11   .8215E-11   .2726E-11   .2404E-11   .3819E-11   -.5116E-11   -.4368E-11  
EXZ     .8870E-04   .8347E-04   .7960E-04   .7799E-04   .7896E-04   .8234E-04   .8751E-04   .9366E-04   .9997E-04  
EYZ     .1480E-13   -.4128E-12   -.1353E-13   -.6898E-12   .3065E-12   .2277E-12   .7363E-12   .2038E-14   -.1043E-11

## PRINCIPAL STRAINS

PE 1     .3459E-03   .3634E-03   .3813E-03   .4001E-03   .4199E-03   .4412E-03   .4641E-03   .4888E-03   .5154E-03  
PE 2     .1241E-03   .1177E-03   .9909E-04   .7329E-04   .4752E-04   .2872E-04   .2256E-04   .3260E-04   .6191E-04  
PE 3     -.2896E-03   -.2966E-03   -.2969E-03   -.2936E-03   -.2911E-03   -.2938E-03   -.3048E-03   -.3263E-03   -.3600E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .6355E-03   .6600E-03   .6782E-03   .6936E-03   .7111E-03   .7350E-03   .7689E-03   .8151E-03   .8753E-03  
PSE 2   .2218E-03   .2457E-03   .2822E-03   .3268E-03   .3724E-03   .4125E-03   .4416E-03   .4562E-03   .4534E-03  
PSE 3   .4137E-03   .4143E-03   .3959E-03   .3668E-03   .3386E-03   .3225E-03   .3274E-03   .3589E-03   .4219E-03

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

## NORMAL STRESSES

SXX	.1816E+02	.1958E+02	.2108E+02	.2262E+02	.2418E+02	.2571E+02	.2722E+02	.2871E+02	.3015E+02
SYZ	.2629E+02	.2736E+02	.2848E+02	.2963E+02	.3075E+02	.3184E+02	.3286E+02	.3383E+02	.3474E+02
SZZ	-.8406E+01	-.8710E+01	-.9010E+01	-.9317E+01	-.9630E+01	-.9942E+01	-.1024E+02	-.1053E+02	-.1079E+02

## SHEAR STRESSES

SXY	-.9534E-08	.1121E-07	-.1825E-08	.2537E-07	-.1096E-07	-.4651E-09	.2222E-09	.1230E-07	-.4211E-08
SXZ	.2514E+01	.2455E+01	.2384E+01	.2302E+01	.2208E+01	.2100E+01	.1978E+01	.1840E+01	.1683E+01
SYZ	.5501E-08	.3103E-08	-.1601E-10	-.1281E-07	.6286E-08	.2411E-08	.9894E-08	.4911E-08	.3711E-09

## PRINCIPAL STRESSES

PS 1	.2629E+02	.2736E+02	.2848E+02	.2963E+02	.3075E+02	.3184E+02	.3286E+02	.3383E+02	.3474E+02
PS 2	.1840E+02	.1980E+02	.2127E+02	.2279E+02	.2432E+02	.2584E+02	.2733E+02	.2879E+02	.3022E+02
PS 3	-.8642E+01	-.8921E+01	-.9198E+01	-.9482E+01	-.9773E+01	-.1007E+02	-.1035E+02	-.1062E+02	-.1086E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.1746E+02	.1814E+02	.1884E+02	.1955E+02	.2026E+02	.2095E+02	.2161E+02	.2223E+02	.2280E+02
PSS 2	.3945E+01	.3780E+01	.3606E+01	.3418E+01	.3217E+01	.3000E+01	.2767E+01	.2520E+01	.2262E+01
PSS 3	.1352E+02	.1436E+02	.1523E+02	.1614E+02	.1705E+02	.1795E+02	.1884E+02	.1971E+02	.2054E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.9787E-02	-.9371E-02	-.8914E-02	-.8413E-02	-.7869E-02	-.7284E-02	-.6661E-02	-.5999E-02	-.5295E-02
UY	-.3790E-10	-.7547E-11	.1493E-10	-.2466E-10	-.3655E-10	.2106E-11	.6808E-12	-.1789E-10	-.1126E-10
UZ	.8558E-01	.8664E-01	.8754E-01	.8839E-01	.8926E-01	.9014E-01	.9101E-01	.9181E-01	.9252E-01

## NORMAL STRAINS

EXX	.3968E-03	.4353E-03	.4755E-03	.5172E-03	.5594E-03	.6017E-03	.6436E-03	.6851E-03	.7256E-03
EYY	.7624E-03	.7850E-03	.8085E-03	.8323E-03	.8554E-03	.8772E-03	.8973E-03	.9157E-03	.9322E-03
EZZ	-.7988E-03	-.8380E-03	-.8785E-03	-.9201E-03	-.9619E-03	-.1003E-02	-.1042E-02	-.1081E-02	-.1117E-02

## SHEAR STRAINS

EXY	-.8581E-12	.1009E-11	-.1643E-12	.2283E-11	-.9861E-12	-.4186E-13	.2000E-13	.1107E-11	-.3790E-12
EXZ	.2263E-03	.2209E-03	.2146E-03	.2072E-03	.1987E-03	.1890E-03	.1780E-03	.1656E-03	.1514E-03
EYZ	.4951E-12	.2793E-12	-.1441E-14	-.1153E-11	.5657E-12	.2170E-12	.8905E-12	.4420E-12	.3340E-13

## PRINCIPAL STRAINS

PE 1	.7624E-03	.7850E-03	.8085E-03	.8323E-03	.8554E-03	.8772E-03	.8973E-03	.9157E-03	.9322E-03
PE 2	.4074E-03	.4448E-03	.4840E-03	.5246E-03	.5659E-03	.6072E-03	.6483E-03	.6889E-03	.7287E-03
PE 3	-.8094E-03	-.8475E-03	-.8870E-03	-.9276E-03	-.9683E-03	-.1008E-02	-.1047E-02	-.1085E-02	-.1120E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.1572E-02	.1632E-02	.1695E-02	.1760E-02	.1824E-02	.1886E-02	.1945E-02	.2000E-02	.2052E-02
PSE 2	.3550E-03	.3402E-03	.3245E-03	.3077E-03	.2895E-03	.2700E-03	.2490E-03	.2268E-03	.2036E-03
PSE 3	.1217E-02	.1292E-02	.1371E-02	.1452E-02	.1534E-02	.1616E-02	.1695E-02	.1773E-02	.1849E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 3900.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 3.71 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00



Appendix 6E-b Average HBP

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.1181E+03	.1553E+03	.2024E+03	.2565E+03	.3129E+03	.3660E+03	.4095E+03	.4380E+03	.4474E+03
SYX	.2472E+03	.2705E+03	.2971E+03	.3255E+03	.3537E+03	.3794E+03	.3996E+03	.4119E+03	.4148E+03
SZZ	-.3291E+02	-.3680E+02	-.4134E+02	-.4628E+02	-.5125E+02	-.5575E+02	-.5934E+02	-.6160E+02	-.6224E+02

SHEAR STRESSES

SXY	.2490E-06	.1362E-05	.5815E-06	-.3992E-06	.3959E-06	.1284E-05	.3317E-06	-.6122E-06	.2446E-06
SXZ	.1561E+02	.1609E+02	.1598E+02	.1506E+02	.1316E+02	.1024E+02	.6384E+01	.1787E+01	-.3229E+01
SYZ	.1524E-07	.9763E-07	.9130E-07	-.2158E-06	.4886E-07	.8087E-07	-.5545E-06	.3733E-06	.2966E-07

PRINCIPAL STRESSES

PS 1	.2472E+03	.2705E+03	.2971E+03	.3255E+03	.3537E+03	.3794E+03	.4096E+03	.4380E+03	.4474E+03
PS 2	.1197E+03	.1566E+03	.2035E+03	.2573E+03	.3134E+03	.3662E+03	.3996E+03	.4119E+03	.4148E+03

## Appendix 6E-b Average HBP

PS 3    -.3451E+02   -.3814E+02   -.4238E+02   -.4703E+02   -.5172E+02   -.5600E+02   -.5942E+02   -.6160E+02   -.6226E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1409E+03    .1543E+03    .1697E+03    .1863E+03    .2027E+03    .2177E+03    .2345E+03    .2498E+03    .2548E+03  
PSS 2    .6373E+02    .5692E+02    .4680E+02    .3411E+02    .2017E+02    .6595E+01    .5018E+01    .1308E+02    .1633E+02  
PSS 3    .7712E+02    .9738E+02    .1229E+03    .1521E+03    .1825E+03    .2111E+03    .2295E+03    .2367E+03    .2385E+03

## DISPLACEMENTS

UX        -.3102E-02   -.2958E-02   -.2726E-02   -.2385E-02   -.1925E-02   -.1348E-02   -.6646E-03   .9899E-04   .9049E-03  
UY        -.2192E-11   -.4802E-11   .3487E-12   -.2108E-10   .5212E-10   .5629E-10   -.4435E-11   .3447E-10   .1040E-10  
UZ        .1053E+00    .1066E+00    .1080E+00    .1096E+00    .1111E+00    .1121E+00    .1129E+00    .1134E+00    .1136E+00

## NORMAL STRAINS

EXX        .1078E-03    .1838E-03    .2823E-03    .3970E-03    .5176E-03    .6317E-03    .7261E-03    .7886E-03    .8101E-03  
EYY        .5434E-03    .5725E-03    .6017E-03    .6298E-03    .6553E-03    .6771E-03    .6925E-03    .7003E-03    .6999E-03  
EZZ        -.4019E-03   -.4645E-03   -.5404E-03   -.6249E-03   -.7114E-03   -.7916E-03   -.8563E-03   -.8977E-03   -.9100E-03

## SHEAR STRAINS

EXY        .1681E-11    .9194E-11    .3925E-11   -.2695E-11   .2672E-11    .8665E-11    .2239E-11   -.4132E-11   .1651E-11  
EXZ        .1054E-03    .1086E-03    .1079E-03    .1017E-03    .8883E-04    .6912E-04    .4309E-04    .1206E-04   -.2180E-04  
EYZ        .1029E-12    .6590E-12    .6163E-12   -.1457E-11    .3298E-12    .5458E-12   -.3743E-11    .2520E-11    .2002E-12

## PRINCIPAL STRAINS

PE 1        .5434E-03    .5725E-03    .6017E-03    .6298E-03    .6553E-03    .6771E-03    .7264E-03    .7886E-03    .8101E-03  
PE 2        .1132E-03    .1883E-03    .2858E-03    .3995E-03    .5192E-03    .6326E-03    .6925E-03    .7003E-03    .6999E-03  
PE 3        -.4073E-03   -.4691E-03   -.5439E-03   -.6275E-03   -.7130E-03   -.7924E-03   -.8566E-03   -.8977E-03   -.9101E-03

## PRINCIPAL SHEAR STRAINS

PSE 1        .9508E-03    .1042E-02    .1146E-02    .1257E-02    .1368E-02    .1469E-02    .1583E-02    .1686E-02    .1720E-02  
PSE 2        .4302E-03    .3842E-03    .3159E-03    .2303E-03    .1362E-03    .4451E-04    .3387E-04    .8831E-04    .1102E-03  
PSE 3        .5206E-03    .6573E-03    .8297E-03    .1027E-02    .1232E-02    .1425E-02    .1549E-02    .1598E-02    .1610E-02

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.3151E+02	.3273E+02	.3374E+02	.3451E+02	.3509E+02	.3555E+02	.3571E+02	.3556E+02	.3521E+02
SYZ	.3556E+02	.3623E+02	.3673E+02	.3702E+02	.3718E+02	.3731E+02	.3724E+02	.3698E+02	.3665E+02
SZZ	-.1103E+02	-.1123E+02	-.1140E+02	-.1156E+02	-.1170E+02	-.1177E+02	-.1180E+02	-.1178E+02	-.1175E+02

## SHEAR STRESSES

SXY	-.1961E-07	-.2258E-07	.1170E-07	-.7764E-08	-.1946E-07	.1543E-07	.1986E-07	-.5517E-08	.1673E-07
SXZ	.1505E+01	.1304E+01	.1080E+01	.8333E+00	.5667E+00	.2844E+00	-.1227E-01	-.3189E+00	-.6288E+00
SYZ	-.7036E-09	.2619E-07	-.9135E-08	.2630E-08	-.3860E-08	-.8941E-08	-.5680E-08	-.3042E-07	.5771E-08

## PRINCIPAL STRESSES

PS 1	.3556E+02	.3623E+02	.3673E+02	.3702E+02	.3718E+02	.3731E+02	.3724E+02	.3698E+02	.3665E+02
PS 2	.3156E+02	.3277E+02	.3377E+02	.3453E+02	.3510E+02	.3555E+02	.3571E+02	.3556E+02	.3521E+02
PS 3	-.1108E+02	-.1127E+02	-.1143E+02	-.1157E+02	-.1170E+02	-.1177E+02	-.1180E+02	-.1178E+02	-.1176E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2332E+02	.2375E+02	.2408E+02	.2429E+02	.2444E+02	.2454E+02	.2452E+02	.2438E+02	.2420E+02
PSS 2	.1997E+01	.1734E+01	.1480E+01	.1245E+01	.1041E+01	.8780E+00	.7647E+00	.7088E+00	.7157E+00
PSS 3	.2132E+02	.2202E+02	.2260E+02	.2305E+02	.2340E+02	.2366E+02	.2375E+02	.2367E+02	.2349E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.4548E-02	-.3757E-02	-.2924E-02	-.2060E-02	-.1177E-02	-.2790E-03	.6342E-03	.1551E-02	.2455E-02
UY	.1410E-11	-.1577E-10	.5268E-10	-.1004E-10	.3596E-10	-.2706E-10	.2929E-10	.1108E-10	.3156E-10
UZ	.9314E-01	.9373E-01	.9438E-01	.9518E-01	.9601E-01	.9639E-01	.9672E-01	.9703E-01	.9721E-01

## NORMAL STRAINS

EXX	.7641E-03	.7992E-03	.8293E-03	.8534E-03	.8725E-03	.8871E-03	.8935E-03	.8914E-03	.8830E-03
EYY	.9463E-03	.9570E-03	.9636E-03	.9661E-03	.9665E-03	.9662E-03	.9623E-03	.9553E-03	.9478E-03
EZZ	-.1150E-02	-.1179E-02	-.1202E-02	-.1220E-02	-.1233E-02	-.1242E-02	-.1244E-02	-.1239E-02	-.1230E-02

## SHEAR STRAINS

EXY	-.1765E-11	-.2032E-11	.1053E-11	-.6988E-12	-.1751E-11	.1388E-11	.1787E-11	-.4965E-12	.1505E-11
EXZ	.1354E-03	.1174E-03	.9721E-04	.7500E-04	.5101E-04	.2560E-04	-.1104E-05	-.2870E-04	-.5659E-04
EYZ	-.6333E-13	.2357E-11	-.8221E-12	.2367E-12	-.3474E-12	-.8047E-12	-.5112E-12	-.2738E-11	.5194E-12

## PRINCIPAL STRAINS

PE 1	.9463E-03	.9570E-03	.9636E-03	.9661E-03	.9665E-03	.9662E-03	.9623E-03	.9553E-03	.9478E-03
PE 2	.7665E-03	.8010E-03	.8304E-03	.8540E-03	.8728E-03	.8872E-03	.8935E-03	.8915E-03	.8834E-03
PE 3	-.1152E-02	-.1181E-02	-.1203E-02	-.1220E-02	-.1233E-02	-.1242E-02	-.1244E-02	-.1239E-02	-.1230E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2099E-02	.2138E-02	.2167E-02	.2187E-02	.2200E-02	.2209E-02	.2207E-02	.2195E-02	.2178E-02
PSE 2	.1798E-03	.1560E-03	.1332E-03	.1121E-03	.9372E-04	.7902E-04	.6882E-04	.6379E-04	.6441E-04
PSE 3	.1919E-02	.1982E-02	.2034E-02	.2074E-02	.2106E-02	.2130E-02	.2138E-02	.2131E-02	.2114E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 3900.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 3.71 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-b Average HBP

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Z= 6.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.4367E+03	.4068E+03
SYY	.4084E+03	.3925E+03
SZZ	-.6113E+02	-.5839E+02

## SHEAR STRESSES

SXY	-.2815E-06	-.1285E-05
SXZ	-.8254E+01	-.1287E+02
SYZ	-.2241E-07	.2384E-06

## PRINCIPAL STRESSES

PS 1	.4368E+03	.4071E+03
PS 2	.4084E+03	.3925E+03
PS 3	-.6127E+02	-.5874E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2491E+03	.2329E+03
PSS 2	.1424E+02	.7318E+01
PSS 3	.2348E+03	.2256E+03

## DISPLACEMENTS

UX	.1711E-02	.2473E-02
UY	.3031E-10	.0000E+00
UZ	.1126E+00	.1113E+00

Appendix 6E-b Average HBP

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## NORMAL STRAINS

EXX .7879E-03 .7246E-03  
EYY .6923E-03 .6764E-03  
EZZ -.8923E-03 -.8453E-03

## SHEAR STRAINS

EXY -.1900E-11 -.8677E-11  
EXZ -.5572E-04 -.8689E-04  
EYZ -.1513E-12 .1609E-11

## PRINCIPAL STRAINS

PE 1 .7884E-03 .7258E-03  
PE 2 .6923E-03 .6764E-03  
PE 3 -.8927E-03 -.8465E-03

## PRINCIPAL SHEAR STRAINS

PSE 1 .1681E-02 .1572E-02  
PSE 2 .9613E-04 .4940E-04  
PSE 3 .1585E-02 .1523E-02

Z= 18.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .3488E+02 .3434E+02  
SYY .3647E+02 .3622E+02  
SZZ -.1163E+02 -.1149E+02

Appendix 6E-b Average HBP

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## SHEAR STRESSES

SXY -.2559E-08 -.4955E-08  
SXZ -.9362E+00 -.1235E+01  
SYZ .1489E-07 .0000E+00

## PRINCIPAL STRESSES

PS 1 .3647E+02 .3622E+02  
PS 2 .3490E+02 .3437E+02  
PS 3 -.1165E+02 -.1152E+02

## PRINCIPAL SHEAR STRESSES

PSS 1 .2406E+02 .2387E+02  
PSS 2 .7874E+00 .9227E+00  
PSS 3 .2327E+02 .2295E+02

## DISPLACEMENTS

UX .3350E-02 .4239E-02  
UY .2810E-10 .0000E+00  
UZ .9644E-01 .9555E-01

## NORMAL STRAINS

EXX .8728E-03 .8562E-03  
EYY .9445E-03 .9407E-03  
EZZ -.1220E-02 -.1206E-02

## SHEAR STRAINS

EXY -.2303E-12 -.4460E-12  
EXZ -.8426E-04 -.1112E-03  
EYZ .1340E-11 .0000E+00

## PRINCIPAL STRAINS



Appendix 6E-b Average HBP

PE 1 .9445E-03 .9407E-03  
 PE 2 .8736E-03 .8577E-03  
 PE 3 -.1221E-02 -.1208E-02

PRINCIPAL SHEAR STRAINS  
 PSE 1 .2165E-02 .2148E-02  
 PSE 2 .7087E-04 .8305E-04  
 PSE 3 .2095E-02 .2065E-02

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Appendix 6E-b Average HBP

Z= 6.00 18.00  
X-Y POINT(S)  
X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

NORMAL STRESSES

SXX	.3435E+03	.3645E+03	.3715E+03	.3633E+03	.3409E+03	.3072E+03	.2654E+03	.2194E+03	.1726E+03
SYX	.3466E+03	.3589E+03	.3640E+03	.3613E+03	.3515E+03	.3356E+03	.3151E+03	.2919E+03	.2678E+03
SZZ	-.5215E+02	-.5415E+02	-.5490E+02	-.5431E+02	-.5247E+02	-.4958E+02	-.4591E+02	-.4176E+02	-.3742E+02

SHEAR STRESSES

SXY	.4201E-06	-.3994E-06	.9132E-07	.2416E-06	-.5225E-06	-.1734E-07	-.1389E-06	.3738E-06	-.5040E-06
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## Appendix 6E-b Average HBP

SXZ	.1230E+02	.8610E+01	.4648E+01	.7071E+00	-.2937E+01	-.6053E+01	-.8497E+01	-.1022E+02	-.1121E+02
SYZ	-.1836E-06	.6538E-07	.2189E-06	.1351E-06	.8676E-08	.1428E-06	.2226E-06	.7499E-07	-.1754E-06

## PRINCIPAL STRESSES

PS 1	.3466E+03	.3647E+03	.3716E+03	.3633E+03	.3515E+03	.3356E+03	.3151E+03	.2919E+03	.2678E+03
PS 2	.3438E+03	.3589E+03	.3640E+03	.3613E+03	.3410E+03	.3073E+03	.2657E+03	.2198E+03	.1732E+03
PS 3	-.5253E+02	-.5433E+02	-.5495E+02	-.5431E+02	-.5249E+02	-.4968E+02	-.4614E+02	-.4216E+02	-.3801E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.1996E+03	.2095E+03	.2133E+03	.2088E+03	.2020E+03	.1926E+03	.1806E+03	.1670E+03	.1529E+03
PSS 2	.1392E+01	.2889E+01	.3771E+01	.9796E+00	.5260E+01	.1413E+02	.2472E+02	.3605E+02	.4730E+02
PSS 3	.1982E+03	.2066E+03	.2095E+03	.2078E+03	.1967E+03	.1785E+03	.1559E+03	.1310E+03	.1056E+03

## DISPLACEMENTS

UX	-.3296E-02	-.2670E-02	-.2016E-02	-.1364E-02	-.7456E-03	-.1882E-03	.2860E-03	.6650E-03	.9452E-03
UY	.1586E-10	-.1200E-10	-.1836E-10	.9205E-11	-.1742E-11	-.4664E-10	-.1812E-10	-.7132E-11	.1442E-10
UZ	.1379E+00	.1395E+00	.1406E+00	.1415E+00	.1419E+00	.1421E+00	.1421E+00	.1420E+00	.1417E+00

## NORMAL STRAINS

EXX	.6010E-03	.6446E-03	.6583E-03	.6396E-03	.5907E-03	.5178E-03	.4281E-03	.3296E-03	.2300E-03
EYY	.6117E-03	.6257E-03	.6330E-03	.6330E-03	.6263E-03	.6135E-03	.5957E-03	.5743E-03	.5513E-03
EZZ	-.7342E-03	-.7683E-03	-.7808E-03	-.7698E-03	-.7370E-03	-.6864E-03	-.6228E-03	-.5518E-03	-.4790E-03

## SHEAR STRAINS

EXY	.2836E-11	-.2696E-11	.6164E-12	.1631E-11	-.3527E-11	-.1170E-12	-.9374E-12	.2523E-11	-.3402E-11
EXZ	.8305E-04	.5812E-04	.3138E-04	.4773E-05	-.1983E-04	-.4085E-04	-.5735E-04	-.6898E-04	-.7568E-04
EYZ	-.1239E-11	.4413E-12	.1478E-11	.9118E-12	.5856E-13	.9640E-12	.1503E-11	.5062E-12	-.1184E-11

## PRINCIPAL STRAINS

PE 1	.6117E-03	.6452E-03	.6585E-03	.6396E-03	.6263E-03	.6135E-03	.5957E-03	.5743E-03	.5513E-03
PE 2	.6023E-03	.6257E-03	.6330E-03	.6330E-03	.5908E-03	.5182E-03	.4288E-03	.3310E-03	.2320E-03
PE 3	-.7355E-03	-.7689E-03	-.7810E-03	-.7698E-03	-.7371E-03	-.6868E-03	-.6235E-03	-.5531E-03	-.4810E-03

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRAINS

PSE 1	.1347E-02	.1414E-02	.1439E-02	.1409E-02	.1363E-02	.1300E-02	.1219E-02	.1127E-02	.1032E-02
PSE 2	.9394E-05	.1950E-04	.2545E-04	.6612E-05	.3551E-04	.9535E-04	.1668E-03	.2433E-03	.3193E-03
PSE 3	.1338E-02	.1395E-02	.1414E-02	.1403E-02	.1328E-02	.1205E-02	.1052E-02	.8841E-03	.7130E-03

Z= 18.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

## NORMAL STRESSES

SXX	.2977E+02	.3032E+02	.3071E+02	.3084E+02	.3082E+02	.3058E+02	.3004E+02	.2927E+02	.2844E+02
SYX	.3765E+02	.3813E+02	.3859E+02	.3891E+02	.3921E+02	.3940E+02	.3940E+02	.3924E+02	.3909E+02
SZZ	-.1206E+02	-.1223E+02	-.1237E+02	-.1247E+02	-.1254E+02	-.1259E+02	-.1259E+02	-.1255E+02	-.1249E+02

## SHEAR STRESSES

SXY	.1091E-07	-.1666E-07	.1321E-07	.1126E-07	.6416E-08	.1692E-07	-.1645E-07	-.1955E-07	-.4379E-08
SXZ	.2033E+01	.1792E+01	.1547E+01	.1305E+01	.1068E+01	.8438E+00	.6374E+00	.4523E+00	.2905E+00
SYZ	-.4720E-08	.4843E-08	.1202E-07	-.8649E-08	.7955E-09	-.9383E-08	.1229E-07	-.2226E-07	-.1906E-09

## PRINCIPAL STRESSES

PS 1	.3765E+02	.3813E+02	.3859E+02	.3891E+02	.3921E+02	.3940E+02	.3940E+02	.3924E+02	.3909E+02
PS 2	.2987E+02	.3039E+02	.3077E+02	.3088E+02	.3085E+02	.3060E+02	.3005E+02	.2927E+02	.2844E+02

## Appendix 6E-b Average HBP

PS 3    -.1215E+02   -.1230E+02   -.1243E+02   -.1251E+02   -.1257E+02   -.1260E+02   -.1260E+02   -.1256E+02   -.1249E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .2490E+02    .2522E+02    .2551E+02    .2571E+02    .2589E+02    .2600E+02    .2600E+02    .2590E+02    .2579E+02  
PSS 2    .3890E+01    .3869E+01    .3911E+01    .4016E+01    .4182E+01    .4404E+01    .4674E+01    .4984E+01    .5322E+01  
PSS 3    .2101E+02    .2135E+02    .2160E+02    .2169E+02    .2171E+02    .2160E+02    .2133E+02    .2091E+02    .2047E+02

## DISPLACEMENTS

UX        -.1095E-01   -.1023E-01   -.9520E-02   -.8800E-02   -.8071E-02   -.7343E-02   -.6634E-02   -.5953E-02   -.5292E-02  
UY        -.1376E-10   -.1075E-10   .1562E-11   -.2369E-10   .1809E-10   .4489E-10   -.6981E-11   .2273E-11   .3993E-10  
UZ        .1231E+00    .1243E+00    .1253E+00    .1261E+00    .1267E+00    .1272E+00    .1278E+00    .1283E+00    .1287E+00

## NORMAL STRAINS

EXX        .6938E-03    .7083E-03    .7179E-03    .7195E-03    .7162E-03    .7065E-03    .6886E-03    .6642E-03    .6378E-03  
EYY        .1048E-02    .1060E-02    .1072E-02    .1083E-02    .1094E-02    .1104E-02    .1110E-02    .1113E-02    .1117E-02  
EZZ        -.1188E-02   -.1206E-02   -.1221E-02   -.1229E-02   -.1235E-02   -.1236E-02   -.1230E-02   -.1218E-02   -.1204E-02

## SHEAR STRAINS

EXY        .9821E-12   -.1499E-11   .1189E-11   .1014E-11   .5775E-12   .1523E-11   -.1480E-11   -.1760E-11   -.3941E-12  
EXZ        .1829E-03   .1613E-03   .1393E-03   .1174E-03   .9612E-04   .7594E-04   .5737E-04   .4071E-04   .2614E-04  
EYZ        -.4248E-12   .4359E-12   .1082E-11   -.7784E-12   .7160E-13   -.8445E-12   .1106E-11   -.2004E-11   -.1715E-13

## PRINCIPAL STRAINS

PE 1        .1048E-02    .1060E-02    .1072E-02    .1083E-02    .1094E-02    .1104E-02    .1110E-02    .1113E-02    .1117E-02  
PE 2        .6983E-03    .7117E-03    .7204E-03    .7212E-03    .7174E-03    .7072E-03    .6891E-03    .6644E-03    .6379E-03  
PE 3        -.1193E-02   -.1210E-02   -.1224E-02   -.1231E-02   -.1236E-02   -.1237E-02   -.1230E-02   -.1218E-02   -.1204E-02

## PRINCIPAL SHEAR STRAINS

PSE 1        .2241E-02    .2270E-02    .2296E-02    .2314E-02    .2330E-02    .2340E-02    .2340E-02    .2331E-02    .2321E-02  
PSE 2        .3501E-03    .3482E-03    .3520E-03    .3614E-03    .3764E-03    .3963E-03    .4206E-03    .4485E-03    .4790E-03  
PSE 3        .1891E-02    .1921E-02    .1944E-02    .1952E-02    .1954E-02    .1944E-02    .1919E-02    .1882E-02    .1842E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-b Average HBP

31.00      4.00  
32.00      4.00

Z= 6.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.1280E+03	.8809E+02	.5427E+02	.2721E+02	.6193E+01	-.9588E+01	-.2132E+02	-.2971E+02	-.3533E+02
SYX	.2443E+03	.2225E+03	.2032E+03	.1867E+03	.1731E+03	.1620E+03	.1533E+03	.1467E+03	.1421E+03
SZZ	-.3315E+02	-.2917E+02	-.2564E+02	-.2262E+02	-.2011E+02	-.1808E+02	-.1649E+02	-.1528E+02	-.1444E+02

SHEAR STRESSES

SXY	-.3061E-07	-.3604E-06	-.5853E-06	-.3064E-06	-.7863E-07	-.7213E-07	-.2462E-06	.1307E-06	-.5601E-06
SXZ	-.1152E+02	-.1124E+02	-.1052E+02	-.9492E+01	-.8284E+01	-.6980E+01	-.5620E+01	-.4232E+01	-.2828E+01
SYZ	.6223E-07	.1466E-07	-.1652E-07	.6427E-07	.5717E-08	-.5060E-07	-.4740E-08	.5005E-07	.1260E-07

PRINCIPAL STRESSES

PS 1	.2443E+03	.2225E+03	.2032E+03	.1867E+03	.1731E+03	.1620E+03	.1533E+03	.1467E+03	.1421E+03
PS 2	.1289E+03	.8915E+02	.5563E+02	.2895E+02	.8585E+01	-.5665E+01	-.1278E+02	-.1413E+02	-.1407E+02
PS 3	-.3397E+02	-.3024E+02	-.2700E+02	-.2437E+02	-.2250E+02	-.2201E+02	-.2502E+02	-.3086E+02	-.3571E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1391E+03	.1264E+03	.1151E+03	.1055E+03	.9778E+02	.9201E+02	.8916E+02	.8879E+02	.8891E+02
PSS 2	.5773E+02	.6667E+02	.7376E+02	.7888E+02	.8224E+02	.8384E+02	.8304E+02	.8042E+02	.7809E+02
PSS 3	.8141E+02	.5970E+02	.4131E+02	.2666E+02	.1554E+02	.8170E+01	.6118E+01	.8362E+01	.1082E+02

## DISPLACEMENTS

UX	.1128E-02	.1220E-02	.1234E-02	.1184E-02	.1085E-02	.9500E-03	.7876E-03	.6058E-03	.4108E-03
UY	-.2260E-10	-.1751E-10	.4130E-11	-.8419E-11	.1667E-10	-.5008E-11	.2143E-10	-.1058E-10	-.1069E-10
UZ	.1413E+00	.1409E+00	.1405E+00	.1402E+00	.1398E+00	.1395E+00	.1392E+00	.1390E+00	.1388E+00

## NORMAL STRAINS

EXX	.1353E-03	.5106E-04	-.1965E-04	-.7557E-04	-.1183E-03	-.1499E-03	-.1730E-03	-.1893E-03	-.2000E-03
EYY	.5278E-03	.5047E-03	.4828E-03	.4628E-03	.4448E-03	.4293E-03	.4163E-03	.4062E-03	.3988E-03
EZZ	-.4087E-03	-.3447E-03	-.2893E-03	-.2437E-03	-.2071E-03	-.1786E-03	-.1567E-03	-.1406E-03	-.1295E-03

## SHEAR STRAINS

EXY	-.2066E-12	-.2432E-11	-.3951E-11	-.2068E-11	-.5308E-12	-.4869E-12	-.1662E-11	.8823E-12	-.3780E-11
EXZ	-.7775E-04	-.7587E-04	-.7099E-04	-.6407E-04	-.5592E-04	-.4711E-04	-.3794E-04	-.2856E-04	-.1909E-04
EYZ	.4201E-12	.9896E-13	-.1115E-12	.4338E-12	.3859E-13	-.3416E-12	-.3200E-13	.3379E-12	.8505E-13

## PRINCIPAL STRAINS

PE 1	.5278E-03	.5047E-03	.4828E-03	.4628E-03	.4448E-03	.4293E-03	.4163E-03	.4062E-03	.3988E-03
PE 2	.1381E-03	.5467E-04	-.1506E-04	-.6967E-04	-.1103E-03	-.1367E-03	-.1442E-03	-.1367E-03	-.1283E-03
PE 3	-.4115E-03	-.3483E-03	-.2939E-03	-.2496E-03	-.2152E-03	-.1918E-03	-.1855E-03	-.1932E-03	-.2013E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9392E-03	.8530E-03	.7768E-03	.7124E-03	.6600E-03	.6211E-03	.6018E-03	.5993E-03	.6001E-03
PSE 2	.3897E-03	.4500E-03	.4979E-03	.5324E-03	.5551E-03	.5659E-03	.5605E-03	.5429E-03	.5271E-03
PSE 3	.5495E-03	.4030E-03	.2789E-03	.1800E-03	.1049E-03	.5515E-04	.4129E-04	.5645E-04	.7304E-04

Z= 18.00 LAYER NO, 2



Appendix 6E-b Average HBP

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.2753E+02	.2649E+02	.2538E+02	.2428E+02	.2325E+02	.2231E+02	.2151E+02	.2086E+02	.2039E+02
SYY	.3889E+02	.3857E+02	.3817E+02	.3775E+02	.3734E+02	.3696E+02	.3663E+02	.3636E+02	.3617E+02
SZZ	-.1242E+02	-.1233E+02	-.1222E+02	-.1210E+02	-.1199E+02	-.1187E+02	-.1177E+02	-.1169E+02	-.1163E+02

SHEAR STRESSES

SXY	-.1626E-07	-.1292E-07	.8254E-08	-.9896E-09	-.2247E-07	-.1646E-07	.1841E-07	.8203E-08	-.2015E-07
SXZ	.1543E+00	.4530E-01	-.3687E-01	-.9365E-01	-.1270E+00	-.1395E+00	-.1340E+00	-.1138E+00	-.8220E-01
SYZ	-.1011E-07	-.8591E-09	-.1578E-07	.5547E-08	-.4454E-08	-.7536E-08	.1135E-08	.2619E-08	-.2326E-08

PRINCIPAL STRESSES

PS 1	.3889E+02	.3857E+02	.3817E+02	.3775E+02	.3734E+02	.3696E+02	.3663E+02	.3636E+02	.3617E+02
PS 2	.2753E+02	.2649E+02	.2538E+02	.2428E+02	.2325E+02	.2231E+02	.2151E+02	.2086E+02	.2039E+02
PS 3	-.1242E+02	-.1233E+02	-.1222E+02	-.1210E+02	-.1199E+02	-.1187E+02	-.1177E+02	-.1169E+02	-.1163E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.2566E+02	.2545E+02	.2520E+02	.2493E+02	.2466E+02	.2442E+02	.2420E+02	.2403E+02	.2390E+02
PSS 2	.5678E+01	.6040E+01	.6395E+01	.6734E+01	.7046E+01	.7325E+01	.7561E+01	.7751E+01	.7890E+01
PSS 3	.1998E+02	.1941E+02	.1880E+02	.1819E+02	.1762E+02	.1709E+02	.1664E+02	.1628E+02	.1601E+02

DISPLACEMENTS

## Appendix 6E-b Average HBP

UX	-.4654E-02	-.4054E-02	-.3493E-02	-.2969E-02	-.2479E-02	-.2018E-02	-.1583E-02	-.1169E-02	-.7703E-03
UY	-.4315E-10	-.2673E-10	.1867E-10	.2714E-10	.3432E-10	-.1502E-10	.4774E-10	.2394E-10	.6983E-11
UZ	.1289E+00	.1292E+00	.1295E+00	.1297E+00	.1299E+00	.1300E+00	.1301E+00	.1301E+00	.1301E+00

## NORMAL STRAINS

EXX	.6090E-03	.5769E-03	.5434E-03	.5103E-03	.4791E-03	.4510E-03	.4269E-03	.4076E-03	.3934E-03
EYY	.1120E-02	.1120E-02	.1119E-02	.1116E-02	.1113E-02	.1110E-02	.1107E-02	.1105E-02	.1103E-02
EZZ	-.1189E-02	-.1170E-02	-.1149E-02	-.1127E-02	-.1106E-02	-.1087E-02	-.1071E-02	-.1057E-02	-.1048E-02

## SHEAR STRAINS

EXY	-.1463E-11	-.1163E-11	.7429E-12	-.8906E-13	-.2022E-11	-.1481E-11	.1657E-11	.7382E-12	-.1814E-11
EXZ	.1388E-04	.4077E-05	-.3319E-05	-.8428E-05	-.1143E-04	-.1256E-04	-.1206E-04	-.1024E-04	-.7398E-05
EYZ	-.9095E-12	-.7732E-13	-.1420E-11	.4993E-12	-.4009E-12	-.6782E-12	.1022E-12	.2357E-12	-.2093E-12

## PRINCIPAL STRAINS

PE 1	.1120E-02	.1120E-02	.1119E-02	.1116E-02	.1113E-02	.1110E-02	.1107E-02	.1105E-02	.1103E-02
PE 2	.6090E-03	.5769E-03	.5434E-03	.5103E-03	.4791E-03	.4510E-03	.4269E-03	.4076E-03	.3934E-03
PE 3	-.1189E-02	-.1170E-02	-.1149E-02	-.1127E-02	-.1106E-02	-.1087E-02	-.1071E-02	-.1057E-02	-.1048E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2309E-02	.2291E-02	.2268E-02	.2244E-02	.2220E-02	.2197E-02	.2178E-02	.2163E-02	.2151E-02
PSE 2	.5110E-03	.5436E-03	.5755E-03	.6060E-03	.6342E-03	.6592E-03	.6805E-03	.6976E-03	.7101E-03
PSE 3	.1798E-02	.1747E-02	.1692E-02	.1638E-02	.1585E-02	.1538E-02	.1498E-02	.1465E-02	.1441E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-b Average HBP

39.00      4.00  
40.00      4.00  
41.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
33.00      4.00  
34.00      4.00  
35.00      4.00  
36.00      4.00  
37.00      4.00  
38.00      4.00  
39.00      4.00  
40.00      4.00  
41.00      4.00

NORMAL STRESSES

SXX    -.3856E+02   -.3962E+02   -.3856E+02   -.3533E+02   -.2971E+02   -.2132E+02   -.9588E+01   .6193E+01   .2721E+02  
SYY    .1394E+03   .1385E+03   .1394E+03   .1421E+03   .1467E+03   .1533E+03   .1620E+03   .1731E+03   .1867E+03  
SZZ    -.1395E+02   -.1379E+02   -.1395E+02   -.1444E+02   -.1528E+02   -.1649E+02   -.1808E+02   -.2011E+02   -.2262E+02

SHEAR STRESSES

SXY    .3743E-07   .1324E-06   .1179E-06   .4097E-06   .9216E-07   .9235E-07   -.1180E-06   .4081E-06   .1040E-06  
SXZ    -.1416E+01   -.1734E-07   .1416E+01   .2828E+01   .4232E+01   .5620E+01   .6980E+01   .8284E+01   .9492E+01  
SYZ    -.4505E-07   -.1913E-07   -.6397E-07   .1493E-07   .5741E-08   -.1899E-07   -.3632E-07   .2335E-07   .2555E-07

PRINCIPAL STRESSES

PS 1    .1394E+03   .1385E+03   .1394E+03   .1421E+03   .1467E+03   .1533E+03   .1620E+03   .1731E+03   .1867E+03  
PS 2    -.1387E+02   -.1379E+02   -.1387E+02   -.1407E+02   -.1413E+02   -.1278E+02   -.5665E+01   .8585E+01   .2895E+02  
PS 3    -.3864E+02   -.3962E+02   -.3864E+02   -.3571E+02   -.3086E+02   -.2502E+02   -.2201E+02   -.2250E+02   -.2437E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.8902E+02	.8905E+02	.8902E+02	.8891E+02	.8879E+02	.8916E+02	.9201E+02	.9778E+02	.1055E+03
PSS 2	.7663E+02	.7614E+02	.7663E+02	.7809E+02	.8042E+02	.8304E+02	.8384E+02	.8224E+02	.7888E+02
PSS 3	.1239E+02	.1291E+02	.1239E+02	.1082E+02	.8362E+01	.6118E+01	.8170E+01	.1554E+02	.2666E+02

## DISPLACEMENTS

UX	.2074E-03	.1862E-10	-.2074E-03	-.4108E-03	-.6058E-03	-.7876E-03	-.9500E-03	-.1085E-02	-.1184E-02
UY	.1195E-10	.7209E-11	.7037E-11	-.1656E-10	.1216E-10	.1082E-10	.1211E-10	-.1645E-10	-.1005E-10
UZ	.1387E+00	.1387E+00	.1387E+00	.1388E+00	.1390E+00	.1392E+00	.1395E+00	.1398E+00	.1402E+00

## NORMAL STRAINS

EXX	-.2062E-03	-.2082E-03	-.2062E-03	-.2000E-03	-.1893E-03	-.1730E-03	-.1499E-03	-.1183E-03	-.7557E-04
EYY	.3944E-03	.3930E-03	.3944E-03	.3988E-03	.4062E-03	.4163E-03	.4293E-03	.4448E-03	.4628E-03
EZZ	-.1231E-03	-.1210E-03	-.1231E-03	-.1295E-03	-.1406E-03	-.1567E-03	-.1786E-03	-.2071E-03	-.2437E-03

## SHEAR STRAINS

EXY	.2527E-12	.8934E-12	.7961E-12	.2765E-11	.6221E-12	.6234E-12	-.7967E-12	.2755E-11	.7022E-12
EXZ	-.9555E-05	-.1171E-12	.9555E-05	.1909E-04	.2856E-04	.3794E-04	.4711E-04	.5592E-04	.6407E-04
EYZ	-.3041E-12	-.1291E-12	-.4318E-12	.1008E-12	.3875E-13	-.1282E-12	-.2451E-12	.1576E-12	.1724E-12

## PRINCIPAL STRAINS

PE 1	.3944E-03	.3930E-03	.3944E-03	.3988E-03	.4062E-03	.4163E-03	.4293E-03	.4448E-03	.4628E-03
PE 2	-.1228E-03	-.1210E-03	-.1228E-03	-.1283E-03	-.1367E-03	-.1442E-03	-.1367E-03	-.1103E-03	-.6967E-04
PE 3	-.2064E-03	-.2082E-03	-.2064E-03	-.2013E-03	-.1932E-03	-.1855E-03	-.1918E-03	-.2152E-03	-.2496E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.6009E-03	.6011E-03	.6009E-03	.6001E-03	.5993E-03	.6018E-03	.6211E-03	.6600E-03	.7124E-03
PSE 2	.5173E-03	.5139E-03	.5173E-03	.5271E-03	.5429E-03	.5605E-03	.5659E-03	.5551E-03	.5324E-03
PSE 3	.8361E-04	.8718E-04	.8361E-04	.7304E-04	.5645E-04	.4129E-04	.5515E-04	.1049E-03	.1800E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.2010E+02	.2001E+02	.2010E+02	.2039E+02	.2086E+02	.2151E+02	.2231E+02	.2325E+02	.2428E+02
SYX	.3605E+02	.3601E+02	.3605E+02	.3617E+02	.3636E+02	.3663E+02	.3696E+02	.3734E+02	.3775E+02
SZZ	-.1159E+02	-.1158E+02	-.1159E+02	-.1163E+02	-.1169E+02	-.1177E+02	-.1187E+02	-.1199E+02	-.1210E+02

SHEAR STRESSES

SXY	.9591E-08	-.3165E-08	.2617E-07	-.8609E-07	-.2808E-09	.4456E-08	-.4682E-07	-.2352E-08	-.4023E-09
SXZ	-.4302E-01	.1567E-07	.4302E-01	.8220E-01	.1138E+00	.1340E+00	.1395E+00	.1270E+00	.9365E-01
SYZ	-.4635E-08	.2342E-08	.1641E-07	-.3051E-08	-.6095E-08	-.3826E-08	-.4317E-08	-.4928E-09	.1179E-07

PRINCIPAL STRESSES

PS 1	.3605E+02	.3601E+02	.3605E+02	.3617E+02	.3636E+02	.3663E+02	.3696E+02	.3734E+02	.3775E+02
PS 2	.2010E+02	.2001E+02	.2010E+02	.2039E+02	.2086E+02	.2151E+02	.2231E+02	.2325E+02	.2428E+02
PS 3	-.1159E+02	-.1158E+02	-.1159E+02	-.1163E+02	-.1169E+02	-.1177E+02	-.1187E+02	-.1199E+02	-.1210E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.2382E+02	.2380E+02	.2382E+02	.2390E+02	.2403E+02	.2420E+02	.2442E+02	.2466E+02	.2493E+02
PSS 2	.7974E+01	.8002E+01	.7974E+01	.7890E+01	.7751E+01	.7561E+01	.7325E+01	.7046E+01	.6734E+01
PSS 3	.1585E+02	.1579E+02	.1585E+02	.1601E+02	.1628E+02	.1664E+02	.1709E+02	.1762E+02	.1819E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.3824E-03	-.1035E-09	.3824E-03	.7703E-03	.1169E-02	.1583E-02	.2018E-02	.2479E-02	.2969E-02
UY	.2929E-10	-.1017E-10	-.3441E-10	.3500E-11	.4915E-11	-.3896E-10	.7442E-10	-.3662E-10	.2896E-10
UZ	.1301E+00	.1301E+00	.1301E+00	.1301E+00	.1301E+00	.1301E+00	.1300E+00	.1299E+00	.1297E+00

## NORMAL STRAINS

EXX	.3848E-03	.3819E-03	.3848E-03	.3934E-03	.4076E-03	.4269E-03	.4510E-03	.4791E-03	.5103E-03
EYY	.1102E-02	.1102E-02	.1102E-02	.1103E-02	.1105E-02	.1107E-02	.1110E-02	.1113E-02	.1116E-02
EZZ	-.1042E-02	-.1040E-02	-.1042E-02	-.1048E-02	-.1057E-02	-.1071E-02	-.1087E-02	-.1106E-02	-.1127E-02

## SHEAR STRAINS

EXY	.8632E-12	-.2849E-12	.2356E-11	-.7748E-11	-.2527E-13	.4011E-12	-.4213E-11	-.2117E-12	-.3620E-13
EXZ	-.3872E-05	.1410E-11	.3872E-05	.7398E-05	.1024E-04	.1206E-04	.1256E-04	.1143E-04	.8428E-05
EYZ	-.4171E-12	.2108E-12	.1477E-11	-.2745E-12	-.5485E-12	-.3444E-12	-.3886E-12	-.4435E-13	.1061E-11

## PRINCIPAL STRAINS

PE 1	.1102E-02	.1102E-02	.1102E-02	.1103E-02	.1105E-02	.1107E-02	.1110E-02	.1113E-02	.1116E-02
PE 2	.3848E-03	.3819E-03	.3848E-03	.3934E-03	.4076E-03	.4269E-03	.4510E-03	.4791E-03	.5103E-03
PE 3	-.1042E-02	-.1040E-02	-.1042E-02	-.1048E-02	-.1057E-02	-.1071E-02	-.1087E-02	-.1106E-02	-.1127E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2144E-02	.2142E-02	.2144E-02	.2151E-02	.2163E-02	.2178E-02	.2197E-02	.2220E-02	.2244E-02
PSE 2	.7176E-03	.7202E-03	.7176E-03	.7101E-03	.6976E-03	.6805E-03	.6592E-03	.6342E-03	.6060E-03
PSE 3	.1426E-02	.1421E-02	.1426E-02	.1441E-02	.1465E-02	.1498E-02	.1538E-02	.1585E-02	.1638E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00



Appendix 6E-b Average HBP

48.00      4.00  
49.00      4.00  
50.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
42.00      4.00  
43.00      4.00  
44.00      4.00  
45.00      4.00  
46.00      4.00  
47.00      4.00  
48.00      4.00  
49.00      4.00  
50.00      4.00

NORMAL STRESSES

SXX    .5427E+02   .8809E+02   .1280E+03   .1726E+03   .2194E+03   .2654E+03   .3072E+03   .3409E+03   .3633E+03  
SYY    .2032E+03   .2225E+03   .2443E+03   .2678E+03   .2919E+03   .3151E+03   .3356E+03   .3515E+03   .3613E+03  
SZZ    -.2564E+02   -.2917E+02   -.3315E+02   -.3742E+02   -.4176E+02   -.4591E+02   -.4958E+02   -.5247E+02   -.5431E+02

SHEAR STRESSES

SXY    .7260E-06   -.1744E-06   -.3057E-06   .3519E-06   .4836E-06   -.2443E-07   .2638E-07   .4581E-06   .2486E-06  
SXZ    .1052E+02   .1124E+02   .1152E+02   .1121E+02   .1022E+02   .8497E+01   .6053E+01   .2937E+01   -.7071E+00  
SYZ    -.5393E-07   -.4778E-07   -.5423E-07   -.1114E-06   .2441E-06   -.7160E-07   .5837E-07   -.1284E-06   .1618E-06

PRINCIPAL STRESSES

PS 1    .2032E+03   .2225E+03   .2443E+03   .2678E+03   .2919E+03   .3151E+03   .3356E+03   .3515E+03   .3633E+03  
PS 2    .5563E+02   .8916E+02   .1289E+03   .1732E+03   .2198E+03   .2657E+03   .3073E+03   .3410E+03   .3613E+03  
PS 3    -.2700E+02   -.3024E+02   -.3397E+02   -.3801E+02   -.4216E+02   -.4614E+02   -.4968E+02   -.5249E+02   -.5431E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1151E+03	.1264E+03	.1391E+03	.1529E+03	.1670E+03	.1806E+03	.1926E+03	.2020E+03	.2088E+03
PSS 2	.7376E+02	.6667E+02	.5773E+02	.4730E+02	.3605E+02	.2472E+02	.1413E+02	.5260E+01	.9796E+00
PSS 3	.4132E+02	.5970E+02	.8141E+02	.1056E+03	.1310E+03	.1559E+03	.1785E+03	.1967E+03	.2078E+03

## DISPLACEMENTS

UX	-.1234E-02	-.1220E-02	-.1128E-02	-.9452E-03	-.6650E-03	-.2860E-03	.1882E-03	.7456E-03	.1364E-02
UY	.1653E-10	.2046E-10	.4236E-11	-.2534E-10	.7959E-11	-.3231E-10	.7868E-11	-.8935E-11	.2378E-10
UZ	.1405E+00	.1409E+00	.1413E+00	.1417E+00	.1420E+00	.1421E+00	.1421E+00	.1419E+00	.1415E+00

## NORMAL STRAINS

EXX	-.1965E-04	.5106E-04	.1353E-03	.2300E-03	.3296E-03	.4281E-03	.5178E-03	.5907E-03	.6396E-03
EYY	.4828E-03	.5047E-03	.5278E-03	.5513E-03	.5743E-03	.5957E-03	.6135E-03	.6263E-03	.6330E-03
EZZ	-.2893E-03	-.3447E-03	-.4087E-03	-.4790E-03	-.5518E-03	-.6228E-03	-.6864E-03	-.7370E-03	-.7698E-03

## SHEAR STRAINS

EXY	.4901E-11	-.1177E-11	-.2064E-11	.2375E-11	.3264E-11	-.1649E-12	.1780E-12	.3092E-11	.1678E-11
EXZ	.7099E-04	.7587E-04	.7775E-04	.7568E-04	.6898E-04	.5735E-04	.4085E-04	.1983E-04	-.4773E-05
EYZ	-.3640E-12	-.3225E-12	-.3660E-12	-.7519E-12	.1648E-11	-.4833E-12	.3940E-12	-.8669E-12	.1092E-11

## PRINCIPAL STRAINS

PE 1	.4828E-03	.5047E-03	.5278E-03	.5513E-03	.5743E-03	.5957E-03	.6135E-03	.6263E-03	.6396E-03
PE 2	-.1506E-04	.5467E-04	.1381E-03	.2320E-03	.3310E-03	.4288E-03	.5182E-03	.5908E-03	.6330E-03
PE 3	-.2939E-03	-.3483E-03	-.4115E-03	-.4810E-03	-.5531E-03	-.6235E-03	-.6868E-03	-.7371E-03	-.7698E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.7768E-03	.8530E-03	.9392E-03	.1032E-02	.1127E-02	.1219E-02	.1300E-02	.1363E-02	.1409E-02
PSE 2	.4979E-03	.4500E-03	.3897E-03	.3193E-03	.2433E-03	.1668E-03	.9535E-04	.3551E-04	.6612E-05
PSE 3	.2789E-03	.4030E-03	.5495E-03	.7130E-03	.8841E-03	.1052E-02	.1205E-02	.1328E-02	.1403E-02

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.2538E+02	.2649E+02	.2753E+02	.2844E+02	.2927E+02	.3004E+02	.3058E+02	.3082E+02	.3084E+02
SYY	.3817E+02	.3857E+02	.3889E+02	.3909E+02	.3924E+02	.3940E+02	.3940E+02	.3921E+02	.3891E+02
SZZ	-.1222E+02	-.1233E+02	-.1242E+02	-.1249E+02	-.1255E+02	-.1259E+02	-.1259E+02	-.1254E+02	-.1247E+02

SHEAR STRESSES

SXY	-.1779E-07	-.2670E-08	.4857E-08	.1670E-07	-.1822E-07	-.2188E-07	.7575E-08	.9122E-08	-.2135E-07
SXZ	.3687E-01	-.4530E-01	-.1543E+00	-.2905E+00	-.4523E+00	-.6374E+00	-.8438E+00	-.1068E+01	-.1305E+01
SYZ	-.7793E-08	-.1715E-07	-.8766E-08	.1529E-07	-.1169E-07	.1849E-07	-.8137E-08	.3014E-08	-.1456E-08

PRINCIPAL STRESSES

PS 1	.3817E+02	.3857E+02	.3889E+02	.3909E+02	.3924E+02	.3940E+02	.3940E+02	.3921E+02	.3891E+02
PS 2	.2538E+02	.2649E+02	.2753E+02	.2844E+02	.2927E+02	.3005E+02	.3060E+02	.3085E+02	.3088E+02
PS 3	-.1222E+02	-.1233E+02	-.1242E+02	-.1249E+02	-.1256E+02	-.1260E+02	-.1260E+02	-.1257E+02	-.1251E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.2520E+02	.2545E+02	.2566E+02	.2579E+02	.2590E+02	.2600E+02	.2600E+02	.2589E+02	.2571E+02
PSS 2	.6395E+01	.6040E+01	.5678E+01	.5322E+01	.4984E+01	.4674E+01	.4404E+01	.4182E+01	.4016E+01
PSS 3	.1880E+02	.1941E+02	.1998E+02	.2047E+02	.2091E+02	.2133E+02	.2160E+02	.2171E+02	.2169E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.3493E-02	.4054E-02	.4654E-02	.5292E-02	.5953E-02	.6634E-02	.7343E-02	.8071E-02	.8800E-02
UY	.1623E-10	.1157E-11	-.3874E-10	-.2862E-10	.4370E-11	-.5294E-10	-.4028E-10	-.1426E-10	-.2414E-10
UZ	.1295E+00	.1292E+00	.1289E+00	.1287E+00	.1283E+00	.1278E+00	.1272E+00	.1267E+00	.1261E+00

## NORMAL STRAINS

EXX	.5434E-03	.5769E-03	.6090E-03	.6378E-03	.6642E-03	.6886E-03	.7065E-03	.7162E-03	.7195E-03
EYY	.1119E-02	.1120E-02	.1120E-02	.1117E-02	.1113E-02	.1110E-02	.1104E-02	.1094E-02	.1083E-02
EZZ	-.1149E-02	-.1170E-02	-.1189E-02	-.1204E-02	-.1218E-02	-.1230E-02	-.1236E-02	-.1235E-02	-.1229E-02

## SHEAR STRAINS

EXY	-.1601E-11	-.2403E-12	.4371E-12	.1503E-11	-.1640E-11	-.1969E-11	.6818E-12	.8210E-12	-.1921E-11
EXZ	.3319E-05	-.4077E-05	-.1388E-04	-.2614E-04	-.4071E-04	-.5737E-04	-.7594E-04	-.9612E-04	-.1174E-03
EYZ	-.7014E-12	-.1544E-11	-.7889E-12	.1376E-11	-.1052E-11	.1664E-11	-.7323E-12	.2713E-12	-.1311E-12

## PRINCIPAL STRAINS

PE 1	.1119E-02	.1120E-02	.1120E-02	.1117E-02	.1113E-02	.1110E-02	.1104E-02	.1094E-02	.1083E-02
PE 2	.5434E-03	.5769E-03	.6090E-03	.6379E-03	.6644E-03	.6891E-03	.7072E-03	.7174E-03	.7212E-03
PE 3	-.1149E-02	-.1170E-02	-.1189E-02	-.1204E-02	-.1218E-02	-.1230E-02	-.1237E-02	-.1236E-02	-.1231E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2268E-02	.2291E-02	.2309E-02	.2321E-02	.2331E-02	.2340E-02	.2340E-02	.2330E-02	.2314E-02
PSE 2	.5755E-03	.5436E-03	.5110E-03	.4790E-03	.4485E-03	.4206E-03	.3963E-03	.3764E-03	.3614E-03
PSE 3	.1692E-02	.1747E-02	.1798E-02	.1842E-02	.1882E-02	.1919E-02	.1944E-02	.1954E-02	.1952E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-b Average HBP

57.00      4.00  
58.00      4.00  
59.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
51.00      4.00  
52.00      4.00  
53.00      4.00  
54.00      4.00  
55.00      4.00  
56.00      4.00  
57.00      4.00  
58.00      4.00  
59.00      4.00

NORMAL STRESSES

SXX    .3715E+03   .3645E+03   .3435E+03   .3109E+03   .2705E+03   .2256E+03   .1800E+03   .1364E+03   .9735E+02  
SYY    .3640E+03   .3589E+03   .3466E+03   .3282E+03   .3052E+03   .2794E+03   .2525E+03   .2261E+03   .2011E+03  
SZZ    -.5490E+02   -.5415E+02   -.5215E+02   -.4909E+02   -.4525E+02   -.4091E+02   -.3636E+02   -.3186E+02   -.2763E+02

SHEAR STRESSES

SXY    .8535E-07   .2871E-06   .4956E-06   -.4864E-07   -.8535E-07   -.5538E-06   -.4581E-06   -.1659E-06   -.2690E-06  
SXZ    -.4648E+01   -.8610E+01   -.1230E+02   -.1550E+02   -.1807E+02   -.1995E+02   -.2114E+02   -.2168E+02   -.2166E+02  
SYZ    .2221E-06   .1321E-06   .0000E+00   .1321E-06   .2221E-06   .6646E-07   -.1863E-06   .5953E-07   .1032E-07

PRINCIPAL STRESSES

PS 1    .3716E+03   .3647E+03   .3466E+03   .3282E+03   .3052E+03   .2794E+03   .2525E+03   .2261E+03   .2011E+03  
PS 2    .3640E+03   .3589E+03   .3438E+03   .3116E+03   .2715E+03   .2271E+03   .1820E+03   .1391E+03   .1010E+03  
PS 3    -.5495E+02   -.5433E+02   -.5253E+02   -.4976E+02   -.4628E+02   -.4239E+02   -.3841E+02   -.3461E+02   -.3128E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2133E+03	.2095E+03	.1996E+03	.1890E+03	.1758E+03	.1609E+03	.1455E+03	.1303E+03	.1162E+03
PSS 2	.3771E+01	.2889E+01	.1392E+01	.8308E+01	.1686E+02	.2615E+02	.3526E+02	.4347E+02	.5007E+02
PSS 3	.2095E+03	.2066E+03	.1982E+03	.1807E+03	.1589E+03	.1347E+03	.1102E+03	.8687E+02	.6614E+02

## DISPLACEMENTS

UX	.2016E-02	.2670E-02	.3296E-02	.3866E-02	.4358E-02	.4761E-02	.5069E-02	.5285E-02	.5415E-02
UY	-.1664E-10	.1040E-10	.0000E+00	-.4780E-10	-.1664E-10	-.1114E-10	.1518E-10	-.2131E-10	-.1957E-10
UZ	.1406E+00	.1395E+00	.1379E+00	.1361E+00	.1342E+00	.1322E+00	.1298E+00	.1274E+00	.1250E+00

## NORMAL STRAINS

EXX	.6583E-03	.6446E-03	.6010E-03	.5331E-03	.4487E-03	.3553E-03	.2608E-03	.1710E-03	.9156E-04
EYY	.6330E-03	.6257E-03	.6117E-03	.5914E-03	.5660E-03	.5368E-03	.5057E-03	.4737E-03	.4418E-03
EZZ	-.7808E-03	-.7683E-03	-.7342E-03	-.6820E-03	-.6169E-03	-.5441E-03	-.4694E-03	-.3968E-03	-.3302E-03

## SHEAR STRAINS

EXY	.5761E-12	.1938E-11	.3345E-11	-.3284E-12	-.5761E-12	-.3738E-11	-.3092E-11	-.1120E-11	-.1816E-11
EXZ	-.3138E-04	-.5812E-04	-.8305E-04	-.1046E-03	-.1220E-03	-.1347E-03	-.1427E-03	-.1463E-03	-.1462E-03
EYZ	.1499E-11	.8919E-12	.0000E+00	.8919E-12	.1499E-11	.4486E-12	-.1257E-11	.4019E-12	.6969E-13

## PRINCIPAL STRAINS

PE 1	.6585E-03	.6452E-03	.6117E-03	.5914E-03	.5660E-03	.5368E-03	.5057E-03	.4737E-03	.4418E-03
PE 2	.6330E-03	.6257E-03	.6023E-03	.5354E-03	.4522E-03	.3603E-03	.2677E-03	.1803E-03	.1039E-03
PE 3	-.7810E-03	-.7689E-03	-.7355E-03	-.6843E-03	-.6204E-03	-.5491E-03	-.4763E-03	-.4061E-03	-.3426E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1439E-02	.1414E-02	.1347E-02	.1276E-02	.1186E-02	.1086E-02	.9820E-03	.8798E-03	.7844E-03
PSE 2	.2545E-04	.1950E-04	.9394E-05	.5608E-04	.1138E-03	.1765E-03	.2380E-03	.2934E-03	.3379E-03
PSE 3	.1414E-02	.1395E-02	.1338E-02	.1220E-02	.1073E-02	.9094E-03	.7440E-03	.5864E-03	.4464E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.3071E+02	.3032E+02	.2977E+02	.2900E+02	.2790E+02	.2655E+02	.2512E+02	.2357E+02	.2185E+02
SYX	.3859E+02	.3813E+02	.3765E+02	.3706E+02	.3626E+02	.3529E+02	.3432E+02	.3329E+02	.3211E+02
SZZ	-.1237E+02	-.1223E+02	-.1206E+02	-.1185E+02	-.1161E+02	-.1132E+02	-.1100E+02	-.1067E+02	-.1032E+02

SHEAR STRESSES

SXY	.1824E-07	.9500E-08	-.9122E-08	.1285E-07	-.3340E-08	.2135E-07	-.9122E-08	-.1993E-07	-.2627E-07
SXZ	-.1547E+01	-.1792E+01	-.2033E+01	-.2264E+01	-.2480E+01	-.2677E+01	-.2853E+01	-.3006E+01	-.3133E+01
SYZ	.1187E-07	-.6739E-08	.0000E+00	-.6739E-08	.1187E-07	-.2530E-07	-.4217E-08	-.1196E-07	-.1300E-08

PRINCIPAL STRESSES

PS 1	.3859E+02	.3813E+02	.3765E+02	.3706E+02	.3626E+02	.3529E+02	.3432E+02	.3329E+02	.3211E+02
PS 2	.3077E+02	.3039E+02	.2987E+02	.2912E+02	.2806E+02	.2674E+02	.2534E+02	.2383E+02	.2215E+02
PS 3	-.1243E+02	-.1230E+02	-.1215E+02	-.1198E+02	-.1176E+02	-.1151E+02	-.1123E+02	-.1093E+02	-.1062E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.2551E+02	.2522E+02	.2490E+02	.2452E+02	.2401E+02	.2340E+02	.2277E+02	.2211E+02	.2136E+02
PSS 2	.3911E+01	.3869E+01	.3890E+01	.3969E+01	.4101E+01	.4277E+01	.4489E+01	.4727E+01	.4980E+01
PSS 3	.2160E+02	.2135E+02	.2101E+02	.2055E+02	.1991E+02	.1912E+02	.1829E+02	.1738E+02	.1638E+02



## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.9520E-02	.1023E-01	.1095E-01	.1165E-01	.1231E-01	.1294E-01	.1354E-01	.1410E-01	.1460E-01
UY	-.2653E-11	-.2258E-10	.0000E+00	.3563E-10	-.2653E-11	-.1250E-10	.3396E-10	-.4028E-10	-.8365E-11
UZ	.1253E+00	.1243E+00	.1231E+00	.1218E+00	.1206E+00	.1193E+00	.1179E+00	.1163E+00	.1148E+00

## NORMAL STRAINS

EXX	.7179E-03	.7083E-03	.6938E-03	.6725E-03	.6425E-03	.6053E-03	.5653E-03	.5219E-03	.4740E-03
EYY	.1072E-02	.1060E-02	.1048E-02	.1035E-02	.1019E-02	.9987E-03	.9794E-03	.9591E-03	.9357E-03
EZZ	-.1221E-02	-.1206E-02	-.1188E-02	-.1166E-02	-.1136E-02	-.1099E-02	-.1060E-02	-.1019E-02	-.9733E-03

## SHEAR STRAINS

EXY	.1642E-11	.8550E-12	-.8210E-12	.1157E-11	-.3006E-12	.1921E-11	-.8210E-12	-.1794E-11	-.2364E-11
EXZ	-.1393E-03	-.1613E-03	-.1829E-03	-.2037E-03	-.2232E-03	-.2409E-03	-.2568E-03	-.2705E-03	-.2819E-03
EYZ	.1068E-11	-.6065E-12	.0000E+00	-.6065E-12	.1068E-11	-.2277E-11	-.3795E-12	-.1077E-11	-.1170E-12

## PRINCIPAL STRAINS

PE 1	.1072E-02	.1060E-02	.1048E-02	.1035E-02	.1019E-02	.9987E-03	.9794E-03	.9591E-03	.9357E-03
PE 2	.7204E-03	.7117E-03	.6983E-03	.6781E-03	.6495E-03	.6138E-03	.5754E-03	.5336E-03	.4876E-03
PE 3	-.1224E-02	-.1210E-02	-.1193E-02	-.1171E-02	-.1143E-02	-.1107E-02	-.1070E-02	-.1031E-02	-.9869E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2296E-02	.2270E-02	.2241E-02	.2207E-02	.2161E-02	.2106E-02	.2050E-02	.1990E-02	.1923E-02
PSE 2	.3520E-03	.3482E-03	.3501E-03	.3572E-03	.3691E-03	.3849E-03	.4040E-03	.4254E-03	.4482E-03
PSE 3	.1944E-02	.1921E-02	.1891E-02	.1850E-02	.1792E-02	.1721E-02	.1646E-02	.1565E-02	.1474E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.85 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-b Average HBP

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1042E+03	.1041E+03	.9834E+02	.8917E+02	.7990E+02	.7394E+02	.7409E+02	.8230E+02	.1001E+03
SYX	.1776E+03	.1848E+03	.1902E+03	.1948E+03	.1998E+03	.2065E+03	.2159E+03	.2287E+03	.2454E+03
SZZ	-.2370E+02	-.2456E+02	-.2507E+02	-.2540E+02	-.2580E+02	-.2650E+02	-.2770E+02	-.2955E+02	-.3213E+02

SHEAR STRESSES

SXY	.3771E-07	-.2679E-06	.3706E-06	-.9442E-07	-.9649E-07	-.2253E-06	-.2531E-06	.9279E-06	-.1514E-06
SXZ	.1415E+02	.1334E+02	.1274E+02	.1248E+02	.1263E+02	.1315E+02	.1396E+02	.1493E+02	.1591E+02
SYZ	.2507E-07	.9427E-07	-.1182E-06	.6770E-07	.8014E-07	-.1462E-07	-.9382E-07	.2761E-07	-.2502E-07

PRINCIPAL STRESSES

PS 1	.1776E+03	.1848E+03	.1902E+03	.1948E+03	.1998E+03	.2065E+03	.2159E+03	.2287E+03	.2454E+03
PS 2	.1058E+03	.1055E+03	.9964E+02	.9051E+02	.8139E+02	.7564E+02	.7597E+02	.8425E+02	.1020E+03

## Appendix 6E-b Average HBP

PS 3   -.2524E+02   -.2593E+02   -.2637E+02   -.2675E+02   -.2729E+02   -.2819E+02   -.2958E+02   -.3150E+02   -.3402E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1014E+03   .1053E+03   .1083E+03   .1108E+03   .1136E+03   .1174E+03   .1228E+03   .1301E+03   .1397E+03  
PSS 2   .3592E+02   .3964E+02   .4528E+02   .5214E+02   .5922E+02   .6545E+02   .6999E+02   .7225E+02   .7173E+02  
PSS 3   .6550E+02   .6571E+02   .6300E+02   .5863E+02   .5434E+02   .5191E+02   .5278E+02   .5788E+02   .6801E+02

## DISPLACEMENTS

UX     -.3931E-02   -.3806E-02   -.3694E-02   -.3605E-02   -.3543E-02   -.3506E-02   -.3484E-02   -.3461E-02   -.3416E-02  
UY     .1317E-10   -.3021E-11   .2692E-11   .2254E-10   -.7874E-11   -.7976E-12   -.2377E-10   -.6915E-11   .2310E-10  
UZ     .1009E+00   .1024E+00   .1038E+00   .1051E+00   .1064E+00   .1078E+00   .1092E+00   .1106E+00   .1120E+00

## NORMAL STRAINS

EXX     .1259E-03   .1201E-03   .1014E-03   .7471E-04   .4747E-04   .2733E-04   .2052E-04   .3144E-04   .6361E-04  
EYY     .3735E-03   .3923E-03   .4114E-03   .4312E-03   .4522E-03   .4748E-03   .4993E-03   .5257E-03   .5541E-03  
EZZ     -.3058E-03   -.3142E-03   -.3151E-03   -.3120E-03   -.3092E-03   -.3117E-03   -.3230E-03   -.3460E-03   -.3827E-03

## SHEAR STRAINS

EXY     .2545E-12   -.1808E-11   .2501E-11   -.6374E-12   -.6513E-12   -.1521E-11   -.1709E-11   .6263E-11   -.1022E-11  
EXZ     .9549E-04   .9003E-04   .8599E-04   .8427E-04   .8525E-04   .8878E-04   .9424E-04   .1008E-03   .1074E-03  
EYZ     .1692E-12   .6363E-12   -.7979E-12   .4570E-12   .5409E-12   -.9868E-13   -.6333E-12   .1863E-12   -.1689E-12

## PRINCIPAL STRAINS

PE 1     .3735E-03   .3923E-03   .4114E-03   .4312E-03   .4522E-03   .4748E-03   .4993E-03   .5257E-03   .5541E-03  
PE 2     .1311E-03   .1247E-03   .1058E-03   .7924E-04   .5249E-04   .3305E-04   .2687E-04   .3805E-04   .6998E-04  
PE 3     -.3110E-03   -.3188E-03   -.3195E-03   -.3165E-03   -.3143E-03   -.3174E-03   -.3294E-03   -.3526E-03   -.3891E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .6846E-03   .7111E-03   .7309E-03   .7477E-03   .7665E-03   .7922E-03   .8287E-03   .8783E-03   .9432E-03  
PSE 2   .2425E-03   .2676E-03   .3056E-03   .3520E-03   .3997E-03   .4418E-03   .4724E-03   .4877E-03   .4842E-03  
PSE 3   .4421E-03   .4435E-03   .4253E-03   .3958E-03   .3668E-03   .3504E-03   .3563E-03   .3907E-03   .4590E-03

Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1955E+02	.2108E+02	.2269E+02	.2436E+02	.2603E+02	.2768E+02	.2930E+02	.3090E+02	.3245E+02
SYX	.2828E+02	.2943E+02	.3064E+02	.3187E+02	.3309E+02	.3425E+02	.3535E+02	.3640E+02	.3737E+02
SZZ	-.9048E+01	-.9375E+01	-.9698E+01	-.1003E+02	-.1036E+02	-.1070E+02	-.1102E+02	-.1133E+02	-.1161E+02

SHEAR STRESSES

SXY	-.1821E-07	-.3401E-07	.5661E-09	-.3600E-07	-.1890E-07	-.3449E-07	.9031E-08	.2512E-07	.4889E-08
SXZ	.2704E+01	.2641E+01	.2565E+01	.2476E+01	.2374E+01	.2258E+01	.2127E+01	.1977E+01	.1808E+01
SYZ	.1234E-07	.1333E-08	-.1839E-09	-.4780E-08	.1033E-07	.4447E-09	.1714E-07	.1632E-08	-.1209E-07

PRINCIPAL STRESSES

PS 1	.2828E+02	.2943E+02	.3064E+02	.3187E+02	.3309E+02	.3425E+02	.3535E+02	.3640E+02	.3737E+02
PS 2	.1981E+02	.2131E+02	.2289E+02	.2453E+02	.2618E+02	.2781E+02	.2942E+02	.3099E+02	.3252E+02
PS 3	-.9302E+01	-.9602E+01	-.9900E+01	-.1021E+02	-.1052E+02	-.1083E+02	-.1114E+02	-.1142E+02	-.1169E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.1879E+02	.1952E+02	.2027E+02	.2104E+02	.2180E+02	.2254E+02	.2324E+02	.2391E+02	.2453E+02
PSS 2	.4239E+01	.4061E+01	.3872E+01	.3670E+01	.3453E+01	.3219E+01	.2968E+01	.2702E+01	.2424E+01
PSS 3	.1455E+02	.1546E+02	.1640E+02	.1737E+02	.1835E+02	.1932E+02	.2028E+02	.2121E+02	.2210E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.1053E-01	-.1008E-01	-.9591E-02	-.9052E-02	-.8465E-02	-.7836E-02	-.7165E-02	-.6452E-02	-.5694E-02
UY	-.1281E-10	.1768E-10	-.3417E-10	-.4427E-10	-.5681E-11	-.7157E-11	.2083E-11	-.2860E-11	.1524E-10
UZ	.9214E-01	.9329E-01	.9426E-01	.9517E-01	.9610E-01	.9705E-01	.9799E-01	.9885E-01	.9961E-01

## NORMAL STRAINS

EXX	.4273E-03	.4687E-03	.5121E-03	.5570E-03	.6025E-03	.6479E-03	.6930E-03	.7376E-03	.7811E-03
EYY	.8202E-03	.8445E-03	.8697E-03	.8953E-03	.9201E-03	.9435E-03	.9651E-03	.9849E-03	.1003E-02
EZZ	-.8597E-03	-.9018E-03	-.9455E-03	-.9903E-03	-.1035E-02	-.1079E-02	-.1122E-02	-.1163E-02	-.1202E-02

## SHEAR STRAINS

EXY	-.1639E-11	-.3061E-11	.5095E-13	-.3240E-11	-.1701E-11	-.3104E-11	.8128E-12	.2261E-11	.4400E-12
EXZ	.2434E-03	.2377E-03	.2308E-03	.2229E-03	.2137E-03	.2032E-03	.1914E-03	.1779E-03	.1627E-03
EYZ	.1110E-11	.1199E-12	-.1655E-13	-.4302E-12	.9293E-12	.4002E-13	.1542E-11	.1469E-12	-.1088E-11

## PRINCIPAL STRAINS

PE 1	.8202E-03	.8445E-03	.8697E-03	.8953E-03	.9201E-03	.9435E-03	.9651E-03	.9849E-03	.1003E-02
PE 2	.4387E-03	.4790E-03	.5212E-03	.5650E-03	.6094E-03	.6539E-03	.6980E-03	.7417E-03	.7844E-03
PE 3	-.8711E-03	-.9121E-03	-.9546E-03	-.9982E-03	-.1042E-02	-.1085E-02	-.1127E-02	-.1167E-02	-.1205E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.1691E-02	.1757E-02	.1824E-02	.1894E-02	.1962E-02	.2029E-02	.2092E-02	.2152E-02	.2208E-02
PSE 2	.3815E-03	.3655E-03	.3485E-03	.3303E-03	.3107E-03	.2897E-03	.2671E-03	.2432E-03	.2182E-03
PSE 3	.1310E-02	.1391E-02	.1476E-02	.1563E-02	.1651E-02	.1739E-02	.1825E-02	.1909E-02	.1989E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.85 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-b Average HBP

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.1287E+03	.1688E+03	.2191E+03	.2766E+03	.3364E+03	.3924E+03	.4385E+03	.4687E+03	.4787E+03
SYX	.2663E+03	.2914E+03	.3200E+03	.3504E+03	.3807E+03	.4081E+03	.4296E+03	.4428E+03	.4460E+03
SZZ	-.3551E+02	-.3969E+02	-.4455E+02	-.4981E+02	-.5508E+02	-.5985E+02	-.6365E+02	-.6605E+02	-.6673E+02

SHEAR STRESSES

SXY	-.1207E-05	.7543E-06	.1358E-05	.1815E-05	-.8713E-06	.9269E-06	.3475E-06	.8567E-06	.8221E-06
SXZ	.1675E+02	.1723E+02	.1707E+02	.1605E+02	.1399E+02	.1087E+02	.6758E+01	.1864E+01	-.3476E+01
SYZ	.3319E-07	-.6064E-07	-.2804E-06	.1619E-06	-.5048E-06	-.9535E-07	-.2216E-06	-.1964E-06	-.3276E-06

PRINCIPAL STRESSES

PS 1	.2663E+03	.2914E+03	.3200E+03	.3504E+03	.3807E+03	.4081E+03	.4386E+03	.4687E+03	.4787E+03
PS 2	.1304E+03	.1702E+03	.2202E+03	.2774E+03	.3369E+03	.3927E+03	.4296E+03	.4428E+03	.4460E+03



## Appendix 6E-b Average HBP

PS 3    -.3720E+02   -.4110E+02   -.4565E+02   -.5060E+02   -.5558E+02   -.6011E+02   -.6374E+02   -.6606E+02   -.6676E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1518E+03    .1663E+03    .1828E+03    .2005E+03    .2181E+03    .2341E+03    .2512E+03    .2674E+03    .2727E+03  
PSS 2    .6796E+02    .6063E+02    .4987E+02    .3650E+02    .2191E+02    .7699E+01    .4466E+01    .1294E+02    .1637E+02  
PSS 3    .8381E+02    .1056E+03    .1329E+03    .1640E+03    .1962E+03    .2264E+03    .2467E+03    .2544E+03    .2564E+03

## DISPLACEMENTS

UX        -.3328E-02   -.3169E-02   -.2915E-02   -.2546E-02   -.2052E-02   -.1433E-02   -.7018E-03   .1139E-03   .9740E-03  
UY        .4449E-10   -.1765E-10   .4311E-10   .1916E-10   .4793E-10   -.9443E-11   -.5720E-10   -.1834E-10   .2999E-10  
UZ        .1134E+00    .1148E+00    .1163E+00    .1179E+00    .1195E+00    .1205E+00    .1213E+00    .1219E+00    .1220E+00

## NORMAL STRAINS

EXX        .1198E-03    .2016E-03    .3069E-03    .4286E-03    .5560E-03    .6764E-03    .7760E-03    .8420E-03    .8649E-03  
EYY        .5843E-03    .6156E-03    .6472E-03    .6776E-03    .7056E-03    .7292E-03    .7461E-03    .7547E-03    .7545E-03  
EZZ        -.4345E-03   -.5019E-03   -.5831E-03   -.6732E-03   -.7651E-03   -.8501E-03   -.9187E-03   -.9626E-03   -.9759E-03

## SHEAR STRAINS

EXY        -.8148E-11   .5092E-11   .9166E-11   .1225E-10   -.5882E-11   .6256E-11   .2346E-11   .5782E-11   .5549E-11  
EXZ        .1131E-03    .1163E-03    .1152E-03    .1083E-03    .9443E-04    .7335E-04    .4562E-04    .1258E-04   -.2347E-04  
EYZ        .2241E-12   -.4093E-12   -.1892E-11   .1093E-11   -.3407E-11   -.6436E-12   -.1496E-11   -.1326E-11   -.2211E-11

## PRINCIPAL STRAINS

PE 1        .5843E-03    .6156E-03    .6472E-03    .6776E-03    .7056E-03    .7292E-03    .7763E-03    .8420E-03    .8650E-03  
PE 2        .1255E-03    .2064E-03    .3106E-03    .4312E-03    .5577E-03    .6773E-03    .7461E-03    .7547E-03    .7545E-03  
PE 3        -.4402E-03   -.5066E-03   -.5868E-03   -.6759E-03   -.7668E-03   -.8510E-03   -.9190E-03   -.9627E-03   -.9760E-03

## PRINCIPAL SHEAR STRAINS

PSE 1        .1024E-02    .1122E-02    .1234E-02    .1353E-02    .1472E-02    .1580E-02    .1695E-02    .1805E-02    .1841E-02  
PSE 2        .4588E-03    .4092E-03    .3366E-03    .2464E-03    .1479E-03    .5197E-04    .3015E-04    .8737E-04    .1105E-03  
PSE 3        .5657E-03    .7130E-03    .8974E-03    .1107E-02    .1324E-02    .1528E-02    .1665E-02    .1717E-02    .1730E-02

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.3390E+02	.3521E+02	.3629E+02	.3712E+02	.3778E+02	.3826E+02	.3843E+02	.3827E+02	.3792E+02
SYY	.3824E+02	.3897E+02	.3949E+02	.3980E+02	.4002E+02	.4015E+02	.4007E+02	.3979E+02	.3947E+02
SZZ	-.1187E+02	-.1208E+02	-.1227E+02	-.1243E+02	-.1257E+02	-.1265E+02	-.1268E+02	-.1266E+02	-.1262E+02

## SHEAR STRESSES

SXY	.8428E-08	-.1695E-07	-.1769E-07	.2063E-08	.2982E-08	.2195E-07	-.9599E-08	-.2367E-08	.3442E-08
SXZ	.1616E+01	.1400E+01	.1159E+01	.8935E+00	.6075E+00	.3040E+00	-.1476E-01	-.3441E+00	-.6765E+00
SYZ	-.1407E-07	.1064E-07	-.3952E-09	.9966E-08	.2141E-07	.1698E-07	-.1718E-08	.1743E-07	.1282E-07

## PRINCIPAL STRESSES

PS 1	.3824E+02	.3897E+02	.3949E+02	.3980E+02	.4002E+02	.4015E+02	.4007E+02	.3979E+02	.3947E+02
PS 2	.3396E+02	.3525E+02	.3632E+02	.3713E+02	.3778E+02	.3826E+02	.3843E+02	.3827E+02	.3793E+02
PS 3	-.1192E+02	-.1212E+02	-.1230E+02	-.1245E+02	-.1258E+02	-.1265E+02	-.1268E+02	-.1267E+02	-.1262E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2508E+02	.2555E+02	.2589E+02	.2613E+02	.2630E+02	.2640E+02	.2637E+02	.2623E+02	.2605E+02
PSS 2	.2141E+01	.1858E+01	.1586E+01	.1335E+01	.1117E+01	.9428E+00	.8220E+00	.7627E+00	.7705E+00
PSS 3	.2294E+02	.2369E+02	.2431E+02	.2479E+02	.2518E+02	.2546E+02	.2555E+02	.2547E+02	.2528E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.4890E-02	-.4039E-02	-.3143E-02	-.2213E-02	-.1265E-02	-.2983E-03	.6842E-03	.1670E-02	.2642E-02
UY	-.2644E-10	.4635E-11	-.3294E-10	.2628E-10	.3851E-10	.2691E-10	.3175E-10	-.6859E-11	-.1818E-10
UZ	.1003E+00	.1009E+00	.1016E+00	.1025E+00	.1032E+00	.1036E+00	.1040E+00	.1043E+00	.1044E+00

## NORMAL STRAINS

EXX	.8224E-03	.8600E-03	.8922E-03	.9179E-03	.9390E-03	.9546E-03	.9613E-03	.9590E-03	.9507E-03
EYY	.1018E-02	.1029E-02	.1036E-02	.1039E-02	.1040E-02	.1039E-02	.1035E-02	.1028E-02	.1020E-02
EZZ	-.1237E-02	-.1268E-02	-.1293E-02	-.1312E-02	-.1327E-02	-.1336E-02	-.1338E-02	-.1333E-02	-.1323E-02

## SHEAR STRAINS

EXY	.7585E-12	-.1525E-11	-.1592E-11	.1857E-12	.2684E-12	.1975E-11	-.8639E-12	-.2130E-12	.3098E-12
EXZ	.1454E-03	.1260E-03	.1043E-03	.8042E-04	.5467E-04	.2736E-04	-.1329E-05	-.3097E-04	-.6088E-04
EYZ	-.1266E-11	.9579E-12	-.3557E-13	.8970E-12	.1927E-11	.1528E-11	-.1546E-12	.1569E-11	.1154E-11

## PRINCIPAL STRAINS

PE 1	.1018E-02	.1029E-02	.1036E-02	.1039E-02	.1040E-02	.1039E-02	.1035E-02	.1028E-02	.1020E-02
PE 2	.8250E-03	.8619E-03	.8934E-03	.9186E-03	.9393E-03	.9546E-03	.9613E-03	.9591E-03	.9511E-03
PE 3	-.1240E-02	-.1270E-02	-.1294E-02	-.1313E-02	-.1327E-02	-.1337E-02	-.1338E-02	-.1333E-02	-.1324E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2257E-02	.2299E-02	.2331E-02	.2351E-02	.2367E-02	.2376E-02	.2374E-02	.2361E-02	.2344E-02
PSE 2	.1927E-03	.1672E-03	.1427E-03	.1202E-03	.1005E-03	.8485E-04	.7398E-04	.6865E-04	.6935E-04
PSE 3	.2065E-02	.2132E-02	.2188E-02	.2231E-02	.2266E-02	.2291E-02	.2300E-02	.2292E-02	.2275E-02

Appendix 6E-b Average HBP

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ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4200.00 LBS  
LOAD STRESS..... 90.00 PSI  
LOAD RADIUS..... 3.85 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-b Average HBP

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Z= 6.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.4672E+03	.4355E+03
SYY	.4390E+03	.4220E+03
SZZ	-.6555E+02	-.6263E+02

## SHEAR STRESSES

SXY	-.9499E-06	-.3475E-06
SXZ	-.8825E+01	-.1374E+02
SYZ	.3492E-06	-.2384E-06

## PRINCIPAL STRESSES

PS 1	.4674E+03	.4358E+03
PS 2	.4390E+03	.4220E+03
PS 3	-.6570E+02	-.6301E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2665E+03	.2494E+03
PSS 2	.1418E+02	.6927E+01
PSS 3	.2523E+03	.2425E+03

## DISPLACEMENTS

UX	.1834E-02	.2648E-02
UY	-.2176E-10	-.5821E-10
UZ	.1211E+00	.1197E+00

Appendix 6E-b Average HBP

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## NORMAL STRAINS

EXX .8413E-03 .7742E-03  
EYY .7460E-03 .7288E-03  
EZZ -.9568E-03 -.9069E-03

## SHEAR STRAINS

EXY -.6412E-11 -.2346E-11  
EXZ -.5957E-04 -.9276E-04  
EYZ .2357E-11 -.1609E-11

## PRINCIPAL STRAINS

PE 1 .8418E-03 .7755E-03  
PE 2 .7460E-03 .7288E-03  
PE 3 -.9573E-03 -.9081E-03

## PRINCIPAL SHEAR STRAINS

PSE 1 .1799E-02 .1684E-02  
PSE 2 .9574E-04 .4675E-04  
PSE 3 .1703E-02 .1637E-02

Z= 18.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .3753E+02 .3695E+02  
SYY .3925E+02 .3897E+02  
SZZ -.1250E+02 -.1235E+02

Appendix 6E-b Average HBP

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## SHEAR STRESSES

SXY .4873E-08 -.2020E-07  
SXZ -.1006E+01 -.1327E+01  
SYZ -.3233E-08 .0000E+00

## PRINCIPAL STRESSES

PS 1 .3925E+02 .3897E+02  
PS 2 .3755E+02 .3699E+02  
PS 3 -.1252E+02 -.1239E+02

## PRINCIPAL SHEAR STRESSES

PSS 1 .2588E+02 .2568E+02  
PSS 2 .8477E+00 .9928E+00  
PSS 3 .2503E+02 .2469E+02

## DISPLACEMENTS

UX .3604E-02 .4560E-02  
UY -.1406E-10 -.2910E-10  
UZ .1037E+00 .1027E+00

## NORMAL STRAINS

EXX .9389E-03 .9211E-03  
EYY .1016E-02 .1012E-02  
EZZ -.1312E-02 -.1297E-02

## SHEAR STRAINS

EXY .4385E-12 -.1818E-11  
EXZ -.9055E-04 -.1195E-03  
EYZ -.2909E-12 .0000E+00

## PRINCIPAL STRAINS

Appendix 6E-b Average HBP

PE 1 .1016E-02 .1012E-02  
 PE 2 .9399E-03 .9227E-03  
 PE 3 -.1313E-02 -.1299E-02

PRINCIPAL SHEAR STRAINS  
 PSE 1 .2329E-02 .2311E-02  
 PSE 2 .7629E-04 .8935E-04  
 PSE 3 .2253E-02 .2222E-02

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)



Appendix 6E-b Average HBP

Z= 6.00 18.00  
X-Y POINT(S)  
X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

NORMAL STRESSES

SXX	.3656E+03	.3874E+03	.3947E+03	.3861E+03	.3630E+03	.3279E+03	.2844E+03	.2363E+03	.1870E+03
SYX	.3716E+03	.3846E+03	.3900E+03	.3872E+03	.3768E+03	.3601E+03	.3386E+03	.3140E+03	.2884E+03
SZZ	-.5574E+02	-.5783E+02	-.5862E+02	-.5800E+02	-.5609E+02	-.5307E+02	-.4923E+02	-.4487E+02	-.4029E+02

SHEAR STRESSES

SXY	.4475E-06	-.9802E-07	-.1542E-06	-.1389E-07	-.4151E-06	.1407E-06	.1469E-07	.1219E-05	-.5485E-06
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## Appendix 6E-b Average HBP

SXZ	.1306E+02	.9168E+01	.5011E+01	.8655E+00	-.2973E+01	-.6263E+01	-.8866E+01	-.1072E+02	-.1183E+02
SYZ	-.2029E-06	-.3443E-07	-.1236E-07	.9216E-07	-.1022E-07	.1027E-06	-.1229E-07	-.4418E-07	-.1820E-06

## PRINCIPAL STRESSES

PS 1	.3716E+03	.3876E+03	.3947E+03	.3872E+03	.3768E+03	.3601E+03	.3386E+03	.3140E+03	.2884E+03
PS 2	.3660E+03	.3846E+03	.3900E+03	.3861E+03	.3630E+03	.3280E+03	.2847E+03	.2367E+03	.1877E+03
PS 3	-.5614E+02	-.5802E+02	-.5867E+02	-.5801E+02	-.5611E+02	-.5317E+02	-.4947E+02	-.4528E+02	-.4090E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2139E+03	.2228E+03	.2267E+03	.2226E+03	.2165E+03	.2066E+03	.1940E+03	.1797E+03	.1647E+03
PSS 2	.2785E+01	.1498E+01	.2348E+01	.5746E+00	.6923E+01	.1606E+02	.2695E+02	.3869E+02	.5039E+02
PSS 3	.2111E+03	.2213E+03	.2243E+03	.2220E+03	.2095E+03	.1906E+03	.1671E+03	.1410E+03	.1143E+03

## DISPLACEMENTS

UX	-.3526E-02	-.2863E-02	-.2171E-02	-.1481E-02	-.8259E-03	-.2340E-03	.2719E-03	.6786E-03	.9813E-03
UY	-.2165E-10	.1463E-10	.1146E-10	.1259E-10	.1328E-12	.7054E-11	.1184E-10	.1829E-10	.3864E-10
UZ	.1483E+00	.1499E+00	.1511E+00	.1520E+00	.1525E+00	.1528E+00	.1529E+00	.1528E+00	.1525E+00

## NORMAL STRAINS

EXX	.6376E-03	.6826E-03	.6967E-03	.6771E-03	.6268E-03	.5510E-03	.4579E-03	.3551E-03	.2505E-03
EYY	.6578E-03	.6731E-03	.6810E-03	.6810E-03	.6735E-03	.6598E-03	.6406E-03	.6176E-03	.5927E-03
EZZ	-.7844E-03	-.8201E-03	-.8331E-03	-.8216E-03	-.7875E-03	-.7346E-03	-.6682E-03	-.5937E-03	-.5168E-03

## SHEAR STRAINS

EXY	.3020E-11	-.6616E-12	-.1041E-11	-.9376E-13	-.2802E-11	.9495E-12	.9914E-13	.8227E-11	-.3703E-11
EXZ	.8815E-04	.6188E-04	.3382E-04	.5842E-05	-.2007E-04	-.4227E-04	-.5985E-04	-.7239E-04	-.7984E-04
EYZ	-.1370E-11	-.2324E-12	-.8341E-13	.6221E-12	-.6900E-13	.6934E-12	-.8296E-13	-.2982E-12	-.1228E-11

## PRINCIPAL STRAINS

PE 1	.6578E-03	.6832E-03	.6969E-03	.6810E-03	.6735E-03	.6598E-03	.6406E-03	.6176E-03	.5927E-03
PE 2	.6390E-03	.6731E-03	.6810E-03	.6771E-03	.6268E-03	.5514E-03	.4587E-03	.3565E-03	.2525E-03
PE 3	-.7857E-03	-.8207E-03	-.8333E-03	-.8216E-03	-.7876E-03	-.7350E-03	-.6690E-03	-.5951E-03	-.5188E-03

Appendix 6E-b Average HBP

PRINCIPAL SHEAR STRAINS

PSE 1	.1444E-02	.1504E-02	.1530E-02	.1503E-02	.1461E-02	.1395E-02	.1310E-02	.1213E-02	.1112E-02
PSE 2	.1880E-04	.1011E-04	.1585E-04	.3879E-05	.4673E-04	.1084E-03	.1819E-03	.2611E-03	.3402E-03
PSE 3	.1425E-02	.1494E-02	.1514E-02	.1499E-02	.1414E-02	.1286E-02	.1128E-02	.9516E-03	.7714E-03

Z= 18.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.3201E+02	.3267E+02	.3309E+02	.3323E+02	.3314E+02	.3290E+02	.3233E+02	.3151E+02	.3057E+02
SYX	.4050E+02	.4108E+02	.4158E+02	.4192E+02	.4218E+02	.4239E+02	.4239E+02	.4222E+02	.4200E+02
SZZ	-.1296E+02	-.1316E+02	-.1331E+02	-.1342E+02	-.1349E+02	-.1354E+02	-.1354E+02	-.1350E+02	-.1343E+02

SHEAR STRESSES

SXY	-.3613E-08	.9605E-08	.2739E-07	.1094E-07	-.2860E-07	.8044E-08	-.1575E-07	.4567E-08	-.1544E-07
SXZ	.2184E+01	.1927E+01	.1666E+01	.1407E+01	.1154E+01	.9142E+00	.6933E+00	.4950E+00	.3218E+00
SYZ	-.2153E-08	.5607E-08	.9821E-08	.2182E-08	-.4391E-09	-.8731E-09	.5450E-08	.8404E-08	-.6015E-09

PRINCIPAL STRESSES

PS 1	.4050E+02	.4108E+02	.4158E+02	.4192E+02	.4218E+02	.4239E+02	.4239E+02	.4222E+02	.4200E+02
PS 2	.3212E+02	.3275E+02	.3315E+02	.3327E+02	.3317E+02	.3291E+02	.3234E+02	.3152E+02	.3057E+02

## Appendix 6E-b Average HBP

PS 3    -.1307E+02   -.1324E+02   -.1337E+02   -.1346E+02   -.1352E+02   -.1356E+02   -.1355E+02   -.1351E+02   -.1344E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .2678E+02    .2716E+02    .2748E+02    .2769E+02    .2785E+02    .2797E+02    .2797E+02    .2787E+02    .2772E+02  
PSS 2    .4189E+01    .4168E+01    .4212E+01    .4324E+01    .4501E+01    .4737E+01    .5025E+01    .5354E+01    .5715E+01  
PSS 3    .2260E+02    .2299E+02    .2326E+02    .2337E+02    .2335E+02    .2324E+02    .2295E+02    .2251E+02    .2200E+02

## DISPLACEMENTS

UX        -.1178E-01   -.1102E-01   -.1025E-01   -.9472E-02   -.8694E-02   -.7910E-02   -.7147E-02   -.6414E-02   -.5708E-02  
UY        .3521E-10   -.7099E-11   -.3079E-10   -.1245E-10   -.4104E-11   -.1349E-10   .1128E-10   -.1075E-10   -.2308E-10  
UZ        .1324E+00    .1336E+00    .1346E+00    .1356E+00    .1363E+00    .1369E+00    .1375E+00    .1381E+00    .1385E+00

## NORMAL STRAINS

EXX        .7459E-03    .7631E-03    .7734E-03    .7751E-03    .7702E-03    .7600E-03    .7412E-03    .7152E-03    .6856E-03  
EYY        .1128E-02    .1142E-02    .1155E-02    .1166E-02    .1177E-02    .1187E-02    .1194E-02    .1197E-02    .1200E-02  
EZZ        -.1278E-02   -.1299E-02   -.1315E-02   -.1324E-02   -.1328E-02   -.1330E-02   -.1323E-02   -.1310E-02   -.1294E-02

## SHEAR STRAINS

EXY        -.3252E-12    .8644E-12    .2465E-11    .9844E-12    -.2574E-11    .7239E-12    -.1417E-11    .4110E-12    -.1390E-11  
EXZ        .1966E-03    .1735E-03    .1500E-03    .1266E-03    .1039E-03    .8228E-04    .6240E-04    .4455E-04    .2896E-04  
EYZ        -.1938E-12    .5046E-12    .8839E-12    .1964E-12    -.3952E-13    -.7857E-13    .4905E-12    .7564E-12    -.5414E-13

## PRINCIPAL STRAINS

PE 1        .1128E-02    .1142E-02    .1155E-02    .1166E-02    .1177E-02    .1187E-02    .1194E-02    .1197E-02    .1200E-02  
PE 2        .7507E-03    .7667E-03    .7761E-03    .7770E-03    .7714E-03    .7608E-03    .7416E-03    .7155E-03    .6857E-03  
PE 3        -.1283E-02   -.1303E-02   -.1318E-02   -.1326E-02   -.1330E-02   -.1330E-02   -.1324E-02   -.1311E-02   -.1295E-02

## PRINCIPAL SHEAR STRAINS

PSE 1        .2411E-02    .2444E-02    .2473E-02    .2492E-02    .2506E-02    .2518E-02    .2518E-02    .2508E-02    .2495E-02  
PSE 2        .3770E-03    .3751E-03    .3791E-03    .3892E-03    .4051E-03    .4263E-03    .4522E-03    .4819E-03    .5143E-03  
PSE 3        .2034E-02    .2069E-02    .2094E-02    .2103E-02    .2101E-02    .2091E-02    .2065E-02    .2026E-02    .1980E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-b Average HBP

31.00      4.00  
32.00      4.00

Z= 6.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.1397E+03	.9690E+02	.6047E+02	.3106E+02	.8207E+01	-.9102E+01	-.2192E+02	-.3110E+02	-.3723E+02
SYX	.2633E+03	.2399E+03	.2190E+03	.2013E+03	.1865E+03	.1746E+03	.1652E+03	.1580E+03	.1531E+03
SZZ	-.3576E+02	-.3151E+02	-.2771E+02	-.2446E+02	-.2175E+02	-.1956E+02	-.1783E+02	-.1653E+02	-.1562E+02

SHEAR STRESSES

SXY	.2989E-06	.1808E-06	-.9803E-06	-.1009E-06	.2883E-06	.4663E-06	-.1709E-06	.1156E-06	-.1112E-06
SXZ	-.1221E+02	-.1196E+02	-.1122E+02	-.1015E+02	-.8873E+01	-.7482E+01	-.6028E+01	-.4540E+01	-.3034E+01
SYZ	-.2022E-06	-.1020E-06	-.7076E-08	.2223E-07	.1521E-06	.1115E-08	-.3202E-07	.9399E-07	-.9253E-07

PRINCIPAL STRESSES

PS 1	.2633E+03	.2399E+03	.2190E+03	.2013E+03	.1865E+03	.1746E+03	.1652E+03	.1580E+03	.1531E+03
PS 2	.1406E+03	.9800E+02	.6188E+02	.3286E+02	.1064E+02	-.5202E+01	-.1351E+02	-.1523E+02	-.1520E+02
PS 3	-.3660E+02	-.3261E+02	-.2912E+02	-.2625E+02	-.2418E+02	-.2345E+02	-.2624E+02	-.3240E+02	-.3764E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1500E+03	.1362E+03	.1241E+03	.1138E+03	.1054E+03	.9901E+02	.9570E+02	.9522E+02	.9537E+02
PSS 2	.6137E+02	.7093E+02	.7858E+02	.8420E+02	.8794E+02	.8989E+02	.8933E+02	.8664E+02	.8415E+02
PSS 3	.8860E+02	.6531E+02	.4550E+02	.2955E+02	.1741E+02	.9127E+01	.6366E+01	.8586E+01	.1122E+02

## DISPLACEMENTS

UX	.1182E-02	.1285E-02	.1305E-02	.1257E-02	.1154E-02	.1012E-02	.8396E-03	.6463E-03	.4384E-03
UY	.1550E-10	.5785E-11	-.7086E-11	.3058E-10	-.4127E-12	.2054E-10	.7926E-11	-.2458E-10	-.1331E-10
UZ	.1521E+00	.1517E+00	.1513E+00	.1509E+00	.1506E+00	.1502E+00	.1499E+00	.1496E+00	.1495E+00

## NORMAL STRAINS

EXX	.1502E-03	.5993E-04	-.1623E-04	-.7706E-04	-.1237E-03	-.1584E-03	-.1837E-03	-.2016E-03	-.2133E-03
EYY	.5673E-03	.5425E-03	.5189E-03	.4974E-03	.4782E-03	.4615E-03	.4477E-03	.4368E-03	.4290E-03
EZZ	-.4421E-03	-.3734E-03	-.3139E-03	-.2644E-03	-.2248E-03	-.1937E-03	-.1699E-03	-.1524E-03	-.1404E-03

## SHEAR STRAINS

EXY	.2017E-11	.1220E-11	-.6617E-11	-.6809E-12	.1946E-11	.3147E-11	-.1153E-11	.7804E-12	-.7504E-12
EXZ	-.8239E-04	-.8071E-04	-.7574E-04	-.6850E-04	-.5989E-04	-.5050E-04	-.4069E-04	-.3064E-04	-.2048E-04
EYZ	-.1365E-11	-.6882E-12	-.4777E-13	.1501E-12	.1027E-11	.7526E-14	-.2161E-12	.6344E-12	-.6245E-12

## PRINCIPAL STRAINS

PE 1	.5673E-03	.5425E-03	.5189E-03	.4974E-03	.4782E-03	.4615E-03	.4477E-03	.4368E-03	.4290E-03
PE 2	.1531E-03	.6366E-04	-.1149E-04	-.7100E-04	-.1155E-03	-.1452E-03	-.1553E-03	-.1480E-03	-.1390E-03
PE 3	-.4449E-03	-.3772E-03	-.3186E-03	-.2705E-03	-.2330E-03	-.2068E-03	-.1983E-03	-.2060E-03	-.2148E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1012E-02	.9196E-03	.8375E-03	.7679E-03	.7111E-03	.6684E-03	.6460E-03	.6427E-03	.6437E-03
PSE 2	.4143E-03	.4788E-03	.5304E-03	.5684E-03	.5936E-03	.6067E-03	.6030E-03	.5848E-03	.5680E-03
PSE 3	.5980E-03	.4408E-03	.3071E-03	.1995E-03	.1175E-03	.6160E-04	.4297E-04	.5795E-04	.7573E-04

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.2960E+02	.2850E+02	.2732E+02	.2615E+02	.2505E+02	.2405E+02	.2319E+02	.2250E+02	.2200E+02
SYY	.4179E+02	.4146E+02	.4104E+02	.4059E+02	.4015E+02	.3975E+02	.3940E+02	.3912E+02	.3891E+02
SZZ	-.1336E+02	-.1327E+02	-.1315E+02	-.1303E+02	-.1290E+02	-.1278E+02	-.1267E+02	-.1259E+02	-.1252E+02

SHEAR STRESSES

SXY	-.2470E-08	.2468E-07	-.1153E-07	-.1273E-07	-.1222E-07	.2074E-08	-.1432E-07	-.3522E-07	-.2094E-07
SXZ	.1755E+00	.5817E-01	-.3066E-01	-.9242E-01	-.1292E+00	-.1437E+00	-.1390E+00	-.1184E+00	-.8576E-01
SYZ	-.2308E-07	-.3114E-08	.5447E-09	.9052E-09	-.1287E-07	-.6935E-08	-.4507E-08	-.2132E-08	-.3799E-08

PRINCIPAL STRESSES

PS 1	.4179E+02	.4146E+02	.4104E+02	.4059E+02	.4015E+02	.3975E+02	.3940E+02	.3912E+02	.3891E+02
PS 2	.2960E+02	.2850E+02	.2732E+02	.2615E+02	.2505E+02	.2405E+02	.2319E+02	.2250E+02	.2200E+02
PS 3	-.1336E+02	-.1327E+02	-.1315E+02	-.1303E+02	-.1290E+02	-.1278E+02	-.1267E+02	-.1259E+02	-.1252E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.2758E+02	.2736E+02	.2710E+02	.2681E+02	.2653E+02	.2627E+02	.2604E+02	.2585E+02	.2572E+02
PSS 2	.6094E+01	.6479E+01	.6858E+01	.7220E+01	.7554E+01	.7852E+01	.8105E+01	.8308E+01	.8456E+01
PSS 3	.2148E+02	.2088E+02	.2024E+02	.1959E+02	.1897E+02	.1841E+02	.1793E+02	.1755E+02	.1726E+02

DISPLACEMENTS



## Appendix 6E-b Average HBP

UX	-.5023E-02	-.4377E-02	-.3772E-02	-.3207E-02	-.2679E-02	-.2182E-02	-.1712E-02	-.1264E-02	-.8333E-03
UY	.3515E-10	.1786E-10	-.6842E-11	.5639E-10	-.5323E-10	.2252E-10	.2956E-10	-.7170E-11	-.4959E-10
UZ	.1388E+00	.1391E+00	.1394E+00	.1396E+00	.1398E+00	.1400E+00	.1400E+00	.1401E+00	.1401E+00

## NORMAL STRAINS

EXX	.6551E-03	.6210E-03	.5854E-03	.5501E-03	.5169E-03	.4869E-03	.4612E-03	.4406E-03	.4255E-03
EYY	.1204E-02	.1204E-02	.1203E-02	.1200E-02	.1197E-02	.1194E-02	.1191E-02	.1188E-02	.1187E-02
EZZ	-.1278E-02	-.1258E-02	-.1236E-02	-.1213E-02	-.1191E-02	-.1170E-02	-.1153E-02	-.1139E-02	-.1128E-02

## SHEAR STRAINS

EXY	-.2223E-12	.2221E-11	-.1038E-11	-.1146E-11	-.1100E-11	.1867E-12	-.1288E-11	-.3170E-11	-.1885E-11
EXZ	.1580E-04	.5236E-05	-.2759E-05	-.8318E-05	-.1163E-04	-.1293E-04	-.1251E-04	-.1066E-04	-.7718E-05
EYZ	-.2077E-11	-.2803E-12	.4902E-13	.8147E-13	-.1158E-11	-.6241E-12	-.4056E-12	-.1919E-12	-.3419E-12

## PRINCIPAL STRAINS

PE 1	.1204E-02	.1204E-02	.1203E-02	.1200E-02	.1197E-02	.1194E-02	.1191E-02	.1188E-02	.1187E-02
PE 2	.6551E-03	.6210E-03	.5854E-03	.5501E-03	.5169E-03	.4869E-03	.4613E-03	.4406E-03	.4255E-03
PE 3	-.1278E-02	-.1258E-02	-.1236E-02	-.1213E-02	-.1191E-02	-.1170E-02	-.1153E-02	-.1139E-02	-.1128E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2482E-02	.2463E-02	.2439E-02	.2413E-02	.2387E-02	.2364E-02	.2343E-02	.2327E-02	.2315E-02
PSE 2	.5485E-03	.5831E-03	.6173E-03	.6498E-03	.6799E-03	.7066E-03	.7294E-03	.7477E-03	.7610E-03
PSE 3	.1934E-02	.1879E-02	.1821E-02	.1763E-02	.1708E-02	.1657E-02	.1614E-02	.1579E-02	.1554E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-b Average HBP

39.00 4.00  
40.00 4.00  
41.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
33.00 4.00  
34.00 4.00  
35.00 4.00  
36.00 4.00  
37.00 4.00  
38.00 4.00  
39.00 4.00  
40.00 4.00  
41.00 4.00

NORMAL STRESSES

SXX -.4075E+02 -.4189E+02 -.4075E+02 -.3723E+02 -.3110E+02 -.2192E+02 -.9102E+01 .8207E+01 .3106E+02  
 SYY .1502E+03 .1492E+03 .1502E+03 .1531E+03 .1580E+03 .1652E+03 .1746E+03 .1865E+03 .2013E+03  
 SZZ -.1509E+02 -.1491E+02 -.1509E+02 -.1562E+02 -.1653E+02 -.1783E+02 -.1956E+02 -.2175E+02 -.2446E+02

SHEAR STRESSES

SXY -.3861E-07 -.2794E-06 .4402E-07 -.5621E-07 -.4248E-06 .3500E-06 .7776E-06 .1189E-06 -.2264E-06  
 SXZ -.1518E+01 -.3948E-06 .1518E+01 .3034E+01 .4540E+01 .6028E+01 .7482E+01 .8873E+01 .1015E+02  
 SYZ -.4632E-09 -.2452E-07 -.3760E-07 .3337E-07 .7067E-07 -.3830E-07 -.1623E-07 .1598E-06 .6399E-07

PRINCIPAL STRESSES

PS 1 .1502E+03 .1492E+03 .1502E+03 .1531E+03 .1580E+03 .1652E+03 .1746E+03 .1865E+03 .2013E+03  
 PS 2 -.1500E+02 -.1491E+02 -.1500E+02 -.1520E+02 -.1523E+02 -.1351E+02 -.5202E+01 .1064E+02 .3286E+02  
 PS 3 -.4084E+02 -.4189E+02 -.4084E+02 -.3764E+02 -.3240E+02 -.2624E+02 -.2345E+02 -.2418E+02 -.2625E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.9550E+02	.9554E+02	.9550E+02	.9537E+02	.9522E+02	.9570E+02	.9901E+02	.1054E+03	.1138E+03
PSS 2	.8258E+02	.8205E+02	.8258E+02	.8415E+02	.8664E+02	.8933E+02	.8989E+02	.8794E+02	.8420E+02
PSS 3	.1292E+02	.1349E+02	.1292E+02	.1122E+02	.8586E+01	.6366E+01	.9127E+01	.1741E+02	.2955E+02

## DISPLACEMENTS

UX	.2214E-03	-.8453E-11	-.2214E-03	-.4384E-03	-.6463E-03	-.8396E-03	-.1012E-02	-.1154E-02	-.1257E-02
UY	.2063E-10	.5541E-11	.1407E-10	-.1466E-10	.2063E-10	-.2265E-10	.9659E-11	-.9499E-11	.3587E-10
UZ	.1493E+00	.1493E+00	.1493E+00	.1495E+00	.1496E+00	.1499E+00	.1502E+00	.1506E+00	.1509E+00

## NORMAL STRAINS

EXX	-.2201E-03	-.2222E-03	-.2201E-03	-.2133E-03	-.2016E-03	-.1837E-03	-.1584E-03	-.1237E-03	-.7706E-04
EYY	.4243E-03	.4227E-03	.4243E-03	.4290E-03	.4368E-03	.4477E-03	.4615E-03	.4782E-03	.4974E-03
EZZ	-.1335E-03	-.1312E-03	-.1335E-03	-.1404E-03	-.1524E-03	-.1699E-03	-.1937E-03	-.2248E-03	-.2644E-03

## SHEAR STRAINS

EXY	-.2606E-12	-.1886E-11	.2971E-12	-.3794E-12	-.2868E-11	.2362E-11	.5249E-11	.8029E-12	-.1528E-11
EXZ	-.1025E-04	-.2665E-11	.1025E-04	.2048E-04	.3064E-04	.4069E-04	.5050E-04	.5989E-04	.6850E-04
EYZ	-.3127E-14	-.1655E-12	-.2538E-12	.2252E-12	.4770E-12	-.2585E-12	-.1095E-12	.1078E-11	.4319E-12

## PRINCIPAL STRAINS

PE 1	.4243E-03	.4227E-03	.4243E-03	.4290E-03	.4368E-03	.4477E-03	.4615E-03	.4782E-03	.4974E-03
PE 2	-.1331E-03	-.1312E-03	-.1331E-03	-.1390E-03	-.1480E-03	-.1553E-03	-.1452E-03	-.1155E-03	-.7100E-04
PE 3	-.2204E-03	-.2222E-03	-.2204E-03	-.2148E-03	-.2060E-03	-.1983E-03	-.2068E-03	-.2330E-03	-.2705E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.6446E-03	.6449E-03	.6446E-03	.6437E-03	.6427E-03	.6460E-03	.6684E-03	.7111E-03	.7679E-03
PSE 2	.5574E-03	.5539E-03	.5574E-03	.5680E-03	.5848E-03	.6030E-03	.6067E-03	.5936E-03	.5684E-03
PSE 3	.8722E-04	.9106E-04	.8722E-04	.7573E-04	.5795E-04	.4297E-04	.6160E-04	.1175E-03	.1995E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.2169E+02	.2159E+02	.2169E+02	.2200E+02	.2250E+02	.2319E+02	.2405E+02	.2505E+02	.2615E+02
SYY	.3879E+02	.3874E+02	.3879E+02	.3891E+02	.3912E+02	.3940E+02	.3975E+02	.4015E+02	.4059E+02
SZZ	-.1248E+02	-.1247E+02	-.1248E+02	-.1252E+02	-.1259E+02	-.1267E+02	-.1278E+02	-.1290E+02	-.1303E+02

SHEAR STRESSES

SXY	-.5949E-07	.4602E-07	-.4179E-07	-.8187E-07	-.3511E-07	.1922E-07	.1882E-07	-.2886E-08	.1313E-07
SXZ	-.4494E-01	-.7110E-08	.4494E-01	.8576E-01	.1184E+00	.1390E+00	.1437E+00	.1292E+00	.9242E-01
SYZ	-.8030E-08	-.2053E-08	.1022E-07	-.2126E-08	-.5676E-08	.2874E-09	.1021E-07	.1139E-07	-.8590E-08

PRINCIPAL STRESSES

PS 1	.3879E+02	.3874E+02	.3879E+02	.3891E+02	.3912E+02	.3940E+02	.3975E+02	.4015E+02	.4059E+02
PS 2	.2169E+02	.2159E+02	.2169E+02	.2200E+02	.2250E+02	.2319E+02	.2405E+02	.2505E+02	.2615E+02
PS 3	-.1248E+02	-.1247E+02	-.1248E+02	-.1252E+02	-.1259E+02	-.1267E+02	-.1278E+02	-.1290E+02	-.1303E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.2564E+02	.2561E+02	.2564E+02	.2572E+02	.2585E+02	.2604E+02	.2627E+02	.2653E+02	.2681E+02
PSS 2	.8546E+01	.8577E+01	.8546E+01	.8456E+01	.8308E+01	.8105E+01	.7852E+01	.7554E+01	.7220E+01
PSS 3	.1709E+02	.1703E+02	.1709E+02	.1726E+02	.1755E+02	.1793E+02	.1841E+02	.1897E+02	.1959E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.4137E-03	-.5492E-09	.4137E-03	.8333E-03	.1264E-02	.1712E-02	.2182E-02	.2679E-02	.3207E-02
UY	-.5008E-10	-.2908E-10	.6640E-10	.3302E-10	.2696E-10	.2640E-10	-.2072E-10	.3318E-10	-.3940E-10
UZ	.1401E+00	.1401E+00	.1401E+00	.1401E+00	.1401E+00	.1400E+00	.1400E+00	.1398E+00	.1396E+00

## NORMAL STRAINS

EXX	.4163E-03	.4132E-03	.4163E-03	.4255E-03	.4406E-03	.4612E-03	.4869E-03	.5169E-03	.5501E-03
EYY	.1185E-02	.1185E-02	.1185E-02	.1187E-02	.1188E-02	.1191E-02	.1194E-02	.1197E-02	.1200E-02
EZZ	-.1122E-02	-.1120E-02	-.1122E-02	-.1128E-02	-.1139E-02	-.1153E-02	-.1170E-02	-.1191E-02	-.1213E-02

## SHEAR STRAINS

EXY	-.5354E-11	.4142E-11	-.3761E-11	-.7368E-11	-.3160E-11	.1730E-11	.1694E-11	-.2598E-12	.1182E-11
EXZ	-.4044E-05	-.6399E-12	.4044E-05	.7718E-05	.1066E-04	.1251E-04	.1293E-04	.1163E-04	.8318E-05
EYZ	-.7227E-12	-.1848E-12	.9194E-12	-.1913E-12	-.5108E-12	.2587E-13	.9187E-12	.1025E-11	-.7731E-12

## PRINCIPAL STRAINS

PE 1	.1185E-02	.1185E-02	.1185E-02	.1187E-02	.1188E-02	.1191E-02	.1194E-02	.1197E-02	.1200E-02
PE 2	.4163E-03	.4132E-03	.4163E-03	.4255E-03	.4406E-03	.4613E-03	.4869E-03	.5169E-03	.5501E-03
PE 3	-.1122E-02	-.1120E-02	-.1122E-02	-.1128E-02	-.1139E-02	-.1153E-02	-.1170E-02	-.1191E-02	-.1213E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2307E-02	.2305E-02	.2307E-02	.2315E-02	.2327E-02	.2343E-02	.2364E-02	.2387E-02	.2413E-02
PSE 2	.7692E-03	.7719E-03	.7692E-03	.7610E-03	.7477E-03	.7294E-03	.7066E-03	.6799E-03	.6498E-03
PSE 3	.1538E-02	.1533E-02	.1538E-02	.1554E-02	.1579E-02	.1614E-02	.1657E-02	.1708E-02	.1763E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-b Average HBP

48.00      4.00  
49.00      4.00  
50.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
42.00      4.00  
43.00      4.00  
44.00      4.00  
45.00      4.00  
46.00      4.00  
47.00      4.00  
48.00      4.00  
49.00      4.00  
50.00      4.00

NORMAL STRESSES

SXX    .6047E+02   .9690E+02   .1397E+03   .1870E+03   .2363E+03   .2844E+03   .3279E+03   .3630E+03   .3861E+03  
SYY    .2190E+03   .2399E+03   .2633E+03   .2884E+03   .3140E+03   .3386E+03   .3601E+03   .3768E+03   .3872E+03  
SZZ    -.2771E+02   -.3151E+02   -.3576E+02   -.4029E+02   -.4487E+02   -.4923E+02   -.5307E+02   -.5609E+02   -.5800E+02

SHEAR STRESSES

SXY    -.7125E-06   -.5900E-06   -.2975E-06   -.7736E-06   -.9410E-06   -.1177E-06   -.2648E-06   .4655E-06   -.9879E-07  
SXZ    .1122E+02   .1196E+02   .1221E+02   .1183E+02   .1072E+02   .8866E+01   .6263E+01   .2973E+01   -.8655E+00  
SYZ    -.3083E-07   -.1381E-06   .1212E-06   -.2158E-06   .1221E-07   -.9133E-07   .2104E-07   -.1981E-06   -.2573E-07

PRINCIPAL STRESSES

PS 1    .2190E+03   .2399E+03   .2633E+03   .2884E+03   .3140E+03   .3386E+03   .3601E+03   .3768E+03   .3872E+03  
PS 2    .6188E+02   .9800E+02   .1406E+03   .1877E+03   .2367E+03   .2847E+03   .3280E+03   .3630E+03   .3861E+03  
PS 3    -.2912E+02   -.3261E+02   -.3660E+02   -.4090E+02   -.4528E+02   -.4947E+02   -.5317E+02   -.5611E+02   -.5801E+02



## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1241E+03	.1362E+03	.1500E+03	.1647E+03	.1797E+03	.1940E+03	.2066E+03	.2165E+03	.2226E+03
PSS 2	.7858E+02	.7093E+02	.6137E+02	.5039E+02	.3869E+02	.2695E+02	.1606E+02	.6923E+01	.5746E+00
PSS 3	.4550E+02	.6531E+02	.8860E+02	.1143E+03	.1410E+03	.1671E+03	.1906E+03	.2095E+03	.2220E+03

## DISPLACEMENTS

UX	-.1305E-02	-.1285E-02	-.1182E-02	-.9813E-03	-.6786E-03	-.2719E-03	.2340E-03	.8259E-03	.1481E-02
UY	-.2213E-10	.1569E-10	.2613E-10	-.2920E-10	-.1332E-10	.1295E-11	.1676E-10	-.1849E-10	.1149E-10
UZ	.1513E+00	.1517E+00	.1521E+00	.1525E+00	.1528E+00	.1529E+00	.1528E+00	.1525E+00	.1520E+00

## NORMAL STRAINS

EXX	-.1623E-04	.5993E-04	.1502E-03	.2505E-03	.3551E-03	.4579E-03	.5510E-03	.6268E-03	.6771E-03
EYY	.5189E-03	.5425E-03	.5673E-03	.5927E-03	.6176E-03	.6406E-03	.6598E-03	.6735E-03	.6810E-03
EZZ	-.3139E-03	-.3734E-03	-.4421E-03	-.5168E-03	-.5937E-03	-.6682E-03	-.7346E-03	-.7875E-03	-.8216E-03

## SHEAR STRAINS

EXY	-.4810E-11	-.3983E-11	-.2008E-11	-.5222E-11	-.6352E-11	-.7942E-12	-.1788E-11	.3142E-11	-.6668E-12
EXZ	.7574E-04	.8071E-04	.8239E-04	.7984E-04	.7239E-04	.5985E-04	.4227E-04	.2007E-04	-.5842E-05
EYZ	-.2081E-12	-.9323E-12	.8179E-12	-.1457E-11	.8242E-13	-.6164E-12	.1420E-12	-.1337E-11	-.1737E-12

## PRINCIPAL STRAINS

PE 1	.5189E-03	.5425E-03	.5673E-03	.5927E-03	.6176E-03	.6406E-03	.6598E-03	.6735E-03	.6810E-03
PE 2	-.1149E-04	.6366E-04	.1531E-03	.2525E-03	.3565E-03	.4587E-03	.5514E-03	.6268E-03	.6771E-03
PE 3	-.3186E-03	-.3772E-03	-.4449E-03	-.5188E-03	-.5951E-03	-.6690E-03	-.7350E-03	-.7876E-03	-.8216E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.8375E-03	.9196E-03	.1012E-02	.1112E-02	.1213E-02	.1310E-02	.1395E-02	.1461E-02	.1503E-02
PSE 2	.5304E-03	.4788E-03	.4143E-03	.3402E-03	.2611E-03	.1819E-03	.1084E-03	.4673E-04	.3878E-05
PSE 3	.3071E-03	.4408E-03	.5980E-03	.7714E-03	.9516E-03	.1128E-02	.1286E-02	.1414E-02	.1499E-02

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.2732E+02	.2850E+02	.2960E+02	.3057E+02	.3151E+02	.3233E+02	.3290E+02	.3314E+02	.3323E+02
SYX	.4104E+02	.4146E+02	.4179E+02	.4200E+02	.4222E+02	.4239E+02	.4239E+02	.4218E+02	.4192E+02
SZZ	-.1315E+02	-.1327E+02	-.1336E+02	-.1343E+02	-.1350E+02	-.1354E+02	-.1354E+02	-.1349E+02	-.1342E+02

SHEAR STRESSES

SXY	.1824E-07	-.1038E-07	.1018E-07	-.3027E-07	-.1002E-07	-.1811E-07	.1688E-07	-.2010E-07	-.4173E-08
SXZ	.3066E-01	-.5817E-01	-.1755E+00	-.3218E+00	-.4950E+00	-.6933E+00	-.9142E+00	-.1154E+01	-.1407E+01
SYZ	.1973E-08	-.2118E-08	.1617E-07	-.1656E-08	.5428E-09	.2458E-08	.9636E-08	-.1719E-08	.4820E-08

PRINCIPAL STRESSES

PS 1	.4104E+02	.4146E+02	.4179E+02	.4200E+02	.4222E+02	.4239E+02	.4239E+02	.4218E+02	.4192E+02
PS 2	.2732E+02	.2850E+02	.2960E+02	.3057E+02	.3152E+02	.3234E+02	.3291E+02	.3317E+02	.3327E+02
PS 3	-.1315E+02	-.1327E+02	-.1336E+02	-.1344E+02	-.1351E+02	-.1355E+02	-.1356E+02	-.1352E+02	-.1346E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.2710E+02	.2736E+02	.2758E+02	.2772E+02	.2787E+02	.2797E+02	.2797E+02	.2785E+02	.2769E+02
PSS 2	.6858E+01	.6479E+01	.6094E+01	.5715E+01	.5354E+01	.5025E+01	.4737E+01	.4501E+01	.4324E+01
PSS 3	.2024E+02	.2088E+02	.2148E+02	.2200E+02	.2251E+02	.2295E+02	.2324E+02	.2335E+02	.2337E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.3772E-02	.4377E-02	.5023E-02	.5708E-02	.6414E-02	.7147E-02	.7910E-02	.8694E-02	.9472E-02
UY	.3344E-11	.3865E-11	-.3840E-10	.4240E-10	.6773E-11	.1951E-10	-.2335E-10	.1874E-10	-.1820E-11
UZ	.1394E+00	.1391E+00	.1388E+00	.1385E+00	.1381E+00	.1375E+00	.1369E+00	.1363E+00	.1356E+00

## NORMAL STRAINS

EXX	.5854E-03	.6210E-03	.6551E-03	.6856E-03	.7152E-03	.7412E-03	.7600E-03	.7702E-03	.7751E-03
EYY	.1203E-02	.1204E-02	.1204E-02	.1200E-02	.1197E-02	.1194E-02	.1187E-02	.1177E-02	.1166E-02
EZZ	-.1236E-02	-.1258E-02	-.1278E-02	-.1294E-02	-.1310E-02	-.1323E-02	-.1330E-02	-.1328E-02	-.1324E-02

## SHEAR STRAINS

EXY	.1642E-11	-.9340E-12	.9162E-12	-.2725E-11	-.9018E-12	-.1630E-11	.1519E-11	-.1809E-11	-.3755E-12
EXZ	.2759E-05	-.5236E-05	-.1580E-04	-.2896E-04	-.4455E-04	-.6240E-04	-.8228E-04	-.1039E-03	-.1266E-03
EYZ	.1775E-12	-.1906E-12	.1455E-11	-.1490E-12	.4885E-13	.2212E-12	.8672E-12	-.1547E-12	.4338E-12

## PRINCIPAL STRAINS

PE 1	.1203E-02	.1204E-02	.1204E-02	.1200E-02	.1197E-02	.1194E-02	.1187E-02	.1177E-02	.1166E-02
PE 2	.5854E-03	.6210E-03	.6551E-03	.6857E-03	.7155E-03	.7416E-03	.7608E-03	.7714E-03	.7770E-03
PE 3	-.1236E-02	-.1258E-02	-.1278E-02	-.1295E-02	-.1311E-02	-.1324E-02	-.1330E-02	-.1330E-02	-.1326E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2439E-02	.2463E-02	.2482E-02	.2495E-02	.2508E-02	.2518E-02	.2518E-02	.2506E-02	.2492E-02
PSE 2	.6173E-03	.5831E-03	.5485E-03	.5143E-03	.4819E-03	.4522E-03	.4263E-03	.4051E-03	.3892E-03
PSE 3	.1821E-02	.1879E-02	.1934E-02	.1980E-02	.2026E-02	.2065E-02	.2091E-02	.2101E-02	.2103E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-b Average HBP

57.00      4.00  
58.00      4.00  
59.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
51.00      4.00  
52.00      4.00  
53.00      4.00  
54.00      4.00  
55.00      4.00  
56.00      4.00  
57.00      4.00  
58.00      4.00  
59.00      4.00

NORMAL STRESSES

SXX	.3947E+03	.3874E+03	.3656E+03	.3319E+03	.2898E+03	.2429E+03	.1948E+03	.1486E+03	.1069E+03
SYX	.3900E+03	.3846E+03	.3716E+03	.3522E+03	.3279E+03	.3005E+03	.2719E+03	.2437E+03	.2169E+03
SZZ	-.5862E+02	-.5783E+02	-.5574E+02	-.5254E+02	-.4851E+02	-.4395E+02	-.3914E+02	-.3436E+02	-.2984E+02

SHEAR STRESSES

SXY	-.1054E-06	.6418E-07	.4882E-06	.1742E-06	.1054E-06	-.8549E-06	-.4655E-06	.2648E-06	.1177E-06
SXZ	-.5011E+01	-.9168E+01	-.1306E+02	-.1645E+02	-.1919E+02	-.2121E+02	-.2252E+02	-.2315E+02	-.2318E+02
SYZ	-.1503E-07	.9007E-07	.0000E+00	.9007E-07	-.1503E-07	-.2573E-07	-.1981E-06	.2104E-07	-.9133E-07

PRINCIPAL STRESSES

PS 1	.3947E+03	.3876E+03	.3716E+03	.3522E+03	.3279E+03	.3005E+03	.2719E+03	.2437E+03	.2169E+03
PS 2	.3900E+03	.3846E+03	.3660E+03	.3326E+03	.2908E+03	.2445E+03	.1969E+03	.1515E+03	.1107E+03
PS 3	-.5867E+02	-.5802E+02	-.5614E+02	-.5325E+02	-.4960E+02	-.4551E+02	-.4129E+02	-.3724E+02	-.3366E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2267E+03	.2228E+03	.2139E+03	.2027E+03	.1888E+03	.1730E+03	.1566E+03	.1405E+03	.1253E+03
PSS 2	.2348E+01	.1498E+01	.2785E+01	.9788E+01	.1853E+02	.2804E+02	.3750E+02	.4608E+02	.5309E+02
PSS 3	.2243E+03	.2213E+03	.2111E+03	.1929E+03	.1702E+03	.1450E+03	.1191E+03	.9437E+02	.7218E+02

## DISPLACEMENTS

UX	.2171E-02	.2863E-02	.3526E-02	.4132E-02	.4657E-02	.5089E-02	.5421E-02	.5657E-02	.5802E-02
UY	.9863E-11	.9815E-11	.0000E+00	.9815E-11	.9863E-11	.1149E-10	.3972E-10	.1676E-10	.1295E-11
UZ	.1511E+00	.1499E+00	.1483E+00	.1464E+00	.1444E+00	.1421E+00	.1397E+00	.1371E+00	.1346E+00

## NORMAL STRAINS

EXX	.6967E-03	.6826E-03	.6376E-03	.5676E-03	.4799E-03	.3828E-03	.2832E-03	.1884E-03	.1035E-03
EYY	.6810E-03	.6731E-03	.6578E-03	.6360E-03	.6087E-03	.5773E-03	.5436E-03	.5092E-03	.4748E-03
EZZ	-.8331E-03	-.8201E-03	-.7844E-03	-.7300E-03	-.6617E-03	-.5854E-03	-.5062E-03	-.4292E-03	-.3579E-03

## SHEAR STRAINS

EXY	-.7115E-12	.4332E-12	.3295E-11	.1176E-11	.7115E-12	-.5770E-11	-.3142E-11	.1788E-11	.7942E-12
EXZ	-.3382E-04	-.6188E-04	-.8815E-04	-.1110E-03	-.1295E-03	-.1432E-03	-.1520E-03	-.1562E-03	-.1565E-03
EYZ	-.1015E-12	.6080E-12	.0000E+00	.6080E-12	-.1015E-12	-.1737E-12	-.1337E-11	.1420E-12	-.6164E-12

## PRINCIPAL STRAINS

PE 1	.6969E-03	.6832E-03	.6578E-03	.6360E-03	.6087E-03	.5773E-03	.5436E-03	.5092E-03	.4748E-03
PE 2	.6810E-03	.6731E-03	.6390E-03	.5700E-03	.4836E-03	.3880E-03	.2905E-03	.1981E-03	.1164E-03
PE 3	-.8333E-03	-.8207E-03	-.7857E-03	-.7323E-03	-.6654E-03	-.5907E-03	-.5134E-03	-.4389E-03	-.3708E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1530E-02	.1504E-02	.1444E-02	.1368E-02	.1274E-02	.1168E-02	.1057E-02	.9481E-03	.8456E-03
PSE 2	.1585E-04	.1011E-04	.1880E-04	.6607E-04	.1251E-03	.1892E-03	.2531E-03	.3111E-03	.3584E-03
PSE 3	.1514E-02	.1494E-02	.1425E-02	.1302E-02	.1149E-02	.9787E-03	.8040E-03	.6370E-03	.4872E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.3309E+02	.3267E+02	.3201E+02	.3119E+02	.3002E+02	.2858E+02	.2698E+02	.2533E+02	.2348E+02
SYX	.4158E+02	.4108E+02	.4050E+02	.3986E+02	.3901E+02	.3798E+02	.3687E+02	.3576E+02	.3450E+02
SZZ	-.1331E+02	-.1316E+02	-.1296E+02	-.1275E+02	-.1249E+02	-.1217E+02	-.1183E+02	-.1148E+02	-.1109E+02

SHEAR STRESSES

SXY	.1547E-07	-.1017E-07	-.9702E-08	.1017E-07	-.1547E-07	-.2563E-07	-.9702E-08	-.1688E-07	.1811E-07
SXZ	-.1666E+01	-.1927E+01	-.2184E+01	-.2432E+01	-.2663E+01	-.2874E+01	-.3063E+01	-.3226E+01	-.3363E+01
SYZ	.7603E-08	.7076E-09	.0000E+00	.7076E-09	.7603E-08	.4820E-08	-.1719E-08	.9636E-08	.2458E-08

PRINCIPAL STRESSES

PS 1	.4158E+02	.4108E+02	.4050E+02	.3986E+02	.3901E+02	.3798E+02	.3687E+02	.3576E+02	.3450E+02
PS 2	.3315E+02	.3275E+02	.3212E+02	.3132E+02	.3019E+02	.2878E+02	.2722E+02	.2561E+02	.2381E+02
PS 3	-.1337E+02	-.1324E+02	-.1307E+02	-.1288E+02	-.1265E+02	-.1238E+02	-.1207E+02	-.1176E+02	-.1142E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.2748E+02	.2716E+02	.2678E+02	.2637E+02	.2583E+02	.2518E+02	.2447E+02	.2376E+02	.2296E+02
PSS 2	.4212E+01	.4168E+01	.4189E+01	.4272E+01	.4412E+01	.4599E+01	.4824E+01	.5077E+01	.5347E+01
PSS 3	.2326E+02	.2299E+02	.2260E+02	.2210E+02	.2142E+02	.2058E+02	.1965E+02	.1868E+02	.1761E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.1025E-01	.1102E-01	.1178E-01	.1253E-01	.1325E-01	.1393E-01	.1456E-01	.1516E-01	.1570E-01
UY	.3025E-10	-.2397E-10	.0000E+00	-.2397E-10	.3025E-10	-.1820E-11	-.3947E-10	.3485E-10	.1951E-10
UZ	.1346E+00	.1336E+00	.1324E+00	.1311E+00	.1297E+00	.1284E+00	.1269E+00	.1252E+00	.1236E+00

## NORMAL STRAINS

EXX	.7734E-03	.7631E-03	.7459E-03	.7232E-03	.6913E-03	.6516E-03	.6072E-03	.5609E-03	.5097E-03
EYY	.1155E-02	.1142E-02	.1128E-02	.1114E-02	.1096E-02	.1075E-02	.1052E-02	.1030E-02	.1006E-02
EZZ	-.1315E-02	-.1299E-02	-.1278E-02	-.1254E-02	-.1222E-02	-.1182E-02	-.1139E-02	-.1095E-02	-.1046E-02

## SHEAR STRAINS

EXY	.1392E-11	-.9157E-12	-.8732E-12	.9157E-12	-.1392E-11	-.2307E-11	-.8732E-12	-.1519E-11	.1630E-11
EXZ	-.1500E-03	-.1735E-03	-.1966E-03	-.2188E-03	-.2397E-03	-.2587E-03	-.2756E-03	-.2904E-03	-.3026E-03
EYZ	.6843E-12	.6368E-13	.0000E+00	.6368E-13	.6843E-12	.4338E-12	-.1547E-12	.8672E-12	.2212E-12

## PRINCIPAL STRAINS

PE 1	.1155E-02	.1142E-02	.1128E-02	.1114E-02	.1096E-02	.1075E-02	.1052E-02	.1030E-02	.1006E-02
PE 2	.7761E-03	.7667E-03	.7507E-03	.7292E-03	.6988E-03	.6606E-03	.6180E-03	.5735E-03	.5243E-03
PE 3	-.1318E-02	-.1303E-02	-.1283E-02	-.1260E-02	-.1229E-02	-.1191E-02	-.1150E-02	-.1108E-02	-.1061E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2473E-02	.2444E-02	.2411E-02	.2374E-02	.2325E-02	.2266E-02	.2202E-02	.2138E-02	.2066E-02
PSE 2	.3791E-03	.3751E-03	.3770E-03	.3845E-03	.3971E-03	.4139E-03	.4342E-03	.4570E-03	.4813E-03
PSE 3	.2094E-02	.2069E-02	.2034E-02	.1989E-02	.1928E-02	.1852E-02	.1768E-02	.1681E-02	.1585E-02



Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.99 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-b Average HBP

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1106E+03	.1108E+03	.1050E+03	.9571E+02	.8622E+02	.8022E+02	.8055E+02	.8950E+02	.1087E+03
SYX	.1903E+03	.1981E+03	.2039E+03	.2089E+03	.2143E+03	.2215E+03	.2315E+03	.2452E+03	.2631E+03
SZZ	-.2533E+02	-.2627E+02	-.2684E+02	-.2722E+02	-.2767E+02	-.2844E+02	-.2974E+02	-.3172E+02	-.3449E+02

SHEAR STRESSES

SXY	.1984E-06	-.7762E-06	.7145E-06	.5155E-06	-.5127E-06	.4977E-06	.9201E-06	.1153E-05	.2410E-06
SXZ	.1515E+02	.1431E+02	.1369E+02	.1342E+02	.1357E+02	.1411E+02	.1496E+02	.1597E+02	.1701E+02
SYZ	-.6285E-07	-.1123E-06	-.1265E-06	.1230E-07	-.2750E-07	.1199E-07	-.2112E-06	-.8564E-07	-.5247E-07

PRINCIPAL STRESSES

PS 1	.1903E+03	.1981E+03	.2039E+03	.2089E+03	.2143E+03	.2215E+03	.2315E+03	.2452E+03	.2631E+03
PS 2	.1123E+03	.1123E+03	.1064E+03	.9716E+02	.8781E+02	.8202E+02	.8254E+02	.9157E+02	.1107E+03

## Appendix 6E-b Average HBP

PS 3    -.2699E+02   -.2775E+02   -.2824E+02   -.2867E+02   -.2926E+02   -.3025E+02   -.3173E+02   -.3379E+02   -.3648E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1087E+03   .1129E+03   .1161E+03   .1188E+03   .1218E+03   .1259E+03   .1316E+03   .1395E+03   .1498E+03  
PSS 2   .3903E+02   .4290E+02   .4876E+02   .5586E+02   .6323E+02   .6973E+02   .7449E+02   .7682E+02   .7619E+02  
PSS 3   .6964E+02   .7000E+02   .6732E+02   .6292E+02   .5854E+02   .5613E+02   .5714E+02   .6268E+02   .7360E+02

## DISPLACEMENTS

UX       -.4209E-02   -.4078E-02   -.3959E-02   -.3864E-02   -.3797E-02   -.3756E-02   -.3729E-02   -.3701E-02   -.3650E-02  
UY       -.1996E-10   -.3557E-10   -.1835E-10   .4156E-11   -.9454E-11   -.1438E-11   .1001E-10   -.4699E-10   -.8449E-11  
UZ       .1080E+00   .1097E+00   .1112E+00   .1125E+00   .1140E+00   .1155E+00   .1170E+00   .1185E+00   .1200E+00

## NORMAL STRAINS

EXX      .1321E-03   .1266E-03   .1075E-03   .8033E-04   .5226E-04   .3165E-04   .2482E-04   .3694E-04   .7179E-04  
EYY      .4012E-03   .4212E-03   .4414E-03   .4623E-03   .4845E-03   .5084E-03   .5343E-03   .5625E-03   .5928E-03  
EZZ      -.3266E-03   -.3359E-03   -.3374E-03   -.3346E-03   -.3321E-03   -.3351E-03   -.3474E-03   -.3722E-03   -.4116E-03

## SHEAR STRAINS

EXY      .1339E-11   -.5239E-11   .4823E-11   .3480E-11   -.3461E-11   .3360E-11   .6211E-11   .7785E-11   .1627E-11  
EXZ      .1023E-03   .9662E-04   .9242E-04   .9059E-04   .9158E-04   .9527E-04   .1010E-03   .1078E-03   .1148E-03  
EYZ      -.4242E-12   -.7577E-12   -.8541E-12   .8301E-13   -.1856E-12   .8095E-13   -.1426E-11   -.5781E-12   -.3541E-12

## PRINCIPAL STRAINS

PE 1      .4012E-03   .4212E-03   .4414E-03   .4623E-03   .4845E-03   .5084E-03   .5343E-03   .5625E-03   .5928E-03  
PE 2      .1378E-03   .1316E-03   .1123E-03   .8521E-04   .5764E-04   .3773E-04   .3154E-04   .4392E-04   .7851E-04  
PE 3      -.3323E-03   -.3409E-03   -.3421E-03   -.3395E-03   -.3375E-03   -.3412E-03   -.3541E-03   -.3792E-03   -.4183E-03

## PRINCIPAL SHEAR STRAINS

PSE 1    .7335E-03   .7621E-03   .7835E-03   .8018E-03   .8220E-03   .8496E-03   .8885E-03   .9416E-03   .1011E-02  
PSE 2    .2634E-03   .2896E-03   .3291E-03   .3771E-03   .4268E-03   .4707E-03   .5028E-03   .5185E-03   .5143E-03  
PSE 3    .4701E-03   .4725E-03   .4544E-03   .4247E-03   .3951E-03   .3789E-03   .3857E-03   .4231E-03   .4968E-03

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

## NORMAL STRESSES

SXX	.2094E+02	.2258E+02	.2430E+02	.2608E+02	.2787E+02	.2964E+02	.3138E+02	.3309E+02	.3474E+02
SYX	.3027E+02	.3150E+02	.3280E+02	.3412E+02	.3541E+02	.3666E+02	.3784E+02	.3895E+02	.3999E+02
SZZ	-.9690E+01	-.1004E+02	-.1039E+02	-.1074E+02	-.1110E+02	-.1146E+02	-.1181E+02	-.1213E+02	-.1244E+02

## SHEAR STRESSES

SXY	.2145E-07	-.1857E-07	.2104E-07	.1835E-07	-.3340E-07	-.3029E-07	.7835E-08	-.2168E-07	-.3755E-07
SXZ	.2895E+01	.2826E+01	.2745E+01	.2650E+01	.2540E+01	.2416E+01	.2274E+01	.2114E+01	.1932E+01
SYZ	.8579E-08	.1370E-08	-.6379E-08	-.1667E-07	.8953E-08	-.1620E-07	-.6339E-08	.3597E-08	-.2783E-09

## PRINCIPAL STRESSES

PS 1	.3027E+02	.3150E+02	.3280E+02	.3412E+02	.3541E+02	.3666E+02	.3784E+02	.3895E+02	.3999E+02
PS 2	.2121E+02	.2282E+02	.2452E+02	.2627E+02	.2804E+02	.2978E+02	.3150E+02	.3319E+02	.3482E+02
PS 3	-.9961E+01	-.1028E+02	-.1060E+02	-.1093E+02	-.1126E+02	-.1160E+02	-.1192E+02	-.1223E+02	-.1251E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2012E+02	.2089E+02	.2170E+02	.2252E+02	.2334E+02	.2413E+02	.2488E+02	.2559E+02	.2625E+02
PSS 2	.4531E+01	.4341E+01	.4138E+01	.3920E+01	.3687E+01	.3436E+01	.3167E+01	.2882E+01	.2585E+01
PSS 3	.1559E+02	.1655E+02	.1756E+02	.1860E+02	.1965E+02	.2069E+02	.2171E+02	.2271E+02	.2367E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.1127E-01	-.1079E-01	-.1027E-01	-.9689E-02	-.9061E-02	-.8386E-02	-.7667E-02	-.6904E-02	-.6093E-02
UY	.4145E-12	.2678E-10	.4983E-10	-.7677E-11	.2003E-10	.1704E-10	-.1458E-10	-.3310E-11	.2731E-10
UZ	.9870E-01	.9993E-01	.1010E+00	.1019E+00	.1029E+00	.1040E+00	.1050E+00	.1059E+00	.1067E+00

## NORMAL STRAINS

EXX	.4579E-03	.5022E-03	.5487E-03	.5968E-03	.6455E-03	.6941E-03	.7424E-03	.7900E-03	.8365E-03
EYY	.8779E-03	.9038E-03	.9308E-03	.9581E-03	.9847E-03	.1010E-02	.1033E-02	.1054E-02	.1073E-02
EZZ	-.9205E-03	-.9656E-03	-.1012E-02	-.1060E-02	-.1108E-02	-.1155E-02	-.1201E-02	-.1245E-02	-.1286E-02

## SHEAR STRAINS

EXY	.1930E-11	-.1672E-11	.1894E-11	.1652E-11	-.3006E-11	-.2726E-11	.7052E-12	-.1951E-11	-.3380E-11
EXZ	.2605E-03	.2544E-03	.2470E-03	.2385E-03	.2286E-03	.2174E-03	.2047E-03	.1903E-03	.1739E-03
EYZ	.7721E-12	.1233E-12	-.5741E-12	-.1500E-11	.8058E-12	-.1458E-11	-.5705E-12	.3237E-12	-.2505E-13

## PRINCIPAL STRAINS

PE 1	.8779E-03	.9038E-03	.9308E-03	.9581E-03	.9847E-03	.1010E-02	.1033E-02	.1054E-02	.1073E-02
PE 2	.4701E-03	.5132E-03	.5584E-03	.6053E-03	.6529E-03	.7005E-03	.7478E-03	.7945E-03	.8401E-03
PE 3	-.9327E-03	-.9766E-03	-.1022E-02	-.1069E-02	-.1116E-02	-.1162E-02	-.1206E-02	-.1249E-02	-.1290E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.1811E-02	.1880E-02	.1953E-02	.2027E-02	.2100E-02	.2171E-02	.2239E-02	.2303E-02	.2363E-02
PSE 2	.4078E-03	.3906E-03	.3724E-03	.3528E-03	.3318E-03	.3092E-03	.2850E-03	.2594E-03	.2327E-03
PSE 3	.1403E-02	.1490E-02	.1580E-02	.1674E-02	.1769E-02	.1862E-02	.1954E-02	.2044E-02	.2130E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.99 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-b Average HBP

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.1395E+03	.1824E+03	.2360E+03	.2968E+03	.3597E+03	.4187E+03	.4670E+03	.4988E+03	.5095E+03
SYX	.2855E+03	.3124E+03	.3429E+03	.3753E+03	.4075E+03	.4366E+03	.4594E+03	.4734E+03	.4769E+03
SZZ	-.3812E+02	-.4258E+02	-.4775E+02	-.5333E+02	-.5889E+02	-.6392E+02	-.6793E+02	-.7046E+02	-.7118E+02

SHEAR STRESSES

SXY	-.1348E-05	.3872E-06	.7989E-06	.4348E-06	-.1331E-05	-.3566E-07	-.5915E-06	.3055E-06	-.2223E-06
SXZ	.1788E+02	.1835E+02	.1814E+02	.1701E+02	.1480E+02	.1147E+02	.7113E+01	.1931E+01	-.3723E+01
SYZ	-.1593E-07	.5318E-08	-.2362E-06	.1503E-07	-.5511E-07	.3401E-07	-.2705E-06	-.4324E-06	-.7649E-07

PRINCIPAL STRESSES

PS 1	.2855E+03	.3124E+03	.3429E+03	.3753E+03	.4075E+03	.4366E+03	.4671E+03	.4988E+03	.5095E+03
PS 2	.1413E+03	.1839E+03	.2371E+03	.2976E+03	.3603E+03	.4189E+03	.4594E+03	.4734E+03	.4769E+03

## Appendix 6E-b Average HBP

PS 3    -.3990E+02   -.4407E+02   -.4890E+02   -.5415E+02   -.5941E+02   -.6420E+02   -.6803E+02   -.7047E+02   -.7120E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1627E+03    .1782E+03    .1959E+03    .2147E+03    .2335E+03    .2504E+03    .2676E+03    .2846E+03    .2903E+03  
PSS 2    .7210E+02    .6425E+02    .5287E+02    .3885E+02    .2363E+02    .8832E+01    .3841E+01    .1270E+02    .1629E+02  
PSS 3    .9061E+02    .1140E+03    .1430E+03    .1759E+03    .2098E+03    .2416E+03    .2637E+03    .2719E+03    .2741E+03

## DISPLACEMENTS

UX        -.3551E-02   -.3377E-02   -.3102E-02   -.2704E-02   -.2175E-02   -.1515E-02   -.7371E-03   .1297E-03   .1043E-02  
UY        -.1271E-10   .5262E-10   -.2999E-10   .7011E-11   -.1670E-10   -.1938E-10   -.6208E-11   -.2457E-10   -.4911E-11  
UZ        .1215E+00    .1230E+00    .1246E+00    .1263E+00    .1278E+00    .1289E+00    .1298E+00    .1304E+00    .1304E+00

## NORMAL STRAINS

EXX        .1324E-03    .2199E-03    .3317E-03    .4602E-03    .5943E-03    .7206E-03    .8250E-03    .8944E-03    .9187E-03  
EYY        .6251E-03    .6586E-03    .6925E-03    .7252E-03    .7556E-03    .7811E-03    .7994E-03    .8087E-03    .8088E-03  
EZZ        -.4672E-03   -.5394E-03   -.6259E-03   -.7214E-03   -.8186E-03   -.9082E-03   -.9805E-03   -.1027E-02   -.1041E-02

## SHEAR STRAINS

EXY        -.9099E-11   .2614E-11   .5392E-11   .2935E-11   -.8983E-11   -.2407E-12   -.3993E-11   .2062E-11   -.1500E-11  
EXZ        .1207E-03    .1239E-03    .1225E-03    .1148E-03    .9988E-04    .7743E-04    .4801E-04    .1303E-04    -.2513E-04  
EYZ        -.1075E-12   .3590E-13   -.1594E-11   .1015E-12   -.3720E-12   .2296E-12   -.1826E-11   -.2919E-11   -.5163E-12

## PRINCIPAL STRAINS

PE 1        .6251E-03    .6586E-03    .6925E-03    .7252E-03    .7556E-03    .7811E-03    .8253E-03    .8944E-03    .9187E-03  
PE 2        .1384E-03    .2249E-03    .3356E-03    .4630E-03    .5961E-03    .7215E-03    .7994E-03    .8087E-03    .8088E-03  
PE 3        -.4732E-03   -.5444E-03   -.6298E-03   -.7242E-03   -.8203E-03   -.9091E-03   -.9808E-03   -.1027E-02   -.1041E-02

## PRINCIPAL SHEAR STRAINS

PSE 1        .1098E-02    .1203E-02    .1322E-02    .1449E-02    .1576E-02    .1690E-02    .1806E-02    .1921E-02    .1960E-02  
PSE 2        .4866E-03    .4337E-03    .3569E-03    .2623E-03    .1595E-03    .5962E-04    .2593E-04    .8575E-04    .1100E-03  
PSE 3        .6116E-03    .7694E-03    .9654E-03    .1187E-02    .1416E-02    .1631E-02    .1780E-02    .1836E-02    .1850E-02



## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.3630E+02	.3769E+02	.3884E+02	.3972E+02	.4045E+02	.4097E+02	.4114E+02	.4096E+02	.4063E+02
SYZ	.4092E+02	.4169E+02	.4225E+02	.4258E+02	.4285E+02	.4298E+02	.4290E+02	.4260E+02	.4229E+02
SZZ	-.1270E+02	-.1294E+02	-.1313E+02	-.1331E+02	-.1345E+02	-.1353E+02	-.1356E+02	-.1354E+02	-.1348E+02

## SHEAR STRESSES

SXY	-.5330E-09	.1264E-07	.1251E-07	-.9200E-08	-.8959E-08	.8451E-09	.5644E-08	.1152E-07	.1102E-07
SXZ	.1727E+01	.1495E+01	.1237E+01	.9532E+00	.6478E+00	.3233E+00	-.1747E-01	-.3694E+00	-.7241E+00
SYZ	-.6393E-08	-.3483E-08	-.2127E-07	.5458E-08	-.2586E-08	.1568E-07	-.3350E-08	-.3259E-08	-.6209E-08

## PRINCIPAL STRESSES

PS 1	.4092E+02	.4169E+02	.4225E+02	.4258E+02	.4285E+02	.4298E+02	.4290E+02	.4260E+02	.4229E+02
PS 2	.3636E+02	.3773E+02	.3887E+02	.3973E+02	.4046E+02	.4097E+02	.4114E+02	.4097E+02	.4064E+02
PS 3	-.1276E+02	-.1298E+02	-.1316E+02	-.1332E+02	-.1346E+02	-.1353E+02	-.1356E+02	-.1355E+02	-.1349E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2684E+02	.2734E+02	.2771E+02	.2795E+02	.2815E+02	.2826E+02	.2823E+02	.2807E+02	.2789E+02
PSS 2	.2282E+01	.1981E+01	.1691E+01	.1424E+01	.1192E+01	.1007E+01	.8791E+00	.8165E+00	.8253E+00
PSS 3	.2456E+02	.2536E+02	.2602E+02	.2653E+02	.2696E+02	.2725E+02	.2735E+02	.2726E+02	.2707E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.5231E-02	-.4319E-02	-.3360E-02	-.2365E-02	-.1352E-02	-.3175E-03	.7345E-03	.1790E-02	.2828E-02
UY	-.4804E-10	-.3301E-10	-.8887E-12	-.6705E-12	.2128E-10	.1947E-11	.6707E-11	.4307E-11	-.3445E-10
UZ	.1074E+00	.1081E+00	.1088E+00	.1097E+00	.1104E+00	.1109E+00	.1113E+00	.1116E+00	.1116E+00

## NORMAL STRAINS

EXX	.8806E-03	.9207E-03	.9550E-03	.9823E-03	.1005E-02	.1022E-02	.1029E-02	.1026E-02	.1018E-02
EYY	.1089E-02	.1101E-02	.1109E-02	.1111E-02	.1113E-02	.1113E-02	.1108E-02	.1100E-02	.1093E-02
EZZ	-.1324E-02	-.1357E-02	-.1384E-02	-.1404E-02	-.1420E-02	-.1430E-02	-.1432E-02	-.1426E-02	-.1417E-02

## SHEAR STRAINS

EXY	-.4797E-13	.1138E-11	.1126E-11	-.8280E-12	-.8063E-12	.7606E-13	.5080E-12	.1037E-11	.9916E-12
EXZ	.1554E-03	.1346E-03	.1113E-03	.8579E-04	.5830E-04	.2910E-04	-.1572E-05	-.3325E-04	-.6517E-04
EYZ	-.5754E-12	-.3135E-12	-.1914E-11	.4913E-12	-.2327E-12	.1411E-11	-.3015E-12	-.2933E-12	-.5588E-12

## PRINCIPAL STRAINS

PE 1	.1089E-02	.1101E-02	.1109E-02	.1111E-02	.1113E-02	.1113E-02	.1108E-02	.1100E-02	.1093E-02
PE 2	.8834E-03	.9227E-03	.9563E-03	.9831E-03	.1006E-02	.1022E-02	.1029E-02	.1027E-02	.1019E-02
PE 3	-.1327E-02	-.1359E-02	-.1385E-02	-.1404E-02	-.1420E-02	-.1431E-02	-.1432E-02	-.1426E-02	-.1417E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2416E-02	.2460E-02	.2494E-02	.2516E-02	.2534E-02	.2543E-02	.2541E-02	.2527E-02	.2510E-02
PSE 2	.2054E-03	.1783E-03	.1522E-03	.1282E-03	.1073E-03	.9065E-04	.7912E-04	.7349E-04	.7428E-04
PSE 3	.2210E-02	.2282E-02	.2341E-02	.2388E-02	.2426E-02	.2453E-02	.2461E-02	.2453E-02	.2436E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.99 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-b Average HBP

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Z= 6.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.4972E+03	.4638E+03
SYY	.4693E+03	.4513E+03
SZZ	-.6992E+02	-.6684E+02

## SHEAR STRESSES

SXY	-.3269E-06	.5915E-06
SXZ	-.9386E+01	-.1459E+02
SYZ	.3195E-06	-.2384E-06

## PRINCIPAL STRESSES

PS 1	.4974E+03	.4642E+03
PS 2	.4693E+03	.4513E+03
PS 3	-.7008E+02	-.6724E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2837E+03	.2657E+03
PSS 2	.1403E+02	.6469E+01
PSS 3	.2697E+03	.2592E+03

## DISPLACEMENTS

UX	.1956E-02	.2821E-02
UY	-.1155E-10	.0000E+00
UZ	.1295E+00	.1280E+00

Appendix 6E-b Average HBP

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## NORMAL STRAINS

EXX	.8936E-03	.8231E-03
EYY	.7994E-03	.7808E-03
EZZ	-.1021E-02	-.9678E-03

## SHEAR STRAINS

EXY	-.2206E-11	.3993E-11
EXZ	-.6335E-04	-.9851E-04
EYZ	.2156E-11	-.1609E-11

## PRINCIPAL STRAINS

PE 1	.8941E-03	.8245E-03
PE 2	.7994E-03	.7808E-03
PE 3	-.1021E-02	-.9691E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1915E-02	.1794E-02
PSE 2	.9470E-04	.4366E-04
PSE 3	.1821E-02	.1750E-02

Z= 18.00 LAYER NO, 2

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.4018E+02	.3956E+02
SYY	.4201E+02	.4173E+02
SZZ	-.1337E+02	-.1321E+02

Appendix 6E-b Average HBP

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## SHEAR STRESSES

SXY -.3032E-08 .9257E-08  
SXZ -.1076E+01 -.1419E+01  
SYZ .1643E-07 .0000E+00

## PRINCIPAL STRESSES

PS 1 .4201E+02 .4173E+02  
PS 2 .4020E+02 .3960E+02  
PS 3 -.1339E+02 -.1325E+02

## PRINCIPAL SHEAR STRESSES

PSS 1 .2770E+02 .2749E+02  
PSS 2 .9079E+00 .1063E+01  
PSS 3 .2679E+02 .2642E+02

## DISPLACEMENTS

UX .3856E-02 .4879E-02  
UY .1669E-10 -.5821E-10  
UZ .1109E+00 .1099E+00

## NORMAL STRAINS

EXX .1005E-02 .9860E-03  
EYY .1088E-02 .1083E-02  
EZZ -.1404E-02 -.1389E-02

## SHEAR STRAINS

EXY -.2729E-12 .8331E-12  
EXZ -.9683E-04 -.1277E-03  
EYZ .1479E-11 .0000E+00

## PRINCIPAL STRAINS

Appendix 6E-b Average HBP

PE 1 .1088E-02 .1083E-02  
 PE 2 .1006E-02 .9877E-03  
 PE 3 -.1405E-02 -.1390E-02

PRINCIPAL SHEAR STRAINS  
 PSE 1 .2493E-02 .2474E-02  
 PSE 2 .8171E-04 .9564E-04  
 PSE 3 .2411E-02 .2378E-02

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Appendix 6E-b Average HBP

Z= 6.00 18.00  
X-Y POINT(S)  
X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

NORMAL STRESSES

SXX	.3871E+03	.4096E+03	.4168E+03	.4081E+03	.3841E+03	.3481E+03	.3031E+03	.2530E+03	.2013E+03
SYX	.3960E+03	.4097E+03	.4153E+03	.4124E+03	.4015E+03	.3842E+03	.3617E+03	.3359E+03	.3088E+03
SZZ	-.5926E+02	-.6144E+02	-.6224E+02	-.6162E+02	-.5962E+02	-.5650E+02	-.5251E+02	-.4795E+02	-.4313E+02

SHEAR STRESSES

SXY	.4036E-06	.1966E-06	-.1174E-06	-.3694E-06	-.4136E-06	-.3736E-06	.9441E-06	-.4220E-06	.5272E-06
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## Appendix 6E-b Average HBP

SXZ	.1379E+02	.9713E+01	.5363E+01	.1038E+01	-.2977E+01	-.6443E+01	-.9207E+01	-.1120E+02	-.1241E+02
SYZ	-.1164E-06	.1727E-06	-.2384E-06	-.1746E-07	.2876E-08	-.7149E-08	.2396E-06	.1743E-06	-.1201E-06

## PRINCIPAL STRESSES

PS 1	.3960E+03	.4098E+03	.4169E+03	.4124E+03	.4015E+03	.3842E+03	.3617E+03	.3359E+03	.3088E+03
PS 2	.3875E+03	.4097E+03	.4153E+03	.4081E+03	.3841E+03	.3482E+03	.3033E+03	.2534E+03	.2019E+03
PS 3	-.5968E+02	-.6164E+02	-.6230E+02	-.6162E+02	-.5964E+02	-.5661E+02	-.5275E+02	-.4837E+02	-.4376E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2278E+03	.2357E+03	.2396E+03	.2370E+03	.2306E+03	.2204E+03	.2072E+03	.1922E+03	.1763E+03
PSS 2	.4230E+01	.4977E-01	.7898E+00	.2193E+01	.8702E+01	.1799E+02	.2918E+02	.4128E+02	.5346E+02
PSS 3	.2236E+03	.2357E+03	.2388E+03	.2348E+03	.2219E+03	.2024E+03	.1780E+03	.1509E+03	.1228E+03

## DISPLACEMENTS

UX	-.3753E-02	-.3054E-02	-.2325E-02	-.1599E-02	-.9095E-03	-.2836E-03	.2535E-03	.6875E-03	.1012E-02
UY	.1638E-10	.2555E-10	-.2342E-10	.1978E-10	.1337E-11	.1792E-10	-.2335E-10	-.3829E-10	.1457E-10
UZ	.1587E+00	.1603E+00	.1616E+00	.1626E+00	.1632E+00	.1635E+00	.1636E+00	.1635E+00	.1633E+00

## NORMAL STRAINS

EXX	.6731E-03	.7192E-03	.7331E-03	.7132E-03	.6611E-03	.5835E-03	.4871E-03	.3804E-03	.2708E-03
EYY	.7031E-03	.7196E-03	.7280E-03	.7280E-03	.7199E-03	.7053E-03	.6849E-03	.6605E-03	.6337E-03
EZZ	-.8333E-03	-.8705E-03	-.8837E-03	-.8720E-03	-.8365E-03	-.7820E-03	-.7129E-03	-.6352E-03	-.5542E-03

## SHEAR STRAINS

EXY	.2725E-11	.1327E-11	-.7926E-12	-.2493E-11	-.2792E-11	-.2522E-11	.6373E-11	-.2848E-11	.3558E-11
EXZ	.9309E-04	.6556E-04	.3620E-04	.7005E-05	-.2009E-04	-.4349E-04	-.6215E-04	-.7559E-04	-.8375E-04
EYZ	-.7858E-12	.1166E-11	-.1609E-11	-.1178E-12	.1941E-13	-.4826E-13	.1617E-11	.1176E-11	-.8106E-12

## PRINCIPAL STRAINS

PE 1	.7031E-03	.7199E-03	.7333E-03	.7280E-03	.7199E-03	.7053E-03	.6849E-03	.6605E-03	.6337E-03
PE 2	.6745E-03	.7196E-03	.7280E-03	.7132E-03	.6612E-03	.5839E-03	.4880E-03	.3818E-03	.2729E-03
PE 3	-.8347E-03	-.8711E-03	-.8839E-03	-.8720E-03	-.8366E-03	-.7823E-03	-.7137E-03	-.6366E-03	-.5563E-03

Appendix 6E-b Average HBP

PRINCIPAL SHEAR STRAINS

PSE 1	.1538E-02	.1591E-02	.1617E-02	.1600E-02	.1557E-02	.1488E-02	.1399E-02	.1297E-02	.1190E-02
PSE 2	.2856E-04	.3360E-06	.5331E-05	.1480E-04	.5874E-04	.1214E-03	.1970E-03	.2787E-03	.3608E-03
PSE 3	.1509E-02	.1591E-02	.1612E-02	.1585E-02	.1498E-02	.1366E-02	.1202E-02	.1018E-02	.8292E-03

Z= 18.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.3424E+02	.3500E+02	.3545E+02	.3560E+02	.3545E+02	.3520E+02	.3461E+02	.3374E+02	.3268E+02
SYX	.4333E+02	.4401E+02	.4454E+02	.4491E+02	.4512E+02	.4536E+02	.4537E+02	.4519E+02	.4490E+02
SZZ	-.1387E+02	-.1409E+02	-.1425E+02	-.1437E+02	-.1443E+02	-.1449E+02	-.1449E+02	-.1445E+02	-.1437E+02

SHEAR STRESSES

SXY	.2240E-07	.2487E-07	-.4947E-08	-.1512E-08	.1064E-07	.1805E-07	-.2927E-07	.1581E-07	.2555E-07
SXZ	.2335E+01	.2062E+01	.1785E+01	.1509E+01	.1240E+01	.9853E+00	.7502E+00	.5389E+00	.3544E+00
SYZ	-.6418E-09	-.1316E-07	.1270E-08	-.4924E-08	.1185E-09	-.1210E-08	.5945E-08	-.1173E-07	-.6489E-08

PRINCIPAL STRESSES

PS 1	.4333E+02	.4401E+02	.4454E+02	.4491E+02	.4512E+02	.4536E+02	.4537E+02	.4519E+02	.4490E+02
PS 2	.3435E+02	.3508E+02	.3552E+02	.3565E+02	.3548E+02	.3522E+02	.3462E+02	.3375E+02	.3269E+02

Appendix 6E-b Average HBP

PS 3    -.1398E+02   -.1417E+02   -.1432E+02   -.1441E+02   -.1446E+02   -.1451E+02   -.1451E+02   -.1446E+02   -.1438E+02

PRINCIPAL SHEAR STRESSES

PSS 1    .2865E+02   .2909E+02   .2943E+02   .2966E+02   .2979E+02   .2993E+02   .2994E+02   .2983E+02   .2964E+02  
PSS 2    .4487E+01   .4466E+01   .4514E+01   .4632E+01   .4819E+01   .5069E+01   .5374E+01   .5723E+01   .6105E+01  
PSS 3    .2417E+02   .2463E+02   .2492E+02   .2503E+02   .2497E+02   .2486E+02   .2456E+02   .2410E+02   .2353E+02

DISPLACEMENTS

UX        -.1261E-01   -.1180E-01   -.1097E-01   -.1014E-01   -.9316E-02   -.8477E-02   -.7661E-02   -.6876E-02   -.6126E-02  
UY        -.6011E-11   .7151E-10   .8402E-11   .6651E-10   .2508E-10   .4805E-10   .1155E-10   .7747E-11   .1357E-10  
UZ        .1417E+00   .1429E+00   .1440E+00   .1450E+00   .1459E+00   .1465E+00   .1472E+00   .1478E+00   .1483E+00

NORMAL STRAINS

EXX        .7976E-03   .8174E-03   .8284E-03   .8304E-03   .8237E-03   .8131E-03   .7934E-03   .7661E-03   .7333E-03  
EYY        .1207E-02   .1223E-02   .1237E-02   .1249E-02   .1259E-02   .1270E-02   .1278E-02   .1281E-02   .1283E-02  
EZZ        -.1367E-02   -.1391E-02   -.1408E-02   -.1418E-02   -.1421E-02   -.1423E-02   -.1416E-02   -.1403E-02   -.1384E-02

SHEAR STRAINS

EXY        .2016E-11   .2239E-11   -.4452E-12   -.1361E-12   .9579E-12   .1624E-11   -.2634E-11   .1423E-11   .2300E-11  
EXZ        .2102E-03   .1856E-03   .1606E-03   .1358E-03   .1116E-03   .8868E-04   .6752E-04   .4850E-04   .3189E-04  
EYZ        -.5776E-13   -.1185E-11   .1143E-12   -.4432E-12   .1066E-13   -.1089E-12   .5350E-12   -.1055E-11   -.5840E-12

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
LOAD STRESS..... 90.00 PSI

Appendix 6E-b Average HBP

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LOAD RADIUS..... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00

Appendix 6E-b Average HBP

28.00 4.00  
 29.00 4.00  
 30.00 4.00  
 31.00 4.00  
 32.00 4.00

NORMAL STRESSES

SXX .1515E+03 .1060E+03 .6693E+02 .3517E+02 .1038E+02 -.8434E+01 -.2237E+02 -.3235E+02 -.3900E+02  
 SYX .2823E+03 .2573E+03 .2349E+03 .2158E+03 .2000E+03 .1871E+03 .1770E+03 .1694E+03 .1641E+03  
 SZZ -.3835E+02 -.3385E+02 -.2980E+02 -.2631E+02 -.2340E+02 -.2104E+02 -.1918E+02 -.1778E+02 -.1681E+02

SHEAR STRESSES

SXY .4340E-06 .4216E-06 -.8342E-06 -.1103E-05 -.2303E-06 -.8898E-06 -.1726E-06 -.1607E-06 -.3034E-06  
 SXZ -.1286E+02 -.1265E+02 -.1191E+02 -.1080E+02 -.9453E+01 -.7978E+01 -.6432E+01 -.4845E+01 -.3238E+01  
 SYZ .2229E-06 .3923E-07 .9458E-07 .7727E-08 .2029E-08 .1589E-07 -.6407E-07 -.5411E-07 -.5262E-07

PRINCIPAL STRESSES

PS 1 .2823E+03 .2573E+03 .2349E+03 .2158E+03 .2000E+03 .1871E+03 .1770E+03 .1694E+03 .1641E+03  
 PS 2 .1524E+03 .1071E+03 .6837E+02 .3701E+02 .1284E+02 -.4569E+01 -.1415E+02 -.1632E+02 -.1635E+02  
 PS 3 -.3922E+02 -.3498E+02 -.3124E+02 -.2815E+02 -.2586E+02 -.2490E+02 -.2740E+02 -.3382E+02 -.3946E+02

PRINCIPAL SHEAR STRESSES

PSS 1 .1607E+03 .1461E+03 .1331E+03 .1220E+03 .1129E+03 .1060E+03 .1022E+03 .1016E+03 .1018E+03  
 PSS 2 .6495E+02 .7506E+02 .8328E+02 .8942E+02 .9357E+02 .9585E+02 .9558E+02 .9285E+02 .9021E+02  
 PSS 3 .9579E+02 .7106E+02 .4981E+02 .3258E+02 .1935E+02 .1017E+02 .6627E+01 .8749E+01 .1156E+02

DISPLACEMENTS

UX .1231E-02 .1347E-02 .1374E-02 .1326E-02 .1221E-02 .1072E-02 .8904E-03 .6859E-03 .4654E-03  
 UY .8627E-11 .3245E-10 -.1308E-10 -.1087E-10 -.5951E-11 -.9314E-11 .1751E-10 .2116E-11 .4885E-11  
 UZ .1629E+00 .1625E+00 .1621E+00 .1617E+00 .1613E+00 .1609E+00 .1606E+00 .1603E+00 .1601E+00

## Appendix 6E-b Average HBP

## NORMAL STRAINS

EXX	.1653E-03	.6950E-04	-.1218E-04	-.7792E-04	-.1286E-03	-.1664E-03	-.1940E-03	-.2135E-03	-.2264E-03
EYY	.6066E-03	.5800E-03	.5549E-03	.5318E-03	.5113E-03	.4936E-03	.4789E-03	.4673E-03	.4590E-03
EZZ	-.4754E-03	-.4025E-03	-.3386E-03	-.2854E-03	-.2426E-03	-.2090E-03	-.1833E-03	-.1644E-03	-.1515E-03

## SHEAR STRAINS

EXY	.2930E-11	.2846E-11	-.5631E-11	-.7442E-11	-.1555E-11	-.6006E-11	-.1165E-11	-.1085E-11	-.2048E-11
EXZ	-.8681E-04	-.8538E-04	-.8038E-04	-.7287E-04	-.6381E-04	-.5385E-04	-.4342E-04	-.3270E-04	-.2186E-04
EYZ	.1504E-11	.2648E-12	.6384E-12	.5216E-13	.1370E-13	.1073E-12	-.4325E-12	-.3652E-12	-.3552E-12

## PRINCIPAL STRAINS

PE 1	.6066E-03	.5800E-03	.5549E-03	.5318E-03	.5113E-03	.4936E-03	.4789E-03	.4673E-03	.4590E-03
PE 2	.1682E-03	.7333E-04	-.7305E-05	-.7171E-04	-.1202E-03	-.1534E-03	-.1663E-03	-.1594E-03	-.1499E-03
PE 3	-.4783E-03	-.4063E-03	-.3435E-03	-.2916E-03	-.2509E-03	-.2220E-03	-.2110E-03	-.2185E-03	-.2279E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1085E-02	.9863E-03	.8984E-03	.8235E-03	.7622E-03	.7156E-03	.6899E-03	.6858E-03	.6869E-03
PSE 2	.4384E-03	.5067E-03	.5622E-03	.6036E-03	.6316E-03	.6470E-03	.6452E-03	.6268E-03	.6089E-03
PSE 3	.6466E-03	.4796E-03	.3362E-03	.2199E-03	.1306E-03	.6863E-04	.4473E-04	.5905E-04	.7801E-04

Z= 18.00 LAYER NO, 2

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

## Appendix 6E-b Average HBP

## NORMAL STRESSES

SXX	.3167E+02	.3050E+02	.2926E+02	.2802E+02	.2685E+02	.2579E+02	.2488E+02	.2415E+02	.2362E+02
SYX	.4468E+02	.4433E+02	.4390E+02	.4342E+02	.4296E+02	.4254E+02	.4217E+02	.4187E+02	.4165E+02
SZZ	-.1430E+02	-.1420E+02	-.1408E+02	-.1395E+02	-.1381E+02	-.1369E+02	-.1357E+02	-.1348E+02	-.1341E+02

## SHEAR STRESSES

SXY	.2024E-07	-.3523E-08	.5093E-08	.2686E-07	-.4833E-07	.4959E-07	.5608E-07	.3962E-07	.2485E-07
SXZ	.1980E+00	.7230E-01	-.2323E-01	-.9005E-01	-.1304E+00	-.1470E+00	-.1432E+00	-.1225E+00	-.8893E-01
SYZ	.6439E-08	-.1811E-08	-.8429E-08	-.7172E-08	.2143E-08	.8558E-08	-.5181E-08	-.7366E-08	.5845E-08

## PRINCIPAL STRESSES

PS 1	.4468E+02	.4433E+02	.4390E+02	.4342E+02	.4296E+02	.4254E+02	.4217E+02	.4187E+02	.4165E+02
PS 2	.3167E+02	.3050E+02	.2926E+02	.2802E+02	.2685E+02	.2579E+02	.2488E+02	.2415E+02	.2362E+02
PS 3	-.1430E+02	-.1420E+02	-.1408E+02	-.1395E+02	-.1381E+02	-.1369E+02	-.1358E+02	-.1348E+02	-.1341E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2949E+02	.2927E+02	.2899E+02	.2869E+02	.2839E+02	.2811E+02	.2787E+02	.2768E+02	.2753E+02
PSS 2	.6507E+01	.6916E+01	.7318E+01	.7702E+01	.8057E+01	.8374E+01	.8643E+01	.8859E+01	.9017E+01
PSS 3	.2298E+02	.2235E+02	.2167E+02	.2098E+02	.2033E+02	.1974E+02	.1923E+02	.1882E+02	.1852E+02

## DISPLACEMENTS

UX	-.5392E-02	-.4701E-02	-.4053E-02	-.3448E-02	-.2880E-02	-.2347E-02	-.1842E-02	-.1360E-02	-.8968E-03
UY	.5537E-11	.1857E-10	.8896E-11	-.1246E-10	.5866E-11	.2154E-10	.2191E-10	.2006E-11	.1889E-10
UZ	.1486E+00	.1490E+00	.1493E+00	.1496E+00	.1498E+00	.1499E+00	.1500E+00	.1500E+00	.1501E+00

## NORMAL STRAINS

EXX	.7011E-03	.6651E-03	.6274E-03	.5901E-03	.5548E-03	.5230E-03	.4958E-03	.4738E-03	.4578E-03
EYY	.1287E-02	.1288E-02	.1286E-02	.1283E-02	.1280E-02	.1277E-02	.1274E-02	.1271E-02	.1269E-02
EZZ	-.1367E-02	-.1346E-02	-.1323E-02	-.1298E-02	-.1275E-02	-.1253E-02	-.1235E-02	-.1220E-02	-.1209E-02

## SHEAR STRAINS

## Appendix 6E-b Average HBP

EXY	.1822E-11	-.3171E-12	.4584E-12	.2418E-11	-.4349E-11	.4463E-11	.5047E-11	.3566E-11	.2236E-11
EXZ	.1782E-04	.6507E-05	-.2090E-05	-.8104E-05	-.1173E-04	-.1323E-04	-.1289E-04	-.1102E-04	-.8004E-05
EYZ	.5795E-12	-.1630E-12	-.7586E-12	-.6455E-12	.1929E-12	.7703E-12	-.4663E-12	-.6630E-12	.5261E-12

## PRINCIPAL STRAINS

PE 1	.1287E-02	.1288E-02	.1286E-02	.1283E-02	.1280E-02	.1277E-02	.1274E-02	.1271E-02	.1269E-02
PE 2	.7012E-03	.6651E-03	.6274E-03	.5901E-03	.5548E-03	.5231E-03	.4958E-03	.4739E-03	.4578E-03
PE 3	-.1367E-02	-.1346E-02	-.1323E-02	-.1298E-02	-.1275E-02	-.1253E-02	-.1235E-02	-.1220E-02	-.1209E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2654E-02	.2634E-02	.2609E-02	.2582E-02	.2555E-02	.2530E-02	.2508E-02	.2491E-02	.2478E-02
PSE 2	.5856E-03	.6224E-03	.6586E-03	.6932E-03	.7252E-03	.7536E-03	.7779E-03	.7973E-03	.8115E-03
PSE 3	.2069E-02	.2012E-02	.1950E-02	.1888E-02	.1830E-02	.1776E-02	.1731E-02	.1694E-02	.1666E-02

## PRINCIPAL STRAINS

PE 1	.1207E-02	.1223E-02	.1237E-02	.1249E-02	.1259E-02	.1270E-02	.1278E-02	.1281E-02	.1283E-02
PE 2	.8027E-03	.8213E-03	.8313E-03	.8324E-03	.8251E-03	.8140E-03	.7939E-03	.7664E-03	.7335E-03
PE 3	-.1372E-02	-.1395E-02	-.1411E-02	-.1420E-02	-.1423E-02	-.1424E-02	-.1417E-02	-.1403E-02	-.1384E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2579E-02	.2618E-02	.2649E-02	.2670E-02	.2681E-02	.2694E-02	.2694E-02	.2684E-02	.2667E-02
PSE 2	.4039E-03	.4019E-03	.4062E-03	.4169E-03	.4338E-03	.4562E-03	.4837E-03	.5151E-03	.5495E-03
PSE 3	.2175E-02	.2217E-02	.2243E-02	.2253E-02	.2248E-02	.2238E-02	.2211E-02	.2169E-02	.2118E-02



Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-b Average HBP

39.00 4.00  
40.00 4.00  
41.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
33.00 4.00  
34.00 4.00  
35.00 4.00  
36.00 4.00  
37.00 4.00  
38.00 4.00  
39.00 4.00  
40.00 4.00  
41.00 4.00

NORMAL STRESSES

SXX -.4283E+02 -.4406E+02 -.4283E+02 -.3900E+02 -.3235E+02 -.2237E+02 -.8434E+01 .1038E+02 .3517E+02  
 SYY .1609E+03 .1599E+03 .1609E+03 .1641E+03 .1694E+03 .1770E+03 .1871E+03 .2000E+03 .2158E+03  
 SZZ -.1624E+02 -.1605E+02 -.1624E+02 -.1681E+02 -.1778E+02 -.1918E+02 -.2104E+02 -.2340E+02 -.2631E+02

SHEAR STRESSES

SXY -.2980E-06 .7555E-06 .2170E-06 -.1033E-05 -.1588E-07 .6739E-07 -.5853E-06 -.8002E-06 -.7482E-06  
 SXZ -.1620E+01 .5062E-06 .1620E+01 .3238E+01 .4845E+01 .6432E+01 .7978E+01 .9453E+01 .1080E+02  
 SYZ .9638E-08 -.1486E-07 .2437E-07 -.5092E-07 -.5071E-07 -.2437E-07 .2706E-07 -.4225E-07 -.2125E-07

PRINCIPAL STRESSES

PS 1 .1609E+03 .1599E+03 .1609E+03 .1641E+03 .1694E+03 .1770E+03 .1871E+03 .2000E+03 .2158E+03  
 PS 2 -.1614E+02 -.1605E+02 -.1614E+02 -.1635E+02 -.1632E+02 -.1415E+02 -.4569E+01 .1284E+02 .3701E+02  
 PS 3 -.4293E+02 -.4406E+02 -.4293E+02 -.3946E+02 -.3382E+02 -.2740E+02 -.2490E+02 -.2586E+02 -.2815E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1019E+03	.1020E+03	.1019E+03	.1018E+03	.1016E+03	.1022E+03	.1060E+03	.1129E+03	.1220E+03
PSS 2	.8853E+02	.8797E+02	.8853E+02	.9021E+02	.9285E+02	.9558E+02	.9585E+02	.9357E+02	.8942E+02
PSS 3	.1340E+02	.1400E+02	.1340E+02	.1156E+02	.8749E+01	.6627E+01	.1017E+02	.1935E+02	.3258E+02

## DISPLACEMENTS

UX	.2351E-03	-.1136E-10	-.2351E-03	-.4654E-03	-.6859E-03	-.8904E-03	-.1072E-02	-.1221E-02	-.1326E-02
UY	-.6324E-13	-.1861E-10	.4941E-12	.9323E-11	.2878E-11	.1186E-10	.2279E-10	.5261E-11	-.3874E-11
UZ	.1600E+00	.1599E+00	.1600E+00	.1601E+00	.1603E+00	.1606E+00	.1609E+00	.1613E+00	.1617E+00

## NORMAL STRAINS

EXX	-.2337E-03	-.2360E-03	-.2337E-03	-.2264E-03	-.2135E-03	-.1940E-03	-.1664E-03	-.1286E-03	-.7792E-04
EYY	.4540E-03	.4523E-03	.4540E-03	.4590E-03	.4673E-03	.4789E-03	.4936E-03	.5113E-03	.5318E-03
EZZ	-.1439E-03	-.1415E-03	-.1439E-03	-.1515E-03	-.1644E-03	-.1833E-03	-.2090E-03	-.2426E-03	-.2854E-03

## SHEAR STRAINS

EXY	-.2012E-11	.5100E-11	.1465E-11	-.6973E-11	-.1072E-12	.4549E-12	-.3951E-11	-.5401E-11	-.5050E-11
EXZ	-.1094E-04	.3417E-11	.1094E-04	.2186E-04	.3270E-04	.4342E-04	.5385E-04	.6381E-04	.7287E-04
EYZ	.6506E-13	-.1003E-12	.1645E-12	-.3437E-12	-.3423E-12	-.1645E-12	.1826E-12	-.2852E-12	-.1435E-12

## PRINCIPAL STRAINS

PE 1	.4540E-03	.4523E-03	.4540E-03	.4590E-03	.4673E-03	.4789E-03	.4936E-03	.5113E-03	.5318E-03
PE 2	-.1436E-03	-.1415E-03	-.1436E-03	-.1499E-03	-.1594E-03	-.1663E-03	-.1534E-03	-.1202E-03	-.7171E-04
PE 3	-.2340E-03	-.2360E-03	-.2340E-03	-.2279E-03	-.2185E-03	-.2110E-03	-.2220E-03	-.2509E-03	-.2916E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.6880E-03	.6883E-03	.6880E-03	.6869E-03	.6858E-03	.6899E-03	.7156E-03	.7622E-03	.8235E-03
PSE 2	.5976E-03	.5938E-03	.5976E-03	.6089E-03	.6268E-03	.6452E-03	.6470E-03	.6316E-03	.6036E-03
PSE 3	.9043E-04	.9453E-04	.9043E-04	.7801E-04	.5905E-04	.4473E-04	.6863E-04	.1306E-03	.2199E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.2329E+02	.2318E+02	.2329E+02	.2362E+02	.2415E+02	.2488E+02	.2579E+02	.2685E+02	.2802E+02
SYX	.4152E+02	.4147E+02	.4152E+02	.4165E+02	.4187E+02	.4217E+02	.4254E+02	.4296E+02	.4342E+02
SZZ	-.1337E+02	-.1336E+02	-.1337E+02	-.1341E+02	-.1348E+02	-.1357E+02	-.1369E+02	-.1381E+02	-.1395E+02

SHEAR STRESSES

SXY	-.1852E-07	.5873E-07	-.1578E-07	-.2973E-07	.5983E-07	.4215E-07	.3045E-07	-.3506E-07	-.2104E-07
SXZ	-.4666E-01	-.6961E-08	.4666E-01	.8893E-01	.1225E+00	.1432E+00	.1470E+00	.1304E+00	.9005E-01
SYZ	-.8888E-08	-.1623E-08	.9909E-08	-.2333E-09	-.3760E-08	-.3088E-08	-.5180E-08	.6262E-08	-.1577E-07

PRINCIPAL STRESSES

PS 1	.4152E+02	.4147E+02	.4152E+02	.4165E+02	.4187E+02	.4217E+02	.4254E+02	.4296E+02	.4342E+02
PS 2	.2329E+02	.2318E+02	.2329E+02	.2362E+02	.2415E+02	.2488E+02	.2579E+02	.2685E+02	.2802E+02
PS 3	-.1337E+02	-.1336E+02	-.1337E+02	-.1341E+02	-.1348E+02	-.1358E+02	-.1369E+02	-.1381E+02	-.1395E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.2744E+02	.2742E+02	.2744E+02	.2753E+02	.2768E+02	.2787E+02	.2811E+02	.2839E+02	.2869E+02
PSS 2	.9113E+01	.9145E+01	.9113E+01	.9017E+01	.8859E+01	.8643E+01	.8374E+01	.8057E+01	.7702E+01
PSS 3	.1833E+02	.1827E+02	.1833E+02	.1852E+02	.1882E+02	.1923E+02	.1974E+02	.2033E+02	.2098E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.4453E-03	.3639E-09	.4453E-03	.8968E-03	.1360E-02	.1842E-02	.2347E-02	.2880E-02	.3448E-02
UY	.9278E-11	-.6998E-11	-.1124E-10	.2855E-10	.1013E-11	.2228E-10	-.1144E-11	-.2941E-11	-.3233E-11
UZ	.1501E+00	.1501E+00	.1501E+00	.1501E+00	.1500E+00	.1500E+00	.1499E+00	.1498E+00	.1496E+00

## NORMAL STRAINS

EXX	.4480E-03	.4447E-03	.4480E-03	.4578E-03	.4738E-03	.4958E-03	.5230E-03	.5548E-03	.5901E-03
EYY	.1268E-02	.1268E-02	.1268E-02	.1269E-02	.1271E-02	.1274E-02	.1277E-02	.1280E-02	.1283E-02
EZZ	-.1202E-02	-.1200E-02	-.1202E-02	-.1209E-02	-.1220E-02	-.1235E-02	-.1253E-02	-.1275E-02	-.1298E-02

## SHEAR STRAINS

EXY	-.1667E-11	.5286E-11	-.1420E-11	-.2676E-11	.5385E-11	.3794E-11	.2740E-11	-.3155E-11	-.1893E-11
EXZ	-.4200E-05	-.6264E-12	.4200E-05	.8004E-05	.1102E-04	.1289E-04	.1323E-04	.1173E-04	.8104E-05
EYZ	-.7999E-12	-.1461E-12	.8918E-12	-.2100E-13	-.3384E-12	-.2779E-12	-.4662E-12	.5635E-12	-.1419E-11

## PRINCIPAL STRAINS

PE 1	.1268E-02	.1268E-02	.1268E-02	.1269E-02	.1271E-02	.1274E-02	.1277E-02	.1280E-02	.1283E-02
PE 2	.4480E-03	.4447E-03	.4480E-03	.4578E-03	.4739E-03	.4958E-03	.5231E-03	.5548E-03	.5901E-03
PE 3	-.1202E-02	-.1200E-02	-.1202E-02	-.1209E-02	-.1220E-02	-.1235E-02	-.1253E-02	-.1275E-02	-.1298E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2470E-02	.2467E-02	.2470E-02	.2478E-02	.2491E-02	.2508E-02	.2530E-02	.2555E-02	.2582E-02
PSE 2	.8202E-03	.8231E-03	.8202E-03	.8115E-03	.7973E-03	.7779E-03	.7536E-03	.7252E-03	.6932E-03
PSE 3	.1650E-02	.1644E-02	.1650E-02	.1666E-02	.1694E-02	.1731E-02	.1776E-02	.1830E-02	.1888E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-b Average HBP

48.00      4.00  
49.00      4.00  
50.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
42.00      4.00  
43.00      4.00  
44.00      4.00  
45.00      4.00  
46.00      4.00  
47.00      4.00  
48.00      4.00  
49.00      4.00  
50.00      4.00

NORMAL STRESSES

SXX	.6693E+02	.1060E+03	.1515E+03	.2013E+03	.2530E+03	.3031E+03	.3481E+03	.3841E+03	.4081E+03
SYX	.2349E+03	.2573E+03	.2823E+03	.3088E+03	.3359E+03	.3617E+03	.3842E+03	.4015E+03	.4124E+03
SZZ	-.2980E+02	-.3385E+02	-.3835E+02	-.4313E+02	-.4795E+02	-.5251E+02	-.5650E+02	-.5962E+02	-.6162E+02

SHEAR STRESSES

SXY	.1011E-05	-.1510E-06	.5358E-06	.1151E-05	-.1089E-05	-.5751E-06	.4653E-06	.4706E-06	.4339E-06
SXZ	.1191E+02	.1265E+02	.1286E+02	.1241E+02	.1120E+02	.9207E+01	.6443E+01	.2977E+01	-.1038E+01
SYZ	.5685E-07	-.1021E-07	.2541E-06	-.2032E-07	-.1399E-06	.2972E-06	.2085E-06	-.1102E-06	.2633E-06

PRINCIPAL STRESSES

PS 1	.2349E+03	.2573E+03	.2823E+03	.3088E+03	.3359E+03	.3617E+03	.3842E+03	.4015E+03	.4124E+03
PS 2	.6837E+02	.1071E+03	.1524E+03	.2019E+03	.2534E+03	.3033E+03	.3482E+03	.3841E+03	.4081E+03
PS 3	-.3124E+02	-.3498E+02	-.3922E+02	-.4376E+02	-.4837E+02	-.5275E+02	-.5661E+02	-.5964E+02	-.6162E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1331E+03	.1461E+03	.1607E+03	.1763E+03	.1922E+03	.2072E+03	.2204E+03	.2306E+03	.2370E+03
PSS 2	.8328E+02	.7506E+02	.6495E+02	.5346E+02	.4128E+02	.2918E+02	.1799E+02	.8702E+01	.2193E+01
PSS 3	.4981E+02	.7106E+02	.9579E+02	.1228E+03	.1509E+03	.1780E+03	.2024E+03	.2219E+03	.2348E+03

## DISPLACEMENTS

UX	-.1374E-02	-.1347E-02	-.1231E-02	-.1012E-02	-.6875E-03	-.2535E-03	.2836E-03	.9095E-03	.1599E-02
UY	-.2317E-10	.4055E-10	-.5314E-11	-.5984E-11	-.1761E-10	-.2603E-10	.1460E-10	.1297E-10	.1087E-10
UZ	.1621E+00	.1625E+00	.1629E+00	.1633E+00	.1635E+00	.1636E+00	.1635E+00	.1632E+00	.1626E+00

## NORMAL STRAINS

EXX	-.1218E-04	.6950E-04	.1653E-03	.2708E-03	.3804E-03	.4871E-03	.5835E-03	.6611E-03	.7132E-03
EYY	.5549E-03	.5800E-03	.6066E-03	.6337E-03	.6605E-03	.6849E-03	.7053E-03	.7199E-03	.7280E-03
EZZ	-.3386E-03	-.4025E-03	-.4754E-03	-.5542E-03	-.6352E-03	-.7129E-03	-.7820E-03	-.8365E-03	-.8720E-03

## SHEAR STRAINS

EXY	.6824E-11	-.1019E-11	.3616E-11	.7772E-11	-.7350E-11	-.3882E-11	.3140E-11	.3176E-11	.2929E-11
EXZ	.8038E-04	.8538E-04	.8681E-04	.8375E-04	.7559E-04	.6215E-04	.4349E-04	.2009E-04	-.7004E-05
EYZ	.3838E-12	-.6892E-13	.1715E-11	-.1372E-12	-.9445E-12	.2006E-11	.1407E-11	-.7439E-12	.1778E-11

## PRINCIPAL STRAINS

PE 1	.5549E-03	.5800E-03	.6066E-03	.6337E-03	.6605E-03	.6849E-03	.7053E-03	.7199E-03	.7280E-03
PE 2	-.7305E-05	.7333E-04	.1682E-03	.2729E-03	.3818E-03	.4880E-03	.5839E-03	.6612E-03	.7132E-03
PE 3	-.3435E-03	-.4063E-03	-.4783E-03	-.5563E-03	-.6366E-03	-.7137E-03	-.7823E-03	-.8366E-03	-.8720E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.8984E-03	.9863E-03	.1085E-02	.1190E-02	.1297E-02	.1399E-02	.1488E-02	.1557E-02	.1600E-02
PSE 2	.5622E-03	.5067E-03	.4384E-03	.3608E-03	.2787E-03	.1970E-03	.1214E-03	.5874E-04	.1480E-04
PSE 3	.3362E-03	.4796E-03	.6466E-03	.8292E-03	.1018E-02	.1202E-02	.1366E-02	.1498E-02	.1585E-02

Z= 18.00 LAYER NO, 2



Appendix 6E-b Average HBP

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.2926E+02	.3050E+02	.3167E+02	.3268E+02	.3374E+02	.3461E+02	.3520E+02	.3545E+02	.3560E+02
SYX	.4390E+02	.4433E+02	.4468E+02	.4490E+02	.4519E+02	.4537E+02	.4536E+02	.4512E+02	.4491E+02
SZZ	-.1408E+02	-.1420E+02	-.1430E+02	-.1437E+02	-.1445E+02	-.1449E+02	-.1449E+02	-.1443E+02	-.1437E+02

SHEAR STRESSES

SXY	.2431E-07	.1890E-07	.3362E-07	.2406E-07	-.1970E-07	.6301E-08	-.1382E-07	-.1954E-07	-.1022E-07
SXZ	.2323E-01	-.7230E-01	-.1980E+00	-.3544E+00	-.5389E+00	-.7502E+00	-.9853E+00	-.1240E+01	-.1509E+01
SYZ	-.3285E-08	.5268E-09	-.9083E-09	.2076E-07	-.8369E-08	-.2704E-07	.1156E-07	.1425E-07	.5130E-08

PRINCIPAL STRESSES

PS 1	.4390E+02	.4433E+02	.4468E+02	.4490E+02	.4519E+02	.4537E+02	.4536E+02	.4512E+02	.4491E+02
PS 2	.2926E+02	.3050E+02	.3167E+02	.3269E+02	.3375E+02	.3462E+02	.3522E+02	.3548E+02	.3565E+02
PS 3	-.1408E+02	-.1420E+02	-.1430E+02	-.1438E+02	-.1446E+02	-.1451E+02	-.1451E+02	-.1446E+02	-.1441E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.2899E+02	.2927E+02	.2949E+02	.2964E+02	.2983E+02	.2994E+02	.2993E+02	.2979E+02	.2966E+02
PSS 2	.7318E+01	.6916E+01	.6507E+01	.6105E+01	.5723E+01	.5374E+01	.5069E+01	.4819E+01	.4632E+01
PSS 3	.2167E+02	.2235E+02	.2298E+02	.2353E+02	.2410E+02	.2456E+02	.2486E+02	.2497E+02	.2503E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.4053E-02	.4701E-02	.5392E-02	.6126E-02	.6876E-02	.7661E-02	.8477E-02	.9316E-02	.1014E-01
UY	.1179E-10	-.4355E-10	.1086E-10	-.2437E-10	.9800E-11	.1396E-10	.5866E-10	.4400E-11	.5544E-10
UZ	.1493E+00	.1490E+00	.1486E+00	.1483E+00	.1478E+00	.1472E+00	.1465E+00	.1459E+00	.1450E+00

## NORMAL STRAINS

EXX	.6274E-03	.6651E-03	.7011E-03	.7333E-03	.7661E-03	.7934E-03	.8131E-03	.8237E-03	.8304E-03
EYY	.1286E-02	.1288E-02	.1287E-02	.1283E-02	.1281E-02	.1278E-02	.1270E-02	.1259E-02	.1249E-02
EZZ	-.1323E-02	-.1346E-02	-.1367E-02	-.1384E-02	-.1403E-02	-.1416E-02	-.1423E-02	-.1421E-02	-.1418E-02

## SHEAR STRAINS

EXY	.2188E-11	.1701E-11	.3025E-11	.2166E-11	-.1773E-11	.5671E-12	-.1243E-11	-.1758E-11	-.9200E-12
EXZ	.2090E-05	-.6507E-05	-.1782E-04	-.3189E-04	-.4850E-04	-.6752E-04	-.8868E-04	-.1116E-03	-.1358E-03
EYZ	-.2956E-12	.4741E-13	-.8174E-13	.1869E-11	-.7532E-12	-.2434E-11	.1040E-11	.1283E-11	.4617E-12

## PRINCIPAL STRAINS

PE 1	.1286E-02	.1288E-02	.1287E-02	.1283E-02	.1281E-02	.1278E-02	.1270E-02	.1259E-02	.1249E-02
PE 2	.6274E-03	.6651E-03	.7012E-03	.7335E-03	.7664E-03	.7939E-03	.8140E-03	.8251E-03	.8324E-03
PE 3	-.1323E-02	-.1346E-02	-.1367E-02	-.1384E-02	-.1403E-02	-.1417E-02	-.1424E-02	-.1423E-02	-.1420E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2609E-02	.2634E-02	.2654E-02	.2667E-02	.2684E-02	.2694E-02	.2694E-02	.2681E-02	.2670E-02
PSE 2	.6586E-03	.6224E-03	.5856E-03	.5495E-03	.5151E-03	.4837E-03	.4562E-03	.4337E-03	.4169E-03
PSE 3	.1950E-02	.2012E-02	.2069E-02	.2118E-02	.2169E-02	.2211E-02	.2238E-02	.2248E-02	.2253E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-b Average HBP

57.00 4.00  
58.00 4.00  
59.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
51.00 4.00  
52.00 4.00  
53.00 4.00  
54.00 4.00  
55.00 4.00  
56.00 4.00  
57.00 4.00  
58.00 4.00  
59.00 4.00

NORMAL STRESSES

SXX .4168E+03 .4096E+03 .3871E+03 .3525E+03 .3088E+03 .2600E+03 .2096E+03 .1611E+03 .1166E+03  
 SYY .4153E+03 .4097E+03 .3960E+03 .3757E+03 .3502E+03 .3215E+03 .2912E+03 .2612E+03 .2326E+03  
 SZZ -.6224E+02 -.6144E+02 -.5926E+02 -.5594E+02 -.5174E+02 -.4696E+02 -.4190E+02 -.3686E+02 -.3205E+02

SHEAR STRESSES

SXY -.1061E-06 -.3819E-06 .4831E-06 -.3334E-06 .1060E-05 -.2813E-06 .4831E-06 .5815E-06 -.1039E-05  
 SXZ -.5363E+01 -.9713E+01 -.1379E+02 -.1735E+02 -.2026E+02 -.2244E+02 -.2387E+02 -.2458E+02 -.2468E+02  
 SYZ -.2309E-06 -.1902E-07 .0000E+00 -.1902E-07 .2459E-06 .1680E-06 -.1102E-06 -.1482E-06 -.1499E-06

PRINCIPAL STRESSES

PS 1 .4169E+03 .4098E+03 .3960E+03 .3757E+03 .3502E+03 .3215E+03 .2912E+03 .2612E+03 .2326E+03  
 PS 2 .4153E+03 .4097E+03 .3875E+03 .3532E+03 .3099E+03 .2616E+03 .2119E+03 .1641E+03 .1206E+03  
 PS 3 -.6230E+02 -.6164E+02 -.5968E+02 -.5668E+02 -.5287E+02 -.4859E+02 -.4415E+02 -.3987E+02 -.3604E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2396E+03	.2357E+03	.2278E+03	.2162E+03	.2016E+03	.1850E+03	.1677E+03	.1505E+03	.1343E+03
PSS 2	.7898E+00	.4976E-01	.4230E+01	.1126E+02	.2017E+02	.2992E+02	.3965E+02	.4857E+02	.5601E+02
PSS 3	.2388E+03	.2357E+03	.2236E+03	.2049E+03	.1814E+03	.1551E+03	.1280E+03	.1020E+03	.7832E+02

## DISPLACEMENTS

UX	.2325E-02	.3054E-02	.3753E-02	.4393E-02	.4951E-02	.5412E-02	.5769E-02	.6025E-02	.6185E-02
UY	-.2143E-10	.2045E-10	.0000E+00	.2045E-10	-.2143E-10	-.3569E-10	.1297E-10	-.5912E-13	-.1330E-10
UZ	.1616E+00	.1603E+00	.1587E+00	.1566E+00	.1545E+00	.1521E+00	.1496E+00	.1469E+00	.1441E+00

## NORMAL STRAINS

EXX	.7331E-03	.7192E-03	.6731E-03	.6014E-03	.5107E-03	.4098E-03	.3059E-03	.2064E-03	.1160E-03
EYY	.7280E-03	.7196E-03	.7031E-03	.6798E-03	.6507E-03	.6172E-03	.5812E-03	.5444E-03	.5076E-03
EZZ	-.8837E-03	-.8705E-03	-.8333E-03	-.7770E-03	-.7060E-03	-.6262E-03	-.5429E-03	-.4617E-03	-.3857E-03

## SHEAR STRAINS

EXY	-.7165E-12	-.2578E-11	.3261E-11	-.2250E-11	.7154E-11	-.1899E-11	.3261E-11	.3925E-11	-.7012E-11
EXZ	-.3620E-04	-.6556E-04	-.9309E-04	-.1171E-03	-.1368E-03	-.1514E-03	-.1611E-03	-.1659E-03	-.1666E-03
EYZ	-.1559E-11	-.1284E-12	.0000E+00	-.1284E-12	.1660E-11	.1134E-11	-.7439E-12	-.1001E-11	-.1012E-11

## PRINCIPAL STRAINS

PE 1	.7333E-03	.7199E-03	.7031E-03	.6798E-03	.6507E-03	.6172E-03	.5812E-03	.5444E-03	.5076E-03
PE 2	.7280E-03	.7196E-03	.6745E-03	.6038E-03	.5145E-03	.4153E-03	.3135E-03	.2165E-03	.1295E-03
PE 3	-.8839E-03	-.8711E-03	-.8347E-03	-.7795E-03	-.7098E-03	-.6317E-03	-.5505E-03	-.4718E-03	-.3992E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1617E-02	.1591E-02	.1538E-02	.1459E-02	.1360E-02	.1249E-02	.1132E-02	.1016E-02	.9067E-03
PSE 2	.5331E-05	.3359E-06	.2856E-04	.7600E-04	.1362E-03	.2019E-03	.2676E-03	.3279E-03	.3781E-03
PSE 3	.1612E-02	.1591E-02	.1509E-02	.1383E-02	.1224E-02	.1047E-02	.8640E-03	.6883E-03	.5287E-03

Z= 18.00 LAYER NO, 2

## Appendix 6E-b Average HBP

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

## NORMAL STRESSES

SXX	.3545E+02	.3500E+02	.3424E+02	.3336E+02	.3213E+02	.3059E+02	.2883E+02	.2707E+02	.2512E+02
SYX	.4454E+02	.4401E+02	.4333E+02	.4265E+02	.4175E+02	.4065E+02	.3940E+02	.3823E+02	.3689E+02
SZZ	-.1425E+02	-.1409E+02	-.1387E+02	-.1364E+02	-.1336E+02	-.1303E+02	-.1265E+02	-.1228E+02	-.1187E+02

## SHEAR STRESSES

SXY	.7712E-09	.6538E-08	.1954E-07	.1581E-07	.1413E-07	-.4679E-08	.1954E-07	.1382E-07	.1662E-07
SXZ	-.1785E+01	-.2062E+01	-.2335E+01	-.2599E+01	-.2845E+01	-.3070E+01	-.3270E+01	-.3445E+01	-.3591E+01
SYZ	.1197E-08	.2672E-07	.0000E+00	-.3086E-08	.1197E-08	-.1275E-07	-.1710E-08	-.3450E-08	.2278E-07

## PRINCIPAL STRESSES

PS 1	.4454E+02	.4401E+02	.4333E+02	.4265E+02	.4175E+02	.4065E+02	.3940E+02	.3823E+02	.3689E+02
PS 2	.3552E+02	.3508E+02	.3435E+02	.3350E+02	.3230E+02	.3081E+02	.2909E+02	.2737E+02	.2546E+02
PS 3	-.1432E+02	-.1417E+02	-.1398E+02	-.1378E+02	-.1354E+02	-.1325E+02	-.1291E+02	-.1258E+02	-.1222E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2943E+02	.2909E+02	.2865E+02	.2822E+02	.2764E+02	.2695E+02	.2616E+02	.2540E+02	.2455E+02
PSS 2	.4514E+01	.4466E+01	.4487E+01	.4575E+01	.4722E+01	.4920E+01	.5158E+01	.5426E+01	.5713E+01
PSS 3	.2492E+02	.2463E+02	.2417E+02	.2364E+02	.2292E+02	.2203E+02	.2100E+02	.1998E+02	.1884E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.1097E-01	.1180E-01	.1261E-01	.1341E-01	.1418E-01	.1491E-01	.1558E-01	.1622E-01	.1680E-01
UY	.3006E-11	.5612E-10	.0000E+00	.5612E-10	.3006E-11	.8870E-11	-.5586E-11	.4528E-12	.3318E-12
UZ	.1440E+00	.1429E+00	.1417E+00	.1403E+00	.1389E+00	.1374E+00	.1359E+00	.1341E+00	.1324E+00

## NORMAL STRAINS

EXX	.8284E-03	.8174E-03	.7976E-03	.7735E-03	.7397E-03	.6975E-03	.6489E-03	.5997E-03	.5453E-03
EYY	.1237E-02	.1223E-02	.1207E-02	.1192E-02	.1173E-02	.1150E-02	.1125E-02	.1102E-02	.1075E-02
EZZ	-.1408E-02	-.1391E-02	-.1367E-02	-.1342E-02	-.1307E-02	-.1265E-02	-.1218E-02	-.1171E-02	-.1119E-02

## SHEAR STRAINS

EXY	.6941E-13	.5884E-12	.1758E-11	.1423E-11	.1272E-11	-.4211E-12	.1758E-11	.1243E-11	.1496E-11
EXZ	-.1606E-03	-.1856E-03	-.2102E-03	-.2339E-03	-.2560E-03	-.2763E-03	-.2943E-03	-.3101E-03	-.3232E-03
EYZ	.1077E-12	.2404E-11	.0000E+00	-.2777E-12	.1077E-12	-.1148E-11	-.1539E-12	-.3105E-12	.2050E-11

## PRINCIPAL STRAINS

PE 1	.1237E-02	.1223E-02	.1207E-02	.1192E-02	.1173E-02	.1150E-02	.1125E-02	.1102E-02	.1075E-02
PE 2	.8313E-03	.8213E-03	.8027E-03	.7800E-03	.7477E-03	.7072E-03	.6605E-03	.6132E-03	.5609E-03
PE 3	-.1411E-02	-.1395E-02	-.1372E-02	-.1348E-02	-.1315E-02	-.1275E-02	-.1229E-02	-.1185E-02	-.1135E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2649E-02	.2618E-02	.2579E-02	.2540E-02	.2488E-02	.2425E-02	.2354E-02	.2286E-02	.2210E-02
PSE 2	.4062E-03	.4019E-03	.4039E-03	.4118E-03	.4250E-03	.4428E-03	.4642E-03	.4884E-03	.5141E-03
PSE 3	.2243E-02	.2217E-02	.2175E-02	.2128E-02	.2063E-02	.1982E-02	.1890E-02	.1798E-02	.1695E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4750.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.10 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00



Appendix 6E-b Average HBP

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1159E+03	.1162E+03	.1105E+03	.1011E+03	.9156E+02	.8550E+02	.8604E+02	.9564E+02	.1161E+03
SYX	.2010E+03	.2091E+03	.2153E+03	.2206E+03	.2263E+03	.2339E+03	.2445E+03	.2589E+03	.2778E+03
SZZ	-.2668E+02	-.2768E+02	-.2830E+02	-.2874E+02	-.2923E+02	-.3006E+02	-.3144E+02	-.3354E+02	-.3647E+02

SHEAR STRESSES

SXY	.1257E-06	-.1891E-07	-.7032E-07	-.3996E-06	-.1951E-06	.9038E-06	-.9420E-06	.1590E-05	.8464E-06
SXZ	.1599E+02	.1513E+02	.1449E+02	.1421E+02	.1435E+02	.1492E+02	.1579E+02	.1685E+02	.1792E+02
SYZ	-.7250E-07	.1502E-06	.7143E-07	.1116E-06	-.7364E-07	.3953E-07	.8137E-07	-.1312E-06	.1312E-06

PRINCIPAL STRESSES

PS 1	.2010E+03	.2091E+03	.2153E+03	.2206E+03	.2263E+03	.2339E+03	.2445E+03	.2589E+03	.2778E+03
PS 2	.1177E+03	.1178E+03	.1120E+03	.1027E+03	.9325E+02	.8739E+02	.8813E+02	.9780E+02	.1182E+03

## Appendix 6E-b Average HBP

PS 3    -.2845E+02   -.2926E+02   -.2980E+02   -.3027E+02   -.3092E+02   -.3196E+02   -.3353E+02   -.3570E+02   -.3855E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1147E+03    .1192E+03    .1226E+03    .1254E+03    .1286E+03    .1329E+03    .1390E+03    .1473E+03    .1582E+03  
PSS 2    .4165E+02    .4566E+02    .5167E+02    .5897E+02    .6655E+02    .7326E+02    .7819E+02    .8057E+02    .7984E+02  
PSS 3    .7307E+02    .7351E+02    .7089E+02    .6647E+02    .6208E+02    .5968E+02    .6083E+02    .6675E+02    .7835E+02

## DISPLACEMENTS

UX        -.4440E-02   -.4304E-02   -.4180E-02   -.4080E-02   -.4009E-02   -.3963E-02   -.3933E-02   -.3901E-02   -.3844E-02  
UY        .1450E-10   .2913E-10   .1386E-10   -.2539E-10   .1274E-10   .1722E-11   .1485E-10   -.2461E-10   .3611E-10  
UZ        .1139E+00   .1158E+00   .1173E+00   .1188E+00   .1203E+00   .1218E+00   .1234E+00   .1251E+00   .1266E+00

## NORMAL STRAINS

EXX        .1373E-03    .1318E-03    .1126E-03    .8495E-04    .5645E-04    .3538E-04    .2868E-04    .4187E-04    .7902E-04  
EYY        .4244E-03    .4453E-03    .4664E-03    .4882E-03    .5113E-03    .5363E-03    .5635E-03    .5930E-03    .6249E-03  
EZZ        -.3440E-03   -.3538E-03   -.3558E-03   -.3534E-03   -.3513E-03   -.3547E-03   -.3678E-03   -.3941E-03   -.4359E-03

## SHEAR STRAINS

EXY        .8484E-12   -.1276E-12   -.4747E-12   -.2697E-11   -.1317E-11    .6101E-11   -.6358E-11   .1074E-10   .5713E-11  
EXZ        .1079E-03   .1021E-03   .9780E-04   .9590E-04   .9689E-04   .1007E-03   .1066E-03   .1137E-03   .1209E-03  
EYZ        -.4894E-12   .1014E-11   .4822E-12   .7533E-12   -.4971E-12   .2668E-12   .5492E-12   -.8858E-12   .8855E-12

## PRINCIPAL STRAINS

PE 1        .4244E-03    .4453E-03    .4664E-03    .4882E-03    .5113E-03    .5363E-03    .5635E-03    .5930E-03    .6249E-03  
PE 2        .1433E-03    .1371E-03    .1176E-03    .9013E-04    .6212E-04    .4177E-04    .3572E-04    .4917E-04    .8602E-04  
PE 3        -.3500E-03   -.3591E-03   -.3609E-03   -.3586E-03   -.3569E-03   -.3610E-03   -.3749E-03   -.4014E-03   -.4429E-03

## PRINCIPAL SHEAR STRAINS

PSE 1        .7744E-03    .8044E-03    .8273E-03    .8467E-03    .8682E-03    .8973E-03    .9383E-03    .9944E-03    .1068E-02  
PSE 2        .2811E-03    .3082E-03    .3488E-03    .3981E-03    .4492E-03    .4945E-03    .5277E-03    .5439E-03    .5389E-03  
PSE 3        .4932E-03    .4962E-03    .4785E-03    .4487E-03    .4191E-03    .4028E-03    .4106E-03    .4506E-03    .5289E-03

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

## NORMAL STRESSES

SXX	.2213E+02	.2383E+02	.2565E+02	.2753E+02	.2941E+02	.3128E+02	.3311E+02	.3491E+02	.3665E+02
SYZ	.3196E+02	.3323E+02	.3459E+02	.3598E+02	.3735E+02	.3866E+02	.3990E+02	.4107E+02	.4217E+02
SZZ	-.1022E+02	-.1059E+02	-.1096E+02	-.1133E+02	-.1171E+02	-.1209E+02	-.1245E+02	-.1280E+02	-.1312E+02

## SHEAR STRESSES

SXY	-.7659E-09	-.1991E-07	-.6168E-08	.1866E-07	.2543E-08	-.1161E-07	-.1487E-07	.2674E-07	-.1961E-07
SXZ	.3053E+01	.2981E+01	.2895E+01	.2794E+01	.2678E+01	.2547E+01	.2397E+01	.2228E+01	.2036E+01
SYZ	.4472E-08	.2641E-08	.1992E-07	-.6224E-08	.4117E-08	-.1499E-08	-.1757E-07	.1991E-07	.1886E-07

## PRINCIPAL STRESSES

PS 1	.3196E+02	.3323E+02	.3459E+02	.3598E+02	.3735E+02	.3866E+02	.3990E+02	.4107E+02	.4217E+02
PS 2	.2242E+02	.2408E+02	.2587E+02	.2773E+02	.2959E+02	.3143E+02	.3324E+02	.3501E+02	.3673E+02
PS 3	-.1050E+02	-.1085E+02	-.1118E+02	-.1153E+02	-.1188E+02	-.1224E+02	-.1258E+02	-.1290E+02	-.1320E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2123E+02	.2204E+02	.2289E+02	.2376E+02	.2462E+02	.2545E+02	.2624E+02	.2699E+02	.2768E+02
PSS 2	.4774E+01	.4572E+01	.4357E+01	.4128E+01	.3881E+01	.3615E+01	.3331E+01	.3031E+01	.2718E+01
PSS 3	.1646E+02	.1747E+02	.1853E+02	.1963E+02	.2074E+02	.2183E+02	.2291E+02	.2396E+02	.2497E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.1189E-01	-.1139E-01	-.1083E-01	-.1022E-01	-.9556E-02	-.8844E-02	-.8085E-02	-.7279E-02	-.6423E-02
UY	-.1189E-10	.7744E-11	-.4642E-11	-.1540E-10	.2956E-10	.4478E-10	.7406E-11	.1894E-10	-.7326E-10
UZ	.1041E+00	.1055E+00	.1066E+00	.1076E+00	.1086E+00	.1097E+00	.1108E+00	.1117E+00	.1126E+00

## NORMAL STRAINS

EXX	.4840E-03	.5301E-03	.5792E-03	.6299E-03	.6813E-03	.7326E-03	.7835E-03	.8337E-03	.8827E-03
EYY	.9265E-03	.9532E-03	.9816E-03	.1010E-02	.1038E-02	.1065E-02	.1089E-02	.1111E-02	.1131E-02
EZZ	-.9717E-03	-.1019E-02	-.1068E-02	-.1119E-02	-.1169E-02	-.1219E-02	-.1267E-02	-.1313E-02	-.1357E-02

## SHEAR STRAINS

EXY	-.6893E-13	-.1792E-11	-.5551E-12	.1679E-11	.2288E-12	-.1045E-11	-.1338E-11	.2407E-11	-.1765E-11
EXZ	.2747E-03	.2683E-03	.2605E-03	.2515E-03	.2410E-03	.2292E-03	.2157E-03	.2005E-03	.1832E-03
EYZ	.4025E-12	.2377E-12	.1793E-11	-.5601E-12	.3705E-12	-.1349E-12	-.1581E-11	.1792E-11	.1698E-11

## PRINCIPAL STRAINS

PE 1	.9265E-03	.9532E-03	.9816E-03	.1010E-02	.1038E-02	.1065E-02	.1089E-02	.1111E-02	.1131E-02
PE 2	.4968E-03	.5417E-03	.5894E-03	.6389E-03	.6891E-03	.7394E-03	.7892E-03	.8384E-03	.8864E-03
PE 3	-.9846E-03	-.1030E-02	-.1078E-02	-.1128E-02	-.1177E-02	-.1226E-02	-.1273E-02	-.1318E-02	-.1361E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.1911E-02	.1983E-02	.2060E-02	.2138E-02	.2215E-02	.2290E-02	.2362E-02	.2429E-02	.2492E-02
PSE 2	.4297E-03	.4115E-03	.3922E-03	.3715E-03	.3492E-03	.3254E-03	.2998E-03	.2728E-03	.2447E-03
PSE 3	.1481E-02	.1572E-02	.1668E-02	.1766E-02	.1866E-02	.1965E-02	.2062E-02	.2156E-02	.2247E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4750.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.10 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-b Average HBP

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.1487E+03	.1939E+03	.2501E+03	.3135E+03	.3791E+03	.4403E+03	.4906E+03	.5235E+03	.5347E+03
SYX	.3015E+03	.3298E+03	.3619E+03	.3960E+03	.4298E+03	.4602E+03	.4842E+03	.4987E+03	.5024E+03
SZZ	-.4029E+02	-.4499E+02	-.5042E+02	-.5625E+02	-.6205E+02	-.6729E+02	-.7147E+02	-.7410E+02	-.7484E+02

SHEAR STRESSES

SXY	-.1030E-05	-.1167E-05	-.5255E-06	.7127E-06	-.1200E-05	-.2336E-06	-.5802E-06	.1400E-06	.8302E-06
SXZ	.1881E+02	.1927E+02	.1902E+02	.1779E+02	.1545E+02	.1196E+02	.7397E+01	.1980E+01	-.3929E+01
SYZ	.4477E-07	-.1715E-06	-.8527E-07	.3272E-06	.3051E-07	-.1871E-06	-.6381E-07	.3325E-06	.9619E-07

PRINCIPAL STRESSES

PS 1	.3015E+03	.3298E+03	.3619E+03	.3960E+03	.4298E+03	.4602E+03	.4907E+03	.5236E+03	.5347E+03
PS 2	.1506E+03	.1954E+03	.2513E+03	.3144E+03	.3797E+03	.4406E+03	.4842E+03	.4987E+03	.5024E+03

## Appendix 6E-b Average HBP

PS 3    -.4215E+02   -.4654E+02   -.5162E+02   -.5711E+02   -.6259E+02   -.6757E+02   -.7156E+02   -.7411E+02   -.7487E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1718E+03    .1882E+03    .2068E+03    .2265E+03    .2462E+03    .2639E+03    .2811E+03    .2988E+03    .3048E+03  
PSS 2    .7547E+02    .6720E+02    .5532E+02    .4078E+02    .2506E+02    .9803E+01    .3276E+01    .1243E+02    .1615E+02  
PSS 3    .9636E+02    .1210E+03    .1515E+03    .1858E+03    .2211E+03    .2541E+03    .2779E+03    .2864E+03    .2887E+03

## DISPLACEMENTS

UX        -.3736E-02   -.3549E-02   -.3255E-02   -.2834E-02   -.2276E-02   -.1581E-02   -.7650E-03   .1437E-03   .1100E-02  
UY        .3569E-10    .7946E-11    .1427E-10   -.9777E-11    .3483E-10    .1089E-09   -.4916E-10   .9733E-10   -.2954E-10  
UZ        .1282E+00    .1298E+00    .1314E+00    .1333E+00    .1347E+00    .1359E+00    .1367E+00    .1375E+00    .1373E+00

## NORMAL STRAINS

EXX        .1432E-03    .2355E-03    .3527E-03    .4866E-03    .6260E-03    .7570E-03    .8654E-03    .9374E-03    .9627E-03  
EYY        .6589E-03    .6943E-03    .7301E-03    .7648E-03    .7970E-03    .8241E-03    .8436E-03    .8535E-03    .8537E-03  
EZZ        -.4947E-03   -.5708E-03   -.6616E-03   -.7615E-03   -.8629E-03   -.9562E-03   -.1032E-02   -.1080E-02   -.1095E-02

## SHEAR STRAINS

EXY        -.6951E-11   -.7875E-11   -.3547E-11    .4811E-11   -.8097E-11   -.1577E-11   -.3917E-11    .9453E-12    .5604E-11  
EXZ        .1270E-03    .1301E-03    .1284E-03    .1201E-03    .1043E-03    .8071E-04    .4993E-04    .1336E-04   -.2652E-04  
EYZ        .3022E-12   -.1158E-11   -.5756E-12    .2209E-11    .2060E-12   -.1263E-11   -.4307E-12    .2244E-11    .6493E-12

## PRINCIPAL STRAINS

PE 1        .6589E-03    .6943E-03    .7301E-03    .7648E-03    .7970E-03    .8241E-03    .8658E-03    .9374E-03    .9627E-03  
PE 2        .1495E-03    .2407E-03    .3567E-03    .4895E-03    .6278E-03    .7579E-03    .8436E-03    .8535E-03    .8537E-03  
PE 3        -.5009E-03   -.5760E-03   -.6656E-03   -.7643E-03   -.8647E-03   -.9571E-03   -.1032E-02   -.1080E-02   -.1095E-02

## PRINCIPAL SHEAR STRAINS

PSE 1        .1160E-02    .1270E-02    .1396E-02    .1529E-02    .1662E-02    .1781E-02    .1898E-02    .2017E-02    .2057E-02  
PSE 2        .5094E-03    .4536E-03    .3734E-03    .2753E-03    .1692E-03    .6617E-04    .2211E-04    .8393E-04    .1090E-03  
PSE 3        .6504E-03    .8167E-03    .1022E-02    .1254E-02    .1493E-02    .1715E-02    .1876E-02    .1933E-02    .1948E-02

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.3828E+02	.3975E+02	.4096E+02	.4188E+02	.4268E+02	.4322E+02	.4343E+02	.4321E+02	.4290E+02
SYZ	.4315E+02	.4396E+02	.4455E+02	.4489E+02	.4520E+02	.4534E+02	.4528E+02	.4494E+02	.4465E+02
SZZ	-.1340E+02	-.1364E+02	-.1385E+02	-.1403E+02	-.1418E+02	-.1426E+02	-.1429E+02	-.1428E+02	-.1421E+02

## SHEAR STRESSES

SXY	-.2950E-09	-.1406E-07	-.1695E-07	.4072E-08	-.3621E-08	.6576E-08	-.8975E-08	.1296E-07	.2180E-08
SXZ	.1818E+01	.1574E+01	.1302E+01	.1003E+01	.6811E+00	.3391E+00	-.1988E-01	-.3906E+00	-.7637E+00
SYZ	.3103E-07	-.1502E-07	-.1347E-07	.1913E-07	.3912E-07	-.4622E-08	-.1521E-07	-.2100E-07	.1967E-07

## PRINCIPAL STRESSES

PS 1	.4315E+02	.4396E+02	.4455E+02	.4489E+02	.4520E+02	.4534E+02	.4528E+02	.4494E+02	.4465E+02
PS 2	.3835E+02	.3980E+02	.4099E+02	.4189E+02	.4269E+02	.4322E+02	.4343E+02	.4321E+02	.4291E+02
PS 3	-.1346E+02	-.1369E+02	-.1388E+02	-.1405E+02	-.1418E+02	-.1427E+02	-.1429E+02	-.1428E+02	-.1422E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2831E+02	.2883E+02	.2921E+02	.2947E+02	.2969E+02	.2981E+02	.2979E+02	.2961E+02	.2943E+02
PSS 2	.2400E+01	.2083E+01	.1778E+01	.1498E+01	.1255E+01	.1061E+01	.9265E+00	.8613E+00	.8709E+00
PSS 3	.2591E+02	.2674E+02	.2744E+02	.2797E+02	.2844E+02	.2874E+02	.2886E+02	.2875E+02	.2856E+02



## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.5515E-02	-.4553E-02	-.3541E-02	-.2492E-02	-.1425E-02	-.3332E-03	.7765E-03	.1890E-02	.2983E-02
UY	.4158E-10	.3278E-11	.2243E-10	-.3224E-10	.1141E-10	-.3790E-10	-.2948E-10	-.7729E-11	.1041E-11
UZ	.1133E+00	.1140E+00	.1148E+00	.1158E+00	.1164E+00	.1169E+00	.1172E+00	.1177E+00	.1175E+00

## NORMAL STRAINS

EXX	.9291E-03	.9713E-03	.1007E-02	.1036E-02	.1061E-02	.1078E-02	.1086E-02	.1083E-02	.1075E-02
EYY	.1148E-02	.1161E-02	.1169E-02	.1171E-02	.1174E-02	.1174E-02	.1169E-02	.1160E-02	.1154E-02
EZZ	-.1397E-02	-.1431E-02	-.1459E-02	-.1480E-02	-.1498E-02	-.1509E-02	-.1511E-02	-.1504E-02	-.1495E-02

## SHEAR STRAINS

EXY	-.2655E-13	-.1265E-11	-.1526E-11	.3664E-12	-.3259E-12	.5919E-12	-.8078E-12	.1166E-11	.1962E-12
EXZ	.1637E-03	.1417E-03	.1172E-03	.9023E-04	.6130E-04	.3052E-04	-.1789E-05	-.3515E-04	-.6873E-04
EYZ	.2792E-11	-.1352E-11	-.1213E-11	.1722E-11	.3521E-11	-.4159E-12	-.1369E-11	-.1890E-11	.1771E-11

## PRINCIPAL STRAINS

PE 1	.1148E-02	.1161E-02	.1169E-02	.1171E-02	.1174E-02	.1174E-02	.1169E-02	.1160E-02	.1154E-02
PE 2	.9320E-03	.9734E-03	.1009E-02	.1037E-02	.1061E-02	.1078E-02	.1086E-02	.1083E-02	.1075E-02
PE 3	-.1400E-02	-.1433E-02	-.1461E-02	-.1481E-02	-.1498E-02	-.1509E-02	-.1511E-02	-.1504E-02	-.1495E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2548E-02	.2594E-02	.2629E-02	.2652E-02	.2672E-02	.2682E-02	.2681E-02	.2665E-02	.2649E-02
PSE 2	.2160E-03	.1874E-03	.1600E-03	.1348E-03	.1129E-03	.9545E-04	.8339E-04	.7751E-04	.7838E-04
PSE 3	.2332E-02	.2407E-02	.2469E-02	.2518E-02	.2560E-02	.2587E-02	.2597E-02	.2587E-02	.2571E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4750.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.10 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-b Average HBP

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Z= 6.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.5219E+03	.4872E+03
SYY	.4944E+03	.4755E+03
SZZ	-.7353E+02	-.7031E+02

## SHEAR STRESSES

SXY	-.2486E-06	.5802E-06
SXZ	-.9846E+01	-.1529E+02
SYZ	.5731E-06	-.2384E-06

## PRINCIPAL STRESSES

PS 1	.5221E+03	.4876E+03
PS 2	.4944E+03	.4755E+03
PS 3	-.7369E+02	-.7073E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2979E+03	.2792E+03
PSS 2	.1382E+02	.6033E+01
PSS 3	.2841E+03	.2731E+03

## DISPLACEMENTS

UX	.2056E-02	.2964E-02
UY	-.3226E-10	-.5821E-10
UZ	.1365E+00	.1349E+00

Appendix 6E-b Average HBP

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## NORMAL STRAINS

EXX	.9365E-03	.8634E-03
EYY	.8437E-03	.8241E-03
EZZ	-.1073E-02	-.1018E-02

## SHEAR STRAINS

EXY	-.1678E-11	.3917E-11
EXZ	-.6646E-04	-.1032E-03
EYZ	.3869E-11	-.1609E-11

## PRINCIPAL STRAINS

PE 1	.9370E-03	.8648E-03
PE 2	.8437E-03	.8241E-03
PE 3	-.1074E-02	-.1020E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2011E-02	.1884E-02
PSE 2	.9332E-04	.4072E-04
PSE 3	.1917E-02	.1844E-02

Z= 18.00 LAYER NO, 2

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.4238E+02	.4177E+02
SYY	.4432E+02	.4405E+02
SZZ	-.1409E+02	-.1392E+02

Appendix 6E-b Average HBP

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## SHEAR STRESSES

SXY -.1462E-07 -.2083E-07  
SXZ -.1134E+01 -.1495E+01  
SYZ .2955E-07 .0000E+00

## PRINCIPAL STRESSES

PS 1 .4432E+02 .4405E+02  
PS 2 .4240E+02 .4181E+02  
PS 3 -.1411E+02 -.1396E+02

## PRINCIPAL SHEAR STRESSES

PSS 1 .2921E+02 .2900E+02  
PSS 2 .9580E+00 .1121E+01  
PSS 3 .2826E+02 .2788E+02

## DISPLACEMENTS

UX .4066E-02 .5145E-02  
UY -.1016E-10 -.5821E-10  
UZ .1170E+00 .1158E+00

## NORMAL STRAINS

EXX .1060E-02 .1041E-02  
EYY .1147E-02 .1143E-02  
EZZ -.1481E-02 -.1465E-02

## SHEAR STRAINS

EXY -.1316E-11 -.1874E-11  
EXZ -.1020E-03 -.1346E-03  
EYZ .2660E-11 .0000E+00

## PRINCIPAL STRAINS

Appendix 6E-b Average HBP

PE 1 .1147E-02 .1143E-02  
 PE 2 .1061E-02 .1042E-02  
 PE 3 -.1482E-02 -.1467E-02

PRINCIPAL SHEAR STRAINS  
 PSE 1 .2629E-02 .2610E-02  
 PSE 2 .8622E-04 .1009E-03  
 PSE 3 .2543E-02 .2509E-02

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Appendix 6E-b Average HBP

Z= 6.00 18.00  
X-Y POINT(S)  
X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

NORMAL STRESSES

SXX	.4046E+03	.4273E+03	.4347E+03	.4258E+03	.4015E+03	.3646E+03	.3184E+03	.2668E+03	.2133E+03
SYX	.4159E+03	.4300E+03	.4359E+03	.4330E+03	.4218E+03	.4039E+03	.3806E+03	.3540E+03	.3258E+03
SZZ	-.6214E+02	-.6437E+02	-.6520E+02	-.6456E+02	-.6253E+02	-.5932E+02	-.5521E+02	-.5050E+02	-.4550E+02

SHEAR STRESSES

SXY	.4700E-06	.2055E-06	-.3439E-06	-.1231E-06	-.4833E-06	-.6374E-06	.8680E-06	-.1755E-06	-.4125E-06
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## Appendix 6E-b Average HBP

SXZ	.1438E+02	.1015E+02	.5666E+01	.1197E+01	-.2964E+01	-.6570E+01	-.9461E+01	-.1156E+02	-.1286E+02
SYZ	-.1458E-06	-.2707E-07	-.1334E-06	-.1086E-09	.3764E-08	-.1043E-07	-.1203E-06	-.3175E-07	-.1527E-06

## PRINCIPAL STRESSES

PS 1	.4159E+03	.4300E+03	.4359E+03	.4330E+03	.4218E+03	.4039E+03	.3806E+03	.3540E+03	.3258E+03
PS 2	.4050E+03	.4275E+03	.4348E+03	.4258E+03	.4015E+03	.3647E+03	.3186E+03	.2672E+03	.2139E+03
PS 3	-.6259E+02	-.6458E+02	-.6527E+02	-.6457E+02	-.6255E+02	-.5942E+02	-.5545E+02	-.5092E+02	-.4614E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2393E+03	.2473E+03	.2506E+03	.2488E+03	.2422E+03	.2316E+03	.2180E+03	.2024E+03	.1860E+03
PSS 2	.5444E+01	.1252E+01	.5401E+00	.3585E+01	.1015E+02	.1960E+02	.3101E+02	.4340E+02	.5593E+02
PSS 3	.2338E+03	.2461E+03	.2500E+03	.2452E+03	.2320E+03	.2120E+03	.1870E+03	.1590E+03	.1300E+03

## DISPLACEMENTS

UX	-.3940E-02	-.3212E-02	-.2454E-02	-.1699E-02	-.9806E-03	-.3277E-03	.2346E-03	.6912E-03	.1035E-02
UY	.1209E-10	-.1609E-10	-.6863E-11	-.4954E-11	-.3685E-11	-.8471E-12	-.9690E-11	-.8421E-11	-.4372E-10
UZ	.1673E+00	.1690E+00	.1704E+00	.1714E+00	.1721E+00	.1724E+00	.1725E+00	.1725E+00	.1723E+00

## NORMAL STRAINS

EXX	.7019E-03	.7483E-03	.7625E-03	.7422E-03	.6894E-03	.6099E-03	.5112E-03	.4013E-03	.2880E-03
EYY	.7402E-03	.7575E-03	.7664E-03	.7664E-03	.7580E-03	.7426E-03	.7213E-03	.6957E-03	.6677E-03
EZZ	-.8733E-03	-.9111E-03	-.9248E-03	-.9129E-03	-.8767E-03	-.8207E-03	-.7496E-03	-.6694E-03	-.5855E-03

## SHEAR STRAINS

EXY	.3173E-11	.1387E-11	-.2321E-11	-.8306E-12	-.3262E-11	-.4302E-11	.5859E-11	-.1185E-11	-.2784E-11
EXZ	.9707E-04	.6853E-04	.3825E-04	.8080E-05	-.2001E-04	-.4435E-04	-.6386E-04	-.7806E-04	-.8682E-04
EYZ	-.9839E-12	-.1827E-12	-.9004E-12	-.7329E-15	.2541E-13	-.7042E-13	-.8122E-12	-.2143E-12	-.1031E-11

## PRINCIPAL STRAINS

PE 1	.7402E-03	.7575E-03	.7664E-03	.7664E-03	.7580E-03	.7426E-03	.7213E-03	.6957E-03	.6677E-03
PE 2	.7034E-03	.7491E-03	.7627E-03	.7422E-03	.6894E-03	.6103E-03	.5120E-03	.4028E-03	.2901E-03
PE 3	-.8748E-03	-.9118E-03	-.9250E-03	-.9129E-03	-.8768E-03	-.8210E-03	-.7504E-03	-.6708E-03	-.5876E-03



Appendix 6E-b Average HBP

PRINCIPAL SHEAR STRAINS

PSE 1	.1615E-02	.1669E-02	.1691E-02	.1679E-02	.1635E-02	.1564E-02	.1472E-02	.1367E-02	.1255E-02
PSE 2	.3674E-04	.8449E-05	.3646E-05	.2420E-04	.6855E-04	.1323E-03	.2093E-03	.2930E-03	.3776E-03
PSE 3	.1578E-02	.1661E-02	.1688E-02	.1655E-02	.1566E-02	.1431E-02	.1262E-02	.1074E-02	.8778E-03

Z= 18.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.3612E+02	.3692E+02	.3740E+02	.3756E+02	.3741E+02	.3710E+02	.3649E+02	.3559E+02	.3448E+02
SYX	.4571E+02	.4644E+02	.4700E+02	.4739E+02	.4761E+02	.4782E+02	.4783E+02	.4766E+02	.4735E+02
SZZ	-.1463E+02	-.1486E+02	-.1504E+02	-.1516E+02	-.1523E+02	-.1528E+02	-.1529E+02	-.1525E+02	-.1516E+02

SHEAR STRESSES

SXY	-.9837E-08	-.4139E-08	-.2160E-07	-.6437E-08	-.3717E-08	-.2176E-07	.1120E-07	.2991E-08	.1987E-07
SXZ	.2461E+01	.2175E+01	.1883E+01	.1594E+01	.1313E+01	.1045E+01	.7983E+00	.5763E+00	.3822E+00
SYZ	-.2285E-08	.1268E-07	-.2652E-08	.3883E-08	-.9207E-09	.4168E-08	-.2807E-08	.1015E-07	-.2021E-09

PRINCIPAL STRESSES

PS 1	.4571E+02	.4644E+02	.4700E+02	.4739E+02	.4761E+02	.4782E+02	.4783E+02	.4766E+02	.4735E+02
PS 2	.3624E+02	.3701E+02	.3747E+02	.3761E+02	.3744E+02	.3712E+02	.3650E+02	.3560E+02	.3449E+02

## Appendix 6E-b Average HBP

PS 3    -.1475E+02   -.1495E+02   -.1510E+02   -.1521E+02   -.1526E+02   -.1530E+02   -.1530E+02   -.1525E+02   -.1516E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .3023E+02    .3070E+02    .3105E+02    .3130E+02    .3143E+02    .3156E+02    .3156E+02    .3145E+02    .3125E+02  
PSS 2    .4736E+01    .4714E+01    .4765E+01    .4889E+01    .5085E+01    .5346E+01    .5664E+01    .6029E+01    .6429E+01  
PSS 3    .2550E+02    .2598E+02    .2629E+02    .2641E+02    .2635E+02    .2621E+02    .2590E+02    .2542E+02    .2483E+02

## DISPLACEMENTS

UX       -.1330E-01   -.1245E-01   -.1158E-01   -.1070E-01   -.9830E-02   -.8951E-02   -.8090E-02   -.7262E-02   -.6471E-02  
UY       -.7288E-10   .2106E-11   -.7954E-11   -.4490E-10   -.1009E-10   -.5745E-10   .4006E-11   .1219E-10   .4593E-10  
UZ       .1495E+00   .1507E+00   .1519E+00   .1529E+00   .1538E+00   .1545E+00   .1552E+00   .1559E+00   .1565E+00

## NORMAL STRAINS

EXX       .8414E-03    .8623E-03    .8738E-03    .8760E-03    .8691E-03    .8571E-03    .8366E-03    .8083E-03    .7740E-03  
EYY       .1273E-02    .1291E-02    .1306E-02    .1318E-02    .1328E-02    .1339E-02    .1347E-02    .1351E-02    .1353E-02  
EZZ       -.1442E-02   -.1468E-02   -.1486E-02   -.1496E-02   -.1499E-02   -.1500E-02   -.1493E-02   -.1479E-02   -.1460E-02

## SHEAR STRAINS

EXY       -.8854E-12   -.3725E-12   -.1944E-11   -.5793E-12   -.3345E-12   -.1959E-11   .1008E-11   .2692E-12   .1788E-11  
EXZ       .2215E-03    .1957E-03    .1695E-03    .1435E-03    .1181E-03    .9407E-04    .7185E-04    .5187E-04    .3440E-04  
EYZ       -.2057E-12   .1141E-11   -.2387E-12   .3494E-12   -.8286E-13   .3751E-12   -.2526E-12   .9138E-12   -.1819E-13

## PRINCIPAL STRAINS

PE 1       .1273E-02    .1291E-02    .1306E-02    .1318E-02    .1328E-02    .1339E-02    .1347E-02    .1351E-02    .1353E-02  
PE 2       .8468E-03    .8664E-03    .8769E-03    .8782E-03    .8706E-03    .8581E-03    .8372E-03    .8085E-03    .7741E-03  
PE 3       -.1448E-02   -.1472E-02   -.1489E-02   -.1498E-02   -.1501E-02   -.1501E-02   -.1494E-02   -.1480E-02   -.1460E-02

## PRINCIPAL SHEAR STRAINS

PSE 1       .2721E-02    .2763E-02    .2795E-02    .2817E-02    .2829E-02    .2840E-02    .2841E-02    .2831E-02    .2813E-02  
PSE 2       .4262E-03    .4243E-03    .4288E-03    .4400E-03    .4576E-03    .4811E-03    .5098E-03    .5426E-03    .5786E-03  
PSE 3       .2295E-02    .2338E-02    .2366E-02    .2377E-02    .2371E-02    .2359E-02    .2331E-02    .2288E-02    .2234E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-b Average HBP

31.00      4.00  
32.00      4.00

Z= 6.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.1614E+03	.1137E+03	.7252E+02	.3879E+02	.1236E+02	-.7735E+01	-.2262E+02	-.3327E+02	-.4038E+02
SYX	.2980E+03	.2717E+03	.2482E+03	.2280E+03	.2112E+03	.1976E+03	.1869E+03	.1789E+03	.1732E+03
SZZ	-.4052E+02	-.3580E+02	-.3154E+02	-.2786E+02	-.2478E+02	-.2228E+02	-.2032E+02	-.1884E+02	-.1781E+02

SHEAR STRESSES

SXY	-.5752E-06	-.6008E-06	.2621E-06	.4173E-06	-.6698E-08	-.2447E-06	.3416E-06	.9281E-07	-.5663E-06
SXZ	-.1338E+02	-.1321E+02	-.1247E+02	-.1133E+02	-.9930E+01	-.8388E+01	-.6766E+01	-.5098E+01	-.3407E+01
SYZ	.2868E-06	.1701E-06	.7520E-07	-.5234E-07	.8449E-07	.7453E-07	.1189E-08	-.4919E-07	-.8660E-07

PRINCIPAL STRESSES

PS 1	.2980E+03	.2717E+03	.2482E+03	.2280E+03	.2112E+03	.1976E+03	.1869E+03	.1789E+03	.1732E+03
PS 2	.1623E+03	.1149E+03	.7399E+02	.4066E+02	.1485E+02	-.3907E+01	-.1461E+02	-.1722E+02	-.1731E+02
PS 3	-.4140E+02	-.3696E+02	-.3301E+02	-.2973E+02	-.2727E+02	-.2611E+02	-.2833E+02	-.3489E+02	-.4089E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1697E+03	.1543E+03	.1406E+03	.1289E+03	.1192E+03	.1119E+03	.1076E+03	.1069E+03	.1071E+03
PSS 2	.6784E+02	.7842E+02	.8711E+02	.9367E+02	.9818E+02	.1008E+03	.1008E+03	.9804E+02	.9527E+02
PSS 3	.1019E+03	.7593E+02	.5350E+02	.3519E+02	.2106E+02	.1110E+02	.6863E+01	.8835E+01	.1179E+02

## DISPLACEMENTS

UX	.1268E-02	.1395E-02	.1428E-02	.1382E-02	.1275E-02	.1120E-02	.9317E-03	.7182E-03	.4875E-03
UY	.2130E-11	.2802E-10	-.7123E-11	.8210E-11	.2850E-10	.1437E-10	-.2029E-10	-.2382E-11	.8553E-11
UZ	.1718E+00	.1714E+00	.1710E+00	.1706E+00	.1702E+00	.1698E+00	.1695E+00	.1692E+00	.1690E+00

## NORMAL STRAINS

EXX	.1783E-03	.7793E-04	-.8291E-05	-.7816E-04	-.1322E-03	-.1728E-03	-.2023E-03	-.2232E-03	-.2370E-03
EYY	.6392E-03	.6111E-03	.5847E-03	.5604E-03	.5389E-03	.5203E-03	.5049E-03	.4927E-03	.4840E-03
EZZ	-.5033E-03	-.4268E-03	-.3595E-03	-.3031E-03	-.2576E-03	-.2219E-03	-.1946E-03	-.1745E-03	-.1608E-03

## SHEAR STRAINS

EXY	-.3883E-11	-.4056E-11	.1769E-11	.2816E-11	-.4521E-13	-.1652E-11	.2306E-11	.6265E-12	-.3822E-11
EXZ	-.9033E-04	-.8914E-04	-.8416E-04	-.7645E-04	-.6703E-04	-.5662E-04	-.4567E-04	-.3441E-04	-.2300E-04
EYZ	.1936E-11	.1148E-11	.5076E-12	-.3533E-12	.5703E-12	.5031E-12	.8027E-14	-.3320E-12	-.5846E-12

## PRINCIPAL STRAINS

PE 1	.6392E-03	.6111E-03	.5847E-03	.5604E-03	.5389E-03	.5203E-03	.5049E-03	.4927E-03	.4840E-03
PE 2	.1812E-03	.8183E-04	-.3320E-05	-.7184E-04	-.1238E-03	-.1598E-03	-.1753E-03	-.1690E-03	-.1591E-03
PE 3	-.5063E-03	-.4307E-03	-.3645E-03	-.3094E-03	-.2660E-03	-.2348E-03	-.2216E-03	-.2286E-03	-.2387E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1145E-02	.1042E-02	.9491E-03	.8699E-03	.8049E-03	.7551E-03	.7265E-03	.7214E-03	.7226E-03
PSE 2	.4579E-03	.5293E-03	.5880E-03	.6323E-03	.6627E-03	.6801E-03	.6801E-03	.6617E-03	.6431E-03
PSE 3	.6875E-03	.5125E-03	.3611E-03	.2376E-03	.1421E-03	.7494E-04	.4633E-04	.5963E-04	.7959E-04

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.3339E+02	.3217E+02	.3087E+02	.2958E+02	.2835E+02	.2724E+02	.2629E+02	.2553E+02	.2497E+02
SYY	.4708E+02	.4672E+02	.4627E+02	.4578E+02	.4529E+02	.4485E+02	.4447E+02	.4416E+02	.4393E+02
SZZ	-.1508E+02	-.1497E+02	-.1485E+02	-.1471E+02	-.1457E+02	-.1444E+02	-.1432E+02	-.1423E+02	-.1416E+02

SHEAR STRESSES

SXY	.2542E-08	.1268E-07	-.3574E-07	.7977E-08	.5602E-07	.2581E-07	-.4302E-07	-.4299E-08	-.8629E-08
SXZ	.2177E+00	.8501E-01	-.1611E-01	-.8721E-01	-.1306E+00	-.1491E+00	-.1461E+00	-.1255E+00	-.9129E-01
SYZ	.2523E-08	-.3748E-08	.7880E-08	-.3084E-09	.3367E-08	-.8842E-08	.7712E-08	-.9319E-09	.1854E-08

PRINCIPAL STRESSES

PS 1	.4708E+02	.4672E+02	.4627E+02	.4578E+02	.4529E+02	.4485E+02	.4447E+02	.4416E+02	.4393E+02
PS 2	.3339E+02	.3217E+02	.3087E+02	.2958E+02	.2835E+02	.2724E+02	.2629E+02	.2553E+02	.2497E+02
PS 3	-.1508E+02	-.1497E+02	-.1485E+02	-.1471E+02	-.1457E+02	-.1444E+02	-.1432E+02	-.1423E+02	-.1416E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3108E+02	.3085E+02	.3056E+02	.3024E+02	.2993E+02	.2965E+02	.2940E+02	.2919E+02	.2904E+02
PSS 2	.6849E+01	.7277E+01	.7698E+01	.8101E+01	.8473E+01	.8805E+01	.9087E+01	.9314E+01	.9480E+01
PSS 3	.2423E+02	.2357E+02	.2286E+02	.2214E+02	.2146E+02	.2084E+02	.2031E+02	.1988E+02	.1956E+02

DISPLACEMENTS

## Appendix 6E-b Average HBP

UX	-.5702E-02	-.4972E-02	-.4288E-02	-.3649E-02	-.3049E-02	-.2485E-02	-.1951E-02	-.1441E-02	-.9501E-03
UY	-.4449E-10	-.3627E-11	-.1063E-10	-.2906E-10	.5855E-10	.1151E-11	-.1422E-11	-.1801E-10	.8193E-11
UZ	.1568E+00	.1572E+00	.1575E+00	.1578E+00	.1580E+00	.1582E+00	.1583E+00	.1583E+00	.1584E+00

## NORMAL STRAINS

EXX	.7394E-03	.7019E-03	.6625E-03	.6234E-03	.5865E-03	.5533E-03	.5247E-03	.5017E-03	.4849E-03
EYY	.1356E-02	.1357E-02	.1355E-02	.1352E-02	.1349E-02	.1346E-02	.1343E-02	.1340E-02	.1338E-02
EZZ	-.1441E-02	-.1420E-02	-.1395E-02	-.1370E-02	-.1345E-02	-.1322E-02	-.1303E-02	-.1287E-02	-.1276E-02

## SHEAR STRAINS

EXY	.2288E-12	.1141E-11	-.3216E-11	.7179E-12	.5042E-11	.2323E-11	-.3872E-11	-.3869E-12	-.7766E-12
EXZ	.1959E-04	.7651E-05	-.1450E-05	-.7849E-05	-.1175E-04	-.1342E-04	-.1315E-04	-.1129E-04	-.8216E-05
EYZ	.2270E-12	-.3373E-12	.7092E-12	-.2776E-13	.3031E-12	-.7958E-12	.6941E-12	-.8387E-13	.1669E-12

## PRINCIPAL STRAINS

PE 1	.1356E-02	.1357E-02	.1355E-02	.1352E-02	.1349E-02	.1346E-02	.1343E-02	.1340E-02	.1338E-02
PE 2	.7395E-03	.7019E-03	.6625E-03	.6234E-03	.5865E-03	.5533E-03	.5247E-03	.5017E-03	.4849E-03
PE 3	-.1441E-02	-.1420E-02	-.1395E-02	-.1370E-02	-.1345E-02	-.1322E-02	-.1303E-02	-.1287E-02	-.1276E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2797E-02	.2776E-02	.2750E-02	.2722E-02	.2694E-02	.2668E-02	.2646E-02	.2627E-02	.2614E-02
PSE 2	.6164E-03	.6549E-03	.6928E-03	.7291E-03	.7626E-03	.7924E-03	.8179E-03	.8383E-03	.8532E-03
PSE 3	.2181E-02	.2121E-02	.2057E-02	.1993E-02	.1931E-02	.1876E-02	.1828E-02	.1789E-02	.1761E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00



Appendix 6E-b Average HBP

39.00      4.00  
40.00      4.00  
41.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
33.00      4.00  
34.00      4.00  
35.00      4.00  
36.00      4.00  
37.00      4.00  
38.00      4.00  
39.00      4.00  
40.00      4.00  
41.00      4.00

NORMAL STRESSES

SXX    -.4446E+02   -.4578E+02   -.4446E+02   -.4038E+02   -.3327E+02   -.2262E+02   -.7735E+01   .1236E+02   .3879E+02  
SYY    .1699E+03   .1688E+03   .1699E+03   .1732E+03   .1789E+03   .1869E+03   .1976E+03   .2112E+03   .2280E+03  
SZZ    -.1720E+02   -.1700E+02   -.1720E+02   -.1781E+02   -.1884E+02   -.2032E+02   -.2228E+02   -.2478E+02   -.2786E+02

SHEAR STRESSES

SXY    -.1902E-06   .7190E-06   .1442E-06   .3966E-07   -.3291E-06   -.3086E-06   .9907E-07   .2012E-06   -.1727E-06  
SXZ    -.1704E+01   -.1097E-06   .1704E+01   .3407E+01   .5098E+01   .6766E+01   .8388E+01   .9930E+01   .1133E+02  
SYZ    .5972E-08   .4535E-08   .4051E-07   -.8765E-07   -.1933E-07   -.8516E-08   .3396E-07   -.1804E-06   -.7835E-07

PRINCIPAL STRESSES

PS 1    .1699E+03   .1688E+03   .1699E+03   .1732E+03   .1789E+03   .1869E+03   .1976E+03   .2112E+03   .2280E+03  
PS 2    -.1710E+02   -.1700E+02   -.1710E+02   -.1731E+02   -.1722E+02   -.1461E+02   -.3907E+01   .1485E+02   .4066E+02  
PS 3    -.4457E+02   -.4578E+02   -.4457E+02   -.4089E+02   -.3489E+02   -.2833E+02   -.2611E+02   -.2727E+02   -.2973E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1072E+03	.1073E+03	.1072E+03	.1071E+03	.1069E+03	.1076E+03	.1119E+03	.1192E+03	.1289E+03
PSS 2	.9351E+02	.9291E+02	.9351E+02	.9527E+02	.9804E+02	.1008E+03	.1008E+03	.9818E+02	.9367E+02
PSS 3	.1374E+02	.1439E+02	.1374E+02	.1179E+02	.8835E+01	.6863E+01	.1110E+02	.2106E+02	.3519E+02

## DISPLACEMENTS

UX	.2463E-03	-.1225E-10	-.2463E-03	-.4875E-03	-.7182E-03	-.9317E-03	-.1120E-02	-.1275E-02	-.1382E-02
UY	.1948E-10	-.1544E-10	-.9764E-11	.8354E-11	-.8214E-11	.1824E-10	.1337E-10	.4619E-11	.4552E-11
UZ	.1688E+00	.1688E+00	.1688E+00	.1690E+00	.1692E+00	.1695E+00	.1698E+00	.1702E+00	.1706E+00

## NORMAL STRAINS

EXX	-.2448E-03	-.2473E-03	-.2448E-03	-.2370E-03	-.2232E-03	-.2023E-03	-.1728E-03	-.1322E-03	-.7816E-04
EYY	.4787E-03	.4770E-03	.4787E-03	.4840E-03	.4927E-03	.5049E-03	.5203E-03	.5389E-03	.5604E-03
EZZ	-.1528E-03	-.1502E-03	-.1528E-03	-.1608E-03	-.1745E-03	-.1946E-03	-.2219E-03	-.2576E-03	-.3031E-03

## SHEAR STRAINS

EXY	-.1284E-11	.4853E-11	.9735E-12	.2677E-12	-.2222E-11	-.2083E-11	.6687E-12	.1358E-11	-.1166E-11
EXZ	-.1150E-04	-.7403E-12	.1150E-04	.2300E-04	.3441E-04	.4567E-04	.5662E-04	.6703E-04	.7645E-04
EYZ	.4031E-13	.3061E-13	.2734E-12	-.5916E-12	-.1305E-12	-.5748E-13	.2292E-12	-.1218E-11	-.5288E-12

## PRINCIPAL STRAINS

PE 1	.4787E-03	.4770E-03	.4787E-03	.4840E-03	.4927E-03	.5049E-03	.5203E-03	.5389E-03	.5604E-03
PE 2	-.1524E-03	-.1502E-03	-.1524E-03	-.1591E-03	-.1690E-03	-.1753E-03	-.1598E-03	-.1238E-03	-.7184E-04
PE 3	-.2451E-03	-.2473E-03	-.2451E-03	-.2387E-03	-.2286E-03	-.2216E-03	-.2348E-03	-.2660E-03	-.3094E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.7239E-03	.7243E-03	.7239E-03	.7226E-03	.7214E-03	.7265E-03	.7551E-03	.8049E-03	.8699E-03
PSE 2	.6312E-03	.6272E-03	.6312E-03	.6431E-03	.6617E-03	.6801E-03	.6801E-03	.6627E-03	.6323E-03
PSE 3	.9271E-04	.9712E-04	.9271E-04	.7959E-04	.5963E-04	.4633E-04	.7494E-04	.1421E-03	.2376E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.2462E+02	.2451E+02	.2462E+02	.2497E+02	.2553E+02	.2629E+02	.2724E+02	.2835E+02	.2958E+02
SYX	.4379E+02	.4374E+02	.4379E+02	.4393E+02	.4416E+02	.4447E+02	.4485E+02	.4529E+02	.4578E+02
SZZ	-.1411E+02	-.1410E+02	-.1411E+02	-.1416E+02	-.1423E+02	-.1432E+02	-.1444E+02	-.1457E+02	-.1471E+02

SHEAR STRESSES

SXY	.2708E-07	.2188E-07	-.1350E-07	.1454E-08	-.1997E-07	-.6010E-07	.3619E-07	.3802E-07	.4112E-08
SXZ	-.4795E-01	.4092E-08	.4795E-01	.9129E-01	.1255E+00	.1461E+00	.1491E+00	.1306E+00	.8721E-01
SYZ	.5505E-08	-.5240E-08	.2502E-08	.6973E-08	-.2872E-08	-.2319E-07	-.8986E-08	-.3150E-08	-.4335E-08

PRINCIPAL STRESSES

PS 1	.4379E+02	.4374E+02	.4379E+02	.4393E+02	.4416E+02	.4447E+02	.4485E+02	.4529E+02	.4578E+02
PS 2	.2463E+02	.2451E+02	.2463E+02	.2497E+02	.2553E+02	.2629E+02	.2724E+02	.2835E+02	.2958E+02
PS 3	-.1411E+02	-.1410E+02	-.1411E+02	-.1416E+02	-.1423E+02	-.1432E+02	-.1444E+02	-.1457E+02	-.1471E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.2895E+02	.2892E+02	.2895E+02	.2904E+02	.2919E+02	.2940E+02	.2965E+02	.2993E+02	.3024E+02
PSS 2	.9581E+01	.9615E+01	.9581E+01	.9480E+01	.9314E+01	.9087E+01	.8805E+01	.8473E+01	.8101E+01
PSS 3	.1937E+02	.1930E+02	.1937E+02	.1956E+02	.1988E+02	.2031E+02	.2084E+02	.2146E+02	.2214E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.4718E-03	.3518E-09	.4718E-03	.9501E-03	.1441E-02	.1951E-02	.2485E-02	.3049E-02	.3649E-02
UY	.9586E-11	.1663E-10	-.1544E-10	-.8609E-11	-.1710E-10	-.7182E-12	-.8412E-11	-.4076E-10	-.9400E-13
UZ	.1584E+00	.1584E+00	.1584E+00	.1584E+00	.1583E+00	.1583E+00	.1582E+00	.1580E+00	.1578E+00

## NORMAL STRAINS

EXX	.4746E-03	.4712E-03	.4746E-03	.4849E-03	.5017E-03	.5247E-03	.5533E-03	.5865E-03	.6234E-03
EYY	.1337E-02	.1337E-02	.1337E-02	.1338E-02	.1340E-02	.1343E-02	.1346E-02	.1349E-02	.1352E-02
EZZ	-.1269E-02	-.1266E-02	-.1269E-02	-.1276E-02	-.1287E-02	-.1303E-02	-.1322E-02	-.1345E-02	-.1370E-02

## SHEAR STRAINS

EXY	.2437E-11	.1969E-11	-.1215E-11	.1309E-12	-.1798E-11	-.5409E-11	.3257E-11	.3422E-11	.3701E-12
EXZ	-.4316E-05	.3682E-12	.4316E-05	.8216E-05	.1129E-04	.1315E-04	.1342E-04	.1175E-04	.7849E-05
EYZ	.4954E-12	-.4716E-12	.2252E-12	.6276E-12	-.2585E-12	-.2087E-11	-.8087E-12	-.2835E-12	-.3901E-12

## PRINCIPAL STRAINS

PE 1	.1337E-02	.1337E-02	.1337E-02	.1338E-02	.1340E-02	.1343E-02	.1346E-02	.1349E-02	.1352E-02
PE 2	.4746E-03	.4712E-03	.4746E-03	.4849E-03	.5017E-03	.5247E-03	.5533E-03	.5865E-03	.6234E-03
PE 3	-.1269E-02	-.1266E-02	-.1269E-02	-.1276E-02	-.1287E-02	-.1303E-02	-.1322E-02	-.1345E-02	-.1370E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2606E-02	.2603E-02	.2606E-02	.2614E-02	.2627E-02	.2646E-02	.2668E-02	.2694E-02	.2722E-02
PSE 2	.8623E-03	.8653E-03	.8623E-03	.8532E-03	.8383E-03	.8179E-03	.7924E-03	.7626E-03	.7291E-03
PSE 3	.1743E-02	.1737E-02	.1743E-02	.1761E-02	.1789E-02	.1828E-02	.1876E-02	.1931E-02	.1993E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-b Average HBP

48.00      4.00  
49.00      4.00  
50.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
42.00      4.00  
43.00      4.00  
44.00      4.00  
45.00      4.00  
46.00      4.00  
47.00      4.00  
48.00      4.00  
49.00      4.00  
50.00      4.00

NORMAL STRESSES

SXX    .7252E+02   .1137E+03   .1614E+03   .2133E+03   .2668E+03   .3184E+03   .3646E+03   .4015E+03   .4258E+03  
SYY    .2482E+03   .2717E+03   .2980E+03   .3258E+03   .3540E+03   .3806E+03   .4039E+03   .4218E+03   .4330E+03  
SZZ    -.3154E+02   -.3580E+02   -.4052E+02   -.4550E+02   -.5050E+02   -.5521E+02   -.5932E+02   -.6253E+02   -.6456E+02

SHEAR STRESSES

SXY    -.2382E-06   .9435E-06   .1857E-06   -.3606E-06   -.4443E-06   .5861E-06   .3782E-06   .4732E-06   .2056E-06  
SXZ    .1247E+02   .1321E+02   .1338E+02   .1286E+02   .1156E+02   .9461E+01   .6570E+01   .2964E+01   -.1197E+01  
SYZ    .1128E-06   -.1734E-06   -.1269E-06   -.6152E-07   -.1825E-06   -.8026E-07   -.1977E-06   -.1444E-06   -.1158E-06

PRINCIPAL STRESSES

PS 1    .2482E+03   .2717E+03   .2980E+03   .3258E+03   .3540E+03   .3806E+03   .4039E+03   .4218E+03   .4330E+03  
PS 2    .7399E+02   .1149E+03   .1623E+03   .2139E+03   .2672E+03   .3186E+03   .3647E+03   .4015E+03   .4258E+03  
PS 3    -.3301E+02   -.3696E+02   -.4140E+02   -.4614E+02   -.5092E+02   -.5545E+02   -.5942E+02   -.6255E+02   -.6457E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1406E+03	.1543E+03	.1697E+03	.1860E+03	.2024E+03	.2180E+03	.2316E+03	.2422E+03	.2488E+03
PSS 2	.8711E+02	.7842E+02	.6784E+02	.5593E+02	.4340E+02	.3101E+02	.1960E+02	.1016E+02	.3585E+01
PSS 3	.5350E+02	.7593E+02	.1019E+03	.1300E+03	.1590E+03	.1870E+03	.2120E+03	.2320E+03	.2452E+03

## DISPLACEMENTS

UX	-.1428E-02	-.1395E-02	-.1268E-02	-.1035E-02	-.6912E-03	-.2346E-03	.3277E-03	.9806E-03	.1699E-02
UY	-.1938E-10	-.4416E-10	.1594E-10	.1648E-10	-.6170E-11	-.2514E-10	.3197E-11	.1326E-10	-.1291E-10
UZ	.1710E+00	.1714E+00	.1718E+00	.1723E+00	.1725E+00	.1725E+00	.1724E+00	.1721E+00	.1714E+00

## NORMAL STRAINS

EXX	-.8292E-05	.7793E-04	.1783E-03	.2880E-03	.4013E-03	.5112E-03	.6099E-03	.6894E-03	.7422E-03
EYY	.5847E-03	.6111E-03	.6392E-03	.6677E-03	.6957E-03	.7213E-03	.7426E-03	.7580E-03	.7664E-03
EZZ	-.3595E-03	-.4268E-03	-.5033E-03	-.5855E-03	-.6694E-03	-.7496E-03	-.8207E-03	-.8767E-03	-.9129E-03

## SHEAR STRAINS

EXY	-.1608E-11	.6369E-11	.1254E-11	-.2434E-11	-.2999E-11	.3956E-11	.2553E-11	.3194E-11	.1388E-11
EXZ	.8416E-04	.8914E-04	.9033E-04	.8682E-04	.7806E-04	.6386E-04	.4435E-04	.2001E-04	-.8080E-05
EYZ	.7617E-12	-.1171E-11	-.8568E-12	-.4153E-12	-.1232E-11	-.5418E-12	-.1334E-11	-.9744E-12	-.7818E-12

## PRINCIPAL STRAINS

PE 1	.5847E-03	.6111E-03	.6392E-03	.6677E-03	.6957E-03	.7213E-03	.7426E-03	.7580E-03	.7664E-03
PE 2	-.3320E-05	.8183E-04	.1812E-03	.2901E-03	.4028E-03	.5120E-03	.6103E-03	.6894E-03	.7422E-03
PE 3	-.3645E-03	-.4307E-03	-.5063E-03	-.5876E-03	-.6708E-03	-.7504E-03	-.8210E-03	-.8768E-03	-.9129E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9491E-03	.1042E-02	.1145E-02	.1255E-02	.1367E-02	.1472E-02	.1564E-02	.1635E-02	.1679E-02
PSE 2	.5880E-03	.5293E-03	.4579E-03	.3776E-03	.2930E-03	.2093E-03	.1323E-03	.6855E-04	.2420E-04
PSE 3	.3611E-03	.5125E-03	.6875E-03	.8778E-03	.1074E-02	.1262E-02	.1431E-02	.1566E-02	.1655E-02

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.3087E+02	.3217E+02	.3339E+02	.3448E+02	.3559E+02	.3649E+02	.3710E+02	.3741E+02	.3756E+02
SYY	.4627E+02	.4672E+02	.4708E+02	.4735E+02	.4766E+02	.4783E+02	.4782E+02	.4761E+02	.4739E+02
SZZ	-.1485E+02	-.1497E+02	-.1508E+02	-.1516E+02	-.1525E+02	-.1529E+02	-.1528E+02	-.1523E+02	-.1516E+02

SHEAR STRESSES

SXY	-.3512E-07	-.1563E-07	.9611E-08	-.1113E-07	-.3671E-07	-.2645E-07	.1572E-07	.1072E-07	.1724E-07
SXZ	.1611E-01	-.8501E-01	-.2177E+00	-.3822E+00	-.5763E+00	-.7983E+00	-.1045E+01	-.1313E+01	-.1594E+01
SYZ	.1280E-07	-.7809E-08	-.2760E-08	.1921E-08	-.2134E-07	-.3812E-08	.6684E-08	-.1295E-07	.1731E-07

PRINCIPAL STRESSES

PS 1	.4627E+02	.4672E+02	.4708E+02	.4735E+02	.4766E+02	.4783E+02	.4782E+02	.4761E+02	.4739E+02
PS 2	.3087E+02	.3217E+02	.3339E+02	.3449E+02	.3560E+02	.3650E+02	.3712E+02	.3744E+02	.3761E+02
PS 3	-.1485E+02	-.1497E+02	-.1508E+02	-.1516E+02	-.1525E+02	-.1530E+02	-.1530E+02	-.1526E+02	-.1521E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3056E+02	.3085E+02	.3108E+02	.3125E+02	.3145E+02	.3156E+02	.3156E+02	.3143E+02	.3130E+02
PSS 2	.7698E+01	.7277E+01	.6849E+01	.6429E+01	.6029E+01	.5664E+01	.5346E+01	.5085E+01	.4889E+01
PSS 3	.2286E+02	.2357E+02	.2423E+02	.2483E+02	.2542E+02	.2590E+02	.2621E+02	.2635E+02	.2641E+02



## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.4288E-02	.4972E-02	.5702E-02	.6471E-02	.7262E-02	.8090E-02	.8951E-02	.9830E-02	.1070E-01
UY	.4825E-11	-.1019E-10	-.7029E-10	-.2821E-10	.2768E-10	-.1621E-11	-.4749E-10	-.2058E-10	.8084E-11
UZ	.1575E+00	.1572E+00	.1568E+00	.1565E+00	.1559E+00	.1552E+00	.1545E+00	.1538E+00	.1529E+00

## NORMAL STRAINS

EXX	.6625E-03	.7019E-03	.7394E-03	.7740E-03	.8083E-03	.8366E-03	.8571E-03	.8691E-03	.8760E-03
EYY	.1355E-02	.1357E-02	.1356E-02	.1353E-02	.1351E-02	.1347E-02	.1339E-02	.1328E-02	.1318E-02
EZZ	-.1395E-02	-.1420E-02	-.1441E-02	-.1460E-02	-.1479E-02	-.1493E-02	-.1500E-02	-.1499E-02	-.1496E-02

## SHEAR STRAINS

EXY	-.3160E-11	-.1406E-11	.8649E-12	-.1002E-11	-.3303E-11	-.2380E-11	.1415E-11	.9651E-12	.1551E-11
EXZ	.1450E-05	-.7651E-05	-.1959E-04	-.3440E-04	-.5187E-04	-.7185E-04	-.9407E-04	-.1181E-03	-.1435E-03
EYZ	.1152E-11	-.7028E-12	-.2484E-12	.1729E-12	-.1920E-11	-.3431E-12	.6016E-12	-.1166E-11	.1557E-11

## PRINCIPAL STRAINS

PE 1	.1355E-02	.1357E-02	.1356E-02	.1353E-02	.1351E-02	.1347E-02	.1339E-02	.1328E-02	.1318E-02
PE 2	.6625E-03	.7019E-03	.7395E-03	.7741E-03	.8085E-03	.8372E-03	.8581E-03	.8706E-03	.8782E-03
PE 3	-.1395E-02	-.1420E-02	-.1441E-02	-.1460E-02	-.1480E-02	-.1494E-02	-.1501E-02	-.1501E-02	-.1498E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2750E-02	.2776E-02	.2797E-02	.2813E-02	.2831E-02	.2841E-02	.2840E-02	.2829E-02	.2817E-02
PSE 2	.6928E-03	.6549E-03	.6164E-03	.5786E-03	.5426E-03	.5098E-03	.4811E-03	.4576E-03	.4400E-03
PSE 3	.2057E-02	.2121E-02	.2181E-02	.2234E-02	.2288E-02	.2331E-02	.2359E-02	.2371E-02	.2377E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-b Average HBP

57.00      4.00  
58.00      4.00  
59.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
51.00      4.00  
52.00      4.00  
53.00      4.00  
54.00      4.00  
55.00      4.00  
56.00      4.00  
57.00      4.00  
58.00      4.00  
59.00      4.00

NORMAL STRESSES

SXX    .4347E+03   .4273E+03   .4046E+03   .3692E+03   .3244E+03   .2741E+03   .2220E+03   .1715E+03   .1250E+03  
SYY    .4359E+03   .4300E+03   .4159E+03   .3950E+03   .3686E+03   .3387E+03   .3071E+03   .2758E+03   .2457E+03  
SZZ    -.6520E+02   -.6437E+02   -.6214E+02   -.5873E+02   -.5440E+02   -.4945E+02   -.4420E+02   -.3894E+02   -.3391E+02

SHEAR STRESSES

SXY    -.2980E-06   -.1404E-06   .4804E-06   -.5748E-06   .7748E-06   -.2056E-06   -.4732E-06   -.4713E-06   -.1026E-05  
SXZ    -.5666E+01   -.1015E+02   -.1438E+02   -.1809E+02   -.2113E+02   -.2343E+02   -.2496E+02   -.2576E+02   -.2590E+02  
SYZ    -.1278E-06   .2772E-08   .0000E+00   .2772E-08   -.1278E-06   -.2045E-07   -.1444E-06   -.1754E-07   -.7659E-07

PRINCIPAL STRESSES

PS 1    .4359E+03   .4300E+03   .4159E+03   .3950E+03   .3686E+03   .3387E+03   .3071E+03   .2758E+03   .2457E+03  
PS 2    .4348E+03   .4275E+03   .4050E+03   .3699E+03   .3256E+03   .2758E+03   .2243E+03   .1746E+03   .1291E+03  
PS 3    -.6527E+02   -.6458E+02   -.6259E+02   -.5949E+02   -.5557E+02   -.5114E+02   -.4652E+02   -.4205E+02   -.3802E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2506E+03	.2473E+03	.2393E+03	.2272E+03	.2121E+03	.1949E+03	.1768E+03	.1589E+03	.1419E+03
PSS 2	.5401E+00	.1252E+01	.5444E+01	.1251E+02	.2149E+02	.3143E+02	.4139E+02	.5059E+02	.5833E+02
PSS 3	.2500E+03	.2461E+03	.2338E+03	.2147E+03	.1906E+03	.1635E+03	.1354E+03	.1083E+03	.8355E+02

## DISPLACEMENTS

UX	.2454E-02	.3212E-02	.3940E-02	.4608E-02	.5192E-02	.5677E-02	.6055E-02	.6328E-02	.6500E-02
UY	-.8972E-11	-.5459E-11	.0000E+00	-.5459E-11	-.8972E-11	-.1291E-10	-.4495E-10	.1771E-10	.5218E-10
UZ	.1704E+00	.1690E+00	.1673E+00	.1652E+00	.1629E+00	.1604E+00	.1578E+00	.1550E+00	.1521E+00

## NORMAL STRAINS

EXX	.7625E-03	.7483E-03	.7019E-03	.6287E-03	.5362E-03	.4323E-03	.3250E-03	.2215E-03	.1270E-03
EYY	.7664E-03	.7575E-03	.7402E-03	.7157E-03	.6852E-03	.6501E-03	.6122E-03	.5734E-03	.5347E-03
EZZ	-.9248E-03	-.9111E-03	-.8733E-03	-.8154E-03	-.7424E-03	-.6598E-03	-.5735E-03	-.4887E-03	-.4091E-03

## SHEAR STRAINS

EXY	-.2011E-11	-.9480E-12	.3243E-11	-.3880E-11	.5230E-11	-.1388E-11	-.3194E-11	-.3181E-11	-.6927E-11
EXZ	-.3825E-04	-.6853E-04	-.9707E-04	-.1221E-03	-.1426E-03	-.1581E-03	-.1685E-03	-.1739E-03	-.1748E-03
EYZ	-.8627E-12	.1871E-13	.0000E+00	.1871E-13	-.8627E-12	-.1381E-12	-.9744E-12	-.1184E-12	-.5170E-12

## PRINCIPAL STRAINS

PE 1	.7664E-03	.7575E-03	.7402E-03	.7157E-03	.6852E-03	.6501E-03	.6122E-03	.5734E-03	.5347E-03
PE 2	.7627E-03	.7491E-03	.7034E-03	.6313E-03	.5401E-03	.4379E-03	.3328E-03	.2319E-03	.1409E-03
PE 3	-.9250E-03	-.9118E-03	-.8748E-03	-.8180E-03	-.7464E-03	-.6655E-03	-.5813E-03	-.4992E-03	-.4230E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1691E-02	.1669E-02	.1615E-02	.1534E-02	.1432E-02	.1316E-02	.1194E-02	.1073E-02	.9577E-03
PSE 2	.3646E-05	.8449E-05	.3674E-04	.8444E-04	.1450E-03	.2122E-03	.2794E-03	.3415E-03	.3937E-03
PSE 3	.1688E-02	.1661E-02	.1578E-02	.1449E-02	.1287E-02	.1103E-02	.9142E-03	.7311E-03	.5640E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.3740E+02	.3692E+02	.3612E+02	.3516E+02	.3387E+02	.3226E+02	.3041E+02	.2852E+02	.2647E+02
SYX	.4700E+02	.4644E+02	.4571E+02	.4496E+02	.4401E+02	.4286E+02	.4155E+02	.4027E+02	.3886E+02
SZZ	-.1504E+02	-.1486E+02	-.1463E+02	-.1438E+02	-.1409E+02	-.1374E+02	-.1335E+02	-.1295E+02	-.1252E+02

SHEAR STRESSES

SXY	-.8005E-08	-.8233E-08	-.1072E-07	-.6668E-08	-.6896E-08	.4222E-08	.1908E-07	-.4089E-08	-.3354E-08
SXZ	-.1883E+01	-.2175E+01	-.2461E+01	-.2737E+01	-.2995E+01	-.3232E+01	-.3443E+01	-.3627E+01	-.3780E+01
SYZ	-.4854E-08	.2624E-08	.0000E+00	.2624E-08	-.4854E-08	.1135E-07	.2919E-07	-.8326E-08	-.7072E-08

PRINCIPAL STRESSES

PS 1	.4700E+02	.4644E+02	.4571E+02	.4496E+02	.4401E+02	.4286E+02	.4155E+02	.4027E+02	.3886E+02
PS 2	.3747E+02	.3701E+02	.3624E+02	.3531E+02	.3405E+02	.3248E+02	.3068E+02	.2884E+02	.2683E+02
PS 3	-.1510E+02	-.1495E+02	-.1475E+02	-.1453E+02	-.1428E+02	-.1397E+02	-.1362E+02	-.1326E+02	-.1288E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3105E+02	.3070E+02	.3023E+02	.2975E+02	.2914E+02	.2841E+02	.2758E+02	.2676E+02	.2587E+02
PSS 2	.4765E+01	.4714E+01	.4736E+01	.4827E+01	.4980E+01	.5186E+01	.5435E+01	.5716E+01	.6015E+01
PSS 3	.2629E+02	.2598E+02	.2550E+02	.2492E+02	.2416E+02	.2323E+02	.2215E+02	.2105E+02	.1986E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.1158E-01	.1245E-01	.1330E-01	.1415E-01	.1496E-01	.1572E-01	.1643E-01	.1710E-01	.1771E-01
UY	.1692E-10	-.4023E-10	.1164E-09	-.4023E-10	.1692E-10	.8084E-11	.6174E-10	-.3284E-10	-.1525E-10
UZ	.1519E+00	.1507E+00	.1495E+00	.1480E+00	.1465E+00	.1449E+00	.1433E+00	.1415E+00	.1397E+00

## NORMAL STRAINS

EXX	.8738E-03	.8623E-03	.8414E-03	.8152E-03	.7797E-03	.7356E-03	.6846E-03	.6320E-03	.5750E-03
EYY	.1306E-02	.1291E-02	.1273E-02	.1256E-02	.1236E-02	.1213E-02	.1186E-02	.1161E-02	.1133E-02
EZZ	-.1486E-02	-.1468E-02	-.1442E-02	-.1414E-02	-.1378E-02	-.1334E-02	-.1284E-02	-.1234E-02	-.1179E-02

## SHEAR STRAINS

EXY	-.7204E-12	-.7410E-12	-.9651E-12	-.6001E-12	-.6207E-12	.3800E-12	.1717E-11	-.3680E-12	-.3019E-12
EXZ	-.1695E-03	-.1957E-03	-.2215E-03	-.2463E-03	-.2696E-03	-.2909E-03	-.3099E-03	-.3264E-03	-.3402E-03
EYZ	-.4369E-12	.2361E-12	.0000E+00	.2361E-12	-.4369E-12	.1021E-11	.2627E-11	-.7493E-12	-.6365E-12

## PRINCIPAL STRAINS

PE 1	.1306E-02	.1291E-02	.1273E-02	.1256E-02	.1236E-02	.1213E-02	.1186E-02	.1161E-02	.1133E-02
PE 2	.8769E-03	.8664E-03	.8468E-03	.8220E-03	.7881E-03	.7458E-03	.6967E-03	.6462E-03	.5913E-03
PE 3	-.1489E-02	-.1472E-02	-.1448E-02	-.1421E-02	-.1387E-02	-.1345E-02	-.1296E-02	-.1248E-02	-.1196E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2795E-02	.2763E-02	.2721E-02	.2677E-02	.2623E-02	.2557E-02	.2482E-02	.2409E-02	.2329E-02
PSE 2	.4288E-03	.4243E-03	.4262E-03	.4344E-03	.4482E-03	.4668E-03	.4892E-03	.5144E-03	.5414E-03
PSE 3	.2366E-02	.2338E-02	.2295E-02	.2243E-02	.2175E-02	.2090E-02	.1993E-02	.1894E-02	.1787E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.21 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-b Average HBP

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1212E+03	.1216E+03	.1159E+03	.1065E+03	.9696E+02	.9088E+02	.9164E+02	.1019E+03	.1236E+03
SYX	.2116E+03	.2201E+03	.2267E+03	.2323E+03	.2384E+03	.2464E+03	.2575E+03	.2727E+03	.2926E+03
SZZ	-.2802E+02	-.2909E+02	-.2977E+02	-.3025E+02	-.3080E+02	-.3169E+02	-.3315E+02	-.3537E+02	-.3845E+02

SHEAR STRESSES

SXY	.5399E-06	-.3836E-06	-.7885E-07	-.7820E-06	-.7302E-06	.5991E-06	-.3143E-06	-.6131E-06	-.2587E-06
SXZ	.1682E+02	.1595E+02	.1529E+02	.1500E+02	.1514E+02	.1572E+02	.1662E+02	.1771E+02	.1882E+02
SYZ	-.2124E-07	-.6170E-07	-.2915E-07	-.1867E-07	-.4919E-07	-.1393E-06	-.1462E-06	.1013E-06	.1005E-06

PRINCIPAL STRESSES

PS 1	.2116E+03	.2201E+03	.2267E+03	.2323E+03	.2384E+03	.2464E+03	.2575E+03	.2727E+03	.2926E+03
PS 2	.1231E+03	.1233E+03	.1175E+03	.1082E+03	.9873E+02	.9286E+02	.9382E+02	.1041E+03	.1257E+03



## Appendix 6E-b Average HBP

PS 3    -.2989E+02   -.3076E+02   -.3135E+02   -.3187E+02   -.3257E+02   -.3368E+02   -.3533E+02   -.3762E+02   -.4061E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1208E+03    .1255E+03    .1290E+03    .1321E+03    .1355E+03    .1400E+03    .1464E+03    .1551E+03    .1666E+03  
PSS 2    .4428E+02    .4844E+02    .5459E+02    .6208E+02    .6984E+02    .7676E+02    .8184E+02    .8427E+02    .8342E+02  
PSS 3    .7648E+02    .7701E+02    .7443E+02    .7002E+02    .6565E+02    .6327E+02    .6457E+02    .7087E+02    .8317E+02

## DISPLACEMENTS

UX        -.4671E-02   -.4530E-02   -.4401E-02   -.4296E-02   -.4220E-02   -.4171E-02   -.4137E-02   -.4100E-02   -.4037E-02  
UY        .1375E-10    .3332E-10   -.3679E-10   -.1653E-10    .1028E-10   -.1905E-11    .5093E-10   -.4770E-10    .4261E-10  
UZ        .1198E+00    .1218E+00    .1234E+00    .1250E+00    .1266E+00    .1282E+00    .1299E+00    .1316E+00    .1333E+00

## NORMAL STRAINS

EXX        .1423E-03    .1368E-03    .1175E-03    .8953E-04    .6074E-04    .3935E-04    .3281E-04    .4704E-04    .8657E-04  
EYY        .4475E-03    .4694E-03    .4913E-03    .5140E-03    .5381E-03    .5642E-03    .5926E-03    .6235E-03    .6569E-03  
EZZ        -.3613E-03   -.3717E-03   -.3742E-03   -.3721E-03   -.3704E-03   -.3743E-03   -.3884E-03   -.4161E-03   -.4603E-03

## SHEAR STRAINS

EXY        .3644E-11   -.2589E-11   -.5323E-12   -.5279E-11   -.4929E-11    .4044E-11   -.2122E-11   -.4139E-11   -.1746E-11  
EXZ        .1135E-03    .1076E-03    .1032E-03    .1012E-03    .1022E-03    .1061E-03    .1122E-03    .1196E-03    .1271E-03  
EYZ        -.1434E-12   -.4165E-12   -.1967E-12   -.1260E-12   -.3320E-12   -.9400E-12   -.9869E-12    .6838E-12    .6782E-12

## PRINCIPAL STRAINS

PE 1        .4475E-03    .4694E-03    .4913E-03    .5140E-03    .5381E-03    .5642E-03    .5926E-03    .6235E-03    .6569E-03  
PE 2        .1486E-03    .1425E-03    .1229E-03    .9501E-04    .6671E-04    .4604E-04    .4016E-04    .5464E-04    .9385E-04  
PE 3        -.3676E-03   -.3774E-03   -.3796E-03   -.3776E-03   -.3764E-03   -.3810E-03   -.3957E-03   -.4237E-03   -.4675E-03

## PRINCIPAL SHEAR STRAINS

PSE 1        .8151E-03    .8468E-03    .8709E-03    .8916E-03    .9145E-03    .9452E-03    .9883E-03    .1047E-02    .1124E-02  
PSE 2        .2989E-03    .3270E-03    .3685E-03    .4190E-03    .4714E-03    .5181E-03    .5524E-03    .5688E-03    .5631E-03  
PSE 3        .5162E-03    .5198E-03    .5024E-03    .4726E-03    .4431E-03    .4271E-03    .4359E-03    .4784E-03    .5614E-03

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

## NORMAL STRESSES

SXX	.2332E+02	.2510E+02	.2699E+02	.2896E+02	.3095E+02	.3291E+02	.3484E+02	.3673E+02	.3855E+02
SYZ	.3366E+02	.3498E+02	.3638E+02	.3784E+02	.3928E+02	.4066E+02	.4196E+02	.4319E+02	.4434E+02
SZZ	-.1075E+02	-.1114E+02	-.1153E+02	-.1192E+02	-.1232E+02	-.1272E+02	-.1310E+02	-.1347E+02	-.1380E+02

## SHEAR STRESSES

SXY	.6660E-08	-.3737E-07	-.4305E-07	.1020E-07	.1260E-08	-.5422E-07	.5311E-07	.4536E-07	-.7311E-08
SXZ	.3211E+01	.3134E+01	.3044E+01	.2938E+01	.2816E+01	.2677E+01	.2520E+01	.2341E+01	.2138E+01
SYZ	-.3889E-09	-.4106E-08	.8432E-08	-.4054E-08	-.2366E-08	.6455E-08	-.5094E-08	-.1541E-07	.1319E-07

## PRINCIPAL STRESSES

PS 1	.3366E+02	.3498E+02	.3638E+02	.3784E+02	.3928E+02	.4066E+02	.4196E+02	.4319E+02	.4434E+02
PS 2	.2362E+02	.2537E+02	.2723E+02	.2917E+02	.3113E+02	.3307E+02	.3497E+02	.3684E+02	.3864E+02
PS 3	-.1105E+02	-.1141E+02	-.1177E+02	-.1213E+02	-.1250E+02	-.1287E+02	-.1324E+02	-.1358E+02	-.1389E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2235E+02	.2319E+02	.2407E+02	.2499E+02	.2589E+02	.2677E+02	.2760E+02	.2838E+02	.2911E+02
PSS 2	.5016E+01	.4803E+01	.4576E+01	.4334E+01	.4073E+01	.3794E+01	.3495E+01	.3179E+01	.2851E+01
PSS 3	.1734E+02	.1839E+02	.1950E+02	.2065E+02	.2182E+02	.2297E+02	.2410E+02	.2521E+02	.2626E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.1251E-01	-.1198E-01	-.1139E-01	-.1075E-01	-.1005E-01	-.9301E-02	-.8502E-02	-.7654E-02	-.6754E-02
UY	-.3439E-10	-.1968E-10	-.9724E-11	-.5720E-10	.6282E-10	.3138E-10	.2004E-10	.8008E-11	.2615E-10
UZ	.1094E+00	.1109E+00	.1121E+00	.1132E+00	.1143E+00	.1155E+00	.1166E+00	.1176E+00	.1185E+00

## NORMAL STRAINS

EXX	.5102E-03	.5586E-03	.6097E-03	.6631E-03	.7172E-03	.7712E-03	.8247E-03	.8774E-03	.9288E-03
EYY	.9752E-03	.1003E-02	.1032E-02	.1063E-02	.1092E-02	.1120E-02	.1145E-02	.1168E-02	.1189E-02
EZZ	-.1023E-02	-.1072E-02	-.1124E-02	-.1177E-02	-.1230E-02	-.1282E-02	-.1333E-02	-.1381E-02	-.1427E-02

## SHEAR STRAINS

EXY	.5994E-12	-.3363E-11	-.3874E-11	.9179E-12	.1134E-12	-.4880E-11	.4780E-11	.4082E-11	-.6580E-12
EXZ	.2889E-03	.2821E-03	.2740E-03	.2644E-03	.2534E-03	.2409E-03	.2268E-03	.2107E-03	.1925E-03
EYZ	-.3500E-13	-.3696E-12	.7589E-12	-.3648E-12	-.2130E-12	.5809E-12	-.4584E-12	-.1387E-11	.1187E-11

## PRINCIPAL STRAINS

PE 1	.9752E-03	.1003E-02	.1032E-02	.1063E-02	.1092E-02	.1120E-02	.1145E-02	.1168E-02	.1189E-02
PE 2	.5237E-03	.5708E-03	.6204E-03	.6725E-03	.7254E-03	.7782E-03	.8306E-03	.8823E-03	.9327E-03
PE 3	-.1037E-02	-.1084E-02	-.1134E-02	-.1186E-02	-.1238E-02	-.1289E-02	-.1339E-02	-.1386E-02	-.1431E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2012E-02	.2087E-02	.2167E-02	.2249E-02	.2330E-02	.2409E-02	.2484E-02	.2555E-02	.2620E-02
PSE 2	.4515E-03	.4323E-03	.4119E-03	.3900E-03	.3666E-03	.3414E-03	.3145E-03	.2861E-03	.2565E-03
PSE 3	.1560E-02	.1655E-02	.1755E-02	.1859E-02	.1964E-02	.2068E-02	.2169E-02	.2269E-02	.2364E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.21 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-b Average HBP

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.1580E+03	.2055E+03	.2643E+03	.3303E+03	.3984E+03	.4618E+03	.5139E+03	.5480E+03	.5596E+03
SYX	.3175E+03	.3473E+03	.3810E+03	.4165E+03	.4519E+03	.4837E+03	.5087E+03	.5238E+03	.5278E+03
SZZ	-.4248E+02	-.4741E+02	-.5309E+02	-.5917E+02	-.6520E+02	-.7064E+02	-.7497E+02	-.7771E+02	-.7847E+02

SHEAR STRESSES

SXY	.4558E-06	.3469E-06	-.2232E-05	.1460E-05	.8396E-06	-.5994E-07	-.1523E-05	-.4821E-06	.8333E-06
SXZ	.1974E+02	.2018E+02	.1988E+02	.1856E+02	.1609E+02	.1243E+02	.7669E+01	.2021E+01	-.4134E+01
SYZ	-.1313E-06	-.1152E-06	.1531E-06	.1230E-06	-.1473E-07	-.9283E-07	-.4897E-06	.6210E-09	.3570E-07

PRINCIPAL STRESSES

PS 1	.3175E+03	.3473E+03	.3810E+03	.4165E+03	.4519E+03	.4837E+03	.5140E+03	.5480E+03	.5596E+03
PS 2	.1600E+03	.2071E+03	.2655E+03	.3312E+03	.3989E+03	.4621E+03	.5087E+03	.5238E+03	.5278E+03

## Appendix 6E-b Average HBP

PS 3    -.4440E+02   -.4901E+02   -.5433E+02   -.6005E+02   -.6575E+02   -.7093E+02   -.7507E+02   -.7771E+02   -.7850E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1809E+03    .1982E+03    .2176E+03    .2383E+03    .2588E+03    .2773E+03    .2946E+03    .3129E+03    .3191E+03  
PSS 2    .7877E+02    .7008E+02    .5771E+02    .4268E+02    .2649E+02    .1079E+02    .2672E+01    .1209E+02    .1594E+02  
PSS 3    .1022E+03    .1281E+03    .1599E+03    .1956E+03    .2324E+03    .2665E+03    .2919E+03    .3008E+03    .3031E+03

## DISPLACEMENTS

UX        -.3920E-02   -.3719E-02   -.3407E-02   -.2961E-02   -.2375E-02   -.1646E-02   -.7918E-03   .1585E-03   .1158E-02  
UY        .2097E-10    .4815E-10    .1209E-10   -.3692E-10    .1383E-10    .2296E-10    .5943E-11    .3879E-10   -.1862E-10  
UZ        .1349E+00    .1365E+00    .1383E+00    .1402E+00    .1417E+00    .1428E+00    .1437E+00    .1444E+00    .1443E+00

## NORMAL STRAINS

EXX        .1544E-03    .2514E-03    .3739E-03    .5131E-03    .6576E-03    .7932E-03    .9054E-03    .9796E-03    .1006E-02  
EYY        .6926E-03    .7299E-03    .7676E-03    .8041E-03    .8383E-03    .8670E-03    .8877E-03    .8980E-03    .8984E-03  
EZZ        -.5223E-03   -.6023E-03   -.6973E-03   -.8014E-03   -.9070E-03   -.1004E-02   -.1082E-02   -.1132E-02   -.1148E-02

## SHEAR STRAINS

EXY        .3077E-11    .2342E-11   -.1506E-10    .9856E-11    .5667E-11   -.4046E-12   -.1028E-10   -.3254E-11    .5625E-11  
EXZ        .1332E-03    .1362E-03    .1342E-03    .1253E-03    .1086E-03    .8390E-04    .5177E-04    .1364E-04   -.2790E-04  
EYZ        -.8863E-12   -.7778E-12    .1033E-11    .8305E-12   -.9941E-13   -.6266E-12   -.3305E-11    .4192E-14    .2410E-12

## PRINCIPAL STRAINS

PE 1        .6926E-03    .7299E-03    .7676E-03    .8041E-03    .8383E-03    .8670E-03    .9057E-03    .9797E-03    .1006E-02  
PE 2        .1609E-03    .2568E-03    .3780E-03    .5160E-03    .6595E-03    .7941E-03    .8877E-03    .8980E-03    .8984E-03  
PE 3        -.5288E-03   -.6077E-03   -.7015E-03   -.8044E-03   -.9089E-03   -.1005E-02   -.1083E-02   -.1132E-02   -.1148E-02

## PRINCIPAL SHEAR STRAINS

PSE 1        .1221E-02    .1338E-02    .1469E-02    .1609E-02    .1747E-02    .1872E-02    .1988E-02    .2112E-02    .2154E-02  
PSE 2        .5317E-03    .4731E-03    .3896E-03    .2881E-03    .1788E-03    .7284E-04    .1803E-04    .8163E-04    .1076E-03  
PSE 3        .6897E-03    .8645E-03    .1080E-02    .1320E-02    .1568E-02    .1799E-02    .1970E-02    .2030E-02    .2046E-02

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.4027E+02	.4181E+02	.4307E+02	.4403E+02	.4491E+02	.4550E+02	.4572E+02	.4548E+02	.4516E+02
SYY	.4537E+02	.4622E+02	.4684E+02	.4719E+02	.4755E+02	.4773E+02	.4767E+02	.4730E+02	.4700E+02
SZZ	-.1410E+02	-.1435E+02	-.1457E+02	-.1476E+02	-.1491E+02	-.1499E+02	-.1502E+02	-.1500E+02	-.1493E+02

## SHEAR STRESSES

SXY	-.2678E-07	-.1926E-07	.4894E-07	.2101E-07	.5736E-09	-.1677E-07	-.2360E-07	-.8243E-08	.1867E-07
SXZ	.1910E+01	.1653E+01	.1366E+01	.1052E+01	.7140E+00	.3548E+00	-.2243E-01	-.4118E+00	-.8032E+00
SYZ	.9707E-09	-.8586E-08	.1862E-07	-.2075E-07	-.7775E-09	-.2422E-09	.1107E-07	-.2977E-08	.3280E-08

## PRINCIPAL STRESSES

PS 1	.4537E+02	.4622E+02	.4684E+02	.4719E+02	.4755E+02	.4773E+02	.4767E+02	.4730E+02	.4700E+02
PS 2	.4034E+02	.4185E+02	.4311E+02	.4405E+02	.4492E+02	.4550E+02	.4572E+02	.4548E+02	.4517E+02
PS 3	-.1416E+02	-.1440E+02	-.1460E+02	-.1478E+02	-.1491E+02	-.1500E+02	-.1502E+02	-.1501E+02	-.1494E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2977E+02	.3031E+02	.3072E+02	.3098E+02	.3123E+02	.3136E+02	.3135E+02	.3115E+02	.3097E+02
PSS 2	.2516E+01	.2183E+01	.1864E+01	.1571E+01	.1317E+01	.1114E+01	.9738E+00	.9059E+00	.9165E+00
PSS 3	.2725E+02	.2813E+02	.2885E+02	.2941E+02	.2992E+02	.3025E+02	.3037E+02	.3025E+02	.3006E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.5798E-02	-.4785E-02	-.3721E-02	-.2618E-02	-.1497E-02	-.3493E-03	.8186E-03	.1990E-02	.3138E-02
UY	.3260E-10	.2336E-10	-.1090E-11	.3260E-11	.1462E-10	.1400E-10	-.5544E-10	.3844E-10	.1776E-11
UZ	.1193E+00	.1200E+00	.1208E+00	.1219E+00	.1224E+00	.1229E+00	.1232E+00	.1237E+00	.1235E+00

## NORMAL STRAINS

EXX	.9775E-03	.1022E-02	.1059E-02	.1089E-02	.1116E-02	.1135E-02	.1143E-02	.1139E-02	.1131E-02
EYY	.1207E-02	.1220E-02	.1229E-02	.1232E-02	.1235E-02	.1235E-02	.1231E-02	.1221E-02	.1214E-02
EZZ	-.1469E-02	-.1505E-02	-.1535E-02	-.1556E-02	-.1576E-02	-.1587E-02	-.1590E-02	-.1583E-02	-.1573E-02

## SHEAR STRAINS

EXY	-.2410E-11	-.1733E-11	.4405E-11	.1891E-11	.5162E-13	-.1509E-11	-.2124E-11	-.7419E-12	.1681E-11
EXZ	.1719E-03	.1487E-03	.1230E-03	.9464E-04	.6426E-04	.3193E-04	-.2019E-05	-.3706E-04	-.7229E-04
EYZ	.8736E-13	-.7728E-12	.1675E-11	-.1868E-11	-.6997E-13	-.2180E-13	.9959E-12	-.2680E-12	.2952E-12

## PRINCIPAL STRAINS

PE 1	.1207E-02	.1220E-02	.1229E-02	.1232E-02	.1235E-02	.1235E-02	.1231E-02	.1221E-02	.1214E-02
PE 2	.9805E-03	.1024E-02	.1061E-02	.1090E-02	.1117E-02	.1135E-02	.1143E-02	.1139E-02	.1132E-02
PE 3	-.1472E-02	-.1508E-02	-.1536E-02	-.1557E-02	-.1576E-02	-.1588E-02	-.1590E-02	-.1583E-02	-.1573E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2679E-02	.2728E-02	.2765E-02	.2789E-02	.2811E-02	.2823E-02	.2821E-02	.2804E-02	.2788E-02
PSE 2	.2264E-03	.1965E-03	.1678E-03	.1414E-03	.1185E-03	.1002E-03	.8764E-04	.8153E-04	.8248E-04
PSE 3	.2453E-02	.2531E-02	.2597E-02	.2647E-02	.2693E-02	.2722E-02	.2733E-02	.2722E-02	.2705E-02



Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.21 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-b Average HBP

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Z= 6.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.5463E+03	.5103E+03
SYY	.5193E+03	.4996E+03
SZZ	-.7711E+02	-.7375E+02

## SHEAR STRESSES

SXY	-.1698E-05	-.3840E-06
SXZ	-.1030E+02	-.1598E+02
SYZ	-.5217E-07	-.2384E-06

## PRINCIPAL STRESSES

PS 1	.5464E+03	.5107E+03
PS 2	.5193E+03	.4996E+03
PS 3	-.7728E+02	-.7419E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.3119E+03	.2925E+03
PSS 2	.1356E+02	.5557E+01
PSS 3	.2983E+03	.2869E+03

## DISPLACEMENTS

UX	.2156E-02	.3105E-02
UY	.1385E-10	.0000E+00
UZ	.1434E+00	.1417E+00

Appendix 6E-b Average HBP

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## NORMAL STRAINS

EXX .9788E-03 .9031E-03  
EYY .8878E-03 .8671E-03  
EZZ -.1125E-02 -.1068E-02

## SHEAR STRAINS

EXY -.1146E-10 -.2592E-11  
EXZ -.6952E-04 -.1078E-03  
EYZ -.3522E-12 -.1609E-11

## PRINCIPAL STRAINS

PE 1 .9793E-03 .9046E-03  
PE 2 .8878E-03 .8671E-03  
PE 3 -.1126E-02 -.1070E-02

## PRINCIPAL SHEAR STRAINS

PSE 1 .2105E-02 .1974E-02  
PSE 2 .9153E-04 .3751E-04  
PSE 3 .2014E-02 .1937E-02

Z= 18.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .4461E+02 .4397E+02  
SYY .4665E+02 .4637E+02  
SZZ -.1481E+02 -.1463E+02

Appendix 6E-b Average HBP

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## SHEAR STRESSES

SXY .1346E-07 -.6204E-08  
SXZ -.1191E+01 -.1571E+01  
SYZ .4132E-08 .0000E+00

## PRINCIPAL STRESSES

PS 1 .4665E+02 .4637E+02  
PS 2 .4463E+02 .4401E+02  
PS 3 -.1483E+02 -.1467E+02

## PRINCIPAL SHEAR STRESSES

PSS 1 .3074E+02 .3052E+02  
PSS 2 .1008E+01 .1179E+01  
PSS 3 .2973E+02 .2934E+02

## DISPLACEMENTS

UX .4275E-02 .5411E-02  
UY .1216E-10 -.5821E-10  
UZ .1229E+00 .1217E+00

## NORMAL STRAINS

EXX .1115E-02 .1095E-02  
EYY .1207E-02 .1203E-02  
EZZ -.1558E-02 -.1542E-02

## SHEAR STRAINS

EXY .1211E-11 -.5584E-12  
EXZ -.1072E-03 -.1414E-03  
EYZ .3719E-12 .0000E+00

## PRINCIPAL STRAINS

Appendix 6E-b Average HBP

PE 1 .1207E-02 .1203E-02  
 PE 2 .1116E-02 .1097E-02  
 PE 3 -.1559E-02 -.1544E-02

PRINCIPAL SHEAR STRAINS  
 PSE 1 .2767E-02 .2747E-02  
 PSE 2 .9072E-04 .1061E-03  
 PSE 3 .2676E-02 .2641E-02

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Appendix 6E-b Average HBP

Z= 6.00 18.00  
 X-Y POINT(S)  
 X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

NORMAL STRESSES

SXX	.4215E+03	.4446E+03	.4521E+03	.4430E+03	.4184E+03	.3807E+03	.3334E+03	.2804E+03	.2253E+03
SYX	.4354E+03	.4500E+03	.4560E+03	.4531E+03	.4417E+03	.4232E+03	.3993E+03	.3718E+03	.3426E+03
SZZ	-.6497E+02	-.6725E+02	-.6810E+02	-.6746E+02	-.6538E+02	-.6210E+02	-.5787E+02	-.5302E+02	-.4786E+02

SHEAR STRESSES

SXY	.4805E-06	-.2115E-06	-.1254E-06	.2444E-06	-.4219E-06	-.5423E-06	-.7201E-07	.1103E-05	-.4303E-06
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## Appendix 6E-b Average HBP

SXZ	.1496E+02	.1059E+02	.5966E+01	.1362E+01	-.2934E+01	-.6675E+01	-.9692E+01	-.1190E+02	-.1329E+02
SYZ	.8791E-09	.1724E-06	-.1449E-06	.1160E-06	.1340E-07	-.3592E-06	-.1267E-06	.1647E-06	.1341E-07

## PRINCIPAL STRESSES

PS 1	.4354E+03	.4500E+03	.4560E+03	.4531E+03	.4417E+03	.4232E+03	.3993E+03	.3718E+03	.3426E+03
PS 2	.4220E+03	.4448E+03	.4521E+03	.4430E+03	.4184E+03	.3808E+03	.3337E+03	.2809E+03	.2259E+03
PS 3	-.6543E+02	-.6747E+02	-.6817E+02	-.6746E+02	-.6540E+02	-.6220E+02	-.5811E+02	-.5345E+02	-.4850E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2504E+03	.2587E+03	.2621E+03	.2603E+03	.2535E+03	.2427E+03	.2287E+03	.2126E+03	.1956E+03
PSS 2	.6722E+01	.2557E+01	.1916E+01	.5016E+01	.1165E+02	.2122E+02	.3282E+02	.4549E+02	.5836E+02
PSS 3	.2437E+03	.2562E+03	.2602E+03	.2552E+03	.2419E+03	.2215E+03	.1959E+03	.1672E+03	.1372E+03

## DISPLACEMENTS

UX	-.4125E-02	-.3370E-02	-.2583E-02	-.1800E-02	-.1054E-02	-.3745E-03	.2127E-03	.6915E-03	.1054E-02
UY	-.2183E-10	-.3434E-10	.8426E-11	.5197E-10	-.1073E-11	.4364E-10	-.4241E-10	-.3110E-10	-.2251E-10
UZ	.1759E+00	.1777E+00	.1791E+00	.1802E+00	.1809E+00	.1813E+00	.1814E+00	.1814E+00	.1812E+00

## NORMAL STRAINS

EXX	.7297E-03	.7767E-03	.7908E-03	.7702E-03	.7166E-03	.6357E-03	.5348E-03	.4221E-03	.3053E-03
EYY	.7766E-03	.7947E-03	.8040E-03	.8040E-03	.7953E-03	.7793E-03	.7572E-03	.7306E-03	.7014E-03
EZZ	-.9123E-03	-.9509E-03	-.9648E-03	-.9527E-03	-.9160E-03	-.8587E-03	-.7858E-03	-.7033E-03	-.6166E-03

## SHEAR STRAINS

EXY	.3244E-11	-.1428E-11	-.8464E-12	.1650E-11	-.2848E-11	-.3660E-11	-.4860E-12	.7444E-11	-.2904E-11
EXZ	.1009E-03	.7149E-04	.4027E-04	.9196E-05	-.1980E-04	-.4505E-04	-.6542E-04	-.8036E-04	-.8974E-04
EYZ	.5934E-14	.1164E-11	-.9777E-12	.7829E-12	.9048E-13	-.2425E-11	-.8554E-12	.1112E-11	.9049E-13

## PRINCIPAL STRAINS

PE 1	.7766E-03	.7947E-03	.8040E-03	.8040E-03	.7953E-03	.7793E-03	.7572E-03	.7306E-03	.7014E-03
PE 2	.7312E-03	.7774E-03	.7910E-03	.7702E-03	.7167E-03	.6361E-03	.5356E-03	.4236E-03	.3075E-03
PE 3	-.9138E-03	-.9516E-03	-.9650E-03	-.9527E-03	-.9160E-03	-.8590E-03	-.7867E-03	-.7047E-03	-.6188E-03

Appendix 6E-b Average HBP

PRINCIPAL SHEAR STRAINS

PSE 1	.1690E-02	.1746E-02	.1769E-02	.1757E-02	.1711E-02	.1638E-02	.1544E-02	.1435E-02	.1320E-02
PSE 2	.4538E-04	.1726E-04	.1293E-04	.3386E-04	.7865E-04	.1432E-03	.2215E-03	.3070E-03	.3939E-03
PSE 3	.1645E-02	.1729E-02	.1756E-02	.1723E-02	.1633E-02	.1495E-02	.1322E-02	.1128E-02	.9262E-03

Z= 18.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.3799E+02	.3883E+02	.3934E+02	.3951E+02	.3935E+02	.3900E+02	.3836E+02	.3743E+02	.3628E+02
SYX	.4809E+02	.4885E+02	.4944E+02	.4985E+02	.5008E+02	.5026E+02	.5028E+02	.5011E+02	.4979E+02
SZZ	-.1539E+02	-.1563E+02	-.1582E+02	-.1595E+02	-.1602E+02	-.1607E+02	-.1608E+02	-.1603E+02	-.1595E+02

SHEAR STRESSES

SXY	.2831E-07	.8551E-08	-.2154E-07	-.9582E-08	.1600E-07	-.9651E-08	.9024E-08	.1289E-07	.1436E-08
SXZ	.2586E+01	.2287E+01	.1982E+01	.1680E+01	.1385E+01	.1106E+01	.8471E+00	.6145E+00	.4109E+00
SYZ	-.4941E-08	-.1272E-07	.3080E-08	-.8156E-08	.1090E-08	.2158E-07	-.2790E-07	-.9929E-08	-.5601E-08

PRINCIPAL STRESSES

PS 1	.4809E+02	.4885E+02	.4944E+02	.4985E+02	.5008E+02	.5026E+02	.5028E+02	.5011E+02	.4979E+02
PS 2	.3812E+02	.3893E+02	.3941E+02	.3956E+02	.3939E+02	.3902E+02	.3838E+02	.3744E+02	.3629E+02



## Appendix 6E-b Average HBP

PS 3    -.1552E+02   -.1573E+02   -.1589E+02   -.1600E+02   -.1605E+02   -.1609E+02   -.1609E+02   -.1604E+02   -.1595E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .3180E+02    .3229E+02    .3266E+02    .3292E+02    .3307E+02    .3317E+02    .3319E+02    .3307E+02    .3287E+02  
PSS 2    .4985E+01    .4962E+01    .5015E+01    .5145E+01    .5349E+01    .5622E+01    .5954E+01    .6334E+01    .6751E+01  
PSS 3    .2682E+02    .2733E+02    .2765E+02    .2778E+02    .2772E+02    .2755E+02    .2723E+02    .2674E+02    .2612E+02

## DISPLACEMENTS

UX        -.1399E-01   -.1310E-01   -.1218E-01   -.1126E-01   -.1034E-01   -.9424E-02   -.8520E-02   -.7648E-02   -.6816E-02  
UY        .5137E-10   .1888E-10   -.2231E-10   .8423E-11   -.1693E-10   -.1172E-10   -.2242E-10   .3184E-10   .1849E-10  
UZ        .1572E+00   .1585E+00   .1597E+00   .1608E+00   .1618E+00   .1626E+00   .1633E+00   .1640E+00   .1646E+00

## NORMAL STRAINS

EXX        .8850E-03    .9068E-03    .9190E-03    .9214E-03    .9143E-03    .9009E-03    .8797E-03    .8502E-03    .8146E-03  
EYY        .1339E-02    .1358E-02    .1374E-02    .1387E-02    .1397E-02    .1408E-02    .1416E-02    .1421E-02    .1422E-02  
EZZ        -.1517E-02   -.1544E-02   -.1563E-02   -.1574E-02   -.1577E-02   -.1577E-02   -.1570E-02   -.1556E-02   -.1536E-02

## SHEAR STRAINS

EXY        .2548E-11    .7696E-12   -.1939E-11   -.8624E-12   .1440E-11   -.8686E-12   .8122E-12   .1160E-11   .1292E-12  
EXZ        .2328E-03    .2058E-03    .1784E-03    .1512E-03    .1247E-03    .9950E-04    .7624E-04    .5530E-04    .3698E-04  
EYZ        -.4447E-12   -.1145E-11    .2772E-12   -.7340E-12    .9810E-13    .1942E-11   -.2511E-11   -.8936E-12   -.5041E-12

## PRINCIPAL STRAINS

PE 1        .1339E-02    .1358E-02    .1374E-02    .1387E-02    .1397E-02    .1408E-02    .1416E-02    .1421E-02    .1422E-02  
PE 2        .8907E-03    .9112E-03    .9222E-03    .9236E-03    .9158E-03    .9019E-03    .8803E-03    .8505E-03    .8148E-03  
PE 3        -.1523E-02   -.1548E-02   -.1566E-02   -.1576E-02   -.1579E-02   -.1578E-02   -.1571E-02   -.1556E-02   -.1536E-02

## PRINCIPAL SHEAR STRAINS

PSE 1        .2862E-02    .2906E-02    .2940E-02    .2963E-02    .2976E-02    .2986E-02    .2987E-02    .2977E-02    .2958E-02  
PSE 2        .4486E-03    .4466E-03    .4514E-03    .4631E-03    .4814E-03    .5060E-03    .5358E-03    .5701E-03    .6076E-03  
PSE 3        .2414E-02    .2460E-02    .2488E-02    .2500E-02    .2495E-02    .2480E-02    .2451E-02    .2407E-02    .2351E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-b Average HBP

31.00      4.00  
32.00      4.00

Z= 6.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.1714E+03	.1216E+03	.7829E+02	.4258E+02	.1450E+02	-.6893E+01	-.2276E+02	-.3410E+02	-.4171E+02
SYX	.3136E+03	.2862E+03	.2615E+03	.2402E+03	.2225E+03	.2081E+03	.1968E+03	.1883E+03	.1824E+03
SZZ	-.4268E+02	-.3776E+02	-.3329E+02	-.2942E+02	-.2617E+02	-.2354E+02	-.2146E+02	-.1990E+02	-.1881E+02

SHEAR STRESSES

SXY	.1360E-05	-.6874E-07	.6306E-06	.5590E-07	.7418E-06	-.4115E-06	-.5646E-06	.1385E-06	.1736E-06
SXZ	-.1388E+02	-.1375E+02	-.1301E+02	-.1185E+02	-.1040E+02	-.8794E+01	-.7096E+01	-.5348E+01	-.3575E+01
SYZ	.3332E-06	.1363E-06	-.1817E-07	-.8532E-07	-.1411E-06	.7594E-07	-.7262E-07	.8458E-07	-.6806E-07

PRINCIPAL STRESSES

PS 1	.3136E+03	.2862E+03	.2615E+03	.2402E+03	.2225E+03	.2081E+03	.1968E+03	.1883E+03	.1824E+03
PS 2	.1723E+03	.1228E+03	.7979E+02	.4448E+02	.1700E+02	-.3108E+01	-.1498E+02	-.1811E+02	-.1827E+02
PS 3	-.4358E+02	-.3894E+02	-.3479E+02	-.3132E+02	-.2868E+02	-.2732E+02	-.2923E+02	-.3589E+02	-.4225E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1786E+03	.1626E+03	.1481E+03	.1358E+03	.1256E+03	.1177E+03	.1130E+03	.1121E+03	.1123E+03
PSS 2	.7066E+02	.8169E+02	.9085E+02	.9785E+02	.1027E+03	.1056E+03	.1059E+03	.1032E+03	.1003E+03
PSS 3	.1079E+03	.8088E+02	.5729E+02	.3790E+02	.2284E+02	.1211E+02	.7126E+01	.8890E+01	.1199E+02

## DISPLACEMENTS

UX	.1302E-02	.1440E-02	.1479E-02	.1436E-02	.1327E-02	.1168E-02	.9722E-03	.7498E-03	.5092E-03
UY	-.4391E-10	.2774E-10	-.3436E-10	-.2182E-10	-.1280E-11	.1373E-10	-.2091E-11	.1667E-10	.8444E-11
UZ	.1808E+00	.1804E+00	.1800E+00	.1795E+00	.1791E+00	.1787E+00	.1783E+00	.1780E+00	.1778E+00

## NORMAL STRAINS

EXX	.1915E-03	.8672E-04	-.3946E-05	-.7797E-04	-.1355E-03	-.1787E-03	-.2103E-03	-.2326E-03	-.2474E-03
EYY	.6715E-03	.6421E-03	.6143E-03	.5889E-03	.5664E-03	.5469E-03	.5308E-03	.5181E-03	.5089E-03
EZZ	-.5311E-03	-.4513E-03	-.3805E-03	-.3210E-03	-.2728E-03	-.2349E-03	-.2060E-03	-.1847E-03	-.1701E-03

## SHEAR STRAINS

EXY	.9181E-11	-.4640E-12	.4256E-11	.3773E-12	.5007E-11	-.2778E-11	-.3811E-11	.9348E-12	.1172E-11
EXZ	-.9371E-04	-.9279E-04	-.8785E-04	-.7996E-04	-.7020E-04	-.5936E-04	-.4790E-04	-.3610E-04	-.2413E-04
EYZ	.2249E-11	.9202E-12	-.1226E-12	-.5759E-12	-.9525E-12	.5126E-12	-.4902E-12	.5709E-12	-.4594E-12

## PRINCIPAL STRAINS

PE 1	.6715E-03	.6421E-03	.6143E-03	.5889E-03	.5664E-03	.5469E-03	.5308E-03	.5181E-03	.5089E-03
PE 2	.1945E-03	.9069E-04	.1110E-05	-.7156E-04	-.1271E-03	-.1660E-03	-.1841E-03	-.1787E-03	-.1683E-03
PE 3	-.5342E-03	-.4552E-03	-.3856E-03	-.3274E-03	-.2812E-03	-.2477E-03	-.2322E-03	-.2387E-03	-.2492E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1206E-02	.1097E-02	.9999E-03	.9163E-03	.8476E-03	.7946E-03	.7630E-03	.7567E-03	.7582E-03
PSE 2	.4770E-03	.5514E-03	.6132E-03	.6605E-03	.6934E-03	.7129E-03	.7149E-03	.6967E-03	.6772E-03
PSE 3	.7286E-03	.5459E-03	.3867E-03	.2558E-03	.1542E-03	.8173E-04	.4810E-04	.6001E-04	.8095E-04

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.3510E+02	.3383E+02	.3248E+02	.3113E+02	.2985E+02	.2870E+02	.2770E+02	.2691E+02	.2632E+02
SYX	.4948E+02	.4910E+02	.4863E+02	.4812E+02	.4762E+02	.4716E+02	.4676E+02	.4644E+02	.4620E+02
SZZ	-.1585E+02	-.1575E+02	-.1562E+02	-.1548E+02	-.1533E+02	-.1520E+02	-.1507E+02	-.1497E+02	-.1490E+02

SHEAR STRESSES

SXY	.1679E-07	.4643E-07	.1124E-07	-.6035E-07	.3075E-07	-.8255E-07	.8475E-08	.7575E-08	-.3049E-07
SXZ	.2382E+00	.9858E-01	-.8174E-02	-.8360E-01	-.1301E+00	-.1505E+00	-.1485E+00	-.1281E+00	-.9338E-01
SYZ	.1416E-07	-.9273E-08	-.1322E-07	.2000E-09	-.2741E-08	-.4780E-08	-.6926E-08	-.1303E-07	-.6814E-09

PRINCIPAL STRESSES

PS 1	.4948E+02	.4910E+02	.4863E+02	.4812E+02	.4762E+02	.4716E+02	.4676E+02	.4644E+02	.4620E+02
PS 2	.3510E+02	.3383E+02	.3248E+02	.3113E+02	.2985E+02	.2870E+02	.2770E+02	.2691E+02	.2632E+02
PS 3	-.1586E+02	-.1575E+02	-.1562E+02	-.1548E+02	-.1533E+02	-.1520E+02	-.1507E+02	-.1497E+02	-.1490E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3267E+02	.3243E+02	.3213E+02	.3180E+02	.3148E+02	.3118E+02	.3092E+02	.3071E+02	.3055E+02
PSS 2	.7189E+01	.7636E+01	.8076E+01	.8496E+01	.8885E+01	.9232E+01	.9528E+01	.9766E+01	.9939E+01
PSS 3	.2548E+02	.2479E+02	.2405E+02	.2330E+02	.2259E+02	.2195E+02	.2139E+02	.2094E+02	.2061E+02

DISPLACEMENTS

## Appendix 6E-b Average HBP

UX	-.6012E-02	-.5244E-02	-.4524E-02	-.3851E-02	-.3219E-02	-.2624E-02	-.2060E-02	-.1522E-02	-.1004E-02
UY	-.4189E-11	-.3237E-10	-.9718E-11	.2320E-10	-.2099E-11	-.4316E-10	.5239E-10	.4762E-10	.2473E-11
UZ	.1650E+00	.1654E+00	.1658E+00	.1661E+00	.1663E+00	.1665E+00	.1666E+00	.1666E+00	.1667E+00

## NORMAL STRAINS

EXX	.7776E-03	.7386E-03	.6975E-03	.6568E-03	.6183E-03	.5836E-03	.5538E-03	.5298E-03	.5122E-03
EYY	.1425E-02	.1426E-02	.1424E-02	.1421E-02	.1418E-02	.1415E-02	.1411E-02	.1409E-02	.1407E-02
EZZ	-.1515E-02	-.1493E-02	-.1467E-02	-.1441E-02	-.1415E-02	-.1392E-02	-.1371E-02	-.1355E-02	-.1343E-02

## SHEAR STRAINS

EXY	.1511E-11	.4178E-11	.1012E-11	-.5432E-11	.2767E-11	-.7429E-11	.7628E-12	.6818E-12	-.2744E-11
EXZ	.2144E-04	.8872E-05	-.7357E-06	-.7524E-05	-.1171E-04	-.1355E-04	-.1337E-04	-.1152E-04	-.8404E-05
EYZ	.1275E-11	-.8345E-12	-.1190E-11	.1800E-13	-.2467E-12	-.4302E-12	-.6234E-12	-.1173E-11	-.6133E-13

## PRINCIPAL STRAINS

PE 1	.1425E-02	.1426E-02	.1424E-02	.1421E-02	.1418E-02	.1415E-02	.1411E-02	.1409E-02	.1407E-02
PE 2	.7777E-03	.7386E-03	.6975E-03	.6568E-03	.6183E-03	.5836E-03	.5538E-03	.5298E-03	.5122E-03
PE 3	-.1515E-02	-.1493E-02	-.1467E-02	-.1441E-02	-.1415E-02	-.1392E-02	-.1371E-02	-.1355E-02	-.1343E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2940E-02	.2918E-02	.2891E-02	.2862E-02	.2833E-02	.2806E-02	.2783E-02	.2764E-02	.2749E-02
PSE 2	.6470E-03	.6872E-03	.7268E-03	.7647E-03	.7997E-03	.8309E-03	.8576E-03	.8789E-03	.8946E-03
PSE 3	.2293E-02	.2231E-02	.2165E-02	.2097E-02	.2033E-02	.1975E-02	.1925E-02	.1885E-02	.1855E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-b Average HBP

39.00      4.00  
40.00      4.00  
41.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
33.00      4.00  
34.00      4.00  
35.00      4.00  
36.00      4.00  
37.00      4.00  
38.00      4.00  
39.00      4.00  
40.00      4.00  
41.00      4.00

NORMAL STRESSES

SXX    -.4600E+02   -.4742E+02   -.4600E+02   -.4171E+02   -.3410E+02   -.2276E+02   -.6893E+01   .1450E+02   .4258E+02  
SYY    .1789E+03   .1778E+03   .1789E+03   .1824E+03   .1883E+03   .1968E+03   .2081E+03   .2225E+03   .2402E+03  
SZZ    -.1817E+02   -.1796E+02   -.1817E+02   -.1881E+02   -.1990E+02   -.2146E+02   -.2354E+02   -.2617E+02   -.2942E+02

SHEAR STRESSES

SXY    -.3758E-06   -.5584E-06   .4176E-08   -.3087E-06   -.1935E-06   -.5757E-06   -.8182E-06   -.1056E-05   -.1776E-07  
SXZ    -.1789E+01   .1014E-05   .1789E+01   .3575E+01   .5348E+01   .7096E+01   .8794E+01   .1040E+02   .1185E+02  
SYZ    .6697E-07   .2943E-07   .5745E-08   -.6960E-07   -.8187E-07   -.1168E-06   .1449E-07   -.1758E-06   .9343E-07

PRINCIPAL STRESSES

PS 1    .1789E+03   .1778E+03   .1789E+03   .1824E+03   .1883E+03   .1968E+03   .2081E+03   .2225E+03   .2402E+03  
PS 2    -.1806E+02   -.1796E+02   -.1806E+02   -.1827E+02   -.1811E+02   -.1498E+02   -.3108E+01   .1700E+02   .4448E+02  
PS 3    -.4612E+02   -.4742E+02   -.4612E+02   -.4225E+02   -.3589E+02   -.2923E+02   -.2732E+02   -.2868E+02   -.3132E+02



## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1125E+03	.1126E+03	.1125E+03	.1123E+03	.1121E+03	.1130E+03	.1177E+03	.1256E+03	.1358E+03
PSS 2	.9848E+02	.9786E+02	.9848E+02	.1003E+03	.1032E+03	.1059E+03	.1056E+03	.1027E+03	.9785E+02
PSS 3	.1403E+02	.1473E+02	.1403E+02	.1199E+02	.8890E+01	.7126E+01	.1211E+02	.2284E+02	.3790E+02

## DISPLACEMENTS

UX	.2573E-03	-.3928E-10	-.2573E-03	-.5092E-03	-.7498E-03	-.9722E-03	-.1168E-02	-.1327E-02	-.1436E-02
UY	-.2035E-10	-.6277E-11	-.1325E-10	-.2020E-10	.1125E-10	-.1066E-10	.1195E-10	-.8407E-11	-.2583E-10
UZ	.1777E+00	.1777E+00	.1777E+00	.1778E+00	.1780E+00	.1783E+00	.1787E+00	.1791E+00	.1795E+00

## NORMAL STRAINS

EXX	-.2557E-03	-.2584E-03	-.2557E-03	-.2474E-03	-.2326E-03	-.2103E-03	-.1787E-03	-.1355E-03	-.7797E-04
EYY	.5034E-03	.5016E-03	.5034E-03	.5089E-03	.5181E-03	.5308E-03	.5469E-03	.5664E-03	.5889E-03
EZZ	-.1617E-03	-.1589E-03	-.1617E-03	-.1701E-03	-.1847E-03	-.2060E-03	-.2349E-03	-.2728E-03	-.3210E-03

## SHEAR STRAINS

EXY	-.2537E-11	-.3769E-11	.2819E-13	-.2084E-11	-.1306E-11	-.3886E-11	-.5523E-11	-.7128E-11	-.1199E-12
EXZ	-.1207E-04	.6846E-11	.1207E-04	.2413E-04	.3610E-04	.4790E-04	.5936E-04	.7020E-04	.7996E-04
EYZ	.4521E-12	.1987E-12	.3878E-13	-.4698E-12	-.5526E-12	-.7884E-12	.9782E-13	-.1187E-11	.6307E-12

## PRINCIPAL STRAINS

PE 1	.5034E-03	.5016E-03	.5034E-03	.5089E-03	.5181E-03	.5308E-03	.5469E-03	.5664E-03	.5889E-03
PE 2	-.1613E-03	-.1589E-03	-.1613E-03	-.1683E-03	-.1787E-03	-.1841E-03	-.1660E-03	-.1271E-03	-.7156E-04
PE 3	-.2560E-03	-.2584E-03	-.2560E-03	-.2492E-03	-.2387E-03	-.2322E-03	-.2477E-03	-.2812E-03	-.3274E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.7595E-03	.7600E-03	.7595E-03	.7582E-03	.7567E-03	.7630E-03	.7946E-03	.8476E-03	.9163E-03
PSE 2	.6648E-03	.6605E-03	.6648E-03	.6772E-03	.6967E-03	.7149E-03	.7129E-03	.6934E-03	.6605E-03
PSE 3	.9471E-04	.9942E-04	.9471E-04	.8095E-04	.6001E-04	.4810E-04	.8173E-04	.1542E-03	.2558E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.2596E+02	.2584E+02	.2596E+02	.2632E+02	.2691E+02	.2770E+02	.2870E+02	.2985E+02	.3113E+02
SYX	.4605E+02	.4601E+02	.4605E+02	.4620E+02	.4644E+02	.4676E+02	.4716E+02	.4762E+02	.4812E+02
SZZ	-.1485E+02	-.1484E+02	-.1485E+02	-.1490E+02	-.1497E+02	-.1507E+02	-.1520E+02	-.1533E+02	-.1548E+02

SHEAR STRESSES

SXY	-.6029E-07	-.3456E-08	-.4768E-07	-.3085E-07	.1946E-07	.9046E-08	-.4468E-07	-.1363E-07	-.4228E-07
SXZ	-.4911E-01	-.1247E-06	.4911E-01	.9338E-01	.1281E+00	.1485E+00	.1505E+00	.1301E+00	.8360E-01
SYZ	-.2289E-08	.7185E-08	.5514E-08	.2318E-08	.3841E-08	-.7297E-08	.2445E-08	.3183E-08	-.2603E-08

PRINCIPAL STRESSES

PS 1	.4605E+02	.4601E+02	.4605E+02	.4620E+02	.4644E+02	.4676E+02	.4716E+02	.4762E+02	.4812E+02
PS 2	.2596E+02	.2584E+02	.2596E+02	.2632E+02	.2691E+02	.2770E+02	.2870E+02	.2985E+02	.3113E+02
PS 3	-.1485E+02	-.1484E+02	-.1485E+02	-.1490E+02	-.1497E+02	-.1507E+02	-.1520E+02	-.1533E+02	-.1548E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3045E+02	.3042E+02	.3045E+02	.3055E+02	.3071E+02	.3092E+02	.3118E+02	.3148E+02	.3180E+02
PSS 2	.1005E+02	.1008E+02	.1005E+02	.9939E+01	.9766E+01	.9528E+01	.9232E+01	.8885E+01	.8496E+01
PSS 3	.2041E+02	.2034E+02	.2041E+02	.2061E+02	.2094E+02	.2139E+02	.2195E+02	.2259E+02	.2330E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.4985E-03	.2200E-11	.4985E-03	.1004E-02	.1522E-02	.2060E-02	.2624E-02	.3219E-02	.3851E-02
UY	-.1928E-10	.5994E-11	-.1993E-10	.2287E-11	-.5594E-10	-.3050E-10	.3280E-10	-.2448E-11	.1483E-10
UZ	.1667E+00	.1667E+00	.1667E+00	.1667E+00	.1666E+00	.1666E+00	.1665E+00	.1663E+00	.1661E+00

## NORMAL STRAINS

EXX	.5015E-03	.4979E-03	.5015E-03	.5122E-03	.5298E-03	.5538E-03	.5836E-03	.6183E-03	.6568E-03
EYY	.1406E-02	.1405E-02	.1406E-02	.1407E-02	.1409E-02	.1411E-02	.1415E-02	.1418E-02	.1421E-02
EZZ	-.1335E-02	-.1333E-02	-.1335E-02	-.1343E-02	-.1355E-02	-.1371E-02	-.1392E-02	-.1415E-02	-.1441E-02

## SHEAR STRAINS

EXY	-.5426E-11	-.3110E-12	-.4291E-11	-.2776E-11	.1751E-11	.8142E-12	-.4021E-11	-.1227E-11	-.3805E-11
EXZ	-.4420E-05	-.1123E-10	.4420E-05	.8404E-05	.1152E-04	.1337E-04	.1355E-04	.1171E-04	.7524E-05
EYZ	-.2060E-12	.6466E-12	.4963E-12	.2086E-12	.3457E-12	-.6568E-12	.2201E-12	.2865E-12	-.2343E-12

## PRINCIPAL STRAINS

PE 1	.1406E-02	.1405E-02	.1406E-02	.1407E-02	.1409E-02	.1411E-02	.1415E-02	.1418E-02	.1421E-02
PE 2	.5015E-03	.4979E-03	.5015E-03	.5122E-03	.5298E-03	.5538E-03	.5836E-03	.6183E-03	.6568E-03
PE 3	-.1335E-02	-.1333E-02	-.1335E-02	-.1343E-02	-.1355E-02	-.1371E-02	-.1392E-02	-.1415E-02	-.1441E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2741E-02	.2738E-02	.2741E-02	.2749E-02	.2764E-02	.2783E-02	.2806E-02	.2833E-02	.2862E-02
PSE 2	.9041E-03	.9073E-03	.9041E-03	.8946E-03	.8789E-03	.8576E-03	.8309E-03	.7997E-03	.7647E-03
PSE 3	.1837E-02	.1831E-02	.1837E-02	.1855E-02	.1885E-02	.1925E-02	.1975E-02	.2033E-02	.2097E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-b Average HBP

48.00      4.00  
49.00      4.00  
50.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
42.00      4.00  
43.00      4.00  
44.00      4.00  
45.00      4.00  
46.00      4.00  
47.00      4.00  
48.00      4.00  
49.00      4.00  
50.00      4.00

NORMAL STRESSES

SXX    .7829E+02   .1216E+03   .1714E+03   .2253E+03   .2804E+03   .3334E+03   .3807E+03   .4184E+03   .4430E+03  
SYY    .2615E+03   .2862E+03   .3136E+03   .3426E+03   .3718E+03   .3993E+03   .4232E+03   .4417E+03   .4531E+03  
SZZ    -.3329E+02   -.3776E+02   -.4268E+02   -.4786E+02   -.5302E+02   -.5787E+02   -.6210E+02   -.6538E+02   -.6746E+02

SHEAR STRESSES

SXY    -.3234E-06   .4921E-06   .1310E-05   .3394E-07   -.7387E-06   .1351E-06   .4527E-06   -.4790E-06   -.1739E-06  
SXZ    .1301E+02   .1375E+02   .1388E+02   .1329E+02   .1190E+02   .9692E+01   .6675E+01   .2934E+01   -.1362E+01  
SYZ    -.6298E-07   -.1995E-06   -.1262E-06   -.1154E-06   .2080E-06   -.1089E-06   .3287E-06   .2763E-08   .1725E-06

PRINCIPAL STRESSES

PS 1    .2615E+03   .2862E+03   .3136E+03   .3426E+03   .3718E+03   .3993E+03   .4232E+03   .4417E+03   .4531E+03  
PS 2    .7979E+02   .1228E+03   .1723E+03   .2259E+03   .2809E+03   .3337E+03   .3808E+03   .4184E+03   .4430E+03  
PS 3    -.3479E+02   -.3894E+02   -.4358E+02   -.4850E+02   -.5345E+02   -.5811E+02   -.6220E+02   -.6540E+02   -.6746E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1481E+03	.1626E+03	.1786E+03	.1956E+03	.2126E+03	.2287E+03	.2427E+03	.2535E+03	.2603E+03
PSS 2	.9085E+02	.8169E+02	.7066E+02	.5836E+02	.4549E+02	.3282E+02	.2122E+02	.1165E+02	.5016E+01
PSS 3	.5729E+02	.8088E+02	.1079E+03	.1372E+03	.1672E+03	.1959E+03	.2215E+03	.2419E+03	.2552E+03

## DISPLACEMENTS

UX	-.1479E-02	-.1440E-02	-.1302E-02	-.1054E-02	-.6915E-03	-.2127E-03	.3745E-03	.1054E-02	.1800E-02
UY	-.2975E-10	-.4583E-10	.4623E-10	-.2409E-10	.2970E-10	.3160E-10	-.3934E-10	-.2398E-10	-.3668E-10
UZ	.1800E+00	.1804E+00	.1808E+00	.1812E+00	.1814E+00	.1814E+00	.1813E+00	.1809E+00	.1802E+00

## NORMAL STRAINS

EXX	-.3946E-05	.8672E-04	.1915E-03	.3053E-03	.4221E-03	.5348E-03	.6357E-03	.7166E-03	.7702E-03
EYY	.6143E-03	.6421E-03	.6715E-03	.7014E-03	.7306E-03	.7572E-03	.7793E-03	.7953E-03	.8040E-03
EZZ	-.3805E-03	-.4513E-03	-.5311E-03	-.6166E-03	-.7033E-03	-.7858E-03	-.8587E-03	-.9160E-03	-.9527E-03

## SHEAR STRAINS

EXY	-.2183E-11	.3322E-11	.8842E-11	.2291E-12	-.4986E-11	.9117E-12	.3056E-11	-.3233E-11	-.1174E-11
EXZ	.8785E-04	.9279E-04	.9371E-04	.8974E-04	.8036E-04	.6542E-04	.4505E-04	.1980E-04	-.9196E-05
EYZ	-.4251E-12	-.1347E-11	-.8519E-12	-.7786E-12	.1404E-11	-.7348E-12	.2218E-11	.1865E-13	.1164E-11

## PRINCIPAL STRAINS

PE 1	.6143E-03	.6421E-03	.6715E-03	.7014E-03	.7306E-03	.7572E-03	.7793E-03	.7953E-03	.8040E-03
PE 2	.1110E-05	.9069E-04	.1945E-03	.3075E-03	.4236E-03	.5356E-03	.6361E-03	.7167E-03	.7702E-03
PE 3	-.3856E-03	-.4552E-03	-.5342E-03	-.6188E-03	-.7047E-03	-.7867E-03	-.8590E-03	-.9160E-03	-.9527E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9999E-03	.1097E-02	.1206E-02	.1320E-02	.1435E-02	.1544E-02	.1638E-02	.1711E-02	.1757E-02
PSE 2	.6132E-03	.5514E-03	.4770E-03	.3939E-03	.3070E-03	.2215E-03	.1432E-03	.7865E-04	.3386E-04
PSE 3	.3867E-03	.5459E-03	.7286E-03	.9262E-03	.1128E-02	.1322E-02	.1495E-02	.1633E-02	.1723E-02

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.3248E+02	.3383E+02	.3510E+02	.3628E+02	.3743E+02	.3836E+02	.3900E+02	.3935E+02	.3951E+02
SYX	.4863E+02	.4910E+02	.4948E+02	.4979E+02	.5011E+02	.5028E+02	.5026E+02	.5008E+02	.4985E+02
SZZ	-.1562E+02	-.1575E+02	-.1585E+02	-.1595E+02	-.1603E+02	-.1608E+02	-.1607E+02	-.1602E+02	-.1595E+02

SHEAR STRESSES

SXY	-.1097E-07	.3205E-07	-.2424E-07	.2519E-07	-.2758E-07	-.4164E-08	.3812E-08	.4097E-07	.1133E-07
SXZ	.8175E-02	-.9858E-01	-.2382E+00	-.4109E+00	-.6145E+00	-.8471E+00	-.1106E+01	-.1385E+01	-.1680E+01
SYZ	-.3508E-09	-.3987E-08	-.2649E-07	.2364E-08	-.1219E-07	.1753E-07	-.1544E-07	-.7408E-08	-.1225E-07

PRINCIPAL STRESSES

PS 1	.4863E+02	.4910E+02	.4948E+02	.4979E+02	.5011E+02	.5028E+02	.5026E+02	.5008E+02	.4985E+02
PS 2	.3248E+02	.3383E+02	.3510E+02	.3629E+02	.3744E+02	.3838E+02	.3902E+02	.3939E+02	.3956E+02
PS 3	-.1562E+02	-.1575E+02	-.1586E+02	-.1595E+02	-.1604E+02	-.1609E+02	-.1609E+02	-.1605E+02	-.1600E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3213E+02	.3243E+02	.3267E+02	.3287E+02	.3307E+02	.3319E+02	.3317E+02	.3307E+02	.3292E+02
PSS 2	.8076E+01	.7636E+01	.7189E+01	.6751E+01	.6334E+01	.5954E+01	.5622E+01	.5349E+01	.5145E+01
PSS 3	.2405E+02	.2479E+02	.2548E+02	.2612E+02	.2674E+02	.2723E+02	.2755E+02	.2772E+02	.2778E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.4524E-02	.5244E-02	.6012E-02	.6816E-02	.7648E-02	.8520E-02	.9424E-02	.1034E-01	.1126E-01
UY	-.5361E-11	.4388E-10	-.8688E-11	-.8779E-10	-.3234E-12	-.5266E-10	.8203E-11	.3980E-10	.7303E-11
UZ	.1658E+00	.1654E+00	.1650E+00	.1646E+00	.1640E+00	.1633E+00	.1626E+00	.1618E+00	.1608E+00

## NORMAL STRAINS

EXX	.6975E-03	.7386E-03	.7776E-03	.8146E-03	.8502E-03	.8797E-03	.9009E-03	.9143E-03	.9214E-03
EYY	.1424E-02	.1426E-02	.1425E-02	.1422E-02	.1421E-02	.1416E-02	.1408E-02	.1397E-02	.1387E-02
EZZ	-.1467E-02	-.1493E-02	-.1515E-02	-.1536E-02	-.1556E-02	-.1570E-02	-.1577E-02	-.1577E-02	-.1574E-02

## SHEAR STRAINS

EXY	-.9876E-12	.2885E-11	-.2181E-11	.2267E-11	-.2482E-11	-.3748E-12	.3431E-12	.3688E-11	.1019E-11
EXZ	.7357E-06	-.8872E-05	-.2144E-04	-.3698E-04	-.5530E-04	-.7624E-04	-.9950E-04	-.1247E-03	-.1512E-03
EYZ	-.3157E-13	-.3589E-12	-.2384E-11	.2128E-12	-.1097E-11	.1577E-11	-.1389E-11	-.6667E-12	-.1102E-11

## PRINCIPAL STRAINS

PE 1	.1424E-02	.1426E-02	.1425E-02	.1422E-02	.1421E-02	.1416E-02	.1408E-02	.1397E-02	.1387E-02
PE 2	.6975E-03	.7386E-03	.7777E-03	.8148E-03	.8505E-03	.8803E-03	.9019E-03	.9158E-03	.9236E-03
PE 3	-.1467E-02	-.1493E-02	-.1515E-02	-.1536E-02	-.1556E-02	-.1571E-02	-.1578E-02	-.1579E-02	-.1576E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2891E-02	.2918E-02	.2940E-02	.2958E-02	.2977E-02	.2987E-02	.2986E-02	.2976E-02	.2963E-02
PSE 2	.7268E-03	.6872E-03	.6470E-03	.6076E-03	.5701E-03	.5358E-03	.5060E-03	.4814E-03	.4631E-03
PSE 3	.2164E-02	.2231E-02	.2293E-02	.2351E-02	.2407E-02	.2451E-02	.2480E-02	.2495E-02	.2500E-02



Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-b Average HBP

57.00 4.00  
58.00 4.00  
59.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
51.00 4.00  
52.00 4.00  
53.00 4.00  
54.00 4.00  
55.00 4.00  
56.00 4.00  
57.00 4.00  
58.00 4.00  
59.00 4.00

NORMAL STRESSES

SXX .4521E+03 .4446E+03 .4215E+03 .3854E+03 .3398E+03 .2883E+03 .2344E+03 .1818E+03 .1334E+03  
 SYY .4560E+03 .4500E+03 .4354E+03 .4138E+03 .3867E+03 .3558E+03 .3230E+03 .2902E+03 .2588E+03  
 SZZ -.6810E+02 -.6725E+02 -.6497E+02 -.6147E+02 -.5702E+02 -.5192E+02 -.4648E+02 -.4101E+02 -.3576E+02

SHEAR STRESSES

SXY -.1325E-07 .3820E-06 -.4747E-06 -.3820E-06 -.4636E-06 .3265E-06 -.4747E-06 -.2666E-06 -.4285E-06  
 SXZ -.5966E+01 -.1059E+02 -.1496E+02 -.1881E+02 -.2198E+02 -.2440E+02 -.2603E+02 -.2691E+02 -.2711E+02  
 SYZ -.1111E-06 -.3770E-08 .0000E+00 -.3770E-08 -.1111E-06 -.1136E-06 .3665E-07 .8965E-07 .1259E-06

PRINCIPAL STRESSES

PS 1 .4560E+03 .4500E+03 .4354E+03 .4138E+03 .3867E+03 .3558E+03 .3230E+03 .2902E+03 .2588E+03  
 PS 2 .4521E+03 .4448E+03 .4220E+03 .3862E+03 .3410E+03 .2900E+03 .2368E+03 .1850E+03 .1376E+03  
 PS 3 -.6817E+02 -.6747E+02 -.6543E+02 -.6226E+02 -.5823E+02 -.5366E+02 -.4887E+02 -.4421E+02 -.4000E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2621E+03	.2587E+03	.2504E+03	.2380E+03	.2224E+03	.2047E+03	.1859E+03	.1672E+03	.1494E+03
PSS 2	.1916E+01	.2557E+01	.6722E+01	.1379E+02	.2282E+02	.3288E+02	.4310E+02	.5260E+02	.6061E+02
PSS 3	.2602E+03	.2562E+03	.2437E+03	.2242E+03	.1996E+03	.1718E+03	.1428E+03	.1146E+03	.8881E+02

## DISPLACEMENTS

UX	.2583E-02	.3370E-02	.4125E-02	.4821E-02	.5431E-02	.5939E-02	.6337E-02	.6627E-02	.6813E-02
UY	.2359E-10	.4568E-10	.0000E+00	.4568E-10	.2359E-10	.2153E-10	.1268E-12	.1901E-10	.1250E-10
UZ	.1791E+00	.1777E+00	.1759E+00	.1737E+00	.1713E+00	.1688E+00	.1660E+00	.1630E+00	.1600E+00

## NORMAL STRAINS

EXX	.7908E-03	.7767E-03	.7297E-03	.6553E-03	.5611E-03	.4548E-03	.3440E-03	.2365E-03	.1382E-03
EYY	.8040E-03	.7947E-03	.7766E-03	.7511E-03	.7192E-03	.6826E-03	.6430E-03	.6023E-03	.5617E-03
EZZ	-.9648E-03	-.9509E-03	-.9123E-03	-.8530E-03	-.7782E-03	-.6933E-03	-.6039E-03	-.5155E-03	-.4326E-03

## SHEAR STRAINS

EXY	-.8946E-13	.2579E-11	-.3204E-11	-.2579E-11	-.3129E-11	.2204E-11	-.3204E-11	-.1800E-11	-.2892E-11
EXZ	-.4027E-04	-.7149E-04	-.1009E-03	-.1270E-03	-.1484E-03	-.1647E-03	-.1757E-03	-.1817E-03	-.1830E-03
EYZ	-.7501E-12	-.2545E-13	.0000E+00	-.2545E-13	-.7501E-12	-.7671E-12	.2474E-12	.6052E-12	.8497E-12

## PRINCIPAL STRAINS

PE 1	.8040E-03	.7947E-03	.7766E-03	.7511E-03	.7192E-03	.6826E-03	.6430E-03	.6023E-03	.5617E-03
PE 2	.7910E-03	.7774E-03	.7312E-03	.6580E-03	.5652E-03	.4607E-03	.3521E-03	.2473E-03	.1526E-03
PE 3	-.9650E-03	-.9516E-03	-.9138E-03	-.8557E-03	-.7823E-03	-.6992E-03	-.6119E-03	-.5264E-03	-.4469E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1769E-02	.1746E-02	.1690E-02	.1607E-02	.1501E-02	.1382E-02	.1255E-02	.1129E-02	.1009E-02
PSE 2	.1294E-04	.1726E-04	.4538E-04	.9307E-04	.1540E-03	.2219E-03	.2910E-03	.3550E-03	.4091E-03
PSE 3	.1756E-02	.1729E-02	.1645E-02	.1514E-02	.1347E-02	.1160E-02	.9640E-03	.7736E-03	.5994E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.3934E+02	.3883E+02	.3799E+02	.3694E+02	.3559E+02	.3392E+02	.3198E+02	.2997E+02	.2782E+02
SYX	.4944E+02	.4885E+02	.4809E+02	.4726E+02	.4627E+02	.4506E+02	.4369E+02	.4231E+02	.4083E+02
SZZ	-.1582E+02	-.1563E+02	-.1539E+02	-.1512E+02	-.1482E+02	-.1445E+02	-.1404E+02	-.1361E+02	-.1316E+02

SHEAR STRESSES

SXY	-.1678E-07	.8121E-08	-.1117E-07	-.2302E-07	.3169E-07	-.2206E-07	.1863E-07	-.2198E-07	-.2713E-08
SXZ	-.1982E+01	-.2287E+01	-.2586E+01	-.2875E+01	-.3145E+01	-.3393E+01	-.3614E+01	-.3807E+01	-.3969E+01
SYZ	-.5315E-08	.6900E-08	.0000E+00	.6900E-08	-.5315E-08	-.2417E-07	.2327E-07	.7004E-08	-.5756E-08

PRINCIPAL STRESSES

PS 1	.4944E+02	.4885E+02	.4809E+02	.4726E+02	.4627E+02	.4506E+02	.4369E+02	.4231E+02	.4083E+02
PS 2	.3941E+02	.3893E+02	.3812E+02	.3710E+02	.3579E+02	.3415E+02	.3226E+02	.3030E+02	.2820E+02
PS 3	-.1589E+02	-.1573E+02	-.1552E+02	-.1528E+02	-.1501E+02	-.1469E+02	-.1432E+02	-.1394E+02	-.1354E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3266E+02	.3229E+02	.3180E+02	.3127E+02	.3064E+02	.2987E+02	.2900E+02	.2812E+02	.2719E+02
PSS 2	.5015E+01	.4962E+01	.4985E+01	.5079E+01	.5238E+01	.5452E+01	.5712E+01	.6004E+01	.6317E+01
PSS 3	.2765E+02	.2733E+02	.2682E+02	.2619E+02	.2540E+02	.2442E+02	.2329E+02	.2212E+02	.2087E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.1218E-01	.1310E-01	.1399E-01	.1488E-01	.1573E-01	.1653E-01	.1728E-01	.1798E-01	.1862E-01
UY	.3808E-10	-.5556E-11	.0000E+00	-.5556E-11	-.7833E-10	-.1598E-10	.1983E-10	-.3549E-10	-.5176E-10
UZ	.1597E+00	.1585E+00	.1572E+00	.1557E+00	.1541E+00	.1525E+00	.1508E+00	.1489E+00	.1470E+00

## NORMAL STRAINS

EXX	.9190E-03	.9068E-03	.8850E-03	.8565E-03	.8196E-03	.7735E-03	.7202E-03	.6641E-03	.6045E-03
EYY	.1374E-02	.1358E-02	.1339E-02	.1321E-02	.1300E-02	.1275E-02	.1247E-02	.1219E-02	.1190E-02
EZZ	-.1563E-02	-.1544E-02	-.1517E-02	-.1487E-02	-.1449E-02	-.1403E-02	-.1351E-02	-.1297E-02	-.1240E-02

## SHEAR STRAINS

EXY	-.1511E-11	.7309E-12	-.1005E-11	-.2072E-11	.2852E-11	-.1985E-11	.1677E-11	-.1979E-11	-.2442E-12
EXZ	-.1784E-03	-.2058E-03	-.2328E-03	-.2587E-03	-.2831E-03	-.3054E-03	-.3253E-03	-.3426E-03	-.3572E-03
EYZ	-.4784E-12	.6210E-12	.0000E+00	.6210E-12	-.4784E-12	-.2175E-11	.2094E-11	.6304E-12	-.5180E-12

## PRINCIPAL STRAINS

PE 1	.1374E-02	.1358E-02	.1339E-02	.1321E-02	.1300E-02	.1275E-02	.1247E-02	.1219E-02	.1190E-02
PE 2	.9222E-03	.9112E-03	.8907E-03	.8637E-03	.8284E-03	.7841E-03	.7329E-03	.6790E-03	.6216E-03
PE 3	-.1566E-02	-.1548E-02	-.1523E-02	-.1494E-02	-.1458E-02	-.1414E-02	-.1363E-02	-.1312E-02	-.1257E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2940E-02	.2906E-02	.2862E-02	.2814E-02	.2757E-02	.2689E-02	.2610E-02	.2531E-02	.2447E-02
PSE 2	.4514E-03	.4466E-03	.4486E-03	.4571E-03	.4714E-03	.4907E-03	.5140E-03	.5403E-03	.5685E-03
PSE 3	.2488E-02	.2460E-02	.2414E-02	.2357E-02	.2286E-02	.2198E-02	.2096E-02	.1991E-02	.1878E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5250.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.31 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-b Average HBP

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1264E+03	.1269E+03	.1213E+03	.1120E+03	.1024E+03	.9634E+02	.9735E+02	.1082E+03	.1312E+03
SYX	.2222E+03	.2312E+03	.2380E+03	.2440E+03	.2505E+03	.2588E+03	.2705E+03	.2864E+03	.3073E+03
SZZ	-.2936E+02	-.3049E+02	-.3122E+02	-.3176E+02	-.3237E+02	-.3332E+02	-.3487E+02	-.3720E+02	-.4044E+02

SHEAR STRESSES

SXY	-.2949E-07	.5336E-06	-.6001E-06	-.2104E-06	-.7905E-06	.1320E-05	-.5658E-06	-.1523E-06	-.4707E-06
SXZ	.1765E+02	.1676E+02	.1609E+02	.1579E+02	.1594E+02	.1652E+02	.1745E+02	.1858E+02	.1972E+02
SYZ	.6229E-07	.3294E-07	-.6583E-07	.8670E-07	-.4413E-07	.2734E-06	.5976E-07	-.1739E-06	.1693E-06

PRINCIPAL STRESSES

PS 1	.2222E+03	.2312E+03	.2380E+03	.2440E+03	.2505E+03	.2588E+03	.2705E+03	.2864E+03	.3073E+03
PS 2	.1284E+03	.1287E+03	.1230E+03	.1137E+03	.1043E+03	.9842E+02	.9961E+02	.1106E+03	.1334E+03

## Appendix 6E-b Average HBP

PS 3   -.3133E+02   -.3225E+02   -.3290E+02   -.3347E+02   -.3423E+02   -.3539E+02   -.3713E+02   -.3953E+02   -.4268E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1268E+03   .1317E+03   .1355E+03   .1387E+03   .1423E+03   .1471E+03   .1538E+03   .1630E+03   .1750E+03  
PSS 2   .4693E+02   .5123E+02   .5752E+02   .6517E+02   .7310E+02   .8022E+02   .8544E+02   .8792E+02   .8694E+02  
PSS 3   .7985E+02   .8048E+02   .7796E+02   .7358E+02   .6925E+02   .6691E+02   .6837E+02   .7505E+02   .8805E+02

## DISPLACEMENTS

UX     -.4902E-02   -.4756E-02   -.4623E-02   -.4512E-02   -.4432E-02   -.4378E-02   -.4340E-02   -.4298E-02   -.4229E-02  
UY     -.1122E-10   -.1763E-10   -.2234E-10   .2457E-11   -.7189E-11   .6476E-10   .2582E-10   -.8255E-11   -.3647E-10  
UZ     .1257E+00   .1277E+00   .1296E+00   .1312E+00   .1329E+00   .1346E+00   .1364E+00   .1382E+00   .1399E+00

## NORMAL STRAINS

EXX     .1472E-03   .1418E-03   .1224E-03   .9419E-04   .6521E-04   .4352E-04   .3720E-04   .5253E-04   .9446E-04  
EYY     .4707E-03   .4936E-03   .5163E-03   .5399E-03   .5649E-03   .5920E-03   .6216E-03   .6539E-03   .6889E-03  
EZZ     -.3784E-03   -.3896E-03   -.3925E-03   -.3909E-03   -.3897E-03   -.3941E-03   -.4090E-03   -.4383E-03   -.4848E-03

## SHEAR STRAINS

EXY     -.1991E-12   .3602E-11   -.4051E-11   -.1420E-11   -.5336E-11   .8910E-11   -.3819E-11   -.1028E-11   -.3177E-11  
EXZ     .1192E-03   .1131E-03   .1086E-03   .1066E-03   .1076E-03   .1115E-03   .1178E-03   .1254E-03   .1331E-03  
EYZ     .4205E-12   .2224E-12   -.4444E-12   .5852E-12   -.2979E-12   .1845E-11   .4034E-12   -.1174E-11   .1143E-11

## PRINCIPAL STRAINS

PE 1     .4707E-03   .4936E-03   .5163E-03   .5399E-03   .5649E-03   .5920E-03   .6216E-03   .6539E-03   .6889E-03  
PE 2     .1539E-03   .1477E-03   .1280E-03   .9997E-04   .7148E-04   .5052E-04   .4484E-04   .6041E-04   .1020E-03  
PE 3     -.3851E-03   -.3955E-03   -.3982E-03   -.3967E-03   -.3960E-03   -.4011E-03   -.4167E-03   -.4462E-03   -.4924E-03

## PRINCIPAL SHEAR STRAINS

PSE 1     .8558E-03   .8891E-03   .9145E-03   .9365E-03   .9609E-03   .9931E-03   .1038E-02   .1100E-02   .1181E-02  
PSE 2     .3168E-03   .3458E-03   .3883E-03   .4399E-03   .4934E-03   .5415E-03   .5767E-03   .5935E-03   .5869E-03  
PSE 3     .5390E-03   .5433E-03   .5262E-03   .4966E-03   .4675E-03   .4516E-03   .4615E-03   .5066E-03   .5944E-03



## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

## NORMAL STRESSES

SXX	.2452E+02	.2639E+02	.2833E+02	.3040E+02	.3249E+02	.3455E+02	.3657E+02	.3855E+02	.4046E+02
SYX	.3535E+02	.3673E+02	.3817E+02	.3970E+02	.4121E+02	.4265E+02	.4402E+02	.4531E+02	.4651E+02
SZZ	-.1128E+02	-.1169E+02	-.1210E+02	-.1251E+02	-.1293E+02	-.1335E+02	-.1375E+02	-.1413E+02	-.1448E+02

## SHEAR STRESSES

SXY	.1827E-07	.6528E-08	-.3478E-07	.3506E-07	-.3403E-07	.6342E-07	-.3763E-08	-.4928E-07	-.2132E-07
SXZ	.3368E+01	.3288E+01	.3193E+01	.3082E+01	.2953E+01	.2807E+01	.2642E+01	.2454E+01	.2241E+01
SYZ	-.2486E-08	-.2986E-08	.1131E-07	.2075E-08	.1208E-07	.2321E-07	-.1187E-07	.1380E-07	-.2522E-07

## PRINCIPAL STRESSES

PS 1	.3535E+02	.3673E+02	.3817E+02	.3970E+02	.4121E+02	.4265E+02	.4402E+02	.4531E+02	.4651E+02
PS 2	.2483E+02	.2667E+02	.2858E+02	.3062E+02	.3268E+02	.3471E+02	.3671E+02	.3866E+02	.4055E+02
PS 3	-.1159E+02	-.1197E+02	-.1235E+02	-.1273E+02	-.1312E+02	-.1351E+02	-.1389E+02	-.1425E+02	-.1457E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2347E+02	.2435E+02	.2526E+02	.2622E+02	.2717E+02	.2808E+02	.2895E+02	.2978E+02	.3054E+02
PSS 2	.5257E+01	.5033E+01	.4794E+01	.4539E+01	.4265E+01	.3971E+01	.3657E+01	.3326E+01	.2981E+01
PSS 3	.1821E+02	.1932E+02	.2047E+02	.2168E+02	.2290E+02	.2411E+02	.2530E+02	.2645E+02	.2756E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.1313E-01	-.1257E-01	-.1195E-01	-.1128E-01	-.1054E-01	-.9757E-02	-.8919E-02	-.8028E-02	-.7083E-02
UY	-.5626E-11	-.7136E-10	.2012E-10	-.1318E-10	-.6552E-10	-.3756E-10	-.2118E-10	-.2761E-11	.1020E-10
UZ	.1148E+00	.1164E+00	.1177E+00	.1189E+00	.1200E+00	.1212E+00	.1224E+00	.1234E+00	.1244E+00

## NORMAL STRAINS

EXX	.5365E-03	.5874E-03	.6402E-03	.6962E-03	.7530E-03	.8097E-03	.8658E-03	.9211E-03	.9749E-03
EYY	.1024E-02	.1053E-02	.1083E-02	.1115E-02	.1145E-02	.1174E-02	.1201E-02	.1226E-02	.1247E-02
EZZ	-.1074E-02	-.1126E-02	-.1179E-02	-.1235E-02	-.1291E-02	-.1346E-02	-.1399E-02	-.1449E-02	-.1497E-02

## SHEAR STRAINS

EXY	.1644E-11	.5876E-12	-.3130E-11	.3155E-11	-.3063E-11	.5707E-11	-.3387E-12	-.4435E-11	-.1919E-11
EXZ	.3031E-03	.2959E-03	.2874E-03	.2773E-03	.2658E-03	.2527E-03	.2377E-03	.2208E-03	.2017E-03
EYZ	-.2237E-12	-.2688E-12	.1018E-11	.1867E-12	.1087E-11	.2089E-11	-.1068E-11	.1242E-11	-.2269E-11

## PRINCIPAL STRAINS

PE 1	.1024E-02	.1053E-02	.1083E-02	.1115E-02	.1145E-02	.1174E-02	.1201E-02	.1226E-02	.1247E-02
PE 2	.5507E-03	.6001E-03	.6515E-03	.7061E-03	.7616E-03	.8170E-03	.8720E-03	.9262E-03	.9790E-03
PE 3	-.1089E-02	-.1139E-02	-.1190E-02	-.1245E-02	-.1299E-02	-.1353E-02	-.1405E-02	-.1455E-02	-.1501E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2112E-02	.2192E-02	.2273E-02	.2359E-02	.2445E-02	.2527E-02	.2606E-02	.2680E-02	.2749E-02
PSE 2	.4732E-03	.4530E-03	.4315E-03	.4085E-03	.3838E-03	.3574E-03	.3291E-03	.2993E-03	.2683E-03
PSE 3	.1639E-02	.1739E-02	.1842E-02	.1951E-02	.2061E-02	.2170E-02	.2277E-02	.2381E-02	.2480E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5250.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.31 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-b Average HBP

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.1675E+03	.2173E+03	.2786E+03	.3471E+03	.4176E+03	.4832E+03	.5370E+03	.5722E+03	.5841E+03
SYX	.3335E+03	.3647E+03	.4000E+03	.4371E+03	.4740E+03	.5071E+03	.5331E+03	.5488E+03	.5528E+03
SZZ	-.4467E+02	-.4983E+02	-.5575E+02	-.6208E+02	-.6833E+02	-.7397E+02	-.7845E+02	-.8128E+02	-.8207E+02

SHEAR STRESSES

SXY	-.1150E-05	.1978E-05	.4490E-06	-.8296E-06	.6052E-06	.1625E-05	.3938E-06	.5753E-06	-.5945E-06
SXZ	.2065E+02	.2108E+02	.2073E+02	.1932E+02	.1671E+02	.1289E+02	.7930E+01	.2057E+01	-.4339E+01
SYZ	.2444E-06	.1313E-06	-.1029E-06	.3750E-06	-.2595E-06	.5616E-06	-.6682E-07	.3363E-06	-.3097E-06

PRINCIPAL STRESSES

PS 1	.3335E+03	.3647E+03	.4000E+03	.4371E+03	.4740E+03	.5071E+03	.5371E+03	.5722E+03	.5842E+03
PS 2	.1695E+03	.2189E+03	.2798E+03	.3480E+03	.4181E+03	.4835E+03	.5331E+03	.5488E+03	.5528E+03

## Appendix 6E-b Average HBP

PS 3    -.4666E+02   -.5149E+02   -.5703E+02   -.6299E+02   -.6890E+02   -.7426E+02   -.7855E+02   -.8129E+02   -.8209E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1901E+03    .2081E+03    .2285E+03    .2500E+03    .2714E+03    .2907E+03    .3078E+03    .3268E+03    .3331E+03  
PSS 2    .8201E+02    .7291E+02    .6006E+02    .4456E+02    .2791E+02    .1179E+02    .2033E+01    .1171E+02    .1567E+02  
PSS 3    .1081E+03    .1352E+03    .1684E+03    .2055E+03    .2435E+03    .2789E+03    .3058E+03    .3150E+03    .3175E+03

## DISPLACEMENTS

UX        -.4102E-02   -.3888E-02   -.3557E-02   -.3087E-02   -.2472E-02   -.1710E-02   -.8172E-03   .1736E-03   .1215E-02  
UY        .4317E-10    .3266E-10    .4447E-10   -.3969E-10   -.3653E-10    .1163E-09    .6073E-10    .7339E-10   -.5221E-10  
UZ        .1416E+00    .1433E+00    .1452E+00    .1471E+00    .1486E+00    .1497E+00    .1506E+00    .1513E+00    .1512E+00

## NORMAL STRAINS

EXX        .1660E-03    .2676E-03    .3952E-03    .5395E-03    .6890E-03    .8290E-03    .9448E-03    .1021E-02    .1048E-02  
EYY        .7263E-03    .7653E-03    .8049E-03    .8434E-03    .8793E-03    .9096E-03    .9314E-03    .9425E-03    .9428E-03  
EZZ        -.5500E-03   -.6338E-03   -.7331E-03   -.8413E-03   -.9509E-03   -.1051E-02   -.1132E-02   -.1184E-02   -.1200E-02

## SHEAR STRAINS

EXY        -.7761E-11   .1335E-10    .3031E-11   -.5600E-11    .4085E-11    .1097E-10    .2658E-11    .3884E-11   -.4013E-11  
EXZ        .1394E-03    .1423E-03    .1399E-03    .1304E-03    .1128E-03    .8699E-04    .5353E-04    .1389E-04   -.2929E-04  
EYZ        .1650E-11    .8863E-12   -.6947E-12    .2532E-11   -.1752E-11    .3791E-11   -.4511E-12    .2270E-11   -.2091E-11

## PRINCIPAL STRAINS

PE 1        .7263E-03    .7653E-03    .8049E-03    .8434E-03    .8793E-03    .9096E-03    .9451E-03    .1021E-02    .1049E-02  
PE 2        .1727E-03    .2732E-03    .3995E-03    .5426E-03    .6909E-03    .8300E-03    .9314E-03    .9425E-03    .9428E-03  
PE 3        -.5568E-03   -.6394E-03   -.7374E-03   -.8444E-03   -.9528E-03   -.1052E-02   -.1133E-02   -.1184E-02   -.1200E-02

## PRINCIPAL SHEAR STRAINS

PSE 1        .1283E-02    .1405E-02    .1542E-02    .1688E-02    .1832E-02    .1962E-02    .2078E-02    .2206E-02    .2249E-02  
PSE 2        .5535E-03    .4921E-03    .4054E-03    .3008E-03    .1884E-03    .7959E-04    .1372E-04    .7904E-04    .1058E-03  
PSE 3        .7295E-03    .9126E-03    .1137E-02    .1387E-02    .1644E-02    .1882E-02    .2064E-02    .2127E-02    .2143E-02

Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.4226E+02	.4386E+02	.4518E+02	.4621E+02	.4714E+02	.4778E+02	.4802E+02	.4778E+02	.4742E+02
SYY	.4759E+02	.4848E+02	.4912E+02	.4951E+02	.4990E+02	.5012E+02	.5006E+02	.4969E+02	.4935E+02
SZZ	-.1479E+02	-.1506E+02	-.1528E+02	-.1548E+02	-.1563E+02	-.1572E+02	-.1575E+02	-.1573E+02	-.1566E+02

SHEAR STRESSES

SXY	-.3990E-07	.4836E-07	-.2225E-07	-.8815E-08	.2480E-08	.9670E-08	.6480E-08	.9300E-08	.8343E-08
SXZ	.2001E+01	.1731E+01	.1430E+01	.1100E+01	.7467E+00	.3702E+00	-.2512E-01	-.4329E+00	-.8426E+00
SYZ	.2859E-07	.2228E-07	.9011E-08	-.1173E-07	-.1518E-07	.6268E-08	.3715E-08	.6103E-08	-.2345E-07

PRINCIPAL STRESSES

PS 1	.4759E+02	.4848E+02	.4912E+02	.4951E+02	.4990E+02	.5012E+02	.5006E+02	.4969E+02	.4935E+02
PS 2	.4233E+02	.4391E+02	.4522E+02	.4622E+02	.4715E+02	.4779E+02	.4802E+02	.4778E+02	.4743E+02
PS 3	-.1486E+02	-.1511E+02	-.1532E+02	-.1550E+02	-.1564E+02	-.1573E+02	-.1575E+02	-.1573E+02	-.1567E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3122E+02	.3179E+02	.3222E+02	.3251E+02	.3277E+02	.3292E+02	.3290E+02	.3271E+02	.3251E+02
PSS 2	.2631E+01	.2283E+01	.1950E+01	.1643E+01	.1378E+01	.1167E+01	.1021E+01	.9505E+00	.9620E+00
PSS 3	.2859E+02	.2951E+02	.3027E+02	.3086E+02	.3139E+02	.3176E+02	.3188E+02	.3176E+02	.3155E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.6080E-02	-.5017E-02	-.3901E-02	-.2744E-02	-.1569E-02	-.3655E-03	.8608E-03	.2089E-02	.3293E-02
UY	-.1128E-12	-.1770E-11	.7731E-10	.2010E-10	-.4605E-12	.1233E-10	-.2832E-10	-.1249E-09	.1402E-10
UZ	.1252E+00	.1260E+00	.1269E+00	.1279E+00	.1284E+00	.1288E+00	.1291E+00	.1296E+00	.1295E+00

## NORMAL STRAINS

EXX	.1026E-02	.1072E-02	.1111E-02	.1143E-02	.1171E-02	.1192E-02	.1200E-02	.1197E-02	.1187E-02
EYY	.1266E-02	.1280E-02	.1288E-02	.1292E-02	.1296E-02	.1297E-02	.1292E-02	.1282E-02	.1275E-02
EZZ	-.1541E-02	-.1579E-02	-.1610E-02	-.1633E-02	-.1653E-02	-.1666E-02	-.1669E-02	-.1662E-02	-.1651E-02

## SHEAR STRAINS

EXY	-.3591E-11	.4352E-11	-.2003E-11	-.7934E-12	.2232E-12	.8703E-12	.5832E-12	.8370E-12	.7508E-12
EXZ	.1801E-03	.1558E-03	.1287E-03	.9904E-04	.6720E-04	.3332E-04	-.2260E-05	-.3896E-04	-.7584E-04
EYZ	.2573E-11	.2005E-11	.8110E-12	-.1056E-11	-.1366E-11	.5641E-12	.3344E-12	.5493E-12	-.2110E-11

## PRINCIPAL STRAINS

PE 1	.1266E-02	.1280E-02	.1288E-02	.1292E-02	.1296E-02	.1297E-02	.1292E-02	.1282E-02	.1275E-02
PE 2	.1029E-02	.1074E-02	.1113E-02	.1144E-02	.1172E-02	.1192E-02	.1200E-02	.1197E-02	.1188E-02
PE 3	-.1544E-02	-.1581E-02	-.1611E-02	-.1634E-02	-.1654E-02	-.1666E-02	-.1669E-02	-.1662E-02	-.1651E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2810E-02	.2861E-02	.2900E-02	.2926E-02	.2950E-02	.2963E-02	.2961E-02	.2944E-02	.2926E-02
PSE 2	.2368E-03	.2055E-03	.1755E-03	.1479E-03	.1240E-03	.1050E-03	.9188E-04	.8555E-04	.8658E-04
PSE 3	.2573E-02	.2656E-02	.2724E-02	.2778E-02	.2825E-02	.2858E-02	.2869E-02	.2858E-02	.2839E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5250.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.31 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00



Appendix 6E-b Average HBP

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Z= 6.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.5704E+03	.5332E+03
SYY	.5441E+03	.5235E+03
SZZ	-.8065E+02	-.7717E+02

## SHEAR STRESSES

SXY	-.6928E-06	-.3938E-06
SXZ	-.1075E+02	-.1665E+02
SYZ	.3189E-06	.0000E+00

## PRINCIPAL STRESSES

PS 1	.5706E+03	.5336E+03
PS 2	.5441E+03	.5235E+03
PS 3	-.8082E+02	-.7762E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.3257E+03	.3056E+03
PSS 2	.1324E+02	.5051E+01
PSS 3	.3125E+03	.3006E+03

## DISPLACEMENTS

UX	.2255E-02	.3244E-02
UY	-.2880E-10	.5821E-10
UZ	.1503E+00	.1485E+00

Appendix 6E-b Average HBP

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## NORMAL STRAINS

EXX	.1020E-02	.9424E-03
EYY	.9317E-03	.9098E-03
EZZ	-.1177E-02	-.1118E-02

## SHEAR STRAINS

EXY	-.4676E-11	-.2658E-11
EXZ	-.7253E-04	-.1124E-03
EYZ	.2152E-11	.0000E+00

## PRINCIPAL STRAINS

PE 1	.1021E-02	.9439E-03
PE 2	.9317E-03	.9098E-03
PE 3	-.1177E-02	-.1119E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2198E-02	.2063E-02
PSE 2	.8937E-04	.3409E-04
PSE 3	.2109E-02	.2029E-02

Z= 18.00 LAYER NO, 2

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.4686E+02	.4618E+02
SYY	.4900E+02	.4869E+02
SZZ	-.1553E+02	-.1534E+02

Appendix 6E-b Average HBP

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## SHEAR STRESSES

SXY -.1347E-07 -.6480E-08  
SXZ -.1249E+01 -.1647E+01  
SYZ -.2152E-07 -.1490E-07

## PRINCIPAL STRESSES

PS 1 .4900E+02 .4869E+02  
PS 2 .4689E+02 .4622E+02  
PS 3 -.1555E+02 -.1538E+02

## PRINCIPAL SHEAR STRESSES

PSS 1 .3228E+02 .3204E+02  
PSS 2 .1058E+01 .1237E+01  
PSS 3 .3122E+02 .3080E+02

## DISPLACEMENTS

UX .4485E-02 .5675E-02  
UY -.6034E-10 .0000E+00  
UZ .1288E+00 .1275E+00

## NORMAL STRAINS

EXX .1172E-02 .1150E-02  
EYY .1268E-02 .1263E-02  
EZZ -.1636E-02 -.1618E-02

## SHEAR STRAINS

EXY -.1212E-11 -.5832E-12  
EXZ -.1124E-03 -.1482E-03  
EYZ -.1937E-11 -.1341E-11

## PRINCIPAL STRAINS

Appendix 6E-b Average HBP

PE 1 .1268E-02 .1263E-02  
 PE 2 .1173E-02 .1152E-02  
 PE 3 -.1637E-02 -.1620E-02

PRINCIPAL SHEAR STRAINS  
 PSE 1 .2905E-02 .2883E-02  
 PSE 2 .9522E-04 .1113E-03  
 PSE 3 .2810E-02 .2772E-02

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Appendix 6E-b Average HBP

Z= 6.00 18.00  
X-Y POINT(S)  
X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

NORMAL STRESSES

SXX	.4381E+03	.4614E+03	.4689E+03	.4597E+03	.4348E+03	.3965E+03	.3483E+03	.2940E+03	.2372E+03
SYX	.4546E+03	.4694E+03	.4756E+03	.4727E+03	.4611E+03	.4422E+03	.4178E+03	.3895E+03	.3593E+03
SZZ	-.6775E+02	-.7007E+02	-.7094E+02	-.7029E+02	-.6819E+02	-.6483E+02	-.6051E+02	-.5553E+02	-.5020E+02

SHEAR STRESSES

SXY	.5218E-06	-.2924E-06	.8433E-07	.3949E-06	-.4305E-06	.5547E-06	.3103E-06	.2931E-06	-.4105E-06
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## Appendix 6E-b Average HBP

SXZ	.1551E+02	.1102E+02	.6266E+01	.1536E+01	-.2888E+01	-.6760E+01	-.9899E+01	-.1222E+02	-.1370E+02
SYZ	-.5014E-07	.1640E-06	.1680E-06	.6018E-07	-.5259E-08	.3620E-07	.1757E-06	-.3031E-06	-.4241E-07

## PRINCIPAL STRESSES

PS 1	.4546E+03	.4694E+03	.4756E+03	.4727E+03	.4611E+03	.4422E+03	.4178E+03	.3895E+03	.3593E+03
PS 2	.4386E+03	.4616E+03	.4689E+03	.4597E+03	.4348E+03	.3966E+03	.3485E+03	.2944E+03	.2379E+03
PS 3	-.6823E+02	-.7030E+02	-.7102E+02	-.7029E+02	-.6820E+02	-.6493E+02	-.6075E+02	-.5595E+02	-.5085E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2614E+03	.2699E+03	.2733E+03	.2715E+03	.2647E+03	.2536E+03	.2392E+03	.2227E+03	.2051E+03
PSS 2	.7998E+01	.3897E+01	.3323E+01	.6475E+01	.1317E+02	.2283E+02	.3461E+02	.4753E+02	.6073E+02
PSS 3	.2534E+03	.2660E+03	.2700E+03	.2650E+03	.2515E+03	.2308E+03	.2046E+03	.1752E+03	.1444E+03

## DISPLACEMENTS

UX	-.4309E-02	-.3526E-02	-.2712E-02	-.1901E-02	-.1128E-02	-.4237E-03	.1878E-03	.6886E-03	.1071E-02
UY	-.2058E-10	-.4022E-11	.2180E-10	.7117E-11	.3251E-11	.4794E-11	.1772E-10	-.3419E-11	-.2698E-10
UZ	.1845E+00	.1864E+00	.1879E+00	.1890E+00	.1898E+00	.1902E+00	.1904E+00	.1904E+00	.1901E+00

## NORMAL STRAINS

EXX	.7568E-03	.8041E-03	.8181E-03	.7972E-03	.7431E-03	.6610E-03	.5581E-03	.4427E-03	.3226E-03
EYY	.8124E-03	.8311E-03	.8408E-03	.8409E-03	.8320E-03	.8154E-03	.7926E-03	.7650E-03	.7347E-03
EZZ	-.9505E-03	-.9896E-03	-.1004E-02	-.9916E-03	-.9543E-03	-.8960E-03	-.8216E-03	-.7368E-03	-.6475E-03

## SHEAR STRAINS

EXY	.3522E-11	-.1974E-11	.5693E-12	.2666E-11	-.2906E-11	.3744E-11	.2095E-11	.1978E-11	-.2771E-11
EXZ	.1047E-03	.7438E-04	.4230E-04	.1037E-04	-.1949E-04	-.4563E-04	-.6682E-04	-.8250E-04	-.9250E-04
EYZ	-.3385E-12	.1107E-11	.1134E-11	.4062E-12	-.3550E-13	.2443E-12	.1186E-11	-.2046E-11	-.2863E-12

## PRINCIPAL STRAINS

PE 1	.8124E-03	.8311E-03	.8408E-03	.8409E-03	.8320E-03	.8154E-03	.7926E-03	.7650E-03	.7347E-03
PE 2	.7584E-03	.8048E-03	.8184E-03	.7972E-03	.7431E-03	.6613E-03	.5590E-03	.4442E-03	.3248E-03
PE 3	-.9521E-03	-.9904E-03	-.1004E-02	-.9916E-03	-.9544E-03	-.8963E-03	-.8224E-03	-.7383E-03	-.6497E-03

Appendix 6E-b Average HBP

PRINCIPAL SHEAR STRAINS

PSE 1	.1764E-02	.1822E-02	.1845E-02	.1833E-02	.1786E-02	.1712E-02	.1615E-02	.1503E-02	.1384E-02
PSE 2	.5399E-04	.2631E-04	.2243E-04	.4371E-04	.8888E-04	.1541E-03	.2336E-03	.3209E-03	.4099E-03
PSE 3	.1710E-02	.1795E-02	.1822E-02	.1789E-02	.1698E-02	.1558E-02	.1381E-02	.1182E-02	.9745E-03

Z= 18.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.3985E+02	.4073E+02	.4126E+02	.4144E+02	.4128E+02	.4088E+02	.4023E+02	.3926E+02	.3807E+02
SYX	.5045E+02	.5125E+02	.5186E+02	.5229E+02	.5254E+02	.5269E+02	.5272E+02	.5255E+02	.5222E+02
SZZ	-.1615E+02	-.1640E+02	-.1660E+02	-.1673E+02	-.1681E+02	-.1685E+02	-.1686E+02	-.1682E+02	-.1674E+02

SHEAR STRESSES

SXY	-.2215E-08	-.9161E-08	.1850E-07	-.3960E-08	-.3203E-07	.3038E-07	-.2020E-07	.5846E-09	.8639E-08
SXZ	.2711E+01	.2399E+01	.2081E+01	.1765E+01	.1458E+01	.1166E+01	.8965E+00	.6534E+00	.4404E+00
SYZ	-.1154E-07	.3633E-08	-.8800E-08	-.3398E-08	-.8045E-09	.4541E-08	-.9838E-08	.1105E-07	-.9683E-08

PRINCIPAL STRESSES

PS 1	.5045E+02	.5125E+02	.5186E+02	.5229E+02	.5254E+02	.5269E+02	.5272E+02	.5255E+02	.5222E+02
PS 2	.3998E+02	.4083E+02	.4133E+02	.4149E+02	.4132E+02	.4090E+02	.4024E+02	.3927E+02	.3808E+02

## Appendix 6E-b Average HBP

PS 3    -.1628E+02   -.1650E+02   -.1667E+02   -.1678E+02   -.1685E+02   -.1687E+02   -.1688E+02   -.1683E+02   -.1674E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .3337E+02    .3388E+02    .3427E+02    .3454E+02    .3469E+02    .3478E+02    .3480E+02    .3469E+02    .3448E+02  
PSS 2    .5233E+01    .5210E+01    .5266E+01    .5401E+01    .5614E+01    .5897E+01    .6242E+01    .6638E+01    .7071E+01  
PSS 3    .2813E+02    .2867E+02    .2900E+02    .2914E+02    .2908E+02    .2889E+02    .2856E+02    .2805E+02    .2741E+02

## DISPLACEMENTS

UX       -.1469E-01   -.1375E-01   -.1279E-01   -.1182E-01   -.1086E-01   -.9898E-02   -.8950E-02   -.8036E-02   -.7162E-02  
UY       -.2653E-10   .2172E-10   -.2253E-10   -.3012E-10   -.2394E-10   -.4105E-10   -.3705E-10   -.2597E-11   -.4134E-10  
UZ       .1649E+00   .1663E+00   .1676E+00   .1687E+00   .1698E+00   .1706E+00   .1714E+00   .1721E+00   .1727E+00

## NORMAL STRAINS

EXX       .9283E-03    .9511E-03    .9638E-03    .9663E-03    .9591E-03    .9444E-03    .9225E-03    .8920E-03    .8551E-03  
EYY       .1405E-02    .1425E-02    .1441E-02    .1455E-02    .1466E-02    .1476E-02    .1485E-02    .1490E-02    .1492E-02  
EZZ       -.1592E-02   -.1620E-02   -.1640E-02   -.1651E-02   -.1655E-02   -.1653E-02   -.1647E-02   -.1632E-02   -.1611E-02

## SHEAR STRAINS

EXY       -.1993E-12   -.8245E-12    .1665E-11   -.3564E-12   -.2883E-11    .2734E-11   -.1818E-11    .5262E-13    .7775E-12  
EXZ       .2440E-03    .2159E-03    .1873E-03    .1589E-03    .1312E-03    .1050E-03    .8068E-04    .5881E-04    .3964E-04  
EYZ       -.1039E-11    .3270E-12   -.7920E-12   -.3059E-12   -.7241E-13    .4087E-12   -.8854E-12    .9941E-12   -.8715E-12

## PRINCIPAL STRAINS

PE 1       .1405E-02    .1425E-02    .1441E-02    .1455E-02    .1466E-02    .1476E-02    .1485E-02    .1490E-02    .1492E-02  
PE 2       .9342E-03    .9556E-03    .9671E-03    .9688E-03    .9607E-03    .9455E-03    .9231E-03    .8924E-03    .8553E-03  
PE 3       -.1598E-02   -.1624E-02   -.1643E-02   -.1654E-02   -.1657E-02   -.1654E-02   -.1647E-02   -.1632E-02   -.1611E-02

## PRINCIPAL SHEAR STRAINS

PSE 1       .3003E-02    .3049E-02    .3084E-02    .3109E-02    .3123E-02    .3131E-02    .3132E-02    .3122E-02    .3103E-02  
PSE 2       .4710E-03    .4689E-03    .4740E-03    .4861E-03    .5052E-03    .5307E-03    .5618E-03    .5974E-03    .6364E-03  
PSE 3       .2532E-02    .2580E-02    .2610E-02    .2622E-02    .2617E-02    .2600E-02    .2570E-02    .2525E-02    .2467E-02



Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-b Average HBP

31.00 4.00  
32.00 4.00

Z= 6.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.1815E+03	.1297E+03	.8422E+02	.4654E+02	.1678E+02	-.5947E+01	-.2277E+02	-.3484E+02	-.4292E+02
SYX	.3292E+03	.3006E+03	.2748E+03	.2524E+03	.2337E+03	.2186E+03	.2067E+03	.1978E+03	.1916E+03
SZZ	-.4484E+02	-.3972E+02	-.3505E+02	-.3099E+02	-.2758E+02	-.2480E+02	-.2262E+02	-.2097E+02	-.1982E+02

SHEAR STRESSES

SXY	-.1396E-05	.5778E-06	.2547E-06	-.2862E-06	-.5198E-06	-.9503E-07	.4626E-07	-.2011E-06	-.4679E-06
SXZ	-.1436E+02	-.1427E+02	-.1355E+02	-.1236E+02	-.1087E+02	-.9194E+01	-.7423E+01	-.5597E+01	-.3742E+01
SYZ	-.5203E-07	.1119E-06	-.6426E-07	-.1026E-06	.3550E-07	-.3529E-07	-.7262E-07	-.5256E-07	-.3900E-07

PRINCIPAL STRESSES

PS 1	.3292E+03	.3006E+03	.2748E+03	.2524E+03	.2337E+03	.2186E+03	.2067E+03	.1978E+03	.1916E+03
PS 2	.1824E+03	.1308E+03	.8574E+02	.4847E+02	.1930E+02	-.2206E+01	-.1527E+02	-.1899E+02	-.1923E+02
PS 3	-.4575E+02	-.4091E+02	-.3657E+02	-.3291E+02	-.3009E+02	-.2854E+02	-.3012E+02	-.3682E+02	-.4351E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1875E+03	.1708E+03	.1557E+03	.1426E+03	.1319E+03	.1236E+03	.1184E+03	.1173E+03	.1175E+03
PSS 2	.7342E+02	.8489E+02	.9451E+02	.1020E+03	.1072E+03	.1104E+03	.1110E+03	.1084E+03	.1054E+03
PSS 3	.1141E+03	.8588E+02	.6116E+02	.4069E+02	.2470E+02	.1317E+02	.7423E+01	.8912E+01	.1214E+02

## DISPLACEMENTS

UX	.1333E-02	.1483E-02	.1529E-02	.1488E-02	.1378E-02	.1214E-02	.1012E-02	.7808E-03	.5305E-03
UY	-.2425E-10	-.8634E-11	.4271E-10	.1279E-11	-.2566E-10	-.2322E-10	.9665E-11	-.9361E-11	.4831E-11
UZ	.1898E+00	.1893E+00	.1889E+00	.1885E+00	.1880E+00	.1876E+00	.1872E+00	.1869E+00	.1867E+00

## NORMAL STRAINS

EXX	.2049E-03	.9584E-04	.8079E-06	-.7735E-04	-.1384E-03	-.1845E-03	-.2180E-03	-.2418E-03	-.2576E-03
EYY	.7035E-03	.6729E-03	.6439E-03	.6173E-03	.5937E-03	.5734E-03	.5566E-03	.5433E-03	.5338E-03
EZZ	-.5590E-03	-.4758E-03	-.4017E-03	-.3390E-03	-.2881E-03	-.2481E-03	-.2175E-03	-.1950E-03	-.1796E-03

## SHEAR STRAINS

EXY	-.9424E-11	.3900E-11	.1719E-11	-.1932E-11	-.3508E-11	-.6415E-12	.3123E-12	-.1357E-11	-.3158E-11
EXZ	-.9695E-04	-.9631E-04	-.9144E-04	-.8342E-04	-.7334E-04	-.6206E-04	-.5010E-04	-.3778E-04	-.2526E-04
EYZ	-.3512E-12	.7551E-12	-.4338E-12	-.6924E-12	.2396E-12	-.2382E-12	-.4902E-12	-.3548E-12	-.2633E-12

## PRINCIPAL STRAINS

PE 1	.7035E-03	.6729E-03	.6439E-03	.6173E-03	.5937E-03	.5734E-03	.5566E-03	.5433E-03	.5338E-03
PE 2	.2079E-03	.9986E-04	.5936E-05	-.7087E-04	-.1299E-03	-.1718E-03	-.1927E-03	-.1883E-03	-.1776E-03
PE 3	-.5620E-03	-.4798E-03	-.4069E-03	-.3455E-03	-.2966E-03	-.2607E-03	-.2428E-03	-.2485E-03	-.2596E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1266E-02	.1153E-02	.1051E-02	.9628E-03	.8904E-03	.8341E-03	.7994E-03	.7918E-03	.7933E-03
PSE 2	.4956E-03	.5730E-03	.6379E-03	.6882E-03	.7237E-03	.7453E-03	.7493E-03	.7317E-03	.7114E-03
PSE 3	.7700E-03	.5797E-03	.4128E-03	.2746E-03	.1667E-03	.8888E-04	.5011E-04	.6015E-04	.8194E-04

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.3680E+02	.3549E+02	.3409E+02	.3269E+02	.3135E+02	.3015E+02	.2912E+02	.2829E+02	.2768E+02
SYX	.5186E+02	.5148E+02	.5099E+02	.5046E+02	.4994E+02	.4947E+02	.4905E+02	.4872E+02	.4847E+02
SZZ	-.1663E+02	-.1652E+02	-.1639E+02	-.1624E+02	-.1609E+02	-.1595E+02	-.1582E+02	-.1572E+02	-.1564E+02

SHEAR STRESSES

SXY	-.3288E-07	-.1474E-07	.2335E-10	.2067E-07	.2844E-07	.3220E-07	.5933E-08	-.3204E-07	.6178E-07
SXZ	.2596E+00	.1130E+00	.5839E-03	-.7921E-01	-.1288E+00	-.1514E+00	-.1505E+00	-.1303E+00	-.9521E-01
SYZ	-.2087E-07	.4726E-08	.8419E-08	-.5260E-08	.2459E-07	-.1521E-07	-.8244E-08	-.2314E-08	-.2041E-07

PRINCIPAL STRESSES

PS 1	.5186E+02	.5148E+02	.5099E+02	.5046E+02	.4994E+02	.4947E+02	.4905E+02	.4872E+02	.4847E+02
PS 2	.3681E+02	.3549E+02	.3409E+02	.3269E+02	.3136E+02	.3015E+02	.2912E+02	.2829E+02	.2768E+02
PS 3	-.1663E+02	-.1652E+02	-.1639E+02	-.1624E+02	-.1609E+02	-.1595E+02	-.1582E+02	-.1572E+02	-.1564E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3425E+02	.3400E+02	.3369E+02	.3335E+02	.3302E+02	.3271E+02	.3244E+02	.3222E+02	.3206E+02
PSS 2	.7528E+01	.7992E+01	.8451E+01	.8889E+01	.9295E+01	.9657E+01	.9966E+01	.1021E+02	.1039E+02
PSS 3	.2672E+02	.2601E+02	.2524E+02	.2446E+02	.2372E+02	.2305E+02	.2247E+02	.2200E+02	.2166E+02

DISPLACEMENTS

## Appendix 6E-b Average HBP

UX	-.6323E-02	-.5517E-02	-.4762E-02	-.4054E-02	-.3390E-02	-.2764E-02	-.2171E-02	-.1604E-02	-.1058E-02
UY	-.8241E-11	-.3919E-10	.8627E-11	-.3899E-10	.4300E-10	.2338E-10	-.1810E-10	.1674E-10	.1746E-10
UZ	.1732E+00	.1736E+00	.1740E+00	.1743E+00	.1746E+00	.1747E+00	.1749E+00	.1749E+00	.1750E+00

## NORMAL STRAINS

EXX	.8158E-03	.7752E-03	.7326E-03	.6903E-03	.6502E-03	.6140E-03	.5830E-03	.5580E-03	.5396E-03
EYY	.1493E-02	.1495E-02	.1493E-02	.1490E-02	.1487E-02	.1483E-02	.1480E-02	.1477E-02	.1475E-02
EZZ	-.1589E-02	-.1565E-02	-.1539E-02	-.1511E-02	-.1485E-02	-.1461E-02	-.1439E-02	-.1422E-02	-.1410E-02

## SHEAR STRAINS

EXY	-.2959E-11	-.1327E-11	.2102E-14	.1860E-11	.2560E-11	.2898E-11	.5339E-12	-.2884E-11	.5560E-11
EXZ	.2336E-04	.1017E-04	.5255E-07	-.7129E-05	-.1160E-04	-.1362E-04	-.1354E-04	-.1172E-04	-.8569E-05
EYZ	-.1878E-11	.4253E-12	.7577E-12	-.4734E-12	.2213E-11	-.1369E-11	-.7420E-12	-.2082E-12	-.1837E-11

## PRINCIPAL STRAINS

PE 1	.1493E-02	.1495E-02	.1493E-02	.1490E-02	.1487E-02	.1483E-02	.1480E-02	.1477E-02	.1475E-02
PE 2	.8158E-03	.7752E-03	.7326E-03	.6903E-03	.6502E-03	.6141E-03	.5830E-03	.5580E-03	.5396E-03
PE 3	-.1589E-02	-.1565E-02	-.1539E-02	-.1511E-02	-.1485E-02	-.1461E-02	-.1439E-02	-.1422E-02	-.1410E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3082E-02	.3060E-02	.3032E-02	.3002E-02	.2972E-02	.2944E-02	.2919E-02	.2900E-02	.2885E-02
PSE 2	.6775E-03	.7193E-03	.7606E-03	.8000E-03	.8365E-03	.8691E-03	.8969E-03	.9192E-03	.9355E-03
PSE 3	.2405E-02	.2341E-02	.2271E-02	.2202E-02	.2135E-02	.2075E-02	.2022E-02	.1980E-02	.1949E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-b Average HBP

39.00 4.00  
40.00 4.00  
41.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
33.00 4.00  
34.00 4.00  
35.00 4.00  
36.00 4.00  
37.00 4.00  
38.00 4.00  
39.00 4.00  
40.00 4.00  
41.00 4.00

NORMAL STRESSES

SXX -.4748E+02 -.4895E+02 -.4748E+02 -.4292E+02 -.3484E+02 -.2277E+02 -.5947E+01 .1678E+02 .4654E+02  
 SYY .1879E+03 .1867E+03 .1879E+03 .1916E+03 .1978E+03 .2067E+03 .2186E+03 .2337E+03 .2524E+03  
 SZZ -.1915E+02 -.1893E+02 -.1915E+02 -.1982E+02 -.2097E+02 -.2262E+02 -.2480E+02 -.2758E+02 -.3099E+02

SHEAR STRESSES

SXY .3189E-06 -.4396E-06 .1020E-05 .1328E-06 .3351E-06 -.2058E-06 .1357E-06 .2531E-06 -.3103E-06  
 SXZ -.1872E+01 -.9262E-06 .1872E+01 .3742E+01 .5597E+01 .7423E+01 .9194E+01 .1087E+02 .1236E+02  
 SYZ -.4338E-07 -.7319E-07 -.3357E-07 .7585E-07 -.4049E-07 -.5133E-07 -.1690E-07 .2064E-07 -.1304E-06

PRINCIPAL STRESSES

PS 1 .1879E+03 .1867E+03 .1879E+03 .1916E+03 .1978E+03 .2067E+03 .2186E+03 .2337E+03 .2524E+03  
 PS 2 -.1903E+02 -.1893E+02 -.1903E+02 -.1923E+02 -.1899E+02 -.1527E+02 -.2206E+01 .1930E+02 .4847E+02  
 PS 3 -.4761E+02 -.4895E+02 -.4761E+02 -.4351E+02 -.3682E+02 -.3012E+02 -.2854E+02 -.3009E+02 -.3291E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1178E+03	.1178E+03	.1178E+03	.1175E+03	.1173E+03	.1184E+03	.1236E+03	.1319E+03	.1426E+03
PSS 2	.1035E+03	.1028E+03	.1035E+03	.1054E+03	.1084E+03	.1110E+03	.1104E+03	.1072E+03	.1020E+03
PSS 3	.1429E+02	.1501E+02	.1429E+02	.1214E+02	.8912E+01	.7423E+01	.1317E+02	.2470E+02	.4069E+02

## DISPLACEMENTS

UX	.2681E-03	-.1839E-09	-.2681E-03	-.5305E-03	-.7808E-03	-.1012E-02	-.1214E-02	-.1378E-02	-.1488E-02
UY	-.4286E-11	.1870E-11	-.1082E-10	.1047E-10	.1958E-10	.3455E-11	.3866E-10	-.3044E-10	.9446E-11
UZ	.1866E+00	.1865E+00	.1866E+00	.1867E+00	.1869E+00	.1872E+00	.1876E+00	.1880E+00	.1885E+00

## NORMAL STRAINS

EXX	-.2664E-03	-.2692E-03	-.2664E-03	-.2576E-03	-.2418E-03	-.2180E-03	-.1845E-03	-.1384E-03	-.7735E-04
EYY	.5281E-03	.5261E-03	.5281E-03	.5338E-03	.5433E-03	.5566E-03	.5734E-03	.5937E-03	.6173E-03
EZZ	-.1707E-03	-.1679E-03	-.1707E-03	-.1796E-03	-.1950E-03	-.2175E-03	-.2481E-03	-.2881E-03	-.3390E-03

## SHEAR STRAINS

EXY	.2153E-11	-.2967E-11	.6884E-11	.8963E-12	.2262E-11	-.1389E-11	.9163E-12	.1708E-11	-.2094E-11
EXZ	-.1264E-04	-.6252E-11	.1264E-04	.2526E-04	.3778E-04	.5010E-04	.6206E-04	.7334E-04	.8342E-04
EYZ	-.2928E-12	-.4941E-12	-.2266E-12	.5120E-12	-.2733E-12	-.3465E-12	-.1141E-12	.1393E-12	-.8802E-12

## PRINCIPAL STRAINS

PE 1	.5281E-03	.5261E-03	.5281E-03	.5338E-03	.5433E-03	.5566E-03	.5734E-03	.5937E-03	.6173E-03
PE 2	-.1703E-03	-.1679E-03	-.1703E-03	-.1776E-03	-.1883E-03	-.1927E-03	-.1718E-03	-.1299E-03	-.7087E-04
PE 3	-.2668E-03	-.2692E-03	-.2668E-03	-.2596E-03	-.2485E-03	-.2428E-03	-.2607E-03	-.2966E-03	-.3455E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.7948E-03	.7953E-03	.7948E-03	.7933E-03	.7918E-03	.7994E-03	.8341E-03	.8904E-03	.9628E-03
PSE 2	.6984E-03	.6940E-03	.6984E-03	.7114E-03	.7317E-03	.7493E-03	.7453E-03	.7237E-03	.6882E-03
PSE 3	.9645E-04	.1013E-03	.9645E-04	.8194E-04	.6015E-04	.5011E-04	.8888E-04	.1667E-03	.2746E-03

Z= 18.00 LAYER NO, 2



Appendix 6E-b Average HBP

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.2731E+02	.2718E+02	.2731E+02	.2768E+02	.2829E+02	.2912E+02	.3015E+02	.3135E+02	.3269E+02
SYX	.4832E+02	.4827E+02	.4832E+02	.4847E+02	.4872E+02	.4905E+02	.4947E+02	.4994E+02	.5046E+02
SZZ	-.1559E+02	-.1558E+02	-.1559E+02	-.1564E+02	-.1572E+02	-.1582E+02	-.1595E+02	-.1609E+02	-.1624E+02

SHEAR STRESSES

SXY	.8241E-08	-.4604E-07	.8605E-08	.4943E-07	-.4627E-07	.1512E-07	.7350E-07	.2070E-07	.3052E-07
SXZ	-.5014E-01	.1443E-06	.5014E-01	.9521E-01	.1303E+00	.1505E+00	.1514E+00	.1288E+00	.7921E-01
SYZ	-.1158E-07	-.6431E-08	.1170E-07	-.2054E-07	-.1164E-07	-.3302E-08	-.9696E-08	.1475E-07	-.1008E-07

PRINCIPAL STRESSES

PS 1	.4832E+02	.4827E+02	.4832E+02	.4847E+02	.4872E+02	.4905E+02	.4947E+02	.4994E+02	.5046E+02
PS 2	.2731E+02	.2718E+02	.2731E+02	.2768E+02	.2829E+02	.2912E+02	.3015E+02	.3136E+02	.3269E+02
PS 3	-.1559E+02	-.1558E+02	-.1559E+02	-.1564E+02	-.1572E+02	-.1582E+02	-.1595E+02	-.1609E+02	-.1624E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3196E+02	.3192E+02	.3196E+02	.3206E+02	.3222E+02	.3244E+02	.3271E+02	.3302E+02	.3335E+02
PSS 2	.1051E+02	.1054E+02	.1051E+02	.1039E+02	.1021E+02	.9966E+01	.9657E+01	.9295E+01	.8889E+01
PSS 3	.2145E+02	.2138E+02	.2145E+02	.2166E+02	.2200E+02	.2247E+02	.2305E+02	.2372E+02	.2446E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.5253E-03	.3514E-09	.5253E-03	.1058E-02	.1604E-02	.2171E-02	.2764E-02	.3390E-02	.4054E-02
UY	-.3069E-11	.1551E-11	.1038E-10	-.1493E-11	.1481E-10	-.5275E-11	-.5149E-10	-.3521E-10	.2862E-12
UZ	.1750E+00	.1750E+00	.1750E+00	.1750E+00	.1749E+00	.1749E+00	.1747E+00	.1746E+00	.1743E+00

## NORMAL STRAINS

EXX	.5284E-03	.5247E-03	.5284E-03	.5396E-03	.5580E-03	.5830E-03	.6140E-03	.6502E-03	.6903E-03
EYY	.1474E-02	.1474E-02	.1474E-02	.1475E-02	.1477E-02	.1480E-02	.1483E-02	.1487E-02	.1490E-02
EZZ	-.1402E-02	-.1400E-02	-.1402E-02	-.1410E-02	-.1422E-02	-.1439E-02	-.1461E-02	-.1485E-02	-.1511E-02

## SHEAR STRAINS

EXY	.7417E-12	-.4144E-11	.7745E-12	.4449E-11	-.4165E-11	.1361E-11	.6615E-11	.1863E-11	.2747E-11
EXZ	-.4513E-05	.1299E-10	.4513E-05	.8569E-05	.1172E-04	.1354E-04	.1362E-04	.1160E-04	.7129E-05
EYZ	-.1042E-11	-.5788E-12	.1053E-11	-.1848E-11	-.1048E-11	-.2972E-12	-.8726E-12	.1327E-11	-.9071E-12

## PRINCIPAL STRAINS

PE 1	.1474E-02	.1474E-02	.1474E-02	.1475E-02	.1477E-02	.1480E-02	.1483E-02	.1487E-02	.1490E-02
PE 2	.5284E-03	.5247E-03	.5284E-03	.5396E-03	.5580E-03	.5830E-03	.6141E-03	.6502E-03	.6903E-03
PE 3	-.1402E-02	-.1400E-02	-.1402E-02	-.1410E-02	-.1422E-02	-.1439E-02	-.1461E-02	-.1485E-02	-.1511E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2876E-02	.2873E-02	.2876E-02	.2885E-02	.2900E-02	.2919E-02	.2944E-02	.2972E-02	.3002E-02
PSE 2	.9455E-03	.9488E-03	.9455E-03	.9355E-03	.9192E-03	.8969E-03	.8691E-03	.8365E-03	.8000E-03
PSE 3	.1931E-02	.1924E-02	.1931E-02	.1949E-02	.1980E-02	.2022E-02	.2075E-02	.2135E-02	.2202E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-b Average HBP

48.00      4.00  
49.00      4.00  
50.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
42.00      4.00  
43.00      4.00  
44.00      4.00  
45.00      4.00  
46.00      4.00  
47.00      4.00  
48.00      4.00  
49.00      4.00  
50.00      4.00

NORMAL STRESSES

SXX    .8422E+02   .1297E+03   .1815E+03   .2372E+03   .2940E+03   .3483E+03   .3965E+03   .4348E+03   .4597E+03  
SYY    .2748E+03   .3006E+03   .3292E+03   .3593E+03   .3895E+03   .4178E+03   .4422E+03   .4611E+03   .4727E+03  
SZZ    -.3505E+02   -.3972E+02   -.4484E+02   -.5020E+02   -.5553E+02   -.6051E+02   -.6483E+02   -.6819E+02   -.7029E+02

SHEAR STRESSES

SXY    -.2405E-06   -.6502E-06   -.1371E-05   .4618E-07   -.2993E-06   -.6079E-06   -.5206E-06   -.4787E-06   -.3233E-06  
SXZ    .1355E+02   .1427E+02   .1436E+02   .1370E+02   .1222E+02   .9899E+01   .6760E+01   .2888E+01   -.1536E+01  
SYZ    -.6376E-07   .2201E-06   .1684E-07   -.1104E-06   .1681E-06   .1217E-06   -.6262E-07   -.4827E-07   .1745E-06

PRINCIPAL STRESSES

PS 1    .2748E+03   .3006E+03   .3292E+03   .3593E+03   .3895E+03   .4178E+03   .4422E+03   .4611E+03   .4727E+03  
PS 2    .8574E+02   .1308E+03   .1824E+03   .2379E+03   .2944E+03   .3485E+03   .3966E+03   .4348E+03   .4597E+03  
PS 3    -.3657E+02   -.4091E+02   -.4575E+02   -.5085E+02   -.5595E+02   -.6075E+02   -.6493E+02   -.6820E+02   -.7029E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1557E+03	.1708E+03	.1875E+03	.2051E+03	.2227E+03	.2392E+03	.2536E+03	.2647E+03	.2715E+03
PSS 2	.9451E+02	.8489E+02	.7342E+02	.6073E+02	.4753E+02	.3461E+02	.2283E+02	.1317E+02	.6475E+01
PSS 3	.6116E+02	.8588E+02	.1141E+03	.1444E+03	.1752E+03	.2046E+03	.2308E+03	.2515E+03	.2650E+03

## DISPLACEMENTS

UX	-.1529E-02	-.1483E-02	-.1333E-02	-.1071E-02	-.6886E-03	-.1878E-03	.4237E-03	.1128E-02	.1901E-02
UY	-.4896E-10	-.1945E-10	.3974E-10	.3031E-12	-.2146E-10	-.6057E-11	.2616E-10	-.2171E-10	-.2223E-11
UZ	.1889E+00	.1893E+00	.1898E+00	.1901E+00	.1904E+00	.1904E+00	.1902E+00	.1898E+00	.1890E+00

## NORMAL STRAINS

EXX	.8079E-06	.9584E-04	.2049E-03	.3226E-03	.4427E-03	.5581E-03	.6610E-03	.7431E-03	.7972E-03
EYY	.6439E-03	.6729E-03	.7035E-03	.7347E-03	.7650E-03	.7926E-03	.8154E-03	.8320E-03	.8409E-03
EZZ	-.4017E-03	-.4758E-03	-.5590E-03	-.6475E-03	-.7368E-03	-.8216E-03	-.8960E-03	-.9543E-03	-.9916E-03

## SHEAR STRAINS

EXY	-.1623E-11	-.4389E-11	-.9257E-11	.3117E-12	-.2020E-11	-.4103E-11	-.3514E-11	-.3231E-11	-.2183E-11
EXZ	.9144E-04	.9631E-04	.9695E-04	.9250E-04	.8250E-04	.6682E-04	.4563E-04	.1949E-04	-.1037E-04
EYZ	-.4304E-12	.1486E-11	.1136E-12	-.7455E-12	.1135E-11	.8217E-12	-.4227E-12	-.3258E-12	.1178E-11

## PRINCIPAL STRAINS

PE 1	.6439E-03	.6729E-03	.7035E-03	.7347E-03	.7650E-03	.7926E-03	.8154E-03	.8320E-03	.8409E-03
PE 2	.5936E-05	.9987E-04	.2079E-03	.3248E-03	.4442E-03	.5590E-03	.6613E-03	.7431E-03	.7972E-03
PE 3	-.4069E-03	-.4798E-03	-.5620E-03	-.6497E-03	-.7383E-03	-.8224E-03	-.8963E-03	-.9544E-03	-.9916E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1051E-02	.1153E-02	.1266E-02	.1384E-02	.1503E-02	.1615E-02	.1712E-02	.1786E-02	.1833E-02
PSE 2	.6379E-03	.5730E-03	.4956E-03	.4099E-03	.3209E-03	.2336E-03	.1541E-03	.8888E-04	.4371E-04
PSE 3	.4128E-03	.5797E-03	.7700E-03	.9745E-03	.1182E-02	.1381E-02	.1558E-02	.1698E-02	.1789E-02

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.3409E+02	.3549E+02	.3680E+02	.3807E+02	.3926E+02	.4023E+02	.4088E+02	.4128E+02	.4144E+02
SYX	.5099E+02	.5148E+02	.5186E+02	.5222E+02	.5255E+02	.5272E+02	.5269E+02	.5254E+02	.5229E+02
SZZ	-.1639E+02	-.1652E+02	-.1663E+02	-.1674E+02	-.1682E+02	-.1686E+02	-.1685E+02	-.1681E+02	-.1673E+02

SHEAR STRESSES

SXY	-.2452E-08	.3680E-08	.7656E-08	-.2195E-07	.8147E-08	-.1625E-07	-.1247E-07	-.1820E-07	-.5893E-08
SXZ	-.5840E-03	-.1130E+00	-.2596E+00	-.4404E+00	-.6534E+00	-.8965E+00	-.1166E+01	-.1458E+01	-.1765E+01
SYZ	-.1467E-08	-.7642E-08	.1913E-07	-.1769E-08	.1078E-07	.3956E-08	.1136E-07	-.1370E-07	.5884E-08

PRINCIPAL STRESSES

PS 1	.5099E+02	.5148E+02	.5186E+02	.5222E+02	.5255E+02	.5272E+02	.5269E+02	.5254E+02	.5229E+02
PS 2	.3409E+02	.3549E+02	.3681E+02	.3808E+02	.3927E+02	.4024E+02	.4090E+02	.4132E+02	.4149E+02
PS 3	-.1639E+02	-.1652E+02	-.1663E+02	-.1674E+02	-.1683E+02	-.1688E+02	-.1687E+02	-.1685E+02	-.1678E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3369E+02	.3400E+02	.3425E+02	.3448E+02	.3469E+02	.3480E+02	.3478E+02	.3469E+02	.3454E+02
PSS 2	.8451E+01	.7992E+01	.7528E+01	.7071E+01	.6638E+01	.6242E+01	.5897E+01	.5614E+01	.5401E+01
PSS 3	.2524E+02	.2601E+02	.2672E+02	.2741E+02	.2805E+02	.2856E+02	.2889E+02	.2908E+02	.2914E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.4762E-02	.5517E-02	.6323E-02	.7162E-02	.8036E-02	.8950E-02	.9898E-02	.1086E-01	.1182E-01
UY	-.2091E-10	-.2739E-10	-.7968E-11	-.2524E-10	-.3414E-11	-.2373E-10	-.2060E-10	-.2736E-10	.6528E-11
UZ	.1740E+00	.1736E+00	.1732E+00	.1727E+00	.1721E+00	.1714E+00	.1706E+00	.1698E+00	.1687E+00

## NORMAL STRAINS

EXX	.7326E-03	.7752E-03	.8158E-03	.8551E-03	.8920E-03	.9225E-03	.9444E-03	.9591E-03	.9663E-03
EYY	.1493E-02	.1495E-02	.1493E-02	.1492E-02	.1490E-02	.1485E-02	.1476E-02	.1466E-02	.1455E-02
EZZ	-.1539E-02	-.1565E-02	-.1589E-02	-.1611E-02	-.1632E-02	-.1647E-02	-.1653E-02	-.1655E-02	-.1651E-02

## SHEAR STRAINS

EXY	-.2207E-12	.3312E-12	.6891E-12	-.1975E-11	.7332E-12	-.1463E-11	-.1122E-11	-.1638E-11	-.5304E-12
EXZ	-.5256E-07	-.1017E-04	-.2336E-04	-.3964E-04	-.5881E-04	-.8068E-04	-.1050E-03	-.1312E-03	-.1589E-03
EYZ	-.1320E-12	-.6877E-12	.1721E-11	-.1592E-12	.9706E-12	.3560E-12	.1022E-11	-.1233E-11	.5295E-12

## PRINCIPAL STRAINS

PE 1	.1493E-02	.1495E-02	.1493E-02	.1492E-02	.1490E-02	.1485E-02	.1476E-02	.1466E-02	.1455E-02
PE 2	.7326E-03	.7752E-03	.8158E-03	.8553E-03	.8924E-03	.9231E-03	.9455E-03	.9607E-03	.9688E-03
PE 3	-.1539E-02	-.1565E-02	-.1589E-02	-.1611E-02	-.1632E-02	-.1647E-02	-.1654E-02	-.1657E-02	-.1654E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3032E-02	.3060E-02	.3082E-02	.3103E-02	.3122E-02	.3132E-02	.3131E-02	.3123E-02	.3109E-02
PSE 2	.7606E-03	.7193E-03	.6775E-03	.6364E-03	.5974E-03	.5618E-03	.5307E-03	.5052E-03	.4861E-03
PSE 3	.2271E-02	.2341E-02	.2405E-02	.2467E-02	.2525E-02	.2570E-02	.2600E-02	.2617E-02	.2622E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00



Appendix 6E-b Average HBP

57.00 4.00  
58.00 4.00  
59.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
51.00 4.00  
52.00 4.00  
53.00 4.00  
54.00 4.00  
55.00 4.00  
56.00 4.00  
57.00 4.00  
58.00 4.00  
59.00 4.00

NORMAL STRESSES

SXX .4689E+03 .4614E+03 .4381E+03 .4014E+03 .3548E+03 .3021E+03 .2468E+03 .1924E+03 .1417E+03  
 SYY .4756E+03 .4694E+03 .4546E+03 .4324E+03 .4044E+03 .3726E+03 .3387E+03 .3046E+03 .2718E+03  
 SZZ -.7094E+02 -.7007E+02 -.6775E+02 -.6417E+02 -.5960E+02 -.5436E+02 -.4875E+02 -.4308E+02 -.3760E+02

SHEAR STRESSES

SXY .8044E-07 .3720E-06 -.4750E-06 .5817E-06 .3964E-06 .3233E-06 -.4750E-06 -.1387E-05 .6079E-06  
 SXZ -.6266E+01 -.1102E+02 -.1551E+02 -.1950E+02 -.2281E+02 -.2534E+02 -.2708E+02 -.2805E+02 -.2831E+02  
 SYZ .1610E-06 .4864E-07 .0000E+00 .4864E-07 .1610E-06 -.3023E-06 -.4827E-07 -.6262E-07 .1217E-06

PRINCIPAL STRESSES

PS 1 .4756E+03 .4694E+03 .4546E+03 .4324E+03 .4044E+03 .3726E+03 .3387E+03 .3046E+03 .2718E+03  
 PS 2 .4689E+03 .4616E+03 .4386E+03 .4023E+03 .3561E+03 .3039E+03 .2492E+03 .1957E+03 .1461E+03  
 PS 3 -.7102E+02 -.7030E+02 -.6823E+02 -.6498E+02 -.6085E+02 -.5615E+02 -.5121E+02 -.4637E+02 -.4196E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2733E+03	.2699E+03	.2614E+03	.2487E+03	.2326E+03	.2144E+03	.1950E+03	.1755E+03	.1569E+03
PSS 2	.3323E+01	.3897E+01	.7998E+01	.1504E+02	.2416E+02	.3436E+02	.4473E+02	.5447E+02	.6286E+02
PSS 3	.2700E+03	.2660E+03	.2534E+03	.2336E+03	.2085E+03	.1800E+03	.1502E+03	.1210E+03	.9404E+02

## DISPLACEMENTS

UX	.2712E-02	.3526E-02	.4309E-02	.5031E-02	.5666E-02	.6197E-02	.6617E-02	.6924E-02	.7123E-02
UY	.2169E-10	.2285E-11	.0000E+00	.2285E-11	.2169E-10	-.2223E-11	-.2171E-10	-.3205E-10	-.6057E-11
UZ	.1879E+00	.1864E+00	.1845E+00	.1822E+00	.1798E+00	.1771E+00	.1742E+00	.1711E+00	.1680E+00

## NORMAL STRAINS

EXX	.8181E-03	.8041E-03	.7568E-03	.6815E-03	.5854E-03	.4767E-03	.3633E-03	.2521E-03	.1494E-03
EYY	.8408E-03	.8311E-03	.8124E-03	.7858E-03	.7527E-03	.7147E-03	.6735E-03	.6310E-03	.5885E-03
EZZ	-.1004E-02	-.9896E-03	-.9505E-03	-.8900E-03	-.8133E-03	-.7262E-03	-.6342E-03	-.5426E-03	-.4559E-03

## SHEAR STRAINS

EXY	.5429E-12	.2511E-11	-.3206E-11	.3927E-11	.2676E-11	.2183E-11	-.3206E-11	-.9360E-11	.4103E-11
EXZ	-.4230E-04	-.7438E-04	-.1047E-03	-.1316E-03	-.1539E-03	-.1710E-03	-.1828E-03	-.1893E-03	-.1911E-03
EYZ	.1086E-11	.3284E-12	.0000E+00	.3284E-12	.1086E-11	-.2041E-11	-.3258E-12	-.4227E-12	.8217E-12

## PRINCIPAL STRAINS

PE 1	.8408E-03	.8311E-03	.8124E-03	.7858E-03	.7527E-03	.7147E-03	.6735E-03	.6310E-03	.5885E-03
PE 2	.8184E-03	.8048E-03	.7584E-03	.6842E-03	.5896E-03	.4828E-03	.3716E-03	.2633E-03	.1641E-03
PE 3	-.1004E-02	-.9904E-03	-.9521E-03	-.8927E-03	-.8176E-03	-.7322E-03	-.6425E-03	-.5537E-03	-.4706E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1845E-02	.1822E-02	.1764E-02	.1679E-02	.1570E-02	.1447E-02	.1316E-02	.1185E-02	.1059E-02
PSE 2	.2243E-04	.2631E-04	.5399E-04	.1016E-03	.1631E-03	.2319E-03	.3019E-03	.3677E-03	.4243E-03
PSE 3	.1822E-02	.1795E-02	.1710E-02	.1577E-02	.1407E-02	.1215E-02	.1014E-02	.8170E-03	.6347E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.4126E+02	.4073E+02	.3985E+02	.3872E+02	.3731E+02	.3556E+02	.3355E+02	.3141E+02	.2917E+02
SYX	.5186E+02	.5125E+02	.5045E+02	.4954E+02	.4851E+02	.4725E+02	.4582E+02	.4433E+02	.4280E+02
SZZ	-.1660E+02	-.1640E+02	-.1615E+02	-.1586E+02	-.1554E+02	-.1516E+02	-.1473E+02	-.1427E+02	-.1381E+02

SHEAR STRESSES

SXY	.1615E-07	.6950E-08	-.1161E-07	.1540E-07	-.1615E-07	.5893E-08	.1820E-07	-.1734E-07	-.1355E-07
SXZ	-.2081E+01	-.2399E+01	-.2711E+01	-.3012E+01	-.3294E+01	-.3553E+01	-.3785E+01	-.3987E+01	-.4156E+01
SYZ	-.1024E-07	-.9737E-09	.0000E+00	-.9737E-09	-.1024E-07	.5884E-08	-.1370E-07	-.1844E-07	.3956E-08

PRINCIPAL STRESSES

PS 1	.5186E+02	.5125E+02	.5045E+02	.4954E+02	.4851E+02	.4725E+02	.4582E+02	.4433E+02	.4280E+02
PS 2	.4133E+02	.4083E+02	.3998E+02	.3888E+02	.3752E+02	.3581E+02	.3384E+02	.3175E+02	.2957E+02
PS 3	-.1667E+02	-.1650E+02	-.1628E+02	-.1603E+02	-.1575E+02	-.1541E+02	-.1502E+02	-.1462E+02	-.1420E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3427E+02	.3388E+02	.3337E+02	.3279E+02	.3213E+02	.3133E+02	.3042E+02	.2948E+02	.2850E+02
PSS 2	.5266E+01	.5210E+01	.5233E+01	.5330E+01	.5495E+01	.5718E+01	.5987E+01	.6291E+01	.6617E+01
PSS 3	.2900E+02	.2867E+02	.2813E+02	.2746E+02	.2663E+02	.2561E+02	.2443E+02	.2318E+02	.2188E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.1279E-01	.1375E-01	.1469E-01	.1561E-01	.1650E-01	.1734E-01	.1813E-01	.1886E-01	.1953E-01
UY	-.4292E-10	-.2756E-10	.0000E+00	-.2756E-10	-.4292E-10	.6528E-11	-.2736E-10	-.2060E-10	-.2373E-10
UZ	.1676E+00	.1663E+00	.1649E+00	.1633E+00	.1617E+00	.1600E+00	.1582E+00	.1563E+00	.1543E+00

## NORMAL STRAINS

EXX	.9638E-03	.9511E-03	.9283E-03	.8976E-03	.8591E-03	.8111E-03	.7556E-03	.6962E-03	.6340E-03
EYY	.1441E-02	.1425E-02	.1405E-02	.1385E-02	.1363E-02	.1337E-02	.1308E-02	.1278E-02	.1247E-02
EZZ	-.1640E-02	-.1620E-02	-.1592E-02	-.1558E-02	-.1519E-02	-.1471E-02	-.1417E-02	-.1359E-02	-.1300E-02

## SHEAR STRAINS

EXY	.1454E-11	.6255E-12	-.1045E-11	.1386E-11	-.1454E-11	.5304E-12	.1638E-11	-.1560E-11	-.1219E-11
EXZ	-.1873E-03	-.2159E-03	-.2440E-03	-.2711E-03	-.2965E-03	-.3198E-03	-.3406E-03	-.3588E-03	-.3740E-03
EYZ	-.9219E-12	-.8763E-13	.0000E+00	-.8763E-13	-.9219E-12	.5295E-12	-.1233E-11	-.1660E-11	.3560E-12

## PRINCIPAL STRAINS

PE 1	.1441E-02	.1425E-02	.1405E-02	.1385E-02	.1363E-02	.1337E-02	.1308E-02	.1278E-02	.1247E-02
PE 2	.9671E-03	.9556E-03	.9342E-03	.9051E-03	.8683E-03	.8222E-03	.7688E-03	.7117E-03	.6519E-03
PE 3	-.1643E-02	-.1624E-02	-.1598E-02	-.1566E-02	-.1528E-02	-.1483E-02	-.1430E-02	-.1375E-02	-.1318E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3084E-02	.3049E-02	.3003E-02	.2951E-02	.2891E-02	.2819E-02	.2738E-02	.2653E-02	.2565E-02
PSE 2	.4740E-03	.4689E-03	.4710E-03	.4797E-03	.4946E-03	.5146E-03	.5388E-03	.5662E-03	.5955E-03
PSE 3	.2610E-02	.2580E-02	.2532E-02	.2471E-02	.2397E-02	.2305E-02	.2199E-02	.2087E-02	.1970E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.41 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-b Average HBP

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1315E+03	.1322E+03	.1266E+03	.1174E+03	.1079E+03	.1019E+03	.1032E+03	.1147E+03	.1389E+03
SYX	.2328E+03	.2422E+03	.2494E+03	.2557E+03	.2625E+03	.2713E+03	.2835E+03	.3002E+03	.3221E+03
SZZ	-.3068E+02	-.3188E+02	-.3267E+02	-.3327E+02	-.3394E+02	-.3496E+02	-.3659E+02	-.3903E+02	-.4244E+02

SHEAR STRESSES

SXY	-.2641E-07	.4550E-06	.1753E-06	.3612E-06	-.2183E-07	-.5414E-06	-.1702E-05	.2037E-05	.2239E-07
SXZ	.1849E+02	.1758E+02	.1690E+02	.1658E+02	.1673E+02	.1733E+02	.1829E+02	.1945E+02	.2062E+02
SYZ	.4018E-07	.3885E-07	-.6711E-07	-.1594E-07	-.1237E-06	.7363E-07	-.6161E-07	.2306E-06	-.9980E-07

PRINCIPAL STRESSES

PS 1	.2328E+03	.2422E+03	.2494E+03	.2557E+03	.2625E+03	.2713E+03	.2835E+03	.3002E+03	.3221E+03
PS 2	.1336E+03	.1341E+03	.1284E+03	.1192E+03	.1098E+03	.1040E+03	.1055E+03	.1172E+03	.1412E+03

## Appendix 6E-b Average HBP

PS 3   -.3277E+02   -.3374E+02   -.3445E+02   -.3507E+02   -.3589E+02   -.3712E+02   -.3894E+02   -.4145E+02   -.4475E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1328E+03   .1380E+03   .1419E+03   .1454E+03   .1492E+03   .1542E+03   .1612E+03   .1708E+03   .1834E+03  
PSS 2   .4961E+02   .5404E+02   .6047E+02   .6825E+02   .7634E+02   .8364E+02   .8900E+02   .9150E+02   .9041E+02  
PSS 3   .8317E+02   .8391E+02   .8143E+02   .7715E+02   .7287E+02   .7058E+02   .7223E+02   .7931E+02   .9300E+02

## DISPLACEMENTS

UX     -.5132E-02   -.4982E-02   -.4844E-02   -.4729E-02   -.4644E-02   -.4585E-02   -.4543E-02   -.4496E-02   -.4420E-02  
UY     .1008E-11   -.1501E-10   .3226E-11   -.5122E-11   -.9643E-12   -.2089E-10   .5165E-10   -.3465E-11   -.2838E-10  
UZ     .1316E+00   .1337E+00   .1357E+00   .1374E+00   .1392E+00   .1410E+00   .1429E+00   .1447E+00   .1465E+00

## NORMAL STRAINS

EXX     .1519E-03   .1466E-03   .1270E-03   .9891E-04   .6973E-04   .4790E-04   .4184E-04   .5837E-04   .1027E-03  
EYY     .4938E-03   .5176E-03   .5412E-03   .5657E-03   .5916E-03   .6197E-03   .6505E-03   .6842E-03   .7207E-03  
EZZ     -.3954E-03   -.4073E-03   -.4107E-03   -.4097E-03   -.4090E-03   -.4139E-03   -.4298E-03   -.4606E-03   -.5095E-03

## SHEAR STRAINS

EXY     -.1783E-12   .3071E-11   .1184E-11   .2438E-11   -.1474E-12   -.3654E-11   -.1149E-10   .1375E-10   .1511E-12  
EXZ     .1248E-03   .1187E-03   .1140E-03   .1119E-03   .1130E-03   .1170E-03   .1234E-03   .1313E-03   .1392E-03  
EYZ     .2712E-12   .2623E-12   -.4530E-12   -.1076E-12   -.8348E-12   .4970E-12   -.4159E-12   .1557E-11   -.6737E-12

## PRINCIPAL STRAINS

PE 1     .4938E-03   .5176E-03   .5412E-03   .5657E-03   .5916E-03   .6197E-03   .6505E-03   .6842E-03   .7207E-03  
PE 2     .1589E-03   .1528E-03   .1330E-03   .1050E-03   .7631E-04   .5519E-04   .4978E-04   .6654E-04   .1105E-03  
PE 3     -.4025E-03   -.4136E-03   -.4167E-03   -.4158E-03   -.4155E-03   -.4212E-03   -.4377E-03   -.4688E-03   -.5173E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .8962E-03   .9312E-03   .9578E-03   .9814E-03   .1007E-02   .1041E-02   .1088E-02   .1153E-02   .1238E-02  
PSE 2   .3348E-03   .3648E-03   .4082E-03   .4607E-03   .5153E-03   .5645E-03   .6007E-03   .6177E-03   .6103E-03  
PSE 3   .5614E-03   .5664E-03   .5497E-03   .5207E-03   .4919E-03   .4764E-03   .4875E-03   .5353E-03   .6278E-03

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

## NORMAL STRESSES

SXX	.2572E+02	.2767E+02	.2967E+02	.3184E+02	.3402E+02	.3618E+02	.3829E+02	.4036E+02	.4236E+02
SYX	.3704E+02	.3849E+02	.3995E+02	.4156E+02	.4313E+02	.4464E+02	.4607E+02	.4742E+02	.4868E+02
SZZ	-.1181E+02	-.1224E+02	-.1267E+02	-.1310E+02	-.1354E+02	-.1398E+02	-.1440E+02	-.1480E+02	-.1516E+02

## SHEAR STRESSES

SXY	-.5593E-09	-.5055E-07	-.3607E-07	.1259E-07	.4531E-07	-.1351E-07	.1587E-07	.3489E-07	.6213E-07
SXZ	.3525E+01	.3441E+01	.3342E+01	.3225E+01	.3090E+01	.2937E+01	.2763E+01	.2566E+01	.2343E+01
SYZ	.1219E-08	-.4406E-08	-.3077E-08	-.2331E-07	.2304E-08	-.5502E-08	.1909E-07	.4122E-08	-.1639E-07

## PRINCIPAL STRESSES

PS 1	.3704E+02	.3849E+02	.3995E+02	.4156E+02	.4313E+02	.4464E+02	.4607E+02	.4742E+02	.4868E+02
PS 2	.2605E+02	.2797E+02	.2993E+02	.3207E+02	.3422E+02	.3635E+02	.3844E+02	.4048E+02	.4245E+02
PS 3	-.1214E+02	-.1254E+02	-.1293E+02	-.1333E+02	-.1374E+02	-.1415E+02	-.1454E+02	-.1492E+02	-.1526E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2459E+02	.2551E+02	.2644E+02	.2744E+02	.2844E+02	.2940E+02	.3031E+02	.3117E+02	.3197E+02
PSS 2	.5498E+01	.5262E+01	.5011E+01	.4743E+01	.4455E+01	.4147E+01	.3818E+01	.3471E+01	.3111E+01
PSS 3	.1909E+02	.2025E+02	.2143E+02	.2270E+02	.2398E+02	.2525E+02	.2649E+02	.2770E+02	.2886E+02



## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.1374E-01	-.1315E-01	-.1251E-01	-.1180E-01	-.1104E-01	-.1021E-01	-.9334E-02	-.8402E-02	-.7411E-02
UY	.4368E-10	-.1062E-09	.2181E-10	-.1500E-11	.9184E-12	-.5003E-11	-.2894E-10	.1202E-09	.6000E-11
UZ	.1202E+00	.1218E+00	.1233E+00	.1245E+00	.1257E+00	.1270E+00	.1282E+00	.1293E+00	.1303E+00

## NORMAL STRAINS

EXX	.5629E-03	.6162E-03	.6707E-03	.7294E-03	.7889E-03	.8482E-03	.9069E-03	.9647E-03	.1021E-02
EYY	.1072E-02	.1103E-02	.1133E-02	.1167E-02	.1199E-02	.1229E-02	.1257E-02	.1283E-02	.1305E-02
EZZ	-.1126E-02	-.1180E-02	-.1235E-02	-.1293E-02	-.1352E-02	-.1409E-02	-.1464E-02	-.1517E-02	-.1567E-02

## SHEAR STRAINS

EXY	-.5034E-13	-.4549E-11	-.3247E-11	.1133E-11	.4078E-11	-.1216E-11	.1428E-11	.3140E-11	.5592E-11
EXZ	.3173E-03	.3097E-03	.3008E-03	.2902E-03	.2781E-03	.2643E-03	.2487E-03	.2310E-03	.2109E-03
EYZ	.1097E-12	-.3965E-12	-.2770E-12	-.2098E-11	.2073E-12	-.4952E-12	.1718E-11	.3710E-12	-.1475E-11

## PRINCIPAL STRAINS

PE 1	.1072E-02	.1103E-02	.1133E-02	.1167E-02	.1199E-02	.1229E-02	.1257E-02	.1283E-02	.1305E-02
PE 2	.5777E-03	.6294E-03	.6825E-03	.7397E-03	.7979E-03	.8559E-03	.9134E-03	.9701E-03	.1025E-02
PE 3	-.1141E-02	-.1193E-02	-.1246E-02	-.1303E-02	-.1360E-02	-.1417E-02	-.1471E-02	-.1523E-02	-.1572E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2213E-02	.2296E-02	.2380E-02	.2470E-02	.2559E-02	.2646E-02	.2728E-02	.2805E-02	.2877E-02
PSE 2	.4948E-03	.4736E-03	.4510E-03	.4268E-03	.4010E-03	.3732E-03	.3436E-03	.3124E-03	.2800E-03
PSE 3	.1718E-02	.1823E-02	.1929E-02	.2043E-02	.2158E-02	.2272E-02	.2384E-02	.2493E-02	.2597E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.41 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-b Average HBP

13.00 4.00  
 14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
 9.00 4.00  
 10.00 4.00  
 11.00 4.00  
 12.00 4.00  
 13.00 4.00  
 14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

NORMAL STRESSES

SXX .1771E+03 .2291E+03 .2929E+03 .3639E+03 .4366E+03 .5044E+03 .5599E+03 .5961E+03 .6083E+03  
 SYX .3495E+03 .3822E+03 .4189E+03 .4576E+03 .4959E+03 .5303E+03 .5572E+03 .5736E+03 .5777E+03  
 SZZ -.4686E+02 -.5225E+02 -.5841E+02 -.6497E+02 -.7144E+02 -.7727E+02 -.8190E+02 -.8482E+02 -.8562E+02

SHEAR STRESSES

SXY -.5687E-06 -.1306E-05 .1604E-05 -.3609E-06 -.6557E-06 .5881E-06 .4029E-06 .1023E-05 -.2107E-06  
 SXZ .2156E+02 .2198E+02 .2156E+02 .2005E+02 .1732E+02 .1333E+02 .8178E+01 .2087E+01 -.4543E+01  
 SYZ -.1637E-06 .2668E-07 -.2928E-06 .2416E-07 -.1455E-06 .1754E-06 -.2567E-06 -.4725E-06 -.2410E-06

PRINCIPAL STRESSES

PS 1 .3495E+03 .3822E+03 .4189E+03 .4576E+03 .4959E+03 .5303E+03 .5600E+03 .5962E+03 .6083E+03  
 PS 2 .1792E+03 .2308E+03 .2942E+03 .3648E+03 .4372E+03 .5047E+03 .5572E+03 .5736E+03 .5777E+03

## Appendix 6E-b Average HBP

PS 3    -.4892E+02   -.5396E+02   -.5973E+02   -.6591E+02   -.7203E+02   -.7757E+02   -.8200E+02   -.8482E+02   -.8565E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1992E+03    .2181E+03    .2393E+03    .2618E+03    .2840E+03    .3039E+03    .3210E+03    .3405E+03    .3470E+03  
PSS 2    .8517E+02    .7567E+02    .6236E+02    .4640E+02    .2932E+02    .1280E+02    .1371E+01    .1128E+02    .1533E+02  
PSS 3    .1140E+03    .1424E+03    .1770E+03    .2154E+03    .2546E+03    .2911E+03    .3196E+03    .3292E+03    .3317E+03

## DISPLACEMENTS

UX        -.4283E-02   -.4055E-02   -.3704E-02   -.3211E-02   -.2567E-02   -.1771E-02   -.8414E-03   .1893E-03   .1272E-02  
UY        -.1298E-10   -.1762E-10   -.1132E-10   -.2248E-10   -.2938E-10   -.4015E-10   -.6719E-10   -.5499E-10   -.1046E-10  
UZ        .1483E+00    .1501E+00    .1520E+00    .1540E+00    .1555E+00    .1566E+00    .1575E+00    .1582E+00    .1582E+00

## NORMAL STRAINS

EXX        .1779E-03    .2842E-03    .4168E-03    .5662E-03    .7202E-03    .8645E-03    .9837E-03    .1063E-02    .1090E-02  
EYY        .7598E-03    .8007E-03    .8421E-03    .8825E-03    .9201E-03    .9520E-03    .9748E-03    .9866E-03    .9868E-03  
EZZ        -.5779E-03   -.6655E-03   -.7689E-03   -.8813E-03   -.9946E-03   -.1098E-02   -.1182E-02   -.1236E-02   -.1252E-02

## SHEAR STRAINS

EXY        -.3839E-11   -.8818E-11   .1082E-10   -.2436E-11   -.4426E-11   .3970E-11   .2720E-11   .6908E-11   -.1422E-11  
EXZ        .1455E-03    .1483E-03    .1455E-03    .1354E-03    .1169E-03    .8998E-04    .5520E-04    .1409E-04    -.3067E-04  
EYZ        -.1105E-11   .1801E-12   -.1977E-11   .1631E-12   -.9820E-12   .1184E-11   -.1733E-11   -.3190E-11   -.1627E-11

## PRINCIPAL STRAINS

PE 1        .7598E-03    .8007E-03    .8421E-03    .8825E-03    .9201E-03    .9520E-03    .9841E-03    .1063E-02    .1090E-02  
PE 2        .1849E-03    .2899E-03    .4212E-03    .5693E-03    .7222E-03    .8656E-03    .9748E-03    .9866E-03    .9868E-03  
PE 3        -.5849E-03   -.6713E-03   -.7733E-03   -.8844E-03   -.9966E-03   -.1100E-02   -.1183E-02   -.1236E-02   -.1252E-02

## PRINCIPAL SHEAR STRAINS

PSE 1        .1345E-02    .1472E-02    .1615E-02    .1767E-02    .1917E-02    .2052E-02    .2167E-02    .2298E-02    .2342E-02  
PSE 2        .5749E-03    .5108E-03    .4209E-03    .3132E-03    .1979E-03    .8641E-04    .9254E-05    .7612E-04    .1035E-03  
PSE 3        .7697E-03    .9612E-03    .1195E-02    .1454E-02    .1719E-02    .1965E-02    .2157E-02    .2222E-02    .2239E-02

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.4424E+02	.4591E+02	.4729E+02	.4839E+02	.4936E+02	.5007E+02	.5030E+02	.5009E+02	.4967E+02
SYX	.4980E+02	.5073E+02	.5139E+02	.5184E+02	.5225E+02	.5251E+02	.5244E+02	.5209E+02	.5170E+02
SZZ	-.1549E+02	-.1576E+02	-.1600E+02	-.1620E+02	-.1636E+02	-.1645E+02	-.1648E+02	-.1646E+02	-.1638E+02

## SHEAR STRESSES

SXY	-.1809E-07	.1151E-07	-.1001E-07	.2417E-07	.6683E-08	.1394E-07	.2165E-07	-.5706E-09	-.4986E-09
SXZ	.2091E+01	.1809E+01	.1494E+01	.1149E+01	.7790E+00	.3855E+00	-.2794E-01	-.4539E+00	-.8820E+00
SYZ	.1921E-08	.2078E-07	.3990E-08	.1467E-07	-.1045E-08	.3615E-08	-.5342E-08	-.2058E-07	.4469E-08

## PRINCIPAL STRESSES

PS 1	.4980E+02	.5073E+02	.5139E+02	.5184E+02	.5225E+02	.5251E+02	.5244E+02	.5209E+02	.5170E+02
PS 2	.4431E+02	.4596E+02	.4733E+02	.4841E+02	.4937E+02	.5007E+02	.5030E+02	.5010E+02	.4968E+02
PS 3	-.1556E+02	-.1582E+02	-.1603E+02	-.1622E+02	-.1637E+02	-.1646E+02	-.1648E+02	-.1646E+02	-.1639E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.3268E+02	.3327E+02	.3371E+02	.3403E+02	.3431E+02	.3448E+02	.3446E+02	.3427E+02	.3405E+02
PSS 2	.2745E+01	.2382E+01	.2035E+01	.1715E+01	.1439E+01	.1219E+01	.1068E+01	.9951E+00	.1007E+01
PSS 3	.2993E+02	.3089E+02	.3168E+02	.3232E+02	.3287E+02	.3326E+02	.3339E+02	.3328E+02	.3304E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.6361E-02	-.5249E-02	-.4080E-02	-.2872E-02	-.1641E-02	-.3815E-03	.9031E-03	.2187E-02	.3448E-02
UY	-.5489E-10	.8802E-10	-.1045E-10	.2322E-10	-.7250E-10	-.3544E-10	.7356E-12	-.9040E-10	-.1429E-10
UZ	.1311E+00	.1320E+00	.1329E+00	.1338E+00	.1344E+00	.1347E+00	.1351E+00	.1355E+00	.1354E+00

## NORMAL STRAINS

EXX	.1074E-02	.1122E-02	.1163E-02	.1197E-02	.1227E-02	.1248E-02	.1257E-02	.1254E-02	.1244E-02
EYY	.1325E-02	.1339E-02	.1348E-02	.1353E-02	.1357E-02	.1358E-02	.1353E-02	.1344E-02	.1335E-02
EZZ	-.1613E-02	-.1653E-02	-.1685E-02	-.1709E-02	-.1731E-02	-.1745E-02	-.1748E-02	-.1741E-02	-.1729E-02

## SHEAR STRAINS

EXY	-.1628E-11	.1036E-11	-.9007E-12	.2176E-11	.6014E-12	.1254E-11	.1949E-11	-.5136E-13	-.4488E-13
EXZ	.1882E-03	.1628E-03	.1345E-03	.1034E-03	.7011E-04	.3470E-04	-.2515E-05	-.4085E-04	-.7938E-04
EYZ	.1729E-12	.1870E-11	.3591E-12	.1320E-11	-.9407E-13	.3254E-12	-.4808E-12	-.1852E-11	.4022E-12

## PRINCIPAL STRAINS

PE 1	.1325E-02	.1339E-02	.1348E-02	.1353E-02	.1357E-02	.1358E-02	.1353E-02	.1344E-02	.1335E-02
PE 2	.1078E-02	.1125E-02	.1165E-02	.1198E-02	.1227E-02	.1248E-02	.1257E-02	.1254E-02	.1244E-02
PE 3	-.1617E-02	-.1655E-02	-.1686E-02	-.1710E-02	-.1731E-02	-.1745E-02	-.1748E-02	-.1741E-02	-.1729E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2941E-02	.2995E-02	.3034E-02	.3063E-02	.3088E-02	.3103E-02	.3101E-02	.3085E-02	.3064E-02
PSE 2	.2471E-03	.2144E-03	.1831E-03	.1544E-03	.1295E-03	.1097E-03	.9611E-04	.8956E-04	.9067E-04
PSE 3	.2694E-02	.2780E-02	.2851E-02	.2909E-02	.2958E-02	.2994E-02	.3005E-02	.2995E-02	.2974E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.41 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-b Average HBP

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Z= 6.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.5942E+03	.5557E+03
SYY	.5687E+03	.5472E+03
SZZ	-.8415E+02	-.8055E+02

## SHEAR STRESSES

SXY	-.7246E-06	-.4029E-06
SXZ	-.1119E+02	-.1731E+02
SYZ	-.1685E-06	-.4768E-06

## PRINCIPAL STRESSES

PS 1	.5944E+03	.5562E+03
PS 2	.5687E+03	.5472E+03
PS 3	-.8434E+02	-.8102E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.3394E+03	.3186E+03
PSS 2	.1287E+02	.4504E+01
PSS 3	.3265E+03	.3141E+03

## DISPLACEMENTS

UX	.2354E-02	.3383E-02
UY	-.1198E-09	-.5821E-10
UZ	.1571E+00	.1553E+00



Appendix 6E-b Average HBP

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## NORMAL STRAINS

EXX	.1062E-02	.9810E-03
EYY	.9753E-03	.9522E-03
EZZ	-.1228E-02	-.1166E-02

## SHEAR STRAINS

EXY	-.4891E-11	-.2720E-11
EXZ	-.7551E-04	-.1168E-03
EYZ	-.1138E-11	-.3219E-11

## PRINCIPAL STRAINS

PE 1	.1062E-02	.9826E-03
PE 2	.9753E-03	.9522E-03
PE 3	-.1229E-02	-.1168E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2291E-02	.2151E-02
PSE 2	.8687E-04	.3040E-04
PSE 3	.2204E-02	.2120E-02

Z= 18.00 LAYER NO, 2

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.4913E+02	.4838E+02
SYY	.5137E+02	.5101E+02
SZZ	-.1624E+02	-.1605E+02

Appendix 6E-b Average HBP

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## SHEAR STRESSES

SXY -.3250E-07 -.2165E-07  
SXZ -.1307E+01 -.1722E+01  
SYZ .3114E-07 .1490E-07

## PRINCIPAL STRESSES

PS 1 .5137E+02 .5101E+02  
PS 2 .4916E+02 .4843E+02  
PS 3 -.1627E+02 -.1610E+02

## PRINCIPAL SHEAR STRESSES

PSS 1 .3382E+02 .3355E+02  
PSS 2 .1108E+01 .1295E+01  
PSS 3 .3271E+02 .3226E+02

## DISPLACEMENTS

UX .4695E-02 .5940E-02  
UY .9053E-10 .0000E+00  
UZ .1346E+00 .1334E+00

## NORMAL STRAINS

EXX .1228E-02 .1205E-02  
EYY .1329E-02 .1323E-02  
EZZ -.1714E-02 -.1695E-02

## SHEAR STRAINS

EXY -.2925E-11 -.1949E-11  
EXZ -.1176E-03 -.1550E-03  
EYZ .2803E-11 .1341E-11

## PRINCIPAL STRAINS

Appendix 6E-b Average HBP

PE 1 .1329E-02 .1323E-02  
 PE 2 .1229E-02 .1207E-02  
 PE 3 -.1715E-02 -.1697E-02

PRINCIPAL SHEAR STRAINS  
 PSE 1 .3044E-02 .3020E-02  
 PSE 2 .9972E-04 .1165E-03  
 PSE 3 .2944E-02 .2903E-02

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

## Appendix 6E-b Average HBP

Z= 6.00 18.00  
 X-Y POINT(S)  
 X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

## NORMAL STRESSES

SXX	.4542E+03	.4776E+03	.4851E+03	.4759E+03	.4507E+03	.4119E+03	.3629E+03	.3074E+03	.2491E+03
SYY	.4733E+03	.4884E+03	.4947E+03	.4918E+03	.4801E+03	.4609E+03	.4359E+03	.4069E+03	.3759E+03
SZZ	-.7048E+02	-.7284E+02	-.7373E+02	-.7307E+02	-.7094E+02	-.6752E+02	-.6311E+02	-.5801E+02	-.5253E+02

## SHEAR STRESSES

SXY	.4993E-06	-.9181E-07	-.1101E-06	-.6875E-08	-.4278E-06	-.5296E-07	.4011E-06	.8965E-06	.5202E-06
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## Appendix 6E-b Average HBP

SXZ	.1606E+02	.1144E+02	.6566E+01	.1718E+01	-.2828E+01	-.6825E+01	-.1008E+02	-.1252E+02	-.1409E+02
SYZ	-.6982E-07	.1789E-06	.1860E-06	.1162E-06	.1084E-07	.1162E-06	.1901E-06	-.3054E-06	-.5619E-07

## PRINCIPAL STRESSES

PS 1	.4733E+03	.4884E+03	.4947E+03	.4918E+03	.4801E+03	.4609E+03	.4359E+03	.4069E+03	.3759E+03
PS 2	.4547E+03	.4779E+03	.4852E+03	.4759E+03	.4507E+03	.4120E+03	.3632E+03	.3078E+03	.2498E+03
PS 3	-.7097E+02	-.7308E+02	-.7380E+02	-.7307E+02	-.7095E+02	-.6762E+02	-.6335E+02	-.5844E+02	-.5319E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2721E+03	.2807E+03	.2843E+03	.2824E+03	.2755E+03	.2643E+03	.2496E+03	.2327E+03	.2145E+03
PSS 2	.9286E+01	.5261E+01	.4757E+01	.7957E+01	.1469E+02	.2444E+02	.3638E+02	.4954E+02	.6305E+02
PSS 3	.2628E+03	.2755E+03	.2795E+03	.2745E+03	.2608E+03	.2398E+03	.2133E+03	.1831E+03	.1515E+03

## DISPLACEMENTS

UX	-.4490E-02	-.3681E-02	-.2841E-02	-.2004E-02	-.1205E-02	-.4754E-03	.1600E-03	.6826E-03	.1083E-02
UY	.1666E-10	.3175E-10	-.2066E-10	-.7730E-10	-.4655E-11	-.8291E-10	-.3152E-10	.3754E-10	.1907E-10
UZ	.1931E+00	.1950E+00	.1966E+00	.1978E+00	.1986E+00	.1991E+00	.1993E+00	.1993E+00	.1991E+00

## NORMAL STRAINS

EXX	.7831E-03	.8305E-03	.8445E-03	.8233E-03	.7688E-03	.6856E-03	.5811E-03	.4632E-03	.3399E-03
EYY	.8474E-03	.8668E-03	.8768E-03	.8771E-03	.8680E-03	.8509E-03	.8274E-03	.7991E-03	.7677E-03
EZZ	-.9878E-03	-.1027E-02	-.1042E-02	-.1029E-02	-.9918E-03	-.9325E-03	-.8567E-03	-.7701E-03	-.6783E-03

## SHEAR STRAINS

EXY	.3371E-11	-.6197E-12	-.7431E-12	-.4641E-13	-.2887E-11	-.3575E-12	.2707E-11	.6052E-11	.3511E-11
EXZ	.1084E-03	.7721E-04	.4432E-04	.1160E-04	-.1909E-04	-.4607E-04	-.6807E-04	-.8448E-04	-.9510E-04
EYZ	-.4713E-12	.1208E-11	.1255E-11	.7843E-12	.7317E-13	.7844E-12	.1283E-11	-.2061E-11	-.3793E-12

## PRINCIPAL STRAINS

PE 1	.8474E-03	.8668E-03	.8768E-03	.8771E-03	.8680E-03	.8509E-03	.8274E-03	.7991E-03	.7677E-03
PE 2	.7848E-03	.8313E-03	.8447E-03	.8234E-03	.7688E-03	.6859E-03	.5819E-03	.4647E-03	.3421E-03
PE 3	-.9894E-03	-.1028E-02	-.1042E-02	-.1029E-02	-.9919E-03	-.9329E-03	-.8575E-03	-.7715E-03	-.6805E-03

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRAINS

PSE 1	.1837E-02	.1895E-02	.1919E-02	.1907E-02	.1860E-02	.1784E-02	.1685E-02	.1571E-02	.1448E-02
PSE 2	.6268E-04	.3551E-04	.3211E-04	.5371E-04	.9919E-04	.1650E-03	.2455E-03	.3344E-03	.4256E-03
PSE 3	.1774E-02	.1860E-02	.1887E-02	.1853E-02	.1761E-02	.1619E-02	.1439E-02	.1236E-02	.1023E-02

Z= 18.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

## NORMAL STRESSES

SXX	.4170E+02	.4261E+02	.4316E+02	.4335E+02	.4319E+02	.4275E+02	.4208E+02	.4109E+02	.3986E+02
SYX	.5280E+02	.5363E+02	.5427E+02	.5472E+02	.5499E+02	.5511E+02	.5515E+02	.5497E+02	.5464E+02
SZZ	-.1691E+02	-.1717E+02	-.1737E+02	-.1752E+02	-.1760E+02	-.1764E+02	-.1765E+02	-.1761E+02	-.1752E+02

## SHEAR STRESSES

SXY	.2156E-07	-.1812E-07	.8375E-08	.1540E-07	-.1954E-07	-.1744E-07	.1002E-08	.3531E-07	-.6932E-08
SXZ	.2835E+01	.2510E+01	.2180E+01	.1851E+01	.1531E+01	.1228E+01	.9465E+00	.6931E+00	.4708E+00
SYZ	-.1301E-07	-.7027E-08	-.1432E-07	-.1079E-07	-.4173E-08	-.8054E-08	-.8118E-08	-.9410E-08	.1921E-07

## PRINCIPAL STRESSES

PS 1	.5280E+02	.5363E+02	.5427E+02	.5472E+02	.5499E+02	.5511E+02	.5515E+02	.5497E+02	.5464E+02
PS 2	.4183E+02	.4271E+02	.4324E+02	.4341E+02	.4323E+02	.4277E+02	.4209E+02	.4109E+02	.3986E+02

## Appendix 6E-b Average HBP

PS 3    -.1705E+02   -.1728E+02   -.1745E+02   -.1757E+02   -.1764E+02   -.1766E+02   -.1767E+02   -.1762E+02   -.1752E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .3492E+02    .3545E+02    .3586E+02    .3615E+02    .3631E+02    .3639E+02    .3641E+02    .3630E+02    .3608E+02  
PSS 2    .5481E+01    .5458E+01    .5517E+01    .5657E+01    .5878E+01    .6172E+01    .6530E+01    .6940E+01    .7390E+01  
PSS 3    .2944E+02    .2999E+02    .3035E+02    .3049E+02    .3043E+02    .3022E+02    .2988E+02    .2936E+02    .2869E+02

## DISPLACEMENTS

UX        -.1538E-01   -.1439E-01   -.1339E-01   -.1238E-01   -.1137E-01   -.1037E-01   -.9380E-02   -.8424E-02   -.7509E-02  
UY        -.1626E-10   .5253E-10   .4958E-11   .3438E-11   -.2032E-10   .3332E-11   -.9787E-10   -.5439E-10   .7687E-10  
UZ        .1727E+00    .1741E+00    .1755E+00    .1767E+00    .1777E+00    .1786E+00    .1794E+00    .1802E+00    .1809E+00

## NORMAL STRAINS

EXX        .9712E-03    .9949E-03    .1008E-02    .1011E-02    .1004E-02    .9876E-03    .9651E-03    .9336E-03    .8955E-03  
EYY        .1471E-02    .1491E-02    .1508E-02    .1523E-02    .1534E-02    .1544E-02    .1553E-02    .1559E-02    .1561E-02  
EZZ        -.1666E-02   -.1695E-02   -.1716E-02   -.1728E-02   -.1732E-02   -.1730E-02   -.1723E-02   -.1708E-02   -.1686E-02

## SHEAR STRAINS

EXY        .1940E-11   -.1630E-11    .7537E-12    .1386E-11   -.1758E-11   -.1569E-11    .9019E-13    .3178E-11   -.6239E-12  
EXZ        .2552E-03    .2259E-03    .1962E-03    .1666E-03    .1378E-03    .1105E-03    .8519E-04    .6238E-04    .4237E-04  
EYZ        -.1171E-11   -.6325E-12   -.1288E-11   -.9709E-12   -.3756E-12   -.7248E-12   -.7306E-12   -.8469E-12    .1729E-11

## PRINCIPAL STRAINS

PE 1        .1471E-02    .1491E-02    .1508E-02    .1523E-02    .1534E-02    .1544E-02    .1553E-02    .1559E-02    .1561E-02  
PE 2        .9774E-03    .9996E-03    .1012E-02    .1014E-02    .1005E-02    .9887E-03    .9658E-03    .9340E-03    .8956E-03  
PE 3        -.1672E-02   -.1700E-02   -.1719E-02   -.1731E-02   -.1734E-02   -.1731E-02   -.1723E-02   -.1708E-02   -.1687E-02

## PRINCIPAL SHEAR STRAINS

PSE 1        .3143E-02    .3191E-02    .3228E-02    .3253E-02    .3268E-02    .3275E-02    .3277E-02    .3267E-02    .3247E-02  
PSE 2        .4933E-03    .4913E-03    .4965E-03    .5092E-03    .5290E-03    .5555E-03    .5877E-03    .6246E-03    .6651E-03  
PSE 3        .2650E-02    .2700E-02    .2731E-02    .2744E-02    .2739E-02    .2719E-02    .2689E-02    .2642E-02    .2582E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00



Appendix 6E-b Average HBP

31.00      4.00  
32.00      4.00

Z= 6.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.1916E+03	.1378E+03	.9033E+02	.5067E+02	.1922E+02	-.4856E+01	-.2269E+02	-.3550E+02	-.4404E+02
SYX	.3447E+03	.3150E+03	.2880E+03	.2646E+03	.2450E+03	.2291E+03	.2167E+03	.2073E+03	.2007E+03
SZZ	-.4700E+02	-.4168E+02	-.3682E+02	-.3256E+02	-.2899E+02	-.2607E+02	-.2377E+02	-.2204E+02	-.2084E+02

SHEAR STRESSES

SXY	-.5434E-07	.4232E-06	-.1208E-05	.1945E-06	.6132E-07	-.9514E-06	.7191E-06	-.2011E-06	-.3102E-06
SXZ	-.1482E+02	-.1477E+02	-.1406E+02	-.1286E+02	-.1132E+02	-.9591E+01	-.7747E+01	-.5842E+01	-.3907E+01
SYZ	-.6014E-08	.9916E-07	-.3431E-07	.4981E-07	.9362E-07	.9337E-07	.1592E-07	-.2084E-07	.2870E-07

PRINCIPAL STRESSES

PS 1	.3447E+03	.3150E+03	.2880E+03	.2646E+03	.2450E+03	.2291E+03	.2167E+03	.2073E+03	.2007E+03
PS 2	.1925E+03	.1390E+03	.9187E+02	.5261E+02	.2175E+02	-.1163E+01	-.1546E+02	-.1986E+02	-.2020E+02
PS 3	-.4791E+02	-.4289E+02	-.3836E+02	-.3451E+02	-.3151E+02	-.2976E+02	-.3100E+02	-.3768E+02	-.4468E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1963E+03	.1790E+03	.1632E+03	.1495E+03	.1383E+03	.1294E+03	.1238E+03	.1225E+03	.1227E+03
PSS 2	.7611E+02	.8801E+02	.9808E+02	.1060E+03	.1116E+03	.1151E+03	.1161E+03	.1136E+03	.1105E+03
PSS 3	.1202E+03	.9095E+02	.6511E+02	.4356E+02	.2663E+02	.1430E+02	.7766E+01	.8909E+01	.1224E+02

## DISPLACEMENTS

UX	.1362E-02	.1522E-02	.1576E-02	.1538E-02	.1427E-02	.1259E-02	.1050E-02	.8111E-03	.5514E-03
UY	.3955E-10	-.3044E-11	.3465E-10	-.8606E-11	.2276E-10	-.2186E-11	-.1557E-10	-.1799E-10	-.9698E-11
UZ	.1987E+00	.1983E+00	.1978E+00	.1974E+00	.1969E+00	.1965E+00	.1961E+00	.1958E+00	.1956E+00

## NORMAL STRAINS

EXX	.2185E-03	.1053E-03	.6020E-05	-.7633E-04	-.1410E-03	-.1898E-03	-.2255E-03	-.2508E-03	-.2675E-03
EYY	.7353E-03	.7035E-03	.6733E-03	.6456E-03	.6210E-03	.5999E-03	.5823E-03	.5685E-03	.5586E-03
EZZ	-.5868E-03	-.5004E-03	-.4231E-03	-.3572E-03	-.3036E-03	-.2614E-03	-.2292E-03	-.2054E-03	-.1892E-03

## SHEAR STRAINS

EXY	-.3668E-12	.2857E-11	-.8156E-11	.1313E-11	.4139E-12	-.6422E-11	.4854E-11	-.1358E-11	-.2094E-11
EXZ	-.1000E-03	-.9971E-04	-.9494E-04	-.8680E-04	-.7644E-04	-.6474E-04	-.5229E-04	-.3944E-04	-.2637E-04
EYZ	-.4060E-13	.6693E-12	-.2316E-12	.3362E-12	.6320E-12	.6302E-12	.1075E-12	-.1407E-12	.1937E-12

## PRINCIPAL STRAINS

PE 1	.7353E-03	.7035E-03	.6733E-03	.6456E-03	.6210E-03	.5999E-03	.5823E-03	.5685E-03	.5586E-03
PE 2	.2216E-03	.1094E-03	.1121E-04	-.6978E-04	-.1324E-03	-.1773E-03	-.2011E-03	-.1980E-03	-.1870E-03
PE 3	-.5899E-03	-.5045E-03	-.4283E-03	-.3638E-03	-.3122E-03	-.2739E-03	-.2535E-03	-.2582E-03	-.2697E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1325E-02	.1208E-02	.1102E-02	.1009E-02	.9332E-03	.8737E-03	.8359E-03	.8267E-03	.8283E-03
PSE 2	.5138E-03	.5941E-03	.6621E-03	.7154E-03	.7534E-03	.7772E-03	.7834E-03	.7666E-03	.7456E-03
PSE 3	.8114E-03	.6139E-03	.4395E-03	.2940E-03	.1798E-03	.9652E-04	.5242E-04	.6014E-04	.8262E-04

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.3851E+02	.3715E+02	.3570E+02	.3424E+02	.3286E+02	.3161E+02	.3054E+02	.2967E+02	.2904E+02
SYX	.5424E+02	.5384E+02	.5334E+02	.5280E+02	.5226E+02	.5177E+02	.5134E+02	.5099E+02	.5073E+02
SZZ	-.1740E+02	-.1729E+02	-.1716E+02	-.1700E+02	-.1685E+02	-.1670E+02	-.1657E+02	-.1646E+02	-.1638E+02

SHEAR STRESSES

SXY	.8765E-08	-.1199E-07	-.2924E-07	-.6318E-08	-.2174E-08	-.9323E-08	.4013E-07	.1465E-07	-.1672E-08
SXZ	.2818E+00	.1282E+00	.1015E-01	-.7406E-01	-.1269E+00	-.1516E+00	-.1519E+00	-.1321E+00	-.9679E-01
SYZ	-.5863E-08	.1100E-07	-.4010E-08	.1473E-07	-.2083E-08	.1145E-07	-.3694E-08	.1196E-07	.9769E-08

PRINCIPAL STRESSES

PS 1	.5424E+02	.5384E+02	.5334E+02	.5280E+02	.5226E+02	.5177E+02	.5134E+02	.5099E+02	.5073E+02
PS 2	.3851E+02	.3715E+02	.3570E+02	.3424E+02	.3286E+02	.3161E+02	.3054E+02	.2967E+02	.2904E+02
PS 3	-.1741E+02	-.1729E+02	-.1716E+02	-.1700E+02	-.1685E+02	-.1670E+02	-.1657E+02	-.1646E+02	-.1638E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3582E+02	.3557E+02	.3525E+02	.3490E+02	.3456E+02	.3423E+02	.3395E+02	.3373E+02	.3356E+02
PSS 2	.7864E+01	.8347E+01	.8823E+01	.9279E+01	.9701E+01	.1008E+02	.1040E+02	.1066E+02	.1085E+02
PSS 3	.2796E+02	.2722E+02	.2643E+02	.2562E+02	.2485E+02	.2416E+02	.2355E+02	.2307E+02	.2271E+02

DISPLACEMENTS

## Appendix 6E-b Average HBP

UX	-.6634E-02	-.5791E-02	-.5000E-02	-.4258E-02	-.3561E-02	-.2904E-02	-.2281E-02	-.1686E-02	-.1112E-02
UY	-.3838E-10	-.3874E-10	-.2753E-11	-.5121E-10	-.2687E-10	-.2732E-10	.6866E-11	-.3266E-11	-.1970E-10
UZ	.1814E+00	.1818E+00	.1823E+00	.1826E+00	.1828E+00	.1830E+00	.1831E+00	.1832E+00	.1832E+00

## NORMAL STRAINS

EXX	.8538E-03	.8119E-03	.7677E-03	.7237E-03	.6822E-03	.6446E-03	.6123E-03	.5863E-03	.5672E-03
EYY	.1562E-02	.1563E-02	.1562E-02	.1559E-02	.1555E-02	.1552E-02	.1548E-02	.1546E-02	.1543E-02
EZZ	-.1662E-02	-.1638E-02	-.1611E-02	-.1582E-02	-.1555E-02	-.1529E-02	-.1508E-02	-.1490E-02	-.1477E-02

## SHEAR STRAINS

EXY	.7888E-12	-.1079E-11	-.2631E-11	-.5686E-12	-.1957E-12	-.8390E-12	.3611E-11	.1319E-11	-.1505E-12
EXZ	.2536E-04	.1154E-04	.9137E-06	-.6666E-05	-.1142E-04	-.1365E-04	-.1367E-04	-.1189E-04	-.8711E-05
EYZ	-.5277E-12	.9901E-12	-.3609E-12	.1325E-11	-.1875E-12	.1031E-11	-.3324E-12	.1076E-11	.8792E-12

## PRINCIPAL STRAINS

PE 1	.1562E-02	.1563E-02	.1562E-02	.1559E-02	.1555E-02	.1552E-02	.1548E-02	.1546E-02	.1543E-02
PE 2	.8539E-03	.8119E-03	.7677E-03	.7237E-03	.6822E-03	.6446E-03	.6123E-03	.5863E-03	.5672E-03
PE 3	-.1662E-02	-.1638E-02	-.1611E-02	-.1582E-02	-.1555E-02	-.1529E-02	-.1508E-02	-.1490E-02	-.1477E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3224E-02	.3201E-02	.3172E-02	.3141E-02	.3110E-02	.3081E-02	.3056E-02	.3035E-02	.3020E-02
PSE 2	.7078E-03	.7512E-03	.7941E-03	.8351E-03	.8731E-03	.9070E-03	.9360E-03	.9592E-03	.9762E-03
PSE 3	.2516E-02	.2450E-02	.2378E-02	.2306E-02	.2237E-02	.2174E-02	.2120E-02	.2076E-02	.2044E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-b Average HBP

39.00      4.00  
40.00      4.00  
41.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
33.00      4.00  
34.00      4.00  
35.00      4.00  
36.00      4.00  
37.00      4.00  
38.00      4.00  
39.00      4.00  
40.00      4.00  
41.00      4.00

NORMAL STRESSES

SXX    -.4890E+02   -.5047E+02   -.4890E+02   -.4404E+02   -.3550E+02   -.2269E+02   -.4856E+01   .1922E+02   .5067E+02  
SYY    .1969E+03   .1956E+03   .1969E+03   .2007E+03   .2073E+03   .2167E+03   .2291E+03   .2450E+03   .2646E+03  
SZZ    -.2013E+02   -.1990E+02   -.2013E+02   -.2084E+02   -.2204E+02   -.2377E+02   -.2607E+02   -.2899E+02   -.3256E+02

SHEAR STRESSES

SXY    -.5004E-07   -.3701E-06   -.5706E-07   .1148E-06   .2254E-07   .4925E-06   -.7819E-06   .1980E-06   -.3699E-07  
SXZ    -.1957E+01   -.1177E-05   .1957E+01   .3907E+01   .5842E+01   .7747E+01   .9591E+01   .1132E+02   .1286E+02  
SYZ    .7410E-07   -.2713E-07   -.1257E-07   .4476E-07   .5854E-07   .6300E-07   -.1087E-06   .1147E-06   .6421E-08

PRINCIPAL STRESSES

PS 1    .1969E+03   .1956E+03   .1969E+03   .2007E+03   .2073E+03   .2167E+03   .2291E+03   .2450E+03   .2646E+03  
PS 2    -.2000E+02   -.1990E+02   -.2000E+02   -.2020E+02   -.1986E+02   -.1546E+02   -.1163E+01   .2175E+02   .5261E+02  
PS 3    -.4903E+02   -.5047E+02   -.4903E+02   -.4468E+02   -.3768E+02   -.3100E+02   -.2976E+02   -.3151E+02   -.3451E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1230E+03	.1230E+03	.1230E+03	.1227E+03	.1225E+03	.1238E+03	.1294E+03	.1383E+03	.1495E+03
PSS 2	.1084E+03	.1078E+03	.1084E+03	.1105E+03	.1136E+03	.1161E+03	.1151E+03	.1116E+03	.1060E+03
PSS 3	.1451E+02	.1529E+02	.1451E+02	.1224E+02	.8909E+01	.7766E+01	.1430E+02	.2663E+02	.4356E+02

## DISPLACEMENTS

UX	.2788E-03	-.1862E-09	-.2788E-03	-.5514E-03	-.8111E-03	-.1050E-02	-.1259E-02	-.1427E-02	-.1538E-02
UY	.1443E-10	-.1133E-10	-.1477E-10	.1919E-10	-.1232E-10	.9170E-11	.2993E-11	.2578E-10	-.1594E-11
UZ	.1954E+00	.1954E+00	.1954E+00	.1956E+00	.1958E+00	.1961E+00	.1965E+00	.1969E+00	.1974E+00

## NORMAL STRAINS

EXX	-.2769E-03	-.2799E-03	-.2769E-03	-.2675E-03	-.2508E-03	-.2255E-03	-.1898E-03	-.1410E-03	-.7633E-04
EYY	.5526E-03	.5506E-03	.5526E-03	.5586E-03	.5685E-03	.5823E-03	.5999E-03	.6210E-03	.6456E-03
EZZ	-.1798E-03	-.1768E-03	-.1798E-03	-.1892E-03	-.2054E-03	-.2292E-03	-.2614E-03	-.3036E-03	-.3572E-03

## SHEAR STRAINS

EXY	-.3378E-12	-.2498E-11	-.3852E-12	.7749E-12	.1521E-12	.3324E-11	-.5278E-11	.1336E-11	-.2497E-12
EXZ	-.1321E-04	-.7944E-11	.1321E-04	.2637E-04	.3944E-04	.5229E-04	.6474E-04	.7644E-04	.8680E-04
EYZ	.5002E-12	-.1831E-12	-.8485E-13	.3022E-12	.3951E-12	.4253E-12	-.7337E-12	.7742E-12	.4334E-13

## PRINCIPAL STRAINS

PE 1	.5526E-03	.5506E-03	.5526E-03	.5586E-03	.5685E-03	.5823E-03	.5999E-03	.6210E-03	.6456E-03
PE 2	-.1794E-03	-.1768E-03	-.1794E-03	-.1870E-03	-.1980E-03	-.2011E-03	-.1773E-03	-.1324E-03	-.6978E-04
PE 3	-.2774E-03	-.2799E-03	-.2774E-03	-.2697E-03	-.2582E-03	-.2535E-03	-.2739E-03	-.3122E-03	-.3638E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.8300E-03	.8306E-03	.8300E-03	.8283E-03	.8267E-03	.8359E-03	.8737E-03	.9332E-03	.1009E-02
PSE 2	.7320E-03	.7274E-03	.7320E-03	.7456E-03	.7666E-03	.7834E-03	.7772E-03	.7534E-03	.7154E-03
PSE 3	.9797E-04	.1032E-03	.9797E-04	.8262E-04	.6014E-04	.5242E-04	.9652E-04	.1798E-03	.2940E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.2865E+02	.2852E+02	.2865E+02	.2904E+02	.2967E+02	.3054E+02	.3161E+02	.3286E+02	.3424E+02
SYX	.5058E+02	.5052E+02	.5058E+02	.5073E+02	.5099E+02	.5134E+02	.5177E+02	.5226E+02	.5280E+02
SZZ	-.1633E+02	-.1632E+02	-.1633E+02	-.1638E+02	-.1646E+02	-.1657E+02	-.1670E+02	-.1685E+02	-.1700E+02

SHEAR STRESSES

SXY	-.6536E-07	-.3853E-07	-.5712E-07	.5449E-08	.1775E-07	.3208E-07	.1734E-07	.7954E-08	-.3990E-08
SXZ	-.5103E-01	.2611E-07	.5103E-01	.9679E-01	.1321E+00	.1519E+00	.1516E+00	.1269E+00	.7406E-01
SYZ	-.9788E-08	.7443E-08	.7642E-08	-.2688E-07	.6724E-08	-.6639E-08	-.1725E-07	.3477E-08	.1759E-08

PRINCIPAL STRESSES

PS 1	.5058E+02	.5052E+02	.5058E+02	.5073E+02	.5099E+02	.5134E+02	.5177E+02	.5226E+02	.5280E+02
PS 2	.2865E+02	.2852E+02	.2865E+02	.2904E+02	.2967E+02	.3054E+02	.3161E+02	.3286E+02	.3424E+02
PS 3	-.1633E+02	-.1632E+02	-.1633E+02	-.1638E+02	-.1646E+02	-.1657E+02	-.1670E+02	-.1685E+02	-.1700E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3346E+02	.3342E+02	.3346E+02	.3356E+02	.3373E+02	.3395E+02	.3423E+02	.3456E+02	.3490E+02
PSS 2	.1096E+02	.1100E+02	.1096E+02	.1085E+02	.1066E+02	.1040E+02	.1008E+02	.9701E+01	.9279E+01
PSS 3	.2249E+02	.2242E+02	.2249E+02	.2271E+02	.2307E+02	.2355E+02	.2416E+02	.2485E+02	.2562E+02



## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.5524E-03	.2457E-11	.5524E-03	.1112E-02	.1686E-02	.2281E-02	.2904E-02	.3561E-02	.4258E-02
UY	-.1151E-10	.3303E-11	.5284E-11	.9334E-11	-.2205E-10	-.6454E-11	-.2204E-10	-.4653E-10	.3838E-10
UZ	.1833E+00	.1833E+00	.1833E+00	.1832E+00	.1832E+00	.1831E+00	.1830E+00	.1828E+00	.1826E+00

## NORMAL STRAINS

EXX	.5556E-03	.5517E-03	.5556E-03	.5672E-03	.5863E-03	.6123E-03	.6446E-03	.6822E-03	.7237E-03
EYY	.1542E-02	.1542E-02	.1542E-02	.1543E-02	.1546E-02	.1548E-02	.1552E-02	.1555E-02	.1559E-02
EZZ	-.1469E-02	-.1466E-02	-.1469E-02	-.1477E-02	-.1490E-02	-.1508E-02	-.1529E-02	-.1555E-02	-.1582E-02

## SHEAR STRAINS

EXY	-.5883E-11	-.3467E-11	-.5141E-11	.4904E-12	.1597E-11	.2887E-11	.1561E-11	.7159E-12	-.3591E-12
EXZ	-.4593E-05	.2350E-11	.4593E-05	.8711E-05	.1189E-04	.1367E-04	.1365E-04	.1142E-04	.6666E-05
EYZ	-.8809E-12	.6698E-12	.6878E-12	-.2419E-11	.6052E-12	-.5975E-12	-.1552E-11	.3129E-12	.1583E-12

## PRINCIPAL STRAINS

PE 1	.1542E-02	.1542E-02	.1542E-02	.1543E-02	.1546E-02	.1548E-02	.1552E-02	.1555E-02	.1559E-02
PE 2	.5556E-03	.5517E-03	.5556E-03	.5672E-03	.5863E-03	.6123E-03	.6446E-03	.6822E-03	.7237E-03
PE 3	-.1469E-02	-.1466E-02	-.1469E-02	-.1477E-02	-.1490E-02	-.1508E-02	-.1529E-02	-.1555E-02	-.1582E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3011E-02	.3008E-02	.3011E-02	.3020E-02	.3035E-02	.3056E-02	.3081E-02	.3110E-02	.3141E-02
PSE 2	.9866E-03	.9900E-03	.9866E-03	.9762E-03	.9592E-03	.9360E-03	.9070E-03	.8731E-03	.8351E-03
PSE 3	.2024E-02	.2018E-02	.2024E-02	.2044E-02	.2076E-02	.2120E-02	.2174E-02	.2237E-02	.2306E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-b Average HBP

48.00      4.00  
49.00      4.00  
50.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
42.00      4.00  
43.00      4.00  
44.00      4.00  
45.00      4.00  
46.00      4.00  
47.00      4.00  
48.00      4.00  
49.00      4.00  
50.00      4.00

NORMAL STRESSES

SXX	.9033E+02	.1378E+03	.1916E+03	.2491E+03	.3074E+03	.3629E+03	.4119E+03	.4507E+03	.4759E+03
SYX	.2880E+03	.3150E+03	.3447E+03	.3759E+03	.4069E+03	.4359E+03	.4609E+03	.4801E+03	.4918E+03
SZZ	-.3682E+02	-.4168E+02	-.4700E+02	-.5253E+02	-.5801E+02	-.6311E+02	-.6752E+02	-.7094E+02	-.7307E+02

SHEAR STRESSES

SXY	.1361E-05	-.8719E-06	.3675E-07	-.3238E-06	-.7402E-06	-.4691E-06	.4012E-07	-.4794E-06	-.1408E-07
SXZ	.1406E+02	.1477E+02	.1482E+02	.1409E+02	.1252E+02	.1008E+02	.6825E+01	.2828E+01	-.1718E+01
SYZ	.3503E-07	.7921E-07	.6755E-07	.4004E-07	.1673E-06	.1086E-06	-.8446E-08	-.6064E-07	.1765E-06

PRINCIPAL STRESSES

PS 1	.2880E+03	.3150E+03	.3447E+03	.3759E+03	.4069E+03	.4359E+03	.4609E+03	.4801E+03	.4918E+03
PS 2	.9187E+02	.1390E+03	.1925E+03	.2498E+03	.3078E+03	.3632E+03	.4120E+03	.4507E+03	.4759E+03
PS 3	-.3836E+02	-.4289E+02	-.4791E+02	-.5319E+02	-.5844E+02	-.6335E+02	-.6762E+02	-.7095E+02	-.7307E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1632E+03	.1790E+03	.1963E+03	.2145E+03	.2327E+03	.2496E+03	.2643E+03	.2755E+03	.2824E+03
PSS 2	.9808E+02	.8801E+02	.7611E+02	.6305E+02	.4954E+02	.3638E+02	.2444E+02	.1469E+02	.7957E+01
PSS 3	.6511E+02	.9095E+02	.1202E+03	.1515E+03	.1831E+03	.2133E+03	.2398E+03	.2608E+03	.2745E+03

## DISPLACEMENTS

UX	-.1576E-02	-.1522E-02	-.1362E-02	-.1083E-02	-.6826E-03	-.1600E-03	.4754E-03	.1205E-02	.2004E-02
UY	-.5166E-11	-.6726E-11	.1308E-10	-.3187E-11	.2170E-10	.1796E-11	.3359E-10	.1914E-10	.3225E-10
UZ	.1978E+00	.1983E+00	.1987E+00	.1991E+00	.1993E+00	.1993E+00	.1991E+00	.1986E+00	.1978E+00

## NORMAL STRAINS

EXX	.6020E-05	.1053E-03	.2185E-03	.3399E-03	.4632E-03	.5811E-03	.6856E-03	.7688E-03	.8233E-03
EYY	.6733E-03	.7035E-03	.7353E-03	.7677E-03	.7991E-03	.8274E-03	.8509E-03	.8680E-03	.8771E-03
EZZ	-.4231E-03	-.5004E-03	-.5868E-03	-.6783E-03	-.7701E-03	-.8567E-03	-.9325E-03	-.9918E-03	-.1029E-02

## SHEAR STRAINS

EXY	.9189E-11	-.5885E-11	.2481E-12	-.2186E-11	-.4996E-11	-.3166E-11	.2708E-12	-.3236E-11	-.9502E-13
EXZ	.9494E-04	.9971E-04	.1000E-03	.9510E-04	.8448E-04	.6807E-04	.4607E-04	.1909E-04	-.1160E-04
EYZ	.2365E-12	.5346E-12	.4559E-12	.2703E-12	.1129E-11	.7330E-12	-.5701E-13	-.4093E-12	.1191E-11

## PRINCIPAL STRAINS

PE 1	.6733E-03	.7035E-03	.7353E-03	.7677E-03	.7991E-03	.8274E-03	.8509E-03	.8680E-03	.8771E-03
PE 2	.1121E-04	.1094E-03	.2216E-03	.3421E-03	.4647E-03	.5819E-03	.6859E-03	.7688E-03	.8234E-03
PE 3	-.4283E-03	-.5045E-03	-.5899E-03	-.6805E-03	-.7715E-03	-.8575E-03	-.9329E-03	-.9919E-03	-.1029E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.1102E-02	.1208E-02	.1325E-02	.1448E-02	.1571E-02	.1685E-02	.1784E-02	.1860E-02	.1907E-02
PSE 2	.6621E-03	.5941E-03	.5138E-03	.4256E-03	.3344E-03	.2455E-03	.1650E-03	.9919E-04	.5371E-04
PSE 3	.4395E-03	.6139E-03	.8114E-03	.1023E-02	.1236E-02	.1439E-02	.1619E-02	.1761E-02	.1853E-02

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.3570E+02	.3715E+02	.3851E+02	.3986E+02	.4109E+02	.4208E+02	.4275E+02	.4319E+02	.4335E+02
SYX	.5334E+02	.5384E+02	.5424E+02	.5464E+02	.5497E+02	.5515E+02	.5511E+02	.5499E+02	.5472E+02
SZZ	-.1716E+02	-.1729E+02	-.1740E+02	-.1752E+02	-.1761E+02	-.1765E+02	-.1764E+02	-.1760E+02	-.1752E+02

SHEAR STRESSES

SXY	.1220E-07	.2019E-08	-.3474E-08	-.9487E-08	-.1940E-07	.2439E-07	-.1930E-07	-.1777E-07	.2697E-07
SXZ	-.1015E-01	-.1282E+00	-.2818E+00	-.4708E+00	-.6931E+00	-.9465E+00	-.1228E+01	-.1531E+01	-.1851E+01
SYZ	-.3803E-08	-.1971E-07	-.5977E-08	-.1878E-07	.2825E-08	-.1421E-07	-.1100E-07	-.8938E-08	-.1175E-07

PRINCIPAL STRESSES

PS 1	.5334E+02	.5384E+02	.5424E+02	.5464E+02	.5497E+02	.5515E+02	.5511E+02	.5499E+02	.5472E+02
PS 2	.3570E+02	.3715E+02	.3851E+02	.3986E+02	.4109E+02	.4209E+02	.4277E+02	.4323E+02	.4341E+02
PS 3	-.1716E+02	-.1729E+02	-.1741E+02	-.1752E+02	-.1762E+02	-.1767E+02	-.1766E+02	-.1764E+02	-.1757E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3525E+02	.3557E+02	.3582E+02	.3608E+02	.3630E+02	.3641E+02	.3639E+02	.3631E+02	.3615E+02
PSS 2	.8823E+01	.8347E+01	.7864E+01	.7390E+01	.6940E+01	.6530E+01	.6172E+01	.5878E+01	.5657E+01
PSS 3	.2643E+02	.2722E+02	.2796E+02	.2869E+02	.2936E+02	.2988E+02	.3022E+02	.3043E+02	.3049E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.5000E-02	.5791E-02	.6634E-02	.7509E-02	.8424E-02	.9380E-02	.1037E-01	.1137E-01	.1238E-01
UY	.8385E-11	.9866E-10	-.4565E-10	-.6366E-10	.9774E-10	-.4129E-10	-.1606E-10	-.3020E-10	.5233E-10
UZ	.1823E+00	.1818E+00	.1814E+00	.1809E+00	.1802E+00	.1794E+00	.1786E+00	.1777E+00	.1767E+00

## NORMAL STRAINS

EXX	.7677E-03	.8119E-03	.8538E-03	.8955E-03	.9336E-03	.9651E-03	.9876E-03	.1004E-02	.1011E-02
EYY	.1562E-02	.1563E-02	.1562E-02	.1561E-02	.1559E-02	.1553E-02	.1544E-02	.1534E-02	.1523E-02
EZZ	-.1611E-02	-.1638E-02	-.1662E-02	-.1686E-02	-.1708E-02	-.1723E-02	-.1730E-02	-.1732E-02	-.1728E-02

## SHEAR STRAINS

EXY	.1098E-11	.1817E-12	-.3127E-12	-.8538E-12	-.1746E-11	.2195E-11	-.1737E-11	-.1599E-11	.2427E-11
EXZ	-.9137E-06	-.1154E-04	-.2536E-04	-.4237E-04	-.6238E-04	-.8519E-04	-.1105E-03	-.1378E-03	-.1666E-03
EYZ	-.3423E-12	-.1774E-11	-.5379E-12	-.1690E-11	.2542E-12	-.1279E-11	-.9904E-12	-.8044E-12	-.1058E-11

## PRINCIPAL STRAINS

PE 1	.1562E-02	.1563E-02	.1562E-02	.1561E-02	.1559E-02	.1553E-02	.1544E-02	.1534E-02	.1523E-02
PE 2	.7677E-03	.8119E-03	.8539E-03	.8956E-03	.9340E-03	.9658E-03	.9887E-03	.1005E-02	.1014E-02
PE 3	-.1611E-02	-.1638E-02	-.1662E-02	-.1687E-02	-.1708E-02	-.1723E-02	-.1731E-02	-.1734E-02	-.1731E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3172E-02	.3201E-02	.3224E-02	.3247E-02	.3267E-02	.3277E-02	.3275E-02	.3268E-02	.3253E-02
PSE 2	.7941E-03	.7512E-03	.7078E-03	.6651E-03	.6246E-03	.5877E-03	.5555E-03	.5290E-03	.5092E-03
PSE 3	.2378E-02	.2450E-02	.2516E-02	.2582E-02	.2642E-02	.2689E-02	.2719E-02	.2739E-02	.2744E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-b Average HBP

57.00 4.00  
58.00 4.00  
59.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
51.00 4.00  
52.00 4.00  
53.00 4.00  
54.00 4.00  
55.00 4.00  
56.00 4.00  
57.00 4.00  
58.00 4.00  
59.00 4.00

NORMAL STRESSES

SXX .4851E+03 .4776E+03 .4542E+03 .4171E+03 .3697E+03 .3158E+03 .2591E+03 .2030E+03 .1505E+03  
 SYY .4947E+03 .4884E+03 .4733E+03 .4505E+03 .4219E+03 .3892E+03 .3543E+03 .3190E+03 .2849E+03  
 SZZ -.7373E+02 -.7284E+02 -.7048E+02 -.6683E+02 -.6216E+02 -.5678E+02 -.5101E+02 -.4514E+02 -.3946E+02

SHEAR STRESSES

SXY -.1683E-07 .3967E-07 -.4743E-06 -.3967E-07 .4937E-06 .9678E-06 .4794E-06 -.4012E-07 .4691E-06  
 SXZ -.6566E+01 -.1144E+02 -.1606E+02 -.2018E+02 -.2361E+02 -.2626E+02 -.2810E+02 -.2916E+02 -.2948E+02  
 SYZ .1970E-06 .9835E-07 .0000E+00 .9835E-07 .1970E-06 -.3004E-06 -.6064E-07 -.8446E-08 .1086E-06

PRINCIPAL STRESSES

PS 1 .4947E+03 .4884E+03 .4733E+03 .4505E+03 .4219E+03 .3892E+03 .3543E+03 .3190E+03 .2849E+03  
 PS 2 .4852E+03 .4779E+03 .4547E+03 .4180E+03 .3710E+03 .3177E+03 .2616E+03 .2064E+03 .1550E+03  
 PS 3 -.7380E+02 -.7308E+02 -.7097E+02 -.6767E+02 -.6345E+02 -.5862E+02 -.5354E+02 -.4852E+02 -.4393E+02



## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2843E+03	.2807E+03	.2721E+03	.2591E+03	.2427E+03	.2239E+03	.2039E+03	.1838E+03	.1644E+03
PSS 2	.4757E+01	.5261E+01	.9286E+01	.1629E+02	.2545E+02	.3576E+02	.4632E+02	.5631E+02	.6497E+02
PSS 3	.2795E+03	.2755E+03	.2628E+03	.2428E+03	.2172E+03	.1881E+03	.1576E+03	.1274E+03	.9944E+02

## DISPLACEMENTS

UX	.2841E-02	.3681E-02	.4490E-02	.5238E-02	.5898E-02	.6453E-02	.6893E-02	.7217E-02	.7430E-02
UY	-.2725E-10	.3415E-10	.0000E+00	-.8226E-10	-.2725E-10	.3225E-10	.1914E-10	.3359E-10	.1796E-11
UZ	.1966E+00	.1950E+00	.1931E+00	.1907E+00	.1882E+00	.1854E+00	.1824E+00	.1792E+00	.1759E+00

## NORMAL STRAINS

EXX	.8445E-03	.8305E-03	.7831E-03	.7070E-03	.6096E-03	.4987E-03	.3824E-03	.2679E-03	.1615E-03
EYY	.8768E-03	.8668E-03	.8474E-03	.8199E-03	.7857E-03	.7463E-03	.7036E-03	.6593E-03	.6151E-03
EZZ	-.1042E-02	-.1027E-02	-.9878E-03	-.9263E-03	-.8481E-03	-.7588E-03	-.6642E-03	-.5696E-03	-.4796E-03

## SHEAR STRAINS

EXY	-.1136E-12	.2678E-12	-.3201E-11	-.2678E-12	.3332E-11	.6532E-11	.3236E-11	-.2708E-12	.3166E-11
EXZ	-.4432E-04	-.7721E-04	-.1084E-03	-.1362E-03	-.1594E-03	-.1773E-03	-.1897E-03	-.1968E-03	-.1990E-03
EYZ	.1330E-11	.6639E-12	.0000E+00	.6639E-12	.1330E-11	-.2028E-11	-.4093E-12	-.5701E-13	.7330E-12

## PRINCIPAL STRAINS

PE 1	.8768E-03	.8668E-03	.8474E-03	.8199E-03	.7857E-03	.7463E-03	.7036E-03	.6593E-03	.6151E-03
PE 2	.8447E-03	.8313E-03	.7848E-03	.7099E-03	.6139E-03	.5049E-03	.3909E-03	.2793E-03	.1766E-03
PE 3	-.1042E-02	-.1028E-02	-.9894E-03	-.9291E-03	-.8524E-03	-.7651E-03	-.6728E-03	-.5810E-03	-.4947E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1919E-02	.1895E-02	.1837E-02	.1749E-02	.1638E-02	.1511E-02	.1376E-02	.1240E-02	.1110E-02
PSE 2	.3211E-04	.3551E-04	.6268E-04	.1100E-03	.1718E-03	.2414E-03	.3127E-03	.3801E-03	.4385E-03
PSE 3	.1887E-02	.1860E-02	.1774E-02	.1639E-02	.1466E-02	.1270E-02	.1064E-02	.8603E-03	.6713E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.4316E+02	.4261E+02	.4170E+02	.4048E+02	.3902E+02	.3720E+02	.3510E+02	.3284E+02	.3051E+02
SYX	.5427E+02	.5363E+02	.5280E+02	.5182E+02	.5074E+02	.4942E+02	.4793E+02	.4635E+02	.4476E+02
SZZ	-.1737E+02	-.1717E+02	-.1691E+02	-.1660E+02	-.1626E+02	-.1587E+02	-.1542E+02	-.1493E+02	-.1445E+02

SHEAR STRESSES

SXY	.1407E-08	-.2533E-07	.1777E-07	.1788E-07	.2840E-07	-.2697E-07	-.4184E-07	-.1050E-07	.5408E-08
SXZ	-.2180E+01	-.2510E+01	-.2835E+01	-.3149E+01	-.3443E+01	-.3713E+01	-.3954E+01	-.4165E+01	-.4342E+01
SYZ	-.1195E-07	-.7692E-08	.0000E+00	-.7692E-08	-.1195E-07	-.1175E-07	.2086E-07	-.1100E-07	.1559E-07

PRINCIPAL STRESSES

PS 1	.5427E+02	.5363E+02	.5280E+02	.5182E+02	.5074E+02	.4942E+02	.4793E+02	.4635E+02	.4476E+02
PS 2	.4324E+02	.4271E+02	.4183E+02	.4065E+02	.3923E+02	.3746E+02	.3541E+02	.3320E+02	.3092E+02
PS 3	-.1745E+02	-.1728E+02	-.1705E+02	-.1677E+02	-.1648E+02	-.1613E+02	-.1573E+02	-.1529E+02	-.1486E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3586E+02	.3545E+02	.3492E+02	.3429E+02	.3361E+02	.3277E+02	.3183E+02	.3082E+02	.2981E+02
PSS 2	.5517E+01	.5458E+01	.5481E+01	.5582E+01	.5752E+01	.5982E+01	.6261E+01	.6577E+01	.6915E+01
PSS 3	.3035E+02	.2999E+02	.2944E+02	.2871E+02	.2785E+02	.2679E+02	.2557E+02	.2425E+02	.2289E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.1339E-01	.1439E-01	.1538E-01	.1634E-01	.1727E-01	.1815E-01	.1897E-01	.1973E-01	.2044E-01
UY	.2994E-10	.4933E-11	.0000E+00	.4933E-11	-.8648E-10	-.6409E-10	-.3020E-10	-.1606E-10	-.4129E-10
UZ	.1755E+00	.1741E+00	.1727E+00	.1710E+00	.1693E+00	.1675E+00	.1657E+00	.1637E+00	.1616E+00

## NORMAL STRAINS

EXX	.1008E-02	.9949E-03	.9712E-03	.9384E-03	.8984E-03	.8485E-03	.7908E-03	.7281E-03	.6634E-03
EYY	.1508E-02	.1491E-02	.1471E-02	.1449E-02	.1426E-02	.1399E-02	.1368E-02	.1336E-02	.1304E-02
EZZ	-.1716E-02	-.1695E-02	-.1666E-02	-.1630E-02	-.1589E-02	-.1540E-02	-.1483E-02	-.1422E-02	-.1360E-02

## SHEAR STRAINS

EXY	.1266E-12	-.2280E-11	.1599E-11	.1609E-11	.2556E-11	-.2427E-11	-.3765E-11	-.9448E-12	.4867E-12
EXZ	-.1962E-03	-.2259E-03	-.2552E-03	-.2834E-03	-.3099E-03	-.3341E-03	-.3559E-03	-.3749E-03	-.3908E-03
EYZ	-.1076E-11	-.6922E-12	.0000E+00	-.6922E-12	-.1076E-11	-.1058E-11	.1878E-11	-.9904E-12	.1403E-11

## PRINCIPAL STRAINS

PE 1	.1508E-02	.1491E-02	.1471E-02	.1449E-02	.1426E-02	.1399E-02	.1368E-02	.1336E-02	.1304E-02
PE 2	.1012E-02	.9996E-03	.9774E-03	.9462E-03	.9080E-03	.8601E-03	.8046E-03	.7443E-03	.6821E-03
PE 3	-.1719E-02	-.1700E-02	-.1672E-02	-.1638E-02	-.1599E-02	-.1551E-02	-.1497E-02	-.1438E-02	-.1378E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3228E-02	.3191E-02	.3143E-02	.3086E-02	.3025E-02	.2950E-02	.2865E-02	.2774E-02	.2683E-02
PSE 2	.4965E-03	.4913E-03	.4933E-03	.5024E-03	.5177E-03	.5384E-03	.5635E-03	.5919E-03	.6224E-03
PSE 3	.2731E-02	.2700E-02	.2650E-02	.2584E-02	.2507E-02	.2411E-02	.2301E-02	.2182E-02	.2060E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.53 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-b Average HBP

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1374E+03	.1385E+03	.1330E+03	.1240E+03	.1146E+03	.1086E+03	.1103E+03	.1228E+03	.1485E+03
SYX	.2454E+03	.2553E+03	.2629E+03	.2697E+03	.2770E+03	.2863E+03	.2991E+03	.3167E+03	.3398E+03
SZZ	-.3227E+02	-.3354E+02	-.3441E+02	-.3508E+02	-.3582E+02	-.3692E+02	-.3866E+02	-.4125E+02	-.4484E+02

SHEAR STRESSES

SXY	-.4103E-06	.5333E-07	-.6931E-07	-.8026E-07	-.6834E-06	-.7093E-06	-.1761E-05	.5628E-06	.1332E-06
SXZ	.1949E+02	.1857E+02	.1787E+02	.1755E+02	.1769E+02	.1830E+02	.1928E+02	.2048E+02	.2169E+02
SYZ	-.6567E-07	-.3826E-07	.3271E-07	.3282E-07	-.2085E-06	-.1748E-06	-.7236E-07	.8754E-07	-.1371E-06

PRINCIPAL STRESSES

PS 1	.2454E+03	.2553E+03	.2629E+03	.2697E+03	.2770E+03	.2863E+03	.2991E+03	.3167E+03	.3398E+03
PS 2	.1397E+03	.1404E+03	.1349E+03	.1259E+03	.1166E+03	.1109E+03	.1127E+03	.1253E+03	.1509E+03

## Appendix 6E-b Average HBP

PS 3   -.3448E+02   -.3552E+02   -.3630E+02   -.3700E+02   -.3788E+02   -.3919E+02   -.4111E+02   -.4377E+02   -.4725E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1399E+03   .1454E+03   .1496E+03   .1534E+03   .1574E+03   .1627E+03   .1701E+03   .1802E+03   .1935E+03  
PSS 2   .5285E+02   .5743E+02   .6402E+02   .7192E+02   .8020E+02   .8770E+02   .9321E+02   .9572E+02   .9446E+02  
PSS 3   .8707E+02   .8798E+02   .8559E+02   .8145E+02   .7724E+02   .7504E+02   .7691E+02   .8453E+02   .9906E+02

## DISPLACEMENTS

UX     -.5408E-02   -.5252E-02   -.5109E-02   -.4989E-02   -.4898E-02   -.4834E-02   -.4786E-02   -.4733E-02   -.4648E-02  
UY     .1297E-11   -.1295E-12   -.3289E-11   .7807E-11   -.2518E-10   -.3375E-10   .1901E-10   -.1366E-10   .3471E-10  
UZ     .1386E+00   .1409E+00   .1430E+00   .1449E+00   .1467E+00   .1486E+00   .1506E+00   .1526E+00   .1545E+00

## NORMAL STRAINS

EXX     .1572E-03   .1521E-03   .1325E-03   .1047E-03   .7535E-04   .5336E-04   .4773E-04   .6589E-04   .1131E-03  
EYY     .5214E-03   .5465E-03   .5710E-03   .5966E-03   .6236E-03   .6530E-03   .6852E-03   .7205E-03   .7588E-03  
EZZ     -.4156E-03   -.4284E-03   -.4324E-03   -.4322E-03   -.4322E-03   -.4378E-03   -.4549E-03   -.4877E-03   -.5393E-03

## SHEAR STRAINS

EXY     -.2769E-11   .3600E-12   -.4679E-12   -.5418E-12   -.4613E-11   -.4788E-11   -.1189E-10   .3799E-11   .8994E-12  
EXZ     .1315E-03   .1253E-03   .1206E-03   .1184E-03   .1194E-03   .1235E-03   .1302E-03   .1383E-03   .1464E-03  
EYZ     -.4433E-12   -.2583E-12   .2208E-12   .2215E-12   -.1407E-11   -.1180E-11   -.4885E-12   .5909E-12   -.9251E-12

## PRINCIPAL STRAINS

PE 1     .5214E-03   .5465E-03   .5710E-03   .5966E-03   .6236E-03   .6530E-03   .6852E-03   .7205E-03   .7588E-03  
PE 2     .1646E-03   .1588E-03   .1389E-03   .1111E-03   .8228E-04   .6100E-04   .5603E-04   .7439E-04   .1212E-03  
PE 3     -.4231E-03   -.4351E-03   -.4388E-03   -.4387E-03   -.4391E-03   -.4455E-03   -.4631E-03   -.4962E-03   -.5475E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .9444E-03   .9815E-03   .1010E-02   .1035E-02   .1063E-02   .1098E-02   .1148E-02   .1217E-02   .1306E-02  
PSE 2   .3567E-03   .3877E-03   .4321E-03   .4854E-03   .5413E-03   .5920E-03   .6291E-03   .6461E-03   .6376E-03  
PSE 3   .5877E-03   .5939E-03   .5777E-03   .5498E-03   .5214E-03   .5065E-03   .5192E-03   .5706E-03   .6687E-03

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

## NORMAL STRESSES

SXX	.2716E+02	.2922E+02	.3130E+02	.3357E+02	.3587E+02	.3813E+02	.4036E+02	.4254E+02	.4464E+02
SYX	.3907E+02	.4060E+02	.4211E+02	.4378E+02	.4544E+02	.4703E+02	.4853E+02	.4995E+02	.5127E+02
SZZ	-.1245E+02	-.1290E+02	-.1335E+02	-.1381E+02	-.1427E+02	-.1473E+02	-.1517E+02	-.1559E+02	-.1598E+02

## SHEAR STRESSES

SXY	-.5912E-08	.1223E-07	.7404E-07	.5120E-07	.6701E-08	.1429E-07	.4118E-07	.4171E-07	.2359E-08
SXZ	.3714E+01	.3625E+01	.3520E+01	.3396E+01	.3254E+01	.3092E+01	.2909E+01	.2701E+01	.2465E+01
SYZ	.1819E-08	-.4186E-08	.1404E-07	-.1176E-07	.5236E-08	.6919E-08	.1600E-07	-.4592E-08	.8561E-08

## PRINCIPAL STRESSES

PS 1	.3907E+02	.4060E+02	.4211E+02	.4378E+02	.4544E+02	.4703E+02	.4853E+02	.4995E+02	.5127E+02
PS 2	.2750E+02	.2952E+02	.3157E+02	.3381E+02	.3608E+02	.3832E+02	.4051E+02	.4266E+02	.4474E+02
PS 3	-.1279E+02	-.1321E+02	-.1363E+02	-.1405E+02	-.1448E+02	-.1491E+02	-.1533E+02	-.1572E+02	-.1608E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2593E+02	.2690E+02	.2787E+02	.2891E+02	.2996E+02	.3097E+02	.3193E+02	.3283E+02	.3367E+02
PSS 2	.5785E+01	.5535E+01	.5270E+01	.4986E+01	.4682E+01	.4357E+01	.4010E+01	.3645E+01	.3266E+01
PSS 3	.2015E+02	.2137E+02	.2260E+02	.2393E+02	.2528E+02	.2661E+02	.2792E+02	.2919E+02	.3041E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.1448E-01	-.1386E-01	-.1318E-01	-.1244E-01	-.1163E-01	-.1076E-01	-.9832E-02	-.8848E-02	-.7805E-02
UY	.4439E-10	.3625E-11	.5251E-10	.4346E-10	-.4844E-10	-.2956E-11	.1032E-10	-.1352E-10	-.2815E-10
UZ	.1266E+00	.1283E+00	.1300E+00	.1313E+00	.1325E+00	.1338E+00	.1351E+00	.1363E+00	.1373E+00

## NORMAL STRAINS

EXX	.5946E-03	.6508E-03	.7077E-03	.7692E-03	.8319E-03	.8943E-03	.9562E-03	.1017E-02	.1076E-02
EYY	.1131E-02	.1163E-02	.1194E-02	.1229E-02	.1263E-02	.1295E-02	.1324E-02	.1351E-02	.1375E-02
EZZ	-.1188E-02	-.1245E-02	-.1302E-02	-.1363E-02	-.1424E-02	-.1485E-02	-.1543E-02	-.1599E-02	-.1651E-02

## SHEAR STRAINS

EXY	-.5320E-12	.1101E-11	.6664E-11	.4608E-11	.6031E-12	.1286E-11	.3706E-11	.3754E-11	.2123E-12
EXZ	.3342E-03	.3262E-03	.3168E-03	.3057E-03	.2929E-03	.2783E-03	.2618E-03	.2430E-03	.2219E-03
EYZ	.1638E-12	-.3768E-12	.1264E-11	-.1059E-11	.4712E-12	.6227E-12	.1440E-11	-.4133E-12	.7705E-12

## PRINCIPAL STRAINS

PE 1	.1131E-02	.1163E-02	.1194E-02	.1229E-02	.1263E-02	.1295E-02	.1324E-02	.1351E-02	.1375E-02
PE 2	.6101E-03	.6647E-03	.7201E-03	.7801E-03	.8413E-03	.9025E-03	.9630E-03	.1023E-02	.1081E-02
PE 3	-.1203E-02	-.1258E-02	-.1314E-02	-.1374E-02	-.1434E-02	-.1493E-02	-.1550E-02	-.1604E-02	-.1656E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2334E-02	.2421E-02	.2508E-02	.2602E-02	.2696E-02	.2787E-02	.2874E-02	.2955E-02	.3031E-02
PSE 2	.5206E-03	.4982E-03	.4743E-03	.4487E-03	.4214E-03	.3921E-03	.3609E-03	.3280E-03	.2939E-03
PSE 3	.1813E-02	.1923E-02	.2034E-02	.2154E-02	.2275E-02	.2395E-02	.2513E-02	.2627E-02	.2737E-02



Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5800.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.53 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-b Average HBP

13.00 4.00  
 14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
 9.00 4.00  
 10.00 4.00  
 11.00 4.00  
 12.00 4.00  
 13.00 4.00  
 14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

NORMAL STRESSES

SXX .1888E+03 .2435E+03 .3101E+03 .3841E+03 .4594E+03 .5295E+03 .5869E+03 .6244E+03 .6369E+03  
 SYX .3687E+03 .4031E+03 .4416E+03 .4821E+03 .5220E+03 .5579E+03 .5859E+03 .6030E+03 .6072E+03  
 SZZ -.4950E+02 -.5516E+02 -.6161E+02 -.6844E+02 -.7516E+02 -.8120E+02 -.8600E+02 -.8902E+02 -.8985E+02

SHEAR STRESSES

SXY -.7100E-06 .3265E-06 .2802E-06 -.2439E-07 .3555E-06 .6689E-06 .4129E-06 .6316E-06 .3640E-06  
 SXZ .2264E+02 .2303E+02 .2254E+02 .2092E+02 .1802E+02 .1384E+02 .8463E+01 .2115E+01 -.4791E+01  
 SYZ -.9289E-07 .1116E-06 .9548E-07 -.2244E-06 .3843E-06 .2381E-06 .3673E-08 -.1843E-06 .3384E-07

PRINCIPAL STRESSES

PS 1 .3687E+03 .4031E+03 .4416E+03 .4821E+03 .5220E+03 .5579E+03 .5870E+03 .6244E+03 .6369E+03  
 PS 2 .1909E+03 .2453E+03 .3115E+03 .3850E+03 .4600E+03 .5298E+03 .5859E+03 .6030E+03 .6072E+03

## Appendix 6E-b Average HBP

PS 3   -.5163E+02   -.5693E+02   -.6297E+02   -.6941E+02   -.7577E+02   -.8152E+02   -.8611E+02   -.8903E+02   -.8988E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .2102E+03   .2300E+03   .2523E+03   .2758E+03   .2989E+03   .3197E+03   .3365E+03   .3567E+03   .3634E+03  
PSS 2   .8890E+02   .7891E+02   .6505E+02   .4856E+02   .3099E+02   .1402E+02   .5296E+00   .1070E+02   .1486E+02  
PSS 3   .1213E+03   .1511E+03   .1872E+03   .2272E+03   .2679E+03   .3057E+03   .3360E+03   .3460E+03   .3485E+03

## DISPLACEMENTS

UX     -.4499E-02   -.4253E-02   -.3879E-02   -.3357E-02   -.2678E-02   -.1843E-02   -.8689E-03   .2089E-03   .1341E-02  
UY     -.4101E-10   -.9935E-12   -.2561E-10   -.4384E-11   .4141E-10   -.2077E-10   -.1270E-09   -.2044E-10   .2998E-10  
UZ     .1563E+00   .1582E+00   .1602E+00   .1622E+00   .1638E+00   .1649E+00   .1658E+00   .1665E+00   .1664E+00

## NORMAL STRAINS

EXX     .1926E-03   .3043E-03   .4428E-03   .5982E-03   .7576E-03   .9067E-03   .1030E-02   .1111E-02   .1140E-02  
EYY     .7999E-03   .8429E-03   .8866E-03   .9292E-03   .9688E-03   .1002E-02   .1027E-02   .1039E-02   .1039E-02  
EZZ     -.6115E-03   -.7037E-03   -.8118E-03   -.9290E-03   -.1047E-02   -.1155E-02   -.1241E-02   -.1297E-02   -.1313E-02

## SHEAR STRAINS

EXY     -.4792E-11   .2204E-11   .1892E-11   -.1646E-12   .2400E-11   .4515E-11   .2787E-11   .4263E-11   .2457E-11  
EXZ     .1528E-03   .1555E-03   .1521E-03   .1412E-03   .1217E-03   .9344E-04   .5712E-04   .1427E-04   -.3234E-04  
EYZ     -.6270E-12   .7533E-12   .6445E-12   -.1515E-11   .2594E-11   .1607E-11   .2479E-13   -.1244E-11   .2284E-12

## PRINCIPAL STRAINS

PE 1     .7999E-03   .8429E-03   .8866E-03   .9292E-03   .9688E-03   .1002E-02   .1030E-02   .1111E-02   .1140E-02  
PE 2     .1998E-03   .3103E-03   .4474E-03   .6014E-03   .7596E-03   .9078E-03   .1027E-02   .1039E-02   .1039E-02  
PE 3     -.6187E-03   -.7096E-03   -.8164E-03   -.9323E-03   -.1049E-02   -.1156E-02   -.1242E-02   -.1297E-02   -.1313E-02

## PRINCIPAL SHEAR STRAINS

PSE 1   .1419E-02   .1553E-02   .1703E-02   .1862E-02   .2018E-02   .2158E-02   .2272E-02   .2408E-02   .2453E-02  
PSE 2   .6001E-03   .5326E-03   .4391E-03   .3278E-03   .2092E-03   .9465E-04   .3575E-05   .7221E-04   .1003E-03  
PSE 3   .8186E-03   .1020E-02   .1264E-02   .1534E-02   .1808E-02   .2063E-02   .2268E-02   .2336E-02   .2353E-02

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.4661E+02	.4837E+02	.4981E+02	.5101E+02	.5204E+02	.5280E+02	.5305E+02	.5287E+02	.5242E+02
SYZ	.5245E+02	.5342E+02	.5412E+02	.5463E+02	.5507E+02	.5537E+02	.5530E+02	.5497E+02	.5456E+02
SZZ	-.1632E+02	-.1661E+02	-.1686E+02	-.1707E+02	-.1723E+02	-.1733E+02	-.1735E+02	-.1733E+02	-.1725E+02

## SHEAR STRESSES

SXY	.1713E-07	-.4587E-07	.2614E-07	.1406E-07	.1540E-07	-.3117E-07	-.7826E-08	.2407E-07	-.2720E-07
SXZ	.2199E+01	.1901E+01	.1570E+01	.1207E+01	.8176E+00	.4035E+00	-.3151E-01	-.4791E+00	-.9292E+00
SYZ	.1280E-07	-.4771E-08	-.8163E-08	.7954E-08	.1618E-07	-.1199E-08	.3560E-07	.1237E-07	-.2847E-08

## PRINCIPAL STRESSES

PS 1	.5245E+02	.5342E+02	.5412E+02	.5463E+02	.5507E+02	.5537E+02	.5530E+02	.5497E+02	.5456E+02
PS 2	.4669E+02	.4842E+02	.4985E+02	.5103E+02	.5205E+02	.5281E+02	.5305E+02	.5287E+02	.5243E+02
PS 3	-.1639E+02	-.1666E+02	-.1689E+02	-.1709E+02	-.1724E+02	-.1733E+02	-.1735E+02	-.1734E+02	-.1726E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.3442E+02	.3504E+02	.3551E+02	.3586E+02	.3616E+02	.3635E+02	.3633E+02	.3615E+02	.3591E+02
PSS 2	.2881E+01	.2500E+01	.2135E+01	.1801E+01	.1512E+01	.1282E+01	.1124E+01	.1048E+01	.1062E+01
PSS 3	.3154E+02	.3254E+02	.3337E+02	.3406E+02	.3465E+02	.3507E+02	.3520E+02	.3510E+02	.3485E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.6697E-02	-.5525E-02	-.4294E-02	-.3024E-02	-.1728E-02	-.4005E-03	.9540E-03	.2305E-02	.3633E-02
UY	-.5225E-10	-.2908E-11	-.1442E-10	.1059E-09	-.7356E-10	-.1146E-09	-.6276E-11	.2555E-10	.1363E-10
UZ	.1382E+00	.1391E+00	.1401E+00	.1410E+00	.1416E+00	.1418E+00	.1422E+00	.1425E+00	.1425E+00

## NORMAL STRAINS

EXX	.1132E-02	.1183E-02	.1226E-02	.1262E-02	.1293E-02	.1316E-02	.1326E-02	.1323E-02	.1312E-02
EYY	.1395E-02	.1410E-02	.1419E-02	.1425E-02	.1430E-02	.1432E-02	.1427E-02	.1418E-02	.1408E-02
EZZ	-.1700E-02	-.1741E-02	-.1774E-02	-.1801E-02	-.1824E-02	-.1840E-02	-.1842E-02	-.1836E-02	-.1823E-02

## SHEAR STRAINS

EXY	.1542E-11	-.4128E-11	.2353E-11	.1265E-11	.1386E-11	-.2805E-11	-.7043E-12	.2166E-11	-.2448E-11
EXZ	.1979E-03	.1711E-03	.1413E-03	.1086E-03	.7358E-04	.3632E-04	-.2836E-05	-.4312E-04	-.8363E-04
EYZ	.1152E-11	-.4294E-12	-.7347E-12	.7159E-12	.1456E-11	-.1079E-12	.3204E-11	.1113E-11	-.2563E-12

## PRINCIPAL STRAINS

PE 1	.1395E-02	.1410E-02	.1419E-02	.1425E-02	.1430E-02	.1432E-02	.1427E-02	.1418E-02	.1408E-02
PE 2	.1136E-02	.1185E-02	.1227E-02	.1263E-02	.1294E-02	.1316E-02	.1326E-02	.1323E-02	.1313E-02
PE 3	-.1703E-02	-.1744E-02	-.1776E-02	-.1802E-02	-.1825E-02	-.1840E-02	-.1842E-02	-.1836E-02	-.1824E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3098E-02	.3154E-02	.3196E-02	.3227E-02	.3254E-02	.3272E-02	.3269E-02	.3254E-02	.3232E-02
PSE 2	.2593E-03	.2250E-03	.1922E-03	.1621E-03	.1361E-03	.1154E-03	.1012E-03	.9436E-04	.9558E-04
PSE 3	.2839E-02	.2929E-02	.3003E-02	.3065E-02	.3118E-02	.3156E-02	.3168E-02	.3159E-02	.3136E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.53 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-b Average HBP

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Z= 6.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.6223E+03	.5825E+03
SYY	.5978E+03	.5754E+03
SZZ	-.8832E+02	-.8457E+02

## SHEAR STRESSES

SXY	-.2936E-06	-.4129E-06
SXZ	-.1171E+02	-.1809E+02
SYZ	-.1692E-07	.0000E+00

## PRINCIPAL STRESSES

PS 1	.6225E+03	.5830E+03
PS 2	.5978E+03	.5754E+03
PS 3	-.8851E+02	-.8506E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.3555E+03	.3340E+03
PSS 2	.1236E+02	.3809E+01
PSS 3	.3432E+03	.3302E+03

## DISPLACEMENTS

UX	.2471E-02	.3547E-02
UY	-.9129E-11	-.5821E-10
UZ	.1653E+00	.1635E+00

Appendix 6E-b Average HBP

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## NORMAL STRAINS

EXX .1110E-02 .1027E-02  
EYY .1027E-02 .1003E-02  
EZZ -.1288E-02 -.1225E-02

## SHEAR STRAINS

EXY -.1982E-11 -.2787E-11  
EXZ -.7901E-04 -.1221E-03  
EYZ -.1142E-12 .0000E+00

## PRINCIPAL STRAINS

PE 1 .1111E-02 .1028E-02  
PE 2 .1027E-02 .1003E-02  
PE 3 -.1289E-02 -.1226E-02

## PRINCIPAL SHEAR STRAINS

PSE 1 .2400E-02 .2255E-02  
PSE 2 .8346E-04 .2571E-04  
PSE 3 .2316E-02 .2229E-02

Z= 18.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .5185E+02 .5102E+02  
SYY .5422E+02 .5379E+02  
SZZ -.1711E+02 -.1690E+02



Appendix 6E-b Average HBP

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## SHEAR STRESSES

SXY -.1957E-07 .7826E-08  
SXZ -.1376E+01 -.1812E+01  
SYZ -.5340E-08 .1490E-07

## PRINCIPAL STRESSES

PS 1 .5422E+02 .5379E+02  
PS 2 .5188E+02 .5107E+02  
PS 3 -.1713E+02 -.1695E+02

## PRINCIPAL SHEAR STRESSES

PSS 1 .3567E+02 .3537E+02  
PSS 2 .1168E+01 .1364E+01  
PSS 3 .3451E+02 .3401E+02

## DISPLACEMENTS

UX .4947E-02 .6256E-02  
UY -.5045E-10 .0000E+00  
UZ .1417E+00 .1405E+00

## NORMAL STRAINS

EXX .1295E-02 .1270E-02  
EYY .1402E-02 .1395E-02  
EZZ -.1808E-02 -.1786E-02

## SHEAR STRAINS

EXY -.1761E-11 .7043E-12  
EXZ -.1238E-03 -.1631E-03  
EYZ -.4806E-12 .1341E-11

## PRINCIPAL STRAINS

Appendix 6E-b Average HBP

PE 1 .1402E-02 .1395E-02  
 PE 2 .1297E-02 .1272E-02  
 PE 3 -.1809E-02 -.1788E-02

PRINCIPAL SHEAR STRAINS  
 PSE 1 .3211E-02 .3184E-02  
 PSE 2 .1051E-03 .1228E-03  
 PSE 3 .3106E-02 .3061E-02

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Appendix 6E-b Average HBP

Z= 6.00 18.00  
X-Y POINT(S)  
X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

NORMAL STRESSES

SXX	.4730E+03	.4965E+03	.5040E+03	.4947E+03	.4693E+03	.4300E+03	.3801E+03	.3233E+03	.2634E+03
SYX	.4952E+03	.5106E+03	.5171E+03	.5142E+03	.5024E+03	.4828E+03	.4573E+03	.4276E+03	.3956E+03
SZZ	-.7369E+02	-.7609E+02	-.7699E+02	-.7633E+02	-.7418E+02	-.7070E+02	-.6619E+02	-.6096E+02	-.5531E+02

SHEAR STRESSES

SXY	.5701E-06	.4758E-06	.1096E-06	-.4141E-06	-.3144E-06	.6837E-06	-.1140E-05	.5288E-06	-.3651E-06
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## Appendix 6E-b Average HBP

SXZ	.1669E+02	.1193E+02	.6927E+01	.1947E+01	-.2736E+01	-.6878E+01	-.1028E+02	-.1284E+02	-.1452E+02
SYZ	.1432E-06	-.1567E-07	.2887E-07	-.1605E-06	-.3079E-08	-.1722E-06	.4508E-07	-.1828E-07	.1135E-06

## PRINCIPAL STRESSES

PS 1	.4952E+03	.5106E+03	.5171E+03	.5142E+03	.5024E+03	.4828E+03	.4573E+03	.4276E+03	.3956E+03
PS 2	.4735E+03	.4968E+03	.5041E+03	.4947E+03	.4693E+03	.4301E+03	.3804E+03	.3237E+03	.2640E+03
PS 3	-.7420E+02	-.7634E+02	-.7707E+02	-.7634E+02	-.7419E+02	-.7080E+02	-.6643E+02	-.6138E+02	-.5597E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2847E+03	.2935E+03	.2971E+03	.2953E+03	.2883E+03	.2768E+03	.2619E+03	.2445E+03	.2258E+03
PSS 2	.1085E+02	.6922E+01	.6505E+01	.9765E+01	.1654E+02	.2636E+02	.3846E+02	.5191E+02	.6577E+02
PSS 3	.2738E+03	.2865E+03	.2906E+03	.2855E+03	.2718E+03	.2505E+03	.2234E+03	.1926E+03	.1600E+03

## DISPLACEMENTS

UX	-.4706E-02	-.3866E-02	-.2995E-02	-.2128E-02	-.1299E-02	-.5404E-03	.1230E-03	.6713E-03	.1095E-02
UY	-.1664E-10	-.3621E-10	.4712E-10	.1890E-10	-.4244E-11	.1113E-10	.4176E-10	-.3236E-10	-.9877E-11
UZ	.2034E+00	.2054E+00	.2071E+00	.2084E+00	.2092E+00	.2097E+00	.2100E+00	.2100E+00	.2098E+00

## NORMAL STRAINS

EXX	.8136E-03	.8611E-03	.8749E-03	.8535E-03	.7986E-03	.7145E-03	.6081E-03	.4875E-03	.3607E-03
EYY	.8886E-03	.9086E-03	.9191E-03	.9194E-03	.9103E-03	.8927E-03	.8686E-03	.8393E-03	.8069E-03
EZZ	-.1031E-02	-.1071E-02	-.1086E-02	-.1074E-02	-.1036E-02	-.9755E-03	-.8983E-03	-.8094E-03	-.7149E-03

## SHEAR STRAINS

EXY	.3848E-11	.3212E-11	.7396E-12	-.2795E-11	-.2122E-11	.4615E-11	-.7695E-11	.3569E-11	-.2464E-11
EXZ	.1127E-03	.8054E-04	.4676E-04	.1314E-04	-.1847E-04	-.4643E-04	-.6937E-04	-.8666E-04	-.9802E-04
EYZ	.9669E-12	-.1058E-12	.1949E-12	-.1083E-11	-.2078E-13	-.1162E-11	.3043E-12	-.1234E-12	.7659E-12

## PRINCIPAL STRAINS

PE 1	.8886E-03	.9086E-03	.9191E-03	.9194E-03	.9103E-03	.8927E-03	.8686E-03	.8393E-03	.8069E-03
PE 2	.8154E-03	.8619E-03	.8751E-03	.8535E-03	.7986E-03	.7148E-03	.6089E-03	.4890E-03	.3629E-03
PE 3	-.1033E-02	-.1072E-02	-.1086E-02	-.1074E-02	-.1036E-02	-.9758E-03	-.8991E-03	-.8108E-03	-.7171E-03

Appendix 6E-b Average HBP

PRINCIPAL SHEAR STRAINS

PSE 1	.1922E-02	.1981E-02	.2005E-02	.1993E-02	.1946E-02	.1869E-02	.1768E-02	.1650E-02	.1524E-02
PSE 2	.7321E-04	.4672E-04	.4391E-04	.6591E-04	.1116E-03	.1779E-03	.2596E-03	.3504E-03	.4440E-03
PSE 3	.1848E-02	.1934E-02	.1961E-02	.1927E-02	.1834E-02	.1691E-02	.1508E-02	.1300E-02	.1080E-02

Z= 18.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.4389E+02	.4484E+02	.4542E+02	.4563E+02	.4547E+02	.4497E+02	.4429E+02	.4326E+02	.4198E+02
SYX	.5559E+02	.5647E+02	.5714E+02	.5762E+02	.5790E+02	.5800E+02	.5805E+02	.5787E+02	.5753E+02
SZZ	-.1782E+02	-.1809E+02	-.1830E+02	-.1845E+02	-.1854E+02	-.1857E+02	-.1859E+02	-.1855E+02	-.1846E+02

SHEAR STRESSES

SXY	.1500E-07	.5919E-08	-.1448E-08	.1140E-08	-.7761E-08	.1512E-08	.1774E-07	.4548E-07	-.2150E-07
SXZ	.2984E+01	.2644E+01	.2298E+01	.1954E+01	.1620E+01	.1302E+01	.1007E+01	.7417E+00	.5082E+00
SYZ	.8134E-08	-.2303E-08	-.6840E-08	.9213E-08	.1878E-08	.5161E-08	-.7865E-08	.3173E-09	-.1288E-07

PRINCIPAL STRESSES

PS 1	.5559E+02	.5647E+02	.5714E+02	.5762E+02	.5790E+02	.5800E+02	.5805E+02	.5787E+02	.5753E+02
PS 2	.4403E+02	.4495E+02	.4551E+02	.4569E+02	.4551E+02	.4500E+02	.4430E+02	.4327E+02	.4199E+02

## Appendix 6E-b Average HBP

PS 3    -.1796E+02   -.1820E+02   -.1839E+02   -.1851E+02   -.1858E+02   -.1860E+02   -.1861E+02   -.1856E+02   -.1847E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .3678E+02    .3733E+02    .3776E+02    .3807E+02    .3824E+02    .3830E+02    .3833E+02    .3822E+02    .3800E+02  
PSS 2    .5779E+01    .5756E+01    .5817E+01    .5964E+01    .6194E+01    .6500E+01    .6874E+01    .7302E+01    .7770E+01  
PSS 3    .3100E+02    .3158E+02    .3195E+02    .3210E+02    .3205E+02    .3180E+02    .3146E+02    .3091E+02    .3023E+02

## DISPLACEMENTS

UX       -.1621E-01   -.1517E-01   -.1412E-01   -.1305E-01   -.1199E-01   -.1094E-01   -.9898E-02   -.8891E-02   -.7927E-02  
UY       -.6579E-11   .6975E-10   -.7201E-10   .2589E-10   -.1628E-10   .3023E-10   .7983E-10   -.3146E-10   .4579E-10  
UZ       .1820E+00   .1835E+00   .1849E+00   .1862E+00   .1873E+00   .1883E+00   .1891E+00   .1899E+00   .1906E+00

## NORMAL STRAINS

EXX       .1022E-02    .1047E-02    .1061E-02    .1064E-02    .1057E-02    .1039E-02    .1016E-02    .9832E-03    .9436E-03  
EYY       .1549E-02    .1570E-02    .1588E-02    .1604E-02    .1616E-02    .1625E-02    .1635E-02    .1641E-02    .1643E-02  
EZZ       -.1754E-02   -.1785E-02   -.1807E-02   -.1820E-02   -.1824E-02   -.1821E-02   -.1814E-02   -.1798E-02   -.1776E-02

## SHEAR STRAINS

EXY       .1350E-11    .5327E-12   -.1303E-12    .1026E-12   -.6985E-12    .1360E-12    .1596E-11    .4093E-11   -.1935E-11  
EXZ       .2686E-03    .2379E-03    .2068E-03    .1759E-03    .1458E-03    .1172E-03    .9066E-04    .6675E-04    .4574E-04  
EYZ       .7321E-12   -.2072E-12   -.6156E-12    .8292E-12    .1691E-12    .4645E-12   -.7079E-12    .2856E-13   -.1159E-11

## PRINCIPAL STRAINS

PE 1       .1549E-02    .1570E-02    .1588E-02    .1604E-02    .1616E-02    .1625E-02    .1635E-02    .1641E-02    .1643E-02  
PE 2       .1029E-02    .1052E-02    .1065E-02    .1067E-02    .1058E-02    .1040E-02    .1017E-02    .9836E-03    .9438E-03  
PE 3       -.1761E-02   -.1790E-02   -.1810E-02   -.1822E-02   -.1826E-02   -.1822E-02   -.1814E-02   -.1799E-02   -.1777E-02

## PRINCIPAL SHEAR STRAINS

PSE 1       .3310E-02    .3360E-02    .3399E-02    .3426E-02    .3442E-02    .3447E-02    .3450E-02    .3439E-02    .3420E-02  
PSE 2       .5201E-03    .5180E-03    .5236E-03    .5368E-03    .5575E-03    .5850E-03    .6186E-03    .6571E-03    .6993E-03  
PSE 3       .2790E-02    .2842E-02    .2875E-02    .2889E-02    .2884E-02    .2862E-02    .2831E-02    .2782E-02    .2720E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-b Average HBP

31.00      4.00  
32.00      4.00

Z= 6.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.2038E+03	.1477E+03	.9785E+02	.5585E+02	.2233E+02	-.3371E+01	-.2244E+02	-.3614E+02	-.4528E+02
SYX	.3632E+03	.3323E+03	.3040E+03	.2792E+03	.2585E+03	.2417E+03	.2286E+03	.2186E+03	.2117E+03
SZZ	-.4957E+02	-.4404E+02	-.3895E+02	-.3447E+02	-.3069E+02	-.2760E+02	-.2518E+02	-.2334E+02	-.2207E+02

SHEAR STRESSES

SXY	.6483E-06	-.8666E-06	.1432E-06	-.7162E-06	-.7312E-07	.2505E-06	.6615E-06	.7815E-06	-.1081E-05
SXZ	-.1535E+02	-.1535E+02	-.1467E+02	-.1345E+02	-.1187E+02	-.1006E+02	-.8132E+01	-.6136E+01	-.4104E+01
SYZ	-.2258E-06	.4257E-07	-.1698E-06	-.5287E-07	-.1156E-07	-.8418E-08	.1258E-06	-.5919E-07	.1146E-08

PRINCIPAL STRESSES

PS 1	.3632E+03	.3323E+03	.3040E+03	.2792E+03	.2585E+03	.2417E+03	.2286E+03	.2186E+03	.2117E+03
PS 2	.2047E+03	.1489E+03	.9941E+02	.5781E+02	.2486E+02	.2616E+00	-.1556E+02	-.2088E+02	-.2137E+02
PS 3	-.5050E+02	-.4526E+02	-.4050E+02	-.3643E+02	-.3322E+02	-.3124E+02	-.3205E+02	-.3861E+02	-.4598E+02



## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2069E+03	.1888E+03	.1722E+03	.1578E+03	.1459E+03	.1365E+03	.1303E+03	.1286E+03	.1289E+03
PSS 2	.7927E+02	.9166E+02	.1023E+03	.1107E+03	.1168E+03	.1207E+03	.1221E+03	.1198E+03	.1166E+03
PSS 3	.1276E+03	.9710E+02	.6996E+02	.4712E+02	.2904E+02	.1575E+02	.8247E+01	.8864E+01	.1231E+02

## DISPLACEMENTS

UX	.1391E-02	.1566E-02	.1629E-02	.1595E-02	.1484E-02	.1312E-02	.1095E-02	.8467E-03	.5758E-03
UY	.1420E-10	-.3377E-10	-.2047E-10	.2162E-11	.3837E-11	-.3849E-11	-.2240E-10	.2290E-10	-.1646E-10
UZ	.2094E+00	.2090E+00	.2086E+00	.2081E+00	.2076E+00	.2072E+00	.2068E+00	.2064E+00	.2062E+00

## NORMAL STRAINS

EXX	.2350E-03	.1171E-03	.1276E-04	-.7454E-04	-.1435E-03	-.1958E-03	-.2341E-03	-.2612E-03	-.2792E-03
EYY	.7732E-03	.7399E-03	.7083E-03	.6794E-03	.6536E-03	.6315E-03	.6131E-03	.5987E-03	.5883E-03
EZZ	-.6201E-03	-.5301E-03	-.4490E-03	-.3794E-03	-.3225E-03	-.2776E-03	-.2433E-03	-.2181E-03	-.2008E-03

## SHEAR STRAINS

EXY	.4376E-11	-.5850E-11	.9663E-12	-.4835E-11	-.4935E-12	.1691E-11	.4465E-11	.5275E-11	-.7295E-11
EXZ	-.1036E-03	-.1036E-03	-.9901E-04	-.9078E-04	-.8009E-04	-.6791E-04	-.5489E-04	-.4142E-04	-.2770E-04
EYZ	-.1524E-11	.2874E-12	-.1146E-11	-.3569E-12	-.7805E-13	-.5682E-13	.8494E-12	-.3996E-12	.7732E-14

## PRINCIPAL STRAINS

PE 1	.7732E-03	.7399E-03	.7083E-03	.6794E-03	.6536E-03	.6315E-03	.6131E-03	.5987E-03	.5883E-03
PE 2	.2381E-03	.1212E-03	.1801E-04	-.6792E-04	-.1350E-03	-.1835E-03	-.2109E-03	-.2097E-03	-.1985E-03
PE 3	-.6232E-03	-.5342E-03	-.4542E-03	-.3860E-03	-.3310E-03	-.2898E-03	-.2665E-03	-.2696E-03	-.2815E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1396E-02	.1274E-02	.1163E-02	.1065E-02	.9846E-03	.9213E-03	.8796E-03	.8682E-03	.8698E-03
PSE 2	.5351E-03	.6187E-03	.6903E-03	.7473E-03	.7886E-03	.8150E-03	.8240E-03	.8084E-03	.7868E-03
PSE 3	.8613E-03	.6555E-03	.4722E-03	.3181E-03	.1960E-03	.1063E-03	.5566E-04	.5983E-04	.8307E-04

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.4054E+02	.3913E+02	.3762E+02	.3611E+02	.3467E+02	.3336E+02	.3224E+02	.3134E+02	.3068E+02
SYX	.5708E+02	.5667E+02	.5615E+02	.5559E+02	.5503E+02	.5452E+02	.5407E+02	.5371E+02	.5345E+02
SZZ	-.1833E+02	-.1822E+02	-.1808E+02	-.1792E+02	-.1776E+02	-.1760E+02	-.1747E+02	-.1736E+02	-.1727E+02

SHEAR STRESSES

SXY	.3186E-07	.2240E-07	-.4677E-08	-.8939E-08	.1868E-07	.2042E-07	-.4211E-07	-.3219E-08	-.2882E-07
SXZ	.3095E+00	.1476E+00	.2269E-01	-.6689E-01	-.1237E+00	-.1511E+00	-.1530E+00	-.1338E+00	-.9834E-01
SYZ	-.3887E-08	-.1090E-07	-.2445E-07	-.1492E-07	-.4948E-08	.1760E-07	-.8981E-08	.3419E-08	.6533E-08

PRINCIPAL STRESSES

PS 1	.5708E+02	.5667E+02	.5615E+02	.5559E+02	.5503E+02	.5452E+02	.5407E+02	.5371E+02	.5345E+02
PS 2	.4055E+02	.3913E+02	.3762E+02	.3611E+02	.3467E+02	.3336E+02	.3224E+02	.3134E+02	.3068E+02
PS 3	-.1833E+02	-.1822E+02	-.1808E+02	-.1792E+02	-.1776E+02	-.1760E+02	-.1747E+02	-.1736E+02	-.1727E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3770E+02	.3744E+02	.3711E+02	.3675E+02	.3640E+02	.3606E+02	.3577E+02	.3553E+02	.3536E+02
PSS 2	.8265E+01	.8769E+01	.9266E+01	.9743E+01	.1018E+02	.1058E+02	.1092E+02	.1119E+02	.1138E+02
PSS 3	.2944E+02	.2868E+02	.2785E+02	.2701E+02	.2621E+02	.2548E+02	.2486E+02	.2435E+02	.2398E+02

DISPLACEMENTS

## Appendix 6E-b Average HBP

UX	-.7010E-02	-.6121E-02	-.5286E-02	-.4504E-02	-.3768E-02	-.3074E-02	-.2415E-02	-.1785E-02	-.1178E-02
UY	.1892E-10	.9952E-11	-.4214E-10	-.3653E-10	.2383E-10	-.5877E-10	-.3906E-10	-.2073E-10	-.3484E-10
UZ	.1912E+00	.1917E+00	.1921E+00	.1925E+00	.1928E+00	.1929E+00	.1931E+00	.1931E+00	.1932E+00

## NORMAL STRAINS

EXX	.8994E-03	.8558E-03	.8098E-03	.7640E-03	.7206E-03	.6814E-03	.6477E-03	.6205E-03	.6006E-03
EYY	.1643E-02	.1645E-02	.1644E-02	.1641E-02	.1637E-02	.1633E-02	.1630E-02	.1627E-02	.1625E-02
EZZ	-.1750E-02	-.1725E-02	-.1697E-02	-.1667E-02	-.1638E-02	-.1612E-02	-.1589E-02	-.1571E-02	-.1557E-02

## SHEAR STRAINS

EXY	.2868E-11	.2016E-11	-.4210E-12	-.8045E-12	.1681E-11	.1838E-11	-.3790E-11	-.2898E-12	-.2594E-11
EXZ	.2785E-04	.1328E-04	.2042E-05	-.6020E-05	-.1114E-04	-.1360E-04	-.1377E-04	-.1204E-04	-.8850E-05
EYZ	-.3499E-12	-.9813E-12	-.2200E-11	-.1343E-11	-.4453E-12	.1584E-11	-.8083E-12	.3077E-12	.5879E-12

## PRINCIPAL STRAINS

PE 1	.1643E-02	.1645E-02	.1644E-02	.1641E-02	.1637E-02	.1633E-02	.1630E-02	.1627E-02	.1625E-02
PE 2	.8995E-03	.8558E-03	.8098E-03	.7640E-03	.7206E-03	.6814E-03	.6477E-03	.6205E-03	.6006E-03
PE 3	-.1750E-02	-.1725E-02	-.1697E-02	-.1667E-02	-.1638E-02	-.1612E-02	-.1589E-02	-.1571E-02	-.1557E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3393E-02	.3370E-02	.3340E-02	.3308E-02	.3276E-02	.3246E-02	.3219E-02	.3198E-02	.3182E-02
PSE 2	.7438E-03	.7892E-03	.8340E-03	.8769E-03	.9166E-03	.9521E-03	.9824E-03	.1007E-02	.1025E-02
PSE 3	.2650E-02	.2581E-02	.2506E-02	.2431E-02	.2359E-02	.2294E-02	.2237E-02	.2191E-02	.2158E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-b Average HBP

39.00 4.00  
40.00 4.00  
41.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
33.00 4.00  
34.00 4.00  
35.00 4.00  
36.00 4.00  
37.00 4.00  
38.00 4.00  
39.00 4.00  
40.00 4.00  
41.00 4.00

NORMAL STRESSES

SXX -.5047E+02 -.5216E+02 -.5047E+02 -.4528E+02 -.3614E+02 -.2244E+02 -.3371E+01 .2233E+02 .5585E+02  
 SYY .2077E+03 .2064E+03 .2077E+03 .2117E+03 .2186E+03 .2286E+03 .2417E+03 .2585E+03 .2792E+03  
 SZZ -.2132E+02 -.2108E+02 -.2132E+02 -.2207E+02 -.2334E+02 -.2518E+02 -.2760E+02 -.3069E+02 -.3447E+02

SHEAR STRESSES

SXY -.2727E-06 .3480E-06 -.3103E-06 -.8796E-06 .7136E-06 -.4194E-06 -.1487E-06 .5165E-06 .2881E-06  
 SXZ -.2056E+01 -.6820E-07 .2056E+01 .4104E+01 .6136E+01 .8132E+01 .1006E+02 .1187E+02 .1345E+02  
 SYZ .4699E-07 -.8354E-07 .2403E-07 .8754E-08 -.8038E-07 .1750E-06 -.5391E-08 .4458E-07 -.4761E-07

PRINCIPAL STRESSES

PS 1 .2077E+03 .2064E+03 .2077E+03 .2117E+03 .2186E+03 .2286E+03 .2417E+03 .2585E+03 .2792E+03  
 PS 2 -.2118E+02 -.2108E+02 -.2118E+02 -.2137E+02 -.2088E+02 -.1556E+02 .2616E+00 .2486E+02 .5781E+02  
 PS 3 -.5061E+02 -.5216E+02 -.5061E+02 -.4598E+02 -.3861E+02 -.3205E+02 -.3124E+02 -.3322E+02 -.3643E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1292E+03	.1293E+03	.1292E+03	.1289E+03	.1286E+03	.1303E+03	.1365E+03	.1459E+03	.1578E+03
PSS 2	.1144E+03	.1137E+03	.1144E+03	.1166E+03	.1198E+03	.1221E+03	.1207E+03	.1168E+03	.1107E+03
PSS 3	.1472E+02	.1554E+02	.1472E+02	.1231E+02	.8864E+01	.8247E+01	.1575E+02	.2904E+02	.4712E+02

## DISPLACEMENTS

UX	.2912E-03	-.2591E-09	-.2912E-03	-.5758E-03	-.8467E-03	-.1095E-02	-.1312E-02	-.1484E-02	-.1595E-02
UY	-.7232E-11	.6467E-11	-.7689E-11	-.1448E-10	.1471E-10	.2350E-10	-.1744E-10	.8089E-11	.1090E-10
UZ	.2060E+00	.2060E+00	.2060E+00	.2062E+00	.2064E+00	.2068E+00	.2072E+00	.2076E+00	.2081E+00

## NORMAL STRAINS

EXX	-.2892E-03	-.2925E-03	-.2892E-03	-.2792E-03	-.2612E-03	-.2341E-03	-.1958E-03	-.1435E-03	-.7454E-04
EYY	.5820E-03	.5800E-03	.5820E-03	.5883E-03	.5987E-03	.6131E-03	.6315E-03	.6536E-03	.6794E-03
EZZ	-.1909E-03	-.1876E-03	-.1909E-03	-.2008E-03	-.2181E-03	-.2433E-03	-.2776E-03	-.3225E-03	-.3794E-03

## SHEAR STRAINS

EXY	-.1841E-11	.2349E-11	-.2094E-11	-.5937E-11	.4817E-11	-.2831E-11	-.1004E-11	.3486E-11	.1944E-11
EXZ	-.1388E-04	-.4603E-12	.1388E-04	.2770E-04	.4142E-04	.5489E-04	.6791E-04	.8009E-04	.9078E-04
EYZ	.3172E-12	-.5639E-12	.1622E-12	.5909E-13	-.5426E-12	.1181E-11	-.3639E-13	.3009E-12	-.3214E-12

## PRINCIPAL STRAINS

PE 1	.5820E-03	.5800E-03	.5820E-03	.5883E-03	.5987E-03	.6131E-03	.6315E-03	.6536E-03	.6794E-03
PE 2	-.1904E-03	-.1876E-03	-.1904E-03	-.1985E-03	-.2097E-03	-.2109E-03	-.1835E-03	-.1350E-03	-.6792E-04
PE 3	-.2897E-03	-.2925E-03	-.2897E-03	-.2815E-03	-.2696E-03	-.2665E-03	-.2898E-03	-.3310E-03	-.3860E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.8718E-03	.8725E-03	.8718E-03	.8698E-03	.8682E-03	.8796E-03	.9213E-03	.9846E-03	.1065E-02
PSE 2	.7724E-03	.7676E-03	.7724E-03	.7868E-03	.8084E-03	.8240E-03	.8150E-03	.7886E-03	.7473E-03
PSE 3	.9933E-04	.1049E-03	.9933E-04	.8307E-04	.5983E-04	.5566E-04	.1063E-03	.1960E-03	.3181E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.3027E+02	.3014E+02	.3027E+02	.3068E+02	.3134E+02	.3224E+02	.3336E+02	.3467E+02	.3611E+02
SYX	.5328E+02	.5323E+02	.5328E+02	.5345E+02	.5371E+02	.5407E+02	.5452E+02	.5503E+02	.5559E+02
SZZ	-.1722E+02	-.1720E+02	-.1722E+02	-.1727E+02	-.1736E+02	-.1747E+02	-.1760E+02	-.1776E+02	-.1792E+02

SHEAR STRESSES

SXY	-.6051E-08	-.2877E-07	-.2127E-07	-.2083E-08	-.1689E-07	-.6149E-07	-.4847E-08	-.2286E-07	-.2504E-08
SXZ	-.5193E-01	-.2348E-07	.5193E-01	.9833E-01	.1338E+00	.1530E+00	.1511E+00	.1237E+00	.6689E-01
SYZ	.1885E-07	-.2605E-08	-.1140E-07	.4296E-08	-.1711E-08	.2250E-07	.1362E-07	-.1939E-08	-.1904E-08

PRINCIPAL STRESSES

PS 1	.5328E+02	.5323E+02	.5328E+02	.5345E+02	.5371E+02	.5407E+02	.5452E+02	.5503E+02	.5559E+02
PS 2	.3027E+02	.3014E+02	.3027E+02	.3068E+02	.3134E+02	.3224E+02	.3336E+02	.3467E+02	.3611E+02
PS 3	-.1722E+02	-.1720E+02	-.1722E+02	-.1727E+02	-.1736E+02	-.1747E+02	-.1760E+02	-.1776E+02	-.1792E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3525E+02	.3522E+02	.3525E+02	.3536E+02	.3553E+02	.3577E+02	.3606E+02	.3640E+02	.3675E+02
PSS 2	.1150E+02	.1154E+02	.1150E+02	.1138E+02	.1119E+02	.1092E+02	.1058E+02	.1018E+02	.9743E+01
PSS 3	.2375E+02	.2367E+02	.2375E+02	.2398E+02	.2435E+02	.2486E+02	.2548E+02	.2621E+02	.2701E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.5850E-03	.5576E-09	.5850E-03	.1178E-02	.1785E-02	.2415E-02	.3074E-02	.3768E-02	.4504E-02
UY	-.2925E-10	-.1320E-10	.3974E-10	.3400E-10	.9885E-11	.9951E-10	-.7855E-10	-.6151E-11	-.1326E-10
UZ	.1932E+00	.1932E+00	.1932E+00	.1932E+00	.1931E+00	.1931E+00	.1929E+00	.1928E+00	.1925E+00

## NORMAL STRAINS

EXX	.5884E-03	.5843E-03	.5884E-03	.6006E-03	.6205E-03	.6477E-03	.6814E-03	.7206E-03	.7640E-03
EYY	.1624E-02	.1623E-02	.1624E-02	.1625E-02	.1627E-02	.1630E-02	.1633E-02	.1637E-02	.1641E-02
EZZ	-.1549E-02	-.1546E-02	-.1549E-02	-.1557E-02	-.1571E-02	-.1589E-02	-.1612E-02	-.1638E-02	-.1667E-02

## SHEAR STRAINS

EXY	-.5446E-12	-.2589E-11	-.1914E-11	-.1875E-12	-.1520E-11	-.5534E-11	-.4363E-12	-.2058E-11	-.2254E-12
EXZ	-.4674E-05	-.2113E-11	.4674E-05	.8850E-05	.1204E-04	.1377E-04	.1360E-04	.1114E-04	.6020E-05
EYZ	.1697E-11	-.2344E-12	-.1026E-11	.3867E-12	-.1540E-12	.2025E-11	.1226E-11	-.1745E-12	-.1714E-12

## PRINCIPAL STRAINS

PE 1	.1624E-02	.1623E-02	.1624E-02	.1625E-02	.1627E-02	.1630E-02	.1633E-02	.1637E-02	.1641E-02
PE 2	.5884E-03	.5843E-03	.5884E-03	.6006E-03	.6205E-03	.6477E-03	.6814E-03	.7206E-03	.7640E-03
PE 3	-.1549E-02	-.1546E-02	-.1549E-02	-.1557E-02	-.1571E-02	-.1589E-02	-.1612E-02	-.1638E-02	-.1667E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3173E-02	.3169E-02	.3173E-02	.3182E-02	.3198E-02	.3219E-02	.3246E-02	.3276E-02	.3308E-02
PSE 2	.1035E-02	.1039E-02	.1035E-02	.1025E-02	.1007E-02	.9824E-03	.9521E-03	.9166E-03	.8769E-03
PSE 3	.2137E-02	.2130E-02	.2137E-02	.2158E-02	.2191E-02	.2237E-02	.2294E-02	.2359E-02	.2431E-02



Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-b Average HBP

48.00      4.00  
49.00      4.00  
50.00      4.00

Z=    6.00 LAYER NO,    1

X            Y  
42.00      4.00  
43.00      4.00  
44.00      4.00  
45.00      4.00  
46.00      4.00  
47.00      4.00  
48.00      4.00  
49.00      4.00  
50.00      4.00

NORMAL STRESSES

SXX    .9785E+02    .1477E+03    .2038E+03    .2634E+03    .3233E+03    .3801E+03    .4300E+03    .4693E+03    .4947E+03  
SYY    .3040E+03    .3323E+03    .3632E+03    .3956E+03    .4276E+03    .4573E+03    .4828E+03    .5024E+03    .5142E+03  
SZZ    -.3895E+02    -.4404E+02    -.4957E+02    -.5531E+02    -.6096E+02    -.6619E+02    -.7070E+02    -.7418E+02    -.7633E+02

SHEAR STRESSES

SXY    .1763E-06    -.7287E-07    .1488E-06    .4518E-06    -.2127E-06    .8437E-06    -.6560E-06    -.4813E-06    -.5040E-06  
SXZ    .1467E+02    .1535E+02    .1535E+02    .1452E+02    .1284E+02    .1028E+02    .6878E+01    .2736E+01    -.1947E+01  
SYZ    .1460E-06    -.1999E-07    -.2383E-06    .1711E-06    .4358E-07    .5727E-07    -.2135E-06    .1389E-06    -.1210E-07

PRINCIPAL STRESSES

PS 1    .3040E+03    .3323E+03    .3632E+03    .3956E+03    .4276E+03    .4573E+03    .4828E+03    .5024E+03    .5142E+03  
PS 2    .9941E+02    .1489E+03    .2047E+03    .2640E+03    .3237E+03    .3804E+03    .4301E+03    .4693E+03    .4947E+03  
PS 3    -.4050E+02    -.4526E+02    -.5050E+02    -.5597E+02    -.6138E+02    -.6643E+02    -.7080E+02    -.7419E+02    -.7634E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1722E+03	.1888E+03	.2069E+03	.2258E+03	.2445E+03	.2619E+03	.2768E+03	.2883E+03	.2953E+03
PSS 2	.1023E+03	.9166E+02	.7927E+02	.6577E+02	.5191E+02	.3846E+02	.2636E+02	.1654E+02	.9765E+01
PSS 3	.6996E+02	.9710E+02	.1276E+03	.1600E+03	.1926E+03	.2234E+03	.2505E+03	.2718E+03	.2855E+03

## DISPLACEMENTS

UX	-.1629E-02	-.1566E-02	-.1391E-02	-.1095E-02	-.6713E-03	-.1230E-03	.5404E-03	.1299E-02	.2128E-02
UY	-.2446E-10	-.8954E-11	.2440E-11	.6261E-11	-.1537E-10	.2641E-10	.2192E-10	-.1791E-10	-.3813E-10
UZ	.2086E+00	.2090E+00	.2094E+00	.2098E+00	.2100E+00	.2100E+00	.2097E+00	.2092E+00	.2084E+00

## NORMAL STRAINS

EXX	.1276E-04	.1171E-03	.2350E-03	.3607E-03	.4875E-03	.6081E-03	.7145E-03	.7986E-03	.8535E-03
EYY	.7083E-03	.7399E-03	.7732E-03	.8069E-03	.8393E-03	.8686E-03	.8927E-03	.9103E-03	.9194E-03
EZZ	-.4490E-03	-.5301E-03	-.6201E-03	-.7149E-03	-.8094E-03	-.8983E-03	-.9755E-03	-.1036E-02	-.1074E-02

## SHEAR STRAINS

EXY	.1190E-11	-.4919E-12	.1004E-11	.3050E-11	-.1436E-11	.5695E-11	-.4428E-11	-.3249E-11	-.3402E-11
EXZ	.9901E-04	.1036E-03	.1036E-03	.9802E-04	.8666E-04	.6937E-04	.4643E-04	.1847E-04	-.1314E-04
EYZ	.9855E-12	-.1349E-12	-.1609E-11	.1155E-11	.2942E-12	.3866E-12	-.1441E-11	.9375E-12	-.8165E-13

## PRINCIPAL STRAINS

PE 1	.7083E-03	.7399E-03	.7732E-03	.8069E-03	.8393E-03	.8686E-03	.8927E-03	.9103E-03	.9194E-03
PE 2	.1801E-04	.1212E-03	.2381E-03	.3629E-03	.4890E-03	.6089E-03	.7148E-03	.7986E-03	.8535E-03
PE 3	-.4542E-03	-.5342E-03	-.6232E-03	-.7171E-03	-.8108E-03	-.8991E-03	-.9758E-03	-.1036E-02	-.1074E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.1163E-02	.1274E-02	.1396E-02	.1524E-02	.1650E-02	.1768E-02	.1869E-02	.1946E-02	.1993E-02
PSE 2	.6903E-03	.6187E-03	.5351E-03	.4440E-03	.3504E-03	.2596E-03	.1779E-03	.1116E-03	.6591E-04
PSE 3	.4722E-03	.6555E-03	.8613E-03	.1080E-02	.1300E-02	.1508E-02	.1691E-02	.1834E-02	.1927E-02

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.3762E+02	.3913E+02	.4054E+02	.4198E+02	.4326E+02	.4429E+02	.4497E+02	.4547E+02	.4563E+02
SYX	.5615E+02	.5667E+02	.5708E+02	.5753E+02	.5787E+02	.5805E+02	.5800E+02	.5790E+02	.5762E+02
SZZ	-.1808E+02	-.1822E+02	-.1833E+02	-.1846E+02	-.1855E+02	-.1859E+02	-.1857E+02	-.1854E+02	-.1845E+02

SHEAR STRESSES

SXY	.1990E-08	-.2012E-07	-.2925E-07	.1499E-07	-.2495E-07	.3284E-07	-.1298E-07	.1253E-07	-.7020E-08
SXZ	-.2269E-01	-.1476E+00	-.3095E+00	-.5082E+00	-.7417E+00	-.1007E+01	-.1302E+01	-.1620E+01	-.1954E+01
SYZ	-.5993E-08	.1546E-07	-.6061E-08	.1834E-07	.1302E-07	-.1286E-07	-.4423E-08	.1251E-07	.4572E-09

PRINCIPAL STRESSES

PS 1	.5615E+02	.5667E+02	.5708E+02	.5753E+02	.5787E+02	.5805E+02	.5800E+02	.5790E+02	.5762E+02
PS 2	.3762E+02	.3913E+02	.4055E+02	.4199E+02	.4327E+02	.4430E+02	.4500E+02	.4551E+02	.4569E+02
PS 3	-.1808E+02	-.1822E+02	-.1833E+02	-.1847E+02	-.1856E+02	-.1861E+02	-.1860E+02	-.1858E+02	-.1851E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3711E+02	.3744E+02	.3770E+02	.3800E+02	.3822E+02	.3833E+02	.3830E+02	.3824E+02	.3807E+02
PSS 2	.9266E+01	.8769E+01	.8265E+01	.7770E+01	.7302E+01	.6874E+01	.6500E+01	.6194E+01	.5964E+01
PSS 3	.2785E+02	.2868E+02	.2944E+02	.3023E+02	.3091E+02	.3146E+02	.3180E+02	.3205E+02	.3210E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.5286E-02	.6121E-02	.7010E-02	.7927E-02	.8891E-02	.9898E-02	.1094E-01	.1199E-01	.1305E-01
UY	.7811E-10	.4864E-10	.1022E-10	-.2059E-10	.7111E-10	.1350E-10	.3092E-10	-.4885E-11	.5141E-10
UZ	.1921E+00	.1917E+00	.1912E+00	.1906E+00	.1899E+00	.1891E+00	.1883E+00	.1873E+00	.1862E+00

## NORMAL STRAINS

EXX	.8098E-03	.8558E-03	.8995E-03	.9436E-03	.9832E-03	.1016E-02	.1039E-02	.1057E-02	.1064E-02
EYY	.1644E-02	.1645E-02	.1643E-02	.1643E-02	.1641E-02	.1635E-02	.1625E-02	.1616E-02	.1604E-02
EZZ	-.1697E-02	-.1725E-02	-.1750E-02	-.1776E-02	-.1798E-02	-.1814E-02	-.1821E-02	-.1824E-02	-.1820E-02

## SHEAR STRAINS

EXY	.1791E-12	-.1811E-11	-.2633E-11	.1349E-11	-.2246E-11	.2956E-11	-.1169E-11	.1128E-11	-.6318E-12
EXZ	-.2042E-05	-.1328E-04	-.2785E-04	-.4574E-04	-.6675E-04	-.9066E-04	-.1172E-03	-.1458E-03	-.1759E-03
EYZ	-.5394E-12	.1392E-11	-.5455E-12	.1650E-11	.1172E-11	-.1158E-11	-.3981E-12	.1126E-11	.4115E-13

## PRINCIPAL STRAINS

PE 1	.1644E-02	.1645E-02	.1643E-02	.1643E-02	.1641E-02	.1635E-02	.1625E-02	.1616E-02	.1604E-02
PE 2	.8098E-03	.8558E-03	.8995E-03	.9438E-03	.9836E-03	.1017E-02	.1040E-02	.1058E-02	.1067E-02
PE 3	-.1697E-02	-.1725E-02	-.1750E-02	-.1777E-02	-.1799E-02	-.1814E-02	-.1822E-02	-.1826E-02	-.1822E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3340E-02	.3370E-02	.3393E-02	.3420E-02	.3439E-02	.3450E-02	.3447E-02	.3442E-02	.3426E-02
PSE 2	.8340E-03	.7892E-03	.7438E-03	.6993E-03	.6571E-03	.6186E-03	.5850E-03	.5575E-03	.5368E-03
PSE 3	.2506E-02	.2581E-02	.2650E-02	.2720E-02	.2782E-02	.2831E-02	.2862E-02	.2884E-02	.2889E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-b Average HBP

57.00      4.00  
58.00      4.00  
59.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
51.00      4.00  
52.00      4.00  
53.00      4.00  
54.00      4.00  
55.00      4.00  
56.00      4.00  
57.00      4.00  
58.00      4.00  
59.00      4.00

NORMAL STRESSES

SXX	.5040E+03	.4965E+03	.4730E+03	.4355E+03	.3873E+03	.3322E+03	.2738E+03	.2157E+03	.1610E+03
SYX	.5171E+03	.5106E+03	.4952E+03	.4719E+03	.4426E+03	.4089E+03	.3728E+03	.3361E+03	.3005E+03
SZZ	-.7699E+02	-.7609E+02	-.7369E+02	-.6996E+02	-.6519E+02	-.5966E+02	-.5370E+02	-.4761E+02	-.4169E+02

SHEAR STRESSES

SXY	.7603E-07	.6061E-06	.4813E-06	.5860E-06	-.1030E-05	.5040E-06	-.4724E-06	.6560E-06	-.8437E-06
SXZ	-.6927E+01	-.1193E+02	-.1669E+02	-.2096E+02	-.2454E+02	-.2734E+02	-.2931E+02	-.3047E+02	-.3087E+02
SYZ	.2837E-07	-.1594E-06	.0000E+00	-.1594E-06	.2837E-07	-.1210E-07	.1389E-06	-.2135E-06	.5727E-07

PRINCIPAL STRESSES

PS 1	.5171E+03	.5106E+03	.4952E+03	.4719E+03	.4426E+03	.4089E+03	.3728E+03	.3361E+03	.3005E+03
PS 2	.5041E+03	.4968E+03	.4735E+03	.4363E+03	.3886E+03	.3341E+03	.2764E+03	.2192E+03	.1656E+03
PS 3	-.7707E+02	-.7634E+02	-.7420E+02	-.7083E+02	-.6651E+02	-.6155E+02	-.5630E+02	-.5109E+02	-.4628E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2971E+03	.2935E+03	.2847E+03	.2714E+03	.2545E+03	.2352E+03	.2145E+03	.1936E+03	.1734E+03
PSS 2	.6505E+01	.6922E+01	.1085E+02	.1779E+02	.2696E+02	.3740E+02	.4817E+02	.5843E+02	.6743E+02
PSS 3	.2906E+03	.2865E+03	.2738E+03	.2536E+03	.2276E+03	.1978E+03	.1664E+03	.1352E+03	.1059E+03

## DISPLACEMENTS

UX	.2995E-02	.3866E-02	.4706E-02	.5484E-02	.6173E-02	.6755E-02	.7220E-02	.7564E-02	.7795E-02
UY	.4591E-10	.1676E-10	.0000E+00	.1676E-10	-.7051E-10	-.3813E-10	-.1791E-10	.2192E-10	-.3180E-10
UZ	.2071E+00	.2054E+00	.2034E+00	.2010E+00	.1983E+00	.1953E+00	.1922E+00	.1888E+00	.1854E+00

## NORMAL STRAINS

EXX	.8749E-03	.8611E-03	.8136E-03	.7370E-03	.6381E-03	.5248E-03	.4054E-03	.2869E-03	.1761E-03
EYY	.9191E-03	.9086E-03	.8886E-03	.8600E-03	.8246E-03	.7837E-03	.7393E-03	.6931E-03	.6468E-03
EZZ	-.1086E-02	-.1071E-02	-.1031E-02	-.9689E-03	-.8891E-03	-.7975E-03	-.7000E-03	-.6019E-03	-.5080E-03

## SHEAR STRAINS

EXY	.5132E-12	.4091E-11	.3249E-11	.3955E-11	-.6950E-11	.3402E-11	-.3188E-11	.4428E-11	-.5695E-11
EXZ	-.4676E-04	-.8054E-04	-.1127E-03	-.1415E-03	-.1657E-03	-.1845E-03	-.1978E-03	-.2056E-03	-.2083E-03
EYZ	.1915E-12	-.1076E-11	.0000E+00	-.1076E-11	.1915E-12	-.8165E-13	.9375E-12	-.1441E-11	.3866E-12

## PRINCIPAL STRAINS

PE 1	.9191E-03	.9086E-03	.8886E-03	.8600E-03	.8246E-03	.7837E-03	.7393E-03	.6931E-03	.6468E-03
PE 2	.8751E-03	.8619E-03	.8154E-03	.7399E-03	.6425E-03	.5313E-03	.4142E-03	.2987E-03	.1916E-03
PE 3	-.1086E-02	-.1072E-02	-.1033E-02	-.9718E-03	-.8936E-03	-.8039E-03	-.7088E-03	-.6136E-03	-.5235E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2005E-02	.1981E-02	.1922E-02	.1832E-02	.1718E-02	.1588E-02	.1448E-02	.1307E-02	.1170E-02
PSE 2	.4391E-04	.4672E-04	.7321E-04	.1201E-03	.1820E-03	.2525E-03	.3251E-03	.3944E-03	.4552E-03
PSE 3	.1961E-02	.1934E-02	.1848E-02	.1712E-02	.1536E-02	.1335E-02	.1123E-02	.9123E-03	.7151E-03

Z= 18.00 LAYER NO, 2



Appendix 6E-b Average HBP

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.4542E+02	.4484E+02	.4389E+02	.4258E+02	.4105E+02	.3915E+02	.3696E+02	.3455E+02	.3211E+02
SYY	.5714E+02	.5647E+02	.5559E+02	.5452E+02	.5339E+02	.5202E+02	.5046E+02	.4877E+02	.4709E+02
SZZ	-.1830E+02	-.1809E+02	-.1782E+02	-.1748E+02	-.1713E+02	-.1672E+02	-.1624E+02	-.1573E+02	-.1522E+02

SHEAR STRESSES

SXY	.1649E-07	.4575E-08	.1727E-07	.1033E-07	.2822E-07	-.2278E-07	-.1253E-07	-.1682E-07	.2676E-07
SXZ	-.2298E+01	-.2644E+01	-.2984E+01	-.3312E+01	-.3620E+01	-.3903E+01	-.4156E+01	-.4378E+01	-.4565E+01
SYZ	-.8393E-08	.4994E-08	.0000E+00	.4994E-08	-.8393E-08	.4572E-09	-.1729E-07	-.4423E-08	-.1286E-07

PRINCIPAL STRESSES

PS 1	.5714E+02	.5647E+02	.5559E+02	.5452E+02	.5339E+02	.5202E+02	.5046E+02	.4877E+02	.4709E+02
PS 2	.4551E+02	.4495E+02	.4403E+02	.4276E+02	.4127E+02	.3942E+02	.3728E+02	.3493E+02	.3255E+02
PS 3	-.1839E+02	-.1820E+02	-.1796E+02	-.1766E+02	-.1735E+02	-.1699E+02	-.1657E+02	-.1610E+02	-.1565E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3776E+02	.3733E+02	.3678E+02	.3609E+02	.3537E+02	.3450E+02	.3351E+02	.3244E+02	.3137E+02
PSS 2	.5817E+01	.5756E+01	.5779E+01	.5883E+01	.6059E+01	.6299E+01	.6590E+01	.6918E+01	.7272E+01
PSS 3	.3195E+02	.3158E+02	.3100E+02	.3021E+02	.2931E+02	.2820E+02	.2692E+02	.2552E+02	.2410E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.1412E-01	.1517E-01	.1621E-01	.1721E-01	.1819E-01	.1912E-01	.1998E-01	.2078E-01	.2152E-01
UY	-.5172E-10	.1375E-10	.0000E+00	.1375E-10	.6469E-10	-.6500E-10	-.4885E-11	.3092E-10	.1350E-10
UZ	.1849E+00	.1835E+00	.1820E+00	.1803E+00	.1785E+00	.1766E+00	.1746E+00	.1725E+00	.1703E+00

## NORMAL STRAINS

EXX	.1061E-02	.1047E-02	.1022E-02	.9871E-03	.9453E-03	.8931E-03	.8327E-03	.7663E-03	.6985E-03
EYY	.1588E-02	.1570E-02	.1549E-02	.1525E-02	.1501E-02	.1472E-02	.1440E-02	.1406E-02	.1373E-02
EZZ	-.1807E-02	-.1785E-02	-.1754E-02	-.1716E-02	-.1673E-02	-.1621E-02	-.1561E-02	-.1496E-02	-.1431E-02

## SHEAR STRAINS

EXY	.1484E-11	.4118E-12	.1554E-11	.9293E-12	.2539E-11	-.2050E-11	-.1128E-11	-.1514E-11	.2409E-11
EXZ	-.2068E-03	-.2379E-03	-.2686E-03	-.2981E-03	-.3258E-03	-.3513E-03	-.3741E-03	-.3940E-03	-.4108E-03
EYZ	-.7553E-12	.4495E-12	.0000E+00	.4495E-12	-.7553E-12	.4115E-13	-.1556E-11	-.3981E-12	-.1158E-11

## PRINCIPAL STRAINS

PE 1	.1588E-02	.1570E-02	.1549E-02	.1525E-02	.1501E-02	.1472E-02	.1440E-02	.1406E-02	.1373E-02
PE 2	.1065E-02	.1052E-02	.1029E-02	.9952E-03	.9554E-03	.9053E-03	.8473E-03	.7833E-03	.7182E-03
PE 3	-.1810E-02	-.1790E-02	-.1761E-02	-.1724E-02	-.1683E-02	-.1633E-02	-.1576E-02	-.1513E-02	-.1451E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3399E-02	.3360E-02	.3310E-02	.3248E-02	.3184E-02	.3105E-02	.3016E-02	.2919E-02	.2824E-02
PSE 2	.5236E-03	.5180E-03	.5201E-03	.5295E-03	.5454E-03	.5669E-03	.5931E-03	.6226E-03	.6545E-03
PSE 3	.2875E-02	.2842E-02	.2790E-02	.2719E-02	.2638E-02	.2538E-02	.2423E-02	.2297E-02	.2169E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 6100.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.64 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-b Average HBP

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1433E+03	.1445E+03	.1394E+03	.1306E+03	.1212E+03	.1154E+03	.1175E+03	.1309E+03	.1582E+03
SYX	.2578E+03	.2683E+03	.2765E+03	.2837E+03	.2915E+03	.3012E+03	.3148E+03	.3333E+03	.3575E+03
SZZ	-.3384E+02	-.3519E+02	-.3614E+02	-.3689E+02	-.3771E+02	-.3889E+02	-.4073E+02	-.4347E+02	-.4725E+02

SHEAR STRESSES

SXY	.3587E-06	.3589E-07	.3953E-06	-.1679E-07	.5780E-07	-.8412E-06	-.7725E-06	.9067E-06	-.3386E-06
SXZ	.2049E+02	.1955E+02	.1885E+02	.1851E+02	.1866E+02	.1927E+02	.2028E+02	.2152E+02	.2275E+02
SYZ	-.1316E-07	.6304E-07	.1482E-06	-.4096E-07	-.1532E-07	.1891E-06	-.1390E-06	.7299E-07	.1888E-06

PRINCIPAL STRESSES

PS 1	.2578E+03	.2683E+03	.2765E+03	.2837E+03	.2915E+03	.3012E+03	.3148E+03	.3333E+03	.3575E+03
PS 2	.1456E+03	.1466E+03	.1414E+03	.1326E+03	.1234E+03	.1178E+03	.1201E+03	.1335E+03	.1607E+03

## Appendix 6E-b Average HBP

PS 3    -.3618E+02   -.3729E+02   -.3814E+02   -.3892E+02   -.3987E+02   -.4126E+02   -.4329E+02   -.4609E+02   -.4974E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1470E+03    .1528E+03    .1573E+03    .1613E+03    .1657E+03    .1713E+03    .1790E+03    .1897E+03    .2036E+03  
PSS 2    .5611E+02    .6086E+02    .6755E+02    .7557E+02    .8403E+02    .9172E+02    .9734E+02    .9986E+02    .9844E+02  
PSS 3    .9090E+02    .9195E+02    .8977E+02    .8575E+02    .8163E+02    .7953E+02    .8169E+02    .8981E+02    .1052E+03

## DISPLACEMENTS

UX        -.5684E-02   -.5523E-02   -.5374E-02   -.5248E-02   -.5152E-02   -.5082E-02   -.5028E-02   -.4968E-02   -.4874E-02  
UY        -.1915E-10   -.3858E-12   .7763E-11   -.2062E-10   .5653E-10   .2482E-10   .4236E-10   -.3361E-10   -.1716E-10  
UZ        .1457E+00    .1480E+00    .1503E+00    .1523E+00    .1543E+00    .1563E+00    .1584E+00    .1604E+00    .1624E+00

## NORMAL STRAINS

EXX        .1622E-03    .1573E-03    .1382E-03    .1104E-03    .8103E-04    .5904E-04    .5403E-04    .7375E-04    .1239E-03  
EYY        .5489E-03    .5752E-03    .6009E-03    .6274E-03    .6556E-03    .6861E-03    .7197E-03    .7566E-03    .7968E-03  
EZZ        -.4356E-03   -.4492E-03   -.4542E-03   -.4547E-03   -.4554E-03   -.4618E-03   -.4801E-03   -.5148E-03   -.5694E-03

## SHEAR STRAINS

EXY        .2421E-11    .2423E-12    .2669E-11   -.1133E-12    .3901E-12   -.5678E-11   -.5215E-11    .6120E-11   -.2285E-11  
EXZ        .1383E-03    .1320E-03    .1272E-03    .1250E-03    .1259E-03    .1301E-03    .1369E-03    .1452E-03    .1536E-03  
EYZ        -.8883E-13   .4255E-12    .1000E-11   -.2765E-12   -.1034E-12   .1277E-11   -.9380E-12   .4927E-12    .1275E-11

## PRINCIPAL STRAINS

PE 1        .5489E-03    .5752E-03    .6009E-03    .6274E-03    .6556E-03    .6861E-03    .7197E-03    .7566E-03    .7968E-03  
PE 2        .1701E-03    .1643E-03    .1449E-03    .1173E-03    .8832E-04    .6704E-04    .6267E-04    .8258E-04    .1323E-03  
PE 3        -.4435E-03   -.4563E-03   -.4610E-03   -.4616E-03   -.4627E-03   -.4698E-03   -.4887E-03   -.5237E-03   -.5778E-03

## PRINCIPAL SHEAR STRAINS

PSE 1        .9923E-03    .1031E-02    .1062E-02    .1089E-02    .1118E-02    .1156E-02    .1208E-02    .1280E-02    .1375E-02  
PSE 2        .3788E-03    .4108E-03    .4559E-03    .5101E-03    .5672E-03    .6191E-03    .6571E-03    .6741E-03    .6645E-03  
PSE 3        .6136E-03    .6206E-03    .6059E-03    .5788E-03    .5510E-03    .5369E-03    .5514E-03    .6062E-03    .7101E-03

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

## NORMAL STRESSES

SXX	.2860E+02	.3076E+02	.3295E+02	.3529E+02	.3770E+02	.4009E+02	.4243E+02	.4471E+02	.4691E+02
SYZ	.4110E+02	.4270E+02	.4429E+02	.4600E+02	.4774E+02	.4941E+02	.5099E+02	.5247E+02	.5386E+02
SZZ	-.1308E+02	-.1356E+02	-.1404E+02	-.1451E+02	-.1500E+02	-.1548E+02	-.1595E+02	-.1639E+02	-.1679E+02

## SHEAR STRESSES

SXY	.4438E-07	.6870E-07	.3564E-07	-.2238E-07	.3041E-07	-.3552E-07	.6876E-08	-.1108E-07	-.1926E-08
SXZ	.3902E+01	.3808E+01	.3697E+01	.3568E+01	.3418E+01	.3247E+01	.3054E+01	.2834E+01	.2586E+01
SYZ	.2795E-08	-.1170E-07	.5277E-08	.1467E-07	-.2640E-08	-.3610E-08	.4962E-08	.1587E-07	-.7430E-08

## PRINCIPAL STRESSES

PS 1	.4110E+02	.4270E+02	.4429E+02	.4600E+02	.4774E+02	.4941E+02	.5099E+02	.5247E+02	.5386E+02
PS 2	.2896E+02	.3108E+02	.3324E+02	.3554E+02	.3793E+02	.4028E+02	.4259E+02	.4484E+02	.4702E+02
PS 3	-.1345E+02	-.1389E+02	-.1433E+02	-.1477E+02	-.1522E+02	-.1567E+02	-.1611E+02	-.1652E+02	-.1690E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2727E+02	.2829E+02	.2931E+02	.3038E+02	.3148E+02	.3254E+02	.3355E+02	.3450E+02	.3538E+02
PSS 2	.6070E+01	.5807E+01	.5527E+01	.5228E+01	.4908E+01	.4565E+01	.4200E+01	.3817E+01	.3419E+01
PSS 3	.2120E+02	.2249E+02	.2378E+02	.2516E+02	.2657E+02	.2798E+02	.2935E+02	.3068E+02	.3196E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.1522E-01	-.1456E-01	-.1385E-01	-.1307E-01	-.1222E-01	-.1130E-01	-.1033E-01	-.9294E-02	-.8197E-02
UY	-.6781E-10	-.7563E-11	-.1635E-10	.4308E-11	-.3081E-10	.9109E-10	.4698E-10	-.9180E-10	.1035E-09
UZ	.1331E+00	.1348E+00	.1366E+00	.1380E+00	.1394E+00	.1407E+00	.1421E+00	.1433E+00	.1444E+00

## NORMAL STRAINS

EXX	.6264E-03	.6854E-03	.7453E-03	.8090E-03	.8749E-03	.9405E-03	.1005E-02	.1069E-02	.1131E-02
EYY	.1189E-02	.1223E-02	.1256E-02	.1291E-02	.1326E-02	.1360E-02	.1391E-02	.1419E-02	.1444E-02
EZZ	-.1249E-02	-.1309E-02	-.1369E-02	-.1432E-02	-.1497E-02	-.1560E-02	-.1621E-02	-.1680E-02	-.1735E-02

## SHEAR STRAINS

EXY	.3994E-11	.6183E-11	.3208E-11	-.2014E-11	.2737E-11	-.3196E-11	.6188E-12	-.9973E-12	-.1733E-12
EXZ	.3511E-03	.3427E-03	.3328E-03	.3211E-03	.3076E-03	.2922E-03	.2748E-03	.2551E-03	.2328E-03
EYZ	.2516E-12	-.1053E-11	.4749E-12	.1320E-11	-.2376E-12	-.3249E-12	.4466E-12	.1428E-11	-.6687E-12

## PRINCIPAL STRAINS

PE 1	.1189E-02	.1223E-02	.1256E-02	.1291E-02	.1326E-02	.1360E-02	.1391E-02	.1419E-02	.1444E-02
PE 2	.6427E-03	.7000E-03	.7583E-03	.8204E-03	.8848E-03	.9490E-03	.1013E-02	.1075E-02	.1136E-02
PE 3	-.1266E-02	-.1324E-02	-.1382E-02	-.1444E-02	-.1507E-02	-.1569E-02	-.1629E-02	-.1686E-02	-.1740E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2455E-02	.2546E-02	.2638E-02	.2734E-02	.2833E-02	.2929E-02	.3019E-02	.3105E-02	.3184E-02
PSE 2	.5463E-03	.5226E-03	.4974E-03	.4705E-03	.4417E-03	.4108E-03	.3780E-03	.3435E-03	.3077E-03
PSE 3	.1908E-02	.2024E-02	.2140E-02	.2264E-02	.2392E-02	.2518E-02	.2641E-02	.2761E-02	.2876E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 6100.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.64 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00



Appendix 6E-b Average HBP

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.2006E+03	.2580E+03	.3275E+03	.4042E+03	.4821E+03	.5544E+03	.6135E+03	.6522E+03	.6651E+03
SYX	.3879E+03	.4240E+03	.4642E+03	.5065E+03	.5481E+03	.5852E+03	.6143E+03	.6321E+03	.6365E+03
SZZ	-.5215E+02	-.5808E+02	-.6479E+02	-.7190E+02	-.7886E+02	-.8510E+02	-.9006E+02	-.9317E+02	-.9402E+02

SHEAR STRESSES

SXY	.8258E-06	.1468E-05	-.6618E-06	.8403E-06	-.3932E-06	.1441E-06	-.5316E-06	.3174E-06	-.1542E-07
SXZ	.2371E+02	.2407E+02	.2350E+02	.2176E+02	.1871E+02	.1434E+02	.8732E+01	.2133E+01	-.5037E+01
SYZ	-.4245E-06	.5403E-06	-.4430E-07	-.3128E-06	.1570E-06	.4078E-06	-.3623E-07	.8441E-08	.4971E-07

PRINCIPAL STRESSES

PS 1	.3879E+03	.4240E+03	.4642E+03	.5065E+03	.5481E+03	.5852E+03	.6143E+03	.6522E+03	.6651E+03
PS 2	.2029E+03	.2598E+03	.3289E+03	.4052E+03	.4828E+03	.5547E+03	.6136E+03	.6321E+03	.6365E+03

## Appendix 6E-b Average HBP

PS 3   -.5435E+02   -.5990E+02   -.6620E+02   -.7289E+02   -.7948E+02   -.8543E+02   -.9017E+02   -.9318E+02   -.9406E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .2211E+03   .2419E+03   .2652E+03   .2897E+03   .3138E+03   .3353E+03   .3522E+03   .3727E+03   .3796E+03  
PSS 2   .9253E+02   .8206E+02   .6768E+02   .5068E+02   .3265E+02   .1525E+02   .3467E+00   .1006E+02   .1432E+02  
PSS 3   .1286E+03   .1599E+03   .1975E+03   .2390E+03   .2811E+03   .3201E+03   .3519E+03   .3626E+03   .3653E+03

## DISPLACEMENTS

UX     -.4712E-02   -.4449E-02   -.4051E-02   -.3501E-02   -.2787E-02   -.1913E-02   -.8947E-03   .2294E-03   .1409E-02  
UY     -.9672E-12   -.5479E-10   -.1416E-10   .4672E-10   -.6416E-10   -.1490E-10   .7093E-10   .3739E-10   .2900E-10  
UZ     .1644E+00   .1664E+00   .1685E+00   .1704E+00   .1720E+00   .1731E+00   .1741E+00   .1747E+00   .1746E+00

## NORMAL STRAINS

EXX     .2078E-03   .3249E-03   .4691E-03   .6301E-03   .7948E-03   .9484E-03   .1075E-02   .1159E-02   .1188E-02  
EYY     .8398E-03   .8849E-03   .9307E-03   .9756E-03   .1017E-02   .1052E-02   .1078E-02   .1091E-02   .1092E-02  
EZZ     -.6454E-03   -.7419E-03   -.8547E-03   -.9766E-03   -.1099E-02   -.1210E-02   -.1299E-02   -.1357E-02   -.1374E-02

## SHEAR STRAINS

EXY     .5574E-11   .9906E-11   -.4467E-11   .5672E-11   -.2654E-11   .9728E-12   -.3589E-11   .2142E-11   -.1041E-12  
EXZ     .1600E-03   .1625E-03   .1586E-03   .1469E-03   .1263E-03   .9677E-04   .5894E-04   .1440E-04   -.3400E-04  
EYZ     -.2866E-11   .3647E-11   -.2990E-12   -.2111E-11   .1060E-11   .2752E-11   -.2445E-12   .5698E-13   .3355E-12

## PRINCIPAL STRAINS

PE 1     .8398E-03   .8849E-03   .9307E-03   .9756E-03   .1017E-02   .1052E-02   .1078E-02   .1159E-02   .1188E-02  
PE 2     .2153E-03   .3310E-03   .4739E-03   .6335E-03   .7969E-03   .9495E-03   .1075E-02   .1091E-02   .1092E-02  
PE 3     -.6528E-03   -.7481E-03   -.8594E-03   -.9800E-03   -.1101E-02   -.1211E-02   -.1300E-02   -.1357E-02   -.1374E-02

## PRINCIPAL SHEAR STRAINS

PSE 1   .1493E-02   .1633E-02   .1790E-02   .1956E-02   .2118E-02   .2264E-02   .2378E-02   .2516E-02   .2562E-02  
PSE 2   .6245E-03   .5539E-03   .4569E-03   .3421E-03   .2204E-03   .1030E-03   .2340E-05   .6790E-04   .9669E-04  
PSE 3   .8681E-03   .1079E-02   .1333E-02   .1613E-02   .1898E-02   .2161E-02   .2375E-02   .2448E-02   .2466E-02

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.4898E+02	.5082E+02	.5233E+02	.5362E+02	.5474E+02	.5554E+02	.5579E+02	.5564E+02	.5521E+02
SYZ	.5509E+02	.5611E+02	.5684E+02	.5741E+02	.5792E+02	.5823E+02	.5815E+02	.5784E+02	.5745E+02
SZZ	-.1715E+02	-.1745E+02	-.1771E+02	-.1793E+02	-.1811E+02	-.1820E+02	-.1823E+02	-.1821E+02	-.1812E+02

## SHEAR STRESSES

SXY	.3796E-07	-.5316E-07	.4441E-07	-.2861E-07	.1495E-07	.8034E-08	.7394E-08	.1176E-07	-.1070E-07
SXZ	.2307E+01	.1993E+01	.1645E+01	.1265E+01	.8558E+00	.4212E+00	-.3527E-01	-.5043E+00	-.9762E+00
SYZ	-.2134E-07	-.5877E-08	-.2852E-07	.3427E-07	.1680E-07	-.1137E-08	.4449E-08	-.1131E-07	-.6288E-08

## PRINCIPAL STRESSES

PS 1	.5509E+02	.5611E+02	.5684E+02	.5741E+02	.5792E+02	.5823E+02	.5815E+02	.5784E+02	.5745E+02
PS 2	.4906E+02	.5088E+02	.5237E+02	.5364E+02	.5475E+02	.5554E+02	.5579E+02	.5564E+02	.5522E+02
PS 3	-.1723E+02	-.1751E+02	-.1775E+02	-.1796E+02	-.1812E+02	-.1821E+02	-.1823E+02	-.1821E+02	-.1814E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.3616E+02	.3681E+02	.3729E+02	.3768E+02	.3802E+02	.3822E+02	.3819E+02	.3803E+02	.3779E+02
PSS 2	.3015E+01	.2617E+01	.2235E+01	.1886E+01	.1584E+01	.1344E+01	.1180E+01	.1102E+01	.1117E+01
PSS 3	.3314E+02	.3419E+02	.3506E+02	.3580E+02	.3643E+02	.3687E+02	.3701E+02	.3692E+02	.3668E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.7033E-02	-.5801E-02	-.4507E-02	-.3176E-02	-.1815E-02	-.4192E-03	.1005E-02	.2423E-02	.3818E-02
UY	.4243E-10	.2494E-10	-.5929E-10	.5841E-10	.3967E-10	-.1640E-10	.5149E-11	.4837E-10	.3642E-11
UZ	.1453E+00	.1462E+00	.1472E+00	.1482E+00	.1487E+00	.1489E+00	.1493E+00	.1496E+00	.1494E+00

## NORMAL STRAINS

EXX	.1190E-02	.1243E-02	.1288E-02	.1327E-02	.1360E-02	.1384E-02	.1394E-02	.1392E-02	.1381E-02
EYY	.1465E-02	.1481E-02	.1491E-02	.1497E-02	.1503E-02	.1505E-02	.1500E-02	.1491E-02	.1482E-02
EZZ	-.1786E-02	-.1829E-02	-.1864E-02	-.1893E-02	-.1918E-02	-.1934E-02	-.1937E-02	-.1931E-02	-.1918E-02

## SHEAR STRAINS

EXY	.3416E-11	-.4785E-11	.3997E-11	-.2575E-11	.1346E-11	.7231E-12	.6655E-12	.1058E-11	-.9626E-12
EXZ	.2076E-03	.1794E-03	.1481E-03	.1138E-03	.7703E-04	.3791E-04	-.3174E-05	-.4539E-04	-.8786E-04
EYZ	-.1921E-11	-.5289E-12	-.2567E-11	.3084E-11	.1512E-11	-.1023E-12	.4004E-12	-.1018E-11	-.5659E-12

## PRINCIPAL STRAINS

PE 1	.1465E-02	.1481E-02	.1491E-02	.1497E-02	.1503E-02	.1505E-02	.1500E-02	.1491E-02	.1482E-02
PE 2	.1194E-02	.1246E-02	.1290E-02	.1328E-02	.1361E-02	.1384E-02	.1394E-02	.1392E-02	.1382E-02
PE 3	-.1789E-02	-.1832E-02	-.1866E-02	-.1894E-02	-.1918E-02	-.1934E-02	-.1937E-02	-.1931E-02	-.1919E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3254E-02	.3313E-02	.3356E-02	.3392E-02	.3422E-02	.3439E-02	.3437E-02	.3422E-02	.3402E-02
PSE 2	.2714E-03	.2355E-03	.2012E-03	.1697E-03	.1426E-03	.1210E-03	.1062E-03	.9915E-04	.1005E-03
PSE 3	.2983E-02	.3077E-02	.3155E-02	.3222E-02	.3279E-02	.3318E-02	.3331E-02	.3323E-02	.3301E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 6100.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.64 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-b Average HBP

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Z= 6.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.6500E+03	.6088E+03
SYY	.6266E+03	.6032E+03
SZZ	-.9243E+02	-.8856E+02

## SHEAR STRESSES

SXY	-.2124E-06	.5316E-06
SXZ	-.1221E+02	-.1885E+02
SYZ	-.4108E-06	.0000E+00

## PRINCIPAL STRESSES

PS 1	.6502E+03	.6093E+03
PS 2	.6266E+03	.6032E+03
PS 3	-.9263E+02	-.8907E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.3714E+03	.3492E+03
PSS 2	.1179E+02	.3077E+01
PSS 3	.3596E+03	.3461E+03

## DISPLACEMENTS

UX	.2588E-02	.3710E-02
UY	-.5742E-10	.0000E+00
UZ	.1735E+00	.1717E+00

Appendix 6E-b Average HBP

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## NORMAL STRAINS

EXX	.1158E-02	.1072E-02
EYY	.1079E-02	.1053E-02
EZZ	-.1348E-02	-.1282E-02

## SHEAR STRAINS

EXY	-.1434E-11	.3589E-11
EXZ	-.8245E-04	-.1272E-03
EYZ	-.2773E-11	.0000E+00

## PRINCIPAL STRAINS

PE 1	.1158E-02	.1073E-02
PE 2	.1079E-02	.1053E-02
PE 3	-.1349E-02	-.1284E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2507E-02	.2357E-02
PSE 2	.7958E-04	.2077E-04
PSE 3	.2427E-02	.2336E-02

Z= 18.00 LAYER NO, 2

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.5457E+02	.5365E+02
SYY	.5705E+02	.5657E+02
SZZ	-.1797E+02	-.1775E+02

Appendix 6E-b Average HBP

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## SHEAR STRESSES

SXY -.3294E-07 .7507E-08  
SXZ -.1444E+01 -.1901E+01  
SYZ -.4879E-08 .0000E+00

## PRINCIPAL STRESSES

PS 1 .5705E+02 .5657E+02  
PS 2 .5460E+02 .5370E+02  
PS 3 -.1800E+02 -.1781E+02

## PRINCIPAL SHEAR STRESSES

PSS 1 .3752E+02 .3719E+02  
PSS 2 .1228E+01 .1433E+01  
PSS 3 .3630E+02 .3575E+02

## DISPLACEMENTS

UX .5198E-02 .6572E-02  
UY .9059E-11 .0000E+00  
UZ .1487E+00 .1475E+00

## NORMAL STRAINS

EXX .1363E-02 .1336E-02  
EYY .1475E-02 .1467E-02  
EZZ -.1901E-02 -.1878E-02

## SHEAR STRAINS

EXY -.2964E-11 .6756E-12  
EXZ -.1300E-03 -.1711E-03  
EYZ -.4392E-12 .0000E+00

## PRINCIPAL STRAINS



Appendix 6E-b Average HBP

PE 1 .1475E-02 .1467E-02  
 PE 2 .1364E-02 .1338E-02  
 PE 3 -.1902E-02 -.1880E-02

PRINCIPAL SHEAR STRAINS  
 PSE 1 .3377E-02 .3347E-02  
 PSE 2 .1105E-03 .1290E-03  
 PSE 3 .3267E-02 .3218E-02

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Appendix 6E-b Average HBP

Z= 6.00 18.00  
X-Y POINT(S)  
X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

NORMAL STRESSES

SXX	.4911E+03	.5147E+03	.5221E+03	.5127E+03	.4873E+03	.4477E+03	.3970E+03	.3390E+03	.2775E+03
SYX	.5165E+03	.5321E+03	.5387E+03	.5359E+03	.5241E+03	.5043E+03	.4783E+03	.4479E+03	.4150E+03
SZZ	-.7683E+02	-.7926E+02	-.8018E+02	-.7952E+02	-.7734E+02	-.7382E+02	-.6923E+02	-.6387E+02	-.5807E+02

SHEAR STRESSES

SXY	.3911E-06	-.1073E-07	-.1094E-07	.1307E-06	-.3954E-06	-.1346E-06	-.3626E-07	.1031E-05	-.6173E-06
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## Appendix 6E-b Average HBP

SXZ	.1731E+02	.1242E+02	.7288E+01	.2186E+01	-.2626E+01	-.6902E+01	-.1044E+02	-.1313E+02	-.1492E+02
SYZ	-.6719E-07	-.1059E-06	.1512E-06	-.1756E-06	-.8845E-08	-.1839E-06	-.3220E-06	-.1221E-06	-.6432E-07

## PRINCIPAL STRESSES

PS 1	.5165E+03	.5321E+03	.5387E+03	.5359E+03	.5241E+03	.5043E+03	.4783E+03	.4479E+03	.4150E+03
PS 2	.4916E+03	.5149E+03	.5221E+03	.5127E+03	.4873E+03	.4478E+03	.3972E+03	.3395E+03	.2782E+03
PS 3	-.7736E+02	-.7952E+02	-.8026E+02	-.7952E+02	-.7736E+02	-.7391E+02	-.6946E+02	-.6430E+02	-.5873E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2969E+03	.3058E+03	.3095E+03	.3077E+03	.3007E+03	.2891E+03	.2739E+03	.2561E+03	.2369E+03
PSS 2	.1241E+02	.8601E+01	.8288E+01	.1159E+02	.1838E+02	.2826E+02	.4053E+02	.5421E+02	.6842E+02
PSS 3	.2845E+03	.2972E+03	.3012E+03	.2961E+03	.2823E+03	.2609E+03	.2334E+03	.2019E+03	.1685E+03

## DISPLACEMENTS

UX	-.4919E-02	-.4050E-02	-.3150E-02	-.2253E-02	-.1396E-02	-.6085E-03	.8210E-04	.6557E-03	.1102E-02
UY	-.2005E-10	.8199E-11	.7347E-11	.4808E-10	.2101E-11	.4701E-10	.1311E-10	.9168E-11	-.2218E-10
UZ	.2137E+00	.2158E+00	.2176E+00	.2189E+00	.2198E+00	.2204E+00	.2207E+00	.2207E+00	.2205E+00

## NORMAL STRAINS

EXX	.8431E-03	.8904E-03	.9039E-03	.8825E-03	.8274E-03	.7426E-03	.6346E-03	.5116E-03	.3815E-03
EYY	.9287E-03	.9493E-03	.9602E-03	.9607E-03	.9515E-03	.9336E-03	.9089E-03	.8789E-03	.8456E-03
EZZ	-.1074E-02	-.1114E-02	-.1129E-02	-.1116E-02	-.1078E-02	-.1018E-02	-.9390E-03	-.8482E-03	-.7512E-03

## SHEAR STRAINS

EXY	.2640E-11	-.7243E-13	-.7383E-13	.8821E-12	-.2669E-11	-.9087E-12	-.2447E-12	.6959E-11	-.4167E-11
EXZ	.1168E-03	.8381E-04	.4919E-04	.1475E-04	-.1772E-04	-.4659E-04	-.7047E-04	-.8862E-04	-.1007E-03
EYZ	-.4536E-12	-.7147E-12	.1020E-11	-.1185E-11	-.5970E-13	-.1241E-11	-.2173E-11	-.8239E-12	-.4342E-12

## PRINCIPAL STRAINS

PE 1	.9287E-03	.9493E-03	.9602E-03	.9607E-03	.9515E-03	.9336E-03	.9089E-03	.8789E-03	.8456E-03
PE 2	.8449E-03	.8913E-03	.9042E-03	.8825E-03	.8274E-03	.7429E-03	.6354E-03	.5130E-03	.3838E-03
PE 3	-.1075E-02	-.1115E-02	-.1129E-02	-.1116E-02	-.1078E-02	-.1018E-02	-.9397E-03	-.8497E-03	-.7534E-03

Appendix 6E-b Average HBP

PRINCIPAL SHEAR STRAINS

PSE 1	.2004E-02	.2064E-02	.2089E-02	.2077E-02	.2030E-02	.1952E-02	.1849E-02	.1729E-02	.1599E-02
PSE 2	.8378E-04	.5806E-04	.5594E-04	.7820E-04	.1241E-03	.1908E-03	.2736E-03	.3659E-03	.4618E-03
PSE 3	.1920E-02	.2006E-02	.2033E-02	.1999E-02	.1906E-02	.1761E-02	.1575E-02	.1363E-02	.1137E-02

Z= 18.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.4606E+02	.4706E+02	.4767E+02	.4789E+02	.4773E+02	.4722E+02	.4648E+02	.4542E+02	.4410E+02
SYX	.5836E+02	.5928E+02	.5999E+02	.6049E+02	.6079E+02	.6091E+02	.6093E+02	.6075E+02	.6040E+02
SZZ	-.1872E+02	-.1901E+02	-.1923E+02	-.1939E+02	-.1948E+02	-.1952E+02	-.1953E+02	-.1949E+02	-.1940E+02

SHEAR STRESSES

SXY	.6803E-08	-.8588E-09	.1344E-07	-.1852E-07	-.2446E-07	.4911E-07	.2942E-07	-.1305E-07	.9475E-08
SXZ	.3132E+01	.2777E+01	.2416E+01	.2058E+01	.1709E+01	.1377E+01	.1069E+01	.7913E+00	.5469E+00
SYZ	.4664E-08	.2202E-07	-.1118E-07	-.2797E-07	-.1532E-08	.5771E-08	-.4851E-08	.1956E-07	.1499E-08

PRINCIPAL STRESSES

PS 1	.5836E+02	.5928E+02	.5999E+02	.6049E+02	.6079E+02	.6091E+02	.6093E+02	.6075E+02	.6040E+02
PS 2	.4621E+02	.4717E+02	.4775E+02	.4795E+02	.4777E+02	.4725E+02	.4650E+02	.4543E+02	.4410E+02

## Appendix 6E-b Average HBP

PS 3    -.1887E+02   -.1912E+02   -.1932E+02   -.1945E+02   -.1953E+02   -.1955E+02   -.1955E+02   -.1950E+02   -.1940E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .3862E+02    .3920E+02    .3965E+02    .3997E+02    .4016E+02    .4023E+02    .4024E+02    .4013E+02    .3990E+02  
PSS 2    .6077E+01    .6053E+01    .6118E+01    .6271E+01    .6510E+01    .6828E+01    .7216E+01    .7661E+01    .8149E+01  
PSS 3    .3254E+02    .3315E+02    .3354E+02    .3370E+02    .3365E+02    .3340E+02    .3302E+02    .3246E+02    .3175E+02

## DISPLACEMENTS

UX        -.1703E-01   -.1595E-01   -.1484E-01   -.1372E-01   -.1261E-01   -.1151E-01   -.1042E-01   -.9359E-02   -.8347E-02  
UY        .5737E-12    .6295E-10    .4434E-10    -.8352E-11    .1574E-10    -.1096E-09    .3536E-10    .5210E-10    .6297E-11  
UZ        .1913E+00    .1929E+00    .1944E+00    .1957E+00    .1969E+00    .1979E+00    .1988E+00    .1997E+00    .2004E+00

## NORMAL STRAINS

EXX        .1073E-02    .1099E-02    .1113E-02    .1117E-02    .1109E-02    .1091E-02    .1066E-02    .1033E-02    .9916E-03  
EYY        .1626E-02    .1649E-02    .1668E-02    .1684E-02    .1697E-02    .1707E-02    .1717E-02    .1723E-02    .1725E-02  
EZZ        -.1842E-02   -.1874E-02   -.1897E-02   -.1911E-02   -.1916E-02   -.1912E-02   -.1904E-02   -.1888E-02   -.1866E-02

## SHEAR STRAINS

EXY        .6123E-12   -.7729E-13    .1210E-11   -.1667E-11   -.2202E-11    .4420E-11    .2648E-11   -.1175E-11    .8527E-12  
EXZ        .2819E-03    .2499E-03    .2175E-03    .1852E-03    .1538E-03    .1239E-03    .9622E-04    .7121E-04    .4922E-04  
EYZ        .4198E-12    .1981E-11   -.1006E-11   -.2517E-11   -.1379E-12    .5194E-12   -.4366E-12    .1761E-11    .1349E-12

## PRINCIPAL STRAINS

PE 1        .1626E-02    .1649E-02    .1668E-02    .1684E-02    .1697E-02    .1707E-02    .1717E-02    .1723E-02    .1725E-02  
PE 2        .1080E-02    .1104E-02    .1117E-02    .1120E-02    .1111E-02    .1092E-02    .1067E-02    .1033E-02    .9918E-03  
PE 3        -.1849E-02   -.1879E-02   -.1901E-02   -.1914E-02   -.1918E-02   -.1913E-02   -.1905E-02   -.1889E-02   -.1866E-02

## PRINCIPAL SHEAR STRAINS

PSE 1        .3476E-02    .3528E-02    .3569E-02    .3597E-02    .3614E-02    .3620E-02    .3621E-02    .3611E-02    .3591E-02  
PSE 2        .5469E-03    .5448E-03    .5506E-03    .5644E-03    .5859E-03    .6146E-03    .6495E-03    .6895E-03    .7334E-03  
PSE 3        .2929E-02    .2983E-02    .3018E-02    .3033E-02    .3029E-02    .3006E-02    .2972E-02    .2922E-02    .2858E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-b Average HBP

31.00 4.00  
32.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
24.00 4.00  
25.00 4.00  
26.00 4.00  
27.00 4.00  
28.00 4.00  
29.00 4.00  
30.00 4.00  
31.00 4.00  
32.00 4.00

NORMAL STRESSES

SXX .2161E+03 .1578E+03 .1056E+03 .6132E+02 .2568E+02 -.1691E+01 -.2205E+02 -.3659E+02 -.4632E+02  
 SYY .3816E+03 .3494E+03 .3199E+03 .2939E+03 .2721E+03 .2544E+03 .2405E+03 .2301E+03 .2228E+03  
 SZZ -.5214E+02 -.4640E+02 -.4108E+02 -.3639E+02 -.3240E+02 -.2915E+02 -.2659E+02 -.2466E+02 -.2332E+02

SHEAR STRESSES

SXY -.3454E-06 -.2777E-06 .1001E-05 -.8898E-07 .6769E-06 .1829E-06 -.4162E-06 -.6124E-06 -.2351E-06  
 SXZ -.1584E+02 -.1591E+02 -.1525E+02 -.1403E+02 -.1240E+02 -.1052E+02 -.8511E+01 -.6428E+01 -.4300E+01  
 SYZ -.8611E-08 -.1645E-06 -.8534E-07 -.7867E-07 .1595E-06 .1374E-07 .1395E-06 .2991E-07 -.9067E-08

PRINCIPAL STRESSES

PS 1 .3816E+03 .3494E+03 .3199E+03 .2939E+03 .2721E+03 .2544E+03 .2405E+03 .2301E+03 .2228E+03  
 PS 2 .2170E+03 .1590E+03 .1072E+03 .6329E+02 .2822E+02 .1879E+01 -.1551E+02 -.2185E+02 -.2254E+02  
 PS 3 -.5307E+02 -.4763E+02 -.4265E+02 -.3836E+02 -.3494E+02 -.3272E+02 -.3313E+02 -.3939E+02 -.4710E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.2174E+03	.1985E+03	.1813E+03	.1661E+03	.1535E+03	.1436E+03	.1368E+03	.1347E+03	.1349E+03
PSS 2	.8232E+02	.9520E+02	.1063E+03	.1153E+03	.1219E+03	.1263E+03	.1280E+03	.1260E+03	.1227E+03
PSS 3	.1350E+03	.1033E+03	.7491E+02	.5083E+02	.3158E+02	.1730E+02	.8808E+01	.8769E+01	.1228E+02

## DISPLACEMENTS

UX	.1417E-02	.1606E-02	.1679E-02	.1650E-02	.1538E-02	.1363E-02	.1139E-02	.8813E-03	.5997E-03
UY	.5156E-11	.2568E-10	.8095E-11	-.2341E-10	.5674E-11	.7911E-11	.1427E-10	-.1675E-10	-.2312E-11
UZ	.2202E+00	.2197E+00	.2193E+00	.2188E+00	.2183E+00	.2178E+00	.2174E+00	.2171E+00	.2168E+00

## NORMAL STRAINS

EXX	.2519E-03	.1294E-03	.2005E-04	-.7204E-04	-.1455E-03	-.2013E-03	-.2423E-03	-.2712E-03	-.2903E-03
EYY	.8107E-03	.7761E-03	.7432E-03	.7130E-03	.6861E-03	.6630E-03	.6438E-03	.6288E-03	.6179E-03
EZZ	-.6533E-03	-.5598E-03	-.4750E-03	-.4018E-03	-.3416E-03	-.2940E-03	-.2576E-03	-.2309E-03	-.2127E-03

## SHEAR STRAINS

EXY	-.2332E-11	-.1874E-11	.6755E-11	-.6006E-12	.4569E-11	.1234E-11	-.2809E-11	-.4134E-11	-.1587E-11
EXZ	-.1069E-03	-.1074E-03	-.1030E-03	-.9467E-04	-.8368E-04	-.7104E-04	-.5745E-04	-.4339E-04	-.2902E-04
EYZ	-.5813E-13	-.1111E-11	-.5760E-12	-.5310E-12	.1077E-11	.9276E-13	.9419E-12	.2019E-12	-.6120E-13

## PRINCIPAL STRAINS

PE 1	.8107E-03	.7761E-03	.7432E-03	.7130E-03	.6861E-03	.6630E-03	.6438E-03	.6288E-03	.6179E-03
PE 2	.2550E-03	.1335E-03	.2535E-04	-.6538E-04	-.1370E-03	-.1893E-03	-.2202E-03	-.2215E-03	-.2101E-03
PE 3	-.6565E-03	-.5640E-03	-.4803E-03	-.4085E-03	-.3501E-03	-.3060E-03	-.2797E-03	-.2807E-03	-.2930E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1467E-02	.1340E-02	.1223E-02	.1121E-02	.1036E-02	.9690E-03	.9235E-03	.9094E-03	.9109E-03
PSE 2	.5557E-03	.6426E-03	.7179E-03	.7783E-03	.8230E-03	.8522E-03	.8640E-03	.8502E-03	.8280E-03
PSE 3	.9115E-03	.6975E-03	.5056E-03	.3431E-03	.2132E-03	.1168E-03	.5946E-04	.5919E-04	.8288E-04

Z= 18.00 LAYER NO, 2



Appendix 6E-b Average HBP

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.4261E+02	.4111E+02	.3954E+02	.3797E+02	.3647E+02	.3512E+02	.3395E+02	.3301E+02	.3232E+02
SYY	.5994E+02	.5949E+02	.5896E+02	.5837E+02	.5780E+02	.5727E+02	.5680E+02	.5643E+02	.5615E+02
SZZ	-.1927E+02	-.1914E+02	-.1899E+02	-.1883E+02	-.1866E+02	-.1851E+02	-.1836E+02	-.1825E+02	-.1816E+02

SHEAR STRESSES

SXY	-.1571E-07	-.2626E-07	-.9155E-09	.1703E-07	-.7980E-08	-.6238E-08	.2701E-07	-.3586E-07	-.3887E-07
SXZ	.3384E+00	.1681E+00	.3638E-01	-.5864E-01	-.1196E+00	-.1498E+00	-.1534E+00	-.1349E+00	-.9951E-01
SYZ	.5916E-08	.1725E-09	.1358E-07	.9770E-08	.3919E-08	.1444E-07	-.1984E-07	.7875E-08	.1131E-07

PRINCIPAL STRESSES

PS 1	.5994E+02	.5949E+02	.5896E+02	.5837E+02	.5780E+02	.5727E+02	.5680E+02	.5643E+02	.5615E+02
PS 2	.4261E+02	.4111E+02	.3954E+02	.3797E+02	.3647E+02	.3512E+02	.3395E+02	.3301E+02	.3232E+02
PS 3	-.1927E+02	-.1914E+02	-.1899E+02	-.1883E+02	-.1866E+02	-.1851E+02	-.1837E+02	-.1825E+02	-.1816E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3960E+02	.3931E+02	.3898E+02	.3860E+02	.3823E+02	.3789E+02	.3758E+02	.3734E+02	.3716E+02
PSS 2	.8663E+01	.9188E+01	.9706E+01	.1020E+02	.1066E+02	.1107E+02	.1143E+02	.1171E+02	.1192E+02
PSS 3	.3094E+02	.3013E+02	.2927E+02	.2840E+02	.2757E+02	.2681E+02	.2616E+02	.2563E+02	.2524E+02

DISPLACEMENTS

## Appendix 6E-b Average HBP

UX	-.7382E-02	-.6452E-02	-.5575E-02	-.4751E-02	-.3976E-02	-.3245E-02	-.2550E-02	-.1885E-02	-.1244E-02
UY	.7929E-10	.3239E-10	-.1619E-10	.4267E-11	-.1006E-09	.5507E-10	.7105E-10	-.1846E-10	-.2669E-10
UZ	.2010E+00	.2015E+00	.2020E+00	.2024E+00	.2027E+00	.2029E+00	.2030E+00	.2031E+00	.2031E+00

## NORMAL STRAINS

EXX	.9458E-03	.8997E-03	.8519E-03	.8043E-03	.7592E-03	.7184E-03	.6832E-03	.6549E-03	.6341E-03
EYY	.1726E-02	.1727E-02	.1725E-02	.1723E-02	.1719E-02	.1715E-02	.1712E-02	.1709E-02	.1707E-02
EZZ	-.1839E-02	-.1812E-02	-.1782E-02	-.1752E-02	-.1722E-02	-.1695E-02	-.1671E-02	-.1652E-02	-.1638E-02

## SHEAR STRAINS

EXY	-.1414E-11	-.2364E-11	-.8240E-13	.1533E-11	-.7182E-12	-.5614E-12	.2431E-11	-.3228E-11	-.3498E-11
EXZ	.3046E-04	.1513E-04	.3274E-05	-.5278E-05	-.1076E-04	-.1348E-04	-.1380E-04	-.1214E-04	-.8956E-05
EYZ	.5325E-12	.1553E-13	.1222E-11	.8793E-12	.3527E-12	.1300E-11	-.1786E-11	.7088E-12	.1018E-11

## PRINCIPAL STRAINS

PE 1	.1726E-02	.1727E-02	.1725E-02	.1723E-02	.1719E-02	.1715E-02	.1712E-02	.1709E-02	.1707E-02
PE 2	.9459E-03	.8997E-03	.8519E-03	.8043E-03	.7592E-03	.7184E-03	.6833E-03	.6549E-03	.6342E-03
PE 3	-.1839E-02	-.1812E-02	-.1782E-02	-.1752E-02	-.1722E-02	-.1695E-02	-.1671E-02	-.1652E-02	-.1638E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3564E-02	.3538E-02	.3508E-02	.3474E-02	.3441E-02	.3410E-02	.3383E-02	.3360E-02	.3344E-02
PSE 2	.7797E-03	.8269E-03	.8736E-03	.9182E-03	.9597E-03	.9967E-03	.1028E-02	.1054E-02	.1072E-02
PSE 3	.2785E-02	.2711E-02	.2634E-02	.2556E-02	.2481E-02	.2413E-02	.2354E-02	.2307E-02	.2272E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-b Average HBP

39.00 4.00  
40.00 4.00  
41.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
33.00 4.00  
34.00 4.00  
35.00 4.00  
36.00 4.00  
37.00 4.00  
38.00 4.00  
39.00 4.00  
40.00 4.00  
41.00 4.00

NORMAL STRESSES

SXX -.5192E+02 -.5378E+02 -.5192E+02 -.4632E+02 -.3659E+02 -.2205E+02 -.1691E+01 .2568E+02 .6132E+02  
 SYY .2185E+03 .2171E+03 .2185E+03 .2228E+03 .2301E+03 .2405E+03 .2544E+03 .2721E+03 .2939E+03  
 SZZ -.2252E+02 -.2226E+02 -.2252E+02 -.2332E+02 -.2466E+02 -.2659E+02 -.2915E+02 -.3240E+02 -.3639E+02

SHEAR STRESSES

SXY .3849E-06 -.6528E-06 -.5854E-07 -.2851E-06 .3392E-06 .2635E-06 -.1456E-06 -.1689E-06 .5289E-06  
 SXZ -.2154E+01 .1060E-06 .2154E+01 .4300E+01 .6428E+01 .8511E+01 .1052E+02 .1240E+02 .1403E+02  
 SYZ .4508E-07 -.8574E-07 .6042E-08 -.2111E-07 -.8839E-07 .1648E-06 .3212E-07 -.7535E-07 .2042E-06

PRINCIPAL STRESSES

PS 1 .2185E+03 .2171E+03 .2185E+03 .2228E+03 .2301E+03 .2405E+03 .2544E+03 .2721E+03 .2939E+03  
 PS 2 -.2237E+02 -.2226E+02 -.2237E+02 -.2254E+02 -.2185E+02 -.1551E+02 .1879E+01 .2822E+02 .6329E+02  
 PS 3 -.5207E+02 -.5378E+02 -.5207E+02 -.4710E+02 -.3939E+02 -.3313E+02 -.3272E+02 -.3494E+02 -.3836E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1353E+03	.1354E+03	.1353E+03	.1349E+03	.1347E+03	.1368E+03	.1436E+03	.1535E+03	.1661E+03
PSS 2	.1204E+03	.1197E+03	.1204E+03	.1227E+03	.1260E+03	.1280E+03	.1263E+03	.1219E+03	.1153E+03
PSS 3	.1485E+02	.1576E+02	.1485E+02	.1228E+02	.8769E+01	.8808E+01	.1730E+02	.3158E+02	.5083E+02

## DISPLACEMENTS

UX	.3034E-03	.2711E-09	-.3034E-03	-.5997E-03	-.8813E-03	-.1139E-02	-.1363E-02	-.1538E-02	-.1650E-02
UY	.3532E-10	.7227E-11	-.1767E-10	-.7653E-11	.2310E-10	.1915E-10	.1252E-10	.8224E-11	-.2389E-10
UZ	.2166E+00	.2166E+00	.2166E+00	.2168E+00	.2171E+00	.2174E+00	.2178E+00	.2183E+00	.2188E+00

## NORMAL STRAINS

EXX	-.3013E-03	-.3049E-03	-.3013E-03	-.2903E-03	-.2712E-03	-.2423E-03	-.2013E-03	-.1455E-03	-.7204E-04
EYY	.6114E-03	.6092E-03	.6114E-03	.6179E-03	.6288E-03	.6438E-03	.6630E-03	.6861E-03	.7130E-03
EZZ	-.2021E-03	-.1985E-03	-.2021E-03	-.2127E-03	-.2309E-03	-.2576E-03	-.2940E-03	-.3416E-03	-.4018E-03

## SHEAR STRAINS

EXY	.2598E-11	-.4407E-11	-.3952E-12	-.1924E-11	.2289E-11	.1779E-11	-.9831E-12	-.1140E-11	.3570E-11
EXZ	-.1454E-04	.7153E-12	.1454E-04	.2902E-04	.4339E-04	.5745E-04	.7104E-04	.8368E-04	.9467E-04
EYZ	.3043E-12	-.5787E-12	.4078E-13	-.1425E-12	-.5967E-12	.1112E-11	.2168E-12	-.5086E-12	.1379E-11

## PRINCIPAL STRAINS

PE 1	.6114E-03	.6092E-03	.6114E-03	.6179E-03	.6288E-03	.6438E-03	.6630E-03	.6861E-03	.7130E-03
PE 2	-.2015E-03	-.1985E-03	-.2015E-03	-.2101E-03	-.2215E-03	-.2202E-03	-.1893E-03	-.1370E-03	-.6538E-04
PE 3	-.3018E-03	-.3049E-03	-.3018E-03	-.2930E-03	-.2807E-03	-.2797E-03	-.3060E-03	-.3501E-03	-.4085E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.9132E-03	.9141E-03	.9132E-03	.9109E-03	.9094E-03	.9235E-03	.9690E-03	.1036E-02	.1121E-02
PSE 2	.8129E-03	.8077E-03	.8129E-03	.8280E-03	.8502E-03	.8640E-03	.8522E-03	.8230E-03	.7783E-03
PSE 3	.1003E-03	.1064E-03	.1003E-03	.8288E-04	.5919E-04	.5946E-04	.1168E-03	.2132E-03	.3431E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.3190E+02	.3176E+02	.3190E+02	.3232E+02	.3301E+02	.3395E+02	.3512E+02	.3647E+02	.3797E+02
SYX	.5598E+02	.5593E+02	.5598E+02	.5615E+02	.5643E+02	.5680E+02	.5727E+02	.5780E+02	.5837E+02
SZZ	-.1811E+02	-.1809E+02	-.1811E+02	-.1816E+02	-.1825E+02	-.1836E+02	-.1851E+02	-.1866E+02	-.1883E+02

SHEAR STRESSES

SXY	-.6136E-07	.3518E-07	-.6535E-07	-.4926E-07	-.4097E-07	-.1508E-07	.1230E-07	-.2377E-07	-.1296E-07
SXZ	-.5265E-01	-.1099E-07	.5265E-01	.9951E-01	.1349E+00	.1534E+00	.1498E+00	.1196E+00	.5864E-01
SYZ	.3532E-08	-.5075E-08	.4140E-08	.9048E-08	-.9319E-08	-.2207E-08	.3099E-08	.2607E-08	-.2405E-08

PRINCIPAL STRESSES

PS 1	.5598E+02	.5593E+02	.5598E+02	.5615E+02	.5643E+02	.5680E+02	.5727E+02	.5780E+02	.5837E+02
PS 2	.3190E+02	.3176E+02	.3190E+02	.3232E+02	.3301E+02	.3395E+02	.3512E+02	.3647E+02	.3797E+02
PS 3	-.1811E+02	-.1809E+02	-.1811E+02	-.1816E+02	-.1825E+02	-.1837E+02	-.1851E+02	-.1866E+02	-.1883E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3705E+02	.3701E+02	.3705E+02	.3716E+02	.3734E+02	.3758E+02	.3789E+02	.3823E+02	.3860E+02
PSS 2	.1204E+02	.1208E+02	.1204E+02	.1192E+02	.1171E+02	.1143E+02	.1107E+02	.1066E+02	.1020E+02
PSS 3	.2500E+02	.2492E+02	.2500E+02	.2524E+02	.2563E+02	.2616E+02	.2681E+02	.2757E+02	.2840E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.6179E-03	-.2970E-10	.6179E-03	.1244E-02	.1885E-02	.2550E-02	.3245E-02	.3976E-02	.4751E-02
UY	.4710E-10	.1776E-10	.2664E-10	-.1817E-10	-.5655E-10	.5928E-10	.4751E-10	.7953E-10	-.3674E-10
UZ	.2031E+00	.2031E+00	.2031E+00	.2031E+00	.2031E+00	.2030E+00	.2029E+00	.2027E+00	.2024E+00

## NORMAL STRAINS

EXX	.6215E-03	.6172E-03	.6215E-03	.6341E-03	.6549E-03	.6832E-03	.7184E-03	.7592E-03	.8043E-03
EYY	.1705E-02	.1705E-02	.1705E-02	.1707E-02	.1709E-02	.1712E-02	.1715E-02	.1719E-02	.1723E-02
EZZ	-.1629E-02	-.1626E-02	-.1629E-02	-.1638E-02	-.1652E-02	-.1671E-02	-.1695E-02	-.1722E-02	-.1752E-02

## SHEAR STRAINS

EXY	-.5522E-11	.3166E-11	-.5882E-11	-.4433E-11	-.3688E-11	-.1357E-11	.1107E-11	-.2140E-11	-.1167E-11
EXZ	-.4739E-05	-.9895E-12	.4739E-05	.8956E-05	.1214E-04	.1380E-04	.1348E-04	.1076E-04	.5278E-05
EYZ	.3179E-12	-.4568E-12	.3726E-12	.8143E-12	-.8387E-12	-.1986E-12	.2789E-12	.2347E-12	-.2164E-12

## PRINCIPAL STRAINS

PE 1	.1705E-02	.1705E-02	.1705E-02	.1707E-02	.1709E-02	.1712E-02	.1715E-02	.1719E-02	.1723E-02
PE 2	.6215E-03	.6172E-03	.6215E-03	.6342E-03	.6549E-03	.6833E-03	.7184E-03	.7592E-03	.8043E-03
PE 3	-.1629E-02	-.1626E-02	-.1629E-02	-.1638E-02	-.1652E-02	-.1671E-02	-.1695E-02	-.1722E-02	-.1752E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3334E-02	.3331E-02	.3334E-02	.3344E-02	.3360E-02	.3383E-02	.3410E-02	.3441E-02	.3474E-02
PSE 2	.1084E-02	.1088E-02	.1084E-02	.1072E-02	.1054E-02	.1028E-02	.9967E-03	.9597E-03	.9182E-03
PSE 3	.2250E-02	.2243E-02	.2250E-02	.2272E-02	.2307E-02	.2354E-02	.2413E-02	.2481E-02	.2556E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00



Appendix 6E-b Average HBP

48.00      4.00  
49.00      4.00  
50.00      4.00

Z= 6.00 LAYER NO, 1

X            Y  
42.00      4.00  
43.00      4.00  
44.00      4.00  
45.00      4.00  
46.00      4.00  
47.00      4.00  
48.00      4.00  
49.00      4.00  
50.00      4.00

NORMAL STRESSES

SXX    .1056E+03   .1578E+03   .2161E+03   .2775E+03   .3390E+03   .3970E+03   .4477E+03   .4873E+03   .5127E+03  
SYY    .3199E+03   .3494E+03   .3816E+03   .4150E+03   .4479E+03   .4783E+03   .5043E+03   .5241E+03   .5359E+03  
SZZ    -.4108E+02   -.4640E+02   -.5214E+02   -.5807E+02   -.6387E+02   -.6923E+02   -.7382E+02   -.7734E+02   -.7952E+02

SHEAR STRESSES

SXY    -.1299E-05   -.2608E-06   -.6445E-06   .8188E-07   -.8296E-06   .2509E-06   .1819E-06   .4694E-06   -.3934E-07  
SXZ    .1525E+02   .1591E+02   .1584E+02   .1492E+02   .1313E+02   .1044E+02   .6902E+01   .2626E+01   -.2186E+01  
SYZ    -.1093E-06   -.2588E-06   -.8262E-07   -.1099E-06   -.9423E-07   .2865E-06   -.1420E-07   -.7246E-07   -.1054E-06

PRINCIPAL STRESSES

PS 1    .3199E+03   .3494E+03   .3816E+03   .4150E+03   .4479E+03   .4783E+03   .5043E+03   .5241E+03   .5359E+03  
PS 2    .1072E+03   .1590E+03   .2170E+03   .2782E+03   .3395E+03   .3972E+03   .4478E+03   .4873E+03   .5127E+03  
PS 3    -.4265E+02   -.4763E+02   -.5307E+02   -.5873E+02   -.6430E+02   -.6946E+02   -.7391E+02   -.7736E+02   -.7952E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.1813E+03	.1985E+03	.2174E+03	.2369E+03	.2561E+03	.2739E+03	.2891E+03	.3007E+03	.3077E+03
PSS 2	.1063E+03	.9520E+02	.8232E+02	.6842E+02	.5421E+02	.4053E+02	.2826E+02	.1838E+02	.1159E+02
PSS 3	.7491E+02	.1033E+03	.1350E+03	.1685E+03	.2019E+03	.2334E+03	.2609E+03	.2823E+03	.2961E+03

## DISPLACEMENTS

UX	-.1679E-02	-.1606E-02	-.1417E-02	-.1102E-02	-.6557E-03	-.8210E-04	.6085E-03	.1396E-02	.2253E-02
UY	.1523E-10	.5610E-11	.9847E-11	-.1441E-10	.1444E-10	.2240E-10	.6537E-10	-.1857E-10	.7931E-11
UZ	.2193E+00	.2197E+00	.2202E+00	.2205E+00	.2207E+00	.2207E+00	.2204E+00	.2198E+00	.2189E+00

## NORMAL STRAINS

EXX	.2005E-04	.1294E-03	.2519E-03	.3815E-03	.5116E-03	.6346E-03	.7426E-03	.8274E-03	.8825E-03
EYY	.7432E-03	.7761E-03	.8107E-03	.8456E-03	.8789E-03	.9089E-03	.9336E-03	.9515E-03	.9607E-03
EZZ	-.4750E-03	-.5598E-03	-.6533E-03	-.7512E-03	-.8482E-03	-.9390E-03	-.1018E-02	-.1078E-02	-.1116E-02

## SHEAR STRAINS

EXY	-.8769E-11	-.1760E-11	-.4351E-11	.5527E-12	-.5600E-11	.1694E-11	.1228E-11	.3168E-11	-.2655E-12
EXZ	.1030E-03	.1074E-03	.1069E-03	.1007E-03	.8862E-04	.7047E-04	.4659E-04	.1772E-04	-.1475E-04
EYZ	-.7380E-12	-.1747E-11	-.5577E-12	-.7418E-12	-.6361E-12	.1934E-11	-.9588E-13	-.4891E-12	-.7116E-12

## PRINCIPAL STRAINS

PE 1	.7432E-03	.7761E-03	.8107E-03	.8456E-03	.8789E-03	.9089E-03	.9336E-03	.9515E-03	.9607E-03
PE 2	.2535E-04	.1335E-03	.2550E-03	.3838E-03	.5130E-03	.6354E-03	.7429E-03	.8274E-03	.8825E-03
PE 3	-.4803E-03	-.5640E-03	-.6565E-03	-.7534E-03	-.8497E-03	-.9397E-03	-.1018E-02	-.1078E-02	-.1116E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.1223E-02	.1340E-02	.1467E-02	.1599E-02	.1729E-02	.1849E-02	.1952E-02	.2030E-02	.2077E-02
PSE 2	.7179E-03	.6426E-03	.5557E-03	.4618E-03	.3659E-03	.2736E-03	.1908E-03	.1241E-03	.7820E-04
PSE 3	.5056E-03	.6975E-03	.9115E-03	.1137E-02	.1363E-02	.1575E-02	.1761E-02	.1906E-02	.1999E-02

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.3954E+02	.4111E+02	.4261E+02	.4410E+02	.4542E+02	.4648E+02	.4722E+02	.4773E+02	.4789E+02
SYX	.5896E+02	.5949E+02	.5994E+02	.6040E+02	.6075E+02	.6093E+02	.6091E+02	.6079E+02	.6049E+02
SZZ	-.1899E+02	-.1914E+02	-.1927E+02	-.1940E+02	-.1949E+02	-.1953E+02	-.1952E+02	-.1948E+02	-.1939E+02

SHEAR STRESSES

SXY	-.2078E-07	-.1170E-08	.1255E-07	-.2016E-07	.1352E-07	.4589E-07	.1585E-07	-.1678E-07	-.2549E-07
SXZ	-.3638E-01	-.1681E+00	-.3384E+00	-.5469E+00	-.7913E+00	-.1069E+01	-.1377E+01	-.1709E+01	-.2058E+01
SYZ	.1452E-07	-.1217E-07	.9053E-08	.4705E-08	-.2083E-07	.5745E-09	-.2668E-08	.3424E-08	.1862E-07

PRINCIPAL STRESSES

PS 1	.5896E+02	.5949E+02	.5994E+02	.6040E+02	.6075E+02	.6093E+02	.6091E+02	.6079E+02	.6049E+02
PS 2	.3954E+02	.4111E+02	.4261E+02	.4410E+02	.4543E+02	.4650E+02	.4725E+02	.4777E+02	.4795E+02
PS 3	-.1899E+02	-.1914E+02	-.1927E+02	-.1940E+02	-.1950E+02	-.1955E+02	-.1955E+02	-.1953E+02	-.1945E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3898E+02	.3931E+02	.3960E+02	.3990E+02	.4013E+02	.4024E+02	.4023E+02	.4016E+02	.3997E+02
PSS 2	.9706E+01	.9188E+01	.8663E+01	.8149E+01	.7661E+01	.7216E+01	.6828E+01	.6510E+01	.6271E+01
PSS 3	.2927E+02	.3013E+02	.3094E+02	.3175E+02	.3246E+02	.3302E+02	.3340E+02	.3365E+02	.3370E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.5575E-02	.6452E-02	.7382E-02	.8347E-02	.9359E-02	.1042E-01	.1151E-01	.1261E-01	.1372E-01
UY	.5489E-10	.3589E-10	.5320E-10	-.4548E-10	-.1034E-09	.4077E-10	.6472E-10	-.8802E-11	.5050E-10
UZ	.2020E+00	.2015E+00	.2010E+00	.2004E+00	.1997E+00	.1988E+00	.1979E+00	.1969E+00	.1957E+00

## NORMAL STRAINS

EXX	.8519E-03	.8997E-03	.9458E-03	.9916E-03	.1033E-02	.1066E-02	.1091E-02	.1109E-02	.1117E-02
EYY	.1725E-02	.1727E-02	.1726E-02	.1725E-02	.1723E-02	.1717E-02	.1707E-02	.1697E-02	.1684E-02
EZZ	-.1782E-02	-.1812E-02	-.1839E-02	-.1866E-02	-.1888E-02	-.1904E-02	-.1912E-02	-.1916E-02	-.1911E-02

## SHEAR STRAINS

EXY	-.1870E-11	-.1053E-12	.1129E-11	-.1814E-11	.1217E-11	.4130E-11	.1427E-11	-.1510E-11	-.2294E-11
EXZ	-.3274E-05	-.1513E-04	-.3046E-04	-.4922E-04	-.7121E-04	-.9622E-04	-.1239E-03	-.1538E-03	-.1852E-03
EYZ	.1307E-11	-.1095E-11	.8148E-12	.4234E-12	-.1874E-11	.5170E-13	-.2401E-12	.3082E-12	.1676E-11

## PRINCIPAL STRAINS

PE 1	.1725E-02	.1727E-02	.1726E-02	.1725E-02	.1723E-02	.1717E-02	.1707E-02	.1697E-02	.1684E-02
PE 2	.8519E-03	.8997E-03	.9459E-03	.9918E-03	.1033E-02	.1067E-02	.1092E-02	.1111E-02	.1120E-02
PE 3	-.1782E-02	-.1812E-02	-.1839E-02	-.1866E-02	-.1889E-02	-.1905E-02	-.1913E-02	-.1918E-02	-.1914E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3508E-02	.3538E-02	.3564E-02	.3591E-02	.3611E-02	.3621E-02	.3620E-02	.3614E-02	.3597E-02
PSE 2	.8736E-03	.8269E-03	.7797E-03	.7334E-03	.6895E-03	.6495E-03	.6146E-03	.5859E-03	.5644E-03
PSE 3	.2634E-02	.2711E-02	.2785E-02	.2858E-02	.2922E-02	.2972E-02	.3006E-02	.3029E-02	.3033E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-b Average HBP

57.00 4.00  
58.00 4.00  
59.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
51.00 4.00  
52.00 4.00  
53.00 4.00  
54.00 4.00  
55.00 4.00  
56.00 4.00  
57.00 4.00  
58.00 4.00  
59.00 4.00

NORMAL STRESSES

SXX .5221E+03 .5147E+03 .4911E+03 .4534E+03 .4045E+03 .3483E+03 .2885E+03 .2285E+03 .1717E+03  
 SYY .5387E+03 .5321E+03 .5165E+03 .4928E+03 .4628E+03 .4282E+03 .3910E+03 .3531E+03 .3160E+03  
 SZZ -.8018E+02 -.7926E+02 -.7683E+02 -.7304E+02 -.6816E+02 -.6250E+02 -.5636E+02 -.5007E+02 -.4391E+02

SHEAR STRESSES

SXY .7333E-07 .1210E-06 -.4694E-06 -.1210E-06 -.7333E-07 .9930E-06 -.4694E-06 -.1819E-06 -.2509E-06  
 SXZ -.7288E+01 -.1242E+02 -.1731E+02 -.2172E+02 -.2545E+02 -.2838E+02 -.3048E+02 -.3174E+02 -.3222E+02  
 SYZ .1625E-06 -.1952E-06 .0000E+00 -.1952E-06 -.3143E-06 -.1054E-06 -.7246E-07 -.1420E-07 -.1904E-06

PRINCIPAL STRESSES

PS 1 .5387E+03 .5321E+03 .5165E+03 .4928E+03 .4628E+03 .4282E+03 .3910E+03 .3531E+03 .3160E+03  
 PS 2 .5221E+03 .5149E+03 .4916E+03 .4543E+03 .4059E+03 .3502E+03 .2911E+03 .2321E+03 .1764E+03  
 PS 3 -.8026E+02 -.7952E+02 -.7736E+02 -.7394E+02 -.6953E+02 -.6445E+02 -.5904E+02 -.5364E+02 -.4862E+02

## Appendix 6E-b Average HBP

## PRINCIPAL SHEAR STRESSES

PSS 1	.3095E+03	.3058E+03	.2969E+03	.2834E+03	.2662E+03	.2463E+03	.2250E+03	.2033E+03	.1823E+03
PSS 2	.8288E+01	.8601E+01	.1241E+02	.1927E+02	.2845E+02	.3899E+02	.4995E+02	.6048E+02	.6980E+02
PSS 3	.3012E+03	.2972E+03	.2845E+03	.2641E+03	.2377E+03	.2073E+03	.1751E+03	.1429E+03	.1125E+03

## DISPLACEMENTS

UX	.3150E-02	.4050E-02	.4919E-02	.5726E-02	.6444E-02	.7053E-02	.7542E-02	.7908E-02	.8155E-02
UY	.8029E-11	.4390E-10	.0000E+00	.4390E-10	.8029E-11	.7931E-11	-.1857E-10	.7167E-11	.2240E-10
UZ	.2176E+00	.2158E+00	.2137E+00	.2111E+00	.2083E+00	.2053E+00	.2020E+00	.1985E+00	.1949E+00

## NORMAL STRAINS

EXX	.9039E-03	.8904E-03	.8431E-03	.7661E-03	.6660E-03	.5507E-03	.4283E-03	.3062E-03	.1911E-03
EYY	.9602E-03	.9493E-03	.9287E-03	.8992E-03	.8627E-03	.8205E-03	.7745E-03	.7265E-03	.6782E-03
EZZ	-.1129E-02	-.1114E-02	-.1074E-02	-.1011E-02	-.9293E-03	-.8357E-03	-.7355E-03	-.6341E-03	-.5365E-03

## SHEAR STRAINS

EXY	.4950E-12	.8165E-12	-.3168E-11	-.8165E-12	-.4950E-12	.6703E-11	-.3168E-11	-.1228E-11	-.1694E-11
EXZ	-.4919E-04	-.8381E-04	-.1168E-03	-.1466E-03	-.1718E-03	-.1916E-03	-.2057E-03	-.2143E-03	-.2175E-03
EYZ	.1097E-11	-.1317E-11	.0000E+00	-.1317E-11	-.2122E-11	-.7116E-12	-.4891E-12	-.9588E-13	-.1285E-11

## PRINCIPAL STRAINS

PE 1	.9602E-03	.9493E-03	.9287E-03	.8992E-03	.8627E-03	.8205E-03	.7745E-03	.7265E-03	.6782E-03
PE 2	.9042E-03	.8913E-03	.8449E-03	.7691E-03	.6707E-03	.5573E-03	.4373E-03	.3183E-03	.2070E-03
PE 3	-.1129E-02	-.1115E-02	-.1075E-02	-.1014E-02	-.9339E-03	-.8423E-03	-.7445E-03	-.6461E-03	-.5524E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2089E-02	.2064E-02	.2004E-02	.1913E-02	.1797E-02	.1663E-02	.1519E-02	.1373E-02	.1231E-02
PSE 2	.5594E-04	.5805E-04	.8378E-04	.1301E-03	.1920E-03	.2632E-03	.3372E-03	.4082E-03	.4712E-03
PSE 3	.2033E-02	.2006E-02	.1920E-02	.1783E-02	.1605E-02	.1400E-02	.1182E-02	.9644E-03	.7594E-03

Z= 18.00 LAYER NO, 2

Appendix 6E-b Average HBP

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.4767E+02	.4706E+02	.4606E+02	.4469E+02	.4307E+02	.4109E+02	.3880E+02	.3629E+02	.3371E+02
SYX	.5999E+02	.5928E+02	.5836E+02	.5725E+02	.5603E+02	.5460E+02	.5297E+02	.5120E+02	.4942E+02
SZZ	-.1923E+02	-.1901E+02	-.1872E+02	-.1837E+02	-.1799E+02	-.1756E+02	-.1707E+02	-.1652E+02	-.1598E+02

SHEAR STRESSES

SXY	.1070E-07	-.1448E-08	-.1302E-07	-.1345E-07	.1910E-07	-.4310E-08	.1678E-07	-.1585E-07	.1371E-07
SXZ	-.2416E+01	-.2777E+01	-.3132E+01	-.3474E+01	-.3796E+01	-.4092E+01	-.4357E+01	-.4589E+01	-.4785E+01
SYZ	-.8952E-08	-.2283E-07	.0000E+00	.6968E-08	-.8952E-08	.1862E-07	.3424E-08	-.2668E-08	.5745E-09

PRINCIPAL STRESSES

PS 1	.5999E+02	.5928E+02	.5836E+02	.5725E+02	.5603E+02	.5460E+02	.5297E+02	.5120E+02	.4942E+02
PS 2	.4775E+02	.4717E+02	.4621E+02	.4488E+02	.4330E+02	.4137E+02	.3914E+02	.3669E+02	.3417E+02
PS 3	-.1932E+02	-.1912E+02	-.1887E+02	-.1856E+02	-.1823E+02	-.1784E+02	-.1740E+02	-.1692E+02	-.1644E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3965E+02	.3920E+02	.3862E+02	.3790E+02	.3713E+02	.3622E+02	.3519E+02	.3406E+02	.3293E+02
PSS 2	.6118E+01	.6053E+01	.6077E+01	.6183E+01	.6366E+01	.6615E+01	.6917E+01	.7258E+01	.7627E+01
PSS 3	.3354E+02	.3315E+02	.3254E+02	.3172E+02	.3076E+02	.2961E+02	.2827E+02	.2680E+02	.2530E+02



## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.1484E-01	.1595E-01	.1703E-01	.1809E-01	.1911E-01	.2009E-01	.2099E-01	.2183E-01	.2260E-01
UY	-.7803E-10	.8059E-11	.0000E+00	.8059E-11	.3839E-10	.5050E-10	-.8802E-11	.6472E-10	.4077E-10
UZ	.1944E+00	.1929E+00	.1913E+00	.1895E+00	.1876E+00	.1856E+00	.1836E+00	.1814E+00	.1790E+00

## NORMAL STRAINS

EXX	.1113E-02	.1099E-02	.1073E-02	.1036E-02	.9917E-03	.9374E-03	.8745E-03	.8051E-03	.7336E-03
EYY	.1668E-02	.1649E-02	.1626E-02	.1601E-02	.1575E-02	.1545E-02	.1512E-02	.1476E-02	.1441E-02
EZZ	-.1897E-02	-.1874E-02	-.1842E-02	-.1802E-02	-.1756E-02	-.1702E-02	-.1640E-02	-.1572E-02	-.1503E-02

## SHEAR STRAINS

EXY	.9631E-12	-.1303E-12	-.1172E-11	-.1211E-11	.1719E-11	-.3879E-12	.1510E-11	-.1427E-11	.1234E-11
EXZ	-.2175E-03	-.2499E-03	-.2819E-03	-.3127E-03	-.3417E-03	-.3683E-03	-.3922E-03	-.4131E-03	-.4307E-03
EYZ	-.8056E-12	-.2055E-11	.0000E+00	.6271E-12	-.8056E-12	.1676E-11	.3082E-12	-.2401E-12	.5170E-13

## PRINCIPAL STRAINS

PE 1	.1668E-02	.1649E-02	.1626E-02	.1601E-02	.1575E-02	.1545E-02	.1512E-02	.1476E-02	.1441E-02
PE 2	.1117E-02	.1104E-02	.1080E-02	.1045E-02	.1002E-02	.9502E-03	.8897E-03	.8229E-03	.7541E-03
PE 3	-.1901E-02	-.1879E-02	-.1849E-02	-.1810E-02	-.1766E-02	-.1714E-02	-.1655E-02	-.1589E-02	-.1523E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3569E-02	.3528E-02	.3476E-02	.3411E-02	.3342E-02	.3260E-02	.3167E-02	.3066E-02	.2964E-02
PSE 2	.5506E-03	.5448E-03	.5469E-03	.5565E-03	.5730E-03	.5953E-03	.6225E-03	.6532E-03	.6864E-03
PSE 3	.3018E-02	.2983E-02	.2929E-02	.2855E-02	.2769E-02	.2665E-02	.2544E-02	.2412E-02	.2277E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5225.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.30 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-b Average HBP

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1259E+03	.1264E+03	.1208E+03	.1114E+03	.1019E+03	.9579E+02	.9677E+02	.1076E+03	.1304E+03
SYX	.2212E+03	.2301E+03	.2369E+03	.2428E+03	.2493E+03	.2576E+03	.2692E+03	.2850E+03	.3058E+03
SZZ	-.2922E+02	-.3035E+02	-.3108E+02	-.3161E+02	-.3221E+02	-.3316E+02	-.3470E+02	-.3701E+02	-.4024E+02

SHEAR STRESSES

SXY	-.7916E-06	.3740E-07	-.3263E-07	-.2928E-06	-.4543E-06	.1853E-06	-.1739E-07	-.9407E-07	-.1148E-05
SXZ	.1757E+02	.1668E+02	.1601E+02	.1571E+02	.1586E+02	.1644E+02	.1737E+02	.1849E+02	.1963E+02
SYZ	.1131E-06	.3554E-07	-.8046E-07	.1023E-07	.8338E-07	.7517E-07	-.5962E-07	.9921E-07	.2549E-07

PRINCIPAL STRESSES

PS 1	.2212E+03	.2301E+03	.2369E+03	.2428E+03	.2493E+03	.2576E+03	.2692E+03	.2850E+03	.3058E+03
PS 2	.1278E+03	.1282E+03	.1225E+03	.1131E+03	.1037E+03	.9786E+02	.9903E+02	.1099E+03	.1327E+03

## Appendix 6E-b Average HBP

PS 3   -.3119E+02   -.3210E+02   -.3275E+02   -.3331E+02   -.3406E+02   -.3522E+02   -.3695E+02   -.3934E+02   -.4247E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1262E+03   .1311E+03   .1348E+03   .1381E+03   .1417E+03   .1464E+03   .1531E+03   .1622E+03   .1742E+03  
PSS 2   .4666E+02   .5095E+02   .5723E+02   .6486E+02   .7277E+02   .7987E+02   .8508E+02   .8756E+02   .8659E+02  
PSS 3   .7952E+02   .8014E+02   .7760E+02   .7322E+02   .6889E+02   .6654E+02   .6799E+02   .7463E+02   .8756E+02

## DISPLACEMENTS

UX     -.4879E-02   -.4733E-02   -.4600E-02   -.4491E-02   -.4411E-02   -.4358E-02   -.4320E-02   -.4279E-02   -.4210E-02  
UY     -.1798E-10   .2635E-10   -.3148E-10   -.8495E-11   .8246E-11   .2228E-10   -.7259E-11   .1816E-10   .1413E-10  
UZ     .1251E+00   .1271E+00   .1290E+00   .1306E+00   .1322E+00   .1340E+00   .1357E+00   .1375E+00   .1392E+00

## NORMAL STRAINS

EXX     .1467E-03   .1413E-03   .1219E-03   .9372E-04   .6476E-04   .4310E-04   .3675E-04   .5196E-04   .9366E-04  
EYY     .4684E-03   .4911E-03   .5138E-03   .5373E-03   .5622E-03   .5892E-03   .6187E-03   .6508E-03   .6857E-03  
EZZ     -.3767E-03   -.3878E-03   -.3907E-03   -.3890E-03   -.3878E-03   -.3921E-03   -.4070E-03   -.4361E-03   -.4823E-03

## SHEAR STRAINS

EXY     -.5343E-11   .2524E-12   -.2203E-12   -.1977E-11   -.3066E-11   .1251E-11   -.1174E-12   -.6349E-12   -.7747E-11  
EXZ     .1186E-03   .1126E-03   .1081E-03   .1060E-03   .1070E-03   .1110E-03   .1172E-03   .1248E-03   .1325E-03  
EYZ     .7635E-12   .2399E-12   -.5431E-12   .6908E-13   .5628E-12   .5074E-12   -.4024E-12   .6697E-12   .1721E-12

## PRINCIPAL STRAINS

PE 1     .4684E-03   .4911E-03   .5138E-03   .5373E-03   .5622E-03   .5892E-03   .6187E-03   .6508E-03   .6857E-03  
PE 2     .1534E-03   .1472E-03   .1275E-03   .9947E-04   .7101E-04   .5006E-04   .4436E-04   .5982E-04   .1012E-03  
PE 3     -.3834E-03   -.3937E-03   -.3963E-03   -.3948E-03   -.3940E-03   -.3991E-03   -.4146E-03   -.4439E-03   -.4899E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .8517E-03   .8849E-03   .9101E-03   .9320E-03   .9562E-03   .9883E-03   .1033E-02   .1095E-02   .1176E-02  
PSE 2   .3150E-03   .3439E-03   .3863E-03   .4378E-03   .4912E-03   .5391E-03   .5743E-03   .5910E-03   .5845E-03  
PSE 3   .5367E-03   .5409E-03   .5238E-03   .4942E-03   .4650E-03   .4491E-03   .4589E-03   .5038E-03   .5910E-03

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

## NORMAL STRESSES

SXX	.2440E+02	.2626E+02	.2819E+02	.3026E+02	.3233E+02	.3438E+02	.3639E+02	.3836E+02	.4027E+02
SYX	.3518E+02	.3656E+02	.3799E+02	.3952E+02	.4102E+02	.4245E+02	.4381E+02	.4510E+02	.4630E+02
SZZ	-.1123E+02	-.1164E+02	-.1204E+02	-.1245E+02	-.1287E+02	-.1328E+02	-.1369E+02	-.1407E+02	-.1441E+02

## SHEAR STRESSES

SXY	-.4812E-07	-.2780E-07	.1246E-07	-.3317E-07	-.4977E-08	.7117E-08	.6419E-07	-.4935E-07	-.4966E-07
SXZ	.3352E+01	.3273E+01	.3178E+01	.3067E+01	.2940E+01	.2794E+01	.2629E+01	.2442E+01	.2231E+01
SYZ	.2117E-08	.1929E-07	.1456E-07	.2030E-07	-.5985E-08	-.2935E-08	-.1066E-07	.2408E-07	-.3678E-08

## PRINCIPAL STRESSES

PS 1	.3518E+02	.3656E+02	.3799E+02	.3952E+02	.4102E+02	.4245E+02	.4381E+02	.4510E+02	.4630E+02
PS 2	.2471E+02	.2654E+02	.2844E+02	.3048E+02	.3252E+02	.3455E+02	.3653E+02	.3848E+02	.4036E+02
PS 3	-.1154E+02	-.1192E+02	-.1229E+02	-.1267E+02	-.1306E+02	-.1345E+02	-.1382E+02	-.1418E+02	-.1450E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2336E+02	.2424E+02	.2514E+02	.2609E+02	.2704E+02	.2795E+02	.2882E+02	.2964E+02	.3040E+02
PSS 2	.5233E+01	.5010E+01	.4772E+01	.4518E+01	.4246E+01	.3953E+01	.3641E+01	.3311E+01	.2968E+01
PSS 3	.1813E+02	.1923E+02	.2037E+02	.2158E+02	.2279E+02	.2400E+02	.2518E+02	.2633E+02	.2743E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.1307E-01	-.1251E-01	-.1190E-01	-.1122E-01	-.1049E-01	-.9712E-02	-.8877E-02	-.7991E-02	-.7050E-02
UY	-.3267E-10	-.2292E-10	.7112E-10	-.6536E-10	-.1898E-11	-.7801E-10	-.1517E-10	-.2990E-10	.1102E-10
UZ	.1143E+00	.1158E+00	.1172E+00	.1183E+00	.1194E+00	.1206E+00	.1218E+00	.1229E+00	.1238E+00

## NORMAL STRAINS

EXX	.5339E-03	.5845E-03	.6371E-03	.6929E-03	.7494E-03	.8058E-03	.8617E-03	.9167E-03	.9703E-03
EYY	.1019E-02	.1048E-02	.1078E-02	.1109E-02	.1140E-02	.1169E-02	.1196E-02	.1220E-02	.1242E-02
EZZ	-.1069E-02	-.1121E-02	-.1174E-02	-.1229E-02	-.1285E-02	-.1339E-02	-.1392E-02	-.1443E-02	-.1490E-02

## SHEAR STRAINS

EXY	-.4330E-11	-.2502E-11	.1122E-11	-.2985E-11	-.4479E-12	.6406E-12	.5777E-11	-.4442E-11	-.4469E-11
EXZ	.3017E-03	.2945E-03	.2860E-03	.2760E-03	.2646E-03	.2515E-03	.2366E-03	.2198E-03	.2008E-03
EYZ	.1905E-12	.1736E-11	.1310E-11	.1827E-11	-.5387E-12	-.2642E-12	-.9591E-12	.2168E-11	-.3310E-12

## PRINCIPAL STRAINS

PE 1	.1019E-02	.1048E-02	.1078E-02	.1109E-02	.1140E-02	.1169E-02	.1196E-02	.1220E-02	.1242E-02
PE 2	.5480E-03	.5971E-03	.6484E-03	.7028E-03	.7580E-03	.8132E-03	.8679E-03	.9218E-03	.9744E-03
PE 3	-.1083E-02	-.1133E-02	-.1185E-02	-.1239E-02	-.1293E-02	-.1347E-02	-.1398E-02	-.1448E-02	-.1494E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2102E-02	.2181E-02	.2263E-02	.2348E-02	.2433E-02	.2516E-02	.2594E-02	.2668E-02	.2736E-02
PSE 2	.4710E-03	.4509E-03	.4295E-03	.4066E-03	.3821E-03	.3558E-03	.3277E-03	.2980E-03	.2672E-03
PSE 3	.1631E-02	.1730E-02	.1833E-02	.1942E-02	.2051E-02	.2160E-02	.2266E-02	.2370E-02	.2469E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5225.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.30 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-b Average HBP

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.1665E+03	.2161E+03	.2771E+03	.3454E+03	.4157E+03	.4811E+03	.5347E+03	.5698E+03	.5817E+03
SYX	.3319E+03	.3630E+03	.3981E+03	.4350E+03	.4718E+03	.5047E+03	.5306E+03	.5463E+03	.5503E+03
SZZ	-.4445E+02	-.4959E+02	-.5548E+02	-.6179E+02	-.6802E+02	-.7363E+02	-.7810E+02	-.8092E+02	-.8171E+02

SHEAR STRESSES

SXY	.4117E-06	-.4511E-06	-.1242E-06	-.1006E-05	.3132E-06	-.1074E-05	-.5608E-06	.2712E-06	-.1179E-06
SXZ	.2056E+02	.2100E+02	.2064E+02	.1924E+02	.1665E+02	.1284E+02	.7905E+01	.2054E+01	-.4319E+01
SYZ	-.1388E-06	.2489E-07	.1089E-06	.2805E-06	-.2383E-06	.4719E-06	-.4047E-06	.2407E-06	-.2143E-06

PRINCIPAL STRESSES

PS 1	.3319E+03	.3630E+03	.3981E+03	.4350E+03	.4718E+03	.5047E+03	.5348E+03	.5698E+03	.5817E+03
PS 2	.1685E+03	.2177E+03	.2784E+03	.3463E+03	.4162E+03	.4814E+03	.5306E+03	.5463E+03	.5503E+03



## Appendix 6E-b Average HBP

PS 3    -.4643E+02   -.5124E+02   -.5676E+02   -.6269E+02   -.6859E+02   -.7393E+02   -.7820E+02   -.8093E+02   -.8174E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1892E+03   .2071E+03   .2274E+03   .2489E+03   .2702E+03   .2893E+03   .3065E+03   .3254E+03   .3317E+03  
PSS 2   .8168E+02   .7263E+02   .5983E+02   .4437E+02   .2777E+02   .1169E+02   .2098E+01   .1175E+02   .1570E+02  
PSS 3   .1075E+03   .1345E+03   .1676E+03   .2045E+03   .2424E+03   .2776E+03   .3044E+03   .3136E+03   .3160E+03

## DISPLACEMENTS

UX       -.4084E-02   -.3871E-02   -.3542E-02   -.3075E-02   -.2462E-02   -.1703E-02   -.8147E-03   .1721E-03   .1209E-02  
UY       .3060E-10   .6015E-11   .6578E-11   .2357E-10   -.3580E-10   .6181E-10   .1532E-10   -.8072E-11   -.2543E-10  
UZ       .1409E+00   .1426E+00   .1445E+00   .1464E+00   .1479E+00   .1490E+00   .1499E+00   .1507E+00   .1505E+00

## NORMAL STRAINS

EXX      .1648E-03   .2660E-03   .3931E-03   .5369E-03   .6859E-03   .8254E-03   .9408E-03   .1017E-02   .1044E-02  
EYY      .7229E-03   .7618E-03   .8012E-03   .8395E-03   .8752E-03   .9054E-03   .9270E-03   .9380E-03   .9383E-03  
EZZ     -.5473E-03   -.6307E-03   -.7295E-03   -.8374E-03   -.9465E-03   -.1047E-02   -.1127E-02   -.1179E-02   -.1195E-02

## SHEAR STRAINS

EXY      .2779E-11   -.3045E-11   -.8386E-12   -.6787E-11   .2114E-11   -.7250E-11   -.3786E-11   .1831E-11   -.7960E-12  
EXZ      .1388E-03   .1417E-03   .1393E-03   .1299E-03   .1124E-03   .8669E-04   .5336E-04   .1387E-04   -.2915E-04  
EYZ     -.9372E-12   .1680E-12   .7350E-12   .1893E-11   -.1608E-11   .3185E-11   -.2732E-11   .1625E-11   -.1447E-11

## PRINCIPAL STRAINS

PE 1     .7229E-03   .7618E-03   .8012E-03   .8395E-03   .8752E-03   .9054E-03   .9412E-03   .1017E-02   .1044E-02  
PE 2     .1715E-03   .2716E-03   .3974E-03   .5399E-03   .6878E-03   .8265E-03   .9270E-03   .9380E-03   .9383E-03  
PE 3     -.5540E-03   -.6362E-03   -.7338E-03   -.8404E-03   -.9485E-03   -.1048E-02   -.1128E-02   -.1179E-02   -.1195E-02

## PRINCIPAL SHEAR STRAINS

PSE 1   .1277E-02   .1398E-02   .1535E-02   .1680E-02   .1824E-02   .1953E-02   .2069E-02   .2196E-02   .2239E-02  
PSE 2   .5514E-03   .4902E-03   .4038E-03   .2995E-03   .1874E-03   .7891E-04   .1416E-04   .7932E-04   .1060E-03  
PSE 3   .7255E-03   .9078E-03   .1131E-02   .1380E-02   .1636E-02   .1874E-02   .2055E-02   .2117E-02   .2133E-02

Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.4206E+02	.4365E+02	.4497E+02	.4599E+02	.4691E+02	.4756E+02	.4779E+02	.4755E+02	.4719E+02
SYX	.4737E+02	.4825E+02	.4889E+02	.4928E+02	.4967E+02	.4988E+02	.4982E+02	.4945E+02	.4912E+02
SZZ	-.1472E+02	-.1499E+02	-.1521E+02	-.1541E+02	-.1556E+02	-.1565E+02	-.1568E+02	-.1566E+02	-.1559E+02

SHEAR STRESSES

SXY	-.4198E-07	.2774E-07	-.2229E-07	-.8813E-08	-.2958E-07	.1146E-07	.2135E-07	-.4971E-08	-.1551E-07
SXZ	.1992E+01	.1723E+01	.1424E+01	.1096E+01	.7434E+00	.3687E+00	-.2484E-01	-.4308E+00	-.8387E+00
SYZ	-.4610E-08	.1293E-07	.2731E-07	-.3895E-07	.2887E-07	.6017E-08	.1175E-07	.6089E-08	.1184E-07

PRINCIPAL STRESSES

PS 1	.4737E+02	.4825E+02	.4889E+02	.4928E+02	.4967E+02	.4988E+02	.4982E+02	.4945E+02	.4912E+02
PS 2	.4213E+02	.4371E+02	.4501E+02	.4601E+02	.4692E+02	.4756E+02	.4779E+02	.4755E+02	.4720E+02
PS 3	-.1479E+02	-.1504E+02	-.1525E+02	-.1543E+02	-.1557E+02	-.1565E+02	-.1568E+02	-.1566E+02	-.1560E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.3108E+02	.3165E+02	.3207E+02	.3235E+02	.3262E+02	.3277E+02	.3275E+02	.3255E+02	.3236E+02
PSS 2	.2619E+01	.2273E+01	.1941E+01	.1636E+01	.1372E+01	.1161E+01	.1016E+01	.9461E+00	.9575E+00
PSS 3	.2846E+02	.2937E+02	.3013E+02	.3072E+02	.3125E+02	.3161E+02	.3173E+02	.3161E+02	.3140E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.6051E-02	-.4994E-02	-.3883E-02	-.2732E-02	-.1562E-02	-.3639E-03	.8566E-03	.2079E-02	.3278E-02
UY	.1140E-10	.2988E-10	-.4916E-11	-.2676E-10	-.1530E-11	-.7596E-10	.1805E-10	-.8475E-11	.4251E-12
UZ	.1246E+00	.1254E+00	.1263E+00	.1273E+00	.1278E+00	.1282E+00	.1285E+00	.1290E+00	.1289E+00

## NORMAL STRAINS

EXX	.1021E-02	.1067E-02	.1106E-02	.1138E-02	.1166E-02	.1186E-02	.1195E-02	.1191E-02	.1182E-02
EYY	.1260E-02	.1274E-02	.1282E-02	.1286E-02	.1290E-02	.1290E-02	.1286E-02	.1276E-02	.1268E-02
EZZ	-.1534E-02	-.1572E-02	-.1602E-02	-.1625E-02	-.1645E-02	-.1658E-02	-.1661E-02	-.1654E-02	-.1643E-02

## SHEAR STRAINS

EXY	-.3778E-11	.2497E-11	-.2006E-11	-.7932E-12	-.2662E-11	.1031E-11	.1922E-11	-.4474E-12	-.1396E-11
EXZ	.1792E-03	.1551E-03	.1282E-03	.9860E-04	.6691E-04	.3318E-04	-.2236E-05	-.3877E-04	-.7548E-04
EYZ	-.4149E-12	.1164E-11	.2458E-11	-.3506E-11	.2598E-11	.5415E-12	.1058E-11	.5480E-12	.1065E-11

## PRINCIPAL STRAINS

PE 1	.1260E-02	.1274E-02	.1282E-02	.1286E-02	.1290E-02	.1290E-02	.1286E-02	.1276E-02	.1268E-02
PE 2	.1024E-02	.1069E-02	.1108E-02	.1139E-02	.1166E-02	.1186E-02	.1195E-02	.1191E-02	.1182E-02
PE 3	-.1537E-02	-.1574E-02	-.1604E-02	-.1626E-02	-.1646E-02	-.1659E-02	-.1661E-02	-.1654E-02	-.1644E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2797E-02	.2848E-02	.2886E-02	.2912E-02	.2936E-02	.2949E-02	.2947E-02	.2930E-02	.2912E-02
PSE 2	.2357E-03	.2046E-03	.1747E-03	.1473E-03	.1235E-03	.1045E-03	.9146E-04	.8515E-04	.8617E-04
PSE 3	.2561E-02	.2643E-02	.2711E-02	.2765E-02	.2812E-02	.2845E-02	.2856E-02	.2845E-02	.2826E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5225.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.30 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-b Average HBP

---

Z= 6.00 LAYER NO, 1

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .5680E+03 .5309E+03  
SYY .5416E+03 .5211E+03  
SZZ -.8029E+02 -.7682E+02

## SHEAR STRESSES

SXY -.2015E-06 .5608E-06  
SXZ -.1070E+02 -.1658E+02  
SYZ .2558E-06 -.2384E-06

## PRINCIPAL STRESSES

PS 1 .5682E+03 .5313E+03  
PS 2 .5416E+03 .5211E+03  
PS 3 -.8047E+02 -.7728E+02

## PRINCIPAL SHEAR STRESSES

PSS 1 .3243E+03 .3043E+03  
PSS 2 .1327E+02 .5104E+01  
PSS 3 .3110E+03 .2992E+03

## DISPLACEMENTS

UX .2245E-02 .3231E-02  
UY .2156E-10 .0000E+00  
UZ .1496E+00 .1478E+00

Appendix 6E-b Average HBP

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## NORMAL STRAINS

EXX	.1016E-02	.9385E-03
EYY	.9273E-03	.9055E-03
EZZ	-.1172E-02	-.1113E-02

## SHEAR STRAINS

EXY	-.1360E-11	.3786E-11
EXZ	-.7224E-04	-.1119E-03
EYZ	.1726E-11	-.1609E-11

## PRINCIPAL STRAINS

PE 1	.1017E-02	.9400E-03
PE 2	.9273E-03	.9055E-03
PE 3	-.1172E-02	-.1114E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2189E-02	.2054E-02
PSE 2	.8961E-04	.3445E-04
PSE 3	.2100E-02	.2020E-02

Z= 18.00 LAYER NO, 2

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.4664E+02	.4596E+02
SYY	.4877E+02	.4846E+02
SZZ	-.1545E+02	-.1527E+02

Appendix 6E-b Average HBP

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## SHEAR STRESSES

SXY	.8247E-08	-.2135E-07
SXZ	-.1243E+01	-.1639E+01
SYZ	-.2810E-07	.0000E+00

## PRINCIPAL STRESSES

PS 1	.4877E+02	.4846E+02
PS 2	.4666E+02	.4600E+02
PS 3	-.1548E+02	-.1531E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.3212E+02	.3189E+02
PSS 2	.1053E+01	.1231E+01
PSS 3	.3107E+02	.3066E+02

## DISPLACEMENTS

UX	.4463E-02	.5649E-02
UY	.2159E-11	.0000E+00
UZ	.1282E+00	.1270E+00

## NORMAL STRAINS

EXX	.1166E-02	.1145E-02
EYY	.1262E-02	.1257E-02
EZZ	-.1628E-02	-.1610E-02

## SHEAR STRAINS

EXY	.7422E-12	-.1922E-11
EXZ	-.1119E-03	-.1475E-03
EYZ	-.2529E-11	.0000E+00

## PRINCIPAL STRAINS

PE 1	.1262E-02	.1257E-02
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Appendix 6E-b Average HBP

PE 2 .1167E-02 .1147E-02  
PE 3 -.1629E-02 -.1612E-02

PRINCIPAL SHEAR STRAINS  
PSE 1 .2891E-02 .2870E-02  
PSE 2 .9477E-04 .1108E-03  
PSE 3 .2796E-02 .2759E-02

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
LOAD STRESS..... 90.00 PSI  
LOAD RADIUS..... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)



Appendix 6E-b Average HBP

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.4194E+03	.4423E+03	.4494E+03	.4399E+03	.4147E+03	.3762E+03	.3280E+03	.2738E+03	.2173E+03
SYX	.4662E+03	.4822E+03	.4897E+03	.4883E+03	.4783E+03	.4613E+03	.4388E+03	.4128E+03	.3853E+03
SZZ	-.6843E+02	-.7084E+02	-.7181E+02	-.7128E+02	-.6932E+02	-.6614E+02	-.6202E+02	-.5727E+02	-.5223E+02

SHEAR STRESSES

## Appendix 6E-b Average HBP

SXY	.3791E-06	-.4636E-06	.1393E-07	.3286E-06	-.5192E-06	-.2164E-06	.1478E-07	.5420E-06	-.2886E-06
SXZ	.1943E+02	.1520E+02	.1073E+02	.6298E+01	.2186E+01	-.1357E+01	-.4151E+01	-.6111E+01	-.7212E+01
SYZ	-.1038E-06	.3529E-06	-.7387E-07	-.2917E-06	-.1420E-07	.1747E-06	-.4399E-07	-.1131E-06	-.7285E-07

## PRINCIPAL STRESSES

PS 1	.4662E+03	.4822E+03	.4897E+03	.4883E+03	.4783E+03	.4613E+03	.4388E+03	.4128E+03	.3853E+03
PS 2	.4202E+03	.4427E+03	.4496E+03	.4400E+03	.4147E+03	.3762E+03	.3280E+03	.2739E+03	.2175E+03
PS 3	-.6920E+02	-.7129E+02	-.7204E+02	-.7136E+02	-.6933E+02	-.6614E+02	-.6206E+02	-.5739E+02	-.5243E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2677E+03	.2768E+03	.2809E+03	.2798E+03	.2738E+03	.2637E+03	.2504E+03	.2351E+03	.2188E+03
PSS 2	.2303E+02	.1976E+02	.2006E+02	.2414E+02	.3182E+02	.4252E+02	.5539E+02	.6947E+02	.8387E+02
PSS 3	.2447E+03	.2570E+03	.2608E+03	.2557E+03	.2420E+03	.2212E+03	.1951E+03	.1656E+03	.1350E+03

## DISPLACEMENTS

UX	-.5836E-02	-.5111E-02	-.4356E-02	-.3607E-02	-.2897E-02	-.2258E-02	-.1713E-02	-.1281E-02	-.9690E-03
UY	.5327E-11	.7441E-10	-.1265E-10	.5726E-10	-.9169E-11	-.6490E-10	-.1049E-10	.1519E-10	-.5091E-10
UZ	.2187E+00	.2213E+00	.2235E+00	.2254E+00	.2270E+00	.2282E+00	.2293E+00	.2301E+00	.2308E+00

## NORMAL STRAINS

EXX	.7004E-03	.7457E-03	.7578E-03	.7349E-03	.6788E-03	.5948E-03	.4903E-03	.3733E-03	.2519E-03
EYY	.8585E-03	.8806E-03	.8939E-03	.8981E-03	.8936E-03	.8819E-03	.8643E-03	.8426E-03	.8187E-03
EZZ	-.9460E-03	-.9861E-03	-.1001E-02	-.9904E-03	-.9547E-03	-.8982E-03	-.8260E-03	-.7440E-03	-.6579E-03

## SHEAR STRAINS

EXY	.2559E-11	-.3129E-11	.9405E-13	.2218E-11	-.3505E-11	-.1461E-11	.9978E-13	.3658E-11	-.1948E-11
EXZ	.1312E-03	.1026E-03	.7244E-04	.4251E-04	.1475E-04	-.9157E-05	-.2802E-04	-.4125E-04	-.4868E-04
EYZ	-.7009E-12	.2382E-11	-.4986E-12	-.1969E-11	-.9588E-13	.1179E-11	-.2969E-12	-.7636E-12	-.4917E-12

## PRINCIPAL STRAINS

PE 1	.8585E-03	.8806E-03	.8939E-03	.8981E-03	.8936E-03	.8819E-03	.8643E-03	.8426E-03	.8187E-03
PE 2	.7030E-03	.7472E-03	.7585E-03	.7352E-03	.6789E-03	.5949E-03	.4904E-03	.3737E-03	.2526E-03

Appendix 6E-b Average HBP

PE 3    -.9486E-03    -.9876E-03    -.1002E-02    -.9906E-03    -.9547E-03    -.8982E-03    -.8262E-03    -.7444E-03    -.6585E-03

PRINCIPAL SHEAR STRAINS

PSE 1    .1807E-02    .1868E-02    .1896E-02    .1889E-02    .1848E-02    .1780E-02    .1691E-02    .1587E-02    .1477E-02  
PSE 2    .1555E-03    .1334E-03    .1354E-03    .1629E-03    .2148E-03    .2870E-03    .3739E-03    .4689E-03    .5661E-03  
PSE 3    .1652E-02    .1735E-02    .1761E-02    .1726E-02    .1634E-02    .1493E-02    .1317E-02    .1118E-02    .9111E-03

Z= 18.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX    .3922E+02    .4037E+02    .4121E+02    .4174E+02    .4198E+02    .4201E+02    .4183E+02    .4139E+02    .4078E+02  
SYY    .5587E+02    .5701E+02    .5798E+02    .5878E+02    .5943E+02    .6001E+02    .6050E+02    .6080E+02    .6098E+02  
SZZ    -.1802E+02    -.1838E+02    -.1868E+02    -.1893E+02    -.1913E+02    -.1930E+02    -.1945E+02    -.1956E+02    -.1962E+02

SHEAR STRESSES

SXY    .1095E-07    -.3170E-07    -.3462E-08    .2841E-07    -.2033E-07    -.3680E-07    .1779E-07    -.7208E-08    -.1516E-07  
SXZ    .3885E+01    .3614E+01    .3338E+01    .3065E+01    .2800E+01    .2550E+01    .2322E+01    .2119E+01    .1945E+01  
SYZ    -.3099E-08    .6401E-08    -.4050E-09    .6968E-08    .4816E-08    .5353E-08    .3030E-09    .1269E-07    -.4081E-08

PRINCIPAL STRESSES

PS 1    .5587E+02    .5701E+02    .5798E+02    .5878E+02    .5943E+02    .6001E+02    .6050E+02    .6080E+02    .6098E+02

## Appendix 6E-b Average HBP

PS 2	.3948E+02	.4059E+02	.4140E+02	.4190E+02	.4210E+02	.4211E+02	.4192E+02	.4147E+02	.4084E+02
PS 3	-.1829E+02	-.1860E+02	-.1886E+02	-.1908E+02	-.1926E+02	-.1941E+02	-.1954E+02	-.1963E+02	-.1968E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.3708E+02	.3780E+02	.3842E+02	.3893E+02	.3935E+02	.3971E+02	.4002E+02	.4021E+02	.4033E+02
PSS 2	.8197E+01	.8206E+01	.8288E+01	.8442E+01	.8666E+01	.8951E+01	.9289E+01	.9665E+01	.1007E+02
PSS 3	.2888E+02	.2960E+02	.3013E+02	.3049E+02	.3068E+02	.3076E+02	.3073E+02	.3055E+02	.3026E+02

## DISPLACEMENTS

UX	-.2126E-01	-.2038E-01	-.1948E-01	-.1856E-01	-.1763E-01	-.1669E-01	-.1576E-01	-.1484E-01	-.1395E-01
UY	.2598E-10	-.1928E-10	.2860E-10	-.5935E-10	-.2851E-10	-.2729E-10	-.7810E-10	-.1034E-10	-.1310E-09
UZ	.1982E+00	.2003E+00	.2023E+00	.2041E+00	.2058E+00	.2073E+00	.2088E+00	.2103E+00	.2116E+00

## NORMAL STRAINS

EXX	.8657E-03	.8951E-03	.9154E-03	.9265E-03	.9290E-03	.9252E-03	.9155E-03	.8986E-03	.8768E-03
EYY	.1615E-02	.1644E-02	.1670E-02	.1693E-02	.1715E-02	.1736E-02	.1755E-02	.1772E-02	.1786E-02
EZZ	-.1710E-02	-.1749E-02	-.1780E-02	-.1804E-02	-.1821E-02	-.1834E-02	-.1842E-02	-.1844E-02	-.1841E-02

## SHEAR STRAINS

EXY	.9858E-12	-.2853E-11	-.3116E-12	.2557E-11	-.1830E-11	-.3312E-11	.1601E-11	-.6487E-12	-.1364E-11
EXZ	.3497E-03	.3253E-03	.3004E-03	.2758E-03	.2520E-03	.2295E-03	.2090E-03	.1907E-03	.1750E-03
EYZ	-.2789E-12	.5761E-12	-.3645E-13	.6271E-12	.4335E-12	.4817E-12	.2727E-13	.1142E-11	-.3672E-12

## PRINCIPAL STRAINS

PE 1	.1615E-02	.1644E-02	.1670E-02	.1693E-02	.1715E-02	.1736E-02	.1755E-02	.1772E-02	.1786E-02
PE 2	.8775E-03	.9050E-03	.9237E-03	.9335E-03	.9347E-03	.9300E-03	.9195E-03	.9019E-03	.8797E-03
PE 3	-.1722E-02	-.1759E-02	-.1788E-02	-.1811E-02	-.1827E-02	-.1838E-02	-.1846E-02	-.1847E-02	-.1844E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3337E-02	.3402E-02	.3458E-02	.3504E-02	.3541E-02	.3574E-02	.3602E-02	.3619E-02	.3630E-02
PSE 2	.7377E-03	.7385E-03	.7459E-03	.7598E-03	.7799E-03	.8056E-03	.8360E-03	.8699E-03	.9060E-03
PSE 3	.2599E-02	.2664E-02	.2712E-02	.2744E-02	.2761E-02	.2768E-02	.2766E-02	.2749E-02	.2724E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00

Appendix 6E-b Average HBP

28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.1621E+03	.1111E+03	.6681E+02	.3067E+02	.2948E+01	-.1705E+02	-.3036E+02	-.3789E+02	-.4006E+02
SYX	.3580E+03	.3326E+03	.3104E+03	.2920E+03	.2779E+03	.2679E+03	.2617E+03	.2593E+03	.2604E+03
SZZ	-.4720E+02	-.4247E+02	-.3826E+02	-.3472E+02	-.3193E+02	-.2988E+02	-.2854E+02	-.2788E+02	-.2788E+02

SHEAR STRESSES

SXY	.1221E-06	-.2422E-06	-.2835E-06	-.4918E-06	-.2634E-06	.7155E-06	-.3419E-06	.8335E-06	-.1873E-06
SXZ	-.7477E+01	-.6973E+01	-.5826E+01	-.4196E+01	-.2247E+01	-.1045E+00	.2152E+01	.4475E+01	.6839E+01
SYZ	.2072E-07	.8682E-07	.8834E-07	-.8340E-08	-.1037E-06	-.3744E-07	.1471E-06	-.6400E-07	.2553E-07

PRINCIPAL STRESSES

PS 1	.3580E+03	.3326E+03	.3104E+03	.2920E+03	.2779E+03	.2679E+03	.2617E+03	.2593E+03	.2604E+03
PS 2	.1624E+03	.1114E+03	.6714E+02	.3094E+02	.3092E+01	-.1705E+02	-.2711E+02	-.2617E+02	-.2481E+02

## Appendix 6E-b Average HBP

PS 3    -.4747E+02   -.4279E+02   -.3858E+02   -.3499E+02   -.3207E+02   -.2988E+02   -.3179E+02   -.3960E+02   -.4313E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .2027E+03   .1877E+03   .1745E+03   .1635E+03   .1550E+03   .1489E+03   .1468E+03   .1494E+03   .1518E+03  
PSS 2   .9782E+02   .1106E+03   .1216E+03   .1305E+03   .1374E+03   .1425E+03   .1444E+03   .1427E+03   .1426E+03  
PSS 3   .1049E+03   .7712E+02   .5286E+02   .3296E+02   .1758E+02   .6414E+01   .2338E+01   .6716E+01   .9156E+01

## DISPLACEMENTS

UX       -.7772E-03   -.6996E-03   -.7254E-03   -.8378E-03   -.1018E-02   -.1250E-02   -.1517E-02   -.1806E-02   -.2108E-02  
UY       .3084E-10   -.6914E-11   -.5424E-12   .1269E-10   .2780E-10   .4897E-10   -.1552E-10   .9659E-11   -.2744E-11  
UZ       .2313E+00   .2318E+00   .2324E+00   .2329E+00   .2335E+00   .2341E+00   .2348E+00   .2356E+00   .2364E+00

## NORMAL STRAINS

EXX      .1333E-03   .2392E-04   -.7105E-04   -.1484E-03   -.2078E-03   -.2509E-03   -.2800E-03   -.2972E-03   -.3036E-03  
EYY      .7945E-03   .7715E-03   .7509E-03   .7335E-03   .7200E-03   .7107E-03   .7059E-03   .7057E-03   .7104E-03  
EZZ      -.5731E-03   -.4945E-03   -.4257E-03   -.3691E-03   -.3255E-03   -.2941E-03   -.2738E-03   -.2634E-03   -.2625E-03

## SHEAR STRAINS

EXY      .8238E-12   -.1635E-11   -.1913E-11   -.3319E-11   -.1778E-11   .4829E-11   -.2308E-11   .5626E-11   -.1265E-11  
EXZ      -.5047E-04   -.4707E-04   -.3933E-04   -.2833E-04   -.1517E-04   -.7054E-06   .1452E-04   .3021E-04   .4616E-04  
EYZ      .1398E-12   .5861E-12   .5963E-12   -.5629E-13   -.7002E-12   -.2527E-12   .9926E-12   -.4320E-12   .1723E-12

## PRINCIPAL STRAINS

PE 1      .7945E-03   .7715E-03   .7509E-03   .7335E-03   .7200E-03   .7107E-03   .7059E-03   .7057E-03   .7104E-03  
PE 2      .1342E-03   .2499E-04   -.6996E-04   -.1475E-03   -.2073E-03   -.2509E-03   -.2690E-03   -.2576E-03   -.2521E-03  
PE 3      -.5740E-03   -.4955E-03   -.4268E-03   -.3700E-03   -.3260E-03   -.2941E-03   -.2848E-03   -.3030E-03   -.3139E-03

## PRINCIPAL SHEAR STRAINS

PSE 1    .1369E-02   .1267E-02   .1178E-02   .1104E-02   .1046E-02   .1005E-02   .9906E-03   .1009E-02   .1024E-02  
PSE 2    .6603E-03   .7465E-03   .8209E-03   .8811E-03   .9274E-03   .9616E-03   .9748E-03   .9633E-03   .9626E-03  
PSE 3    .7083E-03   .5205E-03   .3568E-03   .2225E-03   .1187E-03   .4329E-04   .1578E-04   .4533E-04   .6181E-04

Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.4015E+02	.3952E+02	.3887E+02	.3829E+02	.3784E+02	.3758E+02	.3755E+02	.3779E+02	.3831E+02
SYX	.6116E+02	.6134E+02	.6144E+02	.6154E+02	.6167E+02	.6187E+02	.6215E+02	.6254E+02	.6303E+02
SZZ	-.1968E+02	-.1974E+02	-.1979E+02	-.1983E+02	-.1987E+02	-.1994E+02	-.2003E+02	-.2014E+02	-.2029E+02

SHEAR STRESSES

SXY	.1600E-07	-.3997E-07	-.2458E-07	-.2433E-07	-.4081E-07	-.4532E-07	-.1493E-07	-.1192E-07	.2198E-07
SXZ	.1800E+01	.1687E+01	.1604E+01	.1549E+01	.1519E+01	.1508E+01	.1512E+01	.1526E+01	.1543E+01
SYZ	-.1858E-07	-.3415E-08	.1365E-07	.3128E-08	-.6522E-09	.1245E-07	.1431E-07	.1718E-08	.7471E-10

PRINCIPAL STRESSES

PS 1	.6116E+02	.6134E+02	.6144E+02	.6154E+02	.6167E+02	.6187E+02	.6215E+02	.6254E+02	.6303E+02
PS 2	.4020E+02	.3957E+02	.3892E+02	.3833E+02	.3788E+02	.3762E+02	.3759E+02	.3783E+02	.3835E+02
PS 3	-.1973E+02	-.1979E+02	-.1983E+02	-.1987E+02	-.1991E+02	-.1998E+02	-.2006E+02	-.2018E+02	-.2033E+02

PRINCIPAL SHEAR STRESSES

PSS 1	.4044E+02	.4056E+02	.4064E+02	.4070E+02	.4079E+02	.4092E+02	.4111E+02	.4136E+02	.4168E+02
PSS 2	.1048E+02	.1088E+02	.1126E+02	.1161E+02	.1190E+02	.1212E+02	.1228E+02	.1235E+02	.1234E+02
PSS 3	.2997E+02	.2968E+02	.2937E+02	.2910E+02	.2890E+02	.2880E+02	.2883E+02	.2901E+02	.2934E+02



## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.1308E-01	-.1223E-01	-.1141E-01	-.1061E-01	-.9837E-02	-.9075E-02	-.8319E-02	-.7561E-02	-.6793E-02
UY	-.3316E-10	.5953E-10	-.5710E-10	.9815E-11	.1601E-10	.1142E-10	-.5178E-10	.7500E-10	-.2475E-10
UZ	.2129E+00	.2140E+00	.2152E+00	.2163E+00	.2173E+00	.2182E+00	.2191E+00	.2199E+00	.2207E+00

## NORMAL STRAINS

EXX	.8543E-03	.8322E-03	.8098E-03	.7896E-03	.7736E-03	.7635E-03	.7603E-03	.7650E-03	.7782E-03
EYY	.1800E-02	.1814E-02	.1825E-02	.1836E-02	.1846E-02	.1856E-02	.1867E-02	.1879E-02	.1891E-02
EZZ	-.1838E-02	-.1835E-02	-.1830E-02	-.1826E-02	-.1823E-02	-.1825E-02	-.1831E-02	-.1842E-02	-.1859E-02

## SHEAR STRAINS

EXY	.1440E-11	-.3597E-11	-.2213E-11	-.2190E-11	-.3673E-11	-.4079E-11	-.1344E-11	-.1073E-11	.1978E-11
EXZ	.1620E-03	.1518E-03	.1444E-03	.1395E-03	.1367E-03	.1357E-03	.1361E-03	.1373E-03	.1389E-03
EYZ	-.1672E-11	-.3074E-12	.1229E-11	.2815E-12	-.5870E-13	.1121E-11	.1288E-11	.1546E-12	.6724E-14

## PRINCIPAL STRAINS

PE 1	.1800E-02	.1814E-02	.1825E-02	.1836E-02	.1846E-02	.1856E-02	.1867E-02	.1879E-02	.1891E-02
PE 2	.8568E-03	.8344E-03	.8118E-03	.7915E-03	.7754E-03	.7652E-03	.7621E-03	.7669E-03	.7800E-03
PE 3	-.1840E-02	-.1837E-02	-.1832E-02	-.1827E-02	-.1825E-02	-.1827E-02	-.1833E-02	-.1844E-02	-.1860E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3640E-02	.3651E-02	.3657E-02	.3663E-02	.3671E-02	.3683E-02	.3700E-02	.3723E-02	.3751E-02
PSE 2	.9430E-03	.9793E-03	.1014E-02	.1044E-02	.1071E-02	.1091E-02	.1105E-02	.1112E-02	.1111E-02
PSE 3	.2697E-02	.2671E-02	.2644E-02	.2619E-02	.2601E-02	.2592E-02	.2595E-02	.2611E-02	.2640E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00

Appendix 6E-b Average HBP

37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	-.3693E+02	-.2831E+02	-.1369E+02	.8027E+01	.3810E+02	.7738E+02	.1258E+03	.1823E+03	.2448E+03
SYX	.2651E+03	.2735E+03	.2858E+03	.3022E+03	.3231E+03	.3488E+03	.3790E+03	.4130E+03	.4498E+03
SZZ	-.2856E+02	-.2992E+02	-.3199E+02	-.3484E+02	-.3851E+02	-.4302E+02	-.4833E+02	-.5432E+02	-.6078E+02

SHEAR STRESSES

SXY	-.8432E-07	-.9931E-07	-.9042E-07	-.4819E-06	.1140E-06	-.8708E-06	.1339E-06	-.5412E-06	-.1159E-06
SXZ	.9219E+01	.1160E+02	.1394E+02	.1621E+02	.1833E+02	.2015E+02	.2152E+02	.2227E+02	.2227E+02
SYZ	-.5715E-07	-.1658E-06	.4491E-07	-.1641E-06	-.7135E-07	.7481E-07	.5962E-07	.3144E-07	-.6084E-07

PRINCIPAL STRESSES

PS 1	.2651E+03	.2735E+03	.2858E+03	.3022E+03	.3231E+03	.3488E+03	.3790E+03	.4130E+03	.4498E+03
PS 2	-.2262E+02	-.1749E+02	-.6167E+01	.1347E+02	.4226E+02	.8066E+02	.1285E+03	.1844E+03	.2464E+03

## Appendix 6E-b Average HBP

PS 3    -.4287E+02   -.4074E+02   -.3952E+02   -.4028E+02   -.4267E+02   -.4630E+02   -.5095E+02   -.5639E+02   -.6240E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1540E+03    .1571E+03    .1627E+03    .1712E+03    .1829E+03    .1975E+03    .2150E+03    .2347E+03    .2561E+03  
PSS 2    .1439E+03    .1455E+03    .1460E+03    .1444E+03    .1404E+03    .1341E+03    .1253E+03    .1143E+03    .1017E+03  
PSS 3    .1012E+02    .1163E+02    .1668E+02    .2688E+02    .4246E+02    .6348E+02    .8971E+02    .1204E+03    .1544E+03

## DISPLACEMENTS

UX        -.2410E-02   -.2703E-02   -.2974E-02   -.3212E-02   -.3398E-02   -.3515E-02   -.3541E-02   -.3459E-02   -.3254E-02  
UY        -.2035E-10   -.3330E-11   .1978E-10   -.1947E-10   -.2073E-10   -.6787E-11   .1451E-10   -.1550E-10   .4072E-10  
UZ        .2374E+00    .2385E+00    .2397E+00    .2409E+00    .2422E+00    .2435E+00    .2448E+00    .2462E+00    .2475E+00

## NORMAL STRAINS

EXX       -.2993E-03   -.2840E-03   -.2563E-03   -.2139E-03   -.1538E-03   -.7410E-04   .2529E-04   .1420E-03   .2716E-03  
EYY        .7201E-03    .7348E-03    .7545E-03    .7790E-03    .8082E-03    .8419E-03    .8796E-03    .9205E-03    .9636E-03  
EZZ       -.2711E-03   -.2894E-03   -.3181E-03   -.3586E-03   -.4124E-03   -.4805E-03   -.5626E-03   -.6567E-03   -.7598E-03

## SHEAR STRAINS

EXY       -.5692E-12   -.6703E-12   -.6103E-12   -.3253E-11    .7694E-12   -.5878E-11    .9041E-12   -.3653E-11   -.7824E-12  
EXZ        .6223E-04    .7828E-04    .9412E-04    .1094E-03    .1237E-03    .1360E-03    .1452E-03    .1503E-03    .1503E-03  
EYZ       -.3857E-12   -.1119E-11    .3031E-12   -.1108E-11   -.4816E-12    .5050E-12    .4024E-12    .2122E-12   -.4107E-12

## PRINCIPAL STRAINS

PE 1       .7201E-03    .7348E-03    .7545E-03    .7790E-03    .8082E-03    .8419E-03    .8796E-03    .9205E-03    .9636E-03  
PE 2       -.2510E-03   -.2474E-03   -.2309E-03   -.1955E-03   -.1398E-03   -.6303E-04   .3413E-04   .1490E-03   .2771E-03  
PE 3       -.3194E-03   -.3259E-03   -.3435E-03   -.3769E-03   -.4264E-03   -.4915E-03   -.5714E-03   -.6637E-03   -.7652E-03

## PRINCIPAL SHEAR STRAINS

PSE 1    .1039E-02    .1061E-02    .1098E-02    .1156E-02    .1235E-02    .1333E-02    .1451E-02    .1584E-02    .1729E-02  
PSE 2    .9711E-03    .9822E-03    .9854E-03    .9745E-03    .9480E-03    .9050E-03    .8455E-03    .7716E-03    .6865E-03  
PSE 3    .6834E-04    .7847E-04    .1126E-03    .1814E-03    .2866E-03    .4285E-03    .6055E-03    .8127E-03    .1042E-02

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

## NORMAL STRESSES

SXX	.3911E+02	.4019E+02	.4155E+02	.4315E+02	.4497E+02	.4695E+02	.4902E+02	.5108E+02	.5316E+02
SYX	.6364E+02	.6435E+02	.6516E+02	.6606E+02	.6704E+02	.6804E+02	.6904E+02	.6995E+02	.7086E+02
SZZ	-.2047E+02	-.2069E+02	-.2093E+02	-.2121E+02	-.2149E+02	-.2179E+02	-.2208E+02	-.2235E+02	-.2263E+02

## SHEAR STRESSES

SXY	-.2841E-07	.1472E-07	.1707E-07	-.3610E-07	-.1095E-07	.5468E-07	.2765E-09	-.2990E-07	-.1729E-07
SXZ	.1557E+01	.1562E+01	.1551E+01	.1519E+01	.1459E+01	.1366E+01	.1236E+01	.1064E+01	.8490E+00
SYZ	-.9357E-09	.2064E-07	-.7313E-08	.2190E-07	.6286E-08	-.1904E-08	-.2771E-08	-.4252E-08	-.1066E-09

## PRINCIPAL STRESSES

PS 1	.6364E+02	.6435E+02	.6516E+02	.6606E+02	.6704E+02	.6804E+02	.6904E+02	.6995E+02	.7086E+02
PS 2	.3915E+02	.4023E+02	.4158E+02	.4319E+02	.4500E+02	.4698E+02	.4904E+02	.5109E+02	.5317E+02
PS 3	-.2051E+02	-.2073E+02	-.2097E+02	-.2124E+02	-.2152E+02	-.2181E+02	-.2210E+02	-.2237E+02	-.2264E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.4208E+02	.4254E+02	.4307E+02	.4365E+02	.4428E+02	.4493E+02	.4557E+02	.4616E+02	.4675E+02
PSS 2	.1225E+02	.1206E+02	.1179E+02	.1144E+02	.1102E+02	.1053E+02	.9998E+01	.9431E+01	.8845E+01
PSS 3	.2983E+02	.3048E+02	.3128E+02	.3221E+02	.3326E+02	.3440E+02	.3557E+02	.3673E+02	.3790E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.6008E-02	-.5197E-02	-.4353E-02	-.3468E-02	-.2533E-02	-.1540E-02	-.4836E-03	.6415E-03	.1822E-02
UY	-.5068E-11	.2067E-10	.1016E-11	-.1755E-10	.5025E-10	-.2534E-10	-.1572E-10	.7842E-11	.4555E-10
UZ	.2214E+00	.2221E+00	.2227E+00	.2233E+00	.2238E+00	.2242E+00	.2244E+00	.2247E+00	.2248E+00

## NORMAL STRAINS

EXX	.7999E-03	.8303E-03	.8689E-03	.9151E-03	.9678E-03	.1025E-02	.1086E-02	.1147E-02	.1209E-02
EYY	.1904E-02	.1917E-02	.1932E-02	.1946E-02	.1961E-02	.1974E-02	.1987E-02	.1997E-02	.2006E-02
EZZ	-.1881E-02	-.1909E-02	-.1943E-02	-.1981E-02	-.2023E-02	-.2068E-02	-.2113E-02	-.2157E-02	-.2201E-02

## SHEAR STRAINS

EXY	-.2557E-11	.1325E-11	.1536E-11	-.3249E-11	-.9855E-12	.4921E-11	.2489E-13	-.2691E-11	-.1556E-11
EXZ	.1401E-03	.1406E-03	.1396E-03	.1367E-03	.1313E-03	.1230E-03	.1112E-03	.9578E-04	.7641E-04
EYZ	-.8421E-13	.1857E-11	-.6582E-12	.1971E-11	.5657E-12	-.1714E-12	-.2494E-12	-.3827E-12	-.9597E-14

## PRINCIPAL STRAINS

PE 1	.1904E-02	.1917E-02	.1932E-02	.1946E-02	.1961E-02	.1974E-02	.1987E-02	.1997E-02	.2006E-02
PE 2	.8018E-03	.8321E-03	.8706E-03	.9167E-03	.9692E-03	.1027E-02	.1087E-02	.1148E-02	.1210E-02
PE 3	-.1883E-02	-.1911E-02	-.1944E-02	-.1983E-02	-.2025E-02	-.2069E-02	-.2114E-02	-.2158E-02	-.2202E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3787E-02	.3829E-02	.3876E-02	.3929E-02	.3985E-02	.4044E-02	.4101E-02	.4154E-02	.4208E-02
PSE 2	.1102E-02	.1085E-02	.1061E-02	.1029E-02	.9914E-03	.9478E-03	.8998E-03	.8488E-03	.7961E-03
PSE 3	.2685E-02	.2743E-02	.2815E-02	.2899E-02	.2994E-02	.3096E-02	.3201E-02	.3306E-02	.3411E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00

Appendix 6E-b Average HBP

46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.3109E+03	.3779E+03	.4429E+03	.5029E+03	.5550E+03	.5958E+03	.6222E+03	.6318E+03	.6239E+03
SYX	.4881E+03	.5261E+03	.5623E+03	.5949E+03	.6223E+03	.6429E+03	.6550E+03	.6579E+03	.6512E+03
SZZ	-.6748E+02	-.7415E+02	-.8051E+02	-.8628E+02	-.9116E+02	-.9487E+02	-.9716E+02	-.9786E+02	-.9689E+02

SHEAR STRESSES

SXY	-.9449E-06	.3958E-07	-.5271E-06	.4499E-07	-.8274E-06	-.2015E-07	.3731E-07	.4750E-06	-.4000E-06
SXZ	.2144E+02	.1974E+02	.1714E+02	.1366E+02	.9365E+01	.4357E+01	-.1195E+01	-.7069E+01	-.1297E+02
SYZ	-.1316E-06	.1158E-08	.8610E-07	-.5439E-07	.2787E-06	.8313E-07	-.4429E-06	-.8779E-07	.3651E-06

PRINCIPAL STRESSES

PS 1	.4881E+03	.5261E+03	.5623E+03	.5949E+03	.6223E+03	.6429E+03	.6550E+03	.6579E+03	.6512E+03
PS 2	.3121E+03	.3787E+03	.4434E+03	.5033E+03	.5552E+03	.5958E+03	.6222E+03	.6319E+03	.6241E+03



## Appendix 6E-b Average HBP

PS 3    -.6870E+02   -.7501E+02   -.8107E+02   -.8659E+02   -.9130E+02   -.9490E+02   -.9717E+02   -.9793E+02   -.9712E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .2784E+03    .3006E+03    .3217E+03    .3407E+03    .3568E+03    .3689E+03    .3761E+03    .3779E+03    .3741E+03  
PSS 2    .8799E+02    .7371E+02    .5943E+02    .4582E+02    .3359E+02    .2351E+02    .1641E+02    .1299E+02    .1353E+02  
PSS 3    .1904E+03    .2269E+03    .2622E+03    .2949E+03    .3232E+03    .3454E+03    .3597E+03    .3649E+03    .3606E+03

## DISPLACEMENTS

UX        -.2915E-02   -.2437E-02   -.1819E-02   -.1069E-02   -.2007E-03    .7676E-03    .1810E-02    .2892E-02    .3978E-02  
UY        -.1983E-10    .2408E-10    .5430E-10    .3366E-10    .5883E-10    .5872E-11    .4848E-10    .8945E-11   -.3710E-10  
UZ        .2487E+00    .2496E+00    .2504E+00    .2509E+00    .2510E+00    .2507E+00    .2500E+00    .2488E+00    .2472E+00

## NORMAL STRAINS

EXX        .4092E-03    .5492E-03    .6856E-03    .8123E-03    .9228E-03    .1010E-02    .1067E-02    .1090E-02    .1075E-02  
EYY        .1007E-02    .1050E-02    .1089E-02    .1123E-02    .1150E-02    .1169E-02    .1178E-02    .1177E-02    .1167E-02  
EZZ        -.8679E-03   -.9764E-03   -.1081E-02   -.1176E-02   -.1258E-02   -.1321E-02   -.1361E-02   -.1373E-02   -.1358E-02

## SHEAR STRAINS

EXY        -.6378E-11    .2671E-12   -.3558E-11    .3037E-12   -.5585E-11   -.1360E-12    .2518E-12    .3206E-11   -.2700E-11  
EXZ        .1447E-03    .1332E-03    .1157E-03    .9223E-04    .6321E-04    .2941E-04   -.8069E-05   -.4771E-04   -.8753E-04  
EYZ        -.8883E-12    .7819E-14    .5812E-12   -.3672E-12    .1881E-11    .5611E-12   -.2990E-11   -.5926E-12    .2464E-11

## PRINCIPAL STRAINS

PE 1        .1007E-02    .1050E-02    .1089E-02    .1123E-02    .1150E-02    .1169E-02    .1178E-02    .1177E-02    .1167E-02  
PE 2        .4133E-03    .5521E-03    .6875E-03    .8134E-03    .9233E-03    .1010E-02    .1067E-02    .1090E-02    .1075E-02  
PE 3        -.8719E-03   -.9793E-03   -.1083E-02   -.1177E-02   -.1259E-02   -.1321E-02   -.1361E-02   -.1373E-02   -.1359E-02

## PRINCIPAL SHEAR STRAINS

PSE 1        .1879E-02    .2029E-02    .2171E-02    .2300E-02    .2409E-02    .2490E-02    .2539E-02    .2551E-02    .2525E-02  
PSE 2        .5939E-03    .4976E-03    .4011E-03    .3093E-03    .2267E-03    .1587E-03    .1108E-03    .8768E-04    .9133E-04  
PSE 3        .1285E-02    .1531E-02    .1770E-02    .1991E-02    .2182E-02    .2331E-02    .2428E-02    .2463E-02    .2434E-02

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

## NORMAL STRESSES

SXX	.5524E+02	.5714E+02	.5876E+02	.6012E+02	.6120E+02	.6186E+02	.6200E+02	.6172E+02	.6112E+02
SYZ	.7177E+02	.7253E+02	.7308E+02	.7349E+02	.7376E+02	.7377E+02	.7346E+02	.7293E+02	.7229E+02
SZZ	-.2289E+02	-.2311E+02	-.2327E+02	-.2339E+02	-.2346E+02	-.2345E+02	-.2335E+02	-.2319E+02	-.2299E+02

## SHEAR STRESSES

SXY	.1436E-07	-.6637E-08	-.2067E-07	.1842E-08	.1732E-08	-.4730E-08	-.2487E-07	-.1824E-07	-.1419E-07
SXZ	.5901E+00	.2880E+00	-.5576E-01	-.4374E+00	-.8512E+00	-.1291E+01	-.1750E+01	-.2220E+01	-.2692E+01
SYZ	.2150E-07	-.6898E-08	-.8110E-08	-.7237E-09	.1317E-07	-.1143E-07	-.1006E-07	-.6920E-08	.5859E-08

## PRINCIPAL STRESSES

PS 1	.7177E+02	.7253E+02	.7308E+02	.7349E+02	.7376E+02	.7377E+02	.7346E+02	.7293E+02	.7229E+02
PS 2	.5525E+02	.5714E+02	.5876E+02	.6012E+02	.6121E+02	.6188E+02	.6204E+02	.6178E+02	.6120E+02
PS 3	-.2289E+02	-.2311E+02	-.2327E+02	-.2339E+02	-.2347E+02	-.2347E+02	-.2339E+02	-.2325E+02	-.2307E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.4733E+02	.4782E+02	.4817E+02	.4844E+02	.4861E+02	.4862E+02	.4842E+02	.4809E+02	.4768E+02
PSS 2	.8260E+01	.7692E+01	.7161E+01	.6682E+01	.6273E+01	.5946E+01	.5712E+01	.5577E+01	.5544E+01
PSS 3	.3907E+02	.4013E+02	.4101E+02	.4176E+02	.4234E+02	.4267E+02	.4271E+02	.4251E+02	.4214E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.3059E-02	.4361E-02	.5724E-02	.7128E-02	.8565E-02	.1004E-01	.1153E-01	.1302E-01	.1450E-01
UY	-.1871E-10	.1242E-09	.1424E-09	.5912E-10	-.1618E-10	.1128E-09	.1864E-11	.3090E-10	-.3996E-10
UZ	.2248E+00	.2246E+00	.2243E+00	.2239E+00	.2232E+00	.2224E+00	.2214E+00	.2203E+00	.2189E+00

## NORMAL STRAINS

EXX	.1271E-02	.1328E-02	.1377E-02	.1420E-02	.1453E-02	.1475E-02	.1482E-02	.1477E-02	.1462E-02
EYY	.2015E-02	.2020E-02	.2022E-02	.2021E-02	.2018E-02	.2011E-02	.1998E-02	.1982E-02	.1965E-02
EZZ	-.2245E-02	-.2283E-02	-.2314E-02	-.2339E-02	-.2357E-02	-.2364E-02	-.2359E-02	-.2344E-02	-.2323E-02

## SHEAR STRAINS

EXY	.1292E-11	-.5973E-12	-.1860E-11	.1658E-12	.1558E-12	-.4257E-12	-.2238E-11	-.1641E-11	-.1277E-11
EXZ	.5311E-04	.2592E-04	-.5018E-05	-.3937E-04	-.7660E-04	-.1162E-03	-.1575E-03	-.1998E-03	-.2423E-03
EYZ	.1935E-11	-.6208E-12	-.7299E-12	-.6513E-13	.1185E-11	-.1028E-11	-.9056E-12	-.6228E-12	.5273E-12

## PRINCIPAL STRAINS

PE 1	.2015E-02	.2020E-02	.2022E-02	.2021E-02	.2018E-02	.2011E-02	.1998E-02	.1982E-02	.1965E-02
PE 2	.1271E-02	.1328E-02	.1377E-02	.1420E-02	.1454E-02	.1476E-02	.1484E-02	.1480E-02	.1466E-02
PE 3	-.2245E-02	-.2283E-02	-.2314E-02	-.2339E-02	-.2357E-02	-.2365E-02	-.2360E-02	-.2347E-02	-.2327E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.4260E-02	.4304E-02	.4336E-02	.4360E-02	.4375E-02	.4376E-02	.4358E-02	.4328E-02	.4291E-02
PSE 2	.7434E-03	.6923E-03	.6445E-03	.6014E-03	.5646E-03	.5352E-03	.5141E-03	.5019E-03	.4989E-03
PSE 3	.3516E-02	.3611E-02	.3691E-02	.3758E-02	.3811E-02	.3841E-02	.3844E-02	.3826E-02	.3792E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00

Appendix 6E-b Average HBP

55.00 4.00  
 56.00 4.00  
 57.00 4.00  
 58.00 4.00  
 59.00 4.00

Z= 6.00 LAYER NO, 1

X Y  
 51.00 4.00  
 52.00 4.00  
 53.00 4.00  
 54.00 4.00  
 55.00 4.00  
 56.00 4.00  
 57.00 4.00  
 58.00 4.00  
 59.00 4.00

NORMAL STRESSES

SXX .5991E+03 .5599E+03 .5093E+03 .4507E+03 .3870E+03 .3212E+03 .2560E+03 .1941E+03 .1378E+03  
 SYX .6351E+03 .6105E+03 .5790E+03 .5421E+03 .5014E+03 .4586E+03 .4153E+03 .3730E+03 .3329E+03  
 SZZ -.9432E+02 -.9031E+02 -.8512E+02 -.7902E+02 -.7229E+02 -.6520E+02 -.5803E+02 -.5103E+02 -.4443E+02

SHEAR STRESSES

SXY -.1101E-06 .3435E-06 -.4750E-06 -.1051E-06 .1101E-06 .4000E-06 -.4750E-06 -.3731E-07 .2015E-07  
 SXZ -.1860E+02 -.2373E+02 -.2821E+02 -.3192E+02 -.3481E+02 -.3684E+02 -.3806E+02 -.3850E+02 -.3824E+02  
 SYZ -.6032E-07 -.2957E-06 .0000E+00 .1811E-06 -.6032E-07 -.1118E-06 -.8779E-07 .3389E-07 .8313E-07

PRINCIPAL STRESSES

PS 1 .6351E+03 .6105E+03 .5790E+03 .5421E+03 .5014E+03 .4586E+03 .4153E+03 .3730E+03 .3329E+03  
 PS 2 .5996E+03 .5608E+03 .5107E+03 .4526E+03 .3896E+03 .3246E+03 .2605E+03 .2000E+03 .1455E+03

## Appendix 6E-b Average HBP

PS 3   -.9482E+02   -.9118E+02   -.8646E+02   -.8093E+02   -.7491E+02   -.6869E+02   -.6258E+02   -.5694E+02   -.5213E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .3649E+03   .3509E+03   .3327E+03   .3115E+03   .2882E+03   .2637E+03   .2389E+03   .2149E+03   .1925E+03  
PSS 2   .1774E+02   .2489E+02   .3415E+02   .4474E+02   .5592E+02   .6699E+02   .7738E+02   .8648E+02   .9374E+02  
PSS 3   .3472E+03   .3260E+03   .2986E+03   .2668E+03   .2323E+03   .1967E+03   .1615E+03   .1285E+03   .9880E+02

## DISPLACEMENTS

UX       .5031E-02   .6017E-02   .6911E-02   .7693E-02   .8350E-02   .8875E-02   .9266E-02   .9530E-02   .9677E-02  
UY       -.1374E-10   .5413E-10   .0000E+00   -.6228E-10   -.1374E-10   .2111E-10   .8945E-11   -.9730E-11   .5872E-11  
UZ       .2451E+00   .2427E+00   .2398E+00   .2365E+00   .2329E+00   .2291E+00   .2251E+00   .2209E+00   .2167E+00

## NORMAL STRAINS

EXX       .1025E-02   .9445E-03   .8412E-03   .7215E-03   .5919E-03   .4587E-03   .3273E-03   .2035E-03   .9196E-04  
EYY       .1146E-02   .1115E-02   .1076E-02   .1030E-02   .9782E-03   .9226E-03   .8650E-03   .8072E-03   .7507E-03  
EZZ       -.1316E-02   -.1250E-02   -.1165E-02   -.1066E-02   -.9581E-03   -.8453E-03   -.7324E-03   -.6238E-03   -.5229E-03

## SHEAR STRAINS

EXY       -.7433E-12   .2319E-11   -.3206E-11   -.7093E-12   .7433E-12   .2700E-11   -.3206E-11   -.2518E-12   .1360E-12  
EXZ       -.1255E-03   -.1602E-03   -.1904E-03   -.2155E-03   -.2349E-03   -.2487E-03   -.2569E-03   -.2599E-03   -.2581E-03  
EYZ       -.4071E-12   -.1996E-11   .0000E+00   .1223E-11   -.4071E-12   -.7545E-12   -.5926E-12   .2287E-12   .5611E-12

## PRINCIPAL STRAINS

PE 1       .1146E-02   .1115E-02   .1076E-02   .1030E-02   .9782E-03   .9226E-03   .8650E-03   .8072E-03   .7507E-03  
PE 2       .1026E-02   .9475E-03   .8457E-03   .7280E-03   .6008E-03   .4704E-03   .3427E-03   .2235E-03   .1179E-03  
PE 3       -.1317E-02   -.1253E-02   -.1170E-02   -.1073E-02   -.9669E-03   -.8571E-03   -.7477E-03   -.6437E-03   -.5489E-03

## PRINCIPAL SHEAR STRAINS

PSE 1       .2463E-02   .2368E-02   .2246E-02   .2103E-02   .1945E-02   .1780E-02   .1613E-02   .1451E-02   .1300E-02  
PSE 2       .1197E-03   .1680E-03   .2305E-03   .3020E-03   .3774E-03   .4522E-03   .5223E-03   .5837E-03   .6328E-03  
PSE 3       .2344E-02   .2200E-02   .2015E-02   .1801E-02   .1568E-02   .1327E-02   .1090E-02   .8672E-03   .6669E-03

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

## NORMAL STRESSES

SXX	.6008E+02	.5851E+02	.5649E+02	.5415E+02	.5151E+02	.4854E+02	.4532E+02	.4203E+02	.3867E+02
SYY	.7142E+02	.7023E+02	.6876E+02	.6714E+02	.6535E+02	.6334E+02	.6115E+02	.5892E+02	.5666E+02
SZZ	-.2272E+02	-.2237E+02	-.2192E+02	-.2143E+02	-.2088E+02	-.2028E+02	-.1961E+02	-.1893E+02	-.1824E+02

## SHEAR STRESSES

SXY	.7198E-08	-.1318E-07	-.1156E-07	.2808E-07	.7703E-08	-.1562E-07	-.1156E-07	-.3474E-07	.4730E-08
SXZ	-.3156E+01	-.3603E+01	-.4028E+01	-.4422E+01	-.4781E+01	-.5099E+01	-.5375E+01	-.5607E+01	-.5793E+01
SYZ	-.5104E-08	-.2802E-07	.0000E+00	.1785E-08	-.5104E-08	-.2394E-07	-.6920E-08	-.1006E-07	-.1143E-07

## PRINCIPAL STRESSES

PS 1	.7142E+02	.7023E+02	.6876E+02	.6714E+02	.6535E+02	.6334E+02	.6115E+02	.5892E+02	.5666E+02
PS 2	.6020E+02	.5867E+02	.5670E+02	.5441E+02	.5183E+02	.4892E+02	.4577E+02	.4254E+02	.3926E+02
PS 3	-.2284E+02	-.2253E+02	-.2213E+02	-.2168E+02	-.2120E+02	-.2065E+02	-.2006E+02	-.1944E+02	-.1882E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.4713E+02	.4638E+02	.4545E+02	.4441E+02	.4328E+02	.4199E+02	.4060E+02	.3918E+02	.3774E+02
PSS 2	.5612E+01	.5778E+01	.6032E+01	.6365E+01	.6763E+01	.7210E+01	.7692E+01	.8193E+01	.8699E+01
PSS 3	.4152E+02	.4060E+02	.3941E+02	.3805E+02	.3651E+02	.3478E+02	.3291E+02	.3099E+02	.2904E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.1596E-01	.1738E-01	.1875E-01	.2006E-01	.2130E-01	.2246E-01	.2353E-01	.2451E-01	.2541E-01
UY	-.6020E-10	-.5164E-10	-.1164E-09	-.5164E-10	-.6020E-10	-.3996E-10	-.8552E-10	.1864E-11	-.3624E-11
UZ	.2173E+00	.2157E+00	.2138E+00	.2118E+00	.2095E+00	.2072E+00	.2048E+00	.2021E+00	.1994E+00

## NORMAL STRAINS

EXX	.1434E-02	.1392E-02	.1337E-02	.1272E-02	.1198E-02	.1116E-02	.1026E-02	.9343E-03	.8409E-03
EYY	.1945E-02	.1919E-02	.1889E-02	.1856E-02	.1821E-02	.1781E-02	.1738E-02	.1695E-02	.1650E-02
EZZ	-.2292E-02	-.2248E-02	-.2192E-02	-.2129E-02	-.2060E-02	-.1981E-02	-.1896E-02	-.1809E-02	-.1720E-02

## SHEAR STRAINS

EXY	.6479E-12	-.1186E-11	-.1041E-11	.2527E-11	.6932E-12	-.1406E-11	-.1041E-11	-.3126E-11	.4257E-12
EXZ	-.2840E-03	-.3243E-03	-.3625E-03	-.3980E-03	-.4303E-03	-.4589E-03	-.4837E-03	-.5046E-03	-.5214E-03
EYZ	-.4594E-12	-.2522E-11	.0000E+00	.1607E-12	-.4594E-12	-.2155E-11	-.6228E-12	-.9056E-12	-.1028E-11

## PRINCIPAL STRAINS

PE 1	.1945E-02	.1919E-02	.1889E-02	.1856E-02	.1821E-02	.1781E-02	.1738E-02	.1695E-02	.1650E-02
PE 2	.1440E-02	.1399E-02	.1346E-02	.1283E-02	.1212E-02	.1133E-02	.1046E-02	.9573E-03	.8672E-03
PE 3	-.2297E-02	-.2255E-02	-.2201E-02	-.2141E-02	-.2074E-02	-.1998E-02	-.1916E-02	-.1832E-02	-.1746E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.4242E-02	.4174E-02	.4090E-02	.3997E-02	.3895E-02	.3779E-02	.3654E-02	.3526E-02	.3397E-02
PSE 2	.5051E-03	.5200E-03	.5429E-03	.5728E-03	.6086E-03	.6489E-03	.6923E-03	.7374E-03	.7829E-03
PSE 3	.3737E-02	.3654E-02	.3547E-02	.3424E-02	.3286E-02	.3131E-02	.2962E-02	.2789E-02	.2614E-02



Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5450.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.39 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-b Average HBP

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.1305E+03	.1312E+03	.1256E+03	.1163E+03	.1068E+03	.1008E+03	.1020E+03	.1134E+03	.1374E+03
SYX	.2307E+03	.2400E+03	.2471E+03	.2534E+03	.2601E+03	.2688E+03	.2809E+03	.2974E+03	.3191E+03
SZZ	-.3042E+02	-.3160E+02	-.3238E+02	-.3297E+02	-.3362E+02	-.3463E+02	-.3624E+02	-.3867E+02	-.4204E+02

SHEAR STRESSES

SXY	.6236E-06	-.1643E-06	.3129E-06	-.5048E-06	-.4138E-06	-.1110E-05	.2227E-06	.4546E-06	-.1295E-05
SXZ	.1832E+02	.1742E+02	.1673E+02	.1642E+02	.1657E+02	.1717E+02	.1812E+02	.1927E+02	.2044E+02
SYZ	-.5526E-07	-.9425E-07	-.2787E-07	-.6100E-08	-.1913E-06	.2682E-07	-.1472E-06	-.1100E-06	.1559E-07

PRINCIPAL STRESSES

PS 1	.2307E+03	.2400E+03	.2471E+03	.2534E+03	.2601E+03	.2688E+03	.2809E+03	.2974E+03	.3191E+03
PS 2	.1325E+03	.1330E+03	.1273E+03	.1181E+03	.1087E+03	.1029E+03	.1043E+03	.1158E+03	.1397E+03

## Appendix 6E-b Average HBP

PS 3    -.3248E+02   -.3344E+02   -.3414E+02   -.3475E+02   -.3555E+02   -.3677E+02   -.3858E+02   -.4107E+02   -.4434E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1316E+03    .1367E+03    .1406E+03    .1441E+03    .1478E+03    .1528E+03    .1597E+03    .1692E+03    .1817E+03  
PSS 2    .4907E+02    .5348E+02    .5988E+02    .6763E+02    .7569E+02    .8295E+02    .8829E+02    .9079E+02    .8972E+02  
PSS 3    .8251E+02    .8323E+02    .8074E+02    .7643E+02    .7214E+02    .6984E+02    .7145E+02    .7845E+02    .9200E+02

## DISPLACEMENTS

UX        -.5086E-02   -.4936E-02   -.4799E-02   -.4686E-02   -.4601E-02   -.4544E-02   -.4502E-02   -.4457E-02   -.4382E-02  
UY        -.5331E-11   .2021E-10   -.2644E-10   -.4417E-10   .2952E-10   -.1417E-10   .2097E-10   .6623E-11   -.1398E-11  
UZ        .1304E+00    .1325E+00    .1345E+00    .1362E+00    .1379E+00    .1397E+00    .1416E+00    .1434E+00    .1452E+00

## NORMAL STRAINS

EXX        .1510E-03    .1456E-03    .1261E-03    .9796E-04    .6882E-04    .4701E-04    .4089E-04    .5717E-04    .1010E-03  
EYY        .4891E-03    .5128E-03    .5362E-03    .5605E-03    .5863E-03    .6142E-03    .6447E-03    .6781E-03    .7144E-03  
EZZ        -.3921E-03   -.4038E-03   -.4070E-03   -.4059E-03   -.4051E-03   -.4100E-03   -.4256E-03   -.4562E-03   -.5045E-03

## SHEAR STRAINS

EXY        .4209E-11   -.1109E-11    .2112E-11   -.3407E-11   -.2793E-11   -.7494E-11    .1503E-11    .3069E-11   -.8742E-11  
EXZ        .1237E-03    .1176E-03    .1130E-03    .1109E-03    .1119E-03    .1159E-03    .1223E-03    .1301E-03    .1380E-03  
EYZ        -.3730E-12   -.6362E-12   -.1881E-12   -.4117E-13   -.1291E-11    .1810E-12   -.9936E-12   -.7423E-12    .1053E-12

## PRINCIPAL STRAINS

PE 1        .4891E-03    .5128E-03    .5362E-03    .5605E-03    .5863E-03    .6142E-03    .6447E-03    .6781E-03    .7144E-03  
PE 2        .1579E-03    .1518E-03    .1320E-03    .1040E-03    .7534E-04    .5424E-04    .4877E-04    .6528E-04    .1087E-03  
PE 3        -.3990E-03   -.4100E-03   -.4130E-03   -.4119E-03   -.4116E-03   -.4172E-03   -.4335E-03   -.4643E-03   -.5123E-03

## PRINCIPAL SHEAR STRAINS

PSE 1        .8882E-03    .9228E-03    .9491E-03    .9724E-03    .9979E-03    .1031E-02    .1078E-02    .1142E-02    .1227E-02  
PSE 2        .3312E-03    .3610E-03    .4042E-03    .4565E-03    .5109E-03    .5599E-03    .5960E-03    .6128E-03    .6056E-03  
PSE 3        .5570E-03    .5618E-03    .5450E-03    .5159E-03    .4870E-03    .4714E-03    .4823E-03    .5296E-03    .6210E-03

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

## NORMAL STRESSES

SXX	.2548E+02	.2741E+02	.2940E+02	.3155E+02	.3372E+02	.3585E+02	.3795E+02	.4000E+02	.4198E+02
SYZ	.3670E+02	.3814E+02	.3960E+02	.4119E+02	.4275E+02	.4425E+02	.4566E+02	.4700E+02	.4824E+02
SZZ	-.1170E+02	-.1213E+02	-.1256E+02	-.1298E+02	-.1342E+02	-.1385E+02	-.1427E+02	-.1466E+02	-.1503E+02

## SHEAR STRESSES

SXY	.4219E-08	-.5540E-07	-.1596E-08	-.2043E-07	-.9854E-08	.1953E-07	-.5362E-07	-.1890E-07	-.1564E-07
SXZ	.3494E+01	.3411E+01	.3312E+01	.3196E+01	.3063E+01	.2911E+01	.2739E+01	.2544E+01	.2323E+01
SYZ	.3207E-08	.4864E-08	-.6765E-08	-.1157E-07	-.2022E-07	.1699E-07	.7150E-08	.1104E-07	-.1480E-07

## PRINCIPAL STRESSES

PS 1	.3670E+02	.3814E+02	.3960E+02	.4119E+02	.4275E+02	.4425E+02	.4566E+02	.4700E+02	.4824E+02
PS 2	.2580E+02	.2771E+02	.2966E+02	.3178E+02	.3391E+02	.3602E+02	.3809E+02	.4012E+02	.4207E+02
PS 3	-.1203E+02	-.1242E+02	-.1282E+02	-.1321E+02	-.1362E+02	-.1402E+02	-.1441E+02	-.1478E+02	-.1512E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2437E+02	.2528E+02	.2621E+02	.2720E+02	.2818E+02	.2913E+02	.3004E+02	.3089E+02	.3168E+02
PSS 2	.5450E+01	.5216E+01	.4967E+01	.4702E+01	.4417E+01	.4112E+01	.3786E+01	.3442E+01	.3085E+01
PSS 3	.1892E+02	.2006E+02	.2124E+02	.2250E+02	.2377E+02	.2502E+02	.2625E+02	.2745E+02	.2860E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.1362E-01	-.1304E-01	-.1240E-01	-.1170E-01	-.1094E-01	-.1012E-01	-.9251E-02	-.8327E-02	-.7346E-02
UY	.6438E-10	-.4346E-10	-.3124E-10	-.7644E-11	-.1846E-10	-.4422E-10	-.1096E-10	-.2530E-10	-.4106E-11
UZ	.1191E+00	.1207E+00	.1222E+00	.1234E+00	.1246E+00	.1258E+00	.1270E+00	.1281E+00	.1291E+00

## NORMAL STRAINS

EXX	.5576E-03	.6104E-03	.6646E-03	.7228E-03	.7817E-03	.8405E-03	.8987E-03	.9560E-03	.1012E-02
EYY	.1063E-02	.1093E-02	.1123E-02	.1156E-02	.1188E-02	.1218E-02	.1246E-02	.1271E-02	.1294E-02
EZZ	-.1116E-02	-.1169E-02	-.1224E-02	-.1281E-02	-.1339E-02	-.1396E-02	-.1451E-02	-.1504E-02	-.1553E-02

## SHEAR STRAINS

EXY	.3797E-12	-.4986E-11	-.1436E-12	-.1839E-11	-.8868E-12	.1758E-11	-.4826E-11	-.1701E-11	-.1408E-11
EXZ	.3145E-03	.3070E-03	.2981E-03	.2877E-03	.2757E-03	.2620E-03	.2465E-03	.2289E-03	.2090E-03
EYZ	.2886E-12	.4378E-12	-.6089E-12	-.1041E-11	-.1820E-11	.1529E-11	.6435E-12	.9940E-12	-.1332E-11

## PRINCIPAL STRAINS

PE 1	.1063E-02	.1093E-02	.1123E-02	.1156E-02	.1188E-02	.1218E-02	.1246E-02	.1271E-02	.1294E-02
PE 2	.5723E-03	.6235E-03	.6763E-03	.7330E-03	.7906E-03	.8481E-03	.9051E-03	.9613E-03	.1016E-02
PE 3	-.1130E-02	-.1182E-02	-.1235E-02	-.1292E-02	-.1348E-02	-.1404E-02	-.1458E-02	-.1509E-02	-.1558E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2193E-02	.2275E-02	.2359E-02	.2448E-02	.2536E-02	.2622E-02	.2703E-02	.2780E-02	.2851E-02
PSE 2	.4905E-03	.4694E-03	.4471E-03	.4232E-03	.3975E-03	.3701E-03	.3407E-03	.3098E-03	.2777E-03
PSE 3	.1703E-02	.1806E-02	.1911E-02	.2025E-02	.2139E-02	.2252E-02	.2363E-02	.2470E-02	.2574E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.39 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-b Average HBP

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.1752E+03	.2268E+03	.2900E+03	.3605E+03	.4328E+03	.5002E+03	.5553E+03	.5914E+03	.6035E+03
SYX	.3463E+03	.3787E+03	.4151E+03	.4535E+03	.4915E+03	.5257E+03	.5524E+03	.5687E+03	.5727E+03
SZZ	-.4642E+02	-.5177E+02	-.5788E+02	-.6440E+02	-.7082E+02	-.7661E+02	-.8121E+02	-.8411E+02	-.8492E+02

SHEAR STRESSES

SXY	-.8494E-06	-.1416E-05	.4571E-06	.2995E-06	.7249E-08	-.1228E-05	-.5525E-06	.4149E-06	-.2111E-06
SXZ	.2138E+02	.2180E+02	.2139E+02	.1991E+02	.1720E+02	.1324E+02	.8129E+01	.2082E+01	-.4502E+01
SYZ	.2425E-06	-.3160E-06	-.3181E-06	.2345E-06	.2366E-06	.1998E-06	-.3160E-06	-.2345E-06	-.3570E-07

PRINCIPAL STRESSES

PS 1	.3463E+03	.3787E+03	.4151E+03	.4535E+03	.4915E+03	.5257E+03	.5554E+03	.5914E+03	.6035E+03
PS 2	.1772E+03	.2285E+03	.2913E+03	.3615E+03	.4334E+03	.5005E+03	.5524E+03	.5687E+03	.5727E+03

## Appendix 6E-b Average HBP

PS 3   - .4847E+02   - .5347E+02   - .5919E+02   - .6533E+02   - .7141E+02   - .7691E+02   - .8132E+02   - .8412E+02   - .8494E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1974E+03   .2161E+03   .2372E+03   .2594E+03   .2815E+03   .3013E+03   .3184E+03   .3378E+03   .3442E+03  
PSS 2   .8455E+02   .7512E+02   .6190E+02   .4603E+02   .2904E+02   .1260E+02   .1507E+01   .1137E+02   .1541E+02  
PSS 3   .1128E+03   .1410E+03   .1753E+03   .2134E+03   .2524E+03   .2887E+03   .3169E+03   .3264E+03   .3288E+03

## DISPLACEMENTS

UX       - .4247E-02   - .4021E-02   - .3675E-02   - .3187E-02   - .2548E-02   - .1759E-02   - .8367E-03   .1861E-03   .1260E-02  
UY       .1840E-11   - .3542E-12   - .4007E-10   .1224E-10   - .5276E-10   - .6251E-10   - .2917E-10   - .8361E-11   - .6435E-10  
UZ       .1470E+00   .1488E+00   .1506E+00   .1526E+00   .1541E+00   .1552E+00   .1561E+00   .1568E+00   .1568E+00

## NORMAL STRAINS

EXX      .1755E-03   .2808E-03   .4124E-03   .5608E-03   .7140E-03   .8575E-03   .9760E-03   .1054E-02   .1082E-02  
EYY      .7531E-03   .7936E-03   .8347E-03   .8747E-03   .9120E-03   .9435E-03   .9662E-03   .9778E-03   .9780E-03  
EZZ     - .5723E-03   - .6592E-03   - .7617E-03   - .8733E-03   - .9859E-03   - .1089E-02   - .1172E-02   - .1225E-02   - .1241E-02

## SHEAR STRAINS

EXY     - .5733E-11   - .9560E-11   .3085E-11   .2022E-11   .4893E-13   - .8290E-11   - .3730E-11   .2801E-11   - .1425E-11  
EXZ      .1443E-03   .1471E-03   .1444E-03   .1344E-03   .1161E-03   .8939E-04   .5487E-04   .1405E-04   - .3039E-04  
EYZ      .1637E-11   - .2133E-11   - .2147E-11   .1583E-11   .1597E-11   .1349E-11   - .2133E-11   - .1583E-11   - .2410E-12

## PRINCIPAL STRAINS

PE 1     .7531E-03   .7936E-03   .8347E-03   .8747E-03   .9120E-03   .9435E-03   .9763E-03   .1055E-02   .1082E-02  
PE 2     .1824E-03   .2866E-03   .4169E-03   .5640E-03   .7160E-03   .8585E-03   .9662E-03   .9778E-03   .9780E-03  
PE 3     - .5792E-03   - .6649E-03   - .7661E-03   - .8764E-03   - .9878E-03   - .1090E-02   - .1173E-02   - .1225E-02   - .1242E-02

## PRINCIPAL SHEAR STRAINS

PSE 1   .1332E-02   .1459E-02   .1601E-02   .1751E-02   .1900E-02   .2034E-02   .2149E-02   .2280E-02   .2324E-02  
PSE 2   .5707E-03   .5071E-03   .4179E-03   .3107E-03   .1960E-03   .8504E-04   .1018E-04   .7673E-04   .1040E-03  
PSE 3   .7617E-03   .9515E-03   .1183E-02   .1440E-02   .1704E-02   .1949E-02   .2139E-02   .2203E-02   .2220E-02



## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.4384E+02	.4550E+02	.4687E+02	.4795E+02	.4891E+02	.4961E+02	.4985E+02	.4963E+02	.4922E+02
SYZ	.4936E+02	.5028E+02	.5094E+02	.5138E+02	.5178E+02	.5203E+02	.5196E+02	.5161E+02	.5123E+02
SZZ	-.1535E+02	-.1562E+02	-.1586E+02	-.1606E+02	-.1622E+02	-.1631E+02	-.1633E+02	-.1631E+02	-.1624E+02

## SHEAR STRESSES

SXY	.7556E-08	-.9758E-08	-.4112E-08	-.3038E-07	-.1188E-09	.2588E-07	.6698E-08	.9033E-08	-.3499E-08
SXZ	.2073E+01	.1793E+01	.1481E+01	.1139E+01	.7726E+00	.3825E+00	-.2736E-01	-.4497E+00	-.8741E+00
SYZ	-.9228E-08	.1398E-08	-.2610E-07	-.2440E-07	.1903E-07	.5928E-08	-.5750E-08	-.1465E-07	.1306E-07

## PRINCIPAL STRESSES

PS 1	.4936E+02	.5028E+02	.5094E+02	.5138E+02	.5178E+02	.5203E+02	.5196E+02	.5161E+02	.5123E+02
PS 2	.4391E+02	.4555E+02	.4690E+02	.4797E+02	.4892E+02	.4961E+02	.4985E+02	.4963E+02	.4923E+02
PS 3	-.1542E+02	-.1568E+02	-.1589E+02	-.1608E+02	-.1623E+02	-.1631E+02	-.1633E+02	-.1632E+02	-.1625E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.3239E+02	.3298E+02	.3342E+02	.3373E+02	.3400E+02	.3417E+02	.3415E+02	.3396E+02	.3374E+02
PSS 2	.2722E+01	.2363E+01	.2018E+01	.1701E+01	.1427E+01	.1209E+01	.1058E+01	.9862E+00	.9984E+00
PSS 3	.2967E+02	.3061E+02	.3140E+02	.3203E+02	.3257E+02	.3296E+02	.3309E+02	.3298E+02	.3274E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.6305E-02	-.5202E-02	-.4044E-02	-.2846E-02	-.1627E-02	-.3783E-03	.8946E-03	.2168E-02	.3417E-02
UY	-.7567E-11	-.1304E-10	.4070E-10	.8840E-10	-.7655E-11	.1009E-09	.2445E-10	.2815E-11	-.4932E-11
UZ	.1299E+00	.1308E+00	.1317E+00	.1326E+00	.1332E+00	.1335E+00	.1339E+00	.1343E+00	.1342E+00

## NORMAL STRAINS

EXX	.1065E-02	.1112E-02	.1153E-02	.1186E-02	.1216E-02	.1237E-02	.1246E-02	.1243E-02	.1232E-02
EYY	.1313E-02	.1327E-02	.1336E-02	.1340E-02	.1344E-02	.1346E-02	.1341E-02	.1332E-02	.1323E-02
EZZ	-.1599E-02	-.1638E-02	-.1670E-02	-.1694E-02	-.1715E-02	-.1729E-02	-.1732E-02	-.1725E-02	-.1713E-02

## SHEAR STRAINS

EXY	.6800E-12	-.8782E-12	-.3701E-12	-.2735E-11	-.1069E-13	.2329E-11	.6028E-12	.8129E-12	-.3149E-12
EXZ	.1866E-03	.1614E-03	.1333E-03	.1026E-03	.6953E-04	.3442E-04	-.2463E-05	-.4047E-04	-.7867E-04
EYZ	-.8305E-12	.1258E-12	-.2349E-11	-.2196E-11	.1713E-11	.5335E-12	-.5175E-12	-.1318E-11	.1176E-11

## PRINCIPAL STRAINS

PE 1	.1313E-02	.1327E-02	.1336E-02	.1340E-02	.1344E-02	.1346E-02	.1341E-02	.1332E-02	.1323E-02
PE 2	.1068E-02	.1115E-02	.1155E-02	.1187E-02	.1216E-02	.1237E-02	.1246E-02	.1243E-02	.1233E-02
PE 3	-.1602E-02	-.1641E-02	-.1671E-02	-.1695E-02	-.1716E-02	-.1729E-02	-.1732E-02	-.1725E-02	-.1714E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2915E-02	.2968E-02	.3007E-02	.3035E-02	.3060E-02	.3075E-02	.3073E-02	.3057E-02	.3037E-02
PSE 2	.2450E-03	.2126E-03	.1816E-03	.1531E-03	.1284E-03	.1088E-03	.9526E-04	.8875E-04	.8986E-04
PSE 3	.2670E-02	.2755E-02	.2826E-02	.2882E-02	.2932E-02	.2967E-02	.2978E-02	.2968E-02	.2947E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.39 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-b Average HBP

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Z= 6.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.5895E+03	.5513E+03
SYY	.5638E+03	.5425E+03
SZZ	-.8346E+02	-.7988E+02

## SHEAR STRESSES

SXY	-.2892E-06	.5525E-06
SXZ	-.1110E+02	-.1718E+02
SYZ	.3578E-06	-.4768E-06

## PRINCIPAL STRESSES

PS 1	.5897E+03	.5517E+03
PS 2	.5638E+03	.5425E+03
PS 3	-.8364E+02	-.8034E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.3366E+03	.3160E+03
PSS 2	.1295E+02	.4616E+01
PSS 3	.3237E+03	.3114E+03

## DISPLACEMENTS

UX	.2334E-02	.3355E-02
UY	-.3495E-10	-.5821E-10
UZ	.1558E+00	.1540E+00

Appendix 6E-b Average HBP

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## NORMAL STRAINS

EXX	.1053E-02	.9733E-03
EYY	.9666E-03	.9438E-03
EZZ	-.1218E-02	-.1157E-02

## SHEAR STRAINS

EXY	-.1952E-11	.3730E-11
EXZ	-.7492E-04	-.1159E-03
EYZ	.2415E-11	-.3219E-11

## PRINCIPAL STRAINS

PE 1	.1054E-02	.9749E-03
PE 2	.9666E-03	.9438E-03
PE 3	-.1218E-02	-.1158E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.2272E-02	.2133E-02
PSE 2	.8740E-04	.3116E-04
PSE 3	.2185E-02	.2102E-02

Z= 18.00 LAYER NO, 2

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	.4868E+02	.4794E+02
SYY	.5090E+02	.5055E+02
SZZ	-.1610E+02	-.1591E+02

Appendix 6E-b Average HBP

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## SHEAR STRESSES

SXY -.7918E-08 -.6698E-08  
SXZ -.1295E+01 -.1707E+01  
SYZ -.2747E-07 .1490E-07

## PRINCIPAL STRESSES

PS 1 .5090E+02 .5055E+02  
PS 2 .4870E+02 .4798E+02  
PS 3 -.1613E+02 -.1595E+02

## PRINCIPAL SHEAR STRESSES

PSS 1 .3351E+02 .3325E+02  
PSS 2 .1098E+01 .1283E+01  
PSS 3 .3241E+02 .3197E+02

## DISPLACEMENTS

UX .4653E-02 .5887E-02  
UY .3133E-10 .5821E-10  
UZ .1335E+00 .1322E+00

## NORMAL STRAINS

EXX .1217E-02 .1194E-02  
EYY .1317E-02 .1311E-02  
EZZ -.1698E-02 -.1679E-02

## SHEAR STRAINS

EXY -.7126E-12 -.6028E-12  
EXZ -.1166E-03 -.1536E-03  
EYZ -.2472E-11 .1341E-11

## PRINCIPAL STRAINS

Appendix 6E-b Average HBP

PE 1 .1317E-02 .1311E-02  
 PE 2 .1218E-02 .1196E-02  
 PE 3 -.1700E-02 -.1681E-02

PRINCIPAL SHEAR STRAINS  
 PSE 1 .3016E-02 .2993E-02  
 PSE 2 .9882E-04 .1155E-03  
 PSE 3 .2917E-02 .2877E-02

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

Appendix 6E-b Average HBP

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.4332E+03	.4562E+03	.4633E+03	.4538E+03	.4284E+03	.3894E+03	.3404E+03	.2851E+03	.2273E+03
SYX	.4837E+03	.5000E+03	.5077E+03	.5063E+03	.4963E+03	.4790E+03	.4562E+03	.4297E+03	.4014E+03
SZZ	-.7094E+02	-.7339E+02	-.7438E+02	-.7385E+02	-.7187E+02	-.6864E+02	-.6445E+02	-.5960E+02	-.5444E+02



## Appendix 6E-b Average HBP

## SHEAR STRESSES

SXY	.4985E-06	-.5709E-06	-.2887E-06	.5678E-06	-.6580E-06	.6264E-06	-.5843E-06	-.6262E-06	.2612E-06
SXZ	.2010E+02	.1576E+02	.1120E+02	.6666E+01	.2457E+01	-.1186E+01	-.4073E+01	-.6117E+01	-.7286E+01
SYZ	.1357E-06	-.1165E-06	-.1639E-06	-.2063E-06	.2247E-07	-.1706E-06	-.1978E-06	-.8884E-07	.1400E-06

## PRINCIPAL STRESSES

PS 1	.4837E+03	.5000E+03	.5077E+03	.5063E+03	.4963E+03	.4790E+03	.4562E+03	.4297E+03	.4014E+03
PS 2	.4340E+03	.4567E+03	.4636E+03	.4539E+03	.4284E+03	.3894E+03	.3404E+03	.2852E+03	.2275E+03
PS 3	-.7174E+02	-.7386E+02	-.7461E+02	-.7394E+02	-.7188E+02	-.6864E+02	-.6449E+02	-.5971E+02	-.5462E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.2777E+03	.2869E+03	.2912E+03	.2901E+03	.2841E+03	.2738E+03	.2603E+03	.2447E+03	.2280E+03
PSS 2	.2484E+02	.2167E+02	.2206E+02	.2622E+02	.3398E+02	.4480E+02	.5787E+02	.7220E+02	.8693E+02
PSS 3	.2529E+03	.2653E+03	.2691E+03	.2639E+03	.2501E+03	.2290E+03	.2025E+03	.1725E+03	.1411E+03

## DISPLACEMENTS

UX	-.6066E-02	-.5319E-02	-.4543E-02	-.3772E-02	-.3042E-02	-.2382E-02	-.1819E-02	-.1370E-02	-.1044E-02
UY	.1626E-11	-.4944E-10	.4043E-10	-.3710E-10	-.2596E-11	-.4815E-10	-.7891E-10	.3576E-11	-.5572E-12
UZ	.2279E+00	.2306E+00	.2330E+00	.2350E+00	.2366E+00	.2379E+00	.2390E+00	.2399E+00	.2406E+00

## NORMAL STRAINS

EXX	.7219E-03	.7673E-03	.7792E-03	.7561E-03	.6995E-03	.6145E-03	.5082E-03	.3891E-03	.2648E-03
EYY	.8923E-03	.9151E-03	.9289E-03	.9334E-03	.9289E-03	.9169E-03	.8990E-03	.8768E-03	.8522E-03
EZZ	-.9797E-03	-.1020E-02	-.1036E-02	-.1025E-02	-.9888E-03	-.9315E-03	-.8581E-03	-.7745E-03	-.6862E-03

## SHEAR STRAINS

EXY	.3365E-11	-.3853E-11	-.1949E-11	.3833E-11	-.4442E-11	.4228E-11	-.3944E-11	-.4227E-11	.1763E-11
EXZ	.1356E-03	.1064E-03	.7558E-04	.4500E-04	.1658E-04	-.8005E-05	-.2749E-04	-.4129E-04	-.4918E-04
EYZ	.9162E-12	-.7867E-12	-.1106E-11	-.1392E-11	.1517E-12	-.1151E-11	-.1335E-11	-.5997E-12	.9448E-12

## PRINCIPAL STRAINS

PE 1	.8923E-03	.9151E-03	.9289E-03	.9334E-03	.9289E-03	.9169E-03	.8990E-03	.8768E-03	.8522E-03
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Appendix 6E-b Average HBP

PE 2 .7246E-03 .7688E-03 .7800E-03 .7564E-03 .6995E-03 .6145E-03 .5084E-03 .3894E-03 .2654E-03  
 PE 3 -.9824E-03 -.1022E-02 -.1036E-02 -.1025E-02 -.9888E-03 -.9315E-03 -.8583E-03 -.7748E-03 -.6869E-03

PRINCIPAL SHEAR STRAINS

PSE 1 .1875E-02 .1937E-02 .1965E-02 .1958E-02 .1918E-02 .1848E-02 .1757E-02 .1652E-02 .1539E-02  
 PSE 2 .1677E-03 .1463E-03 .1489E-03 .1770E-03 .2294E-03 .3024E-03 .3906E-03 .4874E-03 .5868E-03  
 PSE 3 .1707E-02 .1791E-02 .1816E-02 .1781E-02 .1688E-02 .1546E-02 .1367E-02 .1164E-02 .9522E-03

Z= 18.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX .4087E+02 .4207E+02 .4294E+02 .4350E+02 .4375E+02 .4376E+02 .4359E+02 .4314E+02 .4252E+02  
 SYY .5823E+02 .5941E+02 .6042E+02 .6126E+02 .6194E+02 .6252E+02 .6303E+02 .6335E+02 .6354E+02  
 SZZ -.1879E+02 -.1916E+02 -.1947E+02 -.1973E+02 -.1994E+02 -.2012E+02 -.2028E+02 -.2039E+02 -.2046E+02

SHEAR STRESSES

SXY .1769E-07 -.3957E-07 -.2318E-07 .1163E-07 -.1953E-07 .1328E-08 .4097E-08 .5321E-10 -.7795E-07  
 SXZ .4048E+01 .3767E+01 .3481E+01 .3198E+01 .2923E+01 .2664E+01 .2427E+01 .2217E+01 .2036E+01  
 SYZ -.7806E-09 -.2415E-07 .8754E-09 .2641E-07 -.2015E-08 -.7885E-08 -.2739E-07 .1781E-07 -.1188E-07

PRINCIPAL STRESSES

PS 1 .5823E+02 .5941E+02 .6042E+02 .6126E+02 .6194E+02 .6252E+02 .6303E+02 .6335E+02 .6354E+02

## Appendix 6E-b Average HBP

PS 2	.4114E+02	.4230E+02	.4314E+02	.4366E+02	.4388E+02	.4387E+02	.4368E+02	.4322E+02	.4259E+02
PS 3	-.1906E+02	-.1939E+02	-.1967E+02	-.1990E+02	-.2008E+02	-.2023E+02	-.2037E+02	-.2046E+02	-.2052E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.3865E+02	.3940E+02	.4004E+02	.4058E+02	.4101E+02	.4137E+02	.4170E+02	.4190E+02	.4203E+02
PSS 2	.8545E+01	.8555E+01	.8640E+01	.8800E+01	.9030E+01	.9325E+01	.9674E+01	.1006E+02	.1048E+02
PSS 3	.3010E+02	.3084E+02	.3140E+02	.3178E+02	.3198E+02	.3205E+02	.3202E+02	.3184E+02	.3155E+02

## DISPLACEMENTS

UX	-.2217E-01	-.2125E-01	-.2031E-01	-.1935E-01	-.1838E-01	-.1741E-01	-.1643E-01	-.1548E-01	-.1456E-01
UY	.8409E-11	-.2684E-10	.2398E-10	-.1631E-10	-.5929E-11	-.1249E-10	.1736E-10	-.3232E-11	-.1820E-10
UZ	.2067E+00	.2088E+00	.2109E+00	.2128E+00	.2145E+00	.2162E+00	.2177E+00	.2192E+00	.2207E+00

## NORMAL STRAINS

EXX	.9021E-03	.9326E-03	.9538E-03	.9655E-03	.9683E-03	.9639E-03	.9541E-03	.9369E-03	.9147E-03
EYY	.1683E-02	.1713E-02	.1740E-02	.1765E-02	.1787E-02	.1808E-02	.1829E-02	.1846E-02	.1861E-02
EZZ	-.1782E-02	-.1822E-02	-.1855E-02	-.1880E-02	-.1898E-02	-.1910E-02	-.1920E-02	-.1922E-02	-.1919E-02

## SHEAR STRAINS

EXY	.1592E-11	-.3561E-11	-.2086E-11	.1047E-11	-.1758E-11	.1195E-12	.3687E-12	.4789E-14	-.7015E-11
EXZ	.3643E-03	.3390E-03	.3133E-03	.2878E-03	.2631E-03	.2398E-03	.2185E-03	.1995E-03	.1832E-03
EYZ	-.7025E-13	-.2174E-11	.7879E-13	.2377E-11	-.1813E-12	-.7096E-12	-.2465E-11	.1603E-11	-.1069E-11

## PRINCIPAL STRAINS

PE 1	.1683E-02	.1713E-02	.1740E-02	.1765E-02	.1787E-02	.1808E-02	.1829E-02	.1846E-02	.1861E-02
PE 2	.9144E-03	.9430E-03	.9625E-03	.9728E-03	.9743E-03	.9689E-03	.9583E-03	.9404E-03	.9177E-03
PE 3	-.1795E-02	-.1833E-02	-.1864E-02	-.1887E-02	-.1904E-02	-.1915E-02	-.1924E-02	-.1925E-02	-.1922E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3478E-02	.3546E-02	.3604E-02	.3652E-02	.3691E-02	.3724E-02	.3753E-02	.3771E-02	.3783E-02
PSE 2	.7691E-03	.7700E-03	.7776E-03	.7920E-03	.8127E-03	.8393E-03	.8706E-03	.9056E-03	.9429E-03
PSE 3	.2709E-02	.2776E-02	.2826E-02	.2860E-02	.2878E-02	.2884E-02	.2882E-02	.2866E-02	.2840E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00

Appendix 6E-b Average HBP

28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.1705E+03	.1178E+03	.7167E+02	.3382E+02	.4715E+01	-.1636E+02	-.3038E+02	-.3832E+02	-.4058E+02
SYX	.3733E+03	.3471E+03	.3239E+03	.3047E+03	.2900E+03	.2795E+03	.2731E+03	.2705E+03	.2717E+03
SZZ	-.4926E+02	-.4437E+02	-.4000E+02	-.3632E+02	-.3340E+02	-.3126E+02	-.2986E+02	-.2917E+02	-.2917E+02

SHEAR STRESSES

SXY	-.1467E-05	-.3203E-06	-.1157E-05	.3704E-06	-.4465E-06	.1018E-05	.2841E-06	-.5315E-06	-.3741E-06
SXZ	-.7601E+01	-.7120E+01	-.5968E+01	-.4303E+01	-.2297E+01	-.7901E-01	.2261E+01	.4676E+01	.7131E+01
SYZ	.1124E-07	.1686E-07	.1003E-06	.9681E-08	-.5525E-07	.1478E-06	.1498E-06	-.6155E-07	-.6066E-07

PRINCIPAL STRESSES

PS 1	.3733E+03	.3471E+03	.3239E+03	.3047E+03	.2900E+03	.2795E+03	.2731E+03	.2705E+03	.2717E+03
PS 2	.1708E+03	.1181E+03	.7199E+02	.3408E+02	.4853E+01	-.1636E+02	-.2784E+02	-.2720E+02	-.2575E+02

## Appendix 6E-b Average HBP

PS 3   - .4952E+02   - .4469E+02   - .4032E+02   - .3658E+02   - .3354E+02   - .3126E+02   - .3239E+02   - .4029E+02   - .4401E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .2114E+03   .1959E+03   .1821E+03   .1707E+03   .1618E+03   .1554E+03   .1527E+03   .1554E+03   .1578E+03  
PSS 2   .1013E+03   .1145E+03   .1260E+03   .1353E+03   .1426E+03   .1479E+03   .1505E+03   .1488E+03   .1487E+03  
PSS 3   .1102E+03   .8138E+02   .5616E+02   .3533E+02   .1920E+02   .7449E+01   .2276E+01   .6543E+01   .9131E+01

## DISPLACEMENTS

UX     - .8410E-03   - .7559E-03   - .7780E-03   - .8905E-03   - .1074E-02   - .1312E-02   - .1587E-02   - .1886E-02   - .2197E-02  
UY     - .2901E-11   .4007E-10   - .1120E-10   - .1068E-11   .2588E-10   .1450E-10   - .3549E-10   .2430E-11   .9069E-12  
UZ     .2412E+00   .2418E+00   .2423E+00   .2429E+00   .2435E+00   .2441E+00   .2449E+00   .2457E+00   .2466E+00

## NORMAL STRAINS

EXX     .1428E-03   .2958E-04   - .6922E-04   - .1503E-03   - .2127E-03   - .2581E-03   - .2888E-03   - .3070E-03   - .3136E-03  
EYY     .8272E-03   .8034E-03   .7820E-03   .7640E-03   .7500E-03   .7404E-03   .7354E-03   .7353E-03   .7402E-03  
EZZ     - .5990E-03   - .5176E-03   - .4461E-03   - .3870E-03   - .3414E-03   - .3084E-03   - .2870E-03   - .2761E-03   - .2751E-03

## SHEAR STRAINS

EXY     - .9901E-11   - .2162E-11   - .7807E-11   .2500E-11   - .3014E-11   .6869E-11   .1917E-11   - .3588E-11   - .2525E-11  
EXZ     - .5130E-04   - .4806E-04   - .4029E-04   - .2905E-04   - .1550E-04   - .5333E-06   .1526E-04   .3156E-04   .4813E-04  
EYZ     .7584E-13   .1138E-12   .6769E-12   .6535E-13   - .3729E-12   .9975E-12   .1011E-11   - .4155E-12   - .4095E-12

## PRINCIPAL STRAINS

PE 1     .8272E-03   .8034E-03   .7820E-03   .7640E-03   .7500E-03   .7404E-03   .7354E-03   .7353E-03   .7402E-03  
PE 2     .1436E-03   .3063E-04   - .6815E-04   - .1494E-03   - .2122E-03   - .2581E-03   - .2802E-03   - .2694E-03   - .2636E-03  
PE 3     - .5999E-03   - .5187E-03   - .4472E-03   - .3879E-03   - .3418E-03   - .3084E-03   - .2956E-03   - .3136E-03   - .3252E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .1427E-02   .1322E-02   .1229E-02   .1152E-02   .1092E-02   .1049E-02   .1031E-02   .1049E-02   .1065E-02  
PSE 2   .6835E-03   .7728E-03   .8502E-03   .9135E-03   .9623E-03   .9985E-03   .1016E-02   .1005E-02   .1004E-02  
PSE 3   .7435E-03   .5493E-03   .3791E-03   .2385E-03   .1296E-03   .5028E-04   .1536E-04   .4417E-04   .6163E-04

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

## NORMAL STRESSES

SXX	.4184E+02	.4121E+02	.4055E+02	.3995E+02	.3949E+02	.3923E+02	.3921E+02	.3946E+02	.4000E+02
SYX	.6370E+02	.6390E+02	.6401E+02	.6412E+02	.6426E+02	.6447E+02	.6477E+02	.6518E+02	.6569E+02
SZZ	-.2051E+02	-.2058E+02	-.2063E+02	-.2067E+02	-.2072E+02	-.2079E+02	-.2088E+02	-.2100E+02	-.2116E+02

## SHEAR STRESSES

SXY	-.4597E-07	.1330E-07	-.4861E-07	-.6462E-07	-.4677E-07	.6393E-08	.6129E-07	.1962E-07	-.2258E-07
SXZ	.1885E+01	.1767E+01	.1680E+01	.1622E+01	.1589E+01	.1576E+01	.1579E+01	.1592E+01	.1608E+01
SYZ	-.2992E-08	.2734E-07	.1491E-07	-.1016E-07	.1173E-07	-.2412E-08	-.2192E-08	.7391E-08	-.1807E-07

## PRINCIPAL STRESSES

PS 1	.6370E+02	.6390E+02	.6401E+02	.6412E+02	.6426E+02	.6447E+02	.6477E+02	.6518E+02	.6569E+02
PS 2	.4190E+02	.4126E+02	.4059E+02	.3999E+02	.3953E+02	.3927E+02	.3925E+02	.3950E+02	.4004E+02
PS 3	-.2057E+02	-.2063E+02	-.2067E+02	-.2072E+02	-.2076E+02	-.2083E+02	-.2092E+02	-.2105E+02	-.2120E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.4213E+02	.4226E+02	.4234E+02	.4242E+02	.4251E+02	.4265E+02	.4285E+02	.4311E+02	.4345E+02
PSS 2	.1090E+02	.1132E+02	.1171E+02	.1207E+02	.1237E+02	.1260E+02	.1276E+02	.1284E+02	.1283E+02
PSS 3	.3123E+02	.3094E+02	.3063E+02	.3035E+02	.3015E+02	.3005E+02	.3009E+02	.3027E+02	.3062E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.1365E-01	-.1276E-01	-.1190E-01	-.1107E-01	-.1026E-01	-.9465E-02	-.8675E-02	-.7882E-02	-.7079E-02
UY	-.1203E-10	.1792E-10	.4454E-10	-.6804E-11	.6027E-12	-.2800E-10	-.3918E-10	.3505E-11	.6488E-11
UZ	.2220E+00	.2232E+00	.2244E+00	.2255E+00	.2266E+00	.2276E+00	.2285E+00	.2293E+00	.2301E+00

## NORMAL STRAINS

EXX	.8909E-03	.8683E-03	.8453E-03	.8246E-03	.8083E-03	.7980E-03	.7949E-03	.8000E-03	.8137E-03
EYY	.1875E-02	.1889E-02	.1901E-02	.1912E-02	.1923E-02	.1934E-02	.1945E-02	.1957E-02	.1970E-02
EZZ	-.1915E-02	-.1912E-02	-.1907E-02	-.1903E-02	-.1901E-02	-.1903E-02	-.1909E-02	-.1921E-02	-.1938E-02

## SHEAR STRAINS

EXY	-.4137E-11	.1197E-11	-.4375E-11	-.5816E-11	-.4209E-11	.5754E-12	.5516E-11	.1765E-11	-.2032E-11
EXZ	.1697E-03	.1590E-03	.1512E-03	.1460E-03	.1430E-03	.1419E-03	.1421E-03	.1433E-03	.1447E-03
EYZ	-.2692E-12	.2461E-11	.1342E-11	-.9147E-12	.1056E-11	-.2171E-12	-.1973E-12	.6652E-12	-.1626E-11

## PRINCIPAL STRAINS

PE 1	.1875E-02	.1889E-02	.1901E-02	.1912E-02	.1923E-02	.1934E-02	.1945E-02	.1957E-02	.1970E-02
PE 2	.8934E-03	.8705E-03	.8474E-03	.8266E-03	.8102E-03	.7998E-03	.7968E-03	.8018E-03	.8156E-03
PE 3	-.1918E-02	-.1914E-02	-.1910E-02	-.1905E-02	-.1903E-02	-.1905E-02	-.1911E-02	-.1923E-02	-.1940E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3792E-02	.3804E-02	.3811E-02	.3818E-02	.3826E-02	.3839E-02	.3856E-02	.3880E-02	.3910E-02
PSE 2	.9811E-03	.1019E-02	.1054E-02	.1086E-02	.1113E-02	.1134E-02	.1149E-02	.1155E-02	.1154E-02
PSE 3	.2811E-02	.2785E-02	.2757E-02	.2732E-02	.2713E-02	.2705E-02	.2708E-02	.2725E-02	.2756E-02



Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00

Appendix 6E-b Average HBP

37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	-.3729E+02	-.2821E+02	-.1277E+02	.1015E+02	.4175E+02	.8292E+02	.1334E+03	.1920E+03	.2565E+03
SYX	.2766E+03	.2854E+03	.2982E+03	.3154E+03	.3372E+03	.3640E+03	.3954E+03	.4307E+03	.4688E+03
SZZ	-.2988E+02	-.3130E+02	-.3348E+02	-.3645E+02	-.4028E+02	-.4499E+02	-.5051E+02	-.5671E+02	-.6338E+02

SHEAR STRESSES

SXY	-.1293E-07	.3889E-06	.4321E-06	.6412E-06	-.8686E-06	.1295E-05	.5281E-06	-.1501E-05	-.7926E-06
SXZ	.9604E+01	.1208E+02	.1451E+02	.1686E+02	.1903E+02	.2090E+02	.2228E+02	.2302E+02	.2298E+02
SYZ	.1446E-06	.1394E-06	-.6001E-07	-.3560E-07	.1626E-07	.1531E-06	-.7009E-07	-.4344E-07	.2249E-06

PRINCIPAL STRESSES

PS 1	.2766E+03	.2854E+03	.2982E+03	.3154E+03	.3372E+03	.3640E+03	.3954E+03	.4307E+03	.4688E+03
PS 2	-.2329E+02	-.1759E+02	-.5295E+01	.1561E+02	.4595E+02	.8625E+02	.1361E+03	.1941E+03	.2581E+03

## Appendix 6E-b Average HBP

PS 3    -.4388E+02   -.4193E+02   -.4095E+02   -.4191E+02   -.4448E+02   -.4832E+02   -.5317E+02   -.5882E+02   -.6502E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1602E+03    .1637E+03    .1696E+03    .1786E+03    .1909E+03    .2062E+03    .2243E+03    .2448E+03    .2669E+03  
PSS 2    .1499E+03    .1515E+03    .1517E+03    .1499E+03    .1456E+03    .1389E+03    .1297E+03    .1183E+03    .1053E+03  
PSS 3    .1029E+02    .1217E+02    .1783E+02    .2876E+02    .4522E+02    .6728E+02    .9461E+02    .1264E+03    .1616E+03

## DISPLACEMENTS

UX        -.2509E-02   -.2812E-02   -.3091E-02   -.3335E-02   -.3524E-02   -.3641E-02   -.3663E-02   -.3572E-02   -.3354E-02  
UY        .9714E-11   -.3937E-10   -.3592E-11   .2316E-10   -.1600E-10   -.2859E-10   -.5920E-10   .2313E-10   -.1688E-10  
UZ        .2476E+00   .2487E+00   .2499E+00   .2512E+00   .2526E+00   .2539E+00   .2553E+00   .2567E+00   .2581E+00

## NORMAL STRAINS

EXX       -.3091E-03   -.2929E-03   -.2635E-03   -.2187E-03   -.1554E-03   -.7184E-04   .3172E-04   .1527E-03   .2865E-03  
EYY       .7503E-03   .7656E-03   .7860E-03   .8114E-03   .8418E-03   .8768E-03   .9160E-03   .9584E-03   .1003E-02  
EZZ       -.2841E-03   -.3033E-03   -.3334E-03   -.3760E-03   -.4323E-03   -.5035E-03   -.5890E-03   -.6866E-03   -.7930E-03

## SHEAR STRAINS

EXY       -.8725E-13   .2625E-11   .2916E-11   .4328E-11   -.5863E-11   .8744E-11   .3564E-11   -.1013E-10   -.5350E-11  
EXZ       .6483E-04   .8151E-04   .9795E-04   .1138E-03   .1285E-03   .1411E-03   .1504E-03   .1554E-03   .1551E-03  
EYZ       .9759E-12   .9410E-12   -.4050E-12   -.2403E-12   .1097E-12   .1034E-11   -.4731E-12   -.2932E-12   .1518E-11

## PRINCIPAL STRAINS

PE 1       .7503E-03   .7656E-03   .7860E-03   .8114E-03   .8418E-03   .8768E-03   .9160E-03   .9584E-03   .1003E-02  
PE 2       -.2619E-03   -.2570E-03   -.2383E-03   -.2002E-03   -.1413E-03   -.6061E-04   .4070E-04   .1598E-03   .2920E-03  
PE 3       -.3313E-03   -.3392E-03   -.3587E-03   -.3944E-03   -.4465E-03   -.5148E-03   -.5979E-03   -.6937E-03   -.7986E-03

## PRINCIPAL SHEAR STRAINS

PSE 1       .1082E-02   .1105E-02   .1145E-02   .1206E-02   .1288E-02   .1392E-02   .1514E-02   .1652E-02   .1802E-02  
PSE 2       .1012E-02   .1023E-02   .1024E-02   .1012E-02   .9831E-03   .9374E-03   .8753E-03   .7986E-03   .7110E-03  
PSE 3       .6948E-04   .8217E-04   .1203E-03   .1941E-03   .3052E-03   .4542E-03   .6386E-03   .8535E-03   .1091E-02

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

## NORMAL STRESSES

SXX	.4083E+02	.4196E+02	.4337E+02	.4503E+02	.4692E+02	.4897E+02	.5111E+02	.5324E+02	.5543E+02
SYZ	.6632E+02	.6706E+02	.6790E+02	.6884E+02	.6984E+02	.7089E+02	.7191E+02	.7286E+02	.7383E+02
SZZ	-.2135E+02	-.2157E+02	-.2183E+02	-.2211E+02	-.2241E+02	-.2271E+02	-.2301E+02	-.2329E+02	-.2359E+02

## SHEAR STRESSES

SXY	.6306E-07	.7352E-07	.3414E-07	-.1925E-07	-.6588E-07	-.1395E-07	.2160E-07	-.5329E-07	.7681E-08
SXZ	.1621E+01	.1624E+01	.1612E+01	.1576E+01	.1513E+01	.1415E+01	.1278E+01	.1098E+01	.8736E+00
SYZ	-.5659E-08	-.4257E-08	.9502E-08	-.2104E-07	.3007E-07	-.2309E-08	-.1682E-07	.1325E-07	.6920E-08

## PRINCIPAL STRESSES

PS 1	.6632E+02	.6706E+02	.6790E+02	.6884E+02	.6984E+02	.7089E+02	.7191E+02	.7286E+02	.7383E+02
PS 2	.4087E+02	.4200E+02	.4341E+02	.4507E+02	.4695E+02	.4900E+02	.5113E+02	.5326E+02	.5544E+02
PS 3	-.2139E+02	-.2162E+02	-.2187E+02	-.2215E+02	-.2244E+02	-.2274E+02	-.2303E+02	-.2331E+02	-.2360E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.4386E+02	.4434E+02	.4489E+02	.4549E+02	.4614E+02	.4681E+02	.4747E+02	.4809E+02	.4872E+02
PSS 2	.1272E+02	.1253E+02	.1225E+02	.1188E+02	.1145E+02	.1094E+02	.1039E+02	.9803E+01	.9196E+01
PSS 3	.3113E+02	.3181E+02	.3264E+02	.3361E+02	.3470E+02	.3587E+02	.3708E+02	.3828E+02	.3952E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	-.6258E-02	-.5411E-02	-.4529E-02	-.3604E-02	-.2627E-02	-.1591E-02	-.4880E-03	.6857E-03	.1913E-02
UY	.3381E-12	-.6300E-10	.1772E-10	-.2258E-10	.2378E-10	-.8070E-10	.1087E-10	.1530E-11	.3651E-10
UZ	.2309E+00	.2316E+00	.2323E+00	.2329E+00	.2334E+00	.2337E+00	.2340E+00	.2343E+00	.2344E+00

## NORMAL STRAINS

EXX	.8364E-03	.8679E-03	.9080E-03	.9560E-03	.1011E-02	.1070E-02	.1133E-02	.1196E-02	.1262E-02
EYY	.1983E-02	.1998E-02	.2012E-02	.2027E-02	.2042E-02	.2057E-02	.2069E-02	.2079E-02	.2090E-02
EZZ	-.1962E-02	-.1991E-02	-.2026E-02	-.2065E-02	-.2109E-02	-.2155E-02	-.2202E-02	-.2248E-02	-.2294E-02

## SHEAR STRAINS

EXY	.5676E-11	.6617E-11	.3073E-11	-.1733E-11	-.5929E-11	-.1256E-11	.1944E-11	-.4796E-11	.6913E-12
EXZ	.1459E-03	.1462E-03	.1451E-03	.1419E-03	.1361E-03	.1273E-03	.1150E-03	.9884E-04	.7862E-04
EYZ	-.5093E-12	-.3831E-12	.8552E-12	-.1893E-11	.2707E-11	-.2078E-12	-.1514E-11	.1192E-11	.6228E-12

## PRINCIPAL STRAINS

PE 1	.1983E-02	.1998E-02	.2012E-02	.2027E-02	.2042E-02	.2057E-02	.2069E-02	.2079E-02	.2090E-02
PE 2	.8383E-03	.8698E-03	.9098E-03	.9576E-03	.1012E-02	.1072E-02	.1134E-02	.1197E-02	.1262E-02
PE 3	-.1964E-02	-.1993E-02	-.2028E-02	-.2067E-02	-.2111E-02	-.2157E-02	-.2203E-02	-.2248E-02	-.2295E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.3947E-02	.3990E-02	.4040E-02	.4094E-02	.4153E-02	.4213E-02	.4273E-02	.4328E-02	.4384E-02
PSE 2	.1145E-02	.1128E-02	.1102E-02	.1070E-02	.1030E-02	.9849E-03	.9352E-03	.8822E-03	.8277E-03
PSE 3	.2802E-02	.2863E-02	.2937E-02	.3025E-02	.3123E-02	.3228E-02	.3337E-02	.3445E-02	.3557E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 6.00 18.00  
 X-Y POINT(S)  

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00

Appendix 6E-b Average HBP

46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.3245E+03	.3932E+03	.4599E+03	.5215E+03	.5750E+03	.6170E+03	.6442E+03	.6542E+03	.6459E+03
SYX	.5082E+03	.5473E+03	.5845E+03	.6180E+03	.6463E+03	.6675E+03	.6800E+03	.6830E+03	.6760E+03
SZZ	-.7029E+02	-.7714E+02	-.8368E+02	-.8960E+02	-.9463E+02	-.9845E+02	-.1008E+03	-.1015E+03	-.1005E+03

SHEAR STRESSES

SXY	.8779E-06	.7049E-06	-.1657E-05	-.3260E-06	-.1092E-05	.7061E-06	.1110E-05	-.4792E-06	.5572E-06
SXZ	.2209E+02	.2030E+02	.1761E+02	.1401E+02	.9580E+01	.4417E+01	-.1311E+01	-.7375E+01	-.1346E+02
SYZ	-.1291E-06	-.7289E-07	-.4971E-07	.2349E-06	-.1640E-06	.1116E-07	.2556E-07	.1334E-06	-.1100E-06

PRINCIPAL STRESSES

PS 1	.5082E+03	.5473E+03	.5845E+03	.6180E+03	.6463E+03	.6675E+03	.6800E+03	.6830E+03	.6760E+03
PS 2	.3257E+03	.3940E+03	.4604E+03	.5218E+03	.5752E+03	.6170E+03	.6442E+03	.6543E+03	.6462E+03

## Appendix 6E-b Average HBP

PS 3   -.7152E+02   -.7802E+02   -.8425E+02   -.8992E+02   -.9476E+02   -.9847E+02   -.1008E+03   -.1016E+03   -.1008E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .2899E+03   .3127E+03   .3344E+03   .3540E+03   .3705E+03   .3830E+03   .3904E+03   .3923E+03   .3884E+03  
PSS 2   .9125E+02   .7664E+02   .6202E+02   .4810E+02   .3556E+02   .2521E+02   .1790E+02   .1436E+02   .1490E+02  
PSS 3   .1986E+03   .2360E+03   .2723E+03   .3059E+03   .3350E+03   .3578E+03   .3725E+03   .3779E+03   .3735E+03

## DISPLACEMENTS

UX     -.2999E-02   -.2500E-02   -.1858E-02   -.1081E-02   -.1822E-03   .8195E-03   .1897E-02   .3016E-02   .4139E-02  
UY     -.2781E-10   .7644E-11   -.4179E-10   -.1628E-10   -.7413E-10   .3654E-10   -.5457E-10   .5944E-11   -.4915E-10  
UZ     .2593E+00   .2602E+00   .2610E+00   .2615E+00   .2616E+00   .2613E+00   .2605E+00   .2593E+00   .2576E+00

## NORMAL STRAINS

EXX     .4280E-03   .5715E-03   .7115E-03   .8414E-03   .9549E-03   .1045E-02   .1104E-02   .1127E-02   .1111E-02  
EYY     .1048E-02   .1092E-02   .1132E-02   .1167E-02   .1195E-02   .1215E-02   .1225E-02   .1224E-02   .1213E-02  
EZZ     -.9043E-03   -.1016E-02   -.1123E-02   -.1221E-02   -.1305E-02   -.1370E-02   -.1411E-02   -.1424E-02   -.1408E-02

## SHEAR STRAINS

EXY     .5926E-11   .4758E-11   -.1118E-10   -.2201E-11   -.7372E-11   .4766E-11   .7490E-11   -.3234E-11   .3761E-11  
EXZ     .1491E-03   .1371E-03   .1189E-03   .9459E-04   .6467E-04   .2981E-04   -.8851E-05   -.4978E-04   -.9088E-04  
EYZ     -.8714E-12   -.4920E-12   -.3356E-12   .1586E-11   -.1107E-11   .7532E-13   .1726E-12   .9007E-12   -.7427E-12

## PRINCIPAL STRAINS

PE 1     .1048E-02   .1092E-02   .1132E-02   .1167E-02   .1195E-02   .1215E-02   .1225E-02   .1224E-02   .1213E-02  
PE 2     .4321E-03   .5745E-03   .7134E-03   .8425E-03   .9553E-03   .1045E-02   .1104E-02   .1127E-02   .1112E-02  
PE 3     -.9085E-03   -.1019E-02   -.1125E-02   -.1222E-02   -.1306E-02   -.1370E-02   -.1411E-02   -.1424E-02   -.1409E-02

## PRINCIPAL SHEAR STRAINS

PSE 1   .1957E-02   .2111E-02   .2257E-02   .2389E-02   .2501E-02   .2585E-02   .2635E-02   .2648E-02   .2622E-02  
PSE 2   .6160E-03   .5173E-03   .4187E-03   .3246E-03   .2400E-03   .1702E-03   .1208E-03   .9693E-04   .1005E-03  
PSE 3   .1341E-02   .1593E-02   .1838E-02   .2065E-02   .2261E-02   .2415E-02   .2515E-02   .2551E-02   .2521E-02



## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

## NORMAL STRESSES

SXX	.5758E+02	.5954E+02	.6121E+02	.6265E+02	.6376E+02	.6443E+02	.6458E+02	.6432E+02	.6365E+02
SYY	.7476E+02	.7555E+02	.7611E+02	.7657E+02	.7684E+02	.7684E+02	.7652E+02	.7600E+02	.7530E+02
SZZ	-.2386E+02	-.2408E+02	-.2425E+02	-.2438E+02	-.2445E+02	-.2444E+02	-.2434E+02	-.2418E+02	-.2396E+02

## SHEAR STRESSES

SXY	-.3076E-07	-.4533E-07	-.3308E-07	.2327E-08	-.9308E-08	-.1904E-07	-.1721E-07	-.1785E-07	-.1227E-07
SXZ	.6038E+00	.2894E+00	-.6807E-01	-.4646E+00	-.8943E+00	-.1351E+01	-.1827E+01	-.2315E+01	-.2805E+01
SYZ	-.1888E-08	.6238E-08	.1181E-07	-.6406E-08	-.2578E-07	.1765E-07	.2700E-07	-.5445E-08	-.2372E-07

## PRINCIPAL STRESSES

PS 1	.7476E+02	.7555E+02	.7611E+02	.7657E+02	.7684E+02	.7684E+02	.7652E+02	.7600E+02	.7530E+02
PS 2	.5758E+02	.5954E+02	.6121E+02	.6265E+02	.6377E+02	.6445E+02	.6462E+02	.6438E+02	.6374E+02
PS 3	-.2386E+02	-.2409E+02	-.2425E+02	-.2438E+02	-.2446E+02	-.2446E+02	-.2437E+02	-.2424E+02	-.2405E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.4931E+02	.4982E+02	.5018E+02	.5048E+02	.5065E+02	.5065E+02	.5045E+02	.5012E+02	.4967E+02
PSS 2	.8590E+01	.8003E+01	.7453E+01	.6958E+01	.6535E+01	.6196E+01	.5954E+01	.5814E+01	.5780E+01
PSS 3	.4072E+02	.4181E+02	.4273E+02	.4352E+02	.4412E+02	.4446E+02	.4449E+02	.4431E+02	.4389E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.3203E-02	.4560E-02	.5981E-02	.7440E-02	.8937E-02	.1047E-01	.1203E-01	.1357E-01	.1511E-01
UY	-.5504E-10	.1322E-10	-.1732E-10	.1669E-10	-.2038E-10	-.6410E-10	.1158E-10	-.1729E-10	-.1737E-10
UZ	.2344E+00	.2342E+00	.2339E+00	.2334E+00	.2327E+00	.2318E+00	.2308E+00	.2296E+00	.2282E+00

## NORMAL STRAINS

EXX	.1325E-02	.1384E-02	.1435E-02	.1479E-02	.1514E-02	.1536E-02	.1544E-02	.1539E-02	.1523E-02
EYY	.2099E-02	.2105E-02	.2106E-02	.2106E-02	.2103E-02	.2095E-02	.2081E-02	.2065E-02	.2047E-02
EZZ	-.2339E-02	-.2379E-02	-.2410E-02	-.2437E-02	-.2455E-02	-.2463E-02	-.2457E-02	-.2443E-02	-.2420E-02

## SHEAR STRAINS

EXY	-.2768E-11	-.4080E-11	-.2977E-11	.2095E-12	-.8377E-12	-.1714E-11	-.1549E-11	-.1607E-11	-.1104E-11
EXZ	.5434E-04	.2604E-04	-.6126E-05	-.4182E-04	-.8049E-04	-.1216E-03	-.1645E-03	-.2084E-03	-.2524E-03
EYZ	-.1699E-12	.5615E-12	.1063E-11	-.5765E-12	-.2320E-11	.1588E-11	.2430E-11	-.4900E-12	-.2135E-11

## PRINCIPAL STRAINS

PE 1	.2099E-02	.2105E-02	.2106E-02	.2106E-02	.2103E-02	.2095E-02	.2081E-02	.2065E-02	.2047E-02
PE 2	.1326E-02	.1384E-02	.1435E-02	.1480E-02	.1515E-02	.1537E-02	.1545E-02	.1542E-02	.1527E-02
PE 3	-.2340E-02	-.2379E-02	-.2410E-02	-.2437E-02	-.2456E-02	-.2464E-02	-.2459E-02	-.2446E-02	-.2424E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.4438E-02	.4483E-02	.4516E-02	.4543E-02	.4559E-02	.4559E-02	.4540E-02	.4511E-02	.4471E-02
PSE 2	.7731E-03	.7202E-03	.6707E-03	.6262E-03	.5881E-03	.5577E-03	.5359E-03	.5232E-03	.5202E-03
PSE 3	.3665E-02	.3763E-02	.3846E-02	.3917E-02	.3971E-02	.4001E-02	.4004E-02	.3988E-02	.3950E-02

Appendix 6E-b Average HBP

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	6.000 IN
2	30000.	.350	12.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 6.00 18.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00

Appendix 6E-b Average HBP

55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

Z= 6.00 LAYER NO, 1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.6204E+03	.5801E+03	.5282E+03	.4680E+03	.4026E+03	.3351E+03	.2680E+03	.2041E+03	.1458E+03
SYX	.6593E+03	.6340E+03	.6014E+03	.5634E+03	.5216E+03	.4774E+03	.4327E+03	.3889E+03	.3474E+03
SZZ	-.9787E+02	-.9374E+02	-.8839E+02	-.8211E+02	-.7519E+02	-.6790E+02	-.6050E+02	-.5327E+02	-.4643E+02

SHEAR STRESSES

SXY	-.7794E-06	-.5082E-06	.4792E-06	-.1161E-05	-.6511E-06	-.5572E-06	.4792E-06	-.1110E-05	.1201E-05
SXZ	-.1927E+02	-.2457E+02	-.2919E+02	-.3303E+02	-.3602E+02	-.3815E+02	-.3945E+02	-.3994E+02	-.3972E+02
SYZ	-.1759E-06	-.1876E-06	.0000E+00	-.1876E-06	-.1759E-06	-.1100E-06	.1334E-06	.2556E-07	.1116E-07

PRINCIPAL STRESSES

PS 1	.6593E+03	.6340E+03	.6014E+03	.5634E+03	.5216E+03	.4774E+03	.4327E+03	.3889E+03	.3474E+03
PS 2	.6209E+03	.5810E+03	.5295E+03	.4700E+03	.4053E+03	.3386E+03	.2727E+03	.2102E+03	.1537E+03

## Appendix 6E-b Average HBP

PS 3   - .9838E+02   - .9463E+02   - .8977E+02   - .8409E+02   - .7789E+02   - .7148E+02   - .6517E+02   - .5932E+02   - .5431E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .3789E+03   .3643E+03   .3456E+03   .3237E+03   .2997E+03   .2745E+03   .2489E+03   .2241E+03   .2009E+03  
PSS 2   .1920E+02   .2650E+02   .3595E+02   .4672E+02   .5811E+02   .6940E+02   .8002E+02   .8937E+02   .9686E+02  
PSS 3   .3597E+03   .3378E+03   .3097E+03   .2770E+03   .2416E+03   .2051E+03   .1689E+03   .1347E+03   .1040E+03

## DISPLACEMENTS

UX        .5228E-02   .6248E-02   .7173E-02   .7984E-02   .8667E-02   .9214E-02   .9624E-02   .9903E-02   .1006E-01  
UY        - .7503E-10   - .3977E-10   .0000E+00   - .3977E-10   .4138E-10   .6726E-10   .5944E-11   .3634E-11   .3654E-10  
UZ        .2555E+00   .2529E+00   .2499E+00   .2465E+00   .2428E+00   .2389E+00   .2347E+00   .2304E+00   .2260E+00

## NORMAL STRAINS

EXX       .1060E-02   .9775E-03   .8715E-03   .7488E-03   .6160E-03   .4793E-03   .3443E-03   .2166E-03   .1012E-03  
EYY       .1191E-02   .1159E-02   .1119E-02   .1071E-02   .1017E-02   .9598E-03   .9002E-03   .8402E-03   .7816E-03  
EZZ       - .1364E-02   - .1297E-02   - .1209E-02   - .1108E-02   - .9966E-03   - .8807E-03   - .7643E-03   - .6520E-03   - .5476E-03

## SHEAR STRAINS

EXY       - .5261E-11   - .3430E-11   .3234E-11   - .7835E-11   - .4395E-11   - .3761E-11   .3234E-11   - .7490E-11   .8108E-11  
EXZ       - .1301E-03   - .1658E-03   - .1970E-03   - .2230E-03   - .2431E-03   - .2575E-03   - .2663E-03   - .2696E-03   - .2681E-03  
EYZ       - .1187E-11   - .1266E-11   .0000E+00   - .1266E-11   - .1187E-11   - .7427E-12   .9007E-12   .1726E-12   .7532E-13

## PRINCIPAL STRAINS

PE 1       .1191E-02   .1159E-02   .1119E-02   .1071E-02   .1017E-02   .9598E-03   .9002E-03   .8402E-03   .7816E-03  
PE 2       .1062E-02   .9805E-03   .8761E-03   .7555E-03   .6251E-03   .4914E-03   .3601E-03   .2370E-03   .1278E-03  
PE 3       - .1366E-02   - .1300E-02   - .1214E-02   - .1114E-02   - .1006E-02   - .8928E-03   - .7801E-03   - .6725E-03   - .5742E-03

## PRINCIPAL SHEAR STRAINS

PSE 1       .2557E-02   .2459E-02   .2333E-02   .2185E-02   .2023E-02   .1853E-02   .1680E-02   .1513E-02   .1356E-02  
PSE 2       .1296E-03   .1789E-03   .2426E-03   .3154E-03   .3922E-03   .4685E-03   .5401E-03   .6032E-03   .6538E-03  
PSE 3       .2428E-02   .2280E-02   .2090E-02   .1870E-02   .1631E-02   .1384E-02   .1140E-02   .9095E-03   .7020E-03

## Appendix 6E-b Average HBP

Z= 18.00 LAYER NO, 2

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

## NORMAL STRESSES

SXX	.6257E+02	.6095E+02	.5885E+02	.5639E+02	.5366E+02	.5058E+02	.4724E+02	.4378E+02	.4030E+02
SYY	.7440E+02	.7316E+02	.7164E+02	.6992E+02	.6807E+02	.6598E+02	.6371E+02	.6136E+02	.5901E+02
SZZ	-.2368E+02	-.2331E+02	-.2285E+02	-.2233E+02	-.2176E+02	-.2113E+02	-.2044E+02	-.1973E+02	-.1901E+02

## SHEAR STRESSES

SXY	-.7564E-08	.8912E-08	-.1195E-07	-.8912E-08	-.7337E-08	.1227E-07	-.1195E-07	-.1259E-07	-.1076E-07
SXZ	-.3286E+01	-.3751E+01	-.4191E+01	-.4601E+01	-.4974E+01	-.5305E+01	-.5592E+01	-.5834E+01	-.6029E+01
SYZ	-.2252E-07	.1933E-07	.0000E+00	-.1048E-07	.7281E-08	.6080E-08	-.5445E-08	-.2800E-08	.1765E-07

## PRINCIPAL STRESSES

PS 1	.7440E+02	.7316E+02	.7164E+02	.6992E+02	.6807E+02	.6598E+02	.6371E+02	.6136E+02	.5901E+02
PS 2	.6270E+02	.6112E+02	.5907E+02	.5666E+02	.5399E+02	.5097E+02	.4770E+02	.4432E+02	.4091E+02
PS 3	-.2380E+02	-.2348E+02	-.2307E+02	-.2259E+02	-.2209E+02	-.2152E+02	-.2090E+02	-.2026E+02	-.1961E+02

## PRINCIPAL SHEAR STRESSES

PSS 1	.4910E+02	.4832E+02	.4735E+02	.4626E+02	.4508E+02	.4375E+02	.4230E+02	.4081E+02	.3931E+02
PSS 2	.5851E+01	.6022E+01	.6285E+01	.6629E+01	.7041E+01	.7504E+01	.8004E+01	.8523E+01	.9048E+01
PSS 3	.4325E+02	.4230E+02	.4107E+02	.3963E+02	.3804E+02	.3624E+02	.3430E+02	.3229E+02	.3026E+02

## Appendix 6E-b Average HBP

## DISPLACEMENTS

UX	.1664E-01	.1811E-01	.1954E-01	.2090E-01	.2219E-01	.2340E-01	.2451E-01	.2554E-01	.2647E-01
UY	-.7042E-10	-.1142E-10	.0000E+00	-.1142E-10	.4599E-10	-.1737E-10	-.1729E-10	.1158E-10	-.6410E-10
UZ	.2266E+00	.2248E+00	.2229E+00	.2208E+00	.2185E+00	.2161E+00	.2135E+00	.2107E+00	.2079E+00

## NORMAL STRAINS

EXX	.1494E-02	.1450E-02	.1393E-02	.1325E-02	.1248E-02	.1163E-02	.1070E-02	.9737E-03	.8768E-03
EYY	.2026E-02	.2000E-02	.1968E-02	.1933E-02	.1897E-02	.1856E-02	.1811E-02	.1765E-02	.1718E-02
EZZ	-.2387E-02	-.2342E-02	-.2284E-02	-.2218E-02	-.2146E-02	-.2064E-02	-.1976E-02	-.1884E-02	-.1792E-02

## SHEAR STRAINS

EXY	-.6808E-12	.8021E-12	-.1075E-11	-.8021E-12	-.6603E-12	.1104E-11	-.1075E-11	-.1133E-11	-.9685E-12
EXZ	-.2957E-03	-.3376E-03	-.3772E-03	-.4141E-03	-.4477E-03	-.4775E-03	-.5033E-03	-.5250E-03	-.5426E-03
EYZ	-.2027E-11	.1739E-11	.0000E+00	-.9429E-12	.6553E-12	.5472E-12	-.4900E-12	-.2520E-12	.1588E-11

## PRINCIPAL STRAINS

PE 1	.2026E-02	.2000E-02	.1968E-02	.1933E-02	.1897E-02	.1856E-02	.1811E-02	.1765E-02	.1718E-02
PE 2	.1500E-02	.1458E-02	.1402E-02	.1337E-02	.1263E-02	.1180E-02	.1091E-02	.9976E-03	.9041E-03
PE 3	-.2393E-02	-.2349E-02	-.2294E-02	-.2230E-02	-.2160E-02	-.2082E-02	-.1997E-02	-.1908E-02	-.1820E-02

## PRINCIPAL SHEAR STRAINS

PSE 1	.4419E-02	.4349E-02	.4262E-02	.4163E-02	.4057E-02	.3937E-02	.3807E-02	.3673E-02	.3538E-02
PSE 2	.5265E-03	.5419E-03	.5656E-03	.5966E-03	.6336E-03	.6754E-03	.7203E-03	.7671E-03	.8143E-03
PSE 3	.3893E-02	.3807E-02	.3696E-02	.3567E-02	.3423E-02	.3262E-02	.3087E-02	.2906E-02	.2724E-02





Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 3900.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 3.71 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-c Composite Pavement

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	-.6189E+02	-.6139E+02	-.5777E+02	-.5267E+02	-.4795E+02	-.4481E+02	-.4359E+02	-.4420E+02	-.4673E+02
SYX	-.7042E+02	-.6958E+02	-.6547E+02	-.5976E+02	-.5442E+02	-.5071E+02	-.4895E+02	-.4899E+02	-.5089E+02
SZZ	-.5560E+02	-.5207E+02	-.4259E+02	-.3015E+02	-.1835E+02	-.9572E+01	-.4439E+01	-.2717E+01	-.4555E+01

SHEAR STRESSES

SXY	.2095E-08	.8994E-08	.2297E-08	-.3768E-08	.2362E-07	-.9467E-09	.2024E-08	.5535E-08	.9331E-08
SXZ	.1132E+02	.3483E+01	-.2125E+01	-.4021E+01	-.2165E+01	.2227E+01	.7866E+01	.1427E+02	.2181E+02
SYZ	-.4119E-08	.4128E-06	-.4746E-06	-.4386E-06	.5879E-07	-.1866E-06	.4708E-07	-.1873E-06	-.4908E-07

PRINCIPAL STRESSES

PS 1	-.4699E+02	-.5092E+02	-.4230E+02	-.2945E+02	-.1819E+02	-.9432E+01	-.2918E+01	.1720E+01	.4695E+01
PS 2	-.7042E+02	-.6255E+02	-.5806E+02	-.5337E+02	-.4811E+02	-.4495E+02	-.4511E+02	-.4863E+02	-.5089E+02

## Appendix 6E-c Composite Pavement

PS 3    -.7050E+02   -.6958E+02   -.6547E+02   -.5976E+02   -.5442E+02   -.5071E+02   -.4895E+02   -.4899E+02   -.5598E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1175E+02   .9333E+01   .1158E+02   .1515E+02   .1811E+02   .2064E+02   .2302E+02   .2535E+02   .3034E+02  
PSS 2   .1171E+02   .5817E+01   .7883E+01   .1196E+02   .1496E+02   .1776E+02   .2110E+02   .2518E+02   .2779E+02  
PSS 3   .4037E-01   .3515E+01   .3701E+01   .3197E+01   .3156E+01   .2878E+01   .1918E+01   .1765E+00   .2548E+01

## DISPLACEMENTS

UX       .9296E-03   .8847E-03   .8374E-03   .7868E-03   .7321E-03   .6726E-03   .6084E-03   .5398E-03   .4673E-03  
UY       .2005E-11   .6307E-12   -.4663E-11   -.3122E-11   -.3986E-13   -.3475E-11   -.2148E-11   -.7612E-12   .3651E-12  
UZ       .5422E-01   .5440E-01   .5445E-01   .5430E-01   .5401E-01   .5371E-01   .5353E-01   .5357E-01   .5388E-01

## NORMAL STRAINS

EXX     -.4447E-04   -.4703E-04   -.4988E-04   -.5300E-04   -.5620E-04   -.5929E-04   -.6226E-04   -.6525E-04   -.6832E-04  
EYY     -.7324E-04   -.7467E-04   -.7585E-04   -.7693E-04   -.7803E-04   -.7919E-04   -.8034E-04   -.8142E-04   -.8234E-04  
EZZ     -.2322E-04   -.1558E-04   .1358E-05   .2300E-04   .4370E-04   .5965E-04   .6987E-04   .7474E-04   .7403E-04

## SHEAR STRAINS

EXY     .1414E-13   .6071E-13   .1550E-13   -.2544E-13   .1594E-12   -.6390E-14   .1366E-13   .3736E-13   .6298E-13  
EXZ     .7643E-04   .2351E-04   -.1435E-04   -.2714E-04   -.1461E-04   .1503E-04   .5309E-04   .9634E-04   .1472E-03  
EYZ     -.2780E-13   .2786E-11   -.3204E-11   -.2960E-11   .3968E-12   -.1259E-11   .3178E-12   -.1264E-11   -.3313E-12

## PRINCIPAL STRAINS

PE 1     .5819E-05   -.1167E-04   .2343E-05   .2535E-04   .4423E-04   .6013E-04   .7501E-04   .8972E-04   .1052E-03  
PE 2     -.7324E-04   -.5094E-04   -.5087E-04   -.5535E-04   -.5673E-04   -.5976E-04   -.6740E-04   -.8022E-04   -.8234E-04  
PE 3     -.7351E-04   -.7467E-04   -.7585E-04   -.7693E-04   -.7803E-04   -.7919E-04   -.8034E-04   -.8142E-04   -.9954E-04

## PRINCIPAL SHEAR STRAINS

PSE 1   .7933E-04   .6300E-04   .7819E-04   .1023E-03   .1223E-03   .1393E-03   .1554E-03   .1711E-03   .2048E-03  
PSE 2   .7906E-04   .3927E-04   .5321E-04   .8070E-04   .1010E-03   .1199E-03   .1424E-03   .1699E-03   .1876E-03  
PSE 3   .2725E-06   .2373E-04   .2498E-04   .2158E-04   .2130E-04   .1943E-04   .1295E-04   .1192E-05   .1720E-04

## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

## NORMAL STRESSES

SXX	.2813E+03	.2918E+03	.3003E+03	.3084E+03	.3174E+03	.3279E+03	.3401E+03	.3540E+03	.3695E+03
SYX	.3976E+03	.4069E+03	.4148E+03	.4227E+03	.4313E+03	.4406E+03	.4502E+03	.4596E+03	.4684E+03
SZZ	-.3312E+01	-.3346E+01	-.3352E+01	-.3344E+01	-.3336E+01	-.3336E+01	-.3347E+01	-.3368E+01	-.3401E+01

## SHEAR STRESSES

SXY	-.9870E-07	-.3636E-06	.6455E-06	-.8172E-07	-.6029E-06	-.2274E-06	.7179E-06	.1081E-05	-.5240E-06
SXZ	.2830E+00	.2719E+00	.2610E+00	.2506E+00	.2408E+00	.2313E+00	.2218E+00	.2117E+00	.2002E+00
SYZ	.2731E-09	.6239E-09	-.1264E-08	.9761E-09	.2734E-10	.1541E-09	.8109E-09	.8814E-09	.9192E-11

## PRINCIPAL STRESSES

PS 1	.3976E+03	.4069E+03	.4148E+03	.4227E+03	.4313E+03	.4406E+03	.4502E+03	.4596E+03	.4684E+03
PS 2	.2813E+03	.2918E+03	.3003E+03	.3084E+03	.3174E+03	.3279E+03	.3401E+03	.3540E+03	.3695E+03
PS 3	-.3312E+01	-.3346E+01	-.3352E+01	-.3344E+01	-.3336E+01	-.3336E+01	-.3347E+01	-.3368E+01	-.3401E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.2004E+03	.2051E+03	.2091E+03	.2130E+03	.2173E+03	.2220E+03	.2268E+03	.2315E+03	.2359E+03
PSS 2	.5816E+02	.5751E+02	.5723E+02	.5712E+02	.5694E+02	.5636E+02	.5507E+02	.5281E+02	.4945E+02
PSS 3	.1423E+03	.1476E+03	.1518E+03	.1559E+03	.1604E+03	.1656E+03	.1717E+03	.1787E+03	.1865E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.1124E-02	-.1068E-02	-.1011E-02	-.9512E-03	-.8887E-03	-.8223E-03	-.7514E-03	-.6759E-03	-.5960E-03
UY	.8014E-12	.2057E-11	-.2450E-11	-.2352E-11	.2486E-11	.7699E-11	-.1625E-11	-.2896E-11	-.5499E-11
UZ	.5416E-01	.5433E-01	.5439E-01	.5425E-01	.5397E-01	.5368E-01	.5350E-01	.5354E-01	.5385E-01

## NORMAL STRAINS

EXX	.5553E-04	.5783E-04	.5965E-04	.6138E-04	.6331E-04	.6558E-04	.6827E-04	.7138E-04	.7494E-04
EYY	.8897E-04	.9090E-04	.9256E-04	.9422E-04	.9605E-04	.9799E-04	.9993E-04	.1017E-03	.1034E-03
EZZ	-.2628E-04	-.2704E-04	-.2765E-04	-.2825E-04	-.2891E-04	-.2966E-04	-.3047E-04	-.3135E-04	-.3227E-04

## SHEAR STRAINS

EXY	-.5675E-13	-.2091E-12	.3712E-12	-.4699E-13	-.3467E-12	-.1307E-12	.4128E-12	.6217E-12	-.3013E-12
EXZ	.1627E-06	.1563E-06	.1501E-06	.1441E-06	.1385E-06	.1330E-06	.1276E-06	.1217E-06	.1151E-06
EYZ	.1571E-15	.3587E-15	-.7266E-15	.5612E-15	.1572E-16	.8861E-16	.4663E-15	.5068E-15	.5285E-17

## PRINCIPAL STRAINS

PE 1	.8897E-04	.9090E-04	.9256E-04	.9422E-04	.9605E-04	.9799E-04	.9993E-04	.1017E-03	.1034E-03
PE 2	.5553E-04	.5783E-04	.5965E-04	.6138E-04	.6331E-04	.6558E-04	.6827E-04	.7138E-04	.7494E-04
PE 3	-.2628E-04	-.2704E-04	-.2765E-04	-.2825E-04	-.2891E-04	-.2966E-04	-.3047E-04	-.3135E-04	-.3227E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1153E-03	.1179E-03	.1202E-03	.1225E-03	.1250E-03	.1276E-03	.1304E-03	.1331E-03	.1356E-03
PSE 2	.3344E-04	.3307E-04	.3290E-04	.3284E-04	.3274E-04	.3241E-04	.3166E-04	.3037E-04	.2843E-04
PSE 3	.8181E-04	.8486E-04	.8730E-04	.8963E-04	.9222E-04	.9524E-04	.9874E-04	.1027E-03	.1072E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 3900.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 3.71 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-c Composite Pavement

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	-.5187E+02	-.6086E+02	-.7484E+02	-.9365E+02	-.1149E+03	-.1349E+03	-.1517E+03	-.1634E+03	-.1678E+03
SYX	-.5535E+02	-.6375E+02	-.7735E+02	-.9603E+02	-.1173E+03	-.1374E+03	-.1544E+03	-.1663E+03	-.1708E+03
SZZ	-.1129E+02	-.2545E+02	-.4941E+02	-.8274E+02	-.1209E+03	-.1579E+03	-.1891E+03	-.2109E+03	-.2189E+03

SHEAR STRESSES

SXY	-.8168E-08	.7964E-08	.9757E-08	-.1665E-07	-.1514E-08	-.2255E-08	.2616E-08	-.1108E-07	-.3208E-08
SXZ	.3107E+02	.4188E+02	.5226E+02	.5871E+02	.5844E+02	.5131E+02	.3832E+02	.1982E+02	-.2761E+01
SYZ	.2491E-06	-.6532E-06	-.8672E-06	-.5939E-06	-.2384E-06	.3327E-06	.9982E-06	.1514E-05	-.4666E-06

PRINCIPAL STRESSES

PS 1	.5531E+01	.2313E+01	-.8337E+01	-.2924E+02	-.5940E+02	-.9382E+02	-.1278E+03	-.1562E+03	-.1676E+03
PS 2	-.5535E+02	-.6375E+02	-.7735E+02	-.9603E+02	-.1173E+03	-.1374E+03	-.1544E+03	-.1663E+03	-.1708E+03

## Appendix 6E-c Composite Pavement

PS 3    -.6869E+02   -.8862E+02   -.1159E+03   -.1472E+03   -.1764E+03   -.1990E+03   -.2130E+03   -.2181E+03   -.2191E+03

## PRINCIPAL SHEAR STRESSES

PSS 1    .3711E+02    .4547E+02    .5379E+02    .5896E+02    .5852E+02    .5258E+02    .4262E+02    .3092E+02    .2572E+02  
PSS 2    .3044E+02    .3303E+02    .3451E+02    .3340E+02    .2895E+02    .2178E+02    .1328E+02    .5031E+01    .1599E+01  
PSS 3    .6667E+01    .1244E+02    .1928E+02    .2556E+02    .2957E+02    .3080E+02    .2934E+02    .2589E+02    .2412E+02

## DISPLACEMENTS

UX        .3914E-03    .3133E-03    .2344E-03    .1559E-03    .7709E-04    -.3075E-05    -.8166E-04    -.1578E-03    -.2328E-03  
UY        -.1440E-11   -.6139E-12    .5497E-13    -.1069E-11    .2999E-11    -.7500E-12    .2886E-11    -.2180E-12    .2536E-11  
UZ        .5453E-01    .5551E-01    .5675E-01    .5799E-01    .5894E-01    .5994E-01    .6092E-01    .6165E-01    .6176E-01

## NORMAL STRAINS

EXX      -.7137E-04   -.7409E-04   -.7617E-04   -.7769E-04   -.7885E-04   -.7899E-04   -.7884E-04   -.7850E-04   -.7842E-04  
EYY      -.8312E-04   -.8385E-04   -.8466E-04   -.8574E-04   -.8690E-04   -.8726E-04   -.8766E-04   -.8821E-04   -.8871E-04  
EZZ      .6561E-04    .4540E-04    .9635E-05    -.4089E-04    -.9911E-04    -.1564E-03    -.2049E-03    -.2387E-03    -.2510E-03

## SHEAR STRAINS

EXY      -.5513E-13    .5376E-13    .6586E-13    -.1124E-12    -.1022E-13    -.1522E-13    .1766E-13    -.7476E-13    -.2166E-13  
EXZ      .2097E-03    .2827E-03    .3528E-03    .3963E-03    .3945E-03    .3464E-03    .2586E-03    .1338E-03    -.1864E-04  
EYZ      .1681E-11    -.4409E-11    -.5854E-11    -.4009E-11    -.1609E-11    .2246E-11    .6738E-11    .1022E-10    -.3150E-11

## PRINCIPAL STRAINS

PE 1      .1224E-03    .1391E-03    .1483E-03    .1397E-03    .1085E-03    .5977E-04    .1996E-05    -.5425E-04    -.7792E-04  
PE 2      -.8312E-04   -.8385E-04   -.8466E-04   -.8574E-04   -.8690E-04   -.8726E-04   -.8766E-04   -.8821E-04   -.8871E-04  
PE 3      -.1281E-03   -.1678E-03   -.2148E-03   -.2583E-03   -.2865E-03   -.2952E-03   -.2857E-03   -.2630E-03   -.2515E-03

## PRINCIPAL SHEAR STRAINS

PSE 1      .2505E-03    .3069E-03    .3631E-03    .3980E-03    .3950E-03    .3549E-03    .2877E-03    .2087E-03    .1736E-03  
PSE 2      .2055E-03    .2229E-03    .2329E-03    .2254E-03    .1954E-03    .1470E-03    .8966E-04    .3396E-04    .1079E-04  
PSE 3      .4501E-04    .8395E-04    .1301E-03    .1725E-03    .1996E-03    .2079E-03    .1981E-03    .1748E-03    .1628E-03



## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.3869E+03	.4063E+03	.4281E+03	.4526E+03	.4778E+03	.4966E+03	.5115E+03	.5217E+03	.5263E+03
SYY	.4767E+03	.4849E+03	.4939E+03	.5049E+03	.5167E+03	.5236E+03	.5291E+03	.5334E+03	.5362E+03
SZZ	-.3452E+01	-.3529E+01	-.3642E+01	-.3792E+01	-.3948E+01	-.4053E+01	-.4160E+01	-.4262E+01	-.4324E+01

## SHEAR STRESSES

SXY	-.1102E-05	.1087E-05	.6106E-06	-.7002E-06	.3683E-06	.7889E-06	.1467E-06	-.2077E-06	.2011E-06
SXZ	.1863E+00	.1692E+00	.1480E+00	.1224E+00	.9171E-01	.5604E-01	.1627E-01	-.2636E-01	-.7042E-01
SYZ	-.6060E-09	-.2361E-08	.7957E-09	.2551E-10	-.1878E-08	-.2056E-08	.2890E-09	-.4029E-10	-.4064E-09

## PRINCIPAL STRESSES

PS 1	.4767E+03	.4849E+03	.4939E+03	.5049E+03	.5167E+03	.5236E+03	.5291E+03	.5334E+03	.5362E+03
PS 2	.3869E+03	.4063E+03	.4281E+03	.4526E+03	.4778E+03	.4966E+03	.5115E+03	.5217E+03	.5263E+03
PS 3	-.3452E+01	-.3529E+01	-.3642E+01	-.3792E+01	-.3948E+01	-.4053E+01	-.4160E+01	-.4262E+01	-.4324E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.2401E+03	.2442E+03	.2488E+03	.2543E+03	.2603E+03	.2638E+03	.2666E+03	.2688E+03	.2703E+03
PSS 2	.4491E+02	.3932E+02	.3293E+02	.2614E+02	.1947E+02	.1350E+02	.8794E+01	.5849E+01	.4990E+01
PSS 3	.1952E+03	.2049E+03	.2158E+03	.2282E+03	.2409E+03	.2503E+03	.2578E+03	.2630E+03	.2653E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.5120E-03	-.4245E-03	-.3341E-03	-.2407E-03	-.1428E-03	-.3881E-04	.6735E-04	.1740E-03	.2812E-03
UY	-.2829E-11	-.3240E-11	-.1740E-12	.2938E-11	-.2004E-11	.2866E-11	.1117E-11	.2159E-11	.8318E-12
UZ	.5448E-01	.5545E-01	.5667E-01	.5788E-01	.5880E-01	.5977E-01	.6072E-01	.6143E-01	.6154E-01

## NORMAL STRAINS

EXX	.7897E-04	.8351E-04	.8863E-04	.9436E-04	.1002E-03	.1047E-03	.1082E-03	.1106E-03	.1116E-03
EYY	.1048E-03	.1061E-03	.1076E-03	.1094E-03	.1114E-03	.1124E-03	.1132E-03	.1140E-03	.1145E-03
EZZ	-.3325E-04	-.3430E-04	-.3548E-04	-.3685E-04	-.3828E-04	-.3927E-04	-.4006E-04	-.4063E-04	-.4092E-04

## SHEAR STRAINS

EXY	-.6335E-12	.6253E-12	.3511E-12	-.4026E-12	.2118E-12	.4536E-12	.8437E-13	-.1194E-12	.1157E-12
EXZ	.1071E-06	.9727E-07	.8512E-07	.7035E-07	.5273E-07	.3222E-07	.9353E-08	-.1515E-07	-.4049E-07
EYZ	-.3485E-15	-.1357E-14	.4575E-15	.1467E-16	-.1080E-14	-.1182E-14	.1661E-15	-.2317E-16	-.2337E-15

## PRINCIPAL STRAINS

PE 1	.1048E-03	.1061E-03	.1076E-03	.1094E-03	.1114E-03	.1124E-03	.1132E-03	.1140E-03	.1145E-03
PE 2	.7897E-04	.8351E-04	.8863E-04	.9436E-04	.1002E-03	.1047E-03	.1082E-03	.1106E-03	.1116E-03
PE 3	-.3325E-04	-.3430E-04	-.3548E-04	-.3685E-04	-.3828E-04	-.3927E-04	-.4006E-04	-.4063E-04	-.4092E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1380E-03	.1404E-03	.1430E-03	.1462E-03	.1497E-03	.1517E-03	.1533E-03	.1546E-03	.1554E-03
PSE 2	.2583E-04	.2261E-04	.1894E-04	.1503E-04	.1120E-04	.7762E-05	.5056E-05	.3363E-05	.2869E-05
PSE 3	.1122E-03	.1178E-03	.1241E-03	.1312E-03	.1385E-03	.1439E-03	.1482E-03	.1512E-03	.1525E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 3900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.71 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-c Composite Pavement

---

Z= 4.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	-.1627E+03	-.1504E+03
SYY	-.1657E+03	-.1532E+03
SZZ	-.2109E+03	-.1891E+03

## SHEAR STRESSES

SXY	.1240E-07	-.2616E-08
SXZ	-.2536E+02	-.4390E+02
SYZ	.4183E-06	.1907E-05

## PRINCIPAL STRESSES

PS 1	-.1518E+03	-.1217E+03
PS 2	-.1657E+03	-.1532E+03
PS 3	-.2218E+03	-.2177E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.3496E+02	.4798E+02
PSS 2	.6947E+01	.1575E+02
PSS 3	.2802E+02	.3223E+02

## DISPLACEMENTS

UX	-.3072E-03	-.3816E-03
UY	.9452E-12	.3638E-11
UZ	.6154E-01	.6070E-01

Appendix 6E-c Composite Pavement

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## NORMAL STRAINS

EXX -.7729E-04 -.7640E-04  
EYY -.8743E-04 -.8610E-04  
EZZ -.2398E-03 -.2070E-03

## SHEAR STRAINS

EXY .8373E-13 -.1766E-13  
EXZ -.1712E-03 -.2963E-03  
EYZ .2824E-11 .1287E-10

## PRINCIPAL STRAINS

PE 1 -.4054E-04 .2021E-04  
PE 2 -.8743E-04 -.8610E-04  
PE 3 -.2765E-03 -.3036E-03

## PRINCIPAL SHEAR STRAINS

PSE 1 .2360E-03 .3238E-03  
PSE 2 .4689E-04 .1063E-03  
PSE 3 .1891E-03 .2175E-03

Z= 12.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .5157E+03 .4994E+03  
SYY .5284E+03 .5190E+03  
SZZ -.4236E+01 -.4109E+01

Appendix 6E-c Composite Pavement

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## SHEAR STRESSES

SXY	.2322E-06	.3301E-06
SXZ	-.1144E+00	-.1568E+00
SYZ	-.1318E-08	-.1863E-08

## PRINCIPAL STRESSES

PS 1	.5284E+03	.5190E+03
PS 2	.5157E+03	.4994E+03
PS 3	-.4236E+01	-.4110E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.2663E+03	.2616E+03
PSS 2	.6338E+01	.9784E+01
PSS 3	.2600E+03	.2518E+03

## DISPLACEMENTS

UX	.3878E-03	.4925E-03
UY	-.1823E-11	.3638E-11
UZ	.6133E-01	.6051E-01

## NORMAL STRAINS

EXX	.1093E-03	.1056E-03
EYY	.1129E-03	.1112E-03
EZZ	-.4021E-04	-.3922E-04

## SHEAR STRAINS

EXY	.1335E-12	.1898E-12
EXZ	-.6578E-07	-.9017E-07
EYZ	-.7580E-15	-.1071E-14

## PRINCIPAL STRAINS

Appendix 6E-c Composite Pavement

PE 1 .1129E-03 .1112E-03  
 PE 2 .1093E-03 .1056E-03  
 PE 3 -.4021E-04 -.3922E-04

PRINCIPAL SHEAR STRAINS  
 PSE 1 .1531E-03 .1504E-03  
 PSE 2 .3645E-05 .5626E-05  
 PSE 3 .1495E-03 .1448E-03

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Appendix 6E-c Composite Pavement

---

Z= 4.00 12.00  
X-Y POINT(S)  
X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

NORMAL STRESSES

SXX -.1363E+03 -.1462E+03 -.1501E+03 -.1472E+03 -.1383E+03 -.1257E+03 -.1114E+03 -.9650E+02 -.8183E+02  
SYY -.1448E+03 -.1547E+03 -.1586E+03 -.1557E+03 -.1468E+03 -.1344E+03 -.1204E+03 -.1060E+03 -.9180E+02  
SZZ -.1655E+03 -.1829E+03 -.1893E+03 -.1829E+03 -.1655E+03 -.1414E+03 -.1146E+03 -.8713E+02 -.6057E+02

SHEAR STRESSES

SXY .1286E-07 .6016E-08 -.1059E-07 .1877E-07 -.1984E-07 .3706E-08 -.5035E-08 -.2418E-07 -.9125E-08



## Appendix 6E-c Composite Pavement

SXZ	.3576E+02	.2175E+02	.4686E+01	-.1236E+02	-.2634E+02	-.3571E+02	-.4091E+02	-.4290E+02	-.4170E+02
SYZ	.3706E-06	.6662E-06	-.3369E-06	.2183E-07	.4600E-09	.3709E-07	-.3403E-06	.6475E-06	.3745E-06

## PRINCIPAL STRESSES

PS 1	-.1123E+03	-.1361E+03	-.1496E+03	-.1433E+03	-.1222E+03	-.9697E+02	-.7204E+02	-.4866E+02	-.2816E+02
PS 2	-.1448E+03	-.1547E+03	-.1586E+03	-.1557E+03	-.1468E+03	-.1344E+03	-.1204E+03	-.1060E+03	-.9180E+02
PS 3	-.1895E+03	-.1930E+03	-.1898E+03	-.1868E+03	-.1816E+03	-.1701E+03	-.1539E+03	-.1350E+03	-.1142E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.3863E+02	.2845E+02	.2013E+02	.2171E+02	.2965E+02	.3657E+02	.4095E+02	.4316E+02	.4303E+02
PSS 2	.1624E+02	.9292E+01	.4529E+01	.6193E+01	.1230E+02	.1870E+02	.2418E+02	.2865E+02	.3182E+02
PSS 3	.2239E+02	.1916E+02	.1560E+02	.1551E+02	.1735E+02	.1787E+02	.1677E+02	.1451E+02	.1122E+02

## DISPLACEMENTS

UX	.1278E-02	.1209E-02	.1138E-02	.1067E-02	.9952E-03	.9218E-03	.8467E-03	.7712E-03	.6965E-03
UY	-.9019E-12	-.1394E-12	.5440E-12	.2062E-11	-.9223E-12	.2631E-11	.4625E-12	-.3251E-11	-.1688E-11
UZ	.8454E-01	.8540E-01	.8573E-01	.8603E-01	.8581E-01	.8522E-01	.8473E-01	.8440E-01	.8377E-01

## NORMAL STRAINS

EXX	-.6924E-04	-.7014E-04	-.7089E-04	-.7172E-04	-.7240E-04	-.7287E-04	-.7284E-04	-.7229E-04	-.7126E-04
EYY	-.9781E-04	-.9875E-04	-.9959E-04	-.1005E-03	-.1013E-03	-.1022E-03	-.1032E-03	-.1042E-03	-.1049E-03
EZZ	-.1679E-03	-.1939E-03	-.2030E-03	-.1922E-03	-.1643E-03	-.1260E-03	-.8367E-04	-.4068E-04	.5135E-06

## SHEAR STRAINS

EXY	.8681E-13	.4061E-13	-.7150E-13	.1267E-12	-.1339E-12	.2502E-13	-.3398E-13	-.1632E-12	-.6159E-13
EXZ	.2414E-03	.1468E-03	.3163E-04	-.8345E-04	-.1778E-03	-.2411E-03	-.2762E-03	-.2896E-03	-.2815E-03
EYZ	.2501E-11	.4497E-11	-.2274E-11	.1474E-12	.3105E-14	.2503E-12	-.2297E-11	.4370E-11	.2528E-11

## PRINCIPAL STRAINS

PE 1	.1184E-04	-.3603E-04	-.6902E-04	-.5868E-04	-.1827E-04	.2400E-04	.5994E-04	.8918E-04	.1099E-03
PE 2	-.9781E-04	-.9875E-04	-.9959E-04	-.1005E-03	-.1013E-03	-.1022E-03	-.1032E-03	-.1042E-03	-.1049E-03
PE 3	-.2489E-03	-.2281E-03	-.2049E-03	-.2052E-03	-.2184E-03	-.2229E-03	-.2165E-03	-.2021E-03	-.1806E-03

Appendix 6E-c Composite Pavement

PRINCIPAL SHEAR STRAINS

PSE 1	.2608E-03	.1920E-03	.1359E-03	.1465E-03	.2002E-03	.2469E-03	.2764E-03	.2913E-03	.2905E-03
PSE 2	.1096E-03	.6272E-04	.3057E-04	.4180E-04	.8302E-04	.1262E-03	.1632E-03	.1934E-03	.2148E-03
PSE 3	.1511E-03	.1293E-03	.1053E-03	.1047E-03	.1171E-03	.1206E-03	.1132E-03	.9793E-04	.7572E-04

Z= 12.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.4597E+03	.4730E+03	.4802E+03	.4815E+03	.4766E+03	.4679E+03	.4562E+03	.4419E+03	.4251E+03
SYX	.5684E+03	.5771E+03	.5830E+03	.5867E+03	.5878E+03	.5881E+03	.5878E+03	.5864E+03	.5834E+03
SZZ	-.4730E+01	-.4827E+01	-.4869E+01	-.4901E+01	-.4877E+01	-.4836E+01	-.4813E+01	-.4805E+01	-.4760E+01

SHEAR STRESSES

SXY	-.1663E-06	.1297E-06	-.1789E-06	-.9816E-07	.2260E-06	-.3828E-06	.3144E-06	.7549E-06	-.3648E-06
SXZ	.3185E+00	.2827E+00	.2456E+00	.2088E+00	.1729E+00	.1390E+00	.1084E+00	.8174E-01	.5917E-01
SYZ	.1537E-08	.1033E-09	-.6133E-09	.6563E-09	-.1703E-09	.1311E-08	-.6308E-09	.4601E-09	.1771E-08

PRINCIPAL STRESSES

PS 1	.5684E+03	.5771E+03	.5830E+03	.5867E+03	.5878E+03	.5881E+03	.5878E+03	.5864E+03	.5834E+03
PS 2	.4597E+03	.4730E+03	.4802E+03	.4815E+03	.4766E+03	.4679E+03	.4562E+03	.4419E+03	.4251E+03

## Appendix 6E-c Composite Pavement

PS 3    -.4730E+01   -.4827E+01   -.4869E+01   -.4901E+01   -.4877E+01   -.4836E+01   -.4813E+01   -.4805E+01   -.4760E+01

## PRINCIPAL SHEAR STRESSES

PSS 1    .2866E+03    .2910E+03    .2940E+03    .2958E+03    .2963E+03    .2965E+03    .2963E+03    .2956E+03    .2941E+03  
PSS 2    .5438E+02    .5201E+02    .5143E+02    .5264E+02    .5559E+02    .6008E+02    .6578E+02    .7225E+02    .7919E+02  
PSS 3    .2322E+03    .2389E+03    .2425E+03    .2432E+03    .2407E+03    .2364E+03    .2305E+03    .2234E+03    .2149E+03

## DISPLACEMENTS

UX        -.1531E-02   -.1436E-02   -.1338E-02   -.1239E-02   -.1142E-02   -.1044E-02   -.9480E-03   -.8541E-03   -.7641E-03  
UY        -.1174E-11   .2370E-11   -.1941E-11   .8755E-12   -.3263E-11   .4690E-11   -.1808E-11   .4923E-12   -.1812E-11  
UZ        .8437E-01    .8522E-01    .8555E-01    .8585E-01    .8564E-01    .8507E-01    .8459E-01    .8429E-01    .8368E-01

## NORMAL STRAINS

EXX        .9378E-04    .9680E-04    .9836E-04    .9855E-04    .9729E-04    .9510E-04    .9219E-04    .8868E-04    .8457E-04  
EYY        .1250E-03    .1267E-03    .1279E-03    .1288E-03    .1293E-03    .1297E-03    .1300E-03    .1302E-03    .1301E-03  
EZZ        -.3974E-04   -.4059E-04   -.4109E-04   -.4128E-04   -.4113E-04   -.4081E-04   -.4035E-04   -.3977E-04   -.3901E-04

## SHEAR STRAINS

EXY        -.9563E-13    .7458E-13   -.1029E-12   -.5644E-13    .1299E-12   -.2201E-12    .1808E-12    .4340E-12   -.2098E-12  
EXZ        .1831E-06    .1625E-06    .1412E-06    .1201E-06    .9940E-07    .7995E-07    .6232E-07    .4700E-07    .3402E-07  
EYZ        .8836E-15    .5941E-16   -.3526E-15    .3774E-15   -.9794E-16    .7541E-15   -.3627E-15    .2646E-15    .1018E-14

## PRINCIPAL STRAINS

PE 1        .1250E-03    .1267E-03    .1279E-03    .1288E-03    .1293E-03    .1297E-03    .1300E-03    .1302E-03    .1301E-03  
PE 2        .9378E-04    .9680E-04    .9836E-04    .9855E-04    .9729E-04    .9510E-04    .9219E-04    .8868E-04    .8457E-04  
PE 3        -.3974E-04   -.4059E-04   -.4109E-04   -.4128E-04   -.4113E-04   -.4081E-04   -.4035E-04   -.3977E-04   -.3901E-04

## PRINCIPAL SHEAR STRAINS

PSE 1        .1648E-03    .1673E-03    .1690E-03    .1701E-03    .1704E-03    .1705E-03    .1704E-03    .1700E-03    .1691E-03  
PSE 2        .3127E-04    .2991E-04    .2957E-04    .3027E-04    .3197E-04    .3455E-04    .3782E-04    .4154E-04    .4553E-04  
PSE 3        .1335E-03    .1374E-03    .1395E-03    .1398E-03    .1384E-03    .1359E-03    .1325E-03    .1284E-03    .1236E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-c Composite Pavement

31.00      4.00  
32.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	-.6892E+02	-.5904E+02	-.5241E+02	-.4837E+02	-.4598E+02	-.4454E+02	-.4361E+02	-.4298E+02	-.4255E+02
SYX	-.7942E+02	-.7015E+02	-.6422E+02	-.6091E+02	-.5921E+02	-.5835E+02	-.5790E+02	-.5764E+02	-.5746E+02
SZZ	-.3744E+02	-.2030E+02	-.9634E+01	-.4019E+01	-.1497E+01	-.5698E+00	-.3453E+00	-.3660E+00	-.4303E+00

SHEAR STRESSES

SXY	.4806E-08	.5501E-08	.1069E-07	.3240E-07	-.1956E-07	-.2955E-07	-.2576E-08	.2178E-07	.1254E-07
SXZ	-.3712E+02	-.3024E+02	-.2303E+02	-.1691E+02	-.1230E+02	-.8963E+01	-.6502E+01	-.4576E+01	-.2932E+01
SYZ	-.2383E-06	-.4780E-06	.6765E-07	-.9818E-07	-.8612E-07	-.3778E-07	.3566E-07	-.1716E-09	-.2746E-07

PRINCIPAL STRESSES

PS 1	-.1286E+02	-.3757E+01	.4043E+00	.1693E+01	.1677E+01	.1187E+01	.6107E+00	.1198E+00	-.2272E+00
PS 2	-.7942E+02	-.7015E+02	-.6245E+02	-.5408E+02	-.4916E+02	-.4630E+02	-.4457E+02	-.4346E+02	-.4275E+02
PS 3	-.9350E+02	-.7558E+02	-.6422E+02	-.6091E+02	-.5921E+02	-.5835E+02	-.5790E+02	-.5764E+02	-.5746E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.4032E+02	.3591E+02	.3231E+02	.3130E+02	.3044E+02	.2977E+02	.2926E+02	.2888E+02	.2861E+02
PSS 2	.3328E+02	.3320E+02	.3143E+02	.2789E+02	.2542E+02	.2374E+02	.2259E+02	.2179E+02	.2126E+02
PSS 3	.7040E+01	.2716E+01	.8856E+00	.3414E+01	.5025E+01	.6029E+01	.6669E+01	.7086E+01	.7354E+01

## DISPLACEMENTS

UX	.6223E-03	.5488E-03	.4770E-03	.4079E-03	.3420E-03	.2795E-03	.2198E-03	.1627E-03	.1074E-03
UY	-.6100E-11	.2384E-11	-.1725E-11	-.1254E-11	.2227E-11	-.8269E-12	.7636E-11	.1440E-11	.3946E-11
UZ	.8293E-01	.8232E-01	.8196E-01	.8182E-01	.8183E-01	.8193E-01	.8208E-01	.8223E-01	.8235E-01

## NORMAL STRAINS

EXX	-.7004E-04	-.6845E-04	-.6640E-04	-.6411E-04	-.6184E-04	-.5979E-04	-.5806E-04	-.5669E-04	-.5571E-04
EYY	-.1055E-03	-.1060E-03	-.1063E-03	-.1064E-03	-.1065E-03	-.1064E-03	-.1063E-03	-.1062E-03	-.1060E-03
EZZ	.3618E-04	.6228E-04	.7797E-04	.8557E-04	.8830E-04	.8861E-04	.8796E-04	.8712E-04	.8643E-04

## SHEAR STRAINS

EXY	.3244E-13	.3713E-13	.7216E-13	.2187E-12	-.1321E-12	-.1995E-12	-.1739E-13	.1470E-12	.8467E-13
EXZ	-.2506E-03	-.2041E-03	-.1554E-03	-.1141E-03	-.8302E-04	-.6050E-04	-.4389E-04	-.3089E-04	-.1979E-04
EYZ	-.1609E-11	-.3227E-11	.4567E-12	-.6627E-12	-.5813E-12	-.2550E-12	.2407E-12	-.1159E-14	-.1853E-12

## PRINCIPAL STRAINS

PE 1	.1192E-03	.1181E-03	.1118E-03	.1048E-03	.9901E-04	.9454E-04	.9119E-04	.8876E-04	.8711E-04
PE 2	-.1055E-03	-.1060E-03	-.1003E-03	-.8339E-04	-.7255E-04	-.6572E-04	-.6128E-04	-.5833E-04	-.5640E-04
PE 3	-.1530E-03	-.1243E-03	-.1063E-03	-.1064E-03	-.1065E-03	-.1064E-03	-.1063E-03	-.1062E-03	-.1060E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2722E-03	.2424E-03	.2181E-03	.2113E-03	.2055E-03	.2010E-03	.1975E-03	.1949E-03	.1931E-03
PSE 2	.2246E-03	.2241E-03	.2121E-03	.1882E-03	.1716E-03	.1603E-03	.1525E-03	.1471E-03	.1435E-03
PSE 3	.4752E-04	.1833E-04	.5978E-05	.2304E-04	.3392E-04	.4070E-04	.4502E-04	.4783E-04	.4964E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.4084E+03	.3926E+03	.3779E+03	.3644E+03	.3523E+03	.3418E+03	.3331E+03	.3262E+03	.3213E+03
SYX	.5806E+03	.5782E+03	.5756E+03	.5728E+03	.5697E+03	.5666E+03	.5636E+03	.5611E+03	.5591E+03
SZZ	-.4708E+01	-.4683E+01	-.4676E+01	-.4681E+01	-.4690E+01	-.4700E+01	-.4709E+01	-.4715E+01	-.4719E+01

SHEAR STRESSES

SXY	.3926E-07	.6072E-06	.1705E-06	-.3095E-06	-.1921E-06	.4744E-07	-.1741E-06	.4843E-06	.1640E-06
SXZ	.4064E-01	.2618E-01	.1533E-01	.7670E-02	.2583E-02	-.3991E-03	-.1852E-02	-.2195E-02	-.1825E-02
SYZ	.2619E-09	-.1197E-08	.2499E-09	.1124E-09	-.1252E-08	-.2399E-09	-.4832E-09	-.9436E-09	-.3576E-09

PRINCIPAL STRESSES

PS 1	.5806E+03	.5782E+03	.5756E+03	.5728E+03	.5697E+03	.5666E+03	.5636E+03	.5611E+03	.5591E+03
PS 2	.4084E+03	.3926E+03	.3779E+03	.3644E+03	.3523E+03	.3418E+03	.3331E+03	.3262E+03	.3213E+03
PS 3	-.4708E+01	-.4683E+01	-.4676E+01	-.4681E+01	-.4690E+01	-.4700E+01	-.4709E+01	-.4715E+01	-.4719E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.2927E+03	.2914E+03	.2902E+03	.2887E+03	.2872E+03	.2856E+03	.2842E+03	.2829E+03	.2819E+03
PSS 2	.8613E+02	.9278E+02	.9886E+02	.1042E+03	.1087E+03	.1124E+03	.1153E+03	.1174E+03	.1189E+03
PSS 3	.2065E+03	.1986E+03	.1913E+03	.1845E+03	.1785E+03	.1732E+03	.1689E+03	.1655E+03	.1630E+03

DISPLACEMENTS

## Appendix 6E-c Composite Pavement

UX	-.6774E-03	-.5938E-03	-.5138E-03	-.4380E-03	-.3663E-03	-.2986E-03	-.2345E-03	-.1733E-03	-.1143E-03
UY	.3438E-11	-.2731E-11	-.1006E-12	-.6612E-12	-.2819E-11	.4491E-12	.2340E-11	-.3932E-11	-.1572E-11
UZ	.8286E-01	.8227E-01	.8192E-01	.8178E-01	.8180E-01	.8191E-01	.8206E-01	.8220E-01	.8233E-01

## NORMAL STRAINS

EXX	.8049E-04	.7665E-04	.7307E-04	.6979E-04	.6689E-04	.6438E-04	.6230E-04	.6069E-04	.5953E-04
EYY	.1300E-03	.1300E-03	.1299E-03	.1297E-03	.1294E-03	.1290E-03	.1286E-03	.1282E-03	.1279E-03
EZZ	-.3826E-04	-.3758E-04	-.3693E-04	-.3631E-04	-.3575E-04	-.3524E-04	-.3480E-04	-.3445E-04	-.3420E-04

## SHEAR STRAINS

EXY	.2257E-13	.3491E-12	.9803E-13	-.1780E-12	-.1105E-12	.2728E-13	-.1001E-12	.2785E-12	.9432E-13
EXZ	.2337E-07	.1505E-07	.8816E-08	.4410E-08	.1485E-08	-.2295E-09	-.1065E-08	-.1262E-08	-.1049E-08
EYZ	.1506E-15	-.6884E-15	.1437E-15	.6465E-16	-.7199E-15	-.1380E-15	-.2778E-15	-.5426E-15	-.2056E-15

## PRINCIPAL STRAINS

PE 1	.1300E-03	.1300E-03	.1299E-03	.1297E-03	.1294E-03	.1290E-03	.1286E-03	.1282E-03	.1279E-03
PE 2	.8049E-04	.7665E-04	.7307E-04	.6979E-04	.6689E-04	.6438E-04	.6230E-04	.6069E-04	.5953E-04
PE 3	-.3826E-04	-.3758E-04	-.3693E-04	-.3631E-04	-.3575E-04	-.3524E-04	-.3480E-04	-.3445E-04	-.3420E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1683E-03	.1676E-03	.1668E-03	.1660E-03	.1651E-03	.1642E-03	.1634E-03	.1627E-03	.1621E-03
PSE 2	.4953E-04	.5335E-04	.5685E-04	.5992E-04	.6251E-04	.6463E-04	.6629E-04	.6753E-04	.6838E-04
PSE 3	.1188E-03	.1142E-03	.1100E-03	.1061E-03	.1026E-03	.9961E-04	.9711E-04	.9514E-04	.9373E-04



Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-c Composite Pavement

39.00      4.00  
40.00      4.00  
41.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	-.4229E+02	-.4221E+02	-.4229E+02	-.4255E+02	-.4298E+02	-.4361E+02	-.4454E+02	-.4598E+02	-.4837E+02
SYX	-.5735E+02	-.5732E+02	-.5735E+02	-.5746E+02	-.5764E+02	-.5790E+02	-.5835E+02	-.5921E+02	-.6091E+02
SZZ	-.4819E+00	-.5055E+00	-.4819E+00	-.4303E+00	-.3660E+00	-.3453E+00	-.5698E+00	-.1497E+01	-.4019E+01

SHEAR STRESSES

SXY	-.2595E-07	-.1044E-07	.3110E-07	-.3796E-07	-.3702E-07	-.3372E-08	-.3244E-07	.2370E-07	-.2318E-07
SXZ	-.1430E+01	.5952E-06	.1430E+01	.2932E+01	.4576E+01	.6502E+01	.8963E+01	.1230E+02	.1691E+02
SYZ	-.4937E-08	-.2251E-07	.2729E-08	-.2530E-07	-.8886E-08	-.6816E-07	-.7336E-07	-.2957E-07	-.1329E-06

PRINCIPAL STRESSES

PS 1	-.4330E+00	-.5055E+00	-.4330E+00	-.2272E+00	.1198E+00	.6107E+00	.1187E+01	.1677E+01	.1693E+01
PS 2	-.4234E+02	-.4221E+02	-.4234E+02	-.4275E+02	-.4346E+02	-.4457E+02	-.4630E+02	-.4916E+02	-.5408E+02
PS 3	-.5735E+02	-.5732E+02	-.5735E+02	-.5746E+02	-.5764E+02	-.5790E+02	-.5835E+02	-.5921E+02	-.6091E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.2846E+02	.2841E+02	.2846E+02	.2861E+02	.2888E+02	.2926E+02	.2977E+02	.3044E+02	.3130E+02
PSS 2	.2095E+02	.2085E+02	.2095E+02	.2126E+02	.2179E+02	.2259E+02	.2374E+02	.2542E+02	.2789E+02
PSS 3	.7506E+01	.7555E+01	.7506E+01	.7354E+01	.7086E+01	.6669E+01	.6029E+01	.5025E+01	.3414E+01

## DISPLACEMENTS

UX	.5339E-04	-.4054E-11	-.5339E-04	-.1074E-03	-.1627E-03	-.2198E-03	-.2795E-03	-.3420E-03	-.4079E-03
UY	-.2261E-11	-.6253E-12	.3822E-11	.3693E-11	-.6830E-12	-.1887E-11	-.9164E-12	-.5049E-11	-.9068E-12
UZ	.8243E-01	.8245E-01	.8243E-01	.8235E-01	.8223E-01	.8208E-01	.8193E-01	.8183E-01	.8182E-01

## NORMAL STRAINS

EXX	-.5512E-04	-.5492E-04	-.5512E-04	-.5571E-04	-.5669E-04	-.5806E-04	-.5979E-04	-.6184E-04	-.6411E-04
EYY	-.1059E-03	-.1059E-03	-.1059E-03	-.1060E-03	-.1062E-03	-.1063E-03	-.1064E-03	-.1065E-03	-.1064E-03
EZZ	.8598E-04	.8582E-04	.8598E-04	.8643E-04	.8712E-04	.8796E-04	.8861E-04	.8830E-04	.8557E-04

## SHEAR STRAINS

EXY	-.1751E-12	-.7045E-13	.2099E-12	-.2562E-12	-.2499E-12	-.2276E-13	-.2189E-12	.1600E-12	-.1565E-12
EXZ	-.9656E-05	.4018E-11	.9656E-05	.1979E-04	.3089E-04	.4389E-04	.6050E-04	.8302E-04	.1141E-03
EYZ	-.3332E-13	-.1520E-12	.1842E-13	-.1708E-12	-.5998E-13	-.4601E-12	-.4952E-12	-.1996E-12	-.8971E-12

## PRINCIPAL STRAINS

PE 1	.8615E-04	.8582E-04	.8615E-04	.8711E-04	.8876E-04	.9119E-04	.9454E-04	.9901E-04	.1048E-03
PE 2	-.5529E-04	-.5492E-04	-.5529E-04	-.5640E-04	-.5833E-04	-.6128E-04	-.6572E-04	-.7255E-04	-.8339E-04
PE 3	-.1059E-03	-.1059E-03	-.1059E-03	-.1060E-03	-.1062E-03	-.1063E-03	-.1064E-03	-.1065E-03	-.1064E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1921E-03	.1917E-03	.1921E-03	.1931E-03	.1949E-03	.1975E-03	.2010E-03	.2055E-03	.2113E-03
PSE 2	.1414E-03	.1407E-03	.1414E-03	.1435E-03	.1471E-03	.1525E-03	.1603E-03	.1716E-03	.1882E-03
PSE 3	.5066E-04	.5100E-04	.5066E-04	.4964E-04	.4783E-04	.4502E-04	.4070E-04	.3392E-04	.2304E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.3183E+03	.3174E+03	.3183E+03	.3213E+03	.3262E+03	.3331E+03	.3418E+03	.3523E+03	.3644E+03
SYX	.5579E+03	.5575E+03	.5579E+03	.5591E+03	.5611E+03	.5636E+03	.5666E+03	.5697E+03	.5728E+03
SZZ	-.4722E+01	-.4722E+01	-.4722E+01	-.4719E+01	-.4715E+01	-.4709E+01	-.4700E+01	-.4690E+01	-.4681E+01

SHEAR STRESSES

SXY	.1469E-07	.6422E-07	-.3483E-06	-.7362E-07	-.5352E-06	.3531E-07	-.1273E-06	-.5254E-07	.4220E-06
SXZ	-.1030E-02	.1130E-08	.1030E-02	.1825E-02	.2195E-02	.1852E-02	.3991E-03	-.2583E-02	-.7670E-02
SYZ	-.2822E-09	-.3263E-09	-.3553E-10	-.1203E-09	-.6491E-09	.1937E-08	.2404E-09	.1299E-08	-.7570E-09

PRINCIPAL STRESSES

PS 1	.5579E+03	.5575E+03	.5579E+03	.5591E+03	.5611E+03	.5636E+03	.5666E+03	.5697E+03	.5728E+03
PS 2	.3183E+03	.3174E+03	.3183E+03	.3213E+03	.3262E+03	.3331E+03	.3418E+03	.3523E+03	.3644E+03
PS 3	-.4722E+01	-.4722E+01	-.4722E+01	-.4719E+01	-.4715E+01	-.4709E+01	-.4700E+01	-.4690E+01	-.4681E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.2813E+03	.2811E+03	.2813E+03	.2819E+03	.2829E+03	.2842E+03	.2856E+03	.2872E+03	.2887E+03
PSS 2	.1198E+03	.1201E+03	.1198E+03	.1189E+03	.1174E+03	.1153E+03	.1124E+03	.1087E+03	.1042E+03
PSS 3	.1615E+03	.1610E+03	.1615E+03	.1630E+03	.1655E+03	.1689E+03	.1732E+03	.1785E+03	.1845E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.5678E-04	-.5028E-11	.5678E-04	.1143E-03	.1733E-03	.2345E-03	.2986E-03	.3663E-03	.4380E-03
UY	.6636E-11	.2112E-11	-.3883E-11	-.3970E-12	.8086E-12	-.8842E-12	-.2287E-11	-.2751E-11	-.7503E-12
UZ	.8240E-01	.8243E-01	.8240E-01	.8233E-01	.8220E-01	.8206E-01	.8191E-01	.8180E-01	.8178E-01

## NORMAL STRAINS

EXX	.5884E-04	.5861E-04	.5884E-04	.5953E-04	.6069E-04	.6230E-04	.6438E-04	.6689E-04	.6979E-04
EYY	.1277E-03	.1277E-03	.1277E-03	.1279E-03	.1282E-03	.1286E-03	.1290E-03	.1294E-03	.1297E-03
EZZ	-.3404E-04	-.3399E-04	-.3404E-04	-.3420E-04	-.3445E-04	-.3480E-04	-.3524E-04	-.3575E-04	-.3631E-04

## SHEAR STRAINS

EXY	.8446E-14	.3693E-13	-.2003E-12	-.4233E-13	-.3077E-12	.2030E-13	-.7318E-13	-.3021E-13	.2427E-12
EXZ	-.5925E-09	.6497E-15	.5925E-09	.1049E-08	.1262E-08	.1065E-08	.2295E-09	-.1485E-08	-.4410E-08
EYZ	-.1623E-15	-.1876E-15	-.2043E-16	-.6918E-16	-.3733E-15	.1114E-14	.1383E-15	.7468E-15	-.4353E-15

## PRINCIPAL STRAINS

PE 1	.1277E-03	.1277E-03	.1277E-03	.1279E-03	.1282E-03	.1286E-03	.1290E-03	.1294E-03	.1297E-03
PE 2	.5884E-04	.5861E-04	.5884E-04	.5953E-04	.6069E-04	.6230E-04	.6438E-04	.6689E-04	.6979E-04
PE 3	-.3404E-04	-.3399E-04	-.3404E-04	-.3420E-04	-.3445E-04	-.3480E-04	-.3524E-04	-.3575E-04	-.3631E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1618E-03	.1616E-03	.1618E-03	.1621E-03	.1627E-03	.1634E-03	.1642E-03	.1651E-03	.1660E-03
PSE 2	.6888E-04	.6904E-04	.6888E-04	.6838E-04	.6753E-04	.6629E-04	.6463E-04	.6251E-04	.5992E-04
PSE 3	.9288E-04	.9260E-04	.9288E-04	.9373E-04	.9514E-04	.9711E-04	.9961E-04	.1026E-03	.1061E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-c Composite Pavement

48.00 4.00  
49.00 4.00  
50.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
42.00 4.00  
43.00 4.00  
44.00 4.00  
45.00 4.00  
46.00 4.00  
47.00 4.00  
48.00 4.00  
49.00 4.00  
50.00 4.00

NORMAL STRESSES

SXX -.5241E+02 -.5904E+02 -.6892E+02 -.8183E+02 -.9650E+02 -.1114E+03 -.1257E+03 -.1383E+03 -.1472E+03  
 SYY -.6422E+02 -.7015E+02 -.7942E+02 -.9180E+02 -.1060E+03 -.1204E+03 -.1344E+03 -.1468E+03 -.1557E+03  
 SZZ -.9634E+01 -.2030E+02 -.3744E+02 -.6057E+02 -.8713E+02 -.1146E+03 -.1414E+03 -.1655E+03 -.1829E+03

SHEAR STRESSES

SXY .1093E-07 .1939E-07 -.2649E-08 .3261E-08 -.1507E-07 -.9124E-08 -.3857E-08 -.2065E-07 .2453E-07  
 SXZ .2303E+02 .3024E+02 .3712E+02 .4170E+02 .4290E+02 .4091E+02 .3571E+02 .2634E+02 .1236E+02  
 SYZ .3853E-07 .4303E-06 -.3178E-06 .3744E-06 .5306E-06 -.4922E-06 -.2398E-06 .3707E-06 .6562E-06

PRINCIPAL STRESSES

PS 1 .4043E+00 -.3757E+01 -.1286E+02 -.2816E+02 -.4866E+02 -.7204E+02 -.9697E+02 -.1222E+03 -.1433E+03  
 PS 2 -.6245E+02 -.7015E+02 -.7942E+02 -.9180E+02 -.1060E+03 -.1204E+03 -.1344E+03 -.1468E+03 -.1557E+03  
 PS 3 -.6422E+02 -.7558E+02 -.9350E+02 -.1142E+03 -.1350E+03 -.1539E+03 -.1701E+03 -.1816E+03 -.1868E+03

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.3231E+02	.3591E+02	.4032E+02	.4303E+02	.4316E+02	.4095E+02	.3657E+02	.2965E+02	.2171E+02
PSS 2	.3143E+02	.3320E+02	.3328E+02	.3182E+02	.2865E+02	.2418E+02	.1870E+02	.1230E+02	.6193E+01
PSS 3	.8856E+00	.2716E+01	.7040E+01	.1122E+02	.1451E+02	.1677E+02	.1787E+02	.1735E+02	.1551E+02

## DISPLACEMENTS

UX	-.4770E-03	-.5488E-03	-.6223E-03	-.6965E-03	-.7712E-03	-.8467E-03	-.9218E-03	-.9952E-03	-.1067E-02
UY	-.2210E-11	-.5356E-12	.5473E-11	-.1695E-11	-.2983E-11	.2621E-11	.2458E-11	.2119E-12	-.4446E-12
UZ	.8196E-01	.8232E-01	.8293E-01	.8377E-01	.8440E-01	.8473E-01	.8522E-01	.8581E-01	.8603E-01

## NORMAL STRAINS

EXX	-.6640E-04	-.6845E-04	-.7004E-04	-.7126E-04	-.7229E-04	-.7284E-04	-.7287E-04	-.7240E-04	-.7172E-04
EYY	-.1063E-03	-.1060E-03	-.1055E-03	-.1049E-03	-.1042E-03	-.1032E-03	-.1022E-03	-.1013E-03	-.1005E-03
EZZ	.7797E-04	.6228E-04	.3618E-04	.5135E-06	-.4068E-04	-.8367E-04	-.1260E-03	-.1643E-03	-.1922E-03

## SHEAR STRAINS

EXY	.7379E-13	.1309E-12	-.1788E-13	.2201E-13	-.1017E-12	-.6159E-13	-.2604E-13	-.1394E-12	.1656E-12
EXZ	.1554E-03	.2041E-03	.2506E-03	.2815E-03	.2896E-03	.2762E-03	.2411E-03	.1778E-03	.8345E-04
EYZ	.2601E-12	.2905E-11	-.2145E-11	.2527E-11	.3581E-11	-.3322E-11	-.1618E-11	.2502E-11	.4430E-11

## PRINCIPAL STRAINS

PE 1	.1118E-03	.1181E-03	.1192E-03	.1099E-03	.8918E-04	.5994E-04	.2400E-04	-.1827E-04	-.5868E-04
PE 2	-.1003E-03	-.1060E-03	-.1055E-03	-.1049E-03	-.1042E-03	-.1032E-03	-.1022E-03	-.1013E-03	-.1005E-03
PE 3	-.1063E-03	-.1243E-03	-.1530E-03	-.1806E-03	-.2021E-03	-.2165E-03	-.2229E-03	-.2184E-03	-.2052E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2181E-03	.2424E-03	.2722E-03	.2905E-03	.2913E-03	.2764E-03	.2469E-03	.2002E-03	.1465E-03
PSE 2	.2121E-03	.2241E-03	.2246E-03	.2148E-03	.1934E-03	.1632E-03	.1262E-03	.8302E-04	.4180E-04
PSE 3	.5978E-05	.1833E-04	.4752E-04	.7572E-04	.9793E-04	.1132E-03	.1206E-03	.1171E-03	.1047E-03

Z= 12.00 LAYER NO, 2



Appendix 6E-c Composite Pavement

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.3779E+03	.3926E+03	.4084E+03	.4251E+03	.4419E+03	.4562E+03	.4679E+03	.4766E+03	.4815E+03
SYX	.5756E+03	.5782E+03	.5806E+03	.5834E+03	.5864E+03	.5878E+03	.5881E+03	.5878E+03	.5867E+03
SZZ	-.4676E+01	-.4683E+01	-.4708E+01	-.4760E+01	-.4805E+01	-.4813E+01	-.4836E+01	-.4877E+01	-.4901E+01

SHEAR STRESSES

SXY	-.6214E-07	.1520E-06	.2354E-06	.2390E-06	.4948E-06	.6417E-06	.3938E-06	-.2353E-06	-.1512E-10
SXZ	-.1533E-01	-.2618E-01	-.4064E-01	-.5917E-01	-.8174E-01	-.1084E+00	-.1390E+00	-.1729E+00	-.2088E+00
SYZ	.1316E-08	-.2279E-08	.4658E-09	.1930E-08	.4324E-09	-.1477E-08	.5045E-09	.1861E-08	-.1384E-09

PRINCIPAL STRESSES

PS 1	.5756E+03	.5782E+03	.5806E+03	.5834E+03	.5864E+03	.5878E+03	.5881E+03	.5878E+03	.5867E+03
PS 2	.3779E+03	.3926E+03	.4084E+03	.4251E+03	.4419E+03	.4562E+03	.4679E+03	.4766E+03	.4815E+03
PS 3	-.4676E+01	-.4683E+01	-.4708E+01	-.4760E+01	-.4805E+01	-.4813E+01	-.4836E+01	-.4877E+01	-.4901E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.2902E+03	.2914E+03	.2927E+03	.2941E+03	.2956E+03	.2963E+03	.2965E+03	.2963E+03	.2958E+03
PSS 2	.9886E+02	.9278E+02	.8613E+02	.7919E+02	.7225E+02	.6578E+02	.6008E+02	.5559E+02	.5264E+02
PSS 3	.1913E+03	.1986E+03	.2065E+03	.2149E+03	.2234E+03	.2305E+03	.2364E+03	.2407E+03	.2432E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.5138E-03	.5938E-03	.6774E-03	.7641E-03	.8541E-03	.9480E-03	.1044E-02	.1142E-02	.1239E-02
UY	-.1040E-11	.8856E-12	.1994E-12	.1073E-11	-.1870E-11	-.2265E-11	.3151E-11	.1091E-11	.1472E-11
UZ	.8192E-01	.8227E-01	.8286E-01	.8368E-01	.8429E-01	.8459E-01	.8507E-01	.8564E-01	.8585E-01

## NORMAL STRAINS

EXX	.7307E-04	.7665E-04	.8049E-04	.8457E-04	.8868E-04	.9219E-04	.9510E-04	.9729E-04	.9855E-04
EYY	.1299E-03	.1300E-03	.1300E-03	.1301E-03	.1302E-03	.1300E-03	.1297E-03	.1293E-03	.1288E-03
EZZ	-.3693E-04	-.3758E-04	-.3826E-04	-.3901E-04	-.3977E-04	-.4035E-04	-.4081E-04	-.4113E-04	-.4128E-04

## SHEAR STRAINS

EXY	-.3573E-13	.8737E-13	.1354E-12	.1374E-12	.2845E-12	.3690E-12	.2264E-12	-.1353E-12	-.8693E-17
EXZ	-.8816E-08	-.1505E-07	-.2337E-07	-.3402E-07	-.4700E-07	-.6232E-07	-.7995E-07	-.9940E-07	-.1201E-06
EYZ	.7568E-15	-.1311E-14	.2679E-15	.1110E-14	.2486E-15	-.8492E-15	.2901E-15	.1070E-14	-.7959E-16

## PRINCIPAL STRAINS

PE 1	.1299E-03	.1300E-03	.1300E-03	.1301E-03	.1302E-03	.1300E-03	.1297E-03	.1293E-03	.1288E-03
PE 2	.7307E-04	.7665E-04	.8049E-04	.8457E-04	.8868E-04	.9219E-04	.9510E-04	.9729E-04	.9855E-04
PE 3	-.3693E-04	-.3758E-04	-.3826E-04	-.3901E-04	-.3977E-04	-.4035E-04	-.4081E-04	-.4113E-04	-.4128E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1668E-03	.1676E-03	.1683E-03	.1691E-03	.1700E-03	.1704E-03	.1705E-03	.1704E-03	.1701E-03
PSE 2	.5685E-04	.5335E-04	.4953E-04	.4553E-04	.4154E-04	.3782E-04	.3455E-04	.3197E-04	.3027E-04
PSE 3	.1100E-03	.1142E-03	.1188E-03	.1236E-03	.1284E-03	.1325E-03	.1359E-03	.1384E-03	.1398E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 70K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 7800.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.25 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-c Composite Pavement

57.00      4.00  
58.00      4.00  
59.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	-.1501E+03	-.1462E+03	-.1363E+03	-.1227E+03	-.1073E+03	-.9144E+02	-.7573E+02	-.6175E+02	-.5078E+02
SYX	-.1586E+03	-.1547E+03	-.1448E+03	-.1312E+03	-.1162E+03	-.1007E+03	-.8545E+02	-.7199E+02	-.6162E+02
SZZ	-.1893E+03	-.1829E+03	-.1655E+03	-.1414E+03	-.1146E+03	-.8710E+02	-.6053E+02	-.3740E+02	-.2026E+02

SHEAR STRESSES

SXY	.3797E-08	-.2925E-08	-.9148E-08	-.1943E-07	-.7523E-08	-.1336E-07	-.1697E-08	.3857E-08	-.2068E-07
SXZ	-.4686E+01	-.2175E+02	-.3576E+02	-.4519E+02	-.5047E+02	-.5256E+02	-.5149E+02	-.4706E+02	-.4037E+02
SYZ	-.3377E-06	.2588E-07	.0000E+00	.2588E-07	-.3377E-06	.6562E-06	.3707E-06	-.2398E-06	-.4922E-06

PRINCIPAL STRESSES

PS 1	-.1496E+03	-.1361E+03	-.1123E+03	-.8587E+02	-.6036E+02	-.3666E+02	-.1608E+02	-.9587E+00	.7643E+01
PS 2	-.1586E+03	-.1547E+03	-.1448E+03	-.1312E+03	-.1162E+03	-.1007E+03	-.8545E+02	-.7199E+02	-.6162E+02
PS 3	-.1898E+03	-.1930E+03	-.1895E+03	-.1782E+03	-.1615E+03	-.1419E+03	-.1202E+03	-.9819E+02	-.7868E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.2013E+02	.2845E+02	.3863E+02	.4615E+02	.5060E+02	.5261E+02	.5205E+02	.4861E+02	.4316E+02
PSS 2	.4529E+01	.9292E+01	.1624E+02	.2267E+02	.2791E+02	.3201E+02	.3469E+02	.3551E+02	.3463E+02
PSS 3	.1560E+02	.1916E+02	.2239E+02	.2348E+02	.2268E+02	.2060E+02	.1736E+02	.1310E+02	.8530E+01

## DISPLACEMENTS

UX	-.1138E-02	-.1209E-02	-.1278E-02	-.1348E-02	-.1417E-02	-.1486E-02	-.1551E-02	-.1615E-02	-.1676E-02
UY	.2913E-12	.2911E-13	.0000E+00	-.7247E-11	.2913E-12	-.4446E-12	.2119E-12	-.4818E-11	.2621E-11
UZ	.8573E-01	.8540E-01	.8454E-01	.8332E-01	.8219E-01	.8124E-01	.7997E-01	.7850E-01	.7727E-01

## NORMAL STRAINS

EXX	-.7089E-04	-.7014E-04	-.6924E-04	-.6811E-04	-.6647E-04	-.6428E-04	-.6159E-04	-.5865E-04	-.5531E-04
EYY	-.9959E-04	-.9875E-04	-.9781E-04	-.9701E-04	-.9628E-04	-.9550E-04	-.9441E-04	-.9321E-04	-.9189E-04
EZZ	-.2030E-03	-.1939E-03	-.1679E-03	-.1313E-03	-.9081E-04	-.4965E-04	-.1028E-04	.2352E-04	.4771E-04

## SHEAR STRAINS

EXY	.2563E-13	-.1974E-13	-.6175E-13	-.1311E-12	-.5078E-13	-.9016E-13	-.1146E-13	.2604E-13	-.1396E-12
EXZ	-.3163E-04	-.1468E-03	-.2414E-03	-.3050E-03	-.3407E-03	-.3548E-03	-.3476E-03	-.3177E-03	-.2725E-03
EYZ	-.2280E-11	.1747E-12	.0000E+00	.1747E-12	-.2280E-11	.4430E-11	.2502E-11	-.1618E-11	-.3322E-11

## PRINCIPAL STRAINS

PE 1	-.6902E-04	-.3603E-04	.1184E-04	.5604E-04	.9212E-04	.1206E-03	.1397E-03	.1465E-03	.1419E-03
PE 2	-.9959E-04	-.9875E-04	-.9781E-04	-.9701E-04	-.9628E-04	-.9550E-04	-.9441E-04	-.9321E-04	-.9189E-04
PE 3	-.2049E-03	-.2281E-03	-.2489E-03	-.2555E-03	-.2494E-03	-.2345E-03	-.2116E-03	-.1816E-03	-.1495E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1359E-03	.1920E-03	.2608E-03	.3115E-03	.3415E-03	.3551E-03	.3513E-03	.3281E-03	.2913E-03
PSE 2	.3057E-04	.6272E-04	.1096E-03	.1530E-03	.1884E-03	.2161E-03	.2341E-03	.2397E-03	.2337E-03
PSE 3	.1053E-03	.1293E-03	.1511E-03	.1585E-03	.1531E-03	.1390E-03	.1172E-03	.8843E-04	.5758E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.4802E+03	.4730E+03	.4597E+03	.4424E+03	.4222E+03	.3992E+03	.3734E+03	.3476E+03	.3226E+03
SYX	.5830E+03	.5771E+03	.5684E+03	.5590E+03	.5490E+03	.5378E+03	.5249E+03	.5120E+03	.4994E+03
SZZ	-.4869E+01	-.4827E+01	-.4730E+01	-.4614E+01	-.4518E+01	-.4435E+01	-.4315E+01	-.4188E+01	-.4088E+01

SHEAR STRESSES

SXY	.2835E-06	-.2923E-07	.2353E-06	-.4476E-06	.1934E-06	.4769E-06	-.2415E-06	-.3938E-06	.3120E-06
SXZ	-.2456E+00	-.2827E+00	-.3185E+00	-.3521E+00	-.3824E+00	-.4088E+00	-.4311E+00	-.4490E+00	-.4629E+00
SYZ	-.2464E-09	.8433E-09	.0000E+00	.8433E-09	-.2464E-09	-.1384E-09	.1861E-08	.5045E-09	-.1477E-08

PRINCIPAL STRESSES

PS 1	.5830E+03	.5771E+03	.5684E+03	.5590E+03	.5490E+03	.5378E+03	.5249E+03	.5120E+03	.4994E+03
PS 2	.4802E+03	.4730E+03	.4597E+03	.4424E+03	.4222E+03	.3992E+03	.3734E+03	.3476E+03	.3226E+03
PS 3	-.4869E+01	-.4827E+01	-.4730E+01	-.4614E+01	-.4518E+01	-.4436E+01	-.4316E+01	-.4189E+01	-.4089E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.2940E+03	.2910E+03	.2866E+03	.2818E+03	.2767E+03	.2711E+03	.2646E+03	.2581E+03	.2518E+03
PSS 2	.5143E+02	.5201E+02	.5438E+02	.5830E+02	.6337E+02	.6930E+02	.7575E+02	.8221E+02	.8840E+02
PSS 3	.2425E+03	.2389E+03	.2322E+03	.2235E+03	.2134E+03	.2018E+03	.1888E+03	.1759E+03	.1634E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.1338E-02	.1436E-02	.1531E-02	.1624E-02	.1714E-02	.1800E-02	.1880E-02	.1955E-02	.2025E-02
UY	-.1445E-11	-.5618E-11	.0000E+00	.1658E-11	-.1445E-11	.1472E-11	.1091E-11	.3151E-11	-.2265E-11
UZ	.8555E-01	.8522E-01	.8437E-01	.8317E-01	.8206E-01	.8113E-01	.7988E-01	.7844E-01	.7722E-01

## NORMAL STRAINS

EXX	.9836E-04	.9680E-04	.9378E-04	.8981E-04	.8514E-04	.7980E-04	.7382E-04	.6786E-04	.6208E-04
EYY	.1279E-03	.1267E-03	.1250E-03	.1233E-03	.1216E-03	.1196E-03	.1174E-03	.1151E-03	.1129E-03
EZZ	-.4109E-04	-.4059E-04	-.3974E-04	-.3871E-04	-.3755E-04	-.3625E-04	-.3476E-04	-.3328E-04	-.3185E-04

## SHEAR STRAINS

EXY	.1630E-12	-.1681E-13	.1353E-12	-.2574E-12	.1112E-12	.2742E-12	-.1389E-12	-.2264E-12	.1794E-12
EXZ	-.1412E-06	-.1625E-06	-.1831E-06	-.2025E-06	-.2199E-06	-.2351E-06	-.2479E-06	-.2582E-06	-.2662E-06
EYZ	-.1417E-15	.4849E-15	.0000E+00	.4849E-15	-.1417E-15	-.7959E-16	.1070E-14	.2901E-15	-.8492E-15

## PRINCIPAL STRAINS

PE 1	.1279E-03	.1267E-03	.1250E-03	.1233E-03	.1216E-03	.1196E-03	.1174E-03	.1151E-03	.1129E-03
PE 2	.9836E-04	.9680E-04	.9378E-04	.8981E-04	.8514E-04	.7980E-04	.7382E-04	.6786E-04	.6208E-04
PE 3	-.4109E-04	-.4059E-04	-.3974E-04	-.3871E-04	-.3755E-04	-.3625E-04	-.3476E-04	-.3328E-04	-.3185E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1690E-03	.1673E-03	.1648E-03	.1620E-03	.1591E-03	.1559E-03	.1521E-03	.1484E-03	.1448E-03
PSE 2	.2957E-04	.2991E-04	.3127E-04	.3352E-04	.3644E-04	.3985E-04	.4355E-04	.4727E-04	.5083E-04
PSE 3	.1395E-03	.1374E-03	.1335E-03	.1285E-03	.1227E-03	.1160E-03	.1086E-03	.1011E-03	.9393E-04

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.85 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00



Appendix 6E-c Composite Pavement

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	-.6693E+02	-.6646E+02	-.6269E+02	-.5726E+02	-.5213E+02	-.4863E+02	-.4721E+02	-.4784E+02	-.5066E+02
SYX	-.7599E+02	-.7517E+02	-.7090E+02	-.6486E+02	-.5907E+02	-.5495E+02	-.5294E+02	-.5295E+02	-.5509E+02
SZZ	-.6041E+02	-.5675E+02	-.4682E+02	-.3357E+02	-.2075E+02	-.1102E+02	-.5274E+01	-.3365E+01	-.5510E+01

SHEAR STRESSES

SXY	.1484E-08	-.9445E-08	-.7815E-08	.2420E-07	-.2070E-08	-.6256E-08	.3404E-08	.1061E-07	.1021E-07
SXZ	.1220E+02	.4041E+01	-.1898E+01	-.4083E+01	-.2309E+01	.2312E+01	.8426E+01	.1547E+02	.2375E+02
SYZ	-.5114E-07	-.3122E-07	-.2993E-06	-.4053E-06	.3179E-06	.7460E-07	-.9706E-07	.8473E-07	-.4108E-06

PRINCIPAL STRESSES

PS 1	-.5104E+02	-.5529E+02	-.4660E+02	-.3289E+02	-.2058E+02	-.1088E+02	-.3645E+01	.1485E+01	.4685E+01
PS 2	-.7599E+02	-.6792E+02	-.6291E+02	-.5795E+02	-.5230E+02	-.4877E+02	-.4884E+02	-.5269E+02	-.5509E+02

## Appendix 6E-c Composite Pavement

PS 3    -.7630E+02   -.7517E+02   -.7090E+02   -.6486E+02   -.5907E+02   -.5495E+02   -.5294E+02   -.5295E+02   -.6085E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1263E+02    .9940E+01    .1215E+02    .1598E+02    .1924E+02    .2203E+02    .2465E+02    .2722E+02    .3277E+02  
PSS 2    .1248E+02    .6315E+01    .8158E+01    .1253E+02    .1586E+02    .1894E+02    .2260E+02    .2709E+02    .2989E+02  
PSS 3    .1512E+00    .3626E+01    .3994E+01    .3454E+01    .3384E+01    .3088E+01    .2050E+01    .1316E+00    .2883E+01

## DISPLACEMENTS

UX        .1001E-02    .9521E-03    .9011E-03    .8467E-03    .7878E-03    .7238E-03    .6546E-03    .5807E-03    .5025E-03  
UY        .1127E-11   -.3071E-12   -.5463E-12   -.2640E-11   -.1102E-11   .4756E-12   -.5807E-12   -.1470E-11   -.1476E-11  
UZ        .5839E-01    .5858E-01    .5863E-01    .5848E-01    .5816E-01    .5784E-01    .5765E-01    .5768E-01    .5802E-01

## NORMAL STRAINS

EXX     -.4797E-04   -.5071E-04   -.5372E-04   -.5704E-04   -.6049E-04   -.6385E-04   -.6709E-04   -.7032E-04   -.7362E-04  
EYY     -.7856E-04   -.8012E-04   -.8143E-04   -.8266E-04   -.8390E-04   -.8517E-04   -.8643E-04   -.8758E-04   -.8857E-04  
EZZ     -.2597E-04   -.1796E-04   -.1603E-06   .2292E-04   .4543E-04   .6307E-04   .7445E-04   .7978E-04   .7875E-04

## SHEAR STRAINS

EXY     .1002E-13   -.6375E-13   -.5275E-13   .1633E-12   -.1397E-13   -.4223E-13   .2298E-13   .7160E-13   .6889E-13  
EXZ     .8234E-04   .2728E-04   -.1281E-04   -.2756E-04   -.1559E-04   .1560E-04   .5687E-04   .1044E-03   .1603E-03  
EYZ     -.3452E-12   -.2107E-12   -.2020E-11   -.2736E-11   .2146E-11   .5036E-12   -.6551E-12   .5719E-12   -.2773E-11

## PRINCIPAL STRAINS

PE 1     .5645E-05   -.1302E-04   .5950E-06   .2523E-04   .4600E-04   .6355E-04   .7995E-04   .9615E-04   .1132E-03  
PE 2     -.7856E-04   -.5565E-04   -.5447E-04   -.5934E-04   -.6106E-04   -.6433E-04   -.7259E-04   -.8669E-04   -.8857E-04  
PE 3     -.7958E-04   -.8012E-04   -.8143E-04   -.8266E-04   -.8390E-04   -.8517E-04   -.8643E-04   -.8758E-04   -.1080E-03

## PRINCIPAL SHEAR STRAINS

PSE 1    .8523E-04    .6710E-04    .8203E-04    .1079E-03    .1299E-03    .1487E-03    .1664E-03    .1837E-03    .2212E-03  
PSE 2    .8421E-04    .4262E-04    .5507E-04    .8457E-04    .1071E-03    .1279E-03    .1525E-03    .1828E-03    .2017E-03  
PSE 3    .1021E-05    .2447E-04    .2696E-04    .2331E-04    .2284E-04    .2085E-04    .1384E-04    .8882E-06    .1946E-04

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.3026E+03	.3140E+03	.3233E+03	.3321E+03	.3419E+03	.3534E+03	.3665E+03	.3815E+03	.3982E+03
SYZ	.4278E+03	.4378E+03	.4463E+03	.4548E+03	.4641E+03	.4742E+03	.4845E+03	.4945E+03	.5040E+03
SZZ	-.3566E+01	-.3602E+01	-.3609E+01	-.3600E+01	-.3592E+01	-.3592E+01	-.3603E+01	-.3626E+01	-.3662E+01

SHEAR STRESSES

SXY	.2839E-06	.1784E-06	.2252E-06	.4523E-06	.4037E-06	-.1776E-06	.2173E-06	.2391E-06	-.3077E-06
SXZ	.3046E+00	.2927E+00	.2811E+00	.2699E+00	.2593E+00	.2490E+00	.2387E+00	.2276E+00	.2150E+00
SYZ	-.4110E-10	-.4264E-09	-.7251E-10	.2416E-11	-.4354E-09	-.7204E-09	.1708E-08	.1603E-08	-.3163E-08

PRINCIPAL STRESSES

PS 1	.4278E+03	.4378E+03	.4463E+03	.4548E+03	.4641E+03	.4742E+03	.4845E+03	.4945E+03	.5040E+03
PS 2	.3026E+03	.3140E+03	.3233E+03	.3321E+03	.3419E+03	.3534E+03	.3665E+03	.3815E+03	.3982E+03
PS 3	-.3566E+01	-.3602E+01	-.3609E+01	-.3600E+01	-.3592E+01	-.3592E+01	-.3603E+01	-.3626E+01	-.3662E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.2157E+03	.2207E+03	.2250E+03	.2292E+03	.2338E+03	.2389E+03	.2440E+03	.2491E+03	.2538E+03
PSS 2	.6261E+02	.6187E+02	.6152E+02	.6136E+02	.6109E+02	.6040E+02	.5896E+02	.5651E+02	.5286E+02
PSS 3	.1531E+03	.1588E+03	.1634E+03	.1678E+03	.1728E+03	.1785E+03	.1851E+03	.1926E+03	.2010E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.1210E-02	-.1150E-02	-.1088E-02	-.1024E-02	-.9565E-03	-.8849E-03	-.8085E-03	-.7271E-03	-.6410E-03
UY	-.2768E-11	.3509E-11	-.1565E-11	-.5501E-11	.3638E-11	.2300E-11	.3764E-11	-.5135E-11	.4052E-11
UZ	.5832E-01	.5851E-01	.5857E-01	.5842E-01	.5812E-01	.5780E-01	.5761E-01	.5765E-01	.5798E-01

## NORMAL STRAINS

EXX	.5973E-04	.6223E-04	.6422E-04	.6610E-04	.6821E-04	.7069E-04	.7360E-04	.7696E-04	.8080E-04
EYY	.9573E-04	.9780E-04	.9959E-04	.1014E-03	.1033E-03	.1054E-03	.1075E-03	.1095E-03	.1112E-03
EZZ	-.2828E-04	-.2909E-04	-.2976E-04	-.3041E-04	-.3112E-04	-.3193E-04	-.3281E-04	-.3376E-04	-.3475E-04

## SHEAR STRAINS

EXY	.1632E-12	.1026E-12	.1295E-12	.2601E-12	.2321E-12	-.1021E-12	.1250E-12	.1375E-12	-.1769E-12
EXZ	.1751E-06	.1683E-06	.1616E-06	.1552E-06	.1491E-06	.1432E-06	.1372E-06	.1309E-06	.1236E-06
EYZ	-.2363E-16	-.2452E-15	-.4170E-16	.1389E-17	-.2504E-15	-.4142E-15	.9820E-15	.9219E-15	-.1818E-14

## PRINCIPAL STRAINS

PE 1	.9573E-04	.9780E-04	.9959E-04	.1014E-03	.1033E-03	.1054E-03	.1075E-03	.1095E-03	.1112E-03
PE 2	.5973E-04	.6223E-04	.6422E-04	.6610E-04	.6821E-04	.7069E-04	.7360E-04	.7696E-04	.8080E-04
PE 3	-.2828E-04	-.2909E-04	-.2976E-04	-.3041E-04	-.3112E-04	-.3193E-04	-.3281E-04	-.3376E-04	-.3475E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1240E-03	.1269E-03	.1293E-03	.1318E-03	.1345E-03	.1374E-03	.1403E-03	.1432E-03	.1459E-03
PSE 2	.3600E-04	.3558E-04	.3537E-04	.3528E-04	.3513E-04	.3473E-04	.3390E-04	.3249E-04	.3039E-04
PSE 3	.8801E-04	.9132E-04	.9398E-04	.9651E-04	.9933E-04	.1026E-03	.1064E-03	.1107E-03	.1155E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.85 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-c Composite Pavement

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	-.5641E+02	-.6639E+02	-.8172E+02	-.1020E+03	-.1245E+03	-.1458E+03	-.1638E+03	-.1765E+03	-.1812E+03
SYX	-.6012E+02	-.6948E+02	-.8442E+02	-.1045E+03	-.1270E+03	-.1482E+03	-.1664E+03	-.1794E+03	-.1843E+03
SZZ	-.1321E+02	-.2913E+02	-.5554E+02	-.9153E+02	-.1321E+03	-.1713E+03	-.2049E+03	-.2287E+03	-.2376E+03

SHEAR STRESSES

SXY	-.7419E-08	.1804E-07	-.5463E-08	-.2878E-07	-.1109E-07	.2825E-08	.9991E-08	.6209E-08	-.4163E-09
SXZ	.3386E+02	.4542E+02	.5621E+02	.6255E+02	.6194E+02	.5450E+02	.4097E+02	.2132E+02	-.2973E+01
SYZ	.3285E-06	.5906E-06	.3125E-06	-.3704E-06	.1314E-05	.2457E-05	.2206E-05	.1526E-05	.7016E-06

PRINCIPAL STRESSES

PS 1	.5350E+01	.1330E+01	-.1092E+02	-.3400E+02	-.6625E+02	-.1026E+03	-.1385E+03	-.1689E+03	-.1810E+03
PS 2	-.6012E+02	-.6948E+02	-.8442E+02	-.1045E+03	-.1270E+03	-.1482E+03	-.1664E+03	-.1794E+03	-.1843E+03

## Appendix 6E-c Composite Pavement

PS 3   -.7497E+02   -.9685E+02   -.1263E+03   -.1595E+03   -.1904E+03   -.2145E+03   -.2302E+03   -.2363E+03   -.2377E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .4016E+02   .4909E+02   .5771E+02   .6276E+02   .6206E+02   .5597E+02   .4583E+02   .3369E+02   .2835E+02  
PSS 2   .3274E+02   .3541E+02   .3675E+02   .3527E+02   .3036E+02   .2284E+02   .1397E+02   .5262E+01   .1629E+01  
PSS 3   .7423E+01   .1368E+02   .2096E+02   .2750E+02   .3170E+02   .3313E+02   .3186E+02   .2843E+02   .2672E+02

## DISPLACEMENTS

UX       .4208E-03   .3367E-03   .2519E-03   .1676E-03   .8238E-04   -.3630E-05   -.8798E-04   -.1697E-03   -.2506E-03  
UY       -.9340E-13   -.1477E-11   -.9235E-14   -.2494E-12   .2139E-11   -.2476E-11   .3378E-11   -.1792E-12   .2181E-11  
UZ       .5872E-01   .5978E-01   .6111E-01   .6244E-01   .6351E-01   .6459E-01   .6564E-01   .6643E-01   .6659E-01

## NORMAL STRAINS

EXX     -.7685E-04   -.7968E-04   -.8184E-04   -.8346E-04   -.8454E-04   -.8478E-04   -.8461E-04   -.8420E-04   -.8382E-04  
EYY     -.8939E-04   -.9013E-04   -.9094E-04   -.9199E-04   -.9288E-04   -.9317E-04   -.9352E-04   -.9404E-04   -.9429E-04  
EZZ     .6893E-04   .4606E-04   .6523E-05   -.4810E-04   -.1103E-03   -.1710E-03   -.2232E-03   -.2602E-03   -.2741E-03

## SHEAR STRAINS

EXY     -.5008E-13   .1218E-12   -.3688E-13   -.1943E-12   -.7485E-13   .1907E-13   .6744E-13   .4191E-13   -.2810E-14  
EXZ     .2285E-03   .3066E-03   .3794E-03   .4222E-03   .4181E-03   .3678E-03   .2765E-03   .1439E-03   -.2007E-04  
EYZ     .2218E-11   .3986E-11   .2109E-11   -.2500E-11   .8872E-11   .1659E-10   .1489E-10   .1030E-10   .4736E-11

## PRINCIPAL STRAINS

PE 1     .1316E-03   .1489E-03   .1571E-03   .1460E-03   .1120E-03   .6101E-04   .7582E-06   -.5852E-04   -.8330E-04  
PE 2     -.8939E-04   -.9013E-04   -.9094E-04   -.9199E-04   -.9288E-04   -.9317E-04   -.9352E-04   -.9404E-04   -.9429E-04  
PE 3     -.1395E-03   -.1825E-03   -.2324E-03   -.2776E-03   -.3068E-03   -.3168E-03   -.3086E-03   -.2859E-03   -.2746E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .2711E-03   .3314E-03   .3895E-03   .4237E-03   .4189E-03   .3778E-03   .3093E-03   .2274E-03   .1914E-03  
PSE 2   .2210E-03   .2390E-03   .2481E-03   .2380E-03   .2049E-03   .1542E-03   .9428E-04   .3552E-04   .1100E-04  
PSE 3   .5010E-04   .9237E-04   .1415E-03   .1856E-03   .2140E-03   .2236E-03   .2150E-03   .1919E-03   .1804E-03

## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.4169E+03	.4376E+03	.4608E+03	.4870E+03	.5124E+03	.5324E+03	.5481E+03	.5590E+03	.5624E+03
SYZ	.5128E+03	.5216E+03	.5312E+03	.5429E+03	.5541E+03	.5614E+03	.5672E+03	.5719E+03	.5735E+03
SZZ	-.3717E+01	-.3799E+01	-.3921E+01	-.4082E+01	-.4231E+01	-.4344E+01	-.4459E+01	-.4568E+01	-.4618E+01

## SHEAR STRESSES

SXY	-.1915E-06	.4324E-06	.4744E-07	-.2388E-06	-.3770E-06	.4369E-06	.1556E-06	-.4719E-07	-.4154E-06
SXZ	.1999E+00	.1813E+00	.1585E+00	.1308E+00	.9777E-01	.5952E-01	.1693E-01	-.2865E-01	-.7579E-01
SYZ	-.7631E-09	-.1180E-08	.9447E-09	.6414E-09	-.1990E-08	-.5927E-09	.2660E-09	-.1733E-10	.1867E-09

## PRINCIPAL STRESSES

PS 1	.5128E+03	.5216E+03	.5312E+03	.5429E+03	.5541E+03	.5614E+03	.5672E+03	.5719E+03	.5735E+03
PS 2	.4169E+03	.4376E+03	.4608E+03	.4870E+03	.5124E+03	.5324E+03	.5481E+03	.5590E+03	.5624E+03
PS 3	-.3717E+01	-.3799E+01	-.3921E+01	-.4082E+01	-.4231E+01	-.4344E+01	-.4459E+01	-.4568E+01	-.4618E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.2583E+03	.2627E+03	.2676E+03	.2735E+03	.2792E+03	.2829E+03	.2859E+03	.2882E+03	.2891E+03
PSS 2	.4799E+02	.4201E+02	.3518E+02	.2796E+02	.2087E+02	.1454E+02	.9564E+01	.6451E+01	.5549E+01
PSS 3	.2103E+03	.2207E+03	.2324E+03	.2455E+03	.2583E+03	.2683E+03	.2763E+03	.2818E+03	.2835E+03



## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.5504E-03	-.4561E-03	-.3587E-03	-.2582E-03	-.1523E-03	-.4078E-04	.7300E-04	.1872E-03	.3027E-03
UY	.3475E-11	.2053E-11	.1913E-11	-.4417E-11	.1070E-10	-.5945E-11	-.4488E-11	-.4444E-11	-.1986E-11
UZ	.5867E-01	.5971E-01	.6102E-01	.6232E-01	.6336E-01	.6440E-01	.6542E-01	.6620E-01	.6636E-01

## NORMAL STRAINS

EXX	.8512E-04	.8998E-04	.9544E-04	.1015E-03	.1075E-03	.1122E-03	.1159E-03	.1185E-03	.1193E-03
EYY	.1127E-03	.1141E-03	.1157E-03	.1176E-03	.1195E-03	.1206E-03	.1214E-03	.1222E-03	.1225E-03
EZZ	-.3579E-04	-.3692E-04	-.3818E-04	-.3964E-04	-.4105E-04	-.4210E-04	-.4294E-04	-.4355E-04	-.4375E-04

## SHEAR STRAINS

EXY	-.1101E-12	.2486E-12	.2728E-13	-.1373E-12	-.2168E-12	.2512E-12	.8948E-13	-.2714E-13	-.2389E-12
EXZ	.1149E-06	.1043E-06	.9112E-07	.7520E-07	.5622E-07	.3422E-07	.9735E-08	-.1648E-07	-.4358E-07
EYZ	-.4388E-15	-.6787E-15	.5432E-15	.3688E-15	-.1144E-14	-.3408E-15	.1530E-15	-.9966E-17	.1073E-15

## PRINCIPAL STRAINS

PE 1	.1127E-03	.1141E-03	.1157E-03	.1176E-03	.1195E-03	.1206E-03	.1214E-03	.1222E-03	.1225E-03
PE 2	.8512E-04	.8998E-04	.9544E-04	.1015E-03	.1075E-03	.1122E-03	.1159E-03	.1185E-03	.1193E-03
PE 3	-.3579E-04	-.3692E-04	-.3818E-04	-.3964E-04	-.4105E-04	-.4210E-04	-.4294E-04	-.4355E-04	-.4375E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1485E-03	.1511E-03	.1538E-03	.1572E-03	.1605E-03	.1627E-03	.1644E-03	.1657E-03	.1662E-03
PSE 2	.2759E-04	.2415E-04	.2023E-04	.1608E-04	.1200E-04	.8363E-05	.5499E-05	.3709E-05	.3191E-05
PSE 3	.1209E-03	.1269E-03	.1336E-03	.1412E-03	.1485E-03	.1543E-03	.1589E-03	.1620E-03	.1630E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.85 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-c Composite Pavement

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Z= 4.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	-.1758E+03	-.1623E+03
SYY	-.1788E+03	-.1653E+03
SZZ	-.2287E+03	-.2049E+03

## SHEAR STRESSES

SXY	.8983E-08	-.9991E-08
SXZ	-.2729E+02	-.4698E+02
SYZ	.1872E-05	.1907E-05

## PRINCIPAL STRESSES

PS 1	-.1642E+03	-.1320E+03
PS 2	-.1788E+03	-.1653E+03
PS 3	-.2402E+03	-.2352E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.3800E+02	.5157E+02
PSS 2	.7304E+01	.1661E+02
PSS 3	.3070E+02	.3496E+02

## DISPLACEMENTS

UX	-.3309E-03	-.4107E-03
UY	-.3485E-11	.3638E-11
UZ	.6631E-01	.6541E-01

Appendix 6E-c Composite Pavement

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## NORMAL STRAINS

EXX -.8289E-04 -.8199E-04  
EYY -.9320E-04 -.9184E-04  
EZZ -.2614E-03 -.2255E-03

## SHEAR STRAINS

EXY .6063E-13 -.6744E-13  
EXZ -.1842E-03 -.3171E-03  
EYZ .1263E-10 .1287E-10

## PRINCIPAL STRAINS

PE 1 -.4389E-04 .2031E-04  
PE 2 -.9320E-04 -.9184E-04  
PE 3 -.3004E-03 -.3278E-03

## PRINCIPAL SHEAR STRAINS

PSE 1 .2565E-03 .3481E-03  
PSE 2 .4930E-04 .1121E-03  
PSE 3 .2072E-03 .2360E-03

Z= 12.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .5525E+03 .5351E+03  
SYY .5665E+03 .5564E+03  
SZZ -.4541E+01 -.4405E+01

Appendix 6E-c Composite Pavement

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## SHEAR STRESSES

SXY -.5580E-08 -.1556E-06  
SXZ -.1229E+00 -.1682E+00  
SYZ -.5669E-09 .0000E+00

## PRINCIPAL STRESSES

PS 1 .5665E+03 .5564E+03  
PS 2 .5525E+03 .5351E+03  
PS 3 -.4541E+01 -.4405E+01

## PRINCIPAL SHEAR STRESSES

PSS 1 .2855E+03 .2804E+03  
PSS 2 .6985E+01 .1065E+02  
PSS 3 .2785E+03 .2698E+03

## DISPLACEMENTS

UX .4175E-03 .5296E-03  
UY -.7856E-11 .3638E-11  
UZ .6608E-01 .6520E-01

## NORMAL STRAINS

EXX .1171E-03 .1131E-03  
EYY .1211E-03 .1192E-03  
EZZ -.4310E-04 -.4204E-04

## SHEAR STRAINS

EXY -.3209E-14 -.8948E-13  
EXZ -.7064E-07 -.9672E-07  
EYZ -.3260E-15 .0000E+00

## PRINCIPAL STRAINS

Appendix 6E-c Composite Pavement

PE 1 .1211E-03 .1192E-03  
 PE 2 .1171E-03 .1131E-03  
 PE 3 -.4310E-04 -.4204E-04

PRINCIPAL SHEAR STRAINS  
 PSE 1 .1642E-03 .1612E-03  
 PSE 2 .4017E-05 .6121E-05  
 PSE 3 .1602E-03 .1551E-03

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

## Appendix 6E-c Composite Pavement

Z= 4.00 12.00  
 X-Y POINT(S)  
 X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

## NORMAL STRESSES

SXX -.1465E+03 -.1568E+03 -.1608E+03 -.1579E+03 -.1487E+03 -.1355E+03 -.1205E+03 -.1049E+03 -.8952E+02  
 SYY -.1555E+03 -.1658E+03 -.1698E+03 -.1669E+03 -.1578E+03 -.1448E+03 -.1301E+03 -.1151E+03 -.1002E+03  
 SZZ -.1782E+03 -.1961E+03 -.2027E+03 -.1961E+03 -.1782E+03 -.1530E+03 -.1248E+03 -.9614E+02 -.6814E+02

## SHEAR STRESSES

SXY .4299E-08 -.4336E-08 -.8866E-08 .1916E-07 -.5067E-08 -.6491E-09 .2178E-07 .8909E-08 .2484E-07

## Appendix 6E-c Composite Pavement

SXZ	.3737E+02	.2268E+02	.5045E+01	-.1257E+02	-.2722E+02	-.3720E+02	-.4275E+02	-.4501E+02	-.4419E+02
SYZ	.4225E-06	.2842E-06	.7396E-06	.5862E-06	.3577E-08	.5676E-06	.7437E-06	.2661E-06	.4006E-06

## PRINCIPAL STRESSES

PS 1	-.1218E+03	-.1464E+03	-.1602E+03	-.1541E+03	-.1325E+03	-.1060E+03	-.7987E+02	-.5532E+02	-.3336E+02
PS 2	-.1555E+03	-.1658E+03	-.1698E+03	-.1669E+03	-.1578E+03	-.1448E+03	-.1301E+03	-.1151E+03	-.1002E+03
PS 3	-.2029E+03	-.2065E+03	-.2033E+03	-.1999E+03	-.1944E+03	-.1824E+03	-.1655E+03	-.1458E+03	-.1243E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4058E+02	.3002E+02	.2152E+02	.2290E+02	.3096E+02	.3821E+02	.4281E+02	.4522E+02	.4546E+02
PSS 2	.1688E+02	.9666E+01	.4798E+01	.6395E+01	.1266E+02	.1937E+02	.2513E+02	.2988E+02	.3342E+02
PSS 3	.2370E+02	.2036E+02	.1672E+02	.1650E+02	.1831E+02	.1884E+02	.1768E+02	.1535E+02	.1204E+02

## DISPLACEMENTS

UX	.1376E-02	.1301E-02	.1225E-02	.1149E-02	.1071E-02	.9927E-03	.9121E-03	.8310E-03	.7507E-03
UY	.2000E-11	.7794E-12	.1988E-11	-.4263E-11	.1229E-11	-.2476E-11	-.6492E-13	-.8760E-12	.4622E-12
UZ	.9077E-01	.9143E-01	.9179E-01	.9212E-01	.9214E-01	.9150E-01	.9097E-01	.9062E-01	.9020E-01

## NORMAL STRAINS

EXX	-.7433E-04	-.7531E-04	-.7615E-04	-.7701E-04	-.7774E-04	-.7821E-04	-.7819E-04	-.7756E-04	-.7650E-04
EYY	-.1047E-03	-.1056E-03	-.1065E-03	-.1075E-03	-.1085E-03	-.1095E-03	-.1107E-03	-.1117E-03	-.1126E-03
EZZ	-.1811E-03	-.2081E-03	-.2173E-03	-.2062E-03	-.1773E-03	-.1372E-03	-.9278E-04	-.4782E-04	-.4326E-05

## SHEAR STRAINS

EXY	.2902E-13	-.2927E-13	-.5985E-13	.1293E-12	-.3420E-13	-.4381E-14	.1470E-12	.6014E-13	.1676E-12
EXZ	.2522E-03	.1531E-03	.3405E-04	-.8486E-04	-.1838E-03	-.2511E-03	-.2886E-03	-.3038E-03	-.2983E-03
EYZ	.2852E-11	.1918E-11	.4992E-11	.3957E-11	.2414E-13	.3831E-11	.5020E-11	.1796E-11	.2704E-11

## PRINCIPAL STRAINS

PE 1	.9237E-05	-.4037E-04	-.7413E-04	-.6432E-04	-.2301E-04	.2126E-04	.5899E-04	.8993E-04	.1130E-03
PE 2	-.1047E-03	-.1056E-03	-.1065E-03	-.1075E-03	-.1085E-03	-.1095E-03	-.1107E-03	-.1117E-03	-.1126E-03
PE 3	-.2647E-03	-.2430E-03	-.2194E-03	-.2189E-03	-.2320E-03	-.2367E-03	-.2300E-03	-.2153E-03	-.1939E-03



## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRAINS

PSE 1	.2739E-03	.2027E-03	.1452E-03	.1546E-03	.2090E-03	.2579E-03	.2890E-03	.3052E-03	.3069E-03
PSE 2	.1140E-03	.6524E-04	.3238E-04	.4317E-04	.8544E-04	.1308E-03	.1696E-03	.2017E-03	.2256E-03
PSE 3	.1600E-03	.1374E-03	.1129E-03	.1114E-03	.1236E-03	.1272E-03	.1193E-03	.1036E-03	.8128E-04

Z= 12.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

## NORMAL STRESSES

SXX	.4926E+03	.5063E+03	.5141E+03	.5156E+03	.5109E+03	.5018E+03	.4898E+03	.4747E+03	.4574E+03
SYX	.6101E+03	.6190E+03	.6254E+03	.6294E+03	.6309E+03	.6313E+03	.6312E+03	.6299E+03	.6271E+03
SZZ	-.5063E+01	-.5141E+01	-.5186E+01	-.5221E+01	-.5222E+01	-.5177E+01	-.5154E+01	-.5146E+01	-.5123E+01

## SHEAR STRESSES

SXY	-.2940E-06	-.3017E-06	-.4019E-06	.4691E-07	.1728E-06	-.7118E-06	-.1344E-07	.1303E-06	-.1769E-06
SXZ	.3418E+00	.3038E+00	.2645E+00	.2251E+00	.1870E+00	.1510E+00	.1183E+00	.8961E-01	.6528E-01
SYZ	.9636E-09	.1463E-08	-.3940E-09	.4964E-09	-.1701E-09	.3329E-09	-.3014E-09	.1274E-08	.5416E-09

## PRINCIPAL STRESSES

PS 1	.6101E+03	.6190E+03	.6254E+03	.6294E+03	.6309E+03	.6313E+03	.6312E+03	.6299E+03	.6271E+03
PS 2	.4926E+03	.5063E+03	.5141E+03	.5156E+03	.5109E+03	.5018E+03	.4898E+03	.4747E+03	.4574E+03

## Appendix 6E-c Composite Pavement

PS 3    -.5063E+01   -.5141E+01   -.5187E+01   -.5221E+01   -.5222E+01   -.5177E+01   -.5154E+01   -.5146E+01   -.5123E+01

## PRINCIPAL SHEAR STRESSES

PSS 1    .3076E+03    .3121E+03    .3153E+03    .3173E+03    .3181E+03    .3183E+03    .3182E+03    .3175E+03    .3161E+03  
PSS 2    .5875E+02    .5636E+02    .5566E+02    .5693E+02    .6003E+02    .6478E+02    .7070E+02    .7757E+02    .8487E+02  
PSS 3    .2488E+03    .2557E+03    .2597E+03    .2604E+03    .2580E+03    .2535E+03    .2475E+03    .2399E+03    .2313E+03

## DISPLACEMENTS

UX        -.1647E-02   -.1545E-02   -.1440E-02   -.1335E-02   -.1230E-02   -.1126E-02   -.1022E-02   -.9215E-03   -.8244E-03  
UY        -.7346E-12   -.6110E-12   .1200E-11   -.1790E-11   .9065E-12   -.2620E-11   -.5420E-12   -.1453E-11   -.3110E-12  
UZ        .9059E-01    .9124E-01    .9159E-01    .9192E-01    .9196E-01    .9134E-01    .9083E-01    .9050E-01    .9010E-01

## NORMAL STRAINS

EXX        .1005E-03    .1035E-03    .1053E-03    .1055E-03    .1043E-03    .1020E-03    .9898E-04    .9526E-04    .9102E-04  
EYY        .1342E-03    .1360E-03    .1373E-03    .1382E-03    .1388E-03    .1392E-03    .1396E-03    .1399E-03    .1398E-03  
EZZ        -.4262E-04   -.4348E-04   -.4403E-04   -.4424E-04   -.4412E-04   -.4379E-04   -.4333E-04   -.4271E-04   -.4195E-04

## SHEAR STRAINS

EXY        -.1690E-12   -.1735E-12   -.2311E-12   .2697E-13   .9935E-13   -.4093E-12   -.7727E-14   .7490E-13   -.1017E-12  
EXZ        .1965E-06    .1747E-06    .1521E-06    .1295E-06    .1075E-06    .8683E-07    .6804E-07    .5152E-07    .3753E-07  
EYZ        .5541E-15    .8413E-15   -.2266E-15   .2854E-15   -.9782E-16   .1914E-15   -.1733E-15   .7327E-15   .3114E-15

## PRINCIPAL STRAINS

PE 1        .1342E-03    .1360E-03    .1373E-03    .1382E-03    .1388E-03    .1392E-03    .1396E-03    .1399E-03    .1398E-03  
PE 2        .1005E-03    .1035E-03    .1053E-03    .1055E-03    .1043E-03    .1020E-03    .9898E-04    .9526E-04    .9102E-04  
PE 3        -.4262E-04   -.4348E-04   -.4403E-04   -.4424E-04   -.4412E-04   -.4379E-04   -.4333E-04   -.4271E-04   -.4195E-04

## PRINCIPAL SHEAR STRAINS

PSE 1        .1769E-03    .1794E-03    .1813E-03    .1825E-03    .1829E-03    .1830E-03    .1830E-03    .1826E-03    .1818E-03  
PSE 2        .3378E-04    .3241E-04    .3200E-04    .3274E-04    .3452E-04    .3725E-04    .4065E-04    .4460E-04    .4880E-04  
PSE 3        .1431E-03    .1470E-03    .1493E-03    .1497E-03    .1484E-03    .1458E-03    .1423E-03    .1380E-03    .1330E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-c Composite Pavement

31.00      4.00  
32.00      4.00

Z= 4.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	-.7560E+02	-.6465E+02	-.5713E+02	-.5248E+02	-.4972E+02	-.4807E+02	-.4702E+02	-.4633E+02	-.4586E+02
SYX	-.8688E+02	-.7657E+02	-.6979E+02	-.6590E+02	-.6388E+02	-.6287E+02	-.6234E+02	-.6203E+02	-.6184E+02
SZZ	-.4315E+02	-.2401E+02	-.1170E+02	-.5016E+01	-.1918E+01	-.7322E+00	-.3979E+00	-.3949E+00	-.4626E+00

SHEAR STRESSES

SXY	.6403E-08	-.2150E-07	-.7654E-08	-.5446E-08	.3703E-07	-.3020E-07	-.6046E-07	-.2143E-07	.3789E-07
SXZ	-.3993E+02	-.3300E+02	-.2536E+02	-.1868E+02	-.1355E+02	-.9840E+01	-.7107E+01	-.4971E+01	-.3171E+01
SYZ	.4597E-08	-.5202E-06	-.1798E-06	-.1010E-06	.3347E-07	-.8027E-07	.7349E-07	-.8387E-07	.1821E-07

PRINCIPAL STRESSES

PS 1	-.1627E+02	-.5571E+01	-.3719E+00	.1456E+01	.1657E+01	.1232E+01	.6612E+00	.1368E+00	-.2423E+00
PS 2	-.8688E+02	-.7657E+02	-.6846E+02	-.5895E+02	-.5329E+02	-.5003E+02	-.4808E+02	-.4686E+02	-.4608E+02
PS 3	-.1025E+03	-.8309E+02	-.6979E+02	-.6590E+02	-.6388E+02	-.6287E+02	-.6234E+02	-.6203E+02	-.6184E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.4310E+02	.3876E+02	.3471E+02	.3368E+02	.3277E+02	.3205E+02	.3150E+02	.3109E+02	.3080E+02
PSS 2	.3530E+02	.3550E+02	.3405E+02	.3020E+02	.2748E+02	.2563E+02	.2437E+02	.2350E+02	.2292E+02
PSS 3	.7801E+01	.3256E+01	.6628E+00	.3477E+01	.5291E+01	.6416E+01	.7127E+01	.7588E+01	.7881E+01

## DISPLACEMENTS

UX	.6710E-03	.5919E-03	.5147E-03	.4402E-03	.3692E-03	.3016E-03	.2373E-03	.1756E-03	.1159E-03
UY	.1275E-11	-.2808E-11	.2495E-11	-.1318E-11	-.4464E-11	.1898E-11	.7725E-12	.3358E-11	-.8932E-12
UZ	.8930E-01	.8864E-01	.8825E-01	.8810E-01	.8811E-01	.8822E-01	.8838E-01	.8854E-01	.8867E-01

## NORMAL STRAINS

EXX	-.7522E-04	-.7362E-04	-.7153E-04	-.6913E-04	-.6673E-04	-.6453E-04	-.6266E-04	-.6119E-04	-.6013E-04
EYY	-.1133E-03	-.1139E-03	-.1142E-03	-.1144E-03	-.1145E-03	-.1145E-03	-.1143E-03	-.1142E-03	-.1141E-03
EZZ	.3428E-04	.6355E-04	.8180E-04	.9104E-04	.9460E-04	.9524E-04	.9469E-04	.9383E-04	.9308E-04

## SHEAR STRAINS

EXY	.4322E-13	-.1451E-12	-.5167E-13	-.3676E-13	.2500E-12	-.2039E-12	-.4081E-12	-.1447E-12	.2557E-12
EXZ	-.2695E-03	-.2228E-03	-.1712E-03	-.1261E-03	-.9149E-04	-.6642E-04	-.4797E-04	-.3355E-04	-.2140E-04
EYZ	.3103E-13	-.3511E-11	-.1214E-11	-.6817E-12	.2259E-12	-.5418E-12	.4961E-12	-.5661E-12	.1229E-12

## PRINCIPAL STRAINS

PE 1	.1250E-03	.1258E-03	.1200E-03	.1129E-03	.1067E-03	.1019E-03	.9827E-04	.9562E-04	.9382E-04
PE 2	-.1133E-03	-.1139E-03	-.1098E-03	-.9098E-04	-.7880E-04	-.7116E-04	-.6624E-04	-.6299E-04	-.6087E-04
PE 3	-.1659E-03	-.1358E-03	-.1142E-03	-.1144E-03	-.1145E-03	-.1145E-03	-.1143E-03	-.1142E-03	-.1141E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2909E-03	.2616E-03	.2343E-03	.2273E-03	.2212E-03	.2163E-03	.2126E-03	.2098E-03	.2079E-03
PSE 2	.2383E-03	.2396E-03	.2298E-03	.2039E-03	.1855E-03	.1730E-03	.1645E-03	.1586E-03	.1547E-03
PSE 3	.5266E-04	.2198E-04	.4474E-05	.2347E-04	.3571E-04	.4331E-04	.4811E-04	.5122E-04	.5320E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.4397E+03	.4231E+03	.4074E+03	.3931E+03	.3800E+03	.3687E+03	.3593E+03	.3519E+03	.3466E+03
SYY	.6242E+03	.6217E+03	.6191E+03	.6162E+03	.6129E+03	.6096E+03	.6065E+03	.6038E+03	.6017E+03
SZZ	-.5067E+01	-.5041E+01	-.5034E+01	-.5040E+01	-.5050E+01	-.5061E+01	-.5070E+01	-.5077E+01	-.5081E+01

SHEAR STRESSES

SXY	-.4950E-06	.8682E-06	-.2759E-07	-.3993E-06	.2172E-06	-.2026E-06	.1240E-06	.2612E-06	.4783E-08
SXZ	.4530E-01	.2954E-01	.1767E-01	.9130E-02	.3507E-02	.1326E-03	-.1572E-02	-.2074E-02	-.1804E-02
SYZ	-.1051E-08	-.9325E-09	.2632E-09	-.4609E-09	.1583E-08	-.8145E-09	-.3148E-09	.7899E-09	.1050E-09

PRINCIPAL STRESSES

PS 1	.6242E+03	.6217E+03	.6191E+03	.6162E+03	.6129E+03	.6096E+03	.6065E+03	.6038E+03	.6017E+03
PS 2	.4397E+03	.4231E+03	.4074E+03	.3931E+03	.3800E+03	.3687E+03	.3593E+03	.3519E+03	.3466E+03
PS 3	-.5067E+01	-.5041E+01	-.5034E+01	-.5040E+01	-.5050E+01	-.5061E+01	-.5070E+01	-.5077E+01	-.5081E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3147E+03	.3134E+03	.3121E+03	.3106E+03	.3090E+03	.3073E+03	.3058E+03	.3044E+03	.3034E+03
PSS 2	.9227E+02	.9935E+02	.1058E+03	.1115E+03	.1164E+03	.1204E+03	.1236E+03	.1259E+03	.1275E+03
PSS 3	.2224E+03	.2140E+03	.2062E+03	.1991E+03	.1925E+03	.1869E+03	.1822E+03	.1785E+03	.1758E+03

DISPLACEMENTS

## Appendix 6E-c Composite Pavement

UX	-.7311E-03	-.6410E-03	-.5548E-03	-.4729E-03	-.3956E-03	-.3225E-03	-.2533E-03	-.1872E-03	-.1234E-03
UY	.1926E-11	-.4644E-11	-.3350E-12	.3094E-11	-.2158E-11	-.6950E-11	.3766E-12	.6769E-11	-.2267E-11
UZ	.8922E-01	.8858E-01	.8821E-01	.8806E-01	.8808E-01	.8820E-01	.8836E-01	.8852E-01	.8865E-01

## NORMAL STRAINS

EXX	.8671E-04	.8264E-04	.7883E-04	.7535E-04	.7221E-04	.6951E-04	.6728E-04	.6553E-04	.6428E-04
EYY	.1398E-03	.1398E-03	.1397E-03	.1395E-03	.1392E-03	.1388E-03	.1383E-03	.1379E-03	.1376E-03
EZZ	-.4117E-04	-.4044E-04	-.3975E-04	-.3911E-04	-.3850E-04	-.3795E-04	-.3749E-04	-.3711E-04	-.3683E-04

## SHEAR STRAINS

EXY	-.2846E-12	.4992E-12	-.1586E-13	-.2296E-12	.1249E-12	-.1165E-12	.7130E-13	.1502E-12	.2750E-14
EXZ	.2605E-07	.1699E-07	.1016E-07	.5249E-08	.2017E-08	.7624E-10	-.9041E-09	-.1193E-08	-.1037E-08
EYZ	-.6045E-15	-.5362E-15	.1513E-15	-.2650E-15	.9105E-15	-.4684E-15	-.1810E-15	.4542E-15	.6037E-16

## PRINCIPAL STRAINS

PE 1	.1398E-03	.1398E-03	.1397E-03	.1395E-03	.1392E-03	.1388E-03	.1383E-03	.1379E-03	.1376E-03
PE 2	.8671E-04	.8264E-04	.7883E-04	.7535E-04	.7221E-04	.6951E-04	.6728E-04	.6553E-04	.6428E-04
PE 3	-.4117E-04	-.4044E-04	-.3975E-04	-.3911E-04	-.3850E-04	-.3795E-04	-.3749E-04	-.3711E-04	-.3683E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1809E-03	.1802E-03	.1794E-03	.1786E-03	.1777E-03	.1767E-03	.1758E-03	.1750E-03	.1744E-03
PSE 2	.5305E-04	.5713E-04	.6086E-04	.6414E-04	.6695E-04	.6925E-04	.7105E-04	.7240E-04	.7333E-04
PSE 3	.1279E-03	.1231E-03	.1186E-03	.1145E-03	.1107E-03	.1075E-03	.1048E-03	.1026E-03	.1011E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00



Appendix 6E-c Composite Pavement

39.00 4.00  
40.00 4.00  
41.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
33.00 4.00  
34.00 4.00  
35.00 4.00  
36.00 4.00  
37.00 4.00  
38.00 4.00  
39.00 4.00  
40.00 4.00  
41.00 4.00

NORMAL STRESSES

SXX -.4558E+02 -.4548E+02 -.4558E+02 -.4586E+02 -.4633E+02 -.4702E+02 -.4807E+02 -.4972E+02 -.5248E+02  
 SYY -.6173E+02 -.6168E+02 -.6173E+02 -.6184E+02 -.6203E+02 -.6234E+02 -.6287E+02 -.6388E+02 -.6590E+02  
 SZZ -.5170E+00 -.5200E+00 -.5170E+00 -.4626E+00 -.3949E+00 -.3979E+00 -.7322E+00 -.1918E+01 -.5016E+01

SHEAR STRESSES

SXY .4140E-08 -.2076E-07 -.4087E-07 .4139E-07 .1869E-07 -.3173E-07 .2907E-07 -.1941E-07 -.8716E-09  
 SXZ -.1554E+01 -.5460E-06 .1554E+01 .3171E+01 .4971E+01 .7107E+01 .9840E+01 .1355E+02 .1868E+02  
 SYZ -.3020E-07 .2404E-08 -.2272E-07 -.9452E-07 -.7803E-07 .1808E-07 -.4442E-07 .5232E-07 -.6792E-07

PRINCIPAL STRESSES

PS 1 -.4636E+00 -.5200E+00 -.4636E+00 -.2423E+00 .1368E+00 .6612E+00 .1232E+01 .1657E+01 .1456E+01  
 PS 2 -.4564E+02 -.4548E+02 -.4564E+02 -.4608E+02 -.4686E+02 -.4808E+02 -.5003E+02 -.5329E+02 -.5895E+02  
 PS 3 -.6173E+02 -.6168E+02 -.6173E+02 -.6184E+02 -.6203E+02 -.6234E+02 -.6287E+02 -.6388E+02 -.6590E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.3063E+02	.3058E+02	.3063E+02	.3080E+02	.3109E+02	.3150E+02	.3205E+02	.3277E+02	.3368E+02
PSS 2	.2259E+02	.2248E+02	.2259E+02	.2292E+02	.2350E+02	.2437E+02	.2563E+02	.2748E+02	.3020E+02
PSS 3	.8045E+01	.8098E+01	.8045E+01	.7881E+01	.7588E+01	.7127E+01	.6416E+01	.5291E+01	.3477E+01

## DISPLACEMENTS

UX	.5763E-04	.5285E-10	-.5763E-04	-.1159E-03	-.1756E-03	-.2373E-03	-.3016E-03	-.3692E-03	-.4402E-03
UY	.1111E-11	.2327E-11	.2853E-11	-.2219E-12	-.5583E-11	.9098E-12	.1654E-11	.6007E-11	.3352E-11
UZ	.8875E-01	.8878E-01	.8875E-01	.8867E-01	.8854E-01	.8838E-01	.8822E-01	.8811E-01	.8810E-01

## NORMAL STRAINS

EXX	-.5949E-04	-.5928E-04	-.5949E-04	-.6013E-04	-.6119E-04	-.6266E-04	-.6453E-04	-.6673E-04	-.6913E-04
EYY	-.1140E-03	-.1139E-03	-.1140E-03	-.1141E-03	-.1142E-03	-.1143E-03	-.1145E-03	-.1145E-03	-.1144E-03
EZZ	.9260E-04	.9247E-04	.9260E-04	.9308E-04	.9383E-04	.9469E-04	.9524E-04	.9460E-04	.9104E-04

## SHEAR STRAINS

EXY	.2795E-13	-.1401E-12	-.2759E-12	.2794E-12	.1262E-12	-.2142E-12	.1962E-12	-.1310E-12	-.5883E-14
EXZ	-.1049E-04	-.3685E-11	.1049E-04	.2140E-04	.3355E-04	.4797E-04	.6642E-04	.9149E-04	.1261E-03
EYZ	-.2039E-12	.1623E-13	-.1533E-12	-.6380E-12	-.5267E-12	.1221E-12	-.2998E-12	.3532E-12	-.4585E-12

## PRINCIPAL STRAINS

PE 1	.9278E-04	.9247E-04	.9278E-04	.9382E-04	.9562E-04	.9827E-04	.1019E-03	.1067E-03	.1129E-03
PE 2	-.5967E-04	-.5928E-04	-.5967E-04	-.6087E-04	-.6299E-04	-.6624E-04	-.7116E-04	-.7880E-04	-.9098E-04
PE 3	-.1140E-03	-.1139E-03	-.1140E-03	-.1141E-03	-.1142E-03	-.1143E-03	-.1145E-03	-.1145E-03	-.1144E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2068E-03	.2064E-03	.2068E-03	.2079E-03	.2098E-03	.2126E-03	.2163E-03	.2212E-03	.2273E-03
PSE 2	.1525E-03	.1518E-03	.1525E-03	.1547E-03	.1586E-03	.1645E-03	.1730E-03	.1855E-03	.2039E-03
PSE 3	.5431E-04	.5466E-04	.5431E-04	.5320E-04	.5122E-04	.4811E-04	.4331E-04	.3571E-04	.2347E-04

Z= 12.00 LAYER NO, 2

## Appendix 6E-c Composite Pavement

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

## NORMAL STRESSES

SXX	.3434E+03	.3424E+03	.3434E+03	.3466E+03	.3519E+03	.3593E+03	.3687E+03	.3800E+03	.3931E+03
SYX	.6004E+03	.5999E+03	.6004E+03	.6017E+03	.6038E+03	.6065E+03	.6096E+03	.6129E+03	.6162E+03
SZZ	-.5084E+01	-.5085E+01	-.5084E+01	-.5081E+01	-.5077E+01	-.5070E+01	-.5061E+01	-.5050E+01	-.5040E+01

## SHEAR STRESSES

SXY	-.3931E-06	-.1758E-06	.6800E-06	.7971E-07	.7044E-06	.6185E-07	.4557E-06	-.1134E-06	-.3123E-06
SXZ	-.1015E-02	.2169E-08	.1015E-02	.1804E-02	.2074E-02	.1572E-02	-.1326E-03	-.3507E-02	-.9130E-02
SYZ	.2269E-08	-.4533E-09	-.1094E-08	-.2660E-09	.6448E-10	-.7459E-09	-.8386E-09	-.1058E-08	.3880E-09

## PRINCIPAL STRESSES

PS 1	.6004E+03	.5999E+03	.6004E+03	.6017E+03	.6038E+03	.6065E+03	.6096E+03	.6129E+03	.6162E+03
PS 2	.3434E+03	.3424E+03	.3434E+03	.3466E+03	.3519E+03	.3593E+03	.3687E+03	.3800E+03	.3931E+03
PS 3	-.5084E+01	-.5085E+01	-.5084E+01	-.5081E+01	-.5077E+01	-.5070E+01	-.5061E+01	-.5050E+01	-.5040E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.3027E+03	.3025E+03	.3027E+03	.3034E+03	.3044E+03	.3058E+03	.3073E+03	.3090E+03	.3106E+03
PSS 2	.1285E+03	.1288E+03	.1285E+03	.1275E+03	.1259E+03	.1236E+03	.1204E+03	.1164E+03	.1115E+03
PSS 3	.1743E+03	.1737E+03	.1743E+03	.1758E+03	.1785E+03	.1822E+03	.1869E+03	.1925E+03	.1991E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.6133E-04	.1091E-10	.6133E-04	.1234E-03	.1872E-03	.2533E-03	.3225E-03	.3956E-03	.4729E-03
UY	-.5581E-11	-.8999E-13	.7225E-11	-.1967E-12	-.3680E-11	.2383E-11	.4041E-11	.5394E-11	-.5350E-12
UZ	.8873E-01	.8876E-01	.8873E-01	.8865E-01	.8852E-01	.8836E-01	.8820E-01	.8808E-01	.8806E-01

## NORMAL STRAINS

EXX	.6354E-04	.6329E-04	.6354E-04	.6428E-04	.6553E-04	.6728E-04	.6951E-04	.7221E-04	.7535E-04
EYY	.1374E-03	.1373E-03	.1374E-03	.1376E-03	.1379E-03	.1383E-03	.1388E-03	.1392E-03	.1395E-03
EZZ	-.3666E-04	-.3661E-04	-.3666E-04	-.3683E-04	-.3711E-04	-.3749E-04	-.3795E-04	-.3850E-04	-.3911E-04

## SHEAR STRAINS

EXY	-.2260E-12	-.1011E-12	.3910E-12	.4583E-13	.4051E-12	.3556E-13	.2621E-12	-.6519E-13	-.1796E-12
EXZ	-.5836E-09	.1247E-14	.5836E-09	.1037E-08	.1193E-08	.9041E-09	-.7624E-10	-.2017E-08	-.5249E-08
EYZ	.1305E-14	-.2607E-15	-.6293E-15	-.1529E-15	.3708E-16	-.4289E-15	-.4822E-15	-.6081E-15	.2231E-15

## PRINCIPAL STRAINS

PE 1	.1374E-03	.1373E-03	.1374E-03	.1376E-03	.1379E-03	.1383E-03	.1388E-03	.1392E-03	.1395E-03
PE 2	.6354E-04	.6329E-04	.6354E-04	.6428E-04	.6553E-04	.6728E-04	.6951E-04	.7221E-04	.7535E-04
PE 3	-.3666E-04	-.3661E-04	-.3666E-04	-.3683E-04	-.3711E-04	-.3749E-04	-.3795E-04	-.3850E-04	-.3911E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1741E-03	.1739E-03	.1741E-03	.1744E-03	.1750E-03	.1758E-03	.1767E-03	.1777E-03	.1786E-03
PSE 2	.7387E-04	.7404E-04	.7387E-04	.7333E-04	.7240E-04	.7105E-04	.6925E-04	.6695E-04	.6414E-04
PSE 3	.1002E-03	.9990E-04	.1002E-03	.1011E-03	.1026E-03	.1048E-03	.1075E-03	.1107E-03	.1145E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-c Composite Pavement

48.00      4.00  
49.00      4.00  
50.00      4.00

Z= 4.00 LAYER NO, 1

X            Y  
42.00      4.00  
43.00      4.00  
44.00      4.00  
45.00      4.00  
46.00      4.00  
47.00      4.00  
48.00      4.00  
49.00      4.00  
50.00      4.00

NORMAL STRESSES

SXX    -.5713E+02   -.6465E+02   -.7560E+02   -.8952E+02   -.1049E+03   -.1205E+03   -.1355E+03   -.1487E+03   -.1579E+03  
SYY    -.6979E+02   -.7657E+02   -.8688E+02   -.1002E+03   -.1151E+03   -.1301E+03   -.1448E+03   -.1578E+03   -.1669E+03  
SZZ    -.1170E+02   -.2401E+02   -.4315E+02   -.6814E+02   -.9614E+02   -.1248E+03   -.1530E+03   -.1782E+03   -.1961E+03

SHEAR STRESSES

SXY    -.8869E-08   .2512E-07   .2959E-08   -.9109E-08   -.1229E-07   .1671E-07   -.5343E-08   .4174E-08   .2319E-07  
SXZ    .2536E+02   .3300E+02   .3993E+02   .4419E+02   .4501E+02   .4275E+02   .3720E+02   .2722E+02   .1257E+02  
SYZ    -.1915E-06   .3848E-06   .5561E-07   .3692E-06   .3094E-06   .4249E-06   .9454E-06   .4186E-06   .2794E-06

PRINCIPAL STRESSES

PS 1   -.3719E+00   -.5571E+01   -.1627E+02   -.3336E+02   -.5532E+02   -.7987E+02   -.1060E+03   -.1325E+03   -.1541E+03  
PS 2   -.6846E+02   -.7657E+02   -.8688E+02   -.1002E+03   -.1151E+03   -.1301E+03   -.1448E+03   -.1578E+03   -.1669E+03  
PS 3   -.6979E+02   -.8309E+02   -.1025E+03   -.1243E+03   -.1458E+03   -.1655E+03   -.1824E+03   -.1944E+03   -.1999E+03

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.3471E+02	.3876E+02	.4310E+02	.4546E+02	.4522E+02	.4281E+02	.3821E+02	.3096E+02	.2290E+02
PSS 2	.3405E+02	.3550E+02	.3530E+02	.3342E+02	.2988E+02	.2513E+02	.1937E+02	.1266E+02	.6395E+01
PSS 3	.6628E+00	.3256E+01	.7801E+01	.1204E+02	.1535E+02	.1768E+02	.1884E+02	.1831E+02	.1650E+02

## DISPLACEMENTS

UX	-.5147E-03	-.5919E-03	-.6710E-03	-.7507E-03	-.8310E-03	-.9121E-03	-.9927E-03	-.1071E-02	-.1149E-02
UY	-.5542E-11	.1022E-11	.2668E-11	-.1722E-12	.2509E-11	-.1093E-11	.3672E-11	-.1810E-12	-.3689E-12
UZ	.8825E-01	.8864E-01	.8930E-01	.9020E-01	.9062E-01	.9097E-01	.9150E-01	.9214E-01	.9212E-01

## NORMAL STRAINS

EXX	-.7153E-04	-.7362E-04	-.7522E-04	-.7650E-04	-.7756E-04	-.7819E-04	-.7821E-04	-.7774E-04	-.7701E-04
EYY	-.1142E-03	-.1139E-03	-.1133E-03	-.1126E-03	-.1117E-03	-.1107E-03	-.1095E-03	-.1085E-03	-.1075E-03
EZZ	.8180E-04	.6355E-04	.3428E-04	-.4326E-05	-.4782E-04	-.9278E-04	-.1372E-03	-.1773E-03	-.2062E-03

## SHEAR STRAINS

EXY	-.5987E-13	.1696E-12	.1998E-13	-.6148E-13	-.8296E-13	.1128E-12	-.3606E-13	.2817E-13	.1566E-12
EXZ	.1712E-03	.2228E-03	.2695E-03	.2983E-03	.3038E-03	.2886E-03	.2511E-03	.1838E-03	.8486E-04
EYZ	-.1293E-11	.2598E-11	.3753E-12	.2492E-11	.2089E-11	.2868E-11	.6382E-11	.2826E-11	.1886E-11

## PRINCIPAL STRAINS

PE 1	.1200E-03	.1258E-03	.1250E-03	.1130E-03	.8993E-04	.5899E-04	.2126E-04	-.2301E-04	-.6432E-04
PE 2	-.1098E-03	-.1139E-03	-.1133E-03	-.1126E-03	-.1117E-03	-.1107E-03	-.1095E-03	-.1085E-03	-.1075E-03
PE 3	-.1142E-03	-.1358E-03	-.1659E-03	-.1939E-03	-.2153E-03	-.2300E-03	-.2367E-03	-.2320E-03	-.2189E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2343E-03	.2616E-03	.2909E-03	.3069E-03	.3052E-03	.2890E-03	.2579E-03	.2090E-03	.1546E-03
PSE 2	.2298E-03	.2396E-03	.2383E-03	.2256E-03	.2017E-03	.1696E-03	.1308E-03	.8544E-04	.4317E-04
PSE 3	.4474E-05	.2198E-04	.5266E-04	.8128E-04	.1036E-03	.1193E-03	.1272E-03	.1236E-03	.1114E-03

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.4074E+03	.4231E+03	.4397E+03	.4574E+03	.4747E+03	.4898E+03	.5018E+03	.5109E+03	.5156E+03
SYX	.6191E+03	.6217E+03	.6242E+03	.6271E+03	.6299E+03	.6312E+03	.6313E+03	.6309E+03	.6294E+03
SZZ	-.5034E+01	-.5041E+01	-.5067E+01	-.5123E+01	-.5146E+01	-.5154E+01	-.5177E+01	-.5222E+01	-.5221E+01

SHEAR STRESSES

SXY	-.7846E-07	.4905E-06	-.8323E-06	.6216E-07	.5364E-07	.3320E-06	.4284E-06	-.2242E-06	-.2232E-06
SXZ	-.1767E-01	-.2954E-01	-.4530E-01	-.6528E-01	-.8961E-01	-.1183E+00	-.1510E+00	-.1870E+00	-.2251E+00
SYZ	.8593E-09	-.7811E-10	-.2221E-08	.1962E-09	.6182E-09	-.9673E-09	-.1405E-08	.8052E-09	.1390E-08

PRINCIPAL STRESSES

PS 1	.6191E+03	.6217E+03	.6242E+03	.6271E+03	.6299E+03	.6312E+03	.6313E+03	.6309E+03	.6294E+03
PS 2	.4074E+03	.4231E+03	.4397E+03	.4574E+03	.4747E+03	.4898E+03	.5018E+03	.5109E+03	.5156E+03
PS 3	-.5034E+01	-.5041E+01	-.5067E+01	-.5123E+01	-.5146E+01	-.5154E+01	-.5177E+01	-.5222E+01	-.5221E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3121E+03	.3134E+03	.3147E+03	.3161E+03	.3175E+03	.3182E+03	.3183E+03	.3181E+03	.3173E+03
PSS 2	.1058E+03	.9935E+02	.9227E+02	.8487E+02	.7757E+02	.7070E+02	.6478E+02	.6003E+02	.5693E+02
PSS 3	.2062E+03	.2140E+03	.2224E+03	.2313E+03	.2399E+03	.2475E+03	.2535E+03	.2580E+03	.2604E+03



## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.5548E-03	.6410E-03	.7311E-03	.8244E-03	.9215E-03	.1022E-02	.1126E-02	.1230E-02	.1335E-02
UY	.2691E-11	.3852E-11	-.2570E-11	.2129E-11	-.6962E-12	.2653E-11	-.1366E-12	.6580E-12	.1373E-11
UZ	.8821E-01	.8858E-01	.8922E-01	.9010E-01	.9050E-01	.9083E-01	.9134E-01	.9196E-01	.9192E-01

## NORMAL STRAINS

EXX	.7883E-04	.8264E-04	.8671E-04	.9102E-04	.9526E-04	.9898E-04	.1020E-03	.1043E-03	.1055E-03
EYY	.1397E-03	.1398E-03	.1398E-03	.1398E-03	.1399E-03	.1396E-03	.1392E-03	.1388E-03	.1382E-03
EZZ	-.3975E-04	-.4044E-04	-.4117E-04	-.4195E-04	-.4271E-04	-.4333E-04	-.4379E-04	-.4412E-04	-.4424E-04

## SHEAR STRAINS

EXY	-.4512E-13	.2820E-12	-.4785E-12	.3574E-13	.3084E-13	.1909E-12	.2463E-12	-.1289E-12	-.1283E-12
EXZ	-.1016E-07	-.1699E-07	-.2605E-07	-.3753E-07	-.5152E-07	-.6804E-07	-.8683E-07	-.1075E-06	-.1295E-06
EYZ	.4941E-15	-.4491E-16	-.1277E-14	.1128E-15	.3554E-15	-.5562E-15	-.8080E-15	.4630E-15	.7993E-15

## PRINCIPAL STRAINS

PE 1	.1397E-03	.1398E-03	.1398E-03	.1398E-03	.1399E-03	.1396E-03	.1392E-03	.1388E-03	.1382E-03
PE 2	.7883E-04	.8264E-04	.8671E-04	.9102E-04	.9526E-04	.9898E-04	.1020E-03	.1043E-03	.1055E-03
PE 3	-.3975E-04	-.4044E-04	-.4117E-04	-.4195E-04	-.4271E-04	-.4333E-04	-.4379E-04	-.4412E-04	-.4424E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1794E-03	.1802E-03	.1809E-03	.1818E-03	.1826E-03	.1830E-03	.1830E-03	.1829E-03	.1825E-03
PSE 2	.6086E-04	.5713E-04	.5305E-04	.4880E-04	.4460E-04	.4065E-04	.3725E-04	.3452E-04	.3274E-04
PSE 3	.1186E-03	.1231E-03	.1279E-03	.1330E-03	.1380E-03	.1423E-03	.1458E-03	.1484E-03	.1497E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 75K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 8400.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.45 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-c Composite Pavement

57.00      4.00  
58.00      4.00  
59.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	-.1608E+03	-.1568E+03	-.1465E+03	-.1322E+03	-.1162E+03	-.9950E+02	-.8294E+02	-.6787E+02	-.5575E+02
SYX	-.1698E+03	-.1658E+03	-.1555E+03	-.1414E+03	-.1256E+03	-.1094E+03	-.9338E+02	-.7888E+02	-.6739E+02
SZZ	-.2027E+03	-.1961E+03	-.1782E+03	-.1529E+03	-.1248E+03	-.9610E+02	-.6809E+02	-.4311E+02	-.2395E+02

SHEAR STRESSES

SXY	.8294E-08	-.8446E-09	.3277E-08	.1202E-07	-.1574E-07	.1406E-07	.1073E-07	-.2108E-08	-.3161E-07
SXZ	-.5045E+01	-.2268E+02	-.3737E+02	-.4740E+02	-.5304E+02	-.5541E+02	-.5473E+02	-.5064E+02	-.4391E+02
SYZ	.7412E-06	.5765E-06	.0000E+00	.5765E-06	.7412E-06	.2794E-06	.4186E-06	-.8225E-08	-.5288E-06

PRINCIPAL STRESSES

PS 1	-.1602E+03	-.1464E+03	-.1218E+03	-.9408E+02	-.6728E+02	-.4236E+02	-.2028E+02	-.3355E+01	.6850E+01
PS 2	-.1698E+03	-.1658E+03	-.1555E+03	-.1414E+03	-.1256E+03	-.1094E+03	-.9338E+02	-.7888E+02	-.6739E+02
PS 3	-.2033E+03	-.2065E+03	-.2029E+03	-.1911E+03	-.1737E+03	-.1532E+03	-.1308E+03	-.1076E+03	-.8655E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.2152E+02	.3002E+02	.4058E+02	.4852E+02	.5321E+02	.5544E+02	.5524E+02	.5213E+02	.4670E+02
PSS 2	.4798E+01	.9666E+01	.1688E+02	.2365E+02	.2917E+02	.3352E+02	.3655E+02	.3776E+02	.3712E+02
PSS 3	.1672E+02	.2036E+02	.2370E+02	.2487E+02	.2405E+02	.2192E+02	.1869E+02	.1437E+02	.9583E+01

## DISPLACEMENTS

UX	-.1225E-02	-.1301E-02	-.1376E-02	-.1451E-02	-.1525E-02	-.1598E-02	-.1669E-02	-.1738E-02	-.1803E-02
UY	.1900E-11	-.3428E-11	.0000E+00	-.3428E-11	.1900E-11	-.3689E-12	-.1810E-12	-.3604E-11	-.1093E-11
UZ	.9179E-01	.9143E-01	.9077E-01	.8945E-01	.8824E-01	.8721E-01	.8611E-01	.8453E-01	.8320E-01

## NORMAL STRAINS

EXX	-.7615E-04	-.7531E-04	-.7433E-04	-.7308E-04	-.7132E-04	-.6893E-04	-.6606E-04	-.6294E-04	-.5945E-04
EYY	-.1065E-03	-.1056E-03	-.1047E-03	-.1039E-03	-.1032E-03	-.1024E-03	-.1013E-03	-.1001E-03	-.9873E-04
EZZ	-.2173E-03	-.2081E-03	-.1811E-03	-.1429E-03	-.1005E-03	-.5746E-04	-.1595E-04	.2064E-04	.4786E-04

## SHEAR STRAINS

EXY	.5598E-13	-.5701E-14	.2212E-13	.8114E-13	-.1063E-12	.9491E-13	.7241E-13	-.1423E-13	-.2134E-12
EXZ	-.3405E-04	-.1531E-03	-.2522E-03	-.3200E-03	-.3580E-03	-.3740E-03	-.3695E-03	-.3418E-03	-.2964E-03
EYZ	.5003E-11	.3892E-11	.0000E+00	.3892E-11	.5003E-11	.1886E-11	.2826E-11	-.5552E-13	-.3570E-11

## PRINCIPAL STRAINS

PE 1	-.7413E-04	-.4037E-04	.9237E-05	.5573E-04	.9371E-04	.1239E-03	.1454E-03	.1548E-03	.1518E-03
PE 2	-.1065E-03	-.1056E-03	-.1047E-03	-.1039E-03	-.1032E-03	-.1024E-03	-.1013E-03	-.1001E-03	-.9873E-04
PE 3	-.2194E-03	-.2430E-03	-.2647E-03	-.2718E-03	-.2655E-03	-.2503E-03	-.2274E-03	-.1971E-03	-.1634E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1452E-03	.2027E-03	.2739E-03	.3275E-03	.3592E-03	.3742E-03	.3728E-03	.3519E-03	.3152E-03
PSE 2	.3238E-04	.6524E-04	.1140E-03	.1596E-03	.1969E-03	.2263E-03	.2467E-03	.2549E-03	.2505E-03
PSE 3	.1129E-03	.1374E-03	.1600E-03	.1679E-03	.1623E-03	.1480E-03	.1261E-03	.9702E-04	.6468E-04

Z= 12.00 LAYER NO, 2

## Appendix 6E-c Composite Pavement

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

## NORMAL STRESSES

SXX	.5141E+03	.5063E+03	.4926E+03	.4744E+03	.4530E+03	.4285E+03	.4017E+03	.3744E+03	.3475E+03
SYX	.6254E+03	.6190E+03	.6101E+03	.6001E+03	.5894E+03	.5775E+03	.5641E+03	.5504E+03	.5370E+03
SZZ	-.5186E+01	-.5141E+01	-.5063E+01	-.4939E+01	-.4835E+01	-.4747E+01	-.4644E+01	-.4508E+01	-.4401E+01

## SHEAR STRESSES

SXY	-.2848E-06	.2511E-06	-.2526E-06	-.4895E-06	.7617E-06	-.2536E-06	-.2526E-06	-.4284E-06	-.3320E-06
SXZ	-.2645E+00	-.3038E+00	-.3418E+00	-.3776E+00	-.4101E+00	-.4384E+00	-.4623E+00	-.4817E+00	-.4969E+00
SYZ	-.3315E-09	-.4746E-10	.0000E+00	-.4746E-10	-.3315E-09	.1390E-08	.8052E-09	-.1405E-08	-.9673E-09

## PRINCIPAL STRESSES

PS 1	.6254E+03	.6190E+03	.6101E+03	.6001E+03	.5894E+03	.5775E+03	.5641E+03	.5504E+03	.5370E+03
PS 2	.5141E+03	.5063E+03	.4926E+03	.4744E+03	.4530E+03	.4285E+03	.4017E+03	.3744E+03	.3475E+03
PS 3	-.5187E+01	-.5141E+01	-.5063E+01	-.4939E+01	-.4836E+01	-.4747E+01	-.4645E+01	-.4509E+01	-.4402E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.3153E+03	.3121E+03	.3076E+03	.3025E+03	.2971E+03	.2911E+03	.2844E+03	.2775E+03	.2707E+03
PSS 2	.5566E+02	.5636E+02	.5875E+02	.6283E+02	.6821E+02	.7449E+02	.8120E+02	.8805E+02	.9474E+02
PSS 3	.2597E+03	.2557E+03	.2488E+03	.2397E+03	.2289E+03	.2166E+03	.2032E+03	.1894E+03	.1760E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.1440E-02	.1545E-02	.1647E-02	.1746E-02	.1843E-02	.1935E-02	.2022E-02	.2102E-02	.2178E-02
UY	-.4684E-12	-.1402E-11	.0000E+00	-.1402E-11	-.7744E-11	.1373E-11	.6580E-12	-.1366E-12	.2653E-11
UZ	.9159E-01	.9124E-01	.9059E-01	.8929E-01	.8810E-01	.8710E-01	.8601E-01	.8446E-01	.8314E-01

## NORMAL STRAINS

EXX	.1053E-03	.1035E-03	.1005E-03	.9629E-04	.9133E-04	.8566E-04	.7945E-04	.7312E-04	.6691E-04
EYY	.1373E-03	.1360E-03	.1342E-03	.1324E-03	.1305E-03	.1285E-03	.1261E-03	.1237E-03	.1214E-03
EZZ	-.4403E-04	-.4348E-04	-.4262E-04	-.4153E-04	-.4030E-04	-.3891E-04	-.3738E-04	-.3581E-04	-.3427E-04

## SHEAR STRAINS

EXY	-.1638E-12	.1444E-12	-.1453E-12	-.2815E-12	.4380E-12	-.1458E-12	-.1453E-12	-.2463E-12	-.1909E-12
EXZ	-.1521E-06	-.1747E-06	-.1965E-06	-.2171E-06	-.2358E-06	-.2521E-06	-.2658E-06	-.2770E-06	-.2857E-06
EYZ	-.1906E-15	-.2729E-16	.0000E+00	-.2729E-16	-.1906E-15	.7993E-15	.4630E-15	-.8080E-15	-.5562E-15

## PRINCIPAL STRAINS

PE 1	.1373E-03	.1360E-03	.1342E-03	.1324E-03	.1305E-03	.1285E-03	.1261E-03	.1237E-03	.1214E-03
PE 2	.1053E-03	.1035E-03	.1005E-03	.9629E-04	.9133E-04	.8566E-04	.7945E-04	.7312E-04	.6691E-04
PE 3	-.4403E-04	-.4348E-04	-.4262E-04	-.4153E-04	-.4030E-04	-.3891E-04	-.3738E-04	-.3581E-04	-.3427E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1813E-03	.1794E-03	.1769E-03	.1739E-03	.1708E-03	.1674E-03	.1635E-03	.1596E-03	.1557E-03
PSE 2	.3200E-04	.3241E-04	.3378E-04	.3613E-04	.3922E-04	.4283E-04	.4669E-04	.5063E-04	.5448E-04
PSE 3	.1493E-03	.1470E-03	.1431E-03	.1378E-03	.1316E-03	.1246E-03	.1168E-03	.1089E-03	.1012E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 3.99 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-c Composite Pavement

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	-.7194E+02	-.7150E+02	-.6762E+02	-.6190E+02	-.5637E+02	-.5250E+02	-.5088E+02	-.5153E+02	-.5464E+02
SYX	-.8154E+02	-.8073E+02	-.7634E+02	-.6999E+02	-.6377E+02	-.5924E+02	-.5698E+02	-.5696E+02	-.5934E+02
SZZ	-.6517E+02	-.6140E+02	-.5108E+02	-.3709E+02	-.2328E+02	-.1259E+02	-.6205E+01	-.4091E+01	-.6586E+01

SHEAR STRESSES

SXY	.4514E-08	.7702E-08	-.7773E-08	.2762E-07	-.9333E-08	.6098E-07	-.7441E-08	.2761E-07	-.1592E-07
SXZ	.1307E+02	.4656E+01	-.1604E+01	-.4090E+01	-.2417E+01	.2406E+01	.8988E+01	.1667E+02	.2574E+02
SYZ	.2606E-08	.1056E-06	-.1216E-06	-.1038E-06	-.4537E-06	.1285E-07	-.1984E-07	.1315E-07	.7136E-08

PRINCIPAL STRESSES

PS 1	-.5505E+02	-.5958E+02	-.5092E+02	-.3643E+02	-.2310E+02	-.1245E+02	-.4464E+01	.1181E+01	.4596E+01
PS 2	-.8154E+02	-.7332E+02	-.6777E+02	-.6256E+02	-.5655E+02	-.5265E+02	-.5262E+02	-.5680E+02	-.5934E+02



## Appendix 6E-c Composite Pavement

PS 3   -.8206E+02   -.8073E+02   -.7634E+02   -.6999E+02   -.6377E+02   -.5924E+02   -.5698E+02   -.5696E+02   -.6582E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1350E+02   .1058E+02   .1271E+02   .1678E+02   .2034E+02   .2340E+02   .2626E+02   .2907E+02   .3521E+02  
PSS 2   .1324E+02   .6871E+01   .8424E+01   .1306E+02   .1672E+02   .2010E+02   .2408E+02   .2899E+02   .3197E+02  
PSS 3   .2616E+00   .3706E+01   .4283E+01   .3715E+01   .3613E+01   .3296E+01   .2179E+01   .7942E-01   .3241E+01

## DISPLACEMENTS

UX       .1071E-02   .1019E-02   .9648E-03   .9065E-03   .8434E-03   .7749E-03   .7008E-03   .6215E-03   .5377E-03  
UY       .2539E-12   .1784E-11   .1432E-12   -.1760E-11   -.6778E-12   .3919E-11   -.1374E-11   -.6494E-12   -.6125E-12  
UZ       .6255E-01   .6276E-01   .6282E-01   .6265E-01   .6231E-01   .6197E-01   .6176E-01   .6180E-01   .6216E-01

## NORMAL STRAINS

EXX     -.5148E-04   -.5439E-04   -.5756E-04   -.6107E-04   -.6476E-04   -.6841E-04   -.7192E-04   -.7540E-04   -.7892E-04  
EYY     -.8387E-04   -.8555E-04   -.8699E-04   -.8836E-04   -.8974E-04   -.9114E-04   -.9250E-04   -.9373E-04   -.9478E-04  
EZZ     -.2864E-04   -.2028E-04   -.1733E-05   .2269E-04   .4694E-04   .6629E-04   .7887E-04   .8470E-04   .8327E-04

## SHEAR STRAINS

EXY     .3047E-13   .5199E-13   -.5247E-13   .1864E-12   -.6300E-13   .4116E-12   -.5023E-13   .1864E-12   -.1074E-12  
EXZ     .8824E-04   .3142E-04   -.1083E-04   -.2761E-04   -.1632E-04   .1624E-04   .6067E-04   .1125E-03   .1737E-03  
EYZ     .1759E-13   .7126E-12   -.8205E-12   -.7005E-12   -.3062E-11   .8675E-13   -.1339E-12   .8876E-13   .4817E-13

## PRINCIPAL STRAINS

PE 1     .5514E-05   -.1415E-04   -.1213E-05   .2491E-04   .4753E-04   .6678E-04   .8474E-04   .1025E-03   .1210E-03  
PE 2     -.8387E-04   -.6053E-04   -.5808E-04   -.6328E-04   -.6536E-04   -.6889E-04   -.7779E-04   -.9320E-04   -.9478E-04  
PE 3     -.8563E-04   -.8555E-04   -.8699E-04   -.8836E-04   -.8974E-04   -.9114E-04   -.9250E-04   -.9373E-04   -.1167E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .9115E-04   .7140E-04   .8578E-04   .1133E-03   .1373E-03   .1579E-03   .1772E-03   .1962E-03   .2377E-03  
PSE 2   .8938E-04   .4638E-04   .5686E-04   .8819E-04   .1129E-03   .1357E-03   .1625E-03   .1957E-03   .2158E-03  
PSE 3   .1766E-05   .2502E-04   .2891E-04   .2508E-04   .2439E-04   .2225E-04   .1471E-04   .5361E-06   .2188E-04

## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

## NORMAL STRESSES

SXX	.3239E+03	.3362E+03	.3462E+03	.3558E+03	.3664E+03	.3788E+03	.3930E+03	.4091E+03	.4270E+03
SYZ	.4580E+03	.4687E+03	.4778E+03	.4869E+03	.4968E+03	.5076E+03	.5186E+03	.5294E+03	.5394E+03
SZZ	-.3819E+01	-.3858E+01	-.3866E+01	-.3856E+01	-.3847E+01	-.3847E+01	-.3860E+01	-.3884E+01	-.3923E+01

## SHEAR STRESSES

SXY	.2407E-06	.2772E-06	.2747E-06	-.6405E-06	-.9304E-06	.8795E-07	-.5543E-06	-.4125E-06	-.3135E-06
SXZ	.3262E+00	.3135E+00	.3011E+00	.2892E+00	.2778E+00	.2667E+00	.2555E+00	.2435E+00	.2298E+00
SYZ	.3240E-10	.7499E-09	-.4008E-09	.8143E-09	-.2112E-08	-.5725E-09	-.2944E-09	.3837E-09	.1117E-08

## PRINCIPAL STRESSES

PS 1	.4580E+03	.4687E+03	.4778E+03	.4869E+03	.4968E+03	.5076E+03	.5186E+03	.5294E+03	.5394E+03
PS 2	.3239E+03	.3362E+03	.3462E+03	.3558E+03	.3664E+03	.3788E+03	.3930E+03	.4091E+03	.4270E+03
PS 3	-.3820E+01	-.3858E+01	-.3866E+01	-.3857E+01	-.3847E+01	-.3848E+01	-.3860E+01	-.3884E+01	-.3923E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.2309E+03	.2363E+03	.2408E+03	.2454E+03	.2503E+03	.2557E+03	.2613E+03	.2666E+03	.2717E+03
PSS 2	.6703E+02	.6622E+02	.6579E+02	.6556E+02	.6521E+02	.6441E+02	.6281E+02	.6014E+02	.5621E+02
PSS 3	.1639E+03	.1700E+03	.1750E+03	.1798E+03	.1851E+03	.1913E+03	.1984E+03	.2065E+03	.2155E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.1295E-02	-.1231E-02	-.1165E-02	-.1096E-02	-.1024E-02	-.9474E-03	-.8655E-03	-.7782E-03	-.6858E-03
UY	.5704E-11	.1853E-11	-.9163E-11	.5011E-11	.5010E-11	.4756E-11	-.5910E-11	-.7379E-11	-.1216E-11
UZ	.6248E-01	.6268E-01	.6275E-01	.6259E-01	.6226E-01	.6193E-01	.6172E-01	.6176E-01	.6212E-01

## NORMAL STRAINS

EXX	.6394E-04	.6663E-04	.6878E-04	.7083E-04	.7312E-04	.7581E-04	.7895E-04	.8256E-04	.8668E-04
EYY	.1025E-03	.1047E-03	.1066E-03	.1085E-03	.1106E-03	.1128E-03	.1151E-03	.1171E-03	.1190E-03
EZZ	-.3027E-04	-.3115E-04	-.3187E-04	-.3256E-04	-.3333E-04	-.3420E-04	-.3515E-04	-.3616E-04	-.3722E-04

## SHEAR STRAINS

EXY	.1384E-12	.1594E-12	.1580E-12	-.3683E-12	-.5350E-12	.5057E-13	-.3187E-12	-.2372E-12	-.1802E-12
EXZ	.1876E-06	.1803E-06	.1731E-06	.1663E-06	.1597E-06	.1533E-06	.1469E-06	.1400E-06	.1321E-06
EYZ	.1863E-16	.4312E-15	-.2305E-15	.4682E-15	-.1214E-14	-.3292E-15	-.1693E-15	.2206E-15	.6423E-15

## PRINCIPAL STRAINS

PE 1	.1025E-03	.1047E-03	.1066E-03	.1085E-03	.1106E-03	.1128E-03	.1151E-03	.1171E-03	.1190E-03
PE 2	.6394E-04	.6663E-04	.6878E-04	.7083E-04	.7312E-04	.7581E-04	.7895E-04	.8256E-04	.8668E-04
PE 3	-.3027E-04	-.3115E-04	-.3187E-04	-.3256E-04	-.3334E-04	-.3420E-04	-.3515E-04	-.3616E-04	-.3722E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1328E-03	.1358E-03	.1385E-03	.1411E-03	.1439E-03	.1470E-03	.1502E-03	.1533E-03	.1562E-03
PSE 2	.3854E-04	.3807E-04	.3783E-04	.3770E-04	.3749E-04	.3703E-04	.3612E-04	.3458E-04	.3232E-04
PSE 3	.9422E-04	.9777E-04	.1006E-03	.1034E-03	.1065E-03	.1100E-03	.1141E-03	.1187E-03	.1239E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 3.99 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-c Composite Pavement

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	-.6103E+02	-.7204E+02	-.8873E+02	-.1104E+03	-.1341E+03	-.1565E+03	-.1758E+03	-.1895E+03	-.1944E+03
SYX	-.6498E+02	-.7534E+02	-.9160E+02	-.1131E+03	-.1366E+03	-.1591E+03	-.1785E+03	-.1925E+03	-.1975E+03
SZZ	-.1532E+02	-.3306E+02	-.6193E+02	-.1005E+03	-.1433E+03	-.1847E+03	-.2205E+03	-.2463E+03	-.2559E+03

SHEAR STRESSES

SXY	.4472E-07	.2567E-07	-.1769E-07	.8144E-08	.1544E-07	-.1076E-08	.9863E-08	.6612E-08	.1277E-07
SXZ	.3668E+02	.4896E+02	.6007E+02	.6624E+02	.6529E+02	.5755E+02	.4351E+02	.2275E+02	-.3184E+01
SYZ	.5741E-08	-.2156E-07	-.4657E-06	-.9246E-06	-.2753E-05	-.4185E-07	-.2367E-05	-.1134E-05	-.2082E-05

PRINCIPAL STRESSES

PS 1	.5042E+01	.1464E+00	-.1378E+02	-.3904E+02	-.7326E+02	-.1114E+03	-.1492E+03	-.1815E+03	-.1942E+03
PS 2	-.6498E+02	-.7534E+02	-.9160E+02	-.1131E+03	-.1366E+03	-.1591E+03	-.1785E+03	-.1925E+03	-.1975E+03

## Appendix 6E-c Composite Pavement

PS 3   -.8139E+02   -.1053E+03   -.1369E+03   -.1719E+03   -.2042E+03   -.2299E+03   -.2471E+03   -.2543E+03   -.2561E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .4321E+02   .5270E+02   .6154E+02   .6643E+02   .6545E+02   .5925E+02   .4892E+02   .3637E+02   .3092E+02  
PSS 2   .3501E+02   .3774E+02   .3891E+02   .3704E+02   .3168E+02   .2384E+02   .1461E+02   .5469E+01   .1653E+01  
PSS 3   .8206E+01   .1495E+02   .2263E+02   .2939E+02   .3377E+02   .3540E+02   .3432E+02   .3090E+02   .2927E+02

## DISPLACEMENTS

UX       .4501E-03   .3601E-03   .2694E-03   .1792E-03   .8766E-04   -.4183E-05   -.9428E-04   -.1815E-03   -.2684E-03  
UY       -.4564E-11   .3548E-11   -.1099E-11   -.2266E-11   -.4304E-11   .5444E-11   .1074E-11   -.8680E-12   .5563E-11  
UZ       .6291E-01   .6404E-01   .6547E-01   .6689E-01   .6806E-01   .6921E-01   .7033E-01   .7118E-01   .7137E-01

## NORMAL STRAINS

EXX     -.8232E-04   -.8525E-04   -.8747E-04   -.8922E-04   -.9023E-04   -.9056E-04   -.9037E-04   -.8989E-04   -.8923E-04  
EYY     -.9564E-04   -.9639E-04   -.9718E-04   -.9821E-04   -.9883E-04   -.9906E-04   -.9935E-04   -.9984E-04   -.9983E-04  
EZZ     .7196E-04   .4631E-04   .2966E-05   -.5560E-04   -.1215E-03   -.1856E-03   -.2414E-03   -.2815E-03   -.2968E-03

## SHEAR STRAINS

EXY     .3018E-12   .1733E-12   -.1194E-12   .5497E-13   .1042E-12   -.7260E-14   .6658E-13   .4463E-13   .8618E-13  
EXZ     .2476E-03   .3305E-03   .4054E-03   .4471E-03   .4407E-03   .3885E-03   .2937E-03   .1535E-03   -.2149E-04  
EYZ     .3875E-13   -.1455E-12   -.3143E-11   -.6241E-11   -.1858E-10   -.2825E-12   -.1598E-10   -.7653E-11   -.1405E-10

## PRINCIPAL STRAINS

PE 1     .1407E-03   .1584E-03   .1655E-03   .1518E-03   .1150E-03   .6188E-04   -.7426E-06   -.6292E-04   -.8868E-04  
PE 2     -.9564E-04   -.9639E-04   -.9718E-04   -.9821E-04   -.9883E-04   -.9906E-04   -.9935E-04   -.9984E-04   -.9983E-04  
PE 3     -.1510E-03   -.1973E-03   -.2500E-03   -.2966E-03   -.3267E-03   -.3380E-03   -.3310E-03   -.3084E-03   -.2974E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .2917E-03   .3557E-03   .4154E-03   .4484E-03   .4418E-03   .3999E-03   .3302E-03   .2455E-03   .2087E-03  
PSE 2   .2363E-03   .2548E-03   .2626E-03   .2500E-03   .2139E-03   .1609E-03   .9861E-04   .3691E-04   .1115E-04  
PSE 3   .5539E-04   .1009E-03   .1528E-03   .1984E-03   .2279E-03   .2390E-03   .2316E-03   .2086E-03   .1976E-03

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.4469E+03	.4689E+03	.4936E+03	.5213E+03	.5469E+03	.5680E+03	.5846E+03	.5961E+03	.5984E+03
SYX	.5489E+03	.5582E+03	.5684E+03	.5808E+03	.5914E+03	.5992E+03	.6053E+03	.6102E+03	.6107E+03
SZZ	-.3981E+01	-.4069E+01	-.4199E+01	-.4371E+01	-.4513E+01	-.4633E+01	-.4757E+01	-.4873E+01	-.4909E+01

SHEAR STRESSES

SXY	-.1008E-05	-.7193E-06	-.4205E-06	-.3275E-06	.8850E-07	-.4387E-06	.6410E-06	-.3883E-07	.2077E-06
SXZ	.2134E+00	.1934E+00	.1688E+00	.1391E+00	.1037E+00	.6289E-01	.1751E-01	-.3099E-01	-.8117E-01
SYZ	-.1471E-08	.3259E-08	-.5430E-09	-.1798E-09	-.4271E-08	.2434E-08	-.2985E-09	-.1485E-08	-.2323E-08

PRINCIPAL STRESSES

PS 1	.5489E+03	.5582E+03	.5684E+03	.5808E+03	.5914E+03	.5992E+03	.6053E+03	.6102E+03	.6107E+03
PS 2	.4469E+03	.4689E+03	.4936E+03	.5213E+03	.5469E+03	.5680E+03	.5846E+03	.5961E+03	.5984E+03
PS 3	-.3981E+01	-.4069E+01	-.4199E+01	-.4371E+01	-.4513E+01	-.4633E+01	-.4757E+01	-.4873E+01	-.4909E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.2764E+03	.2811E+03	.2863E+03	.2926E+03	.2980E+03	.3019E+03	.3050E+03	.3076E+03	.3078E+03
PSS 2	.5101E+02	.4464E+02	.3739E+02	.2975E+02	.2226E+02	.1559E+02	.1035E+02	.7070E+01	.6128E+01
PSS 3	.2254E+03	.2365E+03	.2489E+03	.2628E+03	.2757E+03	.2863E+03	.2947E+03	.3005E+03	.3017E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.5887E-03	-.4876E-03	-.3832E-03	-.2756E-03	-.1617E-03	-.4265E-04	.7872E-04	.2005E-03	.3241E-03
UY	.3164E-11	-.2948E-11	-.2563E-11	-.2798E-11	.5169E-11	-.3688E-11	-.9287E-11	-.3044E-11	.6818E-11
UZ	.6285E-01	.6397E-01	.6537E-01	.6676E-01	.6789E-01	.6901E-01	.7010E-01	.7093E-01	.7112E-01

## NORMAL STRAINS

EXX	.9128E-04	.9645E-04	.1022E-03	.1087E-03	.1147E-03	.1197E-03	.1236E-03	.1263E-03	.1269E-03
EYY	.1206E-03	.1221E-03	.1237E-03	.1258E-03	.1275E-03	.1287E-03	.1296E-03	.1304E-03	.1304E-03
EZZ	-.3834E-04	-.3953E-04	-.4087E-04	-.4242E-04	-.4382E-04	-.4493E-04	-.4581E-04	-.4646E-04	-.4657E-04

## SHEAR STRAINS

EXY	-.5796E-12	-.4136E-12	-.2418E-12	-.1883E-12	.5089E-13	-.2522E-12	.3686E-12	-.2233E-13	.1194E-12
EXZ	.1227E-06	.1112E-06	.9707E-07	.7996E-07	.5963E-07	.3616E-07	.1007E-07	-.1782E-07	-.4667E-07
EYZ	-.8458E-15	.1874E-14	-.3122E-15	-.1034E-15	-.2456E-14	.1399E-14	-.1716E-15	-.8538E-15	-.1336E-14

## PRINCIPAL STRAINS

PE 1	.1206E-03	.1221E-03	.1237E-03	.1258E-03	.1275E-03	.1287E-03	.1296E-03	.1304E-03	.1304E-03
PE 2	.9128E-04	.9645E-04	.1022E-03	.1087E-03	.1147E-03	.1197E-03	.1236E-03	.1263E-03	.1269E-03
PE 3	-.3834E-04	-.3953E-04	-.4087E-04	-.4242E-04	-.4382E-04	-.4493E-04	-.4581E-04	-.4646E-04	-.4657E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1590E-03	.1616E-03	.1646E-03	.1682E-03	.1713E-03	.1736E-03	.1754E-03	.1768E-03	.1770E-03
PSE 2	.2933E-04	.2567E-04	.2150E-04	.1711E-04	.1280E-04	.8963E-05	.5950E-05	.4065E-05	.3523E-05
PSE 3	.1296E-03	.1360E-03	.1431E-03	.1511E-03	.1585E-03	.1646E-03	.1694E-03	.1728E-03	.1735E-03



Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 3.99 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-c Composite Pavement

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Z= 4.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	-.1887E+03	-.1742E+03
SYY	-.1918E+03	-.1772E+03
SZZ	-.2463E+03	-.2205E+03

## SHEAR STRESSES

SXY	.1690E-08	-.1731E-07
SXZ	-.2914E+02	-.4996E+02
SYZ	.1852E-05	-.1907E-05

## PRINCIPAL STRESSES

PS 1	-.1766E+03	-.1423E+03
PS 2	-.1918E+03	-.1772E+03
PS 3	-.2585E+03	-.2524E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4095E+02	.5506E+02
PSS 2	.7636E+01	.1744E+02
PSS 3	.3331E+02	.3763E+02

## DISPLACEMENTS

UX	-.3545E-03	-.4397E-03
UY	.1403E-11	.0000E+00
UZ	.7105E-01	.7009E-01

Appendix 6E-c Composite Pavement

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## NORMAL STRAINS

EXX -.8848E-04 -.8756E-04  
EYY -.9893E-04 -.9755E-04  
EZZ -.2827E-03 -.2438E-03

## SHEAR STRAINS

EXY .1141E-13 -.1169E-12  
EXZ -.1967E-03 -.3372E-03  
EYZ .1250E-10 -.1287E-10

## PRINCIPAL STRAINS

PE 1 -.4739E-04 .2015E-04  
PE 2 -.9893E-04 -.9755E-04  
PE 3 -.3238E-03 -.3515E-03

## PRINCIPAL SHEAR STRAINS

PSE 1 .2764E-03 .3717E-03  
PSE 2 .5154E-04 .1177E-03  
PSE 3 .2249E-03 .2540E-03

Z= 12.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .5892E+03 .5707E+03  
SYY .6045E+03 .5937E+03  
SZZ -.4844E+01 -.4698E+01

Appendix 6E-c Composite Pavement

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## SHEAR STRESSES

SXY .2340E-07 -.6410E-06  
SXZ -.1312E+00 -.1795E+00  
SYZ .4327E-08 -.1863E-08

## PRINCIPAL STRESSES

PS 1 .6045E+03 .5937E+03  
PS 2 .5892E+03 .5707E+03  
PS 3 -.4844E+01 -.4698E+01

## PRINCIPAL SHEAR STRESSES

PSS 1 .3046E+03 .2992E+03  
PSS 2 .7650E+01 .1152E+02  
PSS 3 .2970E+03 .2877E+03

## DISPLACEMENTS

UX .4470E-03 .5666E-03  
UY -.8855E-11 .0000E+00  
UZ .7081E-01 .6986E-01

## NORMAL STRAINS

EXX .1248E-03 .1206E-03  
EYY .1292E-03 .1272E-03  
EZZ -.4597E-04 -.4484E-04

## SHEAR STRAINS

EXY .1345E-13 -.3686E-12  
EXZ -.7547E-07 -.1032E-06  
EYZ .2488E-14 -.1071E-14

## PRINCIPAL STRAINS

Appendix 6E-c Composite Pavement

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PE 1 .1292E-03 .1272E-03  
 PE 2 .1248E-03 .1206E-03  
 PE 3 -.4597E-04 -.4484E-04

PRINCIPAL SHEAR STRAINS  
 PSE 1 .1752E-03 .1720E-03  
 PSE 2 .4399E-05 .6623E-05  
 PSE 3 .1708E-03 .1654E-03

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

## Appendix 6E-c Composite Pavement

Z= 4.00 12.00  
 X-Y POINT(S)  
 X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

## NORMAL STRESSES

SXX -.1564E+03 -.1669E+03 -.1711E+03 -.1681E+03 -.1588E+03 -.1451E+03 -.1296E+03 -.1134E+03 -.9725E+02  
 SYY -.1660E+03 -.1764E+03 -.1806E+03 -.1776E+03 -.1684E+03 -.1550E+03 -.1398E+03 -.1242E+03 -.1087E+03  
 SZZ -.1902E+03 -.2085E+03 -.2151E+03 -.2085E+03 -.1902E+03 -.1642E+03 -.1349E+03 -.1051E+03 -.7582E+02

## SHEAR STRESSES

SXY -.1255E-07 .2893E-07 .2314E-08 .2109E-07 .1072E-07 -.1350E-07 .1926E-07 -.2160E-07 -.1968E-07

## Appendix 6E-c Composite Pavement

SXZ	.3872E+02	.2344E+02	.5408E+01	-.1262E+02	-.2785E+02	-.3844E+02	-.4439E+02	-.4692E+02	-.4648E+02
SYZ	.3893E-06	.6580E-06	-.3203E-06	-.9513E-07	-.1027E-07	-.8100E-07	-.3130E-06	.6718E-06	.3802E-06

## PRINCIPAL STRESSES

PS 1	-.1311E+03	-.1564E+03	-.1704E+03	-.1645E+03	-.1425E+03	-.1150E+03	-.8775E+02	-.6212E+02	-.3884E+02
PS 2	-.1660E+03	-.1764E+03	-.1806E+03	-.1776E+03	-.1684E+03	-.1550E+03	-.1398E+03	-.1242E+03	-.1087E+03
PS 3	-.2156E+03	-.2191E+03	-.2157E+03	-.2121E+03	-.2065E+03	-.1943E+03	-.1767E+03	-.1563E+03	-.1342E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4224E+02	.3133E+02	.2266E+02	.2382E+02	.3199E+02	.3960E+02	.4447E+02	.4710E+02	.4770E+02
PSS 2	.1746E+02	.1002E+02	.5074E+01	.6580E+01	.1295E+02	.1997E+02	.2602E+02	.3102E+02	.3492E+02
PSS 3	.2479E+02	.2131E+02	.1759E+02	.1724E+02	.1903E+02	.1963E+02	.1845E+02	.1608E+02	.1278E+02

## DISPLACEMENTS

UX	.1474E-02	.1394E-02	.1313E-02	.1231E-02	.1148E-02	.1063E-02	.9774E-03	.8908E-03	.8049E-03
UY	.1712E-11	.1383E-11	-.2136E-11	-.1542E-11	-.6644E-13	.2814E-11	-.6341E-12	.2112E-11	.4263E-12
UZ	.9697E-01	.9742E-01	.9780E-01	.9815E-01	.9844E-01	.9775E-01	.9719E-01	.9682E-01	.9663E-01

## NORMAL STRAINS

EXX	-.7943E-04	-.8054E-04	-.8149E-04	-.8236E-04	-.8308E-04	-.8355E-04	-.8353E-04	-.8285E-04	-.8171E-04
EYY	-.1117E-03	-.1126E-03	-.1135E-03	-.1146E-03	-.1157E-03	-.1168E-03	-.1181E-03	-.1193E-03	-.1202E-03
EZZ	-.1934E-03	-.2208E-03	-.2300E-03	-.2188E-03	-.1893E-03	-.1478E-03	-.1016E-03	-.5483E-04	-.9360E-05

## SHEAR STRAINS

EXY	-.8471E-13	.1953E-12	.1562E-13	.1424E-12	.7237E-13	-.9116E-13	.1300E-12	-.1458E-12	-.1328E-12
EXZ	.2614E-03	.1582E-03	.3651E-04	-.8515E-04	-.1880E-03	-.2595E-03	-.2996E-03	-.3167E-03	-.3137E-03
EYZ	.2628E-11	.4442E-11	-.2162E-11	-.6421E-12	-.6931E-13	-.5467E-12	-.2113E-11	.4535E-11	.2566E-11

## PRINCIPAL STRAINS

PE 1	.6157E-05	-.4494E-04	-.7928E-04	-.7016E-04	-.2824E-04	.1797E-04	.5754E-04	.9012E-04	.1154E-03
PE 2	-.1117E-03	-.1126E-03	-.1135E-03	-.1146E-03	-.1157E-03	-.1168E-03	-.1181E-03	-.1193E-03	-.1202E-03
PE 3	-.2790E-03	-.2564E-03	-.2322E-03	-.2310E-03	-.2441E-03	-.2494E-03	-.2426E-03	-.2278E-03	-.2065E-03

Appendix 6E-c Composite Pavement

PRINCIPAL SHEAR STRAINS

PSE 1	.2851E-03	.2115E-03	.1530E-03	.1608E-03	.2159E-03	.2673E-03	.3002E-03	.3179E-03	.3220E-03
PSE 2	.1178E-03	.6764E-04	.3425E-04	.4441E-04	.8743E-04	.1348E-03	.1756E-03	.2094E-03	.2357E-03
PSE 3	.1673E-03	.1438E-03	.1187E-03	.1164E-03	.1285E-03	.1325E-03	.1245E-03	.1086E-03	.8630E-04

Z= 12.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.5252E+03	.5397E+03	.5478E+03	.5496E+03	.5449E+03	.5356E+03	.5231E+03	.5077E+03	.4896E+03
SYX	.6517E+03	.6611E+03	.6679E+03	.6722E+03	.6740E+03	.6746E+03	.6745E+03	.6733E+03	.6707E+03
SZZ	-.5395E+01	-.5456E+01	-.5504E+01	-.5541E+01	-.5566E+01	-.5519E+01	-.5494E+01	-.5486E+01	-.5485E+01

SHEAR STRESSES

SXY	-.1232E-06	.8680E-07	.9608E-07	-.4690E-06	.4719E-06	-.7833E-06	-.3408E-06	-.4829E-07	-.6345E-06
SXZ	.3650E+00	.3249E+00	.2832E+00	.2416E+00	.2013E+00	.1631E+00	.1282E+00	.9757E-01	.7168E-01
SYZ	-.2881E-09	.9511E-09	.8874E-09	-.5755E-09	-.5924E-10	.3683E-08	.8390E-09	-.3924E-10	-.3529E-09

PRINCIPAL STRESSES

PS 1	.6517E+03	.6611E+03	.6679E+03	.6722E+03	.6740E+03	.6746E+03	.6745E+03	.6733E+03	.6707E+03
PS 2	.5252E+03	.5397E+03	.5478E+03	.5496E+03	.5449E+03	.5356E+03	.5231E+03	.5077E+03	.4896E+03



## Appendix 6E-c Composite Pavement

PS 3   -.5395E+01   -.5456E+01   -.5504E+01   -.5541E+01   -.5566E+01   -.5519E+01   -.5494E+01   -.5486E+01   -.5485E+01

## PRINCIPAL SHEAR STRESSES

PSS 1   .3286E+03   .3333E+03   .3367E+03   .3389E+03   .3398E+03   .3400E+03   .3400E+03   .3394E+03   .3381E+03  
PSS 2   .6323E+02   .6070E+02   .6003E+02   .6131E+02   .6454E+02   .6948E+02   .7573E+02   .8283E+02   .9054E+02  
PSS 3   .2653E+03   .2726E+03   .2767E+03   .2776E+03   .2753E+03   .2706E+03   .2643E+03   .2566E+03   .2475E+03

## DISPLACEMENTS

UX     -.1763E-02   -.1654E-02   -.1543E-02   -.1430E-02   -.1318E-02   -.1207E-02   -.1097E-02   -.9890E-03   -.8850E-03  
UY     .3145E-11   -.1404E-11   -.3456E-11   -.1052E-12   -.3097E-11   -.1171E-11   .3377E-11   -.3062E-12   .5640E-11  
UZ     .9678E-01   .9721E-01   .9759E-01   .9794E-01   .9824E-01   .9758E-01   .9703E-01   .9669E-01   .9652E-01

## NORMAL STRAINS

EXX     .1071E-03   .1103E-03   .1121E-03   .1124E-03   .1112E-03   .1088E-03   .1057E-03   .1019E-03   .9745E-04  
EYY     .1434E-03   .1452E-03   .1466E-03   .1477E-03   .1483E-03   .1488E-03   .1492E-03   .1495E-03   .1495E-03  
EZZ     -.4548E-04   -.4639E-04   -.4697E-04   -.4720E-04   -.4710E-04   -.4676E-04   -.4628E-04   -.4566E-04   -.4488E-04

## SHEAR STRAINS

EXY     -.7084E-13   .4991E-13   .5524E-13   -.2697E-12   .2713E-12   -.4504E-12   -.1959E-12   -.2777E-13   -.3648E-12  
EXZ     .2099E-06   .1868E-06   .1629E-06   .1389E-06   .1157E-06   .9378E-07   .7372E-07   .5611E-07   .4121E-07  
EYZ     -.1657E-15   .5469E-15   .5103E-15   -.3309E-15   -.3407E-16   .2118E-14   .4824E-15   -.2256E-16   -.2029E-15

## PRINCIPAL STRAINS

PE 1     .1434E-03   .1452E-03   .1466E-03   .1477E-03   .1483E-03   .1488E-03   .1492E-03   .1495E-03   .1495E-03  
PE 2     .1071E-03   .1103E-03   .1121E-03   .1124E-03   .1112E-03   .1088E-03   .1057E-03   .1019E-03   .9745E-04  
PE 3     -.4548E-04   -.4639E-04   -.4697E-04   -.4720E-04   -.4710E-04   -.4676E-04   -.4628E-04   -.4566E-04   -.4488E-04

## PRINCIPAL SHEAR STRAINS

PSE 1   .1889E-03   .1916E-03   .1936E-03   .1949E-03   .1954E-03   .1955E-03   .1955E-03   .1952E-03   .1944E-03  
PSE 2   .3636E-04   .3490E-04   .3452E-04   .3525E-04   .3711E-04   .3995E-04   .4354E-04   .4763E-04   .5206E-04  
PSE 3   .1526E-03   .1567E-03   .1591E-03   .1596E-03   .1583E-03   .1556E-03   .1520E-03   .1475E-03   .1423E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-c Composite Pavement

31.00      4.00  
32.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	-.8241E+02	-.7042E+02	-.6198E+02	-.5666E+02	-.5350E+02	-.5162E+02	-.5045E+02	-.4968E+02	-.4917E+02
SYX	-.9446E+02	-.8315E+02	-.7547E+02	-.7096E+02	-.6858E+02	-.6739E+02	-.6677E+02	-.6642E+02	-.6622E+02
SZZ	-.4914E+02	-.2804E+02	-.1402E+02	-.6153E+01	-.2415E+01	-.9287E+00	-.4668E+00	-.4102E+00	-.4860E+00

SHEAR STRESSES

SXY	-.8791E-08	-.1632E-07	-.8440E-08	-.6597E-08	.9624E-09	-.1957E-07	-.1067E-07	.2094E-07	-.1882E-07
SXZ	-.4260E+02	-.3573E+02	-.2774E+02	-.2052E+02	-.1487E+02	-.1074E+02	-.7725E+01	-.5371E+01	-.3422E+01
SYZ	-.3821E-06	-.3697E-06	.4774E-07	.5769E-07	-.8569E-07	-.5065E-07	-.7780E-07	-.8320E-07	.1100E-07

PRINCIPAL STRESSES

PS 1	-.2004E+02	-.7691E+01	-.1326E+01	.1134E+01	.1599E+01	.1255E+01	.6997E+00	.1686E+00	-.2466E+00
PS 2	-.9446E+02	-.8315E+02	-.7467E+02	-.6394E+02	-.5751E+02	-.5381E+02	-.5162E+02	-.5025E+02	-.4941E+02
PS 3	-.1115E+03	-.9077E+02	-.7547E+02	-.7096E+02	-.6858E+02	-.6739E+02	-.6677E+02	-.6642E+02	-.6622E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.4574E+02	.4154E+02	.3707E+02	.3605E+02	.3509E+02	.3432E+02	.3373E+02	.3329E+02	.3298E+02
PSS 2	.3721E+02	.3773E+02	.3667E+02	.3254E+02	.2956E+02	.2753E+02	.2616E+02	.2521E+02	.2458E+02
PSS 3	.8526E+01	.3808E+01	.4030E+00	.3509E+01	.5534E+01	.6790E+01	.7577E+01	.8083E+01	.8401E+01

## DISPLACEMENTS

UX	.7198E-03	.6352E-03	.5525E-03	.4726E-03	.3964E-03	.3239E-03	.2548E-03	.1886E-03	.1245E-03
UY	.1424E-11	-.5202E-12	.1643E-11	-.5534E-12	.1111E-11	-.1181E-11	.3394E-11	-.4822E-11	-.7030E-12
UZ	.9566E-01	.9496E-01	.9454E-01	.9438E-01	.9439E-01	.9451E-01	.9468E-01	.9485E-01	.9499E-01

## NORMAL STRAINS

EXX	-.8038E-04	-.7876E-04	-.7665E-04	-.7417E-04	-.7163E-04	-.6928E-04	-.6729E-04	-.6571E-04	-.6457E-04
EYY	-.1210E-03	-.1217E-03	-.1222E-03	-.1224E-03	-.1225E-03	-.1225E-03	-.1224E-03	-.1222E-03	-.1221E-03
EZZ	.3190E-04	.6428E-04	.8523E-04	.9628E-04	.1008E-03	.1018E-03	.1014E-03	.1006E-03	.9975E-04

## SHEAR STRAINS

EXY	-.5934E-13	-.1102E-12	-.5697E-13	-.4453E-13	.6496E-14	-.1321E-12	-.7200E-13	.1414E-12	-.1270E-12
EXZ	-.2876E-03	-.2412E-03	-.1873E-03	-.1385E-03	-.1004E-03	-.7253E-04	-.5214E-04	-.3626E-04	-.2310E-04
EYZ	-.2579E-11	-.2496E-11	.3222E-12	.3894E-12	-.5784E-12	-.3419E-12	-.5252E-12	-.5616E-12	.7424E-13

## PRINCIPAL STRAINS

PE 1	.1301E-03	.1330E-03	.1281E-03	.1209E-03	.1143E-03	.1092E-03	.1053E-03	.1025E-03	.1006E-03
PE 2	-.1210E-03	-.1217E-03	-.1195E-03	-.9876E-04	-.8517E-04	-.7665E-04	-.7123E-04	-.6767E-04	-.6538E-04
PE 3	-.1786E-03	-.1474E-03	-.1222E-03	-.1224E-03	-.1225E-03	-.1225E-03	-.1224E-03	-.1222E-03	-.1221E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.3087E-03	.2804E-03	.2503E-03	.2433E-03	.2369E-03	.2317E-03	.2277E-03	.2247E-03	.2226E-03
PSE 2	.2512E-03	.2547E-03	.2475E-03	.2196E-03	.1995E-03	.1858E-03	.1766E-03	.1702E-03	.1659E-03
PSE 3	.5755E-04	.2570E-04	.2720E-05	.2368E-04	.3735E-04	.4583E-04	.5114E-04	.5456E-04	.5671E-04

Z= 12.00 LAYER NO, 2

## Appendix 6E-c Composite Pavement

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

## NORMAL STRESSES

SXX	.4711E+03	.4535E+03	.4371E+03	.4217E+03	.4079E+03	.3958E+03	.3857E+03	.3778E+03	.3721E+03
SYY	.6677E+03	.6652E+03	.6625E+03	.6594E+03	.6560E+03	.6525E+03	.6492E+03	.6463E+03	.6441E+03
SZZ	-.5426E+01	-.5398E+01	-.5392E+01	-.5398E+01	-.5409E+01	-.5421E+01	-.5431E+01	-.5438E+01	-.5443E+01

## SHEAR STRESSES

SXY	.3528E-06	.7669E-06	-.5468E-06	.5419E-06	.3520E-06	-.8909E-06	.3397E-06	-.8697E-06	-.1188E-06
SXZ	.5017E-01	.3311E-01	.2008E-01	.1078E-01	.4571E-02	.7599E-03	-.1230E-02	-.1914E-02	-.1729E-02
SYZ	.1441E-08	-.1072E-08	.1162E-08	.1068E-08	.1719E-08	.9577E-09	-.1089E-08	.7132E-10	-.2474E-09

## PRINCIPAL STRESSES

PS 1	.6677E+03	.6652E+03	.6625E+03	.6594E+03	.6560E+03	.6525E+03	.6492E+03	.6463E+03	.6441E+03
PS 2	.4711E+03	.4535E+03	.4371E+03	.4217E+03	.4079E+03	.3958E+03	.3857E+03	.3778E+03	.3721E+03
PS 3	-.5426E+01	-.5398E+01	-.5392E+01	-.5398E+01	-.5409E+01	-.5421E+01	-.5431E+01	-.5438E+01	-.5443E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.3366E+03	.3353E+03	.3339E+03	.3324E+03	.3307E+03	.3290E+03	.3273E+03	.3259E+03	.3248E+03
PSS 2	.9833E+02	.1058E+03	.1127E+03	.1188E+03	.1241E+03	.1284E+03	.1317E+03	.1343E+03	.1360E+03
PSS 3	.2382E+03	.2295E+03	.2212E+03	.2136E+03	.2066E+03	.2006E+03	.1956E+03	.1916E+03	.1888E+03

## DISPLACEMENTS

## Appendix 6E-c Composite Pavement

UX	-.7851E-03	-.6885E-03	-.5959E-03	-.5081E-03	-.4250E-03	-.3465E-03	-.2721E-03	-.2011E-03	-.1326E-03
UY	-.4593E-11	.2233E-11	-.9692E-12	.4635E-12	-.1870E-11	-.1797E-11	-.1703E-11	-.1621E-12	-.2998E-11
UZ	.9558E-01	.9489E-01	.9449E-01	.9434E-01	.9436E-01	.9448E-01	.9465E-01	.9482E-01	.9496E-01

## NORMAL STRAINS

EXX	.9293E-04	.8864E-04	.8463E-04	.8090E-04	.7757E-04	.7468E-04	.7229E-04	.7040E-04	.6907E-04
EYY	.1495E-03	.1495E-03	.1494E-03	.1492E-03	.1489E-03	.1485E-03	.1480E-03	.1476E-03	.1473E-03
EZZ	-.4406E-04	-.4330E-04	-.4258E-04	-.4189E-04	-.4125E-04	-.4067E-04	-.4017E-04	-.3976E-04	-.3947E-04

## SHEAR STRAINS

EXY	.2028E-12	.4409E-12	-.3144E-12	.3116E-12	.2024E-12	-.5123E-12	.1954E-12	-.5001E-12	-.6829E-13
EXZ	.2885E-07	.1904E-07	.1155E-07	.6201E-08	.2628E-08	.4369E-09	-.7075E-09	-.1101E-08	-.9944E-09
EYZ	.8284E-15	-.6165E-15	.6679E-15	.6141E-15	.9882E-15	.5507E-15	-.6263E-15	.4101E-16	-.1423E-15

## PRINCIPAL STRAINS

PE 1	.1495E-03	.1495E-03	.1494E-03	.1492E-03	.1489E-03	.1485E-03	.1480E-03	.1476E-03	.1473E-03
PE 2	.9293E-04	.8864E-04	.8463E-04	.8090E-04	.7757E-04	.7468E-04	.7229E-04	.7040E-04	.6907E-04
PE 3	-.4406E-04	-.4330E-04	-.4258E-04	-.4189E-04	-.4125E-04	-.4067E-04	-.4017E-04	-.3976E-04	-.3947E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1935E-03	.1928E-03	.1920E-03	.1911E-03	.1902E-03	.1892E-03	.1882E-03	.1874E-03	.1868E-03
PSE 2	.5654E-04	.6085E-04	.6480E-04	.6834E-04	.7134E-04	.7381E-04	.7575E-04	.7722E-04	.7822E-04
PSE 3	.1370E-03	.1319E-03	.1272E-03	.1228E-03	.1188E-03	.1154E-03	.1125E-03	.1102E-03	.1085E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-c Composite Pavement

39.00 4.00  
40.00 4.00  
41.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
33.00 4.00  
34.00 4.00  
35.00 4.00  
36.00 4.00  
37.00 4.00  
38.00 4.00  
39.00 4.00  
40.00 4.00  
41.00 4.00

NORMAL STRESSES

SXX -.4887E+02 -.4877E+02 -.4887E+02 -.4917E+02 -.4968E+02 -.5045E+02 -.5162E+02 -.5350E+02 -.5666E+02  
 SYY -.6609E+02 -.6605E+02 -.6609E+02 -.6622E+02 -.6642E+02 -.6677E+02 -.6739E+02 -.6858E+02 -.7096E+02  
 SZZ -.5361E+00 -.5495E+00 -.5361E+00 -.4860E+00 -.4102E+00 -.4668E+00 -.9287E+00 -.2415E+01 -.6153E+01

SHEAR STRESSES

SXY .1818E-07 .4871E-07 .7122E-07 -.1794E-07 .2177E-07 -.2250E-07 -.5336E-07 .7460E-08 -.2369E-08  
 SXZ -.1679E+01 .5162E-06 .1679E+01 .3422E+01 .5371E+01 .7725E+01 .1074E+02 .1487E+02 .2052E+02  
 SYZ -.1173E-08 -.2643E-07 -.7539E-07 .2334E-07 .3059E-07 .3335E-07 -.5348E-07 -.9314E-07 .4007E-07

PRINCIPAL STRESSES

PS 1 -.4778E+00 -.5495E+00 -.4778E+00 -.2466E+00 .1686E+00 .6997E+00 .1255E+01 .1599E+01 .1134E+01  
 PS 2 -.4893E+02 -.4877E+02 -.4893E+02 -.4941E+02 -.5025E+02 -.5162E+02 -.5381E+02 -.5751E+02 -.6394E+02  
 PS 3 -.6609E+02 -.6605E+02 -.6609E+02 -.6622E+02 -.6642E+02 -.6677E+02 -.6739E+02 -.6858E+02 -.7096E+02



## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.3281E+02	.3275E+02	.3281E+02	.3298E+02	.3329E+02	.3373E+02	.3432E+02	.3509E+02	.3605E+02
PSS 2	.2423E+02	.2411E+02	.2423E+02	.2458E+02	.2521E+02	.2616E+02	.2753E+02	.2956E+02	.3254E+02
PSS 3	.8579E+01	.8637E+01	.8579E+01	.8401E+01	.8083E+01	.7577E+01	.6790E+01	.5534E+01	.3509E+01

## DISPLACEMENTS

UX	.6188E-04	-.4807E-10	-.6188E-04	-.1245E-03	-.1886E-03	-.2548E-03	-.3239E-03	-.3964E-03	-.4726E-03
UY	-.1636E-11	.1729E-11	-.9175E-12	.4115E-12	-.1941E-11	-.4788E-11	-.1089E-11	-.9357E-12	-.3114E-11
UZ	.9508E-01	.9511E-01	.9508E-01	.9499E-01	.9485E-01	.9468E-01	.9451E-01	.9439E-01	.9438E-01

## NORMAL STRAINS

EXX	-.6389E-04	-.6366E-04	-.6389E-04	-.6457E-04	-.6571E-04	-.6729E-04	-.6928E-04	-.7163E-04	-.7417E-04
EYY	-.1220E-03	-.1220E-03	-.1220E-03	-.1221E-03	-.1222E-03	-.1224E-03	-.1225E-03	-.1225E-03	-.1224E-03
EZZ	.9926E-04	.9909E-04	.9926E-04	.9975E-04	.1006E-03	.1014E-03	.1018E-03	.1008E-03	.9628E-04

## SHEAR STRAINS

EXY	.1227E-12	.3288E-12	.4807E-12	-.1211E-12	.1469E-12	-.1519E-12	-.3602E-12	.5036E-13	-.1599E-13
EXZ	-.1133E-04	.3484E-11	.1133E-04	.2310E-04	.3626E-04	.5214E-04	.7253E-04	.1004E-03	.1385E-03
EYZ	-.7916E-14	-.1784E-12	-.5089E-12	.1576E-12	.2065E-12	.2251E-12	-.3610E-12	-.6287E-12	.2705E-12

## PRINCIPAL STRAINS

PE 1	.9945E-04	.9909E-04	.9945E-04	.1006E-03	.1025E-03	.1053E-03	.1092E-03	.1143E-03	.1209E-03
PE 2	-.6408E-04	-.6366E-04	-.6408E-04	-.6538E-04	-.6767E-04	-.7123E-04	-.7665E-04	-.8517E-04	-.9876E-04
PE 3	-.1220E-03	-.1220E-03	-.1220E-03	-.1221E-03	-.1222E-03	-.1224E-03	-.1225E-03	-.1225E-03	-.1224E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2214E-03	.2211E-03	.2214E-03	.2226E-03	.2247E-03	.2277E-03	.2317E-03	.2369E-03	.2433E-03
PSE 2	.1635E-03	.1628E-03	.1635E-03	.1659E-03	.1702E-03	.1766E-03	.1858E-03	.1995E-03	.2196E-03
PSE 3	.5791E-04	.5830E-04	.5791E-04	.5671E-04	.5456E-04	.5114E-04	.4583E-04	.3735E-04	.2368E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.3687E+03	.3675E+03	.3687E+03	.3721E+03	.3778E+03	.3857E+03	.3958E+03	.4079E+03	.4217E+03
SYX	.6428E+03	.6423E+03	.6428E+03	.6441E+03	.6463E+03	.6492E+03	.6525E+03	.6560E+03	.6594E+03
SZZ	-.5446E+01	-.5447E+01	-.5446E+01	-.5443E+01	-.5438E+01	-.5431E+01	-.5421E+01	-.5409E+01	-.5398E+01

SHEAR STRESSES

SXY	-.1773E-06	.5476E-06	.1658E-06	-.2434E-06	-.9163E-06	.6859E-06	-.8689E-06	-.1083E-06	-.4751E-06
SXZ	-.1002E-02	-.1860E-07	.1002E-02	.1729E-02	.1914E-02	.1230E-02	-.7599E-03	-.4571E-02	-.1078E-01
SYZ	-.5667E-09	.7110E-09	.5301E-09	-.5016E-09	-.2152E-09	.9350E-09	-.2106E-08	.8252E-09	.5480E-09

PRINCIPAL STRESSES

PS 1	.6428E+03	.6423E+03	.6428E+03	.6441E+03	.6463E+03	.6492E+03	.6525E+03	.6560E+03	.6594E+03
PS 2	.3687E+03	.3675E+03	.3687E+03	.3721E+03	.3778E+03	.3857E+03	.3958E+03	.4079E+03	.4217E+03
PS 3	-.5446E+01	-.5447E+01	-.5446E+01	-.5443E+01	-.5438E+01	-.5431E+01	-.5421E+01	-.5409E+01	-.5398E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3241E+03	.3239E+03	.3241E+03	.3248E+03	.3259E+03	.3273E+03	.3290E+03	.3307E+03	.3324E+03
PSS 2	.1370E+03	.1374E+03	.1370E+03	.1360E+03	.1343E+03	.1317E+03	.1284E+03	.1241E+03	.1188E+03
PSS 3	.1871E+03	.1865E+03	.1871E+03	.1888E+03	.1916E+03	.1956E+03	.2006E+03	.2066E+03	.2136E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.6589E-04	.5232E-10	.6589E-04	.1326E-03	.2011E-03	.2721E-03	.3465E-03	.4250E-03	.5081E-03
UY	.7237E-11	.2690E-11	-.6186E-11	-.6426E-12	-.2611E-11	-.1914E-11	.2525E-11	.7158E-11	-.1439E-11
UZ	.9505E-01	.9509E-01	.9505E-01	.9496E-01	.9482E-01	.9465E-01	.9448E-01	.9436E-01	.9434E-01

## NORMAL STRAINS

EXX	.6827E-04	.6800E-04	.6827E-04	.6907E-04	.7040E-04	.7229E-04	.7468E-04	.7757E-04	.8090E-04
EYY	.1471E-03	.1470E-03	.1471E-03	.1473E-03	.1476E-03	.1480E-03	.1485E-03	.1489E-03	.1492E-03
EZZ	-.3929E-04	-.3923E-04	-.3929E-04	-.3947E-04	-.3976E-04	-.4017E-04	-.4067E-04	-.4125E-04	-.4189E-04

## SHEAR STRAINS

EXY	-.1020E-12	.3149E-12	.9531E-13	-.1399E-12	-.5269E-12	.3944E-12	-.4996E-12	-.6225E-13	-.2732E-12
EXZ	-.5759E-09	-.1069E-13	.5759E-09	.9943E-09	.1101E-08	.7075E-09	-.4370E-09	-.2628E-08	-.6201E-08
EYZ	-.3258E-15	.4088E-15	.3048E-15	-.2884E-15	-.1237E-15	.5377E-15	-.1211E-14	.4745E-15	.3151E-15

## PRINCIPAL STRAINS

PE 1	.1471E-03	.1470E-03	.1471E-03	.1473E-03	.1476E-03	.1480E-03	.1485E-03	.1489E-03	.1492E-03
PE 2	.6827E-04	.6800E-04	.6827E-04	.6907E-04	.7040E-04	.7229E-04	.7468E-04	.7757E-04	.8090E-04
PE 3	-.3929E-04	-.3923E-04	-.3929E-04	-.3947E-04	-.3976E-04	-.4017E-04	-.4067E-04	-.4125E-04	-.4189E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1864E-03	.1862E-03	.1864E-03	.1868E-03	.1874E-03	.1882E-03	.1892E-03	.1902E-03	.1911E-03
PSE 2	.7880E-04	.7899E-04	.7880E-04	.7822E-04	.7722E-04	.7575E-04	.7381E-04	.7134E-04	.6834E-04
PSE 3	.1076E-03	.1072E-03	.1076E-03	.1085E-03	.1102E-03	.1125E-03	.1154E-03	.1188E-03	.1228E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-c Composite Pavement

48.00      4.00  
49.00      4.00  
50.00      4.00

Z= 4.00 LAYER NO, 1

X            Y  
42.00      4.00  
43.00      4.00  
44.00      4.00  
45.00      4.00  
46.00      4.00  
47.00      4.00  
48.00      4.00  
49.00      4.00  
50.00      4.00

NORMAL STRESSES

SXX    -.6198E+02   -.7042E+02   -.8241E+02   -.9725E+02   -.1134E+03   -.1296E+03   -.1451E+03   -.1588E+03   -.1681E+03  
SYY    -.7547E+02   -.8315E+02   -.9446E+02   -.1087E+03   -.1242E+03   -.1398E+03   -.1550E+03   -.1684E+03   -.1776E+03  
SZZ    -.1402E+02   -.2804E+02   -.4914E+02   -.7582E+02   -.1051E+03   -.1349E+03   -.1642E+03   -.1902E+03   -.2085E+03

SHEAR STRESSES

SXY    .6037E-08   .1854E-07   -.6254E-09   -.3339E-07   -.2693E-07   .1168E-07   .1262E-08   -.4594E-08   .1752E-07  
SXZ    .2774E+02   .3573E+02   .4260E+02   .4648E+02   .4692E+02   .4439E+02   .3844E+02   .2785E+02   .1262E+02  
SYZ    .4167E-07   -.3103E-06   -.3222E-06   .5548E-06   .5200E-06   -.3909E-06   -.3772E-06   .3910E-06   .6632E-06

PRINCIPAL STRESSES

PS 1   -.1326E+01   -.7691E+01   -.2004E+02   -.3884E+02   -.6212E+02   -.8775E+02   -.1150E+03   -.1425E+03   -.1645E+03  
PS 2   -.7467E+02   -.8315E+02   -.9446E+02   -.1087E+03   -.1242E+03   -.1398E+03   -.1550E+03   -.1684E+03   -.1776E+03  
PS 3   -.7547E+02   -.9077E+02   -.1115E+03   -.1342E+03   -.1563E+03   -.1767E+03   -.1943E+03   -.2065E+03   -.2121E+03

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.3707E+02	.4154E+02	.4574E+02	.4770E+02	.4710E+02	.4447E+02	.3960E+02	.3199E+02	.2382E+02
PSS 2	.3667E+02	.3773E+02	.3721E+02	.3492E+02	.3102E+02	.2602E+02	.1997E+02	.1295E+02	.6580E+01
PSS 3	.4030E+00	.3808E+01	.8526E+01	.1278E+02	.1608E+02	.1845E+02	.1963E+02	.1903E+02	.1724E+02

## DISPLACEMENTS

UX	-.5525E-03	-.6352E-03	-.7198E-03	-.8049E-03	-.8908E-03	-.9774E-03	-.1063E-02	-.1148E-02	-.1231E-02
UY	.2943E-11	-.2837E-11	-.2457E-11	.1682E-12	-.4832E-11	-.7459E-12	-.6035E-12	.5876E-12	.2618E-11
UZ	.9454E-01	.9496E-01	.9566E-01	.9663E-01	.9682E-01	.9719E-01	.9775E-01	.9844E-01	.9815E-01

## NORMAL STRAINS

EXX	-.7665E-04	-.7876E-04	-.8038E-04	-.8171E-04	-.8285E-04	-.8353E-04	-.8355E-04	-.8308E-04	-.8236E-04
EYY	-.1222E-03	-.1217E-03	-.1210E-03	-.1202E-03	-.1193E-03	-.1181E-03	-.1168E-03	-.1157E-03	-.1146E-03
EZZ	.8523E-04	.6428E-04	.3190E-04	-.9360E-05	-.5483E-04	-.1016E-03	-.1478E-03	-.1893E-03	-.2188E-03

## SHEAR STRAINS

EXY	.4075E-13	.1251E-12	-.4222E-14	-.2254E-12	-.1818E-12	.7885E-13	.8516E-14	-.3101E-13	.1183E-12
EXZ	.1873E-03	.2412E-03	.2876E-03	.3137E-03	.3167E-03	.2996E-03	.2595E-03	.1880E-03	.8515E-04
EYZ	.2813E-12	-.2094E-11	-.2175E-11	.3745E-11	.3510E-11	-.2639E-11	-.2546E-11	.2639E-11	.4477E-11

## PRINCIPAL STRAINS

PE 1	.1281E-03	.1330E-03	.1301E-03	.1154E-03	.9012E-04	.5754E-04	.1797E-04	-.2824E-04	-.7016E-04
PE 2	-.1195E-03	-.1217E-03	-.1210E-03	-.1202E-03	-.1193E-03	-.1181E-03	-.1168E-03	-.1157E-03	-.1146E-03
PE 3	-.1222E-03	-.1474E-03	-.1786E-03	-.2065E-03	-.2278E-03	-.2426E-03	-.2494E-03	-.2441E-03	-.2310E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2503E-03	.2804E-03	.3087E-03	.3220E-03	.3179E-03	.3002E-03	.2673E-03	.2159E-03	.1608E-03
PSE 2	.2475E-03	.2547E-03	.2512E-03	.2357E-03	.2094E-03	.1756E-03	.1348E-03	.8743E-04	.4441E-04
PSE 3	.2720E-05	.2570E-04	.5755E-04	.8630E-04	.1086E-03	.1245E-03	.1325E-03	.1285E-03	.1164E-03

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.4371E+03	.4535E+03	.4711E+03	.4896E+03	.5077E+03	.5231E+03	.5356E+03	.5449E+03	.5496E+03
SYX	.6625E+03	.6652E+03	.6677E+03	.6707E+03	.6733E+03	.6745E+03	.6746E+03	.6740E+03	.6722E+03
SZZ	-.5392E+01	-.5398E+01	-.5426E+01	-.5485E+01	-.5486E+01	-.5494E+01	-.5519E+01	-.5566E+01	-.5541E+01

SHEAR STRESSES

SXY	.3801E-06	.4999E-06	.7247E-06	-.4967E-06	.4341E-06	.3166E-06	-.5844E-06	.2630E-06	.2222E-06
SXZ	-.2008E-01	-.3311E-01	-.5017E-01	-.7168E-01	-.9758E-01	-.1282E+00	-.1631E+00	-.2013E+00	-.2416E+00
SYZ	.1139E-08	-.1290E-08	.1388E-08	.1339E-08	.5785E-09	-.6535E-09	-.2257E-08	-.3350E-09	.6826E-09

PRINCIPAL STRESSES

PS 1	.6625E+03	.6652E+03	.6677E+03	.6707E+03	.6733E+03	.6745E+03	.6746E+03	.6740E+03	.6722E+03
PS 2	.4371E+03	.4535E+03	.4711E+03	.4896E+03	.5077E+03	.5231E+03	.5356E+03	.5449E+03	.5496E+03
PS 3	-.5392E+01	-.5398E+01	-.5426E+01	-.5485E+01	-.5486E+01	-.5494E+01	-.5519E+01	-.5566E+01	-.5541E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3339E+03	.3353E+03	.3366E+03	.3381E+03	.3394E+03	.3400E+03	.3400E+03	.3398E+03	.3389E+03
PSS 2	.1127E+03	.1058E+03	.9833E+02	.9054E+02	.8283E+02	.7573E+02	.6948E+02	.6454E+02	.6131E+02
PSS 3	.2212E+03	.2295E+03	.2382E+03	.2475E+03	.2566E+03	.2643E+03	.2706E+03	.2753E+03	.2776E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.5959E-03	.6885E-03	.7851E-03	.8850E-03	.9890E-03	.1097E-02	.1207E-02	.1318E-02	.1430E-02
UY	.1812E-11	.2984E-11	.4256E-11	-.7337E-11	.6672E-12	-.6476E-11	.1663E-11	.2739E-11	-.1637E-11
UZ	.9449E-01	.9489E-01	.9558E-01	.9652E-01	.9669E-01	.9703E-01	.9758E-01	.9824E-01	.9794E-01

## NORMAL STRAINS

EXX	.8463E-04	.8864E-04	.9293E-04	.9745E-04	.1019E-03	.1057E-03	.1088E-03	.1112E-03	.1124E-03
EYY	.1494E-03	.1495E-03	.1495E-03	.1495E-03	.1495E-03	.1492E-03	.1488E-03	.1483E-03	.1477E-03
EZZ	-.4258E-04	-.4330E-04	-.4406E-04	-.4488E-04	-.4566E-04	-.4628E-04	-.4676E-04	-.4710E-04	-.4720E-04

## SHEAR STRAINS

EXY	.2185E-12	.2875E-12	.4167E-12	-.2856E-12	.2496E-12	.1821E-12	-.3360E-12	.1512E-12	.1278E-12
EXZ	-.1155E-07	-.1904E-07	-.2885E-07	-.4121E-07	-.5611E-07	-.7372E-07	-.9378E-07	-.1157E-06	-.1389E-06
EYZ	.6547E-15	-.7415E-15	.7982E-15	.7698E-15	.3326E-15	-.3758E-15	-.1298E-14	-.1926E-15	.3925E-15

## PRINCIPAL STRAINS

PE 1	.1494E-03	.1495E-03	.1495E-03	.1495E-03	.1495E-03	.1492E-03	.1488E-03	.1483E-03	.1477E-03
PE 2	.8463E-04	.8864E-04	.9293E-04	.9745E-04	.1019E-03	.1057E-03	.1088E-03	.1112E-03	.1124E-03
PE 3	-.4258E-04	-.4330E-04	-.4406E-04	-.4488E-04	-.4566E-04	-.4628E-04	-.4676E-04	-.4710E-04	-.4720E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1920E-03	.1928E-03	.1935E-03	.1944E-03	.1952E-03	.1955E-03	.1955E-03	.1954E-03	.1949E-03
PSE 2	.6480E-04	.6085E-04	.5654E-04	.5206E-04	.4763E-04	.4354E-04	.3995E-04	.3711E-04	.3525E-04
PSE 3	.1272E-03	.1319E-03	.1370E-03	.1423E-03	.1475E-03	.1520E-03	.1556E-03	.1583E-03	.1596E-03



Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 80K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.64 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-c Composite Pavement

57.00      4.00  
58.00      4.00  
59.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	-.1711E+03	-.1669E+03	-.1564E+03	-.1416E+03	-.1249E+03	-.1075E+03	-.9020E+02	-.7413E+02	-.6087E+02
SYX	-.1806E+03	-.1764E+03	-.1660E+03	-.1514E+03	-.1349E+03	-.1181E+03	-.1013E+03	-.8589E+02	-.7331E+02
SZZ	-.2151E+03	-.2085E+03	-.1902E+03	-.1641E+03	-.1349E+03	-.1050E+03	-.7576E+02	-.4909E+02	-.2798E+02

SHEAR STRESSES

SXY	.6118E-08	.1494E-07	.1950E-07	-.1494E-07	.1332E-08	-.2621E-08	-.2521E-07	-.1262E-08	-.1168E-07
SXZ	-.5408E+01	-.2344E+02	-.3872E+02	-.4937E+02	-.5542E+02	-.5807E+02	-.5777E+02	-.5408E+02	-.4742E+02
SYZ	-.3075E-06	-.8251E-07	.0000E+00	-.8251E-07	-.3075E-06	.6632E-06	.3910E-06	-.3772E-06	-.3909E-06

PRINCIPAL STRESSES

PS 1	-.1704E+03	-.1564E+03	-.1311E+03	-.1023E+03	-.7424E+02	-.4819E+02	-.2476E+02	-.6099E+01	.5768E+01
PS 2	-.1806E+03	-.1764E+03	-.1660E+03	-.1514E+03	-.1349E+03	-.1181E+03	-.1013E+03	-.8589E+02	-.7331E+02
PS 3	-.2157E+03	-.2191E+03	-.2156E+03	-.2035E+03	-.1855E+03	-.1643E+03	-.1412E+03	-.1171E+03	-.9462E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.2266E+02	.3133E+02	.4224E+02	.5064E+02	.5564E+02	.5808E+02	.5822E+02	.5551E+02	.5019E+02
PSS 2	.5074E+01	.1002E+02	.1746E+02	.2455E+02	.3035E+02	.3494E+02	.3829E+02	.3990E+02	.3954E+02
PSS 3	.1759E+02	.2131E+02	.2479E+02	.2609E+02	.2529E+02	.2314E+02	.1993E+02	.1561E+02	.1065E+02

## DISPLACEMENTS

UX	-.1313E-02	-.1394E-02	-.1474E-02	-.1553E-02	-.1633E-02	-.1711E-02	-.1787E-02	-.1860E-02	-.1930E-02
UY	-.1374E-13	-.3258E-12	.0000E+00	-.3258E-12	-.1374E-13	-.4658E-11	.5876E-12	-.6035E-12	-.7459E-12
UZ	.9780E-01	.9742E-01	.9697E-01	.9556E-01	.9426E-01	.9316E-01	.9225E-01	.9056E-01	.8913E-01

## NORMAL STRAINS

EXX	-.8149E-04	-.8054E-04	-.7943E-04	-.7805E-04	-.7616E-04	-.7359E-04	-.7052E-04	-.6720E-04	-.6356E-04
EYY	-.1135E-03	-.1126E-03	-.1117E-03	-.1108E-03	-.1101E-03	-.1092E-03	-.1082E-03	-.1069E-03	-.1055E-03
EZZ	-.2300E-03	-.2208E-03	-.1934E-03	-.1540E-03	-.1098E-03	-.6515E-04	-.2181E-04	.1729E-04	.4747E-04

## SHEAR STRAINS

EXY	.4130E-13	.1009E-12	.1316E-12	-.1009E-12	.8994E-14	-.1769E-13	-.1702E-12	-.8516E-14	-.7885E-13
EXZ	-.3651E-04	-.1582E-03	-.2614E-03	-.3332E-03	-.3741E-03	-.3920E-03	-.3900E-03	-.3650E-03	-.3201E-03
EYZ	-.2076E-11	-.5569E-12	.0000E+00	-.5569E-12	-.2076E-11	.4477E-11	.2639E-11	-.2546E-11	-.2639E-11

## PRINCIPAL STRAINS

PE 1	-.7928E-04	-.4494E-04	.6157E-05	.5488E-04	.9480E-04	.1267E-03	.1503E-03	.1624E-03	.1614E-03
PE 2	-.1135E-03	-.1126E-03	-.1117E-03	-.1108E-03	-.1101E-03	-.1092E-03	-.1082E-03	-.1069E-03	-.1055E-03
PE 3	-.2322E-03	-.2564E-03	-.2790E-03	-.2869E-03	-.2808E-03	-.2654E-03	-.2427E-03	-.2123E-03	-.1774E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1530E-03	.2115E-03	.2851E-03	.3418E-03	.3756E-03	.3920E-03	.3930E-03	.3747E-03	.3388E-03
PSE 2	.3425E-04	.6764E-04	.1178E-03	.1657E-03	.2049E-03	.2359E-03	.2585E-03	.2693E-03	.2669E-03
PSE 3	.1187E-03	.1438E-03	.1673E-03	.1761E-03	.1707E-03	.1562E-03	.1345E-03	.1054E-03	.7191E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.5478E+03	.5397E+03	.5252E+03	.5061E+03	.4837E+03	.4579E+03	.4296E+03	.4007E+03	.3726E+03
SYY	.6679E+03	.6611E+03	.6517E+03	.6411E+03	.6298E+03	.6173E+03	.6032E+03	.5887E+03	.5745E+03
SZZ	-.5504E+01	-.5456E+01	-.5395E+01	-.5263E+01	-.5153E+01	-.5059E+01	-.4972E+01	-.4827E+01	-.4713E+01

SHEAR STRESSES

SXY	-.9052E-07	-.3305E-06	.2138E-06	-.3848E-06	-.3863E-06	-.2222E-06	-.2630E-06	.5844E-06	.6370E-06
SXZ	-.2832E+00	-.3249E+00	-.3650E+00	-.4030E+00	-.4376E+00	-.4679E+00	-.4933E+00	-.5143E+00	-.5308E+00
SYZ	.7899E-09	-.7465E-09	.0000E+00	.2979E-08	.7899E-09	.6826E-09	-.3350E-09	.1468E-08	-.6535E-09

PRINCIPAL STRESSES

PS 1	.6679E+03	.6611E+03	.6517E+03	.6411E+03	.6298E+03	.6173E+03	.6032E+03	.5887E+03	.5745E+03
PS 2	.5478E+03	.5397E+03	.5252E+03	.5061E+03	.4837E+03	.4579E+03	.4296E+03	.4007E+03	.3726E+03
PS 3	-.5504E+01	-.5456E+01	-.5395E+01	-.5263E+01	-.5153E+01	-.5059E+01	-.4973E+01	-.4828E+01	-.4714E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3367E+03	.3333E+03	.3286E+03	.3232E+03	.3175E+03	.3112E+03	.3041E+03	.2967E+03	.2896E+03
PSS 2	.6004E+02	.6070E+02	.6323E+02	.6749E+02	.7304E+02	.7965E+02	.8676E+02	.9400E+02	.1009E+03
PSS 3	.2767E+03	.2726E+03	.2653E+03	.2557E+03	.2445E+03	.2315E+03	.2173E+03	.2027E+03	.1887E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.1543E-02	.1654E-02	.1763E-02	.1869E-02	.1972E-02	.2071E-02	.2163E-02	.2250E-02	.2330E-02
UY	-.3418E-11	.2945E-12	.0000E+00	.2945E-12	.3858E-11	-.1637E-11	.2739E-11	.1663E-11	.8002E-12
UZ	.9759E-01	.9721E-01	.9678E-01	.9539E-01	.9411E-01	.9304E-01	.9214E-01	.9048E-01	.8907E-01

## NORMAL STRAINS

EXX	.1121E-03	.1103E-03	.1071E-03	.1027E-03	.9751E-04	.9153E-04	.8498E-04	.7827E-04	.7178E-04
EYY	.1466E-03	.1452E-03	.1434E-03	.1415E-03	.1395E-03	.1373E-03	.1349E-03	.1323E-03	.1298E-03
EZZ	-.4697E-04	-.4639E-04	-.4548E-04	-.4434E-04	-.4305E-04	-.4158E-04	-.3997E-04	-.3831E-04	-.3669E-04

## SHEAR STRAINS

EXY	-.5205E-13	-.1900E-12	.1230E-12	-.2212E-12	-.2221E-12	-.1278E-12	-.1512E-12	.3360E-12	.3663E-12
EXZ	-.1629E-06	-.1868E-06	-.2099E-06	-.2317E-06	-.2516E-06	-.2691E-06	-.2837E-06	-.2957E-06	-.3052E-06
EYZ	.4542E-15	-.4293E-15	.0000E+00	.1713E-14	.4542E-15	.3925E-15	-.1926E-15	.8443E-15	-.3758E-15

## PRINCIPAL STRAINS

PE 1	.1466E-03	.1452E-03	.1434E-03	.1415E-03	.1395E-03	.1373E-03	.1349E-03	.1323E-03	.1298E-03
PE 2	.1121E-03	.1103E-03	.1071E-03	.1027E-03	.9751E-04	.9153E-04	.8498E-04	.7827E-04	.7179E-04
PE 3	-.4697E-04	-.4639E-04	-.4548E-04	-.4434E-04	-.4305E-04	-.4158E-04	-.3997E-04	-.3831E-04	-.3669E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1936E-03	.1916E-03	.1889E-03	.1858E-03	.1826E-03	.1789E-03	.1748E-03	.1706E-03	.1665E-03
PSE 2	.3452E-04	.3490E-04	.3636E-04	.3880E-04	.4200E-04	.4580E-04	.4989E-04	.5405E-04	.5804E-04
PSE 3	.1591E-03	.1567E-03	.1526E-03	.1470E-03	.1406E-03	.1331E-03	.1249E-03	.1166E-03	.1085E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4750.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.10 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-c Composite Pavement

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	-.7598E+02	-.7569E+02	-.7173E+02	-.6580E+02	-.5995E+02	-.5578E+02	-.5398E+02	-.5464E+02	-.5801E+02
SYX	-.8601E+02	-.8534E+02	-.8087E+02	-.7430E+02	-.6773E+02	-.6286E+02	-.6038E+02	-.6033E+02	-.6293E+02
SZZ	-.6906E+02	-.6522E+02	-.5463E+02	-.4008E+02	-.2546E+02	-.1399E+02	-.7048E+01	-.4767E+01	-.7572E+01

SHEAR STRESSES

SXY	-.3879E-07	.2164E-07	-.7025E-08	.3075E-07	-.4218E-07	.9138E-08	-.3126E-07	-.6252E-07	.1744E-07
SXZ	.1380E+02	.5207E+01	-.1296E+01	-.4037E+01	-.2473E+01	.2502E+01	.9461E+01	.1769E+02	.2741E+02
SYZ	-.3856E-07	-.8320E-06	.9085E-06	.3990E-06	-.1157E-06	-.3943E-08	-.2040E-07	-.6444E-07	.1353E-06

PRINCIPAL STRESSES

PS 1	-.5829E+02	-.6307E+02	-.5453E+02	-.3947E+02	-.2528E+02	-.1384E+02	-.5212E+01	.8705E+00	.4459E+01
PS 2	-.8601E+02	-.7784E+02	-.7183E+02	-.6642E+02	-.6012E+02	-.5593E+02	-.5581E+02	-.6028E+02	-.6293E+02

## Appendix 6E-c Composite Pavement

PS 3   - .8674E+02   - .8534E+02   - .8087E+02   - .7430E+02   - .6773E+02   - .6286E+02   - .6038E+02   - .6033E+02   - .7004E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1422E+02   .1113E+02   .1317E+02   .1742E+02   .2122E+02   .2451E+02   .2758E+02   .3060E+02   .3725E+02  
PSS 2   .1386E+02   .7381E+01   .8646E+01   .1348E+02   .1742E+02   .2104E+02   .2530E+02   .3057E+02   .3369E+02  
PSS 3   .3671E+00   .3752E+01   .4521E+01   .3938E+01   .3804E+01   .3466E+01   .2283E+01   .2702E-01   .3555E+01

## DISPLACEMENTS

UX        .1130E-02   .1075E-02   .1018E-02   .9562E-03   .8897E-03   .8174E-03   .7391E-03   .6554E-03   .5669E-03  
UY        - .5326E-11   .3417E-11   .1619E-11   .3652E-11   - .4849E-11   .4736E-11   .9957E-12   .2084E-11   - .3842E-11  
UZ        .6602E-01   .6624E-01   .6630E-01   .6612E-01   .6577E-01   .6541E-01   .6519E-01   .6523E-01   .6561E-01

## NORMAL STRAINS

EXX      - .5426E-04   - .5747E-04   - .6076E-04   - .6442E-04   - .6833E-04   - .7220E-04   - .7594E-04   - .7964E-04   - .8333E-04  
EYY      - .8812E-04   - .9005E-04   - .9161E-04   - .9310E-04   - .9460E-04   - .9610E-04   - .9755E-04   - .9885E-04   - .9994E-04  
EZZ      - .3091E-04   - .2216E-04   - .3056E-05   .2238E-04   .4807E-04   .6883E-04   .8244E-04   .8868E-04   .8689E-04

## SHEAR STRAINS

EXY      - .2618E-12   .1461E-12   - .4742E-13   .2076E-12   - .2847E-12   .6168E-13   - .2110E-12   - .4220E-12   .1177E-12  
EXZ      .9313E-04   .3515E-04   - .8750E-05   - .2725E-04   - .1669E-04   .1689E-04   .6386E-04   .1194E-03   .1850E-03  
EYZ      - .2603E-12   - .5616E-11   .6133E-11   .2693E-11   - .7811E-12   - .2661E-13   - .1377E-12   - .4350E-12   .9132E-12

## PRINCIPAL STRAINS

PE 1      .5424E-05   - .1490E-04   - .2726E-05   .2447E-04   .4867E-04   .6933E-04   .8863E-04   .1077E-03   .1275E-03  
PE 2      - .8812E-04   - .6473E-04   - .6109E-04   - .6651E-04   - .6892E-04   - .7270E-04   - .8214E-04   - .9866E-04   - .9994E-04  
PE 3      - .9059E-04   - .9005E-04   - .9161E-04   - .9310E-04   - .9460E-04   - .9610E-04   - .9755E-04   - .9885E-04   - .1239E-03

## PRINCIPAL SHEAR STRAINS

PSE 1     .9602E-04   .7515E-04   .8888E-04   .1176E-03   .1433E-03   .1654E-03   .1862E-03   .2066E-03   .2514E-03  
PSE 2     .9354E-04   .4982E-04   .5836E-04   .9098E-04   .1176E-03   .1420E-03   .1708E-03   .2064E-03   .2274E-03  
PSE 3     .2478E-05   .2533E-04   .3052E-04   .2658E-04   .2568E-04   .2340E-04   .1541E-04   .1824E-06   .2400E-04



Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.3408E+03	.3547E+03	.3653E+03	.3755E+03	.3868E+03	.4000E+03	.4151E+03	.4321E+03	.4510E+03
SYZ	.4822E+03	.4944E+03	.5040E+03	.5136E+03	.5241E+03	.5355E+03	.5471E+03	.5584E+03	.5690E+03
SZZ	-.4017E+01	-.4071E+01	-.4079E+01	-.4070E+01	-.4060E+01	-.4060E+01	-.4073E+01	-.4099E+01	-.4140E+01

SHEAR STRESSES

SXY	.9545E-07	-.2261E-06	-.1779E-06	.5433E-06	-.6323E-06	.7111E-06	.6545E-06	-.1778E-07	-.5952E-06
SXZ	.3441E+00	.3309E+00	.3178E+00	.3052E+00	.2932E+00	.2814E+00	.2695E+00	.2567E+00	.2421E+00
SYZ	-.6184E-09	-.1619E-09	.1942E-10	-.1015E-08	.6939E-09	.2785E-08	-.1972E-08	-.2976E-08	.2260E-08

PRINCIPAL STRESSES

PS 1	.4822E+03	.4944E+03	.5040E+03	.5136E+03	.5241E+03	.5355E+03	.5471E+03	.5584E+03	.5690E+03
PS 2	.3408E+03	.3547E+03	.3653E+03	.3755E+03	.3868E+03	.4000E+03	.4151E+03	.4321E+03	.4510E+03
PS 3	-.4017E+01	-.4072E+01	-.4080E+01	-.4070E+01	-.4060E+01	-.4061E+01	-.4074E+01	-.4099E+01	-.4140E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.2431E+03	.2492E+03	.2540E+03	.2588E+03	.2641E+03	.2698E+03	.2756E+03	.2812E+03	.2866E+03
PSS 2	.7071E+02	.6981E+02	.6934E+02	.6905E+02	.6862E+02	.6771E+02	.6598E+02	.6313E+02	.5898E+02
PSS 3	.1724E+03	.1794E+03	.1847E+03	.1898E+03	.1955E+03	.2020E+03	.2096E+03	.2181E+03	.2276E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.1367E-02	-.1299E-02	-.1229E-02	-.1157E-02	-.1081E-02	-.9995E-03	-.9129E-03	-.8207E-03	-.7230E-03
UY	.2628E-11	.5403E-11	-.4630E-11	.6256E-13	.1004E-11	.4383E-11	-.3555E-11	.5666E-11	-.7209E-11
UZ	.6594E-01	.6616E-01	.6623E-01	.6606E-01	.6572E-01	.6536E-01	.6514E-01	.6519E-01	.6556E-01

## NORMAL STRAINS

EXX	.6726E-04	.7030E-04	.7258E-04	.7476E-04	.7721E-04	.8008E-04	.8342E-04	.8724E-04	.9157E-04
EYY	.1079E-03	.1104E-03	.1124E-03	.1145E-03	.1167E-03	.1190E-03	.1214E-03	.1235E-03	.1255E-03
EZZ	-.3186E-04	-.3286E-04	-.3362E-04	-.3436E-04	-.3518E-04	-.3610E-04	-.3710E-04	-.3817E-04	-.3928E-04

## SHEAR STRAINS

EXY	.5488E-13	-.1300E-12	-.1023E-12	.3124E-12	-.3636E-12	.4089E-12	.3763E-12	-.1022E-13	-.3422E-12
EXZ	.1979E-06	.1903E-06	.1827E-06	.1755E-06	.1686E-06	.1618E-06	.1550E-06	.1476E-06	.1392E-06
EYZ	-.3556E-15	-.9309E-16	.1117E-16	-.5835E-15	.3990E-15	.1601E-14	-.1134E-14	-.1711E-14	.1300E-14

## PRINCIPAL STRAINS

PE 1	.1079E-03	.1104E-03	.1124E-03	.1145E-03	.1167E-03	.1190E-03	.1214E-03	.1235E-03	.1255E-03
PE 2	.6726E-04	.7030E-04	.7258E-04	.7476E-04	.7721E-04	.8008E-04	.8342E-04	.8724E-04	.9157E-04
PE 3	-.3187E-04	-.3286E-04	-.3362E-04	-.3436E-04	-.3518E-04	-.3610E-04	-.3710E-04	-.3817E-04	-.3928E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1398E-03	.1433E-03	.1461E-03	.1488E-03	.1518E-03	.1551E-03	.1585E-03	.1617E-03	.1648E-03
PSE 2	.4066E-04	.4014E-04	.3987E-04	.3970E-04	.3946E-04	.3894E-04	.3794E-04	.3630E-04	.3391E-04
PSE 3	.9912E-04	.1032E-03	.1062E-03	.1091E-03	.1124E-03	.1162E-03	.1205E-03	.1254E-03	.1309E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4750.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.10 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-c Composite Pavement

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13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	-.6495E+02	-.7685E+02	-.9465E+02	-.1175E+03	-.1421E+03	-.1655E+03	-.1856E+03	-.2002E+03	-.2053E+03
SYX	-.6909E+02	-.8031E+02	-.9768E+02	-.1203E+03	-.1447E+03	-.1680E+03	-.1883E+03	-.2032E+03	-.2085E+03
SZZ	-.1721E+02	-.3652E+02	-.6744E+02	-.1081E+03	-.1527E+03	-.1958E+03	-.2334E+03	-.2607E+03	-.2710E+03

SHEAR STRESSES

SXY	.2358E-08	.1248E-07	.1186E-07	.3573E-08	.8134E-08	-.1362E-07	.9718E-08	-.6685E-08	.1255E-07
SXZ	.3905E+02	.5191E+02	.6321E+02	.6920E+02	.6796E+02	.5999E+02	.4553E+02	.2386E+02	-.3361E+01
SYZ	-.6862E-08	-.3790E-07	.8819E-06	-.3483E-06	.2736E-05	-.1123E-05	.8288E-06	-.5530E-06	.2809E-05

PRINCIPAL STRESSES

PS 1	.4691E+01	-.1001E+01	-.1639E+02	-.4343E+02	-.7922E+02	-.1188E+03	-.1581E+03	-.1920E+03	-.2051E+03
PS 2	-.6909E+02	-.8031E+02	-.9768E+02	-.1203E+03	-.1447E+03	-.1680E+03	-.1883E+03	-.2032E+03	-.2085E+03

## Appendix 6E-c Composite Pavement

PS 3   -.8685E+02   -.1124E+03   -.1457E+03   -.1822E+03   -.2156E+03   -.2425E+03   -.2610E+03   -.2690E+03   -.2712E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .4577E+02   .5568E+02   .6466E+02   .6937E+02   .6817E+02   .6188E+02   .5143E+02   .3853E+02   .3301E+02  
PSS 2   .3689E+02   .3966E+02   .4065E+02   .3844E+02   .3273E+02   .2463E+02   .1510E+02   .5621E+01   .1668E+01  
PSS 3   .8881E+01   .1603E+02   .2402E+02   .3093E+02   .3544E+02   .3724E+02   .3634E+02   .3291E+02   .3134E+02

## DISPLACEMENTS

UX       .4744E-03   .3795E-03   .2839E-03   .1889E-03   .9206E-04   -.4642E-05   -.9953E-04   -.1914E-03   -.2831E-03  
UY       -.2532E-12   .1271E-11   -.1765E-11   .3783E-11   .7740E-11   .2069E-11   .7690E-13   -.8357E-12   .4700E-11  
UZ       .6640E-01   .6760E-01   .6910E-01   .7060E-01   .7183E-01   .7304E-01   .7422E-01   .7512E-01   .7531E-01

## NORMAL STRAINS

EXX     -.8687E-04   -.8988E-04   -.9215E-04   -.9400E-04   -.9496E-04   -.9537E-04   -.9501E-04   -.9463E-04   -.9376E-04  
EYY     -.1008E-03   -.1016E-03   -.1024E-03   -.1034E-03   -.1038E-03   -.1039E-03   -.1040E-03   -.1046E-03   -.1044E-03  
EZZ     .7426E-04   .4620E-04   -.3155E-06   -.6205E-04   -.1309E-03   -.1977E-03   -.2565E-03   -.2989E-03   -.3154E-03

## SHEAR STRAINS

EXY     .1592E-13   .8422E-13   .8004E-13   .2412E-13   .5490E-13   -.9195E-13   .6560E-13   -.4512E-13   .8473E-13  
EXZ     .2636E-03   .3504E-03   .4267E-03   .4671E-03   .4587E-03   .4050E-03   .3074E-03   .1611E-03   -.2269E-04  
EYZ     -.4632E-13   -.2559E-12   .5953E-11   -.2351E-11   .1847E-10   -.7583E-11   .5595E-11   -.3733E-11   .1896E-10

## PRINCIPAL STRAINS

PE 1     .1482E-03   .1661E-03   .1720E-03   .1561E-03   .1172E-03   .6232E-04   -.2141E-05   -.6670E-04   -.9318E-04  
PE 2     -.1008E-03   -.1016E-03   -.1024E-03   -.1034E-03   -.1038E-03   -.1039E-03   -.1040E-03   -.1046E-03   -.1044E-03  
PE 3     -.1608E-03   -.2098E-03   -.2645E-03   -.3121E-03   -.3430E-03   -.3553E-03   -.3493E-03   -.3268E-03   -.3160E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .3089E-03   .3759E-03   .4365E-03   .4682E-03   .4601E-03   .4177E-03   .3472E-03   .2601E-03   .2228E-03  
PSE 2   .2490E-03   .2677E-03   .2744E-03   .2595E-03   .2209E-03   .1663E-03   .1019E-03   .3794E-04   .1126E-04  
PSE 3   .5994E-04   .1082E-03   .1621E-03   .2088E-03   .2392E-03   .2514E-03   .2453E-03   .2222E-03   .2115E-03

## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.4719E+03	.4950E+03	.5208E+03	.5498E+03	.5756E+03	.5976E+03	.6141E+03	.6269E+03	.6283E+03
SYZ	.5789E+03	.5886E+03	.5993E+03	.6123E+03	.6225E+03	.6305E+03	.6361E+03	.6421E+03	.6416E+03
SZZ	-.4201E+01	-.4294E+01	-.4430E+01	-.4612E+01	-.4747E+01	-.4873E+01	-.4989E+01	-.5126E+01	-.5148E+01

## SHEAR STRESSES

SXY	.1623E-07	.6543E-06	-.3175E-07	.1194E-06	-.1058E-05	.4054E-06	.1711E-06	-.1810E-06	.4964E-06
SXZ	.2247E+00	.2033E+00	.1773E+00	.1459E+00	.1086E+00	.6562E-01	.1794E-01	-.3297E-01	-.8564E-01
SYZ	-.4572E-09	-.2043E-08	-.1811E-08	-.1001E-08	.2536E-09	.2558E-08	.5894E-09	.3377E-08	-.6449E-09

## PRINCIPAL STRESSES

PS 1	.5789E+03	.5886E+03	.5993E+03	.6123E+03	.6225E+03	.6305E+03	.6361E+03	.6421E+03	.6416E+03
PS 2	.4719E+03	.4950E+03	.5208E+03	.5498E+03	.5756E+03	.5976E+03	.6141E+03	.6269E+03	.6283E+03
PS 3	-.4201E+01	-.4294E+01	-.4431E+01	-.4612E+01	-.4747E+01	-.4873E+01	-.4989E+01	-.5126E+01	-.5148E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.2915E+03	.2965E+03	.3019E+03	.3084E+03	.3136E+03	.3177E+03	.3205E+03	.3236E+03	.3234E+03
PSS 2	.5349E+02	.4680E+02	.3922E+02	.3122E+02	.2341E+02	.1646E+02	.1100E+02	.7598E+01	.6624E+01
PSS 3	.2380E+03	.2497E+03	.2626E+03	.2772E+03	.2902E+03	.3012E+03	.3095E+03	.3160E+03	.3167E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.6204E-03	-.5137E-03	-.4035E-03	-.2900E-03	-.1694E-03	-.4414E-04	.8353E-04	.2116E-03	.3420E-03
UY	-.4027E-11	.1234E-11	-.1554E-11	-.2772E-11	-.2621E-11	.4460E-11	-.1400E-13	.8552E-11	.5470E-12
UZ	.6634E-01	.6752E-01	.6899E-01	.7047E-01	.7165E-01	.7283E-01	.7398E-01	.7486E-01	.7505E-01

## NORMAL STRAINS

EXX	.9642E-04	.1018E-03	.1079E-03	.1147E-03	.1207E-03	.1259E-03	.1298E-03	.1328E-03	.1332E-03
EYY	.1272E-03	.1288E-03	.1305E-03	.1326E-03	.1342E-03	.1354E-03	.1362E-03	.1372E-03	.1370E-03
EZZ	-.4045E-04	-.4171E-04	-.4311E-04	-.4473E-04	-.4612E-04	-.4727E-04	-.4813E-04	-.4887E-04	-.4891E-04

## SHEAR STRAINS

EXY	.9331E-14	.3762E-12	-.1826E-13	.6867E-13	-.6082E-12	.2331E-12	.9841E-13	-.1041E-12	.2854E-12
EXZ	.1292E-06	.1169E-06	.1019E-06	.8388E-07	.6243E-07	.3773E-07	.1031E-07	-.1896E-07	-.4924E-07
EYZ	-.2629E-15	-.1175E-14	-.1042E-14	-.5756E-15	.1458E-15	.1471E-14	.3389E-15	.1942E-14	-.3708E-15

## PRINCIPAL STRAINS

PE 1	.1272E-03	.1288E-03	.1305E-03	.1326E-03	.1342E-03	.1354E-03	.1362E-03	.1372E-03	.1370E-03
PE 2	.9642E-04	.1018E-03	.1079E-03	.1147E-03	.1207E-03	.1259E-03	.1298E-03	.1328E-03	.1332E-03
PE 3	-.4045E-04	-.4171E-04	-.4311E-04	-.4473E-04	-.4612E-04	-.4727E-04	-.4813E-04	-.4887E-04	-.4891E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1676E-03	.1705E-03	.1736E-03	.1774E-03	.1803E-03	.1827E-03	.1843E-03	.1861E-03	.1859E-03
PSE 2	.3076E-04	.2691E-04	.2255E-04	.1795E-04	.1346E-04	.9462E-05	.6326E-05	.4369E-05	.3809E-05
PSE 3	.1369E-03	.1436E-03	.1510E-03	.1594E-03	.1669E-03	.1732E-03	.1780E-03	.1817E-03	.1821E-03

Appendix 6E-c Composite Pavement

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ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 4750.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.10 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00



Appendix 6E-c Composite Pavement

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Z= 4.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	-.1994E+03	-.1839E+03
SYY	-.2025E+03	-.1869E+03
SZZ	-.2607E+03	-.2334E+03

## SHEAR STRESSES

SXY	.2233E-08	.2008E-07
SXZ	-.3061E+02	-.5234E+02
SYZ	-.8364E-06	.0000E+00

## PRINCIPAL STRESSES

PS 1	-.1867E+03	-.1508E+03
PS 2	-.2025E+03	-.1869E+03
PS 3	-.2734E+03	-.2666E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4333E+02	.5790E+02
PSS 2	.7892E+01	.1807E+02
PSS 3	.3544E+02	.3982E+02

## DISPLACEMENTS

UX	-.3742E-03	-.4638E-03
UY	-.3167E-11	-.3638E-11
UZ	.7499E-01	.7396E-01

Appendix 6E-c Composite Pavement

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## NORMAL STRAINS

EXX -.9315E-04 -.9204E-04  
EYY -.1037E-03 -.1021E-03  
EZZ -.3002E-03 -.2591E-03

## SHEAR STRAINS

EXY .1508E-13 .1356E-12  
EXZ -.2066E-03 -.3533E-03  
EYZ -.5645E-11 .0000E+00

## PRINCIPAL STRAINS

PE 1 -.5042E-04 .1985E-04  
PE 2 -.1037E-03 -.1021E-03  
PE 3 -.3429E-03 -.3709E-03

## PRINCIPAL SHEAR STRAINS

PSE 1 .2925E-03 .3908E-03  
PSE 2 .5327E-04 .1220E-03  
PSE 3 .2392E-03 .2688E-03

Z= 12.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .6196E+03 .5993E+03  
SYY .6360E+03 .6239E+03  
SZZ -.5095E+01 -.4928E+01

Appendix 6E-c Composite Pavement

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## SHEAR STRESSES

SXY .1151E-07 -.1711E-06  
SXZ -.1382E+00 -.1889E+00  
SYZ -.3110E-08 -.1863E-08

## PRINCIPAL STRESSES

PS 1 .6360E+03 .6239E+03  
PS 2 .6196E+03 .5993E+03  
PS 3 -.5095E+01 -.4928E+01

## PRINCIPAL SHEAR STRESSES

PSS 1 .3205E+03 .3144E+03  
PSS 2 .8209E+01 .1225E+02  
PSS 3 .3123E+03 .3021E+03

## DISPLACEMENTS

UX .4716E-03 .5973E-03  
UY .3131E-11 .0000E+00  
UZ .7473E-01 .7372E-01

## NORMAL STRAINS

EXX .1312E-03 .1266E-03  
EYY .1360E-03 .1337E-03  
EZZ -.4836E-04 -.4710E-04

## SHEAR STRAINS

EXY .6617E-14 -.9841E-13  
EXZ -.7948E-07 -.1086E-06  
EYZ -.1788E-14 -.1071E-14

## PRINCIPAL STRAINS

Appendix 6E-c Composite Pavement

PE 1 .1360E-03 .1337E-03  
 PE 2 .1312E-03 .1266E-03  
 PE 3 -.4836E-04 -.4710E-04

PRINCIPAL SHEAR STRAINS  
 PSE 1 .1843E-03 .1808E-03  
 PSE 2 .4720E-05 .7046E-05  
 PSE 3 .1796E-03 .1737E-03

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Appendix 6E-c Composite Pavement

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Z= 4.00 12.00  
X-Y POINT(S)  
X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

NORMAL STRESSES

SXX -.1645E+03 -.1751E+03 -.1792E+03 -.1763E+03 -.1669E+03 -.1530E+03 -.1370E+03 -.1203E+03 -.1037E+03  
SYY -.1745E+03 -.1850E+03 -.1892E+03 -.1863E+03 -.1770E+03 -.1634E+03 -.1478E+03 -.1317E+03 -.1157E+03  
SZZ -.1997E+03 -.2181E+03 -.2247E+03 -.2182E+03 -.1998E+03 -.1732E+03 -.1431E+03 -.1124E+03 -.8225E+02

SHEAR STRESSES

SXY -.1508E-07 .9224E-08 -.9446E-08 .5763E-08 .2874E-07 -.8462E-09 .8010E-09 -.2695E-07 .1528E-07

## Appendix 6E-c Composite Pavement

SXZ	.3965E+02	.2397E+02	.5712E+01	-.1253E+02	-.2819E+02	-.3928E+02	-.4561E+02	-.4837E+02	-.4823E+02
SYZ	.8770E-06	.2818E-06	.8338E-06	.4404E-06	.6629E-08	.4504E-06	-.1085E-05	.2687E-06	.8659E-06

## PRINCIPAL STRESSES

PS 1	-.1387E+03	-.1644E+03	-.1785E+03	-.1728E+03	-.1507E+03	-.1225E+03	-.9435E+02	-.6785E+02	-.4357E+02
PS 2	-.1745E+03	-.1850E+03	-.1892E+03	-.1863E+03	-.1770E+03	-.1634E+03	-.1478E+03	-.1317E+03	-.1157E+03
PS 3	-.2255E+03	-.2288E+03	-.2254E+03	-.2216E+03	-.2160E+03	-.2037E+03	-.1858E+03	-.1649E+03	-.1424E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4340E+02	.3222E+02	.2343E+02	.2439E+02	.3263E+02	.4056E+02	.4571E+02	.4853E+02	.4941E+02
PSS 2	.1788E+02	.1031E+02	.5311E+01	.6724E+01	.1316E+02	.2041E+02	.2670E+02	.3192E+02	.3608E+02
PSS 3	.2551E+02	.2191E+02	.1812E+02	.1767E+02	.1947E+02	.2016E+02	.1900E+02	.1662E+02	.1334E+02

## DISPLACEMENTS

UX	.1555E-02	.1471E-02	.1385E-02	.1298E-02	.1211E-02	.1122E-02	.1032E-02	.9406E-03	.8501E-03
UY	.1525E-11	.4099E-11	.6304E-12	.4217E-11	-.1591E-11	-.6402E-12	-.2023E-12	-.6136E-13	.2082E-11
UZ	.1019E+00	.1024E+00	.1028E+00	.1031E+00	.1035E+00	.1029E+00	.1023E+00	.1020E+00	.1018E+00

## NORMAL STRAINS

EXX	-.8370E-04	-.8495E-04	-.8598E-04	-.8687E-04	-.8756E-04	-.8800E-04	-.8798E-04	-.8727E-04	-.8605E-04
EYY	-.1175E-03	-.1185E-03	-.1194E-03	-.1206E-03	-.1217E-03	-.1230E-03	-.1243E-03	-.1255E-03	-.1266E-03
EZZ	-.2028E-03	-.2303E-03	-.2394E-03	-.2281E-03	-.1985E-03	-.1562E-03	-.1086E-03	-.6053E-04	-.1362E-04

## SHEAR STRAINS

EXY	-.1018E-12	.6226E-13	-.6376E-13	.3890E-13	.1940E-12	-.5712E-14	.5407E-14	-.1819E-12	.1031E-12
EXZ	.2676E-03	.1618E-03	.3856E-04	-.8461E-04	-.1903E-03	-.2652E-03	-.3078E-03	-.3265E-03	-.3256E-03
EYZ	.5920E-11	.1902E-11	.5628E-11	.2973E-11	.4475E-13	.3040E-11	-.7325E-11	.1814E-11	.5845E-11

## PRINCIPAL STRAINS

PE 1	.3226E-05	-.4887E-04	-.8360E-04	-.7517E-04	-.3290E-04	.1479E-04	.5596E-04	.8990E-04	.1169E-03
PE 2	-.1175E-03	-.1185E-03	-.1194E-03	-.1206E-03	-.1217E-03	-.1230E-03	-.1243E-03	-.1255E-03	-.1266E-03
PE 3	-.2897E-03	-.2663E-03	-.2418E-03	-.2398E-03	-.2531E-03	-.2590E-03	-.2526E-03	-.2377E-03	-.2166E-03

Appendix 6E-c Composite Pavement

PRINCIPAL SHEAR STRAINS

PSE 1	.2929E-03	.2175E-03	.1582E-03	.1647E-03	.2202E-03	.2738E-03	.3085E-03	.3276E-03	.3335E-03
PSE 2	.1207E-03	.6958E-04	.3585E-04	.4539E-04	.8881E-04	.1377E-03	.1803E-03	.2154E-03	.2435E-03
PSE 3	.1722E-03	.1479E-03	.1223E-03	.1193E-03	.1314E-03	.1360E-03	.1283E-03	.1122E-03	.9001E-04

Z= 12.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.5524E+03	.5675E+03	.5761E+03	.5779E+03	.5732E+03	.5638E+03	.5510E+03	.5350E+03	.5164E+03
SYX	.6864E+03	.6962E+03	.7034E+03	.7079E+03	.7099E+03	.7106E+03	.7107E+03	.7095E+03	.7068E+03
SZZ	-.5657E+01	-.5719E+01	-.5770E+01	-.5809E+01	-.5837E+01	-.5803E+01	-.5778E+01	-.5769E+01	-.5771E+01

SHEAR STRESSES

SXY	-.3318E-06	.9765E-07	.1767E-06	.1486E-07	.1478E-06	.1253E-06	.4891E-06	.4452E-06	-.4064E-06
SXZ	.3844E+00	.3424E+00	.2989E+00	.2553E+00	.2133E+00	.1733E+00	.1366E+00	.1044E+00	.7709E-01
SYZ	.1199E-08	.2263E-08	-.4259E-09	-.2774E-08	.1240E-09	.2072E-08	-.6117E-09	.2198E-08	.1015E-08

PRINCIPAL STRESSES

PS 1	.6864E+03	.6962E+03	.7034E+03	.7079E+03	.7099E+03	.7106E+03	.7107E+03	.7095E+03	.7068E+03
PS 2	.5524E+03	.5675E+03	.5761E+03	.5779E+03	.5732E+03	.5638E+03	.5510E+03	.5350E+03	.5164E+03

## Appendix 6E-c Composite Pavement

PS 3    -.5657E+01   -.5719E+01   -.5770E+01   -.5809E+01   -.5837E+01   -.5803E+01   -.5778E+01   -.5769E+01   -.5771E+01

## PRINCIPAL SHEAR STRESSES

PSS 1    .3460E+03    .3509E+03    .3546E+03    .3569E+03    .3579E+03    .3582E+03    .3582E+03    .3576E+03    .3563E+03  
PSS 2    .6697E+02    .6433E+02    .6365E+02    .6501E+02    .6833E+02    .7339E+02    .7981E+02    .8727E+02    .9523E+02  
PSS 3    .2790E+03    .2866E+03    .2909E+03    .2919E+03    .2895E+03    .2848E+03    .2784E+03    .2704E+03    .2611E+03

## DISPLACEMENTS

UX        -.1859E-02   -.1745E-02   -.1628E-02   -.1510E-02   -.1392E-02   -.1275E-02   -.1159E-02   -.1045E-02   -.9357E-03  
UY        -.1369E-11   .5533E-11   -.2717E-11   -.7756E-11   -.1629E-11   -.3596E-11   .5428E-11   -.2691E-11   -.3840E-12  
UZ        .1017E+00    .1022E+00    .1026E+00    .1029E+00    .1033E+00    .1028E+00    .1022E+00    .1018E+00    .1017E+00

## NORMAL STRAINS

EXX        .1126E-03    .1160E-03    .1179E-03    .1181E-03    .1169E-03    .1145E-03    .1113E-03    .1074E-03    .1028E-03  
EYY        .1511E-03    .1530E-03    .1545E-03    .1555E-03    .1562E-03    .1567E-03    .1572E-03    .1575E-03    .1576E-03  
EZZ        -.4787E-04   -.4882E-04   -.4942E-04   -.4967E-04   -.4958E-04   -.4924E-04   -.4876E-04   -.4811E-04   -.4731E-04

## SHEAR STRAINS

EXY        -.1908E-12   .5615E-13   .1016E-12   .8544E-14   .8497E-13   .7207E-13   .2812E-12   .2560E-12   -.2337E-12  
EXZ        .2211E-06   .1969E-06   .1719E-06   .1468E-06   .1226E-06   .9964E-07   .7853E-07   .6001E-07   .4433E-07  
EYZ        .6894E-15   .1301E-14   -.2449E-15   -.1595E-14   .7128E-16   .1192E-14   -.3517E-15   .1264E-14   .5839E-15

## PRINCIPAL STRAINS

PE 1        .1511E-03    .1530E-03    .1545E-03    .1555E-03    .1562E-03    .1567E-03    .1572E-03    .1575E-03    .1576E-03  
PE 2        .1126E-03    .1160E-03    .1179E-03    .1181E-03    .1169E-03    .1145E-03    .1113E-03    .1074E-03    .1028E-03  
PE 3        -.4787E-04   -.4882E-04   -.4942E-04   -.4967E-04   -.4958E-04   -.4924E-04   -.4876E-04   -.4811E-04   -.4731E-04

## PRINCIPAL SHEAR STRAINS

PSE 1        .1990E-03    .2018E-03    .2039E-03    .2052E-03    .2058E-03    .2060E-03    .2060E-03    .2056E-03    .2049E-03  
PSE 2        .3851E-04    .3699E-04    .3660E-04    .3738E-04    .3929E-04    .4220E-04    .4589E-04    .5018E-04    .5475E-04  
PSE 3        .1605E-03    .1648E-03    .1673E-03    .1678E-03    .1665E-03    .1638E-03    .1601E-03    .1555E-03    .1501E-03



Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-c Composite Pavement

31.00      4.00  
32.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	-.8818E+02	-.7535E+02	-.6611E+02	-.6021E+02	-.5669E+02	-.5460E+02	-.5332E+02	-.5248E+02	-.5194E+02
SYX	-.1009E+03	-.8875E+02	-.8030E+02	-.7524E+02	-.7253E+02	-.7117E+02	-.7047E+02	-.7009E+02	-.6986E+02
SZZ	-.5432E+02	-.3164E+02	-.1613E+02	-.7233E+01	-.2896E+01	-.1115E+01	-.5382E+00	-.4508E+00	-.5029E+00

SHEAR STRESSES

SXY	-.1106E-07	-.4101E-07	.1751E-07	.5251E-08	.5575E-07	-.3514E-07	.1976E-07	-.5058E-08	-.1692E-07
SXZ	-.4471E+02	-.3797E+02	-.2975E+02	-.2209E+02	-.1601E+02	-.1154E+02	-.8252E+01	-.5722E+01	-.3635E+01
SYZ	-.2313E-07	-.4052E-06	-.5647E-07	.3744E-08	.1271E-06	-.8836E-07	-.1872E-07	.1114E-07	.5549E-07

PRINCIPAL STRESSES

PS 1	-.2344E+02	-.9686E+01	-.2271E+01	.7683E+00	.1508E+01	.1268E+01	.7220E+00	.1710E+00	-.2474E+00
PS 2	-.1009E+03	-.8875E+02	-.7998E+02	-.6821E+02	-.6109E+02	-.5699E+02	-.5458E+02	-.5311E+02	-.5220E+02
PS 3	-.1191E+03	-.9730E+02	-.8030E+02	-.7524E+02	-.7253E+02	-.7117E+02	-.7047E+02	-.7009E+02	-.6986E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.4781E+02	.4381E+02	.3902E+02	.3800E+02	.3702E+02	.3622E+02	.3559E+02	.3513E+02	.3481E+02
PSS 2	.3871E+02	.3953E+02	.3885E+02	.3449E+02	.3130E+02	.2913E+02	.2765E+02	.2664E+02	.2597E+02
PSS 3	.9095E+01	.4275E+01	.1633E+00	.3514E+01	.5719E+01	.7089E+01	.7945E+01	.8490E+01	.8831E+01

## DISPLACEMENTS

UX	.7604E-03	.6714E-03	.5841E-03	.4998E-03	.4192E-03	.3426E-03	.2695E-03	.1994E-03	.1317E-03
UY	.9566E-12	-.6072E-11	-.6308E-11	-.1540E-11	-.6616E-11	-.1664E-11	-.1425E-11	-.6681E-12	-.1723E-11
UZ	.1010E+00	.1002E+00	.9978E-01	.9961E-01	.9962E-01	.9975E-01	.9993E-01	.1001E+00	.1003E+00

## NORMAL STRAINS

EXX	-.8465E-04	-.8303E-04	-.8090E-04	-.7836E-04	-.7572E-04	-.7326E-04	-.7116E-04	-.6949E-04	-.6829E-04
EYY	-.1275E-03	-.1283E-03	-.1288E-03	-.1291E-03	-.1292E-03	-.1292E-03	-.1290E-03	-.1289E-03	-.1288E-03
EZZ	.2962E-04	.6449E-04	.8778E-04	.1004E-03	.1058E-03	.1073E-03	.1070E-03	.1061E-03	.1053E-03

## SHEAR STRAINS

EXY	-.7463E-13	-.2768E-12	.1182E-12	.3544E-13	.3763E-12	-.2372E-12	.1334E-12	-.3414E-13	-.1142E-12
EXZ	-.3018E-03	-.2563E-03	-.2008E-03	-.1491E-03	-.1081E-03	-.7789E-04	-.5570E-04	-.3862E-04	-.2453E-04
EYZ	-.1561E-12	-.2735E-11	-.3811E-12	.2527E-13	.8582E-12	-.5964E-12	-.1263E-12	.7516E-13	.3745E-12

## PRINCIPAL STRAINS

PE 1	.1338E-03	.1386E-03	.1346E-03	.1274E-03	.1207E-03	.1153E-03	.1112E-03	.1082E-03	.1062E-03
PE 2	-.1275E-03	-.1283E-03	-.1277E-03	-.1054E-03	-.9058E-04	-.8131E-04	-.7541E-04	-.7159E-04	-.6915E-04
PE 3	-.1889E-03	-.1571E-03	-.1288E-03	-.1291E-03	-.1292E-03	-.1292E-03	-.1290E-03	-.1289E-03	-.1288E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.3227E-03	.2957E-03	.2634E-03	.2565E-03	.2499E-03	.2445E-03	.2403E-03	.2371E-03	.2349E-03
PSE 2	.2613E-03	.2668E-03	.2623E-03	.2328E-03	.2113E-03	.1966E-03	.1866E-03	.1798E-03	.1753E-03
PSE 3	.6139E-04	.2886E-04	.1102E-05	.2372E-04	.3861E-04	.4785E-04	.5363E-04	.5731E-04	.5961E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.4971E+03	.4790E+03	.4618E+03	.4457E+03	.4311E+03	.4184E+03	.4078E+03	.3994E+03	.3933E+03
SYY	.7038E+03	.7013E+03	.6986E+03	.6954E+03	.6919E+03	.6883E+03	.6848E+03	.6818E+03	.6795E+03
SZZ	-.5725E+01	-.5696E+01	-.5690E+01	-.5696E+01	-.5708E+01	-.5721E+01	-.5731E+01	-.5739E+01	-.5745E+01

SHEAR STRESSES

SXY	.1407E-06	.5628E-07	.5796E-06	.7597E-06	.6853E-07	-.2704E-06	.9580E-07	-.7503E-06	.7261E-06
SXZ	.5438E-01	.3611E-01	.2229E-01	.1229E-01	.5542E-02	.1346E-02	-.8965E-03	-.1732E-02	-.1645E-02
SYZ	.7355E-09	.1280E-09	-.2064E-08	.5519E-09	.2183E-08	.4437E-09	-.1289E-08	.5879E-09	.5261E-09

PRINCIPAL STRESSES

PS 1	.7038E+03	.7013E+03	.6986E+03	.6954E+03	.6919E+03	.6883E+03	.6848E+03	.6818E+03	.6795E+03
PS 2	.4971E+03	.4790E+03	.4618E+03	.4457E+03	.4311E+03	.4184E+03	.4078E+03	.3994E+03	.3933E+03
PS 3	-.5725E+01	-.5696E+01	-.5690E+01	-.5696E+01	-.5708E+01	-.5721E+01	-.5731E+01	-.5739E+01	-.5745E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3548E+03	.3535E+03	.3521E+03	.3505E+03	.3488E+03	.3470E+03	.3453E+03	.3438E+03	.3426E+03
PSS 2	.1033E+03	.1111E+03	.1184E+03	.1249E+03	.1304E+03	.1349E+03	.1385E+03	.1412E+03	.1431E+03
PSS 3	.2514E+03	.2424E+03	.2337E+03	.2257E+03	.2184E+03	.2121E+03	.2068E+03	.2026E+03	.1995E+03

DISPLACEMENTS

## Appendix 6E-c Composite Pavement

UX	-.8302E-03	-.7281E-03	-.6304E-03	-.5375E-03	-.4496E-03	-.3666E-03	-.2879E-03	-.2128E-03	-.1403E-03
UY	-.3245E-11	.9970E-12	-.4574E-11	-.1417E-11	.5418E-11	.7396E-11	.1212E-11	-.2767E-12	-.4228E-12
UZ	.1009E+00	.1002E+00	.9973E-01	.9956E-01	.9959E-01	.9972E-01	.9990E-01	.1001E+00	.1002E+00

## NORMAL STRAINS

EXX	.9811E-04	.9367E-04	.8946E-04	.8556E-04	.8205E-04	.7901E-04	.7648E-04	.7449E-04	.7307E-04
EYY	.1575E-03	.1576E-03	.1575E-03	.1573E-03	.1570E-03	.1566E-03	.1561E-03	.1557E-03	.1553E-03
EZZ	-.4647E-04	-.4569E-04	-.4493E-04	-.4421E-04	-.4354E-04	-.4293E-04	-.4240E-04	-.4198E-04	-.4167E-04

## SHEAR STRAINS

EXY	.8091E-13	.3236E-13	.3333E-12	.4368E-12	.3941E-13	-.1555E-12	.5508E-13	-.4314E-12	.4175E-12
EXZ	.3127E-07	.2076E-07	.1282E-07	.7068E-08	.3187E-08	.7738E-09	-.5155E-09	-.9957E-09	-.9457E-09
EYZ	.4229E-15	.7360E-16	-.1187E-14	.3173E-15	.1255E-14	.2551E-15	-.7409E-15	.3380E-15	.3025E-15

## PRINCIPAL STRAINS

PE 1	.1575E-03	.1576E-03	.1575E-03	.1573E-03	.1570E-03	.1566E-03	.1561E-03	.1557E-03	.1553E-03
PE 2	.9811E-04	.9367E-04	.8946E-04	.8556E-04	.8205E-04	.7901E-04	.7648E-04	.7449E-04	.7307E-04
PE 3	-.4647E-04	-.4569E-04	-.4493E-04	-.4421E-04	-.4354E-04	-.4293E-04	-.4240E-04	-.4198E-04	-.4167E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2040E-03	.2033E-03	.2025E-03	.2016E-03	.2006E-03	.1995E-03	.1985E-03	.1977E-03	.1970E-03
PSE 2	.5942E-04	.6390E-04	.6807E-04	.7179E-04	.7496E-04	.7758E-04	.7964E-04	.8120E-04	.8226E-04
PSE 3	.1446E-03	.1394E-03	.1344E-03	.1298E-03	.1256E-03	.1219E-03	.1189E-03	.1165E-03	.1147E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-c Composite Pavement

39.00 4.00  
40.00 4.00  
41.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
33.00 4.00  
34.00 4.00  
35.00 4.00  
36.00 4.00  
37.00 4.00  
38.00 4.00  
39.00 4.00  
40.00 4.00  
41.00 4.00

NORMAL STRESSES

SXX -.5163E+02 -.5152E+02 -.5163E+02 -.5194E+02 -.5248E+02 -.5332E+02 -.5460E+02 -.5669E+02 -.6021E+02  
 SYY -.6973E+02 -.6968E+02 -.6973E+02 -.6986E+02 -.7009E+02 -.7047E+02 -.7117E+02 -.7253E+02 -.7524E+02  
 SZZ -.5584E+00 -.5793E+00 -.5584E+00 -.5029E+00 -.4508E+00 -.5382E+00 -.1115E+01 -.2896E+01 -.7233E+01

SHEAR STRESSES

SXY .1383E-07 .2613E-07 -.1524E-07 .1737E-07 .1029E-07 .7258E-07 -.5230E-07 .3152E-07 .8332E-08  
 SXZ -.1778E+01 -.3720E-06 .1778E+01 .3635E+01 .5722E+01 .8252E+01 .1154E+02 .1601E+02 .2209E+02  
 SYZ -.2981E-07 .3580E-07 .2365E-07 .6561E-07 -.1572E-09 .2612E-07 .1316E-06 .1632E-06 .8750E-08

PRINCIPAL STRESSES

PS 1 -.4966E+00 -.5793E+00 -.4966E+00 -.2474E+00 .1710E+00 .7220E+00 .1268E+01 .1508E+01 .7683E+00  
 PS 2 -.5169E+02 -.5152E+02 -.5169E+02 -.5220E+02 -.5311E+02 -.5458E+02 -.5699E+02 -.6109E+02 -.6821E+02  
 PS 3 -.6973E+02 -.6968E+02 -.6973E+02 -.6986E+02 -.7009E+02 -.7047E+02 -.7117E+02 -.7253E+02 -.7524E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.3462E+02	.3455E+02	.3462E+02	.3481E+02	.3513E+02	.3559E+02	.3622E+02	.3702E+02	.3800E+02
PSS 2	.2560E+02	.2547E+02	.2560E+02	.2597E+02	.2664E+02	.2765E+02	.2913E+02	.3130E+02	.3449E+02
PSS 3	.9020E+01	.9082E+01	.9020E+01	.8831E+01	.8490E+01	.7945E+01	.7089E+01	.5719E+01	.3514E+01

## DISPLACEMENTS

UX	.6545E-04	.5877E-10	-.6545E-04	-.1317E-03	-.1994E-03	-.2695E-03	-.3426E-03	-.4192E-03	-.4998E-03
UY	-.2354E-11	-.1108E-11	-.1798E-11	-.1719E-11	-.6411E-12	-.4486E-12	-.7784E-12	.4330E-11	-.1824E-11
UZ	.1004E+00	.1004E+00	.1004E+00	.1003E+00	.1001E+00	.9993E-01	.9975E-01	.9962E-01	.9961E-01

## NORMAL STRAINS

EXX	-.6756E-04	-.6732E-04	-.6756E-04	-.6829E-04	-.6949E-04	-.7116E-04	-.7326E-04	-.7572E-04	-.7836E-04
EYY	-.1287E-03	-.1286E-03	-.1287E-03	-.1288E-03	-.1289E-03	-.1290E-03	-.1292E-03	-.1292E-03	-.1291E-03
EZZ	.1048E-03	.1046E-03	.1048E-03	.1053E-03	.1061E-03	.1070E-03	.1073E-03	.1058E-03	.1004E-03

## SHEAR STRAINS

EXY	.9332E-13	.1764E-12	-.1029E-12	.1173E-12	.6947E-13	.4899E-12	-.3530E-12	.2128E-12	.5624E-13
EXZ	-.1200E-04	-.2511E-11	.1200E-04	.2453E-04	.3862E-04	.5570E-04	.7789E-04	.1081E-03	.1491E-03
EYZ	-.2012E-12	.2417E-12	.1596E-12	.4429E-12	-.1061E-14	.1763E-12	.8884E-12	.1102E-11	.5906E-13

## PRINCIPAL STRAINS

PE 1	.1050E-03	.1046E-03	.1050E-03	.1062E-03	.1082E-03	.1112E-03	.1153E-03	.1207E-03	.1274E-03
PE 2	-.6777E-04	-.6732E-04	-.6777E-04	-.6915E-04	-.7159E-04	-.7541E-04	-.8131E-04	-.9058E-04	-.1054E-03
PE 3	-.1287E-03	-.1286E-03	-.1287E-03	-.1288E-03	-.1289E-03	-.1290E-03	-.1292E-03	-.1292E-03	-.1291E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2337E-03	.2332E-03	.2337E-03	.2349E-03	.2371E-03	.2403E-03	.2445E-03	.2499E-03	.2565E-03
PSE 2	.1728E-03	.1719E-03	.1728E-03	.1753E-03	.1798E-03	.1866E-03	.1966E-03	.2113E-03	.2328E-03
PSE 3	.6089E-04	.6130E-04	.6089E-04	.5961E-04	.5731E-04	.5363E-04	.4785E-04	.3861E-04	.2372E-04

Z= 12.00 LAYER NO, 2



Appendix 6E-c Composite Pavement

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.3897E+03	.3885E+03	.3897E+03	.3933E+03	.3994E+03	.4078E+03	.4184E+03	.4311E+03	.4457E+03
SYX	.6780E+03	.6775E+03	.6780E+03	.6795E+03	.6818E+03	.6848E+03	.6883E+03	.6919E+03	.6954E+03
SZZ	-.5747E+01	-.5748E+01	-.5747E+01	-.5745E+01	-.5739E+01	-.5731E+01	-.5721E+01	-.5708E+01	-.5696E+01

SHEAR STRESSES

SXY	-.5110E-06	-.8176E-06	.9097E-09	.6925E-06	-.5089E-06	-.3961E-06	.3391E-06	-.2810E-06	.8830E-06
SXZ	-.9738E-03	.1231E-09	.9738E-03	.1645E-02	.1732E-02	.8965E-03	-.1346E-02	-.5542E-02	-.1229E-01
SYZ	.6160E-09	.4756E-09	.2779E-09	-.2565E-09	.2035E-09	.1384E-08	.1762E-09	.1631E-08	.1824E-09

PRINCIPAL STRESSES

PS 1	.6780E+03	.6775E+03	.6780E+03	.6795E+03	.6818E+03	.6848E+03	.6883E+03	.6919E+03	.6954E+03
PS 2	.3897E+03	.3885E+03	.3897E+03	.3933E+03	.3994E+03	.4078E+03	.4184E+03	.4311E+03	.4457E+03
PS 3	-.5747E+01	-.5748E+01	-.5747E+01	-.5745E+01	-.5739E+01	-.5731E+01	-.5721E+01	-.5708E+01	-.5696E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3419E+03	.3416E+03	.3419E+03	.3426E+03	.3438E+03	.3453E+03	.3470E+03	.3488E+03	.3505E+03
PSS 2	.1441E+03	.1445E+03	.1441E+03	.1431E+03	.1412E+03	.1385E+03	.1349E+03	.1304E+03	.1249E+03
PSS 3	.1977E+03	.1971E+03	.1977E+03	.1995E+03	.2026E+03	.2068E+03	.2121E+03	.2184E+03	.2257E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.6971E-04	.6404E-10	.6971E-04	.1403E-03	.2128E-03	.2879E-03	.3666E-03	.4496E-03	.5375E-03
UY	-.1820E-11	-.1516E-11	-.1655E-11	-.2947E-12	.3447E-11	-.3049E-11	-.4124E-11	-.4280E-11	.1729E-11
UZ	.1003E+00	.1004E+00	.1003E+00	.1002E+00	.1001E+00	.9990E-01	.9972E-01	.9959E-01	.9956E-01

## NORMAL STRAINS

EXX	.7223E-04	.7194E-04	.7223E-04	.7307E-04	.7449E-04	.7648E-04	.7901E-04	.8205E-04	.8556E-04
EYY	.1551E-03	.1550E-03	.1551E-03	.1553E-03	.1557E-03	.1561E-03	.1566E-03	.1570E-03	.1573E-03
EZZ	-.4148E-04	-.4141E-04	-.4148E-04	-.4167E-04	-.4198E-04	-.4240E-04	-.4293E-04	-.4354E-04	-.4421E-04

## SHEAR STRAINS

EXY	-.2938E-12	-.4701E-12	.5231E-15	.3982E-12	-.2926E-12	-.2278E-12	.1950E-12	-.1616E-12	.5077E-12
EXZ	-.5599E-09	.7077E-16	.5599E-09	.9457E-09	.9957E-09	.5155E-09	-.7738E-09	-.3187E-08	-.7068E-08
EYZ	.3542E-15	.2734E-15	.1598E-15	-.1475E-15	.1170E-15	.7959E-15	.1013E-15	.9375E-15	.1049E-15

## PRINCIPAL STRAINS

PE 1	.1551E-03	.1550E-03	.1551E-03	.1553E-03	.1557E-03	.1561E-03	.1566E-03	.1570E-03	.1573E-03
PE 2	.7223E-04	.7194E-04	.7223E-04	.7307E-04	.7449E-04	.7648E-04	.7901E-04	.8205E-04	.8556E-04
PE 3	-.4148E-04	-.4141E-04	-.4148E-04	-.4167E-04	-.4198E-04	-.4240E-04	-.4293E-04	-.4354E-04	-.4421E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1966E-03	.1964E-03	.1966E-03	.1970E-03	.1977E-03	.1985E-03	.1995E-03	.2006E-03	.2016E-03
PSE 2	.8288E-04	.8309E-04	.8288E-04	.8226E-04	.8120E-04	.7964E-04	.7758E-04	.7496E-04	.7179E-04
PSE 3	.1137E-03	.1134E-03	.1137E-03	.1147E-03	.1165E-03	.1189E-03	.1219E-03	.1256E-03	.1298E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-c Composite Pavement

48.00      4.00  
49.00      4.00  
50.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	-.6611E+02	-.7535E+02	-.8818E+02	-.1037E+03	-.1203E+03	-.1370E+03	-.1530E+03	-.1669E+03	-.1763E+03
SYX	-.8030E+02	-.8875E+02	-.1009E+03	-.1157E+03	-.1317E+03	-.1478E+03	-.1634E+03	-.1770E+03	-.1863E+03
SZZ	-.1613E+02	-.3164E+02	-.5432E+02	-.8225E+02	-.1124E+03	-.1431E+03	-.1732E+03	-.1998E+03	-.2182E+03

SHEAR STRESSES

SXY	-.1533E-07	.2436E-07	.2539E-07	.2586E-07	-.1773E-07	.1003E-07	.1067E-07	.9176E-08	-.2835E-08
SXZ	.2975E+02	.3797E+02	.4471E+02	.4823E+02	.4837E+02	.4561E+02	.3928E+02	.2819E+02	.1253E+02
SYZ	-.3226E-07	-.3315E-06	-.1330E-06	.9767E-06	.4380E-06	.5264E-06	-.2739E-07	.8673E-06	.2823E-06

PRINCIPAL STRESSES

PS 1	-.2271E+01	-.9686E+01	-.2344E+02	-.4357E+02	-.6785E+02	-.9435E+02	-.1225E+03	-.1507E+03	-.1728E+03
PS 2	-.7998E+02	-.8875E+02	-.1009E+03	-.1157E+03	-.1317E+03	-.1478E+03	-.1634E+03	-.1770E+03	-.1863E+03
PS 3	-.8030E+02	-.9730E+02	-.1191E+03	-.1424E+03	-.1649E+03	-.1858E+03	-.2037E+03	-.2160E+03	-.2216E+03

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.3902E+02	.4381E+02	.4781E+02	.4941E+02	.4853E+02	.4571E+02	.4056E+02	.3263E+02	.2439E+02
PSS 2	.3885E+02	.3953E+02	.3871E+02	.3608E+02	.3192E+02	.2670E+02	.2041E+02	.1316E+02	.6724E+01
PSS 3	.1633E+00	.4275E+01	.9095E+01	.1334E+02	.1662E+02	.1900E+02	.2016E+02	.1947E+02	.1767E+02

## DISPLACEMENTS

UX	-.5841E-03	-.6714E-03	-.7604E-03	-.8501E-03	-.9406E-03	-.1032E-02	-.1122E-02	-.1211E-02	-.1298E-02
UY	.6278E-11	.4812E-11	.2426E-11	-.8744E-12	.3080E-11	.2528E-11	-.4713E-12	.1868E-11	.1227E-11
UZ	.9978E-01	.1002E+00	.1010E+00	.1018E+00	.1020E+00	.1023E+00	.1029E+00	.1035E+00	.1031E+00

## NORMAL STRAINS

EXX	-.8090E-04	-.8303E-04	-.8465E-04	-.8605E-04	-.8727E-04	-.8798E-04	-.8800E-04	-.8756E-04	-.8687E-04
EYY	-.1288E-03	-.1283E-03	-.1275E-03	-.1266E-03	-.1255E-03	-.1243E-03	-.1230E-03	-.1217E-03	-.1206E-03
EZZ	.8778E-04	.6449E-04	.2962E-04	-.1362E-04	-.6053E-04	-.1086E-03	-.1562E-03	-.1985E-03	-.2281E-03

## SHEAR STRAINS

EXY	-.1035E-12	.1645E-12	.1714E-12	.1746E-12	-.1197E-12	.6771E-13	.7205E-13	.6194E-13	-.1914E-13
EXZ	.2008E-03	.2563E-03	.3018E-03	.3256E-03	.3265E-03	.3078E-03	.2652E-03	.1903E-03	.8461E-04
EYZ	-.2178E-12	-.2238E-11	-.8976E-12	.6593E-11	.2956E-11	.3553E-11	-.1849E-12	.5854E-11	.1906E-11

## PRINCIPAL STRAINS

PE 1	.1346E-03	.1386E-03	.1338E-03	.1169E-03	.8990E-04	.5596E-04	.1479E-04	-.3290E-04	-.7517E-04
PE 2	-.1277E-03	-.1283E-03	-.1275E-03	-.1266E-03	-.1255E-03	-.1243E-03	-.1230E-03	-.1217E-03	-.1206E-03
PE 3	-.1288E-03	-.1571E-03	-.1889E-03	-.2166E-03	-.2377E-03	-.2526E-03	-.2590E-03	-.2531E-03	-.2398E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2634E-03	.2957E-03	.3227E-03	.3335E-03	.3276E-03	.3085E-03	.2738E-03	.2202E-03	.1647E-03
PSE 2	.2623E-03	.2668E-03	.2613E-03	.2435E-03	.2154E-03	.1803E-03	.1377E-03	.8881E-04	.4539E-04
PSE 3	.1102E-05	.2886E-04	.6139E-04	.9001E-04	.1122E-03	.1283E-03	.1360E-03	.1314E-03	.1193E-03

Z= 12.00 LAYER NO, 2

## Appendix 6E-c Composite Pavement

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

## NORMAL STRESSES

SXX	.4618E+03	.4790E+03	.4971E+03	.5164E+03	.5350E+03	.5510E+03	.5638E+03	.5732E+03	.5779E+03
SYY	.6986E+03	.7013E+03	.7038E+03	.7068E+03	.7095E+03	.7107E+03	.7106E+03	.7099E+03	.7079E+03
SZZ	-.5690E+01	-.5696E+01	-.5725E+01	-.5771E+01	-.5769E+01	-.5778E+01	-.5803E+01	-.5837E+01	-.5809E+01

## SHEAR STRESSES

SXY	-.3678E-06	-.5148E-07	-.4640E-06	-.4859E-06	-.4470E-06	-.3558E-06	-.1807E-06	-.2057E-06	-.3534E-07
SXZ	-.2229E-01	-.3611E-01	-.5438E-01	-.7709E-01	-.1044E+00	-.1366E+00	-.1733E+00	-.2133E+00	-.2553E+00
SYZ	.1128E-08	.5924E-10	.1531E-08	.3382E-09	.1441E-08	.3833E-09	.2356E-09	.8253E-09	.2203E-08

## PRINCIPAL STRESSES

PS 1	.6986E+03	.7013E+03	.7038E+03	.7068E+03	.7095E+03	.7107E+03	.7106E+03	.7099E+03	.7079E+03
PS 2	.4618E+03	.4790E+03	.4971E+03	.5164E+03	.5350E+03	.5510E+03	.5638E+03	.5732E+03	.5779E+03
PS 3	-.5690E+01	-.5696E+01	-.5725E+01	-.5771E+01	-.5769E+01	-.5778E+01	-.5803E+01	-.5837E+01	-.5809E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.3521E+03	.3535E+03	.3548E+03	.3563E+03	.3576E+03	.3582E+03	.3582E+03	.3579E+03	.3569E+03
PSS 2	.1184E+03	.1111E+03	.1033E+03	.9523E+02	.8727E+02	.7981E+02	.7339E+02	.6833E+02	.6501E+02
PSS 3	.2337E+03	.2424E+03	.2514E+03	.2611E+03	.2704E+03	.2784E+03	.2848E+03	.2895E+03	.2919E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.6304E-03	.7281E-03	.8302E-03	.9357E-03	.1045E-02	.1159E-02	.1275E-02	.1392E-02	.1510E-02
UY	.5161E-11	.2022E-11	-.1567E-11	-.1714E-11	.3877E-11	.1050E-11	.5466E-11	-.1724E-11	.5556E-11
UZ	.9973E-01	.1002E+00	.1009E+00	.1017E+00	.1018E+00	.1022E+00	.1028E+00	.1033E+00	.1029E+00

## NORMAL STRAINS

EXX	.8946E-04	.9367E-04	.9811E-04	.1028E-03	.1074E-03	.1113E-03	.1145E-03	.1169E-03	.1181E-03
EYY	.1575E-03	.1576E-03	.1575E-03	.1576E-03	.1575E-03	.1572E-03	.1567E-03	.1562E-03	.1555E-03
EZZ	-.4493E-04	-.4569E-04	-.4647E-04	-.4731E-04	-.4811E-04	-.4876E-04	-.4924E-04	-.4958E-04	-.4967E-04

## SHEAR STRAINS

EXY	-.2115E-12	-.2960E-13	-.2668E-12	-.2794E-12	-.2570E-12	-.2046E-12	-.1039E-12	-.1183E-12	-.2032E-13
EXZ	-.1282E-07	-.2076E-07	-.3127E-07	-.4433E-07	-.6001E-07	-.7853E-07	-.9964E-07	-.1226E-06	-.1468E-06
EYZ	.6483E-15	.3406E-16	.8801E-15	.1945E-15	.8284E-15	.2204E-15	.1355E-15	.4746E-15	.1267E-14

## PRINCIPAL STRAINS

PE 1	.1575E-03	.1576E-03	.1575E-03	.1576E-03	.1575E-03	.1572E-03	.1567E-03	.1562E-03	.1555E-03
PE 2	.8946E-04	.9367E-04	.9811E-04	.1028E-03	.1074E-03	.1113E-03	.1145E-03	.1169E-03	.1181E-03
PE 3	-.4493E-04	-.4569E-04	-.4647E-04	-.4731E-04	-.4811E-04	-.4876E-04	-.4924E-04	-.4958E-04	-.4967E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2025E-03	.2033E-03	.2040E-03	.2049E-03	.2056E-03	.2060E-03	.2060E-03	.2058E-03	.2052E-03
PSE 2	.6807E-04	.6390E-04	.5942E-04	.5475E-04	.5018E-04	.4589E-04	.4220E-04	.3929E-04	.3738E-04
PSE 3	.1344E-03	.1394E-03	.1446E-03	.1501E-03	.1555E-03	.1601E-03	.1638E-03	.1665E-03	.1678E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 85K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 9500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.80 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00



Appendix 6E-c Composite Pavement

57.00      4.00  
58.00      4.00  
59.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	-.1792E+03	-.1751E+03	-.1645E+03	-.1493E+03	-.1321E+03	-.1142E+03	-.9626E+02	-.7942E+02	-.6526E+02
SYX	-.1892E+03	-.1850E+03	-.1745E+03	-.1595E+03	-.1426E+03	-.1253E+03	-.1080E+03	-.9182E+02	-.7836E+02
SZZ	-.2247E+03	-.2181E+03	-.1997E+03	-.1732E+03	-.1431E+03	-.1124E+03	-.8219E+02	-.5426E+02	-.3156E+02

SHEAR STRESSES

SXY	.1452E-07	-.7267E-08	-.2408E-07	.7267E-08	.3822E-09	.2131E-07	-.2408E-07	.4227E-08	-.2837E-07
SXZ	-.5712E+01	-.2397E+02	-.3965E+02	-.5083E+02	-.5725E+02	-.6014E+02	-.6016E+02	-.5683E+02	-.5031E+02
SYZ	.6284E-06	.3917E-06	.0000E+00	.3917E-06	.6284E-06	-.9916E-07	.3086E-06	-.2971E-07	-.3229E-06

PRINCIPAL STRESSES

PS 1	-.1785E+03	-.1644E+03	-.1387E+03	-.1090E+03	-.8006E+02	-.5312E+02	-.2866E+02	-.8636E+01	.4647E+01
PS 2	-.1892E+03	-.1850E+03	-.1745E+03	-.1595E+03	-.1426E+03	-.1253E+03	-.1080E+03	-.9182E+02	-.7836E+02
PS 3	-.2254E+03	-.2288E+03	-.2255E+03	-.2135E+03	-.1951E+03	-.1734E+03	-.1498E+03	-.1250E+03	-.1015E+03

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.2343E+02	.3222E+02	.4340E+02	.5221E+02	.5751E+02	.6015E+02	.6056E+02	.5820E+02	.5305E+02
PSS 2	.5311E+01	.1031E+02	.1788E+02	.2524E+02	.3129E+02	.3607E+02	.3967E+02	.4159E+02	.4150E+02
PSS 3	.1812E+02	.2191E+02	.2551E+02	.2697E+02	.2622E+02	.2407E+02	.2090E+02	.1661E+02	.1155E+02

## DISPLACEMENTS

UX	-.1385E-02	-.1471E-02	-.1555E-02	-.1639E-02	-.1723E-02	-.1805E-02	-.1885E-02	-.1961E-02	-.2036E-02
UY	-.3046E-11	.9640E-12	.0000E+00	.9640E-12	-.3046E-11	.2683E-11	-.1057E-11	-.6133E-12	.6844E-11
UZ	.1028E+00	.1024E+00	.1019E+00	.1006E+00	.9926E-01	.9810E-01	.9716E-01	.9558E-01	.9407E-01

## NORMAL STRAINS

EXX	-.8599E-04	-.8495E-04	-.8370E-04	-.8219E-04	-.8020E-04	-.7748E-04	-.7422E-04	-.7073E-04	-.6696E-04
EYY	-.1194E-03	-.1185E-03	-.1175E-03	-.1166E-03	-.1158E-03	-.1150E-03	-.1138E-03	-.1126E-03	-.1112E-03
EZZ	-.2394E-03	-.2303E-03	-.2028E-03	-.1627E-03	-.1173E-03	-.7141E-04	-.2676E-04	.1420E-04	.4677E-04

## SHEAR STRAINS

EXY	.9800E-13	-.4905E-13	-.1625E-12	.4905E-13	.2580E-14	.1439E-12	-.1625E-12	.2853E-13	-.1915E-12
EXZ	-.3856E-04	-.1618E-03	-.2676E-03	-.3431E-03	-.3864E-03	-.4059E-03	-.4060E-03	-.3836E-03	-.3396E-03
EYZ	.4242E-11	.2644E-11	.0000E+00	.2644E-11	.4242E-11	-.6693E-12	.2083E-11	-.2006E-12	-.2180E-11

## PRINCIPAL STRAINS

PE 1	-.8360E-04	-.4887E-04	.3226E-05	.5375E-04	.9536E-04	.1285E-03	.1539E-03	.1682E-03	.1690E-03
PE 2	-.1194E-03	-.1185E-03	-.1175E-03	-.1166E-03	-.1158E-03	-.1150E-03	-.1138E-03	-.1126E-03	-.1112E-03
PE 3	-.2418E-03	-.2663E-03	-.2897E-03	-.2987E-03	-.2929E-03	-.2774E-03	-.2549E-03	-.2247E-03	-.1892E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1582E-03	.2175E-03	.2929E-03	.3524E-03	.3882E-03	.4060E-03	.4088E-03	.3929E-03	.3581E-03
PSE 2	.3585E-04	.6958E-04	.1207E-03	.1704E-03	.2112E-03	.2435E-03	.2678E-03	.2808E-03	.2801E-03
PSE 3	.1223E-03	.1479E-03	.1722E-03	.1820E-03	.1770E-03	.1625E-03	.1410E-03	.1121E-03	.7797E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.5761E+03	.5675E+03	.5524E+03	.5326E+03	.5094E+03	.4826E+03	.4531E+03	.4228E+03	.3934E+03
SYX	.7034E+03	.6962E+03	.6864E+03	.6752E+03	.6635E+03	.6504E+03	.6356E+03	.6204E+03	.6056E+03
SZZ	-.5770E+01	-.5719E+01	-.5657E+01	-.5533E+01	-.5417E+01	-.5319E+01	-.5230E+01	-.5093E+01	-.4973E+01

SHEAR STRESSES

SXY	.1983E-06	.2955E-06	-.2711E-06	.1813E-06	.2785E-06	-.2889E-06	-.2711E-06	.1807E-06	.6235E-07
SXZ	-.2989E+00	-.3424E+00	-.3844E+00	-.4241E+00	-.4604E+00	-.4923E+00	-.5191E+00	-.5412E+00	-.5588E+00
SYZ	.1254E-08	-.4852E-09	.0000E+00	-.4852E-09	-.2471E-08	.2203E-08	-.3134E-09	-.2300E-09	.2400E-08

PRINCIPAL STRESSES

PS 1	.7034E+03	.6962E+03	.6864E+03	.6752E+03	.6635E+03	.6504E+03	.6356E+03	.6204E+03	.6056E+03
PS 2	.5761E+03	.5675E+03	.5524E+03	.5326E+03	.5094E+03	.4826E+03	.4531E+03	.4228E+03	.3934E+03
PS 3	-.5770E+01	-.5719E+01	-.5657E+01	-.5533E+01	-.5418E+01	-.5319E+01	-.5231E+01	-.5094E+01	-.4974E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3546E+03	.3510E+03	.3460E+03	.3404E+03	.3345E+03	.3278E+03	.3204E+03	.3128E+03	.3053E+03
PSS 2	.6365E+02	.6433E+02	.6697E+02	.7132E+02	.7706E+02	.8390E+02	.9128E+02	.9883E+02	.1061E+03
PSS 3	.2909E+03	.2866E+03	.2790E+03	.2691E+03	.2574E+03	.2439E+03	.2292E+03	.2139E+03	.1992E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.1628E-02	.1745E-02	.1859E-02	.1971E-02	.2079E-02	.2183E-02	.2281E-02	.2372E-02	.2457E-02
UY	-.2853E-11	-.1713E-11	.0000E+00	-.1713E-11	-.2853E-11	-.7541E-11	-.3578E-11	.7529E-11	.3326E-11
UZ	.1026E+00	.1022E+00	.1017E+00	.1005E+00	.9910E-01	.9797E-01	.9705E-01	.9549E-01	.9401E-01

## NORMAL STRAINS

EXX	.1179E-03	.1160E-03	.1126E-03	.1080E-03	.1027E-03	.9645E-04	.8963E-04	.8262E-04	.7583E-04
EYY	.1545E-03	.1530E-03	.1511E-03	.1490E-03	.1470E-03	.1447E-03	.1421E-03	.1394E-03	.1368E-03
EZZ	-.4942E-04	-.4882E-04	-.4787E-04	-.4668E-04	-.4534E-04	-.4381E-04	-.4213E-04	-.4039E-04	-.3871E-04

## SHEAR STRAINS

EXY	.1140E-12	.1699E-12	-.1559E-12	.1042E-12	.1601E-12	-.1661E-12	-.1559E-12	.1039E-12	.3585E-13
EXZ	-.1719E-06	-.1969E-06	-.2211E-06	-.2438E-06	-.2647E-06	-.2831E-06	-.2985E-06	-.3112E-06	-.3213E-06
EYZ	.7212E-15	-.2790E-15	.0000E+00	-.2790E-15	-.1421E-14	.1267E-14	-.1802E-15	-.1322E-15	.1380E-14

## PRINCIPAL STRAINS

PE 1	.1545E-03	.1530E-03	.1511E-03	.1490E-03	.1470E-03	.1447E-03	.1421E-03	.1394E-03	.1368E-03
PE 2	.1179E-03	.1160E-03	.1126E-03	.1080E-03	.1027E-03	.9645E-04	.8963E-04	.8262E-04	.7583E-04
PE 3	-.4942E-04	-.4882E-04	-.4787E-04	-.4668E-04	-.4534E-04	-.4381E-04	-.4213E-04	-.4040E-04	-.3871E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2039E-03	.2018E-03	.1990E-03	.1957E-03	.1923E-03	.1885E-03	.1843E-03	.1798E-03	.1755E-03
PSE 2	.3660E-04	.3699E-04	.3851E-04	.4101E-04	.4431E-04	.4824E-04	.5249E-04	.5682E-04	.6100E-04
PSE 3	.1673E-03	.1648E-03	.1605E-03	.1547E-03	.1480E-03	.1403E-03	.1318E-03	.1230E-03	.1145E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.21 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-c Composite Pavement

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	-.7998E+02	-.7976E+02	-.7584E+02	-.6972E+02	-.6356E+02	-.5909E+02	-.5710E+02	-.5779E+02	-.6142E+02
SYX	-.9044E+02	-.8983E+02	-.8539E+02	-.7862E+02	-.7173E+02	-.6651E+02	-.6380E+02	-.6373E+02	-.6656E+02
SZZ	-.7289E+02	-.6899E+02	-.5819E+02	-.4312E+02	-.2773E+02	-.1546E+02	-.7957E+01	-.5509E+01	-.8646E+01

SHEAR STRESSES

SXY	-.1987E-07	.4189E-07	.1535E-08	-.3098E-07	.2265E-08	-.1571E-07	.5834E-08	.8286E-08	.1119E-07
SXZ	.1452E+02	.5780E+01	-.9404E+00	-.3940E+01	-.2499E+01	.2603E+01	.9939E+01	.1872E+02	.2911E+02
SYZ	-.3376E-07	-.5460E-06	-.7354E-06	-.1429E-06	-.2613E-06	-.3196E-07	-.1035E-09	.9257E-07	-.3753E-06

PRINCIPAL STRESSES

PS 1	-.6148E+02	-.6648E+02	-.5814E+02	-.4255E+02	-.2755E+02	-.1531E+02	-.6024E+01	.5041E+00	.4259E+01
PS 2	-.9044E+02	-.8228E+02	-.7589E+02	-.7029E+02	-.6374E+02	-.5924E+02	-.5904E+02	-.6373E+02	-.6656E+02

## Appendix 6E-c Composite Pavement

PS 3   -.9138E+02   -.8983E+02   -.8539E+02   -.7862E+02   -.7173E+02   -.6651E+02   -.6380E+02   -.6380E+02   -.7433E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1495E+02   .1168E+02   .1363E+02   .1804E+02   .2209E+02   .2560E+02   .2889E+02   .3215E+02   .3929E+02  
PSS 2   .1448E+02   .7900E+01   .8876E+01   .1387E+02   .1809E+02   .2197E+02   .2651E+02   .3212E+02   .3541E+02  
PSS 3   .4700E+00   .3779E+01   .4752E+01   .4164E+01   .3996E+01   .3635E+01   .2383E+01   .3267E-01   .3883E+01

## DISPLACEMENTS

UX       .1189E-02   .1132E-02   .1071E-02   .1006E-02   .9359E-03   .8598E-03   .7774E-03   .6893E-03   .5960E-03  
UY       .1167E-11   .5729E-11   -.1745E-11   .9892E-11   .2411E-11   -.1568E-11   -.6401E-11   -.1629E-11   .4660E-11  
UZ       .6947E-01   .6970E-01   .6979E-01   .6960E-01   .6923E-01   .6884E-01   .6861E-01   .6865E-01   .6906E-01

## NORMAL STRAINS

EXX     -.5703E-04   -.6043E-04   -.6396E-04   -.6778E-04   -.7188E-04   -.7599E-04   -.7997E-04   -.8388E-04   -.8775E-04  
EYY     -.9234E-04   -.9443E-04   -.9621E-04   -.9782E-04   -.9944E-04   -.1011E-03   -.1026E-03   -.1040E-03   -.1051E-03  
EZZ     -.3310E-04   -.2408E-04   -.4390E-05   .2199E-04   .4906E-04   .7125E-04   .8590E-04   .9256E-04   .9037E-04

## SHEAR STRAINS

EXY     -.1341E-12   .2827E-12   .1036E-13   -.2091E-12   .1529E-13   -.1060E-12   .3938E-13   .5593E-13   .7551E-13  
EXZ     .9802E-04   .3902E-04   -.6348E-05   -.2660E-04   -.1687E-04   .1757E-04   .6709E-04   .1264E-03   .1965E-03  
EYZ     -.2279E-12   -.3686E-11   -.4964E-11   -.9645E-12   -.1764E-11   -.2157E-12   -.6989E-15   .6249E-12   -.2533E-11

## PRINCIPAL STRAINS

PE 1     .5380E-05   -.1559E-04   -.4222E-05   .2392E-04   .4965E-04   .7177E-04   .9243E-04   .1129E-03   .1339E-03  
PE 2     -.9234E-04   -.6892E-04   -.6413E-04   -.6971E-04   -.7247E-04   -.7652E-04   -.8650E-04   -.1040E-03   -.1051E-03  
PE 3     -.9551E-04   -.9443E-04   -.9621E-04   -.9782E-04   -.9944E-04   -.1011E-03   -.1026E-03   -.1042E-03   -.1313E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .1009E-03   .7883E-04   .9199E-04   .1217E-03   .1491E-03   .1728E-03   .1950E-03   .2170E-03   .2652E-03  
PSE 2   .9772E-04   .5333E-04   .5991E-04   .9363E-04   .1221E-03   .1483E-03   .1789E-03   .2168E-03   .2390E-03  
PSE 3   .3172E-05   .2551E-04   .3208E-04   .2811E-04   .2697E-04   .2454E-04   .1609E-04   .2205E-06   .2621E-04

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.3575E+03	.3725E+03	.3844E+03	.3952E+03	.4073E+03	.4213E+03	.4372E+03	.4552E+03	.4750E+03
SYX	.5063E+03	.5193E+03	.5301E+03	.5402E+03	.5513E+03	.5633E+03	.5755E+03	.5873E+03	.5984E+03
SZZ	-.4212E+01	-.4273E+01	-.4293E+01	-.4283E+01	-.4273E+01	-.4273E+01	-.4287E+01	-.4314E+01	-.4356E+01

SHEAR STRESSES

SXY	-.2801E-06	-.1517E-06	.3217E-06	-.7413E-06	.5026E-06	-.4833E-06	.8453E-07	-.5768E-06	.2827E-06
SXZ	.3621E+00	.3482E+00	.3345E+00	.3213E+00	.3086E+00	.2961E+00	.2835E+00	.2699E+00	.2543E+00
SYZ	-.5959E-09	-.6678E-09	.1059E-08	.5355E-09	.1698E-08	.4747E-09	.3599E-09	-.1173E-08	.9352E-09

PRINCIPAL STRESSES

PS 1	.5063E+03	.5193E+03	.5301E+03	.5402E+03	.5513E+03	.5633E+03	.5755E+03	.5873E+03	.5984E+03
PS 2	.3575E+03	.3725E+03	.3844E+03	.3952E+03	.4073E+03	.4213E+03	.4372E+03	.4552E+03	.4750E+03
PS 3	-.4213E+01	-.4274E+01	-.4293E+01	-.4283E+01	-.4273E+01	-.4273E+01	-.4287E+01	-.4314E+01	-.4357E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.2553E+03	.2618E+03	.2672E+03	.2723E+03	.2778E+03	.2838E+03	.2899E+03	.2958E+03	.3014E+03
PSS 2	.7439E+02	.7342E+02	.7287E+02	.7252E+02	.7201E+02	.7099E+02	.6912E+02	.6609E+02	.6170E+02
PSS 3	.1809E+03	.1884E+03	.1943E+03	.1997E+03	.2058E+03	.2128E+03	.2208E+03	.2297E+03	.2397E+03



## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.1438E-02	-.1367E-02	-.1293E-02	-.1217E-02	-.1137E-02	-.1051E-02	-.9602E-03	-.8631E-03	-.7602E-03
UY	.7062E-12	.1015E-11	-.4668E-11	.2491E-11	.1135E-11	.4924E-13	.1013E-11	-.1205E-11	.1483E-12
UZ	.6938E-01	.6962E-01	.6971E-01	.6953E-01	.6917E-01	.6879E-01	.6857E-01	.6861E-01	.6901E-01

## NORMAL STRAINS

EXX	.7056E-04	.7381E-04	.7638E-04	.7870E-04	.8131E-04	.8436E-04	.8789E-04	.9193E-04	.9648E-04
EYY	.1133E-03	.1160E-03	.1183E-03	.1204E-03	.1227E-03	.1252E-03	.1276E-03	.1299E-03	.1320E-03
EZZ	-.3345E-04	-.3451E-04	-.3537E-04	-.3615E-04	-.3702E-04	-.3799E-04	-.3905E-04	-.4017E-04	-.4134E-04

## SHEAR STRAINS

EXY	-.1611E-12	-.8723E-13	.1850E-12	-.4262E-12	.2890E-12	-.2779E-12	.4861E-13	-.3317E-12	.1625E-12
EXZ	.2082E-06	.2002E-06	.1923E-06	.1848E-06	.1774E-06	.1703E-06	.1630E-06	.1552E-06	.1462E-06
EYZ	-.3427E-15	-.3840E-15	.6087E-15	.3079E-15	.9764E-15	.2730E-15	.2070E-15	-.6744E-15	.5377E-15

## PRINCIPAL STRAINS

PE 1	.1133E-03	.1160E-03	.1183E-03	.1204E-03	.1227E-03	.1252E-03	.1276E-03	.1299E-03	.1320E-03
PE 2	.7056E-04	.7381E-04	.7638E-04	.7870E-04	.8131E-04	.8436E-04	.8789E-04	.9193E-04	.9648E-04
PE 3	-.3345E-04	-.3451E-04	-.3537E-04	-.3615E-04	-.3702E-04	-.3799E-04	-.3905E-04	-.4017E-04	-.4134E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1468E-03	.1505E-03	.1536E-03	.1565E-03	.1597E-03	.1632E-03	.1667E-03	.1701E-03	.1733E-03
PSE 2	.4277E-04	.4222E-04	.4190E-04	.4170E-04	.4140E-04	.4082E-04	.3974E-04	.3800E-04	.3548E-04
PSE 3	.1040E-03	.1083E-03	.1117E-03	.1148E-03	.1183E-03	.1223E-03	.1269E-03	.1321E-03	.1378E-03

Appendix 6E-c Composite Pavement

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ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.21 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-c Composite Pavement

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	-.6893E+02	-.8173E+02	-.1007E+03	-.1246E+03	-.1501E+03	-.1743E+03	-.1953E+03	-.2108E+03	-.2161E+03
SYX	-.7326E+02	-.8537E+02	-.1038E+03	-.1275E+03	-.1527E+03	-.1769E+03	-.1980E+03	-.2137E+03	-.2193E+03
SZZ	-.1923E+02	-.4016E+02	-.7311E+02	-.1157E+03	-.1621E+03	-.2068E+03	-.2462E+03	-.2750E+03	-.2858E+03

SHEAR STRESSES

SXY	.4427E-07	-.3172E-08	-.2415E-07	-.1475E-07	-.1407E-07	-.1167E-07	-.1638E-08	-.2037E-08	-.1003E-07
SXZ	.4145E+02	.5484E+02	.6629E+02	.7206E+02	.7054E+02	.6235E+02	.4747E+02	.2491E+02	-.3541E+01
SYZ	.6796E-06	.2429E-07	-.3283E-06	-.3579E-06	-.2997E-06	-.9829E-06	-.2360E-06	-.1634E-06	-.7042E-06

PRINCIPAL STRESSES

PS 1	.4245E+01	-.2298E+01	-.1918E+02	-.4798E+02	-.8526E+02	-.1261E+03	-.1669E+03	-.2022E+03	-.2159E+03
PS 2	-.7326E+02	-.8537E+02	-.1038E+03	-.1275E+03	-.1527E+03	-.1769E+03	-.1980E+03	-.2137E+03	-.2193E+03

## Appendix 6E-c Composite Pavement

PS 3   -.9241E+02   -.1196E+03   -.1546E+03   -.1924E+03   -.2269E+03   -.2550E+03   -.2746E+03   -.2835E+03   -.2860E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .4833E+02   .5864E+02   .6771E+02   .7220E+02   .7079E+02   .6443E+02   .5386E+02   .4064E+02   .3503E+02  
PSS 2   .3875E+02   .4153E+02   .4233E+02   .3978E+02   .3373E+02   .2538E+02   .1555E+02   .5753E+01   .1681E+01  
PSS 3   .9574E+01   .1711E+02   .2538E+02   .3243E+02   .3707E+02   .3906E+02   .3831E+02   .3489E+02   .3335E+02

## DISPLACEMENTS

UX       .4987E-03   .3989E-03   .2984E-03   .1986E-03   .9646E-04   -.5219E-05   -.1048E-03   -.2011E-03   -.2979E-03  
UY       .3041E-11   -.2335E-11   -.2297E-11   -.3343E-11   .6266E-11   -.3848E-11   -.4910E-11   -.6624E-11   -.6389E-11  
UZ       .6989E-01   .7115E-01   .7273E-01   .7431E-01   .7558E-01   .7684E-01   .7807E-01   .7902E-01   .7923E-01

## NORMAL STRAINS

EXX    -.9141E-04   -.9449E-04   -.9682E-04   -.9877E-04   -.9969E-04   -.1001E-03   -.9963E-04   -.9926E-04   -.9829E-04  
EYY    -.1060E-03   -.1068E-03   -.1075E-03   -.1085E-03   -.1087E-03   -.1087E-03   -.1087E-03   -.1093E-03   -.1090E-03  
EZZ       .7635E-04   .4582E-04   -.3863E-05   -.6864E-04   -.1402E-03   -.2097E-03   -.2714E-03   -.3161E-03   -.3336E-03

## SHEAR STRAINS

EXY       .2988E-12   -.2141E-13   -.1630E-12   -.9959E-13   -.9500E-13   -.7877E-13   -.1106E-13   -.1375E-13   -.6773E-13  
EXZ       .2798E-03   .3701E-03   .4475E-03   .4864E-03   .4761E-03   .4209E-03   .3204E-03   .1681E-03   -.2390E-04  
EYZ       .4587E-11   .1639E-12   -.2216E-11   -.2416E-11   -.2023E-11   -.6634E-11   -.1593E-11   -.1103E-11   -.4754E-11

## PRINCIPAL STRAINS

PE 1    .1556E-03   .1736E-03   .1782E-03   .1600E-03   .1190E-03   .6258E-04   -.3734E-05   -.7048E-04   -.9769E-04  
PE 2    -.1060E-03   -.1068E-03   -.1075E-03   -.1085E-03   -.1087E-03   -.1087E-03   -.1087E-03   -.1093E-03   -.1090E-03  
PE 3    -.1706E-03   -.2223E-03   -.2789E-03   -.3274E-03   -.3589E-03   -.3724E-03   -.3673E-03   -.3448E-03   -.3342E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .3262E-03   .3958E-03   .4570E-03   .4874E-03   .4779E-03   .4349E-03   .3635E-03   .2743E-03   .2365E-03  
PSE 2   .2616E-03   .2804E-03   .2857E-03   .2685E-03   .2277E-03   .1713E-03   .1050E-03   .3883E-04   .1134E-04  
PSE 3   .6462E-04   .1155E-03   .1713E-03   .2189E-03   .2502E-03   .2637E-03   .2586E-03   .2355E-03   .2251E-03

## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.4969E+03	.5211E+03	.5481E+03	.5783E+03	.6043E+03	.6265E+03	.6434E+03	.6569E+03	.6581E+03
SYX	.6088E+03	.6190E+03	.6301E+03	.6437E+03	.6534E+03	.6611E+03	.6667E+03	.6732E+03	.6724E+03
SZZ	-.4421E+01	-.4519E+01	-.4662E+01	-.4853E+01	-.4979E+01	-.5101E+01	-.5219E+01	-.5366E+01	-.5386E+01

## SHEAR STRESSES

SXY	-.1929E-06	.4498E-06	.8337E-06	.4637E-06	.3352E-07	-.6347E-06	.6547E-06	-.5582E-07	.1174E-06
SXZ	.2358E+00	.2132E+00	.1857E+00	.1526E+00	.1133E+00	.6828E-01	.1832E-01	-.3499E-01	-.9011E-01
SYZ	-.8779E-09	.8071E-09	-.2245E-08	.4512E-09	-.9958E-10	-.1033E-09	-.1169E-08	.2277E-08	.9523E-10

## PRINCIPAL STRESSES

PS 1	.6088E+03	.6190E+03	.6301E+03	.6437E+03	.6534E+03	.6611E+03	.6667E+03	.6732E+03	.6724E+03
PS 2	.4969E+03	.5211E+03	.5481E+03	.5783E+03	.6043E+03	.6265E+03	.6434E+03	.6569E+03	.6581E+03
PS 3	-.4421E+01	-.4519E+01	-.4662E+01	-.4853E+01	-.4979E+01	-.5101E+01	-.5219E+01	-.5366E+01	-.5386E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.3066E+03	.3117E+03	.3174E+03	.3243E+03	.3292E+03	.3331E+03	.3359E+03	.3393E+03	.3389E+03
PSS 2	.5594E+02	.4893E+02	.4101E+02	.3267E+02	.2455E+02	.1732E+02	.1166E+02	.8144E+01	.7130E+01
PSS 3	.2507E+03	.2628E+03	.2764E+03	.2916E+03	.3046E+03	.3158E+03	.3243E+03	.3311E+03	.3318E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.6521E-03	-.5397E-03	-.4237E-03	-.3042E-03	-.1770E-03	-.4543E-04	.8837E-04	.2226E-03	.3598E-03
UY	-.9170E-11	.5462E-11	-.3603E-11	-.5290E-11	-.5673E-11	-.6225E-11	-.2951E-11	-.9518E-12	-.2574E-11
UZ	.6982E-01	.7107E-01	.7262E-01	.7417E-01	.7539E-01	.7662E-01	.7782E-01	.7875E-01	.7895E-01

## NORMAL STRAINS

EXX	.1016E-03	.1072E-03	.1136E-03	.1206E-03	.1268E-03	.1320E-03	.1360E-03	.1392E-03	.1395E-03
EYY	.1337E-03	.1354E-03	.1371E-03	.1394E-03	.1409E-03	.1420E-03	.1427E-03	.1439E-03	.1436E-03
EZZ	-.4257E-04	-.4388E-04	-.4535E-04	-.4704E-04	-.4841E-04	-.4956E-04	-.5043E-04	-.5122E-04	-.5124E-04

## SHEAR STRAINS

EXY	-.1109E-12	.2586E-12	.4794E-12	.2666E-12	.1927E-13	-.3650E-12	.3765E-12	-.3210E-13	.6752E-13
EXZ	.1356E-06	.1226E-06	.1068E-06	.8774E-07	.6517E-07	.3926E-07	.1053E-07	-.2012E-07	-.5181E-07
EYZ	-.5048E-15	.4641E-15	-.1291E-14	.2594E-15	-.5726E-16	-.5940E-16	-.6725E-15	.1310E-14	.5476E-16

## PRINCIPAL STRAINS

PE 1	.1337E-03	.1354E-03	.1371E-03	.1394E-03	.1409E-03	.1420E-03	.1427E-03	.1439E-03	.1436E-03
PE 2	.1016E-03	.1072E-03	.1136E-03	.1206E-03	.1268E-03	.1320E-03	.1360E-03	.1392E-03	.1395E-03
PE 3	-.4257E-04	-.4388E-04	-.4535E-04	-.4704E-04	-.4841E-04	-.4956E-04	-.5043E-04	-.5122E-04	-.5124E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1763E-03	.1793E-03	.1825E-03	.1865E-03	.1893E-03	.1915E-03	.1932E-03	.1951E-03	.1949E-03
PSE 2	.3216E-04	.2813E-04	.2358E-04	.1879E-04	.1412E-04	.9960E-05	.6706E-05	.4683E-05	.4100E-05
PSE 3	.1441E-03	.1511E-03	.1589E-03	.1677E-03	.1752E-03	.1816E-03	.1865E-03	.1904E-03	.1908E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.21 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-c Composite Pavement

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Z= 4.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	-.2099E+03	-.1936E+03
SYY	-.2130E+03	-.1966E+03
SZZ	-.2750E+03	-.2462E+03

## SHEAR STRESSES

SXY	-.1275E-07	-.1326E-07
SXZ	-.3201E+02	-.5463E+02
SYZ	-.4998E-06	.0000E+00

## PRINCIPAL STRESSES

PS 1	-.1968E+03	-.1593E+03
PS 2	-.2130E+03	-.1966E+03
PS 3	-.2881E+03	-.2805E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4565E+02	.6064E+02
PSS 2	.8123E+01	.1867E+02
PSS 3	.3753E+02	.4196E+02

## DISPLACEMENTS

UX	-.3939E-03	-.4880E-03
UY	-.9434E-11	.3638E-11
UZ	.7889E-01	.7780E-01



Appendix 6E-c Composite Pavement

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## NORMAL STRAINS

EXX -.9770E-04 -.9650E-04  
EYY -.1083E-03 -.1067E-03  
EZZ -.3174E-03 -.2741E-03

## SHEAR STRAINS

EXY -.8604E-13 -.8953E-13  
EXZ -.2161E-03 -.3688E-03  
EYZ -.3373E-11 .0000E+00

## PRINCIPAL STRAINS

PE 1 -.5348E-04 .1934E-04  
PE 2 -.1083E-03 -.1067E-03  
PE 3 -.3616E-03 -.3900E-03

## PRINCIPAL SHEAR STRAINS

PSE 1 .3082E-03 .4093E-03  
PSE 2 .5483E-04 .1260E-03  
PSE 3 .2533E-03 .2833E-03

Z= 12.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .6492E+03 .6279E+03  
SYY .6668E+03 .6538E+03  
SZZ -.5334E+01 -.5155E+01

Appendix 6E-c Composite Pavement

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## SHEAR STRESSES

SXY .6782E-08 -.6547E-06  
SXZ -.1452E+00 -.1982E+00  
SYZ -.2142E-08 .0000E+00

## PRINCIPAL STRESSES

PS 1 .6668E+03 .6538E+03  
PS 2 .6492E+03 .6279E+03  
PS 3 -.5334E+01 -.5155E+01

## PRINCIPAL SHEAR STRESSES

PSS 1 .3361E+03 .3295E+03  
PSS 2 .8787E+01 .1300E+02  
PSS 3 .3273E+03 .3165E+03

## DISPLACEMENTS

UX .4963E-03 .6280E-03  
UY -.3067E-11 .0000E+00  
UZ .7862E-01 .7755E-01

## NORMAL STRAINS

EXX .1375E-03 .1326E-03  
EYY .1425E-03 .1401E-03  
EZZ -.5068E-04 -.4935E-04

## SHEAR STRAINS

EXY .3899E-14 -.3765E-12  
EXZ -.8346E-07 -.1139E-06  
EYZ -.1232E-14 .0000E+00

## PRINCIPAL STRAINS

Appendix 6E-c Composite Pavement

PE 1 .1425E-03 .1401E-03  
 PE 2 .1375E-03 .1326E-03  
 PE 3 -.5068E-04 -.4935E-04

PRINCIPAL SHEAR STRAINS  
 PSE 1 .1932E-03 .1895E-03  
 PSE 2 .5052E-05 .7472E-05  
 PSE 3 .1882E-03 .1820E-03

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Appendix 6E-c Composite Pavement

Z= 4.00 12.00  
X-Y POINT(S)  
X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

NORMAL STRESSES

SXX -.1722E+03 -.1829E+03 -.1871E+03 -.1842E+03 -.1748E+03 -.1607E+03 -.1444E+03 -.1273E+03 -.1102E+03  
SYY -.1827E+03 -.1933E+03 -.1974E+03 -.1946E+03 -.1854E+03 -.1716E+03 -.1556E+03 -.1392E+03 -.1228E+03  
SZZ -.2088E+03 -.2271E+03 -.2336E+03 -.2272E+03 -.2088E+03 -.1820E+03 -.1512E+03 -.1197E+03 -.8869E+02

SHEAR STRESSES

SXY -.9035E-08 -.4155E-08 .1005E-07 .1920E-07 .2042E-07 -.1512E-08 .1031E-07 -.2372E-07 -.1275E-07

## Appendix 6E-c Composite Pavement

SXZ	.4042E+02	.2439E+02	.6014E+01	-.1236E+02	-.2836E+02	-.3995E+02	-.4669E+02	-.4971E+02	-.4985E+02
SYZ	-.2845E-06	-.1624E-05	.8766E-06	.9533E-06	.2542E-08	-.9485E-06	-.1037E-05	.2959E-06	-.2857E-06

## PRINCIPAL STRESSES

PS 1	-.1462E+03	-.1721E+03	-.1863E+03	-.1809E+03	-.1588E+03	-.1300E+03	-.1009E+03	-.7363E+02	-.4844E+02
PS 2	-.1827E+03	-.1933E+03	-.1974E+03	-.1946E+03	-.1854E+03	-.1716E+03	-.1556E+03	-.1392E+03	-.1228E+03
PS 3	-.2349E+03	-.2380E+03	-.2344E+03	-.2305E+03	-.2249E+03	-.2127E+03	-.1946E+03	-.1733E+03	-.1504E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4437E+02	.3293E+02	.2404E+02	.2479E+02	.3307E+02	.4134E+02	.4682E+02	.4985E+02	.5100E+02
PSS 2	.1828E+02	.1059E+02	.5554E+01	.6863E+01	.1332E+02	.2079E+02	.2735E+02	.3277E+02	.3717E+02
PSS 3	.2609E+02	.2234E+02	.1849E+02	.1793E+02	.1974E+02	.2055E+02	.1947E+02	.1708E+02	.1383E+02

## DISPLACEMENTS

UX	.1636E-02	.1547E-02	.1457E-02	.1366E-02	.1275E-02	.1181E-02	.1086E-02	.9903E-03	.8952E-03
UY	-.3137E-11	-.2895E-11	.1231E-11	.5343E-11	.1789E-11	.2178E-11	.1761E-11	.9492E-12	.2200E-12
UZ	.1068E+00	.1073E+00	.1077E+00	.1081E+00	.1084E+00	.1081E+00	.1075E+00	.1071E+00	.1069E+00

## NORMAL STRAINS

EXX	-.8799E-04	-.8939E-04	-.9052E-04	-.9142E-04	-.9206E-04	-.9245E-04	-.9243E-04	-.9170E-04	-.9040E-04
EYY	-.1234E-03	-.1244E-03	-.1254E-03	-.1266E-03	-.1278E-03	-.1291E-03	-.1305E-03	-.1318E-03	-.1329E-03
EZZ	-.2114E-03	-.2387E-03	-.2476E-03	-.2365E-03	-.2069E-03	-.1641E-03	-.1154E-03	-.6607E-04	-.1790E-04

## SHEAR STRAINS

EXY	-.6098E-13	-.2805E-13	.6785E-13	.1296E-12	.1379E-12	-.1021E-13	.6962E-13	-.1601E-12	-.8607E-13
EXZ	.2729E-03	.1647E-03	.4059E-04	-.8346E-04	-.1914E-03	-.2697E-03	-.3152E-03	-.3355E-03	-.3365E-03
EYZ	-.1920E-11	-.1096E-10	.5917E-11	.6435E-11	.1716E-13	-.6402E-11	-.7001E-11	.1997E-11	-.1928E-11

## PRINCIPAL STRAINS

PE 1	.2236E-07	-.5291E-04	-.8794E-04	-.8027E-04	-.3788E-04	.1123E-04	.5408E-04	.8937E-04	.1180E-03
PE 2	-.1234E-03	-.1244E-03	-.1254E-03	-.1266E-03	-.1278E-03	-.1291E-03	-.1305E-03	-.1318E-03	-.1329E-03
PE 3	-.2995E-03	-.2752E-03	-.2502E-03	-.2476E-03	-.2611E-03	-.2678E-03	-.2619E-03	-.2471E-03	-.2263E-03

Appendix 6E-c Composite Pavement

PRINCIPAL SHEAR STRAINS

PSE 1	.2995E-03	.2223E-03	.1623E-03	.1673E-03	.2232E-03	.2791E-03	.3160E-03	.3365E-03	.3442E-03
PSE 2	.1234E-03	.7147E-04	.3749E-04	.4633E-04	.8993E-04	.1403E-03	.1846E-03	.2212E-03	.2509E-03
PSE 3	.1761E-03	.1508E-03	.1248E-03	.1210E-03	.1333E-03	.1387E-03	.1314E-03	.1153E-03	.9332E-04

Z= 12.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.5798E+03	.5954E+03	.6043E+03	.6062E+03	.6016E+03	.5920E+03	.5789E+03	.5624E+03	.5432E+03
SYX	.7211E+03	.7313E+03	.7389E+03	.7437E+03	.7458E+03	.7465E+03	.7467E+03	.7457E+03	.7430E+03
SZZ	-.5917E+01	-.5982E+01	-.6036E+01	-.6077E+01	-.6107E+01	-.6088E+01	-.6061E+01	-.6053E+01	-.6056E+01

SHEAR STRESSES

SXY	.2638E-06	-.4907E-06	-.3475E-06	.4676E-06	-.4742E-06	.5256E-06	-.2437E-06	-.4178E-06	-.2866E-06
SXZ	.4038E+00	.3599E+00	.3145E+00	.2692E+00	.2252E+00	.1835E+00	.1452E+00	.1114E+00	.8259E-01
SYZ	.1684E-08	.2684E-08	-.1094E-08	-.2028E-08	-.2110E-09	.1626E-08	.2289E-08	-.1012E-08	.1151E-08

PRINCIPAL STRESSES

PS 1	.7211E+03	.7313E+03	.7389E+03	.7437E+03	.7458E+03	.7465E+03	.7467E+03	.7457E+03	.7430E+03
PS 2	.5798E+03	.5954E+03	.6043E+03	.6062E+03	.6016E+03	.5920E+03	.5789E+03	.5624E+03	.5432E+03

## Appendix 6E-c Composite Pavement

PS 3   - .5918E+01   - .5983E+01   - .6036E+01   - .6077E+01   - .6107E+01   - .6088E+01   - .6061E+01   - .6053E+01   - .6056E+01

## PRINCIPAL SHEAR STRESSES

PSS 1   .3635E+03   .3687E+03   .3725E+03   .3749E+03   .3760E+03   .3763E+03   .3764E+03   .3759E+03   .3745E+03  
PSS 2   .7064E+02   .6797E+02   .6728E+02   .6873E+02   .7213E+02   .7725E+02   .8393E+02   .9163E+02   .9991E+02  
PSS 3   .2929E+03   .3007E+03   .3052E+03   .3062E+03   .3038E+03   .2990E+03   .2925E+03   .2842E+03   .2746E+03

## DISPLACEMENTS

UX   - .1956E-02   - .1836E-02   - .1713E-02   - .1589E-02   - .1465E-02   - .1343E-02   - .1221E-02   - .1102E-02   - .9863E-03  
UY   .2052E-11   - .2734E-11   .4878E-11   - .1981E-11   .2043E-11   - .3840E-12   .1469E-12   - .3835E-11   - .6345E-11  
UZ   .1066E+00   .1071E+00   .1075E+00   .1079E+00   .1082E+00   .1079E+00   .1073E+00   .1069E+00   .1068E+00

## NORMAL STRAINS

EXX   .1181E-03   .1216E-03   .1236E-03   .1239E-03   .1227E-03   .1202E-03   .1169E-03   .1129E-03   .1082E-03  
EYY   .1588E-03   .1607E-03   .1623E-03   .1634E-03   .1641E-03   .1647E-03   .1652E-03   .1656E-03   .1656E-03  
EZZ   - .5027E-04   - .5125E-04   - .5188E-04   - .5214E-04   - .5205E-04   - .5172E-04   - .5123E-04   - .5057E-04   - .4975E-04

## SHEAR STRAINS

EXY   .1517E-12   - .2822E-12   - .1998E-12   .2689E-12   - .2727E-12   .3022E-12   - .1401E-12   - .2402E-12   - .1648E-12  
EXZ   .2322E-06   .2069E-06   .1809E-06   .1548E-06   .1295E-06   .1055E-06   .8348E-07   .6403E-07   .4749E-07  
EYZ   .9683E-15   .1543E-14   - .6290E-15   - .1166E-14   - .1213E-15   .9349E-15   .1316E-14   - .5820E-15   .6621E-15

## PRINCIPAL STRAINS

PE 1   .1588E-03   .1607E-03   .1623E-03   .1634E-03   .1641E-03   .1647E-03   .1652E-03   .1656E-03   .1656E-03  
PE 2   .1181E-03   .1216E-03   .1236E-03   .1239E-03   .1227E-03   .1202E-03   .1169E-03   .1129E-03   .1082E-03  
PE 3   - .5027E-04   - .5125E-04   - .5188E-04   - .5214E-04   - .5205E-04   - .5172E-04   - .5123E-04   - .5057E-04   - .4975E-04

## PRINCIPAL SHEAR STRAINS

PSE 1   .2090E-03   .2120E-03   .2142E-03   .2156E-03   .2162E-03   .2164E-03   .2164E-03   .2161E-03   .2154E-03  
PSE 2   .4062E-04   .3908E-04   .3869E-04   .3952E-04   .4148E-04   .4442E-04   .4826E-04   .5269E-04   .5745E-04  
PSE 3   .1684E-03   .1729E-03   .1755E-03   .1760E-03   .1747E-03   .1719E-03   .1682E-03   .1634E-03   .1579E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00



Appendix 6E-c Composite Pavement

31.00      4.00  
32.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	-.9400E+02	-.8036E+02	-.7033E+02	-.6382E+02	-.5992E+02	-.5760E+02	-.5619E+02	-.5529E+02	-.5472E+02
SYX	-.1073E+03	-.9444E+02	-.8521E+02	-.7957E+02	-.7651E+02	-.7496E+02	-.7416E+02	-.7374E+02	-.7350E+02
SZZ	-.5963E+02	-.3543E+02	-.1842E+02	-.8430E+01	-.3449E+01	-.1334E+01	-.6117E+00	-.4811E+00	-.5282E+00

SHEAR STRESSES

SXY	.3862E-08	.1178E-07	-.1618E-07	-.5870E-07	.1471E-07	.2465E-08	-.7647E-08	.6287E-07	.1648E-07
SXZ	-.4669E+02	-.4016E+02	-.3178E+02	-.2370E+02	-.1719E+02	-.1235E+02	-.8798E+01	-.6079E+01	-.3856E+01
SYZ	-.1456E-06	.5106E-06	.1396E-06	-.1069E-06	-.6247E-07	.6634E-07	-.5474E-07	-.7711E-08	-.8089E-08

PRINCIPAL STRESSES

PS 1	-.2706E+02	-.1188E+02	-.3347E+01	.3282E+00	.1371E+01	.1255E+01	.7477E+00	.1849E+00	-.2553E+00
PS 2	-.1073E+03	-.9444E+02	-.8521E+02	-.7258E+02	-.6473E+02	-.6019E+02	-.5755E+02	-.5596E+02	-.5499E+02
PS 3	-.1266E+03	-.1039E+03	-.8540E+02	-.7957E+02	-.7651E+02	-.7496E+02	-.7416E+02	-.7374E+02	-.7350E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.4976E+02	.4601E+02	.4103E+02	.3995E+02	.3894E+02	.3811E+02	.3746E+02	.3696E+02	.3662E+02
PSS 2	.4014E+02	.4128E+02	.4093E+02	.3646E+02	.3305E+02	.3072E+02	.2915E+02	.2807E+02	.2737E+02
PSS 3	.9621E+01	.4738E+01	.9607E-01	.3495E+01	.5889E+01	.7381E+01	.8307E+01	.8892E+01	.9256E+01

## DISPLACEMENTS

UX	.8012E-03	.7076E-03	.6157E-03	.5270E-03	.4421E-03	.3613E-03	.2842E-03	.2103E-03	.1389E-03
UY	-.3304E-12	-.7861E-12	-.4426E-11	.7019E-12	.1139E-11	.2144E-11	.4038E-11	.6807E-11	.3456E-12
UZ	.1063E+00	.1055E+00	.1050E+00	.1048E+00	.1049E+00	.1050E+00	.1052E+00	.1054E+00	.1055E+00

## NORMAL STRAINS

EXX	-.8891E-04	-.8728E-04	-.8515E-04	-.8256E-04	-.7982E-04	-.7725E-04	-.7505E-04	-.7328E-04	-.7201E-04
EYY	-.1339E-03	-.1348E-03	-.1354E-03	-.1357E-03	-.1358E-03	-.1358E-03	-.1357E-03	-.1356E-03	-.1354E-03
EZZ	.2709E-04	.6437E-04	.9005E-04	.1044E-03	.1108E-03	.1127E-03	.1125E-03	.1117E-03	.1109E-03

## SHEAR STRAINS

EXY	.2607E-13	.7952E-13	-.1092E-12	-.3962E-12	.9929E-13	.1664E-13	-.5162E-13	.4244E-12	.1112E-12
EXZ	-.3152E-03	-.2711E-03	-.2145E-03	-.1600E-03	-.1160E-03	-.8333E-04	-.5938E-04	-.4103E-04	-.2603E-04
EYZ	-.9829E-12	.3447E-11	.9420E-12	-.7218E-12	-.4217E-12	.4478E-12	-.3695E-12	-.5205E-13	-.5460E-13

## PRINCIPAL STRAINS

PE 1	.1370E-03	.1438E-03	.1409E-03	.1340E-03	.1270E-03	.1214E-03	.1171E-03	.1140E-03	.1118E-03
PE 2	-.1339E-03	-.1348E-03	-.1354E-03	-.1121E-03	-.9609E-04	-.8599E-04	-.7963E-04	-.7553E-04	-.7293E-04
PE 3	-.1988E-03	-.1667E-03	-.1360E-03	-.1357E-03	-.1358E-03	-.1358E-03	-.1357E-03	-.1356E-03	-.1354E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.3359E-03	.3106E-03	.2769E-03	.2697E-03	.2629E-03	.2572E-03	.2528E-03	.2495E-03	.2472E-03
PSE 2	.2709E-03	.2786E-03	.2763E-03	.2461E-03	.2231E-03	.2074E-03	.1967E-03	.1895E-03	.1847E-03
PSE 3	.6494E-04	.3198E-04	.6485E-06	.2359E-04	.3975E-04	.4982E-04	.5607E-04	.6002E-04	.6248E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.5233E+03	.5044E+03	.4864E+03	.4697E+03	.4545E+03	.4411E+03	.4298E+03	.4210E+03	.4147E+03
SYY	.7398E+03	.7373E+03	.7345E+03	.7313E+03	.7277E+03	.7239E+03	.7203E+03	.7172E+03	.7148E+03
SZZ	-.6024E+01	-.5994E+01	-.5987E+01	-.5995E+01	-.6007E+01	-.6021E+01	-.6032E+01	-.6040E+01	-.6046E+01

SHEAR STRESSES

SXY	.3291E-06	-.1013E-06	.1443E-06	-.3620E-06	-.1775E-07	-.9516E-06	-.4008E-06	.4946E-06	.6038E-06
SXZ	.5861E-01	.3936E-01	.2457E-01	.1390E-01	.6590E-02	.1996E-02	-.5698E-03	-.1517E-02	-.1541E-02
SYZ	.5163E-09	-.2021E-08	.7908E-09	.6291E-09	.1320E-08	-.1078E-09	.6838E-09	.1007E-08	-.2004E-09

PRINCIPAL STRESSES

PS 1	.7398E+03	.7373E+03	.7345E+03	.7313E+03	.7277E+03	.7239E+03	.7203E+03	.7172E+03	.7148E+03
PS 2	.5233E+03	.5044E+03	.4864E+03	.4697E+03	.4545E+03	.4411E+03	.4298E+03	.4210E+03	.4147E+03
PS 3	-.6024E+01	-.5994E+01	-.5987E+01	-.5995E+01	-.6007E+01	-.6021E+01	-.6032E+01	-.6040E+01	-.6046E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3729E+03	.3716E+03	.3702E+03	.3686E+03	.3668E+03	.3650E+03	.3632E+03	.3616E+03	.3604E+03
PSS 2	.1083E+03	.1164E+03	.1241E+03	.1308E+03	.1366E+03	.1414E+03	.1452E+03	.1481E+03	.1500E+03
PSS 3	.2647E+03	.2552E+03	.2462E+03	.2378E+03	.2302E+03	.2236E+03	.2179E+03	.2135E+03	.2104E+03

DISPLACEMENTS

## Appendix 6E-c Composite Pavement

UX	-.8754E-03	-.7680E-03	-.6650E-03	-.5671E-03	-.4744E-03	-.3868E-03	-.3038E-03	-.2245E-03	-.1481E-03
UY	-.1574E-11	-.2527E-11	.2175E-11	.7036E-11	-.8272E-11	-.7613E-12	-.5642E-11	.6283E-11	.1188E-11
UZ	.1062E+00	.1054E+00	.1050E+00	.1048E+00	.1048E+00	.1050E+00	.1051E+00	.1053E+00	.1055E+00

## NORMAL STRAINS

EXX	.1033E-03	.9868E-04	.9428E-04	.9023E-04	.8655E-04	.8335E-04	.8067E-04	.7859E-04	.7711E-04
EYY	.1656E-03	.1656E-03	.1656E-03	.1654E-03	.1651E-03	.1647E-03	.1642E-03	.1637E-03	.1634E-03
EZZ	-.4887E-04	-.4806E-04	-.4728E-04	-.4654E-04	-.4583E-04	-.4519E-04	-.4464E-04	-.4419E-04	-.4387E-04

## SHEAR STRAINS

EXY	.1892E-12	-.5823E-13	.8299E-13	-.2081E-12	-.1020E-13	-.5472E-12	-.2305E-12	.2844E-12	.3472E-12
EXZ	.3370E-07	.2263E-07	.1413E-07	.7990E-08	.3790E-08	.1148E-08	-.3277E-09	-.8720E-09	-.8859E-09
EYZ	.2969E-15	-.1162E-14	.4547E-15	.3617E-15	.7589E-15	-.6200E-16	.3932E-15	.5791E-15	-.1153E-15

## PRINCIPAL STRAINS

PE 1	.1656E-03	.1656E-03	.1656E-03	.1654E-03	.1651E-03	.1647E-03	.1642E-03	.1637E-03	.1634E-03
PE 2	.1033E-03	.9868E-04	.9428E-04	.9023E-04	.8655E-04	.8335E-04	.8067E-04	.7859E-04	.7711E-04
PE 3	-.4887E-04	-.4806E-04	-.4728E-04	-.4654E-04	-.4583E-04	-.4519E-04	-.4464E-04	-.4419E-04	-.4387E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2144E-03	.2137E-03	.2129E-03	.2120E-03	.2109E-03	.2099E-03	.2088E-03	.2079E-03	.2072E-03
PSE 2	.6225E-04	.6695E-04	.7133E-04	.7521E-04	.7855E-04	.8131E-04	.8351E-04	.8514E-04	.8626E-04
PSE 3	.1522E-03	.1467E-03	.1416E-03	.1368E-03	.1324E-03	.1285E-03	.1253E-03	.1228E-03	.1210E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-c Composite Pavement

39.00      4.00  
40.00      4.00  
41.00      4.00

Z=    4.00 LAYER NO,    1

X            Y  
33.00      4.00  
34.00      4.00  
35.00      4.00  
36.00      4.00  
37.00      4.00  
38.00      4.00  
39.00      4.00  
40.00      4.00  
41.00      4.00

NORMAL STRESSES

SXX    -.5438E+02   -.5427E+02   -.5438E+02   -.5472E+02   -.5529E+02   -.5619E+02   -.5760E+02   -.5992E+02   -.6382E+02  
SYY    -.7336E+02   -.7332E+02   -.7336E+02   -.7350E+02   -.7374E+02   -.7416E+02   -.7496E+02   -.7651E+02   -.7957E+02  
SZZ    -.5805E+00   -.6030E+00   -.5805E+00   -.5282E+00   -.4811E+00   -.6117E+00   -.1334E+01   -.3449E+01   -.8430E+01

SHEAR STRESSES

SXY    .4887E-08   .3557E-08   -.1334E-07   -.2247E-08   .4437E-07   .5420E-08   -.2869E-08   -.1460E-07   .1906E-07  
SXZ    -.1874E+01   -.1824E-07   .1874E+01   .3856E+01   .6079E+01   .8798E+01   .1235E+02   .1719E+02   .2370E+02  
SYZ    -.4768E-07   .6463E-07   .6171E-08   .9456E-09   -.3000E-07   -.5764E-07   .9924E-07   -.9925E-07   -.1422E-06

PRINCIPAL STRESSES

PS 1   -.5153E+00   -.6030E+00   -.5153E+00   -.2553E+00   .1849E+00   .7477E+00   .1255E+01   .1371E+01   .3282E+00  
PS 2   -.5444E+02   -.5427E+02   -.5444E+02   -.5499E+02   -.5596E+02   -.5755E+02   -.6019E+02   -.6473E+02   -.7258E+02  
PS 3   -.7336E+02   -.7332E+02   -.7336E+02   -.7350E+02   -.7374E+02   -.7416E+02   -.7496E+02   -.7651E+02   -.7957E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.3642E+02	.3636E+02	.3642E+02	.3662E+02	.3696E+02	.3746E+02	.3811E+02	.3894E+02	.3995E+02
PSS 2	.2696E+02	.2683E+02	.2696E+02	.2737E+02	.2807E+02	.2915E+02	.3072E+02	.3305E+02	.3646E+02
PSS 3	.9458E+01	.9523E+01	.9458E+01	.9256E+01	.8892E+01	.8307E+01	.7381E+01	.5889E+01	.3495E+01

## DISPLACEMENTS

UX	.6902E-04	.4630E-11	-.6902E-04	-.1389E-03	-.2103E-03	-.2842E-03	-.3613E-03	-.4421E-03	-.5270E-03
UY	.1867E-11	.3330E-11	.1210E-11	.2192E-11	-.3744E-11	-.2878E-11	.2472E-11	.5855E-13	-.9497E-12
UZ	.1056E+00	.1057E+00	.1056E+00	.1055E+00	.1054E+00	.1052E+00	.1050E+00	.1049E+00	.1048E+00

## NORMAL STRAINS

EXX	-.7125E-04	-.7100E-04	-.7125E-04	-.7201E-04	-.7328E-04	-.7505E-04	-.7725E-04	-.7982E-04	-.8256E-04
EYY	-.1353E-03	-.1353E-03	-.1353E-03	-.1354E-03	-.1356E-03	-.1357E-03	-.1358E-03	-.1358E-03	-.1357E-03
EZZ	.1103E-03	.1101E-03	.1103E-03	.1109E-03	.1117E-03	.1125E-03	.1127E-03	.1108E-03	.1044E-03

## SHEAR STRAINS

EXY	.3299E-13	.2401E-13	-.9006E-13	-.1517E-13	.2995E-12	.3658E-13	-.1936E-13	-.9854E-13	.1286E-12
EXZ	-.1265E-04	-.1231E-12	.1265E-04	.2603E-04	.4103E-04	.5938E-04	.8333E-04	.1160E-03	.1600E-03
EYZ	-.3218E-12	.4362E-12	.4165E-13	.6383E-14	-.2025E-12	-.3891E-12	.6699E-12	-.6699E-12	-.9598E-12

## PRINCIPAL STRAINS

PE 1	.1105E-03	.1101E-03	.1105E-03	.1118E-03	.1140E-03	.1171E-03	.1214E-03	.1270E-03	.1340E-03
PE 2	-.7147E-04	-.7100E-04	-.7147E-04	-.7293E-04	-.7553E-04	-.7963E-04	-.8599E-04	-.9609E-04	-.1121E-03
PE 3	-.1353E-03	-.1353E-03	-.1353E-03	-.1354E-03	-.1356E-03	-.1357E-03	-.1358E-03	-.1358E-03	-.1357E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2459E-03	.2454E-03	.2459E-03	.2472E-03	.2495E-03	.2528E-03	.2572E-03	.2629E-03	.2697E-03
PSE 2	.1820E-03	.1811E-03	.1820E-03	.1847E-03	.1895E-03	.1967E-03	.2074E-03	.2231E-03	.2461E-03
PSE 3	.6384E-04	.6428E-04	.6384E-04	.6248E-04	.6002E-04	.5607E-04	.4982E-04	.3975E-04	.2359E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.4109E+03	.4096E+03	.4109E+03	.4147E+03	.4210E+03	.4298E+03	.4411E+03	.4545E+03	.4697E+03
SYX	.7132E+03	.7127E+03	.7132E+03	.7148E+03	.7172E+03	.7203E+03	.7239E+03	.7277E+03	.7313E+03
SZZ	-.6049E+01	-.6050E+01	-.6049E+01	-.6046E+01	-.6040E+01	-.6032E+01	-.6021E+01	-.6007E+01	-.5995E+01

SHEAR STRESSES

SXY	.2190E-06	-.2782E-06	.2737E-06	-.4410E-06	-.1011E-06	.1325E-06	-.5583E-06	-.3257E-06	.1426E-06
SXZ	-.9347E-03	-.8905E-09	.9347E-03	.1541E-02	.1517E-02	.5698E-03	-.1996E-02	-.6590E-02	-.1390E-01
SYZ	-.4052E-09	.8889E-09	.7606E-09	-.1308E-09	-.1557E-08	-.1162E-08	-.1309E-08	.1742E-08	-.1876E-08

PRINCIPAL STRESSES

PS 1	.7132E+03	.7127E+03	.7132E+03	.7148E+03	.7172E+03	.7203E+03	.7239E+03	.7277E+03	.7313E+03
PS 2	.4109E+03	.4096E+03	.4109E+03	.4147E+03	.4210E+03	.4298E+03	.4411E+03	.4545E+03	.4697E+03
PS 3	-.6049E+01	-.6050E+01	-.6049E+01	-.6046E+01	-.6040E+01	-.6032E+01	-.6021E+01	-.6007E+01	-.5995E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3596E+03	.3594E+03	.3596E+03	.3604E+03	.3616E+03	.3632E+03	.3650E+03	.3668E+03	.3686E+03
PSS 2	.1512E+03	.1516E+03	.1512E+03	.1500E+03	.1481E+03	.1452E+03	.1414E+03	.1366E+03	.1308E+03
PSS 3	.2085E+03	.2078E+03	.2085E+03	.2104E+03	.2135E+03	.2179E+03	.2236E+03	.2302E+03	.2378E+03



## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.7355E-04	-.5547E-12	.7355E-04	.1481E-03	.2245E-03	.3038E-03	.3868E-03	.4744E-03	.5671E-03
UY	.5430E-11	-.1107E-11	-.3922E-11	-.4347E-12	-.7931E-11	.4200E-11	-.1909E-11	.5116E-11	-.5240E-11
UZ	.1056E+00	.1056E+00	.1056E+00	.1055E+00	.1053E+00	.1051E+00	.1050E+00	.1048E+00	.1048E+00

## NORMAL STRAINS

EXX	.7620E-04	.7590E-04	.7620E-04	.7711E-04	.7859E-04	.8067E-04	.8335E-04	.8655E-04	.9023E-04
EYY	.1631E-03	.1630E-03	.1631E-03	.1634E-03	.1637E-03	.1642E-03	.1647E-03	.1651E-03	.1654E-03
EZZ	-.4367E-04	-.4360E-04	-.4367E-04	-.4387E-04	-.4419E-04	-.4464E-04	-.4519E-04	-.4583E-04	-.4654E-04

## SHEAR STRAINS

EXY	.1259E-12	-.1600E-12	.1574E-12	-.2536E-12	-.5815E-13	.7617E-13	-.3210E-12	-.1873E-12	.8200E-13
EXZ	-.5374E-09	-.5120E-15	.5374E-09	.8859E-09	.8720E-09	.3277E-09	-.1148E-08	-.3790E-08	-.7990E-08
EYZ	-.2330E-15	.5111E-15	.4374E-15	-.7522E-16	-.8955E-15	-.6682E-15	-.7525E-15	.1002E-14	-.1079E-14

## PRINCIPAL STRAINS

PE 1	.1631E-03	.1630E-03	.1631E-03	.1634E-03	.1637E-03	.1642E-03	.1647E-03	.1651E-03	.1654E-03
PE 2	.7620E-04	.7590E-04	.7620E-04	.7711E-04	.7859E-04	.8067E-04	.8335E-04	.8655E-04	.9023E-04
PE 3	-.4367E-04	-.4360E-04	-.4367E-04	-.4387E-04	-.4419E-04	-.4464E-04	-.4519E-04	-.4583E-04	-.4654E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2068E-03	.2066E-03	.2068E-03	.2072E-03	.2079E-03	.2088E-03	.2099E-03	.2109E-03	.2120E-03
PSE 2	.8693E-04	.8715E-04	.8693E-04	.8626E-04	.8514E-04	.8351E-04	.8131E-04	.7855E-04	.7521E-04
PSE 3	.1199E-03	.1195E-03	.1199E-03	.1210E-03	.1228E-03	.1253E-03	.1285E-03	.1324E-03	.1368E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-c Composite Pavement

48.00      4.00  
49.00      4.00  
50.00      4.00

Z=    4.00 LAYER NO,    1

X            Y  
42.00      4.00  
43.00      4.00  
44.00      4.00  
45.00      4.00  
46.00      4.00  
47.00      4.00  
48.00      4.00  
49.00      4.00  
50.00      4.00

NORMAL STRESSES

SXX    -.7033E+02   -.8036E+02   -.9400E+02   -.1102E+03   -.1273E+03   -.1444E+03   -.1607E+03   -.1748E+03   -.1842E+03  
SYY    -.8521E+02   -.9444E+02   -.1073E+03   -.1228E+03   -.1392E+03   -.1556E+03   -.1716E+03   -.1854E+03   -.1946E+03  
SZZ    -.1842E+02   -.3543E+02   -.5963E+02   -.8869E+02   -.1197E+03   -.1512E+03   -.1820E+03   -.2088E+03   -.2272E+03

SHEAR STRESSES

SXY    -.4198E-07   .5538E-08   -.6656E-08   .1670E-08   -.1679E-07   -.9902E-08   .3324E-08   .8032E-08   .2444E-07  
SXZ    .3178E+02   .4016E+02   .4669E+02   .4985E+02   .4971E+02   .4669E+02   .3995E+02   .2836E+02   .1236E+02  
SYZ    .1735E-06   -.4165E-06   -.7942E-07   -.9099E-07   .1535E-06   .5172E-06   .8078E-06   -.2853E-06   -.1626E-05

PRINCIPAL STRESSES

PS 1   -.3347E+01   -.1188E+02   -.2706E+02   -.4844E+02   -.7363E+02   -.1009E+03   -.1300E+03   -.1588E+03   -.1809E+03  
PS 2   -.8521E+02   -.9444E+02   -.1073E+03   -.1228E+03   -.1392E+03   -.1556E+03   -.1716E+03   -.1854E+03   -.1946E+03  
PS 3   -.8540E+02   -.1039E+03   -.1266E+03   -.1504E+03   -.1733E+03   -.1946E+03   -.2127E+03   -.2249E+03   -.2305E+03

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.4103E+02	.4601E+02	.4976E+02	.5100E+02	.4985E+02	.4682E+02	.4134E+02	.3307E+02	.2479E+02
PSS 2	.4093E+02	.4128E+02	.4014E+02	.3717E+02	.3277E+02	.2735E+02	.2079E+02	.1332E+02	.6863E+01
PSS 3	.9607E-01	.4738E+01	.9621E+01	.1383E+02	.1708E+02	.1947E+02	.2055E+02	.1974E+02	.1793E+02

## DISPLACEMENTS

UX	-.6157E-03	-.7076E-03	-.8012E-03	-.8952E-03	-.9903E-03	-.1086E-02	-.1181E-02	-.1275E-02	-.1366E-02
UY	.6815E-13	-.2665E-11	.2074E-11	.5804E-12	-.2517E-11	-.6975E-12	.8775E-12	-.1065E-11	-.1629E-12
UZ	.1050E+00	.1055E+00	.1063E+00	.1069E+00	.1071E+00	.1075E+00	.1081E+00	.1084E+00	.1081E+00

## NORMAL STRAINS

EXX	-.8515E-04	-.8728E-04	-.8891E-04	-.9040E-04	-.9170E-04	-.9243E-04	-.9245E-04	-.9206E-04	-.9142E-04
EYY	-.1354E-03	-.1348E-03	-.1339E-03	-.1329E-03	-.1318E-03	-.1305E-03	-.1291E-03	-.1278E-03	-.1266E-03
EZZ	.9005E-04	.6437E-04	.2709E-04	-.1790E-04	-.6607E-04	-.1154E-03	-.1641E-03	-.2069E-03	-.2365E-03

## SHEAR STRAINS

EXY	-.2834E-12	.3738E-13	-.4493E-13	.1127E-13	-.1133E-12	-.6684E-13	.2243E-13	.5421E-13	.1650E-12
EXZ	.2145E-03	.2711E-03	.3152E-03	.3365E-03	.3355E-03	.3152E-03	.2697E-03	.1914E-03	.8346E-04
EYZ	.1171E-11	-.2811E-11	-.5361E-12	-.6142E-12	.1036E-11	.3491E-11	.5453E-11	-.1926E-11	-.1097E-10

## PRINCIPAL STRAINS

PE 1	.1409E-03	.1438E-03	.1370E-03	.1180E-03	.8937E-04	.5408E-04	.1123E-04	-.3788E-04	-.8027E-04
PE 2	-.1354E-03	-.1348E-03	-.1339E-03	-.1329E-03	-.1318E-03	-.1305E-03	-.1291E-03	-.1278E-03	-.1266E-03
PE 3	-.1360E-03	-.1667E-03	-.1988E-03	-.2263E-03	-.2471E-03	-.2619E-03	-.2678E-03	-.2611E-03	-.2476E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2769E-03	.3106E-03	.3359E-03	.3442E-03	.3365E-03	.3160E-03	.2790E-03	.2232E-03	.1673E-03
PSE 2	.2763E-03	.2786E-03	.2709E-03	.2509E-03	.2212E-03	.1846E-03	.1403E-03	.8993E-04	.4633E-04
PSE 3	.6485E-06	.3198E-04	.6494E-04	.9332E-04	.1153E-03	.1314E-03	.1387E-03	.1333E-03	.1210E-03

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.4864E+03	.5044E+03	.5233E+03	.5432E+03	.5624E+03	.5789E+03	.5920E+03	.6016E+03	.6062E+03
SYX	.7345E+03	.7373E+03	.7398E+03	.7430E+03	.7457E+03	.7467E+03	.7465E+03	.7458E+03	.7437E+03
SZZ	-.5987E+01	-.5994E+01	-.6024E+01	-.6056E+01	-.6053E+01	-.6061E+01	-.6088E+01	-.6107E+01	-.6077E+01

SHEAR STRESSES

SXY	.1946E-07	-.2413E-06	-.1116E-07	.2874E-06	.7103E-08	.7276E-07	-.3123E-06	.2788E-06	-.2350E-06
SXZ	-.2457E-01	-.3936E-01	-.5861E-01	-.8259E-01	-.1114E+00	-.1452E+00	-.1835E+00	-.2252E+00	-.2692E+00
SYZ	.1732E-08	.3146E-08	.8870E-09	.1052E-08	.9109E-09	.1615E-08	.3941E-09	.1259E-08	.2979E-08

PRINCIPAL STRESSES

PS 1	.7345E+03	.7373E+03	.7398E+03	.7430E+03	.7457E+03	.7467E+03	.7465E+03	.7458E+03	.7437E+03
PS 2	.4864E+03	.5044E+03	.5233E+03	.5432E+03	.5624E+03	.5789E+03	.5920E+03	.6016E+03	.6062E+03
PS 3	-.5987E+01	-.5994E+01	-.6024E+01	-.6056E+01	-.6053E+01	-.6061E+01	-.6088E+01	-.6107E+01	-.6077E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3702E+03	.3716E+03	.3729E+03	.3745E+03	.3759E+03	.3764E+03	.3763E+03	.3760E+03	.3749E+03
PSS 2	.1241E+03	.1164E+03	.1083E+03	.9991E+02	.9163E+02	.8393E+02	.7725E+02	.7213E+02	.6873E+02
PSS 3	.2462E+03	.2552E+03	.2647E+03	.2746E+03	.2842E+03	.2925E+03	.2990E+03	.3038E+03	.3062E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.6650E-03	.7680E-03	.8754E-03	.9863E-03	.1102E-02	.1221E-02	.1343E-02	.1465E-02	.1589E-02
UY	.1700E-11	-.1943E-11	.2590E-11	.5327E-11	.7420E-11	.4451E-11	.1026E-11	.2817E-11	-.3258E-11
UZ	.1050E+00	.1054E+00	.1062E+00	.1068E+00	.1069E+00	.1073E+00	.1079E+00	.1082E+00	.1079E+00

## NORMAL STRAINS

EXX	.9428E-04	.9868E-04	.1033E-03	.1082E-03	.1129E-03	.1169E-03	.1202E-03	.1227E-03	.1239E-03
EYY	.1656E-03	.1656E-03	.1656E-03	.1656E-03	.1656E-03	.1652E-03	.1647E-03	.1641E-03	.1634E-03
EZZ	-.4728E-04	-.4806E-04	-.4887E-04	-.4975E-04	-.5057E-04	-.5123E-04	-.5172E-04	-.5205E-04	-.5214E-04

## SHEAR STRAINS

EXY	.1119E-13	-.1388E-12	-.6415E-14	.1652E-12	.4084E-14	.4184E-13	-.1796E-12	.1603E-12	-.1352E-12
EXZ	-.1413E-07	-.2263E-07	-.3370E-07	-.4749E-07	-.6403E-07	-.8348E-07	-.1055E-06	-.1295E-06	-.1548E-06
EYZ	.9958E-15	.1809E-14	.5100E-15	.6047E-15	.5238E-15	.9283E-15	.2266E-15	.7241E-15	.1713E-14

## PRINCIPAL STRAINS

PE 1	.1656E-03	.1656E-03	.1656E-03	.1656E-03	.1656E-03	.1652E-03	.1647E-03	.1641E-03	.1634E-03
PE 2	.9428E-04	.9868E-04	.1033E-03	.1082E-03	.1129E-03	.1169E-03	.1202E-03	.1227E-03	.1239E-03
PE 3	-.4728E-04	-.4806E-04	-.4887E-04	-.4975E-04	-.5057E-04	-.5123E-04	-.5172E-04	-.5205E-04	-.5214E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2129E-03	.2137E-03	.2144E-03	.2154E-03	.2161E-03	.2164E-03	.2164E-03	.2162E-03	.2156E-03
PSE 2	.7133E-04	.6695E-04	.6225E-04	.5745E-04	.5269E-04	.4826E-04	.4442E-04	.4148E-04	.3952E-04
PSE 3	.1416E-03	.1467E-03	.1522E-03	.1579E-03	.1634E-03	.1682E-03	.1719E-03	.1747E-03	.1760E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 90K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 5.95 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-c Composite Pavement

57.00      4.00  
58.00      4.00  
59.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	-.1871E+03	-.1829E+03	-.1722E+03	-.1568E+03	-.1392E+03	-.1208E+03	-.1023E+03	-.8478E+02	-.6974E+02
SYX	-.1974E+03	-.1933E+03	-.1827E+03	-.1676E+03	-.1502E+03	-.1324E+03	-.1147E+03	-.9781E+02	-.8350E+02
SZZ	-.2336E+03	-.2271E+03	-.2088E+03	-.1819E+03	-.1511E+03	-.1196E+03	-.8864E+02	-.5956E+02	-.3534E+02

SHEAR STRESSES

SXY	-.1281E-07	.5509E-08	.6869E-08	-.2041E-07	.2771E-07	-.9539E-08	-.8032E-08	.1158E-07	-.4999E-08
SXZ	-.6014E+01	-.2439E+02	-.4042E+02	-.5210E+02	-.5895E+02	-.6209E+02	-.6241E+02	-.5946E+02	-.5315E+02
SYZ	.8741E-06	.9551E-06	.0000E+00	-.9522E-06	-.1033E-05	.2817E-06	-.2853E-06	-.1459E-06	.5172E-06

PRINCIPAL STRESSES

PS 1	-.1863E+03	-.1721E+03	-.1462E+03	-.1158E+03	-.8589E+02	-.5810E+02	-.3270E+02	-.1138E+02	.3321E+01
PS 2	-.1974E+03	-.1933E+03	-.1827E+03	-.1676E+03	-.1502E+03	-.1324E+03	-.1147E+03	-.9781E+02	-.8350E+02
PS 3	-.2344E+03	-.2380E+03	-.2349E+03	-.2230E+03	-.2044E+03	-.1823E+03	-.1583E+03	-.1329E+03	-.1084E+03



## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.2404E+02	.3293E+02	.4437E+02	.5359E+02	.5925E+02	.6209E+02	.6278E+02	.6078E+02	.5586E+02
PSS 2	.5554E+01	.1059E+02	.1828E+02	.2588E+02	.3218E+02	.3716E+02	.4098E+02	.4321E+02	.4341E+02
PSS 3	.1849E+02	.2234E+02	.2609E+02	.2772E+02	.2707E+02	.2494E+02	.2180E+02	.1757E+02	.1245E+02

## DISPLACEMENTS

UX	-.1457E-02	-.1547E-02	-.1636E-02	-.1724E-02	-.1812E-02	-.1899E-02	-.1982E-02	-.2063E-02	-.2141E-02
UY	.1915E-11	.2849E-11	.0000E+00	.2849E-11	.1915E-11	-.1629E-12	-.1065E-11	.8775E-12	-.6975E-12
UZ	.1077E+00	.1073E+00	.1068E+00	.1057E+00	.1043E+00	.1030E+00	.1020E+00	.1006E+00	.9901E-01

## NORMAL STRAINS

EXX	-.9052E-04	-.8939E-04	-.8799E-04	-.8632E-04	-.8423E-04	-.8138E-04	-.7793E-04	-.7425E-04	-.7035E-04
EYY	-.1254E-03	-.1244E-03	-.1234E-03	-.1224E-03	-.1216E-03	-.1207E-03	-.1195E-03	-.1182E-03	-.1168E-03
EZZ	-.2476E-03	-.2387E-03	-.2114E-03	-.1710E-03	-.1245E-03	-.7753E-04	-.3173E-04	.1087E-04	.4573E-04

## SHEAR STRAINS

EXY	-.8648E-13	.3718E-13	.4637E-13	-.1378E-12	.1871E-12	-.6439E-13	-.5421E-13	.7815E-13	-.3374E-13
EXZ	-.4059E-04	-.1647E-03	-.2729E-03	-.3517E-03	-.3979E-03	-.4191E-03	-.4212E-03	-.4013E-03	-.3587E-03
EYZ	.5900E-11	.6447E-11	.0000E+00	-.6428E-11	-.6974E-11	.1901E-11	-.1926E-11	-.9848E-12	.3491E-11

## PRINCIPAL STRAINS

PE 1	-.8794E-04	-.5291E-04	.2236E-07	.5222E-04	.9559E-04	.1301E-03	.1570E-03	.1735E-03	.1762E-03
PE 2	-.1254E-03	-.1244E-03	-.1234E-03	-.1224E-03	-.1216E-03	-.1207E-03	-.1195E-03	-.1182E-03	-.1168E-03
PE 3	-.2502E-03	-.2752E-03	-.2995E-03	-.3095E-03	-.3044E-03	-.2890E-03	-.2667E-03	-.2368E-03	-.2008E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1623E-03	.2223E-03	.2995E-03	.3618E-03	.3999E-03	.4191E-03	.4238E-03	.4103E-03	.3771E-03
PSE 2	.3749E-04	.7147E-04	.1234E-03	.1747E-03	.2172E-03	.2508E-03	.2766E-03	.2917E-03	.2930E-03
PSE 3	.1248E-03	.1508E-03	.1761E-03	.1871E-03	.1827E-03	.1683E-03	.1472E-03	.1186E-03	.8403E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.6043E+03	.5954E+03	.5798E+03	.5590E+03	.5350E+03	.5073E+03	.4767E+03	.4450E+03	.4143E+03
SYY	.7389E+03	.7313E+03	.7211E+03	.7093E+03	.6971E+03	.6835E+03	.6681E+03	.6521E+03	.6366E+03
SZZ	-.6036E+01	-.5982E+01	-.5917E+01	-.5804E+01	-.5682E+01	-.5579E+01	-.5486E+01	-.5359E+01	-.5233E+01

SHEAR STRESSES

SXY	-.2759E-06	-.1299E-06	-.2788E-06	.3683E-06	-.2009E-06	-.2418E-06	.6749E-06	.3123E-06	-.7276E-07
SXZ	-.3145E+00	-.3599E+00	-.4038E+00	-.4452E+00	-.4831E+00	-.5164E+00	-.5448E+00	-.5681E+00	-.5866E+00
SYZ	-.1448E-08	-.2313E-08	.0000E+00	.1412E-08	.2278E-08	-.7467E-09	.1259E-08	.3941E-09	-.2111E-08

PRINCIPAL STRESSES

PS 1	.7389E+03	.7313E+03	.7211E+03	.7093E+03	.6971E+03	.6835E+03	.6681E+03	.6521E+03	.6366E+03
PS 2	.6043E+03	.5954E+03	.5798E+03	.5590E+03	.5350E+03	.5073E+03	.4767E+03	.4450E+03	.4143E+03
PS 3	-.6036E+01	-.5983E+01	-.5918E+01	-.5804E+01	-.5683E+01	-.5580E+01	-.5487E+01	-.5360E+01	-.5234E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3725E+03	.3687E+03	.3635E+03	.3576E+03	.3514E+03	.3445E+03	.3368E+03	.3288E+03	.3209E+03
PSS 2	.6728E+02	.6797E+02	.7064E+02	.7515E+02	.8107E+02	.8809E+02	.9573E+02	.1036E+03	.1112E+03
PSS 3	.3052E+03	.3007E+03	.2929E+03	.2824E+03	.2703E+03	.2564E+03	.2411E+03	.2252E+03	.2097E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.1713E-02	.1836E-02	.1956E-02	.2073E-02	.2187E-02	.2296E-02	.2398E-02	.2494E-02	.2584E-02
UY	.2825E-11	-.4168E-12	.0000E+00	-.4168E-12	.2825E-11	-.3258E-11	-.4459E-11	.1026E-11	-.2825E-11
UZ	.1075E+00	.1071E+00	.1066E+00	.1055E+00	.1041E+00	.1029E+00	.1019E+00	.1005E+00	.9894E-01

## NORMAL STRAINS

EXX	.1236E-03	.1216E-03	.1181E-03	.1134E-03	.1078E-03	.1014E-03	.9432E-04	.8700E-04	.7989E-04
EYY	.1623E-03	.1607E-03	.1588E-03	.1566E-03	.1544E-03	.1521E-03	.1494E-03	.1465E-03	.1438E-03
EZZ	-.5188E-04	-.5125E-04	-.5027E-04	-.4902E-04	-.4762E-04	-.4605E-04	-.4430E-04	-.4248E-04	-.4072E-04

## SHEAR STRAINS

EXY	-.1587E-12	-.7469E-13	-.1603E-12	.2118E-12	-.1155E-12	-.1390E-12	.3881E-12	.1796E-12	-.4184E-13
EXZ	-.1809E-06	-.2069E-06	-.2322E-06	-.2560E-06	-.2778E-06	-.2970E-06	-.3133E-06	-.3267E-06	-.3373E-06
EYZ	-.8324E-15	-.1330E-14	.0000E+00	.8121E-15	.1310E-14	-.4294E-15	.7241E-15	.2266E-15	-.1214E-14

## PRINCIPAL STRAINS

PE 1	.1623E-03	.1607E-03	.1588E-03	.1566E-03	.1544E-03	.1521E-03	.1494E-03	.1465E-03	.1438E-03
PE 2	.1236E-03	.1216E-03	.1181E-03	.1134E-03	.1078E-03	.1014E-03	.9432E-04	.8700E-04	.7989E-04
PE 3	-.5188E-04	-.5125E-04	-.5027E-04	-.4902E-04	-.4762E-04	-.4605E-04	-.4430E-04	-.4248E-04	-.4072E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2142E-03	.2120E-03	.2090E-03	.2056E-03	.2020E-03	.1981E-03	.1937E-03	.1890E-03	.1845E-03
PSE 2	.3869E-04	.3908E-04	.4062E-04	.4321E-04	.4662E-04	.5065E-04	.5505E-04	.5955E-04	.6393E-04
PSE 3	.1755E-03	.1729E-03	.1684E-03	.1624E-03	.1554E-03	.1474E-03	.1386E-03	.1295E-03	.1206E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5250.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.31 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-c Composite Pavement

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	-.8393E+02	-.8379E+02	-.7994E+02	-.7366E+02	-.6721E+02	-.6244E+02	-.6027E+02	-.6097E+02	-.6488E+02
SYX	-.9482E+02	-.9427E+02	-.8990E+02	-.8296E+02	-.7576E+02	-.7020E+02	-.6727E+02	-.6717E+02	-.7024E+02
SZZ	-.7662E+02	-.7270E+02	-.6172E+02	-.4620E+02	-.3007E+02	-.1701E+02	-.8937E+01	-.6320E+01	-.9810E+01

SHEAR STRESSES

SXY	-.2553E-07	-.9391E-08	.1722E-07	-.2260E-07	.4485E-07	.4942E-07	.2183E-07	-.2223E-07	.1340E-07
SXZ	.1525E+02	.6390E+01	-.5366E+00	-.3787E+01	-.2491E+01	.2719E+01	.1042E+02	.1977E+02	.3084E+02
SYZ	.5822E-08	.4824E-06	-.8139E-06	-.3510E-06	-.1187E-06	.9168E-07	-.5433E-07	.1170E-06	-.2467E-06

PRINCIPAL STRESSES

PS 1	-.6460E+02	-.6978E+02	-.6170E+02	-.4569E+02	-.2990E+02	-.1685E+02	-.6901E+01	.8112E-01	.3995E+01
PS 2	-.9482E+02	-.8670E+02	-.7995E+02	-.7417E+02	-.6738E+02	-.6260E+02	-.6231E+02	-.6717E+02	-.7024E+02

## Appendix 6E-c Composite Pavement

PS 3    -.9596E+02   -.9427E+02   -.8990E+02   -.8296E+02   -.7576E+02   -.7020E+02   -.6727E+02   -.6737E+02   -.7869E+02

## PRINCIPAL SHEAR STRESSES

PSS 1    .1568E+02    .1225E+02    .1410E+02    .1864E+02    .2293E+02    .2668E+02    .3018E+02    .3372E+02    .4134E+02  
PSS 2    .1511E+02    .8460E+01    .9124E+01    .1424E+02    .1874E+02    .2288E+02    .2770E+02    .3362E+02    .3712E+02  
PSS 3    .5689E+00    .3786E+01    .4974E+01    .4394E+01    .4188E+01    .3801E+01    .2480E+01    .9963E-01    .4225E+01

## DISPLACEMENTS

UX        .1248E-02    .1188E-02    .1123E-02    .1056E-02    .9821E-03    .9022E-03    .8157E-03    .7231E-03    .6251E-03  
UY        -.8766E-12   -.5351E-11   .2424E-11   -.2541E-12   -.6149E-12   .4317E-11   -.2367E-12   .4101E-11   .2466E-11  
UZ        .7290E-01    .7315E-01    .7327E-01    .7307E-01    .7268E-01    .7228E-01    .7204E-01    .7208E-01    .7250E-01

## NORMAL STRAINS

EXX     -.5982E-04   -.6337E-04   -.6717E-04   -.7113E-04   -.7544E-04   -.7978E-04   -.8400E-04   -.8812E-04   -.9216E-04  
EYY     -.9657E-04   -.9876E-04   -.1008E-03   -.1025E-03   -.1043E-03   -.1060E-03   -.1076E-03   -.1090E-03   -.1102E-03  
EZZ     -.3515E-04   -.2594E-04   -.5692E-05   .2154E-04   .4993E-04   .7353E-04   .8925E-04   .9632E-04   .9370E-04

## SHEAR STRAINS

EXY     -.1723E-12   -.6339E-13   .1163E-12   -.1526E-12   .3028E-12   .3336E-12   .1474E-12   -.1500E-12   .9046E-13  
EXZ     .1029E-03   .4313E-04   -.3622E-05   -.2556E-04   -.1681E-04   .1836E-04   .7036E-04   .1334E-03   .2081E-03  
EYZ     .3930E-13   .3256E-11   -.5494E-11   -.2369E-11   -.8015E-12   .6188E-12   -.3667E-12   .7899E-12   -.1665E-11

## PRINCIPAL STRAINS

PE 1     .5443E-05   -.1610E-04   -.5639E-05   .2327E-04   .5049E-04   .7408E-04   .9612E-04   .1179E-03   .1403E-03  
PE 2     -.9657E-04   -.7321E-04   -.6723E-04   -.7286E-04   -.7600E-04   -.8033E-04   -.9087E-04   -.1090E-03   -.1102E-03  
PE 3     -.1004E-03   -.9876E-04   -.1008E-03   -.1025E-03   -.1043E-03   -.1060E-03   -.1076E-03   -.1097E-03   -.1388E-03

## PRINCIPAL SHEAR STRAINS

PSE 1    .1059E-03    .8266E-04    .9516E-04    .1258E-03    .1548E-03    .1801E-03    .2037E-03    .2276E-03    .2790E-03  
PSE 2    .1020E-03    .5710E-04    .6159E-04    .9614E-04    .1265E-03    .1544E-03    .1870E-03    .2270E-03    .2505E-03  
PSE 3    .3840E-05    .2555E-04    .3357E-04    .2966E-04    .2827E-04    .2566E-04    .1674E-04    .6725E-06    .2852E-04

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.3743E+03	.3901E+03	.4035E+03	.4149E+03	.4277E+03	.4425E+03	.4594E+03	.4782E+03	.4991E+03
SYZ	.5305E+03	.5441E+03	.5562E+03	.5668E+03	.5785E+03	.5910E+03	.6038E+03	.6162E+03	.6279E+03
SZZ	-.4407E+01	-.4471E+01	-.4507E+01	-.4496E+01	-.4485E+01	-.4486E+01	-.4500E+01	-.4529E+01	-.4573E+01

SHEAR STRESSES

SXY	.5294E-06	-.1121E-05	-.3575E-06	-.2304E-06	.5711E-06	-.6340E-06	-.9393E-06	.1037E-06	-.1305E-06
SXZ	.3800E+00	.3655E+00	.3512E+00	.3373E+00	.3240E+00	.3108E+00	.2974E+00	.2830E+00	.2665E+00
SYZ	.1313E-08	-.9999E-09	-.9289E-09	.2171E-09	.5940E-09	-.3076E-09	.4598E-09	.2032E-08	.1143E-09

PRINCIPAL STRESSES

PS 1	.5305E+03	.5441E+03	.5562E+03	.5668E+03	.5785E+03	.5910E+03	.6038E+03	.6162E+03	.6279E+03
PS 2	.3743E+03	.3901E+03	.4035E+03	.4149E+03	.4277E+03	.4425E+03	.4594E+03	.4782E+03	.4991E+03
PS 3	-.4407E+01	-.4471E+01	-.4507E+01	-.4496E+01	-.4486E+01	-.4486E+01	-.4501E+01	-.4529E+01	-.4573E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.2674E+03	.2743E+03	.2804E+03	.2857E+03	.2915E+03	.2978E+03	.3042E+03	.3104E+03	.3162E+03
PSS 2	.7806E+02	.7701E+02	.7639E+02	.7597E+02	.7537E+02	.7424E+02	.7223E+02	.6900E+02	.6439E+02
PSS 3	.1894E+03	.1973E+03	.2040E+03	.2097E+03	.2161E+03	.2235E+03	.2319E+03	.2414E+03	.2518E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.1509E-02	-.1435E-02	-.1357E-02	-.1277E-02	-.1193E-02	-.1103E-02	-.1008E-02	-.9054E-03	-.7973E-03
UY	.2061E-11	.8356E-12	-.1659E-11	-.2325E-11	.7636E-12	-.9689E-12	.3943E-11	-.1684E-11	.5970E-11
UZ	.7281E-01	.7306E-01	.7319E-01	.7300E-01	.7262E-01	.7223E-01	.7199E-01	.7203E-01	.7245E-01

## NORMAL STRAINS

EXX	.7386E-04	.7728E-04	.8017E-04	.8264E-04	.8541E-04	.8864E-04	.9237E-04	.9662E-04	.1014E-03
EYY	.1187E-03	.1216E-03	.1241E-03	.1263E-03	.1287E-03	.1313E-03	.1339E-03	.1363E-03	.1384E-03
EZZ	-.3503E-04	-.3615E-04	-.3712E-04	-.3794E-04	-.3885E-04	-.3988E-04	-.4100E-04	-.4218E-04	-.4340E-04

## SHEAR STRAINS

EXY	.3044E-12	-.6444E-12	-.2056E-12	-.1325E-12	.3284E-12	-.3646E-12	-.5401E-12	.5965E-13	-.7504E-13
EXZ	.2185E-06	.2102E-06	.2019E-06	.1940E-06	.1863E-06	.1787E-06	.1710E-06	.1627E-06	.1532E-06
EYZ	.7553E-15	-.5749E-15	-.5341E-15	.1248E-15	.3415E-15	-.1768E-15	.2644E-15	.1168E-14	.6571E-16

## PRINCIPAL STRAINS

PE 1	.1187E-03	.1216E-03	.1241E-03	.1263E-03	.1287E-03	.1313E-03	.1339E-03	.1363E-03	.1384E-03
PE 2	.7386E-04	.7728E-04	.8017E-04	.8264E-04	.8541E-04	.8864E-04	.9237E-04	.9662E-04	.1014E-03
PE 3	-.3503E-04	-.3615E-04	-.3712E-04	-.3794E-04	-.3885E-04	-.3988E-04	-.4100E-04	-.4218E-04	-.4340E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1538E-03	.1577E-03	.1612E-03	.1643E-03	.1676E-03	.1712E-03	.1749E-03	.1785E-03	.1818E-03
PSE 2	.4489E-04	.4428E-04	.4393E-04	.4368E-04	.4334E-04	.4269E-04	.4153E-04	.3968E-04	.3702E-04
PSE 3	.1089E-03	.1134E-03	.1173E-03	.1206E-03	.1243E-03	.1285E-03	.1334E-03	.1388E-03	.1448E-03



Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5250.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.31 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-c Composite Pavement

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	-.7298E+02	-.8669E+02	-.1067E+03	-.1317E+03	-.1580E+03	-.1831E+03	-.2050E+03	-.2211E+03	-.2267E+03
SYX	-.7750E+02	-.9050E+02	-.1100E+03	-.1347E+03	-.1607E+03	-.1856E+03	-.2077E+03	-.2241E+03	-.2299E+03
SZZ	-.2138E+02	-.4395E+02	-.7893E+02	-.1234E+03	-.1714E+03	-.2177E+03	-.2589E+03	-.2890E+03	-.3003E+03

SHEAR STRESSES

SXY	-.1658E-07	-.4923E-07	.5413E-08	.8487E-09	.1015E-07	.1160E-07	.5597E-08	-.2396E-08	.1057E-07
SXZ	.4386E+02	.5775E+02	.6930E+02	.7482E+02	.7302E+02	.6462E+02	.4930E+02	.2588E+02	-.3718E+01
SYZ	.3559E-07	.1186E-06	-.4263E-06	-.2741E-06	-.1379E-06	-.1887E-05	.1821E-05	-.3466E-06	-.7580E-06

PRINCIPAL STRESSES

PS 1	.3703E+01	-.3747E+01	-.2215E+02	-.5265E+02	-.9138E+02	-.1335E+03	-.1757E+03	-.2123E+03	-.2265E+03
PS 2	-.7750E+02	-.9050E+02	-.1100E+03	-.1347E+03	-.1607E+03	-.1856E+03	-.2077E+03	-.2241E+03	-.2299E+03

## Appendix 6E-c Composite Pavement

PS 3   -.9807E+02   -.1269E+03   -.1635E+03   -.2025E+03   -.2380E+03   -.2673E+03   -.2881E+03   -.2977E+03   -.3005E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .5089E+02   .6157E+02   .7068E+02   .7493E+02   .7332E+02   .6691E+02   .5618E+02   .4270E+02   .3699E+02  
PSS 2   .4060E+02   .4337E+02   .4395E+02   .4104E+02   .3468E+02   .2608E+02   .1597E+02   .5864E+01   .1690E+01  
PSS 3   .1029E+02   .1820E+02   .2673E+02   .3390E+02   .3864E+02   .4083E+02   .4021E+02   .3683E+02   .3530E+02

## DISPLACEMENTS

UX       .5229E-03   .4182E-03   .3129E-03   .2080E-03   .1009E-03   -.5823E-05   -.1100E-03   -.2111E-03   -.3127E-03  
UY       .4383E-11   -.6900E-12   -.8252E-11   .5039E-11   -.6903E-11   .2898E-12   .6478E-12   .6842E-12   -.5245E-11  
UZ       .7338E-01   .7470E-01   .7636E-01   .7800E-01   .7932E-01   .8060E-01   .8190E-01   .8287E-01   .8311E-01

## NORMAL STRAINS

EXX    -.9594E-04   -.9909E-04   -.1015E-03   -.1034E-03   -.1044E-03   -.1047E-03   -.1042E-03   -.1038E-03   -.1028E-03  
EYY    -.1112E-03   -.1119E-03   -.1127E-03   -.1135E-03   -.1136E-03   -.1134E-03   -.1134E-03   -.1139E-03   -.1136E-03  
EZZ       .7822E-04   .4516E-04   -.7653E-05   -.7545E-04   -.1496E-03   -.2217E-03   -.2860E-03   -.3330E-03   -.3513E-03

## SHEAR STRAINS

EXY    -.1119E-12   -.3323E-12   .3654E-13   .5729E-14   .6848E-13   .7828E-13   .3778E-13   -.1617E-13   .7138E-13  
EXZ       .2960E-03   .3898E-03   .4678E-03   .5050E-03   .4929E-03   .4362E-03   .3328E-03   .1747E-03   -.2509E-04  
EYZ       .2402E-12   .8008E-12   -.2877E-11   -.1851E-11   -.9308E-12   -.1273E-10   .1229E-10   -.2339E-11   -.5116E-11

## PRINCIPAL STRAINS

PE 1    .1629E-03   .1809E-03   .1840E-03   .1635E-03   .1205E-03   .6261E-04   -.5537E-05   -.7427E-04   -.1022E-03  
PE 2    -.1112E-03   -.1119E-03   -.1127E-03   -.1135E-03   -.1136E-03   -.1134E-03   -.1134E-03   -.1139E-03   -.1136E-03  
PE 3    -.1806E-03   -.2348E-03   -.2931E-03   -.3423E-03   -.3745E-03   -.3890E-03   -.3848E-03   -.3625E-03   -.3519E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .3435E-03   .4156E-03   .4771E-03   .5058E-03   .4949E-03   .4516E-03   .3792E-03   .2882E-03   .2497E-03  
PSE 2   .2740E-03   .2928E-03   .2966E-03   .2770E-03   .2341E-03   .1760E-03   .1078E-03   .3958E-04   .1141E-04  
PSE 3   .6943E-04   .1229E-03   .1804E-03   .2288E-03   .2608E-03   .2756E-03   .2714E-03   .2486E-03   .2383E-03

## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.5220E+03	.5472E+03	.5753E+03	.6063E+03	.6330E+03	.6551E+03	.6726E+03	.6862E+03	.6879E+03
SYZ	.6387E+03	.6493E+03	.6609E+03	.6745E+03	.6843E+03	.6915E+03	.6973E+03	.7035E+03	.7032E+03
SZZ	-.4641E+01	-.4743E+01	-.4893E+01	-.5084E+01	-.5211E+01	-.5323E+01	-.5447E+01	-.5592E+01	-.5623E+01

## SHEAR STRESSES

SXY	.4195E-07	-.3349E-06	-.3990E-06	-.2705E-06	.6115E-06	-.2329E-06	-.7692E-06	.2222E-06	-.7088E-07
SXZ	.2469E+00	.2230E+00	.1940E+00	.1592E+00	.1180E+00	.7086E-01	.1865E-01	-.3702E-01	-.9457E-01
SYZ	-.8215E-09	.2568E-09	.2675E-08	.3760E-08	-.1169E-08	.1068E-09	.1743E-08	.2668E-08	-.1064E-08

## PRINCIPAL STRESSES

PS 1	.6387E+03	.6493E+03	.6609E+03	.6745E+03	.6843E+03	.6915E+03	.6973E+03	.7035E+03	.7032E+03
PS 2	.5220E+03	.5472E+03	.5753E+03	.6063E+03	.6330E+03	.6551E+03	.6726E+03	.6862E+03	.6879E+03
PS 3	-.4641E+01	-.4743E+01	-.4893E+01	-.5084E+01	-.5211E+01	-.5323E+01	-.5447E+01	-.5592E+01	-.5623E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.3217E+03	.3270E+03	.3329E+03	.3398E+03	.3448E+03	.3484E+03	.3514E+03	.3546E+03	.3544E+03
PSS 2	.5835E+02	.5103E+02	.4278E+02	.3411E+02	.2568E+02	.1819E+02	.1233E+02	.8691E+01	.7651E+01
PSS 3	.2633E+03	.2760E+03	.2901E+03	.3057E+03	.3191E+03	.3302E+03	.3390E+03	.3459E+03	.3468E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.6837E-03	-.5656E-03	-.4438E-03	-.3181E-03	-.1846E-03	-.4663E-04	.9326E-04	.2338E-03	.3777E-03
UY	.4141E-12	-.2084E-11	-.6470E-12	.1180E-11	-.5411E-11	-.1023E-10	-.9254E-11	.6279E-11	-.6866E-11
UZ	.7331E-01	.7461E-01	.7624E-01	.7784E-01	.7912E-01	.8037E-01	.8164E-01	.8259E-01	.8282E-01

## NORMAL STRAINS

EXX	.1067E-03	.1126E-03	.1192E-03	.1265E-03	.1328E-03	.1381E-03	.1422E-03	.1454E-03	.1458E-03
EYY	.1403E-03	.1420E-03	.1438E-03	.1461E-03	.1475E-03	.1485E-03	.1493E-03	.1504E-03	.1502E-03
EZZ	-.4469E-04	-.4605E-04	-.4758E-04	-.4930E-04	-.5070E-04	-.5183E-04	-.5273E-04	-.5351E-04	-.5357E-04

## SHEAR STRAINS

EXY	.2412E-13	-.1926E-12	-.2294E-12	-.1555E-12	.3516E-12	-.1339E-12	-.4423E-12	.1277E-12	-.4076E-13
EXZ	.1420E-06	.1282E-06	.1116E-06	.9154E-07	.6788E-07	.4075E-07	.1073E-07	-.2129E-07	-.5438E-07
EYZ	-.4724E-15	.1477E-15	.1538E-14	.2162E-14	-.6720E-15	.6140E-16	.1002E-14	.1534E-14	-.6115E-15

## PRINCIPAL STRAINS

PE 1	.1403E-03	.1420E-03	.1438E-03	.1461E-03	.1475E-03	.1485E-03	.1493E-03	.1504E-03	.1502E-03
PE 2	.1067E-03	.1126E-03	.1192E-03	.1265E-03	.1328E-03	.1381E-03	.1422E-03	.1454E-03	.1458E-03
PE 3	-.4469E-04	-.4605E-04	-.4758E-04	-.4930E-04	-.5070E-04	-.5183E-04	-.5273E-04	-.5351E-04	-.5357E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1850E-03	.1880E-03	.1914E-03	.1954E-03	.1982E-03	.2003E-03	.2020E-03	.2039E-03	.2038E-03
PSE 2	.3355E-04	.2934E-04	.2460E-04	.1961E-04	.1477E-04	.1046E-04	.7089E-05	.4997E-05	.4400E-05
PSE 3	.1514E-03	.1587E-03	.1668E-03	.1758E-03	.1835E-03	.1899E-03	.1949E-03	.1989E-03	.1994E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5250.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.31 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-c Composite Pavement

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Z= 4.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	-.2202E+03	-.2032E+03
SYY	-.2233E+03	-.2062E+03
SZZ	-.2890E+03	-.2588E+03

## SHEAR STRESSES

SXY	.4076E-08	-.5597E-08
SXZ	-.3334E+02	-.5683E+02
SYZ	-.1453E-05	.1907E-05

## PRINCIPAL STRESSES

PS 1	-.2067E+03	-.1677E+03
PS 2	-.2233E+03	-.2062E+03
PS 3	-.3025E+03	-.2943E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4792E+02	.6328E+02
PSS 2	.8332E+01	.1925E+02
PSS 3	.3958E+02	.4404E+02

## DISPLACEMENTS

UX	-.4134E-03	-.5121E-03
UY	.2059E-11	.0000E+00
UZ	.8273E-01	.8162E-01

Appendix 6E-c Composite Pavement

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## NORMAL STRAINS

EXX -.1021E-03 -.1010E-03  
EYY -.1128E-03 -.1113E-03  
EZZ -.3344E-03 -.2889E-03

## SHEAR STRAINS

EXY .2751E-13 -.3778E-13  
EXZ -.2250E-03 -.3836E-03  
EYZ -.9805E-11 .1287E-10

## PRINCIPAL STRAINS

PE 1 -.5657E-04 .1864E-04  
PE 2 -.1128E-03 -.1113E-03  
PE 3 -.3800E-03 -.4085E-03

## PRINCIPAL SHEAR STRAINS

PSE 1 .3234E-03 .4272E-03  
PSE 2 .5624E-04 .1299E-03  
PSE 3 .2672E-03 .2972E-03

Z= 12.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .6781E+03 .6563E+03  
SYY .6968E+03 .6838E+03  
SZZ -.5558E+01 -.5380E+01



Appendix 6E-c Composite Pavement

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## SHEAR STRESSES

SXY .2266E-06 -.1844E-06  
SXZ -.1520E+00 -.2074E+00  
SYZ .4859E-08 .0000E+00

## PRINCIPAL STRESSES

PS 1 .6968E+03 .6838E+03  
PS 2 .6781E+03 .6563E+03  
PS 3 -.5558E+01 -.5380E+01

## PRINCIPAL SHEAR STRESSES

PSS 1 .3512E+03 .3446E+03  
PSS 2 .9375E+01 .1374E+02  
PSS 3 .3418E+03 .3308E+03

## DISPLACEMENTS

UX .5206E-03 .6586E-03  
UY -.1020E-10 -.7276E-11  
UZ .8245E-01 .8136E-01

## NORMAL STRAINS

EXX .1436E-03 .1386E-03  
EYY .1490E-03 .1465E-03  
EZZ -.5295E-04 -.5160E-04

## SHEAR STRAINS

EXY .1303E-12 -.1060E-12  
EXZ -.8742E-07 -.1192E-06  
EYZ .2794E-14 .0000E+00

## PRINCIPAL STRAINS

Appendix 6E-c Composite Pavement

PE 1 .1490E-03 .1465E-03  
 PE 2 .1436E-03 .1386E-03  
 PE 3 -.5295E-04 -.5160E-04

PRINCIPAL SHEAR STRAINS  
 PSE 1 .2019E-03 .1981E-03  
 PSE 2 .5391E-05 .7903E-05  
 PSE 3 .1965E-03 .1902E-03

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Appendix 6E-c Composite Pavement

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Z= 4.00 12.00  
X-Y POINT(S)  
X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
15.00 4.00  
16.00 4.00  
17.00 4.00  
18.00 4.00  
19.00 4.00  
20.00 4.00  
21.00 4.00  
22.00 4.00  
23.00 4.00

NORMAL STRESSES

SXX -.1798E+03 -.1904E+03 -.1946E+03 -.1918E+03 -.1825E+03 -.1683E+03 -.1516E+03 -.1341E+03 -.1166E+03  
SYY -.1907E+03 -.2012E+03 -.2054E+03 -.2026E+03 -.1936E+03 -.1797E+03 -.1634E+03 -.1466E+03 -.1298E+03  
SZZ -.2174E+03 -.2356E+03 -.2419E+03 -.2356E+03 -.2174E+03 -.1904E+03 -.1590E+03 -.1268E+03 -.9513E+02

SHEAR STRESSES

SXY .2306E-07 .1859E-07 -.1706E-08 .1448E-07 -.1190E-07 -.1424E-07 .1708E-07 .1892E-07 -.1892E-07

## Appendix 6E-c Composite Pavement

SXZ	.4104E+02	.2474E+02	.6310E+01	-.1210E+02	-.2836E+02	-.4046E+02	-.4765E+02	-.5093E+02	-.5134E+02
SYZ	-.3529E-06	.2745E-06	-.4257E-06	.1156E-06	.2809E-08	.1023E-06	-.4082E-06	.2942E-06	-.3602E-06

## PRINCIPAL STRESSES

PS 1	-.1534E+03	-.1795E+03	-.1938E+03	-.1887E+03	-.1666E+03	-.1374E+03	-.1075E+03	-.7943E+02	-.5343E+02
PS 2	-.1907E+03	-.2012E+03	-.2054E+03	-.2026E+03	-.1936E+03	-.1797E+03	-.1634E+03	-.1466E+03	-.1298E+03
PS 3	-.2437E+03	-.2465E+03	-.2427E+03	-.2387E+03	-.2333E+03	-.2213E+03	-.2031E+03	-.1815E+03	-.1583E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4515E+02	.3348E+02	.2449E+02	.2502E+02	.3331E+02	.4195E+02	.4780E+02	.5106E+02	.5245E+02
PSS 2	.1865E+02	.1087E+02	.5804E+01	.6997E+01	.1345E+02	.2113E+02	.2795E+02	.3358E+02	.3820E+02
PSS 3	.2650E+02	.2262E+02	.1869E+02	.1802E+02	.1986E+02	.2083E+02	.1985E+02	.1747E+02	.1425E+02

## DISPLACEMENTS

UX	.1717E-02	.1624E-02	.1530E-02	.1434E-02	.1338E-02	.1240E-02	.1140E-02	.1040E-02	.9403E-03
UY	-.1452E-11	.2229E-11	.2524E-11	.3532E-11	-.2266E-11	.5486E-11	.1224E-11	.2803E-11	-.1638E-11
UZ	.1117E+00	.1122E+00	.1126E+00	.1130E+00	.1134E+00	.1133E+00	.1126E+00	.1122E+00	.1120E+00

## NORMAL STRAINS

EXX	-.9231E-04	-.9386E-04	-.9509E-04	-.9600E-04	-.9659E-04	-.9689E-04	-.9688E-04	-.9613E-04	-.9476E-04
EYY	-.1293E-03	-.1304E-03	-.1315E-03	-.1327E-03	-.1340E-03	-.1353E-03	-.1368E-03	-.1381E-03	-.1393E-03
EZZ	-.2193E-03	-.2462E-03	-.2548E-03	-.2438E-03	-.2146E-03	-.1716E-03	-.1219E-03	-.7142E-04	-.2214E-04

## SHEAR STRAINS

EXY	.1556E-12	.1255E-12	-.1152E-13	.9775E-13	-.8035E-13	-.9609E-13	.1153E-12	.1277E-12	-.1277E-12
EXZ	.2771E-03	.1670E-03	.4259E-04	-.8170E-04	-.1914E-03	-.2731E-03	-.3217E-03	-.3438E-03	-.3465E-03
EYZ	-.2382E-11	.1853E-11	-.2874E-11	.7801E-12	.1896E-13	.6906E-12	-.2755E-11	.1986E-11	-.2431E-11

## PRINCIPAL STRAINS

PE 1	-.3427E-05	-.5702E-04	-.9230E-04	-.8546E-04	-.4315E-04	.7327E-05	.5191E-04	.8855E-04	.1186E-03
PE 2	-.1293E-03	-.1304E-03	-.1315E-03	-.1327E-03	-.1340E-03	-.1353E-03	-.1368E-03	-.1381E-03	-.1393E-03
PE 3	-.3082E-03	-.2830E-03	-.2576E-03	-.2543E-03	-.2680E-03	-.2758E-03	-.2707E-03	-.2561E-03	-.2355E-03

Appendix 6E-c Composite Pavement

PRINCIPAL SHEAR STRAINS

PSE 1	.3048E-03	.2260E-03	.1653E-03	.1689E-03	.2248E-03	.2832E-03	.3226E-03	.3446E-03	.3540E-03
PSE 2	.1259E-03	.7335E-04	.3918E-04	.4723E-04	.9080E-04	.1426E-03	.1887E-03	.2267E-03	.2579E-03
PSE 3	.1789E-03	.1527E-03	.1261E-03	.1217E-03	.1340E-03	.1406E-03	.1340E-03	.1180E-03	.9617E-04

Z= 12.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.6072E+03	.6234E+03	.6325E+03	.6347E+03	.6301E+03	.6199E+03	.6067E+03	.5898E+03	.5702E+03
SYX	.7559E+03	.7666E+03	.7744E+03	.7795E+03	.7818E+03	.7824E+03	.7828E+03	.7818E+03	.7792E+03
SZZ	-.6179E+01	-.6247E+01	-.6303E+01	-.6346E+01	-.6378E+01	-.6373E+01	-.6346E+01	-.6338E+01	-.6341E+01

SHEAR STRESSES

SXY	.1989E-07	.1800E-07	.9408E-07	.1647E-06	.9841E-07	.4353E-06	-.6680E-07	.7485E-06	-.5520E-06
SXZ	.4230E+00	.3774E+00	.3303E+00	.2831E+00	.2373E+00	.1940E+00	.1539E+00	.1185E+00	.8831E-01
SYZ	.4644E-09	-.4075E-09	.1145E-08	.1407E-08	.1384E-09	.8721E-09	.8885E-09	.5104E-10	.1528E-10

PRINCIPAL STRESSES

PS 1	.7559E+03	.7666E+03	.7744E+03	.7795E+03	.7818E+03	.7824E+03	.7828E+03	.7818E+03	.7792E+03
PS 2	.6072E+03	.6234E+03	.6325E+03	.6347E+03	.6301E+03	.6199E+03	.6067E+03	.5898E+03	.5702E+03

## Appendix 6E-c Composite Pavement

PS 3   - .6179E+01   - .6247E+01   - .6303E+01   - .6346E+01   - .6378E+01   - .6373E+01   - .6346E+01   - .6338E+01   - .6341E+01

## PRINCIPAL SHEAR STRESSES

PSS 1   .3810E+03   .3864E+03   .3904E+03   .3929E+03   .3941E+03   .3944E+03   .3945E+03   .3941E+03   .3928E+03  
PSS 2   .7436E+02   .7160E+02   .7098E+02   .7241E+02   .7588E+02   .8122E+02   .8804E+02   .9597E+02   .1045E+03  
PSS 3   .3067E+03   .3148E+03   .3194E+03   .3205E+03   .3182E+03   .3131E+03   .3065E+03   .2981E+03   .2883E+03

## DISPLACEMENTS

UX   - .2052E-02   - .1927E-02   - .1798E-02   - .1668E-02   - .1539E-02   - .1411E-02   - .1283E-02   - .1158E-02   - .1037E-02  
UY   .5475E-11   .2187E-11   .6670E-15   - .2247E-11   - .6223E-12   - .2448E-11   - .4966E-11   .1442E-11   .4714E-11  
UZ   .1115E+00   .1120E+00   .1124E+00   .1128E+00   .1132E+00   .1131E+00   .1125E+00   .1121E+00   .1119E+00

## NORMAL STRAINS

EXX   .1237E-03   .1273E-03   .1293E-03   .1297E-03   .1284E-03   .1259E-03   .1226E-03   .1184E-03   .1136E-03  
EYY   .1664E-03   .1685E-03   .1701E-03   .1713E-03   .1721E-03   .1726E-03   .1732E-03   .1736E-03   .1736E-03  
EZZ   - .5266E-04   - .5368E-04   - .5434E-04   - .5462E-04   - .5454E-04   - .5418E-04   - .5369E-04   - .5302E-04   - .5219E-04

## SHEAR STRAINS

EXY   .1144E-13   .1035E-13   .5410E-13   .9468E-13   .5658E-13   .2503E-12   - .3841E-13   .4304E-12   - .3174E-12  
EXZ   .2432E-06   .2170E-06   .1899E-06   .1628E-06   .1364E-06   .1115E-06   .8849E-07   .6814E-07   .5078E-07  
EYZ   .2671E-15   - .2343E-15   .6587E-15   .8088E-15   .7960E-16   .5015E-15   .5109E-15   .2935E-16   .8784E-17

## PRINCIPAL STRAINS

PE 1   .1664E-03   .1685E-03   .1701E-03   .1713E-03   .1721E-03   .1726E-03   .1732E-03   .1736E-03   .1736E-03  
PE 2   .1237E-03   .1273E-03   .1293E-03   .1297E-03   .1284E-03   .1259E-03   .1226E-03   .1184E-03   .1136E-03  
PE 3   - .5266E-04   - .5368E-04   - .5434E-04   - .5462E-04   - .5454E-04   - .5418E-04   - .5369E-04   - .5302E-04   - .5219E-04

## PRINCIPAL SHEAR STRAINS

PSE 1   .2191E-03   .2222E-03   .2245E-03   .2259E-03   .2266E-03   .2268E-03   .2269E-03   .2266E-03   .2258E-03  
PSE 2   .4276E-04   .4117E-04   .4081E-04   .4163E-04   .4363E-04   .4670E-04   .5062E-04   .5519E-04   .6009E-04  
PSE 3   .1763E-03   .1810E-03   .1837E-03   .1843E-03   .1830E-03   .1801E-03   .1762E-03   .1714E-03   .1657E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-c Composite Pavement

31.00        4.00  
32.00        4.00

Z=    4.00 LAYER NO,    1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	-.9988E+02	-.8547E+02	-.7464E+02	-.6750E+02	-.6318E+02	-.6062E+02	-.5908E+02	-.5811E+02	-.5749E+02
SYX	-.1138E+03	-.1002E+03	-.9021E+02	-.8396E+02	-.8052E+02	-.7876E+02	-.7787E+02	-.7740E+02	-.7713E+02
SZZ	-.6505E+02	-.3941E+02	-.2090E+02	-.9748E+01	-.4058E+01	-.1581E+01	-.7113E+00	-.5146E+00	-.5453E+00

SHEAR STRESSES

SXY	-.5908E-08	-.8144E-08	-.4212E-07	.3860E-07	.4922E-07	.1511E-07	-.2888E-07	.2709E-07	-.2043E-07
SXZ	-.4858E+02	-.4228E+02	-.3380E+02	-.2536E+02	-.1840E+02	-.1319E+02	-.9363E+01	-.6452E+01	-.4075E+01
SYZ	.4911E-07	.2139E-06	.5482E-07	.3409E-07	.1673E-06	-.8177E-07	-.8098E-07	.1015E-06	-.6032E-07

PRINCIPAL STRESSES

PS 1	-.3086E+02	-.1429E+02	-.4592E+01	-.1917E+00	.1203E+01	.1230E+01	.7539E+00	.1993E+00	-.2551E+00
PS 2	-.1138E+03	-.1002E+03	-.9021E+02	-.7706E+02	-.6844E+02	-.6343E+02	-.6054E+02	-.5882E+02	-.5778E+02
PS 3	-.1341E+03	-.1106E+03	-.9095E+02	-.8396E+02	-.8052E+02	-.7876E+02	-.7787E+02	-.7740E+02	-.7713E+02



## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.5161E+02	.4815E+02	.4318E+02	.4189E+02	.4086E+02	.3999E+02	.3931E+02	.3880E+02	.3844E+02
PSS 2	.4149E+02	.4296E+02	.4281E+02	.3843E+02	.3482E+02	.3233E+02	.3065E+02	.2951E+02	.2876E+02
PSS 3	.1011E+02	.5190E+01	.3687E+00	.3454E+01	.6042E+01	.7662E+01	.8662E+01	.9289E+01	.9677E+01

## DISPLACEMENTS

UX	.8419E-03	.7438E-03	.6475E-03	.5543E-03	.4650E-03	.3800E-03	.2990E-03	.2213E-03	.1461E-03
UY	-.3190E-11	-.1895E-11	-.6102E-12	.5275E-11	-.6310E-12	.3166E-11	-.3644E-11	-.1087E-10	.2382E-12
UZ	.1116E+00	.1107E+00	.1103E+00	.1101E+00	.1101E+00	.1102E+00	.1104E+00	.1106E+00	.1108E+00

## NORMAL STRAINS

EXX	-.9316E-04	-.9151E-04	-.8938E-04	-.8675E-04	-.8393E-04	-.8126E-04	-.7894E-04	-.7709E-04	-.7576E-04
EYY	-.1403E-03	-.1413E-03	-.1419E-03	-.1423E-03	-.1425E-03	-.1425E-03	-.1424E-03	-.1422E-03	-.1421E-03
EZZ	.2437E-04	.6395E-04	.9200E-04	.1082E-03	.1156E-03	.1180E-03	.1180E-03	.1173E-03	.1164E-03

## SHEAR STRAINS

EXY	-.3988E-13	-.5497E-13	-.2843E-12	.2605E-12	.3323E-12	.1020E-12	-.1949E-12	.1828E-12	-.1379E-12
EXZ	-.3279E-03	-.2854E-03	-.2281E-03	-.1712E-03	-.1242E-03	-.8900E-04	-.6320E-04	-.4355E-04	-.2751E-04
EYZ	.3315E-12	.1444E-11	.3701E-12	.2301E-12	.1129E-11	-.5519E-12	-.5466E-12	.6848E-12	-.4072E-12

## PRINCIPAL STRAINS

PE 1	.1398E-03	.1487E-03	.1470E-03	.1404E-03	.1333E-03	.1275E-03	.1230E-03	.1197E-03	.1174E-03
PE 2	-.1403E-03	-.1413E-03	-.1419E-03	-.1190E-03	-.1017E-03	-.9074E-04	-.8389E-04	-.7950E-04	-.7673E-04
PE 3	-.2086E-03	-.1763E-03	-.1444E-03	-.1423E-03	-.1425E-03	-.1425E-03	-.1424E-03	-.1422E-03	-.1421E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.3483E-03	.3250E-03	.2915E-03	.2827E-03	.2758E-03	.2700E-03	.2653E-03	.2619E-03	.2595E-03
PSE 2	.2801E-03	.2900E-03	.2890E-03	.2594E-03	.2350E-03	.2182E-03	.2069E-03	.1992E-03	.1941E-03
PSE 3	.6827E-04	.3503E-04	.2489E-05	.2331E-04	.4078E-04	.5172E-04	.5847E-04	.6270E-04	.6532E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.5493E+03	.5297E+03	.5112E+03	.4938E+03	.4778E+03	.4638E+03	.4520E+03	.4428E+03	.4361E+03
SYY	.7757E+03	.7732E+03	.7704E+03	.7671E+03	.7634E+03	.7595E+03	.7558E+03	.7525E+03	.7500E+03
SZZ	-.6322E+01	-.6291E+01	-.6285E+01	-.6293E+01	-.6306E+01	-.6320E+01	-.6332E+01	-.6341E+01	-.6347E+01

SHEAR STRESSES

SXY	.7925E-06	.2371E-06	.6243E-06	.1370E-06	.1541E-06	.1846E-06	.6428E-06	-.3055E-07	-.5701E-06
SXZ	.6322E-01	.4270E-01	.2702E-01	.1560E-01	.7716E-02	.2669E-02	-.1417E-03	-.1272E-02	-.1417E-02
SYZ	-.3007E-08	-.1288E-08	-.1418E-08	-.2247E-09	.2795E-08	.1913E-08	.2630E-08	-.5992E-09	.7431E-09

PRINCIPAL STRESSES

PS 1	.7757E+03	.7732E+03	.7704E+03	.7671E+03	.7634E+03	.7595E+03	.7558E+03	.7525E+03	.7500E+03
PS 2	.5493E+03	.5297E+03	.5112E+03	.4938E+03	.4778E+03	.4638E+03	.4520E+03	.4428E+03	.4361E+03
PS 3	-.6322E+01	-.6291E+01	-.6285E+01	-.6293E+01	-.6306E+01	-.6320E+01	-.6332E+01	-.6341E+01	-.6347E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3910E+03	.3897E+03	.3883E+03	.3867E+03	.3849E+03	.3829E+03	.3810E+03	.3794E+03	.3782E+03
PSS 2	.1132E+03	.1217E+03	.1296E+03	.1367E+03	.1428E+03	.1479E+03	.1519E+03	.1549E+03	.1569E+03
PSS 3	.2778E+03	.2680E+03	.2587E+03	.2500E+03	.2421E+03	.2350E+03	.2292E+03	.2246E+03	.2212E+03

DISPLACEMENTS

## Appendix 6E-c Composite Pavement

UX	-.9209E-03	-.8080E-03	-.6997E-03	-.5967E-03	-.4993E-03	-.4071E-03	-.3197E-03	-.2363E-03	-.1558E-03
UY	-.5896E-11	.2492E-11	.3096E-11	.3207E-11	-.4278E-13	.3320E-11	.6386E-13	.1828E-11	.5494E-14
UZ	.1115E+00	.1107E+00	.1102E+00	.1100E+00	.1100E+00	.1102E+00	.1104E+00	.1106E+00	.1108E+00

## NORMAL STRAINS

EXX	.1085E-03	.1037E-03	.9913E-04	.9491E-04	.9107E-04	.8770E-04	.8490E-04	.8271E-04	.8115E-04
EYY	.1736E-03	.1737E-03	.1737E-03	.1735E-03	.1732E-03	.1727E-03	.1722E-03	.1718E-03	.1714E-03
EZZ	-.5127E-04	-.5043E-04	-.4963E-04	-.4886E-04	-.4812E-04	-.4745E-04	-.4688E-04	-.4641E-04	-.4607E-04

## SHEAR STRAINS

EXY	.4557E-12	.1363E-12	.3590E-12	.7877E-13	.8862E-13	.1062E-12	.3696E-12	-.1757E-13	-.3278E-12
EXZ	.3635E-07	.2455E-07	.1554E-07	.8967E-08	.4437E-08	.1535E-08	-.8148E-10	-.7315E-09	-.8145E-09
EYZ	-.1729E-14	-.7404E-15	-.8155E-15	-.1292E-15	.1607E-14	.1100E-14	.1512E-14	-.3445E-15	.4273E-15

## PRINCIPAL STRAINS

PE 1	.1736E-03	.1737E-03	.1737E-03	.1735E-03	.1732E-03	.1727E-03	.1722E-03	.1718E-03	.1714E-03
PE 2	.1085E-03	.1037E-03	.9913E-04	.9491E-04	.9107E-04	.8770E-04	.8490E-04	.8271E-04	.8115E-04
PE 3	-.5127E-04	-.5043E-04	-.4963E-04	-.4886E-04	-.4812E-04	-.4745E-04	-.4688E-04	-.4641E-04	-.4607E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2248E-03	.2241E-03	.2233E-03	.2224E-03	.2213E-03	.2202E-03	.2191E-03	.2182E-03	.2175E-03
PSE 2	.6511E-04	.6999E-04	.7453E-04	.7859E-04	.8210E-04	.8502E-04	.8732E-04	.8905E-04	.9024E-04
PSE 3	.1597E-03	.1541E-03	.1488E-03	.1438E-03	.1392E-03	.1352E-03	.1318E-03	.1291E-03	.1272E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-c Composite Pavement

39.00      4.00  
40.00      4.00  
41.00      4.00

Z= 4.00 LAYER NO, 1

X            Y  
33.00      4.00  
34.00      4.00  
35.00      4.00  
36.00      4.00  
37.00      4.00  
38.00      4.00  
39.00      4.00  
40.00      4.00  
41.00      4.00

NORMAL STRESSES

SXX    -.5714E+02   -.5702E+02   -.5714E+02   -.5749E+02   -.5811E+02   -.5908E+02   -.6062E+02   -.6318E+02   -.6750E+02  
SYY    -.7699E+02   -.7694E+02   -.7699E+02   -.7713E+02   -.7740E+02   -.7787E+02   -.7876E+02   -.8052E+02   -.8396E+02  
SZZ    -.6023E+00   -.6232E+00   -.6023E+00   -.5452E+00   -.5147E+00   -.7113E+00   -.1581E+01   -.4058E+01   -.9748E+01

SHEAR STRESSES

SXY    -.3615E-07   -.1109E-07   -.8508E-07   -.4788E-07   -.1975E-07   -.5843E-08   -.1782E-08   .3470E-07   -.2980E-07  
SXZ    -.1979E+01   .5808E-06   .1979E+01   .4075E+01   .6452E+01   .9363E+01   .1319E+02   .1840E+02   .2536E+02  
SYZ    .3485E-07   .3526E-07   .2993E-07   .3656E-07   .4842E-07   .2508E-07   -.9094E-07   .1442E-06   -.7874E-07

PRINCIPAL STRESSES

PS 1   -.5331E+00   -.6232E+00   -.5331E+00   -.2551E+00   .1993E+00   .7539E+00   .1230E+01   .1203E+01   -.1918E+00  
PS 2   -.5721E+02   -.5702E+02   -.5721E+02   -.5778E+02   -.5882E+02   -.6054E+02   -.6343E+02   -.6844E+02   -.7706E+02  
PS 3   -.7699E+02   -.7694E+02   -.7699E+02   -.7713E+02   -.7740E+02   -.7787E+02   -.7876E+02   -.8052E+02   -.8396E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.3823E+02	.3816E+02	.3823E+02	.3844E+02	.3880E+02	.3931E+02	.3999E+02	.4086E+02	.4189E+02
PSS 2	.2834E+02	.2820E+02	.2834E+02	.2876E+02	.2951E+02	.3065E+02	.3233E+02	.3482E+02	.3843E+02
PSS 3	.9892E+01	.9960E+01	.9892E+01	.9677E+01	.9289E+01	.8662E+01	.7662E+01	.6042E+01	.3454E+01

## DISPLACEMENTS

UX	.7262E-04	-.5148E-10	-.7262E-04	-.1461E-03	-.2213E-03	-.2990E-03	-.3800E-03	-.4650E-03	-.5543E-03
UY	-.1080E-11	.1226E-11	-.1343E-11	.2906E-11	.2605E-12	.3302E-12	-.2292E-11	-.4193E-12	.1124E-11
UZ	.1109E+00	.1109E+00	.1109E+00	.1108E+00	.1106E+00	.1104E+00	.1102E+00	.1101E+00	.1101E+00

## NORMAL STRAINS

EXX	-.7495E-04	-.7468E-04	-.7495E-04	-.7576E-04	-.7709E-04	-.7894E-04	-.8126E-04	-.8393E-04	-.8675E-04
EYY	-.1420E-03	-.1419E-03	-.1420E-03	-.1421E-03	-.1422E-03	-.1424E-03	-.1425E-03	-.1425E-03	-.1423E-03
EZZ	.1159E-03	.1157E-03	.1159E-03	.1164E-03	.1173E-03	.1181E-03	.1180E-03	.1156E-03	.1082E-03

## SHEAR STRAINS

EXY	-.2440E-12	-.7486E-13	-.5743E-12	-.3232E-12	-.1333E-12	-.3944E-13	-.1203E-13	.2342E-12	-.2011E-12
EXZ	-.1336E-04	.3920E-11	.1336E-04	.2751E-04	.4355E-04	.6320E-04	.8900E-04	.1242E-03	.1712E-03
EYZ	.2353E-12	.2380E-12	.2020E-12	.2468E-12	.3268E-12	.1693E-12	-.6139E-12	.9732E-12	-.5315E-12

## PRINCIPAL STRAINS

PE 1	.1161E-03	.1157E-03	.1161E-03	.1174E-03	.1197E-03	.1230E-03	.1275E-03	.1333E-03	.1404E-03
PE 2	-.7518E-04	-.7468E-04	-.7518E-04	-.7673E-04	-.7950E-04	-.8389E-04	-.9074E-04	-.1017E-03	-.1190E-03
PE 3	-.1420E-03	-.1419E-03	-.1420E-03	-.1421E-03	-.1422E-03	-.1424E-03	-.1425E-03	-.1425E-03	-.1423E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2580E-03	.2576E-03	.2580E-03	.2595E-03	.2619E-03	.2653E-03	.2700E-03	.2758E-03	.2827E-03
PSE 2	.1913E-03	.1903E-03	.1913E-03	.1941E-03	.1992E-03	.2069E-03	.2182E-03	.2350E-03	.2594E-03
PSE 3	.6677E-04	.6723E-04	.6677E-04	.6532E-04	.6270E-04	.5847E-04	.5172E-04	.4078E-04	.2331E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.4321E+03	.4307E+03	.4321E+03	.4361E+03	.4428E+03	.4520E+03	.4638E+03	.4778E+03	.4938E+03
SYX	.7484E+03	.7479E+03	.7484E+03	.7500E+03	.7525E+03	.7558E+03	.7595E+03	.7634E+03	.7671E+03
SZZ	-.6350E+01	-.6351E+01	-.6350E+01	-.6347E+01	-.6341E+01	-.6332E+01	-.6320E+01	-.6306E+01	-.6293E+01

SHEAR STRESSES

SXY	.5823E-06	.5974E-06	.7597E-06	.2329E-06	.1948E-06	.3167E-06	.4513E-06	.4897E-06	-.2597E-07
SXZ	-.8867E-03	-.1700E-08	.8867E-03	.1413E-02	.1270E-02	.1311E-03	-.2666E-02	-.7717E-02	-.1560E-01
SYZ	-.1717E-08	.7569E-09	.1310E-08	.4029E-09	-.9077E-09	.1126E-08	-.1980E-08	-.4070E-09	.1041E-08

PRINCIPAL STRESSES

PS 1	.7484E+03	.7479E+03	.7484E+03	.7500E+03	.7525E+03	.7558E+03	.7595E+03	.7634E+03	.7671E+03
PS 2	.4321E+03	.4307E+03	.4321E+03	.4361E+03	.4428E+03	.4520E+03	.4638E+03	.4778E+03	.4938E+03
PS 3	-.6350E+01	-.6351E+01	-.6350E+01	-.6347E+01	-.6341E+01	-.6332E+01	-.6320E+01	-.6306E+01	-.6293E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3774E+03	.3771E+03	.3774E+03	.3782E+03	.3794E+03	.3810E+03	.3829E+03	.3849E+03	.3867E+03
PSS 2	.1582E+03	.1586E+03	.1582E+03	.1569E+03	.1549E+03	.1519E+03	.1479E+03	.1428E+03	.1367E+03
PSS 3	.2192E+03	.2185E+03	.2192E+03	.2212E+03	.2246E+03	.2292E+03	.2350E+03	.2421E+03	.2500E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.7741E-04	.7811E-11	.7741E-04	.1558E-03	.2363E-03	.3197E-03	.4071E-03	.4993E-03	.5967E-03
UY	.6341E-11	-.2954E-11	-.6100E-11	-.1286E-12	.3765E-11	-.8825E-11	.5349E-12	-.1009E-10	-.5675E-11
UZ	.1109E+00	.1109E+00	.1109E+00	.1108E+00	.1106E+00	.1104E+00	.1102E+00	.1100E+00	.1100E+00

## NORMAL STRAINS

EXX	.8019E-04	.7988E-04	.8019E-04	.8115E-04	.8271E-04	.8491E-04	.8770E-04	.9107E-04	.9491E-04
EYY	.1711E-03	.1711E-03	.1711E-03	.1714E-03	.1718E-03	.1722E-03	.1727E-03	.1732E-03	.1735E-03
EZZ	-.4586E-04	-.4579E-04	-.4586E-04	-.4607E-04	-.4641E-04	-.4688E-04	-.4745E-04	-.4812E-04	-.4886E-04

## SHEAR STRAINS

EXY	.3348E-12	.3435E-12	.4368E-12	.1339E-12	.1120E-12	.1821E-12	.2595E-12	.2816E-12	-.1493E-13
EXZ	-.5098E-09	-.9776E-15	.5098E-09	.8123E-09	.7302E-09	.7536E-10	-.1533E-08	-.4437E-08	-.8969E-08
EYZ	-.9872E-15	.4352E-15	.7531E-15	.2317E-15	-.5219E-15	.6474E-15	-.1138E-14	-.2340E-15	.5984E-15

## PRINCIPAL STRAINS

PE 1	.1711E-03	.1711E-03	.1711E-03	.1714E-03	.1718E-03	.1722E-03	.1727E-03	.1732E-03	.1735E-03
PE 2	.8019E-04	.7988E-04	.8019E-04	.8115E-04	.8271E-04	.8491E-04	.8770E-04	.9107E-04	.9491E-04
PE 3	-.4586E-04	-.4579E-04	-.4586E-04	-.4607E-04	-.4641E-04	-.4688E-04	-.4745E-04	-.4812E-04	-.4886E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2170E-03	.2168E-03	.2170E-03	.2175E-03	.2182E-03	.2191E-03	.2202E-03	.2213E-03	.2224E-03
PSE 2	.9095E-04	.9118E-04	.9095E-04	.9024E-04	.8905E-04	.8732E-04	.8502E-04	.8210E-04	.7859E-04
PSE 3	.1260E-03	.1257E-03	.1260E-03	.1272E-03	.1291E-03	.1318E-03	.1352E-03	.1392E-03	.1438E-03



Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-c Composite Pavement

48.00      4.00  
49.00      4.00  
50.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	-.7464E+02	-.8547E+02	-.9988E+02	-.1166E+03	-.1341E+03	-.1516E+03	-.1683E+03	-.1825E+03	-.1918E+03
SYX	-.9021E+02	-.1002E+03	-.1138E+03	-.1298E+03	-.1466E+03	-.1634E+03	-.1797E+03	-.1936E+03	-.2026E+03
SZZ	-.2090E+02	-.3941E+02	-.6505E+02	-.9513E+02	-.1268E+03	-.1590E+03	-.1904E+03	-.2174E+03	-.2356E+03

SHEAR STRESSES

SXY	.1831E-07	.1550E-07	.1754E-07	.1321E-08	.1717E-07	-.6857E-08	-.7929E-09	.2179E-07	-.2047E-07
SXZ	.3380E+02	.4228E+02	.4858E+02	.5134E+02	.5093E+02	.4765E+02	.4046E+02	.2836E+02	.1210E+02
SYZ	.1547E-06	.1851E-06	.1745E-06	-.4442E-06	.6828E-07	-.7480E-06	.5597E-07	-.3487E-06	.2800E-06

PRINCIPAL STRESSES

PS 1	-.4592E+01	-.1429E+02	-.3086E+02	-.5343E+02	-.7943E+02	-.1075E+03	-.1374E+03	-.1666E+03	-.1887E+03
PS 2	-.9021E+02	-.1002E+03	-.1138E+03	-.1298E+03	-.1466E+03	-.1634E+03	-.1797E+03	-.1936E+03	-.2026E+03
PS 3	-.9095E+02	-.1106E+03	-.1341E+03	-.1583E+03	-.1815E+03	-.2031E+03	-.2213E+03	-.2333E+03	-.2387E+03

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.4318E+02	.4815E+02	.5161E+02	.5245E+02	.5106E+02	.4780E+02	.4195E+02	.3331E+02	.2502E+02
PSS 2	.4281E+02	.4296E+02	.4149E+02	.3820E+02	.3358E+02	.2795E+02	.2113E+02	.1345E+02	.6997E+01
PSS 3	.3687E+00	.5190E+01	.1011E+02	.1425E+02	.1747E+02	.1985E+02	.2083E+02	.1986E+02	.1802E+02

## DISPLACEMENTS

UX	-.6475E-03	-.7438E-03	-.8419E-03	-.9403E-03	-.1040E-02	-.1140E-02	-.1240E-02	-.1338E-02	-.1434E-02
UY	-.1968E-11	.9141E-12	-.1277E-11	-.2915E-11	.4004E-12	.9703E-12	-.4082E-11	-.2868E-11	-.4463E-11
UZ	.1103E+00	.1107E+00	.1116E+00	.1120E+00	.1122E+00	.1126E+00	.1133E+00	.1134E+00	.1130E+00

## NORMAL STRAINS

EXX	-.8938E-04	-.9151E-04	-.9316E-04	-.9476E-04	-.9613E-04	-.9688E-04	-.9689E-04	-.9659E-04	-.9600E-04
EYY	-.1419E-03	-.1413E-03	-.1403E-03	-.1393E-03	-.1381E-03	-.1368E-03	-.1353E-03	-.1340E-03	-.1327E-03
EZZ	.9200E-04	.6395E-04	.2437E-04	-.2214E-04	-.7142E-04	-.1219E-03	-.1716E-03	-.2146E-03	-.2438E-03

## SHEAR STRAINS

EXY	.1236E-12	.1046E-12	.1184E-12	.8916E-14	.1159E-12	-.4629E-13	-.5352E-14	.1471E-12	-.1382E-12
EXZ	.2281E-03	.2854E-03	.3279E-03	.3465E-03	.3438E-03	.3217E-03	.2731E-03	.1914E-03	.8170E-04
EYZ	.1044E-11	.1249E-11	.1178E-11	-.2998E-11	.4609E-12	-.5049E-11	.3778E-12	-.2354E-11	.1890E-11

## PRINCIPAL STRAINS

PE 1	.1470E-03	.1487E-03	.1398E-03	.1186E-03	.8855E-04	.5191E-04	.7327E-05	-.4316E-04	-.8546E-04
PE 2	-.1419E-03	-.1413E-03	-.1403E-03	-.1393E-03	-.1381E-03	-.1368E-03	-.1353E-03	-.1340E-03	-.1327E-03
PE 3	-.1444E-03	-.1763E-03	-.2086E-03	-.2355E-03	-.2561E-03	-.2707E-03	-.2758E-03	-.2680E-03	-.2543E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2915E-03	.3250E-03	.3483E-03	.3540E-03	.3446E-03	.3226E-03	.2832E-03	.2248E-03	.1689E-03
PSE 2	.2890E-03	.2900E-03	.2801E-03	.2579E-03	.2267E-03	.1887E-03	.1426E-03	.9080E-04	.4723E-04
PSE 3	.2489E-05	.3503E-04	.6827E-04	.9617E-04	.1180E-03	.1340E-03	.1406E-03	.1340E-03	.1217E-03

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.5112E+03	.5297E+03	.5493E+03	.5702E+03	.5898E+03	.6067E+03	.6199E+03	.6301E+03	.6347E+03
SYX	.7704E+03	.7732E+03	.7757E+03	.7792E+03	.7818E+03	.7828E+03	.7824E+03	.7818E+03	.7795E+03
SZZ	-.6285E+01	-.6291E+01	-.6322E+01	-.6341E+01	-.6338E+01	-.6346E+01	-.6373E+01	-.6378E+01	-.6346E+01

SHEAR STRESSES

SXY	-.2338E-07	-.6964E-07	.7462E-06	.2974E-06	.4906E-06	-.1167E-07	.4860E-06	.2860E-06	-.1862E-06
SXZ	-.2702E-01	-.4270E-01	-.6322E-01	-.8831E-01	-.1185E+00	-.1539E+00	-.1940E+00	-.2373E+00	-.2831E+00
SYZ	.2116E-08	-.1695E-08	.2055E-08	.8136E-10	-.1773E-08	-.7877E-09	.1326E-08	-.3238E-09	-.3698E-08

PRINCIPAL STRESSES

PS 1	.7704E+03	.7732E+03	.7757E+03	.7792E+03	.7818E+03	.7828E+03	.7824E+03	.7818E+03	.7795E+03
PS 2	.5112E+03	.5297E+03	.5493E+03	.5702E+03	.5898E+03	.6067E+03	.6199E+03	.6301E+03	.6347E+03
PS 3	-.6285E+01	-.6291E+01	-.6322E+01	-.6341E+01	-.6338E+01	-.6346E+01	-.6373E+01	-.6378E+01	-.6346E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3883E+03	.3897E+03	.3910E+03	.3928E+03	.3941E+03	.3945E+03	.3944E+03	.3941E+03	.3929E+03
PSS 2	.1296E+03	.1217E+03	.1132E+03	.1045E+03	.9597E+02	.8804E+02	.8122E+02	.7588E+02	.7241E+02
PSS 3	.2587E+03	.2680E+03	.2778E+03	.2883E+03	.2981E+03	.3065E+03	.3131E+03	.3182E+03	.3205E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.6997E-03	.8080E-03	.9209E-03	.1037E-02	.1158E-02	.1283E-02	.1411E-02	.1539E-02	.1668E-02
UY	.1173E-11	-.5834E-12	-.6440E-11	.6555E-11	-.1121E-11	-.4469E-11	-.5840E-11	.5608E-11	.1025E-11
UZ	.1102E+00	.1107E+00	.1115E+00	.1119E+00	.1121E+00	.1125E+00	.1131E+00	.1132E+00	.1128E+00

## NORMAL STRAINS

EXX	.9913E-04	.1037E-03	.1085E-03	.1136E-03	.1184E-03	.1226E-03	.1259E-03	.1284E-03	.1297E-03
EYY	.1737E-03	.1737E-03	.1736E-03	.1736E-03	.1736E-03	.1732E-03	.1726E-03	.1721E-03	.1713E-03
EZZ	-.4963E-04	-.5043E-04	-.5127E-04	-.5219E-04	-.5302E-04	-.5369E-04	-.5418E-04	-.5454E-04	-.5462E-04

## SHEAR STRAINS

EXY	-.1344E-13	-.4004E-13	.4291E-12	.1710E-12	.2821E-12	-.6712E-14	.2795E-12	.1644E-12	-.1071E-12
EXZ	-.1554E-07	-.2455E-07	-.3635E-07	-.5078E-07	-.6814E-07	-.8849E-07	-.1115E-06	-.1364E-06	-.1628E-06
EYZ	.1216E-14	-.9743E-15	.1182E-14	.4678E-16	-.1020E-14	-.4529E-15	.7624E-15	-.1862E-15	-.2126E-14

## PRINCIPAL STRAINS

PE 1	.1737E-03	.1737E-03	.1736E-03	.1736E-03	.1736E-03	.1732E-03	.1726E-03	.1721E-03	.1713E-03
PE 2	.9913E-04	.1037E-03	.1085E-03	.1136E-03	.1184E-03	.1226E-03	.1259E-03	.1284E-03	.1297E-03
PE 3	-.4963E-04	-.5043E-04	-.5127E-04	-.5219E-04	-.5302E-04	-.5369E-04	-.5418E-04	-.5454E-04	-.5462E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2233E-03	.2241E-03	.2248E-03	.2258E-03	.2266E-03	.2269E-03	.2268E-03	.2266E-03	.2259E-03
PSE 2	.7453E-04	.6999E-04	.6511E-04	.6009E-04	.5519E-04	.5062E-04	.4670E-04	.4363E-04	.4163E-04
PSE 3	.1488E-03	.1541E-03	.1597E-03	.1657E-03	.1714E-03	.1762E-03	.1801E-03	.1830E-03	.1843E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 95K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.09 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-c Composite Pavement

57.00        4.00  
58.00        4.00  
59.00        4.00

Z=    4.00 LAYER NO,    1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	-.1946E+03	-.1904E+03	-.1798E+03	-.1642E+03	-.1462E+03	-.1273E+03	-.1084E+03	-.9018E+02	-.7430E+02
SYX	-.2054E+03	-.2012E+03	-.1907E+03	-.1754E+03	-.1578E+03	-.1395E+03	-.1213E+03	-.1038E+03	-.8873E+02
SZZ	-.2419E+03	-.2356E+03	-.2174E+03	-.1904E+03	-.1590E+03	-.1268E+03	-.9506E+02	-.6496E+02	-.3931E+02

SHEAR STRESSES

SXY	.4596E-08	.1909E-07	.8014E-08	.1817E-07	.1031E-07	-.2423E-07	-.6887E-08	-.1411E-07	-.2294E-07
SXZ	-.6310E+01	-.2474E+02	-.4104E+02	-.5322E+02	-.6052E+02	-.6393E+02	-.6453E+02	-.6197E+02	-.5593E+02
SYZ	-.4174E-06	.1086E-06	.0000E+00	.1086E-06	-.4174E-06	.2800E-06	-.3487E-06	.5597E-07	.2056E-06

PRINCIPAL STRESSES

PS 1	-.1938E+03	-.1795E+03	-.1534E+03	-.1225E+03	-.9172E+02	-.6311E+02	-.3685E+02	-.1433E+02	.1792E+01
PS 2	-.2054E+03	-.2012E+03	-.1907E+03	-.1754E+03	-.1578E+03	-.1395E+03	-.1213E+03	-.1038E+03	-.8873E+02
PS 3	-.2427E+03	-.2465E+03	-.2437E+03	-.2321E+03	-.2134E+03	-.1910E+03	-.1666E+03	-.1408E+03	-.1154E+03

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.2449E+02	.3348E+02	.4515E+02	.5481E+02	.6086E+02	.6393E+02	.6487E+02	.6324E+02	.5860E+02
PSS 2	.5804E+01	.1087E+02	.1865E+02	.2647E+02	.3303E+02	.3820E+02	.4223E+02	.4476E+02	.4526E+02
PSS 3	.1869E+02	.2262E+02	.2650E+02	.2834E+02	.2783E+02	.2573E+02	.2264E+02	.1849E+02	.1334E+02

## DISPLACEMENTS

UX	-.1530E-02	-.1624E-02	-.1717E-02	-.1810E-02	-.1902E-02	-.1993E-02	-.2080E-02	-.2164E-02	-.2246E-02
UY	-.5356E-11	-.3986E-11	.0000E+00	.3290E-11	.1920E-11	.2813E-11	.4408E-11	-.4082E-11	.9703E-12
UZ	.1126E+00	.1122E+00	.1117E+00	.1107E+00	.1092E+00	.1079E+00	.1069E+00	.1056E+00	.1040E+00

## NORMAL STRAINS

EXX	-.9509E-04	-.9386E-04	-.9231E-04	-.9046E-04	-.8825E-04	-.8528E-04	-.8165E-04	-.7774E-04	-.7372E-04
EYY	-.1315E-03	-.1304E-03	-.1293E-03	-.1283E-03	-.1274E-03	-.1265E-03	-.1253E-03	-.1239E-03	-.1224E-03
EZZ	-.2548E-03	-.2462E-03	-.2193E-03	-.1788E-03	-.1315E-03	-.8347E-04	-.3666E-04	.7362E-05	.4437E-04

## SHEAR STRAINS

EXY	.3102E-13	.1288E-12	.5410E-13	.1226E-12	.6956E-13	-.1636E-12	-.4649E-13	-.9523E-13	-.1549E-12
EXZ	-.4259E-04	-.1670E-03	-.2771E-03	-.3593E-03	-.4085E-03	-.4315E-03	-.4356E-03	-.4183E-03	-.3775E-03
EYZ	-.2817E-11	.7332E-12	.0000E+00	.7332E-12	-.2817E-11	.1890E-11	-.2354E-11	.3778E-12	.1388E-11

## PRINCIPAL STRAINS

PE 1	-.9230E-04	-.5702E-04	-.3427E-05	.5036E-04	.9551E-04	.1314E-03	.1598E-03	.1783E-03	.1831E-03
PE 2	-.1315E-03	-.1304E-03	-.1293E-03	-.1283E-03	-.1274E-03	-.1265E-03	-.1253E-03	-.1239E-03	-.1224E-03
PE 3	-.2576E-03	-.2830E-03	-.3082E-03	-.3196E-03	-.3153E-03	-.3001E-03	-.2781E-03	-.2486E-03	-.2124E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1653E-03	.2260E-03	.3048E-03	.3699E-03	.4108E-03	.4315E-03	.4379E-03	.4269E-03	.3956E-03
PSE 2	.3918E-04	.7335E-04	.1259E-03	.1786E-03	.2229E-03	.2579E-03	.2850E-03	.3021E-03	.3055E-03
PSE 3	.1261E-03	.1527E-03	.1789E-03	.1913E-03	.1878E-03	.1737E-03	.1528E-03	.1248E-03	.9003E-04

Z= 12.00 LAYER NO, 2



Appendix 6E-c Composite Pavement

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.6325E+03	.6234E+03	.6072E+03	.5854E+03	.5604E+03	.5320E+03	.5003E+03	.4671E+03	.4351E+03
SYY	.7744E+03	.7666E+03	.7559E+03	.7434E+03	.7307E+03	.7165E+03	.7006E+03	.6837E+03	.6676E+03
SZZ	-.6303E+01	-.6247E+01	-.6179E+01	-.6074E+01	-.5948E+01	-.5840E+01	-.5743E+01	-.5624E+01	-.5492E+01

SHEAR STRESSES

SXY	.1079E-06	.1182E-06	-.2860E-06	.3586E-06	-.1079E-06	-.2906E-06	-.2860E-06	-.4860E-06	.1167E-07
SXZ	-.3303E+00	-.3774E+00	-.4230E+00	-.4661E+00	-.5057E+00	-.5406E+00	-.5702E+00	-.5947E+00	-.6143E+00
SYZ	.5109E-09	.1085E-08	.0000E+00	.1085E-08	.5109E-09	.2776E-10	-.3238E-09	-.2399E-08	.2938E-08

PRINCIPAL STRESSES

PS 1	.7744E+03	.7666E+03	.7559E+03	.7434E+03	.7307E+03	.7165E+03	.7006E+03	.6837E+03	.6676E+03
PS 2	.6325E+03	.6234E+03	.6072E+03	.5854E+03	.5604E+03	.5320E+03	.5003E+03	.4671E+03	.4351E+03
PS 3	-.6303E+01	-.6247E+01	-.6179E+01	-.6075E+01	-.5948E+01	-.5841E+01	-.5744E+01	-.5625E+01	-.5493E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3904E+03	.3864E+03	.3810E+03	.3747E+03	.3683E+03	.3612E+03	.3532E+03	.3447E+03	.3365E+03
PSS 2	.7098E+02	.7160E+02	.7436E+02	.7898E+02	.8512E+02	.9228E+02	.1002E+03	.1083E+03	.1162E+03
PSS 3	.3194E+03	.3148E+03	.3067E+03	.2957E+03	.2832E+03	.2689E+03	.2530E+03	.2364E+03	.2203E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.1798E-02	.1927E-02	.2052E-02	.2174E-02	.2294E-02	.2408E-02	.2516E-02	.2616E-02	.2710E-02
UY	-.2878E-11	-.7036E-12	.0000E+00	-.7036E-12	-.2878E-11	.1025E-11	.5608E-11	-.5840E-11	.2807E-11
UZ	.1124E+00	.1120E+00	.1115E+00	.1105E+00	.1091E+00	.1078E+00	.1068E+00	.1055E+00	.1039E+00

## NORMAL STRAINS

EXX	.1293E-03	.1273E-03	.1237E-03	.1187E-03	.1129E-03	.1063E-03	.9901E-04	.9134E-04	.8394E-04
EYY	.1701E-03	.1685E-03	.1664E-03	.1641E-03	.1619E-03	.1594E-03	.1566E-03	.1536E-03	.1508E-03
EZZ	-.5434E-04	-.5368E-04	-.5266E-04	-.5135E-04	-.4990E-04	-.4828E-04	-.4647E-04	-.4456E-04	-.4272E-04

## SHEAR STRAINS

EXY	.6206E-13	.6796E-13	-.1644E-12	.2062E-12	-.6206E-13	-.1671E-12	-.1644E-12	-.2795E-12	.6712E-14
EXZ	-.1899E-06	-.2170E-06	-.2432E-06	-.2680E-06	-.2908E-06	-.3108E-06	-.3279E-06	-.3420E-06	-.3532E-06
EYZ	.2938E-15	.6238E-15	.0000E+00	.6238E-15	.2938E-15	.1596E-16	-.1862E-15	-.1380E-14	.1689E-14

## PRINCIPAL STRAINS

PE 1	.1701E-03	.1685E-03	.1664E-03	.1641E-03	.1619E-03	.1594E-03	.1566E-03	.1536E-03	.1508E-03
PE 2	.1293E-03	.1273E-03	.1237E-03	.1187E-03	.1129E-03	.1063E-03	.9901E-04	.9134E-04	.8394E-04
PE 3	-.5434E-04	-.5368E-04	-.5266E-04	-.5135E-04	-.4990E-04	-.4828E-04	-.4647E-04	-.4456E-04	-.4272E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2245E-03	.2222E-03	.2191E-03	.2155E-03	.2118E-03	.2077E-03	.2031E-03	.1982E-03	.1935E-03
PSE 2	.4081E-04	.4117E-04	.4276E-04	.4541E-04	.4895E-04	.5306E-04	.5759E-04	.6228E-04	.6684E-04
PSE 3	.1837E-03	.1810E-03	.1763E-03	.1701E-03	.1628E-03	.1546E-03	.1455E-03	.1359E-03	.1267E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.41 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-c Composite Pavement

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	-.8785E+02	-.8778E+02	-.8402E+02	-.7761E+02	-.7090E+02	-.6583E+02	-.6347E+02	-.6419E+02	-.6839E+02
SYX	-.9916E+02	-.9868E+02	-.9439E+02	-.8730E+02	-.7981E+02	-.7393E+02	-.7076E+02	-.7064E+02	-.7396E+02
SZZ	-.8028E+02	-.7634E+02	-.6522E+02	-.4930E+02	-.3247E+02	-.1864E+02	-.9986E+01	-.7202E+01	-.1107E+02

SHEAR STRESSES

SXY	-.2352E-07	-.4922E-08	-.4956E-07	.4012E-07	.2400E-07	-.2883E-07	.1626E-07	.1879E-07	.1821E-07
SXZ	.1598E+02	.7021E+01	-.8557E-01	-.3581E+01	-.2446E+01	.2852E+01	.1092E+02	.2083E+02	.3258E+02
SYZ	.5729E-07	.4669E-06	.8549E-06	-.3449E-06	.1521E-06	.3090E-07	.2476E-06	.2253E-06	-.3374E-06

PRINCIPAL STRESSES

PS 1	-.6765E+02	-.7300E+02	-.6522E+02	-.4885E+02	-.3232E+02	-.1846E+02	-.7843E+01	-.4021E+00	.3663E+01
PS 2	-.9916E+02	-.9112E+02	-.8402E+02	-.7805E+02	-.7105E+02	-.6600E+02	-.6561E+02	-.7064E+02	-.7396E+02

## Appendix 6E-c Composite Pavement

PS 3    -.1005E+03   -.9868E+02   -.9439E+02   -.8730E+02   -.7981E+02   -.7393E+02   -.7076E+02   -.7099E+02   -.8312E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1642E+02   .1284E+02   .1458E+02   .1923E+02   .2375E+02   .2773E+02   .3146E+02   .3529E+02   .4339E+02  
PSS 2   .1576E+02   .9057E+01   .9398E+01   .1460E+02   .1937E+02   .2377E+02   .2889E+02   .3512E+02   .3881E+02  
PSS 3   .6613E+00   .3781E+01   .5184E+01   .4626E+01   .4381E+01   .3965E+01   .2573E+01   .1741E+00   .4581E+01

## DISPLACEMENTS

UX       .1307E-02   .1244E-02   .1176E-02   .1105E-02   .1028E-02   .9445E-03   .8538E-03   .7568E-03   .6541E-03  
UY       .1205E-11   -.4506E-12   -.1907E-11   .1775E-11   .6263E-12   -.6674E-11   -.4696E-11   .3363E-12   .6726E-12  
UZ       .7632E-01   .7658E-01   .7675E-01   .7655E-01   .7614E-01   .7572E-01   .7546E-01   .7551E-01   .7595E-01

## NORMAL STRAINS

EXX     -.6262E-04   -.6631E-04   -.7039E-04   -.7449E-04   -.7899E-04   -.8357E-04   -.8802E-04   -.9236E-04   -.9658E-04  
EYY     -.1008E-03   -.1031E-03   -.1054E-03   -.1072E-03   -.1091E-03   -.1109E-03   -.1126E-03   -.1141E-03   -.1154E-03  
EZZ     -.3707E-04   -.2769E-04   -.6953E-05   .2105E-04   .5069E-04   .7569E-04   .9248E-04   .9997E-04   .9688E-04

## SHEAR STRAINS

EXY     -.1588E-12   -.3323E-13   -.3346E-12   .2708E-12   .1620E-12   -.1946E-12   .1098E-12   .1268E-12   .1229E-12  
EXZ     .1078E-03   .4739E-04   -.5776E-06   -.2417E-04   -.1651E-04   .1925E-04   .7370E-04   .1406E-03   .2199E-03  
EYZ     .3867E-12   .3152E-11   .5770E-11   -.2328E-11   .1027E-11   .2086E-12   .1671E-11   .1521E-11   -.2277E-11

## PRINCIPAL STRAINS

PE 1     .5573E-05   -.1644E-04   -.6952E-05   .2255E-04   .5121E-04   .7627E-04   .9972E-04   .1229E-03   .1466E-03  
PE 2     -.1008E-03   -.7757E-04   -.7039E-04   -.7599E-04   -.7951E-04   -.8415E-04   -.9526E-04   -.1141E-03   -.1154E-03  
PE 3     -.1053E-03   -.1031E-03   -.1054E-03   -.1072E-03   -.1091E-03   -.1109E-03   -.1126E-03   -.1153E-03   -.1463E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .1108E-03   .8666E-04   .9843E-04   .1298E-03   .1603E-03   .1872E-03   .2123E-03   .2382E-03   .2929E-03  
PSE 2   .1064E-03   .6113E-04   .6344E-04   .9855E-04   .1307E-03   .1604E-03   .1950E-03   .2370E-03   .2620E-03  
PSE 3   .4464E-05   .2552E-04   .3499E-04   .3122E-04   .2957E-04   .2676E-04   .1737E-04   .1175E-05   .3092E-04

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.3911E+03	.4077E+03	.4225E+03	.4347E+03	.4482E+03	.4638E+03	.4815E+03	.5013E+03	.5232E+03
SYZ	.5546E+03	.5689E+03	.5823E+03	.5934E+03	.6056E+03	.6187E+03	.6321E+03	.6451E+03	.6572E+03
SZZ	-.4601E+01	-.4668E+01	-.4720E+01	-.4709E+01	-.4698E+01	-.4699E+01	-.4714E+01	-.4743E+01	-.4790E+01

SHEAR STRESSES

SXY	.5547E-06	.5133E-06	-.5895E-06	.5331E-06	.4932E-06	-.8748E-06	.4364E-06	-.5509E-06	-.4202E-09
SXZ	.3979E+00	.3828E+00	.3678E+00	.3534E+00	.3393E+00	.3255E+00	.3113E+00	.2961E+00	.2786E+00
SYZ	.1617E-08	-.7740E-09	-.1966E-09	-.1166E-08	.9533E-09	-.4831E-09	-.3437E-10	.1114E-08	-.6559E-10

PRINCIPAL STRESSES

PS 1	.5546E+03	.5689E+03	.5823E+03	.5934E+03	.6056E+03	.6187E+03	.6321E+03	.6451E+03	.6572E+03
PS 2	.3911E+03	.4077E+03	.4225E+03	.4347E+03	.4482E+03	.4638E+03	.4815E+03	.5013E+03	.5232E+03
PS 3	-.4602E+01	-.4669E+01	-.4720E+01	-.4709E+01	-.4698E+01	-.4699E+01	-.4714E+01	-.4744E+01	-.4790E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.2796E+03	.2868E+03	.2935E+03	.2991E+03	.3052E+03	.3117E+03	.3184E+03	.3249E+03	.3310E+03
PSS 2	.8172E+02	.8060E+02	.7991E+02	.7939E+02	.7871E+02	.7747E+02	.7530E+02	.7189E+02	.6704E+02
PSS 3	.1979E+03	.2062E+03	.2136E+03	.2197E+03	.2264E+03	.2343E+03	.2431E+03	.2530E+03	.2640E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.1580E-02	-.1503E-02	-.1421E-02	-.1337E-02	-.1249E-02	-.1155E-02	-.1055E-02	-.9476E-03	-.8343E-03
UY	.2911E-12	.6849E-11	-.8563E-11	.6794E-11	-.9688E-11	.7525E-11	.3092E-11	.2542E-11	.2745E-11
UZ	.7623E-01	.7649E-01	.7667E-01	.7647E-01	.7608E-01	.7566E-01	.7541E-01	.7546E-01	.7590E-01

## NORMAL STRAINS

EXX	.7716E-04	.8076E-04	.8396E-04	.8659E-04	.8951E-04	.9292E-04	.9686E-04	.1013E-03	.1063E-03
EYY	.1242E-03	.1271E-03	.1299E-03	.1322E-03	.1348E-03	.1375E-03	.1402E-03	.1427E-03	.1449E-03
EZZ	-.3661E-04	-.3779E-04	-.3886E-04	-.3973E-04	-.4069E-04	-.4177E-04	-.4294E-04	-.4418E-04	-.4546E-04

## SHEAR STRAINS

EXY	.3190E-12	.2951E-12	-.3390E-12	.3065E-12	.2836E-12	-.5030E-12	.2509E-12	-.3168E-12	-.2416E-15
EXZ	.2288E-06	.2201E-06	.2115E-06	.2032E-06	.1951E-06	.1871E-06	.1790E-06	.1702E-06	.1602E-06
EYZ	.9295E-15	-.4450E-15	-.1131E-15	-.6705E-15	.5482E-15	-.2778E-15	-.1976E-16	.6406E-15	-.3771E-16

## PRINCIPAL STRAINS

PE 1	.1242E-03	.1271E-03	.1299E-03	.1322E-03	.1348E-03	.1375E-03	.1402E-03	.1427E-03	.1449E-03
PE 2	.7716E-04	.8076E-04	.8396E-04	.8659E-04	.8951E-04	.9292E-04	.9686E-04	.1013E-03	.1063E-03
PE 3	-.3661E-04	-.3779E-04	-.3886E-04	-.3973E-04	-.4069E-04	-.4177E-04	-.4294E-04	-.4418E-04	-.4546E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1608E-03	.1649E-03	.1688E-03	.1720E-03	.1755E-03	.1792E-03	.1831E-03	.1868E-03	.1903E-03
PSE 2	.4699E-04	.4634E-04	.4595E-04	.4565E-04	.4526E-04	.4454E-04	.4330E-04	.4134E-04	.3855E-04
PSE 3	.1138E-03	.1185E-03	.1228E-03	.1263E-03	.1302E-03	.1347E-03	.1398E-03	.1455E-03	.1518E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5500.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.41 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00



Appendix 6E-c Composite Pavement

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13.00 4.00  
 14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
 9.00 4.00  
 10.00 4.00  
 11.00 4.00  
 12.00 4.00  
 13.00 4.00  
 14.00 4.00  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00

NORMAL STRESSES

SXX -.7710E+02 -.9173E+02 -.1129E+03 -.1388E+03 -.1660E+03 -.1918E+03 -.2146E+03 -.2312E+03 -.2372E+03  
 SYX -.8180E+02 -.9570E+02 -.1163E+03 -.1419E+03 -.1687E+03 -.1944E+03 -.2173E+03 -.2342E+03 -.2404E+03  
 SZZ -.2366E+02 -.4791E+02 -.8488E+02 -.1312E+03 -.1807E+03 -.2286E+03 -.2713E+03 -.3027E+03 -.3146E+03

SHEAR STRESSES

SXY .2731E-08 .1655E-07 .5180E-08 .2333E-07 .1144E-07 -.1428E-08 .5348E-08 -.1075E-07 -.6084E-08  
 SXZ .4628E+02 .6063E+02 .7223E+02 .7747E+02 .7540E+02 .6680E+02 .5104E+02 .2678E+02 -.3894E+01  
 SYZ .2793E-06 -.1015E-05 .2105E-06 -.1335E-05 -.1753E-05 .9387E-06 .1834E-06 .6142E-06 -.1146E-05

PRINCIPAL STRESSES

PS 1 .3057E+01 -.5350E+01 -.2530E+02 -.5744E+02 -.9756E+02 -.1409E+03 -.1845E+03 -.2223E+03 -.2370E+03  
 PS 2 -.8180E+02 -.9570E+02 -.1163E+03 -.1419E+03 -.1687E+03 -.1944E+03 -.2173E+03 -.2342E+03 -.2404E+03

## Appendix 6E-c Composite Pavement

PS 3   -.1038E+03   -.1343E+03   -.1724E+03   -.2126E+03   -.2491E+03   -.2794E+03   -.3013E+03   -.3117E+03   -.3148E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .5344E+02   .6447E+02   .7357E+02   .7756E+02   .7576E+02   .6929E+02   .5840E+02   .4467E+02   .3887E+02  
PSS 2   .4243E+02   .4518E+02   .4551E+02   .4223E+02   .3559E+02   .2675E+02   .1637E+02   .5958E+01   .1698E+01  
PSS 3   .1101E+02   .1929E+02   .2806E+02   .3533E+02   .4017E+02   .4254E+02   .4204E+02   .3871E+02   .3717E+02

## DISPLACEMENTS

UX       .5471E-03   .4374E-03   .3273E-03   .2172E-03   .1053E-03   -.6413E-05   -.1152E-03   -.2211E-03   -.3274E-03  
UY       -.1843E-11   .7552E-12   .3914E-11   -.1073E-11   -.6682E-12   -.1103E-11   .1510E-11   -.3649E-11   -.3709E-12  
UZ       .7686E-01   .7825E-01   .7999E-01   .8166E-01   .8304E-01   .8434E-01   .8570E-01   .8667E-01   .8697E-01

## NORMAL STRAINS

EXX     -.1005E-03   -.1037E-03   -.1061E-03   -.1080E-03   -.1091E-03   -.1093E-03   -.1089E-03   -.1082E-03   -.1074E-03  
EYY     -.1163E-03   -.1171E-03   -.1178E-03   -.1185E-03   -.1185E-03   -.1181E-03   -.1180E-03   -.1184E-03   -.1182E-03  
EZZ     .7987E-04   .4424E-04   -.1167E-04   -.8240E-04   -.1589E-03   -.2335E-03   -.3004E-03   -.3496E-03   -.3685E-03

## SHEAR STRAINS

EXY     .1843E-13   .1117E-12   .3496E-13   .1575E-12   .7725E-13   -.9640E-14   .3610E-13   -.7254E-13   -.4107E-13  
EXZ     .3124E-03   .4093E-03   .4875E-03   .5229E-03   .5090E-03   .4509E-03   .3445E-03   .1808E-03   -.2628E-04  
EYZ     .1885E-11   -.6853E-11   .1421E-11   -.9012E-11   -.1183E-10   .6336E-11   .1238E-11   .4146E-11   -.7736E-11

## PRINCIPAL STRAINS

PE 1     .1701E-03   .1879E-03   .1894E-03   .1666E-03   .1217E-03   .6241E-04   -.7555E-05   -.7814E-04   -.1068E-03  
PE 2     -.1163E-03   -.1171E-03   -.1178E-03   -.1185E-03   -.1185E-03   -.1181E-03   -.1180E-03   -.1184E-03   -.1182E-03  
PE 3     -.1907E-03   -.2473E-03   -.3072E-03   -.3570E-03   -.3897E-03   -.4053E-03   -.4018E-03   -.3797E-03   -.3691E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .3607E-03   .4352E-03   .4966E-03   .5236E-03   .5114E-03   .4677E-03   .3942E-03   .3015E-03   .2624E-03  
PSE 2   .2864E-03   .3049E-03   .3072E-03   .2850E-03   .2402E-03   .1806E-03   .1105E-03   .4021E-04   .1146E-04  
PSE 3   .7433E-04   .1302E-03   .1894E-03   .2385E-03   .2712E-03   .2871E-03   .2837E-03   .2613E-03   .2509E-03

## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.5471E+03	.5733E+03	.6025E+03	.6339E+03	.6616E+03	.6838E+03	.7018E+03	.7151E+03	.7176E+03
SYZ	.6685E+03	.6795E+03	.6916E+03	.7050E+03	.7152E+03	.7219E+03	.7278E+03	.7336E+03	.7340E+03
SZZ	-.4861E+01	-.4968E+01	-.5124E+01	-.5309E+01	-.5442E+01	-.5544E+01	-.5674E+01	-.5811E+01	-.5858E+01

## SHEAR STRESSES

SXY	-.6605E-06	.5910E-06	-.3921E-06	.4699E-06	-.1674E-06	-.7384E-06	.1908E-06	-.2625E-06	-.2086E-07
SXZ	.2579E+00	.2328E+00	.2022E+00	.1657E+00	.1227E+00	.7338E-01	.1894E-01	-.3907E-01	-.9903E-01
SYZ	-.5916E-09	.3954E-09	-.3128E-08	-.3186E-08	.2169E-08	-.2017E-08	-.2346E-08	-.6667E-09	.5668E-10

## PRINCIPAL STRESSES

PS 1	.6685E+03	.6795E+03	.6916E+03	.7050E+03	.7152E+03	.7219E+03	.7278E+03	.7336E+03	.7340E+03
PS 2	.5471E+03	.5733E+03	.6025E+03	.6339E+03	.6616E+03	.6838E+03	.7018E+03	.7151E+03	.7176E+03
PS 3	-.4861E+01	-.4968E+01	-.5125E+01	-.5309E+01	-.5442E+01	-.5544E+01	-.5674E+01	-.5811E+01	-.5858E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.3367E+03	.3422E+03	.3483E+03	.3552E+03	.3603E+03	.3637E+03	.3667E+03	.3697E+03	.3699E+03
PSS 2	.6072E+02	.5310E+02	.4452E+02	.3553E+02	.2680E+02	.1905E+02	.1300E+02	.9242E+01	.8187E+01
PSS 3	.2760E+03	.2891E+03	.3038E+03	.3196E+03	.3335E+03	.3447E+03	.3537E+03	.3605E+03	.3617E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.7152E-03	-.5914E-03	-.4638E-03	-.3317E-03	-.1922E-03	-.4779E-04	.9819E-04	.2453E-03	.3955E-03
UY	-.4464E-11	.4243E-12	-.1316E-11	-.5021E-11	-.6666E-11	.9785E-11	-.8159E-11	.6234E-11	-.3472E-11
UZ	.7679E-01	.7816E-01	.7987E-01	.8150E-01	.8284E-01	.8410E-01	.8543E-01	.8638E-01	.8667E-01

## NORMAL STRAINS

EXX	.1119E-03	.1180E-03	.1249E-03	.1322E-03	.1388E-03	.1441E-03	.1484E-03	.1515E-03	.1521E-03
EYY	.1468E-03	.1486E-03	.1505E-03	.1527E-03	.1542E-03	.1550E-03	.1558E-03	.1568E-03	.1568E-03
EZZ	-.4680E-04	-.4822E-04	-.4981E-04	-.5154E-04	-.5299E-04	-.5410E-04	-.5503E-04	-.5578E-04	-.5590E-04

## SHEAR STRAINS

EXY	-.3798E-12	.3398E-12	-.2254E-12	.2702E-12	-.9625E-13	-.4246E-12	.1097E-12	-.1509E-12	-.1200E-13
EXZ	.1483E-06	.1338E-06	.1163E-06	.9529E-07	.7053E-07	.4219E-07	.1089E-07	-.2247E-07	-.5694E-07
EYZ	-.3402E-15	.2274E-15	-.1798E-14	-.1832E-14	.1247E-14	-.1160E-14	-.1349E-14	-.3834E-15	.3259E-16

## PRINCIPAL STRAINS

PE 1	.1468E-03	.1486E-03	.1505E-03	.1527E-03	.1542E-03	.1550E-03	.1558E-03	.1568E-03	.1568E-03
PE 2	.1119E-03	.1180E-03	.1249E-03	.1322E-03	.1388E-03	.1441E-03	.1484E-03	.1515E-03	.1521E-03
PE 3	-.4680E-04	-.4822E-04	-.4981E-04	-.5154E-04	-.5299E-04	-.5410E-04	-.5503E-04	-.5578E-04	-.5590E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1936E-03	.1968E-03	.2003E-03	.2042E-03	.2072E-03	.2091E-03	.2109E-03	.2126E-03	.2127E-03
PSE 2	.3492E-04	.3053E-04	.2560E-04	.2043E-04	.1541E-04	.1095E-04	.7474E-05	.5314E-05	.4708E-05
PSE 3	.1587E-03	.1663E-03	.1747E-03	.1838E-03	.1918E-03	.1982E-03	.2034E-03	.2073E-03	.2080E-03

Appendix 6E-c Composite Pavement

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ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5500.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.41 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  
 X Y  
 18.00 4.00  
 19.00 4.00

Appendix 6E-c Composite Pavement

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Z= 4.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	-.2303E+03	-.2126E+03
SYY	-.2335E+03	-.2157E+03
SZZ	-.3027E+03	-.2713E+03

## SHEAR STRESSES

SXY	-.5047E-08	-.5348E-08
SXZ	-.3459E+02	-.5892E+02
SYZ	-.3342E-05	.0000E+00

## PRINCIPAL STRESSES

PS 1	-.2164E+03	-.1761E+03
PS 2	-.2335E+03	-.2157E+03
PS 3	-.3166E+03	-.3078E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.5009E+02	.6582E+02
PSS 2	.8522E+01	.1978E+02
PSS 3	.4157E+02	.4604E+02

## DISPLACEMENTS

UX	-.4328E-03	-.5362E-03
UY	.5230E-11	.0000E+00
UZ	.8652E-01	.8540E-01

Appendix 6E-c Composite Pavement

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## NORMAL STRAINS

EXX -.1065E-03 -.1054E-03  
EYY -.1173E-03 -.1158E-03  
EZZ -.3511E-03 -.3035E-03

## SHEAR STRAINS

EXY -.3407E-13 -.3610E-13  
EXZ -.2335E-03 -.3977E-03  
EYZ -.2256E-10 .0000E+00

## PRINCIPAL STRAINS

PE 1 -.5974E-04 .1771E-04  
PE 2 -.1173E-03 -.1158E-03  
PE 3 -.3979E-03 -.4266E-03

## PRINCIPAL SHEAR STRAINS

PSE 1 .3381E-03 .4443E-03  
PSE 2 .5752E-04 .1335E-03  
PSE 3 .2806E-03 .3108E-03

Z= 12.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .7066E+03 .6847E+03  
SYY .7266E+03 .7137E+03  
SZZ -.5776E+01 -.5603E+01

Appendix 6E-c Composite Pavement

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## SHEAR STRESSES

SXY -.6333E-06 -.1908E-06  
SXZ -.1589E+00 -.2166E+00  
SYZ .5681E-09 -.3725E-08

## PRINCIPAL STRESSES

PS 1 .7266E+03 .7137E+03  
PS 2 .7066E+03 .6847E+03  
PS 3 -.5776E+01 -.5603E+01

## PRINCIPAL SHEAR STRESSES

PSS 1 .3662E+03 .3597E+03  
PSS 2 .9974E+01 .1450E+02  
PSS 3 .3562E+03 .3452E+03

## DISPLACEMENTS

UX .5448E-03 .6891E-03  
UY -.5185E-11 -.7276E-11  
UZ .8623E-01 .8513E-01

## NORMAL STRAINS

EXX .1496E-03 .1446E-03  
EYY .1554E-03 .1530E-03  
EZZ -.5519E-04 -.5384E-04

## SHEAR STRAINS

EXY -.3642E-12 -.1097E-12  
EXZ -.9136E-07 -.1245E-06  
EYZ .3267E-15 -.2142E-14

## PRINCIPAL STRAINS



Appendix 6E-c Composite Pavement

PE 1 .1554E-03 .1530E-03  
 PE 2 .1496E-03 .1446E-03  
 PE 3 -.5519E-04 -.5384E-04

PRINCIPAL SHEAR STRAINS  
 PSE 1 .2105E-03 .2068E-03  
 PSE 2 .5735E-05 .8337E-05  
 PSE 3 .2048E-03 .1985E-03

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

## Appendix 6E-c Composite Pavement

Z= 4.00 12.00  
 X-Y POINT(S)  
 X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

## NORMAL STRESSES

SXX -.1871E+03 -.1977E+03 -.2018E+03 -.1991E+03 -.1899E+03 -.1757E+03 -.1588E+03 -.1410E+03 -.1231E+03  
 SYY -.1985E+03 -.2089E+03 -.2130E+03 -.2104E+03 -.2015E+03 -.1876E+03 -.1711E+03 -.1540E+03 -.1369E+03  
 SZZ -.2255E+03 -.2434E+03 -.2495E+03 -.2434E+03 -.2256E+03 -.1986E+03 -.1667E+03 -.1339E+03 -.1015E+03

## SHEAR STRESSES

SXY -.2357E-07 -.7502E-08 -.2363E-07 -.1380E-07 .1131E-07 -.3012E-08 .1834E-07 -.6528E-08 -.6866E-08

## Appendix 6E-c Composite Pavement

SXZ	.4153E+02	.2500E+02	.6602E+01	-.1176E+02	-.2822E+02	-.4081E+02	-.4849E+02	-.5204E+02	-.5271E+02
SYZ	.9299E-06	.1425E-05	-.9225E-06	-.1176E-05	-.9367E-08	-.1164E-05	-.9407E-06	-.4874E-06	.9180E-06

## PRINCIPAL STRESSES

PS 1	-.1605E+03	-.1866E+03	-.2009E+03	-.1961E+03	-.1744E+03	-.1447E+03	-.1141E+03	-.8526E+02	-.5850E+02
PS 2	-.1985E+03	-.2089E+03	-.2130E+03	-.2104E+03	-.2015E+03	-.1876E+03	-.1711E+03	-.1540E+03	-.1369E+03
PS 3	-.2521E+03	-.2544E+03	-.2504E+03	-.2463E+03	-.2411E+03	-.2295E+03	-.2114E+03	-.1896E+03	-.1661E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4576E+02	.3388E+02	.2479E+02	.2509E+02	.3338E+02	.4239E+02	.4865E+02	.5216E+02	.5380E+02
PSS 2	.1899E+02	.1114E+02	.6060E+01	.7128E+01	.1356E+02	.2141E+02	.2851E+02	.3436E+02	.3919E+02
PSS 3	.2677E+02	.2274E+02	.1873E+02	.1796E+02	.1982E+02	.2097E+02	.2013E+02	.1780E+02	.1461E+02

## DISPLACEMENTS

UX	.1799E-02	.1701E-02	.1602E-02	.1502E-02	.1401E-02	.1299E-02	.1195E-02	.1090E-02	.9854E-03
UY	.3125E-11	.2812E-11	-.4003E-12	-.4549E-11	-.1102E-11	-.1389E-11	.5716E-11	.3066E-12	-.5440E-11
UZ	.1166E+00	.1171E+00	.1175E+00	.1180E+00	.1184E+00	.1185E+00	.1178E+00	.1173E+00	.1171E+00

## NORMAL STRAINS

EXX	-.9665E-04	-.9837E-04	-.9969E-04	-.1006E-03	-.1011E-03	-.1013E-03	-.1013E-03	-.1006E-03	-.9912E-04
EYY	-.1353E-03	-.1364E-03	-.1376E-03	-.1388E-03	-.1401E-03	-.1415E-03	-.1430E-03	-.1444E-03	-.1457E-03
EZZ	-.2264E-03	-.2527E-03	-.2610E-03	-.2502E-03	-.2214E-03	-.1786E-03	-.1281E-03	-.7662E-04	-.2633E-04

## SHEAR STRAINS

EXY	-.1591E-12	-.5064E-13	-.1595E-12	-.9313E-13	.7632E-13	-.2033E-13	.1238E-12	-.4406E-13	-.4635E-13
EXZ	.2803E-03	.1687E-03	.4456E-04	-.7940E-04	-.1905E-03	-.2755E-03	-.3273E-03	-.3513E-03	-.3558E-03
EYZ	.6277E-11	.9619E-11	-.6227E-11	-.7940E-11	-.6323E-13	-.7857E-11	-.6350E-11	-.3290E-11	.6197E-11

## PRINCIPAL STRAINS

PE 1	-.7102E-05	-.6120E-04	-.9667E-04	-.9072E-04	-.4864E-04	.3088E-05	.4946E-04	.8746E-04	.1189E-03
PE 2	-.1353E-03	-.1364E-03	-.1376E-03	-.1388E-03	-.1401E-03	-.1415E-03	-.1430E-03	-.1444E-03	-.1457E-03
PE 3	-.3160E-03	-.2899E-03	-.2640E-03	-.2601E-03	-.2739E-03	-.2830E-03	-.2789E-03	-.2646E-03	-.2443E-03

Appendix 6E-c Composite Pavement

PRINCIPAL SHEAR STRAINS

PSE 1	.3089E-03	.2287E-03	.1673E-03	.1693E-03	.2253E-03	.2861E-03	.3284E-03	.3521E-03	.3632E-03
PSE 2	.1282E-03	.7521E-04	.4090E-04	.4811E-04	.9150E-04	.1445E-03	.1925E-03	.2319E-03	.2645E-03
PSE 3	.1807E-03	.1535E-03	.1264E-03	.1212E-03	.1338E-03	.1416E-03	.1359E-03	.1202E-03	.9864E-04

Z= 12.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.6345E+03	.6512E+03	.6608E+03	.6631E+03	.6585E+03	.6479E+03	.6344E+03	.6173E+03	.5971E+03
SYX	.7907E+03	.8018E+03	.8100E+03	.8153E+03	.8178E+03	.8182E+03	.8187E+03	.8179E+03	.8153E+03
SZZ	-.6441E+01	-.6512E+01	-.6571E+01	-.6616E+01	-.6650E+01	-.6658E+01	-.6630E+01	-.6622E+01	-.6626E+01

SHEAR STRESSES

SXY	.1627E-06	.2131E-06	.2554E-06	.8613E-07	-.2436E-06	-.4240E-06	-.5355E-06	-.2810E-06	-.5404E-06
SXZ	.4422E+00	.3947E+00	.3458E+00	.2969E+00	.2494E+00	.2045E+00	.1628E+00	.1258E+00	.9413E-01
SYZ	.2079E-08	.4118E-09	-.1253E-08	-.5074E-10	.2020E-09	-.4131E-08	.1718E-08	.1081E-08	.1847E-08

PRINCIPAL STRESSES

PS 1	.7907E+03	.8018E+03	.8100E+03	.8153E+03	.8178E+03	.8182E+03	.8187E+03	.8179E+03	.8153E+03
PS 2	.6345E+03	.6512E+03	.6608E+03	.6631E+03	.6585E+03	.6479E+03	.6344E+03	.6173E+03	.5971E+03

## Appendix 6E-c Composite Pavement

PS 3   - .6442E+01   - .6513E+01   - .6571E+01   - .6616E+01   - .6650E+01   - .6658E+01   - .6630E+01   - .6622E+01   - .6626E+01

## PRINCIPAL SHEAR STRESSES

PSS 1   .3986E+03   .4041E+03   .4083E+03   .4110E+03   .4122E+03   .4124E+03   .4127E+03   .4122E+03   .4110E+03  
PSS 2   .7810E+02   .7530E+02   .7459E+02   .7610E+02   .7966E+02   .8514E+02   .9216E+02   .1003E+03   .1091E+03  
PSS 3   .3205E+03   .3288E+03   .3337E+03   .3349E+03   .3326E+03   .3273E+03   .3205E+03   .3119E+03   .3019E+03

## DISPLACEMENTS

UX     - .2149E-02   - .2017E-02   - .1883E-02   - .1748E-02   - .1613E-02   - .1479E-02   - .1345E-02   - .1214E-02   - .1088E-02  
UY     - .2229E-11   - .1082E-10   - .8247E-11   .9528E-11   .1288E-11   - .2106E-11   - .2888E-11   - .8257E-11   - .6617E-11  
UZ     .1163E+00   .1168E+00   .1173E+00   .1177E+00   .1181E+00   .1182E+00   .1176E+00   .1172E+00   .1170E+00

## NORMAL STRAINS

EXX     .1292E-03   .1330E-03   .1351E-03   .1355E-03   .1342E-03   .1315E-03   .1281E-03   .1239E-03   .1189E-03  
EYY     .1741E-03   .1763E-03   .1780E-03   .1792E-03   .1800E-03   .1805E-03   .1811E-03   .1816E-03   .1817E-03  
EZZ     - .5505E-04   - .5611E-04   - .5680E-04   - .5710E-04   - .5703E-04   - .5664E-04   - .5615E-04   - .5547E-04   - .5462E-04

## SHEAR STRAINS

EXY     .9357E-13   .1225E-12   .1469E-12   .4952E-13   - .1401E-12   - .2438E-12   - .3079E-12   - .1616E-12   - .3107E-12  
EXZ     .2542E-06   .2270E-06   .1988E-06   .1707E-06   .1434E-06   .1176E-06   .9361E-07   .7231E-07   .5413E-07  
EYZ     .1196E-14   .2368E-15   - .7202E-15   - .2918E-16   .1161E-15   - .2375E-14   .9877E-15   .6214E-15   .1062E-14

## PRINCIPAL STRAINS

PE 1     .1741E-03   .1763E-03   .1780E-03   .1792E-03   .1800E-03   .1805E-03   .1811E-03   .1816E-03   .1817E-03  
PE 2     .1292E-03   .1330E-03   .1351E-03   .1355E-03   .1342E-03   .1315E-03   .1281E-03   .1239E-03   .1189E-03  
PE 3     - .5505E-04   - .5611E-04   - .5680E-04   - .5710E-04   - .5703E-04   - .5664E-04   - .5615E-04   - .5547E-04   - .5462E-04

## PRINCIPAL SHEAR STRAINS

PSE 1   .2292E-03   .2324E-03   .2348E-03   .2363E-03   .2370E-03   .2371E-03   .2373E-03   .2370E-03   .2363E-03  
PSE 2   .4491E-04   .4330E-04   .4289E-04   .4376E-04   .4580E-04   .4895E-04   .5299E-04   .5767E-04   .6273E-04  
PSE 3   .1843E-03   .1891E-03   .1919E-03   .1926E-03   .1912E-03   .1882E-03   .1843E-03   .1794E-03   .1736E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-c Composite Pavement

31.00      4.00  
32.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	-.1058E+03	-.9065E+02	-.7904E+02	-.7124E+02	-.6647E+02	-.6366E+02	-.6198E+02	-.6093E+02	-.6027E+02
SYX	-.1204E+03	-.1061E+03	-.9530E+02	-.8842E+02	-.8456E+02	-.8257E+02	-.8157E+02	-.8105E+02	-.8077E+02
SZZ	-.7054E+02	-.4355E+02	-.2356E+02	-.1120E+02	-.4735E+01	-.1864E+01	-.8172E+00	-.5500E+00	-.5668E+00

SHEAR STRESSES

SXY	-.5551E-08	.2796E-07	.7267E-08	.7724E-08	-.5654E-07	.1889E-07	.4746E-08	.1323E-07	.2704E-07
SXZ	-.5034E+02	-.4435E+02	-.3582E+02	-.2705E+02	-.1965E+02	-.1405E+02	-.9946E+01	-.6826E+01	-.4300E+01
SYZ	.4045E-07	.7294E-07	-.2918E-06	-.1013E-06	-.1134E-06	.1152E-06	-.7781E-07	-.5327E-07	-.6867E-07

PRINCIPAL STRESSES

PS 1	-.3483E+02	-.1689E+02	-.5995E+01	-.8127E+00	.9910E+00	.1182E+01	.7597E+00	.2120E+00	-.2586E+00
PS 2	-.1204E+03	-.1061E+03	-.9530E+02	-.8163E+02	-.7220E+02	-.6671E+02	-.6355E+02	-.6169E+02	-.6058E+02
PS 3	-.1415E+03	-.1173E+03	-.9661E+02	-.8842E+02	-.8456E+02	-.8257E+02	-.8157E+02	-.8105E+02	-.8077E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.5333E+02	.5021E+02	.4531E+02	.4380E+02	.4277E+02	.4188E+02	.4117E+02	.4063E+02	.4025E+02
PSS 2	.4277E+02	.4458E+02	.4465E+02	.4041E+02	.3659E+02	.3394E+02	.3216E+02	.3095E+02	.3016E+02
PSS 3	.1056E+02	.5629E+01	.6555E+00	.3394E+01	.6180E+01	.7932E+01	.9010E+01	.9682E+01	.1009E+02

## DISPLACEMENTS

UX	.8827E-03	.7801E-03	.6793E-03	.5816E-03	.4880E-03	.3989E-03	.3138E-03	.2322E-03	.1533E-03
UY	.5692E-12	.4032E-11	.2372E-11	.2684E-11	.4496E-12	-.1444E-11	-.5677E-11	.3376E-11	-.6215E-12
UZ	.1169E+00	.1160E+00	.1155E+00	.1153E+00	.1153E+00	.1155E+00	.1157E+00	.1159E+00	.1160E+00

## NORMAL STRAINS

EXX	-.9739E-04	-.9573E-04	-.9360E-04	-.9094E-04	-.8805E-04	-.8527E-04	-.8285E-04	-.8091E-04	-.7951E-04
EYY	-.1467E-03	-.1477E-03	-.1485E-03	-.1489E-03	-.1491E-03	-.1491E-03	-.1490E-03	-.1488E-03	-.1487E-03
EZZ	.2154E-04	.6325E-04	.9364E-04	.1117E-03	.1203E-03	.1233E-03	.1236E-03	.1229E-03	.1220E-03

## SHEAR STRAINS

EXY	-.3747E-13	.1887E-12	.4905E-13	.5213E-13	-.3816E-12	.1275E-12	.3204E-13	.8930E-13	.1825E-12
EXZ	-.3398E-03	-.2993E-03	-.2418E-03	-.1826E-03	-.1327E-03	-.9485E-04	-.6714E-04	-.4607E-04	-.2903E-04
EYZ	.2730E-12	.4923E-12	-.1970E-11	-.6841E-12	-.7656E-12	.7775E-12	-.5252E-12	-.3596E-12	-.4635E-12

## PRINCIPAL STRAINS

PE 1	.1421E-03	.1532E-03	.1529E-03	.1468E-03	.1396E-03	.1336E-03	.1289E-03	.1254E-03	.1230E-03
PE 2	-.1467E-03	-.1477E-03	-.1485E-03	-.1260E-03	-.1074E-03	-.9555E-04	-.8817E-04	-.8348E-04	-.8055E-04
PE 3	-.2179E-03	-.1857E-03	-.1529E-03	-.1489E-03	-.1491E-03	-.1491E-03	-.1490E-03	-.1488E-03	-.1487E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.3600E-03	.3389E-03	.3058E-03	.2957E-03	.2887E-03	.2827E-03	.2779E-03	.2743E-03	.2717E-03
PSE 2	.2887E-03	.3009E-03	.3014E-03	.2728E-03	.2470E-03	.2291E-03	.2171E-03	.2089E-03	.2036E-03
PSE 3	.7125E-04	.3799E-04	.4425E-05	.2291E-04	.4172E-04	.5354E-04	.6082E-04	.6535E-04	.6814E-04

Z= 12.00 LAYER NO, 2



Appendix 6E-c Composite Pavement

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.5753E+03	.5551E+03	.5359E+03	.5178E+03	.5013E+03	.4866E+03	.4743E+03	.4646E+03	.4576E+03
SYX	.8115E+03	.8090E+03	.8062E+03	.8029E+03	.7991E+03	.7950E+03	.7912E+03	.7878E+03	.7852E+03
SZZ	-.6620E+01	-.6588E+01	-.6582E+01	-.6591E+01	-.6605E+01	-.6620E+01	-.6633E+01	-.6642E+01	-.6648E+01

SHEAR STRESSES

SXY	.3655E-06	-.7025E-06	.8409E-07	.9364E-06	-.9059E-07	.9466E-06	-.3457E-07	.1077E-05	-.8592E-06
SXZ	.6784E-01	.4628E-01	.2958E-01	.1741E-01	.8922E-02	.3444E-02	.3433E-03	-.1018E-02	-.1268E-02
SYZ	-.2008E-08	.5959E-09	-.4043E-09	.3993E-09	-.6195E-09	.2050E-09	.3132E-08	.7337E-09	-.4141E-09

PRINCIPAL STRESSES

PS 1	.8115E+03	.8090E+03	.8062E+03	.8029E+03	.7991E+03	.7950E+03	.7912E+03	.7878E+03	.7852E+03
PS 2	.5753E+03	.5551E+03	.5359E+03	.5178E+03	.5013E+03	.4866E+03	.4743E+03	.4646E+03	.4576E+03
PS 3	-.6621E+01	-.6588E+01	-.6582E+01	-.6591E+01	-.6605E+01	-.6620E+01	-.6633E+01	-.6642E+01	-.6648E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.4091E+03	.4078E+03	.4064E+03	.4047E+03	.4028E+03	.4008E+03	.3989E+03	.3972E+03	.3959E+03
PSS 2	.1181E+03	.1269E+03	.1351E+03	.1425E+03	.1489E+03	.1542E+03	.1584E+03	.1616E+03	.1638E+03
PSS 3	.2909E+03	.2808E+03	.2713E+03	.2622E+03	.2539E+03	.2466E+03	.2405E+03	.2356E+03	.2321E+03

DISPLACEMENTS

## Appendix 6E-c Composite Pavement

UX	-.9664E-03	-.8481E-03	-.7346E-03	-.6265E-03	-.5242E-03	-.4275E-03	-.3357E-03	-.2481E-03	-.1636E-03
UY	-.2017E-11	-.3610E-11	-.7329E-11	-.7535E-11	-.6625E-11	.4875E-11	-.3376E-11	.7179E-12	-.4107E-11
UZ	.1168E+00	.1159E+00	.1154E+00	.1152E+00	.1153E+00	.1154E+00	.1156E+00	.1158E+00	.1160E+00

## NORMAL STRAINS

EXX	.1136E-03	.1087E-03	.1040E-03	.9960E-04	.9560E-04	.9208E-04	.8915E-04	.8686E-04	.8521E-04
EYY	.1816E-03	.1817E-03	.1817E-03	.1815E-03	.1812E-03	.1808E-03	.1803E-03	.1798E-03	.1794E-03
EZZ	-.5366E-04	-.5280E-04	-.5198E-04	-.5117E-04	-.5041E-04	-.4972E-04	-.4911E-04	-.4863E-04	-.4827E-04

## SHEAR STRAINS

EXY	.2102E-12	-.4039E-12	.4835E-13	.5384E-12	-.5209E-13	.5443E-12	-.1988E-13	.6193E-12	-.4940E-12
EXZ	.3901E-07	.2661E-07	.1701E-07	.1001E-07	.5130E-08	.1980E-08	.1974E-09	-.5854E-09	-.7293E-09
EYZ	-.1155E-14	.3426E-15	-.2325E-15	.2296E-15	-.3562E-15	.1179E-15	.1801E-14	.4219E-15	-.2381E-15

## PRINCIPAL STRAINS

PE 1	.1816E-03	.1817E-03	.1817E-03	.1815E-03	.1812E-03	.1808E-03	.1803E-03	.1798E-03	.1794E-03
PE 2	.1136E-03	.1087E-03	.1040E-03	.9960E-04	.9560E-04	.9208E-04	.8915E-04	.8686E-04	.8521E-04
PE 3	-.5366E-04	-.5280E-04	-.5198E-04	-.5117E-04	-.5041E-04	-.4972E-04	-.4911E-04	-.4863E-04	-.4827E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2352E-03	.2345E-03	.2337E-03	.2327E-03	.2316E-03	.2305E-03	.2294E-03	.2284E-03	.2277E-03
PSE 2	.6792E-04	.7299E-04	.7771E-04	.8195E-04	.8561E-04	.8868E-04	.9110E-04	.9292E-04	.9418E-04
PSE 3	.1673E-03	.1615E-03	.1560E-03	.1508E-03	.1460E-03	.1418E-03	.1383E-03	.1355E-03	.1335E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-c Composite Pavement

39.00      4.00  
40.00      4.00  
41.00      4.00

Z=    4.00 LAYER NO,    1

X            Y  
33.00      4.00  
34.00      4.00  
35.00      4.00  
36.00      4.00  
37.00      4.00  
38.00      4.00  
39.00      4.00  
40.00      4.00  
41.00      4.00

NORMAL STRESSES

SXX    -.5990E+02   -.5977E+02   -.5990E+02   -.6027E+02   -.6093E+02   -.6198E+02   -.6366E+02   -.6647E+02   -.7124E+02  
SYY    -.8061E+02   -.8056E+02   -.8061E+02   -.8077E+02   -.8105E+02   -.8157E+02   -.8257E+02   -.8456E+02   -.8842E+02  
SZZ    -.6174E+00   -.6385E+00   -.6174E+00   -.5668E+00   -.5500E+00   -.8172E+00   -.1864E+01   -.4735E+01   -.1120E+02

SHEAR STRESSES

SXY    .3744E-07   -.5291E-07   .4443E-07   .4601E-07   -.2429E-07   -.4233E-07   -.3554E-07   .2799E-07   .4818E-08  
SXZ    -.2089E+01   .4985E-06   .2089E+01   .4300E+01   .6826E+01   .9946E+01   .1405E+02   .1965E+02   .2705E+02  
SYZ    .2602E-08   .2873E-07   .3408E-07   .4048E-08   -.2054E-07   .5749E-07   .2011E-07   -.1367E-06   -.5575E-07

PRINCIPAL STRESSES

PS 1   -.5439E+00   -.6385E+00   -.5439E+00   -.2586E+00   .2120E+00   .7597E+00   .1182E+01   .9909E+00   -.8126E+00  
PS 2   -.5997E+02   -.5977E+02   -.5997E+02   -.6058E+02   -.6169E+02   -.6355E+02   -.6671E+02   -.7220E+02   -.8163E+02  
PS 3   -.8061E+02   -.8056E+02   -.8061E+02   -.8077E+02   -.8105E+02   -.8157E+02   -.8257E+02   -.8456E+02   -.8842E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.4003E+02	.3996E+02	.4003E+02	.4025E+02	.4063E+02	.4117E+02	.4188E+02	.4277E+02	.4380E+02
PSS 2	.2971E+02	.2957E+02	.2971E+02	.3016E+02	.3095E+02	.3216E+02	.3394E+02	.3659E+02	.4041E+02
PSS 3	.1032E+02	.1039E+02	.1032E+02	.1009E+02	.9682E+01	.9010E+01	.7932E+01	.6180E+01	.3394E+01

## DISPLACEMENTS

UX	.7622E-04	.3360E-11	-.7622E-04	-.1533E-03	-.2322E-03	-.3138E-03	-.3989E-03	-.4880E-03	-.5816E-03
UY	-.3737E-11	.1417E-11	.5207E-11	.1299E-11	.4100E-11	.2708E-11	.1883E-11	.4429E-11	.7326E-12
UZ	.1162E+00	.1162E+00	.1162E+00	.1160E+00	.1159E+00	.1157E+00	.1155E+00	.1153E+00	.1153E+00

## NORMAL STRAINS

EXX	-.7867E-04	-.7838E-04	-.7867E-04	-.7951E-04	-.8091E-04	-.8285E-04	-.8527E-04	-.8805E-04	-.9094E-04
EYY	-.1486E-03	-.1485E-03	-.1486E-03	-.1487E-03	-.1488E-03	-.1490E-03	-.1491E-03	-.1491E-03	-.1489E-03
EZZ	.1214E-03	.1212E-03	.1214E-03	.1220E-03	.1229E-03	.1236E-03	.1233E-03	.1203E-03	.1117E-03

## SHEAR STRAINS

EXY	.2527E-12	-.3572E-12	.2999E-12	.3106E-12	-.1640E-12	-.2857E-12	-.2399E-12	.1890E-12	.3252E-13
EXZ	-.1410E-04	.3365E-11	.1410E-04	.2903E-04	.4607E-04	.6714E-04	.9485E-04	.1327E-03	.1826E-03
EYZ	.1757E-13	.1939E-12	.2300E-12	.2733E-13	-.1387E-12	.3880E-12	.1357E-12	-.9225E-12	-.3763E-12

## PRINCIPAL STRAINS

PE 1	.1217E-03	.1212E-03	.1217E-03	.1230E-03	.1254E-03	.1289E-03	.1336E-03	.1396E-03	.1468E-03
PE 2	-.7891E-04	-.7838E-04	-.7891E-04	-.8055E-04	-.8348E-04	-.8817E-04	-.9555E-04	-.1074E-03	-.1260E-03
PE 3	-.1486E-03	-.1485E-03	-.1486E-03	-.1487E-03	-.1488E-03	-.1490E-03	-.1491E-03	-.1491E-03	-.1489E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2702E-03	.2697E-03	.2702E-03	.2717E-03	.2743E-03	.2779E-03	.2827E-03	.2887E-03	.2957E-03
PSE 2	.2006E-03	.1996E-03	.2006E-03	.2036E-03	.2089E-03	.2171E-03	.2291E-03	.2470E-03	.2728E-03
PSE 3	.6967E-04	.7016E-04	.6967E-04	.6814E-04	.6535E-04	.6082E-04	.5354E-04	.4172E-04	.2291E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.4534E+03	.4519E+03	.4534E+03	.4576E+03	.4646E+03	.4743E+03	.4866E+03	.5013E+03	.5178E+03
SYX	.7836E+03	.7830E+03	.7836E+03	.7852E+03	.7878E+03	.7912E+03	.7950E+03	.7991E+03	.8029E+03
SZZ	-.6651E+01	-.6652E+01	-.6651E+01	-.6648E+01	-.6642E+01	-.6632E+01	-.6620E+01	-.6605E+01	-.6590E+01

SHEAR STRESSES

SXY	-.1548E-06	-.6772E-07	.5648E-07	.1129E-05	.1544E-06	.1488E-06	.1472E-06	.2066E-07	-.4178E-08
SXZ	-.8048E-03	-.1186E-08	.8048E-03	.1274E-02	.1020E-02	-.3321E-03	-.3447E-02	-.8921E-02	-.1741E-01
SYZ	.7099E-09	.2132E-10	.6702E-09	.6129E-09	.8663E-10	-.6244E-09	.1719E-08	.1542E-08	.8087E-09

PRINCIPAL STRESSES

PS 1	.7836E+03	.7830E+03	.7836E+03	.7852E+03	.7878E+03	.7912E+03	.7950E+03	.7991E+03	.8029E+03
PS 2	.4534E+03	.4519E+03	.4534E+03	.4576E+03	.4646E+03	.4743E+03	.4866E+03	.5013E+03	.5178E+03
PS 3	-.6651E+01	-.6652E+01	-.6651E+01	-.6648E+01	-.6642E+01	-.6632E+01	-.6620E+01	-.6605E+01	-.6590E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3951E+03	.3948E+03	.3951E+03	.3959E+03	.3972E+03	.3989E+03	.4008E+03	.4028E+03	.4047E+03
PSS 2	.1651E+03	.1655E+03	.1651E+03	.1638E+03	.1616E+03	.1584E+03	.1542E+03	.1489E+03	.1425E+03
PSS 3	.2300E+03	.2293E+03	.2300E+03	.2321E+03	.2356E+03	.2405E+03	.2466E+03	.2539E+03	.2622E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.8130E-04	-.5888E-10	.8130E-04	.1636E-03	.2481E-03	.3357E-03	.4275E-03	.5242E-03	.6265E-03
UY	.1077E-10	.2374E-11	-.4683E-11	.3661E-11	.1715E-11	-.5075E-11	.5843E-11	.3793E-12	.4763E-11
UZ	.1161E+00	.1162E+00	.1161E+00	.1160E+00	.1158E+00	.1156E+00	.1154E+00	.1153E+00	.1152E+00

## NORMAL STRAINS

EXX	.8421E-04	.8387E-04	.8421E-04	.8521E-04	.8686E-04	.8915E-04	.9208E-04	.9560E-04	.9960E-04
EYY	.1791E-03	.1790E-03	.1791E-03	.1794E-03	.1798E-03	.1803E-03	.1808E-03	.1812E-03	.1815E-03
EZZ	-.4805E-04	-.4797E-04	-.4805E-04	-.4827E-04	-.4863E-04	-.4911E-04	-.4972E-04	-.5041E-04	-.5117E-04

## SHEAR STRAINS

EXY	-.8902E-13	-.3894E-13	.3248E-13	.6492E-12	.8880E-13	.8555E-13	.8463E-13	.1188E-13	-.2402E-14
EXZ	-.4628E-09	-.6820E-15	.4628E-09	.7323E-09	.5867E-09	-.1909E-09	-.1982E-08	-.5129E-08	-.1001E-07
EYZ	.4082E-15	.1226E-16	.3854E-15	.3524E-15	.4981E-16	-.3590E-15	.9886E-15	.8864E-15	.4650E-15

## PRINCIPAL STRAINS

PE 1	.1791E-03	.1790E-03	.1791E-03	.1794E-03	.1798E-03	.1803E-03	.1808E-03	.1812E-03	.1815E-03
PE 2	.8421E-04	.8387E-04	.8421E-04	.8521E-04	.8686E-04	.8915E-04	.9208E-04	.9560E-04	.9960E-04
PE 3	-.4805E-04	-.4797E-04	-.4805E-04	-.4827E-04	-.4863E-04	-.4911E-04	-.4972E-04	-.5041E-04	-.5117E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2272E-03	.2270E-03	.2272E-03	.2277E-03	.2284E-03	.2294E-03	.2305E-03	.2316E-03	.2327E-03
PSE 2	.9493E-04	.9518E-04	.9493E-04	.9418E-04	.9292E-04	.9110E-04	.8868E-04	.8561E-04	.8195E-04
PSE 3	.1323E-03	.1318E-03	.1323E-03	.1335E-03	.1355E-03	.1383E-03	.1418E-03	.1460E-03	.1508E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00



Appendix 6E-c Composite Pavement

48.00        4.00  
 49.00        4.00  
 50.00        4.00

Z=    4.00 LAYER NO,    1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	-.7904E+02	-.9065E+02	-.1058E+03	-.1231E+03	-.1410E+03	-.1588E+03	-.1757E+03	-.1899E+03	-.1991E+03
SYX	-.9530E+02	-.1061E+03	-.1204E+03	-.1369E+03	-.1540E+03	-.1711E+03	-.1876E+03	-.2015E+03	-.2104E+03
SZZ	-.2356E+02	-.4355E+02	-.7054E+02	-.1015E+03	-.1339E+03	-.1667E+03	-.1986E+03	-.2256E+03	-.2434E+03

SHEAR STRESSES

SXY	-.2413E-07	.9025E-08	.1102E-07	-.1095E-07	.2531E-08	.2146E-07	.3322E-07	-.9146E-08	.7858E-08
SXZ	.3582E+02	.4435E+02	.5034E+02	.5271E+02	.5204E+02	.4849E+02	.4081E+02	.2822E+02	.1176E+02
SYZ	-.2089E-06	-.5066E-06	-.5673E-06	.9514E-06	-.2850E-06	-.1382E-05	.5154E-06	.9233E-06	.1422E-05

PRINCIPAL STRESSES

PS 1	-.5995E+01	-.1689E+02	-.3483E+02	-.5850E+02	-.8526E+02	-.1141E+03	-.1447E+03	-.1744E+03	-.1961E+03
PS 2	-.9530E+02	-.1061E+03	-.1204E+03	-.1369E+03	-.1540E+03	-.1711E+03	-.1876E+03	-.2015E+03	-.2104E+03
PS 3	-.9661E+02	-.1173E+03	-.1415E+03	-.1661E+03	-.1896E+03	-.2114E+03	-.2295E+03	-.2411E+03	-.2463E+03

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.4531E+02	.5021E+02	.5333E+02	.5380E+02	.5216E+02	.4865E+02	.4239E+02	.3338E+02	.2509E+02
PSS 2	.4465E+02	.4458E+02	.4277E+02	.3919E+02	.3436E+02	.2851E+02	.2141E+02	.1356E+02	.7128E+01
PSS 3	.6556E+00	.5629E+01	.1056E+02	.1461E+02	.1780E+02	.2013E+02	.2097E+02	.1982E+02	.1796E+02

## DISPLACEMENTS

UX	-.6793E-03	-.7801E-03	-.8827E-03	-.9854E-03	-.1090E-02	-.1195E-02	-.1299E-02	-.1401E-02	-.1502E-02
UY	-.3334E-11	.1574E-12	.1827E-11	-.3487E-11	-.1343E-11	-.5069E-11	-.8677E-12	.3449E-11	.1423E-11
UZ	.1155E+00	.1160E+00	.1169E+00	.1171E+00	.1173E+00	.1178E+00	.1185E+00	.1184E+00	.1180E+00

## NORMAL STRAINS

EXX	-.9360E-04	-.9573E-04	-.9739E-04	-.9912E-04	-.1006E-03	-.1013E-03	-.1013E-03	-.1011E-03	-.1006E-03
EYY	-.1485E-03	-.1477E-03	-.1467E-03	-.1457E-03	-.1444E-03	-.1430E-03	-.1415E-03	-.1401E-03	-.1388E-03
EZZ	.9364E-04	.6325E-04	.2154E-04	-.2633E-04	-.7662E-04	-.1281E-03	-.1786E-03	-.2214E-03	-.2502E-03

## SHEAR STRAINS

EXY	-.1629E-12	.6092E-13	.7438E-13	-.7391E-13	.1709E-13	.1448E-12	.2243E-12	-.6173E-13	.5304E-13
EXZ	.2418E-03	.2993E-03	.3398E-03	.3558E-03	.3513E-03	.3273E-03	.2755E-03	.1905E-03	.7940E-04
EYZ	-.1410E-11	-.3420E-11	-.3829E-11	.6422E-11	-.1924E-11	-.9330E-11	.3479E-11	.6232E-11	.9598E-11

## PRINCIPAL STRAINS

PE 1	.1529E-03	.1532E-03	.1421E-03	.1189E-03	.8746E-04	.4946E-04	.3088E-05	-.4864E-04	-.9072E-04
PE 2	-.1485E-03	-.1477E-03	-.1467E-03	-.1457E-03	-.1444E-03	-.1430E-03	-.1415E-03	-.1401E-03	-.1388E-03
PE 3	-.1529E-03	-.1857E-03	-.2179E-03	-.2443E-03	-.2646E-03	-.2789E-03	-.2830E-03	-.2739E-03	-.2601E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.3058E-03	.3389E-03	.3600E-03	.3632E-03	.3521E-03	.3284E-03	.2861E-03	.2253E-03	.1693E-03
PSE 2	.3014E-03	.3009E-03	.2887E-03	.2645E-03	.2319E-03	.1925E-03	.1445E-03	.9150E-04	.4811E-04
PSE 3	.4425E-05	.3799E-04	.7125E-04	.9864E-04	.1202E-03	.1359E-03	.1416E-03	.1338E-03	.1212E-03

Z= 12.00 LAYER NO, 2

## Appendix 6E-c Composite Pavement

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

## NORMAL STRESSES

SXX	.5359E+03	.5551E+03	.5753E+03	.5971E+03	.6173E+03	.6344E+03	.6479E+03	.6585E+03	.6631E+03
SYX	.8062E+03	.8090E+03	.8115E+03	.8153E+03	.8179E+03	.8187E+03	.8182E+03	.8178E+03	.8153E+03
SZZ	-.6582E+01	-.6588E+01	-.6621E+01	-.6626E+01	-.6622E+01	-.6630E+01	-.6658E+01	-.6650E+01	-.6616E+01

## SHEAR STRESSES

SXY	.2411E-06	.8582E-06	.1869E-07	.1165E-06	-.7279E-06	-.5357E-06	-.6932E-06	-.6610E-06	-.4039E-06
SXZ	-.2957E-01	-.4629E-01	-.6785E-01	-.9413E-01	-.1258E+00	-.1628E+00	-.2045E+00	-.2494E+00	-.2969E+00
SYZ	-.1037E-08	.2052E-08	.1777E-08	-.1913E-08	.3930E-09	-.2208E-08	.1957E-08	.1814E-08	.8017E-09

## PRINCIPAL STRESSES

PS 1	.8062E+03	.8090E+03	.8115E+03	.8153E+03	.8179E+03	.8187E+03	.8182E+03	.8178E+03	.8153E+03
PS 2	.5359E+03	.5551E+03	.5753E+03	.5971E+03	.6173E+03	.6344E+03	.6479E+03	.6585E+03	.6631E+03
PS 3	-.6582E+01	-.6588E+01	-.6621E+01	-.6626E+01	-.6622E+01	-.6630E+01	-.6658E+01	-.6650E+01	-.6616E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.4064E+03	.4078E+03	.4091E+03	.4110E+03	.4122E+03	.4127E+03	.4124E+03	.4122E+03	.4110E+03
PSS 2	.1351E+03	.1269E+03	.1181E+03	.1091E+03	.1003E+03	.9216E+02	.8514E+02	.7966E+02	.7610E+02
PSS 3	.2713E+03	.2808E+03	.2909E+03	.3019E+03	.3119E+03	.3205E+03	.3273E+03	.3326E+03	.3349E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.7346E-03	.8481E-03	.9664E-03	.1088E-02	.1214E-02	.1345E-02	.1479E-02	.1613E-02	.1748E-02
UY	-.6498E-11	-.3355E-12	-.6777E-11	-.7214E-12	.1050E-10	-.1393E-11	.8812E-11	-.2827E-11	-.7789E-11
UZ	.1154E+00	.1159E+00	.1168E+00	.1170E+00	.1172E+00	.1176E+00	.1182E+00	.1181E+00	.1177E+00

## NORMAL STRAINS

EXX	.1040E-03	.1087E-03	.1136E-03	.1189E-03	.1239E-03	.1281E-03	.1315E-03	.1342E-03	.1355E-03
EYY	.1817E-03	.1817E-03	.1816E-03	.1817E-03	.1816E-03	.1811E-03	.1805E-03	.1800E-03	.1792E-03
EZZ	-.5198E-04	-.5280E-04	-.5366E-04	-.5462E-04	-.5547E-04	-.5615E-04	-.5664E-04	-.5703E-04	-.5710E-04

## SHEAR STRAINS

EXY	.1386E-12	.4935E-12	.1075E-13	.6696E-13	-.4185E-12	-.3081E-12	-.3986E-12	-.3800E-12	-.2322E-12
EXZ	-.1701E-07	-.2661E-07	-.3901E-07	-.5413E-07	-.7231E-07	-.9361E-07	-.1176E-06	-.1434E-06	-.1707E-06
EYZ	-.5964E-15	.1180E-14	.1022E-14	-.1100E-14	.2260E-15	-.1269E-14	.1125E-14	.1043E-14	.4610E-15

## PRINCIPAL STRAINS

PE 1	.1817E-03	.1817E-03	.1816E-03	.1817E-03	.1816E-03	.1811E-03	.1805E-03	.1800E-03	.1792E-03
PE 2	.1040E-03	.1087E-03	.1136E-03	.1189E-03	.1239E-03	.1281E-03	.1315E-03	.1342E-03	.1355E-03
PE 3	-.5198E-04	-.5280E-04	-.5366E-04	-.5462E-04	-.5547E-04	-.5615E-04	-.5664E-04	-.5703E-04	-.5710E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2337E-03	.2345E-03	.2352E-03	.2363E-03	.2370E-03	.2373E-03	.2371E-03	.2370E-03	.2363E-03
PSE 2	.7771E-04	.7299E-04	.6792E-04	.6273E-04	.5767E-04	.5299E-04	.4895E-04	.4580E-04	.4376E-04
PSE 3	.1560E-03	.1615E-03	.1673E-03	.1736E-03	.1794E-03	.1843E-03	.1882E-03	.1912E-03	.1926E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 100K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11000.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.24 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-c Composite Pavement

57.00      4.00  
58.00      4.00  
59.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	-.2018E+03	-.1977E+03	-.1871E+03	-.1714E+03	-.1531E+03	-.1338E+03	-.1144E+03	-.9562E+02	-.7895E+02
SYX	-.2130E+03	-.2089E+03	-.1985E+03	-.1831E+03	-.1652E+03	-.1466E+03	-.1279E+03	-.1099E+03	-.9404E+02
SZZ	-.2495E+03	-.2434E+03	-.2255E+03	-.1985E+03	-.1667E+03	-.1338E+03	-.1014E+03	-.7045E+02	-.4345E+02

SHEAR STRESSES

SXY	-.1373E-07	-.9046E-08	-.2066E-07	.2395E-07	.1373E-07	-.7858E-08	-.2066E-07	-.3422E-08	-.2146E-07
SXZ	-.6602E+01	-.2500E+02	-.4153E+02	-.5418E+02	-.6195E+02	-.6567E+02	-.6653E+02	-.6437E+02	-.5864E+02
SYZ	-.9309E-06	-.1166E-05	.0000E+00	-.1166E-05	-.9309E-06	-.4854E-06	.9233E-06	-.4383E-06	-.4286E-06

PRINCIPAL STRESSES

PS 1	-.2009E+03	-.1866E+03	-.1605E+03	-.1291E+03	-.9755E+02	-.6815E+02	-.4109E+02	-.1744E+02	.6275E-01
PS 2	-.2130E+03	-.2089E+03	-.1985E+03	-.1831E+03	-.1652E+03	-.1466E+03	-.1279E+03	-.1099E+03	-.9404E+02
PS 3	-.2504E+03	-.2544E+03	-.2521E+03	-.2408E+03	-.2222E+03	-.1995E+03	-.1748E+03	-.1486E+03	-.1225E+03

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.2479E+02	.3388E+02	.4576E+02	.5585E+02	.6232E+02	.6567E+02	.6685E+02	.6559E+02	.6127E+02
PSS 2	.6060E+01	.1114E+02	.1899E+02	.2701E+02	.3383E+02	.3921E+02	.4343E+02	.4623E+02	.4705E+02
PSS 3	.1873E+02	.2274E+02	.2677E+02	.2884E+02	.2849E+02	.2646E+02	.2342E+02	.1936E+02	.1421E+02

## DISPLACEMENTS

UX	-.1602E-02	-.1701E-02	-.1799E-02	-.1895E-02	-.1991E-02	-.2086E-02	-.2178E-02	-.2266E-02	-.2351E-02
UY	-.1678E-11	-.1899E-11	-.7276E-11	-.1899E-11	.5598E-11	.1423E-11	-.3827E-11	-.8144E-11	.2207E-11
UZ	.1175E+00	.1171E+00	.1166E+00	.1158E+00	.1142E+00	.1129E+00	.1118E+00	.1106E+00	.1089E+00

## NORMAL STRAINS

EXX	-.9969E-04	-.9837E-04	-.9665E-04	-.9459E-04	-.9227E-04	-.8918E-04	-.8538E-04	-.8122E-04	-.7707E-04
EYY	-.1376E-03	-.1364E-03	-.1353E-03	-.1341E-03	-.1332E-03	-.1322E-03	-.1310E-03	-.1295E-03	-.1280E-03
EZZ	-.2610E-03	-.2527E-03	-.2264E-03	-.1861E-03	-.1382E-03	-.8924E-04	-.4153E-04	.3710E-05	.4273E-04

## SHEAR STRAINS

EXY	-.9266E-13	-.6106E-13	-.1394E-12	.1616E-12	.9266E-13	-.5304E-13	-.1394E-12	-.2310E-13	-.1448E-12
EXZ	-.4456E-04	-.1687E-03	-.2803E-03	-.3657E-03	-.4182E-03	-.4432E-03	-.4491E-03	-.4345E-03	-.3958E-03
EYZ	-.6284E-11	-.7870E-11	.0000E+00	-.7870E-11	-.6284E-11	-.3277E-11	.6232E-11	-.2959E-11	-.2893E-11

## PRINCIPAL STRAINS

PE 1	-.9667E-04	-.6120E-04	-.7102E-05	.4815E-04	.9511E-04	.1324E-03	.1622E-03	.1826E-03	.1896E-03
PE 2	-.1376E-03	-.1364E-03	-.1353E-03	-.1341E-03	-.1332E-03	-.1322E-03	-.1310E-03	-.1295E-03	-.1280E-03
PE 3	-.2640E-03	-.2899E-03	-.3160E-03	-.3288E-03	-.3256E-03	-.3108E-03	-.2891E-03	-.2601E-03	-.2239E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1673E-03	.2287E-03	.3089E-03	.3770E-03	.4207E-03	.4432E-03	.4512E-03	.4427E-03	.4135E-03
PSE 2	.4090E-04	.7521E-04	.1282E-03	.1823E-03	.2284E-03	.2646E-03	.2931E-03	.3121E-03	.3176E-03
PSE 3	.1264E-03	.1535E-03	.1807E-03	.1947E-03	.1923E-03	.1786E-03	.1581E-03	.1306E-03	.9594E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.6608E+03	.6512E+03	.6345E+03	.6117E+03	.5861E+03	.5565E+03	.5238E+03	.4892E+03	.4559E+03
SYY	.8100E+03	.8018E+03	.7907E+03	.7774E+03	.7642E+03	.7495E+03	.7330E+03	.7152E+03	.6984E+03
SZZ	-.6571E+01	-.6512E+01	-.6441E+01	-.6345E+01	-.6213E+01	-.6101E+01	-.6000E+01	-.5890E+01	-.5752E+01

SHEAR STRESSES

SXY	.3009E-06	-.1208E-07	-.2927E-06	-.2263E-06	-.3009E-06	-.7297E-07	-.2927E-06	-.2605E-06	.5357E-06
SXZ	-.3458E+00	-.3947E+00	-.4422E+00	-.4868E+00	-.5280E+00	-.5644E+00	-.5956E+00	-.6211E+00	-.6419E+00
SYZ	-.1170E-08	.1474E-09	.0000E+00	-.3578E-08	.2555E-08	.8017E-09	.1814E-08	.1957E-08	.1518E-08

PRINCIPAL STRESSES

PS 1	.8100E+03	.8018E+03	.7907E+03	.7774E+03	.7642E+03	.7495E+03	.7330E+03	.7152E+03	.6984E+03
PS 2	.6608E+03	.6512E+03	.6345E+03	.6117E+03	.5861E+03	.5565E+03	.5238E+03	.4892E+03	.4559E+03
PS 3	-.6571E+01	-.6513E+01	-.6442E+01	-.6346E+01	-.6214E+01	-.6102E+01	-.6001E+01	-.5890E+01	-.5753E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.4083E+03	.4041E+03	.3986E+03	.3918E+03	.3852E+03	.3778E+03	.3695E+03	.3605E+03	.3521E+03
PSS 2	.7459E+02	.7530E+02	.7810E+02	.8282E+02	.8907E+02	.9651E+02	.1046E+03	.1130E+03	.1213E+03
PSS 3	.3337E+03	.3288E+03	.3205E+03	.3090E+03	.2961E+03	.2813E+03	.2649E+03	.2476E+03	.2308E+03



## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.1883E-02	.2017E-02	.2149E-02	.2276E-02	.2400E-02	.2520E-02	.2633E-02	.2737E-02	.2836E-02
UY	-.5009E-11	.1173E-10	.0000E+00	.1173E-10	-.5009E-11	-.7789E-11	-.2827E-11	-.5740E-11	-.1393E-11
UZ	.1173E+00	.1168E+00	.1163E+00	.1156E+00	.1140E+00	.1127E+00	.1116E+00	.1105E+00	.1088E+00

## NORMAL STRAINS

EXX	.1351E-03	.1330E-03	.1292E-03	.1240E-03	.1181E-03	.1113E-03	.1037E-03	.9570E-04	.8800E-04
EYY	.1780E-03	.1763E-03	.1741E-03	.1716E-03	.1693E-03	.1667E-03	.1638E-03	.1607E-03	.1577E-03
EZZ	-.5680E-04	-.5611E-04	-.5505E-04	-.5368E-04	-.5219E-04	-.5050E-04	-.4863E-04	-.4664E-04	-.4472E-04

## SHEAR STRAINS

EXY	.1730E-12	-.6945E-14	-.1683E-12	-.1301E-12	-.1730E-12	-.4196E-13	-.1683E-12	-.1498E-12	.3081E-12
EXZ	-.1988E-06	-.2270E-06	-.2542E-06	-.2799E-06	-.3036E-06	-.3246E-06	-.3424E-06	-.3571E-06	-.3691E-06
EYZ	-.6728E-15	.8475E-16	.0000E+00	-.2057E-14	.1469E-14	.4610E-15	.1043E-14	.1125E-14	.8727E-15

## PRINCIPAL STRAINS

PE 1	.1780E-03	.1763E-03	.1741E-03	.1716E-03	.1693E-03	.1667E-03	.1638E-03	.1607E-03	.1577E-03
PE 2	.1351E-03	.1330E-03	.1292E-03	.1240E-03	.1181E-03	.1113E-03	.1037E-03	.9570E-04	.8800E-04
PE 3	-.5680E-04	-.5611E-04	-.5505E-04	-.5368E-04	-.5219E-04	-.5050E-04	-.4863E-04	-.4664E-04	-.4473E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2348E-03	.2324E-03	.2292E-03	.2253E-03	.2215E-03	.2172E-03	.2125E-03	.2073E-03	.2025E-03
PSE 2	.4289E-04	.4330E-04	.4491E-04	.4762E-04	.5122E-04	.5549E-04	.6015E-04	.6497E-04	.6973E-04
PSE 3	.1919E-03	.1891E-03	.1843E-03	.1777E-03	.1703E-03	.1618E-03	.1523E-03	.1423E-03	.1327E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5800.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.53 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-c Composite Pavement

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	-.9250E+02	-.9253E+02	-.8885E+02	-.8236E+02	-.7536E+02	-.6994E+02	-.6736E+02	-.6810E+02	-.7266E+02
SYX	-.1043E+03	-.1039E+03	-.9970E+02	-.9253E+02	-.8472E+02	-.7844E+02	-.7500E+02	-.7485E+02	-.7848E+02
SZZ	-.8456E+02	-.8061E+02	-.6938E+02	-.5305E+02	-.3545E+02	-.2069E+02	-.1134E+02	-.8357E+01	-.1270E+02

SHEAR STRESSES

SXY	.2977E-07	-.3196E-07	-.1740E-07	-.3275E-09	.1019E-07	.1876E-08	-.1077E-07	-.1185E-07	-.1803E-07
SXZ	.1685E+02	.7813E+01	.5198E+00	-.3264E+01	-.2338E+01	.3039E+01	.1153E+02	.2211E+02	.3469E+02
SYZ	-.9249E-07	-.9029E-06	.6266E-06	-.5706E-06	.2936E-06	.5740E-07	.6653E-07	-.8692E-07	-.1258E-06

PRINCIPAL STRESSES

PS 1	-.7122E+02	-.7674E+02	-.6936E+02	-.5269E+02	-.3531E+02	-.2050E+02	-.9060E+01	-.1063E+01	.3174E+01
PS 2	-.1043E+03	-.9640E+02	-.8886E+02	-.8272E+02	-.7549E+02	-.7013E+02	-.6964E+02	-.7485E+02	-.7848E+02

## Appendix 6E-c Composite Pavement

PS 3    -.1058E+03   -.1039E+03   -.9970E+02   -.9253E+02   -.8472E+02   -.7844E+02   -.7500E+02   -.7539E+02   -.8853E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1731E+02   .1359E+02   .1517E+02   .1992E+02   .2471E+02   .2897E+02   .3297E+02   .3716E+02   .4585E+02  
PSS 2   .1655E+02   .9828E+01   .9749E+01   .1501E+02   .2009E+02   .2481E+02   .3029E+02   .3689E+02   .4083E+02  
PSS 3   .7619E+00   .3759E+01   .5418E+01   .4905E+01   .4613E+01   .4158E+01   .2679E+01   .2734E+00   .5027E+01

## DISPLACEMENTS

UX       .1377E-02   .1311E-02   .1240E-02   .1164E-02   .1083E-02   .9951E-03   .8996E-03   .7972E-03   .6889E-03  
UY       -.6767E-11   -.3679E-11   .4538E-12   -.2180E-11   -.1972E-11   .3014E-13   -.8856E-12   .5026E-12   .1538E-11  
UZ       .8041E-01   .8068E-01   .8090E-01   .8072E-01   .8028E-01   .7984E-01   .7957E-01   .7962E-01   .8009E-01

## NORMAL STRAINS

EXX     -.6599E-04   -.6987E-04   -.7418E-04   -.7851E-04   -.8325E-04   -.8811E-04   -.9285E-04   -.9745E-04   -.1019E-03  
EYY     -.1059E-03   -.1083E-03   -.1108E-03   -.1128E-03   -.1148E-03   -.1168E-03   -.1186E-03   -.1202E-03   -.1215E-03  
EZZ     -.3918E-04   -.2963E-04   -.8466E-05   .2040E-04   .5145E-04   .7812E-04   .9621E-04   .1042E-03   .1005E-03

## SHEAR STRAINS

EXY     .2009E-12   -.2157E-12   -.1175E-12   -.2210E-14   .6878E-13   .1267E-13   -.7269E-13   -.8001E-13   -.1217E-12  
EXZ     .1137E-03   .5274E-04   .3509E-05   -.2203E-04   -.1578E-04   .2051E-04   .7781E-04   .1493E-03   .2342E-03  
EYZ     -.6243E-12   -.6095E-11   .4230E-11   -.3852E-11   .1982E-11   .3874E-12   .4490E-12   -.5867E-12   -.8493E-12

## PRINCIPAL STRAINS

PE 1     .5845E-05   -.1658E-04   -.8419E-05   .2161E-04   .5191E-04   .7875E-04   .1039E-03   .1288E-03   .1541E-03  
PE 2     -.1059E-03   -.8292E-04   -.7423E-04   -.7973E-04   -.8371E-04   -.8874E-04   -.1005E-03   -.1202E-03   -.1215E-03  
PE 3     -.1110E-03   -.1083E-03   -.1108E-03   -.1128E-03   -.1148E-03   -.1168E-03   -.1186E-03   -.1221E-03   -.1554E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .1169E-03   .9171E-04   .1024E-03   .1344E-03   .1668E-03   .1956E-03   .2225E-03   .2509E-03   .3095E-03  
PSE 2   .1117E-03   .6634E-04   .6581E-04   .1013E-03   .1356E-03   .1675E-03   .2045E-03   .2490E-03   .2756E-03  
PSE 3   .5143E-05   .2538E-04   .3657E-04   .3311E-04   .3114E-04   .2807E-04   .1808E-04   .1846E-05   .3393E-04

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.4113E+03	.4288E+03	.4450E+03	.4583E+03	.4728E+03	.4894E+03	.5082E+03	.5291E+03	.5521E+03
SYX	.5835E+03	.5986E+03	.6132E+03	.6253E+03	.6381E+03	.6520E+03	.6661E+03	.6797E+03	.6924E+03
SZZ	-.4833E+01	-.4904E+01	-.4968E+01	-.4965E+01	-.4953E+01	-.4954E+01	-.4970E+01	-.5001E+01	-.5050E+01

SHEAR STRESSES

SXY	.1483E-07	.8338E-06	.1953E-06	.9555E-06	-.1579E-07	.2001E-06	.1739E-06	.4182E-06	-.4851E-06
SXZ	.4193E+00	.4036E+00	.3879E+00	.3726E+00	.3578E+00	.3431E+00	.3280E+00	.3117E+00	.2931E+00
SYZ	-.2053E-09	-.1396E-08	-.2514E-09	.2159E-08	-.4439E-09	-.3251E-08	.1062E-08	.2781E-08	-.3222E-09

PRINCIPAL STRESSES

PS 1	.5835E+03	.5986E+03	.6132E+03	.6253E+03	.6381E+03	.6520E+03	.6661E+03	.6797E+03	.6924E+03
PS 2	.4113E+03	.4288E+03	.4450E+03	.4583E+03	.4728E+03	.4894E+03	.5082E+03	.5291E+03	.5521E+03
PS 3	-.4834E+01	-.4904E+01	-.4968E+01	-.4965E+01	-.4953E+01	-.4954E+01	-.4970E+01	-.5001E+01	-.5050E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.2942E+03	.3018E+03	.3091E+03	.3151E+03	.3215E+03	.3285E+03	.3355E+03	.3424E+03	.3487E+03
PSS 2	.8611E+02	.8489E+02	.8410E+02	.8348E+02	.8268E+02	.8130E+02	.7895E+02	.7531E+02	.7018E+02
PSS 3	.2081E+03	.2169E+03	.2250E+03	.2316E+03	.2389E+03	.2472E+03	.2566E+03	.2670E+03	.2786E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.1665E-02	-.1584E-02	-.1498E-02	-.1410E-02	-.1317E-02	-.1217E-02	-.1111E-02	-.9982E-03	-.8785E-03
UY	.3244E-11	.5369E-12	-.3332E-11	.5159E-11	.1487E-11	-.3919E-11	-.4304E-11	.5483E-11	.1913E-11
UZ	.8031E-01	.8059E-01	.8081E-01	.8064E-01	.8022E-01	.7978E-01	.7952E-01	.7957E-01	.8003E-01

## NORMAL STRAINS

EXX	.8113E-04	.8494E-04	.8844E-04	.9132E-04	.9444E-04	.9808E-04	.1023E-03	.1070E-03	.1122E-03
EYY	.1306E-03	.1338E-03	.1368E-03	.1393E-03	.1420E-03	.1448E-03	.1476E-03	.1503E-03	.1526E-03
EZZ	-.3852E-04	-.3975E-04	-.4092E-04	-.4188E-04	-.4290E-04	-.4404E-04	-.4528E-04	-.4658E-04	-.4793E-04

## SHEAR STRAINS

EXY	.8525E-14	.4794E-12	.1123E-12	.5494E-12	-.9078E-14	.1151E-12	.9999E-13	.2405E-12	-.2789E-12
EXZ	.2411E-06	.2321E-06	.2230E-06	.2142E-06	.2057E-06	.1973E-06	.1886E-06	.1792E-06	.1685E-06
EYZ	-.1180E-15	-.8030E-15	-.1445E-15	.1241E-14	-.2552E-15	-.1869E-14	.6108E-15	.1599E-14	-.1852E-15

## PRINCIPAL STRAINS

PE 1	.1306E-03	.1338E-03	.1368E-03	.1393E-03	.1420E-03	.1448E-03	.1476E-03	.1503E-03	.1526E-03
PE 2	.8113E-04	.8494E-04	.8844E-04	.9132E-04	.9444E-04	.9808E-04	.1023E-03	.1070E-03	.1122E-03
PE 3	-.3852E-04	-.3975E-04	-.4092E-04	-.4188E-04	-.4290E-04	-.4404E-04	-.4528E-04	-.4658E-04	-.4793E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1692E-03	.1735E-03	.1777E-03	.1812E-03	.1849E-03	.1889E-03	.1929E-03	.1969E-03	.2005E-03
PSE 2	.4951E-04	.4881E-04	.4836E-04	.4800E-04	.4754E-04	.4675E-04	.4540E-04	.4330E-04	.4035E-04
PSE 3	.1196E-03	.1247E-03	.1294E-03	.1332E-03	.1373E-03	.1421E-03	.1475E-03	.1536E-03	.1602E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5800.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.53 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-c Composite Pavement

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	-.8213E+02	-.9788E+02	-.1203E+03	-.1473E+03	-.1754E+03	-.2021E+03	-.2259E+03	-.2432E+03	-.2495E+03
SYX	-.8704E+02	-.1021E+03	-.1239E+03	-.1505E+03	-.1783E+03	-.2048E+03	-.2286E+03	-.2462E+03	-.2527E+03
SZZ	-.2658E+02	-.5286E+02	-.9218E+02	-.1406E+03	-.1918E+03	-.2414E+03	-.2860E+03	-.3189E+03	-.3312E+03

SHEAR STRESSES

SXY	.4532E-08	.6086E-08	-.1053E-08	.1326E-07	.9342E-08	-.2553E-08	-.1362E-07	.1053E-08	-.1238E-07
SXZ	.4920E+02	.6406E+02	.7563E+02	.8052E+02	.7814E+02	.6929E+02	.5299E+02	.2776E+02	-.4106E+01
SYZ	.2410E-06	-.8764E-06	.4718E-06	-.4823E-06	-.8575E-06	-.8966E-06	.4268E-06	-.5223E-06	-.1262E-05

PRINCIPAL STRESSES

PS 1	.2143E+01	-.7476E+01	-.2931E+02	-.6336E+02	-.1050E+03	-.1497E+03	-.1950E+03	-.2341E+03	-.2493E+03
PS 2	-.8704E+02	-.1021E+03	-.1239E+03	-.1505E+03	-.1783E+03	-.2048E+03	-.2286E+03	-.2462E+03	-.2527E+03



## Appendix 6E-c Composite Pavement

PS 3   -.1109E+03   -.1433E+03   -.1832E+03   -.2245E+03   -.2622E+03   -.2938E+03   -.3169E+03   -.3279E+03   -.3314E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .5650E+02   .6790E+02   .7693E+02   .8059E+02   .7857E+02   .7202E+02   .6093E+02   .4690E+02   .4106E+02  
PSS 2   .4459E+02   .4729E+02   .4731E+02   .4359E+02   .3662E+02   .2751E+02   .1679E+02   .6049E+01   .1705E+01  
PSS 3   .1190E+02   .2061E+02   .2962E+02   .3700E+02   .4195E+02   .4451E+02   .4413E+02   .4085E+02   .3935E+02

## DISPLACEMENTS

UX       .5760E-03   .4605E-03   .3445E-03   .2283E-03   .1104E-03   -.7103E-05   -.1214E-03   -.2332E-03   -.3451E-03  
UY       -.5244E-11   -.1463E-11   -.8699E-12   -.7944E-11   .4537E-11   .2366E-11   .6793E-12   -.2883E-11   .7735E-12  
UZ       .8105E-01   .8251E-01   .8435E-01   .8604E-01   .8746E-01   .8880E-01   .9023E-01   .9119E-01   .9150E-01

## NORMAL STRAINS

EXX     -.1059E-03   -.1092E-03   -.1116E-03   -.1136E-03   -.1147E-03   -.1149E-03   -.1144E-03   -.1136E-03   -.1128E-03  
EYY     -.1225E-03   -.1232E-03   -.1239E-03   -.1244E-03   -.1244E-03   -.1238E-03   -.1236E-03   -.1238E-03   -.1236E-03  
EZZ     .8157E-04   .4279E-04   -.1676E-04   -.9081E-04   -.1700E-03   -.2475E-03   -.3173E-03   -.3688E-03   -.3886E-03

## SHEAR STRAINS

EXY     .3059E-13   .4108E-13   -.7106E-14   .8948E-13   .6306E-13   -.1723E-13   -.9194E-13   .7106E-14   -.8359E-13  
EXZ     .3321E-03   .4324E-03   .5105E-03   .5435E-03   .5274E-03   .4677E-03   .3577E-03   .1874E-03   -.2772E-04  
EYZ     .1627E-11   -.5916E-11   .3184E-11   -.3256E-11   -.5788E-11   -.6052E-11   .2881E-11   -.3526E-11   -.8518E-11

## PRINCIPAL STRAINS

PE 1     .1785E-03   .1960E-03   .1954E-03   .1698E-03   .1228E-03   .6187E-04   -.1027E-04   -.8294E-04   -.1121E-03  
PE 2     -.1225E-03   -.1232E-03   -.1239E-03   -.1244E-03   -.1244E-03   -.1238E-03   -.1236E-03   -.1238E-03   -.1236E-03  
PE 3     -.2028E-03   -.2623E-03   -.3238E-03   -.3742E-03   -.4075E-03   -.4243E-03   -.4215E-03   -.3995E-03   -.3893E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .3814E-03   .4583E-03   .5193E-03   .5440E-03   .5303E-03   .4862E-03   .4112E-03   .3166E-03   .2771E-03  
PSE 2   .3010E-03   .3192E-03   .3193E-03   .2942E-03   .2472E-03   .1857E-03   .1134E-03   .4083E-04   .1151E-04  
PSE 3   .8035E-04   .1391E-03   .1999E-03   .2497E-03   .2832E-03   .3005E-03   .2979E-03   .2758E-03   .2656E-03

## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.5772E+03	.6047E+03	.6351E+03	.6671E+03	.6955E+03	.7181E+03	.7368E+03	.7498E+03	.7524E+03
SYZ	.7042E+03	.7157E+03	.7283E+03	.7415E+03	.7518E+03	.7583E+03	.7644E+03	.7697E+03	.7701E+03
SZZ	-.5124E+01	-.5237E+01	-.5402E+01	-.5579E+01	-.5710E+01	-.5809E+01	-.5945E+01	-.6072E+01	-.6122E+01

## SHEAR STRESSES

SXY	-.6880E-06	.8398E-06	-.2885E-06	.9241E-06	-.1409E-06	.2459E-06	.1982E-06	.3769E-06	-.1135E-06
SXZ	.2710E+00	.2443E+00	.2120E+00	.1734E+00	.1281E+00	.7632E-01	.1921E-01	-.4158E-01	-.1044E+00
SYZ	.4076E-09	.5471E-08	.1966E-08	-.9745E-09	.7240E-09	-.7530E-09	-.3633E-08	.4721E-09	-.1960E-08

## PRINCIPAL STRESSES

PS 1	.7042E+03	.7157E+03	.7283E+03	.7415E+03	.7518E+03	.7583E+03	.7644E+03	.7697E+03	.7701E+03
PS 2	.5772E+03	.6047E+03	.6351E+03	.6671E+03	.6955E+03	.7181E+03	.7368E+03	.7498E+03	.7524E+03
PS 3	-.5124E+01	-.5237E+01	-.5402E+01	-.5579E+01	-.5710E+01	-.5809E+01	-.5945E+01	-.6072E+01	-.6122E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.3547E+03	.3605E+03	.3668E+03	.3736E+03	.3787E+03	.3820E+03	.3852E+03	.3879E+03	.3881E+03
PSS 2	.6353E+02	.5554E+02	.4658E+02	.3721E+02	.2813E+02	.2008E+02	.1381E+02	.9923E+01	.8840E+01
PSS 3	.2911E+03	.3049E+03	.3203E+03	.3363E+03	.3506E+03	.3620E+03	.3714E+03	.3780E+03	.3793E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.7529E-03	-.6223E-03	-.4877E-03	-.3479E-03	-.2009E-03	-.4911E-04	.1042E-03	.2590E-03	.4168E-03
UY	-.5347E-12	.8013E-11	.7310E-11	-.1382E-10	-.1197E-10	-.6633E-11	-.8489E-11	-.1128E-10	-.9736E-11
UZ	.8097E-01	.8241E-01	.8421E-01	.8587E-01	.8724E-01	.8854E-01	.8994E-01	.9088E-01	.9118E-01

## NORMAL STRAINS

EXX	.1181E-03	.1245E-03	.1317E-03	.1392E-03	.1459E-03	.1513E-03	.1558E-03	.1588E-03	.1595E-03
EYY	.1546E-03	.1565E-03	.1585E-03	.1606E-03	.1621E-03	.1629E-03	.1637E-03	.1645E-03	.1645E-03
EZZ	-.4933E-04	-.5082E-04	-.5248E-04	-.5422E-04	-.5570E-04	-.5682E-04	-.5778E-04	-.5850E-04	-.5863E-04

## SHEAR STRAINS

EXY	-.3956E-12	.4829E-12	-.1659E-12	.5314E-12	-.8099E-13	.1414E-12	.1140E-12	.2167E-12	-.6527E-13
EXZ	.1558E-06	.1405E-06	.1219E-06	.9973E-07	.7366E-07	.4388E-07	.1105E-07	-.2391E-07	-.6001E-07
EYZ	.2344E-15	.3146E-14	.1130E-14	-.5604E-15	.4163E-15	-.4330E-15	-.2089E-14	.2715E-15	-.1127E-14

## PRINCIPAL STRAINS

PE 1	.1546E-03	.1565E-03	.1585E-03	.1606E-03	.1621E-03	.1629E-03	.1637E-03	.1645E-03	.1645E-03
PE 2	.1181E-03	.1245E-03	.1317E-03	.1392E-03	.1459E-03	.1513E-03	.1558E-03	.1588E-03	.1595E-03
PE 3	-.4933E-04	-.5082E-04	-.5248E-04	-.5422E-04	-.5570E-04	-.5682E-04	-.5778E-04	-.5850E-04	-.5863E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2039E-03	.2073E-03	.2109E-03	.2148E-03	.2178E-03	.2197E-03	.2215E-03	.2230E-03	.2232E-03
PSE 2	.3653E-04	.3193E-04	.2678E-04	.2139E-04	.1617E-04	.1155E-04	.7940E-05	.5706E-05	.5083E-05
PSE 3	.1674E-03	.1753E-03	.1842E-03	.1934E-03	.2016E-03	.2081E-03	.2135E-03	.2173E-03	.2181E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5800.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.53 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-c Composite Pavement

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Z= 4.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	-.2422E+03	-.2239E+03
SYY	-.2454E+03	-.2270E+03
SZZ	-.3188E+03	-.2860E+03

## SHEAR STRESSES

SXY	.5479E-08	-.1280E-08
SXZ	-.3599E+02	-.6130E+02
SYZ	-.8750E-06	.0000E+00

## PRINCIPAL STRESSES

PS 1	-.2280E+03	-.1862E+03
PS 2	-.2454E+03	-.2270E+03
PS 3	-.3331E+03	-.3237E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.5257E+02	.6873E+02
PSS 2	.8728E+01	.2039E+02
PSS 3	.4384E+02	.4834E+02

## DISPLACEMENTS

UX	-.4560E-03	-.5651E-03
UY	-.8315E-11	.3638E-11
UZ	.9103E-01	.8991E-01

Appendix 6E-c Composite Pavement

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## NORMAL STRAINS

EXX -.1118E-03 -.1108E-03  
EYY -.1226E-03 -.1213E-03  
EZZ -.3704E-03 -.3205E-03

## SHEAR STRAINS

EXY .3698E-13 -.8641E-14  
EXZ -.2430E-03 -.4138E-03  
EYZ -.5907E-11 .0000E+00

## PRINCIPAL STRAINS

PE 1 -.6371E-04 .1630E-04  
PE 2 -.1226E-03 -.1213E-03  
PE 3 -.4185E-03 -.4476E-03

## PRINCIPAL SHEAR STRAINS

PSE 1 .3548E-03 .4639E-03  
PSE 2 .5891E-04 .1376E-03  
PSE 3 .2959E-03 .3263E-03

Z= 12.00 LAYER NO, 2

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX .7408E+03 .7187E+03  
SYY .7623E+03 .7496E+03  
SZZ -.6035E+01 -.5870E+01

Appendix 6E-c Composite Pavement

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## SHEAR STRESSES

SXY -.3719E-06 -.1982E-06  
SXZ -.1670E+00 -.2275E+00  
SYZ -.1235E-08 -.3725E-08

## PRINCIPAL STRESSES

PS 1 .7623E+03 .7496E+03  
PS 2 .7408E+03 .7187E+03  
PS 3 -.6035E+01 -.5871E+01

## PRINCIPAL SHEAR STRESSES

PSS 1 .3841E+03 .3777E+03  
PSS 2 .1071E+02 .1541E+02  
PSS 3 .3734E+03 .3623E+03

## DISPLACEMENTS

UX .5736E-03 .7256E-03  
UY .6872E-11 .7276E-11  
UZ .9072E-01 .8963E-01

## NORMAL STRAINS

EXX .1569E-03 .1518E-03  
EYY .1630E-03 .1607E-03  
EZZ -.5788E-04 -.5653E-04

## SHEAR STRAINS

EXY -.2139E-12 -.1140E-12  
EXZ -.9605E-07 -.1308E-06  
EYZ -.7099E-15 -.2142E-14

## PRINCIPAL STRAINS

Appendix 6E-c Composite Pavement

PE 1 .1630E-03 .1607E-03  
 PE 2 .1569E-03 .1518E-03  
 PE 3 -.5788E-04 -.5653E-04

PRINCIPAL SHEAR STRAINS  
 PSE 1 .2209E-03 .2172E-03  
 PSE 2 .6156E-05 .8863E-05  
 PSE 3 .2147E-03 .2083E-03

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)



## Appendix 6E-c Composite Pavement

Z= 4.00 12.00  
 X-Y POINT(S)  
 X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

## NORMAL STRESSES

SXX -.1955E+03 -.2059E+03 -.2100E+03 -.2074E+03 -.1985E+03 -.1843E+03 -.1672E+03 -.1491E+03 -.1308E+03  
 SYY -.2076E+03 -.2178E+03 -.2218E+03 -.2193E+03 -.2107E+03 -.1969E+03 -.1802E+03 -.1628E+03 -.1453E+03  
 SZZ -.2347E+03 -.2520E+03 -.2579E+03 -.2520E+03 -.2347E+03 -.2079E+03 -.1757E+03 -.1422E+03 -.1091E+03

## SHEAR STRESSES

SXY -.1347E-07 -.2828E-07 .9369E-08 .2385E-07 -.8404E-08 .4537E-08 -.2040E-07 .1590E-07 -.1801E-08

## Appendix 6E-c Composite Pavement

SXZ	.4193E+02	.2521E+02	.6963E+01	-.1126E+02	-.2790E+02	-.4103E+02	-.4929E+02	-.5324E+02	-.5422E+02
SYZ	.6044E-06	.6463E-06	-.5362E-06	.4191E-07	.1431E-07	.2266E-07	-.5483E-06	.6690E-06	.6364E-06

## PRINCIPAL STRESSES

PS 1	-.1688E+03	-.1948E+03	-.2090E+03	-.2048E+03	-.1834E+03	-.1534E+03	-.1220E+03	-.9228E+02	-.6466E+02
PS 2	-.2076E+03	-.2178E+03	-.2218E+03	-.2193E+03	-.2107E+03	-.1969E+03	-.1802E+03	-.1628E+03	-.1453E+03
PS 3	-.2614E+03	-.2631E+03	-.2589E+03	-.2547E+03	-.2499E+03	-.2388E+03	-.2210E+03	-.1990E+03	-.1752E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4627E+02	.3415E+02	.2496E+02	.2497E+02	.3325E+02	.4269E+02	.4948E+02	.5335E+02	.5529E+02
PSS 2	.1937E+02	.1147E+02	.6378E+01	.7281E+01	.1366E+02	.2170E+02	.2912E+02	.3524E+02	.4031E+02
PSS 3	.2690E+02	.2268E+02	.1858E+02	.1769E+02	.1959E+02	.2099E+02	.2035E+02	.1811E+02	.1498E+02

## DISPLACEMENTS

UX	.1896E-02	.1793E-02	.1689E-02	.1583E-02	.1477E-02	.1370E-02	.1260E-02	.1149E-02	.1039E-02
UY	-.2223E-11	.2401E-11	-.1160E-11	.2191E-12	-.6501E-12	.1636E-11	-.4769E-11	.1529E-12	.2151E-11
UZ	.1224E+00	.1229E+00	.1234E+00	.1239E+00	.1243E+00	.1246E+00	.1239E+00	.1234E+00	.1232E+00

## NORMAL STRAINS

EXX	-.1019E-03	-.1038E-03	-.1052E-03	-.1062E-03	-.1066E-03	-.1067E-03	-.1066E-03	-.1059E-03	-.1044E-03
EYY	-.1425E-03	-.1437E-03	-.1450E-03	-.1463E-03	-.1476E-03	-.1489E-03	-.1505E-03	-.1520E-03	-.1533E-03
EZZ	-.2340E-03	-.2593E-03	-.2670E-03	-.2566E-03	-.2287E-03	-.1863E-03	-.1352E-03	-.8260E-04	-.3122E-04

## SHEAR STRAINS

EXY	-.9093E-13	-.1909E-12	.6324E-13	.1610E-12	-.5673E-13	.3062E-13	-.1377E-12	.1073E-12	-.1215E-13
EXZ	.2830E-03	.1702E-03	.4700E-04	-.7598E-04	-.1883E-03	-.2769E-03	-.3327E-03	-.3593E-03	-.3660E-03
EYZ	.4079E-11	.4363E-11	-.3620E-11	.2829E-12	.9657E-13	.1529E-12	-.3701E-11	.4516E-11	.4296E-11

## PRINCIPAL STRAINS

PE 1	-.1176E-04	-.6628E-04	-.1019E-03	-.9712E-04	-.5544E-04	-.2403E-05	.4604E-04	.8581E-04	.1188E-03
PE 2	-.1425E-03	-.1437E-03	-.1450E-03	-.1463E-03	-.1476E-03	-.1489E-03	-.1505E-03	-.1520E-03	-.1533E-03
PE 3	-.3241E-03	-.2968E-03	-.2704E-03	-.2657E-03	-.2799E-03	-.2906E-03	-.2879E-03	-.2743E-03	-.2544E-03

Appendix 6E-c Composite Pavement

PRINCIPAL SHEAR STRAINS

PSE 1	.3123E-03	.2305E-03	.1685E-03	.1686E-03	.2244E-03	.2882E-03	.3340E-03	.3601E-03	.3732E-03
PSE 2	.1307E-03	.7743E-04	.4305E-04	.4915E-04	.9217E-04	.1465E-03	.1966E-03	.2378E-03	.2721E-03
PSE 3	.1816E-03	.1531E-03	.1254E-03	.1194E-03	.1323E-03	.1417E-03	.1374E-03	.1223E-03	.1011E-03

Z= 12.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.6672E+03	.6846E+03	.6947E+03	.6973E+03	.6926E+03	.6814E+03	.6677E+03	.6503E+03	.6295E+03
SYX	.8324E+03	.8440E+03	.8527E+03	.8583E+03	.8610E+03	.8610E+03	.8618E+03	.8611E+03	.8586E+03
SZZ	-.6758E+01	-.6832E+01	-.6894E+01	-.6942E+01	-.6977E+01	-.7000E+01	-.6972E+01	-.6964E+01	-.6969E+01

SHEAR STRESSES

SXY	.2539E-06	.8125E-08	.4799E-06	.2794E-06	-.2765E-06	.4002E-06	-.4155E-07	.2829E-06	.9427E-06
SXZ	.4650E+00	.4156E+00	.3646E+00	.3135E+00	.2639E+00	.2171E+00	.1735E+00	.1347E+00	.1013E+00
SYZ	.1162E-08	.1212E-08	.8713E-09	.1556E-09	-.7235E-10	.7893E-09	-.3001E-10	.1518E-08	.2666E-09

PRINCIPAL STRESSES

PS 1	.8324E+03	.8440E+03	.8527E+03	.8583E+03	.8610E+03	.8610E+03	.8618E+03	.8611E+03	.8586E+03
PS 2	.6672E+03	.6846E+03	.6947E+03	.6973E+03	.6926E+03	.6814E+03	.6677E+03	.6503E+03	.6295E+03

## Appendix 6E-c Composite Pavement

PS 3   -.6758E+01   -.6832E+01   -.6894E+01   -.6942E+01   -.6977E+01   -.7000E+01   -.6972E+01   -.6964E+01   -.6969E+01

## PRINCIPAL SHEAR STRESSES

PSS 1   .4196E+03   .4254E+03   .4298E+03   .4326E+03   .4340E+03   .4340E+03   .4344E+03   .4340E+03   .4328E+03  
PSS 2   .8261E+02   .7972E+02   .7900E+02   .8049E+02   .8421E+02   .8983E+02   .9706E+02   .1054E+03   .1146E+03  
PSS 3   .3370E+03   .3457E+03   .3508E+03   .3521E+03   .3498E+03   .3442E+03   .3373E+03   .3286E+03   .3182E+03

## DISPLACEMENTS

UX     -.2264E-02   -.2126E-02   -.1985E-02   -.1843E-02   -.1701E-02   -.1561E-02   -.1420E-02   -.1282E-02   -.1149E-02  
UY     .6258E-11   -.6773E-11   -.1805E-11   -.2346E-11   -.1634E-11   -.1871E-11   -.1414E-11   -.7963E-11   -.2877E-11  
UZ     .1221E+00   .1227E+00   .1232E+00   .1236E+00   .1240E+00   .1244E+00   .1237E+00   .1233E+00   .1231E+00

## NORMAL STRAINS

EXX     .1358E-03   .1397E-03   .1420E-03   .1424E-03   .1411E-03   .1383E-03   .1349E-03   .1305E-03   .1254E-03  
EYY     .1833E-03   .1856E-03   .1874E-03   .1887E-03   .1895E-03   .1900E-03   .1907E-03   .1912E-03   .1913E-03  
EZZ     -.5792E-04   -.5903E-04   -.5975E-04   -.6007E-04   -.6001E-04   -.5959E-04   -.5910E-04   -.5842E-04   -.5754E-04

## SHEAR STRAINS

EXY     .1460E-12   .4672E-14   .2759E-12   .1607E-12   -.1590E-12   .2301E-12   -.2389E-13   .1627E-12   .5421E-12  
EXZ     .2674E-06   .2390E-06   .2096E-06   .1803E-06   .1518E-06   .1249E-06   .9978E-07   .7743E-07   .5823E-07  
EYZ     .6683E-15   .6967E-15   .5010E-15   .8947E-16   -.4160E-16   .4539E-15   -.1725E-16   .8731E-15   .1533E-15

## PRINCIPAL STRAINS

PE 1     .1833E-03   .1856E-03   .1874E-03   .1887E-03   .1895E-03   .1900E-03   .1907E-03   .1912E-03   .1913E-03  
PE 2     .1358E-03   .1397E-03   .1420E-03   .1424E-03   .1411E-03   .1383E-03   .1349E-03   .1305E-03   .1254E-03  
PE 3     -.5792E-04   -.5903E-04   -.5975E-04   -.6007E-04   -.6001E-04   -.5959E-04   -.5910E-04   -.5842E-04   -.5754E-04

## PRINCIPAL SHEAR STRAINS

PSE 1   .2413E-03   .2446E-03   .2471E-03   .2488E-03   .2496E-03   .2496E-03   .2498E-03   .2496E-03   .2488E-03  
PSE 2   .4750E-04   .4584E-04   .4542E-04   .4628E-04   .4842E-04   .5165E-04   .5581E-04   .6062E-04   .6588E-04  
PSE 3   .1938E-03   .1988E-03   .2017E-03   .2025E-03   .2011E-03   .1979E-03   .1940E-03   .1889E-03   .1830E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-c Composite Pavement

31.00      4.00  
32.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	-.1129E+03	-.9698E+02	-.8443E+02	-.7582E+02	-.7049E+02	-.6734E+02	-.6547E+02	-.6432E+02	-.6362E+02
SYX	-.1282E+03	-.1132E+03	-.1015E+03	-.9384E+02	-.8946E+02	-.8717E+02	-.8602E+02	-.8544E+02	-.8512E+02
SZZ	-.7720E+02	-.4873E+02	-.2698E+02	-.1311E+02	-.5661E+01	-.2257E+01	-.9650E+00	-.6102E+00	-.5954E+00

SHEAR STRESSES

SXY	-.1331E-07	-.5389E-07	.1411E-07	.3651E-08	-.1761E-07	.7629E-07	.9585E-08	.4962E-07	.6427E-07
SXZ	-.5228E+02	-.4671E+02	-.3824E+02	-.2911E+02	-.2120E+02	-.1513E+02	-.1067E+02	-.7294E+01	-.4576E+01
SYZ	-.1055E-05	.3173E-06	-.5311E-06	-.3024E-07	.2564E-06	-.3418E-07	-.6812E-07	.8780E-07	.7253E-07

PRINCIPAL STRESSES

PS 1	-.3980E+02	-.2028E+02	-.7879E+01	-.1682E+01	.6565E+00	.1090E+01	.7544E+00	.2141E+00	-.2648E+00
PS 2	-.1282E+03	-.1132E+03	-.1015E+03	-.8725E+02	-.7681E+02	-.7069E+02	-.6719E+02	-.6515E+02	-.6395E+02
PS 3	-.1503E+03	-.1254E+03	-.1035E+03	-.9384E+02	-.8946E+02	-.8717E+02	-.8602E+02	-.8544E+02	-.8512E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.5525E+02	.5257E+02	.4783E+02	.4608E+02	.4506E+02	.4413E+02	.4339E+02	.4283E+02	.4243E+02
PSS 2	.4423E+02	.4645E+02	.4682E+02	.4279E+02	.3873E+02	.3589E+02	.3397E+02	.3268E+02	.3184E+02
PSS 3	.1102E+02	.6126E+01	.1012E+01	.3295E+01	.6325E+01	.8242E+01	.9418E+01	.1015E+02	.1059E+02

## DISPLACEMENTS

UX	.9318E-03	.8238E-03	.7176E-03	.6145E-03	.5158E-03	.4216E-03	.3317E-03	.2455E-03	.1621E-03
UY	.3490E-11	-.3068E-11	-.5478E-12	.1476E-11	-.2805E-11	-.4189E-11	.1760E-12	.4236E-11	.6395E-11
UZ	.1232E+00	.1223E+00	.1218E+00	.1216E+00	.1216E+00	.1217E+00	.1220E+00	.1222E+00	.1224E+00

## NORMAL STRAINS

EXX	-.1025E-03	-.1008E-03	-.9865E-04	-.9597E-04	-.9300E-04	-.9010E-04	-.8756E-04	-.8551E-04	-.8403E-04
EYY	-.1543E-03	-.1554E-03	-.1563E-03	-.1568E-03	-.1570E-03	-.1570E-03	-.1569E-03	-.1568E-03	-.1566E-03
EZZ	.1801E-04	.6205E-04	.9525E-04	.1157E-03	.1258E-03	.1296E-03	.1301E-03	.1295E-03	.1287E-03

## SHEAR STRAINS

EXY	-.8982E-13	-.3637E-12	.9524E-13	.2465E-13	-.1189E-12	.5149E-12	.6470E-13	.3349E-12	.4338E-12
EXZ	-.3529E-03	-.3153E-03	-.2581E-03	-.1965E-03	-.1431E-03	-.1021E-03	-.7203E-04	-.4923E-04	-.3089E-04
EYZ	-.7119E-11	.2142E-11	-.3585E-11	-.2041E-12	.1730E-11	-.2307E-12	-.4598E-12	.5926E-12	.4896E-12

## PRINCIPAL STRAINS

PE 1	.1442E-03	.1581E-03	.1597E-03	.1543E-03	.1471E-03	.1409E-03	.1359E-03	.1323E-03	.1298E-03
PE 2	-.1543E-03	-.1554E-03	-.1563E-03	-.1345E-03	-.1143E-03	-.1014E-03	-.9336E-04	-.8830E-04	-.8515E-04
PE 3	-.2287E-03	-.1968E-03	-.1631E-03	-.1568E-03	-.1570E-03	-.1570E-03	-.1569E-03	-.1568E-03	-.1566E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.3729E-03	.3549E-03	.3228E-03	.3110E-03	.3041E-03	.2979E-03	.2929E-03	.2891E-03	.2864E-03
PSE 2	.2985E-03	.3135E-03	.3160E-03	.2888E-03	.2614E-03	.2422E-03	.2293E-03	.2206E-03	.2149E-03
PSE 3	.7440E-04	.4135E-04	.6828E-05	.2224E-04	.4269E-04	.5563E-04	.6357E-04	.6848E-04	.7148E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.6064E+03	.5856E+03	.5657E+03	.5468E+03	.5294E+03	.5140E+03	.5011E+03	.4908E+03	.4835E+03
SYY	.8543E+03	.8518E+03	.8491E+03	.8457E+03	.8418E+03	.8376E+03	.8336E+03	.8301E+03	.8274E+03
SZZ	-.6978E+01	-.6944E+01	-.6938E+01	-.6948E+01	-.6963E+01	-.6979E+01	-.6993E+01	-.7003E+01	-.7009E+01

SHEAR STRESSES

SXY	.2603E-06	.1161E-05	.5429E-06	.3063E-06	.3157E-06	-.1307E-07	-.3804E-06	.3128E-06	.2176E-06
SXZ	.7353E-01	.5065E-01	.3279E-01	.1964E-01	.1043E-01	.4464E-02	.9608E-03	-.7042E-03	-.1075E-02
SYZ	.7871E-09	-.7986E-09	.1894E-09	-.6627E-09	-.1075E-08	-.4029E-09	-.5091E-10	.9122E-09	-.2364E-08

PRINCIPAL STRESSES

PS 1	.8543E+03	.8518E+03	.8491E+03	.8457E+03	.8418E+03	.8376E+03	.8336E+03	.8301E+03	.8274E+03
PS 2	.6064E+03	.5856E+03	.5657E+03	.5468E+03	.5294E+03	.5140E+03	.5011E+03	.4908E+03	.4835E+03
PS 3	-.6978E+01	-.6944E+01	-.6938E+01	-.6948E+01	-.6963E+01	-.6979E+01	-.6993E+01	-.7003E+01	-.7009E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.4306E+03	.4294E+03	.4280E+03	.4263E+03	.4244E+03	.4223E+03	.4203E+03	.4185E+03	.4172E+03
PSS 2	.1240E+03	.1331E+03	.1417E+03	.1495E+03	.1562E+03	.1618E+03	.1663E+03	.1696E+03	.1719E+03
PSS 3	.3067E+03	.2963E+03	.2863E+03	.2769E+03	.2682E+03	.2605E+03	.2540E+03	.2489E+03	.2452E+03

DISPLACEMENTS



## Appendix 6E-c Composite Pavement

UX	-.1021E-02	-.8965E-03	-.7766E-03	-.6624E-03	-.5543E-03	-.4520E-03	-.3550E-03	-.2624E-03	-.1731E-03
UY	-.7690E-11	.2002E-11	-.8520E-12	-.6398E-11	-.4814E-11	.2366E-11	.3694E-11	.3596E-11	-.2910E-12
UZ	.1231E+00	.1222E+00	.1217E+00	.1215E+00	.1215E+00	.1217E+00	.1219E+00	.1221E+00	.1223E+00

## NORMAL STRAINS

EXX	.1198E-03	.1147E-03	.1098E-03	.1052E-03	.1010E-03	.9736E-04	.9427E-04	.9184E-04	.9010E-04
EYY	.1911E-03	.1913E-03	.1913E-03	.1912E-03	.1908E-03	.1904E-03	.1899E-03	.1894E-03	.1890E-03
EZZ	-.5652E-04	-.5564E-04	-.5479E-04	-.5395E-04	-.5316E-04	-.5243E-04	-.5180E-04	-.5128E-04	-.5091E-04

## SHEAR STRAINS

EXY	.1497E-12	.6675E-12	.3122E-12	.1761E-12	.1815E-12	-.7516E-14	-.2187E-12	.1799E-12	.1251E-12
EXZ	.4228E-07	.2913E-07	.1886E-07	.1129E-07	.5995E-08	.2567E-08	.5524E-09	-.4049E-09	-.6184E-09
EYZ	.4526E-15	-.4592E-15	.1089E-15	-.3810E-15	-.6179E-15	-.2317E-15	-.2928E-16	.5245E-15	-.1359E-14

## PRINCIPAL STRAINS

PE 1	.1911E-03	.1913E-03	.1913E-03	.1912E-03	.1908E-03	.1904E-03	.1899E-03	.1894E-03	.1890E-03
PE 2	.1198E-03	.1147E-03	.1098E-03	.1052E-03	.1010E-03	.9736E-04	.9427E-04	.9184E-04	.9010E-04
PE 3	-.5652E-04	-.5564E-04	-.5479E-04	-.5395E-04	-.5316E-04	-.5243E-04	-.5180E-04	-.5128E-04	-.5091E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2476E-03	.2469E-03	.2461E-03	.2451E-03	.2440E-03	.2428E-03	.2417E-03	.2407E-03	.2399E-03
PSE 2	.7128E-04	.7654E-04	.8147E-04	.8594E-04	.8980E-04	.9302E-04	.9560E-04	.9754E-04	.9887E-04
PSE 3	.1763E-03	.1704E-03	.1646E-03	.1592E-03	.1542E-03	.1498E-03	.1461E-03	.1431E-03	.1410E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-c Composite Pavement

39.00      4.00  
40.00      4.00  
41.00      4.00

Z=    4.00 LAYER NO,    1

X            Y  
33.00      4.00  
34.00      4.00  
35.00      4.00  
36.00      4.00  
37.00      4.00  
38.00      4.00  
39.00      4.00  
40.00      4.00  
41.00      4.00

NORMAL STRESSES

SXX    -.6322E+02   -.6308E+02   -.6322E+02   -.6362E+02   -.6432E+02   -.6547E+02   -.6734E+02   -.7049E+02   -.7582E+02  
SYY    -.8496E+02   -.8490E+02   -.8496E+02   -.8513E+02   -.8544E+02   -.8602E+02   -.8717E+02   -.8946E+02   -.9384E+02  
SZZ    -.6417E+00   -.6602E+00   -.6417E+00   -.5954E+00   -.6102E+00   -.9650E+00   -.2257E+01   -.5661E+01   -.1311E+02

SHEAR STRESSES

SXY    .1036E-08   -.2644E-07   -.2932E-07   .3853E-07   .4877E-07   -.5391E-08   .4745E-07   .2588E-07   -.8450E-08  
SXZ    -.2221E+01   -.5356E-07   .2221E+01   .4576E+01   .7294E+01   .1067E+02   .1513E+02   .2120E+02   .2911E+02  
SYZ    -.2486E-07   -.4264E-08   .3808E-07   .7961E-07   .9105E-07   -.1033E-06   -.9273E-07   -.1871E-06   -.1644E-06

PRINCIPAL STRESSES

PS 1   -.5630E+00   -.6602E+00   -.5630E+00   -.2648E+00   .2141E+00   .7544E+00   .1090E+01   .6565E+00   -.1682E+01  
PS 2   -.6329E+02   -.6308E+02   -.6329E+02   -.6395E+02   -.6515E+02   -.6719E+02   -.7069E+02   -.7681E+02   -.8725E+02  
PS 3   -.8496E+02   -.8490E+02   -.8496E+02   -.8513E+02   -.8544E+02   -.8602E+02   -.8717E+02   -.8946E+02   -.9384E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.4220E+02	.4212E+02	.4220E+02	.4243E+02	.4283E+02	.4339E+02	.4413E+02	.4506E+02	.4608E+02
PSS 2	.3137E+02	.3121E+02	.3137E+02	.3184E+02	.3268E+02	.3397E+02	.3589E+02	.3873E+02	.4279E+02
PSS 3	.1083E+02	.1091E+02	.1083E+02	.1059E+02	.1015E+02	.9418E+01	.8242E+01	.6325E+01	.3295E+01

## DISPLACEMENTS

UX	.8056E-04	.9338E-11	-.8056E-04	-.1621E-03	-.2455E-03	-.3317E-03	-.4216E-03	-.5158E-03	-.6145E-03
UY	.2528E-11	.2070E-11	.1561E-11	-.4238E-11	-.8233E-11	.1074E-11	.6264E-11	-.8117E-12	.2518E-11
UZ	.1225E+00	.1225E+00	.1225E+00	.1224E+00	.1222E+00	.1220E+00	.1217E+00	.1216E+00	.1216E+00

## NORMAL STRAINS

EXX	-.8314E-04	-.8284E-04	-.8314E-04	-.8403E-04	-.8551E-04	-.8756E-04	-.9010E-04	-.9300E-04	-.9597E-04
EYY	-.1565E-03	-.1565E-03	-.1565E-03	-.1566E-03	-.1568E-03	-.1569E-03	-.1570E-03	-.1570E-03	-.1568E-03
EZZ	.1280E-03	.1278E-03	.1280E-03	.1287E-03	.1295E-03	.1301E-03	.1296E-03	.1258E-03	.1157E-03

## SHEAR STRAINS

EXY	.6996E-14	-.1784E-12	-.1979E-12	.2601E-12	.3292E-12	-.3639E-13	.3203E-12	.1747E-12	-.5704E-13
EXZ	-.1499E-04	-.3615E-12	.1499E-04	.3089E-04	.4923E-04	.7203E-04	.1021E-03	.1431E-03	.1965E-03
EYZ	-.1678E-12	-.2878E-13	.2570E-12	.5373E-12	.6146E-12	-.6976E-12	-.6259E-12	-.1263E-11	-.1110E-11

## PRINCIPAL STRAINS

PE 1	.1283E-03	.1278E-03	.1283E-03	.1298E-03	.1323E-03	.1359E-03	.1409E-03	.1471E-03	.1543E-03
PE 2	-.8341E-04	-.8284E-04	-.8341E-04	-.8515E-04	-.8830E-04	-.9336E-04	-.1014E-03	-.1143E-03	-.1345E-03
PE 3	-.1565E-03	-.1565E-03	-.1565E-03	-.1566E-03	-.1568E-03	-.1569E-03	-.1570E-03	-.1570E-03	-.1568E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2848E-03	.2843E-03	.2848E-03	.2864E-03	.2891E-03	.2929E-03	.2979E-03	.3041E-03	.3110E-03
PSE 2	.2117E-03	.2107E-03	.2117E-03	.2149E-03	.2206E-03	.2293E-03	.2422E-03	.2614E-03	.2888E-03
PSE 3	.7312E-04	.7364E-04	.7312E-04	.7148E-04	.6848E-04	.6357E-04	.5563E-04	.4269E-04	.2224E-04

Z= 12.00 LAYER NO, 2

## Appendix 6E-c Composite Pavement

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

## NORMAL STRESSES

SXX	.4790E+03	.4774E+03	.4790E+03	.4835E+03	.4908E+03	.5011E+03	.5140E+03	.5294E+03	.5468E+03
SYX	.8256E+03	.8251E+03	.8256E+03	.8274E+03	.8301E+03	.8336E+03	.8376E+03	.8418E+03	.8457E+03
SZZ	-.7013E+01	-.7014E+01	-.7013E+01	-.7009E+01	-.7003E+01	-.6993E+01	-.6979E+01	-.6963E+01	-.6948E+01

## SHEAR STRESSES

SXY	-.5992E-06	-.8049E-07	-.5472E-06	.5117E-07	.2187E-06	-.7415E-07	-.1713E-06	-.3711E-06	.9755E-06
SXZ	-.7138E-03	-.1444E-08	.7138E-03	.1075E-02	.7043E-03	-.9608E-03	-.4464E-02	-.1043E-01	-.1964E-01
SYZ	-.8958E-09	.1315E-10	-.9059E-09	-.1903E-08	-.1498E-09	.8626E-09	-.3602E-09	.2190E-08	.5773E-09

## PRINCIPAL STRESSES

PS 1	.8256E+03	.8251E+03	.8256E+03	.8274E+03	.8301E+03	.8336E+03	.8376E+03	.8418E+03	.8457E+03
PS 2	.4790E+03	.4774E+03	.4790E+03	.4835E+03	.4908E+03	.5011E+03	.5140E+03	.5294E+03	.5468E+03
PS 3	-.7013E+01	-.7014E+01	-.7013E+01	-.7009E+01	-.7003E+01	-.6993E+01	-.6979E+01	-.6963E+01	-.6948E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.4163E+03	.4160E+03	.4163E+03	.4172E+03	.4185E+03	.4203E+03	.4223E+03	.4244E+03	.4263E+03
PSS 2	.1733E+03	.1738E+03	.1733E+03	.1719E+03	.1696E+03	.1663E+03	.1618E+03	.1562E+03	.1495E+03
PSS 3	.2430E+03	.2422E+03	.2430E+03	.2452E+03	.2489E+03	.2540E+03	.2605E+03	.2682E+03	.2769E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.8597E-04	.5112E-10	.8597E-04	.1731E-03	.2624E-03	.3550E-03	.4520E-03	.5543E-03	.6624E-03
UY	.4681E-11	.1596E-11	-.7577E-11	.2111E-11	.2414E-11	-.6935E-11	.1577E-11	-.7596E-11	-.2319E-11
UZ	.1224E+00	.1225E+00	.1224E+00	.1223E+00	.1221E+00	.1219E+00	.1217E+00	.1215E+00	.1215E+00

## NORMAL STRAINS

EXX	.8905E-04	.8868E-04	.8905E-04	.9010E-04	.9184E-04	.9427E-04	.9736E-04	.1010E-03	.1052E-03
EYY	.1887E-03	.1886E-03	.1887E-03	.1890E-03	.1894E-03	.1899E-03	.1904E-03	.1908E-03	.1912E-03
EZZ	-.5068E-04	-.5060E-04	-.5068E-04	-.5091E-04	-.5128E-04	-.5180E-04	-.5243E-04	-.5316E-04	-.5395E-04

## SHEAR STRAINS

EXY	-.3445E-12	-.4628E-13	-.3147E-12	.2943E-13	.1257E-12	-.4263E-13	-.9850E-13	-.2134E-12	.5609E-12
EXZ	-.4104E-09	-.8300E-15	.4104E-09	.6184E-09	.4050E-09	-.5524E-09	-.2567E-08	-.5995E-08	-.1129E-07
EYZ	-.5151E-15	.7561E-17	-.5209E-15	-.1094E-14	-.8614E-16	.4960E-15	-.2071E-15	.1259E-14	.3319E-15

## PRINCIPAL STRAINS

PE 1	.1887E-03	.1886E-03	.1887E-03	.1890E-03	.1894E-03	.1899E-03	.1904E-03	.1908E-03	.1912E-03
PE 2	.8905E-04	.8868E-04	.8905E-04	.9010E-04	.9184E-04	.9427E-04	.9736E-04	.1010E-03	.1052E-03
PE 3	-.5068E-04	-.5060E-04	-.5068E-04	-.5091E-04	-.5128E-04	-.5180E-04	-.5243E-04	-.5316E-04	-.5395E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2394E-03	.2392E-03	.2394E-03	.2399E-03	.2407E-03	.2417E-03	.2428E-03	.2440E-03	.2451E-03
PSE 2	.9967E-04	.9994E-04	.9967E-04	.9887E-04	.9754E-04	.9560E-04	.9302E-04	.8980E-04	.8594E-04
PSE 3	.1397E-03	.1393E-03	.1397E-03	.1410E-03	.1431E-03	.1461E-03	.1498E-03	.1542E-03	.1592E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-c Composite Pavement

48.00      4.00  
49.00      4.00  
50.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	-.8443E+02	-.9698E+02	-.1129E+03	-.1308E+03	-.1491E+03	-.1672E+03	-.1843E+03	-.1985E+03	-.2074E+03
SYX	-.1015E+03	-.1132E+03	-.1282E+03	-.1453E+03	-.1628E+03	-.1802E+03	-.1969E+03	-.2107E+03	-.2193E+03
SZZ	-.2698E+02	-.4873E+02	-.7720E+02	-.1091E+03	-.1422E+03	-.1757E+03	-.2079E+03	-.2347E+03	-.2520E+03

SHEAR STRESSES

SXY	-.1920E-07	-.3449E-07	.2164E-07	-.1733E-07	.1587E-07	.6435E-08	-.1364E-07	-.1047E-07	.1552E-07
SXZ	.3824E+02	.4671E+02	.5228E+02	.5422E+02	.5324E+02	.4929E+02	.4103E+02	.2790E+02	.1126E+02
SYZ	.3920E-06	.4250E-06	.7318E-06	.4233E-06	.4325E-06	-.6227E-06	.8660E-06	.6112E-06	.6550E-06

PRINCIPAL STRESSES

PS 1	-.7879E+01	-.2028E+02	-.3980E+02	-.6466E+02	-.9228E+02	-.1220E+03	-.1534E+03	-.1834E+03	-.2048E+03
PS 2	-.1015E+03	-.1132E+03	-.1282E+03	-.1453E+03	-.1628E+03	-.1802E+03	-.1969E+03	-.2107E+03	-.2193E+03
PS 3	-.1035E+03	-.1254E+03	-.1503E+03	-.1752E+03	-.1990E+03	-.2210E+03	-.2388E+03	-.2499E+03	-.2547E+03



## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.4783E+02	.5257E+02	.5525E+02	.5529E+02	.5335E+02	.4948E+02	.4269E+02	.3325E+02	.2497E+02
PSS 2	.4682E+02	.4645E+02	.4423E+02	.4031E+02	.3524E+02	.2912E+02	.2170E+02	.1366E+02	.7281E+01
PSS 3	.1012E+01	.6126E+01	.1102E+02	.1498E+02	.1811E+02	.2035E+02	.2099E+02	.1959E+02	.1769E+02

## DISPLACEMENTS

UX	-.7176E-03	-.8238E-03	-.9318E-03	-.1039E-02	-.1149E-02	-.1260E-02	-.1370E-02	-.1477E-02	-.1583E-02
UY	.1489E-11	.3803E-11	-.6054E-11	.2537E-11	.4048E-12	-.3318E-11	.2185E-11	.1564E-12	.4743E-13
UZ	.1218E+00	.1223E+00	.1232E+00	.1232E+00	.1234E+00	.1239E+00	.1246E+00	.1243E+00	.1239E+00

## NORMAL STRAINS

EXX	-.9865E-04	-.1008E-03	-.1025E-03	-.1044E-03	-.1059E-03	-.1066E-03	-.1067E-03	-.1066E-03	-.1062E-03
EYY	-.1563E-03	-.1554E-03	-.1543E-03	-.1533E-03	-.1520E-03	-.1505E-03	-.1489E-03	-.1476E-03	-.1463E-03
EZZ	.9525E-04	.6205E-04	.1801E-04	-.3122E-04	-.8260E-04	-.1352E-03	-.1863E-03	-.2287E-03	-.2566E-03

## SHEAR STRAINS

EXY	-.1296E-12	-.2328E-12	.1461E-12	-.1170E-12	.1071E-12	.4344E-13	-.9209E-13	-.7069E-13	.1048E-12
EXZ	.2581E-03	.3153E-03	.3529E-03	.3660E-03	.3593E-03	.3327E-03	.2769E-03	.1883E-03	.7598E-04
EYZ	.2646E-11	.2869E-11	.4940E-11	.2857E-11	.2919E-11	-.4203E-11	.5845E-11	.4125E-11	.4421E-11

## PRINCIPAL STRAINS

PE 1	.1597E-03	.1581E-03	.1442E-03	.1188E-03	.8581E-04	.4604E-04	-.2403E-05	-.5544E-04	-.9712E-04
PE 2	-.1563E-03	-.1554E-03	-.1543E-03	-.1533E-03	-.1520E-03	-.1505E-03	-.1489E-03	-.1476E-03	-.1463E-03
PE 3	-.1631E-03	-.1968E-03	-.2287E-03	-.2544E-03	-.2743E-03	-.2879E-03	-.2906E-03	-.2799E-03	-.2657E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.3228E-03	.3549E-03	.3729E-03	.3732E-03	.3601E-03	.3340E-03	.2882E-03	.2244E-03	.1686E-03
PSE 2	.3160E-03	.3135E-03	.2985E-03	.2721E-03	.2378E-03	.1966E-03	.1465E-03	.9217E-04	.4915E-04
PSE 3	.6828E-05	.4135E-04	.7440E-04	.1011E-03	.1223E-03	.1374E-03	.1417E-03	.1323E-03	.1194E-03

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.5657E+03	.5856E+03	.6064E+03	.6295E+03	.6503E+03	.6677E+03	.6814E+03	.6926E+03	.6973E+03
SYX	.8491E+03	.8518E+03	.8543E+03	.8586E+03	.8611E+03	.8618E+03	.8610E+03	.8610E+03	.8583E+03
SZZ	-.6938E+01	-.6944E+01	-.6978E+01	-.6969E+01	-.6964E+01	-.6972E+01	-.7000E+01	-.6977E+01	-.6942E+01

SHEAR STRESSES

SXY	.5737E-06	.5377E-06	-.3336E-06	.6998E-06	.5771E-06	.3326E-06	.7802E-06	.3003E-06	.2550E-06
SXZ	-.3279E-01	-.5065E-01	-.7353E-01	-.1013E+00	-.1347E+00	-.1735E+00	-.2171E+00	-.2639E+00	-.3135E+00
SYZ	.2559E-09	-.1020E-08	-.6265E-09	-.6634E-09	.5652E-10	-.1508E-09	.1596E-09	.6836E-09	.8357E-09

PRINCIPAL STRESSES

PS 1	.8491E+03	.8518E+03	.8543E+03	.8586E+03	.8611E+03	.8618E+03	.8610E+03	.8610E+03	.8583E+03
PS 2	.5657E+03	.5856E+03	.6064E+03	.6295E+03	.6503E+03	.6677E+03	.6814E+03	.6926E+03	.6973E+03
PS 3	-.6938E+01	-.6944E+01	-.6978E+01	-.6969E+01	-.6964E+01	-.6972E+01	-.7000E+01	-.6977E+01	-.6942E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.4280E+03	.4294E+03	.4306E+03	.4328E+03	.4340E+03	.4344E+03	.4340E+03	.4340E+03	.4326E+03
PSS 2	.1417E+03	.1331E+03	.1240E+03	.1146E+03	.1054E+03	.9706E+02	.8983E+02	.8421E+02	.8049E+02
PSS 3	.2863E+03	.2963E+03	.3067E+03	.3182E+03	.3286E+03	.3373E+03	.3442E+03	.3498E+03	.3521E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.7766E-03	.8965E-03	.1021E-02	.1149E-02	.1282E-02	.1420E-02	.1561E-02	.1701E-02	.1843E-02
UY	-.6788E-11	-.2838E-11	.1028E-10	-.2596E-11	-.5634E-11	.3412E-12	-.5416E-11	.6263E-11	-.4977E-11
UZ	.1217E+00	.1222E+00	.1231E+00	.1231E+00	.1233E+00	.1237E+00	.1244E+00	.1240E+00	.1236E+00

## NORMAL STRAINS

EXX	.1098E-03	.1147E-03	.1198E-03	.1254E-03	.1305E-03	.1349E-03	.1383E-03	.1411E-03	.1424E-03
EYY	.1913E-03	.1913E-03	.1911E-03	.1913E-03	.1912E-03	.1907E-03	.1900E-03	.1895E-03	.1887E-03
EZZ	-.5479E-04	-.5564E-04	-.5652E-04	-.5754E-04	-.5842E-04	-.5910E-04	-.5959E-04	-.6001E-04	-.6007E-04

## SHEAR STRAINS

EXY	.3299E-12	.3092E-12	-.1918E-12	.4024E-12	.3318E-12	.1912E-12	.4486E-12	.1727E-12	.1466E-12
EXZ	-.1886E-07	-.2913E-07	-.4228E-07	-.5823E-07	-.7743E-07	-.9978E-07	-.1249E-06	-.1518E-06	-.1803E-06
EYZ	.1472E-15	-.5863E-15	-.3602E-15	-.3815E-15	.3250E-16	-.8671E-16	.9176E-16	.3931E-15	.4805E-15

## PRINCIPAL STRAINS

PE 1	.1913E-03	.1913E-03	.1911E-03	.1913E-03	.1912E-03	.1907E-03	.1900E-03	.1895E-03	.1887E-03
PE 2	.1098E-03	.1147E-03	.1198E-03	.1254E-03	.1305E-03	.1349E-03	.1383E-03	.1411E-03	.1424E-03
PE 3	-.5479E-04	-.5564E-04	-.5652E-04	-.5754E-04	-.5842E-04	-.5910E-04	-.5959E-04	-.6001E-04	-.6007E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2461E-03	.2469E-03	.2476E-03	.2488E-03	.2496E-03	.2498E-03	.2496E-03	.2496E-03	.2488E-03
PSE 2	.8147E-04	.7654E-04	.7128E-04	.6588E-04	.6062E-04	.5581E-04	.5165E-04	.4842E-04	.4628E-04
PSE 3	.1646E-03	.1704E-03	.1763E-03	.1830E-03	.1889E-03	.1940E-03	.1979E-03	.2011E-03	.2025E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 105K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 11600.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.41 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-c Composite Pavement

57.00 4.00  
58.00 4.00  
59.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
51.00 4.00  
52.00 4.00  
53.00 4.00  
54.00 4.00  
55.00 4.00  
56.00 4.00  
57.00 4.00  
58.00 4.00  
59.00 4.00

NORMAL STRESSES

SXX -.2100E+03 -.2059E+03 -.1955E+03 -.1798E+03 -.1612E+03 -.1415E+03 -.1217E+03 -.1022E+03 -.8462E+02  
 SYY -.2218E+03 -.2178E+03 -.2076E+03 -.1922E+03 -.1740E+03 -.1549E+03 -.1359E+03 -.1172E+03 -.1005E+03  
 SZZ -.2579E+03 -.2520E+03 -.2347E+03 -.2079E+03 -.1757E+03 -.1421E+03 -.1090E+03 -.7710E+02 -.4863E+02

SHEAR STRESSES

SXY -.1719E-07 -.1520E-07 .1047E-07 .1520E-07 -.1261E-07 -.1552E-07 .1047E-07 -.1616E-07 -.3624E-07  
 SXZ -.6963E+01 -.2521E+02 -.4193E+02 -.5513E+02 -.6350E+02 -.6761E+02 -.6879E+02 -.6709E+02 -.6179E+02  
 SYZ -.5404E-06 .3020E-07 .0000E+00 .3020E-07 -.5404E-06 .6550E-06 .6112E-06 -.1041E-05 .3310E-06

PRINCIPAL STRESSES

PS 1 -.2090E+03 -.1948E+03 -.1688E+03 -.1370E+03 -.1045E+03 -.7421E+02 -.4627E+02 -.2139E+02 -.2270E+01  
 PS 2 -.2218E+03 -.2178E+03 -.2076E+03 -.1922E+03 -.1740E+03 -.1549E+03 -.1359E+03 -.1172E+03 -.1005E+03  
 PS 3 -.2589E+03 -.2631E+03 -.2614E+03 -.2507E+03 -.2324E+03 -.2094E+03 -.1844E+03 -.1579E+03 -.1310E+03

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.2496E+02	.3415E+02	.4627E+02	.5688E+02	.6391E+02	.6761E+02	.6908E+02	.6825E+02	.6436E+02
PSS 2	.6379E+01	.1147E+02	.1937E+02	.2760E+02	.3474E+02	.4036E+02	.4480E+02	.4791E+02	.4912E+02
PSS 3	.1858E+02	.2268E+02	.2690E+02	.2928E+02	.2917E+02	.2724E+02	.2428E+02	.2033E+02	.1524E+02

## DISPLACEMENTS

UX	-.1689E-02	-.1793E-02	-.1896E-02	-.1997E-02	-.2099E-02	-.2199E-02	-.2295E-02	-.2387E-02	-.2476E-02
UY	-.1321E-11	-.1395E-11	.0000E+00	-.1395E-11	-.1321E-11	.4743E-13	.1564E-12	.2185E-11	.3957E-11
UZ	.1234E+00	.1229E+00	.1224E+00	.1218E+00	.1201E+00	.1187E+00	.1176E+00	.1166E+00	.1148E+00

## NORMAL STRAINS

EXX	-.1052E-03	-.1038E-03	-.1019E-03	-.9954E-04	-.9709E-04	-.9386E-04	-.8986E-04	-.8539E-04	-.8106E-04
EYY	-.1450E-03	-.1437E-03	-.1425E-03	-.1412E-03	-.1402E-03	-.1392E-03	-.1378E-03	-.1362E-03	-.1347E-03
EZZ	-.2670E-03	-.2593E-03	-.2340E-03	-.1942E-03	-.1458E-03	-.9590E-04	-.4725E-04	-.8016E-06	.4042E-04

## SHEAR STRAINS

EXY	-.1160E-12	-.1026E-12	.7069E-13	.1026E-12	-.8512E-13	-.1048E-12	.7069E-13	-.1091E-12	-.2446E-12
EXZ	-.4700E-04	-.1702E-03	-.2830E-03	-.3721E-03	-.4286E-03	-.4563E-03	-.4643E-03	-.4528E-03	-.4171E-03
EYZ	-.3648E-11	.2039E-12	.0000E+00	.2039E-12	-.3648E-11	.4421E-11	.4125E-11	-.7029E-11	.2234E-11

## PRINCIPAL STRAINS

PE 1	-.1019E-03	-.6628E-04	-.1176E-04	.4511E-04	.9424E-04	.1333E-03	.1646E-03	.1872E-03	.1969E-03
PE 2	-.1450E-03	-.1437E-03	-.1425E-03	-.1412E-03	-.1402E-03	-.1392E-03	-.1378E-03	-.1362E-03	-.1347E-03
PE 3	-.2704E-03	-.2968E-03	-.3241E-03	-.3388E-03	-.3372E-03	-.3231E-03	-.3017E-03	-.2734E-03	-.2375E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1685E-03	.2305E-03	.3123E-03	.3839E-03	.4314E-03	.4564E-03	.4663E-03	.4607E-03	.4344E-03
PSE 2	.4305E-04	.7743E-04	.1307E-03	.1863E-03	.2345E-03	.2725E-03	.3024E-03	.3234E-03	.3316E-03
PSE 3	.1254E-03	.1531E-03	.1816E-03	.1977E-03	.1969E-03	.1839E-03	.1639E-03	.1373E-03	.1029E-03

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.6947E+03	.6846E+03	.6672E+03	.6432E+03	.6166E+03	.5861E+03	.5520E+03	.5156E+03	.4810E+03
SYY	.8527E+03	.8440E+03	.8324E+03	.8180E+03	.8043E+03	.7891E+03	.7719E+03	.7528E+03	.7354E+03
SZZ	-.6894E+01	-.6832E+01	-.6758E+01	-.6671E+01	-.6532E+01	-.6415E+01	-.6309E+01	-.6207E+01	-.6063E+01

SHEAR STRESSES

SXY	.3034E-06	.3341E-06	.6534E-06	.1428E-06	-.3034E-06	.2219E-06	.6534E-06	.1734E-06	.6211E-06
SXZ	-.3646E+00	-.4156E+00	-.4650E+00	-.5115E+00	-.5547E+00	-.5930E+00	-.6257E+00	-.6527E+00	-.6747E+00
SYZ	.4728E-09	.9855E-09	.0000E+00	.9855E-09	.4728E-09	.8357E-09	.6836E-09	.1596E-09	-.1508E-09

PRINCIPAL STRESSES

PS 1	.8527E+03	.8440E+03	.8324E+03	.8180E+03	.8043E+03	.7891E+03	.7719E+03	.7528E+03	.7354E+03
PS 2	.6947E+03	.6846E+03	.6672E+03	.6432E+03	.6166E+03	.5861E+03	.5520E+03	.5156E+03	.4810E+03
PS 3	-.6894E+01	-.6832E+01	-.6758E+01	-.6671E+01	-.6533E+01	-.6415E+01	-.6310E+01	-.6208E+01	-.6064E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.4298E+03	.4254E+03	.4196E+03	.4124E+03	.4054E+03	.3978E+03	.3891E+03	.3795E+03	.3707E+03
PSS 2	.7900E+02	.7972E+02	.8261E+02	.8740E+02	.9386E+02	.1015E+03	.1099E+03	.1186E+03	.1272E+03
PSS 3	.3508E+03	.3457E+03	.3370E+03	.3250E+03	.3116E+03	.2962E+03	.2792E+03	.2609E+03	.2435E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.1985E-02	.2126E-02	.2264E-02	.2397E-02	.2528E-02	.2654E-02	.2773E-02	.2883E-02	.2987E-02
UY	-.6543E-12	-.1886E-11	-.1455E-10	-.1886E-11	-.6543E-12	-.4977E-11	-.8289E-11	-.5416E-11	.3412E-12
UZ	.1232E+00	.1227E+00	.1221E+00	.1216E+00	.1200E+00	.1186E+00	.1174E+00	.1165E+00	.1147E+00

## NORMAL STRAINS

EXX	.1420E-03	.1397E-03	.1358E-03	.1304E-03	.1242E-03	.1172E-03	.1093E-03	.1009E-03	.9289E-04
EYY	.1874E-03	.1856E-03	.1833E-03	.1806E-03	.1782E-03	.1755E-03	.1725E-03	.1691E-03	.1660E-03
EZZ	-.5975E-04	-.5903E-04	-.5792E-04	-.5647E-04	-.5492E-04	-.5317E-04	-.5122E-04	-.4912E-04	-.4713E-04

## SHEAR STRAINS

EXY	.1744E-12	.1921E-12	.3757E-12	.8209E-13	-.1744E-12	.1276E-12	.3757E-12	.9973E-13	.3571E-12
EXZ	-.2096E-06	-.2390E-06	-.2674E-06	-.2941E-06	-.3189E-06	-.3410E-06	-.3598E-06	-.3753E-06	-.3879E-06
EYZ	.2719E-15	.5667E-15	.0000E+00	.5667E-15	.2719E-15	.4805E-15	.3931E-15	.9176E-16	-.8671E-16

## PRINCIPAL STRAINS

PE 1	.1874E-03	.1856E-03	.1833E-03	.1806E-03	.1782E-03	.1755E-03	.1725E-03	.1691E-03	.1660E-03
PE 2	.1420E-03	.1397E-03	.1358E-03	.1304E-03	.1242E-03	.1172E-03	.1093E-03	.1009E-03	.9289E-04
PE 3	-.5975E-04	-.5903E-04	-.5792E-04	-.5647E-04	-.5492E-04	-.5317E-04	-.5122E-04	-.4912E-04	-.4713E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2471E-03	.2446E-03	.2413E-03	.2371E-03	.2331E-03	.2287E-03	.2237E-03	.2182E-03	.2132E-03
PSE 2	.4542E-04	.4584E-04	.4750E-04	.5025E-04	.5397E-04	.5838E-04	.6322E-04	.6820E-04	.7313E-04
PSE 3	.2017E-03	.1988E-03	.1938E-03	.1869E-03	.1792E-03	.1703E-03	.1605E-03	.1500E-03	.1400E-03



Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 6100.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.64 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-c Composite Pavement

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	-.9708E+02	-.9722E+02	-.9361E+02	-.8711E+02	-.7986E+02	-.7411E+02	-.7130E+02	-.7207E+02	-.7700E+02
SYX	-.1094E+03	-.1091E+03	-.1049E+03	-.9775E+02	-.8966E+02	-.8301E+02	-.7928E+02	-.7911E+02	-.8307E+02
SZZ	-.8869E+02	-.8476E+02	-.7347E+02	-.5681E+02	-.3849E+02	-.2284E+02	-.1280E+02	-.9622E+01	-.1447E+02

SHEAR STRESSES

SXY	-.4808E-07	-.2639E-07	.1319E-07	-.2676E-07	-.1006E-07	-.5907E-07	.2247E-07	.4096E-07	.4642E-07
SXZ	.1772E+02	.8639E+01	.1191E+01	-.2868E+01	-.2170E+01	.3259E+01	.1215E+02	.2342E+02	.3684E+02
SYZ	.7445E-07	-.2326E-06	.5075E-06	-.8002E-06	.7017E-07	.3269E-06	-.1159E-06	.2299E-06	.2338E-06

PRINCIPAL STRESSES

PS 1	-.7468E+02	-.8034E+02	-.7340E+02	-.5654E+02	-.3838E+02	-.2264E+02	-.1037E+02	-.1814E+01	.2576E+01
PS 2	-.1094E+03	-.1016E+03	-.9368E+02	-.8738E+02	-.7997E+02	-.7432E+02	-.7373E+02	-.7911E+02	-.8307E+02

## Appendix 6E-c Composite Pavement

PS 3   -.1111E+03   -.1091E+03   -.1049E+03   -.9775E+02   -.8966E+02   -.8301E+02   -.7928E+02   -.7988E+02   -.9405E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1821E+02   .1438E+02   .1577E+02   .2060E+02   .2564E+02   .3019E+02   .3446E+02   .3903E+02   .4832E+02  
PSS 2   .1736E+02   .1065E+02   .1014E+02   .1542E+02   .2079E+02   .2584E+02   .3168E+02   .3865E+02   .4282E+02  
PSS 3   .8501E+00   .3725E+01   .5628E+01   .5183E+01   .4845E+01   .4347E+01   .2778E+01   .3851E+00   .5492E+01

## DISPLACEMENTS

UX       .1448E-02   .1378E-02   .1303E-02   .1224E-02   .1138E-02   .1046E-02   .9452E-03   .8375E-03   .7236E-03  
UY       .6151E-11   -.2646E-11   .4409E-11   .1815E-12   -.2714E-11   -.5128E-11   -.7995E-11   -.1561E-11   .3172E-11  
UZ       .8448E-01   .8477E-01   .8500E-01   .8488E-01   .8443E-01   .8396E-01   .8368E-01   .8373E-01   .8422E-01

## NORMAL STRAINS

EXX     -.6938E-04   -.7344E-04   -.7792E-04   -.8254E-04   -.8750E-04   -.9265E-04   -.9769E-04   -.1025E-03   -.1072E-03  
EYY     -.1109E-03   -.1135E-03   -.1161E-03   -.1184E-03   -.1206E-03   -.1227E-03   -.1246E-03   -.1263E-03   -.1276E-03  
EZZ     -.4106E-04   -.3137E-04   -.9946E-05   .1973E-04   .5209E-04   .8037E-04   .9977E-04   .1082E-03   .1039E-03

## SHEAR STRAINS

EXY     -.3245E-12   -.1781E-12   .8900E-13   -.1806E-12   -.6788E-13   -.3987E-12   .1517E-12   .2765E-12   .3134E-12  
EXZ     .1196E-03   .5831E-04   .8036E-05   -.1936E-04   -.1465E-04   .2200E-04   .8204E-04   .1581E-03   .2486E-03  
EYZ     .5025E-12   -.1570E-11   .3425E-11   -.5401E-11   .4736E-12   .2207E-11   -.7824E-12   .1552E-11   .1578E-11

## PRINCIPAL STRAINS

PE 1     .6251E-05   -.1645E-04   -.9709E-05   .2064E-04   .5247E-04   .8107E-04   .1080E-03   .1346E-03   .1614E-03  
PE 2     -.1109E-03   -.8835E-04   -.7815E-04   -.8345E-04   -.8789E-04   -.9335E-04   -.1059E-03   -.1263E-03   -.1276E-03  
PE 3     -.1167E-03   -.1135E-03   -.1161E-03   -.1184E-03   -.1206E-03   -.1227E-03   -.1246E-03   -.1289E-03   -.1647E-03

## PRINCIPAL SHEAR STRAINS

PSE 1     .1229E-03   .9705E-04   .1064E-03   .1391E-03   .1731E-03   .2038E-03   .2326E-03   .2635E-03   .3261E-03  
PSE 2     .1172E-03   .7191E-04   .6844E-04   .1041E-03   .1404E-03   .1744E-03   .2138E-03   .2609E-03   .2891E-03  
PSE 3     .5738E-05   .2514E-04   .3799E-04   .3499E-04   .3270E-04   .2934E-04   .1875E-04   .2599E-05   .3707E-04

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.4315E+03	.4500E+03	.4671E+03	.4820E+03	.4973E+03	.5149E+03	.5348E+03	.5569E+03	.5810E+03
SYZ	.6125E+03	.6283E+03	.6437E+03	.6571E+03	.6706E+03	.6851E+03	.6999E+03	.7142E+03	.7275E+03
SZZ	-.5065E+01	-.5139E+01	-.5207E+01	-.5220E+01	-.5208E+01	-.5209E+01	-.5226E+01	-.5258E+01	-.5310E+01

SHEAR STRESSES

SXY	-.2595E-06	.4474E-06	.4002E-06	-.3329E-06	-.1508E-05	.7840E-07	-.2952E-06	-.6156E-06	.1305E-06
SXZ	.4408E+00	.4243E+00	.4078E+00	.3918E+00	.3762E+00	.3606E+00	.3446E+00	.3273E+00	.3075E+00
SYZ	-.5929E-09	-.1571E-08	.1590E-09	-.1586E-08	.1443E-08	-.3031E-08	-.1519E-08	.1838E-08	.1216E-08

PRINCIPAL STRESSES

PS 1	.6125E+03	.6283E+03	.6437E+03	.6571E+03	.6706E+03	.6851E+03	.6999E+03	.7142E+03	.7275E+03
PS 2	.4315E+03	.4500E+03	.4671E+03	.4820E+03	.4973E+03	.5149E+03	.5348E+03	.5569E+03	.5810E+03
PS 3	-.5066E+01	-.5140E+01	-.5207E+01	-.5220E+01	-.5208E+01	-.5209E+01	-.5226E+01	-.5259E+01	-.5310E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3088E+03	.3167E+03	.3244E+03	.3311E+03	.3379E+03	.3452E+03	.3526E+03	.3597E+03	.3664E+03
PSS 2	.9049E+02	.8918E+02	.8828E+02	.8755E+02	.8663E+02	.8509E+02	.8255E+02	.7868E+02	.7326E+02
PSS 3	.2183E+03	.2276E+03	.2362E+03	.2436E+03	.2513E+03	.2601E+03	.2700E+03	.2811E+03	.2932E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.1751E-02	-.1665E-02	-.1575E-02	-.1482E-02	-.1384E-02	-.1279E-02	-.1168E-02	-.1049E-02	-.9227E-03
UY	-.1230E-11	-.4745E-11	-.1083E-10	-.1004E-11	-.6393E-12	-.1313E-11	.6358E-12	-.1698E-11	.3149E-11
UZ	.8438E-01	.8467E-01	.8490E-01	.8480E-01	.8436E-01	.8390E-01	.8362E-01	.8367E-01	.8416E-01

## NORMAL STRAINS

EXX	.8511E-04	.8912E-04	.9284E-04	.9605E-04	.9938E-04	.1032E-03	.1077E-03	.1126E-03	.1182E-03
EYY	.1371E-03	.1404E-03	.1436E-03	.1464E-03	.1492E-03	.1522E-03	.1551E-03	.1579E-03	.1603E-03
EZZ	-.4042E-04	-.4172E-04	-.4296E-04	-.4402E-04	-.4510E-04	-.4630E-04	-.4761E-04	-.4898E-04	-.5040E-04

## SHEAR STRAINS

EXY	-.1492E-12	.2573E-12	.2301E-12	-.1914E-12	-.8672E-12	.4508E-13	-.1697E-12	-.3539E-12	.7503E-13
EXZ	.2534E-06	.2440E-06	.2345E-06	.2253E-06	.2163E-06	.2074E-06	.1982E-06	.1882E-06	.1768E-06
EYZ	-.3409E-15	-.9036E-15	.9145E-16	-.9121E-15	.8296E-15	-.1743E-14	-.8736E-15	.1057E-14	.6991E-15

## PRINCIPAL STRAINS

PE 1	.1371E-03	.1404E-03	.1436E-03	.1464E-03	.1492E-03	.1522E-03	.1551E-03	.1579E-03	.1603E-03
PE 2	.8511E-04	.8912E-04	.9284E-04	.9605E-04	.9938E-04	.1032E-03	.1077E-03	.1126E-03	.1182E-03
PE 3	-.4042E-04	-.4172E-04	-.4296E-04	-.4402E-04	-.4510E-04	-.4630E-04	-.4761E-04	-.4898E-04	-.5040E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1776E-03	.1821E-03	.1866E-03	.1904E-03	.1943E-03	.1985E-03	.2027E-03	.2069E-03	.2107E-03
PSE 2	.5203E-04	.5128E-04	.5076E-04	.5034E-04	.4981E-04	.4893E-04	.4747E-04	.4524E-04	.4213E-04
PSE 3	.1255E-03	.1308E-03	.1358E-03	.1401E-03	.1445E-03	.1495E-03	.1553E-03	.1616E-03	.1686E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 6100.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.64 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-c Composite Pavement

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	-.8725E+02	-.1041E+03	-.1278E+03	-.1558E+03	-.1848E+03	-.2124E+03	-.2371E+03	-.2550E+03	-.2614E+03
SYX	-.9238E+02	-.1085E+03	-.1316E+03	-.1592E+03	-.1877E+03	-.2151E+03	-.2398E+03	-.2580E+03	-.2646E+03
SZZ	-.2969E+02	-.5803E+02	-.9963E+02	-.1500E+03	-.2028E+03	-.2541E+03	-.3004E+03	-.3345E+03	-.3473E+03

SHEAR STRESSES

SXY	.2175E-07	-.1113E-07	.3444E-07	-.1355E-07	.1126E-07	.7482E-09	.1207E-07	-.7201E-08	-.1311E-07
SXZ	.5213E+02	.6743E+02	.7892E+02	.8343E+02	.8075E+02	.7165E+02	.5479E+02	.2862E+02	-.4318E+01
SYZ	.5682E-07	.1038E-06	-.7113E-06	-.8260E-06	-.4594E-07	.1774E-06	.8768E-06	-.8967E-06	.5086E-06

PRINCIPAL STRESSES

PS 1	.1073E+01	-.9824E+01	-.3354E+02	-.6942E+02	-.1125E+03	-.1586E+03	-.2055E+03	-.2458E+03	-.2612E+03
PS 2	-.9238E+02	-.1085E+03	-.1316E+03	-.1592E+03	-.1877E+03	-.2151E+03	-.2398E+03	-.2580E+03	-.2646E+03

## Appendix 6E-c Composite Pavement

PS 3   -.1180E+03   -.1523E+03   -.1939E+03   -.2364E+03   -.2750E+03   -.3079E+03   -.3321E+03   -.3438E+03   -.3475E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .5954E+02   .7126E+02   .8017E+02   .8348E+02   .8125E+02   .7462E+02   .6329E+02   .4899E+02   .4316E+02  
PSS 2   .4673E+02   .4934E+02   .4903E+02   .4488E+02   .3758E+02   .2822E+02   .1718E+02   .6119E+01   .1711E+01  
PSS 3   .1281E+02   .2192E+02   .3114E+02   .3860E+02   .4367E+02   .4640E+02   .4611E+02   .4287E+02   .4145E+02

## DISPLACEMENTS

UX       .6048E-03   .4835E-03   .3618E-03   .2393E-03   .1154E-03   -.7772E-05   -.1277E-03   -.2453E-03   -.3627E-03  
UY       -.4685E-11   -.6463E-11   -.5815E-11   .2309E-11   -.1038E-11   -.4385E-11   -.8246E-12   -.6609E-12   .5957E-11  
UZ       .8523E-01   .8677E-01   .8870E-01   .9040E-01   .9181E-01   .9322E-01   .9472E-01   .9565E-01   .9589E-01

## NORMAL STRAINS

EXX     -.1113E-03   -.1146E-03   -.1172E-03   -.1191E-03   -.1203E-03   -.1205E-03   -.1200E-03   -.1191E-03   -.1181E-03  
EYY     -.1286E-03   -.1294E-03   -.1300E-03   -.1304E-03   -.1301E-03   -.1295E-03   -.1293E-03   -.1292E-03   -.1289E-03  
EZZ     .8294E-04   .4098E-04   -.2212E-04   -.9927E-04   -.1810E-03   -.2612E-03   -.3338E-03   -.3874E-03   -.4080E-03

## SHEAR STRAINS

EXY     .1468E-12   -.7512E-13   .2325E-12   -.9147E-13   .7602E-13   .5051E-14   .8146E-13   -.4861E-13   -.8848E-13  
EXZ     .3519E-03   .4551E-03   .5327E-03   .5631E-03   .5451E-03   .4837E-03   .3698E-03   .1932E-03   -.2915E-04  
EYZ     .3835E-12   .7006E-12   -.4801E-11   -.5576E-11   -.3101E-12   .1198E-11   .5918E-11   -.6053E-11   .3433E-11

## PRINCIPAL STRAINS

PE 1     .1868E-03   .2037E-03   .2009E-03   .1726E-03   .1236E-03   .6101E-04   -.1330E-04   -.8791E-04   -.1174E-03  
PE 2     -.1286E-03   -.1294E-03   -.1300E-03   -.1304E-03   -.1301E-03   -.1295E-03   -.1293E-03   -.1292E-03   -.1289E-03  
PE 3     -.2151E-03   -.2773E-03   -.3402E-03   -.3909E-03   -.4249E-03   -.4427E-03   -.4405E-03   -.4186E-03   -.4087E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .4019E-03   .4810E-03   .5411E-03   .5635E-03   .5484E-03   .5037E-03   .4272E-03   .3307E-03   .2913E-03  
PSE 2   .3154E-03   .3330E-03   .3309E-03   .3029E-03   .2537E-03   .1905E-03   .1160E-03   .4131E-04   .1155E-04  
PSE 3   .8650E-04   .1479E-03   .2102E-03   .2606E-03   .2948E-03   .3132E-03   .3112E-03   .2893E-03   .2798E-03



## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.6073E+03	.6360E+03	.6677E+03	.7003E+03	.7290E+03	.7524E+03	.7717E+03	.7845E+03	.7865E+03
SYY	.7399E+03	.7518E+03	.7649E+03	.7780E+03	.7879E+03	.7946E+03	.8010E+03	.8058E+03	.8055E+03
SZZ	-.5387E+01	-.5506E+01	-.5679E+01	-.5847E+01	-.5968E+01	-.6072E+01	-.6215E+01	-.6332E+01	-.6367E+01

## SHEAR STRESSES

SXY	-.2716E-06	-.2094E-06	-.1139E-05	.1166E-06	.1794E-06	-.8287E-06	.2054E-06	.5207E-06	-.1586E-06
SXZ	.2841E+00	.2558E+00	.2217E+00	.1811E+00	.1334E+00	.7917E-01	.1942E-01	-.4413E-01	-.1097E+00
SYZ	.6727E-09	.2839E-08	.7531E-09	.7567E-09	.1343E-08	.2991E-08	.2191E-08	.1983E-08	.1161E-08

## PRINCIPAL STRESSES

PS 1	.7399E+03	.7518E+03	.7649E+03	.7780E+03	.7879E+03	.7946E+03	.8010E+03	.8058E+03	.8055E+03
PS 2	.6073E+03	.6360E+03	.6677E+03	.7003E+03	.7290E+03	.7524E+03	.7717E+03	.7845E+03	.7865E+03
PS 3	-.5388E+01	-.5506E+01	-.5679E+01	-.5847E+01	-.5968E+01	-.6072E+01	-.6215E+01	-.6332E+01	-.6367E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.3726E+03	.3787E+03	.3853E+03	.3919E+03	.3969E+03	.4004E+03	.4036E+03	.4061E+03	.4059E+03
PSS 2	.6629E+02	.5793E+02	.4860E+02	.3886E+02	.2944E+02	.2111E+02	.1463E+02	.1062E+02	.9508E+01
PSS 3	.3063E+03	.3207E+03	.3367E+03	.3531E+03	.3675E+03	.3792E+03	.3890E+03	.3954E+03	.3964E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.7904E-03	-.6530E-03	-.5114E-03	-.3640E-03	-.2095E-03	-.5037E-04	.1102E-03	.2728E-03	.4381E-03
UY	-.8311E-11	-.1037E-11	.4851E-11	.5546E-13	-.6691E-11	-.3347E-11	.3276E-11	-.2603E-11	-.9292E-11
UZ	.8515E-01	.8666E-01	.8856E-01	.9022E-01	.9158E-01	.9295E-01	.9442E-01	.9532E-01	.9556E-01

## NORMAL STRAINS

EXX	.1243E-03	.1310E-03	.1385E-03	.1461E-03	.1529E-03	.1585E-03	.1631E-03	.1662E-03	.1667E-03
EYY	.1624E-03	.1643E-03	.1664E-03	.1685E-03	.1699E-03	.1707E-03	.1715E-03	.1723E-03	.1721E-03
EZZ	-.5187E-04	-.5342E-04	-.5514E-04	-.5690E-04	-.5838E-04	-.5953E-04	-.6053E-04	-.6122E-04	-.6129E-04

## SHEAR STRAINS

EXY	-.1562E-12	-.1204E-12	-.6548E-12	.6703E-13	.1031E-12	-.4765E-12	.1181E-12	.2994E-12	-.9119E-13
EXZ	.1633E-06	.1471E-06	.1275E-06	.1041E-06	.7672E-07	.4552E-07	.1117E-07	-.2537E-07	-.6308E-07
EYZ	.3868E-15	.1633E-14	.4330E-15	.4351E-15	.7723E-15	.1720E-14	.1260E-14	.1140E-14	.6674E-15

## PRINCIPAL STRAINS

PE 1	.1624E-03	.1643E-03	.1664E-03	.1685E-03	.1699E-03	.1707E-03	.1715E-03	.1723E-03	.1721E-03
PE 2	.1243E-03	.1310E-03	.1385E-03	.1461E-03	.1529E-03	.1585E-03	.1631E-03	.1662E-03	.1667E-03
PE 3	-.5187E-04	-.5342E-04	-.5514E-04	-.5690E-04	-.5838E-04	-.5953E-04	-.6053E-04	-.6122E-04	-.6129E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2143E-03	.2177E-03	.2215E-03	.2254E-03	.2282E-03	.2302E-03	.2321E-03	.2335E-03	.2334E-03
PSE 2	.3811E-04	.3331E-04	.2794E-04	.2235E-04	.1693E-04	.1214E-04	.8410E-05	.6105E-05	.5467E-05
PSE 3	.1761E-03	.1844E-03	.1936E-03	.2030E-03	.2113E-03	.2181E-03	.2237E-03	.2274E-03	.2279E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 6100.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.64 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-c Composite Pavement

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Z= 4.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	-.2540E+03	-.2350E+03
SYY	-.2572E+03	-.2381E+03
SZZ	-.3345E+03	-.3004E+03

## SHEAR STRESSES

SXY	-.3621E-09	-.1207E-07
SXZ	-.3729E+02	-.6353E+02
SYZ	-.3545E-06	-.1907E-05

## PRINCIPAL STRESSES

PS 1	-.2393E+03	-.1962E+03
PS 2	-.2572E+03	-.2381E+03
PS 3	-.3491E+03	-.3392E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.5489E+02	.7147E+02
PSS 2	.8911E+01	.2095E+02
PSS 3	.4598E+02	.5052E+02

## DISPLACEMENTS

UX	-.4792E-03	-.5940E-03
UY	-.6459E-12	.0000E+00
UZ	.9548E-01	.9439E-01

Appendix 6E-c Composite Pavement

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## NORMAL STRAINS

EXX -.1172E-03 -.1162E-03  
EYY -.1280E-03 -.1268E-03  
EZZ -.3891E-03 -.3371E-03

## SHEAR STRAINS

EXY -.2444E-14 -.8146E-13  
EXZ -.2517E-03 -.4288E-03  
EYZ -.2393E-11 -.1287E-10

## PRINCIPAL STRAINS

PE 1 -.6786E-04 .1457E-04  
PE 2 -.1280E-03 -.1268E-03  
PE 3 -.4384E-03 -.4679E-03

## PRINCIPAL SHEAR STRAINS

PSE 1 .3705E-03 .4824E-03  
PSE 2 .6015E-04 .1414E-03  
PSE 3 .3104E-03 .3410E-03

Z= 12.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .7751E+03 .7527E+03  
SYY .7980E+03 .7854E+03  
SZZ -.6292E+01 -.6136E+01

Appendix 6E-c Composite Pavement

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## SHEAR STRESSES

SXY -.4890E-06 -.2054E-06  
SXZ -.1752E+00 -.2384E+00  
SYZ .2651E-08 .3725E-08

## PRINCIPAL STRESSES

PS 1 .7980E+03 .7854E+03  
PS 2 .7751E+03 .7527E+03  
PS 3 -.6292E+01 -.6136E+01

## PRINCIPAL SHEAR STRESSES

PSS 1 .4021E+03 .3958E+03  
PSS 2 .1146E+02 .1634E+02  
PSS 3 .3907E+03 .3794E+03

## DISPLACEMENTS

UX .6025E-03 .7620E-03  
UY -.3547E-11 -.1455E-10  
UZ .9516E-01 .9409E-01

## NORMAL STRAINS

EXX .1641E-03 .1590E-03  
EYY .1707E-03 .1684E-03  
EZZ -.6056E-04 -.5921E-04

## SHEAR STRAINS

EXY -.2812E-12 -.1181E-12  
EXZ -.1007E-06 -.1371E-06  
EYZ .1525E-14 .2142E-14

## PRINCIPAL STRAINS

Appendix 6E-c Composite Pavement

PE 1 .1707E-03 .1684E-03  
 PE 2 .1641E-03 .1590E-03  
 PE 3 -.6056E-04 -.5921E-04

PRINCIPAL SHEAR STRAINS  
 PSE 1 .2312E-03 .2276E-03  
 PSE 2 .6587E-05 .9393E-05  
 PSE 3 .2246E-03 .2182E-03

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

## Appendix 6E-c Composite Pavement

Z= 4.00 12.00  
 X-Y POINT(S)  
 X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
 15.00 4.00  
 16.00 4.00  
 17.00 4.00  
 18.00 4.00  
 19.00 4.00  
 20.00 4.00  
 21.00 4.00  
 22.00 4.00  
 23.00 4.00

## NORMAL STRESSES

SXX -.2037E+03 -.2138E+03 -.2178E+03 -.2154E+03 -.2068E+03 -.1928E+03 -.1756E+03 -.1571E+03 -.1384E+03  
 SYY -.2163E+03 -.2262E+03 -.2301E+03 -.2279E+03 -.2196E+03 -.2060E+03 -.1892E+03 -.1714E+03 -.1537E+03  
 SZZ -.2432E+03 -.2599E+03 -.2655E+03 -.2599E+03 -.2432E+03 -.2168E+03 -.1844E+03 -.1503E+03 -.1166E+03

## SHEAR STRESSES

SXY -.1350E-07 -.2730E-07 .9665E-08 .2968E-07 .2366E-07 .1130E-07 -.1879E-07 -.7098E-08 -.1222E-07



## Appendix 6E-c Composite Pavement

SXZ	.4216E+02	.2536E+02	.7336E+01	-.1068E+02	-.2742E+02	-.4103E+02	-.4992E+02	-.5430E+02	-.5558E+02
SYZ	.1334E-06	-.4906E-06	-.2023E-07	-.1321E-06	-.2070E-08	-.1343E-06	-.1493E-07	-.4968E-06	.1411E-06

## PRINCIPAL STRESSES

PS 1	-.1769E+03	-.2026E+03	-.2167E+03	-.2130E+03	-.1921E+03	-.1621E+03	-.1299E+03	-.9930E+02	-.7089E+02
PS 2	-.2163E+03	-.2262E+03	-.2301E+03	-.2279E+03	-.2196E+03	-.2060E+03	-.1892E+03	-.1714E+03	-.1537E+03
PS 3	-.2700E+03	-.2711E+03	-.2666E+03	-.2623E+03	-.2579E+03	-.2476E+03	-.2301E+03	-.2081E+03	-.1842E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4655E+02	.3425E+02	.2496E+02	.2467E+02	.3290E+02	.4275E+02	.5011E+02	.5440E+02	.5664E+02
PSS 2	.1971E+02	.1181E+02	.6711E+01	.7440E+01	.1373E+02	.2194E+02	.2967E+02	.3607E+02	.4138E+02
PSS 3	.2684E+02	.2244E+02	.1825E+02	.1723E+02	.1917E+02	.2081E+02	.2045E+02	.1833E+02	.1526E+02

## DISPLACEMENTS

UX	.1994E-02	.1886E-02	.1776E-02	.1664E-02	.1552E-02	.1440E-02	.1325E-02	.1209E-02	.1093E-02
UY	-.4124E-11	.4483E-12	-.8806E-12	-.2185E-11	-.9572E-12	.1047E-11	-.6870E-12	-.1728E-11	.2552E-11
UZ	.1282E+00	.1288E+00	.1293E+00	.1297E+00	.1302E+00	.1305E+00	.1300E+00	.1295E+00	.1293E+00

## NORMAL STRAINS

EXX	-.1072E-03	-.1093E-03	-.1108E-03	-.1118E-03	-.1122E-03	-.1121E-03	-.1119E-03	-.1112E-03	-.1096E-03
EYY	-.1498E-03	-.1511E-03	-.1524E-03	-.1538E-03	-.1551E-03	-.1565E-03	-.1581E-03	-.1596E-03	-.1610E-03
EZZ	-.2404E-03	-.2646E-03	-.2718E-03	-.2618E-03	-.2349E-03	-.1931E-03	-.1419E-03	-.8832E-04	-.3595E-04

## SHEAR STRAINS

EXY	-.9115E-13	-.1843E-12	.6524E-13	.2003E-12	.1597E-12	.7626E-13	-.1268E-12	-.4791E-13	-.8250E-13
EXZ	.2846E-03	.1712E-03	.4952E-04	-.7209E-04	-.1851E-03	-.2769E-03	-.3369E-03	-.3665E-03	-.3751E-03
EYZ	.9003E-12	-.3312E-11	-.1365E-12	-.8918E-12	-.1397E-13	-.9062E-12	-.1008E-12	-.3353E-11	.9523E-12

## PRINCIPAL STRAINS

PE 1	-.1668E-04	-.7136E-04	-.1071E-03	-.1036E-03	-.6248E-04	-.8351E-05	.4220E-04	.8385E-04	.1184E-03
PE 2	-.1498E-03	-.1511E-03	-.1524E-03	-.1538E-03	-.1551E-03	-.1565E-03	-.1581E-03	-.1596E-03	-.1610E-03
PE 3	-.3309E-03	-.3025E-03	-.2756E-03	-.2700E-03	-.2845E-03	-.2969E-03	-.2961E-03	-.2834E-03	-.2639E-03

Appendix 6E-c Composite Pavement

PRINCIPAL SHEAR STRAINS

PSE 1	.3142E-03	.2312E-03	.1685E-03	.1665E-03	.2220E-03	.2885E-03	.3383E-03	.3672E-03	.3823E-03
PSE 2	.1331E-03	.7972E-04	.4530E-04	.5022E-04	.9266E-04	.1481E-03	.2003E-03	.2435E-03	.2793E-03
PSE 3	.1811E-03	.1514E-03	.1232E-03	.1163E-03	.1294E-03	.1404E-03	.1380E-03	.1237E-03	.1030E-03

Z= 12.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	.6999E+03	.7179E+03	.7285E+03	.7314E+03	.7267E+03	.7153E+03	.7010E+03	.6831E+03	.6618E+03
SYX	.8741E+03	.8862E+03	.8953E+03	.9013E+03	.9042E+03	.9044E+03	.9048E+03	.9043E+03	.9018E+03
SZZ	-.7075E+01	-.7153E+01	-.7218E+01	-.7269E+01	-.7306E+01	-.7331E+01	-.7314E+01	-.7307E+01	-.7313E+01

SHEAR STRESSES

SXY	.2510E-06	-.6960E-06	-.2839E-07	.7556E-08	-.3126E-06	-.5258E-06	-.4941E-06	-.2804E-07	.1254E-07
SXZ	.4877E+00	.4363E+00	.3833E+00	.3302E+00	.2786E+00	.2298E+00	.1845E+00	.1437E+00	.1086E+00
SYZ	.4892E-09	.5944E-09	-.8786E-09	.9737E-09	.1383E-09	.5639E-09	-.6993E-09	.1049E-08	-.9025E-10

PRINCIPAL STRESSES

PS 1	.8741E+03	.8862E+03	.8953E+03	.9013E+03	.9042E+03	.9044E+03	.9048E+03	.9043E+03	.9018E+03
PS 2	.6999E+03	.7179E+03	.7285E+03	.7314E+03	.7267E+03	.7153E+03	.7010E+03	.6831E+03	.6618E+03

## Appendix 6E-c Composite Pavement

PS 3   - .7076E+01   - .7153E+01   - .7218E+01   - .7269E+01   - .7306E+01   - .7331E+01   - .7314E+01   - .7307E+01   - .7313E+01

## PRINCIPAL SHEAR STRESSES

PSS 1   .4406E+03   .4467E+03   .4513E+03   .4543E+03   .4558E+03   .4559E+03   .4561E+03   .4558E+03   .4546E+03  
PSS 2   .8709E+02   .8415E+02   .8339E+02   .8496E+02   .8874E+02   .9452E+02   .1019E+03   .1106E+03   .1200E+03  
PSS 3   .3535E+03   .3625E+03   .3679E+03   .3693E+03   .3670E+03   .3613E+03   .3541E+03   .3452E+03   .3346E+03

## DISPLACEMENTS

UX   - .2379E-02   - .2235E-02   - .2087E-02   - .1938E-02   - .1789E-02   - .1642E-02   - .1495E-02   - .1350E-02   - .1210E-02  
UY   - .5357E-11   .2124E-11   - .6798E-11   - .1380E-11   .7870E-12   .3347E-11   - .5320E-11   - .9571E-11   .1050E-10  
UZ   .1279E+00   .1285E+00   .1290E+00   .1295E+00   .1299E+00   .1303E+00   .1298E+00   .1294E+00   .1292E+00

## NORMAL STRAINS

EXX   .1425E-03   .1465E-03   .1488E-03   .1493E-03   .1481E-03   .1452E-03   .1416E-03   .1371E-03   .1319E-03  
EYY   .1925E-03   .1949E-03   .1968E-03   .1982E-03   .1991E-03   .1995E-03   .2002E-03   .2007E-03   .2009E-03  
EZZ   - .6080E-04   - .6194E-04   - .6270E-04   - .6304E-04   - .6299E-04   - .6257E-04   - .6204E-04   - .6135E-04   - .6047E-04

## SHEAR STRAINS

EXY   .1443E-12   - .4002E-12   - .1633E-13   .4344E-14   - .1798E-12   - .3023E-12   - .2841E-12   - .1612E-13   .7209E-14  
EXZ   .2805E-06   .2509E-06   .2204E-06   .1899E-06   .1602E-06   .1321E-06   .1061E-06   .8264E-07   .6243E-07  
EYZ   .2813E-15   .3418E-15   - .5052E-15   .5599E-15   .7951E-16   .3242E-15   - .4021E-15   .6034E-15   - .5190E-16

## PRINCIPAL STRAINS

PE 1   .1925E-03   .1949E-03   .1968E-03   .1982E-03   .1991E-03   .1995E-03   .2002E-03   .2007E-03   .2009E-03  
PE 2   .1425E-03   .1465E-03   .1488E-03   .1493E-03   .1481E-03   .1452E-03   .1416E-03   .1371E-03   .1319E-03  
PE 3   - .6080E-04   - .6194E-04   - .6270E-04   - .6304E-04   - .6299E-04   - .6257E-04   - .6204E-04   - .6135E-04   - .6047E-04

## PRINCIPAL SHEAR STRAINS

PSE 1   .2533E-03   .2568E-03   .2595E-03   .2612E-03   .2621E-03   .2621E-03   .2622E-03   .2621E-03   .2614E-03  
PSE 2   .5008E-04   .4839E-04   .4795E-04   .4885E-04   .5103E-04   .5435E-04   .5860E-04   .6358E-04   .6899E-04  
PSE 3   .2033E-03   .2085E-03   .2115E-03   .2124E-03   .2110E-03   .2078E-03   .2036E-03   .1985E-03   .1924E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00

Appendix 6E-c Composite Pavement

31.00      4.00  
32.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	-.1201E+03	-.1034E+03	-.8994E+02	-.8050E+02	-.7457E+02	-.7106E+02	-.6898E+02	-.6773E+02	-.6696E+02
SYX	-.1362E+03	-.1204E+03	-.1078E+03	-.9936E+02	-.9441E+02	-.9180E+02	-.9049E+02	-.8982E+02	-.8948E+02
SZZ	-.8390E+02	-.5411E+02	-.3065E+02	-.1521E+02	-.6704E+01	-.2714E+01	-.1139E+01	-.6729E+00	-.6231E+00

SHEAR STRESSES

SXY	.5767E-07	.3950E-07	-.6750E-07	-.4037E-08	.4409E-07	-.4029E-07	.2001E-07	.1746E-09	-.1510E-07
SXZ	-.5407E+02	-.4896E+02	-.4062E+02	-.3120E+02	-.2280E+02	-.1626E+02	-.1142E+02	-.7773E+01	-.4862E+01
SYZ	-.7312E-06	-.7526E-07	-.5053E-06	.1600E-06	-.5460E-07	.6164E-07	-.8728E-07	.1079E-06	.1892E-08

PRINCIPAL STRESSES

PS 1	-.4498E+02	-.2394E+02	-.1001E+02	-.2701E+01	.2434E+00	.9558E+00	.7308E+00	.2164E+00	-.2687E+00
PS 2	-.1362E+03	-.1204E+03	-.1078E+03	-.9301E+02	-.8152E+02	-.7473E+02	-.7085E+02	-.6862E+02	-.6732E+02
PS 3	-.1590E+03	-.1336E+03	-.1106E+03	-.9936E+02	-.9441E+02	-.9180E+02	-.9049E+02	-.8982E+02	-.8948E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.5701E+02	.5481E+02	.5029E+02	.4833E+02	.4733E+02	.4638E+02	.4561E+02	.4502E+02	.4460E+02
PSS 2	.4561E+02	.4822E+02	.4892E+02	.4516E+02	.4088E+02	.3784E+02	.3579E+02	.3442E+02	.3353E+02
PSS 3	.1141E+02	.6589E+01	.1372E+01	.3174E+01	.6446E+01	.8536E+01	.9817E+01	.1060E+02	.1108E+02

## DISPLACEMENTS

UX	.9803E-03	.8675E-03	.7559E-03	.6476E-03	.5436E-03	.4443E-03	.3496E-03	.2587E-03	.1708E-03
UY	-.6531E-12	-.9465E-11	.5507E-11	.1428E-11	.9233E-13	.9063E-12	-.1381E-11	.1238E-10	.5426E-11
UZ	.1293E+00	.1286E+00	.1281E+00	.1278E+00	.1279E+00	.1280E+00	.1283E+00	.1285E+00	.1287E+00

## NORMAL STRAINS

EXX	-.1076E-03	-.1058E-03	-.1037E-03	-.1010E-03	-.9795E-04	-.9495E-04	-.9228E-04	-.9014E-04	-.8857E-04
EYY	-.1620E-03	-.1631E-03	-.1641E-03	-.1647E-03	-.1649E-03	-.1649E-03	-.1649E-03	-.1647E-03	-.1646E-03
EZZ	.1449E-04	.6052E-04	.9645E-04	.1193E-03	.1311E-03	.1357E-03	.1367E-03	.1362E-03	.1353E-03

## SHEAR STRAINS

EXY	.3893E-12	.2666E-12	-.4556E-12	-.2725E-13	.2976E-12	-.2720E-12	.1351E-12	.1179E-14	-.1019E-12
EXZ	-.3649E-03	-.3305E-03	-.2742E-03	-.2106E-03	-.1539E-03	-.1097E-03	-.7706E-04	-.5247E-04	-.3282E-04
EYZ	-.4936E-11	-.5080E-12	-.3411E-11	.1080E-11	-.3686E-12	.4161E-12	-.5891E-12	.7280E-12	.1277E-13

## PRINCIPAL STRAINS

PE 1	.1459E-03	.1623E-03	.1661E-03	.1616E-03	.1545E-03	.1481E-03	.1430E-03	.1392E-03	.1365E-03
PE 2	-.1620E-03	-.1631E-03	-.1641E-03	-.1432E-03	-.1214E-03	-.1073E-03	-.9860E-04	-.9314E-04	-.8977E-04
PE 3	-.2390E-03	-.2076E-03	-.1733E-03	-.1647E-03	-.1649E-03	-.1649E-03	-.1649E-03	-.1647E-03	-.1646E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.3848E-03	.3700E-03	.3394E-03	.3262E-03	.3195E-03	.3130E-03	.3079E-03	.3039E-03	.3011E-03
PSE 2	.3078E-03	.3255E-03	.3302E-03	.3048E-03	.2759E-03	.2554E-03	.2416E-03	.2323E-03	.2263E-03
PSE 3	.7699E-04	.4448E-04	.9260E-05	.2142E-04	.4351E-04	.5762E-04	.6626E-04	.7157E-04	.7478E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	.6381E+03	.6161E+03	.5955E+03	.5758E+03	.5577E+03	.5416E+03	.5280E+03	.5172E+03	.5094E+03
SYY	.8975E+03	.8946E+03	.8918E+03	.8884E+03	.8844E+03	.8801E+03	.8760E+03	.8723E+03	.8695E+03
SZZ	-.7322E+01	-.7300E+01	-.7294E+01	-.7305E+01	-.7321E+01	-.7338E+01	-.7353E+01	-.7363E+01	-.7370E+01

SHEAR STRESSES

SXY	.3910E-06	.1021E-05	.1972E-06	-.7290E-07	.2386E-06	.9680E-07	-.7788E-06	.5218E-07	-.1600E-06
SXZ	.7930E-01	.5520E-01	.3619E-01	.2205E-01	.1210E-01	.5572E-02	.1620E-02	-.2988E-03	-.8474E-03
SYZ	.6175E-09	-.1579E-08	-.7397E-09	-.9503E-10	.2658E-08	.5657E-09	-.5024E-09	-.1716E-08	.2123E-08

PRINCIPAL STRESSES

PS 1	.8975E+03	.8946E+03	.8918E+03	.8884E+03	.8844E+03	.8801E+03	.8760E+03	.8723E+03	.8695E+03
PS 2	.6381E+03	.6161E+03	.5955E+03	.5758E+03	.5577E+03	.5416E+03	.5280E+03	.5172E+03	.5094E+03
PS 3	-.7322E+01	-.7300E+01	-.7294E+01	-.7305E+01	-.7321E+01	-.7338E+01	-.7353E+01	-.7363E+01	-.7370E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.4524E+03	.4509E+03	.4496E+03	.4478E+03	.4458E+03	.4437E+03	.4417E+03	.4398E+03	.4384E+03
PSS 2	.1297E+03	.1392E+03	.1482E+03	.1563E+03	.1634E+03	.1693E+03	.1740E+03	.1776E+03	.1800E+03
PSS 3	.3227E+03	.3117E+03	.3014E+03	.2915E+03	.2825E+03	.2745E+03	.2677E+03	.2623E+03	.2584E+03

DISPLACEMENTS

## Appendix 6E-c Composite Pavement

UX	-.1076E-02	-.9450E-03	-.8188E-03	-.6985E-03	-.5845E-03	-.4767E-03	-.3744E-03	-.2767E-03	-.1825E-03
UY	-.4321E-11	.1246E-11	-.3977E-11	.3868E-12	-.8690E-11	.4144E-11	-.2626E-11	-.3411E-11	-.3920E-11
UZ	.1292E+00	.1285E+00	.1280E+00	.1278E+00	.1278E+00	.1280E+00	.1282E+00	.1284E+00	.1286E+00

## NORMAL STRAINS

EXX	.1262E-03	.1208E-03	.1157E-03	.1109E-03	.1065E-03	.1027E-03	.9943E-04	.9686E-04	.9502E-04
EYY	.2007E-03	.2008E-03	.2009E-03	.2008E-03	.2005E-03	.2000E-03	.1995E-03	.1990E-03	.1985E-03
EZZ	-.5942E-04	-.5848E-04	-.5760E-04	-.5673E-04	-.5591E-04	-.5515E-04	-.5449E-04	-.5395E-04	-.5355E-04

## SHEAR STRAINS

EXY	.2248E-12	.5873E-12	.1134E-12	-.4192E-13	.1372E-12	.5566E-13	-.4478E-12	.3001E-13	-.9198E-13
EXZ	.4560E-07	.3174E-07	.2081E-07	.1268E-07	.6959E-08	.3204E-08	.9314E-09	-.1718E-09	-.4872E-09
EYZ	.3551E-15	-.9081E-15	-.4253E-15	-.5464E-16	.1528E-14	.3253E-15	-.2889E-15	-.9867E-15	.1221E-14

## PRINCIPAL STRAINS

PE 1	.2007E-03	.2008E-03	.2009E-03	.2008E-03	.2005E-03	.2000E-03	.1995E-03	.1990E-03	.1985E-03
PE 2	.1262E-03	.1208E-03	.1157E-03	.1109E-03	.1065E-03	.1027E-03	.9943E-04	.9686E-04	.9502E-04
PE 3	-.5942E-04	-.5848E-04	-.5760E-04	-.5673E-04	-.5591E-04	-.5515E-04	-.5449E-04	-.5395E-04	-.5355E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2602E-03	.2593E-03	.2585E-03	.2575E-03	.2564E-03	.2551E-03	.2539E-03	.2529E-03	.2521E-03
PSE 2	.7458E-04	.8005E-04	.8520E-04	.8987E-04	.9393E-04	.9732E-04	.1000E-03	.1021E-03	.1035E-03
PSE 3	.1856E-03	.1792E-03	.1733E-03	.1676E-03	.1624E-03	.1578E-03	.1539E-03	.1508E-03	.1486E-03



Appendix 6E-c Composite Pavement

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ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00

Appendix 6E-c Composite Pavement

39.00      4.00  
40.00      4.00  
41.00      4.00

Z=    4.00 LAYER NO,    1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	-.6654E+02	-.6640E+02	-.6654E+02	-.6696E+02	-.6773E+02	-.6898E+02	-.7106E+02	-.7457E+02	-.8050E+02
SYX	-.8930E+02	-.8924E+02	-.8930E+02	-.8948E+02	-.8982E+02	-.9049E+02	-.9180E+02	-.9441E+02	-.9936E+02
SZZ	-.6667E+00	-.6761E+00	-.6667E+00	-.6231E+00	-.6729E+00	-.1139E+01	-.2714E+01	-.6704E+01	-.1521E+02

SHEAR STRESSES

SXY	-.3079E-07	-.1016E-06	-.4558E-07	.2108E-08	.2713E-07	-.1297E-07	-.4835E-07	.5638E-07	.1408E-07
SXZ	-.2353E+01	.3668E-06	.2353E+01	.4862E+01	.7773E+01	.1142E+02	.1626E+02	.2280E+02	.3120E+02
SYZ	.7318E-07	.1376E-07	-.1607E-07	-.1519E-08	-.7578E-07	-.1264E-06	.9653E-08	-.1022E-06	.1155E-06

PRINCIPAL STRESSES

PS 1	-.5827E+00	-.6761E+00	-.5827E+00	-.2687E+00	.2164E+00	.7308E+00	.9558E+00	.2434E+00	-.2701E+01
PS 2	-.6663E+02	-.6640E+02	-.6663E+02	-.6732E+02	-.6862E+02	-.7085E+02	-.7473E+02	-.8152E+02	-.9301E+02
PS 3	-.8930E+02	-.8924E+02	-.8930E+02	-.8948E+02	-.8982E+02	-.9049E+02	-.9180E+02	-.9441E+02	-.9936E+02

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.4436E+02	.4428E+02	.4436E+02	.4460E+02	.4502E+02	.4561E+02	.4638E+02	.4733E+02	.4833E+02
PSS 2	.3302E+02	.3286E+02	.3302E+02	.3353E+02	.3442E+02	.3579E+02	.3784E+02	.4088E+02	.4516E+02
PSS 3	.1134E+02	.1142E+02	.1134E+02	.1108E+02	.1060E+02	.9817E+01	.8536E+01	.6446E+01	.3174E+01

## DISPLACEMENTS

UX	.8492E-04	-.5895E-10	-.8492E-04	-.1708E-03	-.2587E-03	-.3496E-03	-.4443E-03	-.5436E-03	-.6476E-03
UY	.1021E-12	.2406E-11	.1486E-11	-.4007E-11	-.1170E-10	-.2781E-11	.1014E-11	-.2240E-11	-.1576E-11
UZ	.1288E+00	.1288E+00	.1288E+00	.1287E+00	.1285E+00	.1283E+00	.1280E+00	.1279E+00	.1278E+00

## NORMAL STRAINS

EXX	-.8763E-04	-.8732E-04	-.8763E-04	-.8857E-04	-.9014E-04	-.9228E-04	-.9495E-04	-.9795E-04	-.1010E-03
EYY	-.1644E-03	-.1644E-03	-.1644E-03	-.1646E-03	-.1647E-03	-.1649E-03	-.1649E-03	-.1649E-03	-.1647E-03
EZZ	.1347E-03	.1345E-03	.1347E-03	.1353E-03	.1362E-03	.1367E-03	.1357E-03	.1311E-03	.1193E-03

## SHEAR STRAINS

EXY	-.2078E-12	-.6858E-12	-.3077E-12	.1423E-13	.1831E-12	-.8752E-13	-.3264E-12	.3806E-12	.9505E-13
EXZ	-.1588E-04	.2476E-11	.1588E-04	.3282E-04	.5247E-04	.7706E-04	.1097E-03	.1539E-03	.2106E-03
EYZ	.4939E-12	.9290E-13	-.1085E-12	-.1025E-13	-.5115E-12	-.8531E-12	.6516E-13	-.6899E-12	.7795E-12

## PRINCIPAL STRAINS

PE 1	.1350E-03	.1345E-03	.1350E-03	.1365E-03	.1392E-03	.1430E-03	.1481E-03	.1545E-03	.1616E-03
PE 2	-.8792E-04	-.8732E-04	-.8792E-04	-.8977E-04	-.9314E-04	-.9860E-04	-.1073E-03	-.1214E-03	-.1432E-03
PE 3	-.1644E-03	-.1644E-03	-.1644E-03	-.1646E-03	-.1647E-03	-.1649E-03	-.1649E-03	-.1649E-03	-.1647E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.2994E-03	.2989E-03	.2994E-03	.3011E-03	.3039E-03	.3079E-03	.3130E-03	.3195E-03	.3262E-03
PSE 2	.2229E-03	.2218E-03	.2229E-03	.2263E-03	.2323E-03	.2416E-03	.2554E-03	.2759E-03	.3048E-03
PSE 3	.7653E-04	.7708E-04	.7653E-04	.7478E-04	.7157E-04	.6626E-04	.5762E-04	.4351E-04	.2142E-04

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.5047E+03	.5031E+03	.5047E+03	.5094E+03	.5172E+03	.5280E+03	.5416E+03	.5577E+03	.5758E+03
SYX	.8677E+03	.8671E+03	.8677E+03	.8695E+03	.8723E+03	.8760E+03	.8801E+03	.8844E+03	.8884E+03
SZZ	-.7374E+01	-.7375E+01	-.7374E+01	-.7370E+01	-.7363E+01	-.7353E+01	-.7338E+01	-.7321E+01	-.7305E+01

SHEAR STRESSES

SXY	-.1646E-07	.6674E-06	.2965E-06	.6176E-07	.2834E-06	-.5662E-06	-.1482E-06	-.1130E-07	.4699E-07
SXZ	-.6099E-03	.1528E-08	.6099E-03	.8474E-03	.2988E-03	-.1620E-02	-.5572E-02	-.1210E-01	-.2205E-01
SYZ	.2070E-08	.3905E-09	-.1173E-08	.1727E-08	-.1697E-08	.8683E-09	-.5549E-09	-.2829E-08	-.9096E-09

PRINCIPAL STRESSES

PS 1	.8677E+03	.8671E+03	.8677E+03	.8695E+03	.8723E+03	.8760E+03	.8801E+03	.8844E+03	.8884E+03
PS 2	.5047E+03	.5031E+03	.5047E+03	.5094E+03	.5172E+03	.5280E+03	.5416E+03	.5577E+03	.5758E+03
PS 3	-.7374E+01	-.7375E+01	-.7374E+01	-.7370E+01	-.7363E+01	-.7353E+01	-.7338E+01	-.7321E+01	-.7305E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.4375E+03	.4372E+03	.4375E+03	.4384E+03	.4398E+03	.4417E+03	.4437E+03	.4458E+03	.4478E+03
PSS 2	.1815E+03	.1820E+03	.1815E+03	.1800E+03	.1776E+03	.1740E+03	.1693E+03	.1634E+03	.1563E+03
PSS 3	.2560E+03	.2553E+03	.2560E+03	.2584E+03	.2623E+03	.2677E+03	.2745E+03	.2825E+03	.2915E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.9067E-04	-.9802E-11	.9067E-04	.1825E-03	.2767E-03	.3744E-03	.4767E-03	.5845E-03	.6985E-03
UY	.9071E-11	-.2615E-11	-.5886E-11	.4186E-11	-.2312E-12	-.1584E-11	-.1053E-10	-.9058E-11	.3620E-11
UZ	.1288E+00	.1288E+00	.1288E+00	.1286E+00	.1284E+00	.1282E+00	.1280E+00	.1278E+00	.1278E+00

## NORMAL STRAINS

EXX	.9391E-04	.9354E-04	.9391E-04	.9502E-04	.9686E-04	.9943E-04	.1027E-03	.1065E-03	.1109E-03
EYY	.1983E-03	.1982E-03	.1983E-03	.1985E-03	.1990E-03	.1995E-03	.2000E-03	.2005E-03	.2008E-03
EZZ	-.5331E-04	-.5323E-04	-.5331E-04	-.5355E-04	-.5395E-04	-.5449E-04	-.5515E-04	-.5591E-04	-.5673E-04

## SHEAR STRAINS

EXY	-.9462E-14	.3838E-12	.1705E-12	.3551E-13	.1630E-12	-.3256E-12	-.8524E-13	-.6495E-14	.2702E-13
EXZ	-.3507E-09	.8788E-15	.3507E-09	.4872E-09	.1718E-09	-.9314E-09	-.3204E-08	-.6959E-08	-.1268E-07
EYZ	.1190E-14	.2245E-15	-.6745E-15	.9932E-15	-.9756E-15	.4993E-15	-.3191E-15	-.1627E-14	-.5230E-15

## PRINCIPAL STRAINS

PE 1	.1983E-03	.1982E-03	.1983E-03	.1985E-03	.1990E-03	.1995E-03	.2000E-03	.2005E-03	.2008E-03
PE 2	.9391E-04	.9354E-04	.9391E-04	.9502E-04	.9686E-04	.9943E-04	.1027E-03	.1065E-03	.1109E-03
PE 3	-.5331E-04	-.5323E-04	-.5331E-04	-.5355E-04	-.5395E-04	-.5449E-04	-.5515E-04	-.5591E-04	-.5673E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2516E-03	.2514E-03	.2516E-03	.2521E-03	.2529E-03	.2539E-03	.2551E-03	.2564E-03	.2575E-03
PSE 2	.1044E-03	.1046E-03	.1044E-03	.1035E-03	.1021E-03	.1000E-03	.9732E-04	.9393E-04	.8987E-04
PSE 3	.1472E-03	.1468E-03	.1472E-03	.1486E-03	.1508E-03	.1539E-03	.1578E-03	.1624E-03	.1676E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00

Appendix 6E-c Composite Pavement

48.00      4.00  
49.00      4.00  
50.00      4.00

Z=    4.00 LAYER NO,    1

X            Y  
42.00      4.00  
43.00      4.00  
44.00      4.00  
45.00      4.00  
46.00      4.00  
47.00      4.00  
48.00      4.00  
49.00      4.00  
50.00      4.00

NORMAL STRESSES

SXX    -.8994E+02   -.1034E+03   -.1201E+03   -.1384E+03   -.1571E+03   -.1756E+03   -.1928E+03   -.2068E+03   -.2154E+03  
SYY    -.1078E+03   -.1204E+03   -.1362E+03   -.1537E+03   -.1714E+03   -.1892E+03   -.2060E+03   -.2196E+03   -.2279E+03  
SZZ    -.3065E+02   -.5411E+02   -.8390E+02   -.1166E+03   -.1503E+03   -.1844E+03   -.2168E+03   -.2432E+03   -.2599E+03

SHEAR STRESSES

SXY    -.3219E-07   .1038E-07   .3412E-07   .1204E-07   .1499E-07   -.3145E-07   .7076E-08   .1805E-07   -.7937E-08  
SXZ    .4062E+02   .4896E+02   .5407E+02   .5558E+02   .5430E+02   .4992E+02   .4103E+02   .2742E+02   .1068E+02  
SYZ    .4007E-06   -.1875E-06   -.5264E-06   .1696E-06   -.5268E-06   -.9906E-07   -.7502E-06   .1340E-06   -.4942E-06

PRINCIPAL STRESSES

PS 1   -.1001E+02   -.2394E+02   -.4498E+02   -.7089E+02   -.9930E+02   -.1299E+03   -.1621E+03   -.1921E+03   -.2130E+03  
PS 2   -.1078E+03   -.1204E+03   -.1362E+03   -.1537E+03   -.1714E+03   -.1892E+03   -.2060E+03   -.2196E+03   -.2279E+03  
PS 3   -.1106E+03   -.1336E+03   -.1590E+03   -.1842E+03   -.2081E+03   -.2301E+03   -.2476E+03   -.2579E+03   -.2623E+03

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.5029E+02	.5481E+02	.5701E+02	.5664E+02	.5440E+02	.5011E+02	.4275E+02	.3290E+02	.2467E+02
PSS 2	.4892E+02	.4822E+02	.4561E+02	.4138E+02	.3607E+02	.2967E+02	.2194E+02	.1373E+02	.7440E+01
PSS 3	.1372E+01	.6589E+01	.1141E+02	.1526E+02	.1833E+02	.2045E+02	.2081E+02	.1917E+02	.1723E+02

## DISPLACEMENTS

UX	-.7559E-03	-.8675E-03	-.9803E-03	-.1093E-02	-.1209E-02	-.1325E-02	-.1440E-02	-.1552E-02	-.1664E-02
UY	-.6301E-11	.5087E-11	-.3168E-11	.2807E-11	.2858E-11	.1550E-11	.5580E-13	-.3175E-11	.1582E-11
UZ	.1281E+00	.1286E+00	.1293E+00	.1293E+00	.1295E+00	.1300E+00	.1305E+00	.1302E+00	.1297E+00

## NORMAL STRAINS

EXX	-.1037E-03	-.1058E-03	-.1076E-03	-.1096E-03	-.1112E-03	-.1119E-03	-.1121E-03	-.1122E-03	-.1118E-03
EYY	-.1641E-03	-.1631E-03	-.1620E-03	-.1610E-03	-.1596E-03	-.1581E-03	-.1565E-03	-.1551E-03	-.1538E-03
EZZ	.9645E-04	.6052E-04	.1449E-04	-.3595E-04	-.8832E-04	-.1419E-03	-.1931E-03	-.2349E-03	-.2618E-03

## SHEAR STRAINS

EXY	-.2173E-12	.7007E-13	.2303E-12	.8126E-13	.1012E-12	-.2123E-12	.4776E-13	.1218E-12	-.5358E-13
EXZ	.2742E-03	.3305E-03	.3649E-03	.3751E-03	.3665E-03	.3369E-03	.2769E-03	.1851E-03	.7209E-04
EYZ	.2705E-11	-.1266E-11	-.3553E-11	.1145E-11	-.3556E-11	-.6686E-12	-.5064E-11	.9047E-12	-.3336E-11

## PRINCIPAL STRAINS

PE 1	.1661E-03	.1623E-03	.1459E-03	.1184E-03	.8385E-04	.4220E-04	-.8351E-05	-.6248E-04	-.1036E-03
PE 2	-.1641E-03	-.1631E-03	-.1620E-03	-.1610E-03	-.1596E-03	-.1581E-03	-.1565E-03	-.1551E-03	-.1538E-03
PE 3	-.1733E-03	-.2076E-03	-.2390E-03	-.2639E-03	-.2834E-03	-.2961E-03	-.2969E-03	-.2845E-03	-.2700E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.3394E-03	.3700E-03	.3848E-03	.3823E-03	.3672E-03	.3383E-03	.2885E-03	.2220E-03	.1665E-03
PSE 2	.3302E-03	.3255E-03	.3078E-03	.2793E-03	.2435E-03	.2003E-03	.1481E-03	.9266E-04	.5022E-04
PSE 3	.9260E-05	.4448E-04	.7699E-04	.1030E-03	.1237E-03	.1380E-03	.1404E-03	.1294E-03	.1163E-03

Z= 12.00 LAYER NO, 2



Appendix 6E-c Composite Pavement

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.5955E+03	.6161E+03	.6381E+03	.6618E+03	.6831E+03	.7010E+03	.7153E+03	.7267E+03	.7314E+03
SYX	.8918E+03	.8946E+03	.8975E+03	.9018E+03	.9043E+03	.9048E+03	.9044E+03	.9042E+03	.9013E+03
SZZ	-.7294E+01	-.7300E+01	-.7322E+01	-.7313E+01	-.7307E+01	-.7314E+01	-.7331E+01	-.7306E+01	-.7269E+01

SHEAR STRESSES

SXY	-.1294E-06	.6772E-06	-.1948E-06	.3290E-06	-.3480E-06	.3212E-06	.4388E-06	.3073E-06	.1706E-06
SXZ	-.3619E-01	-.5520E-01	-.7930E-01	-.1086E+00	-.1437E+00	-.1845E+00	-.2298E+00	-.2786E+00	-.3302E+00
SYZ	.1140E-08	.4003E-08	-.1093E-08	-.8479E-10	-.2324E-09	-.1562E-08	.5573E-10	.2914E-10	.8689E-09

PRINCIPAL STRESSES

PS 1	.8918E+03	.8946E+03	.8975E+03	.9018E+03	.9043E+03	.9048E+03	.9044E+03	.9042E+03	.9013E+03
PS 2	.5955E+03	.6161E+03	.6381E+03	.6618E+03	.6831E+03	.7010E+03	.7153E+03	.7267E+03	.7314E+03
PS 3	-.7294E+01	-.7300E+01	-.7322E+01	-.7313E+01	-.7307E+01	-.7314E+01	-.7331E+01	-.7306E+01	-.7269E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.4496E+03	.4509E+03	.4524E+03	.4546E+03	.4558E+03	.4561E+03	.4559E+03	.4558E+03	.4543E+03
PSS 2	.1482E+03	.1392E+03	.1297E+03	.1200E+03	.1106E+03	.1019E+03	.9452E+02	.8874E+02	.8496E+02
PSS 3	.3014E+03	.3117E+03	.3227E+03	.3346E+03	.3452E+03	.3541E+03	.3613E+03	.3670E+03	.3693E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.8188E-03	.9450E-03	.1076E-02	.1210E-02	.1350E-02	.1495E-02	.1642E-02	.1789E-02	.1938E-02
UY	.9608E-11	.3221E-11	.5848E-11	-.1164E-10	-.4586E-11	.2362E-11	.3436E-12	-.6766E-11	.3655E-11
UZ	.1280E+00	.1285E+00	.1292E+00	.1292E+00	.1294E+00	.1298E+00	.1303E+00	.1299E+00	.1295E+00

## NORMAL STRAINS

EXX	.1157E-03	.1208E-03	.1262E-03	.1319E-03	.1371E-03	.1416E-03	.1452E-03	.1481E-03	.1493E-03
EYY	.2009E-03	.2008E-03	.2007E-03	.2009E-03	.2007E-03	.2002E-03	.1995E-03	.1991E-03	.1982E-03
EZZ	-.5760E-04	-.5848E-04	-.5942E-04	-.6047E-04	-.6135E-04	-.6204E-04	-.6257E-04	-.6299E-04	-.6304E-04

## SHEAR STRAINS

EXY	-.7442E-13	.3894E-12	-.1120E-12	.1892E-12	-.2001E-12	.1847E-12	.2523E-12	.1767E-12	.9811E-13
EXZ	-.2081E-07	-.3174E-07	-.4560E-07	-.6243E-07	-.8264E-07	-.1061E-06	-.1321E-06	-.1602E-06	-.1899E-06
EYZ	.6557E-15	.2302E-14	-.6286E-15	-.4875E-16	-.1336E-15	-.8982E-15	.3204E-16	.1676E-16	.4996E-15

## PRINCIPAL STRAINS

PE 1	.2009E-03	.2008E-03	.2007E-03	.2009E-03	.2007E-03	.2002E-03	.1995E-03	.1991E-03	.1982E-03
PE 2	.1157E-03	.1208E-03	.1262E-03	.1319E-03	.1371E-03	.1416E-03	.1452E-03	.1481E-03	.1493E-03
PE 3	-.5760E-04	-.5848E-04	-.5942E-04	-.6047E-04	-.6135E-04	-.6204E-04	-.6257E-04	-.6299E-04	-.6304E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2585E-03	.2593E-03	.2602E-03	.2614E-03	.2621E-03	.2622E-03	.2621E-03	.2621E-03	.2612E-03
PSE 2	.8520E-04	.8005E-04	.7458E-04	.6899E-04	.6358E-04	.5860E-04	.5435E-04	.5103E-04	.4885E-04
PSE 3	.1733E-03	.1792E-03	.1856E-03	.1924E-03	.1985E-03	.2036E-03	.2078E-03	.2110E-03	.2124E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Dual Axle 110K pound

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

EIGHT LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 12200.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.57 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	49.000	.000
6	49.000	8.000
7	53.000	.000
8	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00

Appendix 6E-c Composite Pavement

57.00 4.00  
58.00 4.00  
59.00 4.00

Z= 4.00 LAYER NO, 1

X Y  
51.00 4.00  
52.00 4.00  
53.00 4.00  
54.00 4.00  
55.00 4.00  
56.00 4.00  
57.00 4.00  
58.00 4.00  
59.00 4.00

NORMAL STRESSES

SXX -.2178E+03 -.2138E+03 -.2037E+03 -.1881E+03 -.1692E+03 -.1491E+03 -.1288E+03 -.1088E+03 -.9039E+02  
 SYY -.2301E+03 -.2262E+03 -.2163E+03 -.2010E+03 -.1827E+03 -.1632E+03 -.1438E+03 -.1246E+03 -.1071E+03  
 SZZ -.2655E+03 -.2599E+03 -.2432E+03 -.2168E+03 -.1844E+03 -.1502E+03 -.1165E+03 -.8381E+02 -.5400E+02

SHEAR STRESSES

SXY -.1763E-07 -.1662E-07 .1175E-07 -.1318E-07 .3253E-07 -.2186E-07 .1175E-07 -.3688E-07 .1647E-08  
 SXZ -.7336E+01 -.2536E+02 -.4216E+02 -.5586E+02 -.6487E+02 -.6941E+02 -.7090E+02 -.6964E+02 -.6482E+02  
 SYZ -.1648E-07 -.1274E-06 .0000E+00 -.1274E-06 -.1648E-07 -.4942E-06 .1340E-06 -.7502E-06 -.9906E-07

PRINCIPAL STRESSES

PS 1 -.2167E+03 -.2026E+03 -.1769E+03 -.1448E+03 -.1115E+03 -.8027E+02 -.5152E+02 -.2555E+02 -.4871E+01  
 PS 2 -.2301E+03 -.2262E+03 -.2163E+03 -.2010E+03 -.1827E+03 -.1632E+03 -.1438E+03 -.1246E+03 -.1071E+03  
 PS 3 -.2666E+03 -.2711E+03 -.2700E+03 -.2601E+03 -.2421E+03 -.2191E+03 -.1939E+03 -.1671E+03 -.1395E+03

## Appendix 6E-c Composite Pavement

## PRINCIPAL SHEAR STRESSES

PSS 1	.2496E+02	.3425E+02	.4655E+02	.5768E+02	.6532E+02	.6941E+02	.7117E+02	.7076E+02	.6732E+02
PSS 2	.6711E+01	.1181E+02	.1971E+02	.2814E+02	.3559E+02	.4147E+02	.4612E+02	.4952E+02	.5110E+02
PSS 3	.1825E+02	.2244E+02	.2684E+02	.2953E+02	.2973E+02	.2794E+02	.2505E+02	.2123E+02	.1623E+02

## DISPLACEMENTS

UX	-.1776E-02	-.1886E-02	-.1994E-02	-.2100E-02	-.2206E-02	-.2311E-02	-.2412E-02	-.2508E-02	-.2602E-02
UY	-.2930E-12	-.2822E-12	.0000E+00	-.2822E-12	-.2930E-12	-.5694E-11	.4101E-11	.5580E-13	.1550E-11
UZ	.1293E+00	.1288E+00	.1282E+00	.1276E+00	.1261E+00	.1246E+00	.1234E+00	.1224E+00	.1207E+00

## NORMAL STRAINS

EXX	-.1108E-03	-.1093E-03	-.1072E-03	-.1046E-03	-.1019E-03	-.9853E-04	-.9434E-04	-.8964E-04	-.8504E-04
EYY	-.1524E-03	-.1511E-03	-.1498E-03	-.1484E-03	-.1473E-03	-.1461E-03	-.1447E-03	-.1430E-03	-.1413E-03
EZZ	-.2718E-03	-.2646E-03	-.2404E-03	-.2015E-03	-.1531E-03	-.1023E-03	-.5282E-04	-.5300E-05	.3777E-04

## SHEAR STRAINS

EXY	-.1190E-12	-.1122E-12	.7933E-13	-.8896E-13	.2196E-12	-.1476E-12	.7933E-13	-.2489E-12	.1112E-13
EXZ	-.4952E-04	-.1712E-03	-.2846E-03	-.3771E-03	-.4379E-03	-.4685E-03	-.4786E-03	-.4701E-03	-.4375E-03
EYZ	-.1112E-12	-.8598E-12	.0000E+00	-.8598E-12	-.1112E-12	-.3336E-11	.9047E-12	-.5064E-11	-.6686E-12

## PRINCIPAL STRAINS

PE 1	-.1071E-03	-.7136E-04	-.1668E-04	.4162E-04	.9296E-04	.1339E-03	.1666E-03	.1913E-03	.2036E-03
PE 2	-.1524E-03	-.1511E-03	-.1498E-03	-.1484E-03	-.1473E-03	-.1461E-03	-.1447E-03	-.1430E-03	-.1413E-03
PE 3	-.2756E-03	-.3025E-03	-.3309E-03	-.3477E-03	-.3479E-03	-.3347E-03	-.3138E-03	-.2863E-03	-.2508E-03

## PRINCIPAL SHEAR STRAINS

PSE 1	.1685E-03	.2312E-03	.3142E-03	.3893E-03	.4409E-03	.4685E-03	.4804E-03	.4776E-03	.4544E-03
PSE 2	.4530E-04	.7972E-04	.1331E-03	.1900E-03	.2402E-03	.2800E-03	.3113E-03	.3343E-03	.3449E-03
PSE 3	.1232E-03	.1514E-03	.1811E-03	.1993E-03	.2007E-03	.1886E-03	.1691E-03	.1433E-03	.1095E-03

Z= 12.00 LAYER NO, 2

Appendix 6E-c Composite Pavement

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	.7285E+03	.7179E+03	.6999E+03	.6751E+03	.6471E+03	.6156E+03	.5803E+03	.5424E+03	.5059E+03
SYY	.8953E+03	.8862E+03	.8741E+03	.8592E+03	.8444E+03	.8286E+03	.8107E+03	.7909E+03	.7721E+03
SZZ	-.7218E+01	-.7153E+01	-.7075E+01	-.6985E+01	-.6852E+01	-.6729E+01	-.6619E+01	-.6512E+01	-.6373E+01

SHEAR STRESSES

SXY	-.7586E-07	-.1468E-06	.6463E-06	-.3300E-06	-.4010E-06	-.6475E-06	.6463E-06	.5148E-06	.6324E-06
SXZ	-.3833E+00	-.4363E+00	-.4877E+00	-.5362E+00	-.5812E+00	-.6213E+00	-.6557E+00	-.6841E+00	-.7073E+00
SYZ	-.9032E-09	.6784E-09	.0000E+00	.6784E-09	-.9032E-09	.8689E-09	.2914E-10	.5573E-10	-.1562E-08

PRINCIPAL STRESSES

PS 1	.8953E+03	.8862E+03	.8741E+03	.8592E+03	.8444E+03	.8286E+03	.8107E+03	.7909E+03	.7721E+03
PS 2	.7285E+03	.7179E+03	.6999E+03	.6751E+03	.6471E+03	.6156E+03	.5803E+03	.5424E+03	.5059E+03
PS 3	-.7218E+01	-.7153E+01	-.7076E+01	-.6985E+01	-.6852E+01	-.6730E+01	-.6619E+01	-.6513E+01	-.6374E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.4513E+03	.4467E+03	.4406E+03	.4331E+03	.4256E+03	.4177E+03	.4087E+03	.3987E+03	.3893E+03
PSS 2	.8339E+02	.8415E+02	.8709E+02	.9204E+02	.9863E+02	.1065E+03	.1152E+03	.1242E+03	.1331E+03
PSS 3	.3679E+03	.3625E+03	.3535E+03	.3410E+03	.3270E+03	.3111E+03	.2935E+03	.2745E+03	.2561E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.2087E-02	.2235E-02	.2379E-02	.2519E-02	.2656E-02	.2788E-02	.2913E-02	.3029E-02	.3138E-02
UY	-.3537E-11	-.1416E-10	.1455E-10	.3951E-12	-.3537E-11	-.1090E-10	.7786E-11	.3436E-12	.2362E-11
UZ	.1290E+00	.1285E+00	.1279E+00	.1274E+00	.1259E+00	.1244E+00	.1233E+00	.1223E+00	.1206E+00

## NORMAL STRAINS

EXX	.1488E-03	.1465E-03	.1425E-03	.1368E-03	.1304E-03	.1231E-03	.1149E-03	.1062E-03	.9776E-04
EYY	.1968E-03	.1949E-03	.1925E-03	.1897E-03	.1871E-03	.1843E-03	.1812E-03	.1776E-03	.1743E-03
EZZ	-.6270E-04	-.6194E-04	-.6080E-04	-.5928E-04	-.5765E-04	-.5584E-04	-.5382E-04	-.5163E-04	-.4952E-04

## SHEAR STRAINS

EXY	-.4362E-13	-.8443E-13	.3716E-12	-.1898E-12	-.2306E-12	-.3723E-12	.3716E-12	.2960E-12	.3637E-12
EXZ	-.2204E-06	-.2509E-06	-.2805E-06	-.3083E-06	-.3342E-06	-.3572E-06	-.3770E-06	-.3934E-06	-.4067E-06
EYZ	-.5193E-15	.3901E-15	.0000E+00	.3901E-15	-.5193E-15	.4996E-15	.1676E-16	.3204E-16	-.8982E-15

## PRINCIPAL STRAINS

PE 1	.1968E-03	.1949E-03	.1925E-03	.1897E-03	.1871E-03	.1843E-03	.1812E-03	.1776E-03	.1743E-03
PE 2	.1488E-03	.1465E-03	.1425E-03	.1368E-03	.1304E-03	.1231E-03	.1149E-03	.1062E-03	.9776E-04
PE 3	-.6270E-04	-.6194E-04	-.6080E-04	-.5928E-04	-.5765E-04	-.5584E-04	-.5382E-04	-.5163E-04	-.4952E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2595E-03	.2568E-03	.2533E-03	.2490E-03	.2447E-03	.2402E-03	.2350E-03	.2293E-03	.2238E-03
PSE 2	.4795E-04	.4839E-04	.5008E-04	.5292E-04	.5671E-04	.6125E-04	.6624E-04	.7143E-04	.7654E-04
PSE 3	.2115E-03	.2085E-03	.2033E-03	.1961E-03	.1880E-03	.1789E-03	.1687E-03	.1578E-03	.1473E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5225.00 LBS  
LOAD STRESS..... 90.00 PSI  
LOAD RADIUS..... 4.30 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
Z= 4.00 12.00  
X-Y POINT(S)  
X Y  
.00 4.00  
1.00 4.00  
2.00 4.00  
3.00 4.00



Appendix 6E-c Composite Pavement

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	-.8354E+02	-.8339E+02	-.7953E+02	-.7326E+02	-.6685E+02	-.6210E+02	-.5995E+02	-.6065E+02	-.6453E+02
SYX	-.9438E+02	-.9383E+02	-.8945E+02	-.8253E+02	-.7535E+02	-.6983E+02	-.6692E+02	-.6682E+02	-.6987E+02
SZZ	-.7625E+02	-.7233E+02	-.6137E+02	-.4589E+02	-.2983E+02	-.1685E+02	-.8836E+01	-.6235E+01	-.9689E+01

SHEAR STRESSES

SXY	.5824E-08	-.3361E-07	-.1144E-07	-.3454E-08	-.7448E-08	.5961E-07	-.6922E-09	-.1024E-07	-.6768E-08
SXZ	.1518E+02	.6328E+01	-.5792E+00	-.3804E+01	-.2493E+01	.2707E+01	.1037E+02	.1966E+02	.3066E+02
SYZ	.1353E-07	.5111E-06	.7882E-06	.4224E-06	.4751E-06	-.2034E-06	.6684E-07	.3143E-06	-.1389E-06

PRINCIPAL STRESSES

PS 1	-.6429E+02	-.6946E+02	-.6135E+02	-.4537E+02	-.2966E+02	-.1669E+02	-.6811E+01	.1261E+00	.4025E+01
PS 2	-.9438E+02	-.8626E+02	-.7954E+02	-.7378E+02	-.6701E+02	-.6226E+02	-.6198E+02	-.6682E+02	-.6987E+02

## Appendix 6E-c Composite Pavement

PS 3   -.9550E+02   -.9383E+02   -.8945E+02   -.8253E+02   -.7535E+02   -.6983E+02   -.6692E+02   -.6701E+02   -.7825E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1561E+02   .1219E+02   .1405E+02   .1858E+02   .2284E+02   .2657E+02   .3005E+02   .3357E+02   .4114E+02  
PSS 2   .1505E+02   .8402E+01   .9098E+01   .1421E+02   .1868E+02   .2279E+02   .2758E+02   .3347E+02   .3695E+02  
PSS 3   .5593E+00   .3785E+01   .4952E+01   .4371E+01   .4169E+01   .3785E+01   .2471E+01   .9258E-01   .4190E+01

## DISPLACEMENTS

UX       .1242E-02   .1182E-02   .1118E-02   .1051E-02   .9775E-03   .8979E-03   .8119E-03   .7197E-03   .6222E-03  
UY       -.3157E-11   -.1938E-11   -.5734E-11   .4838E-11   -.3984E-11   .5549E-11   -.5246E-12   .4020E-11   -.1149E-12  
UZ       .7256E-01   .7280E-01   .7292E-01   .7273E-01   .7234E-01   .7194E-01   .7169E-01   .7174E-01   .7216E-01

## NORMAL STRAINS

EXX     -.5954E-04   -.6307E-04   -.6685E-04   -.7080E-04   -.7508E-04   -.7940E-04   -.8359E-04   -.8769E-04   -.9172E-04  
EYY     -.9614E-04   -.9833E-04   -.1003E-03   -.1021E-03   -.1038E-03   -.1055E-03   -.1071E-03   -.1085E-03   -.1097E-03  
EZZ     -.3495E-04   -.2576E-04   -.5563E-05   .2159E-04   .4985E-04   .7331E-04   .8892E-04   .9595E-04   .9338E-04

## SHEAR STRAINS

EXY     .3931E-13   -.2269E-12   -.7723E-13   -.2332E-13   -.5027E-13   .4024E-12   -.4672E-14   -.6910E-13   -.4568E-13  
EXZ     .1024E-03   .4271E-04   -.3910E-05   -.2568E-04   -.1683E-04   .1827E-04   .7003E-04   .1327E-03   .2070E-03  
EYZ     .9133E-13   .3450E-11   .5320E-11   .2851E-11   .3207E-11   -.1373E-11   .4512E-12   .2121E-11   -.9375E-12

## PRINCIPAL STRAINS

PE 1     .5434E-05   -.1606E-04   -.5501E-05   .2334E-04   .5041E-04   .7386E-04   .9576E-04   .1174E-03   .1397E-03  
PE 2     -.9614E-04   -.7277E-04   -.6691E-04   -.7255E-04   -.7565E-04   -.7995E-04   -.9043E-04   -.1085E-03   -.1097E-03  
PE 3     -.9992E-04   -.9833E-04   -.1003E-03   -.1021E-03   -.1038E-03   -.1055E-03   -.1071E-03   -.1092E-03   -.1380E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .1054E-03   .8227E-04   .9484E-04   .1254E-03   .1542E-03   .1794E-03   .2029E-03   .2266E-03   .2777E-03  
PSE 2   .1016E-03   .5671E-04   .6141E-04   .9589E-04   .1261E-03   .1538E-03   .1862E-03   .2260E-03   .2494E-03  
PSE 3   .3775E-05   .2555E-04   .3343E-04   .2950E-04   .2814E-04   .2555E-04   .1668E-04   .6249E-06   .2828E-04

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.3727E+03	.3883E+03	.4016E+03	.4129E+03	.4257E+03	.4404E+03	.4572E+03	.4759E+03	.4967E+03
SYZ	.5280E+03	.5416E+03	.5536E+03	.5642E+03	.5758E+03	.5882E+03	.6010E+03	.6134E+03	.6249E+03
SZZ	-.4388E+01	-.4451E+01	-.4485E+01	-.4475E+01	-.4464E+01	-.4465E+01	-.4479E+01	-.4507E+01	-.4552E+01

SHEAR STRESSES

SXY	.2529E-06	.4056E-06	-.3489E-07	.1062E-05	.3929E-06	-.1076E-05	-.2776E-06	.6747E-06	-.3189E-06
SXZ	.3782E+00	.3638E+00	.3495E+00	.3357E+00	.3224E+00	.3093E+00	.2960E+00	.2817E+00	.2653E+00
SYZ	.1428E-08	-.9713E-09	.1335E-08	-.8146E-09	.7144E-09	.6969E-09	.2678E-09	-.2041E-08	.9725E-10

PRINCIPAL STRESSES

PS 1	.5280E+03	.5416E+03	.5536E+03	.5642E+03	.5758E+03	.5882E+03	.6010E+03	.6134E+03	.6249E+03
PS 2	.3727E+03	.3883E+03	.4016E+03	.4129E+03	.4257E+03	.4404E+03	.4572E+03	.4759E+03	.4967E+03
PS 3	-.4388E+01	-.4452E+01	-.4486E+01	-.4475E+01	-.4464E+01	-.4465E+01	-.4479E+01	-.4507E+01	-.4552E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.2662E+03	.2730E+03	.2791E+03	.2843E+03	.2901E+03	.2964E+03	.3027E+03	.3089E+03	.3147E+03
PSS 2	.7769E+02	.7665E+02	.7604E+02	.7562E+02	.7503E+02	.7392E+02	.7192E+02	.6871E+02	.6412E+02
PSS 3	.1885E+03	.1964E+03	.2030E+03	.2087E+03	.2151E+03	.2224E+03	.2308E+03	.2402E+03	.2506E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.1502E-02	-.1428E-02	-.1351E-02	-.1271E-02	-.1187E-02	-.1098E-02	-.1003E-02	-.9012E-03	-.7936E-03
UY	.4643E-11	-.5225E-12	.3696E-11	.8994E-12	.3548E-12	-.8161E-11	-.4223E-12	.4750E-12	.1135E-11
UZ	.7247E-01	.7272E-01	.7284E-01	.7266E-01	.7228E-01	.7189E-01	.7165E-01	.7169E-01	.7211E-01

## NORMAL STRAINS

EXX	.7353E-04	.7694E-04	.7979E-04	.8225E-04	.8500E-04	.8821E-04	.9192E-04	.9615E-04	.1009E-03
EYY	.1182E-03	.1210E-03	.1235E-03	.1257E-03	.1281E-03	.1307E-03	.1333E-03	.1357E-03	.1378E-03
EZZ	-.3487E-04	-.3599E-04	-.3694E-04	-.3776E-04	-.3867E-04	-.3969E-04	-.4080E-04	-.4197E-04	-.4320E-04

## SHEAR STRAINS

EXY	.1454E-12	.2332E-12	-.2006E-13	.6107E-12	.2259E-12	-.6187E-12	-.1596E-12	.3879E-12	-.1834E-12
EXZ	.2175E-06	.2092E-06	.2010E-06	.1931E-06	.1854E-06	.1779E-06	.1702E-06	.1620E-06	.1526E-06
EYZ	.8213E-15	-.5585E-15	.7674E-15	-.4684E-15	.4108E-15	.4007E-15	.1540E-15	-.1174E-14	.5592E-16

## PRINCIPAL STRAINS

PE 1	.1182E-03	.1210E-03	.1235E-03	.1257E-03	.1281E-03	.1307E-03	.1333E-03	.1357E-03	.1378E-03
PE 2	.7353E-04	.7694E-04	.7979E-04	.8225E-04	.8500E-04	.8821E-04	.9192E-04	.9615E-04	.1009E-03
PE 3	-.3487E-04	-.3599E-04	-.3694E-04	-.3776E-04	-.3867E-04	-.3969E-04	-.4080E-04	-.4197E-04	-.4320E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1531E-03	.1570E-03	.1605E-03	.1635E-03	.1668E-03	.1704E-03	.1741E-03	.1776E-03	.1810E-03
PSE 2	.4467E-04	.4408E-04	.4372E-04	.4348E-04	.4314E-04	.4250E-04	.4135E-04	.3951E-04	.3687E-04
PSE 3	.1084E-03	.1129E-03	.1167E-03	.1200E-03	.1237E-03	.1279E-03	.1327E-03	.1381E-03	.1441E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5225.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.30 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-c Composite Pavement

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	-.7258E+02	-.8619E+02	-.1061E+03	-.1310E+03	-.1572E+03	-.1822E+03	-.2040E+03	-.2201E+03	-.2257E+03
SYX	-.7707E+02	-.8998E+02	-.1094E+03	-.1340E+03	-.1599E+03	-.1848E+03	-.2067E+03	-.2230E+03	-.2289E+03
SZZ	-.2116E+02	-.4356E+02	-.7834E+02	-.1227E+03	-.1705E+03	-.2166E+03	-.2576E+03	-.2876E+03	-.2989E+03

SHEAR STRESSES

SXY	.2866E-07	-.3507E-07	.5437E-08	.1804E-07	.9608E-09	-.2065E-08	-.1830E-08	.4105E-08	.1507E-07
SXZ	.4362E+02	.5746E+02	.6900E+02	.7455E+02	.7277E+02	.6440E+02	.4912E+02	.2579E+02	-.3700E+01
SYZ	-.4114E-07	-.4458E-06	.7473E-06	.3068E-06	.9317E-06	.1585E-05	.4341E-06	.4156E-06	.7189E-06

PRINCIPAL STRESSES

PS 1	.3762E+01	-.3596E+01	-.2185E+02	-.5218E+02	-.9077E+02	-.1328E+03	-.1749E+03	-.2113E+03	-.2255E+03
PS 2	-.7707E+02	-.8998E+02	-.1094E+03	-.1340E+03	-.1599E+03	-.1848E+03	-.2067E+03	-.2230E+03	-.2289E+03

## Appendix 6E-c Composite Pavement

PS 3   -.9750E+02   -.1262E+03   -.1626E+03   -.2015E+03   -.2369E+03   -.2661E+03   -.2868E+03   -.2963E+03   -.2991E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .5063E+02   .6128E+02   .7038E+02   .7466E+02   .7307E+02   .6666E+02   .5595E+02   .4250E+02   .3680E+02  
PSS 2   .4042E+02   .4319E+02   .4379E+02   .4091E+02   .3459E+02   .2601E+02   .1593E+02   .5854E+01   .1690E+01  
PSS 3   .1021E+02   .1809E+02   .2660E+02   .3375E+02   .3849E+02   .4065E+02   .4002E+02   .3664E+02   .3511E+02

## DISPLACEMENTS

UX       .5205E-03   .4162E-03   .3114E-03   .2071E-03   .1004E-03   -.5763E-05   -.1095E-03   -.2100E-03   -.3112E-03  
UY       -.6905E-11   -.3781E-11   .4164E-11   -.5706E-11   -.2060E-11   -.3519E-11   -.6518E-12   .6502E-11   -.3656E-11  
UZ       .7303E-01   .7435E-01   .7600E-01   .7763E-01   .7894E-01   .8023E-01   .8152E-01   .8249E-01   .8273E-01

## NORMAL STRAINS

EXX     -.9549E-04   -.9863E-04   -.1010E-03   -.1030E-03   -.1039E-03   -.1042E-03   -.1038E-03   -.1033E-03   -.1024E-03  
EYY     -.1107E-03   -.1114E-03   -.1121E-03   -.1130E-03   -.1131E-03   -.1130E-03   -.1129E-03   -.1134E-03   -.1132E-03  
EZZ     .7804E-04   .4524E-04   -.7263E-05   -.7476E-04   -.1486E-03   -.2205E-03   -.2846E-03   -.3313E-03   -.3495E-03

## SHEAR STRAINS

EXY     .1935E-12   -.2367E-12   .3670E-13   .1218E-12   .6485E-14   -.1394E-13   -.1235E-13   .2771E-13   .1017E-12  
EXZ     .2944E-03   .3878E-03   .4658E-03   .5032E-03   .4912E-03   .4347E-03   .3316E-03   .1741E-03   -.2497E-04  
EYZ     -.2777E-12   -.3009E-11   .5044E-11   .2071E-11   .6289E-11   .1070E-10   .2930E-11   .2806E-11   .4853E-11

## PRINCIPAL STRAINS

PE 1     .1622E-03   .1801E-03   .1834E-03   .1631E-03   .1203E-03   .6261E-04   -.5347E-05   -.7389E-04   -.1018E-03  
PE 2     -.1107E-03   -.1114E-03   -.1121E-03   -.1130E-03   -.1131E-03   -.1130E-03   -.1129E-03   -.1134E-03   -.1132E-03  
PE 3     -.1796E-03   -.2335E-03   -.2917E-03   -.3409E-03   -.3729E-03   -.3874E-03   -.3830E-03   -.3607E-03   -.3502E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .3418E-03   .4137E-03   .4751E-03   .5040E-03   .4933E-03   .4500E-03   .3777E-03   .2868E-03   .2484E-03  
PSE 2   .2728E-03   .2915E-03   .2956E-03   .2762E-03   .2335E-03   .1756E-03   .1075E-03   .3951E-04   .1140E-04  
PSE 3   .6894E-04   .1221E-03   .1795E-03   .2278E-03   .2598E-03   .2744E-03   .2701E-03   .2473E-03   .2370E-03

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	.5195E+03	.5446E+03	.5726E+03	.6035E+03	.6301E+03	.6523E+03	.6697E+03	.6833E+03	.6849E+03
SYZ	.6357E+03	.6463E+03	.6578E+03	.6715E+03	.6812E+03	.6885E+03	.6942E+03	.7005E+03	.7001E+03
SZZ	-.4619E+01	-.4721E+01	-.4870E+01	-.5061E+01	-.5188E+01	-.5301E+01	-.5425E+01	-.5570E+01	-.5599E+01

SHEAR STRESSES

SXY	-.5011E-06	-.1537E-06	-.4951E-06	-.7326E-06	-.1038E-05	-.3580E-07	.6606E-06	-.1394E-06	-.2344E-07
SXZ	.2458E+00	.2221E+00	.1932E+00	.1585E+00	.1176E+00	.7061E-01	.1862E-01	-.3682E-01	-.9413E-01
SYZ	.2777E-09	-.8517E-10	-.2365E-08	.2939E-08	-.1375E-08	-.1308E-10	-.1731E-08	.1176E-08	-.1382E-08

PRINCIPAL STRESSES

PS 1	.6357E+03	.6463E+03	.6578E+03	.6715E+03	.6812E+03	.6885E+03	.6942E+03	.7005E+03	.7001E+03
PS 2	.5195E+03	.5446E+03	.5726E+03	.6035E+03	.6301E+03	.6523E+03	.6697E+03	.6833E+03	.6849E+03
PS 3	-.4619E+01	-.4721E+01	-.4870E+01	-.5061E+01	-.5188E+01	-.5301E+01	-.5425E+01	-.5570E+01	-.5599E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.3202E+03	.3255E+03	.3313E+03	.3383E+03	.3432E+03	.3469E+03	.3498E+03	.3531E+03	.3529E+03
PSS 2	.5811E+02	.5082E+02	.4260E+02	.3397E+02	.2557E+02	.1810E+02	.1226E+02	.8635E+01	.7599E+01
PSS 3	.2621E+03	.2747E+03	.2887E+03	.3043E+03	.3176E+03	.3288E+03	.3376E+03	.3444E+03	.3453E+03



## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.6806E-03	-.5630E-03	-.4418E-03	-.3167E-03	-.1839E-03	-.4652E-04	.9277E-04	.2327E-03	.3759E-03
UY	-.3512E-11	-.3158E-11	.5859E-11	-.6271E-12	-.5800E-11	.9973E-12	-.5172E-11	-.9923E-12	.3659E-11
UZ	.7296E-01	.7426E-01	.7588E-01	.7748E-01	.7875E-01	.8000E-01	.8126E-01	.8221E-01	.8244E-01

## NORMAL STRAINS

EXX	.1062E-03	.1121E-03	.1187E-03	.1259E-03	.1322E-03	.1374E-03	.1416E-03	.1448E-03	.1452E-03
EYY	.1396E-03	.1413E-03	.1432E-03	.1454E-03	.1469E-03	.1479E-03	.1486E-03	.1497E-03	.1496E-03
EZZ	-.4447E-04	-.4584E-04	-.4736E-04	-.4908E-04	-.5047E-04	-.5160E-04	-.5250E-04	-.5329E-04	-.5334E-04

## SHEAR STRAINS

EXY	-.2881E-12	-.8839E-13	-.2847E-12	-.4212E-12	-.5969E-12	-.2058E-13	.3799E-12	-.8017E-13	-.1348E-13
EXZ	.1413E-06	.1277E-06	.1111E-06	.9116E-07	.6761E-07	.4060E-07	.1071E-07	-.2117E-07	-.5412E-07
EYZ	.1597E-15	-.4897E-16	-.1360E-14	.1690E-14	-.7904E-15	-.7520E-17	-.9951E-15	.6763E-15	-.7948E-15

## PRINCIPAL STRAINS

PE 1	.1396E-03	.1413E-03	.1432E-03	.1454E-03	.1469E-03	.1479E-03	.1486E-03	.1497E-03	.1496E-03
PE 2	.1062E-03	.1121E-03	.1187E-03	.1259E-03	.1322E-03	.1374E-03	.1416E-03	.1448E-03	.1452E-03
PE 3	-.4447E-04	-.4584E-04	-.4736E-04	-.4908E-04	-.5047E-04	-.5160E-04	-.5250E-04	-.5329E-04	-.5334E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1841E-03	.1872E-03	.1905E-03	.1945E-03	.1973E-03	.1995E-03	.2011E-03	.2030E-03	.2029E-03
PSE 2	.3341E-04	.2922E-04	.2450E-04	.1953E-04	.1470E-04	.1041E-04	.7050E-05	.4965E-05	.4369E-05
PSE 3	.1507E-03	.1579E-03	.1660E-03	.1750E-03	.1826E-03	.1891E-03	.1941E-03	.1980E-03	.1985E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5225.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 4.30 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-c Composite Pavement

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Z= 4.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	-.2191E+03	-.2022E+03
SYY	-.2223E+03	-.2053E+03
SZZ	-.2876E+03	-.2576E+03

## SHEAR STRESSES

SXY	-.5408E-08	.1830E-08
SXZ	-.3321E+02	-.5661E+02
SYZ	.4789E-06	.0000E+00

## PRINCIPAL STRESSES

PS 1	-.2057E+03	-.1669E+03
PS 2	-.2223E+03	-.2053E+03
PS 3	-.3011E+03	-.2929E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4769E+02	.6302E+02
PSS 2	.8313E+01	.1919E+02
PSS 3	.3938E+02	.4383E+02

## DISPLACEMENTS

UX	-.4115E-03	-.5097E-03
UY	.2316E-11	-.3638E-11
UZ	.8235E-01	.8124E-01

Appendix 6E-c Composite Pavement

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## NORMAL STRAINS

EXX -.1017E-03 -.1005E-03  
EYY -.1124E-03 -.1108E-03  
EZZ -.3327E-03 -.2875E-03

## SHEAR STRAINS

EXY -.3651E-13 .1235E-13  
EXZ -.2242E-03 -.3821E-03  
EYZ .3232E-11 .0000E+00

## PRINCIPAL STRAINS

PE 1 -.5626E-04 .1872E-04  
PE 2 -.1124E-03 -.1108E-03  
PE 3 -.3782E-03 -.4067E-03

## PRINCIPAL SHEAR STRAINS

PSE 1 .3219E-03 .4254E-03  
PSE 2 .5611E-04 .1295E-03  
PSE 3 .2658E-03 .2959E-03

Z= 12.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .6752E+03 .6535E+03  
SYY .6938E+03 .6808E+03  
SZZ -.5536E+01 -.5357E+01

Appendix 6E-c Composite Pavement

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## SHEAR STRESSES

SXY .1850E-06 .2931E-06  
SXZ -.1513E+00 -.2065E+00  
SYZ .9914E-09 -.3725E-08

## PRINCIPAL STRESSES

PS 1 .6938E+03 .6808E+03  
PS 2 .6752E+03 .6535E+03  
PS 3 -.5536E+01 -.5357E+01

## PRINCIPAL SHEAR STRESSES

PSS 1 .3497E+03 .3431E+03  
PSS 2 .9316E+01 .1367E+02  
PSS 3 .3404E+03 .3294E+03

## DISPLACEMENTS

UX .5182E-03 .6555E-03  
UY -.8534E-12 -.7276E-11  
UZ .8207E-01 .8098E-01

## NORMAL STRAINS

EXX .1430E-03 .1380E-03  
EYY .1483E-03 .1459E-03  
EZZ -.5272E-04 -.5137E-04

## SHEAR STRAINS

EXY .1064E-12 .1685E-12  
EXZ -.8703E-07 -.1187E-06  
EYZ .5700E-15 -.2142E-14

## PRINCIPAL STRAINS

Appendix 6E-c Composite Pavement

PE 1 .1483E-03 .1459E-03  
 PE 2 .1430E-03 .1380E-03  
 PE 3 -.5272E-04 -.5137E-04

PRINCIPAL SHEAR STRAINS  
 PSE 1 .2011E-03 .1973E-03  
 PSE 2 .5357E-05 .7860E-05  
 PSE 3 .1957E-03 .1894E-03

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

Appendix 6E-c Composite Pavement

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DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX	-.1851E+03	-.1962E+03	-.2008E+03	-.1984E+03	-.1896E+03	-.1760E+03	-.1599E+03	-.1430E+03	-.1262E+03
SYX	-.2019E+03	-.2129E+03	-.2174E+03	-.2151E+03	-.2065E+03	-.1931E+03	-.1774E+03	-.1612E+03	-.1450E+03
SZZ	-.2167E+03	-.2349E+03	-.2412E+03	-.2349E+03	-.2167E+03	-.1897E+03	-.1584E+03	-.1263E+03	-.9463E+02

## Appendix 6E-c Composite Pavement

## SHEAR STRESSES

SXY	.2009E-07	.1191E-07	-.1548E-08	.9817E-08	.1871E-07	.3068E-08	-.2275E-07	.1594E-07	-.9960E-08
SXZ	.4473E+02	.2862E+02	.1038E+02	-.7831E+01	-.2384E+02	-.3567E+02	-.4257E+02	-.4555E+02	-.4565E+02
SYZ	.5689E-06	-.1239E-06	.5356E-06	-.5503E-06	-.2332E-07	-.5636E-06	.5334E-06	-.9823E-07	.5499E-06

## PRINCIPAL STRESSES

PS 1	-.1534E+03	-.1810E+03	-.1983E+03	-.1968E+03	-.1757E+03	-.1465E+03	-.1166E+03	-.8833E+02	-.6211E+02
PS 2	-.2019E+03	-.2129E+03	-.2174E+03	-.2151E+03	-.2065E+03	-.1931E+03	-.1774E+03	-.1612E+03	-.1450E+03
PS 3	-.2483E+03	-.2501E+03	-.2437E+03	-.2365E+03	-.2306E+03	-.2192E+03	-.2017E+03	-.1810E+03	-.1587E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4744E+02	.3455E+02	.2274E+02	.1984E+02	.2743E+02	.3633E+02	.4258E+02	.4631E+02	.4830E+02
PSS 2	.2425E+02	.1595E+02	.9583E+01	.9170E+01	.1539E+02	.2330E+02	.3043E+02	.3641E+02	.4144E+02
PSS 3	.2319E+02	.1859E+02	.1316E+02	.1067E+02	.1204E+02	.1303E+02	.1214E+02	.9902E+01	.6858E+01

## DISPLACEMENTS

UX	.2458E-02	.2361E-02	.2261E-02	.2159E-02	.2056E-02	.1951E-02	.1843E-02	.1733E-02	.1623E-02
UY	-.9712E-12	.3147E-11	-.3708E-11	.5617E-11	.3986E-12	.2692E-11	.6914E-11	.1939E-11	-.2866E-11
UZ	.1363E+00	.1370E+00	.1377E+00	.1383E+00	.1388E+00	.1389E+00	.1385E+00	.1382E+00	.1383E+00

## NORMAL STRAINS

EXX	-.9643E-04	-.9865E-04	-.1006E-03	-.1023E-03	-.1037E-03	-.1049E-03	-.1058E-03	-.1061E-03	-.1058E-03
EYY	-.1533E-03	-.1550E-03	-.1568E-03	-.1587E-03	-.1607E-03	-.1628E-03	-.1651E-03	-.1673E-03	-.1693E-03
EZZ	-.2031E-03	-.2293E-03	-.2372E-03	-.2253E-03	-.1952E-03	-.1514E-03	-.1009E-03	-.4950E-04	.6967E-06

## SHEAR STRAINS

EXY	.1356E-12	.8038E-13	-.1045E-13	.6627E-13	.1263E-12	.2071E-13	-.1536E-12	.1076E-12	-.6723E-13
EXZ	.3019E-03	.1932E-03	.7007E-04	-.5286E-04	-.1609E-03	-.2408E-03	-.2873E-03	-.3075E-03	-.3081E-03
EYZ	.3840E-11	-.8363E-12	.3616E-11	-.3714E-11	-.1574E-12	-.3804E-11	.3600E-11	-.6631E-12	.3712E-11

## PRINCIPAL STRAINS

PE 1	.1036E-04	-.4736E-04	-.9213E-04	-.9684E-04	-.5688E-04	-.5523E-05	.4035E-04	.7852E-04	.1105E-03
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Appendix 6E-c Composite Pavement

PE 2 -.1533E-03 -.1550E-03 -.1568E-03 -.1587E-03 -.1607E-03 -.1628E-03 -.1651E-03 -.1673E-03 -.1693E-03  
 PE 3 -.3098E-03 -.2805E-03 -.2456E-03 -.2307E-03 -.2420E-03 -.2508E-03 -.2470E-03 -.2341E-03 -.2155E-03

PRINCIPAL SHEAR STRAINS

PSE 1 .3202E-03 .2332E-03 .1535E-03 .1339E-03 .1851E-03 .2453E-03 .2874E-03 .3126E-03 .3260E-03  
 PSE 2 .1637E-03 .1077E-03 .6469E-04 .6190E-04 .1039E-03 .1573E-03 .2054E-03 .2458E-03 .2797E-03  
 PSE 3 .1565E-03 .1255E-03 .8880E-04 .7201E-04 .8128E-04 .8797E-04 .8197E-04 .6684E-04 .4629E-04

Z= 12.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX .6404E+03 .6601E+03 .6731E+03 .6792E+03 .6789E+03 .6733E+03 .6649E+03 .6531E+03 .6390E+03  
 SYY .8736E+03 .8881E+03 .8998E+03 .9090E+03 .9155E+03 .9205E+03 .9255E+03 .9294E+03 .9318E+03  
 SZZ -.7335E+01 -.7430E+01 -.7513E+01 -.7584E+01 -.7644E+01 -.7667E+01 -.7670E+01 -.7693E+01 -.7727E+01

SHEAR STRESSES

SXY .1110E-07 -.1909E-06 .4533E-07 .6575E-06 .1733E-06 -.1447E-06 .3872E-06 .8011E-08 .6144E-06  
 SXZ .5924E+00 .5485E+00 .5030E+00 .4575E+00 .4134E+00 .3717E+00 .3331E+00 .2991E+00 .2702E+00  
 SYZ -.1239E-08 -.1097E-09 -.9448E-09 .1096E-08 -.9144E-09 -.2436E-08 -.1309E-08 .4448E-09 .2006E-09

PRINCIPAL STRESSES

PS 1 .8736E+03 .8881E+03 .8998E+03 .9090E+03 .9155E+03 .9205E+03 .9255E+03 .9294E+03 .9318E+03

## Appendix 6E-c Composite Pavement

PS 2	.6404E+03	.6601E+03	.6731E+03	.6792E+03	.6789E+03	.6733E+03	.6649E+03	.6531E+03	.6390E+03
PS 3	-.7336E+01	-.7430E+01	-.7513E+01	-.7585E+01	-.7645E+01	-.7668E+01	-.7670E+01	-.7693E+01	-.7727E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.4405E+03	.4477E+03	.4537E+03	.4583E+03	.4616E+03	.4641E+03	.4666E+03	.4685E+03	.4698E+03
PSS 2	.1166E+03	.1140E+03	.1134E+03	.1149E+03	.1183E+03	.1236E+03	.1303E+03	.1381E+03	.1464E+03
PSS 3	.3239E+03	.3338E+03	.3403E+03	.3434E+03	.3433E+03	.3405E+03	.3363E+03	.3304E+03	.3234E+03

## DISPLACEMENTS

UX	-.2926E-02	-.2796E-02	-.2662E-02	-.2527E-02	-.2391E-02	-.2255E-02	-.2118E-02	-.1984E-02	-.1852E-02
UY	-.6321E-11	.1145E-10	.4029E-13	-.4851E-11	.3839E-12	.6167E-11	-.6328E-12	-.5406E-11	.7143E-11
UZ	.1361E+00	.1368E+00	.1374E+00	.1380E+00	.1386E+00	.1387E+00	.1383E+00	.1381E+00	.1381E+00

## NORMAL STRAINS

EXX	.1276E-03	.1320E-03	.1348E-03	.1360E-03	.1357E-03	.1341E-03	.1318E-03	.1287E-03	.1251E-03
EYY	.1947E-03	.1975E-03	.2000E-03	.2021E-03	.2037E-03	.2052E-03	.2067E-03	.2081E-03	.2093E-03
EZZ	-.5861E-04	-.5991E-04	-.6086E-04	-.6145E-04	-.6170E-04	-.6168E-04	-.6156E-04	-.6127E-04	-.6084E-04

## SHEAR STRAINS

EXY	.6380E-14	-.1098E-12	.2607E-13	.3781E-12	.9965E-13	-.8320E-13	.2227E-12	.4606E-14	.3533E-12
EXZ	.3406E-06	.3154E-06	.2893E-06	.2631E-06	.2377E-06	.2137E-06	.1915E-06	.1720E-06	.1554E-06
EYZ	-.7124E-15	-.6310E-16	-.5433E-15	.6305E-15	-.5258E-15	-.1401E-14	-.7528E-15	.2558E-15	.1154E-15

## PRINCIPAL STRAINS

PE 1	.1947E-03	.1975E-03	.2000E-03	.2021E-03	.2037E-03	.2052E-03	.2067E-03	.2081E-03	.2093E-03
PE 2	.1276E-03	.1320E-03	.1348E-03	.1360E-03	.1357E-03	.1341E-03	.1318E-03	.1287E-03	.1251E-03
PE 3	-.5861E-04	-.5991E-04	-.6086E-04	-.6145E-04	-.6170E-04	-.6168E-04	-.6156E-04	-.6127E-04	-.6084E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2533E-03	.2575E-03	.2609E-03	.2635E-03	.2654E-03	.2669E-03	.2683E-03	.2694E-03	.2701E-03
PSE 2	.6706E-04	.6554E-04	.6520E-04	.6605E-04	.6804E-04	.7109E-04	.7494E-04	.7942E-04	.8418E-04
PSE 3	.1862E-03	.1919E-03	.1957E-03	.1975E-03	.1974E-03	.1958E-03	.1934E-03	.1900E-03	.1859E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00

Appendix 6E-c Composite Pavement

28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	-.1102E+03	-.9654E+02	-.8656E+02	-.8031E+02	-.7692E+02	-.7533E+02	-.7481E+02	-.7490E+02	-.7542E+02
SYX	-.1296E+03	-.1167E+03	-.1074E+03	-.1019E+03	-.9921E+02	-.9821E+02	-.9808E+02	-.9839E+02	-.9891E+02
SZZ	-.6466E+02	-.3917E+02	-.2082E+02	-.9787E+01	-.4174E+01	-.1729E+01	-.8399E+00	-.6017E+00	-.5722E+00

SHEAR STRESSES

SXY	-.9132E-08	-.7970E-07	.7972E-08	-.2200E-07	-.2268E-07	.3623E-07	-.4018E-07	-.3643E-07	.2342E-07
SXZ	-.4254E+02	-.3588E+02	-.2703E+02	-.1823E+02	-.1088E+02	-.5215E+01	-.8669E+00	.2677E+01	.5858E+01
SYZ	-.2044E-06	-.3322E-06	.2574E-06	.7483E-07	.1623E-06	-.2424E-07	.8520E-07	-.8971E-07	-.1195E-07

PRINCIPAL STRESSES

PS 1	-.3917E+02	-.2192E+02	-.1113E+02	-.5352E+01	-.2582E+01	-.1362E+01	-.8298E+00	-.5054E+00	-.1165E+00
PS 2	-.1296E+03	-.1138E+03	-.9625E+02	-.8475E+02	-.7851E+02	-.7570E+02	-.7482E+02	-.7500E+02	-.7588E+02

## Appendix 6E-c Composite Pavement

PS 3    -.1356E+03   -.1167E+03   -.1074E+03   -.1019E+03   -.9921E+02   -.9821E+02   -.9808E+02   -.9839E+02   -.9891E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .4824E+02   .4738E+02   .4814E+02   .4828E+02   .4831E+02   .4842E+02   .4863E+02   .4894E+02   .4940E+02  
PSS 2   .4523E+02   .4594E+02   .4256E+02   .3970E+02   .3796E+02   .3717E+02   .3699E+02   .3725E+02   .3788E+02  
PSS 3   .3007E+01   .1448E+01   .5581E+01   .8579E+01   .1035E+02   .1125E+02   .1163E+02   .1169E+02   .1152E+02

## DISPLACEMENTS

UX       .1513E-02   .1403E-02   .1293E-02   .1185E-02   .1079E-02   .9761E-03   .8751E-03   .7753E-03   .6756E-03  
UY       -.8912E-11   .3307E-12   -.2637E-11   -.3043E-11   -.8646E-13   -.1424E-11   -.1567E-11   .5417E-11   .5714E-13  
UZ       .1380E+00   .1374E+00   .1371E+00   .1370E+00   .1372E+00   .1375E+00   .1378E+00   .1381E+00   .1383E+00

## NORMAL STRAINS

EXX     -.1054E-03   -.1050E-03   -.1042E-03   -.1031E-03   -.1018E-03   -.1009E-03   -.1005E-03   -.1006E-03   -.1015E-03  
EYY     -.1711E-03   -.1730E-03   -.1746E-03   -.1759E-03   -.1771E-03   -.1781E-03   -.1790E-03   -.1799E-03   -.1808E-03  
EZZ     .4815E-04   .8866E-04   .1177E-03   .1350E-03   .1437E-03   .1475E-03   .1492E-03   .1501E-03   .1511E-03

## SHEAR STRAINS

EXY     -.6164E-13   -.5380E-12   .5381E-13   -.1485E-12   -.1531E-12   .2446E-12   -.2712E-12   -.2459E-12   .1581E-12  
EXZ     -.2871E-03   -.2422E-03   -.1825E-03   -.1231E-03   -.7343E-04   -.3520E-04   -.5852E-05   .1807E-04   .3954E-04  
EYZ     -.1380E-11   -.2242E-11   .1738E-11   .5051E-12   .1096E-11   -.1636E-12   .5751E-12   -.6056E-12   -.8065E-13

## PRINCIPAL STRAINS

PE 1     .1342E-03   .1469E-03   .1504E-03   .1499E-03   .1490E-03   .1488E-03   .1492E-03   .1505E-03   .1527E-03  
PE 2     -.1711E-03   -.1632E-03   -.1369E-03   -.1180E-03   -.1072E-03   -.1021E-03   -.1005E-03   -.1010E-03   -.1030E-03  
PE 3     -.1914E-03   -.1730E-03   -.1746E-03   -.1759E-03   -.1771E-03   -.1781E-03   -.1790E-03   -.1799E-03   -.1808E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .3256E-03   .3198E-03   .3250E-03   .3259E-03   .3261E-03   .3268E-03   .3282E-03   .3304E-03   .3334E-03  
PSE 2   .3053E-03   .3101E-03   .2873E-03   .2680E-03   .2563E-03   .2509E-03   .2497E-03   .2514E-03   .2557E-03  
PSE 3   .2029E-04   .9773E-05   .3767E-04   .5791E-04   .6987E-04   .7595E-04   .7852E-04   .7894E-04   .7775E-04

## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

## NORMAL STRESSES

SXX	.6241E+03	.6110E+03	.5992E+03	.5892E+03	.5813E+03	.5760E+03	.5736E+03	.5745E+03	.5789E+03
SYZ	.9337E+03	.9367E+03	.9398E+03	.9426E+03	.9453E+03	.9482E+03	.9514E+03	.9555E+03	.9604E+03
SZZ	-.7740E+01	-.7741E+01	-.7768E+01	-.7810E+01	-.7857E+01	-.7905E+01	-.7949E+01	-.7990E+01	-.8025E+01

## SHEAR STRESSES

SXY	.5349E-08	.4685E-07	-.5965E-06	.3872E-06	.8641E-06	.1094E-08	-.4316E-06	.4324E-06	.7691E-06
SXZ	.2463E+00	.2269E+00	.2121E+00	.2014E+00	.1940E+00	.1893E+00	.1864E+00	.1848E+00	.1836E+00
SYZ	.3402E-08	-.2558E-10	.4018E-08	-.1309E-08	.1468E-08	-.2883E-09	-.9322E-10	-.1654E-08	-.7170E-09

## PRINCIPAL STRESSES

PS 1	.9337E+03	.9367E+03	.9398E+03	.9426E+03	.9453E+03	.9482E+03	.9514E+03	.9555E+03	.9604E+03
PS 2	.6241E+03	.6110E+03	.5992E+03	.5892E+03	.5813E+03	.5760E+03	.5736E+03	.5745E+03	.5789E+03
PS 3	-.7740E+01	-.7741E+01	-.7768E+01	-.7810E+01	-.7857E+01	-.7905E+01	-.7950E+01	-.7990E+01	-.8025E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.4707E+03	.4722E+03	.4738E+03	.4752E+03	.4766E+03	.4780E+03	.4797E+03	.4817E+03	.4842E+03
PSS 2	.1548E+03	.1628E+03	.1703E+03	.1767E+03	.1820E+03	.1861E+03	.1889E+03	.1905E+03	.1908E+03
PSS 3	.3159E+03	.3094E+03	.3035E+03	.2985E+03	.2946E+03	.2919E+03	.2908E+03	.2912E+03	.2935E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.1724E-02	-.1598E-02	-.1475E-02	-.1356E-02	-.1241E-02	-.1130E-02	-.1021E-02	-.9144E-03	-.8075E-03
UY	.3464E-14	-.9346E-12	.1501E-11	-.8955E-11	.1076E-11	-.9061E-11	-.3156E-11	-.6499E-12	-.1049E-11
UZ	.1379E+00	.1373E+00	.1370E+00	.1370E+00	.1372E+00	.1374E+00	.1377E+00	.1380E+00	.1382E+00

## NORMAL STRAINS

EXX	.1213E-03	.1179E-03	.1149E-03	.1123E-03	.1102E-03	.1087E-03	.1080E-03	.1081E-03	.1090E-03
EYY	.2103E-03	.2116E-03	.2128E-03	.2139E-03	.2148E-03	.2157E-03	.2167E-03	.2176E-03	.2187E-03
EZZ	-.6035E-04	-.5998E-04	-.5965E-04	-.5940E-04	-.5921E-04	-.5913E-04	-.5918E-04	-.5937E-04	-.5973E-04

## SHEAR STRAINS

EXY	.3075E-14	.2694E-13	-.3430E-12	.2227E-12	.4969E-12	.6290E-15	-.2482E-12	.2486E-12	.4422E-12
EXZ	.1416E-06	.1305E-06	.1220E-06	.1158E-06	.1116E-06	.1088E-06	.1072E-06	.1062E-06	.1056E-06
EYZ	.1956E-14	-.1471E-16	.2310E-14	-.7527E-15	.8443E-15	-.1658E-15	-.5360E-16	-.9510E-15	-.4123E-15

## PRINCIPAL STRAINS

PE 1	.2103E-03	.2116E-03	.2128E-03	.2139E-03	.2148E-03	.2157E-03	.2167E-03	.2176E-03	.2187E-03
PE 2	.1213E-03	.1179E-03	.1149E-03	.1123E-03	.1102E-03	.1087E-03	.1080E-03	.1081E-03	.1090E-03
PE 3	-.6035E-04	-.5998E-04	-.5965E-04	-.5940E-04	-.5921E-04	-.5913E-04	-.5918E-04	-.5937E-04	-.5973E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2707E-03	.2715E-03	.2724E-03	.2732E-03	.2740E-03	.2749E-03	.2758E-03	.2770E-03	.2784E-03
PSE 2	.8901E-04	.9364E-04	.9790E-04	.1016E-03	.1046E-03	.1070E-03	.1086E-03	.1095E-03	.1097E-03
PSE 3	.1817E-03	.1779E-03	.1745E-03	.1717E-03	.1694E-03	.1679E-03	.1672E-03	.1675E-03	.1687E-03

Appendix 6E-c Composite Pavement

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ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00



Appendix 6E-c Composite Pavement

37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	-.7630E+02	-.7760E+02	-.7954E+02	-.8257E+02	-.8744E+02	-.9519E+02	-.1067E+03	-.1219E+03	-.1396E+03
SYX	-.9959E+02	-.1005E+03	-.1018E+03	-.1040E+03	-.1080E+03	-.1147E+03	-.1252E+03	-.1394E+03	-.1560E+03
SZZ	-.6155E+00	-.8681E+00	-.1764E+01	-.4214E+01	-.9832E+01	-.2084E+02	-.3913E+02	-.6457E+02	-.9453E+02

SHEAR STRESSES

SXY	.5094E-07	-.5148E-07	.4249E-07	-.4147E-07	-.3052E-07	-.4318E-07	.5007E-07	-.5745E-07	-.4160E-07
SXZ	.9067E+01	.1269E+02	.1717E+02	.2303E+02	.3064E+02	.3978E+02	.4907E+02	.5636E+02	.6042E+02
SYZ	-.1277E-07	.9647E-07	-.7106E-07	.1084E-06	.1016E-06	.3368E-06	-.2929E-06	-.3499E-06	.5578E-06

PRINCIPAL STRESSES

PS 1	.4555E+00	.1176E+01	.1858E+01	.2052E+01	.8057E+00	-.3568E+01	-.1334E+02	-.2999E+02	-.5256E+02
PS 2	-.7737E+02	-.7964E+02	-.8317E+02	-.8884E+02	-.9808E+02	-.1125E+03	-.1252E+03	-.1394E+03	-.1560E+03

## Appendix 6E-c Composite Pavement

PS 3   - .9959E+02   - .1005E+03   - .1018E+03   - .1040E+03   - .1080E+03   - .1147E+03   - .1325E+03   - .1564E+03   - .1815E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .5002E+02   .5083E+02   .5184E+02   .5305E+02   .5439E+02   .5557E+02   .5957E+02   .6323E+02   .6448E+02  
PSS 2   .3891E+02   .4041E+02   .4251E+02   .4544E+02   .4944E+02   .5444E+02   .5593E+02   .5468E+02   .5169E+02  
PSS 3   .1111E+02   .1042E+02   .9328E+01   .7606E+01   .4947E+01   .1124E+01   .3646E+01   .8547E+01   .1279E+02

## DISPLACEMENTS

UX        .5748E-03   .4717E-03   .3651E-03   .2541E-03   .1380E-03   .1662E-04   - .1094E-03   - .2392E-03   - .3717E-03  
UY        - .6038E-12   - .3878E-13   - .5086E-11   .1722E-11   .4018E-12   .4441E-12   - .2452E-11   .7185E-12   .1793E-11  
UZ        .1384E+00   .1385E+00   .1386E+00   .1387E+00   .1389E+00   .1392E+00   .1398E+00   .1407E+00   .1412E+00

## NORMAL STRAINS

EXX      - .1031E-03   - .1053E-03   - .1082E-03   - .1117E-03   - .1155E-03   - .1194E-03   - .1229E-03   - .1263E-03   - .1297E-03  
EYY      - .1817E-03   - .1826E-03   - .1834E-03   - .1842E-03   - .1848E-03   - .1852E-03   - .1854E-03   - .1853E-03   - .1851E-03  
EZZ      .1524E-03   .1537E-03   .1543E-03   .1528E-03   .1464E-03   .1316E-03   .1051E-03   .6716E-04   .2224E-04

## SHEAR STRAINS

EXY      .3439E-12   - .3475E-12   .2868E-12   - .2800E-12   - .2060E-12   - .2914E-12   .3379E-12   - .3878E-12   - .2808E-12  
EXZ      .6120E-04   .8565E-04   .1159E-03   .1554E-03   .2068E-03   .2685E-03   .3312E-03   .3804E-03   .4079E-03  
EYZ      - .8623E-13   .6512E-12   - .4796E-12   .7317E-12   .6859E-12   .2273E-11   - .1977E-11   - .2362E-11   .3765E-11

## PRINCIPAL STRAINS

PE 1      .1560E-03   .1606E-03   .1665E-03   .1739E-03   .1823E-03   .1898E-03   .1921E-03   .1838E-03   .1639E-03  
PE 2      - .1067E-03   - .1122E-03   - .1204E-03   - .1328E-03   - .1514E-03   - .1777E-03   - .1854E-03   - .1853E-03   - .1851E-03  
PE 3      - .1817E-03   - .1826E-03   - .1834E-03   - .1842E-03   - .1848E-03   - .1852E-03   - .2100E-03   - .2429E-03   - .2714E-03

## PRINCIPAL SHEAR STRAINS

PSE 1    .3377E-03   .3431E-03   .3499E-03   .3581E-03   .3671E-03   .3751E-03   .4021E-03   .4268E-03   .4353E-03  
PSE 2    .2627E-03   .2728E-03   .2870E-03   .3067E-03   .3337E-03   .3675E-03   .3775E-03   .3691E-03   .3489E-03  
PSE 3    .7500E-04   .7035E-04   .6296E-04   .5134E-04   .3339E-04   .7589E-05   .2461E-04   .5769E-04   .8632E-04

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.5867E+03	.5981E+03	.6129E+03	.6310E+03	.6520E+03	.6756E+03	.7015E+03	.7294E+03	.7598E+03
SYZ	.9663E+03	.9732E+03	.9809E+03	.9891E+03	.9975E+03	.1006E+04	.1014E+04	.1023E+04	.1032E+04
SZZ	-.8055E+01	-.8079E+01	-.8099E+01	-.8115E+01	-.8130E+01	-.8150E+01	-.8183E+01	-.8238E+01	-.8279E+01

SHEAR STRESSES

SXY	-.4236E-08	.6164E-06	.2555E-06	.1275E-05	-.4183E-06	.2888E-06	.4493E-06	-.5771E-08	.7348E-06
SXZ	.1823E+00	.1803E+00	.1768E+00	.1712E+00	.1626E+00	.1503E+00	.1335E+00	.1115E+00	.8416E-01
SYZ	-.3373E-09	-.9247E-11	.1124E-08	.1425E-08	.3514E-08	-.2854E-08	.7634E-09	-.3153E-08	-.7445E-09

PRINCIPAL STRESSES

PS 1	.9663E+03	.9732E+03	.9809E+03	.9891E+03	.9975E+03	.1006E+04	.1014E+04	.1023E+04	.1032E+04
PS 2	.5867E+03	.5981E+03	.6129E+03	.6310E+03	.6520E+03	.6756E+03	.7015E+03	.7294E+03	.7598E+03
PS 3	-.8055E+01	-.8079E+01	-.8099E+01	-.8115E+01	-.8130E+01	-.8150E+01	-.8183E+01	-.8238E+01	-.8279E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.4872E+03	.4906E+03	.4945E+03	.4986E+03	.5028E+03	.5071E+03	.5112E+03	.5154E+03	.5201E+03
PSS 2	.1898E+03	.1876E+03	.1840E+03	.1790E+03	.1728E+03	.1652E+03	.1564E+03	.1466E+03	.1361E+03
PSS 3	.2974E+03	.3031E+03	.3105E+03	.3196E+03	.3301E+03	.3419E+03	.3548E+03	.3688E+03	.3841E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.6994E-03	-.5887E-03	-.4740E-03	-.3539E-03	-.2276E-03	-.9442E-04	.4582E-04	.1929E-03	.3461E-03
UY	-.2221E-11	-.2126E-11	.7225E-11	-.2052E-11	.5713E-11	-.1047E-10	.5358E-11	-.5712E-12	-.2451E-11
UZ	.1384E+00	.1385E+00	.1386E+00	.1386E+00	.1388E+00	.1391E+00	.1397E+00	.1406E+00	.1411E+00

## NORMAL STRAINS

EXX	.1107E-03	.1133E-03	.1168E-03	.1210E-03	.1259E-03	.1315E-03	.1377E-03	.1443E-03	.1516E-03
EYY	.2199E-03	.2212E-03	.2225E-03	.2239E-03	.2252E-03	.2265E-03	.2276E-03	.2286E-03	.2298E-03
EZZ	-.6025E-04	-.6094E-04	-.6179E-04	-.6278E-04	-.6389E-04	-.6510E-04	-.6639E-04	-.6776E-04	-.6926E-04

## SHEAR STRAINS

EXY	-.2436E-14	.3544E-12	.1469E-12	.7331E-12	-.2405E-12	.1661E-12	.2584E-12	-.3319E-14	.4225E-12
EXZ	.1048E-06	.1037E-06	.1017E-06	.9841E-07	.9347E-07	.8643E-07	.7674E-07	.6412E-07	.4839E-07
EYZ	-.1940E-15	-.5317E-17	.6461E-15	.8192E-15	.2021E-14	-.1641E-14	.4390E-15	-.1813E-14	-.4281E-15

## PRINCIPAL STRAINS

PE 1	.2199E-03	.2212E-03	.2225E-03	.2239E-03	.2252E-03	.2265E-03	.2276E-03	.2286E-03	.2298E-03
PE 2	.1107E-03	.1133E-03	.1168E-03	.1210E-03	.1259E-03	.1315E-03	.1377E-03	.1443E-03	.1516E-03
PE 3	-.6025E-04	-.6094E-04	-.6179E-04	-.6278E-04	-.6389E-04	-.6510E-04	-.6639E-04	-.6776E-04	-.6926E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2801E-03	.2821E-03	.2843E-03	.2867E-03	.2891E-03	.2916E-03	.2940E-03	.2964E-03	.2991E-03
PSE 2	.1091E-03	.1078E-03	.1058E-03	.1029E-03	.9933E-04	.9498E-04	.8992E-04	.8429E-04	.7825E-04
PSE 3	.1710E-03	.1743E-03	.1785E-03	.1838E-03	.1898E-03	.1966E-03	.2040E-03	.2121E-03	.2208E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)

Z= 4.00 12.00

X-Y POINT(S)

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00

Appendix 6E-c Composite Pavement

46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	-.1582E+03	-.1773E+03	-.1964E+03	-.2146E+03	-.2306E+03	-.2432E+03	-.2515E+03	-.2542E+03	-.2501E+03
SYX	-.1735E+03	-.1914E+03	-.2095E+03	-.2270E+03	-.2422E+03	-.2544E+03	-.2626E+03	-.2652E+03	-.2611E+03
SZZ	-.1264E+03	-.1594E+03	-.1933E+03	-.2259E+03	-.2549E+03	-.2787E+03	-.2953E+03	-.3015E+03	-.2953E+03

SHEAR STRESSES

SXY	-.2108E-07	.2786E-07	.1266E-07	.3116E-07	.1258E-07	-.1840E-07	.6562E-08	.7001E-08	-.2420E-07
SXZ	.6180E+02	.6118E+02	.5792E+02	.5119E+02	.4129E+02	.2845E+02	.1221E+02	-.6867E+01	-.2595E+02
SYZ	.2874E-06	.6775E-06	-.3035E-06	.5910E-06	.2627E-06	.6437E-06	-.1699E-06	.5862E-06	-.1012E-06

PRINCIPAL STRESSES

PS 1	-.7849E+02	-.1065E+03	-.1369E+03	-.1688E+03	-.1997E+03	-.2274E+03	-.2484E+03	-.2532E+03	-.2383E+03
PS 2	-.1735E+03	-.1914E+03	-.2095E+03	-.2270E+03	-.2422E+03	-.2544E+03	-.2626E+03	-.2652E+03	-.2611E+03

## Appendix 6E-c Composite Pavement

PS 3    -.2061E+03   -.2302E+03   -.2528E+03   -.2718E+03   -.2858E+03   -.2945E+03   -.2985E+03   -.3025E+03   -.3071E+03

## PRINCIPAL SHEAR STRESSES

PSS 1    .6382E+02    .6183E+02    .5794E+02    .5150E+02    .4305E+02    .3354E+02    .2507E+02    .2466E+02    .3443E+02  
PSS 2    .4749E+02    .4243E+02    .3632E+02    .2908E+02    .2126E+02    .1351E+02    .7117E+01    .5999E+01    .1142E+02  
PSS 3    .1633E+02    .1939E+02    .2162E+02    .2242E+02    .2179E+02    .2003E+02    .1796E+02    .1866E+02    .2302E+02

## DISPLACEMENTS

UX        -.5083E-03   -.6488E-03   -.7919E-03   -.9358E-03   -.1081E-02   -.1226E-02   -.1370E-02   -.1511E-02   -.1651E-02  
UY        -.2992E-11   -.6631E-11   -.3088E-11   -.1685E-11   -.7075E-11   -.5127E-11   -.4158E-11   -.9847E-12   -.4470E-11  
UZ        .1415E+00    .1420E+00    .1429E+00    .1434E+00    .1436E+00    .1439E+00    .1446E+00    .1446E+00    .1437E+00

## NORMAL STRAINS

EXX       -.1332E-03   -.1362E-03   -.1385E-03   -.1403E-03   -.1414E-03   -.1415E-03   -.1407E-03   -.1395E-03   -.1383E-03  
EYY       -.1846E-03   -.1839E-03   -.1829E-03   -.1819E-03   -.1807E-03   -.1794E-03   -.1780E-03   -.1767E-03   -.1755E-03  
EZZ       -.2577E-04   -.7605E-04   -.1281E-03   -.1785E-03   -.2236E-03   -.2613E-03   -.2885E-03   -.2994E-03   -.2911E-03

## SHEAR STRAINS

EXY       -.1423E-12   .1881E-12   .8546E-13   .2103E-12   .8494E-13   -.1242E-12   .4429E-13   .4726E-13   -.1634E-12  
EXZ       .4172E-03   .4130E-03   .3909E-03   .3456E-03   .2787E-03   .1921E-03   .8243E-04   -.4635E-04   -.1752E-03  
EYZ       .1940E-11   .4573E-11   -.2049E-11   .3989E-11   .1773E-11   .4345E-11   -.1147E-11   .3957E-11   -.6834E-12

## PRINCIPAL STRAINS

PE 1       .1359E-03    .1026E-03    .6227E-04    .1443E-04   -.3723E-04   -.8823E-04   -.1299E-03   -.1362E-03   -.9846E-04  
PE 2       -.1846E-03   -.1839E-03   -.1829E-03   -.1819E-03   -.1807E-03   -.1794E-03   -.1780E-03   -.1767E-03   -.1755E-03  
PE 3       -.2949E-03   -.3148E-03   -.3288E-03   -.3332E-03   -.3278E-03   -.3146E-03   -.2992E-03   -.3027E-03   -.3309E-03

## PRINCIPAL SHEAR STRAINS

PSE 1       .4308E-03    .4173E-03    .3911E-03    .3476E-03    .2906E-03    .2264E-03    .1693E-03    .1664E-03    .2324E-03  
PSE 2       .3205E-03    .2864E-03    .2451E-03    .1963E-03    .1435E-03    .9116E-04    .4804E-04    .4049E-04    .7706E-04  
PSE 3       .1103E-03    .1309E-03    .1459E-03    .1513E-03    .1471E-03    .1352E-03    .1212E-03    .1259E-03    .1554E-03

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.7901E+03	.8186E+03	.8442E+03	.8671E+03	.8846E+03	.8952E+03	.8986E+03	.8957E+03	.8858E+03
SYZ	.1041E+04	.1047E+04	.1052E+04	.1057E+04	.1059E+04	.1057E+04	.1053E+04	.1047E+04	.1039E+04
SZZ	-.8295E+01	-.8319E+01	-.8361E+01	-.8384E+01	-.8377E+01	-.8374E+01	-.8384E+01	-.8367E+01	-.8281E+01

SHEAR STRESSES

SXY	.2391E-06	.2256E-06	.7665E-07	.4871E-06	-.1256E-06	-.2307E-06	.2759E-06	-.6684E-06	-.2045E-06
SXZ	.5073E-01	.1068E-01	-.3579E-01	-.8774E-01	-.1448E+00	-.2061E+00	-.2704E+00	-.3357E+00	-.4008E+00
SYZ	-.2277E-08	.5987E-09	-.2321E-08	-.1282E-08	-.6850E-09	-.1155E-08	.2295E-08	-.4654E-09	.2483E-10

PRINCIPAL STRESSES

PS 1	.1041E+04	.1047E+04	.1052E+04	.1057E+04	.1059E+04	.1057E+04	.1053E+04	.1047E+04	.1039E+04
PS 2	.7901E+03	.8186E+03	.8442E+03	.8671E+03	.8846E+03	.8952E+03	.8986E+03	.8957E+03	.8858E+03
PS 3	-.8295E+01	-.8319E+01	-.8361E+01	-.8384E+01	-.8377E+01	-.8374E+01	-.8384E+01	-.8367E+01	-.8281E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.5245E+03	.5279E+03	.5304E+03	.5326E+03	.5334E+03	.5327E+03	.5305E+03	.5275E+03	.5235E+03
PSS 2	.1253E+03	.1144E+03	.1042E+03	.9482E+02	.8695E+02	.8088E+02	.7702E+02	.7550E+02	.7647E+02
PSS 3	.3992E+03	.4135E+03	.4263E+03	.4377E+03	.4465E+03	.4518E+03	.4535E+03	.4520E+03	.4470E+03



## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.5073E-03	.6764E-03	.8520E-03	.1032E-02	.1217E-02	.1405E-02	.1593E-02	.1779E-02	.1964E-02
UY	.7394E-11	.1749E-11	.8691E-11	-.4489E-11	.9175E-11	-.1205E-11	-.7514E-11	-.6891E-11	.9764E-11
UZ	.1413E+00	.1419E+00	.1427E+00	.1431E+00	.1433E+00	.1437E+00	.1442E+00	.1443E+00	.1434E+00

## NORMAL STRAINS

EXX	.1588E-03	.1657E-03	.1719E-03	.1775E-03	.1818E-03	.1845E-03	.1855E-03	.1850E-03	.1828E-03
EYY	.2308E-03	.2315E-03	.2318E-03	.2320E-03	.2318E-03	.2310E-03	.2298E-03	.2284E-03	.2268E-03
EZZ	-.7073E-04	-.7206E-04	-.7321E-04	-.7424E-04	-.7496E-04	-.7530E-04	-.7527E-04	-.7493E-04	-.7424E-04

## SHEAR STRAINS

EXY	.1375E-12	.1297E-12	.4407E-13	.2801E-12	-.7222E-13	-.1326E-12	.1587E-12	-.3843E-12	-.1176E-12
EXZ	.2917E-07	.6140E-08	-.2058E-07	-.5045E-07	-.8323E-07	-.1185E-06	-.1555E-06	-.1930E-06	-.2304E-06
EYZ	-.1309E-14	.3443E-15	-.1334E-14	-.7372E-15	-.3939E-15	-.6642E-15	.1320E-14	-.2676E-15	.1428E-16

## PRINCIPAL STRAINS

PE 1	.2308E-03	.2315E-03	.2318E-03	.2320E-03	.2318E-03	.2310E-03	.2298E-03	.2284E-03	.2268E-03
PE 2	.1588E-03	.1657E-03	.1719E-03	.1775E-03	.1818E-03	.1845E-03	.1855E-03	.1850E-03	.1828E-03
PE 3	-.7073E-04	-.7206E-04	-.7321E-04	-.7424E-04	-.7496E-04	-.7530E-04	-.7527E-04	-.7493E-04	-.7424E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.3016E-03	.3035E-03	.3050E-03	.3062E-03	.3067E-03	.3063E-03	.3050E-03	.3033E-03	.3010E-03
PSE 2	.7202E-04	.6579E-04	.5989E-04	.5452E-04	.4999E-04	.4651E-04	.4429E-04	.4341E-04	.4397E-04
PSE 3	.2295E-03	.2377E-03	.2451E-03	.2517E-03	.2567E-03	.2598E-03	.2607E-03	.2599E-03	.2570E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Tridem 115K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10450.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.08 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00

Appendix 6E-c Composite Pavement

55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	-.2402E+03	-.2261E+03	-.2086E+03	-.1888E+03	-.1682E+03	-.1475E+03	-.1272E+03	-.1078E+03	-.9092E+02
SYX	-.2514E+03	-.2377E+03	-.2209E+03	-.2019E+03	-.1822E+03	-.1627E+03	-.1436E+03	-.1254E+03	-.1096E+03
SZZ	-.2787E+03	-.2549E+03	-.2259E+03	-.1932E+03	-.1594E+03	-.1263E+03	-.9443E+02	-.6445E+02	-.3900E+02

SHEAR STRESSES

SXY	-.1622E-07	-.6417E-08	-.7001E-08	-.8484E-08	-.4338E-07	-.3540E-07	-.3680E-07	.5304E-07	.1840E-07
SXZ	-.4225E+02	-.5518E+02	-.6521E+02	-.7209E+02	-.7557E+02	-.7644E+02	-.7536E+02	-.7164E+02	-.6474E+02
SYZ	.5416E-06	-.5401E-06	.0000E+00	-.5401E-06	.5416E-06	-.1012E-06	.5862E-06	-.1699E-06	-.3100E-06

PRINCIPAL STRESSES

PS 1	-.2130E+03	-.1835E+03	-.1515E+03	-.1189E+03	-.8807E+02	-.5974E+02	-.3371E+02	-.1129E+02	.4795E+01
PS 2	-.2514E+03	-.2377E+03	-.2209E+03	-.2019E+03	-.1822E+03	-.1627E+03	-.1436E+03	-.1254E+03	-.1096E+03

## Appendix 6E-c Composite Pavement

PS 3    -.3059E+03   -.2975E+03   -.2830E+03   -.2632E+03   -.2395E+03   -.2141E+03   -.1879E+03   -.1610E+03   -.1347E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .4642E+02   .5702E+02   .6578E+02   .7212E+02   .7570E+02   .7717E+02   .7712E+02   .7485E+02   .6976E+02  
PSS 2   .1918E+02   .2710E+02   .3470E+02   .4150E+02   .4708E+02   .5149E+02   .5495E+02   .5704E+02   .5718E+02  
PSS 3   .2723E+02   .2992E+02   .3108E+02   .3062E+02   .2862E+02   .2569E+02   .2217E+02   .1781E+02   .1258E+02

## DISPLACEMENTS

UX       -.1791E-02   -.1931E-02   -.2067E-02   -.2200E-02   -.2330E-02   -.2455E-02   -.2573E-02   -.2684E-02   -.2790E-02  
UY       .5608E-11   .3603E-11   .0000E+00   .3603E-11   .5608E-11   .2806E-11   -.9847E-12   .3118E-11   .2149E-11  
UZ       .1423E+00   .1410E+00   .1400E+00   .1387E+00   .1370E+00   .1356E+00   .1345E+00   .1331E+00   .1314E+00

## NORMAL STRAINS

EXX     -.1367E-03   -.1342E-03   -.1307E-03   -.1264E-03   -.1215E-03   -.1159E-03   -.1098E-03   -.1035E-03   -.9731E-04  
EYY     -.1745E-03   -.1733E-03   -.1720E-03   -.1705E-03   -.1690E-03   -.1672E-03   -.1651E-03   -.1627E-03   -.1602E-03  
EZZ     -.2665E-03   -.2314E-03   -.1889E-03   -.1411E-03   -.9185E-04   -.4433E-04   .8901E-06   .4296E-04   .7793E-04

## SHEAR STRAINS

EXY     -.1095E-12   -.4332E-13   -.4726E-13   -.5727E-13   -.2928E-12   -.2390E-12   -.2484E-12   .3580E-12   .1242E-12  
EXZ     -.2852E-03   -.3724E-03   -.4402E-03   -.4866E-03   -.5101E-03   -.5160E-03   -.5087E-03   -.4836E-03   -.4370E-03  
EYZ     .3655E-11   -.3645E-11   .0000E+00   -.3645E-11   .3655E-11   -.6834E-12   .3957E-11   -.1147E-11   -.2092E-11

## PRINCIPAL STRAINS

PE 1    -.4497E-04   .9630E-05   .6222E-04   .1097E-03   .1488E-03   .1804E-03   .2058E-03   .2223E-03   .2257E-03  
PE 2    -.1745E-03   -.1733E-03   -.1720E-03   -.1705E-03   -.1690E-03   -.1672E-03   -.1651E-03   -.1627E-03   -.1602E-03  
PE 3    -.3583E-03   -.3753E-03   -.3818E-03   -.3772E-03   -.3621E-03   -.3406E-03   -.3147E-03   -.2829E-03   -.2451E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .3133E-03   .3849E-03   .4440E-03   .4868E-03   .5109E-03   .5209E-03   .5206E-03   .5053E-03   .4708E-03  
PSE 2   .1295E-03   .1829E-03   .2342E-03   .2802E-03   .3178E-03   .3475E-03   .3709E-03   .3850E-03   .3860E-03  
PSE 3   .1838E-03   .2020E-03   .2098E-03   .2067E-03   .1932E-03   .1734E-03   .1496E-03   .1202E-03   .8489E-04

## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

## NORMAL STRESSES

SXX	.8696E+03	.8463E+03	.8158E+03	.7798E+03	.7408E+03	.6990E+03	.6547E+03	.6098E+03	.5669E+03
SYX	.1029E+04	.1017E+04	.1001E+04	.9826E+03	.9633E+03	.9421E+03	.9188E+03	.8945E+03	.8710E+03
SZZ	-.8168E+01	-.8069E+01	-.7972E+01	-.7845E+01	-.7700E+01	-.7572E+01	-.7452E+01	-.7306E+01	-.7145E+01

## SHEAR STRESSES

SXY	.4892E-06	.2448E-06	-.2853E-06	-.2448E-06	.4645E-06	.2045E-06	.6684E-06	-.2759E-06	.2307E-06
SXZ	-.4648E+00	-.5258E+00	-.5824E+00	-.6337E+00	-.6794E+00	-.7184E+00	-.7509E+00	-.7771E+00	-.7976E+00
SYZ	-.1153E-08	.1622E-08	.0000E+00	.1622E-08	-.1153E-08	.3750E-08	-.4654E-09	.2295E-08	-.1155E-08

## PRINCIPAL STRESSES

PS 1	.1029E+04	.1017E+04	.1001E+04	.9826E+03	.9633E+03	.9421E+03	.9188E+03	.8945E+03	.8710E+03
PS 2	.8696E+03	.8463E+03	.8158E+03	.7798E+03	.7408E+03	.6990E+03	.6547E+03	.6098E+03	.5669E+03
PS 3	-.8169E+01	-.8069E+01	-.7972E+01	-.7846E+01	-.7700E+01	-.7573E+01	-.7453E+01	-.7307E+01	-.7146E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.5187E+03	.5124E+03	.5045E+03	.4952E+03	.4855E+03	.4748E+03	.4631E+03	.4509E+03	.4391E+03
PSS 2	.7980E+02	.8521E+02	.9256E+02	.1014E+03	.1112E+03	.1215E+03	.1321E+03	.1424E+03	.1520E+03
PSS 3	.4389E+03	.4272E+03	.4119E+03	.3938E+03	.3743E+03	.3533E+03	.3311E+03	.3085E+03	.2870E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.2149E-02	.2330E-02	.2505E-02	.2673E-02	.2834E-02	.2985E-02	.3126E-02	.3256E-02	.3377E-02
UY	-.3400E-11	-.8494E-11	.1455E-10	.6058E-11	-.3400E-11	-.4788E-11	-.6891E-11	-.2380E-12	-.8481E-11
UZ	.1420E+00	.1407E+00	.1397E+00	.1384E+00	.1368E+00	.1354E+00	.1344E+00	.1330E+00	.1313E+00

## NORMAL STRAINS

EXX	.1791E-03	.1738E-03	.1667E-03	.1584E-03	.1494E-03	.1397E-03	.1295E-03	.1192E-03	.1093E-03
EYY	.2250E-03	.2228E-03	.2199E-03	.2167E-03	.2133E-03	.2096E-03	.2054E-03	.2010E-03	.1968E-03
EZZ	-.7325E-04	-.7188E-04	-.7012E-04	-.6805E-04	-.6583E-04	-.6343E-04	-.6087E-04	-.5824E-04	-.5571E-04

## SHEAR STRAINS

EXY	.2813E-12	.1408E-12	-.1640E-12	-.1408E-12	.2671E-12	.1176E-12	.3843E-12	-.1587E-12	.1326E-12
EXZ	-.2673E-06	-.3023E-06	-.3349E-06	-.3644E-06	-.3906E-06	-.4131E-06	-.4317E-06	-.4468E-06	-.4586E-06
EYZ	-.6630E-15	.9324E-15	.0000E+00	.9324E-15	-.6630E-15	.2156E-14	-.2676E-15	.1320E-14	-.6642E-15

## PRINCIPAL STRAINS

PE 1	.2250E-03	.2228E-03	.2199E-03	.2167E-03	.2133E-03	.2096E-03	.2054E-03	.2010E-03	.1968E-03
PE 2	.1791E-03	.1738E-03	.1667E-03	.1584E-03	.1494E-03	.1397E-03	.1295E-03	.1192E-03	.1093E-03
PE 3	-.7325E-04	-.7188E-04	-.7012E-04	-.6805E-04	-.6583E-04	-.6343E-04	-.6087E-04	-.5824E-04	-.5571E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2982E-03	.2946E-03	.2901E-03	.2847E-03	.2792E-03	.2730E-03	.2663E-03	.2593E-03	.2525E-03
PSE 2	.4588E-04	.4900E-04	.5322E-04	.5829E-04	.6395E-04	.6989E-04	.7593E-04	.8186E-04	.8743E-04
PSE 3	.2524E-03	.2456E-03	.2368E-03	.2265E-03	.2152E-03	.2031E-03	.1904E-03	.1774E-03	.1650E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5450.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.39 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00

Appendix 6E-c Composite Pavement

4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	-.8707E+02	-.8699E+02	-.8320E+02	-.7682E+02	-.7016E+02	-.6515E+02	-.6283E+02	-.6354E+02	-.6768E+02
SYX	-.9830E+02	-.9780E+02	-.9349E+02	-.8644E+02	-.7900E+02	-.7318E+02	-.7006E+02	-.6994E+02	-.7321E+02
SZZ	-.7956E+02	-.7562E+02	-.6452E+02	-.4868E+02	-.3199E+02	-.1830E+02	-.9771E+01	-.7019E+01	-.1081E+02

SHEAR STRESSES

SXY	-.1346E-07	.5193E-08	-.1133E-07	-.1099E-07	.3985E-07	.6914E-07	-.1188E-07	.1048E-08	.3378E-07
SXZ	.1583E+02	.6892E+01	-.1798E+00	-.3626E+01	-.2458E+01	.2824E+01	.1082E+02	.2061E+02	.3223E+02
SYZ	.2353E-08	-.1981E-06	-.9163E-06	.4768E-06	.3580E-07	-.3935E-06	-.6942E-07	-.9380E-07	-.2448E-07

PRINCIPAL STRESSES

PS 1	-.6704E+02	-.7237E+02	-.6452E+02	-.4822E+02	-.3183E+02	-.1814E+02	-.7650E+01	-.2999E+00	.3735E+01
PS 2	-.9830E+02	-.9024E+02	-.8320E+02	-.7728E+02	-.7032E+02	-.6532E+02	-.6495E+02	-.6994E+02	-.7321E+02



## Appendix 6E-c Composite Pavement

PS 3   - .9959E+02   - .9780E+02   - .9349E+02   - .8644E+02   - .7900E+02   - .7318E+02   - .7006E+02   - .7026E+02   - .8223E+02

## PRINCIPAL SHEAR STRESSES

PSS 1   .1627E+02   .1272E+02   .1448E+02   .1911E+02   .2358E+02   .2752E+02   .3120E+02   .3498E+02   .4298E+02  
PSS 2   .1563E+02   .8934E+01   .9341E+01   .1453E+02   .1924E+02   .2359E+02   .2865E+02   .3482E+02   .3847E+02  
PSS 3   .6434E+00   .3783E+01   .5143E+01   .4579E+01   .4342E+01   .3932E+01   .2555E+01   .1587E+00   .4509E+01

## DISPLACEMENTS

UX        .1295E-02   .1232E-02   .1166E-02   .1095E-02   .1019E-02   .9360E-03   .8462E-03   .7501E-03   .6483E-03  
UY        - .3432E-11   .5491E-11   - .9294E-11   .2074E-11   - .5652E-11   .4420E-11   .1950E-11   - .9036E-12   .2453E-11  
UZ        .7564E-01   .7589E-01   .7606E-01   .7585E-01   .7545E-01   .7503E-01   .7478E-01   .7482E-01   .7526E-01

## NORMAL STRAINS

EXX      - .6205E-04   - .6572E-04   - .6974E-04   - .7382E-04   - .7828E-04   - .8281E-04   - .8722E-04   - .9151E-04   - .9569E-04  
EYY      - .9995E-04   - .1022E-03   - .1045E-03   - .1063E-03   - .1081E-03   - .1099E-03   - .1116E-03   - .1131E-03   - .1143E-03  
EZZ      - .3670E-04   - .2735E-04   - .6704E-05   .2115E-04   .5054E-04   .7527E-04   .9185E-04   .9925E-04   .9626E-04

## SHEAR STRAINS

EXY      - .9085E-13   .3506E-13   - .7647E-13   - .7420E-13   .2690E-12   .4667E-12   - .8018E-13   .7071E-14   .2280E-12  
EXZ      .1069E-03   .4652E-04   - .1214E-05   - .2448E-04   - .1659E-04   .1906E-04   .7303E-04   .1391E-03   .2175E-03  
EYZ      .1588E-13   - .1337E-11   - .6185E-11   .3219E-11   .2416E-12   - .2656E-11   - .4686E-12   - .6332E-12   - .1652E-12

## PRINCIPAL STRAINS

PE 1      .5540E-05   - .1639E-04   - .6699E-05   .2270E-04   .5108E-04   .7584E-04   .9901E-04   .1219E-03   .1453E-03  
PE 2      - .9995E-04   - .7669E-04   - .6975E-04   - .7537E-04   - .7881E-04   - .8339E-04   - .9438E-04   - .1131E-03   - .1143E-03  
PE 3      - .1043E-03   - .1022E-03   - .1045E-03   - .1063E-03   - .1081E-03   - .1099E-03   - .1116E-03   - .1142E-03   - .1448E-03

## PRINCIPAL SHEAR STRAINS

PSE 1    .1098E-03   .8584E-04   .9777E-04   .1290E-03   .1592E-03   .1858E-03   .2106E-03   .2361E-03   .2901E-03  
PSE 2    .1055E-03   .6031E-04   .6305E-04   .9807E-04   .1299E-03   .1592E-03   .1934E-03   .2350E-03   .2597E-03  
PSE 3    .4343E-05   .2553E-04   .3472E-04   .3091E-04   .2931E-04   .2654E-04   .1724E-04   .1071E-05   .3043E-04

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
.00	4.00
1.00	4.00
2.00	4.00
3.00	4.00
4.00	4.00
5.00	4.00
6.00	4.00
7.00	4.00
8.00	4.00

NORMAL STRESSES

SXX	.3878E+03	.4042E+03	.4187E+03	.4307E+03	.4441E+03	.4595E+03	.4771E+03	.4967E+03	.5183E+03
SYZ	.5498E+03	.5639E+03	.5771E+03	.5881E+03	.6002E+03	.6132E+03	.6265E+03	.6393E+03	.6514E+03
SZZ	-.4562E+01	-.4629E+01	-.4677E+01	-.4666E+01	-.4656E+01	-.4656E+01	-.4671E+01	-.4700E+01	-.4747E+01

SHEAR STRESSES

SXY	.5975E-06	-.2825E-06	-.2352E-06	-.1918E-06	-.8149E-06	-.3372E-06	.5612E-07	-.7662E-07	-.6488E-06
SXZ	.3943E+00	.3794E+00	.3645E+00	.3501E+00	.3363E+00	.3225E+00	.3085E+00	.2934E+00	.2762E+00
SYZ	.2482E-09	-.9827E-09	.2585E-09	.1426E-08	.5743E-11	.1808E-08	.3304E-09	.3780E-09	.7974E-09

PRINCIPAL STRESSES

PS 1	.5498E+03	.5639E+03	.5771E+03	.5881E+03	.6002E+03	.6132E+03	.6265E+03	.6393E+03	.6514E+03
PS 2	.3878E+03	.4042E+03	.4187E+03	.4307E+03	.4441E+03	.4595E+03	.4771E+03	.4967E+03	.5183E+03
PS 3	-.4563E+01	-.4629E+01	-.4678E+01	-.4667E+01	-.4656E+01	-.4656E+01	-.4671E+01	-.4701E+01	-.4747E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.2772E+03	.2843E+03	.2909E+03	.2964E+03	.3024E+03	.3089E+03	.3156E+03	.3220E+03	.3281E+03
PSS 2	.8099E+02	.7988E+02	.7921E+02	.7870E+02	.7804E+02	.7683E+02	.7469E+02	.7132E+02	.6651E+02
PSS 3	.1962E+03	.2044E+03	.2117E+03	.2177E+03	.2244E+03	.2321E+03	.2409E+03	.2507E+03	.2615E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.1566E-02	-.1489E-02	-.1408E-02	-.1325E-02	-.1238E-02	-.1145E-02	-.1045E-02	-.9392E-03	-.8269E-03
UY	.4422E-11	.3730E-11	-.2205E-11	-.4239E-11	.4883E-11	.3143E-11	-.3001E-11	-.1077E-12	.5493E-11
UZ	.7555E-01	.7581E-01	.7597E-01	.7578E-01	.7539E-01	.7498E-01	.7473E-01	.7477E-01	.7521E-01

## NORMAL STRAINS

EXX	.7650E-04	.8006E-04	.8321E-04	.8580E-04	.8869E-04	.9207E-04	.9596E-04	.1004E-03	.1053E-03
EYY	.1231E-03	.1260E-03	.1288E-03	.1311E-03	.1336E-03	.1362E-03	.1389E-03	.1414E-03	.1436E-03
EZZ	-.3630E-04	-.3746E-04	-.3851E-04	-.3937E-04	-.4032E-04	-.4139E-04	-.4255E-04	-.4378E-04	-.4505E-04

## SHEAR STRAINS

EXY	.3436E-12	-.1624E-12	-.1352E-12	-.1103E-12	-.4685E-12	-.1939E-12	.3227E-13	-.4406E-13	-.3730E-12
EXZ	.2267E-06	.2181E-06	.2096E-06	.2013E-06	.1933E-06	.1855E-06	.1774E-06	.1687E-06	.1588E-06
EYZ	.1427E-15	-.5650E-15	.1486E-15	.8202E-15	.3302E-17	.1040E-14	.1900E-15	.2173E-15	.4585E-15

## PRINCIPAL STRAINS

PE 1	.1231E-03	.1260E-03	.1288E-03	.1311E-03	.1336E-03	.1362E-03	.1389E-03	.1414E-03	.1436E-03
PE 2	.7650E-04	.8006E-04	.8321E-04	.8580E-04	.8869E-04	.9207E-04	.9596E-04	.1004E-03	.1053E-03
PE 3	-.3630E-04	-.3746E-04	-.3851E-04	-.3937E-04	-.4032E-04	-.4139E-04	-.4255E-04	-.4378E-04	-.4505E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1594E-03	.1635E-03	.1673E-03	.1704E-03	.1739E-03	.1776E-03	.1815E-03	.1852E-03	.1886E-03
PSE 2	.4657E-04	.4593E-04	.4555E-04	.4525E-04	.4487E-04	.4417E-04	.4295E-04	.4101E-04	.3825E-04
PSE 3	.1128E-03	.1175E-03	.1217E-03	.1252E-03	.1290E-03	.1335E-03	.1385E-03	.1442E-03	.1504E-03

Appendix 6E-c Composite Pavement

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ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5450.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.39 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00

Appendix 6E-c Composite Pavement

13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

NORMAL STRESSES

SXX	-.7627E+02	-.9072E+02	-.1116E+03	-.1374E+03	-.1644E+03	-.1900E+03	-.2126E+03	-.2292E+03	-.2351E+03
SYX	-.8093E+02	-.9466E+02	-.1151E+03	-.1405E+03	-.1671E+03	-.1926E+03	-.2154E+03	-.2322E+03	-.2383E+03
SZZ	-.2320E+02	-.4710E+02	-.8368E+02	-.1297E+03	-.1788E+03	-.2264E+03	-.2688E+03	-.3000E+03	-.3117E+03

SHEAR STRESSES

SXY	.3566E-07	-.9819E-08	-.7344E-09	.1547E-08	.2058E-07	-.9670E-08	-.9500E-08	.9993E-08	.1707E-07
SXZ	.4580E+02	.6006E+02	.7165E+02	.7695E+02	.7493E+02	.6637E+02	.5070E+02	.2661E+02	-.3859E+01
SYZ	.3475E-06	-.4926E-06	-.1478E-06	.1530E-05	.1469E-05	-.4009E-06	.5541E-07	-.5316E-06	.1032E-05

PRINCIPAL STRESSES

PS 1	.3195E+01	-.5017E+01	-.2466E+02	-.5648E+02	-.9632E+02	-.1394E+03	-.1828E+03	-.2203E+03	-.2349E+03
PS 2	-.8093E+02	-.9466E+02	-.1151E+03	-.1405E+03	-.1671E+03	-.1926E+03	-.2154E+03	-.2322E+03	-.2383E+03

## Appendix 6E-c Composite Pavement

PS 3    -.1027E+03   -.1328E+03   -.1707E+03   -.2106E+03   -.2469E+03   -.2770E+03   -.2987E+03   -.3089E+03   -.3119E+03

## PRINCIPAL SHEAR STRESSES

PSS 1    .5293E+02    .6390E+02    .7300E+02    .7704E+02    .7528E+02    .6882E+02    .5797E+02    .4428E+02    .3850E+02  
PSS 2    .4206E+02    .4482E+02    .4520E+02    .4199E+02    .3541E+02    .2662E+02    .1629E+02    .5940E+01    .1697E+01  
PSS 3    .1087E+02    .1908E+02    .2780E+02    .3505E+02    .3987E+02    .4220E+02    .4168E+02    .3834E+02    .3680E+02

## DISPLACEMENTS

UX        .5423E-03    .4336E-03    .3244E-03    .2154E-03    .1044E-03    -.6296E-05    -.1142E-03    -.2191E-03    -.3244E-03  
UY        .5511E-12    .1068E-10    .2480E-13    .4152E-11    -.1074E-12    -.1941E-11    -.1687E-11    .3620E-11    .2273E-11  
UZ        .7617E-01    .7754E-01    .7927E-01    .8093E-01    .8230E-01    .8360E-01    .8494E-01    .8592E-01    .8620E-01

## NORMAL STRAINS

EXX    -.9957E-04   -.1028E-03   -.1052E-03   -.1071E-03   -.1082E-03   -.1084E-03   -.1079E-03   -.1073E-03   -.1065E-03  
EYY    -.1153E-03   -.1160E-03   -.1168E-03   -.1175E-03   -.1176E-03   -.1172E-03   -.1171E-03   -.1175E-03   -.1173E-03  
EZZ    .7956E-04   .4444E-04   -.1085E-04   -.8100E-04   -.1570E-03   -.2312E-03   -.2976E-03   -.3463E-03   -.3651E-03

## SHEAR STRAINS

EXY    .2407E-12   -.6628E-13   -.4957E-14   .1044E-13   .1389E-12   -.6528E-13   -.6413E-13   .6745E-13   .1152E-12  
EXZ    .3091E-03   .4054E-03   .4836E-03   .5194E-03   .5058E-03   .4480E-03   .3422E-03   .1796E-03   -.2605E-04  
EYZ    .2346E-11   -.3325E-11   -.9974E-12   .1033E-10   .9917E-11   -.2706E-11   .3740E-12   -.3588E-11   .6964E-11

## PRINCIPAL STRAINS

PE 1    .1686E-03    .1865E-03    .1884E-03    .1660E-03    .1215E-03    .6247E-04    -.7134E-05    -.7736E-04    -.1059E-03  
PE 2    -.1153E-03   -.1160E-03   -.1168E-03   -.1175E-03   -.1176E-03   -.1172E-03   -.1171E-03   -.1175E-03   -.1173E-03  
PE 3    -.1886E-03   -.2448E-03   -.3044E-03   -.3541E-03   -.3867E-03   -.4021E-03   -.3984E-03   -.3763E-03   -.3657E-03

## PRINCIPAL SHEAR STRAINS

PSE 1    .3573E-03    .4313E-03    .4927E-03    .5201E-03    .5081E-03    .4645E-03    .3913E-03    .2989E-03    .2599E-03  
PSE 2    .2839E-03    .3025E-03    .3051E-03    .2835E-03    .2390E-03    .1797E-03    .1100E-03    .4010E-04    .1145E-04  
PSE 3    .7334E-04    .1288E-03    .1876E-03    .2366E-03    .2691E-03    .2849E-03    .2813E-03    .2588E-03    .2484E-03

## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
9.00	4.00
10.00	4.00
11.00	4.00
12.00	4.00
13.00	4.00
14.00	4.00
15.00	4.00
16.00	4.00
17.00	4.00

## NORMAL STRESSES

SXX	.5420E+03	.5681E+03	.5971E+03	.6284E+03	.6559E+03	.6780E+03	.6960E+03	.7093E+03	.7117E+03
SYZ	.6626E+03	.6735E+03	.6854E+03	.6989E+03	.7090E+03	.7158E+03	.7217E+03	.7276E+03	.7278E+03
SZZ	-.4817E+01	-.4923E+01	-.5078E+01	-.5264E+01	-.5396E+01	-.5500E+01	-.5629E+01	-.5768E+01	-.5811E+01

## SHEAR STRESSES

SXY	.1114E-06	.6192E-06	-.1073E-06	.8588E-06	.1772E-07	.5630E-06	-.2873E-06	.2349E-06	.2648E-06
SXZ	.2557E+00	.2308E+00	.2006E+00	.1644E+00	.1217E+00	.7288E-01	.1888E-01	-.3866E-01	-.9814E-01
SYZ	-.1542E-08	.5743E-09	.5659E-09	.7602E-09	.2204E-08	-.4513E-09	.7145E-09	.1565E-08	.2278E-08

## PRINCIPAL STRESSES

PS 1	.6626E+03	.6735E+03	.6854E+03	.6989E+03	.7090E+03	.7158E+03	.7217E+03	.7276E+03	.7278E+03
PS 2	.5420E+03	.5681E+03	.5971E+03	.6284E+03	.6559E+03	.6780E+03	.6960E+03	.7093E+03	.7117E+03
PS 3	-.4817E+01	-.4923E+01	-.5078E+01	-.5264E+01	-.5396E+01	-.5500E+01	-.5629E+01	-.5768E+01	-.5811E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.3337E+03	.3392E+03	.3453E+03	.3521E+03	.3572E+03	.3606E+03	.3637E+03	.3667E+03	.3668E+03
PSS 2	.6025E+02	.5268E+02	.4417E+02	.3525E+02	.2657E+02	.1888E+02	.1286E+02	.9129E+01	.8080E+01
PSS 3	.2734E+03	.2865E+03	.3011E+03	.3168E+03	.3306E+03	.3418E+03	.3508E+03	.3576E+03	.3587E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.7089E-03	-.5863E-03	-.4598E-03	-.3290E-03	-.1907E-03	-.4756E-04	.9720E-04	.2430E-03	.3919E-03
UY	-.6748E-12	-.5485E-11	-.3878E-11	.4737E-11	.8651E-11	.3348E-11	-.4538E-11	.7699E-11	.8704E-11
UZ	.7610E-01	.7745E-01	.7914E-01	.8077E-01	.8209E-01	.8336E-01	.8467E-01	.8562E-01	.8590E-01

## NORMAL STRAINS

EXX	.1108E-03	.1170E-03	.1238E-03	.1311E-03	.1376E-03	.1429E-03	.1471E-03	.1503E-03	.1508E-03
EYY	.1455E-03	.1472E-03	.1492E-03	.1514E-03	.1529E-03	.1537E-03	.1545E-03	.1555E-03	.1555E-03
EZZ	-.4638E-04	-.4779E-04	-.4936E-04	-.5109E-04	-.5253E-04	-.5364E-04	-.5457E-04	-.5533E-04	-.5543E-04

## SHEAR STRAINS

EXY	.6404E-13	.3560E-12	-.6172E-13	.4938E-12	.1019E-13	.3237E-12	-.1652E-12	.1351E-12	.1522E-12
EXZ	.1470E-06	.1327E-06	.1153E-06	.9455E-07	.7001E-07	.4191E-07	.1086E-07	-.2223E-07	-.5643E-07
EYZ	-.8869E-15	.3302E-15	.3254E-15	.4371E-15	.1268E-14	-.2595E-15	.4108E-15	.8998E-15	.1310E-14

## PRINCIPAL STRAINS

PE 1	.1455E-03	.1472E-03	.1492E-03	.1514E-03	.1529E-03	.1537E-03	.1545E-03	.1555E-03	.1555E-03
PE 2	.1108E-03	.1170E-03	.1238E-03	.1311E-03	.1376E-03	.1429E-03	.1471E-03	.1503E-03	.1508E-03
PE 3	-.4638E-04	-.4779E-04	-.4936E-04	-.5109E-04	-.5253E-04	-.5364E-04	-.5457E-04	-.5533E-04	-.5543E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.1919E-03	.1950E-03	.1985E-03	.2024E-03	.2054E-03	.2074E-03	.2091E-03	.2108E-03	.2109E-03
PSE 2	.3464E-04	.3029E-04	.2540E-04	.2027E-04	.1528E-04	.1085E-04	.7397E-05	.5249E-05	.4646E-05
PSE 3	.1572E-03	.1647E-03	.1731E-03	.1822E-03	.1901E-03	.1965E-03	.2017E-03	.2056E-03	.2063E-03



Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 5450.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 4.39 IN

LOAD	LOCATED AT	
	X	Y
1	.000	.000
2	.000	8.000
3	15.000	.000
4	15.000	1.000
5	15.000	7.000
6	15.000	8.000
7	19.000	.000
8	19.000	1.000
9	19.000	7.000
10	19.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
18.00	4.00
19.00	4.00

Appendix 6E-c Composite Pavement

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Z= 4.00 LAYER NO, 1

X	Y
18.00	4.00
19.00	4.00

## NORMAL STRESSES

SXX	-.2283E+03	-.2107E+03
SYY	-.2314E+03	-.2138E+03
SZZ	-.3000E+03	-.2688E+03

## SHEAR STRESSES

SXY	-.1262E-07	.9500E-08
SXZ	-.3435E+02	-.5851E+02
SYZ	-.1463E-06	.0000E+00

## PRINCIPAL STRESSES

PS 1	-.2145E+03	-.1745E+03
PS 2	-.2314E+03	-.2138E+03
PS 3	-.3138E+03	-.3051E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4966E+02	.6532E+02
PSS 2	.8485E+01	.1968E+02
PSS 3	.4118E+02	.4564E+02

## DISPLACEMENTS

UX	-.4289E-03	-.5314E-03
UY	.6744E-11	.7276E-11
UZ	.8577E-01	.8465E-01

Appendix 6E-c Composite Pavement

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## NORMAL STRAINS

EXX -.1056E-03 -.1045E-03  
EYY -.1164E-03 -.1149E-03  
EZZ -.3478E-03 -.3006E-03

## SHEAR STRAINS

EXY -.8522E-13 .6413E-13  
EXZ -.2318E-03 -.3950E-03  
EYZ -.9874E-12 .0000E+00

## PRINCIPAL STRAINS

PE 1 -.5909E-04 .1791E-04  
PE 2 -.1164E-03 -.1149E-03  
PE 3 -.3943E-03 -.4230E-03

## PRINCIPAL SHEAR STRAINS

PSE 1 .3352E-03 .4409E-03  
PSE 2 .5727E-04 .1328E-03  
PSE 3 .2780E-03 .3081E-03

Z= 12.00 LAYER NO, 2

X Y  
18.00 4.00  
19.00 4.00

## NORMAL STRESSES

SXX .7009E+03 .6790E+03  
SYY .7206E+03 .7077E+03  
SZZ -.5732E+01 -.5559E+01

Appendix 6E-c Composite Pavement

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## SHEAR STRESSES

SXY -.3660E-06 .2873E-06  
SXZ -.1575E+00 -.2147E+00  
SYZ .3033E-08 .0000E+00

## PRINCIPAL STRESSES

PS 1 .7206E+03 .7077E+03  
PS 2 .7009E+03 .6790E+03  
PS 3 -.5732E+01 -.5559E+01

## PRINCIPAL SHEAR STRESSES

PSS 1 .3632E+03 .3566E+03  
PSS 2 .9854E+01 .1435E+02  
PSS 3 .3533E+03 .3423E+03

## DISPLACEMENTS

UX .5399E-03 .6830E-03  
UY .4680E-13 -.7276E-11  
UZ .8548E-01 .8438E-01

## NORMAL STRAINS

EXX .1484E-03 .1434E-03  
EYY .1541E-03 .1517E-03  
EZZ -.5474E-04 -.5339E-04

## SHEAR STRAINS

EXY -.2104E-12 .1652E-12  
EXZ -.9057E-07 -.1235E-06  
EYZ .1744E-14 .0000E+00

## PRINCIPAL STRAINS

Appendix 6E-c Composite Pavement

PE 1 .1541E-03 .1517E-03  
 PE 2 .1484E-03 .1434E-03  
 PE 3 -.5474E-04 -.5339E-04

PRINCIPAL SHEAR STRAINS  
 PSE 1 .2088E-03 .2051E-03  
 PSE 2 .5666E-05 .8250E-05  
 PSE 3 .2032E-03 .1968E-03

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)



## Appendix 6E-c Composite Pavement

## SHEAR STRESSES

SXY	-.1732E-08	-.2908E-08	-.1096E-07	.7708E-08	.9370E-08	-.1280E-07	-.3095E-08	-.1730E-07	.1811E-08
SXZ	.4534E+02	.2904E+02	.1082E+02	-.7348E+01	-.2355E+02	-.3580E+02	-.4312E+02	-.4634E+02	-.4666E+02
SYZ	-.4158E-07	-.4959E-06	-.5326E-06	-.2101E-06	-.6847E-08	-.2264E-06	-.5307E-06	-.4801E-06	-.3650E-07

## PRINCIPAL STRESSES

PS 1	-.1599E+03	-.1875E+03	-.2049E+03	-.2039E+03	-.1832E+03	-.1536E+03	-.1229E+03	-.9400E+02	-.6709E+02
PS 2	-.2095E+03	-.2204E+03	-.2249E+03	-.2227E+03	-.2143E+03	-.2009E+03	-.1850E+03	-.1685E+03	-.1520E+03
PS 3	-.2561E+03	-.2575E+03	-.2509E+03	-.2434E+03	-.2376E+03	-.2265E+03	-.2092E+03	-.1882E+03	-.1658E+03

## PRINCIPAL SHEAR STRESSES

PSS 1	.4810E+02	.3497E+02	.2301E+02	.1974E+02	.2725E+02	.3649E+02	.4312E+02	.4711E+02	.4933E+02
PSS 2	.2479E+02	.1642E+02	.1000E+02	.9401E+01	.1556E+02	.2365E+02	.3104E+02	.3723E+02	.4246E+02
PSS 3	.2331E+02	.1855E+02	.1301E+02	.1034E+02	.1169E+02	.1284E+02	.1208E+02	.9879E+01	.6872E+01

## DISPLACEMENTS

UX	.2563E-02	.2462E-02	.2357E-02	.2251E-02	.2144E-02	.2035E-02	.1922E-02	.1808E-02	.1693E-02
UY	-.1694E-11	-.2144E-11	.1713E-11	.1419E-11	.2002E-13	.1024E-11	-.3200E-11	.1339E-11	.9959E-12
UZ	.1418E+00	.1425E+00	.1432E+00	.1438E+00	.1444E+00	.1447E+00	.1442E+00	.1440E+00	.1440E+00

## NORMAL STRAINS

EXX	-.1005E-03	-.1029E-03	-.1050E-03	-.1067E-03	-.1081E-03	-.1093E-03	-.1102E-03	-.1105E-03	-.1102E-03
EYY	-.1597E-03	-.1615E-03	-.1634E-03	-.1654E-03	-.1675E-03	-.1696E-03	-.1719E-03	-.1742E-03	-.1763E-03
EZZ	-.2089E-03	-.2345E-03	-.2421E-03	-.2304E-03	-.2007E-03	-.1569E-03	-.1056E-03	-.5327E-04	-.2114E-05

## SHEAR STRAINS

EXY	-.1169E-13	-.1963E-13	-.7399E-13	.5203E-13	.6325E-13	-.8638E-13	-.2089E-13	-.1168E-12	.1223E-13
EXZ	.3061E-03	.1960E-03	.7303E-04	-.4960E-04	-.1589E-03	-.2417E-03	-.2910E-03	-.3128E-03	-.3150E-03
EYZ	-.2807E-12	-.3347E-11	-.3595E-11	-.1418E-11	-.4622E-13	-.1528E-11	-.3582E-11	-.3240E-11	-.2464E-12

## PRINCIPAL STRAINS

PE 1	.7623E-05	-.5070E-04	-.9589E-04	-.1019E-03	-.6245E-04	-.9924E-05	.3760E-04	.7709E-04	.1103E-03
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Appendix 6E-c Composite Pavement

PE 2 -.1597E-03 -.1615E-03 -.1634E-03 -.1654E-03 -.1675E-03 -.1696E-03 -.1719E-03 -.1742E-03 -.1763E-03  
 PE 3 -.3171E-03 -.2868E-03 -.2512E-03 -.2352E-03 -.2464E-03 -.2562E-03 -.2535E-03 -.2409E-03 -.2227E-03

PRINCIPAL SHEAR STRAINS

PSE 1 .3247E-03 .2361E-03 .1553E-03 .1333E-03 .1839E-03 .2463E-03 .2911E-03 .3180E-03 .3330E-03  
 PSE 2 .1673E-03 .1108E-03 .6752E-04 .6346E-04 .1050E-03 .1596E-03 .2095E-03 .2513E-03 .2866E-03  
 PSE 3 .1573E-03 .1252E-03 .8779E-04 .6980E-04 .7892E-04 .8667E-04 .8154E-04 .6669E-04 .4639E-04

Z= 12.00 LAYER NO, 2

X	Y
15.00	4.00
16.00	4.00
17.00	4.00
18.00	4.00
19.00	4.00
20.00	4.00
21.00	4.00
22.00	4.00
23.00	4.00

NORMAL STRESSES

SXX .6666E+03 .6869E+03 .7004E+03 .7069E+03 .7067E+03 .7009E+03 .6924E+03 .6808E+03 .6664E+03  
 SYY .9101E+03 .9251E+03 .9374E+03 .9469E+03 .9538E+03 .9588E+03 .9641E+03 .9683E+03 .9710E+03  
 SZZ -.7622E+01 -.7721E+01 -.7807E+01 -.7882E+01 -.7945E+01 -.7981E+01 -.7984E+01 -.8009E+01 -.8045E+01

SHEAR STRESSES

SXY .4796E-06 -.4871E-07 .5417E-06 -.3898E-06 .2984E-07 -.1785E-06 .3872E-06 .3025E-06 .3202E-06  
 SXZ .6169E+00 .5715E+00 .5245E+00 .4775E+00 .4318E+00 .3887E+00 .3488E+00 .3133E+00 .2832E+00  
 SYZ -.1315E-08 -.8314E-10 .8690E-09 -.1907E-08 .5361E-09 .2181E-08 -.4445E-09 -.5227E-09 .4911E-09

PRINCIPAL STRESSES

PS 1 .9101E+03 .9251E+03 .9374E+03 .9469E+03 .9538E+03 .9588E+03 .9641E+03 .9683E+03 .9710E+03



## Appendix 6E-c Composite Pavement

PS 2	.6666E+03	.6869E+03	.7004E+03	.7069E+03	.7067E+03	.7009E+03	.6924E+03	.6808E+03	.6664E+03
PS 3	-.7623E+01	-.7721E+01	-.7808E+01	-.7882E+01	-.7945E+01	-.7981E+01	-.7984E+01	-.8009E+01	-.8045E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.4589E+03	.4664E+03	.4726E+03	.4774E+03	.4809E+03	.4834E+03	.4861E+03	.4882E+03	.4895E+03
PSS 2	.1218E+03	.1191E+03	.1185E+03	.1200E+03	.1235E+03	.1289E+03	.1359E+03	.1438E+03	.1523E+03
PSS 3	.3371E+03	.3473E+03	.3541E+03	.3574E+03	.3573E+03	.3545E+03	.3502E+03	.3444E+03	.3372E+03

## DISPLACEMENTS

UX	-.3050E-02	-.2915E-02	-.2776E-02	-.2635E-02	-.2493E-02	-.2352E-02	-.2210E-02	-.2070E-02	-.1932E-02
UY	-.1850E-11	-.8481E-11	-.2475E-12	-.3394E-11	-.2220E-11	-.2158E-11	.1481E-11	.5521E-11	-.7800E-12
UZ	.1415E+00	.1423E+00	.1429E+00	.1436E+00	.1442E+00	.1445E+00	.1440E+00	.1438E+00	.1439E+00

## NORMAL STRAINS

EXX	.1328E-03	.1373E-03	.1403E-03	.1415E-03	.1412E-03	.1396E-03	.1373E-03	.1342E-03	.1305E-03
EYY	.2028E-03	.2058E-03	.2084E-03	.2105E-03	.2122E-03	.2137E-03	.2154E-03	.2168E-03	.2181E-03
EZZ	-.6103E-04	-.6238E-04	-.6337E-04	-.6399E-04	-.6426E-04	-.6424E-04	-.6412E-04	-.6384E-04	-.6341E-04

## SHEAR STRAINS

EXY	.2758E-12	-.2801E-13	.3115E-12	-.2242E-12	.1716E-13	-.1026E-12	.2227E-12	.1739E-12	.1841E-12
EXZ	.3547E-06	.3286E-06	.3016E-06	.2746E-06	.2483E-06	.2235E-06	.2005E-06	.1802E-06	.1629E-06
EYZ	-.7562E-15	-.4780E-16	.4997E-15	-.1096E-14	.3083E-15	.1254E-14	-.2556E-15	-.3006E-15	.2824E-15

## PRINCIPAL STRAINS

PE 1	.2028E-03	.2058E-03	.2084E-03	.2105E-03	.2122E-03	.2137E-03	.2154E-03	.2168E-03	.2181E-03
PE 2	.1328E-03	.1373E-03	.1403E-03	.1415E-03	.1412E-03	.1396E-03	.1373E-03	.1342E-03	.1305E-03
PE 3	-.6103E-04	-.6238E-04	-.6337E-04	-.6399E-04	-.6426E-04	-.6424E-04	-.6412E-04	-.6384E-04	-.6341E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2639E-03	.2682E-03	.2717E-03	.2745E-03	.2765E-03	.2780E-03	.2795E-03	.2807E-03	.2815E-03
PSE 2	.7003E-04	.6848E-04	.6812E-04	.6899E-04	.7103E-04	.7414E-04	.7812E-04	.8267E-04	.8756E-04
PSE 3	.1938E-03	.1997E-03	.2036E-03	.2055E-03	.2055E-03	.2038E-03	.2014E-03	.1980E-03	.1939E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00

Appendix 6E-c Composite Pavement

28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

NORMAL STRESSES

SXX	-.1159E+03	-.1017E+03	-.9105E+02	-.8425E+02	-.8049E+02	-.7872E+02	-.7811E+02	-.7819E+02	-.7872E+02
SYX	-.1362E+03	-.1227E+03	-.1127E+03	-.1067E+03	-.1037E+03	-.1025E+03	-.1023E+03	-.1026E+03	-.1031E+03
SZZ	-.6960E+02	-.4288E+02	-.2319E+02	-.1108E+02	-.4779E+01	-.1978E+01	-.9344E+00	-.6334E+00	-.5907E+00

SHEAR STRESSES

SXY	-.7049E-07	-.7872E-08	.3961E-07	.1417E-07	.1912E-08	.5470E-07	-.1852E-07	.3031E-08	.1457E-07
SXZ	-.4388E+02	-.3748E+02	-.2858E+02	-.1944E+02	-.1168E+02	-.5648E+01	-.1021E+01	.2744E+01	.6111E+01
SYZ	.1592E-06	.3071E-06	.1709E-06	.9305E-07	.5360E-07	-.5049E-07	.6266E-08	.3494E-07	-.6115E-07

PRINCIPAL STRESSES

PS 1	-.4314E+02	-.2465E+02	-.1276E+02	-.6235E+01	-.3018E+01	-.1565E+01	-.9208E+00	-.5364E+00	-.1156E+00
PS 2	-.1362E+03	-.1199E+03	-.1015E+03	-.8910E+02	-.8225E+02	-.7913E+02	-.7812E+02	-.7828E+02	-.7920E+02

## Appendix 6E-c Composite Pavement

PS 3   -.1424E+03   -.1227E+03   -.1127E+03   -.1067E+03   -.1037E+03   -.1025E+03   -.1023E+03   -.1026E+03   -.1031E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .4962E+02   .4901E+02   .4999E+02   .5023E+02   .5032E+02   .5046E+02   .5068E+02   .5102E+02   .5150E+02  
PSS 2   .4654E+02   .4764E+02   .4436E+02   .4143E+02   .3962E+02   .3878E+02   .3860E+02   .3887E+02   .3954E+02  
PSS 3   .3088E+01   .1369E+01   .5627E+01   .8797E+01   .1070E+02   .1167E+02   .1208E+02   .1215E+02   .1196E+02

## DISPLACEMENTS

UX       .1579E-02   .1464E-02   .1349E-02   .1236E-02   .1126E-02   .1018E-02   .9127E-03   .8085E-03   .7043E-03  
UY       .2609E-11   -.2537E-11   -.5827E-11   .3643E-12   .1856E-11   .5379E-11   -.4806E-11   .6592E-12   .1277E-11  
UZ       .1439E+00   .1433E+00   .1429E+00   .1429E+00   .1431E+00   .1434E+00   .1437E+00   .1440E+00   .1442E+00

## NORMAL STRAINS

EXX    -.1098E-03   -.1094E-03   -.1087E-03   -.1076E-03   -.1064E-03   -.1054E-03   -.1050E-03   -.1052E-03   -.1061E-03  
EYY    -.1782E-03   -.1802E-03   -.1819E-03   -.1833E-03   -.1845E-03   -.1856E-03   -.1866E-03   -.1875E-03   -.1884E-03  
EZZ    .4664E-04   .8914E-04   .1203E-03   .1394E-03   .1492E-03   .1536E-03   .1555E-03   .1566E-03   .1576E-03

## SHEAR STRAINS

EXY    -.4758E-12   -.5314E-13   .2674E-12   .9567E-13   .1291E-13   .3693E-12   -.1250E-12   .2046E-13   .9834E-13  
EXZ    -.2962E-03   -.2530E-03   -.1929E-03   -.1313E-03   -.7884E-04   -.3812E-04   -.6894E-05   .1852E-04   .4125E-04  
EYZ    .1075E-11   .2073E-11   .1153E-11   .6281E-12   .3618E-12   -.3408E-12   .4229E-13   .2358E-12   -.4128E-12

## PRINCIPAL STRAINS

PE 1    .1359E-03   .1507E-03   .1555E-03   .1557E-03   .1551E-03   .1550E-03   .1556E-03   .1569E-03   .1592E-03  
PE 2    -.1782E-03   -.1709E-03   -.1439E-03   -.1239E-03   -.1123E-03   -.1068E-03   -.1050E-03   -.1055E-03   -.1077E-03  
PE 3    -.1990E-03   -.1802E-03   -.1819E-03   -.1833E-03   -.1845E-03   -.1856E-03   -.1866E-03   -.1875E-03   -.1884E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .3350E-03   .3308E-03   .3374E-03   .3390E-03   .3396E-03   .3406E-03   .3421E-03   .3444E-03   .3477E-03  
PSE 2   .3141E-03   .3216E-03   .2994E-03   .2797E-03   .2674E-03   .2618E-03   .2606E-03   .2624E-03   .2669E-03  
PSE 3   .2085E-04   .9243E-05   .3798E-04   .5938E-04   .7222E-04   .7879E-04   .8156E-04   .8201E-04   .8076E-04

## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
24.00	4.00
25.00	4.00
26.00	4.00
27.00	4.00
28.00	4.00
29.00	4.00
30.00	4.00
31.00	4.00
32.00	4.00

## NORMAL STRESSES

SXX	.6510E+03	.6375E+03	.6256E+03	.6153E+03	.6071E+03	.6015E+03	.5991E+03	.6001E+03	.6047E+03
SYZ	.9728E+03	.9761E+03	.9794E+03	.9824E+03	.9853E+03	.9883E+03	.9918E+03	.9960E+03	.1001E+04
SZZ	-.8070E+01	-.8072E+01	-.8101E+01	-.8144E+01	-.8194E+01	-.8244E+01	-.8290E+01	-.8332E+01	-.8369E+01

## SHEAR STRESSES

SXY	-.1021E-06	-.2247E-06	-.1302E-06	.1635E-06	.1036E-05	-.4250E-06	-.1476E-06	.1004E-05	.1644E-06
SXZ	.2583E+00	.2379E+00	.2222E+00	.2109E+00	.2030E+00	.1978E+00	.1946E+00	.1928E+00	.1914E+00
SYZ	-.2527E-08	-.2409E-08	-.2285E-08	.2832E-10	-.2626E-08	-.6548E-09	-.1194E-09	.1732E-08	-.9052E-09

## PRINCIPAL STRESSES

PS 1	.9728E+03	.9761E+03	.9794E+03	.9824E+03	.9853E+03	.9883E+03	.9918E+03	.9960E+03	.1001E+04
PS 2	.6510E+03	.6375E+03	.6256E+03	.6153E+03	.6071E+03	.6015E+03	.5991E+03	.6001E+03	.6047E+03
PS 3	-.8070E+01	-.8072E+01	-.8101E+01	-.8144E+01	-.8194E+01	-.8244E+01	-.8290E+01	-.8332E+01	-.8369E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.4904E+03	.4921E+03	.4937E+03	.4953E+03	.4968E+03	.4983E+03	.5000E+03	.5022E+03	.5047E+03
PSS 2	.1609E+03	.1693E+03	.1769E+03	.1836E+03	.1891E+03	.1934E+03	.1963E+03	.1979E+03	.1982E+03
PSS 3	.3295E+03	.3228E+03	.3168E+03	.3117E+03	.3077E+03	.3049E+03	.3037E+03	.3042E+03	.3065E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.1799E-02	-.1668E-02	-.1540E-02	-.1415E-02	-.1295E-02	-.1179E-02	-.1065E-02	-.9535E-03	-.8418E-03
UY	-.5785E-12	.1093E-12	-.8252E-11	-.3418E-11	-.4055E-11	-.4349E-12	.2466E-11	-.3103E-12	-.2399E-11
UZ	.1438E+00	.1432E+00	.1429E+00	.1429E+00	.1430E+00	.1433E+00	.1437E+00	.1439E+00	.1442E+00

## NORMAL STRAINS

EXX	.1266E-03	.1231E-03	.1200E-03	.1173E-03	.1151E-03	.1136E-03	.1129E-03	.1130E-03	.1139E-03
EYY	.2191E-03	.2204E-03	.2217E-03	.2228E-03	.2239E-03	.2248E-03	.2258E-03	.2268E-03	.2279E-03
EZZ	-.6291E-04	-.6253E-04	-.6221E-04	-.6195E-04	-.6177E-04	-.6168E-04	-.6173E-04	-.6194E-04	-.6231E-04

## SHEAR STRAINS

EXY	-.5872E-13	-.1292E-12	-.7487E-13	.9401E-13	.5954E-12	-.2444E-12	-.8485E-13	.5770E-12	.9452E-13
EXZ	.1485E-06	.1368E-06	.1278E-06	.1213E-06	.1167E-06	.1137E-06	.1119E-06	.1108E-06	.1100E-06
EYZ	-.1453E-14	-.1385E-14	-.1314E-14	.1628E-16	-.1510E-14	-.3765E-15	-.6866E-16	.9962E-15	-.5205E-15

## PRINCIPAL STRAINS

PE 1	.2191E-03	.2204E-03	.2217E-03	.2228E-03	.2239E-03	.2248E-03	.2258E-03	.2268E-03	.2279E-03
PE 2	.1266E-03	.1231E-03	.1200E-03	.1173E-03	.1151E-03	.1136E-03	.1129E-03	.1130E-03	.1139E-03
PE 3	-.6291E-04	-.6253E-04	-.6221E-04	-.6195E-04	-.6177E-04	-.6168E-04	-.6173E-04	-.6194E-04	-.6231E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2820E-03	.2829E-03	.2839E-03	.2848E-03	.2856E-03	.2865E-03	.2875E-03	.2887E-03	.2902E-03
PSE 2	.9254E-04	.9734E-04	.1017E-03	.1056E-03	.1087E-03	.1112E-03	.1129E-03	.1138E-03	.1140E-03
PSE 3	.1895E-03	.1856E-03	.1822E-03	.1792E-03	.1769E-03	.1753E-03	.1746E-03	.1749E-03	.1762E-03

Appendix 6E-c Composite Pavement

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ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS.... 90.00 PSI  
 LOAD RADIUS.... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00

Appendix 6E-c Composite Pavement

37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	-.7964E+02	-.8103E+02	-.8312E+02	-.8640E+02	-.9168E+02	-.1001E+03	-.1123E+03	-.1282E+03	-.1464E+03
SYX	-.1038E+03	-.1048E+03	-.1062E+03	-.1087E+03	-.1130E+03	-.1203E+03	-.1315E+03	-.1463E+03	-.1634E+03
SZZ	-.6482E+00	-.9609E+00	-.2016E+01	-.4827E+01	-.1112E+02	-.2320E+02	-.4284E+02	-.6949E+02	-.1003E+03

SHEAR STRESSES

SXY	-.3868E-08	-.9068E-07	.5135E-07	-.5090E-08	-.1076E-07	.5489E-07	.4566E-07	-.5837E-07	-.6876E-08
SXZ	.9506E+01	.1335E+02	.1812E+02	.2435E+02	.3238E+02	.4187E+02	.5124E+02	.5833E+02	.6213E+02
SYZ	-.5007E-07	.1865E-07	-.1029E-06	.5496E-07	.9865E-07	.2396E-06	.3664E-06	.5552E-07	.1080E-06

PRINCIPAL STRESSES

PS 1	.4797E+00	.1207E+01	.1849E+01	.1890E+01	.2840E+00	-.4798E+01	-.1566E+02	-.3354E+02	-.5709E+02
PS 2	-.8077E+02	-.8319E+02	-.8698E+02	-.9311E+02	-.1031E+03	-.1185E+03	-.1315E+03	-.1463E+03	-.1634E+03



## Appendix 6E-c Composite Pavement

PS 3    -.1038E+03   -.1048E+03   -.1062E+03   -.1087E+03   -.1130E+03   -.1203E+03   -.1395E+03   -.1641E+03   -.1896E+03

## PRINCIPAL SHEAR STRESSES

PSS 1    .5216E+02    .5300E+02    .5405E+02    .5529E+02    .5664E+02    .5777E+02    .6190E+02    .6529E+02    .6627E+02  
PSS 2    .4062E+02    .4220E+02    .4442E+02    .4750E+02    .5169E+02    .5683E+02    .5793E+02    .5640E+02    .5318E+02  
PSS 3    .1153E+02    .1080E+02    .9634E+01    .7791E+01    .4959E+01    .9366E+00    .3970E+01    .8891E+01    .1310E+02

## DISPLACEMENTS

UX        .5990E-03    .4912E-03    .3799E-03    .2639E-03    .1426E-03    .1601E-04    -.1154E-03    -.2507E-03    -.3886E-03  
UY        -.7929E-12   -.1291E-11   -.2049E-11   -.6935E-12   -.3448E-11   .8565E-11    .3212E-11    .1900E-11    -.2246E-11  
UZ        .1444E+00    .1445E+00    .1446E+00    .1447E+00    .1448E+00    .1452E+00    .1458E+00    .1468E+00    .1471E+00

## NORMAL STRAINS

EXX    -.1077E-03   -.1100E-03   -.1131E-03   -.1167E-03   -.1206E-03   -.1245E-03   -.1282E-03   -.1316E-03   -.1352E-03  
EYY    -.1893E-03   -.1903E-03   -.1911E-03   -.1919E-03   -.1926E-03   -.1930E-03   -.1931E-03   -.1929E-03   -.1927E-03  
EZZ    .1589E-03   .1602E-03   .1607E-03   .1586E-03   .1513E-03   .1348E-03   .1063E-03   .6646E-04   .2033E-04

## SHEAR STRAINS

EXY    -.2611E-13   -.6121E-12   .3466E-12   -.3436E-13   -.7262E-13   .3705E-12   .3082E-12   -.3940E-12   -.4641E-13  
EXZ    .6417E-04   .9013E-04   .1223E-03   .1644E-03   .2186E-03   .2826E-03   .3459E-03   .3937E-03   .4194E-03  
EYZ    -.3380E-12   .1259E-12   -.6946E-12   .3710E-12   .6659E-12   .1618E-11   .2473E-11   .3748E-12   .7288E-12

## PRINCIPAL STRAINS

PE 1    .1627E-03    .1675E-03    .1737E-03    .1813E-03    .1898E-03    .1969E-03    .1980E-03    .1878E-03    .1662E-03  
PE 2    -.1115E-03   -.1173E-03   -.1261E-03   -.1393E-03   -.1591E-03   -.1867E-03   -.1931E-03   -.1929E-03   -.1927E-03  
PE 3    -.1893E-03   -.1903E-03   -.1911E-03   -.1919E-03   -.1926E-03   -.1930E-03   -.2199E-03   -.2529E-03   -.2811E-03

## PRINCIPAL SHEAR STRAINS

PSE 1    .3521E-03    .3578E-03    .3648E-03    .3732E-03    .3824E-03    .3899E-03    .4179E-03    .4407E-03    .4473E-03  
PSE 2    .2742E-03    .2849E-03    .2998E-03    .3206E-03    .3489E-03    .3836E-03    .3911E-03    .3807E-03    .3589E-03  
PSE 3    .7785E-04    .7291E-04    .6503E-04    .5259E-04    .3347E-04    .6322E-05    .2680E-04    .6001E-04    .8840E-04

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
33.00	4.00
34.00	4.00
35.00	4.00
36.00	4.00
37.00	4.00
38.00	4.00
39.00	4.00
40.00	4.00
41.00	4.00

NORMAL STRESSES

SXX	.6129E+03	.6247E+03	.6402E+03	.6590E+03	.6809E+03	.7053E+03	.7321E+03	.7610E+03	.7926E+03
SYZ	.1007E+04	.1014E+04	.1022E+04	.1031E+04	.1040E+04	.1048E+04	.1057E+04	.1065E+04	.1075E+04
SZZ	-.8400E+01	-.8425E+01	-.8446E+01	-.8463E+01	-.8478E+01	-.8499E+01	-.8533E+01	-.8590E+01	-.8620E+01

SHEAR STRESSES

SXY	.4328E-06	-.1057E-06	-.6264E-06	.6709E-06	.6113E-06	.2963E-07	-.1044E-05	-.1762E-06	.1822E-06
SXZ	.1899E+00	.1876E+00	.1838E+00	.1777E+00	.1685E+00	.1555E+00	.1377E+00	.1146E+00	.8601E-01
SYZ	.1729E-08	-.1008E-08	.1304E-08	-.2501E-08	.1287E-08	.1844E-08	.1024E-08	.1583E-08	.5686E-09

PRINCIPAL STRESSES

PS 1	.1007E+04	.1014E+04	.1022E+04	.1031E+04	.1040E+04	.1048E+04	.1057E+04	.1065E+04	.1075E+04
PS 2	.6129E+03	.6247E+03	.6402E+03	.6590E+03	.6809E+03	.7053E+03	.7321E+03	.7610E+03	.7926E+03
PS 3	-.8400E+01	-.8425E+01	-.8446E+01	-.8463E+01	-.8478E+01	-.8499E+01	-.8533E+01	-.8590E+01	-.8620E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.5078E+03	.5114E+03	.5154E+03	.5197E+03	.5240E+03	.5284E+03	.5327E+03	.5370E+03	.5420E+03
PSS 2	.1972E+03	.1949E+03	.1911E+03	.1859E+03	.1794E+03	.1715E+03	.1624E+03	.1522E+03	.1414E+03
PSS 3	.3106E+03	.3166E+03	.3243E+03	.3338E+03	.3447E+03	.3569E+03	.3703E+03	.3848E+03	.4006E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	-.7288E-03	-.6131E-03	-.4931E-03	-.3677E-03	-.2357E-03	-.9658E-04	.4985E-04	.2034E-03	.3630E-03
UY	-.1756E-11	-.5071E-12	.3104E-11	.1821E-12	.1391E-11	.9530E-11	.1132E-11	-.2275E-11	-.4279E-12
UZ	.1443E+00	.1444E+00	.1445E+00	.1446E+00	.1448E+00	.1451E+00	.1457E+00	.1466E+00	.1470E+00

## NORMAL STRAINS

EXX	.1158E-03	.1184E-03	.1220E-03	.1264E-03	.1316E-03	.1373E-03	.1437E-03	.1506E-03	.1582E-03
EYY	.2292E-03	.2305E-03	.2319E-03	.2333E-03	.2347E-03	.2359E-03	.2371E-03	.2381E-03	.2394E-03
EZZ	-.6286E-04	-.6357E-04	-.6446E-04	-.6549E-04	-.6664E-04	-.6789E-04	-.6922E-04	-.7064E-04	-.7220E-04

## SHEAR STRAINS

EXY	.2488E-12	-.6076E-13	-.3602E-12	.3858E-12	.3515E-12	.1704E-13	-.6005E-12	-.1013E-12	.1048E-12
EXZ	.1092E-06	.1079E-06	.1057E-06	.1022E-06	.9690E-07	.8942E-07	.7920E-07	.6590E-07	.4946E-07
EYZ	.9941E-15	-.5797E-15	.7495E-15	-.1438E-14	.7400E-15	.1060E-14	.5887E-15	.9104E-15	.3269E-15

## PRINCIPAL STRAINS

PE 1	.2292E-03	.2305E-03	.2319E-03	.2333E-03	.2347E-03	.2359E-03	.2371E-03	.2381E-03	.2394E-03
PE 2	.1158E-03	.1184E-03	.1220E-03	.1264E-03	.1316E-03	.1373E-03	.1437E-03	.1506E-03	.1582E-03
PE 3	-.6286E-04	-.6357E-04	-.6446E-04	-.6549E-04	-.6664E-04	-.6789E-04	-.6922E-04	-.7064E-04	-.7220E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.2920E-03	.2941E-03	.2964E-03	.2988E-03	.3013E-03	.3038E-03	.3063E-03	.3088E-03	.3116E-03
PSE 2	.1134E-03	.1120E-03	.1099E-03	.1069E-03	.1031E-03	.9861E-04	.9336E-04	.8752E-04	.8128E-04
PSE 3	.1786E-03	.1820E-03	.1865E-03	.1919E-03	.1982E-03	.2052E-03	.2129E-03	.2213E-03	.2304E-03

Appendix 6E-c Composite Pavement

ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00

Appendix 6E-c Composite Pavement

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46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	-.1655E+03	-.1850E+03	-.2045E+03	-.2232E+03	-.2396E+03	-.2527E+03	-.2615E+03	-.2644E+03	-.2600E+03
SYX	-.1813E+03	-.1996E+03	-.2182E+03	-.2360E+03	-.2516E+03	-.2644E+03	-.2730E+03	-.2758E+03	-.2715E+03
SZZ	-.1328E+03	-.1666E+03	-.2013E+03	-.2346E+03	-.2643E+03	-.2891E+03	-.3068E+03	-.3134E+03	-.3068E+03

SHEAR STRESSES

SXY	-.1329E-07	.1731E-07	-.3008E-07	-.1684E-07	-.1765E-07	-.1080E-07	.1668E-07	.2088E-07	-.1449E-07
SXZ	.6341E+02	.6273E+02	.5931E+02	.5245E+02	.4251E+02	.2953E+02	.1276E+02	-.7168E+01	-.2709E+02
SYZ	-.7386E-06	-.5413E-06	.4065E-07	.5547E-07	-.7616E-06	-.6456E-06	.1579E-06	-.5035E-07	-.4849E-06

PRINCIPAL STRESSES

PS 1	-.8368E+02	-.1124E+03	-.1436E+03	-.1761E+03	-.2077E+03	-.2362E+03	-.2582E+03	-.2633E+03	-.2476E+03
PS 2	-.1813E+03	-.1996E+03	-.2182E+03	-.2360E+03	-.2516E+03	-.2644E+03	-.2730E+03	-.2758E+03	-.2715E+03

## Appendix 6E-c Composite Pavement

PS 3   -.2146E+03   -.2392E+03   -.2622E+03   -.2817E+03   -.2962E+03   -.3056E+03   -.3101E+03   -.3144E+03   -.3192E+03

## PRINCIPAL SHEAR STRESSES

PSS 1   .6548E+02   .6340E+02   .5933E+02   .5275E+02   .4427E+02   .3470E+02   .2597E+02   .2554E+02   .3579E+02  
PSS 2   .4882E+02   .4362E+02   .3732E+02   .2993E+02   .2199E+02   .1407E+02   .7423E+01   .6242E+01   .1194E+02  
PSS 3   .1666E+02   .1977E+02   .2202E+02   .2283E+02   .2228E+02   .2062E+02   .1855E+02   .1930E+02   .2386E+02

## DISPLACEMENTS

UX     -.5310E-03   -.6775E-03   -.8266E-03   -.9763E-03   -.1128E-02   -.1279E-02   -.1429E-02   -.1576E-02   -.1721E-02  
UY     .1024E-11   .2213E-11   -.4702E-12   -.3696E-12   .1292E-11   -.1535E-12   .1774E-11   .2710E-11   -.4496E-13  
UZ     .1474E+00   .1479E+00   .1488E+00   .1491E+00   .1493E+00   .1497E+00   .1504E+00   .1502E+00   .1495E+00

## NORMAL STRAINS

EXX   -.1388E-03   -.1419E-03   -.1443E-03   -.1463E-03   -.1474E-03   -.1475E-03   -.1465E-03   -.1454E-03   -.1440E-03  
EYY   -.1923E-03   -.1915E-03   -.1904E-03   -.1894E-03   -.1882E-03   -.1868E-03   -.1853E-03   -.1840E-03   -.1827E-03  
EZZ   -.2864E-04   -.8003E-04   -.1332E-03   -.1846E-03   -.2309E-03   -.2704E-03   -.2992E-03   -.3108E-03   -.3019E-03

## SHEAR STRAINS

EXY   -.8970E-13   .1168E-12   -.2030E-12   -.1137E-12   -.1191E-12   -.7292E-13   .1126E-12   .1409E-12   -.9781E-13  
EXZ   .4280E-03   .4234E-03   .4003E-03   .3540E-03   .2869E-03   .1994E-03   .8615E-04   -.4838E-04   -.1829E-03  
EYZ   -.4985E-11   -.3654E-11   .2744E-12   .3744E-12   -.5141E-11   -.4358E-11   .1066E-11   -.3399E-12   -.3273E-11

## PRINCIPAL STRAINS

PE 1   .1373E-03   .1030E-03   .6146E-04   .1258E-04   -.3978E-04   -.9182E-04   -.1352E-03   -.1419E-03   -.1022E-03  
PE 2   -.1923E-03   -.1915E-03   -.1904E-03   -.1894E-03   -.1882E-03   -.1868E-03   -.1853E-03   -.1840E-03   -.1827E-03  
PE 3   -.3047E-03   -.3249E-03   -.3390E-03   -.3435E-03   -.3386E-03   -.3260E-03   -.3105E-03   -.3143E-03   -.3438E-03

## PRINCIPAL SHEAR STRAINS

PSE 1   .4420E-03   .4279E-03   .4005E-03   .3561E-03   .2988E-03   .2342E-03   .1753E-03   .1724E-03   .2416E-03  
PSE 2   .3295E-03   .2945E-03   .2519E-03   .2020E-03   .1484E-03   .9499E-04   .5010E-04   .4214E-04   .8057E-04  
PSE 3   .1125E-03   .1335E-03   .1486E-03   .1541E-03   .1504E-03   .1392E-03   .1252E-03   .1302E-03   .1610E-03

Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
42.00	4.00
43.00	4.00
44.00	4.00
45.00	4.00
46.00	4.00
47.00	4.00
48.00	4.00
49.00	4.00
50.00	4.00

NORMAL STRESSES

SXX	.8239E+03	.8530E+03	.8793E+03	.9031E+03	.9211E+03	.9318E+03	.9352E+03	.9324E+03	.9219E+03
SYY	.1084E+04	.1091E+04	.1096E+04	.1101E+04	.1102E+04	.1101E+04	.1096E+04	.1090E+04	.1082E+04
SZZ	-.8636E+01	-.8660E+01	-.8703E+01	-.8715E+01	-.8708E+01	-.8704E+01	-.8714E+01	-.8684E+01	-.8607E+01

SHEAR STRESSES

SXY	-.3464E-07	.2978E-06	-.3667E-06	.1145E-06	-.1849E-06	.5320E-07	.7303E-07	-.6623E-06	.9357E-07
SXZ	.5107E-01	.9258E-02	-.3905E-01	-.9296E-01	-.1522E+00	-.2159E+00	-.2825E+00	-.3500E+00	-.4174E+00
SYZ	.1934E-08	.2810E-09	.1939E-08	.3057E-09	.3863E-08	-.1128E-08	-.2263E-08	-.1004E-08	.3776E-08

PRINCIPAL STRESSES

PS 1	.1084E+04	.1091E+04	.1096E+04	.1101E+04	.1102E+04	.1101E+04	.1096E+04	.1090E+04	.1082E+04
PS 2	.8239E+03	.8530E+03	.8793E+03	.9031E+03	.9211E+03	.9318E+03	.9352E+03	.9324E+03	.9219E+03
PS 3	-.8636E+01	-.8660E+01	-.8703E+01	-.8715E+01	-.8708E+01	-.8704E+01	-.8714E+01	-.8685E+01	-.8607E+01

PRINCIPAL SHEAR STRESSES

PSS 1	.5464E+03	.5499E+03	.5524E+03	.5547E+03	.5556E+03	.5547E+03	.5524E+03	.5495E+03	.5451E+03
PSS 2	.1302E+03	.1190E+03	.1084E+03	.9879E+02	.9069E+02	.8447E+02	.8047E+02	.7890E+02	.7989E+02
PSS 3	.4162E+03	.4308E+03	.4440E+03	.4559E+03	.4649E+03	.4703E+03	.4720E+03	.4706E+03	.4652E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.5311E-03	.7075E-03	.8905E-03	.1078E-02	.1270E-02	.1466E-02	.1662E-02	.1855E-02	.2048E-02
UY	.6411E-11	.2863E-11	-.2534E-11	.4969E-12	-.7783E-11	-.2563E-12	.2068E-12	-.2356E-11	-.4862E-11
UZ	.1472E+00	.1477E+00	.1486E+00	.1489E+00	.1490E+00	.1494E+00	.1500E+00	.1499E+00	.1492E+00

## NORMAL STRAINS

EXX	.1656E-03	.1727E-03	.1791E-03	.1848E-03	.1893E-03	.1920E-03	.1930E-03	.1926E-03	.1902E-03
EYY	.2405E-03	.2411E-03	.2414E-03	.2416E-03	.2414E-03	.2406E-03	.2393E-03	.2379E-03	.2362E-03
EZZ	-.7371E-04	-.7507E-04	-.7626E-04	-.7732E-04	-.7806E-04	-.7840E-04	-.7835E-04	-.7802E-04	-.7728E-04

## SHEAR STRAINS

EXY	-.1992E-13	.1712E-12	-.2108E-12	.6586E-13	-.1063E-12	.3059E-13	.4199E-13	-.3808E-12	.5380E-13
EXZ	.2937E-07	.5323E-08	-.2246E-07	-.5345E-07	-.8749E-07	-.1241E-06	-.1624E-06	-.2012E-06	-.2400E-06
EYZ	.1112E-14	.1616E-15	.1115E-14	.1758E-15	.2221E-14	-.6484E-15	-.1301E-14	-.5775E-15	.2171E-14

## PRINCIPAL STRAINS

PE 1	.2405E-03	.2411E-03	.2414E-03	.2416E-03	.2414E-03	.2406E-03	.2393E-03	.2379E-03	.2362E-03
PE 2	.1656E-03	.1727E-03	.1791E-03	.1848E-03	.1893E-03	.1920E-03	.1930E-03	.1926E-03	.1902E-03
PE 3	-.7371E-04	-.7507E-04	-.7626E-04	-.7732E-04	-.7806E-04	-.7840E-04	-.7835E-04	-.7802E-04	-.7728E-04

## PRINCIPAL SHEAR STRAINS

PSE 1	.3142E-03	.3162E-03	.3176E-03	.3190E-03	.3195E-03	.3190E-03	.3176E-03	.3159E-03	.3134E-03
PSE 2	.7484E-04	.6845E-04	.6233E-04	.5681E-04	.5214E-04	.4857E-04	.4627E-04	.4537E-04	.4594E-04
PSE 3	.2393E-03	.2477E-03	.2553E-03	.2622E-03	.2673E-03	.2704E-03	.2714E-03	.2706E-03	.2675E-03



Appendix 6E-c Composite Pavement

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ELASTIC SYSTEM - Tridem 120K pounds

LAYER	ELASTIC MODULUS	POISSONS RATIO	THICKNESS
1	400000.	.350	4.000 IN
2	4000000.	.150	8.000 IN
3	5000.	.450	SEMI-INFINITE

TEN LOAD(S), EACH LOAD AS FOLLOWS

TOTAL LOAD..... 10900.00 LBS  
 LOAD STRESS..... 90.00 PSI  
 LOAD RADIUS..... 6.21 IN

LOAD	LOCATED AT	
	X	Y
1	15.000	.000
2	15.000	8.000
3	19.000	.000
4	19.000	8.000
5	45.000	.000
6	45.000	8.000
7	49.000	.000
8	49.000	8.000
9	53.000	.000
10	53.000	8.000

RESULTS REQUESTED FOR SYSTEM LOCATION(S)

DEPTH(S)  
 Z= 4.00 12.00  
 X-Y POINT(S)  

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00

Appendix 6E-c Composite Pavement

55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

Z= 4.00 LAYER NO, 1

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

NORMAL STRESSES

SXX	-.2496E+03	-.2349E+03	-.2170E+03	-.1967E+03	-.1755E+03	-.1543E+03	-.1335E+03	-.1135E+03	-.9584E+02
SYX	-.2612E+03	-.2469E+03	-.2297E+03	-.2103E+03	-.1901E+03	-.1701E+03	-.1506E+03	-.1318E+03	-.1152E+03
SZZ	-.2891E+03	-.2643E+03	-.2345E+03	-.2012E+03	-.1666E+03	-.1327E+03	-.1002E+03	-.6938E+02	-.4270E+02

SHEAR STRESSES

SXY	.1318E-07	.1184E-07	-.2088E-07	-.1929E-07	-.1318E-07	.1449E-07	.8921E-08	-.1668E-07	.4061E-07
SXZ	-.4391E+02	-.5700E+02	-.6707E+02	-.7410E+02	-.7773E+02	-.7868E+02	-.7771E+02	-.7427E+02	-.6760E+02
SYZ	-.5299E-06	-.2076E-06	.0000E+00	-.2076E-06	-.5299E-06	-.4849E-06	-.5035E-07	.1579E-06	.3081E-06

PRINCIPAL STRESSES

PS 1	-.2212E+03	-.1907E+03	-.1581E+03	-.1248E+03	-.9315E+02	-.6411E+02	-.3739E+02	-.1398E+02	.3360E+01
PS 2	-.2612E+03	-.2469E+03	-.2297E+03	-.2103E+03	-.1901E+03	-.1701E+03	-.1506E+03	-.1318E+03	-.1152E+03

## Appendix 6E-c Composite Pavement

PS 3    -.3175E+03   -.3084E+03   -.2934E+03   -.2731E+03   -.2489E+03   -.2230E+03   -.1963E+03   -.1689E+03   -.1419E+03

## PRINCIPAL SHEAR STRESSES

PSS 1    .4815E+02    .5886E+02    .6765E+02    .7413E+02    .7786E+02    .7942E+02    .7948E+02    .7748E+02    .7263E+02  
PSS 2    .2001E+02    .2810E+02    .3579E+02    .4273E+02    .4847E+02    .5300E+02    .5659E+02    .5890E+02    .5930E+02  
PSS 3    .2814E+02    .3077E+02    .3186E+02    .3140E+02    .2939E+02    .2642E+02    .2289E+02    .1858E+02    .1333E+02

## DISPLACEMENTS

UX        -.1867E-02   -.2013E-02   -.2155E-02   -.2294E-02   -.2429E-02   -.2559E-02   -.2682E-02   -.2798E-02   -.2908E-02  
UY        .9209E-12    .1340E-11    .0000E+00    .1340E-11    .9209E-12   -.4496E-13    .2710E-11    .1774E-11    -.1535E-12  
UZ        .1480E+00    .1467E+00    .1456E+00    .1444E+00    .1427E+00    .1412E+00    .1401E+00    .1389E+00    .1371E+00

## NORMAL STRAINS

EXX       -.1425E-03   -.1399E-03   -.1362E-03   -.1317E-03   -.1266E-03   -.1208E-03   -.1144E-03   -.1078E-03   -.1014E-03  
EYY       -.1817E-03   -.1805E-03   -.1791E-03   -.1775E-03   -.1760E-03   -.1741E-03   -.1719E-03   -.1694E-03   -.1669E-03  
EZZ       -.2758E-03   -.2391E-03   -.1955E-03   -.1469E-03   -.9652E-04   -.4799E-04   -.1929E-05    .4121E-04    .7794E-04

## SHEAR STRAINS

EXY        .8897E-13    .7991E-13   -.1409E-12   -.1302E-12   -.8897E-13    .9781E-13    .6022E-13   -.1126E-12    .2741E-12  
EXZ       -.2964E-03   -.3847E-03   -.4528E-03   -.5002E-03   -.5247E-03   -.5311E-03   -.5245E-03   -.5013E-03   -.4563E-03  
EYZ       -.3577E-11   -.1401E-11    .0000E+00   -.1401E-11   -.3577E-11   -.3273E-11   -.3399E-12    .1066E-11    .2079E-11

## PRINCIPAL STRAINS

PE 1       -.4663E-04    .9139E-05    .6244E-04    .1109E-03    .1512E-03    .1837E-03    .2101E-03    .2282E-03    .2334E-03  
PE 2       -.1817E-03   -.1805E-03   -.1791E-03   -.1775E-03   -.1760E-03   -.1741E-03   -.1719E-03   -.1694E-03   -.1669E-03  
PE 3       -.3716E-03   -.3882E-03   -.3942E-03   -.3895E-03   -.3743E-03   -.3524E-03   -.3264E-03   -.2948E-03   -.2569E-03

## PRINCIPAL SHEAR STRAINS

PSE 1       .3250E-03    .3973E-03    .4566E-03    .5004E-03    .5255E-03    .5361E-03    .5365E-03    .5230E-03    .4903E-03  
PSE 2       .1350E-03    .1896E-03    .2416E-03    .2884E-03    .3272E-03    .3578E-03    .3820E-03    .3976E-03    .4003E-03  
PSE 3       .1900E-03    .2077E-03    .2151E-03    .2120E-03    .1984E-03    .1783E-03    .1545E-03    .1254E-03    .8999E-04

## Appendix 6E-c Composite Pavement

Z= 12.00 LAYER NO, 2

X	Y
51.00	4.00
52.00	4.00
53.00	4.00
54.00	4.00
55.00	4.00
56.00	4.00
57.00	4.00
58.00	4.00
59.00	4.00

## NORMAL STRESSES

SXX	.9053E+03	.8811E+03	.8496E+03	.8122E+03	.7720E+03	.7286E+03	.6828E+03	.6362E+03	.5916E+03
SYX	.1072E+04	.1059E+04	.1043E+04	.1023E+04	.1003E+04	.9814E+03	.9573E+03	.9319E+03	.9075E+03
SZZ	-.8490E+01	-.8386E+01	-.8286E+01	-.8166E+01	-.8015E+01	-.7882E+01	-.7758E+01	-.7618E+01	-.7451E+01

## SHEAR STRESSES

SXY	.1435E-07	.3253E-06	-.2914E-06	-.8688E-07	-.1435E-07	.3833E-06	-.2914E-06	-.7303E-07	-.5320E-07
SXZ	-.4837E+00	-.5470E+00	-.6058E+00	-.6591E+00	-.7065E+00	-.7473E+00	-.7812E+00	-.8085E+00	-.8302E+00
SYZ	.1667E-09	-.1742E-08	.0000E+00	-.1742E-08	.1667E-09	-.3674E-08	-.1004E-08	-.2263E-08	-.1128E-08

## PRINCIPAL STRESSES

PS 1	.1072E+04	.1059E+04	.1043E+04	.1023E+04	.1003E+04	.9814E+03	.9573E+03	.9319E+03	.9075E+03
PS 2	.9053E+03	.8811E+03	.8496E+03	.8122E+03	.7720E+03	.7286E+03	.6828E+03	.6362E+03	.5916E+03
PS 3	-.8490E+01	-.8386E+01	-.8286E+01	-.8166E+01	-.8015E+01	-.7883E+01	-.7758E+01	-.7619E+01	-.7452E+01

## PRINCIPAL SHEAR STRESSES

PSS 1	.5401E+03	.5337E+03	.5254E+03	.5157E+03	.5057E+03	.4946E+03	.4825E+03	.4697E+03	.4575E+03
PSS 2	.8327E+02	.8893E+02	.9647E+02	.1056E+03	.1157E+03	.1264E+03	.1372E+03	.1479E+03	.1580E+03
PSS 3	.4569E+03	.4447E+03	.4290E+03	.4102E+03	.3900E+03	.3682E+03	.3453E+03	.3219E+03	.2995E+03

## Appendix 6E-c Composite Pavement

## DISPLACEMENTS

UX	.2240E-02	.2428E-02	.2611E-02	.2785E-02	.2953E-02	.3111E-02	.3258E-02	.3393E-02	.3519E-02
UY	-.2678E-11	-.2304E-11	.0000E+00	-.2304E-11	-.2678E-11	-.4862E-11	-.2356E-11	.2068E-12	-.2563E-12
UZ	.1477E+00	.1464E+00	.1453E+00	.1442E+00	.1425E+00	.1411E+00	.1399E+00	.1388E+00	.1370E+00

## NORMAL STRAINS

EXX	.1864E-03	.1809E-03	.1736E-03	.1650E-03	.1557E-03	.1456E-03	.1351E-03	.1244E-03	.1141E-03
EYY	.2343E-03	.2320E-03	.2291E-03	.2257E-03	.2222E-03	.2183E-03	.2140E-03	.2094E-03	.2050E-03
EZZ	-.7626E-04	-.7485E-04	-.7303E-04	-.7087E-04	-.6858E-04	-.6610E-04	-.6344E-04	-.6071E-04	-.5808E-04

## SHEAR STRAINS

EXY	.8253E-14	.1870E-12	-.1676E-12	-.4996E-13	-.8253E-14	.2204E-12	-.1676E-12	-.4199E-13	-.3059E-13
EXZ	-.2781E-06	-.3145E-06	-.3483E-06	-.3790E-06	-.4062E-06	-.4297E-06	-.4492E-06	-.4649E-06	-.4774E-06
EYZ	.9587E-16	-.1001E-14	.0000E+00	-.1001E-14	.9587E-16	-.2113E-14	-.5775E-15	-.1301E-14	-.6484E-15

## PRINCIPAL STRAINS

PE 1	.2343E-03	.2320E-03	.2291E-03	.2257E-03	.2222E-03	.2183E-03	.2140E-03	.2094E-03	.2050E-03
PE 2	.1864E-03	.1809E-03	.1736E-03	.1650E-03	.1557E-03	.1456E-03	.1351E-03	.1244E-03	.1141E-03
PE 3	-.7626E-04	-.7485E-04	-.7303E-04	-.7087E-04	-.6858E-04	-.6610E-04	-.6344E-04	-.6071E-04	-.5808E-04

## PRINCIPAL SHEAR STRAINS

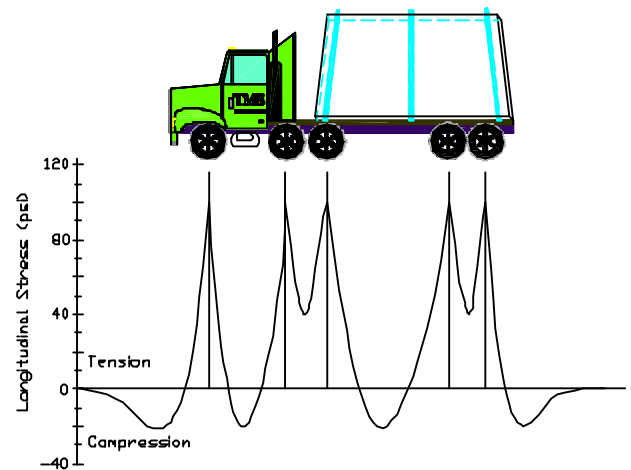
PSE 1	.3106E-03	.3069E-03	.3021E-03	.2965E-03	.2908E-03	.2844E-03	.2775E-03	.2701E-03	.2630E-03
PSE 2	.4788E-04	.5113E-04	.5547E-04	.6069E-04	.6650E-04	.7268E-04	.7891E-04	.8502E-04	.9082E-04
PSE 3	.2627E-03	.2557E-03	.2467E-03	.2359E-03	.2243E-03	.2117E-03	.1985E-03	.1851E-03	.1722E-03



# ***TMS*** Consultants

## **Non-Divisional Load Study**

Appendices 6E-d thru 6E-e



TMS Consultants, LLC  
4901 E. Dry Creek Rd.  
Suite 102  
Littleton, CO 80122  
720.493.0137  
Fax 720.493.0145  
Joek@tmsconsultants.com





Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
*      8 inch PCCP Pavement with 70K load Single Axle
*
*****
```

TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```

Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	172.07800	180.00000	.00000	5.45520	90.00000
1	172.07800	180.00000	8.00000	13.45520	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP), INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

Appendix 6E-d 8 Inch PCCP Pavement

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
144.00000	37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
66.00000	41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
144.00000	45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
66.00000	49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
144.00000	53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
66.00000	57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
144.00000	61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
66.00000	65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
144.00000	69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000

Appendix 6E-d 8 Inch PCCP Pavement

73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
66.00000										
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
144.00000										
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
66.00000										
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
144.00000										
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
66.00000										
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
144.00000										
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
66.00000										
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000
144.00000										

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	.00975	1.00000	-1.00000	-.31810	90.00000
36	.00975	1.00000	.00000	.68190	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										

Appendix 6E-d 8 Inch PCCP Pavement

5	.00000	82.00000	144.00000	6	.00000	98.00000	144.00000	7	.00000	121.00000	144.00000	8	.00000	144.00000
9	60.00000	.00000	66.00000	10	60.00000	16.00000	66.00000	11	60.00000	41.00000	66.00000	12	60.00000	66.00000
13	60.00000	82.00000	144.00000	14	60.00000	98.00000	144.00000	15	60.00000	121.00000	144.00000	16	60.00000	144.00000
17	110.00000	.00000	66.00000	18	110.00000	16.00000	66.00000	19	110.00000	41.00000	66.00000	20	110.00000	66.00000
21	110.00000	82.00000	144.00000	22	110.00000	98.00000	144.00000	23	110.00000	121.00000	144.00000	24	110.00000	144.00000
25	128.00000	.00000	66.00000	26	128.00000	16.00000	66.00000	27	128.00000	41.00000	66.00000	28	128.00000	66.00000
29	128.00000	82.00000	144.00000	30	128.00000	98.00000	144.00000	31	128.00000	121.00000	144.00000	32	128.00000	144.00000
33	146.00000	.00000	66.00000	34	146.00000	16.00000	66.00000	35	146.00000	41.00000	66.00000	36	146.00000	66.00000
37	146.00000	82.00000	144.00000	38	146.00000	98.00000	144.00000	39	146.00000	121.00000	144.00000	40	146.00000	144.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000	66.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000	144.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000	66.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000	144.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000	66.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000	144.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000	66.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000	144.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000	66.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000	144.00000

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
144.00000	85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
66.00000	89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
144.00000	93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
66.00000	97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
144.00000	101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

10	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

10	0	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
20	0	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
30	0	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
40	0	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
50	58	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
60	52	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
70	0	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
80	0	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
90	0	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
100	0	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .02544873  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00247298  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00026730  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00003151  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000376

SUM OF APPLIED FORCES (FOSUM)= 7778.9 SUM OF TOTAL REACTIONS (SUBSUM)= 7773.4

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)



Appendix 6E-d 8 Inch PCCP Pavement

1	.2186E-02	2	.2080E-02	3	.1936E-02	4	.1814E-02	5	.1744E-02	6	.1678E-02	7	.1577E-02	8
.1464E-02														
9	.4042E-02	10	.3741E-02	11	.3260E-02	12	.2820E-02	13	.2567E-02	14	.2332E-02	15	.2011E-02	16
.1694E-02														
17	.8828E-02	18	.7840E-02	19	.6287E-02	20	.4927E-02	21	.4201E-02	22	.3577E-02	23	.2803E-02	24
.2089E-02														
25	.1222E-01	26	.1066E-01	27	.8259E-02	28	.6225E-02	29	.5184E-02	30	.4319E-02	31	.3291E-02	32
.2377E-02														
33	.1691E-01	34	.1446E-01	35	.1078E-01	36	.7827E-02	37	.6387E-02	38	.5231E-02	39	.3908E-02	40
.2776E-02														
41	.2275E-01	42	.1908E-01	43	.1371E-01	44	.9666E-02	45	.7771E-02	46	.6284E-02	47	.4642E-02	48
.3298E-02														
49	.2822E-01	50	.2344E-01	51	.1642E-01	52	.1139E-01	53	.9066E-02	54	.7274E-02	55	.5345E-02	56
.3844E-02														
57	.2403E-01	58	.2131E-01	59	.1614E-01	60	.1146E-01	61	.9128E-02	62	.7305E-02	63	.5353E-02	64
.3846E-02														
65	.1871E-01	66	.1669E-01	67	.1304E-01	68	.9583E-02	69	.7769E-02	70	.6298E-02	71	.4656E-02	72
.3312E-02														
73	.1224E-01	74	.1108E-01	75	.9046E-02	76	.7023E-02	77	.5881E-02	78	.4894E-02	79	.3708E-02	80
.2661E-02														
81	.6062E-02	82	.5633E-02	83	.4890E-02	84	.4130E-02	85	.3661E-02	86	.3215E-02	87	.2612E-02	88
.2024E-02														
89	.3456E-02	90	.3288E-02	91	.2998E-02	92	.2700E-02	93	.2507E-02	94	.2312E-02	95	.2024E-02	96
.1726E-02														
97	.2044E-02	98	.1974E-02	99	.1873E-02	100	.1782E-02	101	.1726E-02	102	.1668E-02	103	.1573E-02	104
.1465E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2186E-02	2	.2080E-02	3	.1936E-02	4	.1814E-02	5	.1744E-02	6	.1678E-02	7	.1577E-02	8
.1464E-02														
9	.4042E-02	10	.3741E-02	11	.3260E-02	12	.2820E-02	13	.2567E-02	14	.2332E-02	15	.2011E-02	16
.1694E-02														
17	.8828E-02	18	.7840E-02	19	.6287E-02	20	.4927E-02	21	.4201E-02	22	.3577E-02	23	.2803E-02	24
.2089E-02														
25	.1222E-01	26	.1066E-01	27	.8259E-02	28	.6225E-02	29	.5184E-02	30	.4319E-02	31	.3291E-02	32
.2377E-02														

Appendix 6E-d 8 Inch PCCP Pavement

33	.1691E-01	34	.1446E-01	35	.1078E-01	36	.7827E-02	37	.6387E-02	38	.5231E-02	39	.3908E-02	40
.2776E-02														
41	.2275E-01	42	.1908E-01	43	.1371E-01	44	.9666E-02	45	.7771E-02	46	.6284E-02	47	.4642E-02	48
.3298E-02														
49	.2613E-01	50	.2238E-01	51	.1628E-01	52	.1142E-01	53	.9097E-02	54	.7290E-02	55	.5349E-02	56
.3845E-02														
57	.2613E-01	58	.2238E-01	59	.1628E-01	60	.1142E-01	61	.9097E-02	62	.7290E-02	63	.5349E-02	64
.3845E-02														
65	.1871E-01	66	.1669E-01	67	.1304E-01	68	.9583E-02	69	.7769E-02	70	.6298E-02	71	.4656E-02	72
.3312E-02														
73	.1224E-01	74	.1108E-01	75	.9046E-02	76	.7023E-02	77	.5881E-02	78	.4894E-02	79	.3708E-02	80
.2661E-02														
81	.6062E-02	82	.5633E-02	83	.4890E-02	84	.4130E-02	85	.3661E-02	86	.3215E-02	87	.2612E-02	88
.2024E-02														
89	.3456E-02	90	.3288E-02	91	.2998E-02	92	.2700E-02	93	.2507E-02	94	.2312E-02	95	.2024E-02	96
.1726E-02														
97	.2044E-02	98	.1974E-02	99	.1873E-02	100	.1782E-02	101	.1726E-02	102	.1668E-02	103	.1573E-02	104
.1465E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	.8	2	-29.0	3	-42.8	4	-32.4	5	-10.9	6	-24.1	7	-20.3	8	-
39.3															
9	97.8	10	-22.5	11	-41.5	12	-43.9	13	-19.6	14	-38.2	15	-38.8	16	-
87.0															
17	244.5	18	58.4	19	12.4	20	-16.4	21	-16.1	22	-23.9	23	-32.4	24	-
75.3															
25	287.4	26	103.7	27	53.7	28	9.8	29	-.8	30	-5.5	31	-11.2	32	-
41.2															
33	532.6	34	228.1	35	137.3	36	41.3	37	13.7	38	7.7	39	-1.3	40	-
37.6															
41	860.1	42	415.9	43	249.9	44	89.2	45	37.9	46	32.0	47	20.8	48	-
14.8															
49	698.9	50	459.6	51	312.8	52	131.8	53	66.7	54	61.6	55	51.7	56	
28.9															
57	462.7	58	317.5	59	290.6	60	137.0	61	70.4	62	63.6	63	52.3	64	
29.0															

Appendix 6E-d 8 Inch PCCP Pavement

65	579.8	66	286.2	67	244.8	68	108.5	69	47.0	70	39.4	71	25.3	72	-
16.0		73	481.5	74	192.2	75	149.0	76	50.8	77	15.2	78	7.0	79	-7.9
69.7		81	158.9	82	22.2	83	-3.1	84	-18.4	85	-14.0	86	-23.1	87	-31.5
86.8		89	27.1	90	-24.2	91	-39.4	92	-30.8	93	-15.2	94	-24.9	95	-26.9
63.5		97	-5.6	98	-23.1	99	-34.8	100	-25.7	101	-8.8	102	-19.5	103	-16.9
35.1														104	-

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000045

SUM OF APPLIED FORCES (FOSUM)= 7778.9 SUM OF TOTAL REACTIONS (SUBSUM)= 7774.0

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2186E-02	2	.2081E-02	3	.1936E-02	4	.1814E-02	5	.1745E-02	6	.1678E-02	7	.1577E-02	8	
.1464E-02		9	.4042E-02	10	.3742E-02	11	.3261E-02	12	.2821E-02	13	.2567E-02	14	.2332E-02	15	.2011E-02
.1694E-02		17	.8829E-02	18	.7840E-02	19	.6287E-02	20	.4928E-02	21	.4202E-02	22	.3577E-02	23	.2803E-02
.2089E-02		25	.1222E-01	26	.1066E-01	27	.8260E-02	28	.6225E-02	29	.5184E-02	30	.4319E-02	31	.3291E-02
.2378E-02		33	.1691E-01	34	.1446E-01	35	.1078E-01	36	.7827E-02	37	.6388E-02	38	.5231E-02	39	.3908E-02
.2776E-02		41	.2275E-01	42	.1908E-01	43	.1371E-01	44	.9666E-02	45	.7772E-02	46	.6285E-02	47	.4642E-02
.3298E-02		49	.2822E-01	50	.2344E-01	51	.1642E-01	52	.1139E-01	53	.9067E-02	54	.7275E-02	55	.5345E-02
.3845E-02		57	.2403E-01	58	.2131E-01	59	.1614E-01	60	.1146E-01	61	.9128E-02	62	.7306E-02	63	.5354E-02
.3846E-02		65	.1871E-01	66	.1669E-01	67	.1304E-01	68	.9583E-02	69	.7769E-02	70	.6299E-02	71	.4657E-02
.3313E-02		73	.1224E-01	74	.1108E-01	75	.9047E-02	76	.7024E-02	77	.5881E-02	78	.4895E-02	79	.3708E-02
.2661E-02														80	

Appendix 6E-d 8 Inch PCCP Pavement

81	.6062E-02	82	.5634E-02	83	.4891E-02	84	.4130E-02	85	.3661E-02	86	.3216E-02	87	.2612E-02	88	.2024E-02
89	.3456E-02	90	.3288E-02	91	.2999E-02	92	.2700E-02	93	.2507E-02	94	.2312E-02	95	.2024E-02	96	.1726E-02
97	.2045E-02	98	.1974E-02	99	.1874E-02	100	.1783E-02	101	.1726E-02	102	.1668E-02	103	.1574E-02	104	.1465E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2186E-02	2	.2081E-02	3	.1936E-02	4	.1814E-02	5	.1745E-02	6	.1678E-02	7	.1577E-02	8	.1464E-02
9	.4042E-02	10	.3742E-02	11	.3261E-02	12	.2821E-02	13	.2567E-02	14	.2332E-02	15	.2011E-02	16	.1694E-02
17	.8829E-02	18	.7840E-02	19	.6287E-02	20	.4928E-02	21	.4202E-02	22	.3577E-02	23	.2803E-02	24	.2089E-02
25	.1222E-01	26	.1066E-01	27	.8260E-02	28	.6225E-02	29	.5184E-02	30	.4319E-02	31	.3291E-02	32	.2378E-02
33	.1691E-01	34	.1446E-01	35	.1078E-01	36	.7827E-02	37	.6388E-02	38	.5231E-02	39	.3908E-02	40	.2776E-02
41	.2275E-01	42	.1908E-01	43	.1371E-01	44	.9666E-02	45	.7772E-02	46	.6285E-02	47	.4642E-02	48	.3298E-02
49	.2613E-01	50	.2238E-01	51	.1628E-01	52	.1143E-01	53	.9097E-02	54	.7290E-02	55	.5350E-02	56	.3846E-02
57	.2613E-01	58	.2238E-01	59	.1628E-01	60	.1143E-01	61	.9097E-02	62	.7290E-02	63	.5350E-02	64	.3846E-02
65	.1871E-01	66	.1669E-01	67	.1304E-01	68	.9583E-02	69	.7769E-02	70	.6299E-02	71	.4657E-02	72	.3313E-02
73	.1224E-01	74	.1108E-01	75	.9047E-02	76	.7024E-02	77	.5881E-02	78	.4895E-02	79	.3708E-02	80	.2661E-02
81	.6062E-02	82	.5634E-02	83	.4891E-02	84	.4130E-02	85	.3661E-02	86	.3216E-02	87	.2612E-02	88	.2024E-02
89	.3456E-02	90	.3288E-02	91	.2999E-02	92	.2700E-02	93	.2507E-02	94	.2312E-02	95	.2024E-02	96	.1726E-02
97	.2045E-02	98	.1974E-02	99	.1874E-02	100	.1783E-02	101	.1726E-02	102	.1668E-02	103	.1574E-02	104	.1465E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.8	2	-29.0	3	-42.8	4	-32.4	5	-10.9	6	-24.1	7	-20.3	8	-
39.3															
9	97.8	10	-22.5	11	-41.5	12	-43.9	13	-19.6	14	-38.2	15	-38.8	16	-
87.0															
17	244.5	18	58.4	19	12.4	20	-16.4	21	-16.1	22	-23.9	23	-32.4	24	-
75.3															
25	287.4	26	103.7	27	53.7	28	9.8	29	-.8	30	-5.5	31	-11.2	32	-
41.2															
33	532.6	34	228.1	35	137.3	36	41.3	37	13.7	38	7.7	39	-1.3	40	-
37.5															
41	860.1	42	415.9	43	249.9	44	89.2	45	37.9	46	32.0	47	20.8	48	-
14.8															
49	698.9	50	459.6	51	312.8	52	131.8	53	66.7	54	61.6	55	51.7	56	-
28.9															
57	462.7	58	317.5	59	290.6	60	137.0	61	70.4	62	63.6	63	52.3	64	-
29.0															
65	579.8	66	286.2	67	244.8	68	108.5	69	47.0	70	39.4	71	25.3	72	-
15.9															
73	481.5	74	192.2	75	149.0	76	50.8	77	15.2	78	7.0	79	-7.9	80	-
69.7															
81	158.9	82	22.2	83	-3.1	84	-18.4	85	-13.9	86	-23.1	87	-31.5	88	-
86.8															
89	27.1	90	-24.2	91	-39.4	92	-30.8	93	-15.2	94	-24.9	95	-26.9	96	-
63.5															
97	-5.5	98	-23.1	99	-34.8	100	-25.7	101	-8.8	102	-19.5	103	-16.9	104	-
35.1															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1323.352	.000	50	-1726.047	.000	51	-280.801	.000	52	63.659
.000										
53	38.931	.000	54	23.959	.000	55	7.784	.000	56	.675
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-1985.028	50	-1010.369	51	-134.784	52	37.264	53	29.198	54	
14.744											
55	4.061	56	.704								

Appendix 6E-d 8 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:  
 49 -3100.415 -2527.411 50 -1578.096 -1286.440 51 -210.520 -171.613 52 58.203  
 47.446  
 53 45.605 37.176 54 23.029 18.773 55 6.343 5.171 56 1.100  
 .897

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)  
 1 .00327 2 -.04708 3 -.05705 4 -.05261 5 -.02278 6 -.04114 7 -.02935 8 -  
 .11382  
 9 .22234 10 -.01998 11 -.03020 12 -.03890 13 -.02223 14 -.03566 15 -.03070 16 -  
 .13756  
 17 .89903 18 .08374 19 .01464 20 -.02353 21 -.02951 22 -.03598 23 -.04141 24 -  
 .19262  
 25 1.99571 26 .28100 27 .11934 28 .02645 29 -.00268 30 -.01556 31 -.02714 32 -  
 .19908  
 33 3.69845 34 .61821 35 .30520 36 .11194 37 .04752 38 .02191 39 -.00311 40 -  
 .18138  
 41 6.32454 42 1.19339 43 .58803 44 .25601 45 .13936 46 .09650 47 .05313 48 -  
 .07563  
 49 10.92107 50 2.80233 51 1.56382 52 .80338 53 .52135 54 .39480 55 .28100 56  
 .31433  
 57 7.22928 58 1.93628 59 1.45283 60 .83533 61 .54966 62 .40774 63 .28441 64  
 .31549  
 65 3.62379 66 .69808 67 .48959 68 .26463 69 .14699 70 .10109 71 .05498 72 -  
 .06931  
 73 1.88070 74 .29294 75 .18625 76 .07749 77 .02962 78 .01120 79 -.01071 80 -  
 .18938  
 81 .49660 82 .02705 83 -.00313 84 -.02243 85 -.02179 86 -.02961 87 -.03420 88 -  
 .18875  
 89 .06765 90 -.02360 91 -.03149 92 -.03001 93 -.01903 94 -.02552 95 -.02338 96 -  
 .11037  
 97 -.02311 98 -.03752 99 -.04638 100 -.04182 101 -.01829 102 -.03331 103 -.02448 104 -  
 .10177

NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODE RORAT.X ROTAT.Y NODEROTAT.X ROTAT.Y

Appendix 6E-d 8 Inch PCCP Pavement

1	.6742E-05	.2212E-04	2	.6303E-05	.1894E-04	3	.5303E-05	.1544E-04	4	.4515E-05
.1219E-04										
5	.4191E-05	.1020E-04	6	.4180E-05	.8269E-05	7	.4676E-05	.5627E-05	8	.5073E-05
.2557E-05										
9	.1785E-04	.5418E-04	10	.1937E-04	.4623E-04	11	.1867E-04	.3510E-04	12	.1652E-04
.2553E-04										
13	.1521E-04	.2032E-04	14	.1428E-04	.1576E-04	15	.1376E-04	.1003E-04	16	.1380E-04
.4604E-05										
17	.5912E-04	.1538E-03	18	.6330E-04	.1318E-03	19	.5938E-04	.9443E-04	20	.4888E-04
.6341E-04										
21	.4199E-04	.4832E-04	22	.3637E-04	.3652E-04	23	.3167E-04	.2366E-04	24	.3098E-04
.1372E-04										
25	.9364E-04	.2238E-03	26	.9893E-04	.1836E-03	27	.9064E-04	.1251E-03	28	.7131E-04
.8083E-04										
29	.5915E-04	.6088E-04	30	.4945E-04	.4602E-04	31	.4110E-04	.3066E-04	32	.3930E-04
.1884E-04										
33	.1498E-03	.2976E-03	34	.1539E-03	.2377E-03	35	.1355E-03	.1534E-03	36	.1003E-03
.9655E-04										
37	.8036E-04	.7253E-04	38	.6507E-04	.5508E-04	39	.5171E-04	.3780E-04	40	.4829E-04
.2562E-04										
41	.2290E-03	.3394E-03	42	.2283E-03	.2692E-03	43	.1922E-03	.1691E-03	44	.1334E-03
.1066E-03										
45	.1045E-03	.8029E-04	46	.8254E-04	.6129E-04	47	.6260E-04	.4318E-04	48	.5647E-04
.3231E-04										
49	.2996E-03	.3437E-03	50	.2975E-03	.2737E-03	51	.2455E-03	.1678E-03	52	.1652E-03
.1063E-03										
53	.1270E-03	.8001E-04	54	.9832E-04	.6125E-04	55	.7189E-04	.4389E-04	56	.6248E-04
.3498E-04										
57	.1623E-03	-.3423E-03	58	.1877E-03	-.2989E-03	59	.2053E-03	-.1962E-03	60	.1645E-03
.1172E-03										-
61	.1290E-03	-.8411E-04	62	.9988E-04	-.6223E-04	63	.7249E-04	-.4345E-04	64	.6270E-04
.3422E-04										-
65	.1201E-03	-.3132E-03	66	.1356E-03	-.2717E-03	67	.1485E-03	-.1866E-03	68	.1244E-03
.1157E-03										-
69	.1022E-03	-.8423E-04	70	.8223E-04	-.6245E-04	71	.6266E-04	-.4285E-04	72	.5649E-04
.3144E-04										-
73	.6806E-04	-.2212E-03	74	.7696E-04	-.1940E-03	75	.8365E-04	-.1430E-03	76	.7596E-04
.9515E-04										-

Appendix 6E-d 8 Inch PCCP Pavement

77	.6655E-04	-.7130E-04	78	.5699E-04	-.5333E-04	79	.4734E-04	-.3539E-04	80	.4492E-04	-
.2291E-04											
81	.2468E-04	-.1007E-03	82	.2840E-04	-.8895E-04	83	.3056E-04	-.6997E-04	84	.2994E-04	-
.5103E-04											
85	.2861E-04	-.4025E-04	86	.2709E-04	-.3096E-04	87	.2563E-04	-.1995E-04	88	.2567E-04	-
.1056E-04											
89	.9670E-05	-.3988E-04	90	.1111E-04	-.3622E-04	91	.1186E-04	-.3017E-04	92	.1201E-04	-
.2375E-04											
93	.1211E-04	-.1970E-04	94	.1230E-04	-.1580E-04	95	.1275E-04	-.1058E-04	96	.1310E-04	-
.5601E-05											
97	.4543E-05	-.1664E-04	98	.4266E-05	-.1511E-04	99	.3782E-05	-.1312E-04	100	.3563E-05	-
.1101E-04											
101	.3544E-05	-.9578E-05	102	.3765E-05	-.8046E-05	103	.4449E-05	-.5745E-05	104	.4904E-05	-
.2898E-05											

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	-.535422E+02	.000000E+00	.000000E+00	-.535422E+02	.000000E+00	.267711E+02
25	1	-.650531E+02	.000000E+00	.000000E+00	-.650531E+02	.000000E+00	.325266E+02
29	1	-.132896E+02	-.132657E+02	-.149207E+02	-.281984E+02	.164314E+01	.149208E+02
33	1	-.681989E+02	.000000E+00	.000000E+00	-.681989E+02	.000000E+00	.340994E+02
41	1	-.629879E+01	.000000E+00	.000000E+00	-.629879E+01	.000000E+00	.314940E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	-.855390E+00	-.611236E+02	-.615528E+02	.606974E+02	.611251E+02
51	1	.000000E+00	-.678648E+02	-.470530E+02	-.919444E+02	.240796E+02	.580120E+02
52	1	.000000E+00	-.406336E+02	-.273135E+02	-.543579E+02	.137244E+02	.340412E+02
53	1	.000000E+00	-.320041E+02	-.193049E+02	-.410769E+02	.907273E+01	.250748E+02
54	1	.000000E+00	-.241523E+02	-.134214E+02	-.301308E+02	.597845E+01	.180546E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 91.94440 AND OCCURS AT NODE 51



Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
*      8 inch PCCP Pavement with 70K load
*
*****
```

TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```

Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000  
 FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000  
 Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

SLAB NO.	XL	YL	INTENSITY(QQ)
1	124.07800	132.00000	.00000
1	124.07800	132.00000	12.00000
1	124.07800	132.00000	84.00000
1	124.07800	132.00000	96.00000
1	172.07800	180.00000	.00000
1	172.07800	180.00000	12.00000
1	172.07800	180.00000	84.00000
1	172.07800	180.00000	96.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:  
17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:  
1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
66.00000										

Appendix 6E-d 8 Inch PCCP Pavement

61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
144.00000										
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
66.00000										
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000
144.00000										
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
66.00000										
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
144.00000										
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
66.00000										
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
144.00000										
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
66.00000										
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
144.00000										
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
66.00000										
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000
144.00000										

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.56422	1.00000	-1.00000	-.31810	90.00000
22	-1.00000	-.55556	-1.00000	-.31810	90.00000
15	.56422	1.00000	.50000	1.00000	90.00000
16	.56422	1.00000	-1.00000	-.88360	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.88360	90.00000
19	.56422	1.00000	-.75000	-.06812	90.00000
26	-1.00000	-.55556	-.75000	-.06812	90.00000
19	.56422	1.00000	.75000	1.00000	90.00000
20	.56422	1.00000	-1.00000	-.69957	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.69957	90.00000
36	.00975	1.00000	-1.00000	-.31810	90.00000
36	.00975	1.00000	.50000	1.00000	90.00000

Appendix 6E-d 8 Inch PCCP Pavement

37	.00975	1.00000	-1.00000	-.88360	90.00000
40	.00975	1.00000	-.75000	-.06812	90.00000
40	.00975	1.00000	.75000	1.00000	90.00000
41	.00975	1.00000	-1.00000	-.69957	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO.	EQUIVALENT SPRING CONSTANT (SPCON)
1	.395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000

Appendix 6E-d 8 Inch PCCP Pavement

37	146.00000	82.00000	144.00000	38	146.00000	98.00000	66.00000	39	146.00000	121.00000	144.00000	40	146.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000
81	260.00000	.00000	66.00000	82	260.00000	16.00000	66.00000	83	260.00000	41.00000	66.00000	84	260.00000
85	260.00000	82.00000	144.00000	86	260.00000	98.00000	144.00000	87	260.00000	121.00000	144.00000	88	260.00000
89	300.00000	.00000	66.00000	90	300.00000	16.00000	66.00000	91	300.00000	41.00000	66.00000	92	300.00000
93	300.00000	82.00000	144.00000	94	300.00000	98.00000	144.00000	95	300.00000	121.00000	144.00000	96	300.00000
97	360.00000	.00000	66.00000	98	360.00000	16.00000	66.00000	99	360.00000	41.00000	66.00000	100	360.00000
101	360.00000	82.00000	144.00000	102	360.00000	98.00000	144.00000	103	360.00000	121.00000	144.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
10	1																

Appendix 6E-d 8 Inch PCCP Pavement

20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
	1																	
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
	1																	
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
	1																	
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
	2																	
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
	0																	
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
	1																	
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
	1																	
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
	1																	
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	1																	
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
	0																	
20	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
	0																	
30	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
	0																	
40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	



Appendix 6E-d 8 Inch PCCP Pavement

90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
100	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .04011879  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00866919  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00101686  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00012072  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00001438

SUM OF APPLIED FORCES (FOSUM)= 31114.7 SUM OF TOTAL REACTIONS (SUBSUM)= 31094.2

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.9578E-02	2	.9649E-02	3	.9707E-02	4	.9580E-02	5	.9380E-02	6	.9098E-02	7	.8529E-02	8	.7816E-02
9	.1972E-01	10	.1963E-01	11	.1926E-01	12	.1860E-01	13	.1792E-01	14	.1701E-01	15	.1527E-01	16	.1314E-01
17	.3536E-01	18	.3379E-01	19	.3145E-01	20	.2991E-01	21	.2897E-01	22	.2740E-01	23	.2372E-01	24	.1932E-01
25	.4105E-01	26	.3876E-01	27	.3548E-01	28	.3370E-01	29	.3286E-01	30	.3117E-01	31	.2662E-01	32	.2140E-01
33	.4438E-01	34	.4201E-01	35	.3859E-01	36	.3664E-01	37	.3563E-01	38	.3373E-01	39	.2895E-01	40	.2318E-01
41	.4724E-01	42	.4467E-01	43	.4096E-01	44	.3899E-01	45	.3806E-01	46	.3612E-01	47	.3094E-01	48	.2480E-01
49	.4994E-01	50	.4702E-01	51	.4273E-01	52	.4085E-01	53	.4031E-01	54	.3848E-01	55	.3267E-01	56	.2627E-01
57	.4544E-01	58	.4450E-01	59	.4214E-01	60	.4006E-01	61	.3861E-01	62	.3646E-01	63	.3187E-01	64	.2662E-01

Appendix 6E-d 8 Inch PCCP Pavement

65	.3673E-01	66	.3631E-01	67	.3502E-01	68	.3346E-01	69	.3217E-01	70	.3035E-01	71	.2670E-01	72
.2233E-01														
73	.2594E-01	74	.2603E-01	75	.2570E-01	76	.2482E-01	77	.2389E-01	78	.2258E-01	79	.2003E-01	80
.1689E-01														
81	.1510E-01	82	.1537E-01	83	.1550E-01	84	.1521E-01	85	.1477E-01	86	.1411E-01	87	.1281E-01	88
.1119E-01														
89	.1010E-01	90	.1027E-01	91	.1039E-01	92	.1029E-01	93	.1008E-01	94	.9773E-02	95	.9154E-02	96
.8383E-02														
97	.6848E-02	98	.6882E-02	99	.6910E-02	100	.6869E-02	101	.6802E-02	102	.6707E-02	103	.6513E-02	104
.6268E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE:(DOWNWARD POSITIVE)

1	.9578E-02	2	.9649E-02	3	.9707E-02	4	.9580E-02	5	.9380E-02	6	.9098E-02	7	.8529E-02	8
.7816E-02														
9	.1972E-01	10	.1963E-01	11	.1926E-01	12	.1860E-01	13	.1792E-01	14	.1701E-01	15	.1527E-01	16
.1314E-01														
17	.3536E-01	18	.3379E-01	19	.3145E-01	20	.2991E-01	21	.2897E-01	22	.2740E-01	23	.2372E-01	24
.1932E-01														
25	.4105E-01	26	.3876E-01	27	.3548E-01	28	.3370E-01	29	.3286E-01	30	.3117E-01	31	.2662E-01	32
.2140E-01														
33	.4438E-01	34	.4201E-01	35	.3859E-01	36	.3664E-01	37	.3563E-01	38	.3373E-01	39	.2895E-01	40
.2318E-01														
41	.4724E-01	42	.4467E-01	43	.4096E-01	44	.3899E-01	45	.3806E-01	46	.3612E-01	47	.3094E-01	48
.2480E-01														
49	.4769E-01	50	.4576E-01	51	.4244E-01	52	.4046E-01	53	.3946E-01	54	.3747E-01	55	.3227E-01	56
.2644E-01														
57	.4769E-01	58	.4576E-01	59	.4244E-01	60	.4046E-01	61	.3946E-01	62	.3747E-01	63	.3227E-01	64
.2644E-01														
65	.3673E-01	66	.3631E-01	67	.3502E-01	68	.3346E-01	69	.3217E-01	70	.3035E-01	71	.2670E-01	72
.2233E-01														
73	.2594E-01	74	.2603E-01	75	.2570E-01	76	.2482E-01	77	.2389E-01	78	.2258E-01	79	.2003E-01	80
.1689E-01														
81	.1510E-01	82	.1537E-01	83	.1550E-01	84	.1521E-01	85	.1477E-01	86	.1411E-01	87	.1281E-01	88
.1119E-01														
89	.1010E-01	90	.1027E-01	91	.1039E-01	92	.1029E-01	93	.1008E-01	94	.9773E-02	95	.9154E-02	96
.8383E-02														

Appendix 6E-d 8 Inch PCCP Pavement

97 .6848E-02 98 .6882E-02 99 .6910E-02 100 .6869E-02 101 .6802E-02 102 .6707E-02 103 .6513E-02 104  
.6268E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-70.6	2	-107.2	3	-152.8	4	-111.6	5	-42.4	6	-104.8	7	-112.1	8	-
241.5															
9	754.4	10	274.0	11	455.5	12	298.8	13	139.3	14	244.7	15	229.1	16	
61.6															
17	1271.3	18	689.9	19	703.5	20	481.6	21	351.1	22	464.4	23	428.5	24	
251.3															
25	1041.6	26	566.4	27	484.3	28	352.9	29	301.7	30	389.3	31	319.7	32	
195.7															
33	1190.2	34	670.9	35	624.9	36	445.8	37	353.2	38	447.5	39	411.6	40	
271.2															
41	1297.5	42	755.0	43	685.5	44	501.8	45	409.3	46	523.8	47	470.5	48	
323.1															
49	855.4	50	625.3	51	578.8	52	431.1	53	369.7	54	463.1	55	411.9	56	
307.7															
57	601.7	58	457.2	59	533.0	60	378.9	61	270.0	62	332.1	63	353.6	64	
333.0															
65	770.9	66	464.0	67	529.2	68	376.5	69	254.7	70	310.6	71	323.8	72	
300.3															
73	581.5	74	306.1	75	359.5	76	250.1	77	162.2	78	206.8	79	194.4	80	
98.5															
81	122.6	82	26.0	83	30.0	84	21.8	85	13.1	86	11.2	87	-10.8	88	-
123.7															
89	-37.0	90	-50.4	91	-69.8	92	-47.7	93	-24.7	94	-45.5	95	-58.8	96	-
140.9															
97	-63.6	98	-52.1	99	-84.5	100	-62.1	101	-23.9	102	-56.8	103	-57.2	104	-
101.8															

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000172

SUM OF APPLIED FORCES (FOSUM)= 31114.7 SUM OF TOTAL REACTIONS (SUBSUM)= 31096.5

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.9579E-02	2	.9650E-02	3	.9708E-02	4	.9581E-02	5	.9381E-02	6	.9099E-02	7	.8530E-02	8
.7817E-02														
9	.1972E-01	10	.1963E-01	11	.1926E-01	12	.1860E-01	13	.1793E-01	14	.1701E-01	15	.1527E-01	16
.1314E-01														
17	.3537E-01	18	.3379E-01	19	.3145E-01	20	.2991E-01	21	.2897E-01	22	.2741E-01	23	.2372E-01	24
.1932E-01														
25	.4105E-01	26	.3876E-01	27	.3548E-01	28	.3370E-01	29	.3287E-01	30	.3117E-01	31	.2662E-01	32
.2140E-01														
33	.4439E-01	34	.4201E-01	35	.3859E-01	36	.3665E-01	37	.3563E-01	38	.3374E-01	39	.2895E-01	40
.2319E-01														
41	.4724E-01	42	.4467E-01	43	.4096E-01	44	.3899E-01	45	.3806E-01	46	.3613E-01	47	.3095E-01	48
.2480E-01														
49	.4994E-01	50	.4703E-01	51	.4273E-01	52	.4085E-01	53	.4031E-01	54	.3848E-01	55	.3267E-01	56
.2627E-01														
57	.4544E-01	58	.4450E-01	59	.4214E-01	60	.4007E-01	61	.3861E-01	62	.3646E-01	63	.3187E-01	64
.2662E-01														
65	.3673E-01	66	.3631E-01	67	.3503E-01	68	.3346E-01	69	.3217E-01	70	.3035E-01	71	.2670E-01	72
.2233E-01														
73	.2594E-01	74	.2603E-01	75	.2571E-01	76	.2482E-01	77	.2389E-01	78	.2258E-01	79	.2003E-01	80
.1689E-01														
81	.1511E-01	82	.1537E-01	83	.1550E-01	84	.1521E-01	85	.1477E-01	86	.1411E-01	87	.1281E-01	88
.1119E-01														
89	.1010E-01	90	.1027E-01	91	.1039E-01	92	.1029E-01	93	.1008E-01	94	.9775E-02	95	.9155E-02	96
.8384E-02														
97	.6849E-02	98	.6883E-02	99	.6911E-02	100	.6870E-02	101	.6803E-02	102	.6708E-02	103	.6514E-02	104
.6269E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.9579E-02	2	.9650E-02	3	.9708E-02	4	.9581E-02	5	.9381E-02	6	.9099E-02	7	.8530E-02	8
.7817E-02														
9	.1972E-01	10	.1963E-01	11	.1926E-01	12	.1860E-01	13	.1793E-01	14	.1701E-01	15	.1527E-01	16
.1314E-01														
17	.3537E-01	18	.3379E-01	19	.3145E-01	20	.2991E-01	21	.2897E-01	22	.2741E-01	23	.2372E-01	24
.1932E-01														
25	.4105E-01	26	.3876E-01	27	.3548E-01	28	.3370E-01	29	.3287E-01	30	.3117E-01	31	.2662E-01	32
.2140E-01														

Appendix 6E-d 8 Inch PCCP Pavement

33	.4439E-01	34	.4201E-01	35	.3859E-01	36	.3665E-01	37	.3563E-01	38	.3374E-01	39	.2895E-01	40
.2319E-01														
41	.4724E-01	42	.4467E-01	43	.4096E-01	44	.3899E-01	45	.3806E-01	46	.3613E-01	47	.3095E-01	48
.2480E-01														
49	.4769E-01	50	.4576E-01	51	.4244E-01	52	.4046E-01	53	.3946E-01	54	.3747E-01	55	.3227E-01	56
.2644E-01														
57	.4769E-01	58	.4576E-01	59	.4244E-01	60	.4046E-01	61	.3946E-01	62	.3747E-01	63	.3227E-01	64
.2644E-01														
65	.3673E-01	66	.3631E-01	67	.3503E-01	68	.3346E-01	69	.3217E-01	70	.3035E-01	71	.2670E-01	72
.2233E-01														
73	.2594E-01	74	.2603E-01	75	.2571E-01	76	.2482E-01	77	.2389E-01	78	.2258E-01	79	.2003E-01	80
.1689E-01														
81	.1511E-01	82	.1537E-01	83	.1550E-01	84	.1521E-01	85	.1477E-01	86	.1411E-01	87	.1281E-01	88
.1119E-01														
89	.1010E-01	90	.1027E-01	91	.1039E-01	92	.1029E-01	93	.1008E-01	94	.9775E-02	95	.9155E-02	96
.8384E-02														
97	.6849E-02	98	.6883E-02	99	.6911E-02	100	.6870E-02	101	.6803E-02	102	.6708E-02	103	.6514E-02	104
.6269E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-70.6	2	-107.2	3	-152.7	4	-111.6	5	-42.4	6	-104.8	7	-112.1	8	-
241.5															
9	754.5	10	274.0	11	455.5	12	298.8	13	139.4	14	244.7	15	229.1	16	
61.6															
17	1271.3	18	689.9	19	703.5	20	481.6	21	351.1	22	464.4	23	428.5	24	
251.3															
25	1041.6	26	566.4	27	484.3	28	352.9	29	301.7	30	389.4	31	319.7	32	
195.7															
33	1190.2	34	670.9	35	624.9	36	445.8	37	353.2	38	447.5	39	411.6	40	
271.2															
41	1297.5	42	755.1	43	685.5	44	501.8	45	409.3	46	523.9	47	470.5	48	
323.1															
49	855.5	50	625.4	51	578.8	52	431.1	53	369.7	54	463.1	55	411.9	56	
307.7															
57	601.7	58	457.2	59	533.0	60	378.9	61	270.1	62	332.1	63	353.6	64	
333.0															

Appendix 6E-d 8 Inch PCCP Pavement

65	770.9	66	464.0	67	529.3	68	376.5	69	254.7	70	310.6	71	323.8	72	
300.3															
73	581.5	74	306.1	75	359.5	76	250.1	77	162.2	78	206.8	79	194.5	80	
98.6															
81	122.7	82	26.0	83	30.1	84	21.8	85	13.1	86	11.2	87	-10.7	88	-
123.7															
89	-37.0	90	-50.4	91	-69.7	92	-47.7	93	-24.7	94	-45.5	95	-58.8	96	-
140.9															
97	-63.6	98	-52.1	99	-84.5	100	-62.1	101	-23.9	102	-56.7	103	-57.2	104	-
101.8															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1421.031	.000	50	-2043.860	.000	51	-579.741	.000	52	-634.697	.000
.000											
53	-1070.775	.000	54	-1555.384	.000	55	-723.423	.000	56	159.838	.000
.000											

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2131.546	50	-1196.406	51	-278.276	52	-371.530	53	-803.081	54	-
957.159											
55	-377.438	56	166.787								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3329.261	-2713.963	50	-1868.667	-1523.308	51	-434.639	-354.311	52	-580.293	
-473.046											
53	-1254.332	-1022.512	54	-1494.987	-1218.690	55	-589.520	-480.568	56	260.505	
212.360											

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	-.29415	2	-.17426	3	-.20365	4	-.18145	5	-.08833	6	-.17913	7	-.16241	8	-
.69993															
9	1.71472	10	.24303	11	.33130	12	.26505	13	.15836	14	.22819	15	.18110	16	
.09741															
17	4.67393	18	.98983	19	.82766	20	.69097	21	.64549	22	.70053	23	.54800	24	
.64280															
25	7.23315	26	1.53508	27	1.07615	28	.95629	29	1.04757	30	1.10927	31	.77229	32	
.94557															

Appendix 6E-d 8 Inch PCCP Pavement

33	8.26543	34	1.81820	35	1.38862	36	1.20819	37	1.22653	38	1.27487	39	.99418	40
1.31011														
41	9.54064	42	2.16657	43	1.61297	44	1.43981	45	1.50479	46	1.58025	47	1.20339	48
1.65276														
49	13.36641	50	3.81316	51	2.89423	52	2.62894	53	2.88840	54	2.96891	55	2.23843	56
3.34451														
57	9.40213	58	2.78765	59	2.66508	60	2.31032	61	2.10977	62	2.12898	63	1.92156	64
3.61957														
65	4.81841	66	1.13173	67	1.05851	68	.91828	69	.79603	70	.79635	71	.70399	72
1.30573														
73	2.27153	74	.46665	75	.44943	76	.38129	77	.31675	78	.33140	79	.26422	80
.26780														
81	.38335	82	.03168	83	.03006	84	.02663	85	.02046	86	.01438	87	-.01168	88 -
.26887														
89	-.09251	90	-.04914	91	-.05578	92	-.04652	93	-.03089	94	-.04667	95	-.05109	96 -
.24501														
97	-.26481	98	-.08468	99	-.11261	100	-.10098	101	-.04982	102	-.09700	103	-.08293	104 -
.29503														

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y
1	-.4305E-05	.1367E-03	2	-.4277E-05	.1340E-03	3	.6847E-06	.1313E-03	4	.9743E-05
.1257E-03										
5	.1501E-04	.1195E-03	6	.2055E-04	.1108E-03	7	.2851E-04	.9466E-04	8	.3262E-04
.7246E-04										
9	.1495E-05	.2481E-03	10	.9650E-05	.2326E-03	11	.1978E-04	.2104E-03	12	.3493E-04
.1960E-03										
13	.4960E-04	.1880E-03	14	.6492E-04	.1753E-03	15	.8572E-04	.1459E-03	16	.9703E-04
.1119E-03										
17	.9801E-04	.3411E-03	18	.9943E-04	.3022E-03	19	.7878E-04	.2444E-03	20	.5198E-04
.2285E-03										
21	.7274E-04	.2322E-03	22	.1260E-03	.2228E-03	23	.1836E-03	.1729E-03	24	.1943E-03
.1236E-03										
25	.1491E-03	.2514E-03	26	.1419E-03	.2290E-03	27	.1036E-03	.1992E-03	28	.4902E-04
.1878E-03										
29	.6979E-04	.1852E-03	30	.1490E-03	.1760E-03	31	.2233E-03	.1452E-03	32	.2287E-03
.1070E-03										

Appendix 6E-d 8 Inch PCCP Pavement

33	.1483E-03	.1556E-03	34	.1490E-03	.1522E-03	35	.1099E-03	.1485E-03	36	.5686E-04
.1427E-03										
37	.8208E-04	.1364E-03	38	.1592E-03	.1285E-03	39	.2411E-03	.1164E-03	40	.2540E-03
.9244E-04										
41	.1587E-03	.1636E-03	42	.1626E-03	.1463E-03	43	.1174E-03	.1183E-03	44	.5152E-04
.1209E-03										
45	.7835E-04	.1363E-03	46	.1692E-03	.1390E-03	47	.2600E-03	.1081E-03	48	.2700E-03
.8978E-04										
49	.1803E-03	.1713E-03	50	.1863E-03	.1480E-03	51	.1286E-03	.1042E-03	52	.3458E-04
.1131E-03										
53	.5857E-04	.1459E-03	54	.1813E-03	.1564E-03	55	.2815E-03	.1077E-03	56	.2788E-03
.9235E-04										
57	.5067E-04	-.5588E-03	58	.7535E-04	-.5261E-03	59	.9220E-04	-.4517E-03	60	.8253E-04 -
.4205E-03										
61	.1078E-03	-.4129E-03	62	.1649E-03	-.3929E-03	63	.2203E-03	-.3304E-03	64	.2334E-03 -
.2741E-03										
65	.1800E-04	-.5157E-03	66	.3735E-04	-.4870E-03	67	.5908E-04	-.4302E-03	68	.6941E-04 -
.3984E-03										
69	.9447E-04	-.3854E-03	70	.1337E-03	-.3638E-03	71	.1793E-03	-.3103E-03	72	.1967E-03 -
.2562E-03										
73	-.1361E-04	-.3773E-03	74	.1633E-05	-.3648E-03	75	.2415E-04	-.3392E-03	76	.4802E-04 -
.3159E-03										
77	.6936E-04	-.3008E-03	78	.9409E-04	-.2808E-03	79	.1261E-03	-.2407E-03	80	.1443E-03 -
.1954E-03										
81	-.2091E-04	-.1836E-03	82	-.1240E-04	-.1833E-03	83	.2642E-05	-.1803E-03	84	.2118E-04 -
.1721E-03										
85	.3437E-04	-.1634E-03	86	.4761E-04	-.1513E-03	87	.6445E-04	-.1277E-03	88	.7502E-04 -
.9826E-04										
89	-.1235E-04	-.8279E-04	90	-.8558E-05	-.8527E-04	91	-.7049E-06	-.8686E-04	92	.9231E-05 -
.8458E-04										
93	.1604E-04	-.8076E-04	94	.2268E-04	-.7500E-04	95	.3082E-04	-.6373E-04	96	.3546E-04 -
.4951E-04										
97	-.2265E-05	-.3973E-04	98	-.1961E-05	-.4197E-04	99	.5759E-07	-.4360E-04	100	.3272E-05 -
.4321E-04										
101	.5064E-05	-.4175E-04	102	.6929E-05	-.3920E-04	103	.9769E-05	-.3389E-04	104	.1129E-04 -
.2576E-04										

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
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Appendix 6E-d 8 Inch PCCP Pavement

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17	1	-.101456E+02	.000000E+00	.000000E+00	-.101456E+02	.000000E+00	.507280E+01
25	1	.184593E+03	.000000E+00	.000000E+00	.000000E+00	.184593E+03	.922966E+02
29	1	.935992E+02	.747717E+02	-.386109E+01	.740107E+02	.943603E+02	.101748E+02
33	1	-.729396E+01	.000000E+00	.000000E+00	-.729396E+01	.000000E+00	.364698E+01
41	1	-.150195E+02	.000000E+00	.000000E+00	-.150195E+02	.000000E+00	.750977E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.156590E+02	-.232837E+02	-.167353E+02	.323943E+02	.245648E+02
51	1	.000000E+00	-.887139E+02	-.108322E+02	-.900174E+02	.130347E+01	.456604E+02
52	1	.000000E+00	-.445832E+02	.193574E+02	-.518149E+02	.723171E+01	.295233E+02
53	1	.000000E+00	.944672E+02	.225529E+02	-.510803E+01	.995753E+02	.523416E+02
54	1	.000000E+00	.159282E+03	-.115269E+02	-.829849E+00	.160112E+03	.804709E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 184.59310 AND OCCURS AT NODE 25

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      8 inch PCCP Pavement with 75K load Single Axle
*
*****
```

TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
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Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	171.80100	180.00000	.00000	5.64670	90.00000
1	171.80100	180.00000	8.00000	13.64670	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP), INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

Appendix 6E-d 8 Inch PCCP Pavement

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
144.00000	37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
66.00000	41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
144.00000	45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
66.00000	49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
144.00000	53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
66.00000	57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
144.00000	61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
66.00000	65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
144.00000	69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
144.00000	77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
66.00000	81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
144.00000	85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
66.00000	89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
144.00000	93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
66.00000	97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
144.00000	101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.02488	1.00000	-1.00000	-.29416	90.00000
36	-.02488	1.00000	.00000	.70584	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
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Appendix 6E-d 8 Inch PCCP Pavement

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5	.00000	82.00000	144.00000	6	.00000	98.00000	66.00000	7	.00000	121.00000	144.00000	8	.00000	66.00000	144.00000
9	60.00000	.00000	66.00000	10	60.00000	16.00000	66.00000	11	60.00000	41.00000	66.00000	12	60.00000	66.00000	66.00000
13	60.00000	82.00000	144.00000	14	60.00000	98.00000	144.00000	15	60.00000	121.00000	144.00000	16	60.00000	66.00000	144.00000
17	110.00000	.00000	66.00000	18	110.00000	16.00000	66.00000	19	110.00000	41.00000	66.00000	20	110.00000	66.00000	66.00000
21	110.00000	82.00000	144.00000	22	110.00000	98.00000	144.00000	23	110.00000	121.00000	144.00000	24	110.00000	66.00000	144.00000
25	128.00000	.00000	66.00000	26	128.00000	16.00000	66.00000	27	128.00000	41.00000	66.00000	28	128.00000	66.00000	66.00000
29	128.00000	82.00000	144.00000	30	128.00000	98.00000	144.00000	31	128.00000	121.00000	144.00000	32	128.00000	66.00000	144.00000
33	146.00000	.00000	66.00000	34	146.00000	16.00000	66.00000	35	146.00000	41.00000	66.00000	36	146.00000	66.00000	66.00000
37	146.00000	82.00000	144.00000	38	146.00000	98.00000	144.00000	39	146.00000	121.00000	144.00000	40	146.00000	66.00000	144.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000	66.00000	66.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000	66.00000	144.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000	66.00000	66.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000	66.00000	144.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000	66.00000	66.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000	66.00000	144.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000	66.00000	66.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000	66.00000	144.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000	66.00000	66.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000	66.00000	144.00000

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Appendix 6E-d 8 Inch PCCP Pavement

66.00000	81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
144.00000	85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
66.00000	89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
144.00000	93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
66.00000	97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
144.00000	101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

10	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:



Appendix 6E-d 8 Inch PCCP Pavement

10	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	
20	0	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
30	0	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
40	0	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
50	58	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
60	52	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
70	0	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
80	0	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
90	0	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
100	0	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
		101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .02715068  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00264897  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00028628  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00003378  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000403

SUM OF APPLIED FORCES (FOSUM)= 8333.5 SUM OF TOTAL REACTIONS (SUBSUM)= 8327.6

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.2344E-02	2	.2232E-02	3	.2077E-02	4	.1946E-02	5	.1871E-02	6	.1800E-02	7	.1691E-02	8
.1569E-02														
9	.4341E-02	10	.4020E-02	11	.3504E-02	12	.3031E-02	13	.2759E-02	14	.2505E-02	15	.2160E-02	16
.1819E-02														
17	.9477E-02	18	.8419E-02	19	.6754E-02	20	.5295E-02	21	.4514E-02	22	.3843E-02	23	.3010E-02	24
.2243E-02														
25	.1310E-01	26	.1144E-01	27	.8868E-02	28	.6684E-02	29	.5566E-02	30	.4637E-02	31	.3533E-02	32
.2552E-02														
33	.1811E-01	34	.1550E-01	35	.1156E-01	36	.8396E-02	37	.6852E-02	38	.5611E-02	39	.4192E-02	40
.2977E-02														
41	.2433E-01	42	.2043E-01	43	.1468E-01	44	.1036E-01	45	.8329E-02	46	.6736E-02	47	.4975E-02	48
.3535E-02														
49	.3012E-01	50	.2505E-01	51	.1757E-01	52	.1219E-01	53	.9709E-02	54	.7791E-02	55	.5726E-02	56
.4119E-02														
57	.2567E-01	58	.2277E-01	59	.1726E-01	60	.1227E-01	61	.9775E-02	62	.7825E-02	63	.5736E-02	64
.4121E-02														
65	.1999E-01	66	.1783E-01	67	.1395E-01	68	.1026E-01	69	.8320E-02	70	.6747E-02	71	.4989E-02	72
.3550E-02														
73	.1308E-01	74	.1185E-01	75	.9678E-02	76	.7519E-02	77	.6299E-02	78	.5243E-02	79	.3973E-02	80
.2852E-02														
81	.6482E-02	82	.6026E-02	83	.5234E-02	84	.4422E-02	85	.3921E-02	86	.3445E-02	87	.2799E-02	88
.2170E-02														
89	.3697E-02	90	.3519E-02	91	.3210E-02	92	.2892E-02	93	.2686E-02	94	.2477E-02	95	.2169E-02	96
.1850E-02														
97	.2189E-02	98	.2113E-02	99	.2006E-02	100	.1909E-02	101	.1848E-02	102	.1787E-02	103	.1686E-02	104
.1569E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2344E-02	2	.2232E-02	3	.2077E-02	4	.1946E-02	5	.1871E-02	6	.1800E-02	7	.1691E-02	8
.1569E-02														
9	.4341E-02	10	.4020E-02	11	.3504E-02	12	.3031E-02	13	.2759E-02	14	.2505E-02	15	.2160E-02	16
.1819E-02														
17	.9477E-02	18	.8419E-02	19	.6754E-02	20	.5295E-02	21	.4514E-02	22	.3843E-02	23	.3010E-02	24
.2243E-02														
25	.1310E-01	26	.1144E-01	27	.8868E-02	28	.6684E-02	29	.5566E-02	30	.4637E-02	31	.3533E-02	32
.2552E-02														

Appendix 6E-d 8 Inch PCCP Pavement

33	.1811E-01	34	.1550E-01	35	.1156E-01	36	.8396E-02	37	.6852E-02	38	.5611E-02	39	.4192E-02	40
.2977E-02														
41	.2433E-01	42	.2043E-01	43	.1468E-01	44	.1036E-01	45	.8329E-02	46	.6736E-02	47	.4975E-02	48
.3535E-02														
49	.2790E-01	50	.2391E-01	51	.1742E-01	52	.1223E-01	53	.9742E-02	54	.7808E-02	55	.5731E-02	56
.4120E-02														
57	.2790E-01	58	.2391E-01	59	.1742E-01	60	.1223E-01	61	.9742E-02	62	.7808E-02	63	.5731E-02	64
.4120E-02														
65	.1999E-01	66	.1783E-01	67	.1395E-01	68	.1026E-01	69	.8320E-02	70	.6747E-02	71	.4989E-02	72
.3550E-02														
73	.1308E-01	74	.1185E-01	75	.9678E-02	76	.7519E-02	77	.6299E-02	78	.5243E-02	79	.3973E-02	80
.2852E-02														
81	.6482E-02	82	.6026E-02	83	.5234E-02	84	.4422E-02	85	.3921E-02	86	.3445E-02	87	.2799E-02	88
.2170E-02														
89	.3697E-02	90	.3519E-02	91	.3210E-02	92	.2892E-02	93	.2686E-02	94	.2477E-02	95	.2169E-02	96
.1850E-02														
97	.2189E-02	98	.2113E-02	99	.2006E-02	100	.1909E-02	101	.1848E-02	102	.1787E-02	103	.1686E-02	104
.1569E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	.8	2	-31.1	3	-45.9	4	-34.7	5	-11.7	6	-25.8	7	-21.7	8	-
42.3															
9	105.8	10	-23.6	11	-43.6	12	-46.5	13	-20.8	14	-40.6	15	-41.4	16	-
93.2															
17	263.4	18	63.7	19	14.7	20	-16.8	21	-16.8	22	-25.2	23	-34.4	24	-
80.5															
25	308.8	26	112.0	27	58.5	28	11.0	29	-.6	30	-5.6	31	-11.9	32	-
44.1															
33	571.2	34	245.6	35	148.4	36	44.8	37	14.9	38	8.4	39	-1.2	40	-
40.1															
41	919.7	42	446.2	43	268.5	44	95.9	45	40.7	46	34.4	47	22.3	48	-
15.8															
49	744.2	50	490.6	51	334.4	52	140.9	53	71.4	54	65.9	55	55.3	56	-
30.9															
57	493.2	58	338.7	59	310.3	60	146.5	61	75.3	62	68.1	63	56.0	64	-
31.0															

Appendix 6E-d 8 Inch PCCP Pavement

65	618.7	66	305.6	67	261.7	68	116.2	69	50.4	70	42.3	71	27.1	72	-
17.0															
73	513.6	74	205.3	75	159.4	76	54.6	77	16.4	78	7.6	79	-8.3	80	-
74.5															
81	169.5	82	23.7	83	-3.2	84	-19.5	85	-14.8	86	-24.6	87	-33.6	88	-
92.8															
89	28.8	90	-25.8	91	-42.0	92	-32.8	93	-16.2	94	-26.5	95	-28.7	96	-
67.9															
97	-6.0	98	-24.7	99	-37.2	100	-27.5	101	-9.4	102	-20.8	103	-18.1	104	-
37.6															

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000048

SUM OF APPLIED FORCES (FOSUM)= 8333.5 SUM OF TOTAL REACTIONS (SUBSUM)= 8328.3

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2344E-02	2	.2232E-02	3	.2077E-02	4	.1946E-02	5	.1872E-02	6	.1800E-02	7	.1691E-02	8	
.1570E-02															
9	.4342E-02	10	.4020E-02	11	.3504E-02	12	.3032E-02	13	.2759E-02	14	.2506E-02	15	.2160E-02	16	
.1819E-02															
17	.9478E-02	18	.8419E-02	19	.6755E-02	20	.5295E-02	21	.4515E-02	22	.3843E-02	23	.3011E-02	24	
.2243E-02															
25	.1310E-01	26	.1144E-01	27	.8868E-02	28	.6685E-02	29	.5566E-02	30	.4637E-02	31	.3533E-02	32	
.2552E-02															
33	.1812E-01	34	.1551E-01	35	.1156E-01	36	.8396E-02	37	.6853E-02	38	.5612E-02	39	.4192E-02	40	
.2978E-02															
41	.2433E-01	42	.2043E-01	43	.1468E-01	44	.1036E-01	45	.8329E-02	46	.6736E-02	47	.4976E-02	48	
.3536E-02															
49	.3012E-01	50	.2505E-01	51	.1757E-01	52	.1219E-01	53	.9709E-02	54	.7792E-02	55	.5727E-02	56	
.4119E-02															
57	.2567E-01	58	.2277E-01	59	.1726E-01	60	.1227E-01	61	.9775E-02	62	.7825E-02	63	.5736E-02	64	
.4121E-02															
65	.1999E-01	66	.1783E-01	67	.1395E-01	68	.1026E-01	69	.8320E-02	70	.6747E-02	71	.4990E-02	72	
.3550E-02															
73	.1308E-01	74	.1185E-01	75	.9679E-02	76	.7520E-02	77	.6299E-02	78	.5244E-02	79	.3974E-02	80	
.2852E-02															

Appendix 6E-d 8 Inch PCCP Pavement

81	.6482E-02	82	.6026E-02	83	.5234E-02	84	.4423E-02	85	.3922E-02	86	.3445E-02	87	.2800E-02	88
.2170E-02														
89	.3698E-02	90	.3519E-02	91	.3211E-02	92	.2892E-02	93	.2686E-02	94	.2477E-02	95	.2169E-02	96
.1850E-02														
97	.2189E-02	98	.2113E-02	99	.2007E-02	100	.1909E-02	101	.1849E-02	102	.1787E-02	103	.1686E-02	104
.1570E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2344E-02	2	.2232E-02	3	.2077E-02	4	.1946E-02	5	.1872E-02	6	.1800E-02	7	.1691E-02	8
.1570E-02														
9	.4342E-02	10	.4020E-02	11	.3504E-02	12	.3032E-02	13	.2759E-02	14	.2506E-02	15	.2160E-02	16
.1819E-02														
17	.9478E-02	18	.8419E-02	19	.6755E-02	20	.5295E-02	21	.4515E-02	22	.3843E-02	23	.3011E-02	24
.2243E-02														
25	.1310E-01	26	.1144E-01	27	.8868E-02	28	.6685E-02	29	.5566E-02	30	.4637E-02	31	.3533E-02	32
.2552E-02														
33	.1812E-01	34	.1551E-01	35	.1156E-01	36	.8396E-02	37	.6853E-02	38	.5612E-02	39	.4192E-02	40
.2978E-02														
41	.2433E-01	42	.2043E-01	43	.1468E-01	44	.1036E-01	45	.8329E-02	46	.6736E-02	47	.4976E-02	48
.3536E-02														
49	.2790E-01	50	.2391E-01	51	.1742E-01	52	.1223E-01	53	.9742E-02	54	.7809E-02	55	.5731E-02	56
.4120E-02														
57	.2790E-01	58	.2391E-01	59	.1742E-01	60	.1223E-01	61	.9742E-02	62	.7809E-02	63	.5731E-02	64
.4120E-02														
65	.1999E-01	66	.1783E-01	67	.1395E-01	68	.1026E-01	69	.8320E-02	70	.6747E-02	71	.4990E-02	72
.3550E-02														
73	.1308E-01	74	.1185E-01	75	.9679E-02	76	.7520E-02	77	.6299E-02	78	.5244E-02	79	.3974E-02	80
.2852E-02														
81	.6482E-02	82	.6026E-02	83	.5234E-02	84	.4423E-02	85	.3922E-02	86	.3445E-02	87	.2800E-02	88
.2170E-02														
89	.3698E-02	90	.3519E-02	91	.3211E-02	92	.2892E-02	93	.2686E-02	94	.2477E-02	95	.2169E-02	96
.1850E-02														
97	.2189E-02	98	.2113E-02	99	.2007E-02	100	.1909E-02	101	.1849E-02	102	.1787E-02	103	.1686E-02	104
.1570E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.8	2	-31.1	3	-45.9	4	-34.7	5	-11.7	6	-25.8	7	-21.7	8	-
42.3															
9	105.8	10	-23.6	11	-43.6	12	-46.5	13	-20.7	14	-40.6	15	-41.3	16	-
93.2															
17	263.4	18	63.7	19	14.7	20	-16.8	21	-16.8	22	-25.2	23	-34.4	24	-
80.5															
25	308.8	26	112.0	27	58.6	28	11.0	29	-.6	30	-5.6	31	-11.9	32	-
44.1															
33	571.2	34	245.6	35	148.4	36	44.8	37	14.9	38	8.4	39	-1.2	40	-
40.1															
41	919.7	42	446.2	43	268.5	44	95.9	45	40.7	46	34.4	47	22.3	48	-
15.8															
49	744.2	50	490.6	51	334.4	52	140.9	53	71.4	54	65.9	55	55.3	56	-
30.9															
57	493.2	58	338.7	59	310.3	60	146.5	61	75.3	62	68.1	63	56.0	64	-
31.1															
65	618.7	66	305.6	67	261.7	68	116.2	69	50.4	70	42.3	71	27.1	72	-
17.0															
73	513.6	74	205.3	75	159.5	76	54.6	77	16.4	78	7.6	79	-8.3	80	-
74.5															
81	169.5	82	23.7	83	-3.2	84	-19.5	85	-14.8	86	-24.6	87	-33.5	88	-
92.8															
89	28.8	90	-25.8	91	-42.0	92	-32.8	93	-16.2	94	-26.5	95	-28.7	96	-
67.8															
97	-6.0	98	-24.7	99	-37.2	100	-27.5	101	-9.4	102	-20.8	103	-18.1	104	-
37.6															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1406.126	.000	50	-1845.445	.000	51	-305.168	.000	52	67.177
.000										
53	41.601	.000	54	25.812	.000	55	8.595	.000	56	.997
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2109.189	50	-1080.261	51	-146.480	52	39.323	53	31.201	54	
15.884											
55	4.484	56	1.040								

Appendix 6E-d 8 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:  
 49 -3294.342 -2685.497 50 -1687.259 -1375.428 51 -228.788 -186.504 52 61.418  
 50.067  
 53 48.732 39.726 54 24.810 20.225 55 7.004 5.709 56 1.625  
 1.324

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)  
 1 .00347 2 -.05055 3 -.06123 4 -.05643 5 -.02442 6 -.04412 7 -.03150 8 -  
 .12254  
 9 .24057 10 -.02091 11 -.03171 12 -.04120 13 -.02358 14 -.03789 15 -.03268 16 -  
 .14728  
 17 .96835 18 .09138 19 .01729 20 -.02413 21 -.03093 22 -.03800 23 -.04400 24 -  
 .20595  
 25 2.14474 26 .30362 27 .13012 28 .02972 29 -.00201 30 -.01606 31 -.02870 32 -  
 .21285  
 33 3.96675 34 .66568 35 .32972 36 .12135 37 .05174 38 .02405 39 -.00298 40 -  
 .19391  
 41 6.76249 42 1.28030 43 .63178 44 .27509 45 .14974 46 .10367 47 .05707 48 -  
 .08095  
 49 11.62878 50 2.99140 51 1.67213 52 .85934 53 .55769 54 .42232 55 .30056 56  
 .33582  
 57 7.70607 58 2.06545 59 1.55151 60 .89307 61 .58794 62 .43626 63 .30433 64  
 .33753  
 65 3.86676 66 .74548 67 .52338 68 .28335 69 .15756 70 .10843 71 .05900 72 -  
 .07397  
 73 2.00638 74 .31290 75 .19932 76 .08321 77 .03197 78 .01224 79 -.01128 80 -  
 .20241  
 81 .52962 82 .02891 83 -.00320 84 -.02379 85 -.02315 86 -.03152 87 -.03647 88 -  
 .20177  
 89 .07200 90 -.02520 91 -.03360 92 -.03201 93 -.02029 94 -.02722 95 -.02496 96 -  
 .11799  
 97 -.02495 98 -.04009 99 -.04956 100 -.04468 101 -.01954 102 -.03560 103 -.02618 104 -  
 .10890

NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODE RORAT.X ROTAT.Y NODEROTAT.X ROTAT.Y

Appendix 6E-d 8 Inch PCCP Pavement

1	.7216E-05	.2382E-04	2	.6746E-05	.2041E-04	3	.5677E-05	.1665E-04	4	.4842E-05
.1317E-04										
5	.4502E-05	.1102E-04	6	.4497E-05	.8937E-05	7	.5038E-05	.6088E-05	8	.5467E-05
.2781E-05										
9	.1911E-04	.5824E-04	10	.2075E-04	.4972E-04	11	.2003E-04	.3779E-04	12	.1775E-04
.2750E-04										
13	.1637E-04	.2189E-04	14	.1538E-04	.1697E-04	15	.1482E-04	.1081E-04	16	.1487E-04
.4980E-05										
17	.6328E-04	.1648E-03	18	.6778E-04	.1412E-03	19	.6371E-04	.1012E-03	20	.5254E-04
.6797E-04										
21	.4515E-04	.5178E-04	22	.3911E-04	.3913E-04	23	.3405E-04	.2534E-04	24	.3329E-04
.1469E-04										
25	.1002E-03	.2394E-03	26	.1059E-03	.1965E-03	27	.9720E-04	.1339E-03	28	.7658E-04
.8648E-04										
29	.6354E-04	.6512E-04	30	.5312E-04	.4921E-04	31	.4414E-04	.3278E-04	32	.4220E-04
.2015E-04										
33	.1600E-03	.3174E-03	34	.1645E-03	.2538E-03	35	.1452E-03	.1638E-03	36	.1076E-03
.1031E-03										
37	.8621E-04	.7744E-04	38	.6981E-04	.5882E-04	39	.5547E-04	.4037E-04	40	.5180E-04
.2737E-04										
41	.2439E-03	.3599E-03	42	.2434E-03	.2862E-03	43	.2057E-03	.1801E-03	44	.1428E-03
.1137E-03										
45	.1119E-03	.8562E-04	46	.8844E-04	.6538E-04	47	.6709E-04	.4610E-04	48	.6053E-04
.3451E-04										
49	.3173E-03	.3631E-03	50	.3160E-03	.2903E-03	51	.2622E-03	.1785E-03	52	.1766E-03
.1132E-03										
53	.1358E-03	.8528E-04	54	.1052E-03	.6532E-04	55	.7698E-04	.4684E-04	56	.6693E-04
.3736E-04										
57	.1725E-03	-.3654E-03	58	.1998E-03	-.3194E-03	59	.2190E-03	-.2099E-03	60	.1757E-03
.1255E-03										
61	.1380E-03	-.9008E-04	62	.1069E-03	-.6665E-04	63	.7762E-04	-.4653E-04	64	.6715E-04
.3663E-04										
65	.1277E-03	-.3343E-03	66	.1443E-03	-.2903E-03	67	.1584E-03	-.1996E-03	68	.1329E-03
.1239E-03										
69	.1093E-03	-.9018E-04	70	.8800E-04	-.6687E-04	71	.6710E-04	-.4589E-04	72	.6049E-04
.3366E-04										
73	.7240E-04	-.2362E-03	74	.8193E-04	-.2073E-03	75	.8921E-04	-.1529E-03	76	.8114E-04
.1018E-03										



Appendix 6E-d 8 Inch PCCP Pavement

77	.7115E-04	-.7634E-04	78	.6097E-04	-.5710E-04	79	.5068E-04	-.3790E-04	80	.4810E-04	-
.2453E-04											
81	.2626E-04	-.1076E-03	82	.3024E-04	-.9506E-04	83	.3258E-04	-.7484E-04	84	.3197E-04	-
.5463E-04											
85	.3058E-04	-.4310E-04	86	.2898E-04	-.3316E-04	87	.2744E-04	-.2139E-04	88	.2749E-04	-
.1133E-04											
89	.1029E-04	-.4262E-04	90	.1183E-04	-.3872E-04	91	.1265E-04	-.3228E-04	92	.1283E-04	-
.2543E-04											
93	.1294E-04	-.2110E-04	94	.1316E-04	-.1694E-04	95	.1365E-04	-.1135E-04	96	.1403E-04	-
.6015E-05											
97	.4841E-05	-.1779E-04	98	.4546E-05	-.1617E-04	99	.4034E-05	-.1404E-04	100	.3806E-05	-
.1180E-04											
101	.3789E-05	-.1027E-04	102	.4029E-05	-.8629E-05	103	.4763E-05	-.6166E-05	104	.5250E-05	-
.3118E-05											

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	-.571851E+02	.000000E+00	.000000E+00	-.571851E+02	.000000E+00	.285925E+02
25	1	-.692018E+02	.000000E+00	.000000E+00	-.692018E+02	.000000E+00	.346009E+02
29	1	-.141056E+02	-.142174E+02	-.159710E+02	-.301326E+02	.180957E+01	.159711E+02
33	1	-.718996E+02	.000000E+00	.000000E+00	-.718996E+02	.000000E+00	.359498E+02
41	1	-.364767E+01	.000000E+00	.000000E+00	-.364767E+01	.000000E+00	.182384E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.118870E+01	-.640677E+02	-.634761E+02	.646648E+02	.640704E+02
51	1	.000000E+00	-.722235E+02	-.498201E+02	-.976431E+02	.254196E+02	.615313E+02
52	1	.000000E+00	-.433840E+02	-.290011E+02	-.579081E+02	.145241E+02	.362161E+02
53	1	.000000E+00	-.341926E+02	-.205283E+02	-.438114E+02	.961877E+01	.267151E+02
54	1	.000000E+00	-.258097E+02	-.142822E+02	-.321537E+02	.634394E+01	.192488E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 97.64308 AND OCCURS AT NODE 51

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
*      8 inch PCCP Pavement with 75K load
*
*****
```

TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

```

CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```

Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000  
 FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000  
 Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

SLAB NO.	XL	YL	INTENSITY(QQ)
1	123.80000	132.00000	.00000
1	123.80000	132.00000	12.00000
1	123.80000	132.00000	84.00000
1	123.80000	132.00000	96.00000
1	171.80000	180.00000	.00000
1	171.80000	180.00000	12.00000
1	171.80000	180.00000	84.00000
1	171.80000	180.00000	96.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:  
17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:  
1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
66.00000										

Appendix 6E-d 8 Inch PCCP Pavement

61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
144.00000										
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
66.00000										
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000
144.00000										
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
66.00000										
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
144.00000										
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
66.00000										
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
144.00000										
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
66.00000										
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
144.00000										
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
66.00000										
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000
144.00000										

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.53333	1.00000	-1.00000	-.29416	90.00000
22	-1.00000	-.55556	-1.00000	-.29416	90.00000
15	.53333	1.00000	.50000	1.00000	90.00000
16	.53333	1.00000	-1.00000	-.86826	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.86826	90.00000
19	.53333	1.00000	-.75000	-.04416	90.00000
26	-1.00000	-.55556	-.75000	-.04416	90.00000
19	.53333	1.00000	.75000	1.00000	90.00000
20	.53333	1.00000	-1.00000	-.68296	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.68296	90.00000
36	-.02500	1.00000	-1.00000	-.29416	90.00000
36	-.02500	1.00000	.50000	1.00000	90.00000

Appendix 6E-d 8 Inch PCCP Pavement

37	-.02500	1.00000	-1.00000	-.86826	90.00000
40	-.02500	1.00000	-.75000	-.04416	90.00000
40	-.02500	1.00000	.75000	1.00000	90.00000
41	-.02500	1.00000	-1.00000	-.68296	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000

Appendix 6E-d 8 Inch PCCP Pavement

37	146.00000	82.00000	144.00000	38	146.00000	98.00000	66.00000	39	146.00000	121.00000	144.00000	40	146.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000
81	260.00000	.00000	66.00000	82	260.00000	16.00000	66.00000	83	260.00000	41.00000	66.00000	84	260.00000
85	260.00000	82.00000	144.00000	86	260.00000	98.00000	144.00000	87	260.00000	121.00000	144.00000	88	260.00000
89	300.00000	.00000	66.00000	90	300.00000	16.00000	66.00000	91	300.00000	41.00000	66.00000	92	300.00000
93	300.00000	82.00000	144.00000	94	300.00000	98.00000	144.00000	95	300.00000	121.00000	144.00000	96	300.00000
97	360.00000	.00000	66.00000	98	360.00000	16.00000	66.00000	99	360.00000	41.00000	66.00000	100	360.00000
101	360.00000	82.00000	144.00000	102	360.00000	98.00000	144.00000	103	360.00000	121.00000	144.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
10	1																



Appendix 6E-d 8 Inch PCCP Pavement

20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
	1																	
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
	1																	
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
	1																	
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
	2																	
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
	0																	
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
	1																	
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
	1																	
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
	1																	
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	1																	
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
	0																	
20	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
	0																	
30	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
	0																	
40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	

Appendix 6E-d 8 Inch PCCP Pavement

90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
100	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .04280798  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00928500  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00108906  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00012934  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00001539

SUM OF APPLIED FORCES (FOSUM)= 33337.1 SUM OF TOTAL REACTIONS (SUBSUM)= 33315.1

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1027E-01	2	.1035E-01	3	.1041E-01	4	.1028E-01	5	.1007E-01	6	.9762E-02	7	.9151E-02	8	.8386E-02
9	.2116E-01	10	.2106E-01	11	.2068E-01	12	.1997E-01	13	.1925E-01	14	.1826E-01	15	.1640E-01	16	.1411E-01
17	.3790E-01	18	.3623E-01	19	.3373E-01	20	.3208E-01	21	.3108E-01	22	.2941E-01	23	.2547E-01	24	.2076E-01
25	.4395E-01	26	.4153E-01	27	.3803E-01	28	.3613E-01	29	.3523E-01	30	.3343E-01	31	.2856E-01	32	.2298E-01
33	.4749E-01	34	.4498E-01	35	.4134E-01	36	.3926E-01	37	.3817E-01	38	.3616E-01	39	.3104E-01	40	.2488E-01
41	.5050E-01	42	.4778E-01	43	.4383E-01	44	.4173E-01	45	.4074E-01	46	.3869E-01	47	.3316E-01	48	.2659E-01
49	.5333E-01	50	.5025E-01	51	.4569E-01	52	.4369E-01	53	.4311E-01	54	.4117E-01	55	.3497E-01	56	.2814E-01
57	.4855E-01	58	.4756E-01	59	.4506E-01	60	.4285E-01	61	.4130E-01	62	.3901E-01	63	.3412E-01	64	.2851E-01

Appendix 6E-d 8 Inch PCCP Pavement

65	.3925E-01	66	.3881E-01	67	.3745E-01	68	.3579E-01	69	.3442E-01	70	.3248E-01	71	.2858E-01	72	.2392E-01
73	.2773E-01	74	.2783E-01	75	.2749E-01	76	.2655E-01	77	.2556E-01	78	.2417E-01	79	.2145E-01	80	.1810E-01
81	.1616E-01	82	.1644E-01	83	.1659E-01	84	.1628E-01	85	.1581E-01	86	.1511E-01	87	.1372E-01	88	.1199E-01
89	.1081E-01	90	.1099E-01	91	.1112E-01	92	.1101E-01	93	.1080E-01	94	.1047E-01	95	.9805E-02	96	.8982E-02
97	.7333E-02	98	.7370E-02	99	.7401E-02	100	.7357E-02	101	.7285E-02	102	.7184E-02	103	.6977E-02	104	.6715E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE:(DOWNWARD POSITIVE)

1	.1027E-01	2	.1035E-01	3	.1041E-01	4	.1028E-01	5	.1007E-01	6	.9762E-02	7	.9151E-02	8	.8386E-02
9	.2116E-01	10	.2106E-01	11	.2068E-01	12	.1997E-01	13	.1925E-01	14	.1826E-01	15	.1640E-01	16	.1411E-01
17	.3790E-01	18	.3623E-01	19	.3373E-01	20	.3208E-01	21	.3108E-01	22	.2941E-01	23	.2547E-01	24	.2076E-01
25	.4395E-01	26	.4153E-01	27	.3803E-01	28	.3613E-01	29	.3523E-01	30	.3343E-01	31	.2856E-01	32	.2298E-01
33	.4749E-01	34	.4498E-01	35	.4134E-01	36	.3926E-01	37	.3817E-01	38	.3616E-01	39	.3104E-01	40	.2488E-01
41	.5050E-01	42	.4778E-01	43	.4383E-01	44	.4173E-01	45	.4074E-01	46	.3869E-01	47	.3316E-01	48	.2659E-01
49	.5094E-01	50	.4890E-01	51	.4538E-01	52	.4327E-01	53	.4221E-01	54	.4009E-01	55	.3455E-01	56	.2833E-01
57	.5094E-01	58	.4890E-01	59	.4538E-01	60	.4327E-01	61	.4221E-01	62	.4009E-01	63	.3455E-01	64	.2833E-01
65	.3925E-01	66	.3881E-01	67	.3745E-01	68	.3579E-01	69	.3442E-01	70	.3248E-01	71	.2858E-01	72	.2392E-01
73	.2773E-01	74	.2783E-01	75	.2749E-01	76	.2655E-01	77	.2556E-01	78	.2417E-01	79	.2145E-01	80	.1810E-01
81	.1616E-01	82	.1644E-01	83	.1659E-01	84	.1628E-01	85	.1581E-01	86	.1511E-01	87	.1372E-01	88	.1199E-01
89	.1081E-01	90	.1099E-01	91	.1112E-01	92	.1101E-01	93	.1080E-01	94	.1047E-01	95	.9805E-02	96	.8982E-02

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97 .7333E-02 98 .7370E-02 99 .7401E-02 100 .7357E-02 101 .7285E-02 102 .7184E-02 103 .6977E-02 104  
.6715E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-75.7	2	-114.8	3	-163.5	4	-119.4	5	-45.4	6	-112.2	7	-120.1	8	-
259.0															
9	811.7	10	295.8	11	491.8	12	323.0	13	150.7	14	264.8	15	248.1	16	
69.6															
17	1363.8	18	742.1	19	757.2	20	518.3	21	378.0	22	500.5	23	462.3	24	
273.4															
25	1114.0	26	607.5	27	520.2	28	378.8	29	323.5	30	417.9	31	344.1	32	
212.0															
33	1272.4	34	718.8	35	670.3	36	478.0	37	378.6	38	480.0	39	442.2	40	
292.7															
41	1385.6	42	808.0	43	734.0	44	536.9	45	438.0	46	561.3	47	504.6	48	
347.4															
49	910.8	50	666.8	51	617.9	52	459.9	53	394.1	54	494.3	55	440.3	56	
329.3															
57	641.2	58	487.3	59	568.5	60	404.2	61	288.0	62	354.4	63	377.6	64	
356.2															
65	822.2	66	495.2	67	565.0	68	402.1	69	272.2	70	331.9	71	346.2	72	
321.9															
73	620.0	74	326.7	75	384.1	76	267.3	77	173.3	78	221.1	79	208.1	80	
106.3															
81	130.5	82	27.7	83	32.2	84	23.4	85	14.1	86	12.1	87	-11.4	88	-
131.7															
89	-39.7	90	-53.8	91	-74.5	92	-50.9	93	-26.4	94	-48.6	95	-62.8	96	-
150.4															
97	-68.1	98	-55.7	99	-90.3	100	-66.4	101	-25.6	102	-60.7	103	-61.2	104	-
108.8															

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000185

SUM OF APPLIED FORCES (FOSUM)= 33337.1 SUM OF TOTAL REACTIONS (SUBSUM)= 33317.6

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.1027E-01	2	.1035E-01	3	.1041E-01	4	.1028E-01	5	.1007E-01	6	.9763E-02	7	.9152E-02	8
.8387E-02														
9	.2116E-01	10	.2106E-01	11	.2068E-01	12	.1997E-01	13	.1925E-01	14	.1826E-01	15	.1640E-01	16
.1412E-01														
17	.3791E-01	18	.3623E-01	19	.3374E-01	20	.3209E-01	21	.3109E-01	22	.2941E-01	23	.2547E-01	24
.2076E-01														
25	.4396E-01	26	.4153E-01	27	.3803E-01	28	.3613E-01	29	.3524E-01	30	.3343E-01	31	.2857E-01	32
.2298E-01														
33	.4749E-01	34	.4498E-01	35	.4134E-01	36	.3926E-01	37	.3817E-01	38	.3616E-01	39	.3104E-01	40
.2488E-01														
41	.5050E-01	42	.4779E-01	43	.4383E-01	44	.4173E-01	45	.4075E-01	46	.3869E-01	47	.3316E-01	48
.2659E-01														
49	.5333E-01	50	.5025E-01	51	.4570E-01	52	.4369E-01	53	.4311E-01	54	.4117E-01	55	.3498E-01	56
.2814E-01														
57	.4855E-01	58	.4756E-01	59	.4506E-01	60	.4285E-01	61	.4131E-01	62	.3902E-01	63	.3412E-01	64
.2851E-01														
65	.3925E-01	66	.3881E-01	67	.3745E-01	68	.3579E-01	69	.3442E-01	70	.3248E-01	71	.2858E-01	72
.2392E-01														
73	.2773E-01	74	.2784E-01	75	.2750E-01	76	.2656E-01	77	.2556E-01	78	.2417E-01	79	.2145E-01	80
.1810E-01														
81	.1616E-01	82	.1645E-01	83	.1659E-01	84	.1628E-01	85	.1581E-01	86	.1511E-01	87	.1372E-01	88
.1199E-01														
89	.1081E-01	90	.1099E-01	91	.1112E-01	92	.1101E-01	93	.1080E-01	94	.1047E-01	95	.9806E-02	96
.8983E-02														
97	.7334E-02	98	.7371E-02	99	.7401E-02	100	.7358E-02	101	.7286E-02	102	.7185E-02	103	.6978E-02	104
.6716E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1027E-01	2	.1035E-01	3	.1041E-01	4	.1028E-01	5	.1007E-01	6	.9763E-02	7	.9152E-02	8
.8387E-02														
9	.2116E-01	10	.2106E-01	11	.2068E-01	12	.1997E-01	13	.1925E-01	14	.1826E-01	15	.1640E-01	16
.1412E-01														
17	.3791E-01	18	.3623E-01	19	.3374E-01	20	.3209E-01	21	.3109E-01	22	.2941E-01	23	.2547E-01	24
.2076E-01														
25	.4396E-01	26	.4153E-01	27	.3803E-01	28	.3613E-01	29	.3524E-01	30	.3343E-01	31	.2857E-01	32
.2298E-01														

Appendix 6E-d 8 Inch PCCP Pavement

33	.4749E-01	34	.4498E-01	35	.4134E-01	36	.3926E-01	37	.3817E-01	38	.3616E-01	39	.3104E-01	40
.2488E-01														
41	.5050E-01	42	.4779E-01	43	.4383E-01	44	.4173E-01	45	.4075E-01	46	.3869E-01	47	.3316E-01	48
.2659E-01														
49	.5094E-01	50	.4891E-01	51	.4538E-01	52	.4327E-01	53	.4221E-01	54	.4009E-01	55	.3455E-01	56
.2833E-01														
57	.5094E-01	58	.4891E-01	59	.4538E-01	60	.4327E-01	61	.4221E-01	62	.4009E-01	63	.3455E-01	64
.2833E-01														
65	.3925E-01	66	.3881E-01	67	.3745E-01	68	.3579E-01	69	.3442E-01	70	.3248E-01	71	.2858E-01	72
.2392E-01														
73	.2773E-01	74	.2784E-01	75	.2750E-01	76	.2656E-01	77	.2556E-01	78	.2417E-01	79	.2145E-01	80
.1810E-01														
81	.1616E-01	82	.1645E-01	83	.1659E-01	84	.1628E-01	85	.1581E-01	86	.1511E-01	87	.1372E-01	88
.1199E-01														
89	.1081E-01	90	.1099E-01	91	.1112E-01	92	.1101E-01	93	.1080E-01	94	.1047E-01	95	.9806E-02	96
.8983E-02														
97	.7334E-02	98	.7371E-02	99	.7401E-02	100	.7358E-02	101	.7286E-02	102	.7185E-02	103	.6978E-02	104
.6716E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)															
1	-75.6	2	-114.8	3	-163.5	4	-119.3	5	-45.4	6	-112.2	7	-120.1	8	-
258.9															
9	811.7	10	295.8	11	491.9	12	323.0	13	150.7	14	264.8	15	248.1	16	
69.7															
17	1363.9	18	742.1	19	757.2	20	518.3	21	378.0	22	500.5	23	462.3	24	
273.4															
25	1114.0	26	607.5	27	520.2	28	378.8	29	323.5	30	417.9	31	344.1	32	
212.0															
33	1272.5	34	718.8	35	670.3	36	478.0	37	378.6	38	480.0	39	442.2	40	
292.8															
41	1385.6	42	808.0	43	734.0	44	536.9	45	438.1	46	561.3	47	504.6	48	
347.5															
49	910.8	50	666.8	51	617.9	52	459.9	53	394.2	54	494.3	55	440.3	56	
329.3															
57	641.2	58	487.3	59	568.5	60	404.2	61	288.1	62	354.4	63	377.6	64	
356.2															

Appendix 6E-d 8 Inch PCCP Pavement

65	822.2	66	495.2	67	565.1	68	402.2	69	272.2	70	331.9	71	346.3	72	
321.9															
73	620.0	74	326.7	75	384.1	76	267.3	77	173.4	78	221.1	79	208.1	80	
106.4															
81	130.6	82	27.7	83	32.2	84	23.5	85	14.1	86	12.1	87	-11.3	88	-
131.6															
89	-39.7	90	-53.8	91	-74.4	92	-50.9	93	-26.4	94	-48.6	95	-62.7	96	-
150.3															
97	-68.0	98	-55.7	99	-90.3	100	-66.4	101	-25.6	102	-60.7	103	-61.2	104	-
108.8															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1509.820	.000	50	-2181.398	.000	51	-625.191	.000	52	-677.070
.000										
53	-1139.887	.000	54	-1660.347	.000	55	-778.022	.000	56	169.981
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2264.731	50	-1276.916	51	-300.092	52	-396.334	53	-854.916	54	-
1021.752											
55	-405.925	56	177.371								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3537.283	-2883.539	50	-1994.415	-1625.817	51	-468.714	-382.088	52	-619.034
-504.627										
53	-1335.293	-1088.510	54	-1595.875	-1300.932	55	-634.014	-516.838	56	277.036
225.836										

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	-.31502	2	-.18666	3	-.21795	4	-.19406	5	-.09453	6	-.19177	7	-.17406	8	-
.75044															
9	1.84483	10	.26239	11	.35772	12	.28650	13	.17126	14	.24693	15	.19616	16	
.11016															
17	5.01421	18	1.06470	19	.89081	20	.74359	21	.69490	22	.75491	23	.59122	24	
.69923															
25	7.73598	26	1.64625	27	1.15609	28	1.02650	29	1.12315	30	1.19070	31	.83122	32	
1.02435															

Appendix 6E-d 8 Inch PCCP Pavement

33	8.83653	34	1.94797	35	1.48954	36	1.29531	37	1.31466	38	1.36751	39	1.06819	40
1.41432														
41	10.18852	42	2.31854	43	1.72703	44	1.54060	45	1.61050	46	1.69315	47	1.29051	48
1.77725														
49	14.23093	50	4.06586	51	3.08949	52	2.80445	53	3.07933	54	3.16842	55	2.39308	56
3.57926														
57	10.01895	58	2.97134	59	2.84237	60	2.46457	61	2.25045	62	2.27181	63	2.05230	64
3.87177														
65	5.13885	66	1.20776	67	1.13014	68	.98086	69	.85053	70	.85106	71	.75274	72
1.39977														
73	2.42192	74	.49808	75	.48011	76	.40750	77	.33859	78	.35434	79	.28276	80
.28905														
81	.40809	82	.03381	83	.03221	84	.02860	85	.02198	86	.01551	87	-.01232	88 -
.28618														
89	-.09922	90	-.05247	91	-.05954	92	-.04963	93	-.03297	94	-.04982	95	-.05456	96 -
.26147														
97	-.28341	98	-.09050	99	-.12036	100	-.10794	101	-.05326	102	-.10372	103	-.08870	104 -
.31531														

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y
1	-.4716E-05	.1469E-03	2	-.4684E-05	.1440E-03	3	.6528E-06	.1411E-03	4	.1042E-04
.1352E-03										
5	.1609E-04	.1285E-03	6	.2206E-04	.1191E-03	7	.3061E-04	.1019E-03	8	.3503E-04
.7803E-04										
9	.1420E-05	.2661E-03	10	.1016E-04	.2496E-03	11	.2105E-04	.2258E-03	12	.3733E-04
.2104E-03										
13	.5311E-04	.2019E-03	14	.6960E-04	.1883E-03	15	.9196E-04	.1568E-03	16	.1041E-03
.1204E-03										
17	.1043E-03	.3637E-03	18	.1059E-03	.3225E-03	19	.8422E-04	.2611E-03	20	.5545E-04
.2441E-03										
21	.7756E-04	.2479E-03	22	.1348E-03	.2381E-03	23	.1967E-03	.1850E-03	24	.2082E-03
.1324E-03										
25	.1580E-03	.2672E-03	26	.1508E-03	.2436E-03	27	.1106E-03	.2122E-03	28	.5242E-04
.2000E-03										
29	.7440E-04	.1972E-03	30	.1590E-03	.1874E-03	31	.2390E-03	.1548E-03	32	.2448E-03
.1142E-03										



Appendix 6E-d 8 Inch PCCP Pavement

33	.1572E-03	.1648E-03	34	.1582E-03	.1612E-03	35	.1172E-03	.1573E-03	36	.6068E-04
.1512E-03										
37	.8743E-04	.1447E-03	38	.1698E-03	.1364E-03	39	.2578E-03	.1236E-03	40	.2717E-03
.9814E-04										
41	.1681E-03	.1717E-03	42	.1725E-03	.1538E-03	43	.1252E-03	.1244E-03	44	.5489E-04
.1272E-03										
45	.8324E-04	.1436E-03	46	.1803E-03	.1467E-03	47	.2779E-03	.1143E-03	48	.2887E-03
.9493E-04										
49	.1899E-03	.1786E-03	50	.1970E-03	.1549E-03	51	.1369E-03	.1092E-03	52	.3704E-04
.1186E-03										
53	.6223E-04	.1532E-03	54	.1927E-03	.1647E-03	55	.3004E-03	.1136E-03	56	.2980E-03
.9756E-04										
57	.5309E-04	-.5964E-03	58	.7949E-04	-.5618E-03	59	.9786E-04	-.4828E-03	60	.8788E-04 -
.4495E-03										
61	.1148E-03	-.4414E-03	62	.1757E-03	-.4202E-03	63	.2350E-03	-.3536E-03	64	.2492E-03 -
.2935E-03										
65	.1848E-04	-.5504E-03	66	.3917E-04	-.5201E-03	67	.6262E-04	-.4597E-03	68	.7387E-04 -
.4258E-03										
69	.1006E-03	-.4120E-03	70	.1425E-03	-.3890E-03	71	.1913E-03	-.3321E-03	72	.2100E-03 -
.2743E-03										
73	-.1497E-04	-.4028E-03	74	.1320E-05	-.3896E-03	75	.2548E-04	-.3625E-03	76	.5108E-04 -
.3377E-03										
77	.7392E-04	-.3217E-03	78	.1004E-03	-.3003E-03	79	.1346E-03	-.2576E-03	80	.1540E-03 -
.2092E-03										
81	-.2252E-04	-.1961E-03	82	-.1342E-04	-.1959E-03	83	.2677E-05	-.1927E-03	84	.2253E-04 -
.1840E-03										
85	.3664E-04	-.1748E-03	86	.5081E-04	-.1619E-03	87	.6882E-04	-.1367E-03	88	.8014E-04 -
.1053E-03										
89	-.1328E-04	-.8849E-04	90	-.9225E-05	-.9116E-04	91	-.8199E-06	-.9290E-04	92	.9817E-05 -
.9049E-04										
93	.1711E-04	-.8642E-04	94	.2421E-04	-.8028E-04	95	.3292E-04	-.6825E-04	96	.3789E-04 -
.5306E-04										
97	-.2454E-05	-.4251E-04	98	-.2126E-05	-.4491E-04	99	.3816E-07	-.4667E-04	100	.3482E-05 -
.4626E-04										
101	.5402E-05	-.4470E-04	102	.7399E-05	-.4198E-04	103	.1044E-04	-.3632E-04	104	.1206E-04 -
.2763E-04										

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
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Appendix 6E-d 8 Inch PCCP Pavement

17	1	-.898897E+01	.000000E+00	.000000E+00	-.898897E+01	.000000E+00	.449449E+01
25	1	.196282E+03	.000000E+00	.000000E+00	.000000E+00	.196282E+03	.981408E+02
29	1	.999595E+02	.794854E+02	-.410150E+01	.786943E+02	.100751E+03	.110281E+02
33	1	-.721579E+01	.000000E+00	.000000E+00	-.721579E+01	.000000E+00	.360789E+01
41	1	-.132910E+02	.000000E+00	.000000E+00	-.132910E+02	.000000E+00	.664552E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.180889E+02	-.240153E+02	-.166175E+02	.347064E+02	.256620E+02
51	1	.000000E+00	-.940242E+02	-.113062E+02	-.953647E+02	.134045E+01	.483526E+02
52	1	.000000E+00	-.473936E+02	.203841E+02	-.549546E+02	.756097E+01	.312578E+02
53	1	.000000E+00	.996940E+02	.239369E+02	-.544947E+01	.105143E+03	.552965E+02
54	1	.000000E+00	.170091E+03	-.118507E+02	-.821693E+00	.170913E+03	.858673E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 196.28150 AND OCCURS AT NODE 25  
NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

\*\*\*\*\*  
\*  
\* 8 inch PCCP Pavement with 80K load Single Axle \*  
\*  
\*\*\*\*\*

TYPE OF FOUNDATION (NFOUND) = 1  
TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
NUMBER OF PERIODS PER YEAR (NPY) = 1  
NUMBER OF LOAD GROUPS (NLG) = 1  
TOTAL NUMBER OF SLABS (NSLAB) = 2  
TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

Appendix 6E-d 8 Inch PCCP Pavement

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NUMBER OF LAYERS (NLAYER)-----	=	1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----	=	49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----	=	0
NUMBER OF GAPS (NGAP)-----	=	0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----	=	11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----	=	0
BOND BETWEEN TWO LAYERS (NBOND)-----	=	0
CONDITION OF WARPING (NTEMP)-----	=	0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----	=	0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----	=	1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)		
FOR LAYER 1 -----	=	0
FOR LAYER 2 -----	=	0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----	=	0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----	=	0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----	=	1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----	=	.00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----	=	.00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----	=	.00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----	=	.00000

Appendix 6E-d 8 Inch PCCP Pavement

MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000

COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05

TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02

MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000

FOR LAYER 1 FATIGUE COEFFICIENTS: F1 = .00000 F2 = .00000

FOR LAYER 2 FATIGUE COEFFICIENTS: F1 = .00000 F2 = .00000

FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000  
 Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000  
 Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

SLAB NO.	XL	YL	INTENSITY(QQ)
1	171.53200	180.00000	.00000 5.83190 90.00000
1	171.53200	180.00000	8.00000 13.83190 90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:  
17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

Appendix 6E-d 8 Inch PCCP Pavement

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										

Appendix 6E-d 8 Inch PCCP Pavement

49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
66.00000										
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
144.00000										
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
66.00000										
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000
144.00000										
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
66.00000										
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
144.00000										
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
66.00000										
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
144.00000										
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
66.00000										
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
144.00000										
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
66.00000										
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000
144.00000										

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.05850	1.00000	-1.00000	-.27101	90.00000
36	-.05850	1.00000	.00000	.72899	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

Appendix 6E-d 8 Inch PCCP Pavement

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO.	EQUIVALENT SPRING CONSTANT (SPCON)
1	.395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000
144.00000	61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000
66.00000	65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000
144.00000	69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000
66.00000	73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000
144.00000	77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000
66.00000	81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
144.00000	85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
66.00000	89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
144.00000	93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
66.00000	97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
144.00000	101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000

	NODAL	NUMBER	AND	TYPE	OF	NODES	(NDTY)	ARE:										
	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
10	1																	
20	1	11	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
30	1	21	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
40	1	31	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
50	2	41	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
60	0	51	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0



Appendix 6E-d 8 Inch PCCP Pavement

70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
	1																	
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
	1																	
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
	1																	
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	1																	
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
10	0																	
	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
20	0																	
	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
30	0																	
	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
40	0																	
	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
50	58																	
	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
60	52																	
	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
70	0																	
	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
80	0																	
	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
90	0																	
	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
100	0																	
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

Appendix 6E-d 8 Inch PCCP Pavement

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .02884514  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00282528  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00030532  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00003602  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000428

SUM OF APPLIED FORCES (FOSUM)= 8889.2      SUM OF TOTAL REACTIONS (SUBSUM)= 8882.9

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2503E-02	2	.2383E-02	3	.2218E-02	4	.2079E-02	5	.1999E-02	6	.1923E-02	7	.1806E-02	8	.1675E-02
9	.4643E-02	10	.4299E-02	11	.3749E-02	12	.3244E-02	13	.2952E-02	14	.2680E-02	15	.2310E-02	16	.1944E-02
17	.1013E-01	18	.9002E-02	19	.7225E-02	20	.5665E-02	21	.4829E-02	22	.4110E-02	23	.3219E-02	24	.2398E-02
25	.1400E-01	26	.1223E-01	27	.9480E-02	28	.7146E-02	29	.5950E-02	30	.4956E-02	31	.3776E-02	32	.2727E-02
33	.1933E-01	34	.1655E-01	35	.1235E-01	36	.8968E-02	37	.7319E-02	38	.5993E-02	39	.4477E-02	40	.3180E-02
41	.2591E-01	42	.2177E-01	43	.1566E-01	44	.1105E-01	45	.8887E-02	46	.7188E-02	47	.5310E-02	48	.3773E-02
49	.3202E-01	50	.2666E-01	51	.1872E-01	52	.1299E-01	53	.1035E-01	54	.8310E-02	55	.6108E-02	56	.4394E-02
57	.2730E-01	58	.2423E-01	59	.1839E-01	60	.1308E-01	61	.1042E-01	62	.8346E-02	63	.6118E-02	64	.4397E-02
65	.2127E-01	66	.1898E-01	67	.1486E-01	68	.1094E-01	69	.8871E-02	70	.7196E-02	71	.5323E-02	72	.3788E-02
73	.1392E-01	74	.1261E-01	75	.1031E-01	76	.8016E-02	77	.6717E-02	78	.5593E-02	79	.4239E-02	80	.3044E-02
81	.6902E-02	82	.6418E-02	83	.5578E-02	84	.4716E-02	85	.4182E-02	86	.3675E-02	87	.2987E-02	88	.2316E-02
89	.3939E-02	90	.3750E-02	91	.3423E-02	92	.3084E-02	93	.2865E-02	94	.2643E-02	95	.2314E-02	96	.1974E-02
97	.2333E-02	98	.2253E-02	99	.2140E-02	100	.2036E-02	101	.1972E-02	102	.1906E-02	103	.1798E-02	104	.1674E-02

Appendix 6E-d 8 Inch PCCP Pavement

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2503E-02	2	.2383E-02	3	.2218E-02	4	.2079E-02	5	.1999E-02	6	.1923E-02	7	.1806E-02	8	.1675E-02
9	.4643E-02	10	.4299E-02	11	.3749E-02	12	.3244E-02	13	.2952E-02	14	.2680E-02	15	.2310E-02	16	.1944E-02
17	.1013E-01	18	.9002E-02	19	.7225E-02	20	.5665E-02	21	.4829E-02	22	.4110E-02	23	.3219E-02	24	.2398E-02
25	.1400E-01	26	.1223E-01	27	.9480E-02	28	.7146E-02	29	.5950E-02	30	.4956E-02	31	.3776E-02	32	.2727E-02
33	.1933E-01	34	.1655E-01	35	.1235E-01	36	.8968E-02	37	.7319E-02	38	.5993E-02	39	.4477E-02	40	.3180E-02
41	.2591E-01	42	.2177E-01	43	.1566E-01	44	.1105E-01	45	.8887E-02	46	.7188E-02	47	.5310E-02	48	.3773E-02
49	.2966E-01	50	.2545E-01	51	.1855E-01	52	.1304E-01	53	.1039E-01	54	.8328E-02	55	.6113E-02	56	.4395E-02
57	.2966E-01	58	.2545E-01	59	.1855E-01	60	.1304E-01	61	.1039E-01	62	.8328E-02	63	.6113E-02	64	.4395E-02
65	.2127E-01	66	.1898E-01	67	.1486E-01	68	.1094E-01	69	.8871E-02	70	.7196E-02	71	.5323E-02	72	.3788E-02
73	.1392E-01	74	.1261E-01	75	.1031E-01	76	.8016E-02	77	.6717E-02	78	.5593E-02	79	.4239E-02	80	.3044E-02
81	.6902E-02	82	.6418E-02	83	.5578E-02	84	.4716E-02	85	.4182E-02	86	.3675E-02	87	.2987E-02	88	.2316E-02
89	.3939E-02	90	.3750E-02	91	.3423E-02	92	.3084E-02	93	.2865E-02	94	.2643E-02	95	.2314E-02	96	.1974E-02
97	.2333E-02	98	.2253E-02	99	.2140E-02	100	.2036E-02	101	.1972E-02	102	.1906E-02	103	.1798E-02	104	.1674E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	.9	2	-33.2	3	-49.1	4	-37.1	5	-12.5	6	-27.6	7	-23.2	8	-
9	114.0	10	-24.6	11	-45.6	12	-49.0	13	-21.9	14	-43.0	15	-43.8	16	-
17	282.4	18	69.1	19	17.1	20	-17.2	21	-17.6	22	-26.5	23	-36.4	24	-
45.3															
99.3															
85.7															

Appendix 6E-d 8 Inch PCCP Pavement

25	330.4	26	120.5	27	63.5	28	12.2	29	-.4	30	-5.8	31	-12.5	32	-		
46.9		33	610.0	34	263.3	35	159.6	36	48.3	37	16.1	38	9.2	39	-1.2	40	-
42.7		41	979.2	42	476.6	43	287.2	44	102.6	45	43.6	46	36.8	47	23.9	48	-
16.9		49	789.2	50	521.5	51	356.1	52	150.1	53	76.0	54	70.2	55	58.9	56	
32.9		57	523.5	58	359.8	59	330.0	60	155.9	61	80.1	62	72.5	63	59.7	64	
33.1		65	657.4	66	325.0	67	278.6	68	123.9	69	53.8	70	45.2	71	29.0	72	-
18.1		73	545.6	74	218.3	75	169.9	76	58.4	77	17.6	78	8.3	79	-8.7	80	-
79.3		81	180.0	82	25.2	83	-3.3	84	-20.6	85	-15.7	86	-26.1	87	-35.6	88	-
98.8		89	30.5	90	-27.5	91	-44.6	92	-34.8	93	-17.2	94	-28.2	95	-30.5	96	-
72.2		97	-6.4	98	-26.2	99	-39.6	100	-29.2	101	-10.0	102	-22.2	103	-19.2	104	-
40.0																	

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000052

SUM OF APPLIED FORCES (FOSUM)= 8889.2 SUM OF TOTAL REACTIONS (SUBSUM)= 8883.6

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2503E-02	2	.2383E-02	3	.2218E-02	4	.2079E-02	5	.1999E-02	6	.1923E-02	7	.1806E-02	8	
	.1675E-02														
9	.4643E-02	10	.4300E-02	11	.3750E-02	12	.3244E-02	13	.2952E-02	14	.2681E-02	15	.2310E-02	16	
	.1944E-02														
17	.1013E-01	18	.9002E-02	19	.7226E-02	20	.5665E-02	21	.4830E-02	22	.4110E-02	23	.3220E-02	24	
	.2398E-02														
25	.1400E-01	26	.1223E-01	27	.9480E-02	28	.7147E-02	29	.5951E-02	30	.4957E-02	31	.3776E-02	32	
	.2727E-02														
33	.1933E-01	34	.1655E-01	35	.1235E-01	36	.8968E-02	37	.7319E-02	38	.5994E-02	39	.4478E-02	40	
	.3180E-02														

Appendix 6E-d 8 Inch PCCP Pavement

41	.2592E-01	42	.2177E-01	43	.1566E-01	44	.1105E-01	45	.8888E-02	46	.7189E-02	47	.5311E-02	48
.3774E-02														
49	.3202E-01	50	.2666E-01	51	.1872E-01	52	.1300E-01	53	.1035E-01	54	.8310E-02	55	.6109E-02	56
.4394E-02														
57	.2730E-01	58	.2424E-01	59	.1839E-01	60	.1308E-01	61	.1042E-01	62	.8346E-02	63	.6119E-02	64
.4397E-02														
65	.2127E-01	66	.1898E-01	67	.1486E-01	68	.1094E-01	69	.8872E-02	70	.7197E-02	71	.5323E-02	72
.3788E-02														
73	.1392E-01	74	.1261E-01	75	.1031E-01	76	.8016E-02	77	.6717E-02	78	.5594E-02	79	.4240E-02	80
.3044E-02														
81	.6902E-02	82	.6419E-02	83	.5579E-02	84	.4716E-02	85	.4183E-02	86	.3676E-02	87	.2988E-02	88
.2317E-02														
89	.3939E-02	90	.3750E-02	91	.3423E-02	92	.3084E-02	93	.2865E-02	94	.2643E-02	95	.2315E-02	96
.1974E-02														
97	.2333E-02	98	.2253E-02	99	.2140E-02	100	.2036E-02	101	.1972E-02	102	.1906E-02	103	.1798E-02	104
.1674E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2503E-02	2	.2383E-02	3	.2218E-02	4	.2079E-02	5	.1999E-02	6	.1923E-02	7	.1806E-02	8
.1675E-02														
9	.4643E-02	10	.4300E-02	11	.3750E-02	12	.3244E-02	13	.2952E-02	14	.2681E-02	15	.2310E-02	16
.1944E-02														
17	.1013E-01	18	.9002E-02	19	.7226E-02	20	.5665E-02	21	.4830E-02	22	.4110E-02	23	.3220E-02	24
.2398E-02														
25	.1400E-01	26	.1223E-01	27	.9480E-02	28	.7147E-02	29	.5951E-02	30	.4957E-02	31	.3776E-02	32
.2727E-02														
33	.1933E-01	34	.1655E-01	35	.1235E-01	36	.8968E-02	37	.7319E-02	38	.5994E-02	39	.4478E-02	40
.3180E-02														
41	.2592E-01	42	.2177E-01	43	.1566E-01	44	.1105E-01	45	.8888E-02	46	.7189E-02	47	.5311E-02	48
.3774E-02														
49	.2966E-01	50	.2545E-01	51	.1856E-01	52	.1304E-01	53	.1039E-01	54	.8328E-02	55	.6114E-02	56
.4396E-02														
57	.2966E-01	58	.2545E-01	59	.1856E-01	60	.1304E-01	61	.1039E-01	62	.8328E-02	63	.6114E-02	64
.4396E-02														
65	.2127E-01	66	.1898E-01	67	.1486E-01	68	.1094E-01	69	.8872E-02	70	.7197E-02	71	.5323E-02	72
.3788E-02														

Appendix 6E-d 8 Inch PCCP Pavement

73	.1392E-01	74	.1261E-01	75	.1031E-01	76	.8016E-02	77	.6717E-02	78	.5594E-02	79	.4240E-02	80
.3044E-02														
81	.6902E-02	82	.6419E-02	83	.5579E-02	84	.4716E-02	85	.4183E-02	86	.3676E-02	87	.2988E-02	88
.2317E-02														
89	.3939E-02	90	.3750E-02	91	.3423E-02	92	.3084E-02	93	.2865E-02	94	.2643E-02	95	.2315E-02	96
.1974E-02														
97	.2333E-02	98	.2253E-02	99	.2140E-02	100	.2036E-02	101	.1972E-02	102	.1906E-02	103	.1798E-02	104
.1674E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	.9	2	-33.2	3	-49.1	4	-37.1	5	-12.5	6	-27.6	7	-23.2	8	-
45.3															
9	114.0	10	-24.6	11	-45.6	12	-49.0	13	-21.9	14	-43.0	15	-43.8	16	-
99.3															
17	282.4	18	69.1	19	17.1	20	-17.2	21	-17.6	22	-26.5	23	-36.4	24	-
85.7															
25	330.4	26	120.5	27	63.5	28	12.2	29	-.4	30	-5.8	31	-12.5	32	-
46.9															
33	610.0	34	263.3	35	159.6	36	48.3	37	16.1	38	9.2	39	-1.2	40	-
42.7															
41	979.2	42	476.6	43	287.2	44	102.6	45	43.6	46	36.8	47	23.9	48	-
16.9															
49	789.2	50	521.5	51	356.1	52	150.1	53	76.0	54	70.2	55	58.9	56	
32.9															
57	523.5	58	359.8	59	330.0	60	155.9	61	80.2	62	72.5	63	59.7	64	
33.1															
65	657.4	66	325.0	67	278.6	68	123.9	69	53.8	70	45.2	71	29.0	72	-
18.1															
73	545.7	74	218.3	75	169.9	76	58.4	77	17.6	78	8.3	79	-8.7	80	-
79.3															
81	180.0	82	25.2	83	-3.3	84	-20.6	85	-15.7	86	-26.1	87	-35.6	88	-
98.8															
89	30.5	90	-27.5	91	-44.6	92	-34.8	93	-17.2	94	-28.2	95	-30.5	96	-
72.2															
97	-6.4	98	-26.2	99	-39.6	100	-29.2	101	-10.0	102	-22.2	103	-19.2	104	-
40.0															

Appendix 6E-d 8 Inch PCCP Pavement

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

.000	49	-1487.995	.000	50	-1964.644	.000	51	-329.976	.000	52	70.605
.000	53	44.266	.000	54	27.680	.000	55	9.434	.000	56	1.348

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

17.034	49	-2231.992	50	-1150.036	51	-158.388	52	41.330	53	33.199	54
	55	4.922	56	1.407							

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

52.623	49	-3486.148	-2841.855	50	-1796.241	-1464.268	51	-247.387	-201.666	52	64.553
1.792	53	51.854	42.270	54	26.605	21.688	55	7.688	6.267	56	2.198

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

.13134	1	.00367	2	-.05404	3	-.06542	4	-.06026	5	-.02607	6	-.04712	7	-.03367	8	-
.15700	9	.25907	10	-.02179	11	-.03316	12	-.04346	13	-.02490	14	-.04010	15	-.03465	16	-
.21927	17	1.03832	18	.09921	19	.02010	20	-.02463	21	-.03229	22	-.03996	23	-.04656	24	-
.22660	25	2.29471	26	.32655	27	.14115	28	.03313	29	-.00126	30	-.01650	31	-.03023	32	-
.20644	33	4.23600	34	.71357	35	.35457	36	.13093	37	.05604	38	.02625	39	-.00281	40	-
.08629	41	7.19999	42	1.36758	43	.67580	44	.29427	45	.16019	46	.11088	47	.06103	48	-
.35725	49	12.33114	50	3.17973	51	1.78031	52	.91527	53	.59400	54	.44982	55	.32011	56	
.35957	57	8.18005	58	2.19396	59	1.64988	60	.95072	61	.62619	62	.46477	63	.32424	64	
.07862	65	4.10871	66	.79273	67	.55712	68	.30209	69	.16817	70	.11579	71	.06304	72	-

Appendix 6E-d 8 Inch PCCP Pavement

73	2.13147	74	.33281	75	.21239	76	.08896	77	.03434	78	.01330	79	-.01183	80	-
.21542															
81	.56246	82	.03078	83	-.00327	84	-.02513	85	-.02450	86	-.03340	87	-.03872	88	-
.21477															
89	.07632	90	-.02679	91	-.03570	92	-.03399	93	-.02155	94	-.02892	95	-.02653	96	-
.12561															
97	-.02680	98	-.04266	99	-.05274	100	-.04753	101	-.02079	102	-.03788	103	-.02787	104	-
.11603															

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y
1	.7691E-05	.2553E-04	2	.7189E-05	.2190E-04	3	.6052E-05	.1788E-04	4	.5170E-05
.1415E-04										
5	.4815E-05	.1185E-04	6	.4816E-05	.9615E-05	7	.5403E-05	.6556E-05	8	.5865E-05
.3010E-05										
9	.2036E-04	.6232E-04	10	.2212E-04	.5325E-04	11	.2139E-04	.4050E-04	12	.1900E-04
.2949E-04										
13	.1754E-04	.2347E-04	14	.1649E-04	.1820E-04	15	.1589E-04	.1160E-04	16	.1594E-04
.5360E-05										
17	.6745E-04	.1758E-03	18	.7227E-04	.1507E-03	19	.6805E-04	.1081E-03	20	.5621E-04
.7255E-04										
21	.4834E-04	.5525E-04	22	.4188E-04	.4174E-04	23	.3644E-04	.2703E-04	24	.3561E-04
.1567E-04										
25	.1067E-03	.2550E-03	26	.1128E-03	.2094E-03	27	.1038E-03	.1427E-03	28	.8189E-04
.9212E-04										
29	.6796E-04	.6935E-04	30	.5681E-04	.5241E-04	31	.4720E-04	.3491E-04	32	.4511E-04
.2146E-04										
33	.1702E-03	.3372E-03	34	.1751E-03	.2699E-03	35	.1550E-03	.1741E-03	36	.1149E-03
.1096E-03										
37	.9208E-04	.8233E-04	38	.7457E-04	.6254E-04	39	.5925E-04	.4294E-04	40	.5532E-04
.2912E-04										
41	.2586E-03	.3802E-03	42	.2584E-03	.3030E-03	43	.2191E-03	.1909E-03	44	.1523E-03
.1206E-03										
45	.1194E-03	.9092E-04	46	.9434E-04	.6946E-04	47	.7160E-04	.4900E-04	48	.6460E-04
.3670E-04										
49	.3347E-03	.3821E-03	50	.3344E-03	.3066E-03	51	.2788E-03	.1890E-03	52	.1880E-03
.1201E-03										



Appendix 6E-d 8 Inch PCCP Pavement

53	.1447E-03	.9052E-04	54	.1121E-03	.6937E-04	55	.8208E-04	.4978E-04	56	.7139E-04
.3972E-04										
57	.1826E-03	-.3885E-03	58	.2118E-03	-.3398E-03	59	.2327E-03	-.2236E-03	60	.1870E-03
.1338E-03										-
61	.1470E-03	-.9604E-04	62	.1139E-03	-.7106E-04	63	.8276E-04	-.4960E-04	64	.7161E-04
.3904E-04										-
65	.1353E-03	-.3554E-03	66	.1530E-03	-.3088E-03	67	.1682E-03	-.2125E-03	68	.1414E-03
.1320E-03										-
69	.1164E-03	-.9614E-04	70	.9376E-04	-.7130E-04	71	.7153E-04	-.4892E-04	72	.6451E-04
.3588E-04										-
73	.7670E-04	-.2512E-03	74	.8686E-04	-.2206E-03	75	.9474E-04	-.1628E-03	76	.8631E-04
.1085E-03										-
77	.7574E-04	-.8138E-04	78	.6495E-04	-.6089E-04	79	.5403E-04	-.4042E-04	80	.5129E-04
.2616E-04										-
81	.2782E-04	-.1144E-03	82	.3206E-04	-.1012E-03	83	.3459E-04	-.7970E-04	84	.3400E-04
.5822E-04										-
85	.3255E-04	-.4595E-04	86	.3087E-04	-.3537E-04	87	.2925E-04	-.2282E-04	88	.2931E-04
.1209E-04										-
89	.1090E-04	-.4536E-04	90	.1254E-04	-.4122E-04	91	.1343E-04	-.3439E-04	92	.1364E-04
.2711E-04										-
93	.1378E-04	-.2250E-04	94	.1402E-04	-.1807E-04	95	.1455E-04	-.1212E-04	96	.1496E-04
.6432E-05										-
97	.5137E-05	-.1895E-04	98	.4825E-05	-.1722E-04	99	.4284E-05	-.1497E-04	100	.4048E-05
.1259E-04										-
101	.4034E-05	-.1096E-04	102	.4292E-05	-.9214E-05	103	.5077E-05	-.6589E-05	104	.5598E-05
.3339E-05										-

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	-.608163E+02	.000000E+00	.000000E+00	-.608163E+02	.000000E+00	.304081E+02
25	1	-.733110E+02	.000000E+00	.000000E+00	-.733110E+02	.000000E+00	.366555E+02
29	1	-.149088E+02	-.151714E+02	-.170218E+02	-.320624E+02	.198216E+01	.170223E+02
33	1	-.754890E+02	.000000E+00	.000000E+00	-.754890E+02	.000000E+00	.377445E+02
41	1	-.717449E+00	.000000E+00	.000000E+00	-.717449E+00	.000000E+00	.358725E+00
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.340571E+01	-.668908E+02	-.652096E+02	.686153E+02	.669125E+02
51	1	.000000E+00	-.765380E+02	-.525312E+02	-.103262E+03	.267237E+02	.649926E+02
52	1	.000000E+00	-.461244E+02	-.306648E+02	-.614314E+02	.153070E+02	.383692E+02
53	1	.000000E+00	-.363770E+02	-.217384E+02	-.465324E+02	.101555E+02	.283440E+02

Appendix 6E-d 8 Inch PCCP Pavement

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54 1 .000000E+00 -.274629E+02 -.151350E+02 -.341672E+02 .670431E+01 .204358E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 103.26160 AND OCCURS AT NODE 51  
NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

Appendix 6E-d 8 Inch PCCP Pavement

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*****
*
*      8 inch PCCP Pavement with 80K load
*
*****
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```
TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
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Appendix 6E-d 8 Inch PCCP Pavement

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CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
                  Y= .00000  16.00000  41.00000  66.00000  82.00000  98.00000  121.00000  144.00000
    
```

Appendix 6E-d 8 Inch PCCP Pavement

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000  
 Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	123.53200	132.00000	.00000	5.83190	90.00000
1	123.53200	132.00000	12.00000	17.83190	90.00000
1	123.53200	132.00000	84.00000	89.83190	90.00000
1	123.53200	132.00000	96.00000	101.83100	90.00000
1	171.53200	180.00000	.00000	5.83190	90.00000
1	171.53200	180.00000	12.00000	17.83190	90.00000
1	171.53200	180.00000	84.00000	89.83190	90.00000
1	171.53200	180.00000	96.00000	101.83100	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

Appendix 6E-d 8 Inch PCCP Pavement

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
 INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:  
 1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
66.00000										
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
144.00000										

Appendix 6E-d 8 Inch PCCP Pavement

65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
66.00000										
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000
144.00000										
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
66.00000										
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
144.00000										
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
66.00000										
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
144.00000										
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
66.00000										
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
144.00000										
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
66.00000										
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000
144.00000										

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.50356	1.00000	-1.00000	-.27101	90.00000
22	-1.00000	-.55556	-1.00000	-.27101	90.00000
15	.50356	1.00000	.50000	1.00000	90.00000
16	.50356	1.00000	-1.00000	-.85345	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.85345	90.00000
19	.50356	1.00000	-.75000	-.02101	90.00000
26	-1.00000	-.55556	-.75000	-.02101	90.00000
19	.50356	1.00000	.75000	1.00000	90.00000
20	.50356	1.00000	-1.00000	-.66687	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.66687	90.00000
36	-.05850	1.00000	-1.00000	-.27101	90.00000
36	-.05850	1.00000	.50000	1.00000	90.00000
37	-.05850	1.00000	-1.00000	-.85345	90.00000
40	-.05850	1.00000	-.75000	-.02101	90.00000

Appendix 6E-d 8 Inch PCCP Pavement

40	-.05850	1.00000	.75000	1.00000	90.00000
41	-.05850	1.00000	-1.00000	-.66687	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
144.00000	37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000



Appendix 6E-d 8 Inch PCCP Pavement

41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000
66.00000										
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000
144.00000										
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000
66.00000										
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000
144.00000										
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000
66.00000										
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000
144.00000										
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
66.00000										
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
144.00000										
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
66.00000										
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
144.00000										
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
66.00000										
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000
144.00000										

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
10	1																
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
20	1																

Appendix 6E-d 8 Inch PCCP Pavement

30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
	1																	
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
	1																	
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
	2																	
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
	0																	
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
	1																	
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
	1																	
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
	1																	
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	1																	
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
	0																	
20	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
	0																	
30	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
	0																	
40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	
90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
	0																	

Appendix 6E-d 8 Inch PCCP Pavement

100 91 0 92 0 93 0 94 0 95 0 96 0 97 0 98 0 99 0  
0  
101 0 102 0 103 0 104 0

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .04547583  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00989928  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00116118  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00013786  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00001642

SUM OF APPLIED FORCES (FOSUM)= 35555.5 SUM OF TOTAL REACTIONS (SUBSUM)= 35532.1

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1097E-01	2	.1105E-01	3	.1112E-01	4	.1098E-01	5	.1075E-01	6	.1043E-01	7	.9774E-02	8
.8956E-02														
9	.2260E-01	10	.2250E-01	11	.2209E-01	12	.2134E-01	13	.2057E-01	14	.1952E-01	15	.1754E-01	16
.1509E-01														
17	.4044E-01	18	.3867E-01	19	.3601E-01	20	.3426E-01	21	.3320E-01	22	.3142E-01	23	.2722E-01	24
.2219E-01														
25	.4685E-01	26	.4429E-01	27	.4057E-01	28	.3855E-01	29	.3760E-01	30	.3569E-01	31	.3051E-01	32
.2456E-01														
33	.5059E-01	34	.4793E-01	35	.4407E-01	36	.4186E-01	37	.4071E-01	38	.3857E-01	39	.3313E-01	40
.2657E-01														
41	.5375E-01	42	.5088E-01	43	.4670E-01	44	.4447E-01	45	.4342E-01	46	.4124E-01	47	.3537E-01	48
.2838E-01														
49	.5669E-01	50	.5346E-01	51	.4864E-01	52	.4651E-01	53	.4590E-01	54	.4385E-01	55	.3728E-01	56
.3001E-01														
57	.5163E-01	58	.5060E-01	59	.4797E-01	60	.4563E-01	61	.4399E-01	62	.4156E-01	63	.3636E-01	64
.3040E-01														
65	.4175E-01	66	.4129E-01	67	.3987E-01	68	.3811E-01	69	.3666E-01	70	.3460E-01	71	.3046E-01	72
.2551E-01														

Appendix 6E-d 8 Inch PCCP Pavement

73	.2950E-01	74	.2963E-01	75	.2928E-01	76	.2828E-01	77	.2723E-01	78	.2575E-01	79	.2286E-01	80
.1930E-01														
81	.1721E-01	82	.1751E-01	83	.1767E-01	84	.1735E-01	85	.1685E-01	86	.1610E-01	87	.1463E-01	88
.1279E-01														
89	.1152E-01	90	.1171E-01	91	.1185E-01	92	.1174E-01	93	.1151E-01	94	.1116E-01	95	.1046E-01	96
.9580E-02														
97	.7816E-02	98	.7856E-02	99	.7890E-02	100	.7844E-02	101	.7768E-02	102	.7660E-02	103	.7440E-02	104
.7161E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1097E-01	2	.1105E-01	3	.1112E-01	4	.1098E-01	5	.1075E-01	6	.1043E-01	7	.9774E-02	8
.8956E-02														
9	.2260E-01	10	.2250E-01	11	.2209E-01	12	.2134E-01	13	.2057E-01	14	.1952E-01	15	.1754E-01	16
.1509E-01														
17	.4044E-01	18	.3867E-01	19	.3601E-01	20	.3426E-01	21	.3320E-01	22	.3142E-01	23	.2722E-01	24
.2219E-01														
25	.4685E-01	26	.4429E-01	27	.4057E-01	28	.3855E-01	29	.3760E-01	30	.3569E-01	31	.3051E-01	32
.2456E-01														
33	.5059E-01	34	.4793E-01	35	.4407E-01	36	.4186E-01	37	.4071E-01	38	.3857E-01	39	.3313E-01	40
.2657E-01														
41	.5375E-01	42	.5088E-01	43	.4670E-01	44	.4447E-01	45	.4342E-01	46	.4124E-01	47	.3537E-01	48
.2838E-01														
49	.5416E-01	50	.5203E-01	51	.4830E-01	52	.4607E-01	53	.4494E-01	54	.4270E-01	55	.3682E-01	56
.3020E-01														
57	.5416E-01	58	.5203E-01	59	.4830E-01	60	.4607E-01	61	.4494E-01	62	.4270E-01	63	.3682E-01	64
.3020E-01														
65	.4175E-01	66	.4129E-01	67	.3987E-01	68	.3811E-01	69	.3666E-01	70	.3460E-01	71	.3046E-01	72
.2551E-01														
73	.2950E-01	74	.2963E-01	75	.2928E-01	76	.2828E-01	77	.2723E-01	78	.2575E-01	79	.2286E-01	80
.1930E-01														
81	.1721E-01	82	.1751E-01	83	.1767E-01	84	.1735E-01	85	.1685E-01	86	.1610E-01	87	.1463E-01	88
.1279E-01														
89	.1152E-01	90	.1171E-01	91	.1185E-01	92	.1174E-01	93	.1151E-01	94	.1116E-01	95	.1046E-01	96
.9580E-02														
97	.7816E-02	98	.7856E-02	99	.7890E-02	100	.7844E-02	101	.7768E-02	102	.7660E-02	103	.7440E-02	104
.7161E-02														

Appendix 6E-d 8 Inch PCCP Pavement

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-80.7	2	-122.4	3	-174.2	4	-127.1	5	-48.3	6	-119.6	7	-128.1	8	-
276.4															
9	869.1	10	317.8	11	528.5	12	347.4	13	162.2	14	285.1	15	267.4	16	
78.1															
17	1456.3	18	794.4	19	811.1	20	555.1	21	405.0	22	536.8	23	496.4	24	
295.8															
25	1186.0	26	648.4	27	556.3	28	404.7	29	345.2	30	446.5	31	368.6	32	
228.5															
33	1354.2	34	766.6	35	715.7	36	510.1	37	404.0	38	512.5	39	472.9	40	
314.5															
41	1473.1	42	860.7	43	782.3	44	571.9	45	466.7	46	598.6	47	538.6	48	
371.8															
49	965.5	50	707.8	51	656.6	52	488.5	53	418.4	54	525.1	55	468.6	56	
350.8															
57	680.3	58	517.1	59	603.6	60	429.3	61	305.9	62	376.5	63	401.5	64	
379.3															
65	873.0	66	526.1	67	600.6	68	427.6	69	289.5	70	353.1	71	368.6	72	
343.5															
73	658.1	74	347.2	75	408.4	76	284.4	77	184.5	78	235.3	79	221.7	80	
114.2															
81	138.4	82	29.4	83	34.3	84	25.0	85	15.0	86	13.0	87	-11.9	88	-
139.6															
89	-42.4	90	-57.2	91	-79.1	92	-54.1	93	-28.0	94	-51.6	95	-66.7	96	-
159.8															
97	-72.5	98	-59.2	99	-96.1	100	-70.7	101	-27.2	102	-64.6	103	-65.2	104	-
115.8															

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000195

SUM OF APPLIED FORCES (FOSUM)= 35555.5 SUM OF TOTAL REACTIONS (SUBSUM)= 35534.7

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1097E-01	2	.1105E-01	3	.1112E-01	4	.1098E-01	5	.1075E-01	6	.1043E-01	7	.9775E-02	8	
	.8957E-02														

Appendix 6E-d 8 Inch PCCP Pavement

9	.2260E-01	10	.2250E-01	11	.2209E-01	12	.2134E-01	13	.2057E-01	14	.1952E-01	15	.1754E-01	16
.1509E-01														
17	.4044E-01	18	.3867E-01	19	.3602E-01	20	.3426E-01	21	.3320E-01	22	.3142E-01	23	.2722E-01	24
.2220E-01														
25	.4685E-01	26	.4429E-01	27	.4058E-01	28	.3856E-01	29	.3761E-01	30	.3569E-01	31	.3051E-01	32
.2456E-01														
33	.5059E-01	34	.4793E-01	35	.4408E-01	36	.4187E-01	37	.4072E-01	38	.3858E-01	39	.3313E-01	40
.2657E-01														
41	.5375E-01	42	.5089E-01	43	.4670E-01	44	.4447E-01	45	.4343E-01	46	.4125E-01	47	.3537E-01	48
.2838E-01														
49	.5669E-01	50	.5346E-01	51	.4865E-01	52	.4652E-01	53	.4590E-01	54	.4385E-01	55	.3728E-01	56
.3001E-01														
57	.5163E-01	58	.5060E-01	59	.4797E-01	60	.4563E-01	61	.4399E-01	62	.4156E-01	63	.3636E-01	64
.3040E-01														
65	.4175E-01	66	.4130E-01	67	.3987E-01	68	.3811E-01	69	.3666E-01	70	.3460E-01	71	.3047E-01	72
.2551E-01														
73	.2951E-01	74	.2963E-01	75	.2928E-01	76	.2828E-01	77	.2723E-01	78	.2575E-01	79	.2286E-01	80
.1930E-01														
81	.1721E-01	82	.1752E-01	83	.1767E-01	84	.1735E-01	85	.1685E-01	86	.1610E-01	87	.1463E-01	88
.1279E-01														
89	.1152E-01	90	.1171E-01	91	.1186E-01	92	.1174E-01	93	.1151E-01	94	.1116E-01	95	.1046E-01	96
.9581E-02														
97	.7817E-02	98	.7857E-02	99	.7891E-02	100	.7845E-02	101	.7769E-02	102	.7661E-02	103	.7441E-02	104
.7162E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1097E-01	2	.1105E-01	3	.1112E-01	4	.1098E-01	5	.1075E-01	6	.1043E-01	7	.9775E-02	8
.8957E-02														
9	.2260E-01	10	.2250E-01	11	.2209E-01	12	.2134E-01	13	.2057E-01	14	.1952E-01	15	.1754E-01	16
.1509E-01														
17	.4044E-01	18	.3867E-01	19	.3602E-01	20	.3426E-01	21	.3320E-01	22	.3142E-01	23	.2722E-01	24
.2219E-01														
25	.4685E-01	26	.4429E-01	27	.4058E-01	28	.3856E-01	29	.3761E-01	30	.3569E-01	31	.3051E-01	32
.2456E-01														
33	.5059E-01	34	.4793E-01	35	.4408E-01	36	.4187E-01	37	.4072E-01	38	.3858E-01	39	.3313E-01	40
.2657E-01														

Appendix 6E-d 8 Inch PCCP Pavement

41	.5375E-01	42	.5089E-01	43	.4670E-01	44	.4447E-01	45	.4343E-01	46	.4125E-01	47	.3537E-01	48
.2838E-01														
49	.5416E-01	50	.5203E-01	51	.4831E-01	52	.4607E-01	53	.4494E-01	54	.4270E-01	55	.3682E-01	56
.3021E-01														
57	.5416E-01	58	.5203E-01	59	.4831E-01	60	.4607E-01	61	.4494E-01	62	.4270E-01	63	.3682E-01	64
.3021E-01														
65	.4175E-01	66	.4130E-01	67	.3987E-01	68	.3811E-01	69	.3666E-01	70	.3460E-01	71	.3047E-01	72
.2551E-01														
73	.2951E-01	74	.2963E-01	75	.2928E-01	76	.2828E-01	77	.2723E-01	78	.2575E-01	79	.2286E-01	80
.1930E-01														
81	.1721E-01	82	.1752E-01	83	.1767E-01	84	.1735E-01	85	.1685E-01	86	.1610E-01	87	.1463E-01	88
.1279E-01														
89	.1152E-01	90	.1171E-01	91	.1186E-01	92	.1174E-01	93	.1151E-01	94	.1116E-01	95	.1046E-01	96
.9581E-02														
97	.7817E-02	98	.7857E-02	99	.7891E-02	100	.7845E-02	101	.7769E-02	102	.7661E-02	103	.7441E-02	104
.7162E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)															
1	-80.6	2	-122.4	3	-174.1	4	-127.1	5	-48.3	6	-119.6	7	-128.1	8	-
276.3															
9	869.2	10	317.9	11	528.5	12	347.4	13	162.2	14	285.2	15	267.4	16	
78.1															
17	1456.4	18	794.4	19	811.1	20	555.1	21	405.0	22	536.8	23	496.4	24	
295.8															
25	1186.0	26	648.4	27	556.3	28	404.7	29	345.2	30	446.5	31	368.6	32	
228.6															
33	1354.3	34	766.6	35	715.7	36	510.1	37	404.0	38	512.5	39	472.9	40	
314.5															
41	1473.2	42	860.8	43	782.3	44	571.9	45	466.7	46	598.6	47	538.7	48	
371.9															
49	965.5	50	707.8	51	656.7	52	488.5	53	418.4	54	525.2	55	468.6	56	
350.8															
57	680.3	58	517.1	59	603.6	60	429.3	61	305.9	62	376.5	63	401.5	64	
379.3															
65	873.0	66	526.1	67	600.6	68	427.6	69	289.5	70	353.1	71	368.6	72	
343.6															

Appendix 6E-d 8 Inch PCCP Pavement

73	658.1	74	347.2	75	408.5	76	284.4	77	184.5	78	235.4	79	221.7	80	
114.3															
81	138.4	82	29.5	83	34.4	84	25.1	85	15.0	86	13.0	87	-11.9	88	-
139.5															
89	-42.4	90	-57.2	91	-79.1	92	-54.0	93	-28.0	94	-51.6	95	-66.7	96	-
159.7															
97	-72.5	98	-59.2	99	-96.1	100	-70.6	101	-27.2	102	-64.6	103	-65.2	104	-
115.7															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1597.359	.000	50	-2317.716	.000	51	-670.922	.000	52	-719.163
.000										
53	-1208.231	.000	54	-1764.531	.000	55	-832.842	.000	56	179.966
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2396.038	50	-1356.712	51	-322.042	52	-420.974	53	-906.173	54	-
1085.865											
55	-434.526	56	187.791								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3742.371	-3050.724	50	-2119.048	-1727.416	51	-502.998	-410.036	52	-657.519
-535.999										
53	-1415.352	-1153.773	54	-1696.013	-1382.564	55	-678.686	-553.255	56	293.310
239.102										

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	-.33584	2	-.19903	3	-.23219	4	-.20662	5	-.10070	6	-.20437	7	-.18568	8	-
.80090															
9	1.97542	10	.28192	11	.38436	12	.30815	13	.18431	14	.26588	15	.21141	16	
.12351															
17	5.35435	18	1.13980	19	.95422	20	.79643	21	.74455	22	.80964	23	.63477	24	
.75664															
25	8.23631	26	1.75722	27	1.23616	28	1.09676	29	1.19863	30	1.27214	31	.89042	32	
1.10414															
33	9.40466	34	2.07742	35	1.59039	36	1.38237	37	1.40268	38	1.46015	39	1.14237	40	
1.51947															



Appendix 6E-d 8 Inch PCCP Pavement

41	10.83204	42	2.46992	43	1.84075	44	1.64102	45	1.71587	46	1.80587	47	1.37763	48	
1.90223		49	15.08565	50	4.31612	51	3.28328	52	2.97854	53	3.26852	54	3.36639	55	2.54700
3.81331		57	10.62947	58	3.15320	59	3.01809	60	2.61753	61	2.38994	62	2.41353	63	2.18220
4.12300		65	5.45644	66	1.28319	67	1.20125	68	1.04304	69	.90470	70	.90548	71	.80127
1.49376		73	2.57089	74	.52927	75	.51058	76	.43356	77	.36031	78	.37719	79	.30124
.31048		81	.43252	82	.03592	83	.03435	84	.03057	85	.02350	86	.01664	87	-.01295
.30326		89	-.10593	90	-.05578	91	-.06327	92	-.05273	93	-.03503	94	-.05295	95	-.05800
.27779		97	-.30195	98	-.09629	99	-.12807	100	-.11486	101	-.05669	102	-.11041	103	-.09445
.33547														104	-

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y
1	-.5137E-05	.1571E-03	2	-.5101E-05	.1540E-03	3	.6126E-06	.1509E-03	4	.1108E-04
.1446E-03		5	.1717E-04	.1376E-03	6	.2357E-04	.1275E-03	7	.3272E-04	.1091E-03
.8364E-04		9	.1326E-05	.2841E-03	10	.1065E-04	.2666E-03	11	.2230E-04	.2412E-03
.2248E-03		13	.5661E-04	.2158E-03	14	.7427E-04	.2013E-03	15	.9820E-04	.1678E-03
.1289E-03		17	.1105E-03	.3860E-03	18	.1123E-03	.3426E-03	19	.8961E-04	.2777E-03
.2595E-03		21	.8232E-04	.2636E-03	22	.1434E-03	.2533E-03	23	.2097E-03	.1970E-03
.1412E-03		25	.1667E-03	.2827E-03	26	.1595E-03	.2580E-03	27	.1175E-03	.2249E-03
.2120E-03		29	.7896E-04	.2091E-03	30	.1690E-03	.1987E-03	31	.2545E-03	.1644E-03
.1213E-03		33	.1659E-03	.1739E-03	34	.1673E-03	.1700E-03	35	.1245E-03	.1659E-03
.1596E-03										

Appendix 6E-d 8 Inch PCCP Pavement

37	.9271E-04	.1529E-03	38	.1804E-03	.1442E-03	39	.2744E-03	.1306E-03	40	.2894E-03
.1037E-03										
41	.1772E-03	.1794E-03	42	.1823E-03	.1611E-03	43	.1329E-03	.1304E-03	44	.5822E-04
.1334E-03										
45	.8805E-04	.1507E-03	46	.1914E-03	.1542E-03	47	.2956E-03	.1202E-03	48	.3074E-03
.9995E-04										
49	.1993E-03	.1855E-03	50	.2074E-03	.1615E-03	51	.1450E-03	.1140E-03	52	.3949E-04
.1239E-03										
53	.6583E-04	.1602E-03	54	.2041E-03	.1726E-03	55	.3191E-03	.1194E-03	56	.3170E-03
.1026E-03										
57	.5539E-04	-.6338E-03	58	.8350E-04	-.5973E-03	59	.1034E-03	-.5137E-03	60	.9316E-04 -
.4783E-03										
61	.1217E-03	-.4697E-03	62	.1864E-03	-.4473E-03	63	.2496E-03	-.3767E-03	64	.2649E-03 -
.3128E-03										
65	.1889E-04	-.5850E-03	66	.4091E-04	-.5530E-03	67	.6609E-04	-.4891E-03	68	.7828E-04 -
.4532E-03										
69	.1068E-03	-.4385E-03	70	.1513E-03	-.4142E-03	71	.2032E-03	-.3538E-03	72	.2232E-03 -
.2924E-03										
73	-.1637E-04	-.4282E-03	74	.9669E-06	-.4143E-03	75	.2677E-04	-.3856E-03	76	.5411E-04 -
.3594E-03										
77	.7843E-04	-.3424E-03	78	.1066E-03	-.3198E-03	79	.1430E-03	-.2745E-03	80	.1638E-03 -
.2231E-03										
81	-.2415E-04	-.2085E-03	82	-.1446E-04	-.2084E-03	83	.2696E-05	-.2051E-03	84	.2386E-04 -
.1959E-03										
85	.3889E-04	-.1861E-03	86	.5398E-04	-.1724E-03	87	.7317E-04	-.1456E-03	88	.8521E-04 -
.1123E-03										
89	-.1421E-04	-.9417E-04	90	-.9897E-05	-.9703E-04	91	-.9412E-06	-.9891E-04	92	.1039E-04 -
.9638E-04										
93	.1816E-04	-.9207E-04	94	.2573E-04	-.8554E-04	95	.3501E-04	-.7275E-04	96	.4030E-04 -
.5660E-04										
97	-.2645E-05	-.4527E-04	98	-.2294E-05	-.4783E-04	99	.1641E-07	-.4972E-04	100	.3690E-05 -
.4930E-04										
101	.5737E-05	-.4765E-04	102	.7865E-05	-.4475E-04	103	.1110E-04	-.3873E-04	104	.1283E-04 -
.2949E-04										

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	-.765193E+01	.000000E+00	.000000E+00	-.765193E+01	.000000E+00	.382597E+01
25	1	.207769E+03	.000000E+00	.000000E+00	.000000E+00	.207769E+03	.103885E+03

Appendix 6E-d 8 Inch PCCP Pavement

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29	1	.106255E+03	.841221E+02	-.433913E+01	.833018E+02	.107076E+03	.118869E+02
33	1	-.706764E+01	.000000E+00	.000000E+00	-.706764E+01	.000000E+00	.353382E+01
41	1	-.113305E+02	.000000E+00	.000000E+00	-.113305E+02	.000000E+00	.566524E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.205718E+02	-.246688E+02	-.164414E+02	.370132E+02	.267273E+02
51	1	.000000E+00	-.992141E+02	-.117448E+02	-.100586E+03	.137138E+01	.509784E+02
52	1	.000000E+00	-.501576E+02	.213770E+02	-.580321E+02	.787454E+01	.329533E+02
53	1	.000000E+00	.104782E+03	.252930E+02	-.578591E+01	.110568E+03	.581769E+02
54	1	.000000E+00	.180812E+03	-.121324E+02	-.810440E+00	.181623E+03	.912165E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 207.76940 AND OCCURS AT NODE 25

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      8 inch PCCP Pavement with 85K load Single Axle
*
*****
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TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
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Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	171.27100	180.00000	.00000	6.01140	90.00000
1	171.27100	180.00000	8.00000	14.01140	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP), INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

Appendix 6E-d 8 Inch PCCP Pavement

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
144.00000	37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
66.00000	41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
144.00000	45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
66.00000	49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
144.00000	53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
66.00000	57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
144.00000	61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
66.00000	65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
144.00000	69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
144.00000	77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
66.00000	81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
144.00000	85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
66.00000	89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
144.00000	93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
66.00000	97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
144.00000	101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.09113	1.00000	-1.00000	-.24857	90.00000
36	-.09113	1.00000	.00000	.75143	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
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Appendix 6E-d 8 Inch PCCP Pavement

5	.00000	82.00000	144.00000	6	.00000	98.00000	144.00000	7	.00000	121.00000	144.00000	8	.00000	144.00000
9	60.00000	.00000	66.00000	10	60.00000	16.00000	66.00000	11	60.00000	41.00000	66.00000	12	60.00000	66.00000
13	60.00000	82.00000	144.00000	14	60.00000	98.00000	144.00000	15	60.00000	121.00000	144.00000	16	60.00000	144.00000
17	110.00000	.00000	66.00000	18	110.00000	16.00000	66.00000	19	110.00000	41.00000	66.00000	20	110.00000	66.00000
21	110.00000	82.00000	144.00000	22	110.00000	98.00000	144.00000	23	110.00000	121.00000	144.00000	24	110.00000	144.00000
25	128.00000	.00000	66.00000	26	128.00000	16.00000	66.00000	27	128.00000	41.00000	66.00000	28	128.00000	66.00000
29	128.00000	82.00000	144.00000	30	128.00000	98.00000	144.00000	31	128.00000	121.00000	144.00000	32	128.00000	144.00000
33	146.00000	.00000	66.00000	34	146.00000	16.00000	66.00000	35	146.00000	41.00000	66.00000	36	146.00000	66.00000
37	146.00000	82.00000	144.00000	38	146.00000	98.00000	144.00000	39	146.00000	121.00000	144.00000	40	146.00000	144.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000	66.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000	144.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000	66.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000	144.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000	66.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000	144.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000	66.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000	144.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000	66.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000	144.00000

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
144.00000	85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
66.00000	89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
144.00000	93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
66.00000	97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
144.00000	101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

10	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

10	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	
20	0	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
30	0	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
40	0	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
50	58	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
60	52	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
70	0	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
80	0	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
90	0	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
100	0	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
		101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .03053019  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00300165  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00032433  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00003828  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000456

SUM OF APPLIED FORCES (FOSUM)= 9445.2 SUM OF TOTAL REACTIONS (SUBSUM)= 9438.5

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.2662E-02	2	.2535E-02	3	.2360E-02	4	.2212E-02	5	.2127E-02	6	.2046E-02	7	.1921E-02	8
.1781E-02														
9	.4945E-02	10	.4581E-02	11	.3996E-02	12	.3457E-02	13	.3146E-02	14	.2856E-02	15	.2460E-02	16
.2070E-02														
17	.1078E-01	18	.9586E-02	19	.7698E-02	20	.6036E-02	21	.5145E-02	22	.4379E-02	23	.3429E-02	24
.2553E-02														
25	.1489E-01	26	.1301E-01	27	.1009E-01	28	.7610E-02	29	.6336E-02	30	.5277E-02	31	.4020E-02	32
.2903E-02														
33	.2054E-01	34	.1760E-01	35	.1313E-01	36	.9541E-02	37	.7787E-02	38	.6376E-02	39	.4763E-02	40
.3383E-02														
41	.2749E-01	42	.2312E-01	43	.1664E-01	44	.1175E-01	45	.9447E-02	46	.7641E-02	47	.5645E-02	48
.4012E-02														
49	.3390E-01	50	.2827E-01	51	.1987E-01	52	.1380E-01	53	.1100E-01	54	.8828E-02	55	.6490E-02	56
.4669E-02														
57	.2893E-01	58	.2569E-01	59	.1951E-01	60	.1389E-01	61	.1107E-01	62	.8866E-02	63	.6502E-02	64
.4673E-02														
65	.2254E-01	66	.2012E-01	67	.1577E-01	68	.1161E-01	69	.9423E-02	70	.7645E-02	71	.5656E-02	72
.4026E-02														
73	.1476E-01	74	.1337E-01	75	.1094E-01	76	.8512E-02	77	.7135E-02	78	.5943E-02	79	.4506E-02	80
.3236E-02														
81	.7320E-02	82	.6810E-02	83	.5922E-02	84	.5009E-02	85	.4444E-02	86	.3906E-02	87	.3175E-02	88
.2463E-02														
89	.4181E-02	90	.3981E-02	91	.3635E-02	92	.3276E-02	93	.3044E-02	94	.2808E-02	95	.2460E-02	96
.2099E-02														
97	.2477E-02	98	.2392E-02	99	.2273E-02	100	.2163E-02	101	.2095E-02	102	.2025E-02	103	.1911E-02	104
.1779E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2662E-02	2	.2535E-02	3	.2360E-02	4	.2212E-02	5	.2127E-02	6	.2046E-02	7	.1921E-02	8
.1781E-02														
9	.4945E-02	10	.4581E-02	11	.3996E-02	12	.3457E-02	13	.3146E-02	14	.2856E-02	15	.2460E-02	16
.2070E-02														
17	.1078E-01	18	.9586E-02	19	.7698E-02	20	.6036E-02	21	.5145E-02	22	.4379E-02	23	.3429E-02	24
.2553E-02														
25	.1489E-01	26	.1301E-01	27	.1009E-01	28	.7610E-02	29	.6336E-02	30	.5277E-02	31	.4020E-02	32
.2903E-02														

Appendix 6E-d 8 Inch PCCP Pavement

33	.2054E-01	34	.1760E-01	35	.1313E-01	36	.9541E-02	37	.7787E-02	38	.6376E-02	39	.4763E-02	40	.3383E-02
41	.2749E-01	42	.2312E-01	43	.1664E-01	44	.1175E-01	45	.9447E-02	46	.7641E-02	47	.5645E-02	48	.4012E-02
49	.3142E-01	50	.2698E-01	51	.1969E-01	52	.1384E-01	53	.1103E-01	54	.8847E-02	55	.6496E-02	56	.4671E-02
57	.3142E-01	58	.2698E-01	59	.1969E-01	60	.1384E-01	61	.1103E-01	62	.8847E-02	63	.6496E-02	64	.4671E-02
65	.2254E-01	66	.2012E-01	67	.1577E-01	68	.1161E-01	69	.9423E-02	70	.7645E-02	71	.5656E-02	72	.4026E-02
73	.1476E-01	74	.1337E-01	75	.1094E-01	76	.8512E-02	77	.7135E-02	78	.5943E-02	79	.4506E-02	80	.3236E-02
81	.7320E-02	82	.6810E-02	83	.5922E-02	84	.5009E-02	85	.4444E-02	86	.3906E-02	87	.3175E-02	88	.2463E-02
89	.4181E-02	90	.3981E-02	91	.3635E-02	92	.3276E-02	93	.3044E-02	94	.2808E-02	95	.2460E-02	96	.2099E-02
97	.2477E-02	98	.2392E-02	99	.2273E-02	100	.2163E-02	101	.2095E-02	102	.2025E-02	103	.1911E-02	104	.1779E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	.9	2	-35.4	3	-52.2	4	-39.4	5	-13.3	6	-29.3	7	-24.7	8	-	
48.4	9	122.2	10	-25.5	11	-47.5	12	-51.5	13	-23.1	14	-45.4	15	-46.3	16	-
105.5	17	301.6	18	74.7	19	19.6	20	-17.4	21	-18.3	22	-27.8	23	-38.4	24	-
90.9	25	352.1	26	129.0	27	68.6	28	13.5	29	-.1	30	-5.9	31	-13.1	32	-
49.8	33	648.8	34	281.1	35	170.9	36	51.9	37	17.4	38	10.0	39	-1.1	40	-
45.3	41	1038.5	42	507.1	43	306.0	44	109.3	45	46.4	46	39.2	47	25.4	48	-
17.9	49	833.8	50	552.2	51	377.6	52	159.3	53	80.7	54	74.5	55	62.5	56	-
34.8	57	553.6	58	380.8	59	349.6	60	165.3	61	85.0	62	76.9	63	63.3	64	-
35.1																

Appendix 6E-d 8 Inch PCCP Pavement

65	695.9	66	344.3	67	295.4	68	131.5	69	57.2	70	48.0	71	30.9	72	-
19.2		73	577.5	74	231.3	75	180.3	76	62.1	77	18.8	78	9.0	79	-9.1
84.1		81	190.4	82	26.8	83	-3.3	84	-21.7	85	-16.5	86	-27.5	87	-37.7
104.8		89	32.2	90	-29.1	91	-47.3	92	-36.9	93	-18.2	94	-29.8	95	-32.3
76.6		97	-6.9	98	-27.8	99	-41.9	100	-31.0	101	-10.6	102	-23.5	103	-20.4
42.5														104	-

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000055

SUM OF APPLIED FORCES (FOSUM)= 9445.2 SUM OF TOTAL REACTIONS (SUBSUM)= 9439.3

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2663E-02	2	.2535E-02	3	.2360E-02	4	.2212E-02	5	.2127E-02	6	.2046E-02	7	.1921E-02	8	
.1782E-02		9	.4945E-02	10	.4581E-02	11	.3996E-02	12	.3458E-02	13	.3146E-02	14	.2857E-02	15	.2461E-02
.2070E-02		17	.1078E-01	18	.9587E-02	19	.7698E-02	20	.6037E-02	21	.5146E-02	22	.4379E-02	23	.3429E-02
.2554E-02		25	.1489E-01	26	.1301E-01	27	.1009E-01	28	.7611E-02	29	.6336E-02	30	.5278E-02	31	.4020E-02
.2903E-02		33	.2054E-01	34	.1760E-01	35	.1313E-01	36	.9541E-02	37	.7787E-02	38	.6377E-02	39	.4764E-02
.3383E-02		41	.2749E-01	42	.2312E-01	43	.1664E-01	44	.1175E-01	45	.9447E-02	46	.7642E-02	47	.5646E-02
.4012E-02		49	.3390E-01	50	.2827E-01	51	.1987E-01	52	.1380E-01	53	.1100E-01	54	.8828E-02	55	.6491E-02
.4669E-02		57	.2893E-01	58	.2569E-01	59	.1951E-01	60	.1389E-01	61	.1107E-01	62	.8867E-02	63	.6502E-02
.4673E-02		65	.2254E-01	66	.2012E-01	67	.1577E-01	68	.1161E-01	69	.9423E-02	70	.7646E-02	71	.5657E-02
.4027E-02		73	.1476E-01	74	.1337E-01	75	.1094E-01	76	.8513E-02	77	.7136E-02	78	.5943E-02	79	.4506E-02
.3237E-02														80	

Appendix 6E-d 8 Inch PCCP Pavement

81 .7321E-02 82 .6810E-02 83 .5922E-02 84 .5009E-02 85 .4444E-02 86 .3906E-02 87 .3176E-02 88  
.2463E-02  
89 .4181E-02 90 .3981E-02 91 .3635E-02 92 .3277E-02 93 .3044E-02 94 .2809E-02 95 .2460E-02 96  
.2099E-02  
97 .2477E-02 98 .2393E-02 99 .2273E-02 100 .2164E-02 101 .2095E-02 102 .2025E-02 103 .1911E-02 104  
.1779E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1 .2663E-02 2 .2535E-02 3 .2360E-02 4 .2212E-02 5 .2127E-02 6 .2046E-02 7 .1921E-02 8  
.1782E-02  
9 .4945E-02 10 .4581E-02 11 .3996E-02 12 .3458E-02 13 .3146E-02 14 .2857E-02 15 .2461E-02 16  
.2070E-02  
17 .1078E-01 18 .9587E-02 19 .7698E-02 20 .6037E-02 21 .5146E-02 22 .4379E-02 23 .3429E-02 24  
.2554E-02  
25 .1489E-01 26 .1301E-01 27 .1009E-01 28 .7611E-02 29 .6336E-02 30 .5278E-02 31 .4020E-02 32  
.2903E-02  
33 .2054E-01 34 .1760E-01 35 .1313E-01 36 .9541E-02 37 .7787E-02 38 .6377E-02 39 .4764E-02 40  
.3383E-02  
41 .2749E-01 42 .2312E-01 43 .1664E-01 44 .1175E-01 45 .9447E-02 46 .7642E-02 47 .5646E-02 48  
.4012E-02  
49 .3142E-01 50 .2698E-01 51 .1969E-01 52 .1385E-01 53 .1103E-01 54 .8848E-02 55 .6496E-02 56  
.4671E-02  
57 .3142E-01 58 .2698E-01 59 .1969E-01 60 .1385E-01 61 .1103E-01 62 .8848E-02 63 .6496E-02 64  
.4671E-02  
65 .2254E-01 66 .2012E-01 67 .1577E-01 68 .1161E-01 69 .9423E-02 70 .7646E-02 71 .5657E-02 72  
.4027E-02  
73 .1476E-01 74 .1337E-01 75 .1094E-01 76 .8513E-02 77 .7136E-02 78 .5943E-02 79 .4506E-02 80  
.3237E-02  
81 .7321E-02 82 .6810E-02 83 .5922E-02 84 .5009E-02 85 .4444E-02 86 .3906E-02 87 .3176E-02 88  
.2463E-02  
89 .4181E-02 90 .3981E-02 91 .3635E-02 92 .3277E-02 93 .3044E-02 94 .2809E-02 95 .2460E-02 96  
.2099E-02  
97 .2477E-02 98 .2393E-02 99 .2273E-02 100 .2164E-02 101 .2095E-02 102 .2025E-02 103 .1911E-02 104  
.1779E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.9	2	-35.4	3	-52.2	4	-39.4	5	-13.3	6	-29.3	7	-24.7	8	-
48.4															
9	122.2	10	-25.5	11	-47.5	12	-51.5	13	-23.1	14	-45.3	15	-46.3	16	-
105.5															
17	301.6	18	74.7	19	19.6	20	-17.4	21	-18.3	22	-27.8	23	-38.4	24	-
90.9															
25	352.1	26	129.1	27	68.6	28	13.5	29	-.1	30	-5.9	31	-13.1	32	-
49.7															
33	648.8	34	281.1	35	170.9	36	51.9	37	17.4	38	10.0	39	-1.1	40	-
45.3															
41	1038.6	42	507.1	43	306.0	44	109.3	45	46.4	46	39.2	47	25.4	48	-
17.9															
49	833.8	50	552.2	51	377.6	52	159.3	53	80.7	54	74.5	55	62.5	56	-
34.8															
57	553.6	58	380.8	59	349.6	60	165.3	61	85.0	62	76.9	63	63.3	64	-
35.1															
65	695.9	66	344.3	67	295.4	68	131.5	69	57.2	70	48.0	71	30.9	72	-
19.1															
73	577.5	74	231.3	75	180.4	76	62.1	77	18.8	78	9.0	79	-9.1	80	-
84.1															
81	190.4	82	26.8	83	-3.3	84	-21.7	85	-16.5	86	-27.5	87	-37.7	88	-
104.8															
89	32.2	90	-29.1	91	-47.2	92	-36.9	93	-18.2	94	-29.8	95	-32.3	96	-
76.6															
97	-6.9	98	-27.8	99	-41.9	100	-31.0	101	-10.6	102	-23.5	103	-20.4	104	-
42.5															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1568.873	.000	50	-2083.495	.000	51	-355.192	.000	52	73.930
.000										
53	46.918	.000	54	29.562	.000	55	10.298	.000	56	1.727
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2353.309	50	-1219.607	51	-170.492	52	43.276	53	35.188	54
18.192										
55	5.373	56	1.802							



Appendix 6E-d 8 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:  
 49 -3675.633 -2996.320 50 -1904.904 -1552.849 51 -266.291 -217.077 52 67.593  
 55.101  
 53 54.961 44.803 54 28.414 23.163 55 8.392 6.841 56 2.815  
 2.295

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)  
 1 .00387 2 -.05755 3 -.06963 4 -.06411 5 -.02772 6 -.05013 7 -.03584 8 -  
 .14021  
 9 .27781 10 -.02263 11 -.03455 12 -.04567 13 -.02620 14 -.04228 15 -.03660 16 -  
 .16672  
 17 1.10882 18 .10720 19 .02308 20 -.02502 21 -.03359 22 -.04187 23 -.04908 24 -  
 .23256  
 25 2.44539 26 .34974 27 .15240 28 .03668 29 -.00043 30 -.01689 31 -.03172 32 -  
 .24031  
 33 4.50579 34 .76183 35 .37971 36 .14065 37 .06044 38 .02850 39 -.00262 40 -  
 .21893  
 41 7.63644 42 1.45509 43 .72001 44 .31356 45 .17068 46 .11812 47 .06501 48 -  
 .09162  
 49 13.02742 50 3.36710 51 1.88821 52 .97110 53 .63025 54 .47727 55 .33962 56  
 .37859  
 57 8.65070 58 2.32170 59 1.74782 60 1.00821 61 .66437 62 .49323 63 .34413 64  
 .38157  
 65 4.34935 66 .83978 67 .59077 68 .32083 69 .17878 70 .12316 71 .06709 72 -  
 .08324  
 73 2.25586 74 .35263 75 .22544 76 .09473 77 .03674 78 .01439 79 -.01237 80 -  
 .22840  
 81 .59511 82 .03264 83 -.00331 84 -.02645 85 -.02583 86 -.03527 87 -.04096 88 -  
 .22773  
 89 .08059 90 -.02838 91 -.03779 92 -.03597 93 -.02280 94 -.03060 95 -.02810 96 -  
 .13320  
 97 -.02868 98 -.04523 99 -.05591 100 -.05038 101 -.02204 102 -.04016 103 -.02956 104 -  
 .12315

NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODEROTAT.X ROTAT.Y

Appendix 6E-d 8 Inch PCCP Pavement

1	.8165E-05	.2725E-04	2	.7631E-05	.2340E-04	3	.6427E-05	.1913E-04	4	.5498E-05
.1515E-04										
5	.5128E-05	.1269E-04	6	.5138E-05	.1030E-04	7	.5772E-05	.7029E-05	8	.6267E-05
.3243E-05										
9	.2162E-04	.6643E-04	10	.2350E-04	.5679E-04	11	.2276E-04	.4324E-04	12	.2026E-04
.3149E-04										
13	.1872E-04	.2507E-04	14	.1761E-04	.1944E-04	15	.1698E-04	.1239E-04	16	.1702E-04
.5746E-05										
17	.7161E-04	.1868E-03	18	.7675E-04	.1602E-03	19	.7240E-04	.1149E-03	20	.5991E-04
.7713E-04										
21	.5155E-04	.5872E-04	22	.4466E-04	.4435E-04	23	.3885E-04	.2871E-04	24	.3795E-04
.1664E-04										
25	.1132E-03	.2705E-03	26	.1197E-03	.2223E-03	27	.1104E-03	.1515E-03	28	.8721E-04
.9776E-04										
29	.7240E-04	.7357E-04	30	.6053E-04	.5559E-04	31	.5027E-04	.3702E-04	32	.4803E-04
.2276E-04										
33	.1803E-03	.3569E-03	34	.1856E-03	.2858E-03	35	.1647E-03	.1844E-03	36	.1222E-03
.1160E-03										
37	.9797E-04	.8720E-04	38	.7934E-04	.6625E-04	39	.6305E-04	.4549E-04	40	.5885E-04
.3086E-04										
41	.2732E-03	.4001E-03	42	.2733E-03	.3196E-03	43	.2326E-03	.2017E-03	44	.1618E-03
.1275E-03										
45	.1268E-03	.9617E-04	46	.1003E-03	.7351E-04	47	.7610E-04	.5189E-04	48	.6868E-04
.3888E-04										
49	.3519E-03	.4007E-03	50	.3525E-03	.3226E-03	51	.2953E-03	.1995E-03	52	.1994E-03
.1269E-03										
53	.1535E-03	.9571E-04	54	.1190E-03	.7339E-04	55	.8719E-04	.5270E-04	56	.7586E-04
.4208E-04										
57	.1926E-03	-.4114E-03	58	.2236E-03	-.3601E-03	59	.2462E-03	-.2373E-03	60	.1983E-03 -
.1421E-03										
61	.1559E-03	-.1020E-03	62	.1209E-03	-.7548E-04	63	.8790E-04	-.5268E-04	64	.7607E-04 -
.4145E-04										
65	.1427E-03	-.3764E-03	66	.1615E-03	-.3272E-03	67	.1780E-03	-.2255E-03	68	.1499E-03 -
.1402E-03										
69	.1235E-03	-.1021E-03	70	.9951E-04	-.7573E-04	71	.7597E-04	-.5196E-04	72	.6852E-04 -
.3810E-04										
73	.8096E-04	-.2661E-03	74	.9175E-04	-.2337E-03	75	.1002E-03	-.1727E-03	76	.9146E-04 -
.1152E-03										

Appendix 6E-d 8 Inch PCCP Pavement

77	.8033E-04	-.8641E-04	78	.6893E-04	-.6467E-04	79	.5737E-04	-.4294E-04	80	.5447E-04	-
.2779E-04											
81	.2936E-04	-.1213E-03	82	.3387E-04	-.1072E-03	83	.3659E-04	-.8455E-04	84	.3602E-04	-
.6181E-04											
85	.3451E-04	-.4880E-04	86	.3275E-04	-.3758E-04	87	.3106E-04	-.2425E-04	88	.3113E-04	-
.1286E-04											
89	.1151E-04	-.4808E-04	90	.1325E-04	-.4372E-04	91	.1421E-04	-.3650E-04	92	.1445E-04	-
.2879E-04											
93	.1461E-04	-.2391E-04	94	.1488E-04	-.1921E-04	95	.1545E-04	-.1289E-04	96	.1588E-04	-
.6851E-05											
97	.5431E-05	-.2010E-04	98	.5102E-05	-.1828E-04	99	.4533E-05	-.1590E-04	100	.4290E-05	-
.1338E-04											
101	.4278E-05	-.1165E-04	102	.4555E-05	-.9800E-05	103	.5391E-05	-.7014E-05	104	.5945E-05	-
.3562E-05											

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	-.644330E+02	.000000E+00	.000000E+00	-.644330E+02	.000000E+00	.322165E+02
25	1	-.773731E+02	.000000E+00	.000000E+00	-.773731E+02	.000000E+00	.386865E+02
29	1	-.156997E+02	-.161265E+02	-.180721E+02	-.339864E+02	.216022E+01	.180733E+02
33	1	-.789669E+02	.000000E+00	.000000E+00	-.789669E+02	.000000E+00	.394835E+02
41	1	.247979E+01	.000000E+00	.000000E+00	.000000E+00	.247979E+01	.123990E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.579048E+01	-.695964E+02	-.667614E+02	.725519E+02	.696566E+02
51	1	.000000E+00	-.808013E+02	-.551855E+02	-.108794E+03	.279927E+02	.683934E+02
52	1	.000000E+00	-.488529E+02	-.323036E+02	-.649255E+02	.160726E+02	.404991E+02
53	1	.000000E+00	-.385535E+02	-.229341E+02	-.492362E+02	.106827E+02	.299594E+02
54	1	.000000E+00	-.291114E+02	-.159786E+02	-.361702E+02	.705876E+01	.216145E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 108.79400 AND OCCURS AT NODE 51

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      8 inch PCCP Pavement with 85K load
*
*****
```

TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```

Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	123.27100	132.00000	.00000	6.01140	90.00000
1	123.27100	132.00000	12.00000	18.01140	90.00000
1	123.27100	132.00000	84.00000	90.01140	90.00000
1	123.27100	132.00000	96.00000	102.01100	90.00000
1	171.27100	180.00000	.00000	6.01140	90.00000
1	171.27100	180.00000	12.00000	18.01140	90.00000
1	171.27100	180.00000	84.00000	90.01140	90.00000
1	171.27100	180.00000	96.00000	102.01100	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:  
1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
66.00000										

Appendix 6E-d 8 Inch PCCP Pavement

61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
144.00000										
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
66.00000										
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000
144.00000										
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
66.00000										
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
144.00000										
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
66.00000										
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
144.00000										
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
66.00000										
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
144.00000										
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
66.00000										
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000
144.00000										

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.47456	1.00000	-1.00000	-.24857	90.00000
22	-1.00000	-.55556	-1.00000	-.24857	90.00000
15	.47456	1.00000	.50000	1.00000	90.00000
16	.47456	1.00000	-1.00000	-.83909	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.83909	90.00000
19	.47456	1.00000	-.75000	.00142	90.00000
26	-1.00000	-.55556	-.75000	.00142	90.00000
19	.47456	1.00000	.75000	1.00000	90.00000
20	.47456	1.00000	-1.00000	-.65122	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.65122	90.00000
36	-.09113	1.00000	-1.00000	-.24857	90.00000
36	-.09113	1.00000	.50000	1.00000	90.00000



Appendix 6E-d 8 Inch PCCP Pavement

37	-.09113	1.00000	-1.00000	-.83909	90.00000
40	-.09113	1.00000	-.75000	.00142	90.00000
40	-.09113	1.00000	.75000	1.00000	90.00000
41	-.09113	1.00000	-1.00000	-.65122	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000

Appendix 6E-d 8 Inch PCCP Pavement

37	146.00000	82.00000	144.00000	38	146.00000	98.00000	144.00000	39	146.00000	121.00000	144.00000	40	146.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000
81	260.00000	.00000	66.00000	82	260.00000	16.00000	66.00000	83	260.00000	41.00000	66.00000	84	260.00000
85	260.00000	82.00000	144.00000	86	260.00000	98.00000	144.00000	87	260.00000	121.00000	144.00000	88	260.00000
89	300.00000	.00000	66.00000	90	300.00000	16.00000	66.00000	91	300.00000	41.00000	66.00000	92	300.00000
93	300.00000	82.00000	144.00000	94	300.00000	98.00000	144.00000	95	300.00000	121.00000	144.00000	96	300.00000
97	360.00000	.00000	66.00000	98	360.00000	16.00000	66.00000	99	360.00000	41.00000	66.00000	100	360.00000
101	360.00000	82.00000	144.00000	102	360.00000	98.00000	144.00000	103	360.00000	121.00000	144.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
10	1																

Appendix 6E-d 8 Inch PCCP Pavement

20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
	1																	
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
	1																	
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
	1																	
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
	2																	
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
	0																	
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
	1																	
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
	1																	
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
	1																	
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	1																	
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
	0																	
20	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
	0																	
30	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
	0																	
40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	

Appendix 6E-d 8 Inch PCCP Pavement

90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
100	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .04813447  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01051496  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00123345  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00014644  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00001743

SUM OF APPLIED FORCES (FOSUM)= 37780.3 SUM OF TOTAL REACTIONS (SUBSUM)= 37755.5

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1166E-01	2	.1175E-01	3	.1183E-01	4	.1168E-01	5	.1144E-01	6	.1110E-01	7	.1040E-01	8	.9528E-02
9	.2405E-01	10	.2394E-01	11	.2352E-01	12	.2272E-01	13	.2190E-01	14	.2079E-01	15	.1868E-01	16	.1608E-01
17	.4298E-01	18	.4111E-01	19	.3830E-01	20	.3644E-01	21	.3532E-01	22	.3344E-01	23	.2898E-01	24	.2364E-01
25	.4975E-01	26	.4705E-01	27	.4313E-01	28	.4099E-01	29	.3998E-01	30	.3795E-01	31	.3247E-01	32	.2615E-01
33	.5369E-01	34	.5089E-01	35	.4682E-01	36	.4448E-01	37	.4326E-01	38	.4100E-01	39	.3523E-01	40	.2827E-01
41	.5700E-01	42	.5399E-01	43	.4957E-01	44	.4721E-01	45	.4611E-01	46	.4381E-01	47	.3758E-01	48	.3017E-01
49	.6005E-01	50	.5667E-01	51	.5160E-01	52	.4934E-01	53	.4869E-01	54	.4653E-01	55	.3958E-01	56	.3188E-01
57	.5471E-01	58	.5364E-01	59	.5087E-01	60	.4840E-01	61	.4667E-01	62	.4410E-01	63	.3861E-01	64	.3230E-01

Appendix 6E-d 8 Inch PCCP Pavement

65	.4425E-01	66	.4378E-01	67	.4229E-01	68	.4043E-01	69	.3890E-01	70	.3673E-01	71	.3235E-01	72
.2710E-01														
73	.3128E-01	74	.3142E-01	75	.3106E-01	76	.3001E-01	77	.2890E-01	78	.2734E-01	79	.2428E-01	80
.2050E-01														
81	.1826E-01	82	.1859E-01	83	.1875E-01	84	.1842E-01	85	.1789E-01	86	.1710E-01	87	.1554E-01	88
.1359E-01														
89	.1223E-01	90	.1243E-01	91	.1259E-01	92	.1247E-01	93	.1223E-01	94	.1185E-01	95	.1111E-01	96
.1018E-01														
97	.8301E-02	98	.8344E-02	99	.8380E-02	100	.8332E-02	101	.8251E-02	102	.8137E-02	103	.7904E-02	104
.7609E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE:(DOWNWARD POSITIVE)

1	.1166E-01	2	.1175E-01	3	.1183E-01	4	.1168E-01	5	.1144E-01	6	.1110E-01	7	.1040E-01	8
.9528E-02														
9	.2405E-01	10	.2394E-01	11	.2352E-01	12	.2272E-01	13	.2190E-01	14	.2079E-01	15	.1868E-01	16
.1608E-01														
17	.4298E-01	18	.4111E-01	19	.3830E-01	20	.3644E-01	21	.3532E-01	22	.3344E-01	23	.2898E-01	24
.2364E-01														
25	.4975E-01	26	.4705E-01	27	.4313E-01	28	.4099E-01	29	.3998E-01	30	.3795E-01	31	.3247E-01	32
.2615E-01														
33	.5369E-01	34	.5089E-01	35	.4682E-01	36	.4448E-01	37	.4326E-01	38	.4100E-01	39	.3523E-01	40
.2827E-01														
41	.5700E-01	42	.5399E-01	43	.4957E-01	44	.4721E-01	45	.4611E-01	46	.4381E-01	47	.3758E-01	48
.3017E-01														
49	.5738E-01	50	.5515E-01	51	.5123E-01	52	.4887E-01	53	.4768E-01	54	.4532E-01	55	.3909E-01	56
.3209E-01														
57	.5738E-01	58	.5515E-01	59	.5123E-01	60	.4887E-01	61	.4768E-01	62	.4532E-01	63	.3909E-01	64
.3209E-01														
65	.4425E-01	66	.4378E-01	67	.4229E-01	68	.4043E-01	69	.3890E-01	70	.3673E-01	71	.3235E-01	72
.2710E-01														
73	.3128E-01	74	.3142E-01	75	.3106E-01	76	.3001E-01	77	.2890E-01	78	.2734E-01	79	.2428E-01	80
.2050E-01														
81	.1826E-01	82	.1859E-01	83	.1875E-01	84	.1842E-01	85	.1789E-01	86	.1710E-01	87	.1554E-01	88
.1359E-01														
89	.1223E-01	90	.1243E-01	91	.1259E-01	92	.1247E-01	93	.1223E-01	94	.1185E-01	95	.1111E-01	96
.1018E-01														

Appendix 6E-d 8 Inch PCCP Pavement

97 .8301E-02 98 .8344E-02 99 .8380E-02 100 .8332E-02 101 .8251E-02 102 .8137E-02 103 .7904E-02 104  
.7609E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-85.7	2	-130.0	3	-184.9	4	-134.8	5	-51.3	6	-127.0	7	-136.2	8	-
293.8															
9	927.1	10	340.1	11	565.5	12	372.2	13	173.8	14	305.8	15	287.0	16	
86.9															
17	1549.2	18	847.2	19	865.4	20	592.2	21	432.3	22	573.4	23	530.9	24	
318.7															
25	1258.0	26	689.5	27	592.5	28	430.8	29	367.0	30	475.2	31	393.4	32	
245.3															
33	1436.0	34	814.4	35	761.2	36	542.3	37	429.4	38	545.2	39	503.9	40	
336.6															
41	1560.5	42	913.5	43	830.7	44	606.9	45	495.4	46	636.1	47	572.9	48	
396.5															
49	1019.8	50	748.7	51	695.3	52	516.9	53	442.5	54	555.9	55	496.9	56	
372.4															
57	719.1	58	546.8	59	638.6	60	454.3	61	323.7	62	398.5	63	425.4	64	
402.4															
65	923.6	66	556.9	67	636.1	68	453.1	69	306.8	70	374.3	71	390.9	72	
365.2															
73	696.1	74	367.6	75	432.8	76	301.5	77	195.6	78	249.6	79	235.3	80	
122.2															
81	146.1	82	31.2	83	36.5	84	26.7	85	16.0	86	13.9	87	-12.5	88	-
147.4															
89	-45.1	90	-60.6	91	-83.8	92	-57.2	93	-29.7	94	-54.7	95	-70.7	96	-
169.1															
97	-77.0	98	-62.8	99	-101.9	100	-74.9	101	-28.9	102	-68.5	103	-69.2	104	-
122.7															

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000213

SUM OF APPLIED FORCES (FOSUM)= 37780.3 SUM OF TOTAL REACTIONS (SUBSUM)= 37758.2

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.1166E-01	2	.1175E-01	3	.1183E-01	4	.1168E-01	5	.1144E-01	6	.1110E-01	7	.1040E-01	8
.9530E-02														
9	.2405E-01	10	.2395E-01	11	.2352E-01	12	.2272E-01	13	.2191E-01	14	.2079E-01	15	.1868E-01	16
.1608E-01														
17	.4299E-01	18	.4111E-01	19	.3831E-01	20	.3645E-01	21	.3532E-01	22	.3344E-01	23	.2898E-01	24
.2364E-01														
25	.4975E-01	26	.4705E-01	27	.4313E-01	28	.4099E-01	29	.3998E-01	30	.3796E-01	31	.3247E-01	32
.2615E-01														
33	.5369E-01	34	.5089E-01	35	.4682E-01	36	.4448E-01	37	.4326E-01	38	.4100E-01	39	.3524E-01	40
.2828E-01														
41	.5700E-01	42	.5399E-01	43	.4957E-01	44	.4721E-01	45	.4611E-01	46	.4381E-01	47	.3758E-01	48
.3017E-01														
49	.6005E-01	50	.5667E-01	51	.5160E-01	52	.4934E-01	53	.4869E-01	54	.4653E-01	55	.3959E-01	56
.3188E-01														
57	.5472E-01	58	.5364E-01	59	.5087E-01	60	.4840E-01	61	.4667E-01	62	.4410E-01	63	.3861E-01	64
.3230E-01														
65	.4425E-01	66	.4378E-01	67	.4229E-01	68	.4044E-01	69	.3890E-01	70	.3673E-01	71	.3235E-01	72
.2710E-01														
73	.3128E-01	74	.3142E-01	75	.3106E-01	76	.3001E-01	77	.2890E-01	78	.2734E-01	79	.2428E-01	80
.2051E-01														
81	.1826E-01	82	.1859E-01	83	.1876E-01	84	.1842E-01	85	.1789E-01	86	.1710E-01	87	.1554E-01	88
.1359E-01														
89	.1223E-01	90	.1244E-01	91	.1259E-01	92	.1247E-01	93	.1223E-01	94	.1185E-01	95	.1111E-01	96
.1018E-01														
97	.8302E-02	98	.8345E-02	99	.8381E-02	100	.8333E-02	101	.8252E-02	102	.8138E-02	103	.7906E-02	104
.7610E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1166E-01	2	.1175E-01	3	.1183E-01	4	.1168E-01	5	.1144E-01	6	.1110E-01	7	.1040E-01	8
.9530E-02														
9	.2405E-01	10	.2395E-01	11	.2352E-01	12	.2272E-01	13	.2191E-01	14	.2079E-01	15	.1868E-01	16
.1608E-01														
17	.4299E-01	18	.4111E-01	19	.3831E-01	20	.3645E-01	21	.3532E-01	22	.3344E-01	23	.2898E-01	24
.2364E-01														
25	.4975E-01	26	.4705E-01	27	.4313E-01	28	.4099E-01	29	.3998E-01	30	.3796E-01	31	.3247E-01	32
.2615E-01														

Appendix 6E-d 8 Inch PCCP Pavement

33	.5369E-01	34	.5089E-01	35	.4682E-01	36	.4448E-01	37	.4326E-01	38	.4100E-01	39	.3524E-01	40
.2828E-01														
41	.5700E-01	42	.5399E-01	43	.4957E-01	44	.4721E-01	45	.4611E-01	46	.4381E-01	47	.3758E-01	48
.3017E-01														
49	.5738E-01	50	.5515E-01	51	.5123E-01	52	.4887E-01	53	.4768E-01	54	.4532E-01	55	.3910E-01	56
.3209E-01														
57	.5738E-01	58	.5515E-01	59	.5123E-01	60	.4887E-01	61	.4768E-01	62	.4532E-01	63	.3910E-01	64
.3209E-01														
65	.4425E-01	66	.4378E-01	67	.4229E-01	68	.4044E-01	69	.3890E-01	70	.3673E-01	71	.3235E-01	72
.2710E-01														
73	.3128E-01	74	.3142E-01	75	.3106E-01	76	.3001E-01	77	.2890E-01	78	.2734E-01	79	.2428E-01	80
.2051E-01														
81	.1826E-01	82	.1859E-01	83	.1876E-01	84	.1842E-01	85	.1789E-01	86	.1710E-01	87	.1554E-01	88
.1359E-01														
89	.1223E-01	90	.1244E-01	91	.1259E-01	92	.1247E-01	93	.1223E-01	94	.1185E-01	95	.1111E-01	96
.1018E-01														
97	.8302E-02	98	.8345E-02	99	.8381E-02	100	.8333E-02	101	.8252E-02	102	.8138E-02	103	.7906E-02	104
.7610E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-85.6	2	-130.0	3	-184.8	4	-134.8	5	-51.3	6	-126.9	7	-136.2	8	-
293.8															
9	927.1	10	340.2	11	565.6	12	372.2	13	173.8	14	305.8	15	287.1	16	
87.0															
17	1549.3	18	847.2	19	865.4	20	592.3	21	432.3	22	573.5	23	530.9	24	
318.8															
25	1258.0	26	689.5	27	592.5	28	430.8	29	367.0	30	475.3	31	393.4	32	
245.4															
33	1436.0	34	814.4	35	761.2	36	542.3	37	429.4	38	545.2	39	503.9	40	
336.6															
41	1560.5	42	913.6	43	830.7	44	606.9	45	495.4	46	636.1	47	572.9	48	
396.5															
49	1019.8	50	748.7	51	695.3	52	516.9	53	442.5	54	556.0	55	497.0	56	
372.4															
57	719.1	58	546.8	59	638.6	60	454.3	61	323.7	62	398.5	63	425.4	64	
402.4															



Appendix 6E-d 8 Inch PCCP Pavement

65	923.6	66	556.9	67	636.1	68	453.1	69	306.8	70	374.3	71	390.9	72	
365.3		73	696.1	74	367.6	75	432.8	76	301.5	77	195.6	78	249.6	79	235.3
122.3		81	146.2	82	31.2	83	36.5	84	26.7	85	16.0	86	13.9	87	-12.5
147.3		89	-45.1	90	-60.6	91	-83.7	92	-57.2	93	-29.7	94	-54.7	95	-70.7
169.1		97	-76.9	98	-62.8	99	-101.8	100	-74.9	101	-28.9	102	-68.5	103	-69.1
122.7														104	-

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1684.073	.000	50	-2453.373	.000	51	-717.104	.000	52	-761.160
.000			53	-1276.144	.000	54	-1868.462	.000	55	-888.090
.000									56	189.845

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2526.110	50	-1436.121	51	-344.210	52	-445.557	53	-957.108	54	-
1149.823		55	-463.352	56	198.099						

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3945.531	-3216.336	50	-2243.077	-1828.522	51	-537.621	-438.261	52	-695.915
-567.299			53	-1494.907	-1218.625	54	-1795.908	-1463.997	55	-723.709
252.227									56	309.411

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	-.35672	2	-.21142	3	-.24644	4	-.21917	5	-.10688	6	-.21698	7	-.19734	8	-
.85152		9	2.10708	10	.30169	11	.41134	12	.33012	13	.19754	14	.28514	15	.22693
.13751		17	5.69589	18	1.21547	19	1.01816	20	.84972	21	.79466	22	.86496	23	.67887
.81533		25	8.73645	26	1.86849	27	1.31670	28	1.16738	29	1.27439	30	1.35399	31	.95016
1.18534														32	

Appendix 6E-d 8 Inch PCCP Pavement

33	9.97244	34	2.20715	35	1.69166	36	1.46974	37	1.49101	38	1.55324	39	1.21708	40
1.62606														
41	11.47419	42	2.62139	43	1.95466	44	1.74155	45	1.82139	46	1.91897	47	1.46516	48
2.02830														
49	15.93457	50	4.56504	51	3.47650	52	3.15202	53	3.45688	54	3.56378	55	2.70089	56
4.04775														
57	11.23646	58	3.33405	59	3.19305	60	2.76992	61	2.52892	62	2.55479	63	2.31190	64
4.37444														
65	5.77257	66	1.35836	67	1.27218	68	1.10513	69	.95881	70	.95986	71	.84982	72
1.58814														
73	2.71913	74	.56035	75	.54101	76	.45961	77	.38202	78	.40003	79	.31976	80
.33221														
81	.45676	82	.03803	83	.03650	84	.03256	85	.02504	86	.01780	87	-.01356	88 -
.32021														
89	-.11268	90	-.05908	91	-.06699	92	-.05581	93	-.03708	94	-.05606	95	-.06144	96 -
.29406														
97	-.32051	98	-.10207	99	-.13578	100	-.12178	101	-.06012	102	-.11709	103	-.10019	104 -
.35562														

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y
1	-.5570E-05	.1673E-03	2	-.5530E-05	.1641E-03	3	.5629E-06	.1608E-03	4	.1175E-04
.1542E-03										
5	.1826E-04	.1467E-03	6	.2508E-04	.1360E-03	7	.3484E-04	.1164E-03	8	.3987E-04
.8931E-04										
9	.1210E-05	.3021E-03	10	.1113E-04	.2836E-03	11	.2354E-04	.2566E-03	12	.4208E-04
.2393E-03										
13	.6011E-04	.2297E-03	14	.7896E-04	.2144E-03	15	.1045E-03	.1788E-03	16	.1183E-03
.1375E-03										
17	.1166E-03	.4082E-03	18	.1187E-03	.3627E-03	19	.9499E-04	.2942E-03	20	.6231E-04
.2750E-03										
21	.8705E-04	.2792E-03	22	.1521E-03	.2684E-03	23	.2228E-03	.2091E-03	24	.2359E-03
.1500E-03										
25	.1753E-03	.2980E-03	26	.1681E-03	.2722E-03	27	.1245E-03	.2376E-03	28	.5915E-04
.2240E-03										
29	.8349E-04	.2208E-03	30	.1789E-03	.2100E-03	31	.2700E-03	.1739E-03	32	.2770E-03
.1284E-03										

Appendix 6E-d 8 Inch PCCP Pavement

33	.1745E-03	.1828E-03	34	.1762E-03	.1787E-03	35	.1317E-03	.1743E-03	36	.6820E-04
.1679E-03										
37	.9794E-04	.1610E-03	38	.1909E-03	.1519E-03	39	.2910E-03	.1376E-03	40	.3071E-03
.1093E-03										
41	.1862E-03	.1868E-03	42	.1919E-03	.1681E-03	43	.1406E-03	.1362E-03	44	.6151E-04
.1394E-03										
45	.9280E-04	.1576E-03	46	.2023E-03	.1616E-03	47	.3133E-03	.1261E-03	48	.3260E-03
.1049E-03										
49	.2084E-03	.1919E-03	50	.2176E-03	.1677E-03	51	.1531E-03	.1186E-03	52	.4193E-04
.1290E-03										
53	.6939E-04	.1669E-03	54	.2153E-03	.1803E-03	55	.3377E-03	.1250E-03	56	.3360E-03
.1076E-03										
57	.5759E-04	-.6711E-03	58	.8741E-04	-.6327E-03	59	.1089E-03	-.5446E-03	60	.9839E-04 -
.5071E-03										
61	.1286E-03	-.4980E-03	62	.1971E-03	-.4744E-03	63	.2642E-03	-.3999E-03	64	.2805E-03 -
.3322E-03										
65	.1922E-04	-.6194E-03	66	.4257E-04	-.5858E-03	67	.6949E-04	-.5185E-03	68	.8264E-04 -
.4805E-03										
69	.1128E-03	-.4649E-03	70	.1599E-03	-.4393E-03	71	.2151E-03	-.3755E-03	72	.2364E-03 -
.3106E-03										
73	-.1781E-04	-.4535E-03	74	.5688E-06	-.4390E-03	75	.2802E-04	-.4088E-03	76	.5710E-04 -
.3811E-03										
77	.8291E-04	-.3631E-03	78	.1128E-03	-.3392E-03	79	.1514E-03	-.2913E-03	80	.1734E-03 -
.2369E-03										
81	-.2578E-04	-.2209E-03	82	-.1552E-04	-.2208E-03	83	.2699E-05	-.2175E-03	84	.2517E-04 -
.2078E-03										
85	.4113E-04	-.1975E-03	86	.5715E-04	-.1830E-03	87	.7750E-04	-.1546E-03	88	.9028E-04 -
.1193E-03										
89	-.1515E-04	-.9984E-04	90	-.1058E-04	-.1029E-03	91	-.1070E-05	-.1049E-03	92	.1097E-04 -
.1023E-03										
93	.1921E-04	-.9772E-04	94	.2724E-04	-.9081E-04	95	.3709E-04	-.7727E-04	96	.4271E-04 -
.6016E-04										
97	-.2840E-05	-.4803E-04	98	-.2466E-05	-.5076E-04	99	-.7965E-08	-.5278E-04	100	.3896E-05 -
.5234E-04										
101	.6071E-05	-.5060E-04	102	.8330E-05	-.4754E-04	103	.1176E-04	-.4116E-04	104	.1359E-04 -
.3136E-04										

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
------	-------	----------	----------	-----------	-------	-------	------------

Appendix 6E-d 8 Inch PCCP Pavement

17	1	-.613355E+01	.000000E+00	.000000E+00	-.613355E+01	.000000E+00	.306677E+01
25	1	.219107E+03	.000000E+00	.000000E+00	.000000E+00	.219107E+03	.109554E+03
29	1	.112523E+03	.887222E+02	-.457357E+01	.878735E+02	.113371E+03	.127489E+02
33	1	-.684157E+01	.000000E+00	.000000E+00	-.684157E+01	.000000E+00	.342079E+01
41	1	-.912111E+01	.000000E+00	.000000E+00	-.912111E+01	.000000E+00	.456055E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.230948E+02	-.252474E+02	-.162154E+02	.393103E+02	.277628E+02
51	1	.000000E+00	-.104302E+03	-.121498E+02	-.105698E+03	.139660E+01	.535474E+02
52	1	.000000E+00	-.528956E+02	.223427E+02	-.610698E+02	.817418E+01	.346220E+02
53	1	.000000E+00	.109763E+03	.266259E+02	-.611783E+01	.115880E+03	.609991E+02
54	1	.000000E+00	.191501E+03	-.123759E+02	-.796486E+00	.192297E+03	.965469E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 219.10720 AND OCCURS AT NODE 25

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
*      8 inch PCCP Pavement with 90K load Single Axle
*
*****
```

TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

```

CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```

Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	171.01800	180.00000	.00000	6.18570	90.00000
1	171.01800	180.00000	8.00000	14.18570	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP), INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

Appendix 6E-d 8 Inch PCCP Pavement

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
144.00000	37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
66.00000	41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
144.00000	45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
66.00000	49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
144.00000	53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
66.00000	57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
144.00000	61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
66.00000	65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
144.00000	69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000



Appendix 6E-d 8 Inch PCCP Pavement

66.00000	73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
144.00000	77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
66.00000	81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
144.00000	85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
66.00000	89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
144.00000	93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
66.00000	97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
144.00000	101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.12275	1.00000	-1.00000	-.22679	90.00000
36	-.12275	1.00000	.00000	.77321	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
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Appendix 6E-d 8 Inch PCCP Pavement

5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000
66.00000										
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000
144.00000										
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000
66.00000										
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000
144.00000										
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000
66.00000										
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000
144.00000										

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
144.00000	85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
66.00000	89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
144.00000	93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
66.00000	97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
144.00000	101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

10	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

10	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	
20	0	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
30	0	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
40	0	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
50	58	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
60	52	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
70	0	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
80	0	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
90	0	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
100	0	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
		101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .03220380  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00317784  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00034335  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004052  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000482

SUM OF APPLIED FORCES (FOSUM)= 10000.8 SUM OF TOTAL REACTIONS (SUBSUM)= 9993.7

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.2822E-02	2	.2687E-02	3	.2502E-02	4	.2345E-02	5	.2255E-02	6	.2169E-02	7	.2036E-02	8
.1887E-02														
9	.5248E-02	10	.4862E-02	11	.4243E-02	12	.3672E-02	13	.3341E-02	14	.3032E-02	15	.2611E-02	16
.2196E-02														
17	.1144E-01	18	.1017E-01	19	.8172E-02	20	.6409E-02	21	.5463E-02	22	.4648E-02	23	.3639E-02	24
.2709E-02														
25	.1578E-01	26	.1380E-01	27	.1071E-01	28	.8075E-02	29	.6722E-02	30	.5599E-02	31	.4264E-02	32
.3079E-02														
33	.2175E-01	34	.1864E-01	35	.1392E-01	36	.1011E-01	37	.8255E-02	38	.6759E-02	39	.5049E-02	40
.3586E-02														
41	.2907E-01	42	.2446E-01	43	.1762E-01	44	.1244E-01	45	.1001E-01	46	.8095E-02	47	.5981E-02	48
.4250E-02														
49	.3577E-01	50	.2986E-01	51	.2102E-01	52	.1460E-01	53	.1164E-01	54	.9346E-02	55	.6872E-02	56
.4944E-02														
57	.3055E-01	58	.2714E-01	59	.2063E-01	60	.1470E-01	61	.1172E-01	62	.9387E-02	63	.6884E-02	64
.4949E-02														
65	.2380E-01	66	.2126E-01	67	.1668E-01	68	.1229E-01	69	.9974E-02	70	.8094E-02	71	.5990E-02	72
.4264E-02														
73	.1559E-01	74	.1413E-01	75	.1157E-01	76	.9007E-02	77	.7553E-02	78	.6292E-02	79	.4772E-02	80
.3429E-02														
81	.7737E-02	82	.7200E-02	83	.6265E-02	84	.5302E-02	85	.4705E-02	86	.4136E-02	87	.3363E-02	88
.2609E-02														
89	.4421E-02	90	.4211E-02	91	.3847E-02	92	.3469E-02	93	.3223E-02	94	.2974E-02	95	.2605E-02	96
.2223E-02														
97	.2621E-02	98	.2532E-02	99	.2406E-02	100	.2290E-02	101	.2218E-02	102	.2144E-02	103	.2023E-02	104
.1884E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2822E-02	2	.2687E-02	3	.2502E-02	4	.2345E-02	5	.2255E-02	6	.2169E-02	7	.2036E-02	8
.1887E-02														
9	.5248E-02	10	.4862E-02	11	.4243E-02	12	.3672E-02	13	.3341E-02	14	.3032E-02	15	.2611E-02	16
.2196E-02														
17	.1144E-01	18	.1017E-01	19	.8172E-02	20	.6409E-02	21	.5463E-02	22	.4648E-02	23	.3639E-02	24
.2709E-02														
25	.1578E-01	26	.1380E-01	27	.1071E-01	28	.8075E-02	29	.6722E-02	30	.5599E-02	31	.4264E-02	32
.3079E-02														

Appendix 6E-d 8 Inch PCCP Pavement

33	.2175E-01	34	.1864E-01	35	.1392E-01	36	.1011E-01	37	.8255E-02	38	.6759E-02	39	.5049E-02	40	.3586E-02
41	.2907E-01	42	.2446E-01	43	.1762E-01	44	.1244E-01	45	.1001E-01	46	.8095E-02	47	.5981E-02	48	.4250E-02
49	.3316E-01	50	.2850E-01	51	.2082E-01	52	.1465E-01	53	.1168E-01	54	.9366E-02	55	.6878E-02	56	.4946E-02
57	.3316E-01	58	.2850E-01	59	.2082E-01	60	.1465E-01	61	.1168E-01	62	.9366E-02	63	.6878E-02	64	.4946E-02
65	.2380E-01	66	.2126E-01	67	.1668E-01	68	.1229E-01	69	.9974E-02	70	.8094E-02	71	.5990E-02	72	.4264E-02
73	.1559E-01	74	.1413E-01	75	.1157E-01	76	.9007E-02	77	.7553E-02	78	.6292E-02	79	.4772E-02	80	.3429E-02
81	.7737E-02	82	.7200E-02	83	.6265E-02	84	.5302E-02	85	.4705E-02	86	.4136E-02	87	.3363E-02	88	.2609E-02
89	.4421E-02	90	.4211E-02	91	.3847E-02	92	.3469E-02	93	.3223E-02	94	.2974E-02	95	.2605E-02	96	.2223E-02
97	.2621E-02	98	.2532E-02	99	.2406E-02	100	.2290E-02	101	.2218E-02	102	.2144E-02	103	.2023E-02	104	.1884E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	1.0	2	-37.6	3	-55.4	4	-41.8	5	-14.1	6	-31.1	7	-26.2	8	-
9	130.5	10	-26.4	11	-49.4	12	-53.9	13	-24.2	14	-47.7	15	-48.8	16	-
17	320.9	18	80.4	19	22.3	20	-17.6	21	-18.9	22	-29.0	23	-40.3	24	-
25	373.9	26	137.7	27	73.7	28	14.9	29	.1	30	-6.0	31	-13.7	32	-
33	687.7	34	299.0	35	182.3	36	55.5	37	18.7	38	10.8	39	-1.0	40	-
41	1097.7	42	537.6	43	324.8	44	116.0	45	49.3	46	41.6	47	27.0	48	-
49	877.9	50	582.7	51	399.1	52	168.4	53	85.3	54	78.7	55	66.1	56	-
57	583.5	58	401.6	59	369.0	60	174.7	61	89.9	62	81.4	63	67.0	64	-

Appendix 6E-d 8 Inch PCCP Pavement

65	734.1	66	363.5	67	312.1	68	139.2	69	60.6	70	50.9	71	32.7	72	-
20.2		73	609.1	74	244.3	75	190.8	76	65.9	77	20.0	78	9.7	79	-9.5
88.8		81	200.8	82	28.3	83	-3.4	84	-22.8	85	-17.4	86	-29.0	87	-39.7
110.7		89	33.9	90	-30.7	91	-49.8	92	-38.9	93	-19.2	94	-31.5	95	-34.1
81.0		97	-7.3	98	-29.4	99	-44.3	100	-32.7	101	-11.2	102	-24.8	103	-21.6
45.0														104	-

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000058

SUM OF APPLIED FORCES (FOSUM)= 10000.8 SUM OF TOTAL REACTIONS (SUBSUM)= 9994.5

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2822E-02	2	.2688E-02	3	.2502E-02	4	.2345E-02	5	.2255E-02	6	.2169E-02	7	.2036E-02	8	
.1888E-02		9	.5248E-02	10	.4863E-02	11	.4243E-02	12	.3672E-02	13	.3341E-02	14	.3033E-02	15	.2612E-02
.2196E-02		17	.1144E-01	18	.1017E-01	19	.8173E-02	20	.6409E-02	21	.5463E-02	22	.4649E-02	23	.3639E-02
.2710E-02		25	.1578E-01	26	.1380E-01	27	.1071E-01	28	.8075E-02	29	.6723E-02	30	.5599E-02	31	.4264E-02
.3079E-02		33	.2175E-01	34	.1864E-01	35	.1392E-01	36	.1012E-01	37	.8255E-02	38	.6760E-02	39	.5050E-02
.3587E-02		41	.2907E-01	42	.2446E-01	43	.1762E-01	44	.1244E-01	45	.1001E-01	46	.8095E-02	47	.5981E-02
.4251E-02		49	.3577E-01	50	.2986E-01	51	.2102E-01	52	.1460E-01	53	.1164E-01	54	.9346E-02	55	.6873E-02
.4944E-02		57	.3055E-01	58	.2714E-01	59	.2063E-01	60	.1470E-01	61	.1172E-01	62	.9387E-02	63	.6885E-02
.4949E-02		65	.2380E-01	66	.2126E-01	67	.1668E-01	68	.1229E-01	69	.9974E-02	70	.8095E-02	71	.5991E-02
.4265E-02		73	.1559E-01	74	.1413E-01	75	.1157E-01	76	.9008E-02	77	.7553E-02	78	.6293E-02	79	.4773E-02
.3429E-02														80	

Appendix 6E-d 8 Inch PCCP Pavement

81	.7738E-02	82	.7201E-02	83	.6265E-02	84	.5302E-02	85	.4705E-02	86	.4136E-02	87	.3364E-02	88	.2610E-02
89	.4422E-02	90	.4211E-02	91	.3847E-02	92	.3469E-02	93	.3224E-02	94	.2974E-02	95	.2606E-02	96	.2223E-02
97	.2621E-02	98	.2532E-02	99	.2406E-02	100	.2291E-02	101	.2218E-02	102	.2144E-02	103	.2023E-02	104	.1884E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2822E-02	2	.2688E-02	3	.2502E-02	4	.2345E-02	5	.2255E-02	6	.2169E-02	7	.2036E-02	8	.1888E-02
9	.5248E-02	10	.4863E-02	11	.4243E-02	12	.3672E-02	13	.3341E-02	14	.3033E-02	15	.2612E-02	16	.2196E-02
17	.1144E-01	18	.1017E-01	19	.8173E-02	20	.6409E-02	21	.5463E-02	22	.4649E-02	23	.3639E-02	24	.2710E-02
25	.1578E-01	26	.1380E-01	27	.1071E-01	28	.8075E-02	29	.6723E-02	30	.5599E-02	31	.4264E-02	32	.3079E-02
33	.2175E-01	34	.1864E-01	35	.1392E-01	36	.1012E-01	37	.8255E-02	38	.6760E-02	39	.5050E-02	40	.3587E-02
41	.2907E-01	42	.2446E-01	43	.1762E-01	44	.1244E-01	45	.1001E-01	46	.8095E-02	47	.5981E-02	48	.4251E-02
49	.3316E-01	50	.2850E-01	51	.2082E-01	52	.1465E-01	53	.1168E-01	54	.9367E-02	55	.6879E-02	56	.4947E-02
57	.3316E-01	58	.2850E-01	59	.2082E-01	60	.1465E-01	61	.1168E-01	62	.9367E-02	63	.6879E-02	64	.4947E-02
65	.2380E-01	66	.2126E-01	67	.1668E-01	68	.1229E-01	69	.9974E-02	70	.8095E-02	71	.5990E-02	72	.4265E-02
73	.1559E-01	74	.1413E-01	75	.1157E-01	76	.9008E-02	77	.7553E-02	78	.6293E-02	79	.4773E-02	80	.3429E-02
81	.7738E-02	82	.7201E-02	83	.6265E-02	84	.5302E-02	85	.4705E-02	86	.4136E-02	87	.3364E-02	88	.2610E-02
89	.4422E-02	90	.4211E-02	91	.3847E-02	92	.3469E-02	93	.3224E-02	94	.2974E-02	95	.2606E-02	96	.2223E-02
97	.2621E-02	98	.2532E-02	99	.2406E-02	100	.2291E-02	101	.2218E-02	102	.2144E-02	103	.2023E-02	104	.1884E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)



Appendix 6E-d 8 Inch PCCP Pavement

1	1.0	2	-37.6	3	-55.4	4	-41.8	5	-14.1	6	-31.1	7	-26.2	8	-
51.4															
9	130.6	10	-26.4	11	-49.3	12	-53.9	13	-24.2	14	-47.7	15	-48.7	16	-
111.6															
17	320.9	18	80.4	19	22.3	20	-17.6	21	-18.9	22	-29.0	23	-40.3	24	-
96.1															
25	373.9	26	137.7	27	73.7	28	14.9	29	.1	30	-6.0	31	-13.7	32	-
52.6															
33	687.7	34	299.0	35	182.3	36	55.5	37	18.7	38	10.8	39	-1.0	40	-
47.9															
41	1097.7	42	537.6	43	324.9	44	116.0	45	49.3	46	41.6	47	27.0	48	-
19.0															
49	877.9	50	582.7	51	399.1	52	168.4	53	85.3	54	78.7	55	66.1	56	-
36.8															
57	583.5	58	401.6	59	369.0	60	174.7	61	89.9	62	81.4	63	67.0	64	-
37.1															
65	734.1	66	363.5	67	312.1	68	139.2	69	60.6	70	50.9	71	32.7	72	-
20.2															
73	609.1	74	244.3	75	190.8	76	65.9	77	20.0	78	9.7	79	-9.5	80	-
88.8															
81	200.8	82	28.3	83	-3.3	84	-22.8	85	-17.4	86	-28.9	87	-39.7	88	-
110.7															
89	33.9	90	-30.7	91	-49.8	92	-38.9	93	-19.2	94	-31.5	95	-34.1	96	-
80.9															
97	-7.3	98	-29.4	99	-44.3	100	-32.7	101	-11.2	102	-24.8	103	-21.6	104	-
44.9															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1648.686	.000	50	-2201.862	.000	51	-380.779	.000	52	77.159
.000										
53	49.557	.000	54	31.458	.000	55	11.186	.000	56	2.131
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2473.029	50	-1288.895	51	-182.774	52	45.166	53	37.167	54	
19.359											
55	5.836	56	2.224								

Appendix 6E-d 8 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:  
 49 -3862.624 -3148.752 50 -2013.124 -1641.068 51 -285.475 -232.715 52 70.545  
 57.507  
 53 58.052 47.323 54 30.236 24.648 55 9.116 7.431 56 3.473  
 2.831

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)  
 1 .00406 2 -.06106 3 -.07384 4 -.06796 5 -.02937 6 -.05314 7 -.03801 8 -  
 .14913  
 9 .29674 10 -.02342 11 -.03588 12 -.04783 13 -.02747 14 -.04443 15 -.03853 16 -  
 .17642  
 17 1.17971 18 .11534 19 .02620 20 -.02531 21 -.03482 22 -.04373 23 -.05156 24 -  
 .24580  
 25 2.59650 26 .37314 27 .16386 28 .04036 29 .00049 30 -.01721 31 -.03317 32 -  
 .25397  
 33 4.77567 34 .81035 35 .40508 36 .15050 37 .06490 38 .03081 39 -.00239 40 -  
 .23137  
 41 8.07121 42 1.54272 43 .76436 44 .33290 45 .18121 46 .12538 47 .06900 48 -  
 .09694  
 49 13.71690 50 3.55330 51 1.99572 52 1.02675 53 .66639 54 .50463 55 .35907 56  
 .39984  
 57 9.11752 58 2.44851 59 1.84521 60 1.06548 61 .70242 62 .52162 63 .36397 64  
 .40350  
 65 4.58838 66 .88657 67 .62428 68 .33953 69 .18940 70 .13054 71 .07115 72 -  
 .08783  
 73 2.37938 74 .37236 75 .23846 76 .10052 77 .03915 78 .01549 79 -.01289 80 -  
 .24132  
 81 .62751 82 .03449 83 -.00335 84 -.02775 85 -.02714 86 -.03711 87 -.04318 88 -  
 .24064  
 89 .08482 90 -.02995 91 -.03987 92 -.03793 93 -.02404 94 -.03228 95 -.02965 96 -  
 .14076  
 97 -.03056 98 -.04778 99 -.05907 100 -.05321 101 -.02328 102 -.04243 103 -.03125 104 -  
 .13025

NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODE RORAT.X ROTAT.Y NODEROTAT.X ROTAT.Y

Appendix 6E-d 8 Inch PCCP Pavement

1	.8638E-05	.2898E-04	2	.8072E-05	.2490E-04	3	.6801E-05	.2038E-04	4	.5827E-05
.1615E-04										
5	.5443E-05	.1354E-04	6	.5461E-05	.1099E-04	7	.6142E-05	.7508E-05	8	.6671E-05
.3480E-05										
9	.2287E-04	.7054E-04	10	.2488E-04	.6035E-04	11	.2413E-04	.4598E-04	12	.2152E-04
.3350E-04										
13	.1990E-04	.2667E-04	14	.1874E-04	.2068E-04	15	.1806E-04	.1319E-04	16	.1811E-04
.6135E-05										
17	.7575E-04	.1978E-03	18	.8122E-04	.1697E-03	19	.7676E-04	.1218E-03	20	.6362E-04
.8171E-04										
21	.5476E-04	.6219E-04	22	.4745E-04	.4696E-04	23	.4127E-04	.3039E-04	24	.4030E-04
.1761E-04										
25	.1197E-03	.2860E-03	26	.1266E-03	.2351E-03	27	.1170E-03	.1603E-03	28	.9254E-04
.1034E-03										
29	.7685E-04	.7778E-04	30	.6425E-04	.5876E-04	31	.5335E-04	.3913E-04	32	.5095E-04
.2406E-04										
33	.1904E-03	.3764E-03	34	.1961E-03	.3017E-03	35	.1744E-03	.1947E-03	36	.1296E-03
.1225E-03										
37	.1039E-03	.9204E-04	38	.8412E-04	.6994E-04	39	.6684E-04	.4804E-04	40	.6238E-04
.3259E-04										
41	.2876E-03	.4197E-03	42	.2881E-03	.3360E-03	43	.2460E-03	.2123E-03	44	.1712E-03
.1344E-03										
45	.1343E-03	.1014E-03	46	.1062E-03	.7753E-04	47	.8061E-04	.5476E-04	48	.7275E-04
.4104E-04										
49	.3687E-03	.4188E-03	50	.3704E-03	.3384E-03	51	.3117E-03	.2098E-03	52	.2108E-03
.1336E-03										
53	.1624E-03	.1009E-03	54	.1259E-03	.7738E-04	55	.9228E-04	.5561E-04	56	.8031E-04
.4442E-04										
57	.2025E-03	-.4342E-03	58	.2354E-03	-.3803E-03	59	.2597E-03	-.2509E-03	60	.2094E-03
.1503E-03										
61	.1649E-03	-.1080E-03	62	.1279E-03	-.7990E-04	63	.9303E-04	-.5575E-04	64	.8052E-04
.4386E-04										
65	.1501E-03	-.3973E-03	66	.1700E-03	-.3456E-03	67	.1877E-03	-.2384E-03	68	.1583E-03
.1483E-03										
69	.1305E-03	-.1081E-03	70	.1053E-03	-.8015E-04	71	.8040E-04	-.5499E-04	72	.7252E-04
.4031E-04										
73	.8516E-04	-.2809E-03	74	.9659E-04	-.2469E-03	75	.1057E-03	-.1826E-03	76	.9658E-04
.1219E-03										

Appendix 6E-d 8 Inch PCCP Pavement

.2942E-04	77	.8490E-04	-.9144E-04	78	.7290E-04	-.6845E-04	79	.6071E-04	-.4545E-04	80	.5765E-04	-
.6539E-04	81	.3089E-04	-.1280E-03	82	.3565E-04	-.1133E-03	83	.3858E-04	-.8939E-04	84	.3803E-04	-
.1364E-04	85	.3647E-04	-.5165E-04	86	.3463E-04	-.3978E-04	87	.3286E-04	-.2569E-04	88	.3294E-04	-
.3047E-04	89	.1211E-04	-.5080E-04	90	.1395E-04	-.4621E-04	91	.1498E-04	-.3860E-04	92	.1525E-04	-
.7270E-05	93	.1543E-04	-.2531E-04	94	.1573E-04	-.2034E-04	95	.1635E-04	-.1366E-04	96	.1681E-04	-
.1417E-04	97	.5723E-05	-.2124E-04	98	.5376E-05	-.1933E-04	99	.4781E-05	-.1683E-04	100	.4529E-05	-
.3786E-05	101	.4522E-05	-.1234E-04	102	.4817E-05	-.1039E-04	103	.5705E-05	-.7439E-05	104	.6291E-05	-

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	-.680285E+02	.000000E+00	.000000E+00	-.680285E+02	.000000E+00	.340142E+02
25	1	-.813890E+02	.000000E+00	.000000E+00	-.813890E+02	.000000E+00	.406945E+02
29	1	-.164775E+02	-.170815E+02	-.191203E+02	-.359021E+02	.234316E+01	.191226E+02
33	1	-.823314E+02	.000000E+00	.000000E+00	-.823314E+02	.000000E+00	.411657E+02
41	1	.591532E+01	.000000E+00	.000000E+00	.000000E+00	.591532E+01	.295766E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.833538E+01	-.721856E+02	-.681381E+02	.764735E+02	.723058E+02
51	1	.000000E+00	-.850121E+02	-.577810E+02	-.114238E+03	.292255E+02	.717315E+02
52	1	.000000E+00	-.515647E+02	-.339161E+02	-.683855E+02	.168208E+02	.426032E+02
53	1	.000000E+00	-.407193E+02	-.241145E+02	-.519195E+02	.112002E+02	.315598E+02
54	1	.000000E+00	-.307519E+02	-.168123E+02	-.381591E+02	.740724E+01	.227832E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 114.23760 AND OCCURS AT NODE 51

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      8 inch PCCP Pavement with 95K load
*
*****
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TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
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Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	122.77200	132.00000	.00000	6.35520	90.00000
1	122.77200	132.00000	12.00000	18.35520	90.00000
1	122.72200	132.00000	84.00000	90.35520	90.00000
1	122.72200	132.00000	96.00000	102.35500	90.00000
1	170.77200	180.00000	.00000	6.35520	90.00000
1	170.77200	180.00000	12.00000	18.35520	90.00000
1	170.77200	180.00000	84.00000	90.35520	90.00000
1	170.77200	180.00000	96.00000	102.35500	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
 INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:  
 1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
66.00000										



Appendix 6E-d 8 Inch PCCP Pavement

61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
144.00000										
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
66.00000										
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000
144.00000										
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
66.00000										
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
144.00000										
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
66.00000										
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
144.00000										
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
66.00000										
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
144.00000										
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
66.00000										
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000
144.00000										

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.41911	1.00000	-1.00000	-.20560	90.00000
22	-1.00000	-.55556	-1.00000	-.20560	90.00000
15	.41911	1.00000	.50000	1.00000	90.00000
16	.41911	1.00000	-1.00000	-.81158	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.81158	90.00000
19	.41356	1.00000	-.75000	.04440	90.00000
26	-1.00000	-.55556	-.75000	.04440	90.00000
19	.41356	1.00000	.75000	1.00000	90.00000
20	.41356	1.00000	-1.00000	-.62130	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.62130	90.00000
36	-.15350	1.00000	-1.00000	-.20560	90.00000
36	-.15350	1.00000	.50000	1.00000	90.00000



Appendix 6E-d 8 Inch PCCP Pavement

37	146.00000	82.00000	144.00000	38	146.00000	98.00000	66.00000	39	146.00000	121.00000	144.00000	40	146.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000
81	260.00000	.00000	66.00000	82	260.00000	16.00000	66.00000	83	260.00000	41.00000	66.00000	84	260.00000
85	260.00000	82.00000	144.00000	86	260.00000	98.00000	144.00000	87	260.00000	121.00000	144.00000	88	260.00000
89	300.00000	.00000	66.00000	90	300.00000	16.00000	66.00000	91	300.00000	41.00000	66.00000	92	300.00000
93	300.00000	82.00000	144.00000	94	300.00000	98.00000	144.00000	95	300.00000	121.00000	144.00000	96	300.00000
97	360.00000	.00000	66.00000	98	360.00000	16.00000	66.00000	99	360.00000	41.00000	66.00000	100	360.00000
101	360.00000	82.00000	144.00000	102	360.00000	98.00000	144.00000	103	360.00000	121.00000	144.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
10	1																

Appendix 6E-d 8 Inch PCCP Pavement

20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
	1																	
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
	1																	
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
	1																	
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
	2																	
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
	0																	
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
	1																	
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
	1																	
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
	1																	
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	1																	
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
	0																	
20	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
	0																	
30	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
	0																	
40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	

Appendix 6E-d 8 Inch PCCP Pavement

90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
100	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .05341362  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01175751  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00137947  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00016372  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00001954

SUM OF APPLIED FORCES (FOSUM)= 42281.8 SUM OF TOTAL REACTIONS (SUBSUM)= 42254.1

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

.1070E-01	1	.1307E-01	2	.1318E-01	3	.1328E-01	4	.1311E-01	5	.1284E-01	6	.1246E-01	7	.1168E-01	8
.1810E-01	9	.2698E-01	10	.2687E-01	11	.2641E-01	12	.2554E-01	13	.2463E-01	14	.2339E-01	15	.2102E-01	16
.2661E-01	17	.4811E-01	18	.4605E-01	19	.4295E-01	20	.4090E-01	21	.3967E-01	22	.3758E-01	23	.3259E-01	24
.2941E-01	25	.5557E-01	26	.5262E-01	27	.4830E-01	28	.4594E-01	29	.4483E-01	30	.4258E-01	31	.3647E-01	32
.3175E-01	33	.5989E-01	34	.5684E-01	35	.5236E-01	36	.4977E-01	37	.4843E-01	38	.4593E-01	39	.3952E-01	40
.3382E-01	41	.6349E-01	42	.6020E-01	43	.5534E-01	44	.5274E-01	45	.5153E-01	46	.4899E-01	47	.4207E-01	48
.3567E-01	49	.6673E-01	50	.6307E-01	51	.5751E-01	52	.5502E-01	53	.5430E-01	54	.5192E-01	55	.4424E-01	56
.3613E-01	57	.6086E-01	58	.5971E-01	59	.5669E-01	60	.5398E-01	61	.5207E-01	62	.4923E-01	63	.4314E-01	64

Appendix 6E-d 8 Inch PCCP Pavement

65	.4925E-01	66	.4875E-01	67	.4714E-01	68	.4510E-01	69	.4341E-01	70	.4100E-01	71	.3615E-01	72
.3032E-01														
73	.3484E-01	74	.3502E-01	75	.3464E-01	76	.3349E-01	77	.3227E-01	78	.3053E-01	79	.2714E-01	80
.2294E-01														
81	.2036E-01	82	.2074E-01	83	.2094E-01	84	.2057E-01	85	.1998E-01	86	.1911E-01	87	.1738E-01	88
.1521E-01														
89	.1366E-01	90	.1389E-01	91	.1406E-01	92	.1393E-01	93	.1367E-01	94	.1325E-01	95	.1243E-01	96
.1139E-01														
97	.9278E-02	98	.9327E-02	99	.9369E-02	100	.9317E-02	101	.9228E-02	102	.9102E-02	103	.8843E-02	104
.8514E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE:(DOWNWARD POSITIVE)

1	.1307E-01	2	.1318E-01	3	.1328E-01	4	.1311E-01	5	.1284E-01	6	.1246E-01	7	.1168E-01	8
.1070E-01														
9	.2698E-01	10	.2687E-01	11	.2641E-01	12	.2554E-01	13	.2463E-01	14	.2339E-01	15	.2102E-01	16
.1810E-01														
17	.4811E-01	18	.4605E-01	19	.4295E-01	20	.4090E-01	21	.3967E-01	22	.3758E-01	23	.3259E-01	24
.2661E-01														
25	.5557E-01	26	.5262E-01	27	.4830E-01	28	.4594E-01	29	.4483E-01	30	.4258E-01	31	.3647E-01	32
.2941E-01														
33	.5989E-01	34	.5684E-01	35	.5236E-01	36	.4977E-01	37	.4843E-01	38	.4593E-01	39	.3952E-01	40
.3175E-01														
41	.6349E-01	42	.6020E-01	43	.5534E-01	44	.5274E-01	45	.5153E-01	46	.4899E-01	47	.4207E-01	48
.3382E-01														
49	.6380E-01	50	.6139E-01	51	.5710E-01	52	.5450E-01	53	.5318E-01	54	.5058E-01	55	.4369E-01	56
.3590E-01														
57	.6380E-01	58	.6139E-01	59	.5710E-01	60	.5450E-01	61	.5318E-01	62	.5058E-01	63	.4369E-01	64
.3590E-01														
65	.4925E-01	66	.4875E-01	67	.4714E-01	68	.4510E-01	69	.4341E-01	70	.4100E-01	71	.3615E-01	72
.3032E-01														
73	.3484E-01	74	.3502E-01	75	.3464E-01	76	.3349E-01	77	.3227E-01	78	.3053E-01	79	.2714E-01	80
.2294E-01														
81	.2036E-01	82	.2074E-01	83	.2094E-01	84	.2057E-01	85	.1998E-01	86	.1911E-01	87	.1738E-01	88
.1521E-01														
89	.1366E-01	90	.1389E-01	91	.1406E-01	92	.1393E-01	93	.1367E-01	94	.1325E-01	95	.1243E-01	96
.1139E-01														

Appendix 6E-d 8 Inch PCCP Pavement

97 .9278E-02 98 .9327E-02 99 .9369E-02 100 .9317E-02 101 .9228E-02 102 .9102E-02 103 .8843E-02 104  
.8514E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)															
1	-96.4	2	-145.3	3	-206.2	4	-150.2	5	-57.2	6	-141.8	7	-152.4	8	-
329.2															
9	1043.7	10	386.1	11	642.5	12	424.4	13	198.6	14	349.9	15	329.3	16	
108.0															
17	1735.5	18	954.1	19	976.8	20	669.4	21	489.4	22	650.7	23	603.8	24	
368.6															
25	1401.4	26	771.9	27	666.2	28	484.4	29	412.1	30	534.8	31	444.9	32	
281.1															
33	1598.7	34	910.4	35	853.4	36	608.1	37	481.4	38	612.2	39	567.6	40	
382.7															
41	1733.8	42	1019.0	43	928.0	44	677.6	45	553.4	46	712.0	47	642.4	48	
447.0															
49	1126.8	50	829.4	51	772.0	52	573.4	53	490.3	54	617.1	55	553.4	56	
415.5															
57	795.9	58	605.4	59	707.9	60	503.8	61	359.0	62	442.3	63	472.8	64	
448.7															
65	1023.7	66	618.1	67	706.7	68	503.9	69	341.4	70	416.8	71	435.7	72	
409.1															
73	771.0	74	408.1	75	481.3	76	335.7	77	217.9	78	278.2	79	262.7	80	
138.7															
81	161.3	82	34.6	83	40.8	84	30.0	85	18.0	86	15.7	87	-13.5	88	-
162.7															
89	-50.6	90	-67.3	91	-93.0	92	-63.5	93	-32.9	94	-60.7	95	-78.6	96	-
187.7															
97	-86.0	98	-69.9	99	-113.4	100	-83.4	101	-32.2	102	-76.4	103	-77.1	104	-
136.7															

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000229

SUM OF APPLIED FORCES (FOSUM)= 42281.8 SUM OF TOTAL REACTIONS (SUBSUM)= 42257.2

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.1307E-01	2	.1318E-01	3	.1328E-01	4	.1311E-01	5	.1284E-01	6	.1246E-01	7	.1168E-01	8
.1070E-01														
9	.2698E-01	10	.2688E-01	11	.2642E-01	12	.2554E-01	13	.2464E-01	14	.2339E-01	15	.2102E-01	16
.1810E-01														
17	.4811E-01	18	.4605E-01	19	.4295E-01	20	.4090E-01	21	.3967E-01	22	.3758E-01	23	.3259E-01	24
.2661E-01														
25	.5557E-01	26	.5262E-01	27	.4830E-01	28	.4594E-01	29	.4483E-01	30	.4259E-01	31	.3647E-01	32
.2941E-01														
33	.5990E-01	34	.5684E-01	35	.5236E-01	36	.4977E-01	37	.4844E-01	38	.4593E-01	39	.3952E-01	40
.3175E-01														
41	.6350E-01	42	.6020E-01	43	.5534E-01	44	.5274E-01	45	.5153E-01	46	.4899E-01	47	.4208E-01	48
.3382E-01														
49	.6674E-01	50	.6307E-01	51	.5751E-01	52	.5502E-01	53	.5430E-01	54	.5193E-01	55	.4424E-01	56
.3567E-01														
57	.6087E-01	58	.5971E-01	59	.5669E-01	60	.5398E-01	61	.5207E-01	62	.4923E-01	63	.4314E-01	64
.3613E-01														
65	.4925E-01	66	.4876E-01	67	.4714E-01	68	.4511E-01	69	.4341E-01	70	.4101E-01	71	.3615E-01	72
.3032E-01														
73	.3484E-01	74	.3502E-01	75	.3464E-01	76	.3350E-01	77	.3227E-01	78	.3054E-01	79	.2714E-01	80
.2295E-01														
81	.2036E-01	82	.2074E-01	83	.2094E-01	84	.2057E-01	85	.1999E-01	86	.1911E-01	87	.1738E-01	88
.1522E-01														
89	.1366E-01	90	.1389E-01	91	.1407E-01	92	.1394E-01	93	.1367E-01	94	.1326E-01	95	.1243E-01	96
.1140E-01														
97	.9279E-02	98	.9328E-02	99	.9371E-02	100	.9319E-02	101	.9230E-02	102	.9103E-02	103	.8844E-02	104
.8515E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1307E-01	2	.1318E-01	3	.1328E-01	4	.1311E-01	5	.1284E-01	6	.1246E-01	7	.1168E-01	8
.1070E-01														
9	.2698E-01	10	.2688E-01	11	.2642E-01	12	.2554E-01	13	.2464E-01	14	.2339E-01	15	.2102E-01	16
.1810E-01														
17	.4811E-01	18	.4605E-01	19	.4295E-01	20	.4090E-01	21	.3967E-01	22	.3758E-01	23	.3259E-01	24
.2661E-01														
25	.5557E-01	26	.5262E-01	27	.4830E-01	28	.4594E-01	29	.4483E-01	30	.4259E-01	31	.3647E-01	32
.2941E-01														



Appendix 6E-d 8 Inch PCCP Pavement

33	.5990E-01	34	.5684E-01	35	.5236E-01	36	.4977E-01	37	.4844E-01	38	.4593E-01	39	.3952E-01	40
.3175E-01														
41	.6350E-01	42	.6020E-01	43	.5534E-01	44	.5274E-01	45	.5153E-01	46	.4899E-01	47	.4208E-01	48
.3382E-01														
49	.6380E-01	50	.6139E-01	51	.5710E-01	52	.5450E-01	53	.5318E-01	54	.5058E-01	55	.4369E-01	56
.3590E-01														
57	.6380E-01	58	.6139E-01	59	.5710E-01	60	.5450E-01	61	.5318E-01	62	.5058E-01	63	.4369E-01	64
.3590E-01														
65	.4925E-01	66	.4876E-01	67	.4714E-01	68	.4511E-01	69	.4341E-01	70	.4101E-01	71	.3615E-01	72
.3032E-01														
73	.3484E-01	74	.3502E-01	75	.3464E-01	76	.3350E-01	77	.3227E-01	78	.3054E-01	79	.2714E-01	80
.2295E-01														
81	.2036E-01	82	.2074E-01	83	.2094E-01	84	.2057E-01	85	.1999E-01	86	.1911E-01	87	.1738E-01	88
.1522E-01														
89	.1366E-01	90	.1389E-01	91	.1407E-01	92	.1394E-01	93	.1367E-01	94	.1326E-01	95	.1243E-01	96
.1140E-01														
97	.9279E-02	98	.9328E-02	99	.9371E-02	100	.9319E-02	101	.9230E-02	102	.9103E-02	103	.8844E-02	104
.8515E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-96.4	2	-145.3	3	-206.2	4	-150.1	5	-57.2	6	-141.7	7	-152.4	8	-
329.1															
9	1043.8	10	386.1	11	642.6	12	424.5	13	198.6	14	350.0	15	329.3	16	
108.1															
17	1735.5	18	954.1	19	976.8	20	669.5	21	489.4	22	650.7	23	603.8	24	
368.6															
25	1401.5	26	771.9	27	666.3	28	484.4	29	412.1	30	534.8	31	444.9	32	
281.1															
33	1598.8	34	910.4	35	853.4	36	608.1	37	481.5	38	612.2	39	567.6	40	
382.7															
41	1733.8	42	1019.0	43	928.0	44	677.6	45	553.4	46	712.0	47	642.4	48	
447.0															
49	1126.8	50	829.4	51	772.1	52	573.5	53	490.3	54	617.2	55	553.5	56	
415.5															
57	795.9	58	605.4	59	708.0	60	503.8	61	359.0	62	442.3	63	472.8	64	
448.7															

Appendix 6E-d 8 Inch PCCP Pavement

65	1023.7	66	618.1	67	706.7	68	503.9	69	341.5	70	416.8	71	435.7	72	
409.1		73	771.1	74	408.1	75	481.4	76	335.7	77	217.9	78	278.3	79	262.8
138.8		81	161.3	82	34.6	83	40.9	84	30.0	85	18.1	86	15.8	87	-13.5
162.6		89	-50.6	90	-67.3	91	-93.0	92	-63.5	93	-32.9	94	-60.7	95	-78.5
187.7		97	-85.9	98	-69.9	99	-113.4	100	-83.4	101	-32.2	102	-76.3	103	-77.1
136.6														104	-

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1853.711	.000	50	-2721.280	.000	51	-810.961	.000	52	-845.671
.000			53	-1411.278	.000	54	-2075.886	.000	55	-1000.245
.000									56	209.704

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2780.566	50	-1592.945	51	-389.261	52	-495.027	53	-1058.458	54	-
1277.469		55	-521.867	56	218.821						

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4342.966	-3540.320	50	-2488.020	-2028.196	51	-607.987	-495.622	52	-773.182
-630.287		53	-1653.206	-1347.668	54	-1995.278	-1626.520	55	-815.104	-664.461
278.611									56	341.777

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	-.40159	2	-.23624	3	-.27494	4	-.24413	5	-.11924	6	-.24226	7	-.22089	8	-
.95395		9	2.37220	10	.34247	11	.46732	12	.37646	13	.22568	14	.32630	15	.26032
.17091		17	6.38069	18	1.36887	19	1.14922	20	.96048	21	.89971	22	.98151	23	.77210
.94273		25	9.73242	26	2.09194	27	1.48056	28	1.31267	29	1.43087	30	1.52366	31	1.07470
1.35812														32	

Appendix 6E-d 8 Inch PCCP Pavement

33	11.10245	34	2.46726	35	1.89653	36	1.64790	37	1.67175	38	1.74421	39	1.37100	40	
1.84899															
41	12.74853	42	2.92395	43	2.18353	44	1.94426	45	2.03447	46	2.14793	47	1.64300	48	
2.28670															
49	17.60699	50	5.05714	51	3.86031	52	3.49672	53	3.83068	54	3.95613	55	3.00794	56	
4.51638															
57	12.43564	58	3.69173	59	3.53976	60	3.07219	61	2.80444	62	2.83513	63	2.56981	64	
4.87724															
65	6.39820	66	1.50763	67	1.41342	68	1.22909	69	1.06705	70	1.06873	71	.94715	72	
1.77891															
73	3.01192	74	.62210	75	.60173	76	.51179	77	.42558	78	.44593	79	.35705	80	
.37709															
81	.50408	82	.04220	83	.04086	84	.03664	85	.02820	86	.02021	87	-.01465	88	-
.35345															
89	-.12647	90	-.06566	91	-.07438	92	-.06192	93	-.04115	94	-.06226	95	-.06828	96	-
.32637															
97	-.35797	98	-.11364	99	-.15121	100	-.13562	101	-.06699	102	-.13050	103	-.11173	104	-
.39590															

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y
1	-.6636E-05	.1880E-03	2	-.6575E-05	.1846E-03	3	.3319E-06	.1811E-03	4	.1303E-04
.1738E-03										
5	.2042E-04	.1654E-03	6	.2814E-04	.1535E-03	7	.3915E-04	.1315E-03	8	.4483E-04
.1011E-03										
9	.5491E-06	.3385E-03	10	.1164E-04	.3181E-03	11	.2562E-04	.2881E-03	12	.4655E-04
.2689E-03										
13	.6698E-04	.2584E-03	14	.8836E-04	.2415E-03	15	.1172E-03	.2016E-03	16	.1328E-03
.1554E-03										
17	.1281E-03	.4520E-03	18	.1306E-03	.4024E-03	19	.1050E-03	.3272E-03	20	.6841E-04
.3058E-03										
21	.9600E-04	.3105E-03	22	.1694E-03	.2989E-03	23	.2494E-03	.2334E-03	24	.2642E-03
.1676E-03										
25	.1914E-03	.3280E-03	26	.1843E-03	.3001E-03	27	.1374E-03	.2625E-03	28	.6514E-04
.2474E-03										
29	.9201E-04	.2438E-03	30	.1986E-03	.2319E-03	31	.3015E-03	.1924E-03	32	.3098E-03
.1424E-03										

Appendix 6E-d 8 Inch PCCP Pavement

33	.1907E-03	.2000E-03	34	.1932E-03	.1955E-03	35	.1453E-03	.1905E-03	36	.7506E-04
.1835E-03										
37	.1079E-03	.1761E-03	38	.2117E-03	.1663E-03	39	.3244E-03	.1506E-03	40	.3427E-03
.1197E-03										
41	.2033E-03	.2005E-03	42	.2101E-03	.1810E-03	43	.1552E-03	.1466E-03	44	.6763E-04
.1501E-03										
45	.1019E-03	.1700E-03	46	.2240E-03	.1748E-03	47	.3487E-03	.1367E-03	48	.3634E-03
.1137E-03										
49	.2255E-03	.2032E-03	50	.2370E-03	.1789E-03	51	.1686E-03	.1267E-03	52	.4654E-04
.1378E-03										
53	.7626E-04	.1788E-03	54	.2374E-03	.1941E-03	55	.3749E-03	.1350E-03	56	.3741E-03
.1164E-03										
57	.6139E-04	-.7451E-03	58	.9458E-04	-.7032E-03	59	.1193E-03	-.6063E-03	60	.1085E-03 -
.5648E-03										
61	.1421E-03	-.5548E-03	62	.2181E-03	-.5289E-03	63	.2931E-03	-.4465E-03	64	.3117E-03 -
.3714E-03										
65	.1942E-04	-.6879E-03	66	.4542E-04	-.6511E-03	67	.7586E-04	-.5771E-03	68	.9107E-04 -
.5352E-03										
69	.1247E-03	-.5181E-03	70	.1771E-03	-.4898E-03	71	.2388E-03	-.4193E-03	72	.2627E-03 -
.3472E-03										
73	-.2099E-04	-.5039E-03	74	-.5244E-06	-.4881E-03	75	.3025E-04	-.4550E-03	76	.6289E-04 -
.4246E-03										
77	.9172E-04	-.4048E-03	78	.1250E-03	-.3784E-03	79	.1682E-03	-.3253E-03	80	.1928E-03 -
.2649E-03										
81	-.2919E-04	-.2457E-03	82	-.1777E-04	-.2457E-03	83	.2588E-05	-.2422E-03	84	.2771E-04 -
.2317E-03										
85	.4554E-04	-.2203E-03	86	.6343E-04	-.2042E-03	87	.8614E-04	-.1727E-03	88	.1004E-03 -
.1335E-03										
89	-.1709E-04	-.1112E-03	90	-.1200E-04	-.1147E-03	91	-.1381E-05	-.1170E-03	92	.1207E-04 -
.1141E-03										
93	.2129E-04	-.1091E-03	94	.3025E-04	-.1014E-03	95	.4125E-04	-.8639E-04	96	.4752E-04 -
.6737E-04										
97	-.3256E-05	-.5358E-04	98	-.2833E-05	-.5666E-04	99	-.7624E-07	-.5894E-04	100	.4295E-05 -
.5848E-04										
101	.6728E-05	-.5656E-04	102	.9253E-05	-.5316E-04	103	.1308E-04	-.4607E-04	104	.1512E-04 -
.3517E-04										

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
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Appendix 6E-d 8 Inch PCCP Pavement

17	1	-.251570E+01	.000000E+00	.000000E+00	-.251570E+01	.000000E+00	.125785E+01
25	1	.241356E+03	.000000E+00	.000000E+00	.000000E+00	.241356E+03	.120678E+03
29	1	.125646E+03	.982964E+02	-.506886E+01	.973872E+02	.126555E+03	.145838E+02
33	1	-.610495E+01	.000000E+00	.000000E+00	-.610495E+01	.000000E+00	.305247E+01
41	1	-.399288E+01	.000000E+00	.000000E+00	-.399288E+01	.000000E+00	.199644E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.283061E+02	-.262701E+02	-.156870E+02	.439931E+02	.298400E+02
51	1	.000000E+00	-.114115E+03	-.129685E+02	-.115571E+03	.145524E+01	.585129E+02
52	1	.000000E+00	-.581690E+02	.240752E+02	-.668406E+02	.867162E+01	.377561E+02
53	1	.000000E+00	.119549E+03	.291429E+02	-.672585E+01	.126275E+03	.665004E+02
54	1	.000000E+00	.212787E+03	-.127495E+02	-.761192E+00	.213549E+03	.107155E+03

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 241.35630 AND OCCURS AT NODE 25

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      8 inch PCCP Pavement with 100K load Single Axle
*
*****
```

TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
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Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000  
 FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000  
 Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	170.53200	180.00000	.00000	6.52030	90.00000
1	170.53200	180.00000	8.00000	14.52030	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:  
17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
 INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:  
 1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
 INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:  
 1 49 57 56 64 36 43 42 49



Appendix 6E-d 8 Inch PCCP Pavement

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
144.00000	37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
66.00000	41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
144.00000	45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
66.00000	49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
144.00000	53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
66.00000	57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
144.00000	61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
66.00000	65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
144.00000	69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000



Appendix 6E-d 8 Inch PCCP Pavement

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5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000
66.00000										
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000
144.00000										
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000
66.00000										
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000
144.00000										
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000
66.00000										
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000
144.00000										

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
144.00000	85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
66.00000	89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
144.00000	93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
66.00000	97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
144.00000	101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

10	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

10	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	
20	0	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
30	0	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
40	0	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
50	58	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
60	52	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
70	0	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
80	0	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
90	0	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
100	0	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
		101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .03552297  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00353022  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00038136  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004499  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000537

SUM OF APPLIED FORCES (FOSUM)= 11112.2 SUM OF TOTAL REACTIONS (SUBSUM)= 11104.3

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.3141E-02	2	.2992E-02	3	.2787E-02	4	.2612E-02	5	.2512E-02	6	.2416E-02	7	.2267E-02	8
.2100E-02														
9	.5857E-02	10	.5429E-02	11	.4741E-02	12	.4103E-02	13	.3733E-02	14	.3387E-02	15	.2915E-02	16
.2449E-02														
17	.1276E-01	18	.1135E-01	19	.9127E-02	20	.7159E-02	21	.6101E-02	22	.5190E-02	23	.4061E-02	24
.3022E-02														
25	.1758E-01	26	.1538E-01	27	.1194E-01	28	.9009E-02	29	.7499E-02	30	.6245E-02	31	.4754E-02	32
.3432E-02														
33	.2417E-01	34	.2074E-01	35	.1550E-01	36	.1127E-01	37	.9194E-02	38	.7528E-02	39	.5623E-02	40
.3994E-02														
41	.3221E-01	42	.2714E-01	43	.1957E-01	44	.1383E-01	45	.1113E-01	46	.9002E-02	47	.6652E-02	48
.4727E-02														
49	.3948E-01	50	.3304E-01	51	.2330E-01	52	.1621E-01	53	.1292E-01	54	.1038E-01	55	.7636E-02	56
.5494E-02														
57	.3377E-01	58	.3003E-01	59	.2286E-01	60	.1631E-01	61	.1301E-01	62	.1043E-01	63	.7650E-02	64
.5500E-02														
65	.2632E-01	66	.2353E-01	67	.1848E-01	68	.1363E-01	69	.1107E-01	70	.8992E-02	71	.6657E-02	72
.4742E-02														
73	.1724E-01	74	.1565E-01	75	.1283E-01	76	.9997E-02	77	.8388E-02	78	.6991E-02	79	.5305E-02	80
.3814E-02														
81	.8569E-02	82	.7979E-02	83	.6950E-02	84	.5887E-02	85	.5227E-02	86	.4597E-02	87	.3740E-02	88
.2903E-02														
89	.4902E-02	90	.4671E-02	91	.4270E-02	92	.3853E-02	93	.3581E-02	94	.3306E-02	95	.2897E-02	96
.2472E-02														
97	.2909E-02	98	.2811E-02	99	.2671E-02	100	.2544E-02	101	.2464E-02	102	.2382E-02	103	.2248E-02	104
.2094E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3141E-02	2	.2992E-02	3	.2787E-02	4	.2612E-02	5	.2512E-02	6	.2416E-02	7	.2267E-02	8
.2100E-02														
9	.5857E-02	10	.5429E-02	11	.4741E-02	12	.4103E-02	13	.3733E-02	14	.3387E-02	15	.2915E-02	16
.2449E-02														
17	.1276E-01	18	.1135E-01	19	.9127E-02	20	.7159E-02	21	.6101E-02	22	.5190E-02	23	.4061E-02	24
.3022E-02														
25	.1758E-01	26	.1538E-01	27	.1194E-01	28	.9009E-02	29	.7499E-02	30	.6245E-02	31	.4754E-02	32
.3432E-02														

Appendix 6E-d 8 Inch PCCP Pavement

33	.2417E-01	34	.2074E-01	35	.1550E-01	36	.1127E-01	37	.9194E-02	38	.7528E-02	39	.5623E-02	40
.3994E-02														
41	.3221E-01	42	.2714E-01	43	.1957E-01	44	.1383E-01	45	.1113E-01	46	.9002E-02	47	.6652E-02	48
.4727E-02														
49	.3663E-01	50	.3154E-01	51	.2308E-01	52	.1626E-01	53	.1297E-01	54	.1040E-01	55	.7643E-02	56
.5497E-02														
57	.3663E-01	58	.3154E-01	59	.2308E-01	60	.1626E-01	61	.1297E-01	62	.1040E-01	63	.7643E-02	64
.5497E-02														
65	.2632E-01	66	.2353E-01	67	.1848E-01	68	.1363E-01	69	.1107E-01	70	.8992E-02	71	.6657E-02	72
.4742E-02														
73	.1724E-01	74	.1565E-01	75	.1283E-01	76	.9997E-02	77	.8388E-02	78	.6991E-02	79	.5305E-02	80
.3814E-02														
81	.8569E-02	82	.7979E-02	83	.6950E-02	84	.5887E-02	85	.5227E-02	86	.4597E-02	87	.3740E-02	88
.2903E-02														
89	.4902E-02	90	.4671E-02	91	.4270E-02	92	.3853E-02	93	.3581E-02	94	.3306E-02	95	.2897E-02	96
.2472E-02														
97	.2909E-02	98	.2811E-02	99	.2671E-02	100	.2544E-02	101	.2464E-02	102	.2382E-02	103	.2248E-02	104
.2094E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	1.0	2	-41.9	3	-61.7	4	-46.5	5	-15.7	6	-34.6	7	-29.2	8	-
57.7															
9	147.5	10	-28.0	11	-52.8	12	-58.7	13	-26.4	14	-52.2	15	-53.6	16	-
123.9															
17	359.8	18	92.0	19	27.9	20	-17.8	21	-20.2	22	-31.4	23	-44.1	24	-
106.4															
25	417.7	26	155.2	27	84.3	28	17.7	29	.7	30	-6.2	31	-14.9	32	-
58.2															
33	765.6	34	335.2	35	205.5	36	62.9	37	21.3	38	12.5	39	-.8	40	-
53.0															
41	1215.5	42	598.9	43	362.8	44	129.6	45	55.0	46	46.4	47	30.1	48	-
21.0															
49	965.0	50	643.3	51	442.0	52	186.6	53	94.5	54	87.2	55	73.2	56	-
40.7															
57	642.6	58	442.8	59	407.7	60	193.4	61	99.6	62	90.2	63	74.2	64	-
41.1															

Appendix 6E-d 8 Inch PCCP Pavement

65	810.0	66	401.6	67	345.5	68	154.5	69	67.4	70	56.7	71	36.5	72	-
22.3		73	671.8	74	270.0	75	211.6	76	73.5	77	22.5	78	11.1	79	-10.2
98.3		81	221.3	82	31.3	83	-3.4	84	-24.8	85	-19.0	86	-31.8	87	-43.8
122.5		89	37.3	90	-33.9	91	-55.0	92	-42.9	93	-21.2	94	-34.7	95	-37.7
89.6		97	-8.3	98	-32.5	99	-49.0	100	-36.2	101	-12.4	102	-27.5	103	-23.9
49.8														104	-

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000063

SUM OF APPLIED FORCES (FOSUM)= 11112.2 SUM OF TOTAL REACTIONS (SUBSUM)= 11105.1

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3142E-02	2	.2993E-02	3	.2787E-02	4	.2613E-02	5	.2512E-02	6	.2416E-02	7	.2267E-02	8	
.2100E-02		9	.5858E-02	10	.5430E-02	11	.4741E-02	12	.4104E-02	13	.3733E-02	14	.3388E-02	15	.2915E-02
.2449E-02		17	.1276E-01	18	.1135E-01	19	.9127E-02	20	.7160E-02	21	.6102E-02	22	.5191E-02	23	.4062E-02
.3023E-02		25	.1758E-01	26	.1538E-01	27	.1195E-01	28	.9009E-02	29	.7500E-02	30	.6245E-02	31	.4755E-02
.3433E-02		33	.2417E-01	34	.2074E-01	35	.1550E-01	36	.1127E-01	37	.9195E-02	38	.7529E-02	39	.5624E-02
.3994E-02		41	.3221E-01	42	.2714E-01	43	.1957E-01	44	.1383E-01	45	.1113E-01	46	.9002E-02	47	.6652E-02
.4728E-02		49	.3949E-01	50	.3304E-01	51	.2330E-01	52	.1621E-01	53	.1292E-01	54	.1038E-01	55	.7636E-02
.5494E-02		57	.3377E-01	58	.3003E-01	59	.2286E-01	60	.1631E-01	61	.1301E-01	62	.1043E-01	63	.7651E-02
.5501E-02		65	.2632E-01	66	.2353E-01	67	.1848E-01	68	.1364E-01	69	.1108E-01	70	.8993E-02	71	.6658E-02
.4742E-02		73	.1725E-01	74	.1565E-01	75	.1283E-01	76	.9998E-02	77	.8388E-02	78	.6992E-02	79	.5306E-02
.3814E-02														80	



Appendix 6E-d 8 Inch PCCP Pavement

81	.8569E-02	82	.7979E-02	83	.6950E-02	84	.5887E-02	85	.5227E-02	86	.4597E-02	87	.3740E-02	88	.2903E-02
89	.4903E-02	90	.4671E-02	91	.4270E-02	92	.3853E-02	93	.3582E-02	94	.3306E-02	95	.2897E-02	96	.2473E-02
97	.2909E-02	98	.2811E-02	99	.2672E-02	100	.2544E-02	101	.2464E-02	102	.2382E-02	103	.2248E-02	104	.2094E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3142E-02	2	.2993E-02	3	.2787E-02	4	.2613E-02	5	.2512E-02	6	.2416E-02	7	.2267E-02	8	.2100E-02
9	.5858E-02	10	.5430E-02	11	.4741E-02	12	.4104E-02	13	.3733E-02	14	.3388E-02	15	.2915E-02	16	.2449E-02
17	.1276E-01	18	.1135E-01	19	.9127E-02	20	.7160E-02	21	.6102E-02	22	.5191E-02	23	.4062E-02	24	.3023E-02
25	.1758E-01	26	.1538E-01	27	.1195E-01	28	.9009E-02	29	.7500E-02	30	.6245E-02	31	.4755E-02	32	.3433E-02
33	.2417E-01	34	.2074E-01	35	.1550E-01	36	.1127E-01	37	.9195E-02	38	.7529E-02	39	.5624E-02	40	.3994E-02
41	.3221E-01	42	.2714E-01	43	.1957E-01	44	.1383E-01	45	.1113E-01	46	.9002E-02	47	.6652E-02	48	.4728E-02
49	.3663E-01	50	.3154E-01	51	.2308E-01	52	.1626E-01	53	.1297E-01	54	.1040E-01	55	.7644E-02	56	.5498E-02
57	.3663E-01	58	.3154E-01	59	.2308E-01	60	.1626E-01	61	.1297E-01	62	.1040E-01	63	.7644E-02	64	.5498E-02
65	.2632E-01	66	.2353E-01	67	.1848E-01	68	.1364E-01	69	.1108E-01	70	.8993E-02	71	.6658E-02	72	.4742E-02
73	.1725E-01	74	.1565E-01	75	.1283E-01	76	.9998E-02	77	.8388E-02	78	.6992E-02	79	.5306E-02	80	.3814E-02
81	.8569E-02	82	.7979E-02	83	.6950E-02	84	.5887E-02	85	.5227E-02	86	.4597E-02	87	.3740E-02	88	.2903E-02
89	.4902E-02	90	.4671E-02	91	.4270E-02	92	.3853E-02	93	.3582E-02	94	.3306E-02	95	.2897E-02	96	.2473E-02
97	.2909E-02	98	.2811E-02	99	.2672E-02	100	.2544E-02	101	.2464E-02	102	.2382E-02	103	.2248E-02	104	.2094E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	1.1	2	-41.9	3	-61.7	4	-46.5	5	-15.7	6	-34.6	7	-29.2	8	-
57.7															
9	147.5	10	-28.0	11	-52.8	12	-58.7	13	-26.4	14	-52.2	15	-53.6	16	-
123.8															
17	359.8	18	92.1	19	28.0	20	-17.8	21	-20.2	22	-31.4	23	-44.1	24	-
106.4															
25	417.7	26	155.2	27	84.3	28	17.8	29	.7	30	-6.2	31	-14.9	32	-
58.2															
33	765.6	34	335.2	35	205.5	36	63.0	37	21.3	38	12.5	39	-.8	40	-
53.0															
41	1215.5	42	598.9	43	362.8	44	129.6	45	55.1	46	46.4	47	30.1	48	-
21.0															
49	965.0	50	643.3	51	442.0	52	186.6	53	94.5	54	87.2	55	73.2	56	-
40.7															
57	642.6	58	442.8	59	407.7	60	193.4	61	99.6	62	90.2	63	74.3	64	-
41.1															
65	810.0	66	401.6	67	345.5	68	154.5	69	67.4	70	56.7	71	36.5	72	-
22.3															
73	671.8	74	270.0	75	211.6	76	73.6	77	22.5	78	11.1	79	-10.2	80	-
98.3															
81	221.3	82	31.3	83	-3.4	84	-24.8	85	-19.0	86	-31.8	87	-43.8	88	-
122.5															
89	37.3	90	-33.9	91	-55.0	92	-42.9	93	-21.2	94	-34.7	95	-37.7	96	-
89.6															
97	-8.3	98	-32.5	99	-49.0	100	-36.2	101	-12.4	102	-27.5	103	-23.9	104	-
49.8															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1805.505	.000	50	-2437.465	.000	51	-433.020	.000	52	83.333
.000										
53	54.800	.000	54	35.278	.000	55	13.025	.000	56	3.017
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2708.258	50	-1426.809	51	-207.850	52	48.780	53	41.100	54
21.710										
55	6.796	56	3.148							

Appendix 6E-d 8 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:  
 49 -4230.028 -3448.255 50 -2228.532 -1816.666 51 -324.640 -264.642 52 76.190  
 62.109  
 53 64.195 52.330 54 33.908 27.641 55 10.614 8.653 56 4.917  
 4.008

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)  
 1 .00442 2 -.06812 3 -.08230 4 -.07567 5 -.03268 6 -.05917 7 -.04237 8 -  
 .16713  
 9 .33523 10 -.02486 11 -.03837 12 -.05203 13 -.02996 14 -.04865 15 -.04233 16 -  
 .19580  
 17 1.32286 18 .13207 19 .03288 20 -.02559 21 -.03710 22 -.04730 23 -.05643 24 -  
 .27217  
 25 2.90047 26 .42065 27 .18741 28 .04811 29 .00256 30 -.01769 31 -.03598 32 -  
 .28119  
 33 5.31656 34 .90834 35 .45660 36 .17061 37 .07407 38 .03559 39 -.00183 40 -  
 .25616  
 41 8.93721 42 1.71854 43 .85357 44 .37181 45 .20240 46 .13999 47 .07702 48 -  
 .10757  
 49 15.07825 50 3.92279 51 2.20985 52 1.13770 53 .73844 54 .55919 55 .39783 56  
 .44206  
 57 10.04139 58 2.69978 59 2.03869 60 1.17953 61 .77829 62 .57824 63 .40354 64  
 .44725  
 65 5.06255 66 .97956 67 .69101 68 .37690 69 .21065 70 .14533 71 .07929 72 -  
 .09695  
 73 2.62430 74 .41158 75 .26445 76 .11213 77 .04404 78 .01777 79 -.01387 80 -  
 .26704  
 81 .69170 82 .03818 83 -.00339 84 -.03028 85 -.02971 86 -.04075 87 -.04759 88 -  
 .26635  
 89 .09316 90 -.03308 91 -.04399 92 -.04182 93 -.02650 94 -.03560 95 -.03274 96 -  
 .15583  
 97 -.03438 98 -.05285 99 -.06535 100 -.05885 101 -.02575 102 -.04695 103 -.03460 104 -  
 .14442

NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODEROTAT.X ROTAT.Y

Appendix 6E-d 8 Inch PCCP Pavement

1	.9581E-05	.3247E-04	2	.8952E-05	.2795E-04	3	.7548E-05	.2292E-04	4	.6487E-05
.1819E-04										
5	.6075E-05	.1526E-04	6	.6113E-05	.1240E-04	7	.6892E-05	.8483E-05	8	.7489E-05
.3966E-05										
9	.2536E-04	.7883E-04	10	.2762E-04	.6752E-04	11	.2687E-04	.5153E-04	12	.2405E-04
.3757E-04										
13	.2229E-04	.2992E-04	14	.2101E-04	.2320E-04	15	.2026E-04	.1481E-04	16	.2031E-04
.6928E-05										
17	.8403E-04	.2199E-03	18	.9016E-04	.1887E-03	19	.8550E-04	.1355E-03	20	.7108E-04
.9088E-04										
21	.6125E-04	.6914E-04	22	.5308E-04	.5218E-04	23	.4613E-04	.3375E-04	24	.4501E-04
.1956E-04										
25	.1326E-03	.3169E-03	26	.1404E-03	.2607E-03	27	.1302E-03	.1779E-03	28	.1033E-03
.1146E-03										
29	.8581E-04	.8618E-04	30	.7174E-04	.6509E-04	31	.5954E-04	.4334E-04	32	.5683E-04
.2664E-04										
33	.2104E-03	.4150E-03	34	.2170E-03	.3333E-03	35	.1939E-03	.2150E-03	36	.1443E-03
.1352E-03										
37	.1157E-03	.1016E-03	38	.9371E-04	.7726E-04	39	.7446E-04	.5309E-04	40	.6947E-04
.3604E-04										
41	.3161E-03	.4580E-03	42	.3174E-03	.3681E-03	43	.2728E-03	.2333E-03	44	.1902E-03
.1479E-03										
45	.1491E-03	.1117E-03	46	.1180E-03	.8550E-04	47	.8963E-04	.6045E-04	48	.8091E-04
.4535E-04										
49	.4014E-03	.4537E-03	50	.4056E-03	.3691E-03	51	.3443E-03	.2300E-03	52	.2334E-03
.1469E-03										
53	.1800E-03	.1110E-03	54	.1397E-03	.8528E-04	55	.1025E-03	.6137E-04	56	.8923E-04
.4907E-04										
57	.2219E-03	-.4794E-03	58	.2585E-03	-.4205E-03	59	.2863E-03	-.2781E-03	60	.2317E-03
.1668E-03										
61	.1827E-03	-.1199E-03	62	.1419E-03	-.8871E-04	63	.1033E-03	-.6189E-04	64	.8943E-04
.4866E-04										
65	.1646E-03	-.4387E-03	66	.1868E-03	-.3821E-03	67	.2069E-03	-.2641E-03	68	.1751E-03
.1645E-03										
69	.1446E-03	-.1199E-03	70	.1167E-03	-.8898E-04	71	.8924E-04	-.6104E-04	72	.8053E-04
.4473E-04										
73	.9345E-04	-.3103E-03	74	.1061E-03	-.2730E-03	75	.1165E-03	-.2022E-03	76	.1068E-03
.1351E-03										

Appendix 6E-d 8 Inch PCCP Pavement

77	.9399E-04	-.1015E-03	78	.8081E-04	-.7600E-04	79	.6738E-04	-.5048E-04	80	.6401E-04	-
.3267E-04											
81	.3390E-04	-.1415E-03	82	.3918E-04	-.1253E-03	83	.4251E-04	-.9903E-04	84	.4202E-04	-
.7254E-04											
85	.4037E-04	-.5734E-04	86	.3838E-04	-.4419E-04	87	.3646E-04	-.2856E-04	88	.3657E-04	-
.1518E-04											
89	.1329E-04	-.5620E-04	90	.1534E-04	-.5116E-04	91	.1650E-04	-.4279E-04	92	.1685E-04	-
.3382E-04											
93	.1708E-04	-.2812E-04	94	.1743E-04	-.2262E-04	95	.1814E-04	-.1521E-04	96	.1866E-04	-
.8114E-05											
97	.6299E-05	-.2353E-04	98	.5919E-05	-.2143E-04	99	.5270E-05	-.1868E-04	100	.5007E-05	-
.1575E-04											
101	.5006E-05	-.1373E-04	102	.5341E-05	-.1156E-04	103	.6331E-05	-.8293E-05	104	.6983E-05	-
.4238E-05											

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	-.751745E+02	.000000E+00	.000000E+00	-.751745E+02	.000000E+00	.375872E+02
25	1	-.892907E+02	.000000E+00	.000000E+00	-.892907E+02	.000000E+00	.446453E+02
29	1	-.179970E+02	-.189930E+02	-.212137E+02	-.397145E+02	.272453E+01	.212195E+02
33	1	-.887348E+02	.000000E+00	.000000E+00	-.887348E+02	.000000E+00	.443674E+02
41	1	.134860E+02	.000000E+00	.000000E+00	.000000E+00	.134860E+02	.674302E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.138681E+02	-.770403E+02	-.704177E+02	.842858E+02	.773517E+02
51	1	.000000E+00	-.932868E+02	-.628091E+02	-.124878E+03	.315908E+02	.782342E+02
52	1	.000000E+00	-.569495E+02	-.370694E+02	-.752182E+02	.182687E+02	.467435E+02
53	1	.000000E+00	-.450274E+02	-.264335E+02	-.572354E+02	.122080E+02	.347217E+02
54	1	.000000E+00	-.340169E+02	-.184539E+02	-.421049E+02	.808801E+01	.250965E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 124.87760 AND OCCURS AT NODE 51

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
*      8 inch PCCP Pavement with 100K Load
*
*****
```

TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```

Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000  
 FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000  
 Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

SLAB NO.	XL	YL	INTENSITY(QQ)
1	122.53200	132.00000	.00000
1	122.53200	132.00000	12.00000
1	122.53200	132.00000	84.00000
1	122.53200	132.00000	96.00000
1	170.53200	180.00000	.00000
1	170.53200	180.00000	12.00000
1	170.53200	180.00000	84.00000
1	170.53200	180.00000	96.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:  
17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:



Appendix 6E-d 8 Inch PCCP Pavement

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:  
1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
66.00000										

Appendix 6E-d 8 Inch PCCP Pavement

61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
144.00000										
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
66.00000										
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000
144.00000										
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
66.00000										
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
144.00000										
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
66.00000										
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
144.00000										
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
66.00000										
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
144.00000										
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
66.00000										
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000
144.00000										

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.39244	1.00000	-1.00000	-.18496	90.00000
22	-1.00000	-.55556	-1.00000	-.18496	90.00000
15	.39244	1.00000	.50000	1.00000	90.00000
16	.39244	1.00000	-1.00000	-.79838	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.79838	90.00000
19	.39244	1.00000	-.75000	.06504	90.00000
26	-1.00000	-.55556	-.75000	.06504	90.00000
19	.39244	1.00000	.75000	1.00000	90.00000
20	.39244	1.00000	-1.00000	-.60696	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.60696	90.00000
36	-.18350	1.00000	-1.00000	-.18496	90.00000
36	-.18350	1.00000	.50000	1.00000	90.00000

Appendix 6E-d 8 Inch PCCP Pavement

37	-.18350	1.00000	-1.00000	-.79838	90.00000
40	-.18350	1.00000	-.75000	.06504	90.00000
40	-.18350	1.00000	.75000	1.00000	90.00000
41	-.18350	1.00000	-1.00000	-.60696	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000

Appendix 6E-d 8 Inch PCCP Pavement

37	146.00000	82.00000	144.00000	38	146.00000	98.00000	66.00000	39	146.00000	121.00000	144.00000	40	146.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000
81	260.00000	.00000	66.00000	82	260.00000	16.00000	66.00000	83	260.00000	41.00000	66.00000	84	260.00000
85	260.00000	82.00000	144.00000	86	260.00000	98.00000	144.00000	87	260.00000	121.00000	144.00000	88	260.00000
89	300.00000	.00000	66.00000	90	300.00000	16.00000	66.00000	91	300.00000	41.00000	66.00000	92	300.00000
93	300.00000	82.00000	144.00000	94	300.00000	98.00000	144.00000	95	300.00000	121.00000	144.00000	96	300.00000
97	360.00000	.00000	66.00000	98	360.00000	16.00000	66.00000	99	360.00000	41.00000	66.00000	100	360.00000
101	360.00000	82.00000	144.00000	102	360.00000	98.00000	144.00000	103	360.00000	121.00000	144.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
10	1																

Appendix 6E-d 8 Inch PCCP Pavement

20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
	1																	
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
	1																	
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
	1																	
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
	2																	
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
	0																	
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
	1																	
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
	1																	
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
	1																	
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	1																	
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
	0																	
20	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
	0																	
30	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
	0																	
40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	

Appendix 6E-d 8 Inch PCCP Pavement

90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
100	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .05601420  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01235838  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00144984  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00017215  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00002052

SUM OF APPLIED FORCES (FOSUM)= 44448.1 SUM OF TOTAL REACTIONS (SUBSUM)= 44418.9

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1375E-01	2	.1387E-01	3	.1397E-01	4	.1380E-01	5	.1351E-01	6	.1311E-01	7	.1228E-01	8	.1125E-01
9	.2840E-01	10	.2829E-01	11	.2780E-01	12	.2687E-01	13	.2592E-01	14	.2461E-01	15	.2212E-01	16	.1905E-01
17	.5062E-01	18	.4846E-01	19	.4518E-01	20	.4301E-01	21	.4171E-01	22	.3952E-01	23	.3428E-01	24	.2800E-01
25	.5842E-01	26	.5534E-01	27	.5079E-01	28	.4829E-01	29	.4712E-01	30	.4476E-01	31	.3835E-01	32	.3094E-01
33	.6294E-01	34	.5974E-01	35	.5504E-01	36	.5231E-01	37	.5090E-01	38	.4828E-01	39	.4155E-01	40	.3340E-01
41	.6668E-01	42	.6324E-01	43	.5814E-01	44	.5540E-01	45	.5413E-01	46	.5148E-01	47	.4422E-01	48	.3556E-01
49	.7002E-01	50	.6620E-01	51	.6039E-01	52	.5777E-01	53	.5701E-01	54	.5453E-01	55	.4648E-01	56	.3749E-01
57	.6388E-01	58	.6268E-01	59	.5952E-01	60	.5668E-01	61	.5468E-01	62	.5170E-01	63	.4532E-01	64	.3797E-01

Appendix 6E-d 8 Inch PCCP Pavement

65	.5169E-01	66	.5118E-01	67	.4950E-01	68	.4737E-01	69	.4559E-01	70	.4307E-01	71	.3798E-01	72
.3187E-01														
73	.3658E-01	74	.3677E-01	75	.3638E-01	76	.3518E-01	77	.3389E-01	78	.3208E-01	79	.2852E-01	80
.2412E-01														
81	.2139E-01	82	.2178E-01	83	.2200E-01	84	.2161E-01	85	.2100E-01	86	.2008E-01	87	.1827E-01	88
.1599E-01														
89	.1435E-01	90	.1459E-01	91	.1478E-01	92	.1464E-01	93	.1436E-01	94	.1393E-01	95	.1306E-01	96
.1198E-01														
97	.9750E-02	98	.9802E-02	99	.9847E-02	100	.9793E-02	101	.9699E-02	102	.9566E-02	103	.9295E-02	104
.8949E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE:(DOWNWARD POSITIVE)

1	.1375E-01	2	.1387E-01	3	.1397E-01	4	.1380E-01	5	.1351E-01	6	.1311E-01	7	.1228E-01	8
.1125E-01														
9	.2840E-01	10	.2829E-01	11	.2780E-01	12	.2687E-01	13	.2592E-01	14	.2461E-01	15	.2212E-01	16
.1905E-01														
17	.5062E-01	18	.4846E-01	19	.4518E-01	20	.4301E-01	21	.4171E-01	22	.3952E-01	23	.3428E-01	24
.2800E-01														
25	.5842E-01	26	.5534E-01	27	.5079E-01	28	.4829E-01	29	.4712E-01	30	.4476E-01	31	.3835E-01	32
.3094E-01														
33	.6294E-01	34	.5974E-01	35	.5504E-01	36	.5231E-01	37	.5090E-01	38	.4828E-01	39	.4155E-01	40
.3340E-01														
41	.6668E-01	42	.6324E-01	43	.5814E-01	44	.5540E-01	45	.5413E-01	46	.5148E-01	47	.4422E-01	48
.3556E-01														
49	.6695E-01	50	.6444E-01	51	.5996E-01	52	.5723E-01	53	.5584E-01	54	.5312E-01	55	.4590E-01	56
.3773E-01														
57	.6695E-01	58	.6444E-01	59	.5996E-01	60	.5723E-01	61	.5584E-01	62	.5312E-01	63	.4590E-01	64
.3773E-01														
65	.5169E-01	66	.5118E-01	67	.4950E-01	68	.4737E-01	69	.4559E-01	70	.4307E-01	71	.3798E-01	72
.3187E-01														
73	.3658E-01	74	.3677E-01	75	.3638E-01	76	.3518E-01	77	.3389E-01	78	.3208E-01	79	.2852E-01	80
.2412E-01														
81	.2139E-01	82	.2178E-01	83	.2200E-01	84	.2161E-01	85	.2100E-01	86	.2008E-01	87	.1827E-01	88
.1599E-01														
89	.1435E-01	90	.1459E-01	91	.1478E-01	92	.1464E-01	93	.1436E-01	94	.1393E-01	95	.1306E-01	96
.1198E-01														

Appendix 6E-d 8 Inch PCCP Pavement

97 .9750E-02 98 .9802E-02 99 .9847E-02 100 .9793E-02 101 .9699E-02 102 .9566E-02 103 .9295E-02 104  
.8949E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-100.6	2	-152.9	3	-216.8	4	-157.8	5	-60.2	6	-149.0	7	-160.3	8	-
346.3															
9	1102.5	10	408.2	11	678.8	12	447.9	13	209.5	14	369.1	15	347.4	16	
115.6															
17	1828.5	18	1006.7	19	1030.1	20	704.7	21	514.9	22	684.9	23	635.9	24	
389.8															
25	1472.7	26	812.5	27	701.8	28	509.2	29	432.4	30	561.6	31	468.2	32	
297.0															
33	1679.7	34	957.8	35	898.1	36	639.1	37	505.7	38	643.3	39	597.2	40	
403.8															
41	1820.0	42	1071.2	43	975.5	44	711.5	45	581.2	46	748.5	47	675.7	48	
471.0															
49	1179.8	50	869.2	51	809.9	52	601.2	53	513.7	54	647.1	55	581.2	56	
436.8															
57	833.8	58	634.3	59	742.1	60	528.2	61	376.3	62	463.8	63	496.2	64	
471.4															
65	1073.2	66	648.2	67	741.3	68	528.7	69	358.3	70	437.4	71	457.4	72	
430.3															
73	808.2	74	428.0	75	505.1	76	352.3	77	228.7	78	292.1	79	276.0	80	
146.5															
81	168.9	82	36.3	83	42.9	84	31.6	85	19.0	86	16.6	87	-14.1	88	-
170.3															
89	-53.2	90	-70.6	91	-97.6	92	-66.6	93	-34.5	94	-63.7	95	-82.4	96	-
196.9															
97	-90.3	98	-73.4	99	-119.1	100	-87.6	101	-33.8	102	-80.2	103	-81.0	104	-
143.4															

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000244

SUM OF APPLIED FORCES (FOSUM)= 44448.1 SUM OF TOTAL REACTIONS (SUBSUM)= 44422.2

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)



Appendix 6E-d 8 Inch PCCP Pavement

1	.1375E-01	2	.1387E-01	3	.1397E-01	4	.1380E-01	5	.1351E-01	6	.1311E-01	7	.1228E-01	8
.1125E-01														
9	.2840E-01	10	.2829E-01	11	.2780E-01	12	.2688E-01	13	.2592E-01	14	.2461E-01	15	.2212E-01	16
.1905E-01														
17	.5062E-01	18	.4846E-01	19	.4519E-01	20	.4302E-01	21	.4171E-01	22	.3952E-01	23	.3429E-01	24
.2801E-01														
25	.5842E-01	26	.5534E-01	27	.5080E-01	28	.4830E-01	29	.4712E-01	30	.4477E-01	31	.3836E-01	32
.3094E-01														
33	.6294E-01	34	.5974E-01	35	.5504E-01	36	.5231E-01	37	.5090E-01	38	.4828E-01	39	.4155E-01	40
.3340E-01														
41	.6668E-01	42	.6324E-01	43	.5814E-01	44	.5540E-01	45	.5414E-01	46	.5148E-01	47	.4423E-01	48
.3556E-01														
49	.7002E-01	50	.6621E-01	51	.6040E-01	52	.5778E-01	53	.5702E-01	54	.5453E-01	55	.4649E-01	56
.3750E-01														
57	.6388E-01	58	.6268E-01	59	.5953E-01	60	.5668E-01	61	.5468E-01	62	.5171E-01	63	.4532E-01	64
.3798E-01														
65	.5169E-01	66	.5118E-01	67	.4950E-01	68	.4737E-01	69	.4559E-01	70	.4307E-01	71	.3798E-01	72
.3187E-01														
73	.3658E-01	74	.3677E-01	75	.3638E-01	76	.3518E-01	77	.3389E-01	78	.3208E-01	79	.2852E-01	80
.2412E-01														
81	.2139E-01	82	.2178E-01	83	.2200E-01	84	.2161E-01	85	.2100E-01	86	.2008E-01	87	.1827E-01	88
.1599E-01														
89	.1435E-01	90	.1460E-01	91	.1478E-01	92	.1464E-01	93	.1437E-01	94	.1393E-01	95	.1306E-01	96
.1198E-01														
97	.9751E-02	98	.9804E-02	99	.9848E-02	100	.9794E-02	101	.9701E-02	102	.9567E-02	103	.9296E-02	104
.8951E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1375E-01	2	.1387E-01	3	.1397E-01	4	.1380E-01	5	.1351E-01	6	.1311E-01	7	.1228E-01	8
.1125E-01														
9	.2840E-01	10	.2829E-01	11	.2780E-01	12	.2688E-01	13	.2592E-01	14	.2461E-01	15	.2212E-01	16
.1905E-01														
17	.5062E-01	18	.4846E-01	19	.4519E-01	20	.4302E-01	21	.4171E-01	22	.3952E-01	23	.3429E-01	24
.2801E-01														
25	.5842E-01	26	.5534E-01	27	.5080E-01	28	.4830E-01	29	.4712E-01	30	.4477E-01	31	.3836E-01	32
.3094E-01														

Appendix 6E-d 8 Inch PCCP Pavement

33	.6294E-01	34	.5974E-01	35	.5504E-01	36	.5231E-01	37	.5090E-01	38	.4828E-01	39	.4155E-01	40
.3340E-01														
41	.6668E-01	42	.6324E-01	43	.5814E-01	44	.5540E-01	45	.5414E-01	46	.5148E-01	47	.4423E-01	48
.3556E-01														
49	.6695E-01	50	.6444E-01	51	.5996E-01	52	.5723E-01	53	.5585E-01	54	.5312E-01	55	.4590E-01	56
.3774E-01														
57	.6695E-01	58	.6444E-01	59	.5996E-01	60	.5723E-01	61	.5585E-01	62	.5312E-01	63	.4590E-01	64
.3774E-01														
65	.5169E-01	66	.5118E-01	67	.4950E-01	68	.4737E-01	69	.4559E-01	70	.4307E-01	71	.3798E-01	72
.3187E-01														
73	.3658E-01	74	.3677E-01	75	.3638E-01	76	.3518E-01	77	.3389E-01	78	.3208E-01	79	.2852E-01	80
.2412E-01														
81	.2139E-01	82	.2178E-01	83	.2200E-01	84	.2161E-01	85	.2100E-01	86	.2008E-01	87	.1827E-01	88
.1599E-01														
89	.1435E-01	90	.1460E-01	91	.1478E-01	92	.1464E-01	93	.1437E-01	94	.1393E-01	95	.1306E-01	96
.1198E-01														
97	.9751E-02	98	.9804E-02	99	.9848E-02	100	.9794E-02	101	.9701E-02	102	.9567E-02	103	.9296E-02	104
.8951E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-100.6	2	-152.8	3	-216.7	4	-157.8	5	-60.2	6	-149.0	7	-160.3	8	-
346.2															
9	1102.6	10	408.3	11	678.8	12	448.0	13	209.5	14	369.2	15	347.4	16	
115.6															
17	1828.6	18	1006.8	19	1030.1	20	704.8	21	514.9	22	685.0	23	636.0	24	
389.8															
25	1472.8	26	812.6	27	701.8	28	509.2	29	432.5	30	561.6	31	468.3	32	
297.0															
33	1679.7	34	957.8	35	898.1	36	639.1	37	505.7	38	643.4	39	597.2	40	
403.9															
41	1820.0	42	1071.2	43	975.5	44	711.6	45	581.2	46	748.5	47	675.7	48	
471.1															
49	1179.8	50	869.2	51	809.9	52	601.2	53	513.7	54	647.1	55	581.3	56	
436.8															
57	833.8	58	634.3	59	742.1	60	528.2	61	376.3	62	463.8	63	496.2	64	
471.4															

Appendix 6E-d 8 Inch PCCP Pavement

65	1073.3	66	648.3	67	741.3	68	528.7	69	358.3	70	437.4	71	457.4	72	
430.4															
73	808.3	74	428.1	75	505.1	76	352.3	77	228.7	78	292.1	79	276.0	80	
146.6															
81	169.0	82	36.3	83	42.9	84	31.6	85	19.0	86	16.6	87	-14.1	88	-
170.2															
89	-53.2	90	-70.6	91	-97.5	92	-66.6	93	-34.5	94	-63.7	95	-82.4	96	-
196.8															
97	-90.2	98	-73.4	99	-119.0	100	-87.6	101	-33.8	102	-80.2	103	-81.0	104	-
143.4															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1938.161	.000	50	-2854.646	.000	51	-857.463	.000	52	-885.801
.000										
53	-1476.083	.000	54	-2176.276	.000	55	-1054.956	.000	56	218.722
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2907.241	50	-1671.012	51	-411.582	52	-518.518	53	-1107.062	54	-
1339.247											
55	-550.412	56	228.232								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4540.820	-3701.607	50	-2609.954	-2127.595	51	-642.850	-524.042	52	-809.873
-660.196										
53	-1729.120	-1409.552	54	-2091.770	-1705.179	55	-859.689	-700.805	56	356.476
290.594										

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	-.41910	2	-.24853	3	-.28899	4	-.25657	5	-.12532	6	-.25468	7	-.23229	8	-
1.00345															
9	2.50594	10	.36209	11	.49371	12	.39731	13	.23810	14	.34422	15	.27464	16	
.18283															
17	6.72277	18	1.44445	19	1.21190	20	1.01114	21	.94655	22	1.03311	23	.81326	24	
.99705															
25	10.22761	26	2.20206	27	1.55955	28	1.37999	29	1.50159	30	1.59999	31	1.13108	32	
1.43477															

Appendix 6E-d 8 Inch PCCP Pavement

33	11.66465	34	2.59567	35	1.99589	36	1.73200	37	1.75598	38	1.83295	39	1.44249	40			
1.95118		41	13.38235	42	3.07378	43	2.29537	44	2.04177	45	2.13666	46	2.25789	47	1.72810	48	
2.40956		49	18.43465	50	5.30021	51	4.04947	52	3.66565	53	4.01346	54	4.14837	55	3.15899	56	
4.74776		57	13.02773	58	3.86789	59	3.71054	60	3.22098	61	2.94011	62	2.97315	63	2.69691	64	
5.12414		65	6.70790	66	1.58115	67	1.48264	68	1.28957	69	1.11971	70	1.12164	71	.99442	72	
1.87122		73	3.15737	74	.65252	75	.63142	76	.53712	77	.44665	78	.46810	79	.37503	80	
.39835		81	.52810	82	.04427	83	.04293	84	.03853	85	.02966	86	.02129	87	-.01528	88	-
.37001		89	-.13291	90	-.06888	91	-.07802	92	-.06494	93	-.04316	94	-.06532	95	-.07165	96	-
.34227		97	-.37595	98	-.11929	99	-.15873	100	-.14237	101	-.07034	102	-.13702	103	-.11733	104	-
.41557																	

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y
1	-.6924E-05	.1982E-03	2	-.6871E-05	.1945E-03	3	.3704E-06	.1907E-03	4	.1374E-04
.1830E-03										
5	.2151E-04	.1742E-03	6	.2964E-04	.1616E-03	7	.4122E-04	.1384E-03	8	.4719E-04
.1065E-03										
9	.7697E-06	.3564E-03	10	.1245E-04	.3349E-03	11	.2718E-04	.3032E-03	12	.4913E-04
.2829E-03										
13	.7058E-04	.2718E-03	14	.9302E-04	.2540E-03	15	.1233E-03	.2121E-03	16	.1397E-03
.1636E-03										
17	.1346E-03	.4737E-03	18	.1374E-03	.4220E-03	19	.1110E-03	.3434E-03	20	.7242E-04
.3207E-03										
21	.1010E-03	.3255E-03	22	.1779E-03	.3134E-03	23	.2619E-03	.2451E-03	24	.2775E-03
.1762E-03										
25	.2001E-03	.3428E-03	26	.1932E-03	.3139E-03	27	.1449E-03	.2749E-03	28	.6918E-04
.2591E-03										
29	.9690E-04	.2554E-03	30	.2083E-03	.2430E-03	31	.3164E-03	.2019E-03	32	.3253E-03
.1495E-03										

Appendix 6E-d 8 Inch PCCP Pavement

33	.1994E-03	.2087E-03	34	.2024E-03	.2039E-03	35	.1530E-03	.1988E-03	36	.7930E-04
.1918E-03										
37	.1134E-03	.1845E-03	38	.2220E-03	.1744E-03	39	.3403E-03	.1578E-03	40	.3598E-03
.1254E-03										
41	.2123E-03	.2073E-03	42	.2198E-03	.1875E-03	43	.1631E-03	.1522E-03	44	.7123E-04
.1562E-03										
45	.1067E-03	.1771E-03	46	.2346E-03	.1824E-03	47	.3659E-03	.1428E-03	48	.3814E-03
.1189E-03										
49	.2343E-03	.2087E-03	50	.2470E-03	.1845E-03	51	.1767E-03	.1311E-03	52	.4922E-04
.1429E-03										
53	.7984E-04	.1855E-03	54	.2482E-03	.2018E-03	55	.3929E-03	.1409E-03	56	.3925E-03
.1216E-03										
57	.6363E-04	-.7816E-03	58	.9852E-04	-.7378E-03	59	.1248E-03	-.6365E-03	60	.1138E-03 -
.5929E-03										
61	.1489E-03	-.5823E-03	62	.2284E-03	-.5552E-03	63	.3072E-03	-.4691E-03	64	.3269E-03 -
.3903E-03										
65	.1984E-04	-.7216E-03	66	.4715E-04	-.6832E-03	67	.7934E-04	-.6058E-03	68	.9547E-04 -
.5618E-03										
69	.1307E-03	-.5438E-03	70	.1856E-03	-.5142E-03	71	.2503E-03	-.4404E-03	72	.2755E-03 -
.3649E-03										
73	-.2232E-04	-.5286E-03	74	-.8287E-06	-.5122E-03	75	.3156E-04	-.4776E-03	76	.6589E-04 -
.4458E-03										
77	.9614E-04	-.4249E-03	78	.1311E-03	-.3973E-03	79	.1763E-03	-.3417E-03	80	.2022E-03 -
.2784E-03										
81	-.3075E-04	-.2578E-03	82	-.1876E-04	-.2579E-03	83	.2632E-05	-.2543E-03	84	.2902E-04 -
.2433E-03										
85	.4775E-04	-.2313E-03	86	.6653E-04	-.2145E-03	87	.9037E-04	-.1815E-03	88	.1053E-03 -
.1403E-03										
89	-.1799E-04	-.1167E-03	90	-.1264E-04	-.1204E-03	91	-.1486E-05	-.1229E-03	92	.1264E-04 -
.1199E-03										
93	.2232E-04	-.1146E-03	94	.3174E-04	-.1066E-03	95	.4328E-04	-.9078E-04	96	.4987E-04 -
.7082E-04										
97	-.3436E-05	-.5628E-04	98	-.2991E-05	-.5952E-04	99	-.9249E-07	-.6192E-04	100	.4501E-05 -
.6145E-04										
101	.7058E-05	-.5943E-04	102	.9710E-05	-.5587E-04	103	.1373E-04	-.4842E-04	104	.1587E-04 -
.3699E-04										

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
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Appendix 6E-d 8 Inch PCCP Pavement

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17	1	-.584484E+00	.000000E+00	.000000E+00	-.584484E+00	.000000E+00	.292242E+00
25	1	.252114E+03	.000000E+00	.000000E+00	.000000E+00	.252114E+03	.126057E+03
29	1	.131014E+03	.102162E+03	-.526670E+01	.101231E+03	.131945E+03	.153571E+02
33	1	-.573721E+01	.000000E+00	.000000E+00	-.573721E+01	.000000E+00	.286861E+01
41	1	-.117719E+01	.000000E+00	.000000E+00	-.117719E+01	.000000E+00	.588595E+00
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.309033E+02	-.265743E+02	-.152884E+02	.461917E+02	.307400E+02
51	1	.000000E+00	-.118917E+03	-.131696E+02	-.120358E+03	.144101E+01	.608997E+02
52	1	.000000E+00	-.609108E+02	.250614E+02	-.698966E+02	.898577E+01	.394412E+02
53	1	.000000E+00	.124045E+03	.304550E+02	-.707380E+01	.131119E+03	.690962E+02
54	1	.000000E+00	.223087E+03	-.128938E+02	-.742752E+00	.223830E+03	.112286E+03

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 252.11440 AND OCCURS AT NODE 25

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      8 inch PCCP Pavement with 105K load Single Axle
*
*****
```

TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```



Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000  
 FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000  
 Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	170.29900	180.00000	.00000	6.68130	90.00000
1	170.29900	180.00000	8.00000	14.68130	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:  
17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
 INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:  
 1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
 INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:  
 1 49 57 56 64 36 43 42 49

Appendix 6E-d 8 Inch PCCP Pavement

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
144.00000	37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
66.00000	41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
144.00000	45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
66.00000	49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
144.00000	53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
66.00000	57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
144.00000	61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
66.00000	65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
144.00000	69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
144.00000	77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
66.00000	81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
144.00000	85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
66.00000	89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
144.00000	93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
66.00000	97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
144.00000	101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.21263	1.00000	-1.00000	-.16484	90.00000
36	-.21263	1.00000	.00000	.83516	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
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Appendix 6E-d 8 Inch PCCP Pavement

5	.00000	82.00000	144.00000	6	.00000	98.00000	144.00000	7	.00000	121.00000	144.00000	8	.00000	144.00000
9	60.00000	.00000	66.00000	10	60.00000	16.00000	66.00000	11	60.00000	41.00000	66.00000	12	60.00000	66.00000
13	60.00000	82.00000	144.00000	14	60.00000	98.00000	144.00000	15	60.00000	121.00000	144.00000	16	60.00000	144.00000
17	110.00000	.00000	66.00000	18	110.00000	16.00000	66.00000	19	110.00000	41.00000	66.00000	20	110.00000	66.00000
21	110.00000	82.00000	144.00000	22	110.00000	98.00000	144.00000	23	110.00000	121.00000	144.00000	24	110.00000	144.00000
25	128.00000	.00000	66.00000	26	128.00000	16.00000	66.00000	27	128.00000	41.00000	66.00000	28	128.00000	66.00000
29	128.00000	82.00000	144.00000	30	128.00000	98.00000	144.00000	31	128.00000	121.00000	144.00000	32	128.00000	144.00000
33	146.00000	.00000	66.00000	34	146.00000	16.00000	66.00000	35	146.00000	41.00000	66.00000	36	146.00000	66.00000
37	146.00000	82.00000	144.00000	38	146.00000	98.00000	144.00000	39	146.00000	121.00000	144.00000	40	146.00000	144.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000	66.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000	144.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000	66.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000	144.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000	66.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000	144.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000	66.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000	144.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000	66.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000	144.00000

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
144.00000	85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
66.00000	89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
144.00000	93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
66.00000	97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
144.00000	101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

10	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
	0																	
20	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
	0																	
30	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
	0																	
40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	
90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
	0																	
100	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
	0																	
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .03716549  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00370605  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00040034  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004723  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000563

SUM OF APPLIED FORCES (FOSUM)= 11666.8 SUM OF TOTAL REACTIONS (SUBSUM)= 11658.5

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.3301E-02	2	.3145E-02	3	.2929E-02	4	.2746E-02	5	.2641E-02	6	.2539E-02	7	.2382E-02	8	.2206E-02
9	.6163E-02	10	.5714E-02	11	.4990E-02	12	.4320E-02	13	.3930E-02	14	.3565E-02	15	.3067E-02	16	.2576E-02
17	.1341E-01	18	.1194E-01	19	.9605E-02	20	.7536E-02	21	.6422E-02	22	.5462E-02	23	.4273E-02	24	.3179E-02
25	.1847E-01	26	.1617E-01	27	.1256E-01	28	.9477E-02	29	.7888E-02	30	.6568E-02	31	.5000E-02	32	.3609E-02
33	.2538E-01	34	.2179E-01	35	.1629E-01	36	.1184E-01	37	.9664E-02	38	.7913E-02	39	.5910E-02	40	.4198E-02
41	.3377E-01	42	.2848E-01	43	.2055E-01	44	.1452E-01	45	.1168E-01	46	.9455E-02	47	.6987E-02	48	.4966E-02
49	.4132E-01	50	.3462E-01	51	.2444E-01	52	.1701E-01	53	.1356E-01	54	.1090E-01	55	.8017E-02	56	.5768E-02
57	.3536E-01	58	.3147E-01	59	.2398E-01	60	.1711E-01	61	.1366E-01	62	.1095E-01	63	.8032E-02	64	.5776E-02
65	.2756E-01	66	.2466E-01	67	.1938E-01	68	.1431E-01	69	.1162E-01	70	.9440E-02	71	.6990E-02	72	.4980E-02
73	.1807E-01	74	.1640E-01	75	.1345E-01	76	.1049E-01	77	.8804E-02	78	.7340E-02	79	.5571E-02	80	.4006E-02
81	.8982E-02	82	.8366E-02	83	.7291E-02	84	.6179E-02	85	.5487E-02	86	.4827E-02	87	.3928E-02	88	.3050E-02
89	.5141E-02	90	.4900E-02	91	.4481E-02	92	.4044E-02	93	.3760E-02	94	.3471E-02	95	.3042E-02	96	.2597E-02
97	.3052E-02	98	.2949E-02	99	.2804E-02	100	.2671E-02	101	.2587E-02	102	.2501E-02	103	.2360E-02	104	.2198E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3301E-02	2	.3145E-02	3	.2929E-02	4	.2746E-02	5	.2641E-02	6	.2539E-02	7	.2382E-02	8	.2206E-02
9	.6163E-02	10	.5714E-02	11	.4990E-02	12	.4320E-02	13	.3930E-02	14	.3565E-02	15	.3067E-02	16	.2576E-02
17	.1341E-01	18	.1194E-01	19	.9605E-02	20	.7536E-02	21	.6422E-02	22	.5462E-02	23	.4273E-02	24	.3179E-02
25	.1847E-01	26	.1617E-01	27	.1256E-01	28	.9477E-02	29	.7888E-02	30	.6568E-02	31	.5000E-02	32	.3609E-02

Appendix 6E-d 8 Inch PCCP Pavement

33	.2538E-01	34	.2179E-01	35	.1629E-01	36	.1184E-01	37	.9664E-02	38	.7913E-02	39	.5910E-02	40	.4198E-02
41	.3377E-01	42	.2848E-01	43	.2055E-01	44	.1452E-01	45	.1168E-01	46	.9455E-02	47	.6987E-02	48	.4966E-02
49	.3834E-01	50	.3304E-01	51	.2421E-01	52	.1706E-01	53	.1361E-01	54	.1092E-01	55	.8025E-02	56	.5772E-02
57	.3834E-01	58	.3304E-01	59	.2421E-01	60	.1706E-01	61	.1361E-01	62	.1092E-01	63	.8025E-02	64	.5772E-02
65	.2756E-01	66	.2466E-01	67	.1938E-01	68	.1431E-01	69	.1162E-01	70	.9440E-02	71	.6990E-02	72	.4980E-02
73	.1807E-01	74	.1640E-01	75	.1345E-01	76	.1049E-01	77	.8804E-02	78	.7340E-02	79	.5571E-02	80	.4006E-02
81	.8982E-02	82	.8366E-02	83	.7291E-02	84	.6179E-02	85	.5487E-02	86	.4827E-02	87	.3928E-02	88	.3050E-02
89	.5141E-02	90	.4900E-02	91	.4481E-02	92	.4044E-02	93	.3760E-02	94	.3471E-02	95	.3042E-02	96	.2597E-02
97	.3052E-02	98	.2949E-02	99	.2804E-02	100	.2671E-02	101	.2587E-02	102	.2501E-02	103	.2360E-02	104	.2198E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	1.1	2	-44.1	3	-64.9	4	-48.9	5	-16.5	6	-36.4	7	-30.8	8	-	
60.8	9	156.1	10	-28.8	11	-54.4	12	-61.0	13	-27.4	14	-54.4	15	-55.9	16	-
130.0	17	379.4	18	98.0	19	31.0	20	-17.8	21	-20.8	22	-32.5	23	-46.0	24	-
111.6	25	439.6	26	164.1	27	89.7	28	19.2	29	1.1	30	-6.3	31	-15.5	32	-
61.0	33	804.5	34	353.4	35	217.2	36	66.7	37	22.7	38	13.4	39	-.6	40	-
55.6	41	1274.0	42	629.6	43	381.8	44	136.4	45	57.9	46	48.8	47	31.7	48	-
22.1	49	1007.9	50	673.3	51	463.3	52	195.6	53	99.1	54	91.5	55	76.7	56	-
42.6	57	671.8	58	463.1	59	426.9	60	202.7	61	104.4	62	94.6	63	77.9	64	-
43.1																



Appendix 6E-d 8 Inch PCCP Pavement

65	847.6	66	420.5	67	362.1	68	162.2	69	70.8	70	59.6	71	38.3	72	-
23.4															
73	702.8	74	282.7	75	221.9	76	77.4	77	23.8	78	11.8	79	-10.6	80	-
103.0															
81	231.5	82	32.8	83	-3.4	84	-25.8	85	-19.8	86	-33.2	87	-45.8	88	-
128.4															
89	38.9	90	-35.5	91	-57.6	92	-44.8	93	-22.2	94	-36.3	95	-39.4	96	-
93.9															
97	-8.7	98	-34.1	99	-51.4	100	-37.9	101	-13.0	102	-28.8	103	-25.0	104	-
52.3															

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000068

SUM OF APPLIED FORCES (FOSUM)= 11666.8 SUM OF TOTAL REACTIONS (SUBSUM)= 11659.4

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3302E-02	2	.3145E-02	3	.2929E-02	4	.2747E-02	5	.2641E-02	6	.2539E-02	7	.2383E-02	8	
.2207E-02															
9	.6163E-02	10	.5714E-02	11	.4991E-02	12	.4320E-02	13	.3930E-02	14	.3566E-02	15	.3068E-02	16	
.2576E-02															
17	.1342E-01	18	.1194E-01	19	.9606E-02	20	.7536E-02	21	.6422E-02	22	.5462E-02	23	.4274E-02	24	
.3180E-02															
25	.1847E-01	26	.1617E-01	27	.1256E-01	28	.9478E-02	29	.7889E-02	30	.6569E-02	31	.5001E-02	32	
.3610E-02															
33	.2538E-01	34	.2179E-01	35	.1629E-01	36	.1184E-01	37	.9665E-02	38	.7914E-02	39	.5911E-02	40	
.4198E-02															
41	.3377E-01	42	.2848E-01	43	.2055E-01	44	.1452E-01	45	.1169E-01	46	.9456E-02	47	.6988E-02	48	
.4967E-02															
49	.4133E-01	50	.3462E-01	51	.2444E-01	52	.1701E-01	53	.1357E-01	54	.1090E-01	55	.8018E-02	56	
.5769E-02															
57	.3536E-01	58	.3147E-01	59	.2398E-01	60	.1711E-01	61	.1366E-01	62	.1095E-01	63	.8033E-02	64	
.5777E-02															
65	.2757E-01	66	.2466E-01	67	.1938E-01	68	.1431E-01	69	.1162E-01	70	.9441E-02	71	.6991E-02	72	
.4980E-02															
73	.1807E-01	74	.1640E-01	75	.1345E-01	76	.1049E-01	77	.8805E-02	78	.7341E-02	79	.5572E-02	80	
.4007E-02															

Appendix 6E-d 8 Inch PCCP Pavement

81	.8983E-02	82	.8367E-02	83	.7291E-02	84	.6179E-02	85	.5487E-02	86	.4827E-02	87	.3928E-02	88	.3050E-02
89	.5142E-02	90	.4900E-02	91	.4481E-02	92	.4045E-02	93	.3761E-02	94	.3471E-02	95	.3043E-02	96	.2597E-02
97	.3053E-02	98	.2950E-02	99	.2804E-02	100	.2671E-02	101	.2587E-02	102	.2501E-02	103	.2361E-02	104	.2199E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3302E-02	2	.3145E-02	3	.2929E-02	4	.2747E-02	5	.2641E-02	6	.2539E-02	7	.2383E-02	8	.2207E-02
9	.6163E-02	10	.5714E-02	11	.4991E-02	12	.4320E-02	13	.3930E-02	14	.3566E-02	15	.3068E-02	16	.2576E-02
17	.1342E-01	18	.1194E-01	19	.9606E-02	20	.7536E-02	21	.6422E-02	22	.5462E-02	23	.4274E-02	24	.3180E-02
25	.1847E-01	26	.1617E-01	27	.1256E-01	28	.9478E-02	29	.7889E-02	30	.6569E-02	31	.5001E-02	32	.3610E-02
33	.2538E-01	34	.2179E-01	35	.1629E-01	36	.1184E-01	37	.9665E-02	38	.7914E-02	39	.5911E-02	40	.4198E-02
41	.3377E-01	42	.2848E-01	43	.2055E-01	44	.1452E-01	45	.1169E-01	46	.9456E-02	47	.6988E-02	48	.4967E-02
49	.3835E-01	50	.3305E-01	51	.2421E-01	52	.1706E-01	53	.1361E-01	54	.1092E-01	55	.8025E-02	56	.5773E-02
57	.3835E-01	58	.3305E-01	59	.2421E-01	60	.1706E-01	61	.1361E-01	62	.1092E-01	63	.8025E-02	64	.5773E-02
65	.2757E-01	66	.2466E-01	67	.1938E-01	68	.1431E-01	69	.1162E-01	70	.9441E-02	71	.6991E-02	72	.4980E-02
73	.1807E-01	74	.1640E-01	75	.1345E-01	76	.1049E-01	77	.8805E-02	78	.7341E-02	79	.5572E-02	80	.4007E-02
81	.8983E-02	82	.8367E-02	83	.7291E-02	84	.6179E-02	85	.5487E-02	86	.4827E-02	87	.3928E-02	88	.3050E-02
89	.5142E-02	90	.4900E-02	91	.4481E-02	92	.4045E-02	93	.3761E-02	94	.3471E-02	95	.3043E-02	96	.2597E-02
97	.3053E-02	98	.2950E-02	99	.2804E-02	100	.2671E-02	101	.2587E-02	102	.2501E-02	103	.2361E-02	104	.2199E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	1.1	2	-44.1	3	-64.9	4	-48.9	5	-16.5	6	-36.4	7	-30.7	8	-
60.8															
9	156.1	10	-28.8	11	-54.3	12	-61.0	13	-27.4	14	-54.4	15	-55.9	16	-
130.0															
17	379.4	18	98.0	19	31.0	20	-17.8	21	-20.7	22	-32.5	23	-46.0	24	-
111.5															
25	439.6	26	164.1	27	89.8	28	19.2	29	1.1	30	-6.3	31	-15.5	32	-
61.0															
33	804.5	34	353.4	35	217.2	36	66.7	37	22.7	38	13.4	39	-.6	40	-
55.6															
41	1274.0	42	629.6	43	381.8	44	136.4	45	57.9	46	48.8	47	31.7	48	-
22.1															
49	1007.9	50	673.3	51	463.3	52	195.6	53	99.1	54	91.5	55	76.7	56	-
42.6															
57	671.9	58	463.1	59	426.9	60	202.7	61	104.5	62	94.6	63	77.9	64	-
43.2															
65	847.6	66	420.5	67	362.1	68	162.2	69	70.8	70	59.6	71	38.3	72	-
23.3															
73	702.8	74	282.8	75	221.9	76	77.4	77	23.8	78	11.8	79	-10.6	80	-
103.0															
81	231.5	82	32.8	83	-3.4	84	-25.8	85	-19.8	86	-33.2	87	-45.8	88	-
128.4															
89	38.9	90	-35.5	91	-57.5	92	-44.8	93	-22.2	94	-36.3	95	-39.4	96	-
93.9															
97	-8.7	98	-34.1	99	-51.4	100	-37.9	101	-12.9	102	-28.8	103	-25.0	104	-
52.3															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1882.397	.000	50	-2554.486	.000	51	-459.618	.000	52	86.276
.000										
53	57.397	.000	54	37.196	.000	55	13.975	.000	56	3.496
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2823.595	50	-1495.309	51	-220.617	52	50.503	53	43.048	54	
22.890											
55	7.292	56	3.648								

Appendix 6E-d 8 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:  
 49 -4410.173 -3595.106 50 -2335.522 -1903.882 51 -344.581 -280.897 52 78.881  
 64.303  
 53 67.236 54.810 54 35.752 29.145 55 11.389 9.284 56 5.697  
 4.644

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)  
 1 .00458 2 -.07165 3 -.08653 4 -.07953 5 -.03434 6 -.06219 7 -.04455 8 -  
 .17619  
 9 .35472 10 -.02552 11 -.03953 12 -.05406 13 -.03117 14 -.05071 15 -.04421 16 -  
 .20546  
 17 1.39491 18 .14063 19 .03643 20 -.02559 21 -.03814 22 -.04900 23 -.05881 24 -  
 .28527  
 25 3.05292 26 .44469 27 .19945 28 .05216 29 .00370 30 -.01785 31 -.03733 32 -  
 .29471  
 33 5.58689 34 .95768 35 .48268 36 .18083 37 .07875 38 .03805 39 -.00151 40 -  
 .26847  
 41 9.36750 42 1.80655 43 .89833 44 .39134 45 .21303 46 .14731 47 .08104 48 -  
 .11287  
 49 15.74908 50 4.10577 51 2.31628 52 1.19289 53 .77429 54 .58634 55 .41712 56  
 .46301  
 57 10.49771 58 2.82404 59 2.13461 60 1.23620 61 .81602 62 .60642 63 .42324 64  
 .46902  
 65 5.29726 66 1.02566 67 .72417 68 .39552 69 .22126 70 .15272 71 .08336 72 -  
 .10147  
 73 2.74548 74 .43103 75 .27739 76 .11795 77 .04651 78 .01893 79 -.01434 80 -  
 .27982  
 81 .72345 82 .04001 83 -.00338 84 -.03151 85 -.03097 86 -.04254 87 -.04976 88 -  
 .27913  
 89 .09727 90 -.03463 91 -.04603 92 -.04374 93 -.02772 94 -.03725 95 -.03427 96 -  
 .16331  
 97 -.03632 98 -.05538 99 -.06847 100 -.06164 101 -.02698 102 -.04920 103 -.03627 104 -  
 .15148

NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODE RORAT.X ROTAT.Y NODEROTAT.X ROTAT.Y

Appendix 6E-d 8 Inch PCCP Pavement

1	.1005E-04	.3423E-04	2	.9390E-05	.2949E-04	3	.7920E-05	.2420E-04	4	.6816E-05
.1923E-04										
5	.6392E-05	.1613E-04	6	.6440E-05	.1311E-04	7	.7270E-05	.8977E-05	8	.7901E-05
.4214E-05										
9	.2660E-04	.8299E-04	10	.2899E-04	.7112E-04	11	.2824E-04	.5432E-04	12	.2532E-04
.3962E-04										
13	.2350E-04	.3155E-04	14	.2216E-04	.2447E-04	15	.2137E-04	.1563E-04	16	.2142E-04
.7329E-05										
17	.8815E-04	.2308E-03	18	.9461E-04	.1982E-03	19	.8988E-04	.1424E-03	20	.7483E-04
.9547E-04										
21	.6451E-04	.7260E-04	22	.5591E-04	.5478E-04	23	.4858E-04	.3543E-04	24	.4738E-04
.2052E-04										
25	.1390E-03	.3322E-03	26	.1472E-03	.2735E-03	27	.1368E-03	.1866E-03	28	.1086E-03
.1202E-03										
29	.9030E-04	.9035E-04	30	.7549E-04	.6823E-04	31	.6264E-04	.4543E-04	32	.5977E-04
.2793E-04										
33	.2203E-03	.4342E-03	34	.2273E-03	.3489E-03	35	.2036E-03	.2251E-03	36	.1516E-03
.1416E-03										
37	.1216E-03	.1064E-03	38	.9851E-04	.8088E-04	39	.7827E-04	.5560E-04	40	.7302E-04
.3775E-04										
41	.3301E-03	.4767E-03	42	.3318E-03	.3839E-03	43	.2861E-03	.2437E-03	44	.1996E-03
.1546E-03										
45	.1566E-03	.1168E-03	46	.1239E-03	.8944E-04	47	.9414E-04	.6327E-04	48	.8498E-04
.4748E-04										
49	.4174E-03	.4706E-03	50	.4228E-03	.3841E-03	51	.3605E-03	.2399E-03	52	.2447E-03
.1535E-03										
53	.1887E-03	.1161E-03	54	.1466E-03	.8918E-04	55	.1075E-03	.6422E-04	56	.9368E-04
.5137E-04										
57	.2315E-03	-.5019E-03	58	.2699E-03	-.4404E-03	59	.2995E-03	-.2917E-03	60	.2427E-03
.1751E-03										
61	.1915E-03	-.1258E-03	62	.1488E-03	-.9311E-04	63	.1084E-03	-.6495E-04	64	.9387E-04
.5105E-04										
65	.1718E-03	-.4593E-03	66	.1950E-03	-.4002E-03	67	.2165E-03	-.2769E-03	68	.1834E-03
.1726E-03										
69	.1516E-03	-.1259E-03	70	.1224E-03	-.9339E-04	71	.9365E-04	-.6406E-04	72	.8452E-04
.4694E-04										
73	.9752E-04	-.3249E-03	74	.1108E-03	-.2860E-03	75	.1218E-03	-.2120E-03	76	.1118E-03
.1418E-03										

Appendix 6E-d 8 Inch PCCP Pavement

77	.9851E-04	-.1065E-03	78	.8475E-04	-.7976E-04	79	.7071E-04	-.5298E-04	80	.6718E-04	-
.3429E-04											
81	.3537E-04	-.1482E-03	82	.4092E-04	-.1313E-03	83	.4445E-04	-.1038E-03	84	.4400E-04	-
.7610E-04											
85	.4230E-04	-.6018E-04	86	.4025E-04	-.4639E-04	87	.3826E-04	-.3000E-04	88	.3838E-04	-
.1595E-04											
89	.1387E-04	-.5888E-04	90	.1602E-04	-.5362E-04	91	.1725E-04	-.4488E-04	92	.1764E-04	-
.3549E-04											
93	.1790E-04	-.2952E-04	94	.1828E-04	-.2375E-04	95	.1903E-04	-.1598E-04	96	.1958E-04	-
.8537E-05											
97	.6584E-05	-.2466E-04	98	.6187E-05	-.2248E-04	99	.5513E-05	-.1960E-04	100	.5243E-05	-
.1653E-04											
101	.5247E-05	-.1442E-04	102	.5601E-05	-.1215E-04	103	.6643E-05	-.8720E-05	104	.7328E-05	-
.4465E-05											

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	-.787175E+02	.000000E+00	.000000E+00	-.787175E+02	.000000E+00	.393587E+02
25	1	-.931693E+02	.000000E+00	.000000E+00	-.931693E+02	.000000E+00	.465847E+02
29	1	-.187386E+02	-.199478E+02	-.222570E+02	-.416084E+02	.292196E+01	.222652E+02
33	1	-.917771E+02	.000000E+00	.000000E+00	-.917771E+02	.000000E+00	.458886E+02
41	1	.175861E+02	.000000E+00	.000000E+00	.000000E+00	.175861E+02	.879305E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.168438E+02	-.793111E+02	-.713351E+02	.881788E+02	.797570E+02
51	1	.000000E+00	-.973463E+02	-.652401E+02	-.130069E+03	.327231E+02	.813962E+02
52	1	.000000E+00	-.596168E+02	-.386090E+02	-.785854E+02	.189686E+02	.487770E+02
53	1	.000000E+00	-.471647E+02	-.275706E+02	-.598627E+02	.126980E+02	.362804E+02
54	1	.000000E+00	-.356381E+02	-.192604E+02	-.440580E+02	.841991E+01	.262390E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 130.06930 AND OCCURS AT NODE 51

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      8 inch PCCP Pavement with 105K load
*
*****
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TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```



Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000  
 FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000  
 Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

SLAB NO.	XL	YL	INTENSITY(QQ)
1	122.29900	132.00000	.00000
1	122.29900	132.00000	12.00000
1	122.29900	132.00000	84.00000
1	122.29900	132.00000	96.00000
1	170.29900	180.00000	.00000
1	170.29900	180.00000	12.00000
1	170.29900	180.00000	84.00000
1	170.29900	180.00000	96.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:  
17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

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1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:  
1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
66.00000										

Appendix 6E-d 8 Inch PCCP Pavement

61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
144.00000										
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
66.00000										
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000
144.00000										
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
66.00000										
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
144.00000										
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
66.00000										
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
144.00000										
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
66.00000										
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
144.00000										
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
66.00000										
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000
144.00000										

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.36656	1.00000	-1.00000	-.16484	90.00000
22	-1.00000	-.55556	-1.00000	-.16484	90.00000
15	.36656	1.00000	.50000	1.00000	90.00000
16	.36656	1.00000	-1.00000	-.78550	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.78550	90.00000
19	.36656	1.00000	-.75000	.08516	90.00000
26	-1.00000	-.55556	-.75000	.08516	90.00000
19	.36656	1.00000	.75000	1.00000	90.00000
20	.36656	1.00000	-1.00000	-.59296	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.59296	90.00000
36	-.21263	1.00000	-1.00000	-.16484	90.00000
36	-.21263	1.00000	.50000	1.00000	90.00000



Appendix 6E-d 8 Inch PCCP Pavement

37	146.00000	82.00000	144.00000	38	146.00000	98.00000	66.00000	39	146.00000	121.00000	144.00000	40	146.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000
81	260.00000	.00000	66.00000	82	260.00000	16.00000	66.00000	83	260.00000	41.00000	66.00000	84	260.00000
85	260.00000	82.00000	144.00000	86	260.00000	98.00000	144.00000	87	260.00000	121.00000	144.00000	88	260.00000
89	300.00000	.00000	66.00000	90	300.00000	16.00000	66.00000	91	300.00000	41.00000	66.00000	92	300.00000
93	300.00000	82.00000	144.00000	94	300.00000	98.00000	144.00000	95	300.00000	121.00000	144.00000	96	300.00000
97	360.00000	.00000	66.00000	98	360.00000	16.00000	66.00000	99	360.00000	41.00000	66.00000	100	360.00000
101	360.00000	82.00000	144.00000	102	360.00000	98.00000	144.00000	103	360.00000	121.00000	144.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
10	1																

Appendix 6E-d 8 Inch PCCP Pavement

20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
	1																	
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
	1																	
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
	1																	
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
	2																	
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
	0																	
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
	1																	
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
	1																	
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
	1																	
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	1																	
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
	0																	
20	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
	0																	
30	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
	0																	
40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	

Appendix 6E-d 8 Inch PCCP Pavement

90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
100	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .05860738  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01297107  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00152180  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00018062  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00002159

SUM OF APPLIED FORCES (FOSUM)= 46666.5 SUM OF TOTAL REACTIONS (SUBSUM)= 46635.9

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1445E-01	2	.1457E-01	3	.1468E-01	4	.1450E-01	5	.1420E-01	6	.1378E-01	7	.1291E-01	8	.1183E-01
9	.2986E-01	10	.2974E-01	11	.2923E-01	12	.2826E-01	13	.2726E-01	14	.2589E-01	15	.2327E-01	16	.2004E-01
17	.5316E-01	18	.5090E-01	19	.4748E-01	20	.4521E-01	21	.4385E-01	22	.4155E-01	23	.3606E-01	24	.2946E-01
25	.6130E-01	26	.5809E-01	27	.5335E-01	28	.5073E-01	29	.4950E-01	30	.4704E-01	31	.4032E-01	32	.3254E-01
33	.6601E-01	34	.6268E-01	35	.5777E-01	36	.5491E-01	37	.5344E-01	38	.5070E-01	39	.4365E-01	40	.3511E-01
41	.6989E-01	42	.6631E-01	43	.6099E-01	44	.5812E-01	45	.5680E-01	46	.5403E-01	47	.4644E-01	48	.3735E-01
49	.7330E-01	50	.6935E-01	51	.6331E-01	52	.6057E-01	53	.5977E-01	54	.5718E-01	55	.4877E-01	56	.3936E-01
57	.6690E-01	58	.6566E-01	59	.6239E-01	60	.5942E-01	61	.5733E-01	62	.5422E-01	63	.4755E-01	64	.3986E-01

Appendix 6E-d 8 Inch PCCP Pavement

65	.5415E-01	66	.5363E-01	67	.5188E-01	68	.4966E-01	69	.4781E-01	70	.4517E-01	71	.3985E-01	72
.3345E-01														
73	.3833E-01	74	.3854E-01	75	.3814E-01	76	.3689E-01	77	.3555E-01	78	.3365E-01	79	.2993E-01	80
.2532E-01														
81	.2242E-01	82	.2284E-01	83	.2307E-01	84	.2267E-01	85	.2203E-01	86	.2107E-01	87	.1917E-01	88
.1679E-01														
89	.1505E-01	90	.1531E-01	91	.1551E-01	92	.1537E-01	93	.1507E-01	94	.1462E-01	95	.1371E-01	96
.1258E-01														
97	.1023E-01	98	.1029E-01	99	.1033E-01	100	.1028E-01	101	.1018E-01	102	.1004E-01	103	.9757E-02	104
.9395E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE:(DOWNWARD POSITIVE)

1	.1445E-01	2	.1457E-01	3	.1468E-01	4	.1450E-01	5	.1420E-01	6	.1378E-01	7	.1291E-01	8
.1183E-01														
9	.2986E-01	10	.2974E-01	11	.2923E-01	12	.2826E-01	13	.2726E-01	14	.2589E-01	15	.2327E-01	16
.2004E-01														
17	.5316E-01	18	.5090E-01	19	.4748E-01	20	.4521E-01	21	.4385E-01	22	.4155E-01	23	.3606E-01	24
.2946E-01														
25	.6130E-01	26	.5809E-01	27	.5335E-01	28	.5073E-01	29	.4950E-01	30	.4704E-01	31	.4032E-01	32
.3254E-01														
33	.6601E-01	34	.6268E-01	35	.5777E-01	36	.5491E-01	37	.5344E-01	38	.5070E-01	39	.4365E-01	40
.3511E-01														
41	.6989E-01	42	.6631E-01	43	.6099E-01	44	.5812E-01	45	.5680E-01	46	.5403E-01	47	.4644E-01	48
.3735E-01														
49	.7010E-01	50	.6751E-01	51	.6285E-01	52	.5999E-01	53	.5855E-01	54	.5570E-01	55	.4816E-01	56
.3961E-01														
57	.7010E-01	58	.6751E-01	59	.6285E-01	60	.5999E-01	61	.5855E-01	62	.5570E-01	63	.4816E-01	64
.3961E-01														
65	.5415E-01	66	.5363E-01	67	.5188E-01	68	.4966E-01	69	.4781E-01	70	.4517E-01	71	.3985E-01	72
.3345E-01														
73	.3833E-01	74	.3854E-01	75	.3814E-01	76	.3689E-01	77	.3555E-01	78	.3365E-01	79	.2993E-01	80
.2532E-01														
81	.2242E-01	82	.2284E-01	83	.2307E-01	84	.2267E-01	85	.2203E-01	86	.2107E-01	87	.1917E-01	88
.1679E-01														
89	.1505E-01	90	.1531E-01	91	.1551E-01	92	.1537E-01	93	.1507E-01	94	.1462E-01	95	.1371E-01	96
.1258E-01														



Appendix 6E-d 8 Inch PCCP Pavement

97 .1023E-01 98 .1029E-01 99 .1033E-01 100 .1028E-01 101 .1018E-01 102 .1004E-01 103 .9757E-02 104  
.9395E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-105.6	2	-160.5	3	-227.4	4	-165.4	5	-63.1	6	-156.3	7	-168.3	8	-
363.7															
9	1161.5	10	431.3	11	717.1	12	473.6	13	221.6	14	390.7	15	367.9	16	
125.8															
17	1921.7	18	1060.3	19	1085.4	20	742.5	21	542.7	22	722.5	23	671.5	24	
414.2															
25	1543.8	26	853.5	27	738.3	28	535.4	29	454.2	30	590.4	31	493.4	32	
314.6															
33	1760.3	34	1005.4	35	943.8	36	671.3	37	531.1	38	676.1	39	628.4	40	
426.6															
41	1905.6	42	1123.5	43	1023.6	44	746.2	45	609.6	46	785.9	47	710.0	48	
496.0															
49	1232.1	50	908.8	51	847.6	52	628.9	53	537.1	54	677.1	55	609.1	56	
458.1															
57	871.3	58	663.0	59	776.1	60	552.5	61	393.6	62	485.3	63	519.6	64	
494.2															
65	1122.4	66	678.3	67	776.0	68	553.7	69	375.3	70	458.3	71	479.4	72	
452.0															
73	845.1	74	447.9	75	529.0	76	369.1	77	239.6	78	306.1	79	289.5	80	
154.7															
81	176.4	82	38.0	83	45.0	84	33.2	85	20.0	86	17.5	87	-14.6	88	-
177.8															
89	-55.9	90	-73.9	91	-102.1	92	-69.7	93	-36.1	94	-66.7	95	-86.3	96	-
206.0															
97	-94.7	98	-76.9	99	-124.8	100	-91.8	101	-35.4	102	-84.0	103	-84.9	104	-
150.3															

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000251

SUM OF APPLIED FORCES (FOSUM)= 46666.5 SUM OF TOTAL REACTIONS (SUBSUM)= 46639.3

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.1445E-01	2	.1457E-01	3	.1468E-01	4	.1450E-01	5	.1420E-01	6	.1378E-01	7	.1291E-01	8
.1183E-01														
9	.2986E-01	10	.2974E-01	11	.2924E-01	12	.2827E-01	13	.2727E-01	14	.2589E-01	15	.2327E-01	16
.2004E-01														
17	.5316E-01	18	.5090E-01	19	.4748E-01	20	.4521E-01	21	.4385E-01	22	.4155E-01	23	.3606E-01	24
.2947E-01														
25	.6130E-01	26	.5809E-01	27	.5335E-01	28	.5073E-01	29	.4950E-01	30	.4704E-01	31	.4032E-01	32
.3254E-01														
33	.6601E-01	34	.6268E-01	35	.5777E-01	36	.5492E-01	37	.5344E-01	38	.5070E-01	39	.4366E-01	40
.3511E-01														
41	.6989E-01	42	.6631E-01	43	.6099E-01	44	.5812E-01	45	.5680E-01	46	.5403E-01	47	.4644E-01	48
.3736E-01														
49	.7330E-01	50	.6936E-01	51	.6331E-01	52	.6057E-01	53	.5977E-01	54	.5718E-01	55	.4878E-01	56
.3936E-01														
57	.6691E-01	58	.6567E-01	59	.6239E-01	60	.5942E-01	61	.5733E-01	62	.5422E-01	63	.4755E-01	64
.3986E-01														
65	.5415E-01	66	.5363E-01	67	.5189E-01	68	.4966E-01	69	.4781E-01	70	.4518E-01	71	.3985E-01	72
.3346E-01														
73	.3833E-01	74	.3854E-01	75	.3814E-01	76	.3689E-01	77	.3555E-01	78	.3365E-01	79	.2993E-01	80
.2532E-01														
81	.2243E-01	82	.2284E-01	83	.2307E-01	84	.2267E-01	85	.2203E-01	86	.2107E-01	87	.1917E-01	88
.1679E-01														
89	.1505E-01	90	.1531E-01	91	.1551E-01	92	.1537E-01	93	.1508E-01	94	.1462E-01	95	.1371E-01	96
.1258E-01														
97	.1023E-01	98	.1029E-01	99	.1034E-01	100	.1028E-01	101	.1018E-01	102	.1004E-01	103	.9758E-02	104
.9397E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1445E-01	2	.1457E-01	3	.1468E-01	4	.1450E-01	5	.1420E-01	6	.1378E-01	7	.1291E-01	8
.1183E-01														
9	.2986E-01	10	.2974E-01	11	.2924E-01	12	.2827E-01	13	.2727E-01	14	.2589E-01	15	.2327E-01	16
.2004E-01														
17	.5316E-01	18	.5090E-01	19	.4748E-01	20	.4521E-01	21	.4385E-01	22	.4155E-01	23	.3606E-01	24
.2947E-01														
25	.6130E-01	26	.5809E-01	27	.5335E-01	28	.5073E-01	29	.4950E-01	30	.4704E-01	31	.4032E-01	32
.3254E-01														

Appendix 6E-d 8 Inch PCCP Pavement

33	.6601E-01	34	.6268E-01	35	.5777E-01	36	.5492E-01	37	.5344E-01	38	.5070E-01	39	.4366E-01	40
.3511E-01														
41	.6989E-01	42	.6631E-01	43	.6099E-01	44	.5812E-01	45	.5680E-01	46	.5403E-01	47	.4644E-01	48
.3736E-01														
49	.7011E-01	50	.6751E-01	51	.6285E-01	52	.6000E-01	53	.5855E-01	54	.5570E-01	55	.4816E-01	56
.3961E-01														
57	.7011E-01	58	.6751E-01	59	.6285E-01	60	.6000E-01	61	.5855E-01	62	.5570E-01	63	.4816E-01	64
.3961E-01														
65	.5415E-01	66	.5363E-01	67	.5189E-01	68	.4966E-01	69	.4781E-01	70	.4518E-01	71	.3985E-01	72
.3346E-01														
73	.3833E-01	74	.3854E-01	75	.3814E-01	76	.3689E-01	77	.3555E-01	78	.3365E-01	79	.2993E-01	80
.2532E-01														
81	.2243E-01	82	.2284E-01	83	.2307E-01	84	.2267E-01	85	.2203E-01	86	.2107E-01	87	.1917E-01	88
.1679E-01														
89	.1505E-01	90	.1531E-01	91	.1551E-01	92	.1537E-01	93	.1508E-01	94	.1462E-01	95	.1371E-01	96
.1258E-01														
97	.1023E-01	98	.1029E-01	99	.1034E-01	100	.1028E-01	101	.1018E-01	102	.1004E-01	103	.9758E-02	104
.9397E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-105.6	2	-160.4	3	-227.3	4	-165.4	5	-63.1	6	-156.3	7	-168.3	8	-
363.6															
9	1161.6	10	431.3	11	717.2	12	473.7	13	221.7	14	390.7	15	368.0	16	
125.9															
17	1921.7	18	1060.3	19	1085.5	20	742.6	21	542.7	22	722.5	23	671.5	24	
414.2															
25	1543.8	26	853.5	27	738.4	28	535.4	29	454.2	30	590.4	31	493.4	32	
314.6															
33	1760.3	34	1005.5	35	943.8	36	671.3	37	531.1	38	676.1	39	628.4	40	
426.7															
41	1905.6	42	1123.5	43	1023.6	44	746.3	45	609.6	46	785.9	47	710.0	48	
496.1															
49	1232.2	50	908.8	51	847.6	52	628.9	53	537.1	54	677.1	55	609.1	56	
458.2															
57	871.3	58	663.0	59	776.1	60	552.6	61	393.6	62	485.3	63	519.6	64	
494.3															

Appendix 6E-d 8 Inch PCCP Pavement

65	1122.4	66	678.3	67	776.0	68	553.7	69	375.3	70	458.3	71	479.4	72			
452.1		73	845.1	74	448.0	75	529.0	76	369.2	77	239.6	78	306.1	79	289.5	80	
154.8		81	176.4	82	38.0	83	45.1	84	33.2	85	20.0	86	17.5	87	-14.6	88	-
177.7		89	-55.9	90	-73.9	91	-102.1	92	-69.6	93	-36.1	94	-66.7	95	-86.3	96	-
205.9		97	-94.6	98	-76.9	99	-124.7	100	-91.7	101	-35.4	102	-84.0	103	-84.9	104	-
150.2																	

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-2020.847	.000	50	-2986.396	.000	51	-904.766	.000	52	-926.902
.000			53	-1541.490	.000	54	-2277.590	.000	55	-1110.899
.000									56	228.089

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-3031.271	50	-1748.135	51	-434.288	52	-542.577	53	-1156.117	54	-
1401.594		55	-579.599	56	238.006						

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4734.542	-3859.526	50	-2730.411	-2225.790	51	-678.314	-552.951	52	-847.451
-690.829		53	-1805.740	-1472.011	54	-2189.149	-1784.561	55	-905.276	-737.967
303.039									56	371.742

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	-.43983	2	-.26086	3	-.30309	4	-.26894	5	-.13144	6	-.26718	7	-.24392	8	-
1.05404		9	2.63990	10	.38252	11	.52158	12	.42010	13	.25188	14	.36431	15	.29090
.19899		17	7.06525	18	1.52128	19	1.27702	20	1.06537	21	.99762	22	1.08980	23	.85870
1.05941		25	10.72103	26	2.31304	27	1.64081	28	1.45100	29	1.57723	30	1.68207	31	1.19187
1.51975														32	

Appendix 6E-d 8 Inch PCCP Pavement

33	12.22438	34	2.72481	35	2.09733	36	1.81937	37	1.84420	38	1.92626	39	1.51798	40			
2.06124		41	14.01176	42	3.22375	43	2.40852	44	2.14133	45	2.24125	46	2.37067	47	1.81580	48	
2.53756		49	19.25236	50	5.54133	51	4.23815	52	3.83457	53	4.19618	54	4.34070	55	3.31046	56	
4.97995		57	13.61476	58	4.04290	59	3.88052	60	3.36927	61	3.07526	62	3.11078	63	2.82387	64	
5.37245		65	7.01516	66	1.65448	67	1.55200	68	1.35044	69	1.17285	70	1.17511	71	1.04227	72	
1.96551		73	3.30124	74	.68287	75	.66125	76	.56273	77	.46802	78	.49062	79	.39336	80	
.42070		81	.55140	82	.04632	83	.04507	84	.04053	85	.03121	86	.02246	87	-.01582	88	-
.38626		89	-.13965	90	-.07211	91	-.08166	92	-.06795	93	-.04517	94	-.06836	95	-.07501	96	-
.35814		97	-.39434	98	-.12498	99	-.16632	100	-.14918	101	-.07372	102	-.14361	103	-.12300	104	-
.43538																	

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y			
1	-.7393E-05	.2085E-03	2	-.7335E-05	.2047E-03	3	.2913E-06	.2008E-03	4	.1439E-04			
.1927E-03			5	.2260E-04	.1834E-03	6	.3116E-04	.1702E-03	7	.4335E-04	.1459E-03	8	.4963E-04
.1123E-03			9	.5892E-06	.3745E-03	10	.1286E-04	.3521E-03	11	.2837E-04	.3188E-03	12	.5146E-04
.2974E-03			13	.7406E-04	.2859E-03	14	.9770E-04	.2673E-03	15	.1296E-03	.2233E-03	16	.1468E-03
.1724E-03			17	.1404E-03	.4951E-03	18	.1435E-03	.4415E-03	19	.1163E-03	.3596E-03	20	.7574E-04
.3358E-03			21	.1056E-03	.3408E-03	22	.1864E-03	.3282E-03	23	.2749E-03	.2570E-03	24	.2913E-03
.1849E-03			25	.2081E-03	.3574E-03	26	.2013E-03	.3275E-03	27	.1517E-03	.2871E-03	28	.7249E-04
.2706E-03			29	.1013E-03	.2667E-03	30	.2179E-03	.2538E-03	31	.3317E-03	.2111E-03	32	.3412E-03
.1564E-03													

Appendix 6E-d 8 Inch PCCP Pavement

33	.2075E-03	.2170E-03	34	.2108E-03	.2120E-03	35	.1600E-03	.2067E-03	36	.8295E-04
.1995E-03										
37	.1184E-03	.1921E-03	38	.2322E-03	.1817E-03	39	.3566E-03	.1643E-03	40	.3772E-03
.1306E-03										
41	.2207E-03	.2135E-03	42	.2288E-03	.1935E-03	43	.1705E-03	.1572E-03	44	.7440E-04
.1614E-03										
45	.1112E-03	.1832E-03	46	.2452E-03	.1890E-03	47	.3832E-03	.1481E-03	48	.3997E-03
.1234E-03										
49	.2426E-03	.2135E-03	50	.2564E-03	.1894E-03	51	.1844E-03	.1349E-03	52	.5164E-04
.1471E-03										
53	.8324E-04	.1912E-03	54	.2590E-03	.2084E-03	55	.4111E-03	.1459E-03	56	.4112E-03
.1261E-03										
57	.6546E-04	-.8180E-03	58	.1020E-03	-.7725E-03	59	.1300E-03	-.6669E-03	60	.1188E-03
.6212E-03										
61	.1555E-03	-.6102E-03	62	.2387E-03	-.5820E-03	63	.3214E-03	-.4920E-03	64	.3422E-03
.4096E-03										
65	.1992E-04	-.7552E-03	66	.4854E-04	-.7153E-03	67	.8251E-04	-.6347E-03	68	.9966E-04
.5887E-03										
69	.1366E-03	-.5699E-03	70	.1941E-03	-.5390E-03	71	.2619E-03	-.4620E-03	72	.2884E-03
.3829E-03										
73	-.2388E-04	-.5534E-03	74	-.1362E-05	-.5363E-03	75	.3268E-04	-.5004E-03	76	.6875E-04
.4671E-03										
77	.1005E-03	-.4454E-03	78	.1371E-03	-.4165E-03	79	.1846E-03	-.3584E-03	80	.2117E-03
.2922E-03										
81	-.3242E-04	-.2700E-03	82	-.1985E-04	-.2702E-03	83	.2585E-05	-.2665E-03	84	.3027E-04
.2550E-03										
85	.4992E-04	-.2425E-03	86	.6961E-04	-.2249E-03	87	.9461E-04	-.1904E-03	88	.1103E-03
.1473E-03										
89	-.1894E-04	-.1223E-03	90	-.1333E-04	-.1262E-03	91	-.1636E-05	-.1288E-03	92	.1319E-04
.1257E-03										
93	.2334E-04	-.1202E-03	94	.3322E-04	-.1118E-03	95	.4532E-04	-.9526E-04	96	.5223E-04
.7437E-04										
97	-.3639E-05	-.5901E-04	98	-.3170E-05	-.6242E-04	99	-.1246E-06	-.6496E-04	100	.4699E-05
.6447E-04										
101	.7383E-05	-.6236E-04	102	.1016E-04	-.5863E-04	103	.1438E-04	-.5084E-04	104	.1663E-04
.3887E-04										

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
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Appendix 6E-d 8 Inch PCCP Pavement

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17	1	.156989E+01	.000000E+00	.000000E+00	.000000E+00	.156989E+01	.784947E+00
25	1	.262786E+03	.000000E+00	.000000E+00	.000000E+00	.262786E+03	.131393E+03
29	1	.137076E+03	.106528E+03	-.549400E+01	.105570E+03	.138034E+03	.162322E+02
33	1	-.523579E+01	.000000E+00	.000000E+00	-.523579E+01	.000000E+00	.261790E+01
41	1	.187045E+01	.000000E+00	.000000E+00	.000000E+00	.187045E+01	.935227E+00
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.335742E+02	-.268896E+02	-.149123E+02	.484866E+02	.316995E+02
51	1	.000000E+00	-.123578E+03	-.134482E+02	-.125024E+03	.144655E+01	.632355E+02
52	1	.000000E+00	-.635150E+02	.259125E+02	-.727453E+02	.923029E+01	.409878E+02
53	1	.000000E+00	.128595E+03	.316776E+02	-.737982E+01	.135975E+03	.716773E+02
54	1	.000000E+00	.233460E+03	-.130010E+02	-.721779E+00	.234181E+03	.117452E+03

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 262.78600 AND OCCURS AT NODE 25

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      8 inch PCCP Pavement with 110K load Single Axle
*
*****
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TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0



Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
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Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	170.07000	180.00000	.00000	6.83850	90.00000
1	170.07000	180.00000	8.00000	14.83850	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:  
17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP), INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:  
1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN) INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:  
1 49 57 56 64 36 43 42 49

Appendix 6E-d 8 Inch PCCP Pavement

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
144.00000	37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
66.00000	41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
144.00000	45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
66.00000	49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
144.00000	53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
66.00000	57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
144.00000	61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
66.00000	65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
144.00000	69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
144.00000	77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
66.00000	81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
144.00000	85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
66.00000	89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
144.00000	93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
66.00000	97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
144.00000	101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.24125	1.00000	-1.00000	-.14519	90.00000
36	-.24125	1.00000	.00000	.85481	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
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Appendix 6E-d 8 Inch PCCP Pavement

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5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000
66.00000										
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000
144.00000										
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000
66.00000										
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000
144.00000										
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000
66.00000										
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000
144.00000										

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
144.00000	85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
66.00000	89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
144.00000	93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
66.00000	97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
144.00000	101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

10	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
20	0																	
	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
30	0																	
	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
40	0																	
	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
50	58																	
	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
60	52																	
	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
70	0																	
	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
80	0																	
	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
90	0																	
	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
100	0																	
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .03880430  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00388237  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00041939  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004945  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000591

SUM OF APPLIED FORCES (FOSUM)= 12223.1 SUM OF TOTAL REACTIONS (SUBSUM)= 12214.5

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.3462E-02	2	.3298E-02	3	.3072E-02	4	.2881E-02	5	.2770E-02	6	.2663E-02	7	.2498E-02	8
.2313E-02														
9	.6470E-02	10	.6000E-02	11	.5242E-02	12	.4538E-02	13	.4128E-02	14	.3745E-02	15	.3220E-02	16
.2703E-02														
17	.1408E-01	18	.1253E-01	19	.1009E-01	20	.7915E-02	21	.6745E-02	22	.5736E-02	23	.4486E-02	24
.3337E-02														
25	.1937E-01	26	.1696E-01	27	.1319E-01	28	.9948E-02	29	.8280E-02	30	.6894E-02	31	.5247E-02	32
.3787E-02														
33	.2659E-01	34	.2284E-01	35	.1709E-01	36	.1242E-01	37	.1014E-01	38	.8300E-02	39	.6199E-02	40
.4402E-02														
41	.3533E-01	42	.2982E-01	43	.2153E-01	44	.1522E-01	45	.1225E-01	46	.9910E-02	47	.7324E-02	48
.5205E-02														
49	.4316E-01	50	.3620E-01	51	.2558E-01	52	.1781E-01	53	.1421E-01	54	.1142E-01	55	.8399E-02	56
.6044E-02														
57	.3696E-01	58	.3290E-01	59	.2509E-01	60	.1792E-01	61	.1430E-01	62	.1147E-01	63	.8416E-02	64
.6053E-02														
65	.2881E-01	66	.2578E-01	67	.2028E-01	68	.1498E-01	69	.1217E-01	70	.9889E-02	71	.7325E-02	72
.5219E-02														
73	.1889E-01	74	.1715E-01	75	.1408E-01	76	.1098E-01	77	.9222E-02	78	.7690E-02	79	.5838E-02	80
.4199E-02														
81	.9396E-02	82	.8754E-02	83	.7632E-02	84	.6471E-02	85	.5748E-02	86	.5058E-02	87	.4117E-02	88
.3197E-02														
89	.5381E-02	90	.5129E-02	91	.4692E-02	92	.4237E-02	93	.3940E-02	94	.3637E-02	95	.3188E-02	96
.2722E-02														
97	.3196E-02	98	.3089E-02	99	.2937E-02	100	.2798E-02	101	.2710E-02	102	.2620E-02	103	.2473E-02	104
.2303E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3462E-02	2	.3298E-02	3	.3072E-02	4	.2881E-02	5	.2770E-02	6	.2663E-02	7	.2498E-02	8
.2313E-02														
9	.6470E-02	10	.6000E-02	11	.5242E-02	12	.4538E-02	13	.4128E-02	14	.3745E-02	15	.3220E-02	16
.2703E-02														
17	.1408E-01	18	.1253E-01	19	.1009E-01	20	.7915E-02	21	.6745E-02	22	.5736E-02	23	.4486E-02	24
.3337E-02														
25	.1937E-01	26	.1696E-01	27	.1319E-01	28	.9948E-02	29	.8280E-02	30	.6894E-02	31	.5247E-02	32
.3787E-02														



Appendix 6E-d 8 Inch PCCP Pavement

33	.2659E-01	34	.2284E-01	35	.1709E-01	36	.1242E-01	37	.1014E-01	38	.8300E-02	39	.6199E-02	40
.4402E-02														
41	.3533E-01	42	.2982E-01	43	.2153E-01	44	.1522E-01	45	.1225E-01	46	.9910E-02	47	.7324E-02	48
.5205E-02														
49	.4006E-01	50	.3455E-01	51	.2533E-01	52	.1786E-01	53	.1425E-01	54	.1144E-01	55	.8407E-02	56
.6048E-02														
57	.4006E-01	58	.3455E-01	59	.2533E-01	60	.1786E-01	61	.1425E-01	62	.1144E-01	63	.8407E-02	64
.6048E-02														
65	.2881E-01	66	.2578E-01	67	.2028E-01	68	.1498E-01	69	.1217E-01	70	.9889E-02	71	.7325E-02	72
.5219E-02														
73	.1889E-01	74	.1715E-01	75	.1408E-01	76	.1098E-01	77	.9222E-02	78	.7690E-02	79	.5838E-02	80
.4199E-02														
81	.9396E-02	82	.8754E-02	83	.7632E-02	84	.6471E-02	85	.5748E-02	86	.5058E-02	87	.4117E-02	88
.3197E-02														
89	.5381E-02	90	.5129E-02	91	.4692E-02	92	.4237E-02	93	.3940E-02	94	.3637E-02	95	.3188E-02	96
.2722E-02														
97	.3196E-02	98	.3089E-02	99	.2937E-02	100	.2798E-02	101	.2710E-02	102	.2620E-02	103	.2473E-02	104
.2303E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	1.1	2	-46.3	3	-68.1	4	-51.3	5	-17.3	6	-38.2	7	-32.3	8	-
64.0															
9	164.8	10	-29.5	11	-55.9	12	-63.2	13	-28.5	14	-56.6	15	-58.3	16	-
136.1															
17	399.2	18	104.1	19	34.1	20	-17.8	21	-21.3	22	-33.6	23	-47.8	24	-
116.7															
25	461.7	26	173.1	27	95.3	28	20.8	29	1.4	30	-6.3	31	-16.0	32	-
63.8															
33	843.6	34	371.7	35	229.1	36	70.6	37	24.0	38	14.2	39	-.5	40	-
58.1															
41	1332.5	42	660.4	43	400.9	44	143.2	45	60.8	46	51.3	47	33.3	48	-
23.1															
49	1050.6	50	703.3	51	484.5	52	204.7	53	103.7	54	95.7	55	80.3	56	
44.5															
57	700.9	58	483.5	59	446.1	60	212.0	61	109.3	62	99.0	63	81.5	64	
45.1															

Appendix 6E-d 8 Inch PCCP Pavement

65	885.0	66	439.4	67	378.7	68	169.8	69	74.2	70	62.5	71	40.2	72	-
24.4		73	733.8	74	295.5	75	232.3	76	81.2	77	25.1	78	12.5	79	-10.9
107.7		81	241.6	82	34.3	83	-3.4	84	-26.9	85	-20.6	86	-34.6	87	-47.8
134.3		89	40.5	90	-37.1	91	-60.1	92	-46.8	93	-23.1	94	-37.9	95	-41.2
98.2		97	-9.2	98	-35.6	99	-53.7	100	-39.6	101	-13.5	102	-30.1	103	-26.2
54.7														104	-

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000070

SUM OF APPLIED FORCES (FOSUM)= 12223.1 SUM OF TOTAL REACTIONS (SUBSUM)= 12215.4

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3462E-02	2	.3298E-02	3	.3073E-02	4	.2881E-02	5	.2770E-02	6	.2664E-02	7	.2499E-02	8	
.2313E-02		9	.6471E-02	10	.6001E-02	11	.5242E-02	12	.4539E-02	13	.4128E-02	14	.3745E-02	15	.3221E-02
.2704E-02		17	.1408E-01	18	.1254E-01	19	.1009E-01	20	.7915E-02	21	.6745E-02	22	.5736E-02	23	.4487E-02
.3338E-02		25	.1937E-01	26	.1696E-01	27	.1319E-01	28	.9949E-02	29	.8281E-02	30	.6894E-02	31	.5248E-02
.3788E-02		33	.2659E-01	34	.2284E-01	35	.1709E-01	36	.1242E-01	37	.1014E-01	38	.8300E-02	39	.6200E-02
.4403E-02		41	.3533E-01	42	.2982E-01	43	.2153E-01	44	.1522E-01	45	.1225E-01	46	.9911E-02	47	.7325E-02
.5206E-02		49	.4316E-01	50	.3620E-01	51	.2558E-01	52	.1781E-01	53	.1421E-01	54	.1142E-01	55	.8400E-02
.6044E-02		57	.3696E-01	58	.3290E-01	59	.2509E-01	60	.1792E-01	61	.1430E-01	62	.1147E-01	63	.8416E-02
.6053E-02		65	.2881E-01	66	.2578E-01	67	.2028E-01	68	.1498E-01	69	.1218E-01	70	.9890E-02	71	.7325E-02
.5219E-02		73	.1889E-01	74	.1715E-01	75	.1408E-01	76	.1099E-01	77	.9223E-02	78	.7691E-02	79	.5839E-02
.4200E-02														80	

Appendix 6E-d 8 Inch PCCP Pavement

81	.9396E-02	82	.8755E-02	83	.7633E-02	84	.6472E-02	85	.5749E-02	86	.5058E-02	87	.4117E-02	88	.3198E-02
89	.5381E-02	90	.5130E-02	91	.4693E-02	92	.4237E-02	93	.3940E-02	94	.3638E-02	95	.3189E-02	96	.2722E-02
97	.3196E-02	98	.3089E-02	99	.2937E-02	100	.2798E-02	101	.2710E-02	102	.2621E-02	103	.2473E-02	104	.2304E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3462E-02	2	.3298E-02	3	.3073E-02	4	.2881E-02	5	.2770E-02	6	.2664E-02	7	.2499E-02	8	.2313E-02
9	.6471E-02	10	.6001E-02	11	.5242E-02	12	.4539E-02	13	.4128E-02	14	.3745E-02	15	.3221E-02	16	.2704E-02
17	.1408E-01	18	.1254E-01	19	.1009E-01	20	.7915E-02	21	.6745E-02	22	.5736E-02	23	.4487E-02	24	.3338E-02
25	.1937E-01	26	.1696E-01	27	.1319E-01	28	.9949E-02	29	.8281E-02	30	.6894E-02	31	.5248E-02	32	.3788E-02
33	.2659E-01	34	.2284E-01	35	.1709E-01	36	.1242E-01	37	.1014E-01	38	.8300E-02	39	.6200E-02	40	.4403E-02
41	.3533E-01	42	.2982E-01	43	.2153E-01	44	.1522E-01	45	.1225E-01	46	.9911E-02	47	.7325E-02	48	.5206E-02
49	.4006E-01	50	.3455E-01	51	.2534E-01	52	.1786E-01	53	.1426E-01	54	.1144E-01	55	.8408E-02	56	.6049E-02
57	.4006E-01	58	.3455E-01	59	.2534E-01	60	.1786E-01	61	.1426E-01	62	.1144E-01	63	.8408E-02	64	.6049E-02
65	.2881E-01	66	.2578E-01	67	.2028E-01	68	.1498E-01	69	.1218E-01	70	.9890E-02	71	.7325E-02	72	.5219E-02
73	.1889E-01	74	.1715E-01	75	.1408E-01	76	.1099E-01	77	.9223E-02	78	.7691E-02	79	.5839E-02	80	.4200E-02
81	.9396E-02	82	.8755E-02	83	.7633E-02	84	.6472E-02	85	.5749E-02	86	.5058E-02	87	.4117E-02	88	.3198E-02
89	.5381E-02	90	.5130E-02	91	.4693E-02	92	.4237E-02	93	.3940E-02	94	.3638E-02	95	.3189E-02	96	.2722E-02
97	.3196E-02	98	.3089E-02	99	.2937E-02	100	.2798E-02	101	.2710E-02	102	.2621E-02	103	.2473E-02	104	.2304E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	1.1	2	-46.3	3	-68.1	4	-51.3	5	-17.3	6	-38.2	7	-32.3	8	-
63.9															
9	164.8	10	-29.5	11	-55.9	12	-63.2	13	-28.5	14	-56.6	15	-58.3	16	-
136.1															
17	399.2	18	104.1	19	34.1	20	-17.8	21	-21.3	22	-33.6	23	-47.8	24	-
116.7															
25	461.7	26	173.1	27	95.3	28	20.8	29	1.4	30	-6.3	31	-16.0	32	-
63.8															
33	843.6	34	371.8	35	229.1	36	70.6	37	24.1	38	14.2	39	-.5	40	-
58.1															
41	1332.5	42	660.4	43	400.9	44	143.2	45	60.9	46	51.3	47	33.3	48	-
23.1															
49	1050.7	50	703.3	51	484.5	52	204.7	53	103.7	54	95.7	55	80.3	56	-
44.5															
57	700.9	58	483.5	59	446.1	60	212.0	61	109.3	62	99.0	63	81.5	64	-
45.2															
65	885.0	66	439.4	67	378.7	68	169.8	69	74.2	70	62.5	71	40.2	72	-
24.4															
73	733.8	74	295.5	75	232.3	76	81.2	77	25.1	78	12.6	79	-10.9	80	-
107.7															
81	241.6	82	34.3	83	-3.4	84	-26.8	85	-20.6	86	-34.6	87	-47.8	88	-
134.3															
89	40.5	90	-37.1	91	-60.1	92	-46.8	93	-23.1	94	-37.9	95	-41.2	96	-
98.2															
97	-9.2	98	-35.6	99	-53.7	100	-39.6	101	-13.5	102	-30.1	103	-26.2	104	-
54.7															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1958.682	.000	50	-2671.461	.000	51	-486.617	.000	52	89.139
.000										
53	59.993	.000	54	39.138	.000	55	14.955	.000	56	3.999
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2938.024	50	-1563.782	51	-233.576	52	52.179	53	44.994	54
24.085										
55	7.802	56	4.173							

Appendix 6E-d 8 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:  
 49 -4588.899 -3740.801 50 -2442.471 -1991.065 51 -364.823 -297.398 52 81.498  
 66.436  
 53 70.277 57.289 54 37.619 30.666 55 12.187 9.934 56 6.517  
 5.313

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)  
 1 .00475 2 -.07521 3 -.09079 4 -.08340 5 -.03600 6 -.06522 7 -.04675 8 -  
 .18533  
 9 .37448 10 -.02614 11 -.04063 12 -.05606 13 -.03236 14 -.05275 15 -.04606 16 -  
 .21514  
 17 1.46763 18 .14936 19 .04012 20 -.02549 21 -.03913 22 -.05067 23 -.06116 24 -  
 .29838  
 25 3.20642 26 .46903 27 .21174 28 .05634 29 .00492 30 -.01795 31 -.03865 32 -  
 .30823  
 33 5.85843 34 1.00747 35 .50909 36 .19121 37 .08352 38 .04057 39 -.00115 40 -  
 .28079  
 41 9.79804 42 1.89500 43 .94339 44 .41099 45 .22373 46 .15468 47 .08508 48 -  
 .11818  
 49 16.41648 50 4.28833 51 2.42272 52 1.24812 53 .81016 54 .61350 55 .43641 56  
 .48393  
 57 10.95231 58 2.94791 59 2.23038 60 1.29287 61 .85378 62 .63464 63 .44296 64  
 .49081  
 65 5.53143 66 1.07171 67 .75733 68 .41419 69 .23191 70 .16015 71 .08745 72 -  
 .10597  
 73 2.86636 74 .45046 75 .29035 76 .12380 77 .04900 78 .02012 79 -.01480 80 -  
 .29259  
 81 .75510 82 .04184 83 -.00337 84 -.03273 85 -.03222 86 -.04432 87 -.05193 88 -  
 .29190  
 89 .10135 90 -.03618 91 -.04807 92 -.04566 93 -.02893 94 -.03889 95 -.03579 96 -  
 .17080  
 97 -.03826 98 -.05790 99 -.07159 100 -.06444 101 -.02820 102 -.05144 103 -.03794 104 -  
 .15855

NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODE RORAT.X ROTAT.Y NODEROTAT.X ROTAT.Y

Appendix 6E-d 8 Inch PCCP Pavement

1	.1052E-04	.3600E-04	2	.9828E-05	.3104E-04	3	.8293E-05	.2549E-04	4	.7147E-05
.2027E-04										
5	.6711E-05	.1701E-04	6	.6771E-05	.1383E-04	7	.7651E-05	.9477E-05	8	.8318E-05
.4467E-05										
9	.2785E-04	.8718E-04	10	.3037E-04	.7476E-04	11	.2962E-04	.5713E-04	12	.2660E-04
.4168E-04										
13	.2471E-04	.3320E-04	14	.2332E-04	.2575E-04	15	.2249E-04	.1645E-04	16	.2253E-04
.7736E-05										
17	.9227E-04	.2419E-03	18	.9907E-04	.2077E-03	19	.9427E-04	.1493E-03	20	.7860E-04
.1001E-03										
21	.6779E-04	.7608E-04	22	.5876E-04	.5739E-04	23	.5104E-04	.3711E-04	24	.4976E-04
.2149E-04										
25	.1454E-03	.3476E-03	26	.1541E-03	.2863E-03	27	.1435E-03	.1954E-03	28	.1141E-03
.1258E-03										
29	.9482E-04	.9453E-04	30	.7927E-04	.7138E-04	31	.6576E-04	.4752E-04	32	.6274E-04
.2921E-04										
33	.2302E-03	.4532E-03	34	.2377E-03	.3645E-03	35	.2134E-03	.2352E-03	36	.1590E-03
.1479E-03										
37	.1276E-03	.1111E-03	38	.1033E-03	.8451E-04	39	.8210E-04	.5810E-04	40	.7658E-04
.3945E-04										
41	.3440E-03	.4951E-03	42	.3462E-03	.3995E-03	43	.2994E-03	.2539E-03	44	.2090E-03
.1612E-03										
45	.1640E-03	.1219E-03	46	.1298E-03	.9337E-04	47	.9866E-04	.6608E-04	48	.8907E-04
.4961E-04										
49	.4331E-03	.4871E-03	50	.4398E-03	.3988E-03	51	.3766E-03	.2498E-03	52	.2559E-03
.1600E-03										
53	.1975E-03	.1211E-03	54	.1534E-03	.9307E-04	55	.1126E-03	.6706E-04	56	.9814E-04
.5367E-04										
57	.2409E-03	-.5242E-03	58	.2812E-03	-.4604E-03	59	.3127E-03	-.3052E-03	60	.2538E-03
.1833E-03										
61	.2004E-03	-.1318E-03	62	.1558E-03	-.9752E-04	63	.1135E-03	-.6801E-04	64	.9832E-04
.5345E-04										
65	.1789E-03	-.4798E-03	66	.2032E-03	-.4183E-03	67	.2259E-03	-.2897E-03	68	.1917E-03
.1807E-03										
69	.1586E-03	-.1318E-03	70	.1281E-03	-.9780E-04	71	.9807E-04	-.6709E-04	72	.8853E-04
.4914E-04										
73	.1016E-03	-.3395E-03	74	.1155E-03	-.2989E-03	75	.1272E-03	-.2218E-03	76	.1169E-03
.1484E-03										

Appendix 6E-d 8 Inch PCCP Pavement

77	.1030E-03	-.1115E-03	78	.8869E-04	-.8353E-04	79	.7404E-04	-.5549E-04	80	.7035E-04	-
.3592E-04											
81	.3684E-04	-.1549E-03	82	.4265E-04	-.1373E-03	83	.4639E-04	-.1086E-03	84	.4598E-04	-
.7967E-04											
85	.4424E-04	-.6302E-04	86	.4212E-04	-.4860E-04	87	.4006E-04	-.3143E-04	88	.4019E-04	-
.1673E-04											
89	.1445E-04	-.6156E-04	90	.1669E-04	-.5609E-04	91	.1800E-04	-.4697E-04	92	.1844E-04	-
.3717E-04											
93	.1872E-04	-.3093E-04	94	.1913E-04	-.2489E-04	95	.1993E-04	-.1676E-04	96	.2051E-04	-
.8962E-05											
97	.6867E-05	-.2580E-04	98	.6454E-05	-.2352E-04	99	.5754E-05	-.2053E-04	100	.5480E-05	-
.1732E-04											
101	.5488E-05	-.1511E-04	102	.5862E-05	-.1274E-04	103	.6956E-05	-.9150E-05	104	.7674E-05	-
.4694E-05											

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	-.822559E+02	.000000E+00	.000000E+00	-.822559E+02	.000000E+00	.411280E+02
25	1	-.970184E+02	.000000E+00	.000000E+00	-.970184E+02	.000000E+00	.485092E+02
29	1	-.194689E+02	-.209053E+02	-.233021E+02	-.435003E+02	.312606E+01	.233132E+02
33	1	-.947243E+02	.000000E+00	.000000E+00	-.947243E+02	.000000E+00	.473621E+02
41	1	.219113E+02	.000000E+00	.000000E+00	.000000E+00	.219113E+02	.109557E+02
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.199455E+02	-.814881E+02	-.721234E+02	.920689E+02	.820961E+02
51	1	.000000E+00	-.101367E+03	-.676243E+02	-.135193E+03	.338260E+02	.845097E+02
52	1	.000000E+00	-.622800E+02	-.401289E+02	-.819340E+02	.196540E+02	.507940E+02
53	1	.000000E+00	-.493018E+02	-.286974E+02	-.624822E+02	.131804E+02	.378313E+02
54	1	.000000E+00	-.372585E+02	-.200608E+02	-.460060E+02	.874744E+01	.273767E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 135.19330 AND OCCURS AT NODE 51

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
*      8 inch PCCP Pavement with 110K load Single Axle
*
*****
```

TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0



Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```

Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	170.07000	180.00000	.00000	6.83850	90.00000
1	170.07000	180.00000	8.00000	14.83850	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP), INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

Appendix 6E-d 8 Inch PCCP Pavement

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
144.00000	37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
66.00000	41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
144.00000	45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
66.00000	49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
144.00000	53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
66.00000	57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
144.00000	61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
66.00000	65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
144.00000	69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
144.00000	77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
66.00000	81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
144.00000	85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
66.00000	89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
144.00000	93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
66.00000	97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
144.00000	101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.24125	1.00000	-1.00000	-.14519	90.00000
36	-.24125	1.00000	.00000	.85481	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
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Appendix 6E-d 8 Inch PCCP Pavement

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5	.00000	82.00000	144.00000	6	.00000	98.00000	144.00000	7	.00000	121.00000	144.00000	8	.00000	144.00000	144.00000
9	60.00000	.00000	66.00000	10	60.00000	16.00000	66.00000	11	60.00000	41.00000	66.00000	12	60.00000	66.00000	66.00000
13	60.00000	82.00000	144.00000	14	60.00000	98.00000	144.00000	15	60.00000	121.00000	144.00000	16	60.00000	144.00000	144.00000
17	110.00000	.00000	66.00000	18	110.00000	16.00000	66.00000	19	110.00000	41.00000	66.00000	20	110.00000	66.00000	66.00000
21	110.00000	82.00000	144.00000	22	110.00000	98.00000	144.00000	23	110.00000	121.00000	144.00000	24	110.00000	144.00000	144.00000
25	128.00000	.00000	66.00000	26	128.00000	16.00000	66.00000	27	128.00000	41.00000	66.00000	28	128.00000	66.00000	66.00000
29	128.00000	82.00000	144.00000	30	128.00000	98.00000	144.00000	31	128.00000	121.00000	144.00000	32	128.00000	144.00000	144.00000
33	146.00000	.00000	66.00000	34	146.00000	16.00000	66.00000	35	146.00000	41.00000	66.00000	36	146.00000	66.00000	66.00000
37	146.00000	82.00000	144.00000	38	146.00000	98.00000	144.00000	39	146.00000	121.00000	144.00000	40	146.00000	144.00000	144.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000	66.00000	66.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000	144.00000	144.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000	66.00000	66.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000	144.00000	144.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000	66.00000	66.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000	144.00000	144.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000	66.00000	66.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000	144.00000	144.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000	66.00000	66.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000	144.00000	144.00000

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Appendix 6E-d 8 Inch PCCP Pavement

66.00000	81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
144.00000	85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
66.00000	89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
144.00000	93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
66.00000	97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
144.00000	101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

10	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	
	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	
20	0	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
30	0	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
40	0	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
50	58	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
60	52	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
70	0	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
80	0	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
90	0	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
100	0	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .03880430  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00388237  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00041939  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004945  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000591

SUM OF APPLIED FORCES (FOSUM)= 12223.1 SUM OF TOTAL REACTIONS (SUBSUM)= 12214.5

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.3462E-02	2	.3298E-02	3	.3072E-02	4	.2881E-02	5	.2770E-02	6	.2663E-02	7	.2498E-02	8
.2313E-02														
9	.6470E-02	10	.6000E-02	11	.5242E-02	12	.4538E-02	13	.4128E-02	14	.3745E-02	15	.3220E-02	16
.2703E-02														
17	.1408E-01	18	.1253E-01	19	.1009E-01	20	.7915E-02	21	.6745E-02	22	.5736E-02	23	.4486E-02	24
.3337E-02														
25	.1937E-01	26	.1696E-01	27	.1319E-01	28	.9948E-02	29	.8280E-02	30	.6894E-02	31	.5247E-02	32
.3787E-02														
33	.2659E-01	34	.2284E-01	35	.1709E-01	36	.1242E-01	37	.1014E-01	38	.8300E-02	39	.6199E-02	40
.4402E-02														
41	.3533E-01	42	.2982E-01	43	.2153E-01	44	.1522E-01	45	.1225E-01	46	.9910E-02	47	.7324E-02	48
.5205E-02														
49	.4316E-01	50	.3620E-01	51	.2558E-01	52	.1781E-01	53	.1421E-01	54	.1142E-01	55	.8399E-02	56
.6044E-02														
57	.3696E-01	58	.3290E-01	59	.2509E-01	60	.1792E-01	61	.1430E-01	62	.1147E-01	63	.8416E-02	64
.6053E-02														
65	.2881E-01	66	.2578E-01	67	.2028E-01	68	.1498E-01	69	.1217E-01	70	.9889E-02	71	.7325E-02	72
.5219E-02														
73	.1889E-01	74	.1715E-01	75	.1408E-01	76	.1098E-01	77	.9222E-02	78	.7690E-02	79	.5838E-02	80
.4199E-02														
81	.9396E-02	82	.8754E-02	83	.7632E-02	84	.6471E-02	85	.5748E-02	86	.5058E-02	87	.4117E-02	88
.3197E-02														
89	.5381E-02	90	.5129E-02	91	.4692E-02	92	.4237E-02	93	.3940E-02	94	.3637E-02	95	.3188E-02	96
.2722E-02														
97	.3196E-02	98	.3089E-02	99	.2937E-02	100	.2798E-02	101	.2710E-02	102	.2620E-02	103	.2473E-02	104
.2303E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3462E-02	2	.3298E-02	3	.3072E-02	4	.2881E-02	5	.2770E-02	6	.2663E-02	7	.2498E-02	8
.2313E-02														
9	.6470E-02	10	.6000E-02	11	.5242E-02	12	.4538E-02	13	.4128E-02	14	.3745E-02	15	.3220E-02	16
.2703E-02														
17	.1408E-01	18	.1253E-01	19	.1009E-01	20	.7915E-02	21	.6745E-02	22	.5736E-02	23	.4486E-02	24
.3337E-02														
25	.1937E-01	26	.1696E-01	27	.1319E-01	28	.9948E-02	29	.8280E-02	30	.6894E-02	31	.5247E-02	32
.3787E-02														



Appendix 6E-d 8 Inch PCCP Pavement

33	.2659E-01	34	.2284E-01	35	.1709E-01	36	.1242E-01	37	.1014E-01	38	.8300E-02	39	.6199E-02	40
.4402E-02														
41	.3533E-01	42	.2982E-01	43	.2153E-01	44	.1522E-01	45	.1225E-01	46	.9910E-02	47	.7324E-02	48
.5205E-02														
49	.4006E-01	50	.3455E-01	51	.2533E-01	52	.1786E-01	53	.1425E-01	54	.1144E-01	55	.8407E-02	56
.6048E-02														
57	.4006E-01	58	.3455E-01	59	.2533E-01	60	.1786E-01	61	.1425E-01	62	.1144E-01	63	.8407E-02	64
.6048E-02														
65	.2881E-01	66	.2578E-01	67	.2028E-01	68	.1498E-01	69	.1217E-01	70	.9889E-02	71	.7325E-02	72
.5219E-02														
73	.1889E-01	74	.1715E-01	75	.1408E-01	76	.1098E-01	77	.9222E-02	78	.7690E-02	79	.5838E-02	80
.4199E-02														
81	.9396E-02	82	.8754E-02	83	.7632E-02	84	.6471E-02	85	.5748E-02	86	.5058E-02	87	.4117E-02	88
.3197E-02														
89	.5381E-02	90	.5129E-02	91	.4692E-02	92	.4237E-02	93	.3940E-02	94	.3637E-02	95	.3188E-02	96
.2722E-02														
97	.3196E-02	98	.3089E-02	99	.2937E-02	100	.2798E-02	101	.2710E-02	102	.2620E-02	103	.2473E-02	104
.2303E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	1.1	2	-46.3	3	-68.1	4	-51.3	5	-17.3	6	-38.2	7	-32.3	8	-
64.0															
9	164.8	10	-29.5	11	-55.9	12	-63.2	13	-28.5	14	-56.6	15	-58.3	16	-
136.1															
17	399.2	18	104.1	19	34.1	20	-17.8	21	-21.3	22	-33.6	23	-47.8	24	-
116.7															
25	461.7	26	173.1	27	95.3	28	20.8	29	1.4	30	-6.3	31	-16.0	32	-
63.8															
33	843.6	34	371.7	35	229.1	36	70.6	37	24.0	38	14.2	39	-.5	40	-
58.1															
41	1332.5	42	660.4	43	400.9	44	143.2	45	60.8	46	51.3	47	33.3	48	-
23.1															
49	1050.6	50	703.3	51	484.5	52	204.7	53	103.7	54	95.7	55	80.3	56	-
44.5															
57	700.9	58	483.5	59	446.1	60	212.0	61	109.3	62	99.0	63	81.5	64	-
45.1															

Appendix 6E-d 8 Inch PCCP Pavement

65	885.0	66	439.4	67	378.7	68	169.8	69	74.2	70	62.5	71	40.2	72	-
24.4		73	733.8	74	295.5	75	232.3	76	81.2	77	25.1	78	12.5	79	-10.9
107.7		81	241.6	82	34.3	83	-3.4	84	-26.9	85	-20.6	86	-34.6	87	-47.8
134.3		89	40.5	90	-37.1	91	-60.1	92	-46.8	93	-23.1	94	-37.9	95	-41.2
98.2		97	-9.2	98	-35.6	99	-53.7	100	-39.6	101	-13.5	102	-30.1	103	-26.2
54.7														104	-

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000070

SUM OF APPLIED FORCES (FOSUM)= 12223.1 SUM OF TOTAL REACTIONS (SUBSUM)= 12215.4

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3462E-02	2	.3298E-02	3	.3073E-02	4	.2881E-02	5	.2770E-02	6	.2664E-02	7	.2499E-02	8	
.2313E-02		9	.6471E-02	10	.6001E-02	11	.5242E-02	12	.4539E-02	13	.4128E-02	14	.3745E-02	15	.3221E-02
.2704E-02		17	.1408E-01	18	.1254E-01	19	.1009E-01	20	.7915E-02	21	.6745E-02	22	.5736E-02	23	.4487E-02
.3338E-02		25	.1937E-01	26	.1696E-01	27	.1319E-01	28	.9949E-02	29	.8281E-02	30	.6894E-02	31	.5248E-02
.3788E-02		33	.2659E-01	34	.2284E-01	35	.1709E-01	36	.1242E-01	37	.1014E-01	38	.8300E-02	39	.6200E-02
.4403E-02		41	.3533E-01	42	.2982E-01	43	.2153E-01	44	.1522E-01	45	.1225E-01	46	.9911E-02	47	.7325E-02
.5206E-02		49	.4316E-01	50	.3620E-01	51	.2558E-01	52	.1781E-01	53	.1421E-01	54	.1142E-01	55	.8400E-02
.6044E-02		57	.3696E-01	58	.3290E-01	59	.2509E-01	60	.1792E-01	61	.1430E-01	62	.1147E-01	63	.8416E-02
.6053E-02		65	.2881E-01	66	.2578E-01	67	.2028E-01	68	.1498E-01	69	.1218E-01	70	.9890E-02	71	.7325E-02
.5219E-02		73	.1889E-01	74	.1715E-01	75	.1408E-01	76	.1099E-01	77	.9223E-02	78	.7691E-02	79	.5839E-02
.4200E-02														80	

Appendix 6E-d 8 Inch PCCP Pavement

81	.9396E-02	82	.8755E-02	83	.7633E-02	84	.6472E-02	85	.5749E-02	86	.5058E-02	87	.4117E-02	88	.3198E-02
89	.5381E-02	90	.5130E-02	91	.4693E-02	92	.4237E-02	93	.3940E-02	94	.3638E-02	95	.3189E-02	96	.2722E-02
97	.3196E-02	98	.3089E-02	99	.2937E-02	100	.2798E-02	101	.2710E-02	102	.2621E-02	103	.2473E-02	104	.2304E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3462E-02	2	.3298E-02	3	.3073E-02	4	.2881E-02	5	.2770E-02	6	.2664E-02	7	.2499E-02	8	.2313E-02
9	.6471E-02	10	.6001E-02	11	.5242E-02	12	.4539E-02	13	.4128E-02	14	.3745E-02	15	.3221E-02	16	.2704E-02
17	.1408E-01	18	.1254E-01	19	.1009E-01	20	.7915E-02	21	.6745E-02	22	.5736E-02	23	.4487E-02	24	.3338E-02
25	.1937E-01	26	.1696E-01	27	.1319E-01	28	.9949E-02	29	.8281E-02	30	.6894E-02	31	.5248E-02	32	.3788E-02
33	.2659E-01	34	.2284E-01	35	.1709E-01	36	.1242E-01	37	.1014E-01	38	.8300E-02	39	.6200E-02	40	.4403E-02
41	.3533E-01	42	.2982E-01	43	.2153E-01	44	.1522E-01	45	.1225E-01	46	.9911E-02	47	.7325E-02	48	.5206E-02
49	.4006E-01	50	.3455E-01	51	.2534E-01	52	.1786E-01	53	.1426E-01	54	.1144E-01	55	.8408E-02	56	.6049E-02
57	.4006E-01	58	.3455E-01	59	.2534E-01	60	.1786E-01	61	.1426E-01	62	.1144E-01	63	.8408E-02	64	.6049E-02
65	.2881E-01	66	.2578E-01	67	.2028E-01	68	.1498E-01	69	.1218E-01	70	.9890E-02	71	.7325E-02	72	.5219E-02
73	.1889E-01	74	.1715E-01	75	.1408E-01	76	.1099E-01	77	.9223E-02	78	.7691E-02	79	.5839E-02	80	.4200E-02
81	.9396E-02	82	.8755E-02	83	.7633E-02	84	.6472E-02	85	.5749E-02	86	.5058E-02	87	.4117E-02	88	.3198E-02
89	.5381E-02	90	.5130E-02	91	.4693E-02	92	.4237E-02	93	.3940E-02	94	.3638E-02	95	.3189E-02	96	.2722E-02
97	.3196E-02	98	.3089E-02	99	.2937E-02	100	.2798E-02	101	.2710E-02	102	.2621E-02	103	.2473E-02	104	.2304E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	1.1	2	-46.3	3	-68.1	4	-51.3	5	-17.3	6	-38.2	7	-32.3	8	-
63.9															
9	164.8	10	-29.5	11	-55.9	12	-63.2	13	-28.5	14	-56.6	15	-58.3	16	-
136.1															
17	399.2	18	104.1	19	34.1	20	-17.8	21	-21.3	22	-33.6	23	-47.8	24	-
116.7															
25	461.7	26	173.1	27	95.3	28	20.8	29	1.4	30	-6.3	31	-16.0	32	-
63.8															
33	843.6	34	371.8	35	229.1	36	70.6	37	24.1	38	14.2	39	-.5	40	-
58.1															
41	1332.5	42	660.4	43	400.9	44	143.2	45	60.9	46	51.3	47	33.3	48	-
23.1															
49	1050.7	50	703.3	51	484.5	52	204.7	53	103.7	54	95.7	55	80.3	56	-
44.5															
57	700.9	58	483.5	59	446.1	60	212.0	61	109.3	62	99.0	63	81.5	64	-
45.2															
65	885.0	66	439.4	67	378.7	68	169.8	69	74.2	70	62.5	71	40.2	72	-
24.4															
73	733.8	74	295.5	75	232.3	76	81.2	77	25.1	78	12.6	79	-10.9	80	-
107.7															
81	241.6	82	34.3	83	-3.4	84	-26.8	85	-20.6	86	-34.6	87	-47.8	88	-
134.3															
89	40.5	90	-37.1	91	-60.1	92	-46.8	93	-23.1	94	-37.9	95	-41.2	96	-
98.2															
97	-9.2	98	-35.6	99	-53.7	100	-39.6	101	-13.5	102	-30.1	103	-26.2	104	-
54.7															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1958.682	.000	50	-2671.461	.000	51	-486.617	.000	52	89.139
.000										
53	59.993	.000	54	39.138	.000	55	14.955	.000	56	3.999
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2938.024	50	-1563.782	51	-233.576	52	52.179	53	44.994	54
24.085										
55	7.802	56	4.173							

Appendix 6E-d 8 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:  
 49 -4588.899 -3740.801 50 -2442.471 -1991.065 51 -364.823 -297.398 52 81.498  
 66.436  
 53 70.277 57.289 54 37.619 30.666 55 12.187 9.934 56 6.517  
 5.313

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)  
 1 .00475 2 -.07521 3 -.09079 4 -.08340 5 -.03600 6 -.06522 7 -.04675 8 -  
 .18533  
 9 .37448 10 -.02614 11 -.04063 12 -.05606 13 -.03236 14 -.05275 15 -.04606 16 -  
 .21514  
 17 1.46763 18 .14936 19 .04012 20 -.02549 21 -.03913 22 -.05067 23 -.06116 24 -  
 .29838  
 25 3.20642 26 .46903 27 .21174 28 .05634 29 .00492 30 -.01795 31 -.03865 32 -  
 .30823  
 33 5.85843 34 1.00747 35 .50909 36 .19121 37 .08352 38 .04057 39 -.00115 40 -  
 .28079  
 41 9.79804 42 1.89500 43 .94339 44 .41099 45 .22373 46 .15468 47 .08508 48 -  
 .11818  
 49 16.41648 50 4.28833 51 2.42272 52 1.24812 53 .81016 54 .61350 55 .43641 56  
 .48393  
 57 10.95231 58 2.94791 59 2.23038 60 1.29287 61 .85378 62 .63464 63 .44296 64  
 .49081  
 65 5.53143 66 1.07171 67 .75733 68 .41419 69 .23191 70 .16015 71 .08745 72 -  
 .10597  
 73 2.86636 74 .45046 75 .29035 76 .12380 77 .04900 78 .02012 79 -.01480 80 -  
 .29259  
 81 .75510 82 .04184 83 -.00337 84 -.03273 85 -.03222 86 -.04432 87 -.05193 88 -  
 .29190  
 89 .10135 90 -.03618 91 -.04807 92 -.04566 93 -.02893 94 -.03889 95 -.03579 96 -  
 .17080  
 97 -.03826 98 -.05790 99 -.07159 100 -.06444 101 -.02820 102 -.05144 103 -.03794 104 -  
 .15855

NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODE RORAT.X ROTAT.Y NODEROTAT.X ROTAT.Y

Appendix 6E-d 8 Inch PCCP Pavement

1	.1052E-04	.3600E-04	2	.9828E-05	.3104E-04	3	.8293E-05	.2549E-04	4	.7147E-05
.2027E-04										
5	.6711E-05	.1701E-04	6	.6771E-05	.1383E-04	7	.7651E-05	.9477E-05	8	.8318E-05
.4467E-05										
9	.2785E-04	.8718E-04	10	.3037E-04	.7476E-04	11	.2962E-04	.5713E-04	12	.2660E-04
.4168E-04										
13	.2471E-04	.3320E-04	14	.2332E-04	.2575E-04	15	.2249E-04	.1645E-04	16	.2253E-04
.7736E-05										
17	.9227E-04	.2419E-03	18	.9907E-04	.2077E-03	19	.9427E-04	.1493E-03	20	.7860E-04
.1001E-03										
21	.6779E-04	.7608E-04	22	.5876E-04	.5739E-04	23	.5104E-04	.3711E-04	24	.4976E-04
.2149E-04										
25	.1454E-03	.3476E-03	26	.1541E-03	.2863E-03	27	.1435E-03	.1954E-03	28	.1141E-03
.1258E-03										
29	.9482E-04	.9453E-04	30	.7927E-04	.7138E-04	31	.6576E-04	.4752E-04	32	.6274E-04
.2921E-04										
33	.2302E-03	.4532E-03	34	.2377E-03	.3645E-03	35	.2134E-03	.2352E-03	36	.1590E-03
.1479E-03										
37	.1276E-03	.1111E-03	38	.1033E-03	.8451E-04	39	.8210E-04	.5810E-04	40	.7658E-04
.3945E-04										
41	.3440E-03	.4951E-03	42	.3462E-03	.3995E-03	43	.2994E-03	.2539E-03	44	.2090E-03
.1612E-03										
45	.1640E-03	.1219E-03	46	.1298E-03	.9337E-04	47	.9866E-04	.6608E-04	48	.8907E-04
.4961E-04										
49	.4331E-03	.4871E-03	50	.4398E-03	.3988E-03	51	.3766E-03	.2498E-03	52	.2559E-03
.1600E-03										
53	.1975E-03	.1211E-03	54	.1534E-03	.9307E-04	55	.1126E-03	.6706E-04	56	.9814E-04
.5367E-04										
57	.2409E-03	-.5242E-03	58	.2812E-03	-.4604E-03	59	.3127E-03	-.3052E-03	60	.2538E-03
.1833E-03										
61	.2004E-03	-.1318E-03	62	.1558E-03	-.9752E-04	63	.1135E-03	-.6801E-04	64	.9832E-04
.5345E-04										
65	.1789E-03	-.4798E-03	66	.2032E-03	-.4183E-03	67	.2259E-03	-.2897E-03	68	.1917E-03
.1807E-03										
69	.1586E-03	-.1318E-03	70	.1281E-03	-.9780E-04	71	.9807E-04	-.6709E-04	72	.8853E-04
.4914E-04										
73	.1016E-03	-.3395E-03	74	.1155E-03	-.2989E-03	75	.1272E-03	-.2218E-03	76	.1169E-03
.1484E-03										

Appendix 6E-d 8 Inch PCCP Pavement

77	.1030E-03	-.1115E-03	78	.8869E-04	-.8353E-04	79	.7404E-04	-.5549E-04	80	.7035E-04	-
.3592E-04											
81	.3684E-04	-.1549E-03	82	.4265E-04	-.1373E-03	83	.4639E-04	-.1086E-03	84	.4598E-04	-
.7967E-04											
85	.4424E-04	-.6302E-04	86	.4212E-04	-.4860E-04	87	.4006E-04	-.3143E-04	88	.4019E-04	-
.1673E-04											
89	.1445E-04	-.6156E-04	90	.1669E-04	-.5609E-04	91	.1800E-04	-.4697E-04	92	.1844E-04	-
.3717E-04											
93	.1872E-04	-.3093E-04	94	.1913E-04	-.2489E-04	95	.1993E-04	-.1676E-04	96	.2051E-04	-
.8962E-05											
97	.6867E-05	-.2580E-04	98	.6454E-05	-.2352E-04	99	.5754E-05	-.2053E-04	100	.5480E-05	-
.1732E-04											
101	.5488E-05	-.1511E-04	102	.5862E-05	-.1274E-04	103	.6956E-05	-.9150E-05	104	.7674E-05	-
.4694E-05											

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	-.822559E+02	.000000E+00	.000000E+00	-.822559E+02	.000000E+00	.411280E+02
25	1	-.970184E+02	.000000E+00	.000000E+00	-.970184E+02	.000000E+00	.485092E+02
29	1	-.194689E+02	-.209053E+02	-.233021E+02	-.435003E+02	.312606E+01	.233132E+02
33	1	-.947243E+02	.000000E+00	.000000E+00	-.947243E+02	.000000E+00	.473621E+02
41	1	.219113E+02	.000000E+00	.000000E+00	.000000E+00	.219113E+02	.109557E+02
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.199455E+02	-.814881E+02	-.721234E+02	.920689E+02	.820961E+02
51	1	.000000E+00	-.101367E+03	-.676243E+02	-.135193E+03	.338260E+02	.845097E+02
52	1	.000000E+00	-.622800E+02	-.401289E+02	-.819340E+02	.196540E+02	.507940E+02
53	1	.000000E+00	-.493018E+02	-.286974E+02	-.624822E+02	.131804E+02	.378313E+02
54	1	.000000E+00	-.372585E+02	-.200608E+02	-.460060E+02	.874744E+01	.273767E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 135.19330 AND OCCURS AT NODE 51

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
*      8 inch PCCP Pavement with 115K load Single Axle
*
*****
```

TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0



Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```

Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	170.81600	180.00000	.00000	6.32470	90.00000
1	170.81600	180.00000	8.00000	14.32470	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP), INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

Appendix 6E-d 8 Inch PCCP Pavement

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
144.00000	37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
66.00000	41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
144.00000	45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
66.00000	49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
144.00000	53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
66.00000	57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
144.00000	61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
66.00000	65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
144.00000	69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
144.00000	77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
66.00000	81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
144.00000	85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
66.00000	89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
144.00000	93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
66.00000	97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
144.00000	101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.14800	1.00000	-1.00000	-.20941	90.00000
36	-.14800	1.00000	.00000	.79059	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
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Appendix 6E-d 8 Inch PCCP Pavement

5	.00000	82.00000	144.00000	6	.00000	98.00000	144.00000	7	.00000	121.00000	144.00000	8	.00000	144.00000
9	60.00000	.00000	66.00000	10	60.00000	16.00000	66.00000	11	60.00000	41.00000	66.00000	12	60.00000	66.00000
13	60.00000	82.00000	144.00000	14	60.00000	98.00000	144.00000	15	60.00000	121.00000	144.00000	16	60.00000	144.00000
17	110.00000	.00000	66.00000	18	110.00000	16.00000	66.00000	19	110.00000	41.00000	66.00000	20	110.00000	66.00000
21	110.00000	82.00000	144.00000	22	110.00000	98.00000	144.00000	23	110.00000	121.00000	144.00000	24	110.00000	144.00000
25	128.00000	.00000	66.00000	26	128.00000	16.00000	66.00000	27	128.00000	41.00000	66.00000	28	128.00000	66.00000
29	128.00000	82.00000	144.00000	30	128.00000	98.00000	144.00000	31	128.00000	121.00000	144.00000	32	128.00000	144.00000
33	146.00000	.00000	66.00000	34	146.00000	16.00000	66.00000	35	146.00000	41.00000	66.00000	36	146.00000	66.00000
37	146.00000	82.00000	144.00000	38	146.00000	98.00000	144.00000	39	146.00000	121.00000	144.00000	40	146.00000	144.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000	66.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000	144.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000	66.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000	144.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000	66.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000	144.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000	66.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000	144.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000	66.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000	144.00000

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
144.00000	85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
66.00000	89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
144.00000	93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
66.00000	97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
144.00000	101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

10	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
	0																	
20	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
	0																	
30	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
	0																	
40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	
90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
	0																	
100	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
	0																	
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .03356637  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00332202  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00035892  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004235  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000503

SUM OF APPLIED FORCES (FOSUM)= 10455.5 SUM OF TOTAL REACTIONS (SUBSUM)= 10448.1

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.2952E-02	2	.2812E-02	3	.2618E-02	4	.2454E-02	5	.2360E-02	6	.2270E-02	7	.2130E-02	8
.1974E-02														
9	.5497E-02	10	.5094E-02	11	.4446E-02	12	.3848E-02	13	.3501E-02	14	.3177E-02	15	.2735E-02	16
.2299E-02														
17	.1198E-01	18	.1065E-01	19	.8562E-02	20	.6715E-02	21	.5724E-02	22	.4869E-02	23	.3811E-02	24
.2837E-02														
25	.1652E-01	26	.1444E-01	27	.1121E-01	28	.8456E-02	29	.7040E-02	30	.5862E-02	31	.4464E-02	32
.3223E-02														
33	.2274E-01	34	.1950E-01	35	.1457E-01	36	.1058E-01	37	.8639E-02	38	.7074E-02	39	.5284E-02	40
.3753E-02														
41	.3036E-01	42	.2556E-01	43	.1842E-01	44	.1301E-01	45	.1046E-01	46	.8466E-02	47	.6255E-02	48
.4445E-02														
49	.3729E-01	50	.3117E-01	51	.2195E-01	52	.1526E-01	53	.1217E-01	54	.9769E-02	55	.7184E-02	56
.5169E-02														
57	.3187E-01	58	.2833E-01	59	.2155E-01	60	.1536E-01	61	.1225E-01	62	.9812E-02	63	.7198E-02	64
.5174E-02														
65	.2483E-01	66	.2219E-01	67	.1742E-01	68	.1284E-01	69	.1042E-01	70	.8462E-02	71	.6263E-02	72
.4460E-02														
73	.1627E-01	74	.1475E-01	75	.1209E-01	76	.9413E-02	77	.7895E-02	78	.6578E-02	79	.4990E-02	80
.3586E-02														
81	.8078E-02	82	.7519E-02	83	.6545E-02	84	.5541E-02	85	.4918E-02	86	.4324E-02	87	.3517E-02	88
.2729E-02														
89	.4618E-02	90	.4399E-02	91	.4020E-02	92	.3626E-02	93	.3370E-02	94	.3110E-02	95	.2725E-02	96
.2325E-02														
97	.2739E-02	98	.2646E-02	99	.2514E-02	100	.2394E-02	101	.2319E-02	102	.2241E-02	103	.2115E-02	104
.1970E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2952E-02	2	.2812E-02	3	.2618E-02	4	.2454E-02	5	.2360E-02	6	.2270E-02	7	.2130E-02	8
.1974E-02														
9	.5497E-02	10	.5094E-02	11	.4446E-02	12	.3848E-02	13	.3501E-02	14	.3177E-02	15	.2735E-02	16
.2299E-02														
17	.1198E-01	18	.1065E-01	19	.8562E-02	20	.6715E-02	21	.5724E-02	22	.4869E-02	23	.3811E-02	24
.2837E-02														
25	.1652E-01	26	.1444E-01	27	.1121E-01	28	.8456E-02	29	.7040E-02	30	.5862E-02	31	.4464E-02	32
.3223E-02														



Appendix 6E-d 8 Inch PCCP Pavement

33	.2274E-01	34	.1950E-01	35	.1457E-01	36	.1058E-01	37	.8639E-02	38	.7074E-02	39	.5284E-02	40
.3753E-02														
41	.3036E-01	42	.2556E-01	43	.1842E-01	44	.1301E-01	45	.1046E-01	46	.8466E-02	47	.6255E-02	48
.4445E-02														
49	.3458E-01	50	.2975E-01	51	.2175E-01	52	.1531E-01	53	.1221E-01	54	.9791E-02	55	.7191E-02	56
.5172E-02														
57	.3458E-01	58	.2975E-01	59	.2175E-01	60	.1531E-01	61	.1221E-01	62	.9791E-02	63	.7191E-02	64
.5172E-02														
65	.2483E-01	66	.2219E-01	67	.1742E-01	68	.1284E-01	69	.1042E-01	70	.8462E-02	71	.6263E-02	72
.4460E-02														
73	.1627E-01	74	.1475E-01	75	.1209E-01	76	.9413E-02	77	.7895E-02	78	.6578E-02	79	.4990E-02	80
.3586E-02														
81	.8078E-02	82	.7519E-02	83	.6545E-02	84	.5541E-02	85	.4918E-02	86	.4324E-02	87	.3517E-02	88
.2729E-02														
89	.4618E-02	90	.4399E-02	91	.4020E-02	92	.3626E-02	93	.3370E-02	94	.3110E-02	95	.2725E-02	96
.2325E-02														
97	.2739E-02	98	.2646E-02	99	.2514E-02	100	.2394E-02	101	.2319E-02	102	.2241E-02	103	.2115E-02	104
.1970E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	1.0	2	-39.3	3	-58.0	4	-43.7	5	-14.8	6	-32.5	7	-27.5	8	-
54.0															
9	137.4	10	-27.1	11	-50.8	12	-55.9	13	-25.1	14	-49.5	15	-50.7	16	-
116.6															
17	336.7	18	85.1	19	24.5	20	-17.8	21	-19.5	22	-30.0	23	-41.9	24	-
100.3															
25	391.8	26	144.8	27	78.0	28	16.0	29	.4	30	-6.1	31	-14.2	32	-
54.9															
33	719.5	34	313.8	35	191.7	36	58.5	37	19.8	38	11.5	39	-.9	40	-
50.0															
41	1145.9	42	562.7	43	340.3	44	121.5	45	51.6	46	43.5	47	28.3	48	-
19.8															
49	913.7	50	607.6	51	416.7	52	175.8	53	89.1	54	82.2	55	69.0	56	
38.4															
57	607.8	58	418.5	59	384.9	60	182.4	61	93.9	62	85.0	63	69.9	64	
38.8															

Appendix 6E-d 8 Inch PCCP Pavement

65	765.3	66	379.1	67	325.8	68	145.5	69	63.4	70	53.3	71	34.3	72	-
21.1		73	634.8	74	254.8	75	199.3	76	69.0	77	21.1	78	10.2	79	-9.8
92.7		81	209.2	82	29.5	83	-3.4	84	-23.6	85	-18.1	86	-30.1	87	-41.4
115.6		89	35.3	90	-32.0	91	-52.0	92	-40.5	93	-20.0	94	-32.8	95	-35.6
84.5		97	-7.7	98	-30.7	99	-46.2	100	-34.2	101	-11.7	102	-25.9	103	-22.5
47.0														104	-

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000061

SUM OF APPLIED FORCES (FOSUM)= 10455.5 SUM OF TOTAL REACTIONS (SUBSUM)= 10448.9

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2953E-02	2	.2812E-02	3	.2619E-02	4	.2455E-02	5	.2360E-02	6	.2270E-02	7	.2131E-02	8	
.1975E-02		9	.5497E-02	10	.5094E-02	11	.4446E-02	12	.3848E-02	13	.3501E-02	14	.3178E-02	15	.2736E-02
.2300E-02		17	.1198E-01	18	.1065E-01	19	.8562E-02	20	.6716E-02	21	.5724E-02	22	.4870E-02	23	.3812E-02
.2838E-02		25	.1652E-01	26	.1444E-01	27	.1121E-01	28	.8457E-02	29	.7040E-02	30	.5863E-02	31	.4465E-02
.3224E-02		33	.2274E-01	34	.1950E-01	35	.1457E-01	36	.1059E-01	37	.8639E-02	38	.7074E-02	39	.5284E-02
.3753E-02		41	.3036E-01	42	.2556E-01	43	.1842E-01	44	.1301E-01	45	.1046E-01	46	.8466E-02	47	.6256E-02
.4446E-02		49	.3730E-01	50	.3117E-01	51	.2195E-01	52	.1526E-01	53	.1217E-01	54	.9770E-02	55	.7185E-02
.5169E-02		57	.3187E-01	58	.2833E-01	59	.2155E-01	60	.1536E-01	61	.1225E-01	62	.9813E-02	63	.7198E-02
.5175E-02		65	.2483E-01	66	.2219E-01	67	.1742E-01	68	.1284E-01	69	.1042E-01	70	.8462E-02	71	.6264E-02
.4460E-02		73	.1627E-01	74	.1475E-01	75	.1209E-01	76	.9413E-02	77	.7895E-02	78	.6579E-02	79	.4991E-02
.3587E-02														80	

Appendix 6E-d 8 Inch PCCP Pavement

81 .8079E-02 82 .7520E-02 83 .6546E-02 84 .5542E-02 85 .4919E-02 86 .4325E-02 87 .3518E-02 88  
.2730E-02  
89 .4619E-02 90 .4400E-02 91 .4020E-02 92 .3626E-02 93 .3370E-02 94 .3110E-02 95 .2725E-02 96  
.2325E-02  
97 .2739E-02 98 .2646E-02 99 .2515E-02 100 .2394E-02 101 .2319E-02 102 .2242E-02 103 .2116E-02 104  
.1970E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1 .2953E-02 2 .2812E-02 3 .2619E-02 4 .2455E-02 5 .2360E-02 6 .2270E-02 7 .2131E-02 8  
.1975E-02  
9 .5497E-02 10 .5094E-02 11 .4446E-02 12 .3848E-02 13 .3501E-02 14 .3178E-02 15 .2736E-02 16  
.2300E-02  
17 .1198E-01 18 .1065E-01 19 .8562E-02 20 .6716E-02 21 .5724E-02 22 .4870E-02 23 .3812E-02 24  
.2838E-02  
25 .1652E-01 26 .1444E-01 27 .1121E-01 28 .8457E-02 29 .7040E-02 30 .5863E-02 31 .4465E-02 32  
.3224E-02  
33 .2274E-01 34 .1950E-01 35 .1457E-01 36 .1059E-01 37 .8639E-02 38 .7074E-02 39 .5284E-02 40  
.3753E-02  
41 .3036E-01 42 .2556E-01 43 .1842E-01 44 .1301E-01 45 .1046E-01 46 .8466E-02 47 .6256E-02 48  
.4446E-02  
49 .3458E-01 50 .2975E-01 51 .2175E-01 52 .1531E-01 53 .1221E-01 54 .9791E-02 55 .7192E-02 56  
.5172E-02  
57 .3458E-01 58 .2975E-01 59 .2175E-01 60 .1531E-01 61 .1221E-01 62 .9791E-02 63 .7192E-02 64  
.5172E-02  
65 .2483E-01 66 .2219E-01 67 .1742E-01 68 .1284E-01 69 .1042E-01 70 .8462E-02 71 .6264E-02 72  
.4460E-02  
73 .1627E-01 74 .1475E-01 75 .1209E-01 76 .9413E-02 77 .7895E-02 78 .6579E-02 79 .4991E-02 80  
.3587E-02  
81 .8079E-02 82 .7520E-02 83 .6546E-02 84 .5542E-02 85 .4919E-02 86 .4325E-02 87 .3518E-02 88  
.2730E-02  
89 .4619E-02 90 .4400E-02 91 .4020E-02 92 .3626E-02 93 .3370E-02 94 .3110E-02 95 .2725E-02 96  
.2325E-02  
97 .2739E-02 98 .2646E-02 99 .2515E-02 100 .2394E-02 101 .2319E-02 102 .2242E-02 103 .2116E-02 104  
.1970E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	1.0	2	-39.3	3	-58.0	4	-43.7	5	-14.7	6	-32.5	7	-27.5	8	-
54.0															
9	137.5	10	-27.1	11	-50.8	12	-55.9	13	-25.1	14	-49.5	15	-50.7	16	-
116.6															
17	336.8	18	85.1	19	24.5	20	-17.8	21	-19.5	22	-30.0	23	-41.9	24	-
100.3															
25	391.8	26	144.8	27	78.0	28	16.0	29	.4	30	-6.1	31	-14.2	32	-
54.9															
33	719.5	34	313.8	35	191.7	36	58.5	37	19.8	38	11.5	39	-.9	40	-
50.0															
41	1146.0	42	562.7	43	340.3	44	121.6	45	51.6	46	43.5	47	28.3	48	-
19.8															
49	913.7	50	607.6	51	416.7	52	175.8	53	89.1	54	82.2	55	69.0	56	-
38.4															
57	607.8	58	418.5	59	384.9	60	182.4	61	93.9	62	85.0	63	70.0	64	-
38.8															
65	765.3	66	379.1	67	325.8	68	145.5	69	63.4	70	53.3	71	34.3	72	-
21.1															
73	634.9	74	254.8	75	199.3	76	69.1	77	21.1	78	10.2	79	-9.8	80	-
92.7															
81	209.2	82	29.5	83	-3.4	84	-23.6	85	-18.0	86	-30.1	87	-41.4	88	-
115.5															
89	35.3	90	-32.0	91	-52.0	92	-40.5	93	-20.0	94	-32.8	95	-35.6	96	-
84.5															
97	-7.7	98	-30.7	99	-46.2	100	-34.1	101	-11.7	102	-25.9	103	-22.5	104	-
46.9															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1713.295	.000	50	-2298.442	.000	51	-401.971	.000	52	79.727
.000										
53	51.708	.000	54	33.014	.000	55	11.928	.000	56	2.482
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2569.942	50	-1345.429	51	-192.946	52	46.670	53	38.781	54	
20.316											
55	6.223	56	2.590								

Appendix 6E-d 8 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:  
 49 -4013.992 -3272.145 50 -2101.426 -1713.051 51 -301.363 -245.666 52 72.893  
 59.421  
 53 60.572 49.378 54 31.732 25.868 55 9.720 7.924 56 4.045  
 3.297

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)  
 1 .00421 2 -.06394 3 -.07730 4 -.07111 5 -.03073 6 -.05561 7 -.03979 8 -  
 .15646  
 9 .31239 10 -.02403 11 -.03693 12 -.04957 13 -.02850 14 -.04617 15 -.04010 16 -  
 .18435  
 17 1.23807 18 .12211 19 .02886 20 -.02547 21 -.03578 22 -.04521 23 -.05357 24 -  
 .25661  
 25 2.72060 26 .39247 27 .17340 28 .04347 29 .00130 30 -.01743 31 -.03434 32 -  
 .26512  
 33 4.99684 34 .85030 35 .42604 36 .15867 37 .06862 38 .03274 39 -.00218 40 -  
 .24153  
 41 8.42612 42 1.61457 43 .80078 44 .34878 45 .18986 46 .13135 47 .07227 48 -  
 .10129  
 49 14.27671 50 3.70494 51 2.08347 52 1.07220 53 .69590 54 .52698 55 .37495 56  
 .41715  
 57 9.49709 58 2.55169 59 1.92458 60 1.11222 61 .73350 62 .54481 63 .38017 64  
 .42142  
 65 4.78303 66 .92472 67 .65163 68 .35483 69 .19809 70 .13658 71 .07448 72 -  
 .09157  
 73 2.47993 74 .38844 75 .24911 76 .10526 77 .04114 78 .01641 79 -.01330 80 -  
 .25186  
 81 .65387 82 .03600 83 -.00337 84 -.02879 85 -.02820 86 -.03861 87 -.04499 88 -  
 .25118  
 89 .08825 90 -.03124 91 -.04156 92 -.03953 93 -.02505 94 -.03364 95 -.03092 96 -  
 .14694  
 97 -.03212 98 -.04986 99 -.06164 100 -.05552 101 -.02429 102 -.04429 103 -.03262 104 -  
 .13606

NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODEROTAT.X ROTAT.Y

Appendix 6E-d 8 Inch PCCP Pavement

1	.9024E-05	.3040E-04	2	.8432E-05	.2614E-04	3	.7107E-05	.2141E-04	4	.6097E-05
.1698E-04										
5	.5701E-05	.1424E-04	6	.5727E-05	.1156E-04	7	.6448E-05	.7904E-05	8	.7004E-05
.3677E-05										
9	.2389E-04	.7393E-04	10	.2600E-04	.6327E-04	11	.2525E-04	.4824E-04	12	.2255E-04
.3516E-04										
13	.2088E-04	.2799E-04	14	.1966E-04	.2171E-04	15	.1896E-04	.1385E-04	16	.1901E-04
.6458E-05										
17	.7914E-04	.2068E-03	18	.8488E-04	.1775E-03	19	.8034E-04	.1274E-03	20	.6667E-04
.8546E-04										
21	.5741E-04	.6503E-04	22	.4975E-04	.4909E-04	23	.4325E-04	.3177E-04	24	.4222E-04
.1841E-04										
25	.1250E-03	.2987E-03	26	.1323E-03	.2456E-03	27	.1224E-03	.1675E-03	28	.9692E-04
.1080E-03										
29	.8051E-04	.8122E-04	30	.6731E-04	.6135E-04	31	.5587E-04	.4086E-04	32	.5335E-04
.2512E-04										
33	.1986E-03	.3922E-03	34	.2047E-03	.3147E-03	35	.1824E-03	.2030E-03	36	.1356E-03
.1277E-03										
37	.1087E-03	.9598E-04	38	.8804E-04	.7294E-04	39	.6995E-04	.5011E-04	40	.6528E-04
.3401E-04										
41	.2994E-03	.4355E-03	42	.3001E-03	.3492E-03	43	.2569E-03	.2210E-03	44	.1790E-03
.1399E-03										
45	.1403E-03	.1056E-03	46	.1110E-03	.8080E-04	47	.8430E-04	.5709E-04	48	.7609E-04
.4281E-04										
49	.3822E-03	.4333E-03	50	.3849E-03	.3511E-03	51	.3251E-03	.2181E-03	52	.2201E-03
.1391E-03										
53	.1696E-03	.1050E-03	54	.1316E-03	.8062E-04	55	.9645E-04	.5797E-04	56	.8396E-04
.4632E-04										
57	.2105E-03	-.4528E-03	58	.2449E-03	-.3968E-03	59	.2706E-03	-.2621E-03	60	.2186E-03 -
.1571E-03										
61	.1722E-03	-.1128E-03	62	.1336E-03	-.8350E-04	63	.9722E-04	-.5826E-04	64	.8417E-04 -
.4582E-04										
65	.1561E-03	-.4143E-03	66	.1769E-03	-.3606E-03	67	.1956E-03	-.2489E-03	68	.1652E-03 -
.1549E-03										
69	.1363E-03	-.1129E-03	70	.1099E-03	-.8376E-04	71	.8402E-04	-.5747E-04	72	.7580E-04 -
.4212E-04										
73	.8857E-04	-.2930E-03	74	.1005E-03	-.2576E-03	75	.1101E-03	-.1906E-03	76	.1008E-03 -
.1273E-03										

Appendix 6E-d 8 Inch PCCP Pavement

77	.8862E-04	-.9555E-04	78	.7614E-04	-.7154E-04	79	.6344E-04	-.4751E-04	80	.6026E-04	-
.3075E-04											
81	.3213E-04	-.1336E-03	82	.3711E-04	-.1182E-03	83	.4019E-04	-.9334E-04	84	.3967E-04	-
.6831E-04											
85	.3807E-04	-.5398E-04	86	.3617E-04	-.4159E-04	87	.3434E-04	-.2686E-04	88	.3443E-04	-
.1427E-04											
89	.1260E-04	-.5301E-04	90	.1452E-04	-.4824E-04	91	.1560E-04	-.4032E-04	92	.1591E-04	-
.3184E-04											
93	.1611E-04	-.2646E-04	94	.1643E-04	-.2128E-04	95	.1708E-04	-.1429E-04	96	.1757E-04	-
.7615E-05											
97	.5960E-05	-.2218E-04	98	.5599E-05	-.2019E-04	99	.4982E-05	-.1758E-04	100	.4725E-05	-
.1481E-04											
101	.4720E-05	-.1291E-04	102	.5032E-05	-.1087E-04	103	.5961E-05	-.7788E-05	104	.6574E-05	-
.3971E-05											

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	-.709593E+02	.000000E+00	.000000E+00	-.709593E+02	.000000E+00	.354797E+02
25	1	-.846447E+02	.000000E+00	.000000E+00	-.846447E+02	.000000E+00	.423224E+02
29	1	-.171052E+02	-.178631E+02	-.199773E+02	-.374650E+02	.249672E+01	.199809E+02
33	1	-.849989E+02	.000000E+00	.000000E+00	-.849989E+02	.000000E+00	.424995E+02
41	1	.890199E+01	.000000E+00	.000000E+00	.000000E+00	.890199E+01	.445099E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.105296E+02	-.742229E+02	-.691446E+02	.796741E+02	.744094E+02
51	1	.000000E+00	-.884222E+02	-.598642E+02	-.118631E+03	.302090E+02	.744201E+02
52	1	.000000E+00	-.537735E+02	-.352178E+02	-.711947E+02	.174212E+02	.443079E+02
53	1	.000000E+00	-.424860E+02	-.250699E+02	-.541028E+02	.116168E+02	.328598E+02
54	1	.000000E+00	-.320905E+02	-.174881E+02	-.397789E+02	.768837E+01	.237336E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 118.63120 AND OCCURS AT NODE 51

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      8 inch PCCP Pavement with 115K load
*
*****
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TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0



Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```

Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	122.81600	132.00000	.00000	6.32470	90.00000
1	122.81600	132.00000	12.00000	18.32470	90.00000
1	122.81600	132.00000	84.00000	90.32470	90.00000
1	122.81600	132.00000	96.00000	102.32400	90.00000
1	170.81600	180.00000	.00000	6.32470	90.00000
1	170.81600	180.00000	12.00000	18.32470	90.00000
1	170.81600	180.00000	84.00000	90.32470	90.00000
1	170.81600	180.00000	96.00000	102.32400	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
66.00000										

Appendix 6E-d 8 Inch PCCP Pavement

61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
144.00000										
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
66.00000										
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000
144.00000										
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
66.00000										
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
144.00000										
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
66.00000										
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
144.00000										
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
66.00000										
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
144.00000										
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
66.00000										
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000
144.00000										

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.42400	1.00000	-1.00000	-.20941	90.00000
22	-1.00000	-.55556	-1.00000	-.20941	90.00000
15	.42400	1.00000	.50000	1.00000	90.00000
16	.42400	1.00000	-1.00000	-.81402	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.81402	90.00000
19	.42400	1.00000	-.75000	.04059	90.00000
26	-1.00000	-.55556	-.75000	.04059	90.00000
19	.42400	1.00000	.75000	1.00000	90.00000
20	.42400	1.00000	-1.00000	-.62400	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.62400	90.00000
36	-.14800	1.00000	-1.00000	-.20941	90.00000
36	-.14800	1.00000	.50000	1.00000	90.00000

Appendix 6E-d 8 Inch PCCP Pavement

37	-.14800	1.00000	-1.00000	-.81402	90.00000
40	-.14800	1.00000	-.75000	.04059	90.00000
40	-.14800	1.00000	.75000	1.00000	90.00000
41	-.14800	1.00000	-1.00000	-.62400	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000

Appendix 6E-d 8 Inch PCCP Pavement

37	146.00000	82.00000	144.00000	38	146.00000	98.00000	66.00000	39	146.00000	121.00000	144.00000	40	146.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000
81	260.00000	.00000	66.00000	82	260.00000	16.00000	66.00000	83	260.00000	41.00000	66.00000	84	260.00000
85	260.00000	82.00000	144.00000	86	260.00000	98.00000	144.00000	87	260.00000	121.00000	144.00000	88	260.00000
89	300.00000	.00000	66.00000	90	300.00000	16.00000	66.00000	91	300.00000	41.00000	66.00000	92	300.00000
93	300.00000	82.00000	144.00000	94	300.00000	98.00000	144.00000	95	300.00000	121.00000	144.00000	96	300.00000
97	360.00000	.00000	66.00000	98	360.00000	16.00000	66.00000	99	360.00000	41.00000	66.00000	100	360.00000
101	360.00000	82.00000	144.00000	102	360.00000	98.00000	144.00000	103	360.00000	121.00000	144.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
10	1																

Appendix 6E-d 8 Inch PCCP Pavement

20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
	1																	
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
	1																	
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
	1																	
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
	2																	
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
	0																	
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
	1																	
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
	1																	
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
	1																	
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	1																	
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
	0																	
20	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
	0																	
30	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
	0																	
40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	

Appendix 6E-d 8 Inch PCCP Pavement

90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
100	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .05292548  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01163243  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00136454  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00016207  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00001932

SUM OF APPLIED FORCES (FOSUM)= 41820.8 SUM OF TOTAL REACTIONS (SUBSUM)= 41793.3

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

.1057E-01	1	.1293E-01	2	.1303E-01	3	.1312E-01	4	.1296E-01	5	.1269E-01	6	.1231E-01	7	.1154E-01	8
.1787E-01	9	.2668E-01	10	.2658E-01	11	.2611E-01	12	.2523E-01	13	.2433E-01	14	.2310E-01	15	.2076E-01	16
.2628E-01	17	.4761E-01	18	.4556E-01	19	.4247E-01	20	.4042E-01	21	.3919E-01	22	.3712E-01	23	.3219E-01	24
.2905E-01	25	.5501E-01	26	.5207E-01	27	.4777E-01	28	.4541E-01	29	.4431E-01	30	.4208E-01	31	.3603E-01	32
.3137E-01	33	.5930E-01	34	.5626E-01	35	.5180E-01	36	.4922E-01	37	.4789E-01	38	.4541E-01	39	.3906E-01	40
.3343E-01	41	.6288E-01	42	.5960E-01	43	.5477E-01	44	.5218E-01	45	.5097E-01	46	.4846E-01	47	.4161E-01	48
.3528E-01	49	.6610E-01	50	.6246E-01	51	.5694E-01	52	.5446E-01	53	.5374E-01	54	.5138E-01	55	.4377E-01	56
.3574E-01	57	.6028E-01	58	.5912E-01	59	.5612E-01	60	.5342E-01	61	.5153E-01	62	.4871E-01	63	.4268E-01	64



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65	.4877E-01	66	.4827E-01	67	.4666E-01	68	.4464E-01	69	.4296E-01	70	.4057E-01	71	.3576E-01	72
.2999E-01														
73	.3450E-01	74	.3467E-01	75	.3429E-01	76	.3315E-01	77	.3193E-01	78	.3021E-01	79	.2685E-01	80
.2269E-01														
81	.2016E-01	82	.2053E-01	83	.2072E-01	84	.2035E-01	85	.1977E-01	86	.1891E-01	87	.1719E-01	88
.1505E-01														
89	.1351E-01	90	.1374E-01	91	.1392E-01	92	.1379E-01	93	.1352E-01	94	.1311E-01	95	.1229E-01	96
.1127E-01														
97	.9179E-02	98	.9228E-02	99	.9269E-02	100	.9217E-02	101	.9129E-02	102	.9003E-02	103	.8747E-02	104
.8421E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE:(DOWNWARD POSITIVE)

1	.1293E-01	2	.1303E-01	3	.1312E-01	4	.1296E-01	5	.1269E-01	6	.1231E-01	7	.1154E-01	8
.1057E-01														
9	.2668E-01	10	.2658E-01	11	.2611E-01	12	.2523E-01	13	.2433E-01	14	.2310E-01	15	.2076E-01	16
.1787E-01														
17	.4761E-01	18	.4556E-01	19	.4247E-01	20	.4042E-01	21	.3919E-01	22	.3712E-01	23	.3219E-01	24
.2628E-01														
25	.5501E-01	26	.5207E-01	27	.4777E-01	28	.4541E-01	29	.4431E-01	30	.4208E-01	31	.3603E-01	32
.2905E-01														
33	.5930E-01	34	.5626E-01	35	.5180E-01	36	.4922E-01	37	.4789E-01	38	.4541E-01	39	.3906E-01	40
.3137E-01														
41	.6288E-01	42	.5960E-01	43	.5477E-01	44	.5218E-01	45	.5097E-01	46	.4846E-01	47	.4161E-01	48
.3343E-01														
49	.6319E-01	50	.6079E-01	51	.5653E-01	52	.5394E-01	53	.5263E-01	54	.5005E-01	55	.4322E-01	56
.3551E-01														
57	.6319E-01	58	.6079E-01	59	.5653E-01	60	.5394E-01	61	.5263E-01	62	.5005E-01	63	.4322E-01	64
.3551E-01														
65	.4877E-01	66	.4827E-01	67	.4666E-01	68	.4464E-01	69	.4296E-01	70	.4057E-01	71	.3576E-01	72
.2999E-01														
73	.3450E-01	74	.3467E-01	75	.3429E-01	76	.3315E-01	77	.3193E-01	78	.3021E-01	79	.2685E-01	80
.2269E-01														
81	.2016E-01	82	.2053E-01	83	.2072E-01	84	.2035E-01	85	.1977E-01	86	.1891E-01	87	.1719E-01	88
.1505E-01														
89	.1351E-01	90	.1374E-01	91	.1392E-01	92	.1379E-01	93	.1352E-01	94	.1311E-01	95	.1229E-01	96
.1127E-01														

Appendix 6E-d 8 Inch PCCP Pavement

97 .9179E-02 98 .9228E-02 99 .9269E-02 100 .9217E-02 101 .9129E-02 102 .9003E-02 103 .8747E-02 104  
.8421E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-94.7	2	-143.9	3	-204.2	4	-148.8	5	-56.7	6	-140.3	7	-150.8	8	-
325.6															
9	1033.1	10	381.2	11	633.8	12	417.8	13	195.3	14	343.9	15	323.3	16	
103.9															
17	1718.4	18	943.6	19	964.9	20	660.2	21	482.2	22	640.7	23	594.2	24	
361.4															
25	1388.4	26	764.1	27	658.6	28	478.2	29	406.7	30	527.5	31	438.6	32	
276.4															
33	1583.9	34	901.3	35	844.1	36	600.9	37	475.6	38	604.6	39	560.3	40	
377.1															
41	1718.1	42	1009.2	43	918.5	44	670.4	45	547.4	46	704.2	47	635.1	48	
441.5															
49	1117.3	50	822.0	51	764.9	52	568.1	53	485.8	54	611.4	55	548.1	56	
411.4															
57	788.9	58	600.1	59	701.6	60	499.2	61	355.7	62	438.2	63	468.4	64	
444.3															
65	1014.6	66	612.4	67	700.0	68	499.0	69	338.1	70	412.6	71	431.3	72	
404.7															
73	764.3	74	404.3	75	476.7	76	332.3	77	215.7	78	275.4	79	260.0	80	
136.9															
81	160.0	82	34.3	83	40.4	84	29.6	85	17.8	86	15.5	87	-13.5	88	-
161.3															
89	-50.0	90	-66.7	91	-92.2	92	-62.9	93	-32.6	94	-60.2	95	-77.8	96	-
186.0															
97	-85.0	98	-69.2	99	-112.3	100	-82.6	101	-31.8	102	-75.6	103	-76.3	104	-
135.3															

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000230

SUM OF APPLIED FORCES (FOSUM)= 41820.8 SUM OF TOTAL REACTIONS (SUBSUM)= 41796.4

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.1293E-01	2	.1303E-01	3	.1313E-01	4	.1296E-01	5	.1269E-01	6	.1231E-01	7	.1154E-01	8
.1057E-01														
9	.2669E-01	10	.2658E-01	11	.2611E-01	12	.2523E-01	13	.2434E-01	14	.2310E-01	15	.2076E-01	16
.1787E-01														
17	.4761E-01	18	.4556E-01	19	.4247E-01	20	.4042E-01	21	.3919E-01	22	.3712E-01	23	.3219E-01	24
.2628E-01														
25	.5501E-01	26	.5208E-01	27	.4778E-01	28	.4542E-01	29	.4431E-01	30	.4208E-01	31	.3603E-01	32
.2905E-01														
33	.5930E-01	34	.5626E-01	35	.5180E-01	36	.4923E-01	37	.4789E-01	38	.4541E-01	39	.3906E-01	40
.3138E-01														
41	.6288E-01	42	.5960E-01	43	.5477E-01	44	.5218E-01	45	.5098E-01	46	.4846E-01	47	.4161E-01	48
.3344E-01														
49	.6611E-01	50	.6246E-01	51	.5694E-01	52	.5446E-01	53	.5374E-01	54	.5139E-01	55	.4377E-01	56
.3528E-01														
57	.6028E-01	58	.5913E-01	59	.5612E-01	60	.5343E-01	61	.5153E-01	62	.4871E-01	63	.4268E-01	64
.3574E-01														
65	.4877E-01	66	.4828E-01	67	.4667E-01	68	.4464E-01	69	.4296E-01	70	.4058E-01	71	.3576E-01	72
.2999E-01														
73	.3450E-01	74	.3467E-01	75	.3429E-01	76	.3315E-01	77	.3193E-01	78	.3021E-01	79	.2685E-01	80
.2270E-01														
81	.2016E-01	82	.2053E-01	83	.2072E-01	84	.2035E-01	85	.1977E-01	86	.1891E-01	87	.1719E-01	88
.1505E-01														
89	.1351E-01	90	.1375E-01	91	.1392E-01	92	.1379E-01	93	.1352E-01	94	.1311E-01	95	.1229E-01	96
.1127E-01														
97	.9181E-02	98	.9229E-02	99	.9270E-02	100	.9218E-02	101	.9130E-02	102	.9004E-02	103	.8748E-02	104
.8422E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1293E-01	2	.1303E-01	3	.1312E-01	4	.1296E-01	5	.1269E-01	6	.1231E-01	7	.1154E-01	8
.1057E-01														
9	.2669E-01	10	.2658E-01	11	.2611E-01	12	.2523E-01	13	.2434E-01	14	.2310E-01	15	.2076E-01	16
.1787E-01														
17	.4761E-01	18	.4556E-01	19	.4247E-01	20	.4042E-01	21	.3919E-01	22	.3712E-01	23	.3219E-01	24
.2628E-01														
25	.5501E-01	26	.5208E-01	27	.4778E-01	28	.4542E-01	29	.4431E-01	30	.4208E-01	31	.3603E-01	32
.2905E-01														

Appendix 6E-d 8 Inch PCCP Pavement

33	.5930E-01	34	.5626E-01	35	.5180E-01	36	.4923E-01	37	.4789E-01	38	.4541E-01	39	.3906E-01	40
.3138E-01														
41	.6288E-01	42	.5960E-01	43	.5477E-01	44	.5218E-01	45	.5098E-01	46	.4846E-01	47	.4161E-01	48
.3344E-01														
49	.6319E-01	50	.6079E-01	51	.5653E-01	52	.5394E-01	53	.5264E-01	54	.5005E-01	55	.4322E-01	56
.3551E-01														
57	.6319E-01	58	.6079E-01	59	.5653E-01	60	.5394E-01	61	.5264E-01	62	.5005E-01	63	.4322E-01	64
.3551E-01														
65	.4877E-01	66	.4828E-01	67	.4667E-01	68	.4464E-01	69	.4296E-01	70	.4058E-01	71	.3576E-01	72
.2999E-01														
73	.3450E-01	74	.3467E-01	75	.3429E-01	76	.3315E-01	77	.3193E-01	78	.3021E-01	79	.2685E-01	80
.2270E-01														
81	.2016E-01	82	.2053E-01	83	.2072E-01	84	.2035E-01	85	.1977E-01	86	.1891E-01	87	.1719E-01	88
.1505E-01														
89	.1351E-01	90	.1375E-01	91	.1392E-01	92	.1379E-01	93	.1352E-01	94	.1311E-01	95	.1229E-01	96
.1127E-01														
97	.9181E-02	98	.9229E-02	99	.9270E-02	100	.9218E-02	101	.9130E-02	102	.9004E-02	103	.8748E-02	104
.8422E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-94.7	2	-143.9	3	-204.2	4	-148.8	5	-56.7	6	-140.3	7	-150.8	8	-
325.5															
9	1033.2	10	381.2	11	633.9	12	417.8	13	195.3	14	343.9	15	323.4	16	
104.0															
17	1718.4	18	943.7	19	964.9	20	660.2	21	482.2	22	640.7	23	594.2	24	
361.4															
25	1388.4	26	764.1	27	658.6	28	478.2	29	406.7	30	527.5	31	438.6	32	
276.4															
33	1584.0	34	901.3	35	844.2	36	600.9	37	475.6	38	604.6	39	560.3	40	
377.1															
41	1718.2	42	1009.2	43	918.5	44	670.4	45	547.4	46	704.2	47	635.1	48	
441.6															
49	1117.3	50	822.0	51	765.0	52	568.2	53	485.8	54	611.4	55	548.1	56	
411.4															
57	788.9	58	600.1	59	701.6	60	499.3	61	355.7	62	438.2	63	468.4	64	
444.3															

Appendix 6E-d 8 Inch PCCP Pavement

65	1014.7	66	612.5	67	700.0	68	499.0	69	338.1	70	412.7	71	431.3	72	
404.7		73	764.4	74	404.4	75	476.7	76	332.4	77	215.7	78	275.4	79	260.0
136.9		81	160.1	82	34.3	83	40.4	84	29.7	85	17.8	86	15.5	87	-13.4
161.3		89	-50.0	90	-66.7	91	-92.1	92	-62.9	93	-32.6	94	-60.1	95	-77.8
185.9		97	-85.0	98	-69.2	99	-112.3	100	-82.6	101	-31.8	102	-75.6	103	-76.3
135.2														104	-

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

.000	49	-1839.093	.000	50	-2697.525	.000	51	-801.825	.000	52	-836.895
.000	53	-1397.914	.000	54	-2055.570	.000	55	-988.945	.000	56	207.480

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

1264.966	49	-2758.639	50	-1579.039	51	-384.876	52	-489.890	53	-1048.435	54	-
	55	-515.971	56	216.501								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

-623.746	49	-4308.717	-3512.401	50	-2466.301	-2010.491	51	-601.138	-490.038	52	-765.159
275.657	53	-1637.551	-1334.907	54	-1975.750	-1610.602	55	-805.896	-656.954	56	338.152

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

.94356	1	-.39453	2	-.23392	3	-.27226	4	-.24187	5	-.11807	6	-.23984	7	-.21852	8	-
.16436	9	2.34810	10	.33810	11	.46099	12	.37059	13	.22196	14	.32069	15	.25563	16	
.92437	17	6.31776	18	1.35387	19	1.13521	20	.94723	21	.88639	22	.96643	23	.75990	24	
1.33535	25	9.64163	26	2.07065	27	1.46362	28	1.29606	29	1.41202	30	1.50291	31	1.05944	32	

Appendix 6E-d 8 Inch PCCP Pavement

33	10.99977	34	2.44267	35	1.87590	36	1.62859	37	1.65152	38	1.72257	39	1.35337	40	
1.82197		41	12.63359	42	2.89584	43	2.16125	44	1.92366	45	2.01259	46	2.12431	47	1.62435
2.25863		49	17.45751	50	5.01250	51	3.82479	52	3.46435	53	3.79551	54	3.91918	55	2.97897
4.47225		57	12.32695	58	3.65901	59	3.50786	60	3.04423	61	2.77899	62	2.80915	63	2.54580
4.82928		65	6.34159	66	1.49382	67	1.40009	68	1.21718	69	1.05653	70	1.05809	71	.93757
1.75958		73	2.98581	74	.61639	75	.59593	76	.50667	77	.42125	78	.44134	79	.35328
.37207		81	.50024	82	.04182	83	.04040	84	.03617	85	.02783	86	.01990	87	-.01462
.35057		89	-.12493	90	-.06504	91	-.07370	92	-.06136	93	-.04078	94	-.06169	95	-.06764
.32338		97	-.35413	98	-.11253	99	-.14971	100	-.13428	101	-.06632	102	-.12919	103	-.11059
.39202														104	-

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y
1	-.6380E-05	.1860E-03	2	-.6332E-05	.1825E-03	3	.4551E-06	.1789E-03	4	.1296E-04
.1716E-03		5	.2023E-04	.1633E-03	6	.2784E-04	.1515E-03	7	.3870E-04	.1297E-03
.9969E-04		9	.9641E-06	.3350E-03	10	.1195E-04	.3147E-03	11	.2576E-04	.2848E-03
.2656E-03		13	.6646E-04	.2552E-03	14	.8748E-04	.2384E-03	15	.1159E-03	.1990E-03
.1533E-03		17	.1276E-03	.4480E-03	18	.1301E-03	.3988E-03	19	.1047E-03	.3241E-03
.3028E-03		21	.9556E-04	.3074E-03	22	.1677E-03	.2958E-03	23	.2465E-03	.2309E-03
.1659E-03		25	.1905E-03	.3254E-03	26	.1834E-03	.2977E-03	27	.1369E-03	.2603E-03
.2454E-03		29	.9165E-04	.2419E-03	30	.1968E-03	.2301E-03	31	.2982E-03	.1909E-03
.1412E-03										

Appendix 6E-d 8 Inch PCCP Pavement

33	.1897E-03	.1986E-03	34	.1922E-03	.1942E-03	35	.1447E-03	.1893E-03	36	.7496E-04
.1826E-03										
37	.1073E-03	.1753E-03	38	.2098E-03	.1657E-03	39	.3209E-03	.1499E-03	40	.3390E-03
.1191E-03										
41	.2022E-03	.1995E-03	42	.2090E-03	.1801E-03	43	.1543E-03	.1461E-03	44	.6744E-04
.1498E-03										
45	.1013E-03	.1697E-03	46	.2220E-03	.1744E-03	47	.3452E-03	.1364E-03	48	.3596E-03
.1135E-03										
49	.2243E-03	.2025E-03	50	.2356E-03	.1782E-03	51	.1675E-03	.1264E-03	52	.4636E-04
.1376E-03										
53	.7577E-04	.1785E-03	54	.2354E-03	.1936E-03	55	.3713E-03	.1348E-03	56	.3703E-03
.1162E-03										
57	.6136E-04	-.7383E-03	58	.9426E-04	-.6966E-03	59	.1186E-03	-.6004E-03	60	.1078E-03 -
.5592E-03										
61	.1410E-03	-.5492E-03	62	.2162E-03	-.5235E-03	63	.2904E-03	-.4418E-03	64	.3087E-03 -
.3674E-03										
65	.1967E-04	-.6815E-03	66	.4542E-04	-.6450E-03	67	.7553E-04	-.5715E-03	68	.9047E-04 -
.5298E-03										
69	.1237E-03	-.5128E-03	70	.1756E-03	-.4848E-03	71	.2365E-03	-.4149E-03	72	.2602E-03 -
.3435E-03										
73	-.2051E-04	-.4992E-03	74	-.2372E-06	-.4834E-03	75	.3021E-04	-.4506E-03	76	.6246E-04 -
.4204E-03										
77	.9097E-04	-.4007E-03	78	.1239E-03	-.3745E-03	79	.1666E-03	-.3219E-03	80	.1909E-03 -
.2621E-03										
81	-.2878E-04	-.2433E-03	82	-.1747E-04	-.2434E-03	83	.2674E-05	-.2398E-03	84	.2752E-04 -
.2293E-03										
85	.4516E-04	-.2180E-03	86	.6285E-04	-.2021E-03	87	.8532E-04	-.1709E-03	88	.9944E-04 -
.1320E-03										
89	-.1687E-04	-.1101E-03	90	-.1182E-04	-.1135E-03	91	-.1316E-05	-.1158E-03	92	.1199E-04 -
.1129E-03										
93	.2111E-04	-.1079E-03	94	.2998E-04	-.1004E-03	95	.4085E-04	-.8546E-04	96	.4706E-04 -
.6662E-04										
97	-.3199E-05	-.5304E-04	98	-.2781E-05	-.5607E-04	99	-.5682E-07	-.5833E-04	100	.4265E-05 -
.5786E-04										
101	.6672E-05	-.5595E-04	102	.9169E-05	-.5259E-04	103	.1296E-04	-.4556E-04	104	.1498E-04 -
.3477E-04										

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
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Appendix 6E-d 8 Inch PCCP Pavement

17	1	-.294217E+01	.000000E+00	.000000E+00	-.294217E+01	.000000E+00	.147109E+01
25	1	.239282E+03	.000000E+00	.000000E+00	.000000E+00	.239282E+03	.119641E+03
29	1	.123778E+03	.969212E+02	-.499608E+01	.960219E+02	.124678E+03	.143278E+02
33	1	-.624399E+01	.000000E+00	.000000E+00	-.624399E+01	.000000E+00	.312200E+01
41	1	-.453898E+01	.000000E+00	.000000E+00	-.453898E+01	.000000E+00	.226949E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.277863E+02	-.261219E+02	-.156936E+02	.434799E+02	.295867E+02
51	1	.000000E+00	-.113271E+03	-.128018E+02	-.114700E+03	.142881E+01	.580644E+02
52	1	.000000E+00	-.577864E+02	.240189E+02	-.664661E+02	.867970E+01	.375729E+02
53	1	.000000E+00	.118535E+03	.289736E+02	-.670301E+01	.125238E+03	.659703E+02
54	1	.000000E+00	.210709E+03	-.127260E+02	-.765823E+00	.211475E+03	.106120E+03

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 239.28240 AND OCCURS AT NODE 25



Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      8 inch PCCP Pavement with 115K load Tridem
*
*****
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TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```

Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

12

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	74.81650	84.00000	.00000	6.32470	90.00000
1	74.81650	84.00000	12.00000	18.32470	90.00000
1	74.81650	84.00000	84.00000	90.32470	90.00000
1	74.81650	84.00000	96.00000	102.32400	90.00000
1	122.81600	132.00000	.00000	6.32470	90.00000
1	122.81600	132.00000	12.00000	18.32470	90.00000
1	122.81600	132.00000	84.00000	90.32470	90.00000
1	122.81600	132.00000	96.00000	102.32400	90.00000
1	170.81600	180.00000	.00000	6.32470	90.00000
1	170.81600	180.00000	12.00000	18.32470	90.00000
1	170.81600	180.00000	84.00000	90.32470	90.00000
1	170.81600	180.00000	96.00000	102.32400	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

Appendix 6E-d 8 Inch PCCP Pavement

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										

Appendix 6E-d 8 Inch PCCP Pavement

53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
66.00000										
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
144.00000										
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
66.00000										
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000
144.00000										
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
66.00000										
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
144.00000										
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
66.00000										
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
144.00000										
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
66.00000										
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
144.00000										
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
66.00000										
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000
144.00000										

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

8	-.40734	-.04000	-1.00000	-.20941	90.00000
8	-.40734	-.04000	.50000	1.00000	90.00000
9	-.40734	-.04000	-1.00000	-.81402	90.00000
12	-.40734	-.04000	-.75000	.04059	90.00000
12	-.40734	-.04000	.75000	1.00000	90.00000
13	-.40734	-.04000	-1.00000	-.62400	90.00000
15	.42400	1.00000	-1.00000	-.20941	90.00000
22	-1.00000	-.55556	-1.00000	-.20941	90.00000
15	.42400	1.00000	.50000	1.00000	90.00000
16	.42400	1.00000	-1.00000	-.81402	90.00000



Appendix 6E-d 8 Inch PCCP Pavement

17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000
66.00000										
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000
144.00000										
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000
66.00000										
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000
144.00000										
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000
66.00000										
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000
144.00000										
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
66.00000										
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
144.00000										
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
66.00000										

Appendix 6E-d 8 Inch PCCP Pavement

93	300.00000	82.00000	144.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
97	360.00000	.00000	66.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
101	360.00000	82.00000	144.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
10	1																	
	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
20	1																	
	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
30	1																	
	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
40	1																	
	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
50	2																	
	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
60	0																	
	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
70	1																	
	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
80	1																	
	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
90	1																	
	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
100	1																	
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
10	0																	
	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
20	0																	
	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
30	0																	



Appendix 6E-d 8 Inch PCCP Pavement

40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	
90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
	0																	
100	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
	0																	
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .05769550  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01683652  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00191469  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00022714  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00002709

SUM OF APPLIED FORCES (FOSUM)= 62730.1 SUM OF TOTAL REACTIONS (SUBSUM)= 62693.9

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2784E-01	2	.2771E-01	3	.2756E-01	4	.2697E-01	5	.2617E-01	6	.2502E-01	7	.2278E-01	8	
	.1984E-01														
9	.5672E-01	10	.5493E-01	11	.5191E-01	12	.4967E-01	13	.4817E-01	14	.4570E-01	15	.4009E-01	16	
	.3354E-01														
17	.7513E-01	18	.7164E-01	19	.6650E-01	20	.6319E-01	21	.6130E-01	22	.5808E-01	23	.5035E-01	24	
	.4125E-01														

Appendix 6E-d 8 Inch PCCP Pavement

.4241E-01	25	.7825E-01	26	.7439E-01	27	.6874E-01	28	.6535E-01	29	.6356E-01	30	.6031E-01	31	.5203E-01	32
.4278E-01	33	.7790E-01	34	.7437E-01	35	.6914E-01	36	.6582E-01	37	.6389E-01	38	.6057E-01	39	.5252E-01	40
.4271E-01	41	.7712E-01	42	.7361E-01	43	.6838E-01	44	.6532E-01	45	.6368E-01	46	.6055E-01	47	.5245E-01	48
.4261E-01	49	.7670E-01	50	.7293E-01	51	.6726E-01	52	.6456E-01	53	.6357E-01	54	.6080E-01	55	.5230E-01	56
.4342E-01	57	.7076E-01	58	.6958E-01	59	.6646E-01	60	.6349E-01	61	.6130E-01	62	.5807E-01	63	.5124E-01	64
.3715E-01	65	.5818E-01	66	.5769E-01	67	.5601E-01	68	.5377E-01	69	.5183E-01	70	.4910E-01	71	.4365E-01	72
.2909E-01	73	.4245E-01	74	.4265E-01	75	.4225E-01	76	.4097E-01	77	.3957E-01	78	.3760E-01	79	.3378E-01	80
.2033E-01	81	.2625E-01	82	.2666E-01	83	.2687E-01	84	.2644E-01	85	.2576E-01	86	.2476E-01	87	.2279E-01	88
.1571E-01	89	.1838E-01	90	.1865E-01	91	.1884E-01	92	.1868E-01	93	.1836E-01	94	.1788E-01	95	.1691E-01	96
.1193E-01	97	.1288E-01	98	.1294E-01	99	.1299E-01	100	.1292E-01	101	.1281E-01	102	.1266E-01	103	.1233E-01	104

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

.1984E-01	1	.2784E-01	2	.2771E-01	3	.2756E-01	4	.2697E-01	5	.2617E-01	6	.2502E-01	7	.2278E-01	8
.3354E-01	9	.5672E-01	10	.5493E-01	11	.5191E-01	12	.4967E-01	13	.4817E-01	14	.4570E-01	15	.4009E-01	16
.4125E-01	17	.7513E-01	18	.7164E-01	19	.6650E-01	20	.6319E-01	21	.6130E-01	22	.5808E-01	23	.5035E-01	24
.4241E-01	25	.7825E-01	26	.7439E-01	27	.6874E-01	28	.6535E-01	29	.6356E-01	30	.6031E-01	31	.5203E-01	32
.4278E-01	33	.7790E-01	34	.7437E-01	35	.6914E-01	36	.6582E-01	37	.6389E-01	38	.6057E-01	39	.5252E-01	40
.4271E-01	41	.7712E-01	42	.7361E-01	43	.6838E-01	44	.6532E-01	45	.6368E-01	46	.6055E-01	47	.5245E-01	48
.4302E-01	49	.7373E-01	50	.7125E-01	51	.6686E-01	52	.6403E-01	53	.6244E-01	54	.5944E-01	55	.5177E-01	56

Appendix 6E-d 8 Inch PCCP Pavement

57	.7373E-01	58	.7125E-01	59	.6686E-01	60	.6403E-01	61	.6244E-01	62	.5944E-01	63	.5177E-01	64
.4302E-01														
65	.5818E-01	66	.5769E-01	67	.5601E-01	68	.5377E-01	69	.5183E-01	70	.4910E-01	71	.4365E-01	72
.3715E-01														
73	.4245E-01	74	.4265E-01	75	.4225E-01	76	.4097E-01	77	.3957E-01	78	.3760E-01	79	.3378E-01	80
.2909E-01														
81	.2625E-01	82	.2666E-01	83	.2687E-01	84	.2644E-01	85	.2576E-01	86	.2476E-01	87	.2279E-01	88
.2033E-01														
89	.1838E-01	90	.1865E-01	91	.1884E-01	92	.1868E-01	93	.1836E-01	94	.1788E-01	95	.1691E-01	96
.1571E-01														
97	.1288E-01	98	.1294E-01	99	.1299E-01	100	.1292E-01	101	.1281E-01	102	.1266E-01	103	.1233E-01	104
.1193E-01														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)															
1	647.5	2	11.1	3	200.3	4	133.1	5	54.3	6	81.6	7	61.6	8	-
380.7															
9	3819.2	10	1530.8	11	2268.3	12	1488.3	13	793.9	14	1465.9	15	1288.2	16	
849.4															
17	3001.0	18	1732.8	19	1768.4	20	1210.3	21	887.9	22	1181.3	23	1105.5	24	
760.7															
25	1882.8	26	1030.3	27	922.5	28	672.4	29	552.7	30	707.7	31	609.6	32	
413.0															
33	1929.7	34	1098.1	35	1048.0	36	746.4	37	580.8	38	732.9	39	687.0	40	
470.0															
41	1891.9	42	1098.3	43	1007.7	44	734.8	45	595.1	46	761.3	47	686.1	48	
453.7															
49	1111.0	50	783.7	51	711.6	52	532.5	53	461.8	54	583.2	55	510.3	56	
354.2															
57	776.1	58	560.3	59	648.8	60	461.5	61	328.2	62	405.7	63	432.7	64	
412.6															
65	1058.5	66	627.4	67	712.3	68	505.7	69	342.9	70	416.4	71	433.8	72	
400.9															
73	819.9	74	427.8	75	502.1	76	350.0	77	227.1	78	288.7	79	270.3	80	
134.0															
81	189.7	82	44.3	83	53.1	84	38.7	85	23.3	86	22.5	87	-8.3	88	-
165.2															

Appendix 6E-d 8 Inch PCCP Pavement

89	-38.8	90	-66.4	91	-90.5	92	-61.5	93	-31.7	94	-59.2	95	-78.1	96	-
191.8															
97	-91.9	98	-78.9	99	-126.6	100	-93.2	101	-35.9	102	-85.6	103	-87.1	104	-
152.6															

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000323

SUM OF APPLIED FORCES (FOSUM)= 62730.1 SUM OF TOTAL REACTIONS (SUBSUM)= 62698.2

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2784E-01	2	.2772E-01	3	.2756E-01	4	.2697E-01	5	.2617E-01	6	.2503E-01	7	.2278E-01	8	
.1984E-01															
9	.5672E-01	10	.5493E-01	11	.5192E-01	12	.4967E-01	13	.4817E-01	14	.4570E-01	15	.4009E-01	16	
.3354E-01															
17	.7514E-01	18	.7165E-01	19	.6650E-01	20	.6320E-01	21	.6130E-01	22	.5808E-01	23	.5035E-01	24	
.4126E-01															
25	.7825E-01	26	.7439E-01	27	.6874E-01	28	.6535E-01	29	.6356E-01	30	.6031E-01	31	.5204E-01	32	
.4241E-01															
33	.7790E-01	34	.7437E-01	35	.6915E-01	36	.6582E-01	37	.6389E-01	38	.6057E-01	39	.5252E-01	40	
.4278E-01															
41	.7712E-01	42	.7361E-01	43	.6839E-01	44	.6533E-01	45	.6369E-01	46	.6055E-01	47	.5245E-01	48	
.4272E-01															
49	.7670E-01	50	.7293E-01	51	.6727E-01	52	.6456E-01	53	.6358E-01	54	.6081E-01	55	.5230E-01	56	
.4261E-01															
57	.7076E-01	58	.6958E-01	59	.6646E-01	60	.6350E-01	61	.6130E-01	62	.5807E-01	63	.5124E-01	64	
.4343E-01															
65	.5819E-01	66	.5769E-01	67	.5601E-01	68	.5377E-01	69	.5184E-01	70	.4911E-01	71	.4365E-01	72	
.3716E-01															
73	.4245E-01	74	.4265E-01	75	.4225E-01	76	.4097E-01	77	.3957E-01	78	.3761E-01	79	.3378E-01	80	
.2910E-01															
81	.2625E-01	82	.2666E-01	83	.2688E-01	84	.2644E-01	85	.2576E-01	86	.2476E-01	87	.2279E-01	88	
.2033E-01															
89	.1839E-01	90	.1865E-01	91	.1884E-01	92	.1868E-01	93	.1837E-01	94	.1788E-01	95	.1691E-01	96	
.1571E-01															
97	.1288E-01	98	.1294E-01	99	.1299E-01	100	.1293E-01	101	.1282E-01	102	.1266E-01	103	.1234E-01	104	
.1193E-01															

Appendix 6E-d 8 Inch PCCP Pavement

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2784E-01	2	.2772E-01	3	.2756E-01	4	.2697E-01	5	.2617E-01	6	.2503E-01	7	.2278E-01	8	.1984E-01
9	.5672E-01	10	.5493E-01	11	.5192E-01	12	.4967E-01	13	.4817E-01	14	.4570E-01	15	.4009E-01	16	.3354E-01
17	.7514E-01	18	.7165E-01	19	.6650E-01	20	.6320E-01	21	.6130E-01	22	.5808E-01	23	.5035E-01	24	.4126E-01
25	.7825E-01	26	.7439E-01	27	.6874E-01	28	.6535E-01	29	.6356E-01	30	.6031E-01	31	.5204E-01	32	.4241E-01
33	.7790E-01	34	.7437E-01	35	.6915E-01	36	.6582E-01	37	.6389E-01	38	.6057E-01	39	.5252E-01	40	.4278E-01
41	.7712E-01	42	.7361E-01	43	.6839E-01	44	.6533E-01	45	.6369E-01	46	.6055E-01	47	.5245E-01	48	.4272E-01
49	.7373E-01	50	.7126E-01	51	.6686E-01	52	.6403E-01	53	.6244E-01	54	.5944E-01	55	.5177E-01	56	.4302E-01
57	.7373E-01	58	.7126E-01	59	.6686E-01	60	.6403E-01	61	.6244E-01	62	.5944E-01	63	.5177E-01	64	.4302E-01
65	.5819E-01	66	.5769E-01	67	.5601E-01	68	.5377E-01	69	.5184E-01	70	.4911E-01	71	.4365E-01	72	.3716E-01
73	.4245E-01	74	.4265E-01	75	.4225E-01	76	.4097E-01	77	.3957E-01	78	.3761E-01	79	.3378E-01	80	.2910E-01
81	.2625E-01	82	.2666E-01	83	.2688E-01	84	.2644E-01	85	.2576E-01	86	.2476E-01	87	.2279E-01	88	.2033E-01
89	.1839E-01	90	.1865E-01	91	.1884E-01	92	.1868E-01	93	.1837E-01	94	.1788E-01	95	.1691E-01	96	.1571E-01
97	.1288E-01	98	.1294E-01	99	.1299E-01	100	.1293E-01	101	.1282E-01	102	.1266E-01	103	.1234E-01	104	.1193E-01

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	647.6	2	11.2	3	200.4	4	133.2	5	54.3	6	81.6	7	61.7	8	-
9	3819.3	10	1530.8	11	2268.4	12	1488.3	13	794.0	14	1465.9	15	1288.3	16	849.5
17	3001.0	18	1732.9	19	1768.4	20	1210.3	21	887.9	22	1181.3	23	1105.6	24	760.8

Appendix 6E-d 8 Inch PCCP Pavement

25	1882.8	26	1030.3	27	922.6	28	672.5	29	552.7	30	707.7	31	609.7	32	
413.0															
33	1929.7	34	1098.1	35	1048.1	36	746.4	37	580.8	38	732.9	39	687.1	40	
470.0															
41	1891.9	42	1098.4	43	1007.7	44	734.9	45	595.1	46	761.3	47	686.2	48	
453.7															
49	1111.1	50	783.7	51	711.7	52	532.5	53	461.8	54	583.2	55	510.3	56	
354.2															
57	776.1	58	560.4	59	648.8	60	461.5	61	328.3	62	405.7	63	432.8	64	
412.6															
65	1058.6	66	627.4	67	712.3	68	505.8	69	342.9	70	416.4	71	433.8	72	
401.0															
73	820.0	74	427.9	75	502.1	76	350.0	77	227.1	78	288.7	79	270.4	80	
134.1															
81	189.8	82	44.3	83	53.2	84	38.7	85	23.4	86	22.6	87	-8.2	88	-
165.2															
89	-38.8	90	-66.4	91	-90.4	92	-61.5	93	-31.7	94	-59.2	95	-78.1	96	-
191.7															
97	-91.8	98	-78.9	99	-126.5	100	-93.2	101	-35.9	102	-85.5	103	-87.1	104	-
152.5															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1875.965	.000	50	-2714.660	.000	51	-795.619	.000	52	-862.206
.000										
53	-1435.207	.000	54	-2107.143	.000	55	-962.358	.000	56	368.664
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2813.948	50	-1589.069	51	-381.897	52	-504.706	53	-1076.405	54	-
1296.703											
55	-502.100	56	384.693								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4395.105	-3582.823	50	-2481.968	-2023.262	51	-596.485	-486.246	52	-788.300
-642.610										
53	-1681.237	-1370.519	54	-2025.321	-1651.010	55	-784.229	-639.292	56	600.851
489.805										

Appendix 6E-d 8 Inch PCCP Pavement

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)															
1	2.69815	2	.01816	3	.26715	4	.21652	5	.11313	6	.13952	7	.08939	8	-
1.10319															
9	8.68024	10	1.35771	11	1.64975	12	1.32003	13	.90223	14	1.36681	15	1.01838	16	
1.34313															
17	11.03323	18	2.48619	19	2.08049	20	1.73647	21	1.63221	22	1.78173	23	1.41378	24	
1.94584															
25	13.07526	26	2.79212	27	2.05012	28	1.82236	29	1.91907	30	2.01619	31	1.47264	32	
1.99520															
33	13.40091	34	2.97583	35	2.32906	36	2.02276	37	2.01661	38	2.08805	39	1.65960	40	
2.27073															
41	13.91107	42	3.15173	43	2.37106	44	2.10866	45	2.18802	46	2.29649	47	1.75488	48	
2.32093															
49	17.36023	50	4.77891	51	3.55836	52	3.24690	53	3.60815	54	3.73876	55	2.77354	56	
3.85052															
57	12.12680	58	3.41682	59	3.24387	60	2.81408	61	2.56451	62	2.60088	63	2.35202	64	
4.48493															
65	6.61613	66	1.53026	67	1.42470	68	1.23354	69	1.07160	70	1.06776	71	.94312	72	
1.74352															
73	3.20316	74	.65227	75	.62764	76	.53355	77	.44364	78	.46265	79	.36733	80	
.36447															
81	.59316	82	.05402	83	.05316	84	.04722	85	.03649	86	.02895	87	-.00896	88	-
.35902															
89	-.09697	90	-.06478	91	-.07235	92	-.05998	93	-.03959	94	-.06068	95	-.06790	96	-
.33347															
97	-.38261	98	-.12824	99	-.16868	100	-.15155	101	-.07485	102	-.14620	103	-.12619	104	-
.44198															

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y
1	.8708E-05	.5001E-03	2	.5829E-05	.4718E-03	3	.1173E-04	.4226E-03	4	.3836E-04
.3933E-03										
5	.6099E-04	.3808E-03	6	.8147E-04	.3578E-03	7	.1156E-03	.3003E-03	8	.1338E-03
.2405E-03										
9	.1095E-03	.4463E-03	10	.1187E-03	.4156E-03	11	.1074E-03	.3695E-03	12	.8195E-04
.3430E-03										

Appendix 6E-d 8 Inch PCCP Pavement

.2043E-03	13	.1167E-03	.3314E-03	14	.1957E-03	.3113E-03	15	.2754E-03	.2603E-03	16	.2885E-03
.1697E-03	17	.2217E-03	.2518E-03	18	.2187E-03	.2210E-03	19	.1723E-03	.1797E-03	20	.1072E-03
.8881E-04	21	.1471E-03	.1740E-03	22	.2627E-03	.1687E-03	23	.3834E-03	.1306E-03	24	.3987E-03
.6896E-04	25	.2485E-03	.6648E-04	26	.2408E-03	.6794E-04	27	.1846E-03	.6951E-04	28	.1033E-03
.4004E-04	29	.1424E-03	.6673E-04	30	.2754E-03	.6332E-04	31	.4084E-03	.5640E-04	32	.4222E-03
.8511E-05	33	.2188E-03	-.5334E-04	34	.2232E-03	-.3902E-04	35	.1744E-03	-.1746E-04	36	.1073E-03 -
.4234E-05	37	.1512E-03	-.8374E-05	38	.2714E-03	-.6492E-05	39	.4052E-03	.4678E-05	40	.4305E-03
.4147E-04	41	.2163E-03	-.3348E-04	42	.2242E-03	-.4330E-04	43	.1705E-03	-.6035E-04	44	.9027E-04 -
.7139E-05	45	.1337E-03	-.1156E-04	46	.2671E-03	.5884E-05	47	.4081E-03	-.8707E-05	48	.4297E-03 -
.5180E-04	49	.2324E-03	-.2291E-04	50	.2424E-03	-.4111E-04	51	.1739E-03	-.7838E-04	52	.5937E-04 -
.6137E-05	53	.9668E-04	-.1510E-06	54	.2661E-03	.2805E-04	55	.4183E-03	-.8316E-05	56	.4253E-03 -
.6191E-03	57	.6274E-04	-.8059E-03	58	.9684E-04	-.7623E-03	59	.1258E-03	-.6632E-03	60	.1227E-03 -
.4000E-03	61	.1633E-03	-.6062E-03	62	.2464E-03	-.5758E-03	63	.3275E-03	-.4843E-03	64	.3475E-03 -
.5875E-03	65	.1899E-04	-.7467E-03	66	.4616E-04	-.7084E-03	67	.8083E-04	-.6323E-03	68	.1031E-03 -
.3760E-03	69	.1423E-03	-.5675E-03	70	.2002E-03	-.5350E-03	71	.2669E-03	-.4564E-03	72	.2924E-03 -
.4710E-03	73	-.2332E-04	-.5549E-03	74	-.1446E-05	-.5384E-03	75	.3320E-04	-.5038E-03	76	.7148E-04 -
.2930E-03	77	.1044E-03	-.4486E-03	78	.1415E-03	-.4188E-03	79	.1886E-03	-.3598E-03	80	.2148E-03 -
.2654E-03	81	-.3212E-04	-.2811E-03	82	-.1956E-04	-.2812E-03	83	.3492E-05	-.2773E-03	84	.3216E-04 -
.1564E-03	85	.5244E-04	-.2526E-03	86	.7262E-04	-.2346E-03	87	.9794E-04	-.1996E-03	88	.1135E-03 -



Appendix 6E-d 8 Inch PCCP Pavement

89	-.1927E-04	-.1346E-03	90	-.1347E-04	-.1383E-03	91	-.1198E-05	-.1407E-03	92	.1440E-04	-
.1373E-03											
93	.2510E-04	-.1316E-03	94	.3548E-04	-.1229E-03	95	.4810E-04	-.1060E-03	96	.5524E-04	-
.8483E-04											
97	-.4036E-05	-.7017E-04	98	-.3495E-05	-.7354E-04	99	-.8192E-07	-.7597E-04	100	.5305E-05	-
.7531E-04											
101	.8376E-05	-.7304E-04	102	.1153E-04	-.6910E-04	103	.1620E-04	-.6097E-04	104	.1863E-04	-
.4864E-04											

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.953807E+02	.000000E+00	.000000E+00	.000000E+00	.953807E+02	.476904E+02
25	1	.242016E+03	.000000E+00	.000000E+00	.000000E+00	.242016E+03	.121008E+03
29	1	.143185E+03	.123195E+03	-.231944E+01	.122929E+03	.143451E+03	.102609E+02
33	1	-.258176E+02	.000000E+00	.000000E+00	-.258176E+02	.000000E+00	.129088E+02
41	1	-.198568E+02	.000000E+00	.000000E+00	-.198568E+02	.000000E+00	.992840E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.242631E+02	-.193323E+02	-.106920E+02	.349550E+02	.228235E+02
51	1	.000000E+00	-.110909E+03	-.436688E+01	-.111081E+03	.171673E+00	.556261E+02
52	1	.000000E+00	-.511313E+02	.327382E+02	-.671035E+02	.159722E+02	.415378E+02
53	1	.000000E+00	.127697E+03	.392190E+02	-.110832E+02	.138781E+03	.749319E+02
54	1	.000000E+00	.220944E+03	-.207270E+00	-.190735E-03	.220944E+03	.110472E+03

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 242.01610 AND OCCURS AT NODE 25

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      8 inch PCCP Pavement with 120K load Single Axle
*
*****
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TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```

Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	170.61900	180.00000	.00000	6.46080	90.00000
1	170.61900	180.00000	8.00000	14.46080	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP), INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

Appendix 6E-d 8 Inch PCCP Pavement

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
144.00000	5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
66.00000	9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
144.00000	13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
66.00000	17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
144.00000	21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
66.00000	25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
144.00000	29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
66.00000	33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
144.00000	37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
66.00000	41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
144.00000	45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
66.00000	49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
144.00000	53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
66.00000	57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
144.00000	61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
66.00000	65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
144.00000	69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
144.00000	77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
66.00000	81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
144.00000	85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
66.00000	89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
144.00000	93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
66.00000	97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
144.00000	101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.17262	1.00000	-1.00000	-.19240	90.00000
36	-.17262	1.00000	.00000	.80760	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

66.00000	1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
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Appendix 6E-d 8 Inch PCCP Pavement

5	.00000	82.00000	144.00000	6	.00000	98.00000	144.00000	7	.00000	121.00000	144.00000	8	.00000	144.00000
9	60.00000	.00000	66.00000	10	60.00000	16.00000	66.00000	11	60.00000	41.00000	66.00000	12	60.00000	66.00000
13	60.00000	82.00000	144.00000	14	60.00000	98.00000	144.00000	15	60.00000	121.00000	144.00000	16	60.00000	144.00000
17	110.00000	.00000	66.00000	18	110.00000	16.00000	66.00000	19	110.00000	41.00000	66.00000	20	110.00000	66.00000
21	110.00000	82.00000	144.00000	22	110.00000	98.00000	144.00000	23	110.00000	121.00000	144.00000	24	110.00000	144.00000
25	128.00000	.00000	66.00000	26	128.00000	16.00000	66.00000	27	128.00000	41.00000	66.00000	28	128.00000	66.00000
29	128.00000	82.00000	144.00000	30	128.00000	98.00000	144.00000	31	128.00000	121.00000	144.00000	32	128.00000	144.00000
33	146.00000	.00000	66.00000	34	146.00000	16.00000	66.00000	35	146.00000	41.00000	66.00000	36	146.00000	66.00000
37	146.00000	82.00000	144.00000	38	146.00000	98.00000	144.00000	39	146.00000	121.00000	144.00000	40	146.00000	144.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000	66.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000	144.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000	66.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000	144.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000	66.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000	144.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000	66.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000	144.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000	66.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000	144.00000

Appendix 6E-d 8 Inch PCCP Pavement

66.00000	81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
144.00000	85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
66.00000	89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
144.00000	93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
66.00000	97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
144.00000	101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

10	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:



Appendix 6E-d 8 Inch PCCP Pavement

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
	0																	
20	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
	0																	
30	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
	0																	
40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	
90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
	0																	
100	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
	0																	
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .03492073  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00346603  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00037444  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004417  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000526

SUM OF APPLIED FORCES (FOSUM)= 10909.6 SUM OF TOTAL REACTIONS (SUBSUM)= 10901.8

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.3083E-02	2	.2936E-02	3	.2735E-02	4	.2564E-02	5	.2465E-02	6	.2371E-02	7	.2225E-02	8
.2061E-02														
9	.5746E-02	10	.5326E-02	11	.4650E-02	12	.4024E-02	13	.3661E-02	14	.3322E-02	15	.2859E-02	16
.2403E-02														
17	.1252E-01	18	.1114E-01	19	.8952E-02	20	.7022E-02	21	.5985E-02	22	.5091E-02	23	.3984E-02	24
.2965E-02														
25	.1725E-01	26	.1509E-01	27	.1172E-01	28	.8838E-02	29	.7357E-02	30	.6127E-02	31	.4665E-02	32
.3368E-02														
33	.2373E-01	34	.2036E-01	35	.1521E-01	36	.1106E-01	37	.9023E-02	38	.7388E-02	39	.5519E-02	40
.3919E-02														
41	.3164E-01	42	.2665E-01	43	.1922E-01	44	.1357E-01	45	.1092E-01	46	.8836E-02	47	.6529E-02	48
.4640E-02														
49	.3881E-01	50	.3247E-01	51	.2289E-01	52	.1592E-01	53	.1269E-01	54	.1019E-01	55	.7497E-02	56
.5394E-02														
57	.3318E-01	58	.2951E-01	59	.2246E-01	60	.1602E-01	61	.1278E-01	62	.1024E-01	63	.7511E-02	64
.5400E-02														
65	.2586E-01	66	.2312E-01	67	.1815E-01	68	.1339E-01	69	.1087E-01	70	.8828E-02	71	.6536E-02	72
.4655E-02														
73	.1694E-01	74	.1537E-01	75	.1260E-01	76	.9817E-02	77	.8236E-02	78	.6864E-02	79	.5208E-02	80
.3743E-02														
81	.8418E-02	82	.7837E-02	83	.6825E-02	84	.5780E-02	85	.5131E-02	86	.4513E-02	87	.3671E-02	88
.2849E-02														
89	.4815E-02	90	.4587E-02	91	.4193E-02	92	.3783E-02	93	.3516E-02	94	.3245E-02	95	.2844E-02	96
.2427E-02														
97	.2856E-02	98	.2760E-02	99	.2623E-02	100	.2498E-02	101	.2419E-02	102	.2339E-02	103	.2207E-02	104
.2055E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3083E-02	2	.2936E-02	3	.2735E-02	4	.2564E-02	5	.2465E-02	6	.2371E-02	7	.2225E-02	8
.2061E-02														
9	.5746E-02	10	.5326E-02	11	.4650E-02	12	.4024E-02	13	.3661E-02	14	.3322E-02	15	.2859E-02	16
.2403E-02														
17	.1252E-01	18	.1113E-01	19	.8952E-02	20	.7022E-02	21	.5985E-02	22	.5091E-02	23	.3984E-02	24
.2965E-02														
25	.1725E-01	26	.1509E-01	27	.1172E-01	28	.8838E-02	29	.7357E-02	30	.6127E-02	31	.4665E-02	32
.3368E-02														

Appendix 6E-d 8 Inch PCCP Pavement

33	.2373E-01	34	.2036E-01	35	.1521E-01	36	.1106E-01	37	.9023E-02	38	.7388E-02	39	.5519E-02	40	.3919E-02
41	.3164E-01	42	.2665E-01	43	.1922E-01	44	.1357E-01	45	.1092E-01	46	.8836E-02	47	.6529E-02	48	.4640E-02
49	.3600E-01	50	.3099E-01	51	.2267E-01	52	.1597E-01	53	.1273E-01	54	.1021E-01	55	.7504E-02	56	.5397E-02
57	.3600E-01	58	.3099E-01	59	.2267E-01	60	.1597E-01	61	.1273E-01	62	.1021E-01	63	.7504E-02	64	.5397E-02
65	.2586E-01	66	.2312E-01	67	.1815E-01	68	.1339E-01	69	.1087E-01	70	.8828E-02	71	.6536E-02	72	.4655E-02
73	.1694E-01	74	.1537E-01	75	.1260E-01	76	.9817E-02	77	.8236E-02	78	.6864E-02	79	.5208E-02	80	.3743E-02
81	.8418E-02	82	.7837E-02	83	.6825E-02	84	.5780E-02	85	.5131E-02	86	.4513E-02	87	.3671E-02	88	.2849E-02
89	.4815E-02	90	.4587E-02	91	.4193E-02	92	.3783E-02	93	.3516E-02	94	.3245E-02	95	.2844E-02	96	.2427E-02
97	.2856E-02	98	.2760E-02	99	.2623E-02	100	.2498E-02	101	.2419E-02	102	.2339E-02	103	.2207E-02	104	.2055E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	1.0	2	-41.1	3	-60.6	4	-45.7	5	-15.4	6	-34.0	7	-28.7	8	-	
56.5	9	144.4	10	-27.8	11	-52.2	12	-57.8	13	-26.0	14	-51.4	15	-52.7	16	-
121.6	17	352.7	18	89.9	19	26.9	20	-17.8	21	-20.0	22	-30.9	23	-43.4	24	-
104.6	25	409.7	26	152.0	27	82.4	28	17.2	29	.6	30	-6.2	31	-14.7	32	-
57.2	33	751.4	34	328.5	35	201.2	36	61.6	37	20.8	38	12.2	39	-.8	40	-
52.1	41	1194.0	42	587.7	43	355.8	44	127.1	45	54.0	46	45.5	47	29.5	48	-
20.7	49	949.2	50	632.3	51	434.2	52	183.3	53	92.8	54	85.7	55	71.9	56	-
40.0	57	631.9	58	435.3	59	400.7	60	190.0	61	97.9	62	88.6	63	72.9	64	-
40.4																

Appendix 6E-d 8 Inch PCCP Pavement

65	796.2	66	394.7	67	339.4	68	151.7	69	66.2	70	55.6	71	35.8	72	-
21.9		73	660.4	74	265.3	75	207.8	76	72.2	77	22.1	78	10.8	79	-10.1
96.6		81	217.6	82	30.7	83	-3.4	84	-24.5	85	-18.7	86	-31.3	87	-43.1
120.4		89	36.6	90	-33.3	91	-54.1	92	-42.1	93	-20.8	94	-34.1	95	-37.0
88.0		97	-8.1	98	-31.9	99	-48.2	100	-35.6	101	-12.1	102	-27.0	103	-23.5
49.0														104	-

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000063

SUM OF APPLIED FORCES (FOSUM)= 10909.6 SUM OF TOTAL REACTIONS (SUBSUM)= 10902.7

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3083E-02	2	.2937E-02	3	.2735E-02	4	.2564E-02	5	.2466E-02	6	.2371E-02	7	.2225E-02	8	
.2062E-02		9	.5746E-02	10	.5326E-02	11	.4650E-02	12	.4025E-02	13	.3662E-02	14	.3323E-02	15	.2860E-02
.2403E-02		17	.1252E-01	18	.1114E-01	19	.8953E-02	20	.7022E-02	21	.5985E-02	22	.5091E-02	23	.3985E-02
.2966E-02		25	.1725E-01	26	.1509E-01	27	.1172E-01	28	.8839E-02	29	.7358E-02	30	.6127E-02	31	.4665E-02
.3368E-02		33	.2373E-01	34	.2036E-01	35	.1521E-01	36	.1106E-01	37	.9023E-02	38	.7389E-02	39	.5519E-02
.3920E-02		41	.3164E-01	42	.2665E-01	43	.1922E-01	44	.1357E-01	45	.1092E-01	46	.8837E-02	47	.6530E-02
.4641E-02		49	.3881E-01	50	.3247E-01	51	.2289E-01	52	.1592E-01	53	.1269E-01	54	.1019E-01	55	.7497E-02
.5394E-02		57	.3318E-01	58	.2951E-01	59	.2246E-01	60	.1602E-01	61	.1278E-01	62	.1024E-01	63	.7511E-02
.5401E-02		65	.2586E-01	66	.2312E-01	67	.1815E-01	68	.1339E-01	69	.1087E-01	70	.8829E-02	71	.6536E-02
.4655E-02		73	.1694E-01	74	.1537E-01	75	.1260E-01	76	.9817E-02	77	.8236E-02	78	.6865E-02	79	.5208E-02
.3744E-02														80	

Appendix 6E-d 8 Inch PCCP Pavement

81	.8418E-02	82	.7838E-02	83	.6825E-02	84	.5781E-02	85	.5132E-02	86	.4513E-02	87	.3672E-02	88	.2850E-02
89	.4815E-02	90	.4588E-02	91	.4193E-02	92	.3783E-02	93	.3517E-02	94	.3246E-02	95	.2844E-02	96	.2427E-02
97	.2857E-02	98	.2760E-02	99	.2623E-02	100	.2498E-02	101	.2420E-02	102	.2339E-02	103	.2207E-02	104	.2056E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3083E-02	2	.2937E-02	3	.2735E-02	4	.2564E-02	5	.2465E-02	6	.2371E-02	7	.2225E-02	8	.2062E-02
9	.5746E-02	10	.5326E-02	11	.4650E-02	12	.4025E-02	13	.3662E-02	14	.3323E-02	15	.2860E-02	16	.2403E-02
17	.1252E-01	18	.1114E-01	19	.8953E-02	20	.7022E-02	21	.5985E-02	22	.5091E-02	23	.3985E-02	24	.2966E-02
25	.1725E-01	26	.1509E-01	27	.1172E-01	28	.8839E-02	29	.7358E-02	30	.6127E-02	31	.4665E-02	32	.3368E-02
33	.2373E-01	34	.2036E-01	35	.1521E-01	36	.1106E-01	37	.9023E-02	38	.7389E-02	39	.5519E-02	40	.3920E-02
41	.3164E-01	42	.2665E-01	43	.1922E-01	44	.1357E-01	45	.1092E-01	46	.8837E-02	47	.6530E-02	48	.4641E-02
49	.3600E-01	50	.3099E-01	51	.2267E-01	52	.1597E-01	53	.1273E-01	54	.1022E-01	55	.7504E-02	56	.5397E-02
57	.3600E-01	58	.3099E-01	59	.2267E-01	60	.1597E-01	61	.1273E-01	62	.1022E-01	63	.7504E-02	64	.5397E-02
65	.2586E-01	66	.2312E-01	67	.1815E-01	68	.1339E-01	69	.1087E-01	70	.8829E-02	71	.6536E-02	72	.4655E-02
73	.1694E-01	74	.1537E-01	75	.1260E-01	76	.9817E-02	77	.8236E-02	78	.6865E-02	79	.5208E-02	80	.3744E-02
81	.8418E-02	82	.7838E-02	83	.6825E-02	84	.5781E-02	85	.5132E-02	86	.4513E-02	87	.3672E-02	88	.2850E-02
89	.4815E-02	90	.4588E-02	91	.4193E-02	92	.3783E-02	93	.3517E-02	94	.3246E-02	95	.2844E-02	96	.2427E-02
97	.2857E-02	98	.2760E-02	99	.2623E-02	100	.2498E-02	101	.2420E-02	102	.2339E-02	103	.2207E-02	104	.2056E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	1.0	2	-41.1	3	-60.6	4	-45.7	5	-15.4	6	-34.0	7	-28.7	8	-
56.5															
9	144.4	10	-27.7	11	-52.2	12	-57.8	13	-26.0	14	-51.4	15	-52.7	16	-
121.6															
17	352.7	18	89.9	19	26.9	20	-17.8	21	-20.0	22	-30.9	23	-43.4	24	-
104.5															
25	409.7	26	152.0	27	82.4	28	17.2	29	.6	30	-6.2	31	-14.7	32	-
57.2															
33	751.4	34	328.6	35	201.2	36	61.6	37	20.8	38	12.2	39	-.8	40	-
52.1															
41	1194.0	42	587.7	43	355.8	44	127.1	45	54.0	46	45.5	47	29.5	48	-
20.7															
49	949.2	50	632.3	51	434.2	52	183.3	53	92.8	54	85.7	55	71.9	56	-
40.0															
57	631.9	58	435.3	59	400.7	60	190.0	61	97.9	62	88.6	63	72.9	64	-
40.4															
65	796.2	66	394.7	67	339.4	68	151.7	69	66.2	70	55.6	71	35.8	72	-
21.9															
73	660.4	74	265.3	75	207.8	76	72.2	77	22.1	78	10.8	79	-10.1	80	-
96.6															
81	217.6	82	30.8	83	-3.4	84	-24.5	85	-18.7	86	-31.3	87	-43.0	88	-
120.4															
89	36.7	90	-33.3	91	-54.1	92	-42.1	93	-20.8	94	-34.1	95	-37.0	96	-
88.0															
97	-8.1	98	-31.9	99	-48.2	100	-35.6	101	-12.1	102	-27.0	103	-23.5	104	-
48.9															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1777.199	.000	50	-2394.653	.000	51	-423.395	.000	52	82.232
.000										
53	53.849	.000	54	34.577	.000	55	12.683	.000	56	2.848
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2665.799	50	-1401.748	51	-203.230	52	48.136	53	40.387	54
21.278										
55	6.617	56	2.972							

Appendix 6E-d 8 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:  
 49 -4163.711 -3394.194 50 -2189.390 -1784.757 51 -317.424 -258.760 52 75.184  
 61.288  
 53 63.080 51.422 54 33.234 27.092 55 10.336 8.426 56 4.641  
 3.784

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)  
 1 .00435 2 -.06683 3 -.08076 4 -.07426 5 -.03208 6 -.05807 7 -.04157 8 -  
 .16383  
 9 .32815 10 -.02461 11 -.03793 12 -.05128 13 -.02951 14 -.04789 15 -.04165 16 -  
 .19227  
 17 1.29662 18 .12897 19 .03162 20 -.02557 21 -.03670 22 -.04666 23 -.05555 24 -  
 .26737  
 25 2.84488 26 .41192 27 .18305 28 .04666 29 .00216 30 -.01762 31 -.03548 32 -  
 .27624  
 33 5.21785 34 .89039 35 .44714 36 .16690 37 .07237 38 .03470 39 -.00194 40 -  
 .25165  
 41 8.77969 42 1.68644 43 .83726 44 .36470 45 .19852 46 .13732 47 .07555 48 -  
 .10564  
 49 14.83186 50 3.85575 51 2.17092 52 1.11751 53 .72533 54 .54927 55 .39078 56  
 .43439  
 57 9.87397 58 2.65422 59 2.00357 60 1.15880 61 .76449 62 .56794 63 .39634 64  
 .43929  
 65 4.97652 66 .96267 67 .67888 68 .37010 69 .20677 70 .14263 71 .07780 72 -  
 .09530  
 73 2.57987 74 .40445 75 .25972 76 .11001 77 .04314 78 .01735 79 -.01370 80 -  
 .26236  
 81 .68006 82 .03751 83 -.00338 84 -.02982 85 -.02925 86 -.04009 87 -.04679 88 -  
 .26168  
 89 .09165 90 -.03251 91 -.04325 92 -.04111 93 -.02605 94 -.03500 95 -.03218 96 -  
 .15309  
 97 -.03368 98 -.05193 99 -.06421 100 -.05782 101 -.02530 102 -.04613 103 -.03399 104 -  
 .14185

NODE ROTAT.X ROTAT.Y NODE ROTAT.X ROTAT.Y NODE RORAT.X ROTAT.Y NODEROTAT.X ROTAT.Y

Appendix 6E-d 8 Inch PCCP Pavement

1	.9409E-05	.3183E-04	2	.8792E-05	.2739E-04	3	.7412E-05	.2245E-04	4	.6366E-05
.1782E-04										
5	.5960E-05	.1494E-04	6	.5993E-05	.1214E-04	7	.6754E-05	.8303E-05	8	.7339E-05
.3876E-05										
9	.2491E-04	.7732E-04	10	.2712E-04	.6621E-04	11	.2637E-04	.5051E-04	12	.2359E-04
.3682E-04										
13	.2186E-04	.2932E-04	14	.2060E-04	.2274E-04	15	.1986E-04	.1452E-04	16	.1991E-04
.6782E-05										
17	.8252E-04	.2158E-03	18	.8853E-04	.1853E-03	19	.8391E-04	.1330E-03	20	.6972E-04
.8921E-04										
21	.6006E-04	.6787E-04	22	.5205E-04	.5123E-04	23	.4524E-04	.3314E-04	24	.4415E-04
.1920E-04										
25	.1302E-03	.3113E-03	26	.1379E-03	.2561E-03	27	.1278E-03	.1747E-03	28	.1013E-03
.1126E-03										
29	.8417E-04	.8465E-04	30	.7037E-04	.6394E-04	31	.5840E-04	.4258E-04	32	.5575E-04
.2617E-04										
33	.2067E-03	.4080E-03	34	.2132E-03	.3275E-03	35	.1903E-03	.2113E-03	36	.1416E-03
.1329E-03										
37	.1135E-03	.9990E-04	38	.9196E-04	.7593E-04	39	.7307E-04	.5217E-04	40	.6818E-04
.3541E-04										
41	.3109E-03	.4511E-03	42	.3121E-03	.3623E-03	43	.2679E-03	.2295E-03	44	.1867E-03
.1455E-03										
45	.1464E-03	.1098E-03	46	.1158E-03	.8405E-04	47	.8799E-04	.5942E-04	48	.7942E-04
.4457E-04										
49	.3956E-03	.4475E-03	50	.3992E-03	.3636E-03	51	.3384E-03	.2264E-03	52	.2293E-03
.1445E-03										
53	.1768E-03	.1092E-03	54	.1372E-03	.8385E-04	55	.1006E-03	.6032E-04	56	.8760E-04
.4822E-04										
57	.2184E-03	-.4712E-03	58	.2543E-03	-.4132E-03	59	.2815E-03	-.2732E-03	60	.2277E-03
.1638E-03										
61	.1794E-03	-.1177E-03	62	.1393E-03	-.8711E-04	63	.1014E-03	-.6077E-04	64	.8781E-04
.4779E-04										
65	.1620E-03	-.4312E-03	66	.1838E-03	-.3755E-03	67	.2035E-03	-.2594E-03	68	.1720E-03
.1616E-03										
69	.1420E-03	-.1178E-03	70	.1146E-03	-.8737E-04	71	.8763E-04	-.5994E-04	72	.7907E-04
.4393E-04										
73	.9195E-04	-.3050E-03	74	.1044E-03	-.2682E-03	75	.1145E-03	-.1987E-03	76	.1049E-03
.1327E-03										



Appendix 6E-d 8 Inch PCCP Pavement

77	.9234E-04	-.9966E-04	78	.7937E-04	-.7462E-04	79	.6617E-04	-.4956E-04	80	.6285E-04	-
.3208E-04											
81	.3335E-04	-.1391E-03	82	.3854E-04	-.1231E-03	83	.4180E-04	-.9727E-04	84	.4130E-04	-
.7124E-04											
85	.3966E-04	-.5631E-04	86	.3770E-04	-.4339E-04	87	.3581E-04	-.2804E-04	88	.3591E-04	-
.1490E-04											
89	.1308E-04	-.5522E-04	90	.1508E-04	-.5026E-04	91	.1622E-04	-.4203E-04	92	.1656E-04	-
.3321E-04											
93	.1678E-04	-.2761E-04	94	.1712E-04	-.2220E-04	95	.1781E-04	-.1493E-04	96	.1832E-04	-
.7960E-05											
97	.6195E-05	-.2311E-04	98	.5821E-05	-.2105E-04	99	.5182E-05	-.1834E-04	100	.4920E-05	-
.1546E-04											
101	.4918E-05	-.1347E-04	102	.5246E-05	-.1135E-04	103	.6217E-05	-.8137E-05	104	.6857E-05	-
.4155E-05											

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	-.738768E+02	.000000E+00	.000000E+00	-.738768E+02	.000000E+00	.369384E+02
25	1	-.878626E+02	.000000E+00	.000000E+00	-.878626E+02	.000000E+00	.439313E+02
29	1	-.177241E+02	-.186450E+02	-.208325E+02	-.390221E+02	.265302E+01	.208375E+02
33	1	-.876001E+02	.000000E+00	.000000E+00	-.876001E+02	.000000E+00	.438000E+02
41	1	.120330E+02	.000000E+00	.000000E+00	.000000E+00	.120330E+02	.601651E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.128176E+02	-.761865E+02	-.700468E+02	.828643E+02	.764556E+02
51	1	.000000E+00	-.917946E+02	-.619095E+02	-.122964E+03	.311699E+02	.770672E+02
52	1	.000000E+00	-.559712E+02	-.365021E+02	-.739812E+02	.180100E+02	.459956E+02
53	1	.000000E+00	-.442443E+02	-.260149E+02	-.562713E+02	.120270E+02	.341492E+02
54	1	.000000E+00	-.334237E+02	-.181573E+02	-.413892E+02	.796553E+01	.246774E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 122.96450 AND OCCURS AT NODE 51

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
*      8 inch PCCP Pavement with 120K load
*
*****
```

TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
```

Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000  
 FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000  
 Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

SLAB NO.	XL	YL	INTENSITY(QQ)
1	122.61900	132.00000	.00000
1	122.61900	132.00000	12.00000
1	122.61900	132.00000	84.00000
1	122.61900	132.00000	96.00000
1	170.61900	180.00000	.00000
1	170.61900	180.00000	12.00000
1	170.61900	180.00000	84.00000
1	170.61900	180.00000	96.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:  
17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

Appendix 6E-d 8 Inch PCCP Pavement

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
66.00000										

Appendix 6E-d 8 Inch PCCP Pavement

61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
144.00000										
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
66.00000										
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000
144.00000										
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
66.00000										
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
144.00000										
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
66.00000										
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
144.00000										
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
66.00000										
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
144.00000										
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
66.00000										
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000
144.00000										

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.40211	1.00000	-1.00000	-.19241	90.00000
22	-1.00000	-.55556	-1.00000	-.19241	90.00000
15	.40211	1.00000	.50000	1.00000	90.00000
16	.40211	1.00000	-1.00000	-.80314	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.80314	90.00000
19	.40211	1.00000	-.75000	.05759	90.00000
26	-1.00000	-.55556	-.75000	.05759	90.00000
19	.40211	1.00000	.75000	1.00000	90.00000
20	.40211	1.00000	-1.00000	-.61217	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.61217	90.00000
36	-.17262	1.00000	-1.00000	-.19241	90.00000
36	-.17262	1.00000	.50000	1.00000	90.00000



Appendix 6E-d 8 Inch PCCP Pavement

37	146.00000	82.00000	144.00000	38	146.00000	98.00000	66.00000	39	146.00000	121.00000	144.00000	40	146.00000
41	164.00000	.00000	66.00000	42	164.00000	16.00000	66.00000	43	164.00000	41.00000	66.00000	44	164.00000
45	164.00000	82.00000	144.00000	46	164.00000	98.00000	144.00000	47	164.00000	121.00000	144.00000	48	164.00000
49	180.00000	.00000	66.00000	50	180.00000	16.00000	66.00000	51	180.00000	41.00000	66.00000	52	180.00000
53	180.00000	82.00000	144.00000	54	180.00000	98.00000	144.00000	55	180.00000	121.00000	144.00000	56	180.00000
57	180.00000	.00000	66.00000	58	180.00000	16.00000	66.00000	59	180.00000	41.00000	66.00000	60	180.00000
61	180.00000	82.00000	144.00000	62	180.00000	98.00000	144.00000	63	180.00000	121.00000	144.00000	64	180.00000
65	196.00000	.00000	66.00000	66	196.00000	16.00000	66.00000	67	196.00000	41.00000	66.00000	68	196.00000
69	196.00000	82.00000	144.00000	70	196.00000	98.00000	144.00000	71	196.00000	121.00000	144.00000	72	196.00000
73	220.00000	.00000	66.00000	74	220.00000	16.00000	66.00000	75	220.00000	41.00000	66.00000	76	220.00000
77	220.00000	82.00000	144.00000	78	220.00000	98.00000	144.00000	79	220.00000	121.00000	144.00000	80	220.00000
81	260.00000	.00000	66.00000	82	260.00000	16.00000	66.00000	83	260.00000	41.00000	66.00000	84	260.00000
85	260.00000	82.00000	144.00000	86	260.00000	98.00000	144.00000	87	260.00000	121.00000	144.00000	88	260.00000
89	300.00000	.00000	66.00000	90	300.00000	16.00000	66.00000	91	300.00000	41.00000	66.00000	92	300.00000
93	300.00000	82.00000	144.00000	94	300.00000	98.00000	144.00000	95	300.00000	121.00000	144.00000	96	300.00000
97	360.00000	.00000	66.00000	98	360.00000	16.00000	66.00000	99	360.00000	41.00000	66.00000	100	360.00000
101	360.00000	82.00000	144.00000	102	360.00000	98.00000	144.00000	103	360.00000	121.00000	144.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
10	1																



Appendix 6E-d 8 Inch PCCP Pavement

20	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
	1																	
30	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
	1																	
40	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
	1																	
50	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
	2																	
60	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
	0																	
70	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
	1																	
80	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
	1																	
90	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
	1																	
100	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
	1																	
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

10	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
	0																	
20	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
	0																	
30	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
	0																	
40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	

Appendix 6E-d 8 Inch PCCP Pavement

90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
100	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .05506252  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01213414  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00142352  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00016901  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00002015

SUM OF APPLIED FORCES (FOSUM)= 43636.4 SUM OF TOTAL REACTIONS (SUBSUM)= 43607.8

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1350E-01	2	.1361E-01	3	.1371E-01	4	.1354E-01	5	.1326E-01	6	.1286E-01	7	.1205E-01	8	.1104E-01
9	.2787E-01	10	.2776E-01	11	.2728E-01	12	.2637E-01	13	.2543E-01	14	.2414E-01	15	.2170E-01	16	.1868E-01
17	.4969E-01	18	.4756E-01	19	.4434E-01	20	.4221E-01	21	.4093E-01	22	.3878E-01	23	.3364E-01	24	.2747E-01
25	.5737E-01	26	.5433E-01	27	.4986E-01	28	.4740E-01	29	.4625E-01	30	.4393E-01	31	.3764E-01	32	.3035E-01
33	.6182E-01	34	.5867E-01	35	.5404E-01	36	.5136E-01	37	.4997E-01	38	.4739E-01	39	.4078E-01	40	.3277E-01
41	.6551E-01	42	.6212E-01	43	.5710E-01	44	.5441E-01	45	.5316E-01	46	.5054E-01	47	.4342E-01	48	.3490E-01
49	.6881E-01	50	.6505E-01	51	.5933E-01	52	.5675E-01	53	.5600E-01	54	.5356E-01	55	.4564E-01	56	.3681E-01
57	.6277E-01	58	.6158E-01	59	.5847E-01	60	.5568E-01	61	.5370E-01	62	.5078E-01	63	.4450E-01	64	.3728E-01

Appendix 6E-d 8 Inch PCCP Pavement

65	.5079E-01	66	.5029E-01	67	.4862E-01	68	.4652E-01	69	.4478E-01	70	.4230E-01	71	.3729E-01	72
.3129E-01														
73	.3594E-01	74	.3612E-01	75	.3573E-01	76	.3455E-01	77	.3329E-01	78	.3150E-01	79	.2800E-01	80
.2368E-01														
81	.2101E-01	82	.2139E-01	83	.2160E-01	84	.2122E-01	85	.2062E-01	86	.1972E-01	87	.1793E-01	88
.1570E-01														
89	.1409E-01	90	.1433E-01	91	.1451E-01	92	.1438E-01	93	.1410E-01	94	.1368E-01	95	.1282E-01	96
.1176E-01														
97	.9574E-02	98	.9625E-02	99	.9668E-02	100	.9615E-02	101	.9523E-02	102	.9392E-02	103	.9126E-02	104
.8786E-02														

DEFLECTIONS OF SUBGRADE (SUBD) ARE:(DOWNWARD POSITIVE)

1	.1350E-01	2	.1361E-01	3	.1371E-01	4	.1354E-01	5	.1326E-01	6	.1286E-01	7	.1205E-01	8
.1104E-01														
9	.2787E-01	10	.2776E-01	11	.2728E-01	12	.2637E-01	13	.2543E-01	14	.2414E-01	15	.2170E-01	16
.1868E-01														
17	.4969E-01	18	.4756E-01	19	.4434E-01	20	.4221E-01	21	.4093E-01	22	.3878E-01	23	.3364E-01	24
.2747E-01														
25	.5737E-01	26	.5433E-01	27	.4986E-01	28	.4740E-01	29	.4625E-01	30	.4393E-01	31	.3764E-01	32
.3035E-01														
33	.6182E-01	34	.5867E-01	35	.5404E-01	36	.5136E-01	37	.4997E-01	38	.4739E-01	39	.4078E-01	40
.3277E-01														
41	.6551E-01	42	.6212E-01	43	.5710E-01	44	.5441E-01	45	.5316E-01	46	.5054E-01	47	.4342E-01	48
.3490E-01														
49	.6579E-01	50	.6331E-01	51	.5890E-01	52	.5621E-01	53	.5485E-01	54	.5217E-01	55	.4507E-01	56
.3705E-01														
57	.6579E-01	58	.6331E-01	59	.5890E-01	60	.5621E-01	61	.5485E-01	62	.5217E-01	63	.4507E-01	64
.3705E-01														
65	.5079E-01	66	.5029E-01	67	.4862E-01	68	.4652E-01	69	.4478E-01	70	.4230E-01	71	.3729E-01	72
.3129E-01														
73	.3594E-01	74	.3612E-01	75	.3573E-01	76	.3455E-01	77	.3329E-01	78	.3150E-01	79	.2800E-01	80
.2368E-01														
81	.2101E-01	82	.2139E-01	83	.2160E-01	84	.2122E-01	85	.2062E-01	86	.1972E-01	87	.1793E-01	88
.1570E-01														
89	.1409E-01	90	.1433E-01	91	.1451E-01	92	.1438E-01	93	.1410E-01	94	.1368E-01	95	.1282E-01	96
.1176E-01														

Appendix 6E-d 8 Inch PCCP Pavement

97 .9574E-02 98 .9625E-02 99 .9668E-02 100 .9615E-02 101 .9523E-02 102 .9392E-02 103 .9126E-02 104  
.8786E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-98.8	2	-150.1	3	-212.9	4	-155.0	5	-59.1	6	-146.3	7	-157.4	8	-
339.9															
9	1081.0	10	399.8	11	664.8	12	438.6	13	205.1	14	361.3	15	339.9	16	
111.9															
17	1794.5	18	987.2	19	1009.9	20	690.9	21	504.8	22	671.2	23	623.0	24	
380.9															
25	1446.7	26	797.6	27	688.4	28	499.6	29	424.5	30	551.0	31	459.1	32	
290.6															
33	1650.1	34	940.3	35	881.4	36	627.3	37	496.4	38	631.4	39	585.7	40	
395.5															
41	1788.6	42	1052.1	43	957.9	44	698.8	45	570.7	46	734.8	47	663.1	48	
461.9															
49	1160.6	50	854.7	51	796.0	52	591.0	53	505.1	54	636.1	55	571.0	56	
428.9															
57	819.9	58	623.8	59	729.6	60	519.3	61	370.0	62	455.9	63	487.6	64	
463.0															
65	1055.2	66	637.2	67	728.6	68	519.5	69	352.1	70	429.8	71	449.3	72	
422.4															
73	794.7	74	420.7	75	496.3	76	346.2	77	224.7	78	286.9	79	271.0	80	
143.5															
81	166.2	82	35.7	83	42.1	84	31.0	85	18.6	86	16.2	87	-13.9	88	-
167.5															
89	-52.2	90	-69.4	91	-95.9	92	-65.5	93	-34.0	94	-62.6	95	-81.0	96	-
193.5															
97	-88.7	98	-72.1	99	-117.0	100	-86.1	101	-33.2	102	-78.8	103	-79.6	104	-
140.9															

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000240

SUM OF APPLIED FORCES (FOSUM)= 43636.4 SUM OF TOTAL REACTIONS (SUBSUM)= 43611.0

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

Appendix 6E-d 8 Inch PCCP Pavement

1	.1350E-01	2	.1361E-01	3	.1371E-01	4	.1354E-01	5	.1326E-01	6	.1286E-01	7	.1205E-01	8	.1104E-01
9	.2787E-01	10	.2776E-01	11	.2728E-01	12	.2637E-01	13	.2543E-01	14	.2414E-01	15	.2170E-01	16	.1869E-01
17	.4969E-01	18	.4756E-01	19	.4435E-01	20	.4221E-01	21	.4093E-01	22	.3878E-01	23	.3364E-01	24	.2747E-01
25	.5737E-01	26	.5433E-01	27	.4986E-01	28	.4741E-01	29	.4625E-01	30	.4394E-01	31	.3764E-01	32	.3036E-01
33	.6182E-01	34	.5867E-01	35	.5404E-01	36	.5136E-01	37	.4997E-01	38	.4739E-01	39	.4078E-01	40	.3277E-01
41	.6551E-01	42	.6212E-01	43	.5710E-01	44	.5441E-01	45	.5316E-01	46	.5055E-01	47	.4342E-01	48	.3490E-01
49	.6881E-01	50	.6505E-01	51	.5933E-01	52	.5675E-01	53	.5601E-01	54	.5356E-01	55	.4565E-01	56	.3681E-01
57	.6277E-01	58	.6158E-01	59	.5848E-01	60	.5568E-01	61	.5371E-01	62	.5078E-01	63	.4451E-01	64	.3729E-01
65	.5079E-01	66	.5029E-01	67	.4863E-01	68	.4653E-01	69	.4478E-01	70	.4230E-01	71	.3730E-01	72	.3129E-01
73	.3594E-01	74	.3612E-01	75	.3573E-01	76	.3455E-01	77	.3329E-01	78	.3150E-01	79	.2800E-01	80	.2368E-01
81	.2101E-01	82	.2140E-01	83	.2160E-01	84	.2122E-01	85	.2062E-01	86	.1972E-01	87	.1794E-01	88	.1570E-01
89	.1409E-01	90	.1433E-01	91	.1451E-01	92	.1438E-01	93	.1410E-01	94	.1368E-01	95	.1282E-01	96	.1176E-01
97	.9575E-02	98	.9626E-02	99	.9670E-02	100	.9616E-02	101	.9524E-02	102	.9394E-02	103	.9127E-02	104	.8788E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1350E-01	2	.1361E-01	3	.1371E-01	4	.1354E-01	5	.1326E-01	6	.1286E-01	7	.1205E-01	8	.1104E-01
9	.2787E-01	10	.2776E-01	11	.2728E-01	12	.2637E-01	13	.2543E-01	14	.2414E-01	15	.2170E-01	16	.1869E-01
17	.4969E-01	18	.4756E-01	19	.4435E-01	20	.4221E-01	21	.4093E-01	22	.3878E-01	23	.3364E-01	24	.2747E-01
25	.5737E-01	26	.5433E-01	27	.4986E-01	28	.4741E-01	29	.4625E-01	30	.4394E-01	31	.3764E-01	32	.3036E-01

Appendix 6E-d 8 Inch PCCP Pavement

33	.6182E-01	34	.5867E-01	35	.5404E-01	36	.5136E-01	37	.4997E-01	38	.4739E-01	39	.4078E-01	40
.3277E-01														
41	.6551E-01	42	.6212E-01	43	.5710E-01	44	.5441E-01	45	.5316E-01	46	.5055E-01	47	.4342E-01	48
.3490E-01														
49	.6579E-01	50	.6332E-01	51	.5890E-01	52	.5622E-01	53	.5486E-01	54	.5217E-01	55	.4508E-01	56
.3705E-01														
57	.6579E-01	58	.6332E-01	59	.5890E-01	60	.5622E-01	61	.5486E-01	62	.5217E-01	63	.4508E-01	64
.3705E-01														
65	.5079E-01	66	.5029E-01	67	.4863E-01	68	.4653E-01	69	.4478E-01	70	.4230E-01	71	.3730E-01	72
.3129E-01														
73	.3594E-01	74	.3612E-01	75	.3573E-01	76	.3455E-01	77	.3329E-01	78	.3150E-01	79	.2800E-01	80
.2368E-01														
81	.2101E-01	82	.2140E-01	83	.2160E-01	84	.2122E-01	85	.2062E-01	86	.1972E-01	87	.1794E-01	88
.1570E-01														
89	.1409E-01	90	.1433E-01	91	.1451E-01	92	.1438E-01	93	.1410E-01	94	.1368E-01	95	.1282E-01	96
.1176E-01														
97	.9575E-02	98	.9626E-02	99	.9670E-02	100	.9616E-02	101	.9524E-02	102	.9394E-02	103	.9127E-02	104
.8788E-02														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	-98.8	2	-150.1	3	-212.9	4	-155.0	5	-59.1	6	-146.3	7	-157.3	8	-
339.8															
9	1081.1	10	399.9	11	664.9	12	438.6	13	205.1	14	361.3	15	339.9	16	
112.0															
17	1794.6	18	987.2	19	1009.9	20	691.0	21	504.8	22	671.2	23	623.0	24	
381.0															
25	1446.7	26	797.6	27	688.5	28	499.6	29	424.5	30	551.1	31	459.1	32	
290.6															
33	1650.2	34	940.4	35	881.5	36	627.3	37	496.4	38	631.4	39	585.8	40	
395.6															
41	1788.6	42	1052.1	43	957.9	44	698.8	45	570.8	46	734.8	47	663.1	48	
461.9															
49	1160.6	50	854.7	51	796.0	52	591.0	53	505.1	54	636.1	55	571.0	56	
429.0															
57	820.0	58	623.8	59	729.6	60	519.3	61	370.0	62	455.9	63	487.7	64	
463.0															

Appendix 6E-d 8 Inch PCCP Pavement

65	1055.2	66	637.2	67	728.6	68	519.6	69	352.1	70	429.8	71	449.4	72	
422.4		73	794.8	74	420.8	75	496.4	76	346.2	77	224.7	78	286.9	79	271.1
143.6		81	166.3	82	35.7	83	42.1	84	31.0	85	18.6	86	16.3	87	-13.9
167.5		89	-52.2	90	-69.4	91	-95.9	92	-65.4	93	-33.9	94	-62.6	95	-81.0
193.5		97	-88.6	98	-72.1	99	-117.0	100	-86.0	101	-33.2	102	-78.7	103	-79.5
140.9														104	-

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

.000	49	-1907.710	.000	50	-2806.259	.000	51	-840.239	.000	52	-870.713
.000	53	-1452.011	.000	54	-2139.061	.000	55	-1034.514	.000	56	215.267

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

1316.345	49	-2861.565	50	-1642.688	51	-403.315	52	-509.686	53	-1089.008	54	-
	55	-539.747	56	224.627								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

-648.951	49	-4469.479	-3643.451	50	-2565.715	-2091.531	51	-629.937	-513.515	52	-796.078
286.003	53	-1700.922	-1386.565	54	-2056.000	-1676.020	55	-843.030	-687.225	56	350.845

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

.98495	1	-.41150	2	-.24402	3	-.28382	4	-.25204	5	-.12308	6	-.25010	7	-.22804	8	-
.17702	9	2.45709	10	.35465	11	.48356	12	.38902	13	.23309	14	.33691	15	.26873	16	
.97442	17	6.59761	18	1.41642	19	1.18816	20	.99135	21	.92792	22	1.01244	23	.79671	24	
1.40387	25	10.04686	26	2.16148	27	1.52989	28	1.35403	29	1.47390	30	1.56997	31	1.10888	32	

Appendix 6E-d 8 Inch PCCP Pavement

33	11.45957	34	2.54843	35	1.95881	36	1.70004	37	1.72369	38	1.79882	39	1.41490	40	
1.91108															
41	13.15152	42	3.01887	43	2.25397	44	2.00530	45	2.09835	46	2.21660	47	1.69601	48	
2.36280															
49	18.13400	50	5.21163	51	3.98022	52	3.60361	53	3.94631	54	4.07771	55	3.10343	56	
4.66264															
57	12.81201	58	3.80358	59	3.64810	60	3.16652	61	2.89046	62	2.92260	63	2.65030	64	
5.03308															
65	6.59510	66	1.55425	67	1.45720	68	1.26724	69	1.10022	70	1.10203	71	.97687	72	
1.83669															
73	3.10456	74	.64139	75	.62048	76	.52773	77	.43881	78	.45984	79	.36831	80	
.39019															
81	.51954	82	.04351	83	.04215	84	.03780	85	.02909	86	.02086	87	-.01508	88	-
.36404															
89	-.13044	90	-.06770	91	-.07669	92	-.06384	93	-.04243	94	-.06420	95	-.07041	96	-
.33645															
97	-.36921	98	-.11720	99	-.15595	100	-.13988	101	-.06910	102	-.13460	103	-.11525	104	-
.40830															

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y
1	-.6754E-05	.1944E-03	2	-.6702E-05	.1908E-03	3	.3982E-06	.1871E-03	4	.1350E-04
.1795E-03										
5	.2112E-04	.1708E-03	6	.2908E-04	.1585E-03	7	.4044E-04	.1357E-03	8	.4629E-04
.1044E-03										
9	.8334E-06	.3498E-03	10	.1230E-04	.3287E-03	11	.2675E-04	.2975E-03	12	.4828E-04
.2775E-03										
13	.6931E-04	.2667E-03	14	.9131E-04	.2492E-03	15	.1210E-03	.2081E-03	16	.1371E-03
.1604E-03										
17	.1324E-03	.4658E-03	18	.1351E-03	.4148E-03	19	.1091E-03	.3374E-03	20	.7120E-04
.3152E-03										
21	.9934E-04	.3199E-03	22	.1747E-03	.3080E-03	23	.2572E-03	.2407E-03	24	.2724E-03
.1730E-03										
25	.1972E-03	.3375E-03	26	.1902E-03	.3089E-03	27	.1425E-03	.2704E-03	28	.6797E-04
.2549E-03										
29	.9528E-04	.2512E-03	30	.2047E-03	.2390E-03	31	.3108E-03	.1985E-03	32	.3194E-03
.1469E-03										



Appendix 6E-d 8 Inch PCCP Pavement

33	.1964E-03	.2056E-03	34	.1993E-03	.2009E-03	35	.1505E-03	.1959E-03	36	.7797E-04
.1890E-03										
37	.1115E-03	.1817E-03	38	.2182E-03	.1717E-03	39	.3343E-03	.1554E-03	40	.3534E-03
.1235E-03										
41	.2092E-03	.2049E-03	42	.2165E-03	.1853E-03	43	.1604E-03	.1504E-03	44	.7006E-04
.1542E-03										
45	.1050E-03	.1748E-03	46	.2307E-03	.1799E-03	47	.3595E-03	.1408E-03	48	.3747E-03
.1172E-03										
49	.2313E-03	.2068E-03	50	.2435E-03	.1826E-03	51	.1739E-03	.1297E-03	52	.4835E-04
.1413E-03										
53	.7859E-04	.1834E-03	54	.2443E-03	.1993E-03	55	.3863E-03	.1390E-03	56	.3857E-03
.1200E-03										
57	.6295E-04	-.7683E-03	58	.9722E-04	-.7251E-03	59	.1229E-03	-.6254E-03	60	.1119E-03
.5825E-03										-
61	.1465E-03	-.5721E-03	62	.2247E-03	-.5454E-03	63	.3020E-03	-.4607E-03	64	.3213E-03
.3832E-03										-
65	.1980E-04	-.7092E-03	66	.4663E-04	-.6714E-03	67	.7818E-04	-.5952E-03	68	.9394E-04
.5519E-03										-
69	.1286E-03	-.5342E-03	70	.1825E-03	-.5051E-03	71	.2461E-03	-.4326E-03	72	.2708E-03
.3582E-03										-
73	-.2175E-04	-.5195E-03	74	-.6388E-06	-.5033E-03	75	.3115E-04	-.4693E-03	76	.6484E-04
.4379E-03										-
77	.9455E-04	-.4175E-03	78	.1289E-03	-.3902E-03	79	.1733E-03	-.3356E-03	80	.1987E-03
.2733E-03										-
81	-.3014E-04	-.2533E-03	82	-.1836E-04	-.2534E-03	83	.2648E-05	-.2499E-03	84	.2856E-04
.2390E-03										-
85	.4695E-04	-.2272E-03	86	.6539E-04	-.2106E-03	87	.8881E-04	-.1782E-03	88	.1035E-03
.1377E-03										-
89	-.1764E-04	-.1147E-03	90	-.1239E-04	-.1183E-03	91	-.1433E-05	-.1207E-03	92	.1244E-04
.1177E-03										-
93	.2195E-04	-.1125E-03	94	.3120E-04	-.1046E-03	95	.4253E-04	-.8913E-04	96	.4900E-04
.6952E-04										-
97	-.3362E-05	-.5528E-04	98	-.2926E-05	-.5846E-04	99	-.8104E-07	-.6081E-04	100	.4429E-05
.6034E-04										-
101	.6939E-05	-.5836E-04	102	.9543E-05	-.5485E-04	103	.1349E-04	-.4754E-04	104	.1560E-04
.3630E-04										-

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
------	-------	----------	----------	-----------	-------	-------	------------

Appendix 6E-d 8 Inch PCCP Pavement

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17	1	-.133951E+01	.000000E+00	.000000E+00	-.133951E+01	.000000E+00	.669754E+00
25	1	.248178E+03	.000000E+00	.000000E+00	.000000E+00	.248178E+03	.124089E+03
29	1	.128783E+03	.100548E+03	-.518367E+01	.996261E+02	.129705E+03	.150393E+02
33	1	-.590337E+01	.000000E+00	.000000E+00	-.590337E+01	.000000E+00	.295168E+01
41	1	-.225006E+01	.000000E+00	.000000E+00	-.225006E+01	.000000E+00	.112503E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.299359E+02	-.264453E+02	-.154194E+02	.453553E+02	.303874E+02
51	1	.000000E+00	-.117188E+03	-.130618E+02	-.118627E+03	.143822E+01	.600324E+02
52	1	.000000E+00	-.599513E+02	.247433E+02	-.688443E+02	.889295E+01	.388686E+02
53	1	.000000E+00	.122357E+03	.300012E+02	-.696020E+01	.129317E+03	.681387E+02
54	1	.000000E+00	.219271E+03	-.128477E+02	-.750221E+00	.220022E+03	.110386E+03

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 248.17810 AND OCCURS AT NODE 25

Appendix 6E-d 8 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      8 inch PCCP Pavement with 120K load Tridem
*
*****
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TYPE OF FOUNDATION (NFOUND) = 1  
 TYPE OF DAMAGE ANALYSIS (NDAMA) = 0  
 NUMBER OF PERIODS PER YEAR (NPY) = 1  
 NUMBER OF LOAD GROUPS (NLG) = 1  
 TOTAL NUMBER OF SLABS (NSLAB) = 2  
 TOTAL NUMBER OF JOINTS (NJOINT) = 1

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

NUMBER OF LAYERS (NLAYER)-----= 1  
 NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49  
 NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0  
 NUMBER OF GAPS (NGAP)-----= 0  
 NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11  
 CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0  
 BOND BETWEEN TWO LAYERS (NBOND)-----= 0

Appendix 6E-d 8 Inch PCCP Pavement

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CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
    FOR LAYER 1 -----= 0
    FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 :  X= .00000  60.00000  110.00000  128.00000  146.00000  164.00000  180.00000
    
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Appendix 6E-d 8 Inch PCCP Pavement

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000

Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000

LAYER NO.	THICKNESS (T)	POISSON'S RATIO (PR)	YOUNG'S MODULUS (YM)
1	8.00000	.15000	.400E+07

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

12

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	74.61900	84.00000	.00000	6.46070	90.00000
1	74.61900	84.00000	12.00000	18.46070	90.00000
1	74.61900	84.00000	84.00000	90.46070	90.00000
1	74.61900	84.00000	96.00000	102.46000	90.00000
1	122.61900	132.00000	.00000	6.46070	90.00000
1	122.61900	132.00000	12.00000	18.46070	90.00000
1	122.61900	132.00000	84.00000	90.46070	90.00000
1	122.61900	132.00000	96.00000	102.46000	90.00000
1	170.61900	180.00000	.00000	6.46070	90.00000
1	170.61900	180.00000	12.00000	18.46070	90.00000
1	170.61900	180.00000	84.00000	90.46070	90.00000
1	170.61900	180.00000	96.00000	102.46000	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

Appendix 6E-d 8 Inch PCCP Pavement

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000
66.00000										
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000
144.00000										
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000
66.00000										
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000
144.00000										
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										

Appendix 6E-d 8 Inch PCCP Pavement

53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000
66.00000										
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000
144.00000										
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000
66.00000										
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000
144.00000										
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000
66.00000										
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000
144.00000										
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000
66.00000										
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000
144.00000										
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000
66.00000										
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000
144.00000										
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000
66.00000										
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000
144.00000										

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

8	-.41524	-.04000	-1.00000	-.19241	90.00000
8	-.41524	-.04000	.50000	1.00000	90.00000
9	-.41524	-.04000	-1.00000	-.80314	90.00000
12	-.41524	-.04000	-.75000	.05759	90.00000
12	-.41524	-.04000	.75000	1.00000	90.00000
13	-.41524	-.04000	-1.00000	-.61217	90.00000
15	.40211	1.00000	-1.00000	-.19241	90.00000
22	-1.00000	-.55556	-1.00000	-.19241	90.00000
15	.40211	1.00000	.50000	1.00000	90.00000
16	.40211	1.00000	-1.00000	-.80314	90.00000





Appendix 6E-d 8 Inch PCCP Pavement

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17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000
66.00000										
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000
144.00000										
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000
66.00000										
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000
144.00000										
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000
66.00000										
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000
144.00000										
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000
66.00000										
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000
144.00000										
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000
66.00000										
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000
144.00000										
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000
66.00000										
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000
144.00000										
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000
66.00000										
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000
144.00000										
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000
66.00000										
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000
144.00000										
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000
66.00000										
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000
144.00000										
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000
66.00000										

Appendix 6E-d 8 Inch PCCP Pavement

93	300.00000	82.00000	144.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000
97	360.00000	.00000	66.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000
101	360.00000	82.00000	144.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1
10	1																	
	11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1
20	1																	
	21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1
30	1																	
	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
40	1																	
	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2
50	2																	
	51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0
60	0																	
	61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1
70	1																	
	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1
80	1																	
	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1
90	1																	
	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1
100	1																	
	101	1	102	1	103	1	104	1										

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
10	0																	
	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
20	0																	
	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
30	0																	

Appendix 6E-d 8 Inch PCCP Pavement

40	31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0
	0																	
50	41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57
	58																	
60	51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51
	52																	
70	61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0
	0																	
80	71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0
	0																	
90	81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0
	0																	
100	91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0
	0																	
	101	0	102	0	103	0	104	0										

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .06002159  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01756195  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00199733  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00023689  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00002824

SUM OF APPLIED FORCES (FOSUM)= 65454.6 SUM OF TOTAL REACTIONS (SUBSUM)= 65417.0

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2907E-01	2	.2894E-01	3	.2879E-01	4	.2817E-01	5	.2734E-01	6	.2614E-01	7	.2380E-01	8	
	.2073E-01														
9	.5921E-01	10	.5736E-01	11	.5422E-01	12	.5188E-01	13	.5032E-01	14	.4775E-01	15	.4190E-01	16	
	.3506E-01														
17	.7836E-01	18	.7474E-01	19	.6940E-01	20	.6596E-01	21	.6399E-01	22	.6064E-01	23	.5259E-01	24	
	.4311E-01														

Appendix 6E-d 8 Inch PCCP Pavement

.4430E-01	25	.8157E-01	26	.7758E-01	27	.7171E-01	28	.6819E-01	29	.6633E-01	30	.6295E-01	31	.5433E-01	32
.4467E-01	33	.8118E-01	34	.7754E-01	35	.7211E-01	36	.6866E-01	37	.6665E-01	38	.6320E-01	39	.5482E-01	40
.4458E-01	41	.8034E-01	42	.7671E-01	43	.7129E-01	44	.6811E-01	45	.6641E-01	46	.6315E-01	47	.5472E-01	48
.4445E-01	49	.7985E-01	50	.7596E-01	51	.7009E-01	52	.6728E-01	53	.6625E-01	54	.6338E-01	55	.5454E-01	56
.4530E-01	57	.7369E-01	58	.7247E-01	59	.6924E-01	60	.6617E-01	61	.6389E-01	62	.6053E-01	63	.5343E-01	64
.3876E-01	65	.6060E-01	66	.6009E-01	67	.5836E-01	68	.5604E-01	69	.5403E-01	70	.5119E-01	71	.4552E-01	72
.3035E-01	73	.4422E-01	74	.4444E-01	75	.4403E-01	76	.4270E-01	77	.4125E-01	78	.3921E-01	79	.3523E-01	80
.2121E-01	81	.2736E-01	82	.2779E-01	83	.2802E-01	84	.2757E-01	85	.2687E-01	86	.2582E-01	87	.2377E-01	88
.1639E-01	89	.1917E-01	90	.1945E-01	91	.1965E-01	92	.1948E-01	93	.1915E-01	94	.1865E-01	95	.1764E-01	96
.1244E-01	97	.1343E-01	98	.1349E-01	99	.1355E-01	100	.1348E-01	101	.1337E-01	102	.1320E-01	103	.1287E-01	104

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

.2073E-01	1	.2907E-01	2	.2894E-01	3	.2879E-01	4	.2817E-01	5	.2734E-01	6	.2614E-01	7	.2380E-01	8
.3506E-01	9	.5921E-01	10	.5736E-01	11	.5422E-01	12	.5188E-01	13	.5032E-01	14	.4775E-01	15	.4189E-01	16
.4311E-01	17	.7836E-01	18	.7474E-01	19	.6940E-01	20	.6596E-01	21	.6399E-01	22	.6064E-01	23	.5259E-01	24
.4430E-01	25	.8157E-01	26	.7758E-01	27	.7171E-01	28	.6819E-01	29	.6633E-01	30	.6295E-01	31	.5433E-01	32
.4467E-01	33	.8118E-01	34	.7754E-01	35	.7211E-01	36	.6866E-01	37	.6665E-01	38	.6319E-01	39	.5482E-01	40
.4458E-01	41	.8034E-01	42	.7671E-01	43	.7129E-01	44	.6811E-01	45	.6641E-01	46	.6315E-01	47	.5472E-01	48
.4488E-01	49	.7677E-01	50	.7421E-01	51	.6967E-01	52	.6673E-01	53	.6507E-01	54	.6196E-01	55	.5399E-01	56

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57	.7677E-01	58	.7421E-01	59	.6967E-01	60	.6673E-01	61	.6507E-01	62	.6196E-01	63	.5399E-01	64
.4488E-01														
65	.6060E-01	66	.6009E-01	67	.5836E-01	68	.5604E-01	69	.5403E-01	70	.5119E-01	71	.4552E-01	72
.3876E-01														
73	.4422E-01	74	.4444E-01	75	.4403E-01	76	.4270E-01	77	.4125E-01	78	.3921E-01	79	.3523E-01	80
.3035E-01														
81	.2736E-01	82	.2779E-01	83	.2802E-01	84	.2757E-01	85	.2687E-01	86	.2582E-01	87	.2377E-01	88
.2121E-01														
89	.1917E-01	90	.1945E-01	91	.1965E-01	92	.1948E-01	93	.1915E-01	94	.1865E-01	95	.1764E-01	96
.1639E-01														
97	.1343E-01	98	.1349E-01	99	.1355E-01	100	.1348E-01	101	.1337E-01	102	.1320E-01	103	.1287E-01	104
.1244E-01														

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	676.4	2	12.4	3	210.8	4	140.5	5	57.3	6	86.4	7	65.4	8	-
395.8															
9	3986.7	10	1601.3	11	2372.4	12	1556.8	13	830.2	14	1534.3	15	1349.3	16	
893.4															
17	3128.5	18	1809.2	19	1847.5	20	1264.3	21	927.5	22	1234.6	23	1156.7	24	
798.6															
25	1960.6	26	1074.5	27	963.2	28	701.8	29	576.5	30	738.6	31	637.3	32	
433.2															
33	2009.4	34	1144.9	35	1093.6	36	778.7	37	605.8	38	764.9	39	717.8	40	
492.5															
41	1968.9	42	1144.6	43	1050.6	44	765.9	45	620.3	46	794.1	47	716.2	48	
474.6															
49	1153.8	50	814.6	51	740.4	52	553.7	53	480.0	54	606.7	55	531.5	56	
369.2															
57	806.4	58	582.3	59	674.5	60	479.9	61	341.3	62	422.0	63	450.4	64	
429.9															
65	1100.7	66	652.6	67	741.2	68	526.4	69	357.0	70	433.6	71	451.9	72	
418.5															
73	852.4	74	445.1	75	522.7	76	364.5	77	236.6	78	300.7	79	281.8	80	
140.6															
81	197.1	82	46.1	83	55.4	84	40.4	85	24.4	86	23.6	87	-8.5	88	-
171.5															

Appendix 6E-d 8 Inch PCCP Pavement

89	-40.6	90	-69.1	91	-94.1	92	-64.0	93	-33.0	94	-61.6	95	-81.3	96	-
199.5															
97	-95.8	98	-82.2	99	-131.8	100	-97.1	101	-37.4	102	-89.1	103	-90.8	104	-
158.9															

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000336

SUM OF APPLIED FORCES (FOSUM)= 65454.6 SUM OF TOTAL REACTIONS (SUBSUM)= 65421.4

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2907E-01	2	.2894E-01	3	.2879E-01	4	.2817E-01	5	.2734E-01	6	.2614E-01	7	.2380E-01	8	
.2073E-01															
9	.5921E-01	10	.5736E-01	11	.5422E-01	12	.5188E-01	13	.5032E-01	14	.4775E-01	15	.4190E-01	16	
.3506E-01															
17	.7836E-01	18	.7475E-01	19	.6940E-01	20	.6597E-01	21	.6399E-01	22	.6064E-01	23	.5259E-01	24	
.4311E-01															
25	.8157E-01	26	.7759E-01	27	.7172E-01	28	.6819E-01	29	.6633E-01	30	.6295E-01	31	.5434E-01	32	
.4431E-01															
33	.8119E-01	34	.7754E-01	35	.7212E-01	36	.6866E-01	37	.6665E-01	38	.6320E-01	39	.5482E-01	40	
.4467E-01															
41	.8034E-01	42	.7671E-01	43	.7129E-01	44	.6811E-01	45	.6641E-01	46	.6315E-01	47	.5472E-01	48	
.4458E-01															
49	.7985E-01	50	.7596E-01	51	.7009E-01	52	.6728E-01	53	.6626E-01	54	.6338E-01	55	.5455E-01	56	
.4446E-01															
57	.7369E-01	58	.7247E-01	59	.6925E-01	60	.6617E-01	61	.6390E-01	62	.6053E-01	63	.5344E-01	64	
.4530E-01															
65	.6060E-01	66	.6010E-01	67	.5836E-01	68	.5604E-01	69	.5403E-01	70	.5120E-01	71	.4553E-01	72	
.3876E-01															
73	.4423E-01	74	.4444E-01	75	.4404E-01	76	.4271E-01	77	.4125E-01	78	.3921E-01	79	.3523E-01	80	
.3036E-01															
81	.2736E-01	82	.2779E-01	83	.2802E-01	84	.2757E-01	85	.2687E-01	86	.2583E-01	87	.2377E-01	88	
.2121E-01															
89	.1917E-01	90	.1945E-01	91	.1965E-01	92	.1948E-01	93	.1916E-01	94	.1865E-01	95	.1764E-01	96	
.1639E-01															
97	.1343E-01	98	.1349E-01	99	.1355E-01	100	.1348E-01	101	.1337E-01	102	.1320E-01	103	.1287E-01	104	
.1245E-01															

Appendix 6E-d 8 Inch PCCP Pavement

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2907E-01	2	.2894E-01	3	.2879E-01	4	.2817E-01	5	.2734E-01	6	.2614E-01	7	.2380E-01	8	.2073E-01
9	.5921E-01	10	.5736E-01	11	.5422E-01	12	.5188E-01	13	.5032E-01	14	.4775E-01	15	.4190E-01	16	.3506E-01
17	.7836E-01	18	.7475E-01	19	.6940E-01	20	.6596E-01	21	.6399E-01	22	.6064E-01	23	.5259E-01	24	.4311E-01
25	.8157E-01	26	.7759E-01	27	.7172E-01	28	.6819E-01	29	.6633E-01	30	.6295E-01	31	.5433E-01	32	.4431E-01
33	.8119E-01	34	.7754E-01	35	.7212E-01	36	.6866E-01	37	.6665E-01	38	.6320E-01	39	.5482E-01	40	.4467E-01
41	.8034E-01	42	.7671E-01	43	.7129E-01	44	.6811E-01	45	.6641E-01	46	.6315E-01	47	.5472E-01	48	.4458E-01
49	.7677E-01	50	.7422E-01	51	.6967E-01	52	.6673E-01	53	.6508E-01	54	.6196E-01	55	.5399E-01	56	.4488E-01
57	.7677E-01	58	.7422E-01	59	.6967E-01	60	.6673E-01	61	.6508E-01	62	.6196E-01	63	.5399E-01	64	.4488E-01
65	.6060E-01	66	.6010E-01	67	.5836E-01	68	.5604E-01	69	.5403E-01	70	.5120E-01	71	.4553E-01	72	.3876E-01
73	.4423E-01	74	.4444E-01	75	.4404E-01	76	.4271E-01	77	.4125E-01	78	.3921E-01	79	.3523E-01	80	.3036E-01
81	.2736E-01	82	.2779E-01	83	.2802E-01	84	.2757E-01	85	.2687E-01	86	.2583E-01	87	.2377E-01	88	.2121E-01
89	.1917E-01	90	.1945E-01	91	.1965E-01	92	.1948E-01	93	.1916E-01	94	.1865E-01	95	.1764E-01	96	.1639E-01
97	.1343E-01	98	.1349E-01	99	.1355E-01	100	.1348E-01	101	.1337E-01	102	.1320E-01	103	.1287E-01	104	.1245E-01

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	676.5	2	12.4	3	210.9	4	140.5	5	57.4	6	86.4	7	65.5	8	-
9	3986.8	10	1601.4	11	2372.5	12	1556.8	13	830.3	14	1534.4	15	1349.4	16	395.7
17	3128.6	18	1809.2	19	1847.5	20	1264.4	21	927.5	22	1234.7	23	1156.7	24	893.6
															798.7

Appendix 6E-d 8 Inch PCCP Pavement

25	1960.6	26	1074.5	27	963.2	28	701.9	29	576.5	30	738.7	31	637.4	32	
433.3															
33	2009.4	34	1144.9	35	1093.7	36	778.7	37	605.9	38	764.9	39	717.8	40	
492.6															
41	1968.9	42	1144.7	43	1050.6	44	765.9	45	620.4	46	794.2	47	716.2	48	
474.7															
49	1153.8	50	814.7	51	740.4	52	553.7	53	480.0	54	606.7	55	531.5	56	
369.3															
57	806.5	58	582.3	59	674.5	60	479.9	61	341.3	62	422.0	63	450.4	64	
429.9															
65	1100.7	66	652.7	67	741.3	68	526.5	69	357.0	70	433.7	71	452.0	72	
418.6															
73	852.5	74	445.2	75	522.7	76	364.5	77	236.6	78	300.8	79	281.8	80	
140.7															
81	197.2	82	46.1	83	55.5	84	40.4	85	24.4	86	23.6	87	-8.4	88	-
171.4															
89	-40.5	90	-69.1	91	-94.1	92	-63.9	93	-32.9	94	-61.5	95	-81.3	96	-
199.4															
97	-95.7	98	-82.1	99	-131.8	100	-97.1	101	-37.4	102	-89.1	103	-90.7	104	-
158.8															

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1945.450	.000	50	-2823.560	.000	51	-833.765	.000	52	-897.013
.000										
53	-1490.715	.000	54	-2192.570	.000	55	-1006.645	.000	56	383.187
.000										

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2918.175	50	-1652.816	51	-400.207	52	-525.081	53	-1118.036	54	-
1349.274											
55	-525.206	56	399.847								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4557.897	-3715.528	50	-2581.532	-2104.426	51	-625.084	-509.559	52	-820.123
-668.552										
53	-1746.261	-1423.525	54	-2107.430	-1717.945	55	-820.319	-668.712	56	624.521
509.100										



Appendix 6E-d 8 Inch PCCP Pavement

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)															
1	2.81871	2	.02016	3	.28119	4	.22852	5	.11951	6	.14769	7	.09490	8	-
1.14684															
9	9.06088	10	1.42028	11	1.72543	12	1.38078	13	.94348	14	1.43064	15	1.06672	16	
1.41275															
17	11.50227	18	2.59574	19	2.17358	20	1.81400	21	1.70492	22	1.86227	23	1.47916	24	
2.04259															
25	13.61546	26	2.91192	27	2.14052	28	1.90204	29	2.00175	30	2.10445	31	1.53951	32	
2.09315															
33	13.95434	34	3.10280	35	2.43038	36	2.11034	37	2.10371	38	2.17931	39	1.73389	40	
2.37961															
41	14.47732	42	3.28458	43	2.47205	44	2.19767	45	2.28077	46	2.39565	47	1.83179	48	
2.42789															
49	18.02839	50	4.96742	51	3.70196	52	3.37637	53	3.75036	54	3.88894	55	2.88864	56	
4.01373															
57	12.60112	58	3.55069	59	3.37240	60	2.92607	61	2.66637	62	2.70493	63	2.44772	64	
4.67312															
65	6.87958	66	1.59189	67	1.48258	68	1.28409	69	1.11576	70	1.11194	71	.98251	72	
1.81986															
73	3.33019	74	.67864	75	.65342	76	.55568	77	.46210	78	.48200	79	.38294	80	
.38240															
81	.61615	82	.05621	83	.05546	84	.04932	85	.03812	86	.03030	87	-.00916	88	-
.37267															
89	-.10133	90	-.06741	91	-.07527	92	-.06239	93	-.04118	94	-.06313	95	-.07067	96	-
.34687															
97	-.39891	98	-.13357	99	-.17569	100	-.15786	101	-.07797	102	-.15232	103	-.13150	104	-
.46030															

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.8848E-05	.5222E-03	2	.5828E-05	.4929E-03	3	.1203E-04	.4415E-03	4	.3993E-04	
.4110E-03											
5	.6364E-04	.3980E-03	6	.8507E-04	.3740E-03	7	.1208E-03	.3140E-03	8	.1398E-03	
.2517E-03											
9	.1134E-03	.4652E-03	10	.1232E-03	.4334E-03	11	.1118E-03	.3854E-03	12	.8527E-04	
.3578E-03											

Appendix 6E-d 8 Inch PCCP Pavement

.2135E-03	13	.1215E-03	.3458E-03	14	.2040E-03	.3249E-03	15	.2875E-03	.2718E-03	16	.3012E-03
.1760E-03	17	.2296E-03	.2608E-03	18	.2268E-03	.2290E-03	19	.1791E-03	.1863E-03	20	.1115E-03
.9226E-04	21	.1530E-03	.1804E-03	22	.2734E-03	.1750E-03	23	.3997E-03	.1356E-03	24	.4157E-03
.7071E-04	25	.2570E-03	.6771E-04	26	.2494E-03	.6937E-04	27	.1919E-03	.7121E-04	28	.1075E-03
.4109E-04	29	.1480E-03	.6841E-04	30	.2865E-03	.6492E-04	31	.4254E-03	.5792E-04	32	.4401E-03
.1030E-04	33	.2264E-03	-.5683E-04	34	.2312E-03	-.4205E-04	35	.1812E-03	-.1973E-04	36	.1116E-03 -
.3432E-05	37	.1571E-03	-.9963E-05	38	.2823E-03	-.7895E-05	39	.4221E-03	.3736E-05	40	.4485E-03
.4517E-04	41	.2237E-03	-.3772E-04	42	.2321E-03	-.4747E-04	43	.1771E-03	-.6482E-04	44	.9376E-04 -
.8694E-05	45	.1387E-03	-.1414E-04	46	.2777E-03	.4187E-05	47	.4249E-03	-.1056E-04	48	.4477E-03 -
.5620E-04	49	.2395E-03	-.2789E-04	50	.2504E-03	-.4588E-04	51	.1804E-03	-.8373E-04	52	.6184E-04 -
.7746E-05	53	.1003E-03	-.2886E-05	54	.2762E-03	.2662E-04	55	.4352E-03	-.1030E-04	56	.4429E-03 -
.6449E-03	57	.6430E-04	-.8386E-03	58	.9981E-04	-.7935E-03	59	.1303E-03	-.6907E-03	60	.1275E-03 -
.4172E-03	61	.1696E-03	-.6315E-03	62	.2561E-03	-.5999E-03	63	.3407E-03	-.5049E-03	64	.3617E-03 -
.6120E-03	65	.1902E-04	-.7770E-03	66	.4733E-04	-.7374E-03	67	.8363E-04	-.6585E-03	68	.1070E-03 -
.3921E-03	69	.1478E-03	-.5912E-03	70	.2081E-03	-.5575E-03	71	.2777E-03	-.4758E-03	72	.3043E-03 -
.4906E-03	73	-.2472E-04	-.5775E-03	74	-.1943E-05	-.5605E-03	75	.3423E-04	-.5247E-03	76	.7419E-04 -
.3056E-03	77	.1085E-03	-.4674E-03	78	.1471E-03	-.4365E-03	79	.1962E-03	-.3751E-03	80	.2235E-03 -
.2766E-03	81	-.3364E-04	-.2927E-03	82	-.2056E-04	-.2928E-03	83	.3479E-05	-.2889E-03	84	.3338E-04 -
.1632E-03	85	.5452E-04	-.2632E-03	86	.7555E-04	-.2445E-03	87	.1019E-03	-.2082E-03	88	.1182E-03 -

Appendix 6E-d 8 Inch PCCP Pavement

89	-.2015E-04	-.1402E-03	90	-.1412E-04	-.1441E-03	91	-.1320E-05	-.1467E-03	92	.1495E-04	-
.1431E-03											
93	.2610E-04	-.1372E-03	94	.3692E-04	-.1282E-03	95	.5008E-04	-.1106E-03	96	.5751E-04	-
.8852E-04											
97	-.4241E-05	-.7314E-04	98	-.3675E-05	-.7666E-04	99	-.1120E-06	-.7921E-04	100	.5508E-05	-
.7853E-04											
101	.8712E-05	-.7617E-04	102	.1200E-04	-.7208E-04	103	.1686E-04	-.6361E-04	104	.1940E-04	-
.5077E-04											

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.100285E+03	.000000E+00	.000000E+00	.000000E+00	.100285E+03	.501425E+02
25	1	.250872E+03	.000000E+00	.000000E+00	.000000E+00	.250872E+03	.125436E+03
29	1	.148891E+03	.127835E+03	-.238958E+01	.127567E+03	.149159E+03	.107960E+02
33	1	-.263264E+02	.000000E+00	.000000E+00	-.263264E+02	.000000E+00	.131632E+02
41	1	-.181981E+02	.000000E+00	.000000E+00	-.181981E+02	.000000E+00	.909903E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.263269E+02	-.194306E+02	-.103062E+02	.366331E+02	.234696E+02
51	1	.000000E+00	-.114699E+03	-.432310E+01	-.114862E+03	.162712E+00	.575121E+02
52	1	.000000E+00	-.530023E+02	.337963E+02	-.694488E+02	.164465E+02	.429476E+02
53	1	.000000E+00	.131900E+03	.406517E+02	-.115223E+02	.143422E+03	.774724E+02
54	1	.000000E+00	.229930E+03	.173135E+00	-.129700E-03	.229930E+03	.114965E+03

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 250.87230 AND OCCURS AT NODE 25



Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      12 inch PCCP Pavement with 70K Load
*
*****
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TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
```

Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	124.07800	132.00000	.00000	5.45520	90.00000
1	124.07800	132.00000	12.00000	17.45500	90.00000
1	124.07800	132.00000	84.00000	89.45500	90.00000
1	124.07800	132.00000	96.00000	101.45500	90.00000
1	172.07800	180.00000	.00000	5.45520	90.00000
1	172.07800	180.00000	12.00000	17.45500	90.00000
1	172.07800	180.00000	84.00000	89.45500	90.00000
1	172.07800	180.00000	96.00000	101.45500	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.56422	1.00000	-1.00000	-.31810	90.00000
22	-1.00000	-.55556	-1.00000	-.31810	90.00000
15	.56422	1.00000	.50000	1.00000	90.00000
16	.56422	1.00000	-1.00000	-.88360	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.88360	90.00000
19	.56422	1.00000	-.75000	-.06812	90.00000
26	-1.00000	-.55556	-.75000	-.06812	90.00000
19	.56422	1.00000	.75000	1.00000	90.00000
20	.56422	1.00000	-1.00000	-.69957	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.69957	90.00000
36	.00975	1.00000	-1.00000	-.31810	90.00000
36	.00975	1.00000	.50000	1.00000	90.00000
37	.00975	1.00000	-1.00000	-.88360	90.00000
40	.00975	1.00000	-.75000	-.06812	90.00000
40	.00975	1.00000	.75000	1.00000	90.00000
41	.00975	1.00000	-1.00000	-.69957	90.00000



Appendix 6E-e 12 Inch PCCP Pavement

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

Appendix 6E-e 12 Inch PCCP Pavement

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0
81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .03632201  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00872153  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00101550  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00012050  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00001429

SUM OF APPLIED FORCES (FOSUM)= 31114.7 SUM OF TOTAL REACTIONS (SUBSUM)= 31073.9

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000172

SUM OF APPLIED FORCES (FOSUM)= 31114.7 SUM OF TOTAL REACTIONS (SUBSUM)= 31076.1

Appendix 6E-e 12 Inch PCCP Pavement

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1067E-01	2	.1037E-01	3	.9895E-02	4	.9337E-02	5	.8912E-02	6	.8427E-02	7	.7608E-02	8	.6683E-02
9	.2169E-01	10	.2109E-01	11	.2007E-01	12	.1889E-01	13	.1801E-01	14	.1702E-01	15	.1541E-01	16	.1362E-01
17	.3353E-01	18	.3214E-01	19	.3003E-01	20	.2816E-01	21	.2696E-01	22	.2552E-01	23	.2295E-01	24	.2009E-01
25	.3764E-01	26	.3591E-01	27	.3337E-01	28	.3132E-01	29	.3008E-01	30	.2854E-01	31	.2559E-01	32	.2236E-01
33	.4084E-01	34	.3899E-01	35	.3629E-01	36	.3412E-01	37	.3279E-01	38	.3115E-01	39	.2803E-01	40	.2453E-01
41	.4370E-01	42	.4172E-01	43	.3883E-01	44	.3664E-01	45	.3534E-01	46	.3367E-01	47	.3035E-01	48	.2663E-01
49	.4620E-01	50	.4406E-01	51	.4091E-01	52	.3876E-01	53	.3761E-01	54	.3597E-01	55	.3239E-01	56	.2851E-01
57	.4188E-01	58	.4116E-01	59	.3955E-01	60	.3753E-01	61	.3603E-01	62	.3430E-01	63	.3146E-01	64	.2846E-01
65	.3602E-01	66	.3549E-01	67	.3428E-01	68	.3263E-01	69	.3133E-01	70	.2983E-01	71	.2735E-01	72	.2464E-01
73	.2808E-01	74	.2778E-01	75	.2703E-01	76	.2585E-01	77	.2486E-01	78	.2368E-01	79	.2169E-01	80	.1945E-01
81	.1816E-01	82	.1807E-01	83	.1771E-01	84	.1705E-01	85	.1645E-01	86	.1571E-01	87	.1442E-01	88	.1292E-01
89	.1192E-01	90	.1186E-01	91	.1166E-01	92	.1126E-01	93	.1090E-01	94	.1045E-01	95	.9659E-02	96	.8740E-02
97	.6299E-02	98	.6204E-02	99	.6047E-02	100	.5845E-02	101	.5684E-02	102	.5498E-02	103	.5176E-02	104	.4801E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1067E-01	2	.1037E-01	3	.9895E-02	4	.9337E-02	5	.8912E-02	6	.8427E-02	7	.7608E-02	8	.6683E-02
9	.2169E-01	10	.2109E-01	11	.2007E-01	12	.1889E-01	13	.1801E-01	14	.1702E-01	15	.1541E-01	16	.1362E-01
17	.3353E-01	18	.3214E-01	19	.3003E-01	20	.2816E-01	21	.2696E-01	22	.2552E-01	23	.2295E-01	24	.2009E-01
25	.3764E-01	26	.3591E-01	27	.3337E-01	28	.3132E-01	29	.3008E-01	30	.2854E-01	31	.2559E-01	32	.2236E-01
33	.4084E-01	34	.3899E-01	35	.3629E-01	36	.3412E-01	37	.3279E-01	38	.3115E-01	39	.2803E-01	40	.2453E-01
41	.4370E-01	42	.4172E-01	43	.3883E-01	44	.3664E-01	45	.3534E-01	46	.3367E-01	47	.3035E-01	48	.2663E-01
49	.4404E-01	50	.4261E-01	51	.4023E-01	52	.3815E-01	53	.3682E-01	54	.3514E-01	55	.3193E-01	56	.2848E-01
57	.4404E-01	58	.4261E-01	59	.4023E-01	60	.3815E-01	61	.3682E-01	62	.3514E-01	63	.3193E-01	64	.2848E-01
65	.3602E-01	66	.3549E-01	67	.3428E-01	68	.3263E-01	69	.3133E-01	70	.2983E-01	71	.2735E-01	72	.2464E-01
73	.2808E-01	74	.2778E-01	75	.2703E-01	76	.2585E-01	77	.2486E-01	78	.2368E-01	79	.2169E-01	80	.1945E-01
81	.1816E-01	82	.1807E-01	83	.1771E-01	84	.1705E-01	85	.1645E-01	86	.1571E-01	87	.1442E-01	88	.1292E-01
89	.1192E-01	90	.1186E-01	91	.1166E-01	92	.1126E-01	93	.1090E-01	94	.1045E-01	95	.9659E-02	96	.8740E-02
97	.6299E-02	98	.6204E-02	99	.6047E-02	100	.5845E-02	101	.5684E-02	102	.5498E-02	103	.5176E-02	104	.4801E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	134.6	2	-94.2	3	-143.3	4	-154.5	5	-61.3	6	-180.5	7	-210.7	8	-476.9
9	1136.9	10	401.1	11	625.8	12	360.7	13	155.6	14	276.7	15	260.7	16	214.2
17	1178.7	18	646.9	19	668.7	20	424.7	21	278.0	22	359.1	23	372.3	24	384.9
25	861.8	26	465.4	27	430.9	28	292.9	29	216.0	30	268.8	31	264.1	32	287.3
33	1030.7	34	586.7	35	569.0	36	383.1	37	274.5	38	341.3	39	359.3	40	399.6
41	1147.7	42	689.0	43	662.2	44	458.4	45	336.9	46	422.6	47	437.3	48	479.3

Appendix 6E-e 12 Inch PCCP Pavement

49	736.1	50	549.2	51	547.3	52	394.3	53	307.5	54	376.3	55	386.5	56	388.0
57	492.8	58	356.6	59	441.3	60	312.9	61	214.7	62	268.3	63	318.3	64	384.3
65	774.4	66	456.0	67	512.9	68	357.9	69	237.2	70	293.9	71	339.0	72	467.7
73	817.3	74	450.4	75	506.4	76	331.4	77	207.4	78	268.9	79	295.3	80	373.8
81	439.1	82	193.8	83	220.6	84	132.1	85	73.1	86	95.7	87	89.4	88	60.5
89	153.8	90	23.1	91	22.8	92	-1.2	93	-4.7	94	-19.9	95	-41.9	96	-140.5
97	-154.2	98	-138.8	99	-241.8	100	-193.0	101	-74.5	102	-195.8	103	-209.5	104	-399.2

ITERATION NO. (IC) = 13 DIFFERENCE IN DEFLECTION (DF) = .00000020

SUM OF APPLIED FORCES (FOSUM)= 31114.7 SUM OF TOTAL REACTIONS (SUBSUM)= 31076.4

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1067E-01	2	.1037E-01	3	.9895E-02	4	.9338E-02	5	.8913E-02	6	.8427E-02	7	.7608E-02	8	.6683E-02
9	.2169E-01	10	.2109E-01	11	.2007E-01	12	.1889E-01	13	.1801E-01	14	.1702E-01	15	.1541E-01	16	.1362E-01
17	.3353E-01	18	.3214E-01	19	.3003E-01	20	.2816E-01	21	.2696E-01	22	.2552E-01	23	.2295E-01	24	.2009E-01
25	.3764E-01	26	.3591E-01	27	.3337E-01	28	.3132E-01	29	.3008E-01	30	.2854E-01	31	.2559E-01	32	.2236E-01
33	.4084E-01	34	.3899E-01	35	.3629E-01	36	.3412E-01	37	.3279E-01	38	.3115E-01	39	.2803E-01	40	.2453E-01
41	.4370E-01	42	.4172E-01	43	.3883E-01	44	.3664E-01	45	.3534E-01	46	.3367E-01	47	.3035E-01	48	.2663E-01
49	.4620E-01	50	.4406E-01	51	.4091E-01	52	.3876E-01	53	.3761E-01	54	.3597E-01	55	.3239E-01	56	.2851E-01
57	.4188E-01	58	.4116E-01	59	.3955E-01	60	.3753E-01	61	.3603E-01	62	.3431E-01	63	.3146E-01	64	.2846E-01
65	.3602E-01	66	.3549E-01	67	.3428E-01	68	.3263E-01	69	.3133E-01	70	.2983E-01	71	.2735E-01	72	.2464E-01
73	.2808E-01	74	.2778E-01	75	.2703E-01	76	.2585E-01	77	.2486E-01	78	.2368E-01	79	.2169E-01	80	.1945E-01
81	.1816E-01	82	.1807E-01	83	.1771E-01	84	.1705E-01	85	.1645E-01	86	.1571E-01	87	.1442E-01	88	.1292E-01
89	.1192E-01	90	.1186E-01	91	.1166E-01	92	.1126E-01	93	.1090E-01	94	.1045E-01	95	.9659E-02	96	.8740E-02
97	.6299E-02	98	.6204E-02	99	.6047E-02	100	.5845E-02	101	.5684E-02	102	.5498E-02	103	.5176E-02	104	.4801E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1067E-01	2	.1037E-01	3	.9895E-02	4	.9338E-02	5	.8913E-02	6	.8427E-02	7	.7608E-02	8	.6683E-02
9	.2169E-01	10	.2109E-01	11	.2007E-01	12	.1889E-01	13	.1801E-01	14	.1702E-01	15	.1541E-01	16	.1362E-01
17	.3353E-01	18	.3214E-01	19	.3003E-01	20	.2816E-01	21	.2696E-01	22	.2552E-01	23	.2295E-01	24	.2009E-01
25	.3764E-01	26	.3591E-01	27	.3337E-01	28	.3132E-01	29	.3008E-01	30	.2854E-01	31	.2559E-01	32	.2236E-01
33	.4084E-01	34	.3899E-01	35	.3629E-01	36	.3412E-01	37	.3279E-01	38	.3115E-01	39	.2803E-01	40	.2453E-01
41	.4370E-01	42	.4172E-01	43	.3883E-01	44	.3664E-01	45	.3534E-01	46	.3367E-01	47	.3035E-01	48	.2663E-01
49	.4404E-01	50	.4261E-01	51	.4023E-01	52	.3815E-01	53	.3682E-01	54	.3514E-01	55	.3193E-01	56	.2848E-01
57	.4404E-01	58	.4261E-01	59	.4023E-01	60	.3815E-01	61	.3682E-01	62	.3514E-01	63	.3193E-01	64	.2848E-01
65	.3602E-01	66	.3549E-01	67	.3428E-01	68	.3263E-01	69	.3133E-01	70	.2983E-01	71	.2735E-01	72	.2464E-01
73	.2808E-01	74	.2778E-01	75	.2703E-01	76	.2585E-01	77	.2486E-01	78	.2368E-01	79	.2169E-01	80	.1945E-01
81	.1816E-01	82	.1807E-01	83	.1771E-01	84	.1705E-01	85	.1645E-01	86	.1571E-01	87	.1442E-01	88	.1292E-01
89	.1192E-01	90	.1186E-01	91	.1166E-01	92	.1126E-01	93	.1090E-01	94	.1045E-01	95	.9659E-02	96	.8740E-02

Appendix 6E-e 12 Inch PCCP Pavement

97 .6299E-02 98 .6204E-02 99 .6047E-02 100 .5845E-02 101 .5684E-02 102 .5498E-02 103 .5176E-02 104 .4801E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	134.6	2	-94.2	3	-143.3	4	-154.5	5	-61.3	6	-180.5	7	-210.7	8	-476.9
9	1136.9	10	401.1	11	625.8	12	360.7	13	155.6	14	276.7	15	260.7	16	214.2
17	1178.7	18	646.9	19	668.7	20	424.7	21	278.0	22	359.1	23	372.3	24	384.9
25	861.8	26	465.4	27	430.9	28	292.9	29	216.0	30	268.8	31	264.1	32	287.3
33	1030.7	34	586.7	35	569.0	36	383.1	37	274.5	38	341.3	39	359.3	40	399.6
41	1147.7	42	689.0	43	662.3	44	458.4	45	336.9	46	422.6	47	437.3	48	479.3
49	736.2	50	549.2	51	547.3	52	394.3	53	307.5	54	376.3	55	386.5	56	388.0
57	492.8	58	356.6	59	441.3	60	312.9	61	214.7	62	268.3	63	318.3	64	384.3
65	774.4	66	456.0	67	512.9	68	357.9	69	237.3	70	293.9	71	339.0	72	467.7
73	817.3	74	450.4	75	506.4	76	331.4	77	207.4	78	268.9	79	295.3	80	373.8
81	439.1	82	193.8	83	220.6	84	132.1	85	73.1	86	95.7	87	89.4	88	60.5
89	153.8	90	23.1	91	22.8	92	-1.2	93	-4.7	94	-19.9	95	-41.9	96	-140.5
97	-154.2	98	-138.8	99	-241.8	100	-193.0	101	-74.5	102	-195.8	103	-209.5	104	-399.2

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1363.173	.000	50	-2341.151	.000	51	-1340.832	.000	52	-989.088	.000
53	-996.772	.000	54	-1281.960	.000	55	-846.760	.000	56	-23.511	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2044.759	50	-1370.430	51	-643.599	52	-578.978	53	-747.579	54	-788.898
55	-441.788	56	-24.533								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3193.709	-2603.463	50	-2140.474	-1744.882	51	-1005.238	-819.455	52	-904.306	-737.176
53	-1167.644	-951.846	54	-1232.180	-1004.455	55	-690.028	-562.500	56	-38.318	-31.236

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.56066	2	-.15309	3	-.19113	4	-.25128	5	-.12775	6	-.30861	7	-.30538	8	-1.38239
9	2.58377	10	.35579	11	.45511	12	.31992	13	.17680	14	.25800	15	.20609	16	.33862
17	4.33352	18	.92812	19	.78668	20	.60934	21	.51100	22	.54167	23	.47611	24	.98445
25	5.98505	26	1.26122	27	.95746	28	.79374	29	.75015	30	.76578	31	.63789	32	1.38812
33	7.15767	34	1.59003	35	1.26444	36	1.03829	37	.95307	38	.97247	39	.86784	40	1.93037
41	8.43879	42	1.97700	43	1.55824	44	1.31529	45	1.23844	46	1.27486	47	1.11834	48	2.45144
49	11.50236	50	3.34888	51	2.73664	52	2.40425	53	2.40221	54	2.41194	55	2.10067	56	4.21776
57	7.69948	58	2.17420	59	2.20665	60	1.90773	61	1.67740	62	1.71967	63	1.72978	64	4.17731
65	4.84009	66	1.11219	67	1.02586	68	.87286	69	.74141	70	.75368	71	.73697	72	2.03362
73	3.19272	74	.68665	75	.63297	76	.50521	77	.40510	78	.43089	79	.40119	80	1.01575

Appendix 6E-e 12 Inch PCCP Pavement

81	1.37214	82	.23633	83	.22055	84	.16112	85	.11427	86	.12269	87	.09721	88	.13162
89	.38457	90	.02254	91	.01824	92	-.00113	93	-.00589	94	-.02044	95	-.03641	96	-.24441
97	-.64264	98	-.22569	99	-.32242	100	-.31374	101	-.15520	102	-.33467	103	-.30359	104	-1.15719

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.1888E-04	.1711E-03	2	.1864E-04	.1663E-03	3	.2026E-04	.1588E-03	4	.2478E-04	.1498E-03	5	.2837E-04	.1429E-03
6	.3250E-04	.1351E-03	7	.3842E-04	.1231E-03	8	.4129E-04	.1093E-03	9	.3519E-04	.2145E-03	10	.3873E-04	.2042E-03
11	.4378E-04	.1889E-03	12	.5124E-04	.1761E-03	13	.5818E-04	.1684E-03	14	.6540E-04	.1593E-03	15	.7469E-04	.1427E-03
16	.7944E-04	.1249E-03	17	.8765E-04	.2404E-03	18	.8692E-04	.2219E-03	19	.7948E-04	.1954E-03	20	.7231E-04	.1833E-03
21	.8070E-04	.1802E-03	22	.9970E-04	.1731E-03	23	.1209E-03	.1513E-03	24	.1255E-03	.1291E-03	25	.1104E-03	.2033E-03
26	.1065E-03	.1908E-03	27	.9216E-04	.1744E-03	28	.7545E-04	.1657E-03	29	.8381E-04	.1622E-03	30	.1111E-03	.1563E-03
31	.1381E-03	.1413E-03	32	.1415E-03	.1230E-03	33	.1160E-03	.1631E-03	34	.1142E-03	.1575E-03	35	.9785E-04	.1505E-03
36	.7994E-04	.1462E-03	37	.8977E-04	.1434E-03	38	.1174E-03	.1394E-03	39	.1482E-03	.1310E-03	40	.1543E-03	.1177E-03
41	.1237E-03	.1565E-03	42	.1229E-03	.1475E-03	43	.1025E-03	.1340E-03	44	.7812E-04	.1349E-03	45	.8886E-04	.1408E-03
46	.1226E-03	.1413E-03	47	.1581E-03	.1276E-03	48	.1637E-03	.1169E-03	49	.1336E-03	.1557E-03	50	.1338E-03	.1450E-03
51	.1072E-03	.1263E-03	52	.7123E-04	.1309E-03	53	.8145E-04	.1435E-03	54	.1278E-03	.1472E-03	55	.1682E-03	.1276E-03
56	.1699E-03	.1179E-03	57	.4106E-04	-.3712E-03	58	.5202E-04	-.3604E-03	59	.7340E-04	-.3336E-03	60	.8831E-04	-.3106E-03
61	.1005E-03	-.2977E-03	62	.1155E-03	-.2835E-03	63	.1286E-03	-.2599E-03	64	.1322E-03	-.2418E-03	65	.2977E-04	-.3563E-03
66	.3850E-04	-.3452E-03	67	.5761E-04	-.3221E-03	68	.7477E-04	-.3002E-03	69	.8721E-04	-.2871E-03	70	.1003E-03	-.2731E-03
71	.1141E-03	-.2513E-03	72	.1205E-03	-.2325E-03	73	.1462E-04	-.3007E-03	74	.2253E-04	-.2931E-03	75	.3843E-04	-.2781E-03
76	.5605E-04	-.2609E-03	77	.6790E-04	-.2492E-03	78	.7931E-04	-.2366E-03	79	.9283E-04	-.2171E-03	80	.1014E-03	-.1977E-03
81	.2791E-05	-.1978E-03	82	.8845E-05	-.1950E-03	83	.1998E-04	-.1888E-03	84	.3313E-04	-.1795E-03	85	.4207E-04	-.1717E-03
86	.5066E-04	-.1627E-03	87	.6119E-04	-.1476E-03	88	.6845E-04	-.1308E-03	89	.1487E-05	-.1215E-03	90	.5096E-05	-.1215E-03
91	.1180E-04	-.1196E-03	92	.1983E-04	-.1150E-03	93	.2544E-04	-.1104E-03	94	.3089E-04	-.1047E-03	95	.3754E-04	-.9468E-04
96	.4186E-04	-.8311E-04	97	.5934E-05	-.8011E-04	98	.5902E-05	-.8084E-04	99	.6950E-05	-.8036E-04	100	.9326E-05	-.7785E-04
101	.1081E-04	-.7506E-04	102	.1254E-04	-.7126E-04	103	.1539E-04	-.6444E-04	104	.1689E-04	-.5576E-04			

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.740277E+01	.000000E+00	.000000E+00	.000000E+00	.740277E+01	.370138E+01
25	1	.987688E+02	.000000E+00	.000000E+00	.000000E+00	.987688E+02	.493844E+02
29	1	.487774E+02	.392276E+02	-.544745E+01	.367586E+02	.512464E+02	.724393E+01
33	1	.116847E+02	.000000E+00	.000000E+00	.000000E+00	.116847E+02	.584237E+01
41	1	.240265E+01	.000000E+00	.000000E+00	.000000E+00	.240265E+01	.120133E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.354202E+01	-.155830E+02	-.139123E+02	.174543E+02	.156833E+02

Appendix 6E-e 12 Inch PCCP Pavement

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51	1	.000000E+00	-.549262E+02	-.645191E+01	-.556739E+02	.747696E+00	.282108E+02
52	1	.000000E+00	-.217813E+02	.118577E+02	-.269907E+02	.520942E+01	.161001E+02
53	1	.000000E+00	.539510E+02	.127730E+02	-.287121E+01	.568222E+02	.298467E+02
54	1	.000000E+00	.895573E+02	-.717538E+01	-.571251E+00	.901286E+02	.453499E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 98.76884 AND OCCURS AT NODE 25

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
* 12 inch PCCP Pavement with 70K load Single Axle
*
*****
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TYPE OF FOUNDATION (NFOUND)          = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)       = 0
NUMBER OF PERIODS PER YEAR (NPY)      = 1
NUMBER OF LOAD GROUPS (NLG)           = 1
TOTAL NUMBER OF SLABS (NSLAB)         = 2
TOTAL NUMBER OF JOINTS (NJOINT)       = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
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Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	172.07800	180.00000	.00000	5.45520	90.00000
1	172.07800	180.00000	8.00000	13.45520	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	.00975	1.00000	-1.00000	-.31810	90.00000
36	.00975	1.00000	.00000	.68190	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SHEAR (SPCON1)	MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0

Appendix 6E-e 12 Inch PCCP Pavement

81 0 82 0 83 0 84 0 85 0 86 0 87 0 88 0 89 0 90 0  
 91 0 92 0 93 0 94 0 95 0 96 0 97 0 98 0 99 0 100 0  
 101 0 102 0 103 0 104 0

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .01862701  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00249648  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00026914  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00003178  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000379

SUM OF APPLIED FORCES (FOSUM)= 7778.9 SUM OF TOTAL REACTIONS (SUBSUM)= 7767.9

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2490E-02	2	.2222E-02	3	.1836E-02	4	.1499E-02	5	.1301E-02	6	.1112E-02	7	.8339E-03	8	.5407E-03
9	.5340E-02	10	.4856E-02	11	.4085E-02	12	.3348E-02	13	.2900E-02	14	.2468E-02	15	.1862E-02	16	.1259E-02
17	.9828E-02	18	.8831E-02	19	.7281E-02	20	.5853E-02	21	.5026E-02	22	.4261E-02	23	.3236E-02	24	.2241E-02
25	.1224E-01	26	.1092E-01	27	.8897E-02	28	.7081E-02	29	.6060E-02	30	.5138E-02	31	.3931E-02	32	.2783E-02
33	.1515E-01	34	.1340E-01	35	.1075E-01	36	.8464E-02	37	.7227E-02	38	.6135E-02	39	.4743E-02	40	.3447E-02
41	.1844E-01	42	.1615E-01	43	.1276E-01	44	.9955E-02	45	.8489E-02	46	.7224E-02	47	.5653E-02	48	.4229E-02
49	.2143E-01	50	.1868E-01	51	.1457E-01	52	.1131E-01	53	.9642E-02	54	.8227E-02	55	.6505E-02	56	.4993E-02
57	.1800E-01	58	.1657E-01	59	.1395E-01	60	.1127E-01	61	.9704E-02	62	.8304E-02	63	.6566E-02	64	.5045E-02
65	.1527E-01	66	.1406E-01	67	.1196E-01	68	.9785E-02	69	.8475E-02	70	.7274E-02	71	.5730E-02	72	.4317E-02
73	.1160E-01	74	.1073E-01	75	.9242E-02	76	.7695E-02	77	.6727E-02	78	.5803E-02	79	.4551E-02	80	.3348E-02
81	.7132E-02	82	.6640E-02	83	.5815E-02	84	.4949E-02	85	.4384E-02	86	.3816E-02	87	.2997E-02	88	.2167E-02
89	.4428E-02	90	.4138E-02	91	.3655E-02	92	.3149E-02	93	.2815E-02	94	.2471E-02	95	.1960E-02	96	.1429E-02
97	.2156E-02	98	.1980E-02	99	.1723E-02	100	.1486E-02	101	.1339E-02	102	.1190E-02	103	.9595E-03	104	.7086E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2490E-02	2	.2222E-02	3	.1836E-02	4	.1499E-02	5	.1301E-02	6	.1112E-02	7	.8339E-03	8	.5407E-03
9	.5340E-02	10	.4856E-02	11	.4085E-02	12	.3348E-02	13	.2900E-02	14	.2468E-02	15	.1862E-02	16	.1259E-02
17	.9828E-02	18	.8831E-02	19	.7281E-02	20	.5853E-02	21	.5026E-02	22	.4261E-02	23	.3235E-02	24	.2241E-02
25	.1224E-01	26	.1092E-01	27	.8897E-02	28	.7081E-02	29	.6060E-02	30	.5138E-02	31	.3931E-02	32	.2783E-02
33	.1515E-01	34	.1340E-01	35	.1075E-01	36	.8464E-02	37	.7227E-02	38	.6135E-02	39	.4743E-02	40	.3447E-02
41	.1844E-01	42	.1615E-01	43	.1276E-01	44	.9955E-02	45	.8489E-02	46	.7224E-02	47	.5653E-02	48	.4229E-02

Appendix 6E-e 12 Inch PCCP Pavement

49	.1971E-01	50	.1763E-01	51	.1426E-01	52	.1129E-01	53	.9673E-02	54	.8266E-02	55	.6536E-02	56	.5019E-02
57	.1971E-01	58	.1763E-01	59	.1426E-01	60	.1129E-01	61	.9673E-02	62	.8266E-02	63	.6536E-02	64	.5019E-02
65	.1527E-01	66	.1406E-01	67	.1196E-01	68	.9785E-02	69	.8475E-02	70	.7274E-02	71	.5730E-02	72	.4317E-02
73	.1160E-01	74	.1073E-01	75	.9242E-02	76	.7695E-02	77	.6727E-02	78	.5803E-02	79	.4551E-02	80	.3348E-02
81	.7132E-02	82	.6640E-02	83	.5815E-02	84	.4949E-02	85	.4384E-02	86	.3816E-02	87	.2997E-02	88	.2167E-02
89	.4428E-02	90	.4138E-02	91	.3655E-02	92	.3149E-02	93	.2815E-02	94	.2471E-02	95	.1960E-02	96	.1429E-02
97	.2156E-02	98	.1980E-02	99	.1723E-02	100	.1486E-02	101	.1339E-02	102	.1190E-02	103	.9595E-03	104	.7086E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	52.2	2	-46.6	3	-77.8	4	-80.2	5	-30.8	6	-86.0	7	-92.9	8	-220.2
9	288.1	10	47.1	11	53.5	12	-6.2	13	-8.9	14	-33.4	15	-52.3	16	-188.9
17	350.4	18	139.8	19	100.9	20	33.5	21	9.7	22	.6	23	-20.1	24	-93.6
25	305.3	26	132.0	27	93.5	28	39.3	29	17.9	30	13.7	31	3.4	32	-37.2
33	459.4	34	218.4	35	161.8	36	71.9	37	35.8	38	32.8	39	21.7	40	-19.1
41	636.3	42	335.0	43	242.8	44	110.7	45	57.5	46	57.3	47	47.8	48	16.2
49	465.2	50	319.6	51	248.2	52	123.5	53	70.9	54	73.7	55	71.7	56	55.9
57	271.8	58	178.9	59	200.2	60	121.0	61	74.5	62	78.7	63	76.2	64	59.6
65	423.9	66	215.2	67	212.0	68	123.2	69	69.3	70	71.7	71	61.1	72	26.0
73	477.8	74	225.4	75	208.1	76	103.1	77	50.6	78	50.4	79	32.2	80	-37.2
81	289.0	82	104.0	83	93.3	84	36.2	85	13.0	86	6.5	87	-13.1	88	-104.7
89	144.5	90	24.4	91	18.7	92	-6.2	93	-7.4	94	-21.9	95	-38.0	96	-134.4
97	13.6	98	-42.4	99	-71.7	100	-67.5	101	-25.8	102	-72.0	103	-78.3	104	-185.9

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000045

SUM OF APPLIED FORCES (FOSUM)= 7778.9 SUM OF TOTAL REACTIONS (SUBSUM)= 7768.5

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2491E-02	2	.2222E-02	3	.1837E-02	4	.1499E-02	5	.1302E-02	6	.1112E-02	7	.8342E-03	8	.5409E-03
9	.5341E-02	10	.4856E-02	11	.4085E-02	12	.3348E-02	13	.2900E-02	14	.2468E-02	15	.1862E-02	16	.1259E-02
17	.9828E-02	18	.8831E-02	19	.7282E-02	20	.5854E-02	21	.5027E-02	22	.4261E-02	23	.3236E-02	24	.2241E-02
25	.1224E-01	26	.1092E-01	27	.8898E-02	28	.7081E-02	29	.6061E-02	30	.5138E-02	31	.3932E-02	32	.2783E-02
33	.1515E-01	34	.1340E-01	35	.1075E-01	36	.8465E-02	37	.7227E-02	38	.6135E-02	39	.4744E-02	40	.3447E-02
41	.1844E-01	42	.1615E-01	43	.1276E-01	44	.9955E-02	45	.8489E-02	46	.7225E-02	47	.5654E-02	48	.4229E-02
49	.2143E-01	50	.1868E-01	51	.1457E-01	52	.1131E-01	53	.9642E-02	54	.8227E-02	55	.6506E-02	56	.4994E-02
57	.1800E-01	58	.1657E-01	59	.1395E-01	60	.1127E-01	61	.9704E-02	62	.8305E-02	63	.6567E-02	64	.5045E-02
65	.1527E-01	66	.1406E-01	67	.1196E-01	68	.9785E-02	69	.8475E-02	70	.7274E-02	71	.5730E-02	72	.4318E-02
73	.1161E-01	74	.1073E-01	75	.9243E-02	76	.7695E-02	77	.6728E-02	78	.5803E-02	79	.4552E-02	80	.3348E-02
81	.7133E-02	82	.6641E-02	83	.5815E-02	84	.4949E-02	85	.4384E-02	86	.3816E-02	87	.2998E-02	88	.2167E-02
89	.4428E-02	90	.4138E-02	91	.3655E-02	92	.3149E-02	93	.2815E-02	94	.2472E-02	95	.1960E-02	96	.1430E-02

Appendix 6E-e 12 Inch PCCP Pavement

97 .2157E-02 98 .1980E-02 99 .1724E-02 100 .1487E-02 101 .1339E-02 102 .1190E-02 103 .9597E-03 104 .7088E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2491E-02	2	.2222E-02	3	.1837E-02	4	.1499E-02	5	.1302E-02	6	.1112E-02	7	.8342E-03	8	.5409E-03
9	.5341E-02	10	.4856E-02	11	.4085E-02	12	.3348E-02	13	.2900E-02	14	.2468E-02	15	.1862E-02	16	.1259E-02
17	.9828E-02	18	.8831E-02	19	.7282E-02	20	.5854E-02	21	.5027E-02	22	.4261E-02	23	.3236E-02	24	.2241E-02
25	.1224E-01	26	.1092E-01	27	.8898E-02	28	.7081E-02	29	.6061E-02	30	.5138E-02	31	.3932E-02	32	.2783E-02
33	.1515E-01	34	.1340E-01	35	.1075E-01	36	.8465E-02	37	.7227E-02	38	.6135E-02	39	.4744E-02	40	.3447E-02
41	.1844E-01	42	.1615E-01	43	.1276E-01	44	.9955E-02	45	.8489E-02	46	.7225E-02	47	.5654E-02	48	.4229E-02
49	.1971E-01	50	.1763E-01	51	.1426E-01	52	.1129E-01	53	.9673E-02	54	.8266E-02	55	.6536E-02	56	.5019E-02
57	.1971E-01	58	.1763E-01	59	.1426E-01	60	.1129E-01	61	.9673E-02	62	.8266E-02	63	.6536E-02	64	.5019E-02
65	.1527E-01	66	.1406E-01	67	.1196E-01	68	.9785E-02	69	.8475E-02	70	.7274E-02	71	.5730E-02	72	.4318E-02
73	.1161E-01	74	.1073E-01	75	.9243E-02	76	.7695E-02	77	.6728E-02	78	.5803E-02	79	.4552E-02	80	.3348E-02
81	.7133E-02	82	.6641E-02	83	.5815E-02	84	.4949E-02	85	.4384E-02	86	.3816E-02	87	.2998E-02	88	.2167E-02
89	.4428E-02	90	.4138E-02	91	.3655E-02	92	.3149E-02	93	.2815E-02	94	.2472E-02	95	.1960E-02	96	.1430E-02
97	.2157E-02	98	.1980E-02	99	.1724E-02	100	.1487E-02	101	.1339E-02	102	.1190E-02	103	.9597E-03	104	.7088E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	52.2	2	-46.6	3	-77.8	4	-80.2	5	-30.8	6	-86.0	7	-92.9	8	-220.2
9	288.1	10	47.1	11	53.5	12	-6.2	13	-8.9	14	-33.4	15	-52.3	16	-188.9
17	350.4	18	139.8	19	100.9	20	33.5	21	9.7	22	.6	23	-20.1	24	-93.6
25	305.3	26	132.0	27	93.5	28	39.3	29	17.9	30	13.7	31	3.4	32	-37.2
33	459.5	34	218.4	35	161.8	36	71.9	37	35.8	38	32.8	39	21.7	40	-19.1
41	636.3	42	335.0	43	242.8	44	110.7	45	57.5	46	57.3	47	47.8	48	16.2
49	465.2	50	319.6	51	248.2	52	123.5	53	70.9	54	73.7	55	71.7	56	55.9
57	271.8	58	179.0	59	200.2	60	121.0	61	74.5	62	78.7	63	76.2	64	59.6
65	423.9	66	215.2	67	212.0	68	123.2	69	69.3	70	71.7	71	61.1	72	26.0
73	477.8	74	225.4	75	208.1	76	103.1	77	50.6	78	50.4	79	32.2	80	-37.2
81	289.0	82	104.1	83	93.3	84	36.2	85	13.0	86	6.5	87	-13.0	88	-104.7
89	144.5	90	24.4	91	18.7	92	-6.2	93	-7.4	94	-21.9	95	-38.0	96	-134.4
97	13.6	98	-42.4	99	-71.7	100	-67.5	101	-25.8	102	-72.0	103	-78.3	104	-185.9

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1083.175	.000	50	-1709.809	.000	51	-606.432	.000	52	-30.078	.000
53	39.113	.000	54	59.529	.000	55	55.294	.000	56	23.366	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-1624.763	50	-1000.864	51	-291.087	52	-17.607	53	29.335	54	36.633
55	28.849	56	24.382								

Appendix 6E-e 12 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-2537.717	-2068.708	50	-1563.249	-1274.337	51	-454.649	-370.623	52	-27.500	-22.418
53	45.818	37.350	54	57.217	46.643	55	45.059	36.731	56	38.082	31.044

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.21736	2	-.07572	3	-.10377	4	-.13033	5	-.06421	6	-.14708	7	-.13463	8	-.63823
9	.65473	10	.04178	11	.03890	12	-.00547	13	-.01013	14	-.03117	15	-.04133	16	-.29865
17	1.28825	18	.20064	19	.11873	20	.04800	21	.01784	22	.00092	23	-.02571	24	-.23933
25	2.12027	26	.35762	27	.20776	28	.10658	29	.06211	30	.03893	31	.00821	32	-.17977
33	3.19064	34	.59187	35	.35962	36	.19477	37	.12420	38	.09344	39	.05235	40	-.09246
41	4.67856	42	.96121	43	.57133	44	.31777	45	.21147	46	.17277	47	.12220	48	.08302
49	7.26833	50	1.94907	51	1.24093	52	.75297	53	.55367	54	.47229	55	.38983	56	.60743
57	4.24657	58	1.09117	59	1.00123	60	.73787	61	.58211	62	.50443	63	.41405	64	.64764
65	2.64950	66	.52483	67	.42392	68	.30056	69	.21649	70	.18373	71	.13279	72	.11300
73	1.86638	74	.34363	75	.26009	76	.15723	77	.09879	78	.08084	79	.04377	80	-.10098
81	.90324	82	.12689	83	.09332	84	.04420	85	.02026	86	.00838	87	-.01418	88	-.22766
89	.36131	90	.02384	91	.01496	92	-.00609	93	-.00930	94	-.02247	95	-.03305	96	-.23366
97	.05673	98	-.06897	99	-.09558	100	-.10983	101	-.05380	102	-.12307	103	-.11346	104	-.53879

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y	
1	.1703E-04	.4081E-04	2	.1636E-04	.3728E-04	3	.1444E-04	.3226E-04	4	.1272E-04	.2691E-04
5	.1201E-04	.2339E-04	6	.1183E-04	.1987E-04	7	.1242E-04	.1501E-04	8	.1294E-04	.1006E-04
9	.2955E-04	.6470E-04	10	.3084E-04	.5802E-04	11	.3038E-04	.4792E-04	12	.2855E-04	.3849E-04
13	.2745E-04	.3297E-04	14	.2665E-04	.2784E-04	15	.2616E-04	.2106E-04	16	.2634E-04	.1464E-04
17	.6119E-04	.1190E-03	18	.6291E-04	.1051E-03	19	.6017E-04	.8255E-04	20	.5382E-04	.6336E-04
21	.4963E-04	.5344E-04	22	.4621E-04	.4518E-04	23	.4345E-04	.3536E-04	24	.4342E-04	.2694E-04
25	.8111E-04	.1483E-03	26	.8280E-04	.1272E-03	27	.7769E-04	.9680E-04	28	.6721E-04	.7286E-04
29	.6049E-04	.6135E-04	30	.5508E-04	.5221E-04	31	.5053E-04	.4195E-04	32	.4995E-04	.3344E-04
33	.1088E-03	.1744E-03	34	.1095E-03	.1471E-03	35	.9991E-04	.1082E-03	36	.8264E-04	.8043E-04
37	.7243E-04	.6791E-04	38	.6444E-04	.5833E-04	39	.5752E-04	.4812E-04	40	.5609E-04	.4035E-04
41	.1430E-03	.1867E-03	42	.1420E-03	.1572E-03	43	.1258E-03	.1135E-03	44	.9893E-04	.8453E-04
45	.8478E-04	.7180E-04	46	.7386E-04	.6223E-04	47	.6394E-04	.5253E-04	48	.6109E-04	.4626E-04
49	.1719E-03	.1870E-03	50	.1713E-03	.1582E-03	51	.1496E-03	.1122E-03	52	.1138E-03	.8397E-04
53	.9563E-04	.7159E-04	54	.8184E-04	.6243E-04	55	.6897E-04	.5341E-04	56	.6444E-04	.4847E-04
57	.8643E-04	-.1731E-03	58	.9569E-04	-.1598E-03	59	.1086E-03	-.1260E-03	60	.1031E-03	-.9325E-04
61	.9286E-04	-.7674E-04	62	.8204E-04	-.6427E-04	63	.6974E-04	-.5235E-04	64	.6476E-04	-.4616E-04
65	.7331E-04	-.1655E-03	66	.7878E-04	-.1514E-03	67	.8756E-04	-.1215E-03	68	.8481E-04	-.9174E-04
69	.7862E-04	-.7613E-04	70	.7157E-04	-.6393E-04	71	.6335E-04	-.5168E-04	72	.6059E-04	-.4397E-04
73	.5322E-04	-.1373E-03	74	.5675E-04	-.1255E-03	75	.6142E-04	-.1036E-03	76	.6149E-04	-.8115E-04



Appendix 6E-e 12 Inch PCCP Pavement

77	.5925E-04	-.6844E-04	78	.5629E-04	-.5777E-04	79	.5288E-04	-.4579E-04	80	.5235E-04	-.3648E-04
81	.2953E-04	-.8761E-04	82	.3180E-04	-.8036E-04	83	.3403E-04	-.6840E-04	84	.3514E-04	-.5599E-04
85	.3543E-04	-.4834E-04	86	.3552E-04	-.4119E-04	87	.3576E-04	-.3185E-04	88	.3651E-04	-.2332E-04
89	.1739E-04	-.5097E-04	90	.1871E-04	-.4768E-04	91	.1984E-04	-.4193E-04	92	.2060E-04	-.3554E-04
93	.2117E-04	-.3129E-04	94	.2180E-04	-.2700E-04	95	.2269E-04	-.2091E-04	96	.2335E-04	-.1492E-04
97	.1115E-04	-.3222E-04	98	.1075E-04	-.3040E-04	99	.9818E-05	-.2739E-04	100	.9272E-05	-.2379E-04
101	.9209E-05	-.2120E-04	102	.9530E-05	-.1844E-04	103	.1052E-04	-.1437E-04	104	.1114E-04	-.9939E-05

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX.SHEAR
17	1	-.364781E+02	.000000E+00	.000000E+00	-.364781E+02	.000000E+00	.182390E+02
25	1	-.375951E+02	.000000E+00	.000000E+00	-.375951E+02	.000000E+00	.187975E+02
29	1	-.117291E+02	-.111464E+02	-.133319E+02	-.247728E+02	.189726E+01	.133350E+02
33	1	-.331544E+02	.000000E+00	.000000E+00	-.331544E+02	.000000E+00	.165772E+02
41	1	.764228E+00	.000000E+00	.000000E+00	.000000E+00	.764228E+00	.382114E+00
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.774002E+00	-.386676E+02	-.382825E+02	.390565E+02	.386695E+02
51	1	.000000E+00	-.432420E+02	-.313997E+02	-.597446E+02	.165026E+02	.381236E+02
52	1	.000000E+00	-.292277E+02	-.191446E+02	-.386988E+02	.947104E+01	.240849E+02
53	1	.000000E+00	-.231165E+02	-.138447E+02	-.295934E+02	.647692E+01	.180352E+02
54	1	.000000E+00	-.174230E+02	-.100922E+02	-.220436E+02	.462052E+01	.133320E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 59.74456 AND OCCURS AT NODE 51

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
*      12 inch PCCP Pavement with 75k load
*
*****
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TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
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Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	123.80000	132.00000	.00000	5.64670	90.00000
1	123.80000	132.00000	12.00000	17.64670	90.00000
1	123.80000	132.00000	84.00000	89.64670	90.00000
1	123.80000	132.00000	96.00000	101.64600	90.00000
1	171.80000	180.00000	.00000	5.64670	90.00000
1	171.80000	180.00000	12.00000	17.64670	90.00000
1	171.80000	180.00000	84.00000	89.64670	90.00000
1	171.80000	180.00000	96.00000	101.64600	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.53333	1.00000	-1.00000	-.29416	90.00000
22	-1.00000	-.55556	-1.00000	-.29416	90.00000
15	.53333	1.00000	.50000	1.00000	90.00000
16	.53333	1.00000	-1.00000	-.86826	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.86826	90.00000
19	.53333	1.00000	-.75000	-.04416	90.00000
26	-1.00000	-.55556	-.75000	-.04416	90.00000
19	.53333	1.00000	.75000	1.00000	90.00000
20	.53333	1.00000	-1.00000	-.68296	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.68296	90.00000
36	-.02500	1.00000	-1.00000	-.29416	90.00000
36	-.02500	1.00000	.50000	1.00000	90.00000
37	-.02500	1.00000	-1.00000	-.86826	90.00000
40	-.02500	1.00000	-.75000	-.04416	90.00000
40	-.02500	1.00000	.75000	1.00000	90.00000
41	-.02500	1.00000	-1.00000	-.68296	90.00000

Appendix 6E-e 12 Inch PCCP Pavement

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

Appendix 6E-e 12 Inch PCCP Pavement

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0
81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .03880146  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00934023  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00108768  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00012899  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00001537

SUM OF APPLIED FORCES (FOSUM)= 33337.1 SUM OF TOTAL REACTIONS (SUBSUM)= 33293.4

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000181

SUM OF APPLIED FORCES (FOSUM)= 33337.1 SUM OF TOTAL REACTIONS (SUBSUM)= 33295.8

Appendix 6E-e 12 Inch PCCP Pavement

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1145E-01	2	.1113E-01	3	.1062E-01	4	.1003E-01	5	.9571E-02	6	.9051E-02	7	.8174E-02	8	.7183E-02
9	.2325E-01	10	.2262E-01	11	.2152E-01	12	.2027E-01	13	.1933E-01	14	.1827E-01	15	.1655E-01	16	.1464E-01
17	.3592E-01	18	.3444E-01	19	.3218E-01	20	.3019E-01	21	.2891E-01	22	.2738E-01	23	.2462E-01	24	.2157E-01
25	.4030E-01	26	.3846E-01	27	.3575E-01	28	.3356E-01	29	.3224E-01	30	.3060E-01	31	.2745E-01	32	.2400E-01
33	.4370E-01	34	.4174E-01	35	.3886E-01	36	.3654E-01	37	.3513E-01	38	.3338E-01	39	.3005E-01	40	.2630E-01
41	.4674E-01	42	.4464E-01	43	.4156E-01	44	.3922E-01	45	.3784E-01	46	.3605E-01	47	.3252E-01	48	.2854E-01
49	.4938E-01	50	.4711E-01	51	.4376E-01	52	.4147E-01	53	.4024E-01	54	.3850E-01	55	.3468E-01	56	.3054E-01
57	.4478E-01	58	.4402E-01	59	.4230E-01	60	.4016E-01	61	.3856E-01	62	.3672E-01	63	.3368E-01	64	.3048E-01
65	.3852E-01	66	.3795E-01	67	.3667E-01	68	.3491E-01	69	.3353E-01	70	.3193E-01	71	.2928E-01	72	.2639E-01
73	.3003E-01	74	.2972E-01	75	.2892E-01	76	.2766E-01	77	.2661E-01	78	.2535E-01	79	.2323E-01	80	.2083E-01
81	.1943E-01	82	.1933E-01	83	.1895E-01	84	.1825E-01	85	.1761E-01	86	.1682E-01	87	.1544E-01	88	.1384E-01
89	.1275E-01	90	.1270E-01	91	.1248E-01	92	.1206E-01	93	.1167E-01	94	.1119E-01	95	.1035E-01	96	.9367E-02
97	.6743E-02	98	.6643E-02	99	.6477E-02	100	.6262E-02	101	.6090E-02	102	.5892E-02	103	.5548E-02	104	.5148E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1145E-01	2	.1113E-01	3	.1062E-01	4	.1003E-01	5	.9571E-02	6	.9051E-02	7	.8174E-02	8	.7183E-02
9	.2325E-01	10	.2262E-01	11	.2152E-01	12	.2027E-01	13	.1933E-01	14	.1827E-01	15	.1655E-01	16	.1464E-01
17	.3592E-01	18	.3444E-01	19	.3218E-01	20	.3019E-01	21	.2891E-01	22	.2738E-01	23	.2462E-01	24	.2157E-01
25	.4030E-01	26	.3846E-01	27	.3575E-01	28	.3356E-01	29	.3224E-01	30	.3060E-01	31	.2745E-01	32	.2400E-01
33	.4370E-01	34	.4174E-01	35	.3886E-01	36	.3654E-01	37	.3513E-01	38	.3338E-01	39	.3005E-01	40	.2630E-01
41	.4674E-01	42	.4464E-01	43	.4156E-01	44	.3922E-01	45	.3784E-01	46	.3605E-01	47	.3252E-01	48	.2854E-01
49	.4708E-01	50	.4556E-01	51	.4303E-01	52	.4081E-01	53	.3940E-01	54	.3761E-01	55	.3418E-01	56	.3051E-01
57	.4708E-01	58	.4556E-01	59	.4303E-01	60	.4081E-01	61	.3940E-01	62	.3761E-01	63	.3418E-01	64	.3051E-01
65	.3852E-01	66	.3795E-01	67	.3667E-01	68	.3491E-01	69	.3353E-01	70	.3193E-01	71	.2928E-01	72	.2639E-01
73	.3003E-01	74	.2972E-01	75	.2892E-01	76	.2766E-01	77	.2661E-01	78	.2535E-01	79	.2323E-01	80	.2083E-01
81	.1943E-01	82	.1933E-01	83	.1895E-01	84	.1825E-01	85	.1761E-01	86	.1682E-01	87	.1544E-01	88	.1384E-01
89	.1275E-01	90	.1270E-01	91	.1248E-01	92	.1206E-01	93	.1167E-01	94	.1119E-01	95	.1035E-01	96	.9367E-02
97	.6743E-02	98	.6643E-02	99	.6477E-02	100	.6262E-02	101	.6090E-02	102	.5892E-02	103	.5548E-02	104	.5148E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	145.0	2	-100.2	3	-152.4	4	-164.6	5	-65.3	6	-192.4	7	-224.8	8	-508.9
9	1220.1	10	431.3	11	673.1	12	388.6	13	167.7	14	298.6	15	281.8	16	234.4
17	1263.1	18	694.2	19	718.0	20	456.3	21	298.8	22	386.3	23	401.0	24	415.9
25	922.1	26	498.6	27	462.0	28	314.1	29	231.7	30	288.4	31	283.8	32	309.6
33	1102.2	34	628.0	35	609.5	36	410.5	37	294.1	38	365.9	39	385.6	40	429.6
41	1226.2	42	736.8	43	708.6	44	490.4	45	360.5	46	452.5	47	468.6	48	514.3



Appendix 6E-e 12 Inch PCCP Pavement

49	785.4	50	586.3	51	584.7	52	421.2	53	328.4	54	402.0	55	413.4	56	415.4
57	526.1	58	380.6	59	471.2	60	334.1	61	229.3	62	286.6	63	340.1	64	411.1
65	827.1	66	487.1	67	548.0	68	382.5	69	253.7	70	314.3	71	362.6	72	501.0
73	872.8	74	481.2	75	541.2	76	354.3	77	221.8	78	287.6	79	316.1	80	400.9
81	468.8	82	207.0	83	235.7	84	141.3	85	78.3	86	102.5	87	95.9	88	65.7
89	164.0	90	24.6	91	24.3	92	-1.2	93	-5.0	94	-21.2	95	-44.6	96	-149.6
97	-165.3	98	-148.5	99	-258.7	100	-206.4	101	-79.7	102	-209.4	103	-224.0	104	-426.6

ITERATION NO. (IC) = 13 DIFFERENCE IN DEFLECTION (DF) = .00000021

SUM OF APPLIED FORCES (FOSUM)= 33337.1 SUM OF TOTAL REACTIONS (SUBSUM)= 33296.0

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1145E-01	2	.1113E-01	3	.1062E-01	4	.1003E-01	5	.9571E-02	6	.9051E-02	7	.8174E-02	8	.7183E-02
9	.2325E-01	10	.2262E-01	11	.2152E-01	12	.2027E-01	13	.1933E-01	14	.1827E-01	15	.1655E-01	16	.1464E-01
17	.3592E-01	18	.3444E-01	19	.3218E-01	20	.3019E-01	21	.2891E-01	22	.2738E-01	23	.2462E-01	24	.2157E-01
25	.4030E-01	26	.3846E-01	27	.3575E-01	28	.3356E-01	29	.3224E-01	30	.3060E-01	31	.2745E-01	32	.2400E-01
33	.4370E-01	34	.4174E-01	35	.3886E-01	36	.3654E-01	37	.3513E-01	38	.3338E-01	39	.3005E-01	40	.2630E-01
41	.4674E-01	42	.4464E-01	43	.4156E-01	44	.3922E-01	45	.3784E-01	46	.3605E-01	47	.3252E-01	48	.2854E-01
49	.4938E-01	50	.4711E-01	51	.4376E-01	52	.4147E-01	53	.4024E-01	54	.3850E-01	55	.3468E-01	56	.3054E-01
57	.4478E-01	58	.4402E-01	59	.4231E-01	60	.4016E-01	61	.3856E-01	62	.3672E-01	63	.3368E-01	64	.3048E-01
65	.3852E-01	66	.3795E-01	67	.3667E-01	68	.3491E-01	69	.3353E-01	70	.3193E-01	71	.2928E-01	72	.2639E-01
73	.3003E-01	74	.2972E-01	75	.2892E-01	76	.2766E-01	77	.2661E-01	78	.2535E-01	79	.2323E-01	80	.2083E-01
81	.1943E-01	82	.1933E-01	83	.1895E-01	84	.1825E-01	85	.1761E-01	86	.1682E-01	87	.1544E-01	88	.1384E-01
89	.1275E-01	90	.1270E-01	91	.1248E-01	92	.1206E-01	93	.1167E-01	94	.1119E-01	95	.1035E-01	96	.9367E-02
97	.6744E-02	98	.6643E-02	99	.6477E-02	100	.6262E-02	101	.6090E-02	102	.5892E-02	103	.5548E-02	104	.5148E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1145E-01	2	.1113E-01	3	.1062E-01	4	.1003E-01	5	.9571E-02	6	.9051E-02	7	.8174E-02	8	.7183E-02
9	.2325E-01	10	.2262E-01	11	.2152E-01	12	.2027E-01	13	.1933E-01	14	.1827E-01	15	.1655E-01	16	.1464E-01
17	.3592E-01	18	.3444E-01	19	.3218E-01	20	.3019E-01	21	.2891E-01	22	.2738E-01	23	.2462E-01	24	.2157E-01
25	.4030E-01	26	.3846E-01	27	.3575E-01	28	.3356E-01	29	.3224E-01	30	.3060E-01	31	.2745E-01	32	.2400E-01
33	.4370E-01	34	.4174E-01	35	.3886E-01	36	.3654E-01	37	.3513E-01	38	.3338E-01	39	.3005E-01	40	.2630E-01
41	.4674E-01	42	.4464E-01	43	.4156E-01	44	.3922E-01	45	.3784E-01	46	.3605E-01	47	.3252E-01	48	.2854E-01
49	.4708E-01	50	.4556E-01	51	.4303E-01	52	.4081E-01	53	.3940E-01	54	.3761E-01	55	.3418E-01	56	.3051E-01
57	.4708E-01	58	.4556E-01	59	.4303E-01	60	.4081E-01	61	.3940E-01	62	.3761E-01	63	.3418E-01	64	.3051E-01
65	.3852E-01	66	.3795E-01	67	.3667E-01	68	.3491E-01	69	.3353E-01	70	.3193E-01	71	.2928E-01	72	.2639E-01
73	.3003E-01	74	.2972E-01	75	.2892E-01	76	.2766E-01	77	.2661E-01	78	.2535E-01	79	.2323E-01	80	.2083E-01
81	.1943E-01	82	.1933E-01	83	.1895E-01	84	.1825E-01	85	.1761E-01	86	.1682E-01	87	.1544E-01	88	.1384E-01
89	.1275E-01	90	.1270E-01	91	.1248E-01	92	.1206E-01	93	.1167E-01	94	.1119E-01	95	.1035E-01	96	.9367E-02

Appendix 6E-e 12 Inch PCCP Pavement

97 .6744E-02 98 .6643E-02 99 .6477E-02 100 .6262E-02 101 .6090E-02 102 .5892E-02 103 .5548E-02 104 .5148E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	145.0	2	-100.2	3	-152.3	4	-164.6	5	-65.3	6	-192.4	7	-224.8	8	-508.8
9	1220.1	10	431.3	11	673.1	12	388.6	13	167.7	14	298.6	15	281.8	16	234.5
17	1263.1	18	694.2	19	718.0	20	456.3	21	298.8	22	386.3	23	401.0	24	415.9
25	922.1	26	498.6	27	462.0	28	314.1	29	231.7	30	288.4	31	283.8	32	309.6
33	1102.2	34	628.0	35	609.5	36	410.5	37	294.1	38	365.9	39	385.6	40	429.7
41	1226.2	42	736.8	43	708.6	44	490.4	45	360.5	46	452.5	47	468.6	48	514.3
49	785.4	50	586.3	51	584.7	52	421.2	53	328.4	54	402.0	55	413.4	56	415.4
57	526.1	58	380.6	59	471.2	60	334.1	61	229.3	62	286.6	63	340.1	64	411.1
65	827.1	66	487.1	67	548.0	68	382.5	69	253.7	70	314.3	71	362.6	72	501.0
73	872.8	74	481.2	75	541.2	76	354.3	77	221.8	78	287.6	79	316.1	80	400.9
81	468.8	82	207.0	83	235.7	84	141.3	85	78.3	86	102.5	87	95.9	88	65.7
89	164.0	90	24.6	91	24.3	92	-1.2	93	-5.0	94	-21.2	95	-44.6	96	-149.6
97	-165.3	98	-148.5	99	-258.7	100	-206.4	101	-79.7	102	-209.4	103	-224.0	104	-426.6

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1452.233	.000	50	-2499.264	.000	51	-1436.060	.000	52	-1057.435	.000
53	-1064.196	.000	54	-1370.257	.000	55	-909.030	.000	56	-27.109	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2178.350	50	-1462.984	51	-689.309	52	-618.986	53	-798.147	54	-843.235
55	-474.276	56	-28.287								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3402.364	-2773.555	50	-2285.034	-1862.725	51	-1076.632	-877.654	52	-966.794	-788.116
53	-1246.626	-1016.230	54	-1317.049	-1073.638	55	-740.772	-603.866	56	-44.182	-36.016

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.60427	2	-.16298	3	-.20313	4	-.26758	5	-.13608	6	-.32896	7	-.32577	8	-1.47493
9	2.77290	10	.38255	11	.48954	12	.34464	13	.19061	14	.27846	15	.22278	16	.37068
17	4.64393	18	.99595	19	.84469	20	.65461	21	.54929	22	.58272	23	.51273	24	1.06377
25	6.40368	26	1.35121	27	1.02671	28	.85127	29	.80436	30	.82176	31	.68552	32	1.49569
33	7.65400	34	1.70203	35	1.35447	36	1.11237	37	1.02119	38	1.04253	39	.93129	40	2.07561
41	9.01614	42	2.11421	43	1.66725	44	1.40727	45	1.32530	46	1.36510	47	1.19837	48	2.63071
49	12.27130	50	3.57502	51	2.92355	52	2.56817	53	2.56541	54	2.57712	55	2.24681	56	4.51551
57	8.21997	58	2.32100	59	2.35592	60	2.03735	61	1.79156	62	1.83716	63	1.84864	64	4.46886
65	5.16958	66	1.18814	67	1.09603	68	.93291	69	.79269	70	.80599	71	.78837	72	2.17814
73	3.40955	74	.73354	75	.67645	76	.54012	77	.43322	78	.46096	79	.42946	80	1.08943

Appendix 6E-e 12 Inch PCCP Pavement

81	1.46493	82	.25245	83	.23572	84	.17231	85	.12228	86	.13137	87	.10425	88	.14286
89	.41005	90	.02402	91	.01946	92	-.00118	93	-.00625	94	-.02175	95	-.03878	96	-.26016
97	-.68886	98	-.24143	99	-.34492	100	-.33554	101	-.16598	102	-.35787	103	-.32461	104	-1.23643

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2010E-04	.1835E-03	2	.1985E-04	.1783E-03	3	.2160E-04	.1704E-03	4	.2649E-04	.1607E-03
5	.3036E-04	.1534E-03	6	.3480E-04	.1451E-03	7	.4115E-04	.1322E-03	8	.4423E-04	.1175E-03
9	.3753E-04	.2297E-03	10	.4131E-04	.2188E-03	11	.4673E-04	.2023E-03	12	.5474E-04	.1887E-03
13	.6219E-04	.1805E-03	14	.6996E-04	.1708E-03	15	.7992E-04	.1531E-03	16	.8502E-04	.1341E-03
17	.9346E-04	.2565E-03	18	.9269E-04	.2369E-03	19	.8486E-04	.2086E-03	20	.7717E-04	.1958E-03
21	.8612E-04	.1925E-03	22	.1065E-03	.1850E-03	23	.1292E-03	.1618E-03	24	.1342E-03	.1381E-03
25	.1174E-03	.2164E-03	26	.1134E-03	.2033E-03	27	.9834E-04	.1858E-03	28	.8054E-04	.1767E-03
29	.8941E-04	.1729E-03	30	.1185E-03	.1666E-03	31	.1476E-03	.1508E-03	32	.1512E-03	.1313E-03
33	.1234E-03	.1734E-03	34	.1215E-03	.1674E-03	35	.1043E-03	.1601E-03	36	.8527E-04	.1556E-03
37	.9573E-04	.1526E-03	38	.1253E-03	.1484E-03	39	.1583E-03	.1395E-03	40	.1649E-03	.1254E-03
41	.1314E-03	.1657E-03	42	.1307E-03	.1563E-03	43	.1093E-03	.1421E-03	44	.8329E-04	.1432E-03
45	.9467E-04	.1494E-03	46	.1308E-03	.1500E-03	47	.1688E-03	.1357E-03	48	.1749E-03	.1243E-03
49	.1416E-03	.1644E-03	50	.1421E-03	.1534E-03	51	.1142E-03	.1339E-03	52	.7599E-04	.1388E-03
53	.8677E-04	.1521E-03	54	.1361E-03	.1562E-03	55	.1794E-03	.1355E-03	56	.1814E-03	.1253E-03
57	.4347E-04	-.3967E-03	58	.5517E-04	-.3852E-03	59	.7807E-04	-.3567E-03	60	.9407E-04	-.3322E-03
61	.1071E-03	-.3184E-03	62	.1231E-03	-.3033E-03	63	.1372E-03	-.2782E-03	64	.1411E-03	-.2589E-03
65	.3146E-04	-.3808E-03	66	.4080E-04	-.3690E-03	67	.6125E-04	-.3444E-03	68	.7964E-04	-.3211E-03
69	.9296E-04	-.3071E-03	70	.1069E-03	-.2922E-03	71	.1218E-03	-.2690E-03	72	.1286E-03	-.2489E-03
73	.1536E-04	-.3214E-03	74	.2381E-04	-.3133E-03	75	.4083E-04	-.2974E-03	76	.5969E-04	-.2791E-03
77	.7238E-04	-.2666E-03	78	.8459E-04	-.2531E-03	79	.9907E-04	-.2323E-03	80	.1083E-03	-.2117E-03
81	.2822E-05	-.2115E-03	82	.9295E-05	-.2084E-03	83	.2121E-04	-.2019E-03	84	.3528E-04	-.1920E-03
85	.4485E-04	-.1838E-03	86	.5405E-04	-.1741E-03	87	.6531E-04	-.1580E-03	88	.7309E-04	-.1401E-03
89	.1491E-05	-.1299E-03	90	.5349E-05	-.1299E-03	91	.1252E-04	-.1279E-03	92	.2112E-04	-.1230E-03
93	.2712E-04	-.1182E-03	94	.3296E-04	-.1121E-03	95	.4007E-04	-.1014E-03	96	.4470E-04	-.8900E-04
97	.6290E-05	-.8567E-04	98	.6259E-05	-.8646E-04	99	.7386E-05	-.8597E-04	100	.9934E-05	-.8330E-04
101	.1152E-04	-.8033E-04	102	.1337E-04	-.7627E-04	103	.1642E-04	-.6899E-04	104	.1802E-04	-.5972E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.900964E+01	.000000E+00	.000000E+00	.000000E+00	.900964E+01	.450482E+01
25	1	.105323E+03	.000000E+00	.000000E+00	.000000E+00	.105323E+03	.526613E+02
29	1	.522799E+02	.417640E+02	-.577901E+01	.392089E+02	.548349E+02	.781301E+01
33	1	.128986E+02	.000000E+00	.000000E+00	.000000E+00	.128986E+02	.644928E+01
41	1	.386875E+01	.000000E+00	.000000E+00	.000000E+00	.386875E+01	.193437E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.444386E+01	-.161754E+02	-.141054E+02	.185493E+02	.163273E+02

Appendix 6E-e 12 Inch PCCP Pavement

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51	1	.000000E+00	-.582075E+02	-.672893E+01	-.589752E+02	.767754E+00	.298715E+02
52	1	.000000E+00	-.231524E+02	.125476E+02	-.286481E+02	.549570E+01	.170719E+02
53	1	.000000E+00	.570413E+02	.136037E+02	-.307822E+01	.601195E+02	.315989E+02
54	1	.000000E+00	.956313E+02	-.741283E+01	-.571194E+00	.962025E+02	.483868E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 105.32260 AND OCCURS AT NODE 25

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
* 12 inch PCCP Pavement with 75K load Single Axle
*
*****
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TYPE OF FOUNDATION (NFOUND)          = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)       = 0
NUMBER OF PERIODS PER YEAR (NPY)      = 1
NUMBER OF LOAD GROUPS (NLG)           = 1
TOTAL NUMBER OF SLABS (NSLAB)         = 2
TOTAL NUMBER OF JOINTS (NJOINT)       = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
```

Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	171.80100	180.00000	.00000	5.64670	90.00000
1	171.80100	180.00000	8.00000	13.64670	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.02488	1.00000	-1.00000	-.29416	90.00000
36	-.02488	1.00000	.00000	.70584	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SHEAR (SPCON1)	MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000



Appendix 6E-e 12 Inch PCCP Pavement

29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0

Appendix 6E-e 12 Inch PCCP Pavement

81 0 82 0 83 0 84 0 85 0 86 0 87 0 88 0 89 0 90 0  
 91 0 92 0 93 0 94 0 95 0 96 0 97 0 98 0 99 0 100 0  
 101 0 102 0 103 0 104 0

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .01989810

ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00267356

ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00028827

ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00003403

ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000406

SUM OF APPLIED FORCES (FOSUM)= 8333.5 SUM OF TOTAL REACTIONS (SUBSUM)= 8321.8

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2673E-02	2	.2385E-02	3	.1972E-02	4	.1610E-02	5	.1399E-02	6	.1195E-02	7	.8972E-03	8	.5823E-03
9	.5730E-02	10	.5211E-02	11	.4385E-02	12	.3595E-02	13	.3115E-02	14	.2651E-02	15	.2001E-02	16	.1355E-02
17	.1054E-01	18	.9468E-02	19	.7809E-02	20	.6279E-02	21	.5393E-02	22	.4572E-02	23	.3473E-02	24	.2407E-02
25	.1311E-01	26	.1170E-01	27	.9538E-02	28	.7592E-02	29	.6499E-02	30	.5510E-02	31	.4217E-02	32	.2986E-02
33	.1622E-01	34	.1435E-01	35	.1152E-01	36	.9071E-02	37	.7745E-02	38	.6575E-02	39	.5085E-02	40	.3696E-02
41	.1972E-01	42	.1729E-01	43	.1366E-01	44	.1066E-01	45	.9092E-02	46	.7739E-02	47	.6057E-02	48	.4531E-02
49	.2290E-01	50	.1998E-01	51	.1559E-01	52	.1211E-01	53	.1032E-01	54	.8809E-02	55	.6967E-02	56	.5348E-02
57	.1924E-01	58	.1772E-01	59	.1493E-01	60	.1206E-01	61	.1039E-01	62	.8891E-02	63	.7032E-02	64	.5404E-02
65	.1633E-01	66	.1504E-01	67	.1280E-01	68	.1047E-01	69	.9073E-02	70	.7788E-02	71	.6137E-02	72	.4625E-02
73	.1241E-01	74	.1147E-01	75	.9889E-02	76	.8236E-02	77	.7202E-02	78	.6213E-02	79	.4875E-02	80	.3588E-02
81	.7629E-02	82	.7104E-02	83	.6223E-02	84	.5297E-02	85	.4694E-02	86	.4087E-02	87	.3211E-02	88	.2323E-02
89	.4737E-02	90	.4428E-02	91	.3912E-02	92	.3372E-02	93	.3015E-02	94	.2647E-02	95	.2100E-02	96	.1533E-02
97	.2308E-02	98	.2120E-02	99	.1846E-02	100	.1592E-02	101	.1435E-02	102	.1275E-02	103	.1029E-02	104	.7609E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2673E-02	2	.2385E-02	3	.1972E-02	4	.1610E-02	5	.1399E-02	6	.1195E-02	7	.8972E-03	8	.5823E-03
9	.5730E-02	10	.5211E-02	11	.4385E-02	12	.3595E-02	13	.3115E-02	14	.2651E-02	15	.2001E-02	16	.1355E-02
17	.1054E-01	18	.9468E-02	19	.7809E-02	20	.6279E-02	21	.5393E-02	22	.4572E-02	23	.3473E-02	24	.2407E-02
25	.1311E-01	26	.1170E-01	27	.9538E-02	28	.7592E-02	29	.6499E-02	30	.5510E-02	31	.4217E-02	32	.2986E-02
33	.1622E-01	34	.1435E-01	35	.1152E-01	36	.9071E-02	37	.7745E-02	38	.6575E-02	39	.5085E-02	40	.3696E-02
41	.1972E-01	42	.1729E-01	43	.1366E-01	44	.1066E-01	45	.9092E-02	46	.7739E-02	47	.6057E-02	48	.4531E-02

Appendix 6E-e 12 Inch PCCP Pavement

49	.2107E-01	50	.1885E-01	51	.1526E-01	52	.1209E-01	53	.1036E-01	54	.8850E-02	55	.6999E-02	56	.5376E-02
57	.2107E-01	58	.1885E-01	59	.1526E-01	60	.1209E-01	61	.1036E-01	62	.8850E-02	63	.6999E-02	64	.5376E-02
65	.1633E-01	66	.1504E-01	67	.1280E-01	68	.1047E-01	69	.9073E-02	70	.7788E-02	71	.6137E-02	72	.4625E-02
73	.1241E-01	74	.1147E-01	75	.9889E-02	76	.8236E-02	77	.7202E-02	78	.6213E-02	79	.4875E-02	80	.3588E-02
81	.7629E-02	82	.7104E-02	83	.6223E-02	84	.5297E-02	85	.4694E-02	86	.4087E-02	87	.3211E-02	88	.2323E-02
89	.4737E-02	90	.4428E-02	91	.3912E-02	92	.3372E-02	93	.3015E-02	94	.2647E-02	95	.2100E-02	96	.1533E-02
97	.2308E-02	98	.2120E-02	99	.1846E-02	100	.1592E-02	101	.1435E-02	102	.1275E-02	103	.1029E-02	104	.7609E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	56.2	2	-49.8	3	-83.1	4	-85.7	5	-32.9	6	-92.0	7	-99.4	8	-235.8
9	309.5	10	51.0	11	58.1	12	-6.1	13	-9.3	14	-35.4	15	-55.6	16	-201.8
17	376.0	18	150.4	19	108.8	20	36.3	21	10.7	22	1.0	23	-21.2	24	-99.9
25	327.3	26	141.7	27	100.6	28	42.4	29	19.3	30	14.8	31	3.8	32	-39.7
33	492.0	34	234.2	35	173.7	36	77.2	37	38.4	38	35.2	39	23.3	40	-20.4
41	680.3	42	358.7	43	260.2	44	118.7	45	61.7	46	61.4	47	51.2	48	17.4
49	496.2	50	341.4	51	265.4	52	132.1	53	75.8	54	78.8	55	76.7	56	59.8
57	290.2	58	191.1	59	213.9	60	129.3	61	79.7	62	84.2	63	81.5	64	63.8
65	453.0	66	230.0	67	226.6	68	131.8	69	74.1	70	76.7	71	65.4	72	27.9
73	510.5	74	240.9	75	222.5	76	110.4	77	54.2	78	54.0	79	34.6	80	-39.6
81	308.8	82	111.2	83	99.8	84	38.8	85	13.9	86	7.1	87	-13.9	88	-111.9
89	154.4	90	26.1	91	20.0	92	-6.6	93	-7.9	94	-23.4	95	-40.6	96	-143.6
97	14.4	98	-45.4	99	-76.7	100	-72.2	101	-27.6	102	-77.0	103	-83.7	104	-198.8

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000048

SUM OF APPLIED FORCES (FOSUM)= 8333.5 SUM OF TOTAL REACTIONS (SUBSUM)= 8322.4

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2673E-02	2	.2385E-02	3	.1973E-02	4	.1611E-02	5	.1399E-02	6	.1196E-02	7	.8974E-03	8	.5826E-03
9	.5730E-02	10	.5211E-02	11	.4386E-02	12	.3595E-02	13	.3115E-02	14	.2652E-02	15	.2002E-02	16	.1355E-02
17	.1054E-01	18	.9469E-02	19	.7810E-02	20	.6280E-02	21	.5393E-02	22	.4573E-02	23	.3473E-02	24	.2408E-02
25	.1311E-01	26	.1170E-01	27	.9538E-02	28	.7593E-02	29	.6499E-02	30	.5511E-02	31	.4217E-02	32	.2987E-02
33	.1622E-01	34	.1435E-01	35	.1152E-01	36	.9071E-02	37	.7745E-02	38	.6576E-02	39	.5085E-02	40	.3697E-02
41	.1973E-01	42	.1729E-01	43	.1366E-01	44	.1066E-01	45	.9093E-02	46	.7739E-02	47	.6057E-02	48	.4532E-02
49	.2290E-01	50	.1998E-01	51	.1559E-01	52	.1211E-01	53	.1032E-01	54	.8809E-02	55	.6967E-02	56	.5348E-02
57	.1924E-01	58	.1772E-01	59	.1493E-01	60	.1206E-01	61	.1039E-01	62	.8892E-02	63	.7033E-02	64	.5405E-02
65	.1633E-01	66	.1504E-01	67	.1280E-01	68	.1047E-01	69	.9073E-02	70	.7789E-02	71	.6137E-02	72	.4626E-02
73	.1241E-01	74	.1147E-01	75	.9889E-02	76	.8237E-02	77	.7202E-02	78	.6214E-02	79	.4876E-02	80	.3588E-02
81	.7629E-02	82	.7104E-02	83	.6223E-02	84	.5298E-02	85	.4694E-02	86	.4087E-02	87	.3212E-02	88	.2324E-02
89	.4737E-02	90	.4428E-02	91	.3912E-02	92	.3372E-02	93	.3015E-02	94	.2648E-02	95	.2101E-02	96	.1534E-02

Appendix 6E-e 12 Inch PCCP Pavement

97 .2308E-02 98 .2120E-02 99 .1846E-02 100 .1593E-02 101 .1435E-02 102 .1275E-02 103 .1029E-02 104 .7611E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2673E-02	2	.2385E-02	3	.1973E-02	4	.1611E-02	5	.1399E-02	6	.1196E-02	7	.8974E-03	8	.5826E-03
9	.5730E-02	10	.5211E-02	11	.4386E-02	12	.3595E-02	13	.3115E-02	14	.2652E-02	15	.2002E-02	16	.1355E-02
17	.1054E-01	18	.9469E-02	19	.7810E-02	20	.6280E-02	21	.5393E-02	22	.4573E-02	23	.3473E-02	24	.2408E-02
25	.1311E-01	26	.1170E-01	27	.9538E-02	28	.7593E-02	29	.6499E-02	30	.5511E-02	31	.4217E-02	32	.2987E-02
33	.1622E-01	34	.1435E-01	35	.1152E-01	36	.9071E-02	37	.7745E-02	38	.6576E-02	39	.5085E-02	40	.3697E-02
41	.1973E-01	42	.1729E-01	43	.1366E-01	44	.1066E-01	45	.9093E-02	46	.7739E-02	47	.6057E-02	48	.4532E-02
49	.2107E-01	50	.1885E-01	51	.1526E-01	52	.1209E-01	53	.1036E-01	54	.8851E-02	55	.7000E-02	56	.5377E-02
57	.2107E-01	58	.1885E-01	59	.1526E-01	60	.1209E-01	61	.1036E-01	62	.8851E-02	63	.7000E-02	64	.5377E-02
65	.1633E-01	66	.1504E-01	67	.1280E-01	68	.1047E-01	69	.9073E-02	70	.7789E-02	71	.6137E-02	72	.4626E-02
73	.1241E-01	74	.1147E-01	75	.9889E-02	76	.8237E-02	77	.7202E-02	78	.6214E-02	79	.4876E-02	80	.3588E-02
81	.7629E-02	82	.7104E-02	83	.6223E-02	84	.5298E-02	85	.4694E-02	86	.4087E-02	87	.3212E-02	88	.2324E-02
89	.4737E-02	90	.4428E-02	91	.3912E-02	92	.3372E-02	93	.3015E-02	94	.2648E-02	95	.2101E-02	96	.1534E-02
97	.2308E-02	98	.2120E-02	99	.1846E-02	100	.1593E-02	101	.1435E-02	102	.1275E-02	103	.1029E-02	104	.7611E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	56.2	2	-49.8	3	-83.1	4	-85.7	5	-32.9	6	-92.0	7	-99.4	8	-235.8
9	309.6	10	51.0	11	58.1	12	-6.1	13	-9.3	14	-35.4	15	-55.6	16	-201.8
17	376.0	18	150.4	19	108.9	20	36.3	21	10.7	22	1.0	23	-21.2	24	-99.9
25	327.3	26	141.7	27	100.6	28	42.4	29	19.3	30	14.8	31	3.8	32	-39.7
33	492.0	34	234.2	35	173.8	36	77.2	37	38.4	38	35.2	39	23.3	40	-20.4
41	680.3	42	358.7	43	260.2	44	118.7	45	61.7	46	61.4	47	51.2	48	17.4
49	496.3	50	341.4	51	265.4	52	132.1	53	75.8	54	78.8	55	76.7	56	59.8
57	290.2	58	191.1	59	213.9	60	129.3	61	79.7	62	84.2	63	81.5	64	63.8
65	453.0	66	230.0	67	226.6	68	131.8	69	74.1	70	76.7	71	65.4	72	27.9
73	510.5	74	240.9	75	222.5	76	110.4	77	54.2	78	54.0	79	34.6	80	-39.6
81	308.8	82	111.2	83	99.8	84	38.8	85	13.9	86	7.1	87	-13.9	88	-111.8
89	154.4	90	26.1	91	20.0	92	-6.6	93	-7.9	94	-23.4	95	-40.6	96	-143.6
97	14.4	98	-45.4	99	-76.7	100	-72.2	101	-27.6	102	-77.0	103	-83.7	104	-198.8

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1153.984	.000	50	-1827.052	.000	51	-651.670	.000	52	-33.736	.000
53	41.207	.000	54	63.415	.000	55	59.425	.000	56	25.466	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-1730.976	50	-1069.494	51	-312.802	52	-19.748	53	30.906	54	39.025
55	31.005	56	26.573								

Appendix 6E-e 12 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-2703.611	-2203.943	50	-1670.442	-1361.719	51	-488.565	-398.271	52	-30.844	-25.143
53	48.271	39.350	54	60.953	49.688	55	48.426	39.476	56	41.505	33.834

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.23434	2	-.08090	3	-.11081	4	-.13932	5	-.06864	6	-.15731	7	-.14405	8	-.68351
9	.70354	10	.04522	11	.04229	12	-.00537	13	-.01059	14	-.03299	15	-.04395	16	-.31908
17	1.38226	18	.21577	19	.12807	20	.05210	21	.01960	22	.00146	23	-.02713	24	-.25538
25	2.27282	26	.38398	27	.22348	28	.11485	29	.06704	30	.04213	31	.00913	32	-.19169
33	3.41689	34	.63481	35	.38611	36	.20924	37	.13346	38	.10043	39	.05635	40	-.09833
41	5.00218	42	1.02925	43	.61230	44	.34064	45	.22669	46	.18517	47	.13095	48	.08909
49	7.75396	50	2.08200	51	1.32716	52	.80563	53	.59244	54	.50529	55	.41699	56	.64955
57	4.53466	58	1.16527	59	1.06958	60	.78869	61	.62240	62	.53954	63	.44302	64	.69338
65	2.83121	66	.56093	67	.45315	68	.32147	69	.23166	70	.19667	71	.14222	72	.12148
73	1.99410	74	.36728	75	.27815	76	.16827	77	.10579	78	.08661	79	.04697	80	-.10752
81	.96506	82	.13564	83	.09982	84	.04735	85	.02174	86	.00906	87	-.01507	88	-.24313
89	.38598	90	.02548	91	.01600	92	-.00647	93	-.00991	94	-.02398	95	-.03529	96	-.24969
97	.06013	98	-.07377	99	-.10224	100	-.11744	101	-.05753	102	-.13160	103	-.12132	104	-.57609

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y	
1	.1824E-04	.4379E-04	2	.1752E-04	.4002E-04	3	.1547E-04	.3464E-04	4	.1363E-04	.2891E-04
5	.1288E-04	.2513E-04	6	.1270E-04	.2135E-04	7	.1334E-04	.1614E-04	8	.1389E-04	.1083E-04
9	.3164E-04	.6935E-04	10	.3302E-04	.6221E-04	11	.3255E-04	.5140E-04	12	.3061E-04	.4129E-04
13	.2944E-04	.3536E-04	14	.2859E-04	.2986E-04	15	.2806E-04	.2260E-04	16	.2825E-04	.1572E-04
17	.6548E-04	.1273E-03	18	.6733E-04	.1125E-03	19	.6444E-04	.8834E-04	20	.5768E-04	.6780E-04
21	.5320E-04	.5718E-04	22	.4954E-04	.4833E-04	23	.4658E-04	.3783E-04	24	.4654E-04	.2882E-04
25	.8675E-04	.1584E-03	26	.8857E-04	.1360E-03	27	.8319E-04	.1035E-03	28	.7201E-04	.7789E-04
29	.6483E-04	.6557E-04	30	.5903E-04	.5581E-04	31	.5415E-04	.4484E-04	32	.5352E-04	.3575E-04
33	.1162E-03	.1861E-03	34	.1170E-03	.1570E-03	35	.1069E-03	.1155E-03	36	.8850E-04	.8588E-04
37	.7758E-04	.7252E-04	38	.6902E-04	.6230E-04	39	.6162E-04	.5140E-04	40	.6008E-04	.4311E-04
41	.1525E-03	.1985E-03	42	.1516E-03	.1674E-03	43	.1345E-03	.1210E-03	44	.1059E-03	.9019E-04
45	.9075E-04	.7662E-04	46	.7906E-04	.6644E-04	47	.6846E-04	.5610E-04	48	.6541E-04	.4942E-04
49	.1827E-03	.1983E-03	50	.1824E-03	.1683E-03	51	.1598E-03	.1196E-03	52	.1217E-03	.8956E-04
53	.1023E-03	.7638E-04	54	.8757E-04	.6664E-04	55	.7382E-04	.5704E-04	56	.6898E-04	.5178E-04
57	.9217E-04	-.1850E-03	58	.1021E-03	-.1708E-03	59	.1159E-03	-.1348E-03	60	.1101E-03	-.9980E-04
61	.9928E-04	-.8215E-04	62	.8775E-04	-.6880E-04	63	.7461E-04	-.5604E-04	64	.6929E-04	-.4940E-04
65	.7819E-04	-.1769E-03	66	.8404E-04	-.1618E-03	67	.9348E-04	-.1300E-03	68	.9062E-04	-.9818E-04
69	.8405E-04	-.8149E-04	70	.7654E-04	-.6844E-04	71	.6777E-04	-.5533E-04	72	.6483E-04	-.4706E-04
73	.5677E-04	-.1468E-03	74	.6056E-04	-.1341E-03	75	.6558E-04	-.1108E-03	76	.6570E-04	-.8684E-04

Appendix 6E-e 12 Inch PCCP Pavement

77	.6334E-04	-.7326E-04	78	.6019E-04	-.6184E-04	79	.5657E-04	-.4902E-04	80	.5601E-04	-.3906E-04
81	.3151E-04	-.9366E-04	82	.3393E-04	-.8593E-04	83	.3634E-04	-.7316E-04	84	.3755E-04	-.5991E-04
85	.3786E-04	-.5173E-04	86	.3798E-04	-.4409E-04	87	.3825E-04	-.3410E-04	88	.3905E-04	-.2497E-04
89	.1856E-04	-.5451E-04	90	.1997E-04	-.5100E-04	91	.2119E-04	-.4485E-04	92	.2201E-04	-.3803E-04
93	.2262E-04	-.3349E-04	94	.2330E-04	-.2890E-04	95	.2426E-04	-.2239E-04	96	.2497E-04	-.1599E-04
97	.1190E-04	-.3446E-04	98	.1148E-04	-.3251E-04	99	.1049E-04	-.2931E-04	100	.9908E-05	-.2546E-04
101	.9843E-05	-.2269E-04	102	.1019E-04	-.1974E-04	103	.1125E-04	-.1539E-04	104	.1191E-04	-.1065E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX.SHEAR
17	1	-.388754E+02	.000000E+00	.000000E+00	-.388754E+02	.000000E+00	.194377E+02
25	1	-.399213E+02	.000000E+00	.000000E+00	-.399213E+02	.000000E+00	.199607E+02
29	1	-.124523E+02	-.119192E+02	-.142540E+02	-.264422E+02	.207075E+01	.142565E+02
33	1	-.348789E+02	.000000E+00	.000000E+00	-.348789E+02	.000000E+00	.174394E+02
41	1	.226214E+01	.000000E+00	.000000E+00	.000000E+00	.226214E+01	.113107E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.183393E+01	-.406799E+02	-.397733E+02	.416072E+02	.406903E+02
51	1	.000000E+00	-.459723E+02	-.333052E+02	-.634535E+02	.174811E+02	.404673E+02
52	1	.000000E+00	-.311918E+02	-.203575E+02	-.412408E+02	.100490E+02	.256449E+02
53	1	.000000E+00	-.246876E+02	-.147338E+02	-.315650E+02	.687737E+01	.192212E+02
54	1	.000000E+00	-.186141E+02	-.107424E+02	-.235205E+02	.490632E+01	.142134E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 63.45347 AND OCCURS AT NODE 51

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      12 inch PCCP Pavement with 80K load
*
*****
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TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
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Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```



Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	123.53200	132.00000	.00000	5.83190	90.00000
1	123.53200	132.00000	12.00000	17.83190	90.00000
1	123.53200	132.00000	84.00000	89.83190	90.00000
1	123.53200	132.00000	96.00000	101.83100	90.00000
1	171.53200	180.00000	.00000	5.83190	90.00000
1	171.53200	180.00000	12.00000	17.83190	90.00000
1	171.53200	180.00000	84.00000	89.83190	90.00000
1	171.53200	180.00000	96.00000	101.83100	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.50356	1.00000	-1.00000	-.27101	90.00000
22	-1.00000	-.55556	-1.00000	-.27101	90.00000
15	.50356	1.00000	.50000	1.00000	90.00000
16	.50356	1.00000	-1.00000	-.85345	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.85345	90.00000
19	.50356	1.00000	-.75000	-.02101	90.00000
26	-1.00000	-.55556	-.75000	-.02101	90.00000
19	.50356	1.00000	.75000	1.00000	90.00000
20	.50356	1.00000	-1.00000	-.66687	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.66687	90.00000
36	-.05850	1.00000	-1.00000	-.27101	90.00000
36	-.05850	1.00000	.50000	1.00000	90.00000
37	-.05850	1.00000	-1.00000	-.85345	90.00000
40	-.05850	1.00000	-.75000	-.02101	90.00000
40	-.05850	1.00000	.75000	1.00000	90.00000
41	-.05850	1.00000	-1.00000	-.66687	90.00000

Appendix 6E-e 12 Inch PCCP Pavement

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

Appendix 6E-e 12 Inch PCCP Pavement

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0
81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .04126544  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00995746  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00115962  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00013755  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00001637

SUM OF APPLIED FORCES (FOSUM)= 35555.5 SUM OF TOTAL REACTIONS (SUBSUM)= 35508.9

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000196

SUM OF APPLIED FORCES (FOSUM)= 35555.5 SUM OF TOTAL REACTIONS (SUBSUM)= 35511.5

Appendix 6E-e 12 Inch PCCP Pavement

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1223E-01	2	.1189E-01	3	.1135E-01	4	.1071E-01	5	.1023E-01	6	.9676E-02	7	.8742E-02	8	.7684E-02
9	.2482E-01	10	.2415E-01	11	.2298E-01	12	.2165E-01	13	.2065E-01	14	.1953E-01	15	.1769E-01	16	.1565E-01
17	.3831E-01	18	.3673E-01	19	.3434E-01	20	.3222E-01	21	.3086E-01	22	.2923E-01	23	.2630E-01	24	.2305E-01
25	.4295E-01	26	.4100E-01	27	.3812E-01	28	.3580E-01	29	.3440E-01	30	.3265E-01	31	.2930E-01	32	.2563E-01
33	.4655E-01	34	.4448E-01	35	.4142E-01	36	.3896E-01	37	.3746E-01	38	.3560E-01	39	.3206E-01	40	.2808E-01
41	.4976E-01	42	.4754E-01	43	.4428E-01	44	.4179E-01	45	.4033E-01	46	.3843E-01	47	.3468E-01	48	.3045E-01
49	.5254E-01	50	.5014E-01	51	.4660E-01	52	.4417E-01	53	.4287E-01	54	.4102E-01	55	.3697E-01	56	.3256E-01
57	.4766E-01	58	.4686E-01	59	.4505E-01	60	.4277E-01	61	.4108E-01	62	.3912E-01	63	.3590E-01	64	.3250E-01
65	.4100E-01	66	.4040E-01	67	.3905E-01	68	.3718E-01	69	.3572E-01	70	.3402E-01	71	.3121E-01	72	.2814E-01
73	.3197E-01	74	.3164E-01	75	.3080E-01	76	.2947E-01	77	.2835E-01	78	.2701E-01	79	.2476E-01	80	.2221E-01
81	.2069E-01	82	.2059E-01	83	.2019E-01	84	.1945E-01	85	.1877E-01	86	.1792E-01	87	.1646E-01	88	.1476E-01
89	.1358E-01	90	.1353E-01	91	.1329E-01	92	.1285E-01	93	.1244E-01	94	.1193E-01	95	.1104E-01	96	.9993E-02
97	.7187E-02	98	.7081E-02	99	.6905E-02	100	.6677E-02	101	.6495E-02	102	.6285E-02	103	.5920E-02	104	.5494E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1223E-01	2	.1189E-01	3	.1135E-01	4	.1071E-01	5	.1023E-01	6	.9676E-02	7	.8742E-02	8	.7684E-02
9	.2482E-01	10	.2415E-01	11	.2298E-01	12	.2165E-01	13	.2065E-01	14	.1953E-01	15	.1769E-01	16	.1565E-01
17	.3831E-01	18	.3673E-01	19	.3434E-01	20	.3222E-01	21	.3086E-01	22	.2923E-01	23	.2630E-01	24	.2305E-01
25	.4295E-01	26	.4100E-01	27	.3812E-01	28	.3580E-01	29	.3440E-01	30	.3265E-01	31	.2930E-01	32	.2563E-01
33	.4655E-01	34	.4448E-01	35	.4142E-01	36	.3896E-01	37	.3746E-01	38	.3560E-01	39	.3206E-01	40	.2808E-01
41	.4976E-01	42	.4754E-01	43	.4428E-01	44	.4179E-01	45	.4033E-01	46	.3843E-01	47	.3468E-01	48	.3045E-01
49	.5010E-01	50	.4850E-01	51	.4582E-01	52	.4347E-01	53	.4197E-01	54	.4007E-01	55	.3643E-01	56	.3253E-01
57	.5010E-01	58	.4850E-01	59	.4582E-01	60	.4347E-01	61	.4197E-01	62	.4007E-01	63	.3643E-01	64	.3253E-01
65	.4100E-01	66	.4040E-01	67	.3905E-01	68	.3718E-01	69	.3572E-01	70	.3402E-01	71	.3121E-01	72	.2814E-01
73	.3197E-01	74	.3164E-01	75	.3080E-01	76	.2947E-01	77	.2835E-01	78	.2701E-01	79	.2476E-01	80	.2221E-01
81	.2069E-01	82	.2059E-01	83	.2019E-01	84	.1945E-01	85	.1877E-01	86	.1792E-01	87	.1646E-01	88	.1476E-01
89	.1358E-01	90	.1353E-01	91	.1329E-01	92	.1285E-01	93	.1244E-01	94	.1193E-01	95	.1104E-01	96	.9993E-02
97	.7187E-02	98	.7081E-02	99	.6905E-02	100	.6677E-02	101	.6495E-02	102	.6285E-02	103	.5920E-02	104	.5494E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	155.5	2	-106.2	3	-161.2	4	-174.5	5	-69.3	6	-204.2	7	-238.7	8	-540.5
9	1303.3	10	461.6	11	720.6	12	416.6	13	180.0	14	320.8	15	303.1	16	255.2
17	1347.4	18	741.4	19	767.3	20	487.9	21	319.7	22	413.7	23	429.8	24	447.3
25	982.2	26	531.7	27	493.2	28	335.3	29	247.3	30	308.1	31	303.6	32	332.0
33	1173.3	34	669.2	35	649.9	36	437.7	37	313.7	38	390.5	39	411.8	40	459.8
41	1304.2	42	784.4	43	754.7	44	522.4	45	384.0	46	482.4	47	499.8	48	549.4

Appendix 6E-e 12 Inch PCCP Pavement

49	834.2	50	623.1	51	621.9	52	447.9	53	349.1	54	427.6	55	440.2	56	442.7
57	559.1	58	404.5	59	500.8	60	355.2	61	243.8	62	304.8	63	361.9	64	437.9
65	879.5	66	518.1	67	582.9	68	407.0	69	270.0	70	334.6	71	386.2	72	534.1
73	928.0	74	511.8	75	575.7	76	377.1	77	236.1	78	306.3	79	336.8	80	428.0
81	498.2	82	220.1	83	250.8	84	150.4	85	83.4	86	109.2	87	102.4	88	71.0
89	174.1	90	26.1	91	25.8	92	-1.3	93	-5.3	94	-22.5	95	-47.3	96	-158.5
97	-176.4	98	-158.1	99	-275.5	100	-219.7	101	-84.8	102	-222.9	103	-238.4	104	-453.7

ITERATION NO. (IC) = 13 DIFFERENCE IN DEFLECTION (DF) = .00000019

SUM OF APPLIED FORCES (FOSUM)= 35555.5 SUM OF TOTAL REACTIONS (SUBSUM)= 35511.7

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1223E-01	2	.1189E-01	3	.1135E-01	4	.1071E-01	5	.1023E-01	6	.9676E-02	7	.8742E-02	8	.7685E-02
9	.2482E-01	10	.2415E-01	11	.2298E-01	12	.2165E-01	13	.2065E-01	14	.1953E-01	15	.1769E-01	16	.1565E-01
17	.3831E-01	18	.3673E-01	19	.3434E-01	20	.3222E-01	21	.3086E-01	22	.2923E-01	23	.2630E-01	24	.2305E-01
25	.4295E-01	26	.4100E-01	27	.3812E-01	28	.3580E-01	29	.3440E-01	30	.3265E-01	31	.2930E-01	32	.2563E-01
33	.4655E-01	34	.4448E-01	35	.4142E-01	36	.3896E-01	37	.3746E-01	38	.3560E-01	39	.3206E-01	40	.2808E-01
41	.4976E-01	42	.4754E-01	43	.4428E-01	44	.4179E-01	45	.4033E-01	46	.3843E-01	47	.3468E-01	48	.3045E-01
49	.5254E-01	50	.5014E-01	51	.4660E-01	52	.4417E-01	53	.4287E-01	54	.4102E-01	55	.3697E-01	56	.3256E-01
57	.4766E-01	58	.4686E-01	59	.4505E-01	60	.4277E-01	61	.4108E-01	62	.3912E-01	63	.3590E-01	64	.3250E-01
65	.4100E-01	66	.4040E-01	67	.3905E-01	68	.3718E-01	69	.3572E-01	70	.3402E-01	71	.3121E-01	72	.2814E-01
73	.3197E-01	74	.3164E-01	75	.3080E-01	76	.2947E-01	77	.2835E-01	78	.2701E-01	79	.2476E-01	80	.2221E-01
81	.2069E-01	82	.2059E-01	83	.2019E-01	84	.1945E-01	85	.1877E-01	86	.1793E-01	87	.1646E-01	88	.1476E-01
89	.1358E-01	90	.1353E-01	91	.1329E-01	92	.1285E-01	93	.1244E-01	94	.1193E-01	95	.1104E-01	96	.9993E-02
97	.7187E-02	98	.7081E-02	99	.6905E-02	100	.6678E-02	101	.6495E-02	102	.6285E-02	103	.5920E-02	104	.5494E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1223E-01	2	.1189E-01	3	.1135E-01	4	.1071E-01	5	.1023E-01	6	.9676E-02	7	.8742E-02	8	.7685E-02
9	.2482E-01	10	.2415E-01	11	.2298E-01	12	.2165E-01	13	.2065E-01	14	.1953E-01	15	.1769E-01	16	.1565E-01
17	.3831E-01	18	.3673E-01	19	.3434E-01	20	.3222E-01	21	.3086E-01	22	.2923E-01	23	.2630E-01	24	.2305E-01
25	.4295E-01	26	.4100E-01	27	.3812E-01	28	.3580E-01	29	.3440E-01	30	.3265E-01	31	.2930E-01	32	.2563E-01
33	.4655E-01	34	.4448E-01	35	.4142E-01	36	.3896E-01	37	.3746E-01	38	.3560E-01	39	.3206E-01	40	.2808E-01
41	.4976E-01	42	.4754E-01	43	.4428E-01	44	.4179E-01	45	.4033E-01	46	.3843E-01	47	.3468E-01	48	.3045E-01
49	.5010E-01	50	.4850E-01	51	.4582E-01	52	.4347E-01	53	.4197E-01	54	.4007E-01	55	.3644E-01	56	.3253E-01
57	.5010E-01	58	.4850E-01	59	.4582E-01	60	.4347E-01	61	.4197E-01	62	.4007E-01	63	.3644E-01	64	.3253E-01
65	.4100E-01	66	.4040E-01	67	.3905E-01	68	.3718E-01	69	.3572E-01	70	.3402E-01	71	.3121E-01	72	.2814E-01
73	.3197E-01	74	.3164E-01	75	.3080E-01	76	.2947E-01	77	.2835E-01	78	.2701E-01	79	.2476E-01	80	.2221E-01
81	.2069E-01	82	.2059E-01	83	.2019E-01	84	.1945E-01	85	.1877E-01	86	.1793E-01	87	.1646E-01	88	.1476E-01
89	.1358E-01	90	.1353E-01	91	.1329E-01	92	.1285E-01	93	.1244E-01	94	.1193E-01	95	.1104E-01	96	.9993E-02

Appendix 6E-e 12 Inch PCCP Pavement

97 .7187E-02 98 .7081E-02 99 .6905E-02 100 .6678E-02 101 .6495E-02 102 .6285E-02 103 .5920E-02 104 .5494E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	155.5	2	-106.2	3	-161.2	4	-174.5	5	-69.3	6	-204.2	7	-238.7	8	-540.5
9	1303.3	10	461.6	11	720.6	12	416.6	13	180.0	14	320.8	15	303.1	16	255.2
17	1347.4	18	741.5	19	767.3	20	487.9	21	319.7	22	413.7	23	429.8	24	447.3
25	982.2	26	531.7	27	493.2	28	335.3	29	247.3	30	308.1	31	303.6	32	332.0
33	1173.3	34	669.2	35	649.9	36	437.7	37	313.7	38	390.5	39	411.8	40	459.8
41	1304.2	42	784.4	43	754.7	44	522.4	45	384.0	46	482.4	47	499.8	48	549.4
49	834.2	50	623.1	51	621.9	52	447.9	53	349.1	54	427.6	55	440.2	56	442.7
57	559.1	58	404.5	59	500.8	60	355.2	61	243.8	62	304.8	63	361.9	64	437.9
65	879.5	66	518.1	67	582.9	68	407.0	69	270.0	70	334.6	71	386.2	72	534.1
73	928.0	74	511.8	75	575.7	76	377.1	77	236.1	78	306.3	79	336.8	80	428.0
81	498.2	82	220.1	83	250.8	84	150.4	85	83.4	86	109.2	87	102.4	88	71.0
89	174.1	90	26.1	91	25.8	92	-1.2	93	-5.3	94	-22.5	95	-47.3	96	-158.5
97	-176.4	98	-158.1	99	-275.5	100	-219.7	101	-84.8	102	-222.9	103	-238.4	104	-453.7

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1540.377	.000	50	-2656.132	.000	51	-1531.086	.000	52	-1125.486	.000
53	-1131.163	.000	54	-1458.105	.000	55	-971.398	.000	56	-30.910	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2310.566	50	-1554.809	51	-734.922	52	-658.821	53	-848.372	54	-897.295
55	-506.816	56	-32.254								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3608.872	-2941.898	50	-2428.456	-1979.640	51	-1147.874	-935.729	52	-1029.013	-838.835
53	-1325.073	-1080.179	54	-1401.485	-1142.470	55	-791.597	-645.297	56	-50.378	-41.067

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.64810	2	-.17274	3	-.21495	4	-.28368	5	-.14431	6	-.34911	7	-.34598	8	-1.56663
9	2.96210	10	.40938	11	.52408	12	.36949	13	.20451	14	.29909	15	.23964	16	.40350
17	4.95378	18	1.06378	19	.90275	20	.69995	21	.58768	22	.62394	23	.54956	24	1.14388
25	6.82058	26	1.44096	27	1.09590	28	.90876	29	.85853	30	.87775	31	.73329	32	1.60396
33	8.14793	34	1.81364	35	1.44429	36	1.18630	37	1.08919	38	1.11253	39	.99477	40	2.22138
41	9.59000	42	2.25077	43	1.77583	44	1.49890	45	1.41184	46	1.45512	47	1.27830	48	2.81014
49	13.03393	50	3.79946	51	3.10930	52	2.73108	53	2.72754	54	2.74134	55	2.39234	56	4.81250
57	8.73670	58	2.46674	59	2.50411	60	2.16609	61	1.90499	62	1.95395	63	1.96685	64	4.75930
65	5.49689	66	1.26362	67	1.16577	68	.99264	69	.84373	70	.85807	71	.83957	72	2.32237
73	3.62488	74	.78013	75	.71967	76	.57486	77	.46121	78	.49092	79	.45766	80	1.16311

Appendix 6E-e 12 Inch PCCP Pavement

81	1.55703	82	.26846	83	.25079	84	.18346	85	.13025	86	.14003	87	.11129	88	.15427
89	.43526	90	.02548	91	.02067	92	-.00122	93	-.00661	94	-.02305	95	-.04113	96	-.27572
97	-.73503	98	-.25710	99	-.36733	100	-.35724	101	-.17672	102	-.38096	103	-.34554	104	-1.31519

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2131E-04	.1959E-03	2	.2104E-04	.1903E-03	3	.2293E-04	.1819E-03	4	.2818E-04	.1716E-03
5	.3233E-04	.1638E-03	6	.3709E-04	.1550E-03	7	.4388E-04	.1413E-03	8	.4717E-04	.1256E-03
9	.3985E-04	.2449E-03	10	.4387E-04	.2333E-03	11	.4965E-04	.2158E-03	12	.5821E-04	.2013E-03
13	.6619E-04	.1926E-03	14	.7449E-04	.1823E-03	15	.8514E-04	.1634E-03	16	.9057E-04	.1432E-03
17	.9922E-04	.2724E-03	18	.9842E-04	.2517E-03	19	.9019E-04	.2218E-03	20	.8199E-04	.2081E-03
21	.9149E-04	.2046E-03	22	.1133E-03	.1967E-03	23	.1376E-03	.1722E-03	24	.1428E-03	.1471E-03
25	.1244E-03	.2294E-03	26	.1202E-03	.2156E-03	27	.1045E-03	.1972E-03	28	.8559E-04	.1875E-03
29	.9497E-04	.1835E-03	30	.1260E-03	.1769E-03	31	.1570E-03	.1601E-03	32	.1609E-03	.1395E-03
33	.1306E-03	.1834E-03	34	.1287E-03	.1772E-03	35	.1108E-03	.1695E-03	36	.9056E-04	.1648E-03
37	.1016E-03	.1617E-03	38	.1331E-03	.1573E-03	39	.1683E-03	.1479E-03	40	.1754E-03	.1330E-03
41	.1391E-03	.1747E-03	42	.1384E-03	.1650E-03	43	.1160E-03	.1502E-03	44	.8840E-04	.1513E-03
45	.1004E-03	.1579E-03	46	.1388E-03	.1587E-03	47	.1794E-03	.1436E-03	48	.1860E-03	.1316E-03
49	.1495E-03	.1729E-03	50	.1502E-03	.1616E-03	51	.1211E-03	.1413E-03	52	.8070E-04	.1465E-03
53	.9202E-04	.1606E-03	54	.1443E-03	.1650E-03	55	.1905E-03	.1434E-03	56	.1928E-03	.1326E-03
57	.4582E-04	-.4221E-03	58	.5826E-04	-.4099E-03	59	.8266E-04	-.3797E-03	60	.9977E-04	-.3537E-03
61	.1137E-03	-.3391E-03	62	.1307E-03	-.3231E-03	63	.1457E-03	-.2965E-03	64	.1499E-03	-.2759E-03
65	.3311E-04	-.4052E-03	66	.4304E-04	-.3927E-03	67	.6483E-04	-.3666E-03	68	.8445E-04	-.3419E-03
69	.9865E-04	-.3270E-03	70	.1135E-03	-.3112E-03	71	.1294E-03	-.2866E-03	72	.1367E-03	-.2653E-03
73	.1606E-04	-.3420E-03	74	.2506E-04	-.3334E-03	75	.4320E-04	-.3165E-03	76	.6329E-04	-.2972E-03
77	.7682E-04	-.2839E-03	78	.8983E-04	-.2696E-03	79	.1053E-03	-.2476E-03	80	.1151E-03	-.2256E-03
81	.2836E-05	-.2250E-03	82	.9725E-05	-.2219E-03	83	.2242E-04	-.2149E-03	84	.3741E-04	-.2044E-03
85	.4761E-04	-.1957E-03	86	.5740E-04	-.1855E-03	87	.6941E-04	-.1683E-03	88	.7769E-04	-.1494E-03
89	.1485E-05	-.1383E-03	90	.5591E-05	-.1383E-03	91	.1323E-04	-.1362E-03	92	.2239E-04	-.1310E-03
93	.2879E-04	-.1259E-03	94	.3500E-04	-.1194E-03	95	.4258E-04	-.1080E-03	96	.4751E-04	-.9488E-04
97	.6639E-05	-.9121E-04	98	.6607E-05	-.9207E-04	99	.7815E-05	-.9156E-04	100	.1053E-04	-.8873E-04
101	.1223E-04	-.8559E-04	102	.1420E-04	-.8127E-04	103	.1745E-04	-.7353E-04	104	.1914E-04	-.6368E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.107165E+02	.000000E+00	.000000E+00	.000000E+00	.107165E+02	.535823E+01
25	1	.111801E+03	.000000E+00	.000000E+00	.000000E+00	.111801E+03	.559003E+02
29	1	.557631E+02	.442662E+02	-.610475E+01	.416294E+02	.583999E+02	.838528E+01
33	1	.141524E+02	.000000E+00	.000000E+00	.000000E+00	.141524E+02	.707618E+01
41	1	.543835E+01	.000000E+00	.000000E+00	.000000E+00	.543835E+01	.271918E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.536199E+01	-.167233E+02	-.142559E+02	.196178E+02	.169368E+02



Appendix 6E-e 12 Inch PCCP Pavement

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51	1	.000000E+00	-.614130E+02	-.698508E+01	-.621975E+02	.784458E+00	.314910E+02
52	1	.000000E+00	-.244993E+02	.132238E+02	-.302752E+02	.577594E+01	.180256E+02
53	1	.000000E+00	.600598E+02	.144241E+02	-.328452E+01	.633444E+02	.333144E+02
54	1	.000000E+00	.101661E+03	-.762624E+01	-.568913E+00	.102229E+03	.513992E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 111.80070 AND OCCURS AT NODE 25

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
* 12 inch PCCP Pavement with 80K load Single Axle
*
*****
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TYPE OF FOUNDATION (NFOUND)          = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)       = 0
NUMBER OF PERIODS PER YEAR (NPY)      = 1
NUMBER OF LOAD GROUPS (NLG)           = 1
TOTAL NUMBER OF SLABS (NSLAB)         = 2
TOTAL NUMBER OF JOINTS (NJOINT)       = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
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Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	171.53200	180.00000	.00000	5.83190	90.00000
1	171.53200	180.00000	8.00000	13.83190	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.05850	1.00000	-1.00000	-.27101	90.00000
36	-.05850	1.00000	.00000	.72899	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0

Appendix 6E-e 12 Inch PCCP Pavement

81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .02116613

ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00285094

ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00030740

ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00003630

ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000432

SUM OF APPLIED FORCES (FOSUM)= 8889.2 SUM OF TOTAL REACTIONS (SUBSUM)= 8876.7

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2856E-02	2	.2549E-02	3	.2109E-02	4	.1723E-02	5	.1497E-02	6	.1279E-02	7	.9609E-03	8	.6243E-03
9	.6121E-02	10	.5567E-02	11	.4687E-02	12	.3844E-02	13	.3331E-02	14	.2836E-02	15	.2142E-02	16	.1452E-02
17	.1125E-01	18	.1011E-01	19	.8340E-02	20	.6707E-02	21	.5761E-02	22	.4885E-02	23	.3712E-02	24	.2574E-02
25	.1399E-01	26	.1249E-01	27	.1018E-01	28	.8105E-02	29	.6939E-02	30	.5884E-02	31	.4504E-02	32	.3191E-02
33	.1729E-01	34	.1530E-01	35	.1229E-01	36	.9678E-02	37	.8264E-02	38	.7017E-02	39	.5427E-02	40	.3946E-02
41	.2101E-01	42	.1842E-01	43	.1456E-01	44	.1137E-01	45	.9697E-02	46	.8254E-02	47	.6461E-02	48	.4835E-02
49	.2437E-01	50	.2127E-01	51	.1661E-01	52	.1290E-01	53	.1100E-01	54	.9392E-02	55	.7429E-02	56	.5703E-02
57	.2049E-01	58	.1887E-01	59	.1590E-01	60	.1286E-01	61	.1107E-01	62	.9479E-02	63	.7499E-02	64	.5764E-02
65	.1739E-01	66	.1602E-01	67	.1363E-01	68	.1116E-01	69	.9671E-02	70	.8303E-02	71	.6544E-02	72	.4934E-02
73	.1321E-01	74	.1222E-01	75	.1054E-01	76	.8778E-02	77	.7677E-02	78	.6625E-02	79	.5200E-02	80	.3828E-02
81	.8125E-02	82	.7567E-02	83	.6631E-02	84	.5646E-02	85	.5004E-02	86	.4358E-02	87	.3426E-02	88	.2480E-02
89	.5047E-02	90	.4718E-02	91	.4169E-02	92	.3595E-02	93	.3215E-02	94	.2824E-02	95	.2241E-02	96	.1637E-02
97	.2460E-02	98	.2260E-02	99	.1968E-02	100	.1699E-02	101	.1531E-02	102	.1361E-02	103	.1099E-02	104	.8135E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2856E-02	2	.2549E-02	3	.2109E-02	4	.1723E-02	5	.1497E-02	6	.1279E-02	7	.9609E-03	8	.6243E-03
9	.6121E-02	10	.5567E-02	11	.4687E-02	12	.3844E-02	13	.3331E-02	14	.2836E-02	15	.2142E-02	16	.1452E-02
17	.1125E-01	18	.1011E-01	19	.8340E-02	20	.6707E-02	21	.5761E-02	22	.4885E-02	23	.3712E-02	24	.2574E-02
25	.1399E-01	26	.1249E-01	27	.1018E-01	28	.8105E-02	29	.6939E-02	30	.5884E-02	31	.4504E-02	32	.3191E-02
33	.1729E-01	34	.1530E-01	35	.1229E-01	36	.9678E-02	37	.8264E-02	38	.7017E-02	39	.5427E-02	40	.3946E-02
41	.2101E-01	42	.1842E-01	43	.1456E-01	44	.1137E-01	45	.9697E-02	46	.8254E-02	47	.6461E-02	48	.4835E-02

Appendix 6E-e 12 Inch PCCP Pavement

49	.2243E-01	50	.2007E-01	51	.1626E-01	52	.1288E-01	53	.1104E-01	54	.9435E-02	55	.7464E-02	56	.5734E-02
57	.2243E-01	58	.2007E-01	59	.1626E-01	60	.1288E-01	61	.1104E-01	62	.9435E-02	63	.7464E-02	64	.5734E-02
65	.1739E-01	66	.1602E-01	67	.1363E-01	68	.1116E-01	69	.9671E-02	70	.8303E-02	71	.6544E-02	72	.4934E-02
73	.1321E-01	74	.1222E-01	75	.1054E-01	76	.8778E-02	77	.7677E-02	78	.6625E-02	79	.5200E-02	80	.3828E-02
81	.8125E-02	82	.7567E-02	83	.6631E-02	84	.5646E-02	85	.5004E-02	86	.4358E-02	87	.3426E-02	88	.2480E-02
89	.5047E-02	90	.4718E-02	91	.4169E-02	92	.3595E-02	93	.3215E-02	94	.2824E-02	95	.2241E-02	96	.1637E-02
97	.2460E-02	98	.2260E-02	99	.1968E-02	100	.1699E-02	101	.1531E-02	102	.1361E-02	103	.1099E-02	104	.8135E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	60.3	2	-52.9	3	-88.4	4	-91.2	5	-35.1	6	-98.0	7	-105.9	8	-251.5
9	331.2	10	54.9	11	62.9	12	-5.9	13	-9.7	14	-37.3	15	-58.9	16	-214.7
17	401.6	18	161.0	19	116.9	20	39.2	21	11.6	22	1.4	23	-22.3	24	-106.1
25	349.3	26	151.5	27	107.7	28	45.5	29	20.7	30	15.9	31	4.2	32	-42.1
33	524.7	34	250.1	35	185.7	36	82.6	37	41.1	38	37.7	39	25.0	40	-21.6
41	724.3	42	382.4	43	277.7	44	126.7	45	65.8	46	65.5	47	54.6	48	18.6
49	527.2	50	363.2	51	282.7	52	140.8	53	80.8	54	84.0	55	81.7	56	63.6
57	308.6	58	203.2	59	227.5	60	137.7	61	84.8	62	89.6	63	86.8	64	68.0
65	482.0	66	244.8	67	241.2	68	140.4	69	79.0	70	81.7	71	69.8	72	29.9
73	543.1	74	256.4	75	236.9	76	117.6	77	57.7	78	57.6	79	36.9	80	-42.0
81	328.5	82	118.4	83	106.3	84	41.4	85	14.9	86	7.6	87	-14.7	88	-119.0
89	164.2	90	27.8	91	21.3	92	-7.0	93	-8.4	94	-24.9	95	-43.2	96	-152.8
97	15.2	98	-48.3	99	-81.7	100	-76.9	101	-29.4	102	-82.0	103	-89.1	104	-211.6

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000051

SUM OF APPLIED FORCES (FOSUM)= 8889.2 SUM OF TOTAL REACTIONS (SUBSUM)= 8877.4

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.2856E-02	2	.2549E-02	3	.2109E-02	4	.1723E-02	5	.1497E-02	6	.1280E-02	7	.9612E-03	8	.6246E-03
9	.6122E-02	10	.5568E-02	11	.4688E-02	12	.3844E-02	13	.3332E-02	14	.2837E-02	15	.2142E-02	16	.1452E-02
17	.1125E-01	18	.1011E-01	19	.8340E-02	20	.6708E-02	21	.5761E-02	22	.4886E-02	23	.3712E-02	24	.2575E-02
25	.1399E-01	26	.1249E-01	27	.1018E-01	28	.8106E-02	29	.6939E-02	30	.5884E-02	31	.4504E-02	32	.3191E-02
33	.1729E-01	34	.1530E-01	35	.1229E-01	36	.9679E-02	37	.8265E-02	38	.7018E-02	39	.5428E-02	40	.3947E-02
41	.2101E-01	42	.1842E-01	43	.1456E-01	44	.1137E-01	45	.9697E-02	46	.8255E-02	47	.6461E-02	48	.4835E-02
49	.2437E-01	50	.2127E-01	51	.1661E-01	52	.1290E-01	53	.1100E-01	54	.9392E-02	55	.7429E-02	56	.5704E-02
57	.2049E-01	58	.1887E-01	59	.1590E-01	60	.1286E-01	61	.1107E-01	62	.9480E-02	63	.7499E-02	64	.5765E-02
65	.1739E-01	66	.1602E-01	67	.1364E-01	68	.1116E-01	69	.9671E-02	70	.8304E-02	71	.6545E-02	72	.4935E-02
73	.1322E-01	74	.1222E-01	75	.1054E-01	76	.8778E-02	77	.7677E-02	78	.6625E-02	79	.5200E-02	80	.3829E-02
81	.8126E-02	82	.7568E-02	83	.6631E-02	84	.5647E-02	85	.5004E-02	86	.4359E-02	87	.3426E-02	88	.2480E-02
89	.5047E-02	90	.4718E-02	91	.4169E-02	92	.3595E-02	93	.3215E-02	94	.2824E-02	95	.2242E-02	96	.1638E-02



Appendix 6E-e 12 Inch PCCP Pavement

97 .2460E-02 98 .2260E-02 99 .1968E-02 100 .1699E-02 101 .1531E-02 102 .1361E-02 103 .1099E-02 104 .8137E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.2856E-02	2	.2549E-02	3	.2109E-02	4	.1723E-02	5	.1497E-02	6	.1280E-02	7	.9612E-03	8	.6246E-03
9	.6122E-02	10	.5568E-02	11	.4688E-02	12	.3844E-02	13	.3332E-02	14	.2837E-02	15	.2142E-02	16	.1452E-02
17	.1125E-01	18	.1011E-01	19	.8340E-02	20	.6708E-02	21	.5761E-02	22	.4886E-02	23	.3712E-02	24	.2575E-02
25	.1399E-01	26	.1249E-01	27	.1018E-01	28	.8106E-02	29	.6939E-02	30	.5884E-02	31	.4504E-02	32	.3191E-02
33	.1729E-01	34	.1530E-01	35	.1229E-01	36	.9679E-02	37	.8265E-02	38	.7018E-02	39	.5428E-02	40	.3947E-02
41	.2101E-01	42	.1842E-01	43	.1456E-01	44	.1137E-01	45	.9697E-02	46	.8255E-02	47	.6461E-02	48	.4835E-02
49	.2243E-01	50	.2007E-01	51	.1626E-01	52	.1288E-01	53	.1104E-01	54	.9436E-02	55	.7464E-02	56	.5734E-02
57	.2243E-01	58	.2007E-01	59	.1626E-01	60	.1288E-01	61	.1104E-01	62	.9436E-02	63	.7464E-02	64	.5734E-02
65	.1739E-01	66	.1602E-01	67	.1364E-01	68	.1116E-01	69	.9671E-02	70	.8304E-02	71	.6545E-02	72	.4935E-02
73	.1322E-01	74	.1222E-01	75	.1054E-01	76	.8778E-02	77	.7677E-02	78	.6625E-02	79	.5200E-02	80	.3829E-02
81	.8126E-02	82	.7568E-02	83	.6631E-02	84	.5647E-02	85	.5004E-02	86	.4359E-02	87	.3426E-02	88	.2480E-02
89	.5047E-02	90	.4718E-02	91	.4169E-02	92	.3595E-02	93	.3215E-02	94	.2824E-02	95	.2242E-02	96	.1638E-02
97	.2460E-02	98	.2260E-02	99	.1968E-02	100	.1699E-02	101	.1531E-02	102	.1361E-02	103	.1099E-02	104	.8137E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	60.4	2	-52.9	3	-88.4	4	-91.2	5	-35.1	6	-98.0	7	-105.9	8	-251.5
9	331.2	10	54.9	11	62.9	12	-5.9	13	-9.7	14	-37.3	15	-58.9	16	-214.7
17	401.7	18	161.0	19	116.9	20	39.2	21	11.7	22	1.4	23	-22.3	24	-106.1
25	349.3	26	151.5	27	107.7	28	45.5	29	20.7	30	15.9	31	4.2	32	-42.1
33	524.7	34	250.1	35	185.7	36	82.6	37	41.1	38	37.7	39	25.0	40	-21.6
41	724.3	42	382.4	43	277.7	44	126.7	45	65.8	46	65.5	47	54.6	48	18.6
49	527.2	50	363.2	51	282.7	52	140.8	53	80.8	54	84.0	55	81.7	56	63.6
57	308.6	58	203.2	59	227.6	60	137.7	61	84.8	62	89.6	63	86.8	64	68.0
65	482.0	66	244.8	67	241.2	68	140.4	69	79.0	70	81.8	71	69.8	72	29.9
73	543.1	74	256.4	75	237.0	76	117.6	77	57.8	78	57.7	79	36.9	80	-42.0
81	328.6	82	118.4	83	106.3	84	41.4	85	14.9	86	7.6	87	-14.7	88	-118.9
89	164.2	90	27.8	91	21.3	92	-7.0	93	-8.4	94	-24.9	95	-43.2	96	-152.8
97	15.2	98	-48.3	99	-81.7	100	-76.9	101	-29.4	102	-82.0	103	-89.1	104	-211.6

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1224.327	.000	50	-1944.036	.000	51	-697.165	.000	52	-37.548	.000
53	43.236	.000	54	67.269	.000	55	63.580	.000	56	27.611	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-1836.490	50	-1137.973	51	-334.639	52	-21.979	53	32.427	54	41.396
55	33.172	56	28.812								

Appendix 6E-e 12 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-2868.414	-2338.287	50	-1777.399	-1448.909	51	-522.673	-426.075	52	-34.329	-27.985
53	50.648	41.287	54	64.657	52.707	55	51.812	42.236	56	45.001	36.684

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.25150	2	-.08606	3	-.11782	4	-.14831	5	-.07307	6	-.16754	7	-.15348	8	-.72886
9	.75267	10	.04871	11	.04574	12	-.00522	13	-.01101	14	-.03478	15	-.04654	16	-.33946
17	1.47668	18	.23101	19	.13751	20	.05627	21	.02142	22	.00205	23	-.02851	24	-.27137
25	2.42581	26	.41047	27	.23932	28	.12321	29	.07202	30	.04537	31	.01009	32	-.20355
33	3.64346	34	.67791	35	.41275	36	.22378	37	.14277	38	.10746	39	.06038	40	-.10414
41	5.32544	42	1.09738	43	.65338	44	.36357	45	.24196	46	.19760	47	.13972	48	.09518
49	8.23741	50	2.21458	51	1.41332	52	.85828	53	.63120	54	.53829	55	.44413	56	.69163
57	4.82188	58	1.23916	59	1.13775	60	.83943	61	.66264	62	.57462	63	.47198	64	.73914
65	3.01257	66	.59698	67	.48233	68	.34236	69	.24682	70	.20962	71	.15166	72	.13001
73	2.12154	74	.39090	75	.29619	76	.17931	77	.11279	78	.09240	79	.05018	80	-.11402
81	1.02674	82	.14437	83	.10631	84	.05050	85	.02323	86	.00975	87	-.01594	88	-.25856
89	.41059	90	.02712	91	.01705	92	-.00685	93	-.01052	94	-.02549	95	-.03753	96	-.26568
97	.06348	98	-.07857	99	-.10890	100	-.12504	101	-.06126	102	-.14012	103	-.12918	104	-.61335

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.1945E-04	.4680E-04	2	.1868E-04	.4277E-04	3	.1650E-04	.3703E-04	4	.1455E-04	.3091E-04
5	.1375E-04	.2688E-04	6	.1357E-04	.2284E-04	7	.1426E-04	.1728E-04	8	.1485E-04	.1162E-04
9	.3373E-04	.7402E-04	10	.3521E-04	.6641E-04	11	.3473E-04	.5488E-04	12	.3268E-04	.4409E-04
13	.3144E-04	.3777E-04	14	.3053E-04	.3189E-04	15	.2997E-04	.2414E-04	16	.3017E-04	.1680E-04
17	.6978E-04	.1356E-03	18	.7175E-04	.1198E-03	19	.6872E-04	.9414E-04	20	.6156E-04	.7224E-04
21	.5679E-04	.6092E-04	22	.5288E-04	.5149E-04	23	.4972E-04	.4030E-04	24	.4967E-04	.3070E-04
25	.9239E-04	.1686E-03	26	.9433E-04	.1447E-03	27	.8869E-04	.1102E-03	28	.7682E-04	.8291E-04
29	.6917E-04	.6980E-04	30	.6300E-04	.5940E-04	31	.5778E-04	.4773E-04	32	.5710E-04	.3806E-04
33	.1237E-03	.1977E-03	34	.1245E-03	.1669E-03	35	.1139E-03	.1228E-03	36	.9437E-04	.9132E-04
37	.8274E-04	.7712E-04	38	.7362E-04	.6626E-04	39	.6572E-04	.5468E-04	40	.6408E-04	.4587E-04
41	.1620E-03	.2102E-03	42	.1611E-03	.1775E-03	43	.1432E-03	.1285E-03	44	.1128E-03	.9581E-04
45	.9671E-04	.8143E-04	46	.8428E-04	.7063E-04	47	.7298E-04	.5966E-04	48	.6974E-04	.5257E-04
49	.1934E-03	.2095E-03	50	.1935E-03	.1782E-03	51	.1699E-03	.1269E-03	52	.1296E-03	.9512E-04
53	.1090E-03	.8116E-04	54	.9329E-04	.7083E-04	55	.7867E-04	.6065E-04	56	.7353E-04	.5508E-04
57	.9787E-04	-.1969E-03	58	.1084E-03	-.1819E-03	59	.1233E-03	-.1436E-03	60	.1172E-03	-.1064E-03
61	.1057E-03	-.8756E-04	62	.9345E-04	-.7334E-04	63	.7948E-04	-.5974E-04	64	.7382E-04	-.5266E-04
65	.8305E-04	-.1883E-03	66	.8928E-04	-.1723E-03	67	.9939E-04	-.1384E-03	68	.9642E-04	-.1046E-03
69	.8947E-04	-.8685E-04	70	.8150E-04	-.7295E-04	71	.7219E-04	-.5897E-04	72	.6906E-04	-.5016E-04
73	.6031E-04	-.1563E-03	74	.6434E-04	-.1428E-03	75	.6972E-04	-.1181E-03	76	.6990E-04	-.9252E-04

Appendix 6E-e 12 Inch PCCP Pavement

77	.6742E-04	-.7807E-04	78	.6409E-04	-.6592E-04	79	.6025E-04	-.5225E-04	80	.5966E-04	-.4164E-04
81	.3348E-04	-.9971E-04	82	.3606E-04	-.9150E-04	83	.3864E-04	-.7793E-04	84	.3995E-04	-.6383E-04
85	.4030E-04	-.5513E-04	86	.4043E-04	-.4700E-04	87	.4073E-04	-.3636E-04	88	.4159E-04	-.2663E-04
89	.1973E-04	-.5804E-04	90	.2123E-04	-.5431E-04	91	.2253E-04	-.4778E-04	92	.2342E-04	-.4053E-04
93	.2408E-04	-.3569E-04	94	.2480E-04	-.3081E-04	95	.2584E-04	-.2387E-04	96	.2659E-04	-.1705E-04
97	.1266E-04	-.3670E-04	98	.1221E-04	-.3463E-04	99	.1115E-04	-.3122E-04	100	.1054E-04	-.2712E-04
101	.1048E-04	-.2418E-04	102	.1085E-04	-.2104E-04	103	.1197E-04	-.1641E-04	104	.1269E-04	-.1137E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX.SHEAR
17	1	-.412557E+02	.000000E+00	.000000E+00	-.412557E+02	.000000E+00	.206279E+02
25	1	-.422170E+02	.000000E+00	.000000E+00	-.422170E+02	.000000E+00	.211085E+02
29	1	-.131648E+02	-.126899E+02	-.151750E+02	-.281042E+02	.224956E+01	.151769E+02
33	1	-.365407E+02	.000000E+00	.000000E+00	-.365407E+02	.000000E+00	.182703E+02
41	1	.389217E+01	.000000E+00	.000000E+00	.000000E+00	.389217E+01	.194609E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.298014E+01	-.426293E+02	-.411653E+02	.441454E+02	.426553E+02
51	1	.000000E+00	-.486723E+02	-.351800E+02	-.671133E+02	.184409E+02	.427771E+02
52	1	.000000E+00	-.331462E+02	-.215569E+02	-.437644E+02	.106182E+02	.271913E+02
53	1	.000000E+00	-.262570E+02	-.156148E+02	-.335289E+02	.727195E+01	.204004E+02
54	1	.000000E+00	-.198007E+02	-.113873E+02	-.249897E+02	.518900E+01	.150894E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 67.11325 AND OCCURS AT NODE 51

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      12 inch PCCP Pavement with 85K load
*
*****
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TYPE OF FOUNDATION (NFOUND)          = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)       = 0
NUMBER OF PERIODS PER YEAR (NPY)     = 1
NUMBER OF LOAD GROUPS (NLG)          = 1
TOTAL NUMBER OF SLABS (NSLAB)        = 2
TOTAL NUMBER OF JOINTS (NJOINT)      = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
```

Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	123.27100	132.00000	.00000	6.01140	90.00000
1	123.27100	132.00000	12.00000	18.01140	90.00000
1	123.27100	132.00000	84.00000	90.01140	90.00000
1	123.27100	132.00000	96.00000	102.01100	90.00000
1	171.27100	180.00000	.00000	6.01140	90.00000
1	171.27100	180.00000	12.00000	18.01140	90.00000
1	171.27100	180.00000	84.00000	90.01140	90.00000
1	171.27100	180.00000	96.00000	102.01100	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17      25      29      33      41      49      50      51      52      53      54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1    1    56    1    42            2    57    104    43    77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1    49    57    56    64    36    43    42    49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.47456	1.00000	-1.00000	-.24857	90.00000
22	-1.00000	-.55556	-1.00000	-.24857	90.00000
15	.47456	1.00000	.50000	1.00000	90.00000
16	.47456	1.00000	-1.00000	-.83909	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.83909	90.00000
19	.47456	1.00000	-.75000	.00142	90.00000
26	-1.00000	-.55556	-.75000	.00142	90.00000
19	.47456	1.00000	.75000	1.00000	90.00000
20	.47456	1.00000	-1.00000	-.65122	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.65122	90.00000
36	-.09113	1.00000	-1.00000	-.24857	90.00000
36	-.09113	1.00000	.50000	1.00000	90.00000
37	-.09113	1.00000	-1.00000	-.83909	90.00000
40	-.09113	1.00000	-.75000	.00142	90.00000
40	-.09113	1.00000	.75000	1.00000	90.00000
41	-.09113	1.00000	-1.00000	-.65122	90.00000

Appendix 6E-e 12 Inch PCCP Pavement

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000



Appendix 6E-e 12 Inch PCCP Pavement

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0
81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .04372521  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01057598  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00123176  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00014610  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00001740

SUM OF APPLIED FORCES (FOSUM)= 37780.3 SUM OF TOTAL REACTIONS (SUBSUM)= 37730.8

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000206

SUM OF APPLIED FORCES (FOSUM)= 37780.3 SUM OF TOTAL REACTIONS (SUBSUM)= 37733.5

Appendix 6E-e 12 Inch PCCP Pavement

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1301E-01	2	.1265E-01	3	.1208E-01	4	.1141E-01	5	.1089E-01	6	.1031E-01	7	.9313E-02	8	.8190E-02
9	.2639E-01	10	.2569E-01	11	.2445E-01	12	.2303E-01	13	.2198E-01	14	.2079E-01	15	.1883E-01	16	.1667E-01
17	.4070E-01	18	.3903E-01	19	.3650E-01	20	.3426E-01	21	.3281E-01	22	.3109E-01	23	.2798E-01	24	.2454E-01
25	.4560E-01	26	.4355E-01	27	.4050E-01	28	.3805E-01	29	.3656E-01	30	.3471E-01	31	.3116E-01	32	.2727E-01
33	.4941E-01	34	.4722E-01	35	.4398E-01	36	.4138E-01	37	.3980E-01	38	.3783E-01	39	.3408E-01	40	.2986E-01
41	.5279E-01	42	.5044E-01	43	.4700E-01	44	.4437E-01	45	.4282E-01	46	.4082E-01	47	.3684E-01	48	.3236E-01
49	.5570E-01	50	.5318E-01	51	.4944E-01	52	.4687E-01	53	.4549E-01	54	.4354E-01	55	.3926E-01	56	.3459E-01
57	.5054E-01	58	.4970E-01	59	.4779E-01	60	.4539E-01	61	.4360E-01	62	.4153E-01	63	.3812E-01	64	.3452E-01
65	.4348E-01	66	.4286E-01	67	.4143E-01	68	.3946E-01	69	.3791E-01	70	.3612E-01	71	.3314E-01	72	.2989E-01
73	.3391E-01	74	.3357E-01	75	.3268E-01	76	.3128E-01	77	.3009E-01	78	.2868E-01	79	.2630E-01	80	.2360E-01
81	.2195E-01	82	.2184E-01	83	.2143E-01	84	.2064E-01	85	.1992E-01	86	.1903E-01	87	.1748E-01	88	.1568E-01
89	.1441E-01	90	.1436E-01	91	.1411E-01	92	.1365E-01	93	.1321E-01	94	.1267E-01	95	.1172E-01	96	.1062E-01
97	.7631E-02	98	.7519E-02	99	.7335E-02	100	.7094E-02	101	.6901E-02	102	.6679E-02	103	.6293E-02	104	.5843E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1301E-01	2	.1265E-01	3	.1208E-01	4	.1141E-01	5	.1089E-01	6	.1031E-01	7	.9313E-02	8	.8190E-02
9	.2639E-01	10	.2569E-01	11	.2445E-01	12	.2303E-01	13	.2198E-01	14	.2079E-01	15	.1883E-01	16	.1667E-01
17	.4070E-01	18	.3903E-01	19	.3650E-01	20	.3426E-01	21	.3281E-01	22	.3109E-01	23	.2798E-01	24	.2454E-01
25	.4560E-01	26	.4355E-01	27	.4050E-01	28	.3805E-01	29	.3656E-01	30	.3471E-01	31	.3116E-01	32	.2727E-01
33	.4941E-01	34	.4722E-01	35	.4398E-01	36	.4138E-01	37	.3980E-01	38	.3783E-01	39	.3408E-01	40	.2986E-01
41	.5279E-01	42	.5044E-01	43	.4700E-01	44	.4437E-01	45	.4282E-01	46	.4082E-01	47	.3684E-01	48	.3236E-01
49	.5312E-01	50	.5144E-01	51	.4862E-01	52	.4613E-01	53	.4454E-01	54	.4253E-01	55	.3869E-01	56	.3456E-01
57	.5312E-01	58	.5144E-01	59	.4862E-01	60	.4613E-01	61	.4454E-01	62	.4253E-01	63	.3869E-01	64	.3456E-01
65	.4348E-01	66	.4286E-01	67	.4143E-01	68	.3946E-01	69	.3791E-01	70	.3612E-01	71	.3314E-01	72	.2989E-01
73	.3391E-01	74	.3357E-01	75	.3268E-01	76	.3128E-01	77	.3009E-01	78	.2868E-01	79	.2630E-01	80	.2360E-01
81	.2195E-01	82	.2184E-01	83	.2143E-01	84	.2064E-01	85	.1992E-01	86	.1903E-01	87	.1748E-01	88	.1568E-01
89	.1441E-01	90	.1436E-01	91	.1411E-01	92	.1365E-01	93	.1321E-01	94	.1267E-01	95	.1172E-01	96	.1062E-01
97	.7631E-02	98	.7519E-02	99	.7335E-02	100	.7094E-02	101	.6901E-02	102	.6679E-02	103	.6293E-02	104	.5843E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	166.1	2	-112.2	3	-170.0	4	-184.3	5	-73.2	6	-215.9	7	-252.6	8	-572.0
9	1386.9	10	492.1	11	768.5	12	444.9	13	192.3	14	343.2	15	324.8	16	276.5
17	1431.9	18	788.9	19	817.0	20	519.7	21	340.7	22	441.2	23	458.8	24	479.0
25	1042.2	26	564.9	27	524.4	28	356.6	29	262.9	30	327.8	31	323.5	32	354.7
33	1244.4	34	710.5	35	690.4	36	465.1	37	333.3	38	415.2	39	438.3	40	490.2
41	1382.2	42	832.0	43	800.9	44	554.3	45	407.6	46	512.3	47	531.2	48	584.7

Appendix 6E-e 12 Inch PCCP Pavement

49	882.8	50	659.8	51	658.9	52	474.6	53	369.8	54	453.2	55	467.0	56	470.1
57	592.1	58	428.4	59	530.4	60	376.3	61	258.3	62	323.0	63	383.6	64	464.6
65	931.8	66	549.0	67	617.7	68	431.4	69	286.3	70	355.0	71	409.8	72	567.4
73	983.0	74	542.3	75	610.3	76	399.9	77	250.5	78	325.0	79	357.6	80	455.3
81	527.6	82	233.2	83	265.8	84	159.6	85	88.5	86	116.0	87	108.9	88	76.3
89	184.1	90	27.6	91	27.3	92	-1.3	93	-5.6	94	-23.7	95	-50.0	96	-167.4
97	-187.5	98	-167.8	99	-292.3	100	-233.1	101	-90.0	102	-236.4	103	-252.9	104	-480.9

ITERATION NO. (IC) = 13 DIFFERENCE IN DEFLECTION (DF) = .00000023

SUM OF APPLIED FORCES (FOSUM)= 37780.3 SUM OF TOTAL REACTIONS (SUBSUM)= 37733.8

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1301E-01	2	.1265E-01	3	.1208E-01	4	.1141E-01	5	.1089E-01	6	.1031E-01	7	.9313E-02	8	.8190E-02
9	.2640E-01	10	.2569E-01	11	.2445E-01	12	.2303E-01	13	.2198E-01	14	.2079E-01	15	.1883E-01	16	.1667E-01
17	.4070E-01	18	.3903E-01	19	.3650E-01	20	.3426E-01	21	.3281E-01	22	.3109E-01	23	.2798E-01	24	.2454E-01
25	.4560E-01	26	.4355E-01	27	.4050E-01	28	.3805E-01	29	.3656E-01	30	.3471E-01	31	.3116E-01	32	.2727E-01
33	.4941E-01	34	.4722E-01	35	.4398E-01	36	.4138E-01	37	.3980E-01	38	.3783E-01	39	.3408E-01	40	.2986E-01
41	.5279E-01	42	.5044E-01	43	.4700E-01	44	.4437E-01	45	.4282E-01	46	.4082E-01	47	.3684E-01	48	.3236E-01
49	.5570E-01	50	.5318E-01	51	.4944E-01	52	.4687E-01	53	.4549E-01	54	.4354E-01	55	.3926E-01	56	.3459E-01
57	.5054E-01	58	.4970E-01	59	.4779E-01	60	.4539E-01	61	.4360E-01	62	.4153E-01	63	.3812E-01	64	.3452E-01
65	.4348E-01	66	.4286E-01	67	.4143E-01	68	.3946E-01	69	.3791E-01	70	.3612E-01	71	.3314E-01	72	.2989E-01
73	.3391E-01	74	.3357E-01	75	.3268E-01	76	.3128E-01	77	.3009E-01	78	.2868E-01	79	.2630E-01	80	.2360E-01
81	.2195E-01	82	.2184E-01	83	.2143E-01	84	.2064E-01	85	.1992E-01	86	.1903E-01	87	.1749E-01	88	.1568E-01
89	.1441E-01	90	.1436E-01	91	.1411E-01	92	.1365E-01	93	.1321E-01	94	.1267E-01	95	.1172E-01	96	.1062E-01
97	.7631E-02	98	.7520E-02	99	.7335E-02	100	.7094E-02	101	.6901E-02	102	.6679E-02	103	.6293E-02	104	.5843E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1301E-01	2	.1265E-01	3	.1208E-01	4	.1141E-01	5	.1089E-01	6	.1031E-01	7	.9313E-02	8	.8190E-02
9	.2640E-01	10	.2569E-01	11	.2445E-01	12	.2303E-01	13	.2198E-01	14	.2079E-01	15	.1883E-01	16	.1667E-01
17	.4070E-01	18	.3903E-01	19	.3650E-01	20	.3426E-01	21	.3281E-01	22	.3109E-01	23	.2798E-01	24	.2454E-01
25	.4560E-01	26	.4355E-01	27	.4050E-01	28	.3805E-01	29	.3656E-01	30	.3471E-01	31	.3116E-01	32	.2727E-01
33	.4941E-01	34	.4722E-01	35	.4398E-01	36	.4138E-01	37	.3980E-01	38	.3783E-01	39	.3408E-01	40	.2986E-01
41	.5279E-01	42	.5044E-01	43	.4700E-01	44	.4437E-01	45	.4282E-01	46	.4082E-01	47	.3684E-01	48	.3236E-01
49	.5312E-01	50	.5144E-01	51	.4862E-01	52	.4613E-01	53	.4454E-01	54	.4253E-01	55	.3869E-01	56	.3456E-01
57	.5312E-01	58	.5144E-01	59	.4862E-01	60	.4613E-01	61	.4454E-01	62	.4253E-01	63	.3869E-01	64	.3456E-01
65	.4348E-01	66	.4286E-01	67	.4143E-01	68	.3946E-01	69	.3791E-01	70	.3612E-01	71	.3314E-01	72	.2989E-01
73	.3391E-01	74	.3357E-01	75	.3268E-01	76	.3128E-01	77	.3009E-01	78	.2868E-01	79	.2630E-01	80	.2360E-01
81	.2195E-01	82	.2184E-01	83	.2143E-01	84	.2064E-01	85	.1992E-01	86	.1903E-01	87	.1749E-01	88	.1568E-01
89	.1441E-01	90	.1436E-01	91	.1411E-01	92	.1365E-01	93	.1321E-01	94	.1267E-01	95	.1172E-01	96	.1062E-01

Appendix 6E-e 12 Inch PCCP Pavement

97 .7631E-02 98 .7520E-02 99 .7335E-02 100 .7094E-02 101 .6901E-02 102 .6679E-02 103 .6293E-02 104 .5843E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	166.2	2	-112.2	3	-170.0	4	-184.3	5	-73.2	6	-215.9	7	-252.6	8	-572.0
9	1387.0	10	492.1	11	768.5	12	444.9	13	192.3	14	343.2	15	324.8	16	276.6
17	1431.9	18	788.9	19	817.0	20	519.7	21	340.7	22	441.2	23	458.8	24	479.0
25	1042.2	26	564.9	27	524.4	28	356.6	29	262.9	30	327.8	31	323.5	32	354.7
33	1244.4	34	710.5	35	690.4	36	465.1	37	333.3	38	415.2	39	438.3	40	490.3
41	1382.2	42	832.0	43	800.9	44	554.3	45	407.6	46	512.3	47	531.2	48	584.7
49	882.8	50	659.8	51	658.9	52	474.6	53	369.8	54	453.2	55	467.0	56	470.1
57	592.1	58	428.4	59	530.4	60	376.3	61	258.3	62	323.0	63	383.6	64	464.6
65	931.8	66	549.0	67	617.7	68	431.5	69	286.3	70	355.0	71	409.8	72	567.4
73	983.0	74	542.3	75	610.3	76	399.9	77	250.5	78	325.0	79	357.6	80	455.3
81	527.6	82	233.2	83	265.8	84	159.6	85	88.5	86	116.0	87	108.9	88	76.3
89	184.1	90	27.6	91	27.3	92	-1.3	93	-5.6	94	-23.7	95	-50.0	96	-167.4
97	-187.5	98	-167.8	99	-292.3	100	-233.0	101	-90.0	102	-236.4	103	-252.9	104	-480.9

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1628.022	.000	50	-2812.481	.000	51	-1626.249	.000	52	-1193.541	.000
53	-1198.012	.000	54	-1545.938	.000	55	-1034.139	.000	56	-34.935	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2442.033	50	-1646.330	51	-780.599	52	-698.658	53	-898.509	54	-951.346
55	-539.551	56	-36.454								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3814.211	-3109.287	50	-2571.403	-2096.169	51	-1219.218	-993.888	52	-1091.234	-889.557
53	-1403.382	-1144.015	54	-1485.908	-1211.289	55	-842.724	-686.976	56	-56.938	-46.415

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.69231	2	-.18244	3	-.22665	4	-.29966	5	-.15248	6	-.36913	7	-.36610	8	-1.65793
9	3.15217	10	.43642	11	.55891	12	.39459	13	.21856	14	.31998	15	.25675	16	.43724
17	5.26444	18	1.13192	19	.96114	20	.74559	21	.62636	22	.66550	23	.58676	24	1.22518
25	7.23763	26	1.53090	27	1.16535	28	.96649	29	.91291	30	.93402	31	.78139	32	1.71343
33	8.64171	34	1.92538	35	1.53431	36	1.26042	37	1.15740	38	1.18280	39	1.05860	40	2.36837
41	10.16300	42	2.38728	43	1.88447	44	1.59061	45	1.49850	46	1.54535	47	1.35850	48	2.99061
49	13.79373	50	4.02323	51	3.29474	52	2.89373	53	2.88938	54	2.90539	55	2.53795	56	5.11011
57	9.25199	58	2.61206	59	2.65194	60	2.29458	61	2.01822	62	2.07056	63	2.08498	64	5.05000
65	5.82351	66	1.33897	67	1.23541	68	1.05232	69	.89475	70	.91016	71	.89080	72	2.46701
73	3.83970	74	.82665	75	.76284	76	.60958	77	.48922	78	.52090	79	.48591	80	1.23716

Appendix 6E-e 12 Inch PCCP Pavement

81	1.64886	82	.28445	83	.26585	84	.19460	85	.13823	86	.14871	87	.11836	88	.16593
89	.46034	90	.02693	91	.02187	92	-.00126	93	-.00696	94	-.02434	95	-.04347	96	-.29114
97	-.78140	98	-.27278	99	-.38975	100	-.37894	101	-.18746	102	-.40405	103	-.36646	104	-1.39383

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2250E-04	.2083E-03	2	.2222E-04	.2024E-03	3	.2425E-04	.1935E-03	4	.2987E-04	.1826E-03	5	.3431E-04	.1743E-03
6	.3938E-04	.1650E-03	7	.4661E-04	.1504E-03	8	.5011E-04	.1338E-03	9	.4216E-04	.2601E-03	10	.4641E-04	.2479E-03
11	.5256E-04	.2293E-03	12	.6168E-04	.2140E-03	13	.7017E-04	.2048E-03	14	.7902E-04	.1938E-03	15	.9036E-04	.1739E-03
16	.9613E-04	.1524E-03	17	.1049E-03	.2882E-03	18	.1041E-03	.2664E-03	19	.9551E-04	.2349E-03	20	.8679E-04	.2205E-03
21	.9684E-04	.2168E-03	22	.1200E-03	.2085E-03	23	.1459E-03	.1826E-03	24	.1515E-03	.1560E-03	25	.1313E-03	.2422E-03
26	.1270E-03	.2278E-03	27	.1106E-03	.2085E-03	28	.9061E-04	.1983E-03	29	.1005E-03	.1941E-03	30	.1333E-03	.1871E-03
31	.1664E-03	.1695E-03	32	.1706E-03	.1477E-03	33	.1379E-03	.1934E-03	34	.1359E-03	.1869E-03	35	.1172E-03	.1788E-03
36	.9581E-04	.1739E-03	37	.1075E-03	.1708E-03	38	.1408E-03	.1661E-03	39	.1783E-03	.1562E-03	40	.1858E-03	.1405E-03
41	.1466E-03	.1835E-03	42	.1461E-03	.1735E-03	43	.1226E-03	.1581E-03	44	.9348E-04	.1593E-03	45	.1061E-03	.1663E-03
46	.1468E-03	.1672E-03	47	.1900E-03	.1515E-03	48	.1970E-03	.1388E-03	49	.1572E-03	.1812E-03	50	.1582E-03	.1697E-03
51	.1279E-03	.1486E-03	52	.8538E-04	.1541E-03	53	.9724E-04	.1689E-03	54	.1525E-03	.1737E-03	55	.2016E-03	.1512E-03
56	.2043E-03	.1398E-03	57	.4813E-04	-.4474E-03	58	.6130E-04	-.4346E-03	59	.8721E-04	-.4027E-03	60	.1054E-03	-.3752E-03
61	.1202E-03	-.3598E-03	62	.1382E-03	-.3428E-03	63	.1543E-03	-.3147E-03	64	.1587E-03	-.2929E-03	65	.3472E-04	-.4295E-03
66	.4525E-04	-.4163E-03	67	.6838E-04	-.3888E-03	68	.8922E-04	-.3627E-03	69	.1043E-03	-.3470E-03	70	.1201E-03	-.3303E-03
71	.1369E-03	-.3042E-03	72	.1447E-03	-.2817E-03	73	.1674E-04	-.3625E-03	74	.2629E-04	-.3535E-03	75	.4553E-04	-.3357E-03
76	.6687E-04	-.3153E-03	77	.8122E-04	-.3012E-03	78	.9504E-04	-.2861E-03	79	.1114E-03	-.2628E-03	80	.1219E-03	-.2396E-03
81	.2831E-05	-.2386E-03	82	.1014E-04	-.2353E-03	83	.2360E-04	-.2280E-03	84	.3952E-04	-.2169E-03	85	.5034E-04	-.2077E-03
86	.6074E-04	-.1968E-03	87	.7348E-04	-.1787E-03	88	.8228E-04	-.1586E-03	89	.1467E-05	-.1467E-03	90	.5822E-05	-.1467E-03
91	.1393E-04	-.1445E-03	92	.2366E-04	-.1390E-03	93	.3044E-04	-.1336E-03	94	.3704E-04	-.1267E-03	95	.4509E-04	-.1147E-03
96	.5032E-04	-.1008E-03	97	.6981E-05	-.9675E-04	98	.6950E-05	-.9767E-04	99	.8238E-05	-.9715E-04	100	.1113E-04	-.9417E-04
101	.1293E-04	-.9084E-04	102	.1502E-04	-.8628E-04	103	.1846E-04	-.7809E-04	104	.2026E-04	-.6765E-04			

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.125262E+02	.000000E+00	.000000E+00	.000000E+00	.125262E+02	.626309E+01
25	1	.118226E+03	.000000E+00	.000000E+00	.000000E+00	.118226E+03	.591129E+02
29	1	.592574E+02	.467578E+02	-.642454E+01	.440446E+02	.619705E+02	.896296E+01
33	1	.154476E+02	.000000E+00	.000000E+00	.000000E+00	.154476E+02	.772381E+01
41	1	.713511E+01	.000000E+00	.000000E+00	.000000E+00	.713511E+01	.356756E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.630405E+01	-.172283E+02	-.143622E+02	.206663E+02	.175143E+02

Appendix 6E-e 12 Inch PCCP Pavement

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51	1	.000000E+00	-.645599E+02	-.721990E+01	-.653575E+02	.797565E+00	.330775E+02
52	1	.000000E+00	-.258368E+02	.138891E+02	-.318866E+02	.604980E+01	.189682E+02
53	1	.000000E+00	.630285E+02	.152351E+02	-.348941E+01	.665179E+02	.350037E+02
54	1	.000000E+00	.107675E+03	-.781823E+01	-.564713E+00	.108240E+03	.544024E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 118.22590 AND OCCURS AT NODE 25

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
* 12 inch PCCP Pavement with 85K load Single Axle
*
*****
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TYPE OF FOUNDATION (NFOUND)          = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)       = 0
NUMBER OF PERIODS PER YEAR (NPY)      = 1
NUMBER OF LOAD GROUPS (NLG)           = 1
TOTAL NUMBER OF SLABS (NSLAB)         = 2
TOTAL NUMBER OF JOINTS (NJOINT)       = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
```

Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```



Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	171.27100	180.00000	.00000	6.01140	90.00000
1	171.27100	180.00000	8.00000	14.01140	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.09113	1.00000	-1.00000	-.24857	90.00000
36	-.09113	1.00000	.00000	.75143	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0

Appendix 6E-e 12 Inch PCCP Pavement

81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .02242959

ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00302830

ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00032654

ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00003855

ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000460

SUM OF APPLIED FORCES (FOSUM)= 9445.2 SUM OF TOTAL REACTIONS (SUBSUM)= 9431.9

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3039E-02	2	.2714E-02	3	.2246E-02	4	.1836E-02	5	.1595E-02	6	.1364E-02	7	.1025E-02	8	.6667E-03
9	.6513E-02	10	.5925E-02	11	.4990E-02	12	.4094E-02	13	.3549E-02	14	.3022E-02	15	.2283E-02	16	.1549E-02
17	.1196E-01	18	.1075E-01	19	.8871E-02	20	.7136E-02	21	.6130E-02	22	.5199E-02	23	.3951E-02	24	.2742E-02
25	.1486E-01	26	.1327E-01	27	.1082E-01	28	.8619E-02	29	.7379E-02	30	.6258E-02	31	.4791E-02	32	.3396E-02
33	.1836E-01	34	.1625E-01	35	.1306E-01	36	.1029E-01	37	.8784E-02	38	.7459E-02	39	.5770E-02	40	.4197E-02
41	.2229E-01	42	.1956E-01	43	.1546E-01	44	.1208E-01	45	.1030E-01	46	.8770E-02	47	.6865E-02	48	.5139E-02
49	.2583E-01	50	.2256E-01	51	.1763E-01	52	.1370E-01	53	.1169E-01	54	.9974E-02	55	.7891E-02	56	.6059E-02
57	.2173E-01	58	.2002E-01	59	.1688E-01	60	.1365E-01	61	.1176E-01	62	.1007E-01	63	.7965E-02	64	.6124E-02
65	.1844E-01	66	.1699E-01	67	.1447E-01	68	.1185E-01	69	.1027E-01	70	.8818E-02	71	.6952E-02	72	.5243E-02
73	.1402E-01	74	.1296E-01	75	.1118E-01	76	.9319E-02	77	.8152E-02	78	.7036E-02	79	.5524E-02	80	.4069E-02
81	.8621E-02	82	.8030E-02	83	.7038E-02	84	.5995E-02	85	.5314E-02	86	.4629E-02	87	.3640E-02	88	.2637E-02
89	.5355E-02	90	.5008E-02	91	.4426E-02	92	.3818E-02	93	.3415E-02	94	.3000E-02	95	.2382E-02	96	.1742E-02
97	.2611E-02	98	.2399E-02	99	.2090E-02	100	.1805E-02	101	.1627E-02	102	.1447E-02	103	.1169E-02	104	.8663E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3039E-02	2	.2714E-02	3	.2246E-02	4	.1836E-02	5	.1595E-02	6	.1364E-02	7	.1025E-02	8	.6667E-03
9	.6513E-02	10	.5925E-02	11	.4990E-02	12	.4094E-02	13	.3549E-02	14	.3022E-02	15	.2283E-02	16	.1549E-02
17	.1196E-01	18	.1075E-01	19	.8871E-02	20	.7136E-02	21	.6130E-02	22	.5199E-02	23	.3951E-02	24	.2742E-02
25	.1486E-01	26	.1327E-01	27	.1082E-01	28	.8619E-02	29	.7379E-02	30	.6258E-02	31	.4791E-02	32	.3396E-02
33	.1836E-01	34	.1625E-01	35	.1306E-01	36	.1029E-01	37	.8784E-02	38	.7459E-02	39	.5770E-02	40	.4197E-02
41	.2229E-01	42	.1956E-01	43	.1546E-01	44	.1208E-01	45	.1030E-01	46	.8770E-02	47	.6865E-02	48	.5139E-02

Appendix 6E-e 12 Inch PCCP Pavement

49	.2378E-01	50	.2129E-01	51	.1725E-01	52	.1367E-01	53	.1172E-01	54	.1002E-01	55	.7928E-02	56	.6092E-02
57	.2378E-01	58	.2129E-01	59	.1725E-01	60	.1367E-01	61	.1172E-01	62	.1002E-01	63	.7928E-02	64	.6092E-02
65	.1844E-01	66	.1699E-01	67	.1447E-01	68	.1185E-01	69	.1027E-01	70	.8818E-02	71	.6952E-02	72	.5243E-02
73	.1402E-01	74	.1296E-01	75	.1118E-01	76	.9319E-02	77	.8152E-02	78	.7036E-02	79	.5524E-02	80	.4069E-02
81	.8621E-02	82	.8030E-02	83	.7038E-02	84	.5995E-02	85	.5314E-02	86	.4629E-02	87	.3640E-02	88	.2637E-02
89	.5355E-02	90	.5008E-02	91	.4426E-02	92	.3818E-02	93	.3415E-02	94	.3000E-02	95	.2382E-02	96	.1742E-02
97	.2611E-02	98	.2399E-02	99	.2090E-02	100	.1805E-02	101	.1627E-02	102	.1447E-02	103	.1169E-02	104	.8663E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	64.5	2	-56.1	3	-93.6	4	-96.7	5	-37.2	6	-104.0	7	-112.4	8	-267.1
9	352.9	10	58.9	11	67.7	12	-5.7	13	-10.0	14	-39.2	15	-62.1	16	-227.6
17	427.4	18	171.7	19	125.0	20	42.2	21	12.7	22	1.8	23	-23.4	24	-112.3
25	371.4	26	161.3	27	114.9	28	48.6	29	22.2	30	17.1	31	4.6	32	-44.6
33	557.3	34	266.1	35	197.8	36	88.0	37	43.8	38	40.2	39	26.7	40	-22.8
41	768.1	42	406.2	43	295.2	44	134.7	45	70.0	46	69.6	47	58.1	48	19.8
49	558.0	50	384.8	51	299.9	52	149.4	53	85.7	54	89.1	55	86.7	56	67.5
57	326.9	58	215.3	59	241.1	60	146.0	61	90.0	62	95.1	63	92.2	64	72.2
65	510.9	66	259.5	67	255.7	68	148.9	69	83.8	70	86.8	71	74.1	72	31.9
73	575.6	74	271.9	75	251.3	76	124.9	77	61.3	78	61.3	79	39.3	80	-44.3
81	348.2	82	125.5	83	112.8	84	44.0	85	15.8	86	8.1	87	-15.5	88	-126.0
89	174.0	90	29.5	91	22.6	92	-7.4	93	-8.9	94	-26.3	95	-45.7	96	-162.0
97	16.0	98	-51.3	99	-86.7	100	-81.6	101	-31.2	102	-87.0	103	-94.6	104	-224.4

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000054

SUM OF APPLIED FORCES (FOSUM)= 9445.2 SUM OF TOTAL REACTIONS (SUBSUM)= 9432.6

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3040E-02	2	.2714E-02	3	.2246E-02	4	.1836E-02	5	.1596E-02	6	.1364E-02	7	.1025E-02	8	.6670E-03
9	.6514E-02	10	.5926E-02	11	.4991E-02	12	.4094E-02	13	.3549E-02	14	.3022E-02	15	.2284E-02	16	.1549E-02
17	.1196E-01	18	.1075E-01	19	.8871E-02	20	.7136E-02	21	.6131E-02	22	.5199E-02	23	.3952E-02	24	.2742E-02
25	.1486E-01	26	.1327E-01	27	.1082E-01	28	.8620E-02	29	.7380E-02	30	.6259E-02	31	.4792E-02	32	.3397E-02
33	.1837E-01	34	.1625E-01	35	.1306E-01	36	.1029E-01	37	.8785E-02	38	.7460E-02	39	.5771E-02	40	.4197E-02
41	.2230E-01	42	.1956E-01	43	.1546E-01	44	.1208E-01	45	.1030E-01	46	.8770E-02	47	.6866E-02	48	.5139E-02
49	.2583E-01	50	.2256E-01	51	.1763E-01	52	.1370E-01	53	.1169E-01	54	.9975E-02	55	.7891E-02	56	.6059E-02
57	.2173E-01	58	.2002E-01	59	.1688E-01	60	.1365E-01	61	.1176E-01	62	.1007E-01	63	.7966E-02	64	.6125E-02
65	.1844E-01	66	.1699E-01	67	.1447E-01	68	.1185E-01	69	.1027E-01	70	.8818E-02	71	.6952E-02	72	.5244E-02
73	.1402E-01	74	.1296E-01	75	.1118E-01	76	.9319E-02	77	.8152E-02	78	.7036E-02	79	.5525E-02	80	.4069E-02
81	.8621E-02	82	.8031E-02	83	.7039E-02	84	.5996E-02	85	.5315E-02	86	.4630E-02	87	.3641E-02	88	.2637E-02
89	.5356E-02	90	.5008E-02	91	.4427E-02	92	.3818E-02	93	.3415E-02	94	.3001E-02	95	.2383E-02	96	.1742E-02

Appendix 6E-e 12 Inch PCCP Pavement

97 .2611E-02 98 .2400E-02 99 .2091E-02 100 .1805E-02 101 .1627E-02 102 .1447E-02 103 .1170E-02 104 .8665E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3040E-02	2	.2714E-02	3	.2246E-02	4	.1836E-02	5	.1596E-02	6	.1364E-02	7	.1025E-02	8	.6670E-03
9	.6514E-02	10	.5926E-02	11	.4991E-02	12	.4094E-02	13	.3549E-02	14	.3022E-02	15	.2284E-02	16	.1549E-02
17	.1196E-01	18	.1075E-01	19	.8871E-02	20	.7136E-02	21	.6131E-02	22	.5199E-02	23	.3952E-02	24	.2742E-02
25	.1486E-01	26	.1327E-01	27	.1082E-01	28	.8620E-02	29	.7380E-02	30	.6259E-02	31	.4792E-02	32	.3397E-02
33	.1837E-01	34	.1625E-01	35	.1306E-01	36	.1029E-01	37	.8785E-02	38	.7460E-02	39	.5771E-02	40	.4197E-02
41	.2230E-01	42	.1956E-01	43	.1546E-01	44	.1208E-01	45	.1030E-01	46	.8770E-02	47	.6866E-02	48	.5139E-02
49	.2378E-01	50	.2129E-01	51	.1725E-01	52	.1368E-01	53	.1172E-01	54	.1002E-01	55	.7929E-02	56	.6092E-02
57	.2378E-01	58	.2129E-01	59	.1725E-01	60	.1368E-01	61	.1172E-01	62	.1002E-01	63	.7929E-02	64	.6092E-02
65	.1844E-01	66	.1699E-01	67	.1447E-01	68	.1185E-01	69	.1027E-01	70	.8818E-02	71	.6952E-02	72	.5244E-02
73	.1402E-01	74	.1296E-01	75	.1118E-01	76	.9319E-02	77	.8152E-02	78	.7036E-02	79	.5525E-02	80	.4069E-02
81	.8621E-02	82	.8031E-02	83	.7039E-02	84	.5996E-02	85	.5315E-02	86	.4630E-02	87	.3641E-02	88	.2637E-02
89	.5356E-02	90	.5008E-02	91	.4427E-02	92	.3818E-02	93	.3415E-02	94	.3001E-02	95	.2383E-02	96	.1742E-02
97	.2611E-02	98	.2400E-02	99	.2091E-02	100	.1805E-02	101	.1627E-02	102	.1447E-02	103	.1170E-02	104	.8665E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	64.5	2	-56.1	3	-93.6	4	-96.7	5	-37.2	6	-104.0	7	-112.4	8	-267.1
9	352.9	10	58.9	11	67.7	12	-5.7	13	-10.0	14	-39.2	15	-62.1	16	-227.6
17	427.4	18	171.7	19	125.0	20	42.2	21	12.7	22	1.8	23	-23.3	24	-112.3
25	371.4	26	161.3	27	114.9	28	48.6	29	22.2	30	17.1	31	4.6	32	-44.6
33	557.3	34	266.1	35	197.8	36	88.0	37	43.8	38	40.2	39	26.7	40	-22.7
41	768.1	42	406.2	43	295.2	44	134.7	45	70.0	46	69.6	47	58.1	48	19.8
49	558.0	50	384.9	51	299.9	52	149.4	53	85.7	54	89.1	55	86.7	56	67.5
57	326.9	58	215.3	59	241.1	60	146.0	61	90.0	62	95.1	63	92.2	64	72.2
65	510.9	66	259.5	67	255.7	68	148.9	69	83.8	70	86.8	71	74.1	72	31.9
73	575.6	74	271.9	75	251.4	76	124.9	77	61.3	78	61.3	79	39.3	80	-44.3
81	348.2	82	125.5	83	112.8	84	44.0	85	15.8	86	8.1	87	-15.5	88	-126.0
89	174.0	90	29.5	91	22.6	92	-7.4	93	-8.9	94	-26.3	95	-45.7	96	-161.9
97	16.0	98	-51.3	99	-86.7	100	-81.6	101	-31.2	102	-86.9	103	-94.5	104	-224.4

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1294.125	.000	50	-2060.627	.000	51	-742.862	.000	52	-41.501	.000
53	45.204	.000	54	71.096	.000	55	67.756	.000	56	29.802	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-1941.188	50	-1206.221	51	-356.574	52	-24.293	53	33.903	54	43.751
55	35.351	56	31.097								

Appendix 6E-e 12 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3031.941	-2471.592	50	-1883.996	-1535.805	51	-556.933	-454.003	52	-37.943	-30.931
53	52.953	43.166	54	68.335	55.706	55	55.215	45.010	56	48.571	39.594

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.26881	2	-.09120	3	-.12481	4	-.15726	5	-.07748	6	-.17775	7	-.16289	8	-.77421
9	.80202	10	.05225	11	.04926	12	-.00502	13	-.01141	14	-.03653	15	-.04910	16	-.35978
17	1.57135	18	.24635	19	.14704	20	.06051	21	.02329	22	.00268	23	-.02986	24	-.28727
25	2.57899	26	.43706	27	.25526	28	.13164	29	.07705	30	.04866	31	.01109	32	-.21533
33	3.87002	34	.72110	35	.43948	36	.23839	37	.15213	38	.11453	39	.06444	40	-.10988
41	5.64790	42	1.16550	43	.69450	44	.38654	45	.25724	46	.21005	47	.14850	48	.10128
49	8.71813	50	2.34666	51	1.49931	52	.91086	53	.66992	54	.57124	55	.47122	56	.73360
57	5.10789	58	1.31273	59	1.20568	60	.89003	61	.70279	62	.60963	63	.50090	64	.78489
65	3.19335	66	.63292	67	.51143	68	.36322	69	.26197	70	.22255	71	.16110	72	.13858
73	2.24856	74	.41445	75	.31419	76	.19033	77	.11980	78	.09818	79	.05340	80	-.12046
81	1.08822	82	.15308	83	.11279	84	.05365	85	.02472	86	.01044	87	-.01681	88	-.27393
89	.43511	90	.02875	91	.01810	92	-.00723	93	-.01113	94	-.02699	95	-.03976	96	-.28163
97	.06677	98	-.08336	99	-.11554	100	-.13263	101	-.06498	102	-.14862	103	-.13702	104	-.65052

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y	
1	.2066E-04	.4981E-04	2	.1984E-04	.4553E-04	3	.1753E-04	.3943E-04	4	.1547E-04	.3292E-04
5	.1463E-04	.2863E-04	6	.1444E-04	.2434E-04	7	.1518E-04	.1842E-04	8	.1581E-04	.1241E-04
9	.3583E-04	.7869E-04	10	.3740E-04	.7062E-04	11	.3690E-04	.5837E-04	12	.3474E-04	.4691E-04
13	.3344E-04	.4018E-04	14	.3248E-04	.3393E-04	15	.3188E-04	.2569E-04	16	.3209E-04	.1789E-04
17	.7407E-04	.1439E-03	18	.7617E-04	.1272E-03	19	.7300E-04	.9992E-04	20	.6544E-04	.7667E-04
21	.6038E-04	.6465E-04	22	.5623E-04	.5464E-04	23	.5286E-04	.4276E-04	24	.5280E-04	.3257E-04
25	.9801E-04	.1787E-03	26	.1001E-03	.1534E-03	27	.9418E-04	.1168E-03	28	.8164E-04	.8792E-04
29	.7353E-04	.7401E-04	30	.6696E-04	.6298E-04	31	.6141E-04	.5061E-04	32	.6068E-04	.4036E-04
33	.1311E-03	.2092E-03	34	.1320E-03	.1767E-03	35	.1210E-03	.1301E-03	36	.1002E-03	.9673E-04
37	.8790E-04	.8170E-04	38	.7822E-04	.7021E-04	39	.6982E-04	.5795E-04	40	.6807E-04	.4862E-04
41	.1713E-03	.2217E-03	42	.1705E-03	.1875E-03	43	.1519E-03	.1359E-03	44	.1197E-03	.1014E-03
45	.1027E-03	.8621E-04	46	.8949E-04	.7480E-04	47	.7751E-04	.6320E-04	48	.7407E-04	.5571E-04
49	.2040E-03	.2205E-03	50	.2044E-03	.1880E-03	51	.1800E-03	.1342E-03	52	.1375E-03	.1006E-03
53	.1156E-03	.8591E-04	54	.9901E-04	.7500E-04	55	.8352E-04	.6425E-04	56	.7807E-04	.5836E-04
57	.1035E-03	-.2087E-03	58	.1147E-03	-.1929E-03	59	.1305E-03	-.1524E-03	60	.1242E-03	-.1129E-03
61	.1121E-03	-.9297E-04	62	.9914E-04	-.7788E-04	63	.8435E-04	-.6343E-04	64	.7835E-04	-.5590E-04
65	.8788E-04	-.1996E-03	66	.9449E-04	-.1827E-03	67	.1053E-03	-.1469E-03	68	.1022E-03	-.1111E-03
69	.9488E-04	-.9221E-04	70	.8646E-04	-.7745E-04	71	.7660E-04	-.6262E-04	72	.7329E-04	-.5326E-04
73	.6383E-04	-.1657E-03	74	.6811E-04	-.1515E-03	75	.7385E-04	-.1253E-03	76	.7409E-04	-.9821E-04

Appendix 6E-e 12 Inch PCCP Pavement

77	.7149E-04	-.8288E-04	78	.6797E-04	-.6999E-04	79	.6392E-04	-.5548E-04	80	.6330E-04	-.4422E-04
81	.3544E-04	-.1057E-03	82	.3818E-04	-.9705E-04	83	.4093E-04	-.8268E-04	84	.4234E-04	-.6775E-04
85	.4272E-04	-.5852E-04	86	.4288E-04	-.4990E-04	87	.4321E-04	-.3861E-04	88	.4412E-04	-.2828E-04
89	.2089E-04	-.6156E-04	90	.2248E-04	-.5761E-04	91	.2387E-04	-.5070E-04	92	.2482E-04	-.4302E-04
93	.2553E-04	-.3789E-04	94	.2630E-04	-.3271E-04	95	.2740E-04	-.2535E-04	96	.2821E-04	-.1812E-04
97	.1341E-04	-.3893E-04	98	.1293E-04	-.3674E-04	99	.1182E-04	-.3314E-04	100	.1117E-04	-.2879E-04
101	.1111E-04	-.2568E-04	102	.1150E-04	-.2234E-04	103	.1270E-04	-.1743E-04	104	.1346E-04	-.1208E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX.SHEAR
17	1	-.436171E+02	.000000E+00	.000000E+00	-.436171E+02	.000000E+00	.218085E+02
25	1	-.444822E+02	.000000E+00	.000000E+00	-.444822E+02	.000000E+00	.222411E+02
29	1	-.138670E+02	-.134597E+02	-.160940E+02	-.297586E+02	.243186E+01	.160953E+02
33	1	-.381381E+02	.000000E+00	.000000E+00	-.381381E+02	.000000E+00	.190691E+02
41	1	.563372E+01	.000000E+00	.000000E+00	.000000E+00	.563372E+01	.281686E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.420552E+01	-.445151E+02	-.424620E+02	.466675E+02	.445647E+02
51	1	.000000E+00	-.513376E+02	-.370229E+02	-.707197E+02	.193821E+02	.450509E+02
52	1	.000000E+00	-.350894E+02	-.227420E+02	-.462678E+02	.111784E+02	.287231E+02
53	1	.000000E+00	-.278190E+02	-.164862E+02	-.354796E+02	.766057E+01	.215701E+02
54	1	.000000E+00	-.209849E+02	-.120255E+02	-.264519E+02	.546702E+01	.159595E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 70.71967 AND OCCURS AT NODE 51



Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      12 inch PCCP Pavement with 90K load
*
*****
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TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
```

Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	123.01800	132.00000	.00000	6.18570	90.00000
1	123.01800	132.00000	12.00000	18.18570	90.00000
1	123.01800	132.00000	84.00000	90.18570	90.00000
1	123.01800	132.00000	96.00000	102.18500	90.00000
1	171.01800	180.00000	.00000	6.18570	90.00000
1	171.01800	180.00000	12.00000	18.18570	90.00000
1	171.01800	180.00000	84.00000	90.18570	90.00000
1	171.01800	180.00000	96.00000	102.18500	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.44644	1.00000	-1.00000	-.22679	90.00000
22	-1.00000	-.55556	-1.00000	-.22679	90.00000
15	.44644	1.00000	.50000	1.00000	90.00000
16	.44644	1.00000	-1.00000	-.82514	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.82514	90.00000
19	.44644	1.00000	-.75000	.02321	90.00000
26	-1.00000	-.55556	-.75000	.02321	90.00000
19	.44644	1.00000	.75000	1.00000	90.00000
20	.44644	1.00000	-1.00000	-.63609	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.63609	90.00000
36	-.12275	1.00000	-1.00000	-.22679	90.00000
36	-.12275	1.00000	.50000	1.00000	90.00000
37	-.12275	1.00000	-1.00000	-.82514	90.00000
40	-.12275	1.00000	-.75000	.02321	90.00000
40	-.12275	1.00000	.75000	1.00000	90.00000
41	-.12275	1.00000	-1.00000	-.63609	90.00000

Appendix 6E-e 12 Inch PCCP Pavement

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

Appendix 6E-e 12 Inch PCCP Pavement

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0
81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .04617213  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01119325  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00130381  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00015466  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00001840

SUM OF APPLIED FORCES (FOSUM)= 40002.0 SUM OF TOTAL REACTIONS (SUBSUM)= 39949.6

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000217

SUM OF APPLIED FORCES (FOSUM)= 40002.0 SUM OF TOTAL REACTIONS (SUBSUM)= 39952.5

Appendix 6E-e 12 Inch PCCP Pavement

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1379E-01	2	.1341E-01	3	.1281E-01	4	.1210E-01	5	.1156E-01	6	.1094E-01	7	.9886E-02	8	.8697E-02
9	.2797E-01	10	.2722E-01	11	.2592E-01	12	.2442E-01	13	.2331E-01	14	.2205E-01	15	.1998E-01	16	.1770E-01
17	.4309E-01	18	.4133E-01	19	.3866E-01	20	.3629E-01	21	.3477E-01	22	.3295E-01	23	.2967E-01	24	.2602E-01
25	.4825E-01	26	.4609E-01	27	.4288E-01	28	.4029E-01	29	.3872E-01	30	.3677E-01	31	.3303E-01	32	.2891E-01
33	.5225E-01	34	.4995E-01	35	.4654E-01	36	.4380E-01	37	.4213E-01	38	.4005E-01	39	.3610E-01	40	.3164E-01
41	.5580E-01	42	.5334E-01	43	.4971E-01	44	.4694E-01	45	.4531E-01	46	.4320E-01	47	.3901E-01	48	.3427E-01
49	.5884E-01	50	.5620E-01	51	.5227E-01	52	.4956E-01	53	.4811E-01	54	.4605E-01	55	.4154E-01	56	.3662E-01
57	.5341E-01	58	.5253E-01	59	.5053E-01	60	.4800E-01	61	.4611E-01	62	.4393E-01	63	.4034E-01	64	.3653E-01
65	.4595E-01	66	.4530E-01	67	.4380E-01	68	.4173E-01	69	.4010E-01	70	.3821E-01	71	.3507E-01	72	.3164E-01
73	.3584E-01	74	.3549E-01	75	.3455E-01	76	.3308E-01	77	.3183E-01	78	.3034E-01	79	.2783E-01	80	.2498E-01
81	.2320E-01	82	.2310E-01	83	.2266E-01	84	.2184E-01	85	.2108E-01	86	.2014E-01	87	.1851E-01	88	.1661E-01
89	.1524E-01	90	.1518E-01	91	.1493E-01	92	.1444E-01	93	.1398E-01	94	.1341E-01	95	.1241E-01	96	.1125E-01
97	.8074E-02	98	.7957E-02	99	.7763E-02	100	.7510E-02	101	.7307E-02	102	.7073E-02	103	.6665E-02	104	.6191E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1379E-01	2	.1341E-01	3	.1281E-01	4	.1210E-01	5	.1156E-01	6	.1094E-01	7	.9886E-02	8	.8697E-02
9	.2797E-01	10	.2722E-01	11	.2592E-01	12	.2442E-01	13	.2331E-01	14	.2205E-01	15	.1998E-01	16	.1770E-01
17	.4309E-01	18	.4133E-01	19	.3866E-01	20	.3629E-01	21	.3477E-01	22	.3295E-01	23	.2967E-01	24	.2602E-01
25	.4825E-01	26	.4609E-01	27	.4288E-01	28	.4029E-01	29	.3872E-01	30	.3677E-01	31	.3303E-01	32	.2891E-01
33	.5225E-01	34	.4995E-01	35	.4654E-01	36	.4380E-01	37	.4213E-01	38	.4005E-01	39	.3610E-01	40	.3164E-01
41	.5580E-01	42	.5334E-01	43	.4971E-01	44	.4694E-01	45	.4531E-01	46	.4320E-01	47	.3901E-01	48	.3427E-01
49	.5884E-01	50	.5620E-01	51	.5227E-01	52	.4956E-01	53	.4811E-01	54	.4605E-01	55	.4154E-01	56	.3662E-01
57	.5341E-01	58	.5253E-01	59	.5053E-01	60	.4800E-01	61	.4611E-01	62	.4393E-01	63	.4034E-01	64	.3653E-01
65	.4595E-01	66	.4530E-01	67	.4380E-01	68	.4173E-01	69	.4010E-01	70	.3821E-01	71	.3507E-01	72	.3164E-01
73	.3584E-01	74	.3549E-01	75	.3455E-01	76	.3308E-01	77	.3183E-01	78	.3034E-01	79	.2783E-01	80	.2498E-01
81	.2320E-01	82	.2310E-01	83	.2266E-01	84	.2184E-01	85	.2108E-01	86	.2014E-01	87	.1851E-01	88	.1661E-01
89	.1524E-01	90	.1518E-01	91	.1493E-01	92	.1444E-01	93	.1398E-01	94	.1341E-01	95	.1241E-01	96	.1125E-01
97	.8074E-02	98	.7957E-02	99	.7763E-02	100	.7510E-02	101	.7307E-02	102	.7073E-02	103	.6665E-02	104	.6191E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	176.8	2	-118.1	3	-178.6	4	-194.0	5	-77.1	6	-227.6	7	-266.4	8	-603.3
9	1470.7	10	522.6	11	816.6	12	473.4	13	204.8	14	365.7	15	346.6	16	298.3
17	1516.4	18	836.5	19	866.7	20	551.6	21	361.8	22	468.9	23	488.1	24	511.1
25	1102.1	26	598.0	27	555.7	28	377.9	29	278.6	30	347.6	31	343.4	32	377.4
33	1315.2	34	751.6	35	730.9	36	492.4	37	352.9	38	439.8	39	464.7	40	520.7
41	1459.7	42	879.4	43	846.9	44	586.2	45	431.1	46	542.1	47	562.5	48	619.9

Appendix 6E-e 12 Inch PCCP Pavement

49	931.1	50	696.3	51	695.8	52	501.1	53	390.4	54	478.7	55	493.7	56	497.4
57	624.9	58	452.1	59	559.8	60	397.3	61	272.7	62	341.1	63	405.3	64	491.2
65	983.7	66	579.7	67	652.3	68	455.8	69	302.6	70	375.2	71	433.2	72	600.6
73	1037.6	74	572.6	75	644.6	76	422.6	77	264.8	78	343.7	79	378.4	80	482.5
81	556.8	82	246.3	83	280.8	84	168.7	85	93.6	86	122.7	87	115.4	88	81.7
89	194.1	90	29.1	91	28.8	92	-1.3	93	-5.9	94	-25.0	95	-52.6	96	-176.2
97	-198.7	98	-177.4	99	-309.1	100	-246.3	101	-95.1	102	-249.8	103	-267.2	104	-507.9

ITERATION NO. (IC) = 13 DIFFERENCE IN DEFLECTION (DF) = .00000028

SUM OF APPLIED FORCES (FOSUM)= 40002.0 SUM OF TOTAL REACTIONS (SUBSUM)= 39952.8

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1379E-01	2	.1341E-01	3	.1281E-01	4	.1210E-01	5	.1156E-01	6	.1094E-01	7	.9886E-02	8	.8697E-02
9	.2797E-01	10	.2722E-01	11	.2592E-01	12	.2442E-01	13	.2331E-01	14	.2205E-01	15	.1998E-01	16	.1770E-01
17	.4309E-01	18	.4133E-01	19	.3866E-01	20	.3629E-01	21	.3477E-01	22	.3295E-01	23	.2967E-01	24	.2602E-01
25	.4825E-01	26	.4609E-01	27	.4288E-01	28	.4029E-01	29	.3872E-01	30	.3677E-01	31	.3303E-01	32	.2891E-01
33	.5225E-01	34	.4995E-01	35	.4654E-01	36	.4380E-01	37	.4213E-01	38	.4005E-01	39	.3610E-01	40	.3164E-01
41	.5580E-01	42	.5334E-01	43	.4971E-01	44	.4694E-01	45	.4531E-01	46	.4320E-01	47	.3901E-01	48	.3427E-01
49	.5884E-01	50	.5620E-01	51	.5227E-01	52	.4956E-01	53	.4811E-01	54	.4605E-01	55	.4154E-01	56	.3662E-01
57	.5341E-01	58	.5253E-01	59	.5053E-01	60	.4800E-01	61	.4611E-01	62	.4393E-01	63	.4034E-01	64	.3653E-01
65	.4596E-01	66	.4530E-01	67	.4380E-01	68	.4173E-01	69	.4010E-01	70	.3821E-01	71	.3507E-01	72	.3164E-01
73	.3584E-01	74	.3549E-01	75	.3455E-01	76	.3308E-01	77	.3183E-01	78	.3034E-01	79	.2783E-01	80	.2498E-01
81	.2320E-01	82	.2310E-01	83	.2266E-01	84	.2184E-01	85	.2108E-01	86	.2014E-01	87	.1851E-01	88	.1661E-01
89	.1524E-01	90	.1519E-01	91	.1493E-01	92	.1444E-01	93	.1398E-01	94	.1341E-01	95	.1241E-01	96	.1125E-01
97	.8075E-02	98	.7957E-02	99	.7763E-02	100	.7511E-02	101	.7307E-02	102	.7073E-02	103	.6666E-02	104	.6191E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1379E-01	2	.1341E-01	3	.1281E-01	4	.1210E-01	5	.1156E-01	6	.1094E-01	7	.9886E-02	8	.8697E-02
9	.2797E-01	10	.2722E-01	11	.2592E-01	12	.2442E-01	13	.2331E-01	14	.2205E-01	15	.1998E-01	16	.1770E-01
17	.4309E-01	18	.4133E-01	19	.3866E-01	20	.3629E-01	21	.3477E-01	22	.3295E-01	23	.2967E-01	24	.2602E-01
25	.4825E-01	26	.4609E-01	27	.4288E-01	28	.4029E-01	29	.3872E-01	30	.3677E-01	31	.3303E-01	32	.2891E-01
33	.5225E-01	34	.4995E-01	35	.4654E-01	36	.4380E-01	37	.4213E-01	38	.4005E-01	39	.3610E-01	40	.3164E-01
41	.5580E-01	42	.5334E-01	43	.4971E-01	44	.4694E-01	45	.4531E-01	46	.4320E-01	47	.3901E-01	48	.3427E-01
49	.5613E-01	50	.5437E-01	51	.5140E-01	52	.4878E-01	53	.4711E-01	54	.4499E-01	55	.4094E-01	56	.3658E-01
57	.5613E-01	58	.5437E-01	59	.5140E-01	60	.4878E-01	61	.4711E-01	62	.4499E-01	63	.4094E-01	64	.3658E-01
65	.4596E-01	66	.4530E-01	67	.4380E-01	68	.4173E-01	69	.4010E-01	70	.3821E-01	71	.3507E-01	72	.3164E-01
73	.3584E-01	74	.3549E-01	75	.3455E-01	76	.3308E-01	77	.3183E-01	78	.3034E-01	79	.2783E-01	80	.2498E-01
81	.2320E-01	82	.2310E-01	83	.2266E-01	84	.2184E-01	85	.2108E-01	86	.2014E-01	87	.1851E-01	88	.1661E-01
89	.1524E-01	90	.1519E-01	91	.1493E-01	92	.1444E-01	93	.1398E-01	94	.1341E-01	95	.1241E-01	96	.1125E-01



Appendix 6E-e 12 Inch PCCP Pavement

97 .8075E-02 98 .7957E-02 99 .7763E-02 100 .7511E-02 101 .7307E-02 102 .7073E-02 103 .6666E-02 104 .6191E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	176.9	2	-118.1	3	-178.6	4	-194.0	5	-77.1	6	-227.6	7	-266.4	8	-603.3
9	1470.7	10	522.7	11	816.6	12	473.4	13	204.8	14	365.7	15	346.6	16	298.3
17	1516.4	18	836.5	19	866.7	20	551.6	21	361.8	22	468.9	23	488.1	24	511.1
25	1102.1	26	598.0	27	555.7	28	377.9	29	278.6	30	347.6	31	343.5	32	377.4
33	1315.2	34	751.6	35	730.9	36	492.4	37	352.9	38	439.8	39	464.7	40	520.8
41	1459.7	42	879.4	43	846.9	44	586.2	45	431.1	46	542.1	47	562.5	48	619.9
49	931.1	50	696.3	51	695.8	52	501.1	53	390.4	54	478.7	55	493.7	56	497.4
57	624.9	58	452.1	59	559.8	60	397.3	61	272.7	62	341.1	63	405.3	64	491.2
65	983.7	66	579.7	67	652.3	68	455.8	69	302.6	70	375.2	71	433.2	72	600.6
73	1037.6	74	572.6	75	644.6	76	422.6	77	264.8	78	343.7	79	378.4	80	482.5
81	556.9	82	246.3	83	280.8	84	168.7	85	93.6	86	122.7	87	115.4	88	81.7
89	194.1	90	29.1	91	28.8	92	-1.3	93	-5.9	94	-25.0	95	-52.6	96	-176.2
97	-198.6	98	-177.4	99	-309.1	100	-246.3	101	-95.1	102	-249.8	103	-267.2	104	-507.9

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1714.904	.000	50	-2967.814	.000	51	-1721.242	.000	52	-1261.324	.000
53	-1264.434	.000	54	-1633.286	.000	55	-1096.886	.000	56	-39.102	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2572.356	50	-1737.257	51	-826.196	52	-738.336	53	-948.325	54	-1005.099
55	-572.288	56	-40.802								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4017.762	-3275.219	50	-2713.422	-2211.940	51	-1290.435	-1051.943	52	-1153.207	-940.077
53	-1481.189	-1207.443	54	-1569.864	-1279.729	55	-893.857	-728.659	56	-63.729	-51.951

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.73691	2	-.19201	3	-.23817	4	-.31546	5	-.16057	6	-.38898	7	-.38605	8	-1.74856
9	3.34250	10	.46355	11	.59388	12	.41983	13	.23271	14	.34103	15	.27401	16	.47162
17	5.57487	18	1.20012	19	1.01962	20	.79134	21	.66514	22	.70722	23	.62413	24	1.30711
25	7.65342	26	1.62069	27	1.23479	28	1.02420	29	.96725	30	.99027	31	.82959	32	1.82342
33	9.13367	34	2.03683	35	1.62418	36	1.33443	37	1.22551	38	1.25300	39	1.12244	40	2.51572
41	10.73317	42	2.52329	43	1.99277	44	1.68201	45	1.58488	46	1.63534	47	1.43857	48	3.17107
49	14.54820	50	4.24553	51	3.47916	52	3.05546	53	3.05023	54	3.06850	55	2.68293	56	5.40683
57	9.76409	58	2.75643	59	2.79881	60	2.42228	61	2.13077	62	2.18651	63	2.20247	64	5.33954
65	6.14832	66	1.41391	67	1.30469	68	1.11171	69	.94554	70	.96203	71	.94184	72	2.61129
73	4.05331	74	.87292	75	.80581	76	.64415	77	.51710	78	.55077	79	.51407	80	1.31114

Appendix 6E-e 12 Inch PCCP Pavement

81	1.74016	82	.30034	83	.28084	84	.20570	85	.14618	86	.15736	87	.12542	88	.17769
89	.48524	90	.02837	91	.02306	92	-.00129	93	-.00731	94	-.02561	95	-.04578	96	-.30641
97	-.82770	98	-.28841	99	-.41210	100	-.40056	101	-.19816	102	-.42704	103	-.38729	104	-1.47208

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2368E-04	.2207E-03	2	.2339E-04	.2145E-03	3	.2557E-04	.2051E-03	4	.3155E-04	.1936E-03
5	.3627E-04	.1848E-03	6	.4167E-04	.1750E-03	7	.4933E-04	.1596E-03	8	.5304E-04	.1420E-03
9	.4445E-04	.2753E-03	10	.4894E-04	.2624E-03	11	.5546E-04	.2428E-03	12	.6512E-04	.2266E-03
13	.7414E-04	.2169E-03	14	.8353E-04	.2053E-03	15	.9556E-04	.1843E-03	16	.1017E-03	.1616E-03
17	.1106E-03	.3039E-03	18	.1098E-03	.2811E-03	19	.1008E-03	.2480E-03	20	.9156E-04	.2327E-03
21	.1022E-03	.2289E-03	22	.1267E-03	.2201E-03	23	.1542E-03	.1929E-03	24	.1601E-03	.1649E-03
25	.1381E-03	.2550E-03	26	.1337E-03	.2398E-03	27	.1166E-03	.2197E-03	28	.9561E-04	.2089E-03
29	.1060E-03	.2045E-03	30	.1407E-03	.1973E-03	31	.1757E-03	.1787E-03	32	.1802E-03	.1559E-03
33	.1450E-03	.2033E-03	34	.1431E-03	.1964E-03	35	.1235E-03	.1880E-03	36	.1010E-03	.1829E-03
37	.1133E-03	.1797E-03	38	.1485E-03	.1748E-03	39	.1882E-03	.1645E-03	40	.1963E-03	.1479E-03
41	.1541E-03	.1922E-03	42	.1536E-03	.1819E-03	43	.1292E-03	.1658E-03	44	.9852E-04	.1672E-03
45	.1118E-03	.1746E-03	46	.1547E-03	.1757E-03	47	.2006E-03	.1592E-03	48	.2080E-03	.1459E-03
49	.1649E-03	.1893E-03	50	.1660E-03	.1776E-03	51	.1346E-03	.1558E-03	52	.9004E-04	.1616E-03
53	.1024E-03	.1771E-03	54	.1606E-03	.1822E-03	55	.2127E-03	.1588E-03	56	.2156E-03	.1469E-03
57	.5039E-04	-.4726E-03	58	.6430E-04	-.4592E-03	59	.9170E-04	-.4256E-03	60	.1110E-03	-.3966E-03
61	.1267E-03	-.3804E-03	62	.1457E-03	-.3625E-03	63	.1627E-03	-.3329E-03	64	.1674E-03	-.3099E-03
65	.3630E-04	-.4537E-03	66	.4741E-04	-.4399E-03	67	.7188E-04	-.4109E-03	68	.9396E-04	-.3834E-03
69	.1099E-03	-.3669E-03	70	.1266E-03	-.3493E-03	71	.1444E-03	-.3218E-03	72	.1527E-03	-.2980E-03
73	.1740E-04	-.3830E-03	74	.2748E-04	-.3735E-03	75	.4783E-04	-.3548E-03	76	.7041E-04	-.3333E-03
77	.8560E-04	-.3185E-03	78	.1002E-03	-.3026E-03	79	.1176E-03	-.2780E-03	80	.1286E-03	-.2535E-03
81	.2815E-05	-.2521E-03	82	.1054E-04	-.2486E-03	83	.2478E-04	-.2410E-03	84	.4161E-04	-.2293E-03
85	.5306E-04	-.2196E-03	86	.6406E-04	-.2082E-03	87	.7754E-04	-.1890E-03	88	.8684E-04	-.1679E-03
89	.1443E-05	-.1550E-03	90	.6045E-05	-.1551E-03	91	.1462E-04	-.1528E-03	92	.2491E-04	-.1470E-03
93	.3209E-04	-.1413E-03	94	.3907E-04	-.1340E-03	95	.4757E-04	-.1213E-03	96	.5310E-04	-.1067E-03
97	.7318E-05	-.1023E-03	98	.7288E-05	-.1033E-03	99	.8657E-05	-.1027E-03	100	.1172E-04	-.9959E-04
101	.1362E-04	-.9609E-04	102	.1584E-04	-.9127E-04	103	.1948E-04	-.8263E-04	104	.2137E-04	-.7161E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.144348E+02	.000000E+00	.000000E+00	.000000E+00	.144348E+02	.721739E+01
25	1	.124589E+03	.000000E+00	.000000E+00	.000000E+00	.124589E+03	.622945E+02
29	1	.627386E+02	.492227E+02	-.674084E+01	.464356E+02	.655257E+02	.954507E+01
33	1	.167875E+02	.000000E+00	.000000E+00	.000000E+00	.167875E+02	.839376E+01
41	1	.892147E+01	.000000E+00	.000000E+00	.000000E+00	.892147E+01	.446073E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.726934E+01	-.176935E+02	-.144283E+02	.216976E+02	.180630E+02

Appendix 6E-e 12 Inch PCCP Pavement

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51	1	.000000E+00	-.676397E+02	-.743578E+01	-.684474E+02	.807785E+00	.346276E+02
52	1	.000000E+00	-.271554E+02	.145385E+02	-.334705E+02	.631508E+01	.198928E+02
53	1	.000000E+00	.659391E+02	.160333E+02	-.369184E+01	.696310E+02	.366614E+02
54	1	.000000E+00	.113630E+03	-.798950E+01	-.559006E+00	.114189E+03	.573738E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 124.58900 AND OCCURS AT NODE 25

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
* 12 inch PCCP Pavement with 90K load Single Axle
*
*****
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TYPE OF FOUNDATION (NFOUND)          = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)       = 0
NUMBER OF PERIODS PER YEAR (NPY)      = 1
NUMBER OF LOAD GROUPS (NLG)           = 1
TOTAL NUMBER OF SLABS (NSLAB)         = 2
TOTAL NUMBER OF JOINTS (NJOINT)       = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
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Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	171.01800	180.00000	.00000	6.18570	90.00000
1	171.01800	180.00000	8.00000	14.18570	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.12275	1.00000	-1.00000	-.22679	90.00000
36	-.12275	1.00000	.00000	.77321	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SHEAR (SPCON1)	MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0



Appendix 6E-e 12 Inch PCCP Pavement

81 0 82 0 83 0 84 0 85 0 86 0 87 0 88 0 89 0 90 0  
 91 0 92 0 93 0 94 0 95 0 96 0 97 0 98 0 99 0 100 0  
 101 0 102 0 103 0 104 0

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .02368687

ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00320543

ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00034564

ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004081

ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000485

SUM OF APPLIED FORCES (FOSUM)= 10000.8 SUM OF TOTAL REACTIONS (SUBSUM)= 9986.7

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3223E-02	2	.2878E-02	3	.2383E-02	4	.1949E-02	5	.1694E-02	6	.1449E-02	7	.1089E-02	8	.7093E-03
9	.6906E-02	10	.6284E-02	11	.5294E-02	12	.4344E-02	13	.3767E-02	14	.3208E-02	15	.2425E-02	16	.1647E-02
17	.1267E-01	18	.1139E-01	19	.9402E-02	20	.7565E-02	21	.6500E-02	22	.5513E-02	23	.4191E-02	24	.2910E-02
25	.1574E-01	26	.1406E-01	27	.1147E-01	28	.9134E-02	29	.7820E-02	30	.6633E-02	31	.5079E-02	32	.3601E-02
33	.1944E-01	34	.1721E-01	35	.1382E-01	36	.1089E-01	37	.9304E-02	38	.7902E-02	39	.6113E-02	40	.4447E-02
41	.2357E-01	42	.2069E-01	43	.1636E-01	44	.1278E-01	45	.1091E-01	46	.9285E-02	47	.7270E-02	48	.5442E-02
49	.2728E-01	50	.2385E-01	51	.1865E-01	52	.1450E-01	53	.1237E-01	54	.1056E-01	55	.8352E-02	56	.6414E-02
57	.2297E-01	58	.2116E-01	59	.1785E-01	60	.1444E-01	61	.1244E-01	62	.1065E-01	63	.8431E-02	64	.6484E-02
65	.1949E-01	66	.1796E-01	67	.1530E-01	68	.1253E-01	69	.1086E-01	70	.9332E-02	71	.7359E-02	72	.5552E-02
73	.1482E-01	74	.1371E-01	75	.1183E-01	76	.9858E-02	77	.8626E-02	78	.7446E-02	79	.5848E-02	80	.4309E-02
81	.9115E-02	82	.8492E-02	83	.7445E-02	84	.6343E-02	85	.5624E-02	86	.4900E-02	87	.3855E-02	88	.2794E-02
89	.5664E-02	90	.5296E-02	91	.4683E-02	92	.4040E-02	93	.3615E-02	94	.3177E-02	95	.2524E-02	96	.1846E-02
97	.2762E-02	98	.2539E-02	99	.2213E-02	100	.1911E-02	101	.1723E-02	102	.1533E-02	103	.1239E-02	104	.9192E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3223E-02	2	.2878E-02	3	.2383E-02	4	.1949E-02	5	.1694E-02	6	.1449E-02	7	.1089E-02	8	.7093E-03
9	.6906E-02	10	.6284E-02	11	.5294E-02	12	.4344E-02	13	.3767E-02	14	.3208E-02	15	.2425E-02	16	.1647E-02
17	.1267E-01	18	.1139E-01	19	.9402E-02	20	.7565E-02	21	.6500E-02	22	.5513E-02	23	.4191E-02	24	.2910E-02
25	.1574E-01	26	.1406E-01	27	.1147E-01	28	.9134E-02	29	.7820E-02	30	.6633E-02	31	.5079E-02	32	.3601E-02
33	.1944E-01	34	.1721E-01	35	.1382E-01	36	.1089E-01	37	.9304E-02	38	.7902E-02	39	.6113E-02	40	.4447E-02
41	.2357E-01	42	.2069E-01	43	.1636E-01	44	.1278E-01	45	.1091E-01	46	.9285E-02	47	.7270E-02	48	.5442E-02

Appendix 6E-e 12 Inch PCCP Pavement

49	.2513E-01	50	.2251E-01	51	.1825E-01	52	.1447E-01	53	.1240E-01	54	.1060E-01	55	.8392E-02	56	.6449E-02
57	.2513E-01	58	.2251E-01	59	.1825E-01	60	.1447E-01	61	.1240E-01	62	.1060E-01	63	.8392E-02	64	.6449E-02
65	.1949E-01	66	.1796E-01	67	.1530E-01	68	.1253E-01	69	.1086E-01	70	.9332E-02	71	.7359E-02	72	.5552E-02
73	.1482E-01	74	.1371E-01	75	.1183E-01	76	.9858E-02	77	.8626E-02	78	.7446E-02	79	.5848E-02	80	.4309E-02
81	.9115E-02	82	.8492E-02	83	.7445E-02	84	.6343E-02	85	.5624E-02	86	.4900E-02	87	.3855E-02	88	.2794E-02
89	.5664E-02	90	.5296E-02	91	.4683E-02	92	.4040E-02	93	.3615E-02	94	.3177E-02	95	.2524E-02	96	.1846E-02
97	.2762E-02	98	.2539E-02	99	.2213E-02	100	.1911E-02	101	.1723E-02	102	.1533E-02	103	.1239E-02	104	.9192E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	68.7	2	-59.2	3	-98.8	4	-102.2	5	-39.3	6	-109.9	7	-118.9	8	-282.7
9	374.6	10	62.9	11	72.6	12	-5.4	13	-10.4	14	-41.0	15	-65.3	16	-240.4
17	453.2	18	182.4	19	133.1	20	45.2	21	13.7	22	2.2	23	-24.4	24	-118.5
25	393.4	26	171.1	27	122.1	28	51.7	29	23.7	30	18.2	31	5.0	32	-47.0
33	589.9	34	282.0	35	209.8	36	93.4	37	46.5	38	42.7	39	28.4	40	-23.9
41	811.8	42	429.9	43	312.6	44	142.7	45	74.1	46	73.8	47	61.5	48	21.0
49	588.5	50	406.4	51	317.0	52	158.0	53	90.7	54	94.2	55	91.7	56	71.3
57	345.1	58	227.3	59	254.6	60	154.2	61	95.1	62	100.5	63	97.5	64	76.4
65	539.7	66	274.2	67	270.2	68	157.4	69	88.7	70	91.8	71	78.4	72	33.8
73	608.0	74	287.3	75	265.7	76	132.1	77	64.9	78	64.9	79	41.7	80	-46.7
81	367.8	82	132.6	83	119.2	84	46.6	85	16.8	86	8.7	87	-16.3	88	-133.1
89	183.8	90	31.1	91	23.9	92	-7.8	93	-9.4	94	-27.8	95	-48.3	96	-171.1
97	16.8	98	-54.2	99	-91.6	100	-86.2	101	-33.0	102	-91.9	103	-99.9	104	-237.2

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000058

SUM OF APPLIED FORCES (FOSUM)= 10000.8 SUM OF TOTAL REACTIONS (SUBSUM)= 9987.4

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3223E-02	2	.2879E-02	3	.2384E-02	4	.1949E-02	5	.1695E-02	6	.1449E-02	7	.1090E-02	8	.7096E-03
9	.6906E-02	10	.6284E-02	11	.5294E-02	12	.4345E-02	13	.3767E-02	14	.3209E-02	15	.2426E-02	16	.1647E-02
17	.1267E-01	18	.1139E-01	19	.9403E-02	20	.7566E-02	21	.6500E-02	22	.5514E-02	23	.4191E-02	24	.2910E-02
25	.1574E-01	26	.1406E-01	27	.1147E-01	28	.9134E-02	29	.7821E-02	30	.6633E-02	31	.5080E-02	32	.3602E-02
33	.1944E-01	34	.1721E-01	35	.1383E-01	36	.1089E-01	37	.9305E-02	38	.7902E-02	39	.6114E-02	40	.4448E-02
41	.2358E-01	42	.2069E-01	43	.1636E-01	44	.1278E-01	45	.1091E-01	46	.9285E-02	47	.7270E-02	48	.5443E-02
49	.2728E-01	50	.2385E-01	51	.1865E-01	52	.1450E-01	53	.1237E-01	54	.1056E-01	55	.8353E-02	56	.6414E-02
57	.2297E-01	58	.2116E-01	59	.1785E-01	60	.1444E-01	61	.1244E-01	62	.1065E-01	63	.8432E-02	64	.6485E-02
65	.1949E-01	66	.1796E-01	67	.1530E-01	68	.1253E-01	69	.1087E-01	70	.9332E-02	71	.7359E-02	72	.5553E-02
73	.1482E-01	74	.1371E-01	75	.1183E-01	76	.9859E-02	77	.8626E-02	78	.7447E-02	79	.5849E-02	80	.4310E-02
81	.9115E-02	82	.8492E-02	83	.7445E-02	84	.6344E-02	85	.5625E-02	86	.4901E-02	87	.3855E-02	88	.2795E-02
89	.5664E-02	90	.5297E-02	91	.4683E-02	92	.4040E-02	93	.3615E-02	94	.3177E-02	95	.2524E-02	96	.1847E-02

Appendix 6E-e 12 Inch PCCP Pavement

97 .2763E-02 98 .2539E-02 99 .2213E-02 100 .1911E-02 101 .1723E-02 102 .1533E-02 103 .1240E-02 104 .9195E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3223E-02	2	.2879E-02	3	.2384E-02	4	.1949E-02	5	.1695E-02	6	.1449E-02	7	.1090E-02	8	.7096E-03
9	.6906E-02	10	.6284E-02	11	.5294E-02	12	.4345E-02	13	.3767E-02	14	.3209E-02	15	.2426E-02	16	.1647E-02
17	.1267E-01	18	.1139E-01	19	.9403E-02	20	.7566E-02	21	.6500E-02	22	.5514E-02	23	.4191E-02	24	.2910E-02
25	.1574E-01	26	.1406E-01	27	.1147E-01	28	.9134E-02	29	.7821E-02	30	.6633E-02	31	.5080E-02	32	.3602E-02
33	.1944E-01	34	.1721E-01	35	.1383E-01	36	.1089E-01	37	.9305E-02	38	.7902E-02	39	.6114E-02	40	.4448E-02
41	.2358E-01	42	.2069E-01	43	.1636E-01	44	.1278E-01	45	.1091E-01	46	.9285E-02	47	.7270E-02	48	.5443E-02
49	.2513E-01	50	.2251E-01	51	.1825E-01	52	.1447E-01	53	.1240E-01	54	.1061E-01	55	.8392E-02	56	.6450E-02
57	.2513E-01	58	.2251E-01	59	.1825E-01	60	.1447E-01	61	.1240E-01	62	.1061E-01	63	.8392E-02	64	.6450E-02
65	.1949E-01	66	.1796E-01	67	.1530E-01	68	.1253E-01	69	.1087E-01	70	.9332E-02	71	.7359E-02	72	.5553E-02
73	.1482E-01	74	.1371E-01	75	.1183E-01	76	.9859E-02	77	.8626E-02	78	.7447E-02	79	.5849E-02	80	.4310E-02
81	.9115E-02	82	.8492E-02	83	.7445E-02	84	.6344E-02	85	.5625E-02	86	.4901E-02	87	.3855E-02	88	.2795E-02
89	.5664E-02	90	.5297E-02	91	.4683E-02	92	.4040E-02	93	.3615E-02	94	.3177E-02	95	.2524E-02	96	.1847E-02
97	.2763E-02	98	.2539E-02	99	.2213E-02	100	.1911E-02	101	.1723E-02	102	.1533E-02	103	.1240E-02	104	.9195E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	68.7	2	-59.2	3	-98.8	4	-102.2	5	-39.3	6	-109.9	7	-118.9	8	-282.7
9	374.7	10	63.0	11	72.6	12	-5.4	13	-10.4	14	-41.0	15	-65.3	16	-240.3
17	453.2	18	182.4	19	133.2	20	45.2	21	13.7	22	2.2	23	-24.4	24	-118.5
25	393.4	26	171.1	27	122.1	28	51.7	29	23.7	30	18.2	31	5.0	32	-47.0
33	589.9	34	282.0	35	209.8	36	93.4	37	46.5	38	42.7	39	28.4	40	-23.9
41	811.8	42	429.9	43	312.6	44	142.7	45	74.1	46	73.8	47	61.5	48	21.0
49	588.5	50	406.4	51	317.0	52	158.0	53	90.7	54	94.2	55	91.7	56	71.3
57	345.1	58	227.3	59	254.7	60	154.2	61	95.1	62	100.5	63	97.5	64	76.4
65	539.7	66	274.2	67	270.2	68	157.4	69	88.7	70	91.8	71	78.4	72	33.9
73	608.0	74	287.3	75	265.7	76	132.1	77	64.9	78	64.9	79	41.7	80	-46.7
81	367.8	82	132.6	83	119.3	84	46.6	85	16.8	86	8.7	87	-16.2	88	-133.0
89	183.8	90	31.1	91	23.9	92	-7.8	93	-9.4	94	-27.8	95	-48.3	96	-171.1
97	16.8	98	-54.2	99	-91.6	100	-86.2	101	-33.0	102	-91.9	103	-99.9	104	-237.2

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1363.303	.000	50	-2176.679	.000	51	-788.695	.000	52	-45.596	.000
53	47.096	.000	54	74.878	.000	55	71.945	.000	56	32.029	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2044.955	50	-1274.154	51	-378.574	52	-26.690	53	35.322	54	46.079
55	37.537	56	33.422								

Appendix 6E-e 12 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3194.015	-2603.712	50	-1990.101	-1622.300	51	-591.294	-482.014	52	-41.687	-33.983
53	55.169	44.973	54	71.971	58.669	55	58.628	47.793	56	52.201	42.554

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.28624	2	-.09632	3	-.13176	4	-.16619	5	-.08188	6	-.18793	7	-.17227	8	-.81950
9	.85152	10	.05583	11	.05284	12	-.00478	13	-.01179	14	-.03823	15	-.05163	16	-.37999
17	1.66613	18	.26174	19	.15665	20	.06481	21	.02520	22	.00335	23	-.03116	24	-.30306
25	2.73216	26	.46371	27	.27126	28	.14013	29	.08213	30	.05198	31	.01211	32	-.22702
33	4.09625	34	.76433	35	.46627	36	.25305	37	.16151	38	.12163	39	.06852	40	-.11555
41	5.96917	42	1.23352	43	.73561	44	.40951	45	.27252	46	.22249	47	.15727	48	.10740
49	9.19555	50	2.47805	51	1.58500	52	.96330	53	.70854	54	.60410	55	.49823	56	.77544
57	5.39232	58	1.38590	59	1.27326	60	.94041	61	.74279	62	.64454	63	.52975	64	.83055
65	3.37331	66	.66871	67	.54041	68	.38400	69	.27707	70	.23546	71	.17053	72	.14719
73	2.37497	74	.43791	75	.33214	76	.20134	77	.12679	78	.10397	79	.05662	80	-.12683
81	1.14941	82	.16176	83	.11926	84	.05680	85	.02622	86	.01115	87	-.01766	88	-.28922
89	.45951	90	.03038	91	.01915	92	-.00760	93	-.01173	94	-.02848	95	-.04198	96	-.29750
97	.07000	98	-.08814	99	-.12216	100	-.14019	101	-.06868	102	-.15709	103	-.14484	104	-.68757

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2186E-04	.5282E-04	2	.2100E-04	.4829E-04	3	.1856E-04	.4184E-04	4	.1639E-04	.3494E-04
5	.1550E-04	.3040E-04	6	.1531E-04	.2584E-04	7	.1610E-04	.1957E-04	8	.1677E-04	.1320E-04
9	.3792E-04	.8337E-04	10	.3959E-04	.7482E-04	11	.3908E-04	.6187E-04	12	.3681E-04	.4972E-04
13	.3544E-04	.4259E-04	14	.3443E-04	.3597E-04	15	.3380E-04	.2724E-04	16	.3402E-04	.1898E-04
17	.7835E-04	.1521E-03	18	.8057E-04	.1345E-03	19	.7727E-04	.1057E-03	20	.6931E-04	.8110E-04
21	.6398E-04	.6837E-04	22	.5958E-04	.5779E-04	23	.5600E-04	.4522E-04	24	.5592E-04	.3445E-04
25	.1036E-03	.1888E-03	26	.1058E-03	.1621E-03	27	.9967E-04	.1235E-03	28	.8646E-04	.9290E-04
29	.7788E-04	.7820E-04	30	.7093E-04	.6655E-04	31	.6504E-04	.5348E-04	32	.6426E-04	.4265E-04
33	.1384E-03	.2207E-03	34	.1395E-03	.1865E-03	35	.1280E-03	.1373E-03	36	.1061E-03	.1021E-03
37	.9305E-04	.8626E-04	38	.8281E-04	.7413E-04	39	.7392E-04	.6120E-04	40	.7206E-04	.5135E-04
41	.1807E-03	.2331E-03	42	.1799E-03	.1974E-03	43	.1606E-03	.1432E-03	44	.1266E-03	.1070E-03
45	.1086E-03	.9096E-04	46	.9469E-04	.7894E-04	47	.8202E-04	.6673E-04	48	.7839E-04	.5883E-04
49	.2145E-03	.2314E-03	50	.2152E-03	.1977E-03	51	.1901E-03	.1414E-03	52	.1453E-03	.1061E-03
53	.1222E-03	.9062E-04	54	.1047E-03	.7915E-04	55	.8836E-04	.6783E-04	56	.8260E-04	.6163E-04
57	.1092E-03	-.2205E-03	58	.1210E-03	-.2038E-03	59	.1378E-03	-.1612E-03	60	.1312E-03	-.1194E-03
61	.1185E-03	-.9837E-04	62	.1048E-03	-.8241E-04	63	.8920E-04	-.6712E-04	64	.8286E-04	-.5915E-04
65	.9267E-04	-.2109E-03	66	.9967E-04	-.1931E-03	67	.1111E-03	-.1553E-03	68	.1080E-03	-.1175E-03
69	.1003E-03	-.9755E-04	70	.9140E-04	-.8195E-04	71	.8100E-04	-.6626E-04	72	.7750E-04	-.5635E-04
73	.6732E-04	-.1751E-03	74	.7186E-04	-.1601E-03	75	.7795E-04	-.1324E-03	76	.7826E-04	-.1039E-03

Appendix 6E-e 12 Inch PCCP Pavement

77	.7554E-04	-.8768E-04	78	.7185E-04	-.7405E-04	79	.6759E-04	-.5871E-04	80	.6694E-04	-.4679E-04
81	.3738E-04	-.1118E-03	82	.4029E-04	-.1026E-03	83	.4320E-04	-.8743E-04	84	.4472E-04	-.7166E-04
85	.4514E-04	-.6191E-04	86	.4532E-04	-.5279E-04	87	.4568E-04	-.4086E-04	88	.4665E-04	-.2994E-04
89	.2204E-04	-.6507E-04	90	.2372E-04	-.6091E-04	91	.2520E-04	-.5361E-04	92	.2622E-04	-.4550E-04
93	.2697E-04	-.4008E-04	94	.2780E-04	-.3461E-04	95	.2897E-04	-.2683E-04	96	.2982E-04	-.1918E-04
97	.1415E-04	-.4116E-04	98	.1365E-04	-.3885E-04	99	.1248E-04	-.3504E-04	100	.1180E-04	-.3046E-04
101	.1173E-04	-.2716E-04	102	.1215E-04	-.2364E-04	103	.1342E-04	-.1845E-04	104	.1422E-04	-.1279E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX.SHEAR
17	1	-.459577E+02	.000000E+00	.000000E+00	-.459577E+02	.000000E+00	.229788E+02
25	1	-.467127E+02	.000000E+00	.000000E+00	-.467127E+02	.000000E+00	.233563E+02
29	1	-.145565E+02	-.142241E+02	-.170094E+02	-.314005E+02	.261989E+01	.170102E+02
33	1	-.396747E+02	.000000E+00	.000000E+00	-.396747E+02	.000000E+00	.198374E+02
41	1	.749714E+01	.000000E+00	.000000E+00	.000000E+00	.749714E+01	.374857E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.550750E+01	-.463395E+02	-.436675E+02	.491750E+02	.464212E+02
51	1	.000000E+00	-.539655E+02	-.388329E+02	-.742698E+02	.203043E+02	.472870E+02
52	1	.000000E+00	-.370198E+02	-.239116E+02	-.487486E+02	.117288E+02	.302387E+02
53	1	.000000E+00	-.293726E+02	-.173478E+02	-.374159E+02	.804326E+01	.227296E+02
54	1	.000000E+00	-.221629E+02	-.126567E+02	-.279038E+02	.574088E+01	.168223E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 74.26978 AND OCCURS AT NODE 51

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
*      12 inch PCCP Pavement with 95K load
*
*****
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```
TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
```

Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	122.77200	132.00000	.00000	6.35520	90.00000
1	122.77200	132.00000	12.00000	18.35520	90.00000
1	122.72200	132.00000	84.00000	90.35520	90.00000
1	122.72200	132.00000	96.00000	102.35500	90.00000
1	170.77200	180.00000	.00000	6.35520	90.00000
1	170.77200	180.00000	12.00000	18.35520	90.00000
1	170.77200	180.00000	84.00000	90.35520	90.00000
1	170.77200	180.00000	96.00000	102.35500	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17      25      29      33      41      49      50      51      52      53      54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1    1    56    1    42            2    57    104    43    77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1    49    57    56    64    36    43    42    49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000



Appendix 6E-e 12 Inch PCCP Pavement

21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.41911	1.00000	-1.00000	-.20560	90.00000
22	-1.00000	-.55556	-1.00000	-.20560	90.00000
15	.41911	1.00000	.50000	1.00000	90.00000
16	.41911	1.00000	-1.00000	-.81158	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.81158	90.00000
19	.41356	1.00000	-.75000	.04440	90.00000
26	-1.00000	-.55556	-.75000	.04440	90.00000
19	.41356	1.00000	.75000	1.00000	90.00000
20	.41356	1.00000	-1.00000	-.62130	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.62130	90.00000
36	-.15350	1.00000	-1.00000	-.20560	90.00000
36	-.15350	1.00000	.50000	1.00000	90.00000
37	-.15350	1.00000	-1.00000	-.81158	90.00000
40	-.15350	1.00000	-.75000	.04440	90.00000
40	-.15350	1.00000	.75000	1.00000	90.00000
41	-.15350	1.00000	-1.00000	-.62130	90.00000

Appendix 6E-e 12 Inch PCCP Pavement

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

Appendix 6E-e 12 Inch PCCP Pavement

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0
81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .04862911  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01182411  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00137747  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00016344  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00001942

SUM OF APPLIED FORCES (FOSUM)= 42281.8 SUM OF TOTAL REACTIONS (SUBSUM)= 42226.5

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000231

SUM OF APPLIED FORCES (FOSUM)= 42281.8 SUM OF TOTAL REACTIONS (SUBSUM)= 42229.5

Appendix 6E-e 12 Inch PCCP Pavement

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1458E-01	2	.1419E-01	3	.1356E-01	4	.1282E-01	5	.1225E-01	6	.1160E-01	7	.1049E-01	8	.9232E-02
9	.2957E-01	10	.2879E-01	11	.2743E-01	12	.2586E-01	13	.2469E-01	14	.2336E-01	15	.2119E-01	16	.1878E-01
17	.4551E-01	18	.4367E-01	19	.4087E-01	20	.3839E-01	21	.3679E-01	22	.3488E-01	23	.3142E-01	24	.2758E-01
25	.5094E-01	26	.4868E-01	27	.4531E-01	28	.4259E-01	29	.4095E-01	30	.3890E-01	31	.3496E-01	32	.3063E-01
33	.5513E-01	34	.5272E-01	35	.4916E-01	36	.4628E-01	37	.4453E-01	38	.4235E-01	39	.3819E-01	40	.3349E-01
41	.5884E-01	42	.5627E-01	43	.5247E-01	44	.4956E-01	45	.4785E-01	46	.4564E-01	47	.4123E-01	48	.3625E-01
49	.6202E-01	50	.5926E-01	51	.5514E-01	52	.5230E-01	53	.5078E-01	54	.4862E-01	55	.4388E-01	56	.3870E-01
57	.5631E-01	58	.5540E-01	59	.5330E-01	60	.5065E-01	61	.4867E-01	62	.4638E-01	63	.4260E-01	64	.3861E-01
65	.4845E-01	66	.4777E-01	67	.4621E-01	68	.4404E-01	69	.4233E-01	70	.4034E-01	71	.3705E-01	72	.3343E-01
73	.3780E-01	74	.3743E-01	75	.3646E-01	76	.3491E-01	77	.3360E-01	78	.3204E-01	79	.2940E-01	80	.2640E-01
81	.2448E-01	82	.2437E-01	83	.2392E-01	84	.2306E-01	85	.2226E-01	86	.2127E-01	87	.1956E-01	88	.1756E-01
89	.1609E-01	90	.1603E-01	91	.1576E-01	92	.1525E-01	93	.1477E-01	94	.1417E-01	95	.1312E-01	96	.1189E-01
97	.8526E-02	98	.8404E-02	99	.8202E-02	100	.7937E-02	101	.7724E-02	102	.7478E-02	103	.7049E-02	104	.6550E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1458E-01	2	.1419E-01	3	.1356E-01	4	.1282E-01	5	.1225E-01	6	.1160E-01	7	.1049E-01	8	.9232E-02
9	.2957E-01	10	.2879E-01	11	.2743E-01	12	.2586E-01	13	.2469E-01	14	.2336E-01	15	.2119E-01	16	.1878E-01
17	.4551E-01	18	.4367E-01	19	.4087E-01	20	.3839E-01	21	.3679E-01	22	.3488E-01	23	.3142E-01	24	.2758E-01
25	.5094E-01	26	.4868E-01	27	.4531E-01	28	.4259E-01	29	.4095E-01	30	.3890E-01	31	.3496E-01	32	.3063E-01
33	.5513E-01	34	.5272E-01	35	.4916E-01	36	.4628E-01	37	.4453E-01	38	.4235E-01	39	.3819E-01	40	.3349E-01
41	.5884E-01	42	.5627E-01	43	.5247E-01	44	.4956E-01	45	.4785E-01	46	.4564E-01	47	.4123E-01	48	.3625E-01
49	.5917E-01	50	.5733E-01	51	.5422E-01	52	.5148E-01	53	.4972E-01	54	.4750E-01	55	.4324E-01	56	.3865E-01
57	.5917E-01	58	.5733E-01	59	.5422E-01	60	.5148E-01	61	.4972E-01	62	.4750E-01	63	.4324E-01	64	.3865E-01
65	.4845E-01	66	.4777E-01	67	.4621E-01	68	.4404E-01	69	.4233E-01	70	.4034E-01	71	.3705E-01	72	.3343E-01
73	.3780E-01	74	.3743E-01	75	.3646E-01	76	.3491E-01	77	.3360E-01	78	.3204E-01	79	.2940E-01	80	.2640E-01
81	.2448E-01	82	.2437E-01	83	.2392E-01	84	.2306E-01	85	.2226E-01	86	.2127E-01	87	.1956E-01	88	.1756E-01
89	.1609E-01	90	.1603E-01	91	.1576E-01	92	.1525E-01	93	.1477E-01	94	.1417E-01	95	.1312E-01	96	.1189E-01
97	.8526E-02	98	.8404E-02	99	.8202E-02	100	.7937E-02	101	.7724E-02	102	.7478E-02	103	.7049E-02	104	.6550E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	187.0	2	-123.9	3	-187.1	4	-203.4	5	-80.8	6	-238.8	7	-279.9	8	-633.6
9	1555.3	10	554.2	11	866.6	12	503.6	13	218.2	14	390.3	15	370.7	16	324.1
17	1601.4	18	884.9	19	917.9	20	585.0	21	384.3	22	498.5	23	519.6	24	546.4
25	1162.2	26	631.6	27	587.7	28	400.1	29	295.0	30	368.4	31	364.6	32	402.0
33	1386.3	34	793.1	35	772.1	36	520.5	37	373.3	38	465.5	39	492.3	40	553.1
41	1537.2	42	927.0	43	893.6	44	618.7	45	455.1	46	572.7	47	594.8	48	656.7

Appendix 6E-e 12 Inch PCCP Pavement

49	979.2	50	732.7	51	732.9	52	527.9	53	411.2	54	504.4	55	520.7	56	525.3
57	657.7	58	475.8	59	589.3	60	418.3	61	287.2	62	359.3	63	427.1	64	518.3
65	1035.8	66	610.6	67	687.2	68	480.4	69	319.0	70	395.7	71	457.2	72	634.7
73	1092.3	74	603.1	75	679.3	76	445.5	77	279.3	78	362.7	79	399.6	80	510.8
81	585.9	82	259.3	83	295.9	84	177.9	85	98.7	86	129.7	87	122.1	88	87.8
89	203.8	90	30.5	91	30.3	92	-1.3	93	-6.1	94	-26.2	95	-55.2	96	-184.7
97	-210.2	98	-187.1	99	-326.1	100	-259.8	101	-100.3	102	-263.4	103	-281.8	104	-535.0

ITERATION NO. (IC) = 13 DIFFERENCE IN DEFLECTION (DF) = .00000030

SUM OF APPLIED FORCES (FOSUM)= 42281.8 SUM OF TOTAL REACTIONS (SUBSUM)= 42229.9

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1458E-01	2	.1419E-01	3	.1356E-01	4	.1282E-01	5	.1225E-01	6	.1160E-01	7	.1049E-01	8	.9233E-02
9	.2957E-01	10	.2879E-01	11	.2743E-01	12	.2586E-01	13	.2469E-01	14	.2336E-01	15	.2119E-01	16	.1878E-01
17	.4551E-01	18	.4367E-01	19	.4087E-01	20	.3839E-01	21	.3679E-01	22	.3488E-01	23	.3142E-01	24	.2758E-01
25	.5094E-01	26	.4868E-01	27	.4531E-01	28	.4259E-01	29	.4095E-01	30	.3890E-01	31	.3496E-01	32	.3063E-01
33	.5513E-01	34	.5272E-01	35	.4916E-01	36	.4628E-01	37	.4453E-01	38	.4235E-01	39	.3819E-01	40	.3349E-01
41	.5884E-01	42	.5627E-01	43	.5247E-01	44	.4956E-01	45	.4785E-01	46	.4564E-01	47	.4123E-01	48	.3625E-01
49	.6202E-01	50	.5926E-01	51	.5514E-01	52	.5230E-01	53	.5078E-01	54	.4862E-01	55	.4388E-01	56	.3870E-01
57	.5631E-01	58	.5540E-01	59	.5330E-01	60	.5065E-01	61	.4867E-01	62	.4638E-01	63	.4261E-01	64	.3861E-01
65	.4845E-01	66	.4777E-01	67	.4621E-01	68	.4404E-01	69	.4233E-01	70	.4034E-01	71	.3705E-01	72	.3343E-01
73	.3780E-01	74	.3743E-01	75	.3646E-01	76	.3491E-01	77	.3360E-01	78	.3204E-01	79	.2940E-01	80	.2640E-01
81	.2448E-01	82	.2437E-01	83	.2392E-01	84	.2306E-01	85	.2226E-01	86	.2127E-01	87	.1956E-01	88	.1756E-01
89	.1609E-01	90	.1603E-01	91	.1576E-01	92	.1525E-01	93	.1477E-01	94	.1417E-01	95	.1312E-01	96	.1189E-01
97	.8526E-02	98	.8404E-02	99	.8202E-02	100	.7937E-02	101	.7724E-02	102	.7478E-02	103	.7050E-02	104	.6550E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1458E-01	2	.1419E-01	3	.1356E-01	4	.1282E-01	5	.1225E-01	6	.1160E-01	7	.1049E-01	8	.9232E-02
9	.2957E-01	10	.2879E-01	11	.2743E-01	12	.2586E-01	13	.2469E-01	14	.2336E-01	15	.2119E-01	16	.1878E-01
17	.4551E-01	18	.4367E-01	19	.4087E-01	20	.3839E-01	21	.3679E-01	22	.3488E-01	23	.3142E-01	24	.2758E-01
25	.5094E-01	26	.4868E-01	27	.4531E-01	28	.4259E-01	29	.4095E-01	30	.3890E-01	31	.3496E-01	32	.3063E-01
33	.5513E-01	34	.5272E-01	35	.4916E-01	36	.4628E-01	37	.4453E-01	38	.4235E-01	39	.3819E-01	40	.3349E-01
41	.5884E-01	42	.5627E-01	43	.5247E-01	44	.4956E-01	45	.4785E-01	46	.4564E-01	47	.4123E-01	48	.3625E-01
49	.5917E-01	50	.5733E-01	51	.5422E-01	52	.5148E-01	53	.4972E-01	54	.4750E-01	55	.4324E-01	56	.3865E-01
57	.5917E-01	58	.5733E-01	59	.5422E-01	60	.5148E-01	61	.4972E-01	62	.4750E-01	63	.4324E-01	64	.3865E-01
65	.4845E-01	66	.4777E-01	67	.4621E-01	68	.4404E-01	69	.4233E-01	70	.4034E-01	71	.3705E-01	72	.3343E-01
73	.3780E-01	74	.3743E-01	75	.3646E-01	76	.3491E-01	77	.3360E-01	78	.3204E-01	79	.2940E-01	80	.2640E-01
81	.2448E-01	82	.2437E-01	83	.2392E-01	84	.2306E-01	85	.2226E-01	86	.2127E-01	87	.1956E-01	88	.1756E-01
89	.1609E-01	90	.1603E-01	91	.1576E-01	92	.1525E-01	93	.1477E-01	94	.1417E-01	95	.1312E-01	96	.1189E-01

Appendix 6E-e 12 Inch PCCP Pavement

97 .8526E-02 98 .8404E-02 99 .8202E-02 100 .7937E-02 101 .7724E-02 102 .7478E-02 103 .7050E-02 104 .6550E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	187.0	2	-123.9	3	-187.1	4	-203.4	5	-80.8	6	-238.8	7	-279.8	8	-633.6
9	1555.3	10	554.2	11	866.6	12	503.6	13	218.2	14	390.3	15	370.7	16	324.1
17	1601.4	18	884.9	19	917.9	20	585.0	21	384.3	22	498.5	23	519.6	24	546.4
25	1162.2	26	631.6	27	587.7	28	400.1	29	295.0	30	368.4	31	364.6	32	402.0
33	1386.3	34	793.1	35	772.1	36	520.5	37	373.3	38	465.5	39	492.4	40	553.1
41	1537.2	42	927.0	43	893.6	44	618.7	45	455.1	46	572.7	47	594.8	48	656.7
49	979.2	50	732.7	51	732.9	52	527.9	53	411.2	54	504.4	55	520.7	56	525.3
57	657.7	58	475.8	59	589.3	60	418.3	61	287.2	62	359.3	63	427.1	64	518.3
65	1035.8	66	610.6	67	687.3	68	480.4	69	319.0	70	395.7	71	457.2	72	634.7
73	1092.3	74	603.1	75	679.3	76	445.5	77	279.3	78	362.7	79	399.6	80	510.8
81	585.9	82	259.3	83	295.9	84	177.9	85	98.8	86	129.7	87	122.2	88	87.8
89	203.8	90	30.5	91	30.3	92	-1.3	93	-6.1	94	-26.2	95	-55.2	96	-184.7
97	-210.2	98	-187.1	99	-326.1	100	-259.8	101	-100.3	102	-263.4	103	-281.8	104	-535.0

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1800.530	.000	50	-3121.957	.000	51	-1817.338	.000	52	-1330.808	.000
53	-1332.340	.000	54	-1722.619	.000	55	-1161.923	.000	56	-43.986	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2700.795	50	-1827.487	51	-872.322	52	-779.009	53	-999.255	54	-1060.073
55	-606.221	56	-45.898								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4218.372	-3438.753	50	-2854.352	-2326.824	51	-1362.480	-1110.673	52	-1216.735	-991.864
53	-1560.736	-1272.288	54	-1655.728	-1349.724	55	-946.856	-771.863	56	-71.689	-58.440

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.77907	2	-.20151	3	-.24947	4	-.33079	5	-.16842	6	-.40826	7	-.40557	8	-1.83654
9	3.53472	10	.49154	11	.63025	12	.44668	13	.24792	14	.36394	15	.29308	16	.51246
17	5.88764	18	1.26956	19	1.07994	20	.83934	21	.70636	22	.75191	23	.66445	24	1.39740
25	8.07083	26	1.71157	27	1.30593	28	1.08421	29	1.02432	30	1.04971	31	.88074	32	1.94201
33	9.62682	34	2.14934	35	1.71579	36	1.41067	37	1.29613	38	1.32611	39	1.18925	40	2.67190
41	11.30327	42	2.66001	43	2.10249	44	1.77526	45	1.67330	46	1.72771	47	1.52116	48	3.35913
49	15.30033	50	4.46784	51	3.66462	52	3.21867	53	3.21272	54	3.23350	55	2.83002	56	5.70985
57	10.27734	58	2.90139	59	2.94628	60	2.55061	61	2.24389	62	2.30327	63	2.32108	64	5.63416
65	6.47381	66	1.48928	67	1.37450	68	1.17174	69	.99702	70	1.01471	71	.99385	72	2.75967
73	4.26688	74	.91938	75	.84915	76	.67917	77	.54545	78	.58122	79	.54293	80	1.38804

Appendix 6E-e 12 Inch PCCP Pavement

81	1.83104	82	.31627	83	.29595	84	.21698	85	.15430	86	.16626	87	.13278	88	.19087
89	.50959	90	.02976	91	.02424	92	-.00131	93	-.00764	94	-.02683	95	-.04803	96	-.32115
97	-.87581	98	-.30430	99	-.43483	100	-.42249	101	-.20902	102	-.45033	103	-.40837	104	-1.55072

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2469E-04	.2334E-03	2	.2439E-04	.2269E-03	3	.2675E-04	.2170E-03	4	.3315E-04	.2050E-03
5	.3819E-04	.1958E-03	6	.4393E-04	.1854E-03	7	.5207E-04	.1692E-03	8	.5600E-04	.1507E-03
9	.4647E-04	.2908E-03	10	.5119E-04	.2772E-03	11	.5809E-04	.2566E-03	12	.6838E-04	.2396E-03
13	.7798E-04	.2294E-03	14	.8798E-04	.2173E-03	15	.1008E-03	.1951E-03	16	.1073E-03	.1713E-03
17	.1159E-03	.3196E-03	18	.1150E-03	.2957E-03	19	.1057E-03	.2611E-03	20	.9597E-04	.2451E-03
21	.1072E-03	.2411E-03	22	.1333E-03	.2320E-03	23	.1625E-03	.2034E-03	24	.1688E-03	.1739E-03
25	.1445E-03	.2676E-03	26	.1400E-03	.2518E-03	27	.1223E-03	.2307E-03	28	.1002E-03	.2195E-03
29	.1112E-03	.2149E-03	30	.1479E-03	.2073E-03	31	.1852E-03	.1879E-03	32	.1899E-03	.1639E-03
33	.1518E-03	.2130E-03	34	.1498E-03	.2058E-03	35	.1295E-03	.1969E-03	36	.1059E-03	.1916E-03
37	.1189E-03	.1883E-03	38	.1561E-03	.1832E-03	39	.1982E-03	.1724E-03	40	.2067E-03	.1551E-03
41	.1612E-03	.2006E-03	42	.1607E-03	.1900E-03	43	.1354E-03	.1733E-03	44	.1033E-03	.1748E-03
45	.1172E-03	.1825E-03	46	.1625E-03	.1836E-03	47	.2111E-03	.1666E-03	48	.2191E-03	.1527E-03
49	.1721E-03	.1971E-03	50	.1735E-03	.1852E-03	51	.1411E-03	.1626E-03	52	.9446E-04	.1687E-03
53	.1074E-03	.1848E-03	54	.1685E-03	.1903E-03	55	.2237E-03	.1661E-03	56	.2270E-03	.1537E-03
57	.5240E-04	-.4980E-03	58	.6703E-04	-.4839E-03	59	.9594E-04	-.4487E-03	60	.1164E-03	-.4184E-03
61	.1330E-03	-.4014E-03	62	.1531E-03	-.3826E-03	63	.1711E-03	-.3515E-03	64	.1761E-03	-.3274E-03
65	.3765E-04	-.4781E-03	66	.4935E-04	-.4636E-03	67	.7517E-04	-.4333E-03	68	.9852E-04	-.4044E-03
69	.1154E-03	-.3871E-03	70	.1330E-03	-.3686E-03	71	.1519E-03	-.3398E-03	72	.1607E-03	-.3148E-03
73	.1787E-04	-.4036E-03	74	.2850E-04	-.3937E-03	75	.4997E-04	-.3742E-03	76	.7383E-04	-.3516E-03
77	.8987E-04	-.3361E-03	78	.1053E-03	-.3194E-03	79	.1236E-03	-.2935E-03	80	.1353E-03	-.2678E-03
81	.2682E-05	-.2657E-03	82	.1082E-04	-.2621E-03	83	.2585E-04	-.2541E-03	84	.4363E-04	-.2419E-03
85	.5572E-04	-.2317E-03	86	.6734E-04	-.2197E-03	87	.8157E-04	-.1996E-03	88	.9139E-04	-.1773E-03
89	.1346E-05	-.1634E-03	90	.6198E-05	-.1635E-03	91	.1526E-04	-.1611E-03	92	.2612E-04	-.1551E-03
93	.3369E-04	-.1491E-03	94	.4106E-04	-.1415E-03	95	.5005E-04	-.1281E-03	96	.5589E-04	-.1127E-03
97	.7620E-05	-.1079E-03	98	.7591E-05	-.1089E-03	99	.9048E-05	-.1084E-03	100	.1229E-04	-.1051E-03
101	.1430E-04	-.1014E-03	102	.1664E-04	-.9637E-04	103	.2047E-04	-.8728E-04	104	.2247E-04	-.7568E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.165279E+02	.000000E+00	.000000E+00	.000000E+00	.165279E+02	.826395E+01
25	1	.130971E+03	.000000E+00	.000000E+00	.000000E+00	.130971E+03	.654856E+02
29	1	.666340E+02	.519723E+02	-.706949E+01	.491189E+02	.694874E+02	.101842E+02
33	1	.182418E+02	.000000E+00	.000000E+00	.000000E+00	.182418E+02	.912092E+01
41	1	.108425E+02	.000000E+00	.000000E+00	.000000E+00	.108425E+02	.542127E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.827825E+01	-.181550E+02	-.144818E+02	.227600E+02	.186209E+02

Appendix 6E-e 12 Inch PCCP Pavement

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51	1	.000000E+00	-.706168E+02	-.768827E+01	-.714442E+02	.827351E+00	.361358E+02
52	1	.000000E+00	-.283721E+02	.151191E+02	-.349184E+02	.654630E+01	.207323E+02
53	1	.000000E+00	.689132E+02	.167832E+02	-.387005E+01	.727832E+02	.383267E+02
54	1	.000000E+00	.119676E+03	-.815290E+01	-.552860E+00	.120229E+03	.603910E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 130.97130 AND OCCURS AT NODE 25



Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
* 12 inch PCCP Pavement with 95K load Single Axle
*
*****
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TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
```

Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	170.77200	180.00000	.00000	6.35520	90.00000
1	170.77200	180.00000	8.00000	14.35520	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17      25      29      33      41      49      50      51      52      53      54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1    1    56    1    42            2    57    104    43    77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1    49    57    56    64    36    43    42    49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.15350	1.00000	-1.00000	-.20560	90.00000
36	-.15350	1.00000	.00000	.79440	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0

Appendix 6E-e 12 Inch PCCP Pavement

81 0 82 0 83 0 84 0 85 0 86 0 87 0 88 0 89 0 90 0  
 91 0 92 0 93 0 94 0 95 0 96 0 97 0 98 0 99 0 100 0  
 101 0 102 0 103 0 104 0

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .02493894  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00338245  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00036475  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004307  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000512

SUM OF APPLIED FORCES (FOSUM)= 10556.2 SUM OF TOTAL REACTIONS (SUBSUM)= 10541.4

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3407E-02	2	.3044E-02	3	.2521E-02	4	.2062E-02	5	.1794E-02	6	.1534E-02	7	.1154E-02	8	.7521E-03
9	.7299E-02	10	.6643E-02	11	.5598E-02	12	.4595E-02	13	.3985E-02	14	.3395E-02	15	.2568E-02	16	.1745E-02
17	.1338E-01	18	.1203E-01	19	.9935E-02	20	.7995E-02	21	.6870E-02	22	.5828E-02	23	.4431E-02	24	.3079E-02
25	.1662E-01	26	.1484E-01	27	.1211E-01	28	.9648E-02	29	.8262E-02	30	.7008E-02	31	.5368E-02	32	.3807E-02
33	.2051E-01	34	.1816E-01	35	.1459E-01	36	.1150E-01	37	.9824E-02	38	.8344E-02	39	.6456E-02	40	.4698E-02
41	.2485E-01	42	.2182E-01	43	.1726E-01	44	.1349E-01	45	.1151E-01	46	.9800E-02	47	.7674E-02	48	.5746E-02
49	.2873E-01	50	.2513E-01	51	.1966E-01	52	.1529E-01	53	.1304E-01	54	.1114E-01	55	.8813E-02	56	.6769E-02
57	.2420E-01	58	.2230E-01	59	.1882E-01	60	.1523E-01	61	.1312E-01	62	.1124E-01	63	.8897E-02	64	.6844E-02
65	.2054E-01	66	.1893E-01	67	.1613E-01	68	.1322E-01	69	.1146E-01	70	.9845E-02	71	.7766E-02	72	.5861E-02
73	.1562E-01	74	.1445E-01	75	.1247E-01	76	.1040E-01	77	.9099E-02	78	.7857E-02	79	.6172E-02	80	.4550E-02
81	.9607E-02	82	.8952E-02	83	.7851E-02	84	.6691E-02	85	.5934E-02	86	.5171E-02	87	.4069E-02	88	.2951E-02
89	.5971E-02	90	.5585E-02	91	.4939E-02	92	.4262E-02	93	.3814E-02	94	.3353E-02	95	.2665E-02	96	.1951E-02
97	.2913E-02	98	.2678E-02	99	.2335E-02	100	.2017E-02	101	.1819E-02	102	.1619E-02	103	.1310E-02	104	.9722E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3407E-02	2	.3044E-02	3	.2521E-02	4	.2062E-02	5	.1794E-02	6	.1534E-02	7	.1154E-02	8	.7521E-03
9	.7299E-02	10	.6643E-02	11	.5598E-02	12	.4595E-02	13	.3985E-02	14	.3395E-02	15	.2568E-02	16	.1745E-02
17	.1338E-01	18	.1203E-01	19	.9935E-02	20	.7995E-02	21	.6870E-02	22	.5828E-02	23	.4431E-02	24	.3079E-02
25	.1662E-01	26	.1484E-01	27	.1211E-01	28	.9648E-02	29	.8262E-02	30	.7008E-02	31	.5368E-02	32	.3807E-02
33	.2051E-01	34	.1816E-01	35	.1459E-01	36	.1150E-01	37	.9824E-02	38	.8344E-02	39	.6456E-02	40	.4698E-02
41	.2485E-01	42	.2182E-01	43	.1726E-01	44	.1349E-01	45	.1151E-01	46	.9800E-02	47	.7674E-02	48	.5746E-02

Appendix 6E-e 12 Inch PCCP Pavement

49	.2647E-01	50	.2372E-01	51	.1924E-01	52	.1526E-01	53	.1308E-01	54	.1119E-01	55	.8855E-02	56	.6806E-02
57	.2647E-01	58	.2372E-01	59	.1924E-01	60	.1526E-01	61	.1308E-01	62	.1119E-01	63	.8855E-02	64	.6806E-02
65	.2054E-01	66	.1893E-01	67	.1613E-01	68	.1322E-01	69	.1146E-01	70	.9845E-02	71	.7766E-02	72	.5861E-02
73	.1562E-01	74	.1445E-01	75	.1247E-01	76	.1040E-01	77	.9099E-02	78	.7857E-02	79	.6172E-02	80	.4550E-02
81	.9607E-02	82	.8952E-02	83	.7851E-02	84	.6691E-02	85	.5934E-02	86	.5171E-02	87	.4069E-02	88	.2951E-02
89	.5971E-02	90	.5585E-02	91	.4939E-02	92	.4262E-02	93	.3814E-02	94	.3353E-02	95	.2665E-02	96	.1951E-02
97	.2913E-02	98	.2678E-02	99	.2335E-02	100	.2017E-02	101	.1819E-02	102	.1619E-02	103	.1310E-02	104	.9722E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	72.9	2	-62.4	3	-104.0	4	-107.7	5	-41.4	6	-115.9	7	-125.3	8	-298.4
9	396.5	10	67.0	11	77.6	12	-5.1	13	-10.7	14	-42.8	15	-68.5	16	-253.1
17	479.0	18	193.2	19	141.4	20	48.2	21	14.8	22	2.7	23	-25.4	24	-124.6
25	415.5	26	181.0	27	129.3	28	54.9	29	25.1	30	19.4	31	5.4	32	-49.4
33	622.4	34	298.0	35	221.9	36	98.8	37	49.2	38	45.2	39	30.1	40	-25.1
41	855.4	42	453.6	43	330.1	44	150.7	45	78.3	46	77.9	47	64.9	48	22.2
49	618.9	50	427.9	51	334.1	52	166.6	53	95.6	54	99.4	55	96.6	56	75.2
57	363.2	58	239.2	59	268.1	60	162.5	61	100.2	62	106.0	63	102.8	64	80.6
65	568.4	66	288.8	67	284.6	68	165.9	69	93.5	70	96.9	71	82.8	72	35.8
73	640.2	74	302.6	75	280.0	76	139.3	77	68.5	78	68.5	79	44.0	80	-49.0
81	387.3	82	139.7	83	125.7	84	49.1	85	17.7	86	9.2	87	-17.0	88	-140.1
89	193.5	90	32.8	91	25.2	92	-8.2	93	-9.9	94	-29.2	95	-50.8	96	-180.2
97	17.6	98	-57.1	99	-96.6	100	-90.9	101	-34.7	102	-96.8	103	-105.3	104	-250.0

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000062

SUM OF APPLIED FORCES (FOSUM)= 10556.2 SUM OF TOTAL REACTIONS (SUBSUM)= 10542.2

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3408E-02	2	.3044E-02	3	.2522E-02	4	.2063E-02	5	.1794E-02	6	.1535E-02	7	.1154E-02	8	.7525E-03
9	.7300E-02	10	.6643E-02	11	.5598E-02	12	.4596E-02	13	.3986E-02	14	.3396E-02	15	.2568E-02	16	.1745E-02
17	.1338E-01	18	.1203E-01	19	.9935E-02	20	.7996E-02	21	.6871E-02	22	.5828E-02	23	.4432E-02	24	.3079E-02
25	.1662E-01	26	.1484E-01	27	.1211E-01	28	.9649E-02	29	.8262E-02	30	.7008E-02	31	.5368E-02	32	.3808E-02
33	.2051E-01	34	.1816E-01	35	.1459E-01	36	.1150E-01	37	.9825E-02	38	.8345E-02	39	.6457E-02	40	.4699E-02
41	.2485E-01	42	.2182E-01	43	.1726E-01	44	.1349E-01	45	.1151E-01	46	.9800E-02	47	.7674E-02	48	.5746E-02
49	.2873E-01	50	.2513E-01	51	.1966E-01	52	.1529E-01	53	.1305E-01	54	.1114E-01	55	.8814E-02	56	.6769E-02
57	.2420E-01	58	.2230E-01	59	.1882E-01	60	.1523E-01	61	.1312E-01	62	.1124E-01	63	.8898E-02	64	.6845E-02
65	.2054E-01	66	.1893E-01	67	.1613E-01	68	.1322E-01	69	.1146E-01	70	.9846E-02	71	.7766E-02	72	.5862E-02
73	.1562E-01	74	.1445E-01	75	.1247E-01	76	.1040E-01	77	.9100E-02	78	.7857E-02	79	.6173E-02	80	.4551E-02
81	.9608E-02	82	.8952E-02	83	.7851E-02	84	.6692E-02	85	.5934E-02	86	.5171E-02	87	.4070E-02	88	.2952E-02
89	.5971E-02	90	.5585E-02	91	.4939E-02	92	.4263E-02	93	.3815E-02	94	.3353E-02	95	.2665E-02	96	.1952E-02

Appendix 6E-e 12 Inch PCCP Pavement

97 .2914E-02 98 .2678E-02 99 .2335E-02 100 .2018E-02 101 .1820E-02 102 .1619E-02 103 .1310E-02 104 .9725E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3408E-02	2	.3044E-02	3	.2522E-02	4	.2063E-02	5	.1794E-02	6	.1535E-02	7	.1154E-02	8	.7525E-03
9	.7300E-02	10	.6643E-02	11	.5598E-02	12	.4596E-02	13	.3986E-02	14	.3396E-02	15	.2568E-02	16	.1745E-02
17	.1338E-01	18	.1203E-01	19	.9935E-02	20	.7996E-02	21	.6871E-02	22	.5828E-02	23	.4432E-02	24	.3079E-02
25	.1662E-01	26	.1484E-01	27	.1211E-01	28	.9649E-02	29	.8262E-02	30	.7008E-02	31	.5368E-02	32	.3808E-02
33	.2051E-01	34	.1816E-01	35	.1459E-01	36	.1150E-01	37	.9825E-02	38	.8345E-02	39	.6457E-02	40	.4699E-02
41	.2485E-01	42	.2182E-01	43	.1726E-01	44	.1349E-01	45	.1151E-01	46	.9800E-02	47	.7674E-02	48	.5746E-02
49	.2647E-01	50	.2372E-01	51	.1924E-01	52	.1526E-01	53	.1308E-01	54	.1119E-01	55	.8856E-02	56	.6807E-02
57	.2647E-01	58	.2372E-01	59	.1924E-01	60	.1526E-01	61	.1308E-01	62	.1119E-01	63	.8856E-02	64	.6807E-02
65	.2054E-01	66	.1893E-01	67	.1613E-01	68	.1322E-01	69	.1146E-01	70	.9846E-02	71	.7766E-02	72	.5862E-02
73	.1562E-01	74	.1445E-01	75	.1247E-01	76	.1040E-01	77	.9100E-02	78	.7857E-02	79	.6173E-02	80	.4551E-02
81	.9608E-02	82	.8952E-02	83	.7851E-02	84	.6692E-02	85	.5934E-02	86	.5171E-02	87	.4070E-02	88	.2952E-02
89	.5971E-02	90	.5585E-02	91	.4939E-02	92	.4263E-02	93	.3815E-02	94	.3353E-02	95	.2665E-02	96	.1952E-02
97	.2914E-02	98	.2678E-02	99	.2335E-02	100	.2018E-02	101	.1820E-02	102	.1619E-02	103	.1310E-02	104	.9725E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	72.9	2	-62.4	3	-104.0	4	-107.7	5	-41.4	6	-115.9	7	-125.3	8	-298.3
9	396.5	10	67.0	11	77.6	12	-5.1	13	-10.7	14	-42.8	15	-68.5	16	-253.1
17	479.0	18	193.2	19	141.4	20	48.2	21	14.8	22	2.7	23	-25.4	24	-124.6
25	415.5	26	181.0	27	129.3	28	54.9	29	25.1	30	19.4	31	5.5	32	-49.4
33	622.4	34	298.0	35	221.9	36	98.8	37	49.2	38	45.2	39	30.1	40	-25.1
41	855.4	42	453.6	43	330.1	44	150.7	45	78.3	46	77.9	47	64.9	48	22.2
49	618.9	50	427.9	51	334.1	52	166.6	53	95.6	54	99.4	55	96.6	56	75.2
57	363.2	58	239.2	59	268.1	60	162.5	61	100.2	62	106.0	63	102.8	64	80.6
65	568.4	66	288.8	67	284.7	68	165.9	69	93.5	70	96.9	71	82.8	72	35.8
73	640.2	74	302.6	75	280.0	76	139.3	77	68.5	78	68.5	79	44.0	80	-49.0
81	387.3	82	139.7	83	125.7	84	49.2	85	17.7	86	9.2	87	-17.0	88	-140.0
89	193.5	90	32.8	91	25.2	92	-8.2	93	-9.9	94	-29.2	95	-50.8	96	-180.2
97	17.6	98	-57.1	99	-96.6	100	-90.9	101	-34.7	102	-96.8	103	-105.3	104	-250.0

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1431.931	.000	50	-2292.272	.000	51	-834.682	.000	52	-49.820	.000
53	48.930	.000	54	78.634	.000	55	76.153	.000	56	34.294	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2147.896	50	-1341.818	51	-400.648	52	-29.163	53	36.698	54	48.390
55	39.732	56	35.785								



Appendix 6E-e 12 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3354.799	-2734.781	50	-2095.785	-1708.452	51	-625.771	-510.119	52	-45.550	-37.131
53	57.318	46.725	54	75.580	61.612	55	62.057	50.588	56	55.892	45.563

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.30379	2	-.10142	3	-.13867	4	-.17508	5	-.08626	6	-.19809	7	-.18164	8	-.86476
9	.90119	10	.05945	11	.05646	12	-.00449	13	-.01214	14	-.03990	15	-.05413	16	-.40013
17	1.76107	18	.27721	19	.16633	20	.06916	21	.02716	22	.00407	23	-.03243	24	-.31875
25	2.88541	26	.49043	27	.28735	28	.14867	29	.08725	30	.05534	31	.01317	32	-.23862
33	4.32230	34	.80762	35	.49314	36	.26775	37	.17093	38	.12875	39	.07263	40	-.12116
41	6.28946	42	1.30150	43	.77673	44	.43249	45	.28782	46	.23494	47	.16604	48	.11352
49	9.67010	50	2.60887	51	1.67048	52	1.01563	53	.74709	54	.63689	55	.52518	56	.81715
57	5.67541	58	1.45872	59	1.34056	60	.99062	61	.78267	62	.67936	63	.55854	64	.87617
65	3.55260	66	.70439	67	.56931	68	.40474	69	.29215	70	.24835	71	.17995	72	.15582
73	2.50089	74	.46128	75	.35003	76	.21232	77	.13378	78	.10975	79	.05985	80	-.13314
81	1.21035	82	.17040	83	.12570	84	.05994	85	.02771	86	.01186	87	-.01851	88	-.30444
89	.48381	90	.03200	91	.02019	92	-.00796	93	-.01232	94	-.02996	95	-.04419	96	-.31331
97	.07318	98	-.09291	99	-.12877	100	-.14773	101	-.07237	102	-.16554	103	-.15263	104	-.72450

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2307E-04	.5584E-04	2	.2216E-04	.5107E-04	3	.1959E-04	.4425E-04	4	.1731E-04	.3696E-04
5	.1638E-04	.3216E-04	6	.1618E-04	.2735E-04	7	.1703E-04	.2073E-04	8	.1774E-04	.1400E-04
9	.4001E-04	.8804E-04	10	.4177E-04	.7903E-04	11	.4125E-04	.6536E-04	12	.3888E-04	.5254E-04
13	.3744E-04	.4500E-04	14	.3638E-04	.3801E-04	15	.3572E-04	.2879E-04	16	.3595E-04	.2008E-04
17	.8262E-04	.1604E-03	18	.8497E-04	.1418E-03	19	.8155E-04	.1115E-03	20	.7319E-04	.8551E-04
21	.6757E-04	.7209E-04	22	.6293E-04	.6092E-04	23	.5915E-04	.4767E-04	24	.5906E-04	.3631E-04
25	.1092E-03	.1988E-03	26	.1115E-03	.1708E-03	27	.1052E-03	.1301E-03	28	.9127E-04	.9787E-04
29	.8223E-04	.8238E-04	30	.7489E-04	.7010E-04	31	.6867E-04	.5633E-04	32	.6783E-04	.4493E-04
33	.1458E-03	.2320E-03	34	.1469E-03	.1962E-03	35	.1349E-03	.1445E-03	36	.1120E-03	.1075E-03
37	.9820E-04	.9079E-04	38	.8740E-04	.7804E-04	39	.7802E-04	.6444E-04	40	.7605E-04	.5408E-04
41	.1899E-03	.2443E-03	42	.1892E-03	.2072E-03	43	.1692E-03	.1505E-03	44	.1335E-03	.1125E-03
45	.1146E-03	.9569E-04	46	.9988E-04	.8306E-04	47	.8654E-04	.7024E-04	48	.8270E-04	.6194E-04
49	.2248E-03	.2420E-03	50	.2259E-03	.2073E-03	51	.2001E-03	.1485E-03	52	.1531E-03	.1116E-03
53	.1288E-03	.9531E-04	54	.1104E-03	.8327E-04	55	.9319E-04	.7139E-04	56	.8713E-04	.6488E-04
57	.1148E-03	-.2323E-03	58	.1272E-03	-.2148E-03	59	.1450E-03	-.1699E-03	60	.1382E-03	-.1260E-03
61	.1248E-03	-.1038E-03	62	.1105E-03	-.8693E-04	63	.9404E-04	-.7080E-04	64	.8737E-04	-.6238E-04
65	.9744E-04	-.2222E-03	66	.1048E-03	-.2035E-03	67	.1169E-03	-.1637E-03	68	.1137E-03	-.1239E-03
69	.1056E-03	-.1029E-03	70	.9633E-04	-.8645E-04	71	.8540E-04	-.6989E-04	72	.8171E-04	-.5944E-04
73	.7079E-04	-.1844E-03	74	.7558E-04	-.1687E-03	75	.8203E-04	-.1396E-03	76	.8241E-04	-.1095E-03

Appendix 6E-e 12 Inch PCCP Pavement

77	.7957E-04	-.9247E-04	78	.7571E-04	-.7810E-04	79	.7124E-04	-.6193E-04	80	.7056E-04	-.4936E-04
81	.3932E-04	-.1177E-03	82	.4238E-04	-.1081E-03	83	.4547E-04	-.9216E-04	84	.4709E-04	-.7556E-04
85	.4755E-04	-.6529E-04	86	.4775E-04	-.5569E-04	87	.4814E-04	-.4311E-04	88	.4917E-04	-.3159E-04
89	.2319E-04	-.6857E-04	90	.2496E-04	-.6419E-04	91	.2653E-04	-.5652E-04	92	.2761E-04	-.4798E-04
93	.2841E-04	-.4227E-04	94	.2929E-04	-.3651E-04	95	.3053E-04	-.2831E-04	96	.3143E-04	-.2025E-04
97	.1489E-04	-.4338E-04	98	.1437E-04	-.4095E-04	99	.1313E-04	-.3695E-04	100	.1243E-04	-.3212E-04
101	.1236E-04	-.2865E-04	102	.1281E-04	-.2494E-04	103	.1415E-04	-.1947E-04	104	.1499E-04	-.1351E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX.SHEAR
17	1	-.482810E+02	.000000E+00	.000000E+00	-.482810E+02	.000000E+00	.241405E+02
25	1	-.489101E+02	.000000E+00	.000000E+00	-.489101E+02	.000000E+00	.244550E+02
29	1	-.152363E+02	-.149890E+02	-.179222E+02	-.330352E+02	.280996E+01	.179226E+02
33	1	-.411536E+02	.000000E+00	.000000E+00	-.411536E+02	.000000E+00	.205768E+02
41	1	.946589E+01	.000000E+00	.000000E+00	.000000E+00	.946589E+01	.473294E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.687931E+01	-.481043E+02	-.447875E+02	.516668E+02	.482271E+02
51	1	.000000E+00	-.565587E+02	-.406115E+02	-.777668E+02	.212082E+02	.494875E+02
52	1	.000000E+00	-.389408E+02	-.250669E+02	-.512107E+02	.122699E+02	.317403E+02
53	1	.000000E+00	-.309192E+02	-.182007E+02	-.393399E+02	.842063E+01	.238802E+02
54	1	.000000E+00	-.233362E+02	-.132819E+02	-.293473E+02	.601105E+01	.176792E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 77.76684 AND OCCURS AT NODE 51

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      12 inch PCCP Pavement with 100K load
*
*****
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TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
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Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	122.53200	132.00000	.00000	6.52030	90.00000
1	122.53200	132.00000	12.00000	18.52030	90.00000
1	122.53200	132.00000	84.00000	90.52030	90.00000
1	122.53200	132.00000	96.00000	102.52000	90.00000
1	170.53200	180.00000	.00000	6.52030	90.00000
1	170.53200	180.00000	12.00000	18.52030	90.00000
1	170.53200	180.00000	84.00000	90.52030	90.00000
1	170.53200	180.00000	96.00000	102.52000	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17      25      29      33      41      49      50      51      52      53      54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1    1    56    1    42            2    57    104    43    77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1    49    57    56    64    36    43    42    49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.39244	1.00000	-1.00000	-.18496	90.00000
22	-1.00000	-.55556	-1.00000	-.18496	90.00000
15	.39244	1.00000	.50000	1.00000	90.00000
16	.39244	1.00000	-1.00000	-.79838	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.79838	90.00000
19	.39244	1.00000	-.75000	.06504	90.00000
26	-1.00000	-.55556	-.75000	.06504	90.00000
19	.39244	1.00000	.75000	1.00000	90.00000
20	.39244	1.00000	-1.00000	-.60696	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.60696	90.00000
36	-.18350	1.00000	-1.00000	-.18496	90.00000
36	-.18350	1.00000	.50000	1.00000	90.00000
37	-.18350	1.00000	-1.00000	-.79838	90.00000
40	-.18350	1.00000	-.75000	.06504	90.00000
40	-.18350	1.00000	.75000	1.00000	90.00000
41	-.18350	1.00000	-1.00000	-.60696	90.00000

Appendix 6E-e 12 Inch PCCP Pavement

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO.	EQUIVALENT SPRING CONSTANT (SPCON)
1	.395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

Appendix 6E-e 12 Inch PCCP Pavement

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0
81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .05103841  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01242742  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00144774  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00017174  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00002047

SUM OF APPLIED FORCES (FOSUM)= 44448.1 SUM OF TOTAL REACTIONS (SUBSUM)= 44389.9

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000241

SUM OF APPLIED FORCES (FOSUM)= 44448.1 SUM OF TOTAL REACTIONS (SUBSUM)= 44393.1



Appendix 6E-e 12 Inch PCCP Pavement

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1535E-01	2	.1494E-01	3	.1427E-01	4	.1349E-01	5	.1289E-01	6	.1220E-01	7	.1104E-01	8	.9717E-02
9	.3112E-01	10	.3030E-01	11	.2886E-01	12	.2721E-01	13	.2598E-01	14	.2458E-01	15	.2229E-01	16	.1976E-01
17	.4786E-01	18	.4593E-01	19	.4298E-01	20	.4037E-01	21	.3869E-01	22	.3668E-01	23	.3305E-01	24	.2902E-01
25	.5354E-01	26	.5117E-01	27	.4764E-01	28	.4478E-01	29	.4305E-01	30	.4090E-01	31	.3676E-01	32	.3221E-01
33	.5793E-01	34	.5541E-01	35	.5166E-01	36	.4864E-01	37	.4679E-01	38	.4451E-01	39	.4015E-01	40	.3521E-01
41	.6181E-01	42	.5911E-01	43	.5512E-01	44	.5207E-01	45	.5028E-01	46	.4796E-01	47	.4333E-01	48	.3810E-01
49	.6511E-01	50	.6222E-01	51	.5792E-01	52	.5493E-01	53	.5333E-01	54	.5107E-01	55	.4611E-01	56	.4067E-01
57	.5913E-01	58	.5818E-01	59	.5598E-01	60	.5320E-01	61	.5112E-01	62	.4873E-01	63	.4476E-01	64	.4057E-01
65	.5088E-01	66	.5017E-01	67	.4853E-01	68	.4626E-01	69	.4447E-01	70	.4238E-01	71	.3892E-01	72	.3514E-01
73	.3969E-01	74	.3931E-01	75	.3829E-01	76	.3667E-01	77	.3530E-01	78	.3366E-01	79	.3089E-01	80	.2775E-01
81	.2571E-01	82	.2560E-01	83	.2513E-01	84	.2422E-01	85	.2339E-01	86	.2235E-01	87	.2055E-01	88	.1845E-01
89	.1690E-01	90	.1684E-01	91	.1656E-01	92	.1602E-01	93	.1552E-01	94	.1489E-01	95	.1379E-01	96	.1250E-01
97	.8960E-02	98	.8832E-02	99	.8620E-02	100	.8343E-02	101	.8119E-02	102	.7861E-02	103	.7412E-02	104	.6888E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1535E-01	2	.1494E-01	3	.1427E-01	4	.1349E-01	5	.1289E-01	6	.1220E-01	7	.1104E-01	8	.9717E-02
9	.3112E-01	10	.3030E-01	11	.2886E-01	12	.2721E-01	13	.2598E-01	14	.2458E-01	15	.2229E-01	16	.1976E-01
17	.4786E-01	18	.4593E-01	19	.4298E-01	20	.4037E-01	21	.3869E-01	22	.3668E-01	23	.3305E-01	24	.2902E-01
25	.5354E-01	26	.5117E-01	27	.4764E-01	28	.4478E-01	29	.4305E-01	30	.4090E-01	31	.3676E-01	32	.3221E-01
33	.5793E-01	34	.5541E-01	35	.5166E-01	36	.4864E-01	37	.4679E-01	38	.4451E-01	39	.4015E-01	40	.3521E-01
41	.6181E-01	42	.5911E-01	43	.5512E-01	44	.5207E-01	45	.5028E-01	46	.4796E-01	47	.4333E-01	48	.3810E-01
49	.6212E-01	50	.6020E-01	51	.5695E-01	52	.5407E-01	53	.5223E-01	54	.4990E-01	55	.4544E-01	56	.4062E-01
57	.6212E-01	58	.6020E-01	59	.5695E-01	60	.5407E-01	61	.5223E-01	62	.4990E-01	63	.4544E-01	64	.4062E-01
65	.5088E-01	66	.5017E-01	67	.4853E-01	68	.4626E-01	69	.4447E-01	70	.4238E-01	71	.3892E-01	72	.3514E-01
73	.3969E-01	74	.3931E-01	75	.3829E-01	76	.3667E-01	77	.3530E-01	78	.3366E-01	79	.3089E-01	80	.2775E-01
81	.2571E-01	82	.2560E-01	83	.2513E-01	84	.2422E-01	85	.2339E-01	86	.2235E-01	87	.2055E-01	88	.1845E-01
89	.1690E-01	90	.1684E-01	91	.1656E-01	92	.1602E-01	93	.1552E-01	94	.1489E-01	95	.1379E-01	96	.1250E-01
97	.8960E-02	98	.8832E-02	99	.8620E-02	100	.8343E-02	101	.8119E-02	102	.7861E-02	103	.7412E-02	104	.6888E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	198.5	2	-129.7	3	-195.6	4	-213.2	5	-84.7	6	-250.5	7	-293.7	8	-665.2
9	1638.7	10	584.2	11	913.5	12	530.9	13	230.0	14	411.5	15	391.0	16	343.2
17	1685.3	18	931.8	19	966.5	20	615.7	21	404.3	22	524.7	23	547.1	24	576.2
25	1221.5	26	664.3	27	618.3	28	420.6	29	309.9	30	387.2	31	383.6	32	423.5
33	1456.4	34	833.7	35	811.7	36	547.0	37	392.2	38	489.2	39	517.8	40	582.2
41	1614.0	42	973.8	43	938.8	44	649.7	45	478.0	46	601.8	47	625.2	48	690.8

Appendix 6E-e 12 Inch PCCP Pavement

49	1026.8	50	768.6	51	769.2	52	553.8	53	431.4	54	529.3	55	546.9	56	552.0
57	690.0	58	499.1	59	618.1	60	438.9	61	301.4	62	377.1	63	448.3	64	544.4
65	1087.0	66	640.8	67	721.2	68	504.3	69	335.0	70	415.5	71	480.1	72	667.0
73	1146.3	74	633.0	75	713.1	76	467.7	77	293.2	78	380.9	79	419.8	80	537.1
81	614.8	82	272.2	83	310.7	84	186.8	85	103.7	86	136.2	87	128.4	88	92.8
89	213.8	90	32.0	91	31.8	92	-1.4	93	-6.4	94	-27.4	95	-57.9	96	-193.5
97	-220.9	98	-196.5	99	-342.5	100	-272.9	101	-105.4	102	-276.6	103	-295.9	104	-561.6

ITERATION NO. (IC) = 13 DIFFERENCE IN DEFLECTION (DF) = .00000025

SUM OF APPLIED FORCES (FOSUM)= 44448.1 SUM OF TOTAL REACTIONS (SUBSUM)= 44393.5

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1535E-01	2	.1494E-01	3	.1427E-01	4	.1349E-01	5	.1289E-01	6	.1220E-01	7	.1104E-01	8	.9718E-02
9	.3112E-01	10	.3030E-01	11	.2886E-01	12	.2721E-01	13	.2598E-01	14	.2458E-01	15	.2229E-01	16	.1976E-01
17	.4786E-01	18	.4593E-01	19	.4298E-01	20	.4037E-01	21	.3869E-01	22	.3668E-01	23	.3305E-01	24	.2902E-01
25	.5354E-01	26	.5117E-01	27	.4764E-01	28	.4478E-01	29	.4305E-01	30	.4090E-01	31	.3676E-01	32	.3221E-01
33	.5793E-01	34	.5541E-01	35	.5166E-01	36	.4864E-01	37	.4679E-01	38	.4451E-01	39	.4015E-01	40	.3522E-01
41	.6181E-01	42	.5911E-01	43	.5512E-01	44	.5207E-01	45	.5028E-01	46	.4796E-01	47	.4333E-01	48	.3810E-01
49	.6511E-01	50	.6223E-01	51	.5792E-01	52	.5493E-01	53	.5334E-01	54	.5107E-01	55	.4611E-01	56	.4067E-01
57	.5913E-01	58	.5818E-01	59	.5598E-01	60	.5320E-01	61	.5112E-01	62	.4873E-01	63	.4476E-01	64	.4057E-01
65	.5088E-01	66	.5017E-01	67	.4853E-01	68	.4626E-01	69	.4447E-01	70	.4238E-01	71	.3892E-01	72	.3514E-01
73	.3969E-01	74	.3931E-01	75	.3829E-01	76	.3668E-01	77	.3530E-01	78	.3366E-01	79	.3089E-01	80	.2775E-01
81	.2571E-01	82	.2560E-01	83	.2513E-01	84	.2422E-01	85	.2339E-01	86	.2235E-01	87	.2055E-01	88	.1845E-01
89	.1690E-01	90	.1684E-01	91	.1656E-01	92	.1602E-01	93	.1552E-01	94	.1489E-01	95	.1379E-01	96	.1250E-01
97	.8960E-02	98	.8833E-02	99	.8620E-02	100	.8343E-02	101	.8119E-02	102	.7861E-02	103	.7412E-02	104	.6888E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1535E-01	2	.1494E-01	3	.1427E-01	4	.1349E-01	5	.1289E-01	6	.1220E-01	7	.1104E-01	8	.9717E-02
9	.3112E-01	10	.3030E-01	11	.2886E-01	12	.2721E-01	13	.2598E-01	14	.2458E-01	15	.2229E-01	16	.1976E-01
17	.4786E-01	18	.4593E-01	19	.4298E-01	20	.4037E-01	21	.3869E-01	22	.3668E-01	23	.3305E-01	24	.2902E-01
25	.5354E-01	26	.5117E-01	27	.4764E-01	28	.4478E-01	29	.4305E-01	30	.4090E-01	31	.3676E-01	32	.3221E-01
33	.5793E-01	34	.5541E-01	35	.5166E-01	36	.4864E-01	37	.4679E-01	38	.4451E-01	39	.4015E-01	40	.3522E-01
41	.6181E-01	42	.5911E-01	43	.5512E-01	44	.5207E-01	45	.5028E-01	46	.4796E-01	47	.4333E-01	48	.3810E-01
49	.6212E-01	50	.6020E-01	51	.5695E-01	52	.5407E-01	53	.5223E-01	54	.4990E-01	55	.4544E-01	56	.4062E-01
57	.6212E-01	58	.6020E-01	59	.5695E-01	60	.5407E-01	61	.5223E-01	62	.4990E-01	63	.4544E-01	64	.4062E-01
65	.5088E-01	66	.5017E-01	67	.4853E-01	68	.4626E-01	69	.4447E-01	70	.4238E-01	71	.3892E-01	72	.3514E-01
73	.3969E-01	74	.3931E-01	75	.3829E-01	76	.3668E-01	77	.3530E-01	78	.3366E-01	79	.3089E-01	80	.2775E-01
81	.2571E-01	82	.2560E-01	83	.2513E-01	84	.2422E-01	85	.2339E-01	86	.2235E-01	87	.2055E-01	88	.1845E-01
89	.1690E-01	90	.1684E-01	91	.1656E-01	92	.1602E-01	93	.1552E-01	94	.1489E-01	95	.1379E-01	96	.1250E-01

Appendix 6E-e 12 Inch PCCP Pavement

97 .8960E-02 98 .8832E-02 99 .8620E-02 100 .8343E-02 101 .8119E-02 102 .7861E-02 103 .7412E-02 104 .6888E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	198.5	2	-129.7	3	-195.6	4	-213.2	5	-84.7	6	-250.5	7	-293.7	8	-665.2
9	1638.7	10	584.3	11	913.5	12	530.9	13	230.0	14	411.5	15	391.0	16	343.2
17	1685.3	18	931.8	19	966.5	20	615.7	21	404.3	22	524.7	23	547.1	24	576.2
25	1221.5	26	664.3	27	618.3	28	420.6	29	309.9	30	387.2	31	383.6	32	423.5
33	1456.4	34	833.7	35	811.7	36	547.0	37	392.2	38	489.2	39	517.8	40	582.2
41	1614.0	42	973.8	43	938.8	44	649.7	45	478.0	46	601.8	47	625.2	48	690.8
49	1026.8	50	768.6	51	769.2	52	553.8	53	431.4	54	529.3	55	546.9	56	552.0
57	690.0	58	499.1	59	618.1	60	438.9	61	301.4	62	377.1	63	448.3	64	544.4
65	1087.0	66	640.8	67	721.2	68	504.3	69	335.0	70	415.5	71	480.1	72	667.0
73	1146.3	74	633.0	75	713.1	76	467.7	77	293.2	78	380.9	79	419.8	80	537.1
81	614.9	82	272.2	83	310.7	84	186.8	85	103.7	86	136.2	87	128.4	88	92.8
89	213.8	90	32.0	91	31.8	92	-1.4	93	-6.4	94	-27.4	95	-57.9	96	-193.5
97	-220.9	98	-196.5	99	-342.5	100	-272.9	101	-105.4	102	-276.6	103	-295.9	104	-561.6

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1886.704	.000	50	-3275.988	.000	51	-1911.059	.000	52	-1396.402	.000
53	-1396.453	.000	54	-1807.246	.000	55	-1222.949	.000	56	-48.001	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2830.056	50	-1917.651	51	-917.308	52	-817.406	53	-1047.339	54	-1112.151
55	-638.060	56	-50.088								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4420.264	-3603.332	50	-2995.180	-2441.625	51	-1432.743	-1167.951	52	-1276.707	-1040.752
53	-1635.839	-1333.511	54	-1737.069	-1416.032	55	-996.586	-812.402	56	-78.232	-63.773

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.82694	2	-.21090	3	-.26078	4	-.34662	5	-.17653	6	-.42821	7	-.42560	8	-1.92807
9	3.72441	10	.51818	11	.66434	12	.47083	13	.26133	14	.38370	15	.30911	16	.54267
17	6.19597	18	1.33694	19	1.13708	20	.88330	21	.74321	22	.79135	23	.69964	24	1.47365
25	8.48273	26	1.80017	27	1.37389	28	1.13990	29	1.07614	30	1.10316	31	.92661	32	2.04597
33	10.11397	34	2.25935	35	1.80388	36	1.48249	37	1.36181	38	1.39367	39	1.25062	40	2.81277
41	11.86739	42	2.79430	43	2.20884	44	1.86441	45	1.75734	46	1.81526	47	1.59891	48	3.53353
49	16.04438	50	4.68682	51	3.84593	52	3.37710	53	3.36999	54	3.39311	55	2.97207	56	5.99991
57	10.78101	58	3.04309	59	3.09055	60	2.67611	61	2.35454	62	2.41717	63	2.43641	64	5.91731
65	6.79389	66	1.56296	67	1.44250	68	1.22995	69	1.04676	70	1.06544	71	1.04367	72	2.89994
73	4.47772	74	.96493	75	.89133	76	.71301	77	.57270	78	.61037	79	.57035	80	1.45956

Appendix 6E-e 12 Inch PCCP Pavement

81	1.92141	82	.33195	83	.31067	84	.22783	85	.16205	86	.17466	87	.13959	88	.20175
89	.53450	90	.03121	91	.02543	92	-.00136	93	-.00800	94	-.02812	95	-.05034	96	-.33648
97	-.92047	98	-.31958	99	-.45668	100	-.44366	101	-.21950	102	-.47287	103	-.42881	104	-1.62774

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2600E-04	.2456E-03	2	.2569E-04	.2388E-03	3	.2816E-04	.2284E-03	4	.3489E-04	.2156E-03
5	.4020E-04	.2060E-03	6	.4623E-04	.1950E-03	7	.5478E-04	.1780E-03	8	.5891E-04	.1586E-03
9	.4898E-04	.3057E-03	10	.5394E-04	.2914E-03	11	.6119E-04	.2697E-03	12	.7197E-04	.2519E-03
13	.8204E-04	.2412E-03	14	.9253E-04	.2284E-03	15	.1059E-03	.2052E-03	16	.1127E-03	.1801E-03
17	.1219E-03	.3350E-03	18	.1209E-03	.3102E-03	19	.1113E-03	.2739E-03	20	.1010E-03	.2571E-03
21	.1127E-03	.2528E-03	22	.1400E-03	.2433E-03	23	.1707E-03	.2135E-03	24	.1772E-03	.1827E-03
25	.1516E-03	.2801E-03	26	.1469E-03	.2637E-03	27	.1286E-03	.2418E-03	28	.1055E-03	.2301E-03
29	.1169E-03	.2252E-03	30	.1552E-03	.2173E-03	31	.1943E-03	.1971E-03	32	.1994E-03	.1720E-03
33	.1591E-03	.2227E-03	34	.1571E-03	.2153E-03	35	.1361E-03	.2060E-03	36	.1114E-03	.2006E-03
37	.1248E-03	.1973E-03	38	.1638E-03	.1921E-03	39	.2080E-03	.1807E-03	40	.2170E-03	.1626E-03
41	.1688E-03	.2090E-03	42	.1684E-03	.1982E-03	43	.1422E-03	.1810E-03	44	.1085E-03	.1827E-03
45	.1229E-03	.1908E-03	46	.1704E-03	.1922E-03	47	.2215E-03	.1744E-03	48	.2299E-03	.1599E-03
49	.1798E-03	.2049E-03	50	.1815E-03	.1929E-03	51	.1479E-03	.1697E-03	52	.9924E-04	.1762E-03
53	.1126E-03	.1930E-03	54	.1765E-03	.1988E-03	55	.2345E-03	.1738E-03	56	.2381E-03	.1609E-03
57	.5478E-04	-.5228E-03	58	.7013E-04	-.5081E-03	59	.1005E-03	-.4712E-03	60	.1221E-03	-.4393E-03
61	.1394E-03	-.4215E-03	62	.1605E-03	-.4019E-03	63	.1794E-03	-.3693E-03	64	.1848E-03	-.3439E-03
65	.3933E-04	-.5019E-03	66	.5162E-04	-.4867E-03	67	.7875E-04	-.4550E-03	68	.1033E-03	-.4247E-03
69	.1210E-03	-.4065E-03	70	.1395E-03	-.3872E-03	71	.1593E-03	-.3570E-03	72	.1685E-03	-.3307E-03
73	.1862E-04	-.4237E-03	74	.2978E-04	-.4134E-03	75	.5234E-04	-.3929E-03	76	.7740E-04	-.3692E-03
77	.9425E-04	-.3530E-03	78	.1105E-03	-.3355E-03	79	.1297E-03	-.3083E-03	80	.1420E-03	-.2813E-03
81	.2735E-05	-.2790E-03	82	.1128E-04	-.2752E-03	83	.2707E-04	-.2669E-03	84	.4574E-04	-.2541E-03
85	.5843E-04	-.2434E-03	86	.7063E-04	-.2308E-03	87	.8558E-04	-.2097E-03	88	.9589E-04	-.1863E-03
89	.1364E-05	-.1716E-03	90	.6459E-05	-.1717E-03	91	.1597E-04	-.1692E-03	92	.2738E-04	-.1629E-03
93	.3534E-04	-.1566E-03	94	.4308E-04	-.1486E-03	95	.5251E-04	-.1346E-03	96	.5864E-04	-.1184E-03
97	.7974E-05	-.1133E-03	98	.7945E-05	-.1144E-03	99	.9478E-05	-.1138E-03	100	.1289E-04	-.1104E-03
101	.1500E-04	-.1066E-03	102	.1745E-04	-.1012E-03	103	.2148E-04	-.9170E-04	104	.2358E-04	-.7953E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.185248E+02	.000000E+00	.000000E+00	.000000E+00	.185248E+02	.926241E+01
25	1	.137137E+03	.000000E+00	.000000E+00	.000000E+00	.137137E+03	.685684E+02
29	1	.696789E+02	.540764E+02	-.735919E+01	.511530E+02	.726023E+02	.107246E+02
33	1	.195911E+02	.000000E+00	.000000E+00	.000000E+00	.195911E+02	.979556E+01
41	1	.128031E+02	.000000E+00	.000000E+00	.000000E+00	.128031E+02	.640154E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.925302E+01	-.185120E+02	-.144549E+02	.237079E+02	.190814E+02

Appendix 6E-e 12 Inch PCCP Pavement

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51	1	.000000E+00	-.736172E+02	-.781216E+01	-.744370E+02	.819885E+00	.376285E+02
52	1	.000000E+00	-.297394E+02	.158025E+02	-.365682E+02	.682885E+01	.216985E+02
53	1	.000000E+00	.715924E+02	.175998E+02	-.409264E+01	.756851E+02	.398888E+02
54	1	.000000E+00	.125453E+03	-.827590E+01	-.543591E+00	.125997E+03	.632701E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 137.13670 AND OCCURS AT NODE 25

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      12 inch PCCP Pavement with 100K load Single Axle
*
*****
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TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
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Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	170.53200	180.00000	.00000	6.52030	90.00000
1	170.53200	180.00000	8.00000	14.52030	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000



Appendix 6E-e 12 Inch PCCP Pavement

45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.18350	1.00000	-1.00000	-.18496	90.00000
36	-.18350	1.00000	.00000	.81504	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0

Appendix 6E-e 12 Inch PCCP Pavement

81 0 82 0 83 0 84 0 85 0 86 0 87 0 88 0 89 0 90 0  
 91 0 92 0 93 0 94 0 95 0 96 0 97 0 98 0 99 0 100 0  
 101 0 102 0 103 0 104 0

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .02618722

ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00355953

ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00038388

ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004532

ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000539

SUM OF APPLIED FORCES (FOSUM)= 11112.2 SUM OF TOTAL REACTIONS (SUBSUM)= 11096.5

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3592E-02	2	.3209E-02	3	.2660E-02	4	.2177E-02	5	.1893E-02	6	.1620E-02	7	.1219E-02	8	.7953E-03
9	.7694E-02	10	.7003E-02	11	.5903E-02	12	.4848E-02	13	.4205E-02	14	.3583E-02	15	.2711E-02	16	.1844E-02
17	.1409E-01	18	.1267E-01	19	.1047E-01	20	.8427E-02	21	.7241E-02	22	.6144E-02	23	.4673E-02	24	.3248E-02
25	.1749E-01	26	.1563E-01	27	.1276E-01	28	.1016E-01	29	.8704E-02	30	.7384E-02	31	.5657E-02	32	.4014E-02
33	.2157E-01	34	.1911E-01	35	.1536E-01	36	.1211E-01	37	.1035E-01	38	.8787E-02	39	.6800E-02	40	.4950E-02
41	.2613E-01	42	.2295E-01	43	.1816E-01	44	.1420E-01	45	.1211E-01	46	.1031E-01	47	.8078E-02	48	.6050E-02
49	.3018E-01	50	.2642E-01	51	.2068E-01	52	.1608E-01	53	.1372E-01	54	.1172E-01	55	.9274E-02	56	.7124E-02
57	.2543E-01	58	.2344E-01	59	.1979E-01	60	.1602E-01	61	.1380E-01	62	.1183E-01	63	.9363E-02	64	.7204E-02
65	.2159E-01	66	.1990E-01	67	.1696E-01	68	.1390E-01	69	.1206E-01	70	.1036E-01	71	.8173E-02	72	.6170E-02
73	.1641E-01	74	.1519E-01	75	.1311E-01	76	.1094E-01	77	.9573E-02	78	.8267E-02	79	.6496E-02	80	.4791E-02
81	.1010E-01	82	.9412E-02	83	.8256E-02	84	.7039E-02	85	.6243E-02	86	.5442E-02	87	.4284E-02	88	.3109E-02
89	.6278E-02	90	.5873E-02	91	.5195E-02	92	.4485E-02	93	.4014E-02	94	.3529E-02	95	.2806E-02	96	.2056E-02
97	.3064E-02	98	.2817E-02	99	.2457E-02	100	.2124E-02	101	.1916E-02	102	.1705E-02	103	.1380E-02	104	.1025E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3592E-02	2	.3209E-02	3	.2660E-02	4	.2177E-02	5	.1893E-02	6	.1620E-02	7	.1219E-02	8	.7953E-03
9	.7694E-02	10	.7003E-02	11	.5903E-02	12	.4848E-02	13	.4205E-02	14	.3583E-02	15	.2711E-02	16	.1844E-02
17	.1409E-01	18	.1267E-01	19	.1047E-01	20	.8427E-02	21	.7241E-02	22	.6144E-02	23	.4673E-02	24	.3248E-02
25	.1749E-01	26	.1563E-01	27	.1276E-01	28	.1016E-01	29	.8704E-02	30	.7384E-02	31	.5657E-02	32	.4014E-02
33	.2157E-01	34	.1911E-01	35	.1536E-01	36	.1211E-01	37	.1035E-01	38	.8787E-02	39	.6800E-02	40	.4950E-02
41	.2613E-01	42	.2295E-01	43	.1816E-01	44	.1420E-01	45	.1211E-01	46	.1031E-01	47	.8078E-02	48	.6050E-02

Appendix 6E-e 12 Inch PCCP Pavement

49	.2781E-01	50	.2493E-01	51	.2023E-01	52	.1605E-01	53	.1376E-01	54	.1177E-01	55	.9318E-02	56	.7164E-02
57	.2781E-01	58	.2493E-01	59	.2023E-01	60	.1605E-01	61	.1376E-01	62	.1177E-01	63	.9318E-02	64	.7164E-02
65	.2159E-01	66	.1990E-01	67	.1696E-01	68	.1390E-01	69	.1206E-01	70	.1036E-01	71	.8173E-02	72	.6170E-02
73	.1641E-01	74	.1519E-01	75	.1311E-01	76	.1094E-01	77	.9573E-02	78	.8267E-02	79	.6496E-02	80	.4791E-02
81	.1010E-01	82	.9412E-02	83	.8256E-02	84	.7039E-02	85	.6243E-02	86	.5442E-02	87	.4284E-02	88	.3109E-02
89	.6278E-02	90	.5873E-02	91	.5195E-02	92	.4485E-02	93	.4014E-02	94	.3529E-02	95	.2806E-02	96	.2056E-02
97	.3064E-02	98	.2817E-02	99	.2457E-02	100	.2124E-02	101	.1916E-02	102	.1705E-02	103	.1380E-02	104	.1025E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	77.1	2	-65.5	3	-109.2	4	-113.1	5	-43.5	6	-121.8	7	-131.8	8	-314.0
9	418.5	10	71.2	11	82.7	12	-4.7	13	-11.0	14	-44.6	15	-71.6	16	-265.8
17	504.9	18	204.0	19	149.7	20	51.3	21	15.9	22	3.2	23	-26.3	24	-130.8
25	437.6	26	190.9	27	136.6	28	58.0	29	26.6	30	20.6	31	5.9	32	-51.8
33	655.0	34	314.0	35	234.0	36	104.2	37	52.0	38	47.7	39	31.8	40	-26.2
41	898.8	42	477.3	43	347.6	44	158.7	45	82.4	46	82.0	47	68.3	48	23.4
49	649.1	50	449.2	51	351.2	52	175.1	53	100.6	54	104.5	55	101.6	56	79.0
57	381.3	58	251.1	59	281.5	60	170.7	61	105.3	62	111.4	63	108.1	64	84.8
65	597.0	66	303.4	67	299.1	68	174.4	69	98.3	70	101.9	71	87.1	72	37.8
73	672.4	74	317.9	75	294.3	76	146.5	77	72.1	78	72.1	79	46.4	80	-51.3
81	406.7	82	146.8	83	132.1	84	51.7	85	18.7	86	9.8	87	-17.8	88	-147.0
89	203.2	90	34.4	91	26.5	92	-8.5	93	-10.3	94	-30.7	95	-53.4	96	-189.2
97	18.3	98	-60.1	99	-101.5	100	-95.5	101	-36.5	102	-101.8	103	-110.7	104	-262.7

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000065

SUM OF APPLIED FORCES (FOSUM)= 11112.2 SUM OF TOTAL REACTIONS (SUBSUM)= 11097.3

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3592E-02	2	.3210E-02	3	.2660E-02	4	.2177E-02	5	.1894E-02	6	.1621E-02	7	.1220E-02	8	.7957E-03
9	.7694E-02	10	.7003E-02	11	.5904E-02	12	.4848E-02	13	.4205E-02	14	.3583E-02	15	.2712E-02	16	.1844E-02
17	.1409E-01	18	.1267E-01	19	.1047E-01	20	.8427E-02	21	.7242E-02	22	.6144E-02	23	.4673E-02	24	.3248E-02
25	.1749E-01	26	.1563E-01	27	.1276E-01	28	.1016E-01	29	.8705E-02	30	.7384E-02	31	.5657E-02	32	.4014E-02
33	.2158E-01	34	.1911E-01	35	.1536E-01	36	.1211E-01	37	.1035E-01	38	.8788E-02	39	.6801E-02	40	.4950E-02
41	.2613E-01	42	.2295E-01	43	.1816E-01	44	.1420E-01	45	.1211E-01	46	.1032E-01	47	.8079E-02	48	.6050E-02
49	.3018E-01	50	.2642E-01	51	.2068E-01	52	.1608E-01	53	.1372E-01	54	.1172E-01	55	.9275E-02	56	.7124E-02
57	.2543E-01	58	.2344E-01	59	.1979E-01	60	.1602E-01	61	.1380E-01	62	.1183E-01	63	.9363E-02	64	.7205E-02
65	.2159E-01	66	.1990E-01	67	.1696E-01	68	.1390E-01	69	.1206E-01	70	.1036E-01	71	.8173E-02	72	.6171E-02
73	.1641E-01	74	.1519E-01	75	.1311E-01	76	.1094E-01	77	.9573E-02	78	.8268E-02	79	.6497E-02	80	.4792E-02
81	.1010E-01	82	.9412E-02	83	.8257E-02	84	.7039E-02	85	.6244E-02	86	.5442E-02	87	.4285E-02	88	.3109E-02
89	.6279E-02	90	.5873E-02	91	.5196E-02	92	.4485E-02	93	.4015E-02	94	.3530E-02	95	.2807E-02	96	.2057E-02

Appendix 6E-e 12 Inch PCCP Pavement

97 .3065E-02 98 .2818E-02 99 .2457E-02 100 .2124E-02 101 .1916E-02 102 .1706E-02 103 .1381E-02 104 .1026E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3592E-02	2	.3210E-02	3	.2660E-02	4	.2177E-02	5	.1894E-02	6	.1621E-02	7	.1220E-02	8	.7956E-03
9	.7694E-02	10	.7003E-02	11	.5904E-02	12	.4848E-02	13	.4205E-02	14	.3583E-02	15	.2712E-02	16	.1844E-02
17	.1409E-01	18	.1267E-01	19	.1047E-01	20	.8427E-02	21	.7242E-02	22	.6144E-02	23	.4673E-02	24	.3248E-02
25	.1749E-01	26	.1563E-01	27	.1276E-01	28	.1016E-01	29	.8705E-02	30	.7384E-02	31	.5657E-02	32	.4014E-02
33	.2158E-01	34	.1911E-01	35	.1536E-01	36	.1211E-01	37	.1035E-01	38	.8788E-02	39	.6801E-02	40	.4950E-02
41	.2613E-01	42	.2295E-01	43	.1816E-01	44	.1420E-01	45	.1211E-01	46	.1032E-01	47	.8079E-02	48	.6050E-02
49	.2781E-01	50	.2493E-01	51	.2023E-01	52	.1605E-01	53	.1376E-01	54	.1177E-01	55	.9319E-02	56	.7165E-02
57	.2781E-01	58	.2493E-01	59	.2023E-01	60	.1605E-01	61	.1376E-01	62	.1177E-01	63	.9319E-02	64	.7165E-02
65	.2159E-01	66	.1990E-01	67	.1696E-01	68	.1390E-01	69	.1206E-01	70	.1036E-01	71	.8173E-02	72	.6171E-02
73	.1641E-01	74	.1519E-01	75	.1311E-01	76	.1094E-01	77	.9573E-02	78	.8268E-02	79	.6497E-02	80	.4792E-02
81	.1010E-01	82	.9412E-02	83	.8257E-02	84	.7039E-02	85	.6244E-02	86	.5442E-02	87	.4285E-02	88	.3109E-02
89	.6279E-02	90	.5873E-02	91	.5196E-02	92	.4485E-02	93	.4015E-02	94	.3530E-02	95	.2807E-02	96	.2057E-02
97	.3065E-02	98	.2818E-02	99	.2457E-02	100	.2124E-02	101	.1916E-02	102	.1706E-02	103	.1381E-02	104	.1026E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	77.2	2	-65.5	3	-109.2	4	-113.1	5	-43.5	6	-121.8	7	-131.8	8	-314.0
9	418.5	10	71.2	11	82.7	12	-4.7	13	-11.0	14	-44.6	15	-71.6	16	-265.8
17	504.9	18	204.1	19	149.7	20	51.3	21	15.9	22	3.2	23	-26.3	24	-130.7
25	437.6	26	190.9	27	136.6	28	58.0	29	26.6	30	20.6	31	5.9	32	-51.8
33	655.0	34	314.0	35	234.0	36	104.2	37	52.0	38	47.7	39	31.8	40	-26.2
41	898.8	42	477.3	43	347.6	44	158.7	45	82.5	46	82.0	47	68.4	48	23.4
49	649.1	50	449.2	51	351.2	52	175.1	53	100.6	54	104.5	55	101.6	56	79.0
57	381.3	58	251.1	59	281.5	60	170.7	61	105.3	62	111.4	63	108.1	64	84.8
65	597.0	66	303.4	67	299.1	68	174.4	69	98.3	70	101.9	71	87.1	72	37.8
73	672.4	74	317.9	75	294.3	76	146.5	77	72.1	78	72.1	79	46.4	80	-51.3
81	406.8	82	146.8	83	132.1	84	51.7	85	18.7	86	9.8	87	-17.8	88	-147.0
89	203.2	90	34.5	91	26.5	92	-8.5	93	-10.3	94	-30.6	95	-53.4	96	-189.2
97	18.3	98	-60.1	99	-101.5	100	-95.5	101	-36.5	102	-101.8	103	-110.7	104	-262.7

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1500.085	.000	50	-2407.528	.000	51	-880.859	.000	52	-54.180	.000
53	50.704	.000	54	82.350	.000	55	80.370	.000	56	36.600	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2250.127	50	-1409.285	51	-422.812	52	-31.715	53	38.028	54	50.677
55	41.932	56	38.191								

Appendix 6E-e 12 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3514.473	-2864.945	50	-2201.162	-1794.354	51	-660.391	-538.340	52	-49.536	-40.381
53	59.396	48.419	54	79.153	64.524	55	65.494	53.390	56	59.651	48.627

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.32149	2	-.10650	3	-.14556	4	-.18395	5	-.09064	6	-.20823	7	-.19100	8	-.91004
9	.95110	10	.06312	11	.06015	12	-.00415	13	-.01247	14	-.04154	15	-.05660	16	-.42020
17	1.85629	18	.29276	19	.17610	20	.07359	21	.02916	22	.00483	23	-.03366	24	-.33437
25	3.03890	26	.51725	27	.30354	28	.15729	29	.09242	30	.05874	31	.01426	32	-.25016
33	4.54841	34	.85101	35	.52010	36	.28252	37	.18040	38	.13591	39	.07676	40	-.12671
41	6.60913	42	1.36949	43	.81791	44	.45551	45	.30313	46	.24741	47	.17482	48	.11966
49	10.14231	50	2.73926	51	1.75581	52	1.06791	53	.78560	54	.66965	55	.55209	56	.85879
57	5.95749	58	1.53128	59	1.40764	60	1.04072	61	.82247	62	.71412	63	.58730	64	.92177
65	3.73142	66	.73997	67	.59813	68	.42544	69	.30722	70	.26124	71	.18938	72	.16450
73	2.62646	74	.48460	75	.36790	76	.22330	77	.14076	78	.11554	79	.06308	80	-.13940
81	1.27114	82	.17903	83	.13214	84	.06309	85	.02922	86	.01257	87	-.01934	88	-.31961
89	.50804	90	.03361	91	.02123	92	-.00833	93	-.01292	94	-.03143	95	-.04639	96	-.32908
97	.07630	98	-.09767	99	-.13537	100	-.15526	101	-.07606	102	-.17398	103	-.16041	104	-.76138

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2427E-04	.5887E-04	2	.2332E-04	.5385E-04	3	.2062E-04	.4667E-04	4	.1823E-04	.3900E-04
5	.1726E-04	.3394E-04	6	.1706E-04	.2887E-04	7	.1796E-04	.2189E-04	8	.1871E-04	.1480E-04
9	.4210E-04	.9273E-04	10	.4396E-04	.8325E-04	11	.4342E-04	.6887E-04	12	.4095E-04	.5536E-04
13	.3945E-04	.4742E-04	14	.3834E-04	.4006E-04	15	.3765E-04	.3035E-04	16	.3788E-04	.2117E-04
17	.8689E-04	.1686E-03	18	.8937E-04	.1491E-03	19	.8582E-04	.1172E-03	20	.7708E-04	.8993E-04
21	.7117E-04	.7581E-04	22	.6629E-04	.6406E-04	23	.6230E-04	.5012E-04	24	.6219E-04	.3818E-04
25	.1148E-03	.2088E-03	26	.1173E-03	.1795E-03	27	.1106E-03	.1367E-03	28	.9609E-04	.1028E-03
29	.8658E-04	.8655E-04	30	.7886E-04	.7365E-04	31	.7231E-04	.5919E-04	32	.7142E-04	.4721E-04
33	.1531E-03	.2433E-03	34	.1543E-03	.2059E-03	35	.1419E-03	.1517E-03	36	.1178E-03	.1128E-03
37	.1034E-03	.9531E-04	38	.9199E-04	.8193E-04	39	.8212E-04	.6767E-04	40	.8004E-04	.5679E-04
41	.1991E-03	.2555E-03	42	.1985E-03	.2169E-03	43	.1779E-03	.1578E-03	44	.1404E-03	.1180E-03
45	.1205E-03	.1004E-03	46	.1051E-03	.8717E-04	47	.9105E-04	.7373E-04	48	.8702E-04	.6503E-04
49	.2350E-03	.2526E-03	50	.2366E-03	.2168E-03	51	.2101E-03	.1555E-03	52	.1609E-03	.1170E-03
53	.1355E-03	.9997E-04	54	.1161E-03	.8737E-04	55	.9801E-04	.7494E-04	56	.9166E-04	.6812E-04
57	.1203E-03	-.2441E-03	58	.1334E-03	-.2257E-03	59	.1522E-03	-.1786E-03	60	.1452E-03	-.1325E-03
61	.1312E-03	-.1092E-03	62	.1161E-03	-.9145E-04	63	.9888E-04	-.7448E-04	64	.9187E-04	-.6562E-04
65	.1022E-03	-.2334E-03	66	.1099E-03	-.2138E-03	67	.1227E-03	-.1721E-03	68	.1194E-03	-.1303E-03
69	.1110E-03	-.1082E-03	70	.1012E-03	-.9094E-04	71	.8978E-04	-.7352E-04	72	.8591E-04	-.6252E-04
73	.7425E-04	-.1938E-03	74	.7928E-04	-.1773E-03	75	.8610E-04	-.1468E-03	76	.8655E-04	-.1152E-03

Appendix 6E-e 12 Inch PCCP Pavement

77	.8360E-04	-.9726E-04	78	.7957E-04	-.8216E-04	79	.7489E-04	-.6515E-04	80	.7419E-04	-.5193E-04
81	.4124E-04	-.1237E-03	82	.4447E-04	-.1136E-03	83	.4773E-04	-.9689E-04	84	.4945E-04	-.7946E-04
85	.4995E-04	-.6867E-04	86	.5017E-04	-.5858E-04	87	.5060E-04	-.4536E-04	88	.5168E-04	-.3325E-04
89	.2433E-04	-.7206E-04	90	.2619E-04	-.6748E-04	91	.2784E-04	-.5942E-04	92	.2899E-04	-.5046E-04
93	.2984E-04	-.4447E-04	94	.3077E-04	-.3841E-04	95	.3208E-04	-.2979E-04	96	.3303E-04	-.2132E-04
97	.1563E-04	-.4559E-04	98	.1508E-04	-.4305E-04	99	.1379E-04	-.3885E-04	100	.1305E-04	-.3378E-04
101	.1298E-04	-.3014E-04	102	.1346E-04	-.2624E-04	103	.1487E-04	-.2049E-04	104	.1576E-04	-.1422E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX.SHEAR
17	1	-.505857E+02	.000000E+00	.000000E+00	-.505857E+02	.000000E+00	.252929E+02
25	1	-.510784E+02	.000000E+00	.000000E+00	-.510784E+02	.000000E+00	.255392E+02
29	1	-.159068E+02	-.157515E+02	-.188336E+02	-.346629E+02	.300462E+01	.188338E+02
33	1	-.425773E+02	.000000E+00	.000000E+00	-.425773E+02	.000000E+00	.212886E+02
41	1	.115447E+02	.000000E+00	.000000E+00	.000000E+00	.115447E+02	.577237E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.831934E+01	-.498143E+02	-.458280E+02	.541473E+02	.499876E+02
51	1	.000000E+00	-.591213E+02	-.423615E+02	-.812165E+02	.220952E+02	.516559E+02
52	1	.000000E+00	-.408490E+02	-.262092E+02	-.536523E+02	.128033E+02	.332278E+02
53	1	.000000E+00	-.324614E+02	-.190450E+02	-.412536E+02	.879222E+01	.250229E+02
54	1	.000000E+00	-.245043E+02	-.139008E+02	-.307818E+02	.627749E+01	.185297E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 81.21653 AND OCCURS AT NODE 51

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
*      12 inch PCCP Pavement with 105K load
*
*****
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```
TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
```



Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	122.29900	132.00000	.00000	6.68130	90.00000
1	122.29900	132.00000	12.00000	18.68130	90.00000
1	122.29900	132.00000	84.00000	90.68130	90.00000
1	122.29900	132.00000	96.00000	102.68100	90.00000
1	170.29900	180.00000	.00000	6.68130	90.00000
1	170.29900	180.00000	12.00000	18.68130	90.00000
1	170.29900	180.00000	84.00000	90.68130	90.00000
1	170.29900	180.00000	96.00000	102.68100	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17      25      29      33      41      49      50      51      52      53      54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1    1    56    1    42            2    57    104    43    77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1    49    57    56    64    36    43    42    49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.36656	1.00000	-1.00000	-.16484	90.00000
22	-1.00000	-.55556	-1.00000	-.16484	90.00000
15	.36656	1.00000	.50000	1.00000	90.00000
16	.36656	1.00000	-1.00000	-.78550	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.78550	90.00000
19	.36656	1.00000	-.75000	.08516	90.00000
26	-1.00000	-.55556	-.75000	.08516	90.00000
19	.36656	1.00000	.75000	1.00000	90.00000
20	.36656	1.00000	-1.00000	-.59296	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.59296	90.00000
36	-.21263	1.00000	-1.00000	-.16484	90.00000
36	-.21263	1.00000	.50000	1.00000	90.00000
37	-.21263	1.00000	-1.00000	-.78550	90.00000
40	-.21263	1.00000	-.75000	.08516	90.00000
40	-.21263	1.00000	.75000	1.00000	90.00000
41	-.21263	1.00000	-1.00000	-.59296	90.00000

Appendix 6E-e 12 Inch PCCP Pavement

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO.	EQUIVALENT SPRING CONSTANT (SPCON)
1	.395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

Appendix 6E-e 12 Inch PCCP Pavement

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0
81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .05345251  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01304272  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00151949  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00018024  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00002147

SUM OF APPLIED FORCES (FOSUM)= 46666.5      SUM OF TOTAL REACTIONS (SUBSUM)= 46605.4

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000252

SUM OF APPLIED FORCES (FOSUM)= 46666.5      SUM OF TOTAL REACTIONS (SUBSUM)= 46608.8

Appendix 6E-e 12 Inch PCCP Pavement

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1613E-01	2	.1570E-01	3	.1501E-01	4	.1419E-01	5	.1356E-01	6	.1284E-01	7	.1162E-01	8	.1023E-01
9	.3270E-01	10	.3183E-01	11	.3033E-01	12	.2860E-01	13	.2731E-01	14	.2585E-01	15	.2345E-01	16	.2079E-01
17	.5025E-01	18	.4822E-01	19	.4513E-01	20	.4241E-01	21	.4065E-01	22	.3854E-01	23	.3474E-01	24	.3051E-01
25	.5618E-01	26	.5371E-01	27	.5001E-01	28	.4702E-01	29	.4521E-01	30	.4296E-01	31	.3863E-01	32	.3386E-01
33	.6076E-01	34	.5812E-01	35	.5421E-01	36	.5105E-01	37	.4912E-01	38	.4673E-01	39	.4216E-01	40	.3700E-01
41	.6479E-01	42	.6198E-01	43	.5782E-01	44	.5463E-01	45	.5275E-01	46	.5033E-01	47	.4549E-01	48	.4002E-01
49	.6822E-01	50	.6522E-01	51	.6072E-01	52	.5760E-01	53	.5593E-01	54	.5357E-01	55	.4839E-01	56	.4270E-01
57	.6198E-01	58	.6098E-01	59	.5869E-01	60	.5579E-01	61	.5362E-01	62	.5111E-01	63	.4697E-01	64	.4258E-01
65	.5333E-01	66	.5259E-01	67	.5089E-01	68	.4851E-01	69	.4664E-01	70	.4446E-01	71	.4084E-01	72	.3688E-01
73	.4161E-01	74	.4121E-01	75	.4015E-01	76	.3847E-01	77	.3703E-01	78	.3532E-01	79	.3242E-01	80	.2913E-01
81	.2696E-01	82	.2684E-01	83	.2635E-01	84	.2541E-01	85	.2454E-01	86	.2346E-01	87	.2157E-01	88	.1937E-01
89	.1772E-01	90	.1766E-01	91	.1737E-01	92	.1681E-01	93	.1629E-01	94	.1563E-01	95	.1448E-01	96	.1313E-01
97	.9401E-02	98	.9268E-02	99	.9048E-02	100	.8758E-02	101	.8525E-02	102	.8255E-02	103	.7785E-02	104	.7237E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1613E-01	2	.1570E-01	3	.1501E-01	4	.1419E-01	5	.1356E-01	6	.1284E-01	7	.1162E-01	8	.1023E-01
9	.3270E-01	10	.3183E-01	11	.3033E-01	12	.2860E-01	13	.2731E-01	14	.2585E-01	15	.2345E-01	16	.2079E-01
17	.5025E-01	18	.4822E-01	19	.4513E-01	20	.4241E-01	21	.4065E-01	22	.3854E-01	23	.3474E-01	24	.3051E-01
25	.5618E-01	26	.5371E-01	27	.5001E-01	28	.4702E-01	29	.4521E-01	30	.4296E-01	31	.3863E-01	32	.3386E-01
33	.6076E-01	34	.5812E-01	35	.5421E-01	36	.5105E-01	37	.4912E-01	38	.4673E-01	39	.4216E-01	40	.3700E-01
41	.6479E-01	42	.6198E-01	43	.5782E-01	44	.5463E-01	45	.5275E-01	46	.5033E-01	47	.4549E-01	48	.4002E-01
49	.6510E-01	50	.6310E-01	51	.5971E-01	52	.5670E-01	53	.5478E-01	54	.5234E-01	55	.4768E-01	56	.4264E-01
57	.6510E-01	58	.6310E-01	59	.5971E-01	60	.5670E-01	61	.5478E-01	62	.5234E-01	63	.4768E-01	64	.4264E-01
65	.5333E-01	66	.5259E-01	67	.5089E-01	68	.4851E-01	69	.4664E-01	70	.4446E-01	71	.4084E-01	72	.3688E-01
73	.4161E-01	74	.4121E-01	75	.4015E-01	76	.3847E-01	77	.3703E-01	78	.3532E-01	79	.3242E-01	80	.2913E-01
81	.2696E-01	82	.2684E-01	83	.2635E-01	84	.2541E-01	85	.2454E-01	86	.2346E-01	87	.2157E-01	88	.1937E-01
89	.1772E-01	90	.1766E-01	91	.1737E-01	92	.1681E-01	93	.1629E-01	94	.1563E-01	95	.1448E-01	96	.1313E-01
97	.9401E-02	98	.9268E-02	99	.9048E-02	100	.8758E-02	101	.8525E-02	102	.8255E-02	103	.7785E-02	104	.7237E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	209.3	2	-135.4	3	-203.9	4	-222.6	5	-88.5	6	-261.8	7	-307.1	8	-695.8
9	1722.8	10	615.2	11	962.1	12	559.8	13	242.7	14	434.6	15	413.5	16	366.3
17	1769.6	18	979.5	19	1016.5	20	647.8	21	425.6	22	552.7	23	576.8	24	609.1
25	1280.9	26	697.3	27	649.5	28	442.0	29	325.6	30	407.0	31	403.8	32	446.7
33	1526.6	34	874.6	35	852.1	36	574.3	37	411.8	38	513.8	39	544.3	40	613.1
41	1690.5	42	1020.8	43	984.4	44	681.4	45	501.3	46	631.5	47	656.5	48	726.3

Appendix 6E-e 12 Inch PCCP Pavement

49	1074.2	50	804.5	51	805.6	52	580.0	53	451.6	54	554.4	55	573.3	56	579.2
57	722.2	58	522.3	59	647.0	60	459.5	61	315.6	62	394.9	63	469.7	64	570.8
65	1138.2	66	671.1	67	755.4	68	528.4	69	351.1	70	435.6	71	503.4	72	700.1
73	1200.1	74	662.9	75	747.0	76	490.2	77	307.4	78	399.4	79	440.4	80	564.4
81	643.6	82	285.0	83	325.5	84	195.8	85	108.8	86	143.0	87	134.9	88	98.4
89	223.5	90	33.4	91	33.2	92	-1.4	93	-6.7	94	-28.6	95	-60.5	96	-202.0
97	-232.0	98	-206.1	99	-359.1	100	-286.0	101	-110.5	102	-290.0	103	-310.1	104	-588.2

ITERATION NO. (IC) = 13 DIFFERENCE IN DEFLECTION (DF) = .00000035

SUM OF APPLIED FORCES (FOSUM)= 46666.5 SUM OF TOTAL REACTIONS (SUBSUM)= 46609.2

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1613E-01	2	.1570E-01	3	.1501E-01	4	.1419E-01	5	.1356E-01	6	.1284E-01	7	.1162E-01	8	.1023E-01
9	.3270E-01	10	.3183E-01	11	.3033E-01	12	.2860E-01	13	.2731E-01	14	.2585E-01	15	.2345E-01	16	.2079E-01
17	.5025E-01	18	.4822E-01	19	.4514E-01	20	.4241E-01	21	.4065E-01	22	.3854E-01	23	.3474E-01	24	.3051E-01
25	.5618E-01	26	.5371E-01	27	.5001E-01	28	.4702E-01	29	.4521E-01	30	.4296E-01	31	.3863E-01	32	.3386E-01
33	.6076E-01	34	.5812E-01	35	.5421E-01	36	.5105E-01	37	.4912E-01	38	.4673E-01	39	.4216E-01	40	.3700E-01
41	.6480E-01	42	.6198E-01	43	.5782E-01	44	.5463E-01	45	.5275E-01	46	.5033E-01	47	.4549E-01	48	.4002E-01
49	.6822E-01	50	.6522E-01	51	.6072E-01	52	.5760E-01	53	.5594E-01	54	.5357E-01	55	.4839E-01	56	.4270E-01
57	.6198E-01	58	.6098E-01	59	.5869E-01	60	.5579E-01	61	.5362E-01	62	.5111E-01	63	.4697E-01	64	.4258E-01
65	.5333E-01	66	.5259E-01	67	.5089E-01	68	.4851E-01	69	.4664E-01	70	.4446E-01	71	.4084E-01	72	.3688E-01
73	.4161E-01	74	.4121E-01	75	.4015E-01	76	.3847E-01	77	.3703E-01	78	.3532E-01	79	.3242E-01	80	.2913E-01
81	.2696E-01	82	.2684E-01	83	.2635E-01	84	.2541E-01	85	.2454E-01	86	.2346E-01	87	.2157E-01	88	.1937E-01
89	.1772E-01	90	.1766E-01	91	.1737E-01	92	.1681E-01	93	.1629E-01	94	.1563E-01	95	.1448E-01	96	.1313E-01
97	.9401E-02	98	.9269E-02	99	.9048E-02	100	.8758E-02	101	.8525E-02	102	.8255E-02	103	.7785E-02	104	.7237E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1613E-01	2	.1570E-01	3	.1501E-01	4	.1419E-01	5	.1356E-01	6	.1284E-01	7	.1162E-01	8	.1023E-01
9	.3270E-01	10	.3183E-01	11	.3033E-01	12	.2860E-01	13	.2731E-01	14	.2585E-01	15	.2345E-01	16	.2079E-01
17	.5025E-01	18	.4822E-01	19	.4514E-01	20	.4241E-01	21	.4065E-01	22	.3854E-01	23	.3474E-01	24	.3051E-01
25	.5618E-01	26	.5371E-01	27	.5001E-01	28	.4702E-01	29	.4521E-01	30	.4296E-01	31	.3863E-01	32	.3386E-01
33	.6076E-01	34	.5812E-01	35	.5421E-01	36	.5105E-01	37	.4912E-01	38	.4673E-01	39	.4216E-01	40	.3700E-01
41	.6480E-01	42	.6198E-01	43	.5782E-01	44	.5463E-01	45	.5275E-01	46	.5033E-01	47	.4549E-01	48	.4002E-01
49	.6510E-01	50	.6310E-01	51	.5971E-01	52	.5670E-01	53	.5478E-01	54	.5234E-01	55	.4768E-01	56	.4264E-01
57	.6510E-01	58	.6310E-01	59	.5971E-01	60	.5670E-01	61	.5478E-01	62	.5234E-01	63	.4768E-01	64	.4264E-01
65	.5333E-01	66	.5259E-01	67	.5089E-01	68	.4851E-01	69	.4664E-01	70	.4446E-01	71	.4084E-01	72	.3688E-01
73	.4161E-01	74	.4121E-01	75	.4015E-01	76	.3847E-01	77	.3703E-01	78	.3532E-01	79	.3242E-01	80	.2913E-01
81	.2696E-01	82	.2684E-01	83	.2635E-01	84	.2541E-01	85	.2454E-01	86	.2346E-01	87	.2157E-01	88	.1937E-01
89	.1772E-01	90	.1766E-01	91	.1737E-01	92	.1681E-01	93	.1629E-01	94	.1563E-01	95	.1448E-01	96	.1313E-01

Appendix 6E-e 12 Inch PCCP Pavement

97 .9401E-02 98 .9269E-02 99 .9048E-02 100 .8758E-02 101 .8525E-02 102 .8255E-02 103 .7785E-02 104 .7237E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	209.3	2	-135.4	3	-203.9	4	-222.6	5	-88.5	6	-261.8	7	-307.1	8	-695.8
9	1722.8	10	615.2	11	962.1	12	559.8	13	242.7	14	434.6	15	413.5	16	366.3
17	1769.6	18	979.6	19	1016.5	20	647.8	21	425.6	22	552.7	23	576.8	24	609.1
25	1280.9	26	697.3	27	649.5	28	442.0	29	325.6	30	407.0	31	403.8	32	446.7
33	1526.6	34	874.6	35	852.1	36	574.3	37	411.8	38	513.8	39	544.3	40	613.1
41	1690.5	42	1020.8	43	984.5	44	681.4	45	501.3	46	631.5	47	656.5	48	726.3
49	1074.2	50	804.5	51	805.6	52	580.0	53	451.7	54	554.4	55	573.3	56	579.2
57	722.2	58	522.4	59	647.0	60	459.5	61	315.6	62	394.9	63	469.7	64	570.8
65	1138.2	66	671.1	67	755.4	68	528.4	69	351.1	70	435.6	71	503.4	72	700.1
73	1200.2	74	662.9	75	747.0	76	490.2	77	307.4	78	399.4	79	440.4	80	564.4
81	643.6	82	285.0	83	325.5	84	195.8	85	108.8	86	143.0	87	134.9	88	98.4
89	223.5	90	33.4	91	33.2	92	-1.4	93	-6.7	94	-28.6	95	-60.5	96	-202.0
97	-232.0	98	-206.1	99	-359.1	100	-286.0	101	-110.4	102	-290.0	103	-310.1	104	-588.2

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1971.475	.000	50	-3428.536	.000	51	-2005.666	.000	52	-1463.559	.000
53	-1461.888	.000	54	-1893.605	.000	55	-1286.048	.000	56	-52.705	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2957.212	50	-2006.948	51	-962.719	52	-856.717	53	-1096.416	54	-1165.295
55	-670.981	56	-54.997								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4618.870	-3765.232	50	-3134.652	-2555.320	51	-1503.672	-1225.770	52	-1338.107	-1090.804
53	-1712.492	-1395.997	54	-1820.075	-1483.697	55	-1048.006	-854.318	56	-85.900	-70.024

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.87228	2	-.22018	3	-.27186	4	-.36196	5	-.18439	6	-.44756	7	-.44513	8	-2.01680
9	3.91550	10	.54561	11	.69973	12	.49651	13	.27575	14	.40525	15	.32687	16	.57917
17	6.50590	18	1.40538	19	1.19590	20	.92940	21	.78237	22	.83362	23	.73766	24	1.55793
25	8.89531	26	1.88965	27	1.44339	28	1.19771	29	1.13053	30	1.15961	31	.97527	32	2.15809
33	10.60124	34	2.37015	35	1.89350	36	1.55635	37	1.42982	38	1.46392	39	1.31474	40	2.96191
41	12.43023	42	2.92901	43	2.31636	44	1.95517	45	1.84318	46	1.90493	47	1.67893	48	3.71492
49	16.78472	50	4.90535	51	4.02786	52	3.53663	53	3.52852	54	3.55416	55	3.11583	56	6.29537
57	11.28485	58	3.18508	59	3.23508	60	2.80193	61	2.46549	62	2.53159	63	2.55253	64	6.20468
65	7.11403	66	1.63691	67	1.51088	68	1.28867	69	1.09705	70	1.11684	71	1.09432	72	3.04384
73	4.68810	74	1.01057	75	.93378	76	.74723	77	.60033	78	.64000	79	.59837	80	1.53375



Appendix 6E-e 12 Inch PCCP Pavement

81	2.01121	82	.34762	83	.32548	84	.23883	85	.16994	86	.18328	87	.14667	88	.21398
89	.55883	90	.03261	91	.02660	92	-.00138	93	-.00833	94	-.02935	95	-.05259	96	-.35128
97	-.96679	98	-.33509	99	-.47885	100	-.46510	101	-.23010	102	-.49565	103	-.44944	104	-1.70499

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2715E-04	.2581E-03	2	.2683E-04	.2509E-03	3	.2944E-04	.2400E-03	4	.3655E-04	.2267E-03
5	.4215E-04	.2165E-03	6	.4851E-04	.2051E-03	7	.5750E-04	.1872E-03	8	.6184E-04	.1669E-03
9	.5122E-04	.3209E-03	10	.5641E-04	.3059E-03	11	.6403E-04	.2832E-03	12	.7536E-04	.2645E-03
13	.8597E-04	.2533E-03	14	.9700E-04	.2400E-03	15	.1111E-03	.2156E-03	16	.1182E-03	.1894E-03
17	.1274E-03	.3504E-03	18	.1265E-03	.3245E-03	19	.1165E-03	.2868E-03	20	.1057E-03	.2692E-03
21	.1179E-03	.2647E-03	22	.1466E-03	.2549E-03	23	.1789E-03	.2237E-03	24	.1857E-03	.1915E-03
25	.1582E-03	.2924E-03	26	.1534E-03	.2754E-03	27	.1345E-03	.2527E-03	28	.1104E-03	.2405E-03
29	.1223E-03	.2355E-03	30	.1624E-03	.2272E-03	31	.2035E-03	.2062E-03	32	.2089E-03	.1800E-03
33	.1660E-03	.2322E-03	34	.1640E-03	.2245E-03	35	.1423E-03	.2149E-03	36	.1165E-03	.2094E-03
37	.1305E-03	.2060E-03	38	.1713E-03	.2006E-03	39	.2178E-03	.1887E-03	40	.2272E-03	.1698E-03
41	.1760E-03	.2172E-03	42	.1757E-03	.2061E-03	43	.1486E-03	.1885E-03	44	.1134E-03	.1902E-03
45	.1284E-03	.1987E-03	46	.1782E-03	.2002E-03	47	.2318E-03	.1819E-03	48	.2407E-03	.1668E-03
49	.1871E-03	.2124E-03	50	.1890E-03	.2003E-03	51	.1545E-03	.1765E-03	52	.1038E-03	.1833E-03
53	.1177E-03	.2007E-03	54	.1843E-03	.2070E-03	55	.2453E-03	.1812E-03	56	.2493E-03	.1678E-03
57	.5691E-04	-.5477E-03	58	.7298E-04	-.5323E-03	59	.1049E-03	-.4939E-03	60	.1275E-03	-.4606E-03
61	.1457E-03	-.4419E-03	62	.1678E-03	-.4214E-03	63	.1877E-03	-.3874E-03	64	.1933E-03	-.3609E-03
65	.4079E-04	-.5258E-03	66	.5367E-04	-.5100E-03	67	.8213E-04	-.4769E-03	68	.1079E-03	-.4452E-03
69	.1265E-03	-.4262E-03	70	.1459E-03	-.4060E-03	71	.1667E-03	-.3745E-03	72	.1764E-03	-.3470E-03
73	.1920E-04	-.4439E-03	74	.3089E-04	-.4332E-03	75	.5455E-04	-.4118E-03	76	.8084E-04	-.3871E-03
77	.9852E-04	-.3701E-03	78	.1155E-03	-.3518E-03	79	.1357E-03	-.3235E-03	80	.1486E-03	-.2952E-03
81	.2675E-05	-.2924E-03	82	.1163E-04	-.2884E-03	83	.2818E-04	-.2797E-03	84	.4777E-04	-.2664E-03
85	.6109E-04	-.2552E-03	86	.7388E-04	-.2421E-03	87	.8956E-04	-.2200E-03	88	.1004E-03	-.1955E-03
89	.1312E-05	-.1799E-03	90	.6652E-05	-.1800E-03	91	.1663E-04	-.1774E-03	92	.2859E-04	-.1708E-03
93	.3694E-04	-.1643E-03	94	.4506E-04	-.1559E-03	95	.5495E-04	-.1413E-03	96	.6139E-04	-.1243E-03
97	.8292E-05	-.1187E-03	98	.8265E-05	-.1199E-03	99	.9880E-05	-.1194E-03	100	.1346E-04	-.1158E-03
101	.1568E-04	-.1118E-03	102	.1825E-04	-.1062E-03	103	.2247E-04	-.9623E-04	104	.2467E-04	-.8348E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.206962E+02	.000000E+00	.000000E+00	.000000E+00	.206962E+02	.103481E+02
25	1	.143314E+03	.000000E+00	.000000E+00	.000000E+00	.143314E+03	.716571E+02
29	1	.731328E+02	.564690E+02	-.766333E+01	.534807E+02	.761212E+02	.113202E+02
33	1	.210460E+02	.000000E+00	.000000E+00	.000000E+00	.210460E+02	.105230E+02
41	1	.148762E+02	.000000E+00	.000000E+00	.000000E+00	.148762E+02	.743809E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.102699E+02	-.188671E+02	-.144184E+02	.246883E+02	.195534E+02

Appendix 6E-e 12 Inch PCCP Pavement

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51	1	.000000E+00	-.765070E+02	-.797404E+01	-.773293E+02	.822266E+00	.390758E+02
52	1	.000000E+00	-.310134E+02	.164140E+02	-.380872E+02	.707376E+01	.225805E+02
53	1	.000000E+00	.743434E+02	.183646E+02	-.428904E+01	.786324E+02	.414607E+02
54	1	.000000E+00	.131290E+03	-.839155E+01	-.534180E+00	.131824E+03	.661790E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 143.31420 AND OCCURS AT NODE 25

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
* 12 inch PCCP Pavement with 105K load Single Axle
*
*****
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TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
```

Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	170.29900	180.00000	.00000	6.68130	90.00000
1	170.29900	180.00000	8.00000	14.68130	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.21263	1.00000	-1.00000	-.16484	90.00000
36	-.21263	1.00000	.00000	.83516	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0

Appendix 6E-e 12 Inch PCCP Pavement

81 0 82 0 83 0 84 0 85 0 86 0 87 0 88 0 89 0 90 0  
 91 0 92 0 93 0 94 0 95 0 96 0 97 0 98 0 99 0 100 0  
 101 0 102 0 103 0 104 0

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .02742787

ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00373614

ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00040291

ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004759

ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000567

SUM OF APPLIED FORCES (FOSUM)= 11666.8 SUM OF TOTAL REACTIONS (SUBSUM)= 11650.3

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3777E-02	2	.3375E-02	3	.2798E-02	4	.2291E-02	5	.1993E-02	6	.1706E-02	7	.1285E-02	8	.8386E-03
9	.8088E-02	10	.7363E-02	11	.6209E-02	12	.5100E-02	13	.4424E-02	14	.3771E-02	15	.2855E-02	16	.1943E-02
17	.1480E-01	18	.1332E-01	19	.1100E-01	20	.8858E-02	21	.7613E-02	22	.6459E-02	23	.4914E-02	24	.3417E-02
25	.1837E-01	26	.1641E-01	27	.1340E-01	28	.1068E-01	29	.9146E-02	30	.7759E-02	31	.5945E-02	32	.4220E-02
33	.2264E-01	34	.2006E-01	35	.1613E-01	36	.1272E-01	37	.1086E-01	38	.9229E-02	39	.7143E-02	40	.5201E-02
41	.2740E-01	42	.2407E-01	43	.1906E-01	44	.1490E-01	45	.1272E-01	46	.1083E-01	47	.8482E-02	48	.6353E-02
49	.3162E-01	50	.2769E-01	51	.2169E-01	52	.1687E-01	53	.1440E-01	54	.1230E-01	55	.9734E-02	56	.7478E-02
57	.2666E-01	58	.2457E-01	59	.2075E-01	60	.1680E-01	61	.1448E-01	62	.1241E-01	63	.9827E-02	64	.7564E-02
65	.2263E-01	66	.2086E-01	67	.1779E-01	68	.1459E-01	69	.1265E-01	70	.1087E-01	71	.8579E-02	72	.6478E-02
73	.1721E-01	74	.1592E-01	75	.1375E-01	76	.1147E-01	77	.1004E-01	78	.8676E-02	79	.6820E-02	80	.5031E-02
81	.1059E-01	82	.9870E-02	83	.8660E-02	84	.7385E-02	85	.6552E-02	86	.5712E-02	87	.4498E-02	88	.3266E-02
89	.6584E-02	90	.6160E-02	91	.5450E-02	92	.4706E-02	93	.4213E-02	94	.3705E-02	95	.2947E-02	96	.2161E-02
97	.3215E-02	98	.2956E-02	99	.2579E-02	100	.2230E-02	101	.2012E-02	102	.1791E-02	103	.1451E-02	104	.1079E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3777E-02	2	.3375E-02	3	.2798E-02	4	.2291E-02	5	.1993E-02	6	.1706E-02	7	.1285E-02	8	.8386E-03
9	.8088E-02	10	.7363E-02	11	.6209E-02	12	.5100E-02	13	.4424E-02	14	.3771E-02	15	.2855E-02	16	.1943E-02
17	.1480E-01	18	.1332E-01	19	.1100E-01	20	.8858E-02	21	.7613E-02	22	.6459E-02	23	.4914E-02	24	.3417E-02
25	.1837E-01	26	.1641E-01	27	.1340E-01	28	.1068E-01	29	.9146E-02	30	.7759E-02	31	.5945E-02	32	.4220E-02
33	.2264E-01	34	.2006E-01	35	.1613E-01	36	.1272E-01	37	.1086E-01	38	.9229E-02	39	.7143E-02	40	.5201E-02
41	.2740E-01	42	.2407E-01	43	.1906E-01	44	.1490E-01	45	.1272E-01	46	.1083E-01	47	.8482E-02	48	.6353E-02



Appendix 6E-e 12 Inch PCCP Pavement

49	.2914E-01	50	.2613E-01	51	.2122E-01	52	.1684E-01	53	.1444E-01	54	.1235E-01	55	.9781E-02	56	.7521E-02
57	.2914E-01	58	.2613E-01	59	.2122E-01	60	.1684E-01	61	.1444E-01	62	.1235E-01	63	.9781E-02	64	.7521E-02
65	.2263E-01	66	.2086E-01	67	.1779E-01	68	.1459E-01	69	.1265E-01	70	.1087E-01	71	.8579E-02	72	.6478E-02
73	.1721E-01	74	.1592E-01	75	.1375E-01	76	.1147E-01	77	.1004E-01	78	.8676E-02	79	.6820E-02	80	.5031E-02
81	.1059E-01	82	.9870E-02	83	.8660E-02	84	.7385E-02	85	.6552E-02	86	.5712E-02	87	.4498E-02	88	.3266E-02
89	.6584E-02	90	.6160E-02	91	.5450E-02	92	.4706E-02	93	.4213E-02	94	.3705E-02	95	.2947E-02	96	.2161E-02
97	.3215E-02	98	.2956E-02	99	.2579E-02	100	.2230E-02	101	.2012E-02	102	.1791E-02	103	.1451E-02	104	.1079E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	81.4	2	-68.6	3	-114.3	4	-118.6	5	-45.6	6	-127.7	7	-138.2	8	-329.6
9	440.4	10	75.3	11	87.8	12	-4.3	13	-11.2	14	-46.3	15	-74.7	16	-278.4
17	530.8	18	214.9	19	158.0	20	54.4	21	17.0	22	3.7	23	-27.3	24	-136.8
25	459.7	26	200.8	27	143.9	28	61.2	29	28.1	30	21.8	31	6.4	32	-54.2
33	687.4	34	330.0	35	246.2	36	109.7	37	54.7	38	50.2	39	33.5	40	-27.4
41	942.1	42	500.9	43	365.1	44	166.8	45	86.6	46	86.1	47	71.8	48	24.6
49	679.1	50	470.5	51	368.1	52	183.7	53	105.5	54	109.6	55	106.5	56	82.8
57	399.2	58	262.9	59	294.9	60	178.8	61	110.3	62	116.8	63	113.3	64	89.0
65	625.5	66	317.9	67	313.4	68	182.9	69	103.1	70	106.9	71	91.4	72	39.8
73	704.3	74	333.1	75	308.5	76	153.6	77	75.6	78	75.7	79	48.8	80	-53.6
81	426.1	82	153.8	83	138.5	84	54.3	85	19.7	86	10.4	87	-18.6	88	-154.0
89	212.8	90	36.1	91	27.8	92	-8.9	93	-10.8	94	-32.1	95	-55.9	96	-198.3
97	19.0	98	-63.0	99	-106.5	100	-100.1	101	-38.3	102	-106.7	103	-116.0	104	-275.4

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000066

SUM OF APPLIED FORCES (FOSUM)= 11666.8 SUM OF TOTAL REACTIONS (SUBSUM)= 11651.2

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3777E-02	2	.3376E-02	3	.2798E-02	4	.2291E-02	5	.1994E-02	6	.1707E-02	7	.1285E-02	8	.8390E-03
9	.8089E-02	10	.7363E-02	11	.6209E-02	12	.5100E-02	13	.4425E-02	14	.3771E-02	15	.2855E-02	16	.1944E-02
17	.1480E-01	18	.1332E-01	19	.1100E-01	20	.8858E-02	21	.7613E-02	22	.6460E-02	23	.4915E-02	24	.3418E-02
25	.1837E-01	26	.1641E-01	27	.1340E-01	28	.1068E-01	29	.9147E-02	30	.7760E-02	31	.5946E-02	32	.4221E-02
33	.2264E-01	34	.2006E-01	35	.1613E-01	36	.1272E-01	37	.1087E-01	38	.9230E-02	39	.7144E-02	40	.5201E-02
41	.2740E-01	42	.2407E-01	43	.1906E-01	44	.1490E-01	45	.1272E-01	46	.1083E-01	47	.8483E-02	48	.6353E-02
49	.3162E-01	50	.2769E-01	51	.2169E-01	52	.1688E-01	53	.1440E-01	54	.1230E-01	55	.9735E-02	56	.7479E-02
57	.2666E-01	58	.2457E-01	59	.2075E-01	60	.1680E-01	61	.1448E-01	62	.1241E-01	63	.9828E-02	64	.7564E-02
65	.2263E-01	66	.2086E-01	67	.1779E-01	68	.1459E-01	69	.1265E-01	70	.1087E-01	71	.8579E-02	72	.6479E-02
73	.1721E-01	74	.1592E-01	75	.1375E-01	76	.1147E-01	77	.1005E-01	78	.8677E-02	79	.6820E-02	80	.5032E-02
81	.1059E-01	82	.9871E-02	83	.8661E-02	84	.7386E-02	85	.6552E-02	86	.5712E-02	87	.4499E-02	88	.3267E-02
89	.6584E-02	90	.6160E-02	91	.5451E-02	92	.4707E-02	93	.4214E-02	94	.3706E-02	95	.2948E-02	96	.2161E-02

Appendix 6E-e 12 Inch PCCP Pavement

97 .3215E-02 98 .2957E-02 99 .2579E-02 100 .2230E-02 101 .2012E-02 102 .1792E-02 103 .1451E-02 104 .1079E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3777E-02	2	.3376E-02	3	.2798E-02	4	.2291E-02	5	.1994E-02	6	.1707E-02	7	.1285E-02	8	.8390E-03
9	.8089E-02	10	.7363E-02	11	.6209E-02	12	.5100E-02	13	.4425E-02	14	.3771E-02	15	.2855E-02	16	.1944E-02
17	.1480E-01	18	.1332E-01	19	.1100E-01	20	.8858E-02	21	.7613E-02	22	.6460E-02	23	.4915E-02	24	.3418E-02
25	.1837E-01	26	.1641E-01	27	.1340E-01	28	.1068E-01	29	.9147E-02	30	.7760E-02	31	.5946E-02	32	.4221E-02
33	.2264E-01	34	.2006E-01	35	.1613E-01	36	.1272E-01	37	.1087E-01	38	.9230E-02	39	.7144E-02	40	.5201E-02
41	.2740E-01	42	.2407E-01	43	.1906E-01	44	.1490E-01	45	.1272E-01	46	.1083E-01	47	.8483E-02	48	.6353E-02
49	.2914E-01	50	.2613E-01	51	.2122E-01	52	.1684E-01	53	.1444E-01	54	.1235E-01	55	.9781E-02	56	.7521E-02
57	.2914E-01	58	.2613E-01	59	.2122E-01	60	.1684E-01	61	.1444E-01	62	.1235E-01	63	.9781E-02	64	.7521E-02
65	.2263E-01	66	.2086E-01	67	.1779E-01	68	.1459E-01	69	.1265E-01	70	.1087E-01	71	.8579E-02	72	.6479E-02
73	.1721E-01	74	.1592E-01	75	.1375E-01	76	.1147E-01	77	.1005E-01	78	.8677E-02	79	.6820E-02	80	.5032E-02
81	.1059E-01	82	.9871E-02	83	.8661E-02	84	.7386E-02	85	.6552E-02	86	.5712E-02	87	.4499E-02	88	.3267E-02
89	.6584E-02	90	.6160E-02	91	.5451E-02	92	.4707E-02	93	.4214E-02	94	.3706E-02	95	.2948E-02	96	.2161E-02
97	.3215E-02	98	.2957E-02	99	.2579E-02	100	.2230E-02	101	.2012E-02	102	.1792E-02	103	.1451E-02	104	.1079E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	81.4	2	-68.6	3	-114.3	4	-118.6	5	-45.6	6	-127.7	7	-138.2	8	-329.5
9	440.5	10	75.3	11	87.8	12	-4.3	13	-11.2	14	-46.3	15	-74.7	16	-278.4
17	530.8	18	214.9	19	158.0	20	54.4	21	17.0	22	3.7	23	-27.3	24	-136.8
25	459.7	26	200.8	27	143.9	28	61.2	29	28.1	30	21.8	31	6.4	32	-54.1
33	687.4	34	330.0	35	246.2	36	109.7	37	54.7	38	50.2	39	33.5	40	-27.4
41	942.1	42	500.9	43	365.1	44	166.8	45	86.6	46	86.1	47	71.8	48	24.6
49	679.1	50	470.5	51	368.2	52	183.7	53	105.5	54	109.6	55	106.5	56	82.8
57	399.2	58	263.0	59	294.9	60	178.8	61	110.3	62	116.8	63	113.3	64	89.0
65	625.5	66	317.9	67	313.4	68	182.9	69	103.1	70	106.9	71	91.4	72	39.8
73	704.3	74	333.1	75	308.5	76	153.7	77	75.6	78	75.7	79	48.8	80	-53.6
81	426.1	82	153.8	83	138.6	84	54.3	85	19.7	86	10.4	87	-18.5	88	-153.9
89	212.8	90	36.1	91	27.8	92	-8.9	93	-10.8	94	-32.1	95	-55.9	96	-198.2
97	19.0	98	-63.0	99	-106.5	100	-100.1	101	-38.3	102	-106.7	103	-116.0	104	-275.3

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1567.568	.000	50	-2522.113	.000	51	-927.082	.000	52	-58.654	.000
53	52.416	.000	54	86.034	.000	55	84.599	.000	56	38.936	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2351.353	50	-1476.359	51	-444.999	52	-34.334	53	39.312	54	52.944
55	44.139	56	40.629								

Appendix 6E-e 12 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3672.578	-2993.829	50	-2305.925	-1879.755	51	-695.044	-566.589	52	-53.626	-43.715
53	61.401	50.053	54	82.693	67.410	55	68.940	56.199	56	63.458	51.730

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.33926	2	-.11155	3	-.15240	4	-.19278	5	-.09499	6	-.21832	7	-.20033	8	-.95518
9	1.00105	10	.06681	11	.06388	12	-.00378	13	-.01277	14	-.04314	15	-.05904	16	-.44015
17	1.95143	18	.30835	19	.18592	20	.07806	21	.03120	22	.00563	23	-.03486	24	-.34986
25	3.19211	26	.54407	27	.31976	28	.16594	29	.09762	30	.06217	31	.01537	32	-.26159
33	4.77383	34	.89436	35	.54708	36	.29730	37	.18988	38	.14309	39	.08091	40	-.13218
41	6.92715	42	1.43728	43	.85901	44	.47850	45	.31843	46	.25986	47	.18359	48	.12581
49	10.61078	50	2.86883	51	1.84076	52	1.11999	53	.82396	54	.70228	55	.57889	56	.90024
57	6.23770	58	1.60335	59	1.47431	60	1.09054	61	.86208	62	.74874	63	.61595	64	.96724
65	3.90921	66	.77536	67	.62681	68	.44606	69	.32223	70	.27408	71	.19878	72	.17320
73	2.75128	74	.50780	75	.38568	76	.23424	77	.14773	78	.12131	79	.06632	80	-.14560
81	1.33155	82	.18762	83	.13855	84	.06623	85	.03072	86	.01330	87	-.02016	88	-.33467
89	.53211	90	.03522	91	.02227	92	-.00869	93	-.01350	94	-.03289	95	-.04858	96	-.34476
97	.07936	98	-.10241	99	-.14194	100	-.16275	101	-.07973	102	-.18237	103	-.16816	104	-.79806

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2547E-04	.6190E-04	2	.2447E-04	.5663E-04	3	.2164E-04	.4909E-04	4	.1914E-04	.4103E-04
5	.1814E-04	.3571E-04	6	.1794E-04	.3039E-04	7	.1889E-04	.2305E-04	8	.1968E-04	.1561E-04
9	.4419E-04	.9740E-04	10	.4614E-04	.8747E-04	11	.4559E-04	.7237E-04	12	.4302E-04	.5818E-04
13	.4146E-04	.4984E-04	14	.4030E-04	.4211E-04	15	.3957E-04	.3191E-04	16	.3982E-04	.2227E-04
17	.9114E-04	.1768E-03	18	.9374E-04	.1564E-03	19	.9008E-04	.1230E-03	20	.8096E-04	.9432E-04
21	.7477E-04	.7950E-04	22	.6965E-04	.6718E-04	23	.6544E-04	.5256E-04	24	.6532E-04	.4004E-04
25	.1204E-03	.2188E-03	26	.1230E-03	.1881E-03	27	.1161E-03	.1433E-03	28	.1009E-03	.1078E-03
29	.9093E-04	.9069E-04	30	.8283E-04	.7718E-04	31	.7594E-04	.6202E-04	32	.7499E-04	.4947E-04
33	.1604E-03	.2546E-03	34	.1617E-03	.2155E-03	35	.1489E-03	.1588E-03	36	.1237E-03	.1181E-03
37	.1085E-03	.9980E-04	38	.9657E-04	.8580E-04	39	.8621E-04	.7087E-04	40	.8403E-04	.5949E-04
41	.2082E-03	.2664E-03	42	.2077E-03	.2265E-03	43	.1865E-03	.1649E-03	44	.1473E-03	.1234E-03
45	.1264E-03	.1051E-03	46	.1103E-03	.9125E-04	47	.9555E-04	.7721E-04	48	.9132E-04	.6811E-04
49	.2451E-03	.2629E-03	50	.2471E-03	.2261E-03	51	.2200E-03	.1625E-03	52	.1686E-03	.1223E-03
53	.1420E-03	.1046E-03	54	.1218E-03	.9144E-04	55	.1028E-03	.7846E-04	56	.9617E-04	.7134E-04
57	.1258E-03	-.2557E-03	58	.1396E-03	-.2366E-03	59	.1593E-03	-.1873E-03	60	.1521E-03	-.1390E-03
61	.1375E-03	-.1145E-03	62	.1218E-03	-.9596E-04	63	.1037E-03	-.7815E-04	64	.9636E-04	-.6885E-04
65	.1069E-03	-.2446E-03	66	.1150E-03	-.2241E-03	67	.1285E-03	-.1805E-03	68	.1251E-03	-.1367E-03
69	.1163E-03	-.1136E-03	70	.1061E-03	-.9542E-04	71	.9415E-04	-.7714E-04	72	.9010E-04	-.6560E-04
73	.7767E-04	-.2031E-03	74	.8295E-04	-.1858E-03	75	.9014E-04	-.1539E-03	76	.9067E-04	-.1208E-03

Appendix 6E-e 12 Inch PCCP Pavement

77	.8761E-04	-.1020E-03	78	.8341E-04	-.8620E-04	79	.7853E-04	-.6836E-04	80	.7779E-04	-.5449E-04
81	.4316E-04	-.1297E-03	82	.4654E-04	-.1191E-03	83	.4997E-04	-.1016E-03	84	.5181E-04	-.8334E-04
85	.5234E-04	-.7204E-04	86	.5259E-04	-.6146E-04	87	.5305E-04	-.4760E-04	88	.5419E-04	-.3490E-04
89	.2546E-04	-.7554E-04	90	.2741E-04	-.7074E-04	91	.2916E-04	-.6231E-04	92	.3037E-04	-.5292E-04
93	.3127E-04	-.4665E-04	94	.3225E-04	-.4030E-04	95	.3363E-04	-.3127E-04	96	.3463E-04	-.2238E-04
97	.1637E-04	-.4780E-04	98	.1579E-04	-.4514E-04	99	.1444E-04	-.4074E-04	100	.1367E-04	-.3543E-04
101	.1361E-04	-.3162E-04	102	.1410E-04	-.2753E-04	103	.1558E-04	-.2151E-04	104	.1652E-04	-.1494E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX.SHEAR
17	1	-.528695E+02	.000000E+00	.000000E+00	-.528695E+02	.000000E+00	.264348E+02
25	1	-.532096E+02	.000000E+00	.000000E+00	-.532096E+02	.000000E+00	.266048E+02
29	1	-.165671E+02	-.165111E+02	-.197404E+02	-.362795E+02	.320127E+01	.197404E+02
33	1	-.439428E+02	.000000E+00	.000000E+00	-.439428E+02	.000000E+00	.219714E+02
41	1	.137150E+02	.000000E+00	.000000E+00	.000000E+00	.137150E+02	.685752E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.982707E+01	-.514665E+02	-.467870E+02	.566141E+02	.517005E+02
51	1	.000000E+00	-.616470E+02	-.440783E+02	-.846100E+02	.229630E+02	.537865E+02
52	1	.000000E+00	-.427440E+02	-.273365E+02	-.560714E+02	.133274E+02	.346994E+02
53	1	.000000E+00	-.339931E+02	-.198795E+02	-.431514E+02	.915831E+01	.261548E+02
54	1	.000000E+00	-.256669E+02	-.145131E+02	-.322068E+02	.653989E+01	.193733E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 84.60995 AND OCCURS AT NODE 51

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      12 inch PCCP Pavement with 110K load
*
*****
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TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
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Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	122.07000	132.00000	.00000	6.83860	90.00000
1	122.07000	132.00000	12.00000	18.83860	90.00000
1	122.07000	132.00000	84.00000	90.83860	90.00000
1	122.07000	132.00000	96.00000	102.83800	90.00000
1	170.07000	180.00000	.00000	6.83860	90.00000
1	170.07000	180.00000	12.00000	18.83860	90.00000
1	170.07000	180.00000	84.00000	90.83860	90.00000
1	170.07000	180.00000	96.00000	102.83800	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17      25      29      33      41      49      50      51      52      53      54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1    1    56    1    42            2    57    104    43    77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1    49    57    56    64    36    43    42    49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.34111	1.00000	-1.00000	-.14517	90.00000
22	-1.00000	-.55556	-1.00000	-.14517	90.00000
15	.34111	1.00000	.50000	1.00000	90.00000
16	.34111	1.00000	-1.00000	-.77291	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.77291	90.00000
19	.34111	1.00000	-.75000	.10483	90.00000
26	-1.00000	-.55556	-.75000	.10483	90.00000
19	.34111	1.00000	.75000	1.00000	90.00000
20	.34111	1.00000	-1.00000	-.57930	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.57930	90.00000
36	-.24125	1.00000	-1.00000	-.14517	90.00000
36	-.24125	1.00000	.50000	1.00000	90.00000
37	-.24125	1.00000	-1.00000	-.77291	90.00000
40	-.24125	1.00000	-.75000	.10483	90.00000
40	-.24125	1.00000	.75000	1.00000	90.00000
41	-.24125	1.00000	-1.00000	-.57930	90.00000



Appendix 6E-e 12 Inch PCCP Pavement

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

Appendix 6E-e 12 Inch PCCP Pavement

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0
81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .05586569  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01365963  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00159155  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00018878  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00002249

SUM OF APPLIED FORCES (FOSUM)= 48892.2 SUM OF TOTAL REACTIONS (SUBSUM)= 48828.2

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000261

SUM OF APPLIED FORCES (FOSUM)= 48892.2 SUM OF TOTAL REACTIONS (SUBSUM)= 48831.7

Appendix 6E-e 12 Inch PCCP Pavement

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1692E-01	2	.1647E-01	3	.1575E-01	4	.1489E-01	5	.1424E-01	6	.1348E-01	7	.1220E-01	8	.1075E-01
9	.3428E-01	10	.3338E-01	11	.3181E-01	12	.3000E-01	13	.2866E-01	14	.2712E-01	15	.2461E-01	16	.2183E-01
17	.5264E-01	18	.5052E-01	19	.4730E-01	20	.4445E-01	21	.4261E-01	22	.4042E-01	23	.3644E-01	24	.3202E-01
25	.5882E-01	26	.5625E-01	27	.5239E-01	28	.4926E-01	29	.4737E-01	30	.4503E-01	31	.4050E-01	32	.3552E-01
33	.6359E-01	34	.6085E-01	35	.5677E-01	36	.5347E-01	37	.5146E-01	38	.4896E-01	39	.4419E-01	40	.3879E-01
41	.6779E-01	42	.6486E-01	43	.6052E-01	44	.5719E-01	45	.5523E-01	46	.5270E-01	47	.4765E-01	48	.4193E-01
49	.7133E-01	50	.6821E-01	51	.6354E-01	52	.6028E-01	53	.5854E-01	54	.5608E-01	55	.5067E-01	56	.4472E-01
57	.6482E-01	58	.6379E-01	59	.6141E-01	60	.5839E-01	61	.5612E-01	62	.5351E-01	63	.4918E-01	64	.4460E-01
65	.5578E-01	66	.5502E-01	67	.5324E-01	68	.5077E-01	69	.4882E-01	70	.4654E-01	71	.4277E-01	72	.3863E-01
73	.4353E-01	74	.4312E-01	75	.4202E-01	76	.4026E-01	77	.3876E-01	78	.3697E-01	79	.3395E-01	80	.3051E-01
81	.2821E-01	82	.2809E-01	83	.2758E-01	84	.2660E-01	85	.2569E-01	86	.2456E-01	87	.2259E-01	88	.2030E-01
89	.1855E-01	90	.1849E-01	91	.1819E-01	92	.1760E-01	93	.1706E-01	94	.1637E-01	95	.1517E-01	96	.1376E-01
97	.9844E-02	98	.9706E-02	99	.9476E-02	100	.9175E-02	101	.8931E-02	102	.8649E-02	103	.8159E-02	104	.7587E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1692E-01	2	.1647E-01	3	.1575E-01	4	.1489E-01	5	.1424E-01	6	.1348E-01	7	.1220E-01	8	.1075E-01
9	.3428E-01	10	.3338E-01	11	.3181E-01	12	.3000E-01	13	.2866E-01	14	.2712E-01	15	.2461E-01	16	.2183E-01
17	.5264E-01	18	.5052E-01	19	.4730E-01	20	.4445E-01	21	.4261E-01	22	.4042E-01	23	.3644E-01	24	.3202E-01
25	.5882E-01	26	.5625E-01	27	.5239E-01	28	.4926E-01	29	.4737E-01	30	.4503E-01	31	.4050E-01	32	.3552E-01
33	.6359E-01	34	.6085E-01	35	.5677E-01	36	.5347E-01	37	.5146E-01	38	.4896E-01	39	.4419E-01	40	.3879E-01
41	.6779E-01	42	.6486E-01	43	.6052E-01	44	.5719E-01	45	.5523E-01	46	.5270E-01	47	.4765E-01	48	.4193E-01
49	.6808E-01	50	.6600E-01	51	.6247E-01	52	.5933E-01	53	.5733E-01	54	.5479E-01	55	.4992E-01	56	.4466E-01
57	.6808E-01	58	.6600E-01	59	.6247E-01	60	.5933E-01	61	.5733E-01	62	.5479E-01	63	.4992E-01	64	.4466E-01
65	.5578E-01	66	.5502E-01	67	.5324E-01	68	.5077E-01	69	.4882E-01	70	.4654E-01	71	.4277E-01	72	.3863E-01
73	.4353E-01	74	.4312E-01	75	.4202E-01	76	.4026E-01	77	.3876E-01	78	.3697E-01	79	.3395E-01	80	.3051E-01
81	.2821E-01	82	.2809E-01	83	.2758E-01	84	.2660E-01	85	.2569E-01	86	.2456E-01	87	.2259E-01	88	.2030E-01
89	.1855E-01	90	.1849E-01	91	.1819E-01	92	.1760E-01	93	.1706E-01	94	.1637E-01	95	.1517E-01	96	.1376E-01
97	.9844E-02	98	.9706E-02	99	.9476E-02	100	.9175E-02	101	.8931E-02	102	.8649E-02	103	.8159E-02	104	.7587E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	220.4	2	-141.1	3	-212.1	4	-232.0	5	-92.3	6	-273.1	7	-320.6	8	-726.3
9	1807.4	10	646.3	11	1011.2	12	589.0	13	255.5	14	458.0	15	436.2	16	389.9
17	1854.2	18	1027.5	19	1066.8	20	680.1	21	447.1	22	580.9	23	606.8	24	642.5
25	1340.4	26	730.4	27	680.9	28	463.4	29	341.3	30	426.9	31	424.0	32	470.1
33	1596.8	34	915.6	35	892.5	36	601.6	37	431.4	38	538.6	39	571.0	40	644.2
41	1767.1	42	1067.7	43	1030.2	44	713.0	45	524.7	46	661.3	47	687.8	48	761.9

Appendix 6E-e 12 Inch PCCP Pavement

49	1121.5	50	840.3	51	841.9	52	606.1	53	471.9	54	579.6	55	599.8	56	606.4
57	754.4	58	545.6	59	675.9	60	480.1	61	329.8	62	412.8	63	491.0	64	597.3
65	1189.4	66	701.4	67	789.6	68	552.4	69	367.2	70	455.6	71	526.7	72	733.3
73	1254.0	74	692.9	75	781.0	76	512.6	77	321.5	78	417.9	79	461.1	80	591.8
81	672.3	82	297.9	83	340.3	84	204.9	85	113.8	86	149.7	87	141.5	88	104.1
89	233.2	90	34.9	91	34.7	92	-1.4	93	-6.9	94	-29.8	95	-63.1	96	-210.5
97	-243.2	98	-215.6	99	-375.8	100	-299.2	101	-115.5	102	-303.3	103	-324.4	104	-614.9

ITERATION NO. (IC) = 13 DIFFERENCE IN DEFLECTION (DF) = .00000033

SUM OF APPLIED FORCES (FOSUM)= 48892.2 SUM OF TOTAL REACTIONS (SUBSUM)= 48832.1

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1692E-01	2	.1647E-01	3	.1575E-01	4	.1489E-01	5	.1424E-01	6	.1348E-01	7	.1220E-01	8	.1075E-01
9	.3428E-01	10	.3338E-01	11	.3181E-01	12	.3000E-01	13	.2866E-01	14	.2712E-01	15	.2461E-01	16	.2183E-01
17	.5264E-01	18	.5052E-01	19	.4730E-01	20	.4445E-01	21	.4261E-01	22	.4042E-01	23	.3644E-01	24	.3202E-01
25	.5882E-01	26	.5625E-01	27	.5239E-01	28	.4926E-01	29	.4737E-01	30	.4503E-01	31	.4050E-01	32	.3552E-01
33	.6359E-01	34	.6085E-01	35	.5677E-01	36	.5347E-01	37	.5146E-01	38	.4896E-01	39	.4419E-01	40	.3879E-01
41	.6779E-01	42	.6486E-01	43	.6052E-01	44	.5719E-01	45	.5523E-01	46	.5271E-01	47	.4765E-01	48	.4193E-01
49	.7133E-01	50	.6821E-01	51	.6354E-01	52	.6028E-01	53	.5854E-01	54	.5608E-01	55	.5067E-01	56	.4472E-01
57	.6482E-01	58	.6379E-01	59	.6141E-01	60	.5839E-01	61	.5612E-01	62	.5351E-01	63	.4918E-01	64	.4460E-01
65	.5578E-01	66	.5502E-01	67	.5324E-01	68	.5077E-01	69	.4882E-01	70	.4654E-01	71	.4277E-01	72	.3863E-01
73	.4353E-01	74	.4312E-01	75	.4202E-01	76	.4026E-01	77	.3876E-01	78	.3697E-01	79	.3395E-01	80	.3051E-01
81	.2821E-01	82	.2809E-01	83	.2758E-01	84	.2660E-01	85	.2569E-01	86	.2456E-01	87	.2259E-01	88	.2030E-01
89	.1855E-01	90	.1849E-01	91	.1819E-01	92	.1760E-01	93	.1706E-01	94	.1637E-01	95	.1517E-01	96	.1376E-01
97	.9844E-02	98	.9706E-02	99	.9476E-02	100	.9175E-02	101	.8931E-02	102	.8650E-02	103	.8159E-02	104	.7587E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1692E-01	2	.1647E-01	3	.1575E-01	4	.1489E-01	5	.1424E-01	6	.1348E-01	7	.1220E-01	8	.1075E-01
9	.3428E-01	10	.3338E-01	11	.3181E-01	12	.3000E-01	13	.2866E-01	14	.2712E-01	15	.2461E-01	16	.2183E-01
17	.5264E-01	18	.5052E-01	19	.4730E-01	20	.4445E-01	21	.4261E-01	22	.4042E-01	23	.3644E-01	24	.3202E-01
25	.5882E-01	26	.5625E-01	27	.5239E-01	28	.4926E-01	29	.4737E-01	30	.4503E-01	31	.4050E-01	32	.3552E-01
33	.6359E-01	34	.6085E-01	35	.5677E-01	36	.5347E-01	37	.5146E-01	38	.4896E-01	39	.4419E-01	40	.3879E-01
41	.6779E-01	42	.6486E-01	43	.6052E-01	44	.5719E-01	45	.5523E-01	46	.5271E-01	47	.4765E-01	48	.4193E-01
49	.6808E-01	50	.6600E-01	51	.6247E-01	52	.5933E-01	53	.5733E-01	54	.5479E-01	55	.4992E-01	56	.4466E-01
57	.6808E-01	58	.6600E-01	59	.6247E-01	60	.5933E-01	61	.5733E-01	62	.5479E-01	63	.4992E-01	64	.4466E-01
65	.5578E-01	66	.5502E-01	67	.5324E-01	68	.5077E-01	69	.4882E-01	70	.4654E-01	71	.4277E-01	72	.3863E-01
73	.4353E-01	74	.4312E-01	75	.4202E-01	76	.4026E-01	77	.3876E-01	78	.3697E-01	79	.3395E-01	80	.3051E-01
81	.2821E-01	82	.2809E-01	83	.2758E-01	84	.2660E-01	85	.2569E-01	86	.2456E-01	87	.2259E-01	88	.2030E-01
89	.1855E-01	90	.1849E-01	91	.1819E-01	92	.1760E-01	93	.1706E-01	94	.1637E-01	95	.1517E-01	96	.1376E-01

Appendix 6E-e 12 Inch PCCP Pavement

97 .9844E-02 98 .9706E-02 99 .9476E-02 100 .9175E-02 101 .8931E-02 102 .8650E-02 103 .8159E-02 104 .7587E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	220.4	2	-141.1	3	-212.1	4	-232.0	5	-92.3	6	-273.1	7	-320.6	8	-726.3
9	1807.4	10	646.3	11	1011.2	12	589.1	13	255.5	14	458.0	15	436.3	16	389.9
17	1854.2	18	1027.5	19	1066.8	20	680.1	21	447.1	22	580.9	23	606.8	24	642.5
25	1340.4	26	730.4	27	680.9	28	463.4	29	341.3	30	426.9	31	424.0	32	470.1
33	1596.8	34	915.6	35	892.5	36	601.6	37	431.4	38	538.6	39	571.0	40	644.2
41	1767.1	42	1067.8	43	1030.2	44	713.1	45	524.7	46	661.3	47	687.8	48	761.9
49	1121.5	50	840.3	51	841.9	52	606.2	53	471.9	54	579.6	55	599.8	56	606.4
57	754.4	58	545.6	59	675.9	60	480.1	61	329.8	62	412.8	63	491.0	64	597.3
65	1189.4	66	701.4	67	789.6	68	552.4	69	367.2	70	455.6	71	526.7	72	733.3
73	1254.0	74	692.9	75	781.0	76	512.6	77	321.5	78	417.9	79	461.1	80	591.8
81	672.3	82	297.9	83	340.3	84	204.9	85	113.8	86	149.7	87	141.5	88	104.1
89	233.2	90	34.9	91	34.7	92	-1.4	93	-6.9	94	-29.8	95	-63.1	96	-210.5
97	-243.2	98	-215.6	99	-375.8	100	-299.2	101	-115.5	102	-303.3	103	-324.4	104	-614.9

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-2055.959	.000	50	-3580.828	.000	51	-2100.490	.000	52	-1530.772	.000
53	-1527.234	.000	54	-1979.938	.000	55	-1349.421	.000	56	-57.547	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-3083.938	50	-2096.094	51	-1008.235	52	-896.062	53	-1145.426	54	-1218.424
55	-704.045	56	-60.049								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4816.803	-3926.584	50	-3273.889	-2668.825	51	-1574.762	-1283.722	52	-1399.559	-1140.899
53	-1789.040	-1458.398	54	-1903.056	-1551.342	55	-1099.649	-896.417	56	-93.791	-76.457

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.91820	2	-.22941	3	-.28281	4	-.37720	5	-.19221	6	-.46683	7	-.46462	8	-2.10530
9	4.10771	10	.57325	11	.73541	12	.52244	13	.29033	14	.42705	15	.34487	16	.61643
17	6.81702	18	1.47418	19	1.25507	20	.97579	21	.82182	22	.87623	23	.77601	24	1.64320
25	9.30863	26	1.97939	27	1.51318	28	1.25578	29	1.18513	30	1.21632	31	1.02425	32	2.27123
33	11.08906	34	2.48119	35	1.98337	36	1.63042	37	1.49804	38	1.53443	39	1.37918	40	3.11209
41	12.99306	42	3.06385	43	2.42403	44	2.04606	45	1.92915	46	1.99481	47	1.75920	48	3.89715
49	17.52349	50	5.12352	51	4.20966	52	3.69604	53	3.68687	54	3.71509	55	3.25966	56	6.59134
57	11.78794	58	3.32683	59	3.37940	60	2.92760	61	2.57632	62	2.64590	63	2.66860	64	6.49231
65	7.43389	66	1.71080	67	1.57922	68	1.34737	69	1.14736	70	1.16828	71	1.14501	72	3.18808
73	4.89830	74	1.05619	75	.97623	76	.78145	77	.62799	78	.66968	79	.62645	80	1.60821

Appendix 6E-e 12 Inch PCCP Pavement

81	2.10091	82	.36329	83	.34029	84	.24985	85	.17785	86	.19192	87	.15378	88	.22637
89	.58310	90	.03401	91	.02777	92	-.00141	93	-.00866	94	-.03058	95	-.05484	96	-.36601
97	-1.01326	98	-.35061	99	-.50106	100	-.48654	101	-.24072	102	-.51845	103	-.47008	104	-1.78221

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2828E-04	.2706E-03	2	.2795E-04	.2631E-03	3	.3072E-04	.2517E-03	4	.3821E-04	.2377E-03
5	.4411E-04	.2271E-03	6	.5079E-04	.2152E-03	7	.6022E-04	.1965E-03	8	.6478E-04	.1752E-03
9	.5345E-04	.3361E-03	10	.5888E-04	.3205E-03	11	.6686E-04	.2967E-03	12	.7876E-04	.2771E-03
13	.8989E-04	.2655E-03	14	.1015E-03	.2516E-03	15	.1163E-03	.2261E-03	16	.1237E-03	.1987E-03
17	.1330E-03	.3657E-03	18	.1320E-03	.3389E-03	19	.1217E-03	.2996E-03	20	.1104E-03	.2813E-03
21	.1231E-03	.2766E-03	22	.1532E-03	.2663E-03	23	.1871E-03	.2340E-03	24	.1942E-03	.2003E-03
25	.1647E-03	.3047E-03	26	.1599E-03	.2871E-03	27	.1404E-03	.2636E-03	28	.1153E-03	.2509E-03
29	.1276E-03	.2456E-03	30	.1696E-03	.2371E-03	31	.2128E-03	.2153E-03	32	.2184E-03	.1880E-03
33	.1729E-03	.2416E-03	34	.1709E-03	.2336E-03	35	.1485E-03	.2237E-03	36	.1216E-03	.2180E-03
37	.1362E-03	.2146E-03	38	.1788E-03	.2090E-03	39	.2275E-03	.1967E-03	40	.2375E-03	.1770E-03
41	.1832E-03	.2252E-03	42	.1830E-03	.2139E-03	43	.1550E-03	.1958E-03	44	.1183E-03	.1977E-03
45	.1339E-03	.2065E-03	46	.1859E-03	.2082E-03	47	.2421E-03	.1893E-03	48	.2515E-03	.1736E-03
49	.1943E-03	.2197E-03	50	.1965E-03	.2075E-03	51	.1610E-03	.1832E-03	52	.1083E-03	.1903E-03
53	.1227E-03	.2084E-03	54	.1922E-03	.2150E-03	55	.2561E-03	.1884E-03	56	.2604E-03	.1746E-03
57	.5900E-04	-.5727E-03	58	.7580E-04	-.5566E-03	59	.1092E-03	-.5166E-03	60	.1329E-03	-.4818E-03
61	.1520E-03	-.4624E-03	62	.1751E-03	-.4410E-03	63	.1960E-03	-.4055E-03	64	.2019E-03	-.3779E-03
65	.4223E-04	-.5498E-03	66	.5569E-04	-.5333E-03	67	.8548E-04	-.4988E-03	68	.1125E-03	-.4658E-03
69	.1319E-03	-.4460E-03	70	.1523E-03	-.4249E-03	71	.1740E-03	-.3920E-03	72	.1842E-03	-.3634E-03
73	.1976E-04	-.4642E-03	74	.3199E-04	-.4530E-03	75	.5675E-04	-.4307E-03	76	.8427E-04	-.4050E-03
77	.1028E-03	-.3873E-03	78	.1206E-03	-.3682E-03	79	.1417E-03	-.3386E-03	80	.1552E-03	-.3091E-03
81	.2603E-05	-.3057E-03	82	.1197E-04	-.3017E-03	83	.2929E-04	-.2926E-03	84	.4979E-04	-.2787E-03
85	.6373E-04	-.2671E-03	86	.7713E-04	-.2534E-03	87	.9353E-04	-.2303E-03	88	.1049E-03	-.2048E-03
89	.1254E-05	-.1881E-03	90	.6838E-05	-.1883E-03	91	.1728E-04	-.1856E-03	92	.2981E-04	-.1788E-03
93	.3854E-04	-.1719E-03	94	.4704E-04	-.1632E-03	95	.5739E-04	-.1479E-03	96	.6413E-04	-.1302E-03
97	.8608E-05	-.1242E-03	98	.8581E-05	-.1255E-03	99	.1028E-04	-.1249E-03	100	.1404E-04	-.1212E-03
101	.1636E-04	-.1170E-03	102	.1905E-04	-.1112E-03	103	.2346E-04	-.1008E-03	104	.2576E-04	-.8744E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.229636E+02	.000000E+00	.000000E+00	.000000E+00	.229636E+02	.114818E+02
25	1	.149458E+03	.000000E+00	.000000E+00	.000000E+00	.149458E+03	.747288E+02
29	1	.765906E+02	.588454E+02	-.796273E+01	.557963E+02	.796397E+02	.119217E+02
33	1	.225501E+02	.000000E+00	.000000E+00	.000000E+00	.225501E+02	.112750E+02
41	1	.170543E+02	.000000E+00	.000000E+00	.000000E+00	.170543E+02	.852716E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.113005E+02	-.191871E+02	-.143515E+02	.256520E+02	.200018E+02

Appendix 6E-e 12 Inch PCCP Pavement

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51	1	.000000E+00	-.793588E+02	-.811792E+01	-.801807E+02	.821903E+00	.405013E+02
52	1	.000000E+00	-.322611E+02	.170187E+02	-.395790E+02	.731795E+01	.234485E+02
53	1	.000000E+00	.770527E+02	.191236E+02	-.448517E+01	.815379E+02	.430115E+02
54	1	.000000E+00	.137108E+03	-.849032E+01	-.523758E+00	.137632E+03	.690777E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 149.45760 AND OCCURS AT NODE 25

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
* 12 inch PCCP Pavement with 110K load Single Axle
*
*****
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TYPE OF FOUNDATION (NFOUND)          = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)       = 0
NUMBER OF PERIODS PER YEAR (NPY)      = 1
NUMBER OF LOAD GROUPS (NLG)           = 1
TOTAL NUMBER OF SLABS (NSLAB)         = 2
TOTAL NUMBER OF JOINTS (NJOINT)       = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
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Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	170.07000	180.00000	.00000	6.83850	90.00000
1	170.07000	180.00000	8.00000	14.83850	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.24125	1.00000	-1.00000	-.14519	90.00000
36	-.24125	1.00000	.00000	.85481	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0

Appendix 6E-e 12 Inch PCCP Pavement

81 0 82 0 83 0 84 0 85 0 86 0 87 0 88 0 89 0 90 0  
 91 0 92 0 93 0 94 0 95 0 96 0 97 0 98 0 99 0 100 0  
 101 0 102 0 103 0 104 0

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .02866788

ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00391323

ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00042204

ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004981

ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000596

SUM OF APPLIED FORCES (FOSUM)= 12223.1 SUM OF TOTAL REACTIONS (SUBSUM)= 12205.9

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3963E-02	2	.3542E-02	3	.2937E-02	4	.2406E-02	5	.2094E-02	6	.1793E-02	7	.1350E-02	8	.8824E-03
9	.8484E-02	10	.7725E-02	11	.6516E-02	12	.5354E-02	13	.4646E-02	14	.3960E-02	15	.2999E-02	16	.2043E-02
17	.1551E-01	18	.1396E-01	19	.1154E-01	20	.9291E-02	21	.7986E-02	22	.6777E-02	23	.5157E-02	24	.3588E-02
25	.1925E-01	26	.1720E-01	27	.1405E-01	28	.1120E-01	29	.9590E-02	30	.8137E-02	31	.6235E-02	32	.4428E-02
33	.2371E-01	34	.2101E-01	35	.1690E-01	36	.1333E-01	37	.1139E-01	38	.9673E-02	39	.7488E-02	40	.5453E-02
41	.2867E-01	42	.2520E-01	43	.1996E-01	44	.1561E-01	45	.1332E-01	46	.1134E-01	47	.8887E-02	48	.6657E-02
49	.3306E-01	50	.2897E-01	51	.2270E-01	52	.1767E-01	53	.1508E-01	54	.1288E-01	55	.1020E-01	56	.7833E-02
57	.2788E-01	58	.2571E-01	59	.2172E-01	60	.1759E-01	61	.1517E-01	62	.1300E-01	63	.1029E-01	64	.7924E-02
65	.2367E-01	66	.2183E-01	67	.1862E-01	68	.1527E-01	69	.1325E-01	70	.1138E-01	71	.8986E-02	72	.6788E-02
73	.1800E-01	74	.1666E-01	75	.1439E-01	76	.1201E-01	77	.1052E-01	78	.9086E-02	79	.7144E-02	80	.5273E-02
81	.1108E-01	82	.1033E-01	83	.9065E-02	84	.7733E-02	85	.6861E-02	86	.5983E-02	87	.4713E-02	88	.3424E-02
89	.6890E-02	90	.6447E-02	91	.5706E-02	92	.4929E-02	93	.4413E-02	94	.3882E-02	95	.3089E-02	96	.2266E-02
97	.3366E-02	98	.3095E-02	99	.2701E-02	100	.2336E-02	101	.2108E-02	102	.1878E-02	103	.1521E-02	104	.1132E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3963E-02	2	.3542E-02	3	.2937E-02	4	.2406E-02	5	.2094E-02	6	.1793E-02	7	.1350E-02	8	.8824E-03
9	.8484E-02	10	.7725E-02	11	.6516E-02	12	.5354E-02	13	.4646E-02	14	.3960E-02	15	.2999E-02	16	.2043E-02
17	.1551E-01	18	.1396E-01	19	.1154E-01	20	.9291E-02	21	.7986E-02	22	.6777E-02	23	.5157E-02	24	.3588E-02
25	.1925E-01	26	.1720E-01	27	.1405E-01	28	.1120E-01	29	.9590E-02	30	.8137E-02	31	.6235E-02	32	.4428E-02
33	.2371E-01	34	.2101E-01	35	.1690E-01	36	.1333E-01	37	.1139E-01	38	.9673E-02	39	.7488E-02	40	.5453E-02
41	.2867E-01	42	.2520E-01	43	.1996E-01	44	.1561E-01	45	.1332E-01	46	.1134E-01	47	.8887E-02	48	.6657E-02

Appendix 6E-e 12 Inch PCCP Pavement

49	.3047E-01	50	.2734E-01	51	.2221E-01	52	.1763E-01	53	.1512E-01	54	.1294E-01	55	.1024E-01	56	.7878E-02
57	.3047E-01	58	.2734E-01	59	.2221E-01	60	.1763E-01	61	.1512E-01	62	.1294E-01	63	.1024E-01	64	.7878E-02
65	.2367E-01	66	.2183E-01	67	.1862E-01	68	.1527E-01	69	.1325E-01	70	.1138E-01	71	.8986E-02	72	.6788E-02
73	.1800E-01	74	.1666E-01	75	.1439E-01	76	.1201E-01	77	.1052E-01	78	.9086E-02	79	.7144E-02	80	.5273E-02
81	.1108E-01	82	.1033E-01	83	.9065E-02	84	.7733E-02	85	.6861E-02	86	.5983E-02	87	.4713E-02	88	.3424E-02
89	.6890E-02	90	.6447E-02	91	.5706E-02	92	.4929E-02	93	.4413E-02	94	.3882E-02	95	.3089E-02	96	.2266E-02
97	.3366E-02	98	.3095E-02	99	.2701E-02	100	.2336E-02	101	.2108E-02	102	.1878E-02	103	.1521E-02	104	.1132E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	85.7	2	-71.7	3	-119.4	4	-124.0	5	-47.7	6	-133.6	7	-144.7	8	-345.2
9	462.6	10	79.5	11	93.0	12	-3.8	13	-11.5	14	-48.0	15	-77.8	16	-291.0
17	556.8	18	225.9	19	166.5	20	57.6	21	18.1	22	4.3	23	-28.2	24	-142.9
25	481.8	26	210.7	27	151.2	28	64.5	29	29.6	30	23.0	31	6.8	32	-56.5
33	720.0	34	346.1	35	258.4	36	115.2	37	57.4	38	52.8	39	35.2	40	-28.5
41	985.4	42	524.6	43	382.6	44	174.8	45	90.8	46	90.3	47	75.2	48	25.8
49	709.0	50	491.7	51	385.1	52	192.2	53	110.4	54	114.6	55	111.4	56	86.6
57	417.1	58	274.8	59	308.2	60	187.0	61	115.4	62	122.2	63	118.6	64	93.2
65	653.9	66	332.4	67	327.7	68	191.3	69	107.9	70	111.9	71	95.8	72	41.8
73	736.3	74	348.3	75	322.8	76	160.8	77	79.2	78	79.3	79	51.2	80	-55.9
81	445.4	82	160.9	83	145.0	84	56.9	85	20.6	86	10.9	87	-19.3	88	-160.9
89	222.5	90	37.7	91	29.1	92	-9.3	93	-11.3	94	-33.5	95	-58.4	96	-207.3
97	19.8	98	-65.9	99	-111.4	100	-104.7	101	-40.0	102	-111.6	103	-121.4	104	-288.0

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000071

SUM OF APPLIED FORCES (FOSUM)= 12223.1 SUM OF TOTAL REACTIONS (SUBSUM)= 12206.8

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3963E-02	2	.3542E-02	3	.2938E-02	4	.2406E-02	5	.2094E-02	6	.1793E-02	7	.1351E-02	8	.8828E-03
9	.8485E-02	10	.7725E-02	11	.6516E-02	12	.5354E-02	13	.4646E-02	14	.3961E-02	15	.3000E-02	16	.2044E-02
17	.1551E-01	18	.1396E-01	19	.1154E-01	20	.9291E-02	21	.7986E-02	22	.6777E-02	23	.5157E-02	24	.3588E-02
25	.1925E-01	26	.1720E-01	27	.1405E-01	28	.1120E-01	29	.9591E-02	30	.8137E-02	31	.6236E-02	32	.4429E-02
33	.2371E-01	34	.2101E-01	35	.1690E-01	36	.1333E-01	37	.1139E-01	38	.9674E-02	39	.7489E-02	40	.5454E-02
41	.2867E-01	42	.2520E-01	43	.1996E-01	44	.1561E-01	45	.1332E-01	46	.1135E-01	47	.8888E-02	48	.6658E-02
49	.3306E-01	50	.2897E-01	51	.2270E-01	52	.1767E-01	53	.1508E-01	54	.1288E-01	55	.1020E-01	56	.7834E-02
57	.2788E-01	58	.2571E-01	59	.2172E-01	60	.1759E-01	61	.1517E-01	62	.1300E-01	63	.1029E-01	64	.7925E-02
65	.2367E-01	66	.2183E-01	67	.1862E-01	68	.1527E-01	69	.1325E-01	70	.1139E-01	71	.8986E-02	72	.6789E-02
73	.1800E-01	74	.1666E-01	75	.1439E-01	76	.1201E-01	77	.1052E-01	78	.9087E-02	79	.7145E-02	80	.5273E-02
81	.1108E-01	82	.1033E-01	83	.9065E-02	84	.7733E-02	85	.6861E-02	86	.5983E-02	87	.4714E-02	88	.3425E-02
89	.6891E-02	90	.6448E-02	91	.5707E-02	92	.4929E-02	93	.4414E-02	94	.3882E-02	95	.3089E-02	96	.2267E-02

Appendix 6E-e 12 Inch PCCP Pavement

97 .3366E-02 98 .3096E-02 99 .2701E-02 100 .2336E-02 101 .2109E-02 102 .1878E-02 103 .1522E-02 104 .1133E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3963E-02	2	.3542E-02	3	.2938E-02	4	.2406E-02	5	.2094E-02	6	.1793E-02	7	.1351E-02	8	.8828E-03
9	.8485E-02	10	.7725E-02	11	.6516E-02	12	.5354E-02	13	.4646E-02	14	.3961E-02	15	.3000E-02	16	.2044E-02
17	.1551E-01	18	.1396E-01	19	.1154E-01	20	.9291E-02	21	.7986E-02	22	.6777E-02	23	.5157E-02	24	.3588E-02
25	.1925E-01	26	.1720E-01	27	.1405E-01	28	.1120E-01	29	.9591E-02	30	.8137E-02	31	.6236E-02	32	.4429E-02
33	.2371E-01	34	.2101E-01	35	.1690E-01	36	.1333E-01	37	.1139E-01	38	.9674E-02	39	.7489E-02	40	.5454E-02
41	.2867E-01	42	.2520E-01	43	.1996E-01	44	.1561E-01	45	.1332E-01	46	.1134E-01	47	.8888E-02	48	.6658E-02
49	.3047E-01	50	.2734E-01	51	.2221E-01	52	.1763E-01	53	.1512E-01	54	.1294E-01	55	.1024E-01	56	.7879E-02
57	.3047E-01	58	.2734E-01	59	.2221E-01	60	.1763E-01	61	.1512E-01	62	.1294E-01	63	.1024E-01	64	.7879E-02
65	.2367E-01	66	.2183E-01	67	.1862E-01	68	.1527E-01	69	.1325E-01	70	.1139E-01	71	.8986E-02	72	.6789E-02
73	.1800E-01	74	.1666E-01	75	.1439E-01	76	.1201E-01	77	.1052E-01	78	.9087E-02	79	.7145E-02	80	.5273E-02
81	.1108E-01	82	.1033E-01	83	.9065E-02	84	.7733E-02	85	.6861E-02	86	.5983E-02	87	.4714E-02	88	.3425E-02
89	.6891E-02	90	.6448E-02	91	.5707E-02	92	.4929E-02	93	.4414E-02	94	.3882E-02	95	.3089E-02	96	.2267E-02
97	.3366E-02	98	.3096E-02	99	.2701E-02	100	.2336E-02	101	.2109E-02	102	.1878E-02	103	.1522E-02	104	.1133E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	85.7	2	-71.7	3	-119.4	4	-124.0	5	-47.7	6	-133.6	7	-144.7	8	-345.2
9	462.6	10	79.6	11	93.0	12	-3.8	13	-11.5	14	-47.9	15	-77.7	16	-291.0
17	556.8	18	225.9	19	166.5	20	57.6	21	18.1	22	4.3	23	-28.2	24	-142.8
25	481.8	26	210.7	27	151.2	28	64.5	29	29.6	30	23.0	31	6.8	32	-56.5
33	720.0	34	346.1	35	258.4	36	115.2	37	57.4	38	52.8	39	35.2	40	-28.5
41	985.4	42	524.6	43	382.6	44	174.8	45	90.8	46	90.3	47	75.2	48	25.8
49	709.0	50	491.7	51	385.2	52	192.2	53	110.4	54	114.7	55	111.5	56	86.6
57	417.1	58	274.8	59	308.2	60	187.0	61	115.4	62	122.2	63	118.6	64	93.2
65	653.9	66	332.4	67	327.7	68	191.3	69	107.9	70	111.9	71	95.8	72	41.8
73	736.3	74	348.3	75	322.8	76	160.8	77	79.2	78	79.3	79	51.2	80	-55.8
81	445.4	82	160.9	83	145.0	84	56.9	85	20.6	86	10.9	87	-19.3	88	-160.9
89	222.5	90	37.8	91	29.1	92	-9.3	93	-11.3	94	-33.5	95	-58.4	96	-207.3
97	19.8	98	-65.9	99	-111.4	100	-104.7	101	-40.0	102	-111.6	103	-121.4	104	-288.0

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1634.787	.000	50	-2636.636	.000	51	-973.582	.000	52	-63.260	.000
53	54.074	.000	54	89.700	.000	55	88.854	.000	56	41.314	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2452.180	50	-1543.397	51	-467.319	52	-37.030	53	40.556	54	55.200
55	46.359	56	43.111								

Appendix 6E-e 12 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3830.060	-3122.206	50	-2410.632	-1965.110	51	-729.906	-595.008	52	-57.837	-47.148
53	63.344	51.637	54	86.217	70.282	55	72.407	59.025	56	67.335	54.890

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.35721	2	-.11660	3	-.15923	4	-.20161	5	-.09934	6	-.22843	7	-.20966	8	-1.00046
9	1.05135	10	.07056	11	.06767	12	-.00336	13	-.01305	14	-.04471	15	-.06146	16	-.46009
17	2.04706	18	.32405	19	.19584	20	.08260	21	.03329	22	.00647	23	-.03602	24	-.36532
25	3.34593	26	.57105	27	.33611	28	.17467	29	.10288	30	.06565	31	.01652	32	-.27298
33	4.99988	34	.93791	35	.57422	36	.31218	37	.19941	38	.15031	39	.08509	40	-.13761
41	7.24537	42	1.50526	43	.90026	44	.50157	45	.33378	46	.27235	47	.19239	48	.13198
49	11.07816	50	2.99828	51	1.92576	52	1.17213	53	.86238	54	.73495	55	.60571	56	.94170
57	6.51756	58	1.67534	59	1.54093	60	1.14037	61	.90170	62	.78339	63	.64463	64	1.01279
65	4.08696	66	.81075	67	.65549	68	.46669	69	.33726	70	.28695	71	.20820	72	.18196
73	2.87605	74	.53099	75	.40348	76	.24519	77	.15472	78	.12710	79	.06957	80	-.15176
81	1.39195	82	.19620	83	.14497	84	.06938	85	.03223	86	.01403	87	-.02097	88	-.34972
89	.55618	90	.03683	91	.02331	92	-.00904	93	-.01409	94	-.03435	95	-.05077	96	-.36044
97	.08238	98	-.10715	99	-.14852	100	-.17025	101	-.08340	102	-.19077	103	-.17591	104	-.83478

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y	
1	.2668E-04	.6495E-04	2	.2563E-04	.5943E-04	3	.2267E-04	.5153E-04	4	.2007E-04	.4308E-04
5	.1902E-04	.3750E-04	6	.1882E-04	.3192E-04	7	.1982E-04	.2423E-04	8	.2065E-04	.1642E-04
9	.4628E-04	.1021E-03	10	.4832E-04	.9170E-04	11	.4777E-04	.7589E-04	12	.4510E-04	.6102E-04
13	.4347E-04	.5227E-04	14	.4227E-04	.4416E-04	15	.4150E-04	.3347E-04	16	.4176E-04	.2338E-04
17	.9540E-04	.1850E-03	18	.9813E-04	.1637E-03	19	.9436E-04	.1287E-03	20	.8485E-04	.9873E-04
21	.7838E-04	.8321E-04	22	.7302E-04	.7030E-04	23	.6860E-04	.5500E-04	24	.6846E-04	.4190E-04
25	.1259E-03	.2287E-03	26	.1286E-03	.1967E-03	27	.1216E-03	.1498E-03	28	.1057E-03	.1127E-03
29	.9530E-04	.9484E-04	30	.8680E-04	.8071E-04	31	.7958E-04	.6486E-04	32	.7858E-04	.5174E-04
33	.1676E-03	.2658E-03	34	.1691E-03	.2251E-03	35	.1558E-03	.1659E-03	36	.1295E-03	.1234E-03
37	.1137E-03	.1043E-03	38	.1012E-03	.8966E-04	39	.9031E-04	.7408E-04	40	.8802E-04	.6219E-04
41	.2173E-03	.2773E-03	42	.2169E-03	.2361E-03	43	.1951E-03	.1721E-03	44	.1542E-03	.1288E-03
45	.1324E-03	.1097E-03	46	.1154E-03	.9531E-04	47	.1001E-03	.8068E-04	48	.9564E-04	.7119E-04
49	.2552E-03	.2731E-03	50	.2576E-03	.2354E-03	51	.2299E-03	.1695E-03	52	.1764E-03	.1277E-03
53	.1486E-03	.1092E-03	54	.1274E-03	.9551E-04	55	.1076E-03	.8198E-04	56	.1007E-03	.7456E-04
57	.1313E-03	-.2674E-03	58	.1457E-03	-.2474E-03	59	.1664E-03	-.1960E-03	60	.1590E-03	-.1455E-03
61	.1438E-03	-.1199E-03	62	.1274E-03	-.1005E-03	63	.1085E-03	-.8182E-04	64	.1008E-03	-.7208E-04
65	.1116E-03	-.2558E-03	66	.1201E-03	-.2344E-03	67	.1342E-03	-.1889E-03	68	.1308E-03	-.1431E-03
69	.1217E-03	-.1189E-03	70	.1110E-03	-.9990E-04	71	.9852E-04	-.8077E-04	72	.9429E-04	-.6868E-04
73	.8109E-04	-.2124E-03	74	.8662E-04	-.1944E-03	75	.9418E-04	-.1610E-03	76	.9478E-04	-.1265E-03



Appendix 6E-e 12 Inch PCCP Pavement

77	.9162E-04	-.1068E-03	78	.8725E-04	-.9025E-04	79	.8217E-04	-.7158E-04	80	.8141E-04	-.5706E-04
81	.4506E-04	-.1356E-03	82	.4860E-04	-.1246E-03	83	.5221E-04	-.1063E-03	84	.5415E-04	-.8723E-04
85	.5473E-04	-.7542E-04	86	.5501E-04	-.6435E-04	87	.5550E-04	-.4984E-04	88	.5670E-04	-.3655E-04
89	.2659E-04	-.7902E-04	90	.2864E-04	-.7401E-04	91	.3047E-04	-.6521E-04	92	.3175E-04	-.5540E-04
93	.3270E-04	-.4883E-04	94	.3373E-04	-.4219E-04	95	.3518E-04	-.3275E-04	96	.3623E-04	-.2345E-04
97	.1710E-04	-.5001E-04	98	.1650E-04	-.4724E-04	99	.1509E-04	-.4264E-04	100	.1430E-04	-.3709E-04
101	.1423E-04	-.3310E-04	102	.1475E-04	-.2883E-04	103	.1630E-04	-.2253E-04	104	.1728E-04	-.1566E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX.SHEAR
17	1	-.551453E+02	.000000E+00	.000000E+00	-.551453E+02	.000000E+00	.275726E+02
25	1	-.553202E+02	.000000E+00	.000000E+00	-.553202E+02	.000000E+00	.276601E+02
29	1	-.172174E+02	-.172697E+02	-.206476E+02	-.378912E+02	.340413E+01	.206477E+02
33	1	-.452505E+02	.000000E+00	.000000E+00	-.452505E+02	.000000E+00	.226253E+02
41	1	.159911E+02	.000000E+00	.000000E+00	.000000E+00	.159911E+02	.799557E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.113922E+02	-.530702E+02	-.476789E+02	.590711E+02	.533750E+02
51	1	.000000E+00	-.641450E+02	-.457704E+02	-.879614E+02	.238164E+02	.558889E+02
52	1	.000000E+00	-.446348E+02	-.284526E+02	-.584784E+02	.138436E+02	.361610E+02
53	1	.000000E+00	-.355232E+02	-.207075E+02	-.450430E+02	.951978E+01	.272814E+02
54	1	.000000E+00	-.268280E+02	-.151210E+02	-.336273E+02	.679934E+01	.202133E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 87.96141 AND OCCURS AT NODE 51

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
* 12 inch PCCP Pavement with 115K load Tridem
*
*****
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TYPE OF FOUNDATION (NFOUND) = 1
TYPE OF DAMAGE ANALYSIS (NDAMA) = 0
NUMBER OF PERIODS PER YEAR (NPY) = 1
NUMBER OF LOAD GROUPS (NLG) = 1
TOTAL NUMBER OF SLABS (NSLAB) = 2
TOTAL NUMBER OF JOINTS (NJOINT) = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
```

Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:  
12

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:  
0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	74.81650	84.00000	.00000	6.32470	90.00000
1	74.81650	84.00000	12.00000	18.32470	90.00000
1	74.81650	84.00000	84.00000	90.32470	90.00000
1	74.81650	84.00000	96.00000	102.32400	90.00000
1	122.81600	132.00000	.00000	6.32470	90.00000
1	122.81600	132.00000	12.00000	18.32470	90.00000
1	122.81600	132.00000	84.00000	90.32470	90.00000
1	122.81600	132.00000	96.00000	102.32400	90.00000
1	170.81600	180.00000	.00000	6.32470	90.00000
1	170.81600	180.00000	12.00000	18.32470	90.00000
1	170.81600	180.00000	84.00000	90.32470	90.00000
1	170.81600	180.00000	96.00000	102.32400	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:  
17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE  
1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:  
1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)  
INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:  
1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:  
1 .00000 .00000 2 .00000 16.00000 3 .00000 41.00000 4 .00000 66.00000

Appendix 6E-e 12 Inch PCCP Pavement

5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

8	-.40734	-.04000	-1.00000	-.20941	90.00000
8	-.40734	-.04000	.50000	1.00000	90.00000
9	-.40734	-.04000	-1.00000	-.81402	90.00000
12	-.40734	-.04000	-.75000	.04059	90.00000
12	-.40734	-.04000	.75000	1.00000	90.00000
13	-.40734	-.04000	-1.00000	-.62400	90.00000
15	.42400	1.00000	-1.00000	-.20941	90.00000
22	-1.00000	-.55556	-1.00000	-.20941	90.00000
15	.42400	1.00000	.50000	1.00000	90.00000
16	.42400	1.00000	-1.00000	-.81402	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.81402	90.00000
19	.42400	1.00000	-.75000	.04059	90.00000
26	-1.00000	-.55556	-.75000	.04059	90.00000
19	.42400	1.00000	.75000	1.00000	90.00000

Appendix 6E-e 12 Inch PCCP Pavement

20	.42400	1.00000	-1.00000	-.62400	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.62400	90.00000
36	-.14800	1.00000	-1.00000	-.20941	90.00000
36	-.14800	1.00000	.50000	1.00000	90.00000
37	-.14800	1.00000	-1.00000	-.81402	90.00000
40	-.14800	1.00000	-.75000	.04059	90.00000
40	-.14800	1.00000	.75000	1.00000	90.00000
41	-.14800	1.00000	-1.00000	-.62400	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0
81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .05551642

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ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01672999  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00191339  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00022688  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00002696

SUM OF APPLIED FORCES (FOSUM)= 62730.1 SUM OF TOTAL REACTIONS (SUBSUM)= 62654.9

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000323

SUM OF APPLIED FORCES (FOSUM)= 62730.1 SUM OF TOTAL REACTIONS (SUBSUM)= 62659.2

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3208E-01	2	.3111E-01	3	.2960E-01	4	.2790E-01	5	.2659E-01	6	.2507E-01	7	.2251E-01	8	.1959E-01
9	.5518E-01	10	.5307E-01	11	.4976E-01	12	.4666E-01	13	.4461E-01	14	.4221E-01	15	.3805E-01	16	.3356E-01
17	.6935E-01	18	.6633E-01	19	.6182E-01	20	.5794E-01	21	.5550E-01	22	.5261E-01	23	.4742E-01	24	.4176E-01
25	.7220E-01	26	.6901E-01	27	.6426E-01	28	.6031E-01	29	.5788E-01	30	.5494E-01	31	.4950E-01	32	.4356E-01
33	.7339E-01	34	.7027E-01	35	.6564E-01	36	.6175E-01	37	.5930E-01	38	.5635E-01	39	.5092E-01	40	.4484E-01
41	.7399E-01	42	.7088E-01	43	.6627E-01	44	.6257E-01	45	.6030E-01	46	.5745E-01	47	.5198E-01	48	.4581E-01
49	.7442E-01	50	.7121E-01	51	.6649E-01	52	.6306E-01	53	.6111E-01	54	.5844E-01	55	.5283E-01	56	.4660E-01
57	.6816E-01	58	.6702E-01	59	.6448E-01	60	.6127E-01	61	.5885E-01	62	.5609E-01	63	.5159E-01	64	.4686E-01
65	.5913E-01	66	.5827E-01	67	.5634E-01	68	.5369E-01	69	.5162E-01	70	.4923E-01	71	.4530E-01	72	.4103E-01
73	.4685E-01	74	.4635E-01	75	.4511E-01	76	.4321E-01	77	.4162E-01	78	.3975E-01	79	.3660E-01	80	.3307E-01
81	.3132E-01	82	.3114E-01	83	.3054E-01	84	.2946E-01	85	.2850E-01	86	.2731E-01	87	.2526E-01	88	.2290E-01
89	.2135E-01	90	.2125E-01	91	.2089E-01	92	.2025E-01	93	.1966E-01	94	.1894E-01	95	.1767E-01	96	.1621E-01
97	.1214E-01	98	.1198E-01	99	.1172E-01	100	.1139E-01	101	.1113E-01	102	.1082E-01	103	.1029E-01	104	.9673E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3208E-01	2	.3111E-01	3	.2960E-01	4	.2790E-01	5	.2659E-01	6	.2507E-01	7	.2251E-01	8	.1959E-01
9	.5518E-01	10	.5307E-01	11	.4976E-01	12	.4666E-01	13	.4461E-01	14	.4221E-01	15	.3805E-01	16	.3356E-01
17	.6935E-01	18	.6633E-01	19	.6182E-01	20	.5794E-01	21	.5550E-01	22	.5261E-01	23	.4742E-01	24	.4176E-01
25	.7220E-01	26	.6901E-01	27	.6426E-01	28	.6031E-01	29	.5788E-01	30	.5494E-01	31	.4950E-01	32	.4356E-01
33	.7339E-01	34	.7027E-01	35	.6564E-01	36	.6175E-01	37	.5930E-01	38	.5635E-01	39	.5092E-01	40	.4484E-01
41	.7399E-01	42	.7088E-01	43	.6627E-01	44	.6257E-01	45	.6030E-01	46	.5745E-01	47	.5198E-01	48	.4581E-01
49	.7129E-01	50	.6912E-01	51	.6549E-01	52	.6216E-01	53	.5998E-01	54	.5727E-01	55	.5221E-01	56	.4673E-01
57	.7129E-01	58	.6912E-01	59	.6549E-01	60	.6216E-01	61	.5998E-01	62	.5727E-01	63	.5221E-01	64	.4673E-01
65	.5913E-01	66	.5827E-01	67	.5634E-01	68	.5369E-01	69	.5162E-01	70	.4923E-01	71	.4530E-01	72	.4103E-01
73	.4685E-01	74	.4635E-01	75	.4511E-01	76	.4321E-01	77	.4162E-01	78	.3975E-01	79	.3660E-01	80	.3307E-01
81	.3132E-01	82	.3114E-01	83	.3054E-01	84	.2946E-01	85	.2850E-01	86	.2731E-01	87	.2526E-01	88	.2290E-01
89	.2135E-01	90	.2125E-01	91	.2089E-01	92	.2025E-01	93	.1966E-01	94	.1894E-01	95	.1767E-01	96	.1621E-01



Appendix 6E-e 12 Inch PCCP Pavement

97 .1214E-01 98 .1198E-01 99 .1172E-01 100 .1139E-01 101 .1113E-01 102 .1082E-01 103 .1029E-01 104 .9673E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	1468.0	2	272.6	3	577.7	4	259.2	5	88.9	6	125.7	7	48.2	8	-381.7
9	3739.8	10	1412.7	11	2158.1	12	1298.4	13	603.0	14	1119.8	15	1061.8	16	1135.5
17	2618.4	18	1496.0	19	1554.0	20	995.6	21	659.7	22	858.5	23	902.0	24	971.0
25	1615.3	26	873.3	27	823.0	28	561.0	29	407.2	30	504.7	31	506.7	32	569.9
33	1760.8	34	1002.2	35	977.5	36	655.3	37	464.9	38	575.7	39	610.6	40	685.5
41	1787.7	42	1060.5	43	1017.1	44	697.5	45	508.3	46	634.4	47	655.4	48	709.6
49	1037.3	50	744.7	51	728.9	52	522.6	53	406.8	54	496.8	55	504.0	56	497.0
57	684.5	58	465.7	59	571.7	60	403.2	61	274.5	62	344.7	63	413.4	64	515.6
65	1143.6	66	659.0	67	730.8	68	504.7	69	333.9	70	412.2	71	477.2	72	664.9
73	1235.1	74	670.3	75	745.1	76	483.5	77	301.4	78	389.0	79	425.5	80	536.2
81	688.0	82	300.0	83	339.0	84	201.3	85	111.0	86	144.9	87	135.1	88	91.5
89	260.6	90	44.0	91	46.4	92	4.7	93	-3.9	94	-25.0	95	-57.8	96	-203.9
97	-221.8	98	-212.1	99	-368.0	100	-295.6	101	-114.2	102	-300.5	103	-322.1	104	-612.7

ITERATION NO. (IC) = 13 DIFFERENCE IN DEFLECTION (DF) = .00000037

SUM OF APPLIED FORCES (FOSUM)= 62730.1 SUM OF TOTAL REACTIONS (SUBSUM)= 62659.7

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3208E-01	2	.3111E-01	3	.2960E-01	4	.2790E-01	5	.2659E-01	6	.2507E-01	7	.2251E-01	8	.1959E-01
9	.5518E-01	10	.5307E-01	11	.4976E-01	12	.4666E-01	13	.4461E-01	14	.4221E-01	15	.3805E-01	16	.3356E-01
17	.6935E-01	18	.6633E-01	19	.6182E-01	20	.5794E-01	21	.5550E-01	22	.5261E-01	23	.4742E-01	24	.4176E-01
25	.7220E-01	26	.6901E-01	27	.6426E-01	28	.6031E-01	29	.5788E-01	30	.5494E-01	31	.4950E-01	32	.4356E-01
33	.7339E-01	34	.7027E-01	35	.6564E-01	36	.6175E-01	37	.5930E-01	38	.5635E-01	39	.5092E-01	40	.4484E-01
41	.7399E-01	42	.7088E-01	43	.6627E-01	44	.6257E-01	45	.6030E-01	46	.5745E-01	47	.5198E-01	48	.4581E-01
49	.7442E-01	50	.7121E-01	51	.6650E-01	52	.6306E-01	53	.6111E-01	54	.5844E-01	55	.5283E-01	56	.4660E-01
57	.6816E-01	58	.6702E-01	59	.6448E-01	60	.6127E-01	61	.5886E-01	62	.5610E-01	63	.5159E-01	64	.4686E-01
65	.5913E-01	66	.5827E-01	67	.5634E-01	68	.5369E-01	69	.5162E-01	70	.4923E-01	71	.4530E-01	72	.4103E-01
73	.4685E-01	74	.4635E-01	75	.4511E-01	76	.4321E-01	77	.4162E-01	78	.3975E-01	79	.3660E-01	80	.3307E-01
81	.3132E-01	82	.3114E-01	83	.3054E-01	84	.2946E-01	85	.2850E-01	86	.2731E-01	87	.2526E-01	88	.2290E-01
89	.2135E-01	90	.2125E-01	91	.2089E-01	92	.2025E-01	93	.1966E-01	94	.1894E-01	95	.1767E-01	96	.1621E-01
97	.1214E-01	98	.1198E-01	99	.1172E-01	100	.1139E-01	101	.1113E-01	102	.1082E-01	103	.1029E-01	104	.9673E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3208E-01	2	.3111E-01	3	.2960E-01	4	.2790E-01	5	.2659E-01	6	.2507E-01	7	.2251E-01	8	.1959E-01
9	.5518E-01	10	.5307E-01	11	.4976E-01	12	.4666E-01	13	.4461E-01	14	.4221E-01	15	.3805E-01	16	.3356E-01

Appendix 6E-e 12 Inch PCCP Pavement

17	.6935E-01	18	.6633E-01	19	.6182E-01	20	.5794E-01	21	.5550E-01	22	.5261E-01	23	.4742E-01	24	.4176E-01
25	.7220E-01	26	.6901E-01	27	.6426E-01	28	.6031E-01	29	.5788E-01	30	.5494E-01	31	.4950E-01	32	.4356E-01
33	.7339E-01	34	.7027E-01	35	.6564E-01	36	.6175E-01	37	.5930E-01	38	.5635E-01	39	.5092E-01	40	.4484E-01
41	.7399E-01	42	.7088E-01	43	.6627E-01	44	.6257E-01	45	.6030E-01	46	.5745E-01	47	.5198E-01	48	.4581E-01
49	.7129E-01	50	.6912E-01	51	.6549E-01	52	.6216E-01	53	.5998E-01	54	.5727E-01	55	.5221E-01	56	.4673E-01
57	.7129E-01	58	.6912E-01	59	.6549E-01	60	.6216E-01	61	.5998E-01	62	.5727E-01	63	.5221E-01	64	.4673E-01
65	.5913E-01	66	.5827E-01	67	.5634E-01	68	.5369E-01	69	.5162E-01	70	.4923E-01	71	.4530E-01	72	.4103E-01
73	.4685E-01	74	.4635E-01	75	.4511E-01	76	.4321E-01	77	.4162E-01	78	.3975E-01	79	.3660E-01	80	.3307E-01
81	.3132E-01	82	.3114E-01	83	.3054E-01	84	.2946E-01	85	.2850E-01	86	.2731E-01	87	.2526E-01	88	.2290E-01
89	.2135E-01	90	.2125E-01	91	.2089E-01	92	.2025E-01	93	.1966E-01	94	.1894E-01	95	.1767E-01	96	.1621E-01
97	.1214E-01	98	.1198E-01	99	.1172E-01	100	.1139E-01	101	.1113E-01	102	.1082E-01	103	.1029E-01	104	.9673E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	1468.0	2	272.6	3	577.7	4	259.2	5	88.9	6	125.7	7	48.2	8	-381.7
9	3739.8	10	1412.7	11	2158.1	12	1298.4	13	603.0	14	1119.8	15	1061.8	16	1135.5
17	2618.4	18	1496.0	19	1554.0	20	995.6	21	659.7	22	858.5	23	902.0	24	971.0
25	1615.3	26	873.3	27	823.0	28	561.0	29	407.2	30	504.7	31	506.7	32	569.9
33	1760.9	34	1002.2	35	977.5	36	655.3	37	464.9	38	575.7	39	610.6	40	685.5
41	1787.7	42	1060.5	43	1017.1	44	697.5	45	508.3	46	634.4	47	655.4	48	709.6
49	1037.3	50	744.7	51	728.9	52	522.6	53	406.8	54	496.8	55	504.0	56	497.0
57	684.5	58	465.7	59	571.7	60	403.2	61	274.5	62	344.7	63	413.4	64	515.6
65	1143.6	66	659.0	67	730.8	68	504.7	69	333.9	70	412.2	71	477.2	72	664.9
73	1235.1	74	670.3	75	745.1	76	483.5	77	301.4	78	389.0	79	425.5	80	536.2
81	688.0	82	300.0	83	339.0	84	201.3	85	111.0	86	144.9	87	135.1	88	91.5
89	260.6	90	44.0	91	46.4	92	4.7	93	-3.9	94	-25.0	95	-57.8	96	-203.9
97	-221.8	98	-212.1	99	-368.0	100	-295.6	101	-114.2	102	-300.5	103	-322.1	104	-612.7

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1976.324	.000	50	-3390.986	.000	51	-1987.843	.000	52	-1450.279	.000
53	-1421.374	.000	54	-1805.674	.000	55	-1125.226	.000	56	117.468	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2964.486	50	-1984.967	51	-954.164	52	-848.944	53	-1066.031	54	-1111.184
55	-587.074	56	122.576								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4630.231	-3774.494	50	-3100.321	-2527.334	51	-1490.309	-1214.878	52	-1325.966	-1080.907
53	-1665.033	-1357.310	54	-1735.559	-1414.801	55	-916.951	-747.485	56	191.451	156.068

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

Appendix 6E-e 12 Inch PCCP Pavement

1	6.11679	2	.44324	3	.77029	4	.42139	5	.18514	6	.21487	7	.06983	8	-1.10623
9	8.49964	10	1.25296	11	1.56953	12	1.15154	13	.68524	14	1.04411	15	.83938	16	1.79523
17	9.62659	18	2.14634	19	1.82824	20	1.42845	21	1.21267	22	1.29488	23	1.15348	24	2.48341
25	11.21712	26	2.36666	27	1.82886	28	1.52022	29	1.41393	30	1.43781	31	1.22395	32	2.75313
33	12.22813	34	2.71602	35	2.17215	36	1.77591	37	1.61409	38	1.64016	39	1.47479	40	3.31167
41	13.14487	42	3.04298	43	2.39311	44	2.00137	45	1.86869	46	1.91371	47	1.67614	48	3.62972
49	16.20808	50	4.54097	51	3.64442	52	3.18630	53	3.17781	54	3.18470	55	2.73935	56	5.40227
57	10.69468	58	2.83953	59	2.85869	60	2.45827	61	2.14424	62	2.20961	63	2.24649	64	5.60442
65	7.14749	66	1.60722	67	1.46155	68	1.23100	69	1.04341	70	1.05694	71	1.03747	72	2.89095
73	4.82452	74	1.02175	75	.93134	76	.73710	77	.58865	78	.62334	79	.57808	80	1.45712
81	2.15015	82	.36590	83	.33897	84	.24552	85	.17350	86	.18581	87	.14688	88	.19897
89	.65159	90	.04292	91	.03710	92	.00461	93	-.00490	94	-.02561	95	-.05030	96	-.35467
97	-.92411	98	-.34482	99	-.49067	100	-.48063	101	-.23785	102	-.51359	103	-.46676	104	-1.77599

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y	
1	.6094E-04	.4037E-03	2	.6002E-04	.3844E-03	3	.6253E-04	.3530E-03	4	.7545E-04	.3279E-03
5	.8843E-04	.3146E-03	6	.1016E-03	.2993E-03	7	.1207E-03	.2719E-03	8	.1300E-03	.2460E-03
9	.1326E-03	.3469E-03	10	.1328E-03	.3282E-03	11	.1282E-03	.3003E-03	12	.1230E-03	.2795E-03
13	.1367E-03	.2685E-03	14	.1643E-03	.2554E-03	15	.1922E-03	.2307E-03	16	.1956E-03	.2057E-03
17	.1925E-03	.2020E-03	18	.1869E-03	.1869E-03	19	.1679E-03	.1678E-03	20	.1479E-03	.1600E-03
21	.1626E-03	.1586E-03	22	.2013E-03	.1538E-03	23	.2421E-03	.1366E-03	24	.2461E-03	.1168E-03
25	.2046E-03	.1079E-03	26	.1974E-03	.1062E-03	27	.1741E-03	.1042E-03	28	.1482E-03	.1036E-03
29	.1629E-03	.1030E-03	30	.2079E-03	.1012E-03	31	.2542E-03	.9534E-04	32	.2591E-03	.8407E-04
33	.1964E-03	.4119E-04	34	.1935E-03	.4511E-04	35	.1707E-03	.5211E-04	36	.1474E-03	.5901E-04
37	.1642E-03	.6224E-04	38	.2074E-03	.6438E-04	39	.2569E-03	.6582E-04	40	.2670E-03	.6028E-04
41	.1953E-03	.2803E-04	42	.1941E-03	.2473E-04	43	.1668E-03	.2118E-04	44	.1366E-03	.3529E-04
45	.1544E-03	.5070E-04	46	.2048E-03	.5975E-04	47	.2607E-03	.5419E-04	48	.2714E-03	.5006E-04
49	.2007E-03	.2558E-04	50	.1999E-03	.1906E-04	51	.1641E-03	.8917E-05	52	.1197E-03	.2804E-04
53	.1366E-03	.5227E-04	54	.2027E-03	.6587E-04	55	.2661E-03	.5298E-04	56	.2736E-03	.4886E-04
57	.6570E-04	-.5715E-03	58	.8218E-04	-.5552E-03	59	.1161E-03	-.5150E-03	60	.1416E-03	-.4789E-03
61	.1612E-03	-.4579E-03	62	.1838E-03	-.4349E-03	63	.2030E-03	-.3975E-03	64	.2079E-03	-.3686E-03
65	.4869E-04	-.5496E-03	66	.6187E-04	-.5328E-03	67	.9192E-04	-.4978E-03	68	.1199E-03	-.4634E-03
69	.1395E-03	-.4422E-03	70	.1595E-03	-.4197E-03	71	.1800E-03	-.3851E-03	72	.1892E-03	-.3552E-03
73	.2549E-04	-.4671E-03	74	.3748E-04	-.4553E-03	75	.6225E-04	-.4320E-03	76	.9001E-04	-.4050E-03
77	.1085E-03	-.3862E-03	78	.1260E-03	-.3661E-03	79	.1464E-03	-.3352E-03	80	.1591E-03	-.3048E-03
81	.6548E-05	-.3126E-03	82	.1580E-04	-.3078E-03	83	.3305E-04	-.2978E-03	84	.5352E-04	-.2829E-03
85	.6740E-04	-.2706E-03	86	.8068E-04	-.2563E-03	87	.9682E-04	-.2326E-03	88	.1078E-03	-.2065E-03
89	.3669E-05	-.1964E-03	90	.9241E-05	-.1961E-03	91	.1969E-04	-.1928E-03	92	.3225E-04	-.1853E-03
93	.4103E-04	-.1781E-03	94	.4956E-04	-.1690E-03	95	.5991E-04	-.1533E-03	96	.6654E-04	-.1353E-03
97	.9767E-05	-.1329E-03	98	.9734E-05	-.1338E-03	99	.1145E-04	-.1328E-03	100	.1532E-04	-.1286E-03

Appendix 6E-e 12 Inch PCCP Pavement

101 .1779E-04 -.1242E-03 102 .2066E-04 -.1181E-03 103 .2530E-04 -.1075E-03 104 .2770E-04 -.9394E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.964064E+02	.000000E+00	.000000E+00	.000000E+00	.964064E+02	.482032E+02
25	1	.156224E+03	.000000E+00	.000000E+00	.000000E+00	.156224E+03	.781121E+02
29	1	.947806E+02	.667197E+02	-.135137E+01	.666547E+02	.948455E+02	.140954E+02
33	1	.229601E+02	.000000E+00	.000000E+00	.000000E+00	.229601E+02	.114800E+02
41	1	.713486E+01	.000000E+00	.000000E+00	.000000E+00	.713486E+01	.356743E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.111976E+01	-.948683E+01	-.894346E+01	.100632E+02	.950334E+01
51	1	.000000E+00	-.707902E+02	.312457E+01	-.709279E+02	.137646E+00	.355328E+02
52	1	.000000E+00	-.233867E+02	.257890E+02	-.400095E+02	.166229E+02	.283162E+02
53	1	.000000E+00	.757408E+02	.273327E+02	-.883340E+01	.845742E+02	.467038E+02
54	1	.000000E+00	.127415E+03	.240356E+01	-.453262E-01	.127460E+03	.637526E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 156.22420 AND OCCURS AT NODE 25

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
* 12 inch PCCP Pavement with 115K load
*
*****
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```
TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
```

Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	122.81600	132.00000	.00000	6.32470	90.00000
1	122.81600	132.00000	12.00000	18.32470	90.00000
1	122.81600	132.00000	84.00000	90.32470	90.00000
1	122.81600	132.00000	96.00000	102.32400	90.00000
1	170.81600	180.00000	.00000	6.32470	90.00000
1	170.81600	180.00000	12.00000	18.32470	90.00000
1	170.81600	180.00000	84.00000	90.32470	90.00000
1	170.81600	180.00000	96.00000	102.32400	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17      25      29      33      41      49      50      51      52      53      54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1    1    56    1    42            2    57    104    43    77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1    49    57    56    64    36    43    42    49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.42400	1.00000	-1.00000	-.20941	90.00000
22	-1.00000	-.55556	-1.00000	-.20941	90.00000
15	.42400	1.00000	.50000	1.00000	90.00000
16	.42400	1.00000	-1.00000	-.81402	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.81402	90.00000
19	.42400	1.00000	-.75000	.04059	90.00000
26	-1.00000	-.55556	-.75000	.04059	90.00000
19	.42400	1.00000	.75000	1.00000	90.00000
20	.42400	1.00000	-1.00000	-.62400	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.62400	90.00000
36	-.14800	1.00000	-1.00000	-.20941	90.00000
36	-.14800	1.00000	.50000	1.00000	90.00000
37	-.14800	1.00000	-1.00000	-.81402	90.00000
40	-.14800	1.00000	-.75000	.04059	90.00000
40	-.14800	1.00000	.75000	1.00000	90.00000
41	-.14800	1.00000	-1.00000	-.62400	90.00000



Appendix 6E-e 12 Inch PCCP Pavement

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

Appendix 6E-e 12 Inch PCCP Pavement

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0
81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .04816763  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01169833  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00136264  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00016167  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00001927

SUM OF APPLIED FORCES (FOSUM)= 41820.8 SUM OF TOTAL REACTIONS (SUBSUM)= 41766.0

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000224

SUM OF APPLIED FORCES (FOSUM)= 41820.8 SUM OF TOTAL REACTIONS (SUBSUM)= 41769.0

Appendix 6E-e 12 Inch PCCP Pavement

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1443E-01	2	.1403E-01	3	.1341E-01	4	.1267E-01	5	.1210E-01	6	.1145E-01	7	.1036E-01	8	.9113E-02
9	.2926E-01	10	.2848E-01	11	.2712E-01	12	.2556E-01	13	.2440E-01	14	.2308E-01	15	.2093E-01	16	.1854E-01
17	.4504E-01	18	.4321E-01	19	.4042E-01	20	.3796E-01	21	.3637E-01	22	.3447E-01	23	.3105E-01	24	.2725E-01
25	.5042E-01	26	.4817E-01	27	.4483E-01	28	.4212E-01	29	.4049E-01	30	.3846E-01	31	.3455E-01	32	.3026E-01
33	.5458E-01	34	.5218E-01	35	.4864E-01	36	.4578E-01	37	.4404E-01	38	.4187E-01	39	.3776E-01	40	.3310E-01
41	.5826E-01	42	.5570E-01	43	.5193E-01	44	.4904E-01	45	.4734E-01	46	.4514E-01	47	.4077E-01	48	.3584E-01
49	.6141E-01	50	.5867E-01	51	.5458E-01	52	.5176E-01	53	.5025E-01	54	.4811E-01	55	.4341E-01	56	.3828E-01
57	.5576E-01	58	.5485E-01	59	.5276E-01	60	.5013E-01	61	.4816E-01	62	.4589E-01	63	.4215E-01	64	.3819E-01
65	.4797E-01	66	.4730E-01	67	.4574E-01	68	.4358E-01	69	.4189E-01	70	.3992E-01	71	.3665E-01	72	.3307E-01
73	.3742E-01	74	.3705E-01	75	.3608E-01	76	.3455E-01	77	.3325E-01	78	.3170E-01	79	.2908E-01	80	.2612E-01
81	.2423E-01	82	.2412E-01	83	.2367E-01	84	.2281E-01	85	.2202E-01	86	.2105E-01	87	.1934E-01	88	.1736E-01
89	.1592E-01	90	.1586E-01	91	.1560E-01	92	.1509E-01	93	.1461E-01	94	.1402E-01	95	.1298E-01	96	.1176E-01
97	.8437E-02	98	.8315E-02	99	.8114E-02	100	.7851E-02	101	.7639E-02	102	.7395E-02	103	.6971E-02	104	.6476E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1443E-01	2	.1403E-01	3	.1341E-01	4	.1267E-01	5	.1210E-01	6	.1145E-01	7	.1036E-01	8	.9113E-02
9	.2926E-01	10	.2848E-01	11	.2712E-01	12	.2556E-01	13	.2440E-01	14	.2308E-01	15	.2093E-01	16	.1854E-01
17	.4504E-01	18	.4321E-01	19	.4042E-01	20	.3796E-01	21	.3637E-01	22	.3447E-01	23	.3105E-01	24	.2725E-01
25	.5042E-01	26	.4817E-01	27	.4483E-01	28	.4212E-01	29	.4049E-01	30	.3846E-01	31	.3455E-01	32	.3026E-01
33	.5458E-01	34	.5218E-01	35	.4864E-01	36	.4578E-01	37	.4404E-01	38	.4187E-01	39	.3776E-01	40	.3310E-01
41	.5826E-01	42	.5570E-01	43	.5193E-01	44	.4904E-01	45	.4734E-01	46	.4514E-01	47	.4077E-01	48	.3584E-01
49	.5858E-01	50	.5676E-01	51	.5367E-01	52	.5094E-01	53	.4921E-01	54	.4700E-01	55	.4278E-01	56	.3823E-01
57	.5858E-01	58	.5676E-01	59	.5367E-01	60	.5094E-01	61	.4921E-01	62	.4700E-01	63	.4278E-01	64	.3823E-01
65	.4797E-01	66	.4730E-01	67	.4574E-01	68	.4358E-01	69	.4189E-01	70	.3992E-01	71	.3665E-01	72	.3307E-01
73	.3742E-01	74	.3705E-01	75	.3608E-01	76	.3455E-01	77	.3325E-01	78	.3170E-01	79	.2908E-01	80	.2612E-01
81	.2423E-01	82	.2412E-01	83	.2367E-01	84	.2281E-01	85	.2202E-01	86	.2105E-01	87	.1934E-01	88	.1736E-01
89	.1592E-01	90	.1586E-01	91	.1560E-01	92	.1509E-01	93	.1461E-01	94	.1402E-01	95	.1298E-01	96	.1176E-01
97	.8437E-02	98	.8315E-02	99	.8114E-02	100	.7851E-02	101	.7639E-02	102	.7395E-02	103	.6971E-02	104	.6476E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	185.7	2	-122.9	3	-185.6	4	-201.9	5	-80.2	6	-237.0	7	-277.6	8	-628.7
9	1539.4	10	547.8	11	856.1	12	496.8	13	215.0	14	384.4	15	364.7	16	316.4
17	1585.5	18	875.5	19	907.5	20	577.7	21	379.2	22	491.6	23	512.1	24	537.6
25	1151.0	26	625.1	27	581.2	28	395.4	29	291.4	30	363.8	31	359.8	32	396.2
33	1373.1	34	785.2	35	764.0	36	514.8	37	369.0	38	460.0	39	486.4	40	545.8
41	1523.0	42	918.1	43	884.5	44	612.2	45	450.3	46	566.5	47	588.1	48	648.9

Appendix 6E-e 12 Inch PCCP Pavement

49	970.4	50	726.0	51	725.9	52	522.7	53	407.2	54	499.4	55	515.4	56	519.8
57	651.6	58	471.3	59	583.7	60	414.3	61	284.5	62	355.8	63	422.9	64	513.0
65	1026.1	66	604.8	67	680.6	68	475.7	69	315.8	70	391.7	71	452.4	72	627.8
73	1082.2	74	597.4	75	672.7	76	441.1	77	276.4	78	358.9	79	395.3	80	504.8
81	580.6	82	256.9	83	293.1	84	176.1	85	97.7	86	128.3	87	120.7	88	86.2
89	202.2	90	30.3	91	30.0	92	-1.4	93	-6.1	94	-26.0	95	-54.8	96	-183.3
97	-207.8	98	-185.2	99	-322.8	100	-257.2	101	-99.3	102	-260.8	103	-279.0	104	-529.9

ITERATION NO. (IC) = 13 DIFFERENCE IN DEFLECTION (DF) = .00000028

SUM OF APPLIED FORCES (FOSUM)= 41820.8 SUM OF TOTAL REACTIONS (SUBSUM)= 41769.4

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1443E-01	2	.1403E-01	3	.1341E-01	4	.1267E-01	5	.1210E-01	6	.1145E-01	7	.1036E-01	8	.9113E-02
9	.2926E-01	10	.2848E-01	11	.2712E-01	12	.2556E-01	13	.2440E-01	14	.2308E-01	15	.2093E-01	16	.1854E-01
17	.4504E-01	18	.4321E-01	19	.4042E-01	20	.3796E-01	21	.3637E-01	22	.3447E-01	23	.3105E-01	24	.2725E-01
25	.5042E-01	26	.4817E-01	27	.4483E-01	28	.4212E-01	29	.4049E-01	30	.3846E-01	31	.3455E-01	32	.3026E-01
33	.5458E-01	34	.5218E-01	35	.4864E-01	36	.4578E-01	37	.4404E-01	38	.4187E-01	39	.3776E-01	40	.3310E-01
41	.5826E-01	42	.5570E-01	43	.5193E-01	44	.4904E-01	45	.4734E-01	46	.4514E-01	47	.4077E-01	48	.3584E-01
49	.6141E-01	50	.5867E-01	51	.5458E-01	52	.5176E-01	53	.5025E-01	54	.4811E-01	55	.4341E-01	56	.3828E-01
57	.5576E-01	58	.5485E-01	59	.5276E-01	60	.5013E-01	61	.4816E-01	62	.4589E-01	63	.4215E-01	64	.3819E-01
65	.4797E-01	66	.4730E-01	67	.4574E-01	68	.4359E-01	69	.4189E-01	70	.3992E-01	71	.3665E-01	72	.3307E-01
73	.3742E-01	74	.3705E-01	75	.3609E-01	76	.3455E-01	77	.3325E-01	78	.3170E-01	79	.2908E-01	80	.2612E-01
81	.2423E-01	82	.2412E-01	83	.2367E-01	84	.2281E-01	85	.2202E-01	86	.2105E-01	87	.1934E-01	88	.1736E-01
89	.1592E-01	90	.1586E-01	91	.1560E-01	92	.1509E-01	93	.1461E-01	94	.1402E-01	95	.1298E-01	96	.1176E-01
97	.8437E-02	98	.8316E-02	99	.8114E-02	100	.7851E-02	101	.7640E-02	102	.7395E-02	103	.6971E-02	104	.6476E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1443E-01	2	.1403E-01	3	.1341E-01	4	.1267E-01	5	.1210E-01	6	.1145E-01	7	.1036E-01	8	.9113E-02
9	.2926E-01	10	.2848E-01	11	.2712E-01	12	.2556E-01	13	.2440E-01	14	.2308E-01	15	.2093E-01	16	.1854E-01
17	.4504E-01	18	.4321E-01	19	.4042E-01	20	.3796E-01	21	.3637E-01	22	.3447E-01	23	.3105E-01	24	.2725E-01
25	.5042E-01	26	.4817E-01	27	.4483E-01	28	.4212E-01	29	.4049E-01	30	.3846E-01	31	.3455E-01	32	.3026E-01
33	.5458E-01	34	.5218E-01	35	.4864E-01	36	.4578E-01	37	.4404E-01	38	.4187E-01	39	.3776E-01	40	.3310E-01
41	.5826E-01	42	.5570E-01	43	.5193E-01	44	.4904E-01	45	.4734E-01	46	.4514E-01	47	.4077E-01	48	.3584E-01
49	.5859E-01	50	.5676E-01	51	.5367E-01	52	.5094E-01	53	.4921E-01	54	.4700E-01	55	.4278E-01	56	.3823E-01
57	.5859E-01	58	.5676E-01	59	.5367E-01	60	.5094E-01	61	.4921E-01	62	.4700E-01	63	.4278E-01	64	.3823E-01
65	.4797E-01	66	.4730E-01	67	.4574E-01	68	.4359E-01	69	.4189E-01	70	.3992E-01	71	.3665E-01	72	.3307E-01
73	.3742E-01	74	.3705E-01	75	.3609E-01	76	.3455E-01	77	.3325E-01	78	.3170E-01	79	.2908E-01	80	.2612E-01
81	.2423E-01	82	.2412E-01	83	.2367E-01	84	.2281E-01	85	.2202E-01	86	.2105E-01	87	.1934E-01	88	.1736E-01
89	.1592E-01	90	.1586E-01	91	.1560E-01	92	.1509E-01	93	.1461E-01	94	.1402E-01	95	.1298E-01	96	.1176E-01

Appendix 6E-e 12 Inch PCCP Pavement

97 .8437E-02 98 .8316E-02 99 .8114E-02 100 .7851E-02 101 .7640E-02 102 .7395E-02 103 .6971E-02 104 .6476E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	185.7	2	-122.9	3	-185.6	4	-201.9	5	-80.2	6	-237.0	7	-277.6	8	-628.7
9	1539.4	10	547.8	11	856.1	12	496.8	13	215.0	14	384.4	15	364.7	16	316.5
17	1585.5	18	875.5	19	907.5	20	577.7	21	379.2	22	491.6	23	512.1	24	537.6
25	1151.0	26	625.1	27	581.3	28	395.4	29	291.4	30	363.8	31	359.8	32	396.2
33	1373.1	34	785.2	35	764.0	36	514.8	37	369.0	38	460.0	39	486.4	40	545.8
41	1523.0	42	918.1	43	884.5	44	612.2	45	450.3	46	566.5	47	588.1	48	648.9
49	970.4	50	726.0	51	725.9	52	522.7	53	407.2	54	499.4	55	515.5	56	519.8
57	651.6	58	471.3	59	583.7	60	414.3	61	284.5	62	355.8	63	422.9	64	513.0
65	1026.1	66	604.8	67	680.6	68	475.7	69	315.8	70	391.7	71	452.4	72	627.8
73	1082.2	74	597.4	75	672.7	76	441.1	77	276.4	78	358.9	79	395.3	80	504.8
81	580.7	82	256.9	83	293.1	84	176.1	85	97.7	86	128.3	87	120.7	88	86.2
89	202.2	90	30.3	91	30.0	92	-1.4	93	-6.1	94	-26.0	95	-54.8	96	-183.3
97	-207.8	98	-185.2	99	-322.8	100	-257.2	101	-99.3	102	-260.8	103	-279.0	104	-529.9

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1785.514	.000	50	-3094.316	.000	51	-1798.945	.000	52	-1316.645	.000
53	-1318.568	.000	54	-1704.573	.000	55	-1148.367	.000	56	-42.650	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2678.271	50	-1811.307	51	-863.494	52	-770.719	53	-988.926	54	-1048.968
55	-599.148	56	-44.504								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4183.192	-3410.074	50	-2829.080	-2306.223	51	-1348.690	-1099.432	52	-1203.786	-981.308
53	-1544.604	-1259.137	54	-1638.383	-1335.585	55	-935.809	-762.857	56	-69.511	-56.665

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.77361	2	-.19978	3	-.24749	4	-.32828	5	-.16713	6	-.40510	7	-.40230	8	-1.82228
9	3.49857	10	.48584	11	.62262	12	.44062	13	.24436	14	.35839	15	.28828	16	.50032
17	5.82897	18	1.25604	19	1.06760	20	.82888	21	.69700	22	.74153	23	.65490	24	1.37483
25	7.99311	26	1.69415	27	1.29167	28	1.07150	29	1.01177	30	1.03640	31	.86920	32	1.91407
33	9.53537	34	2.12794	35	1.69772	36	1.39500	37	1.28127	38	1.31052	39	1.17481	40	2.63688
41	11.19824	42	2.63434	43	2.08126	44	1.75671	45	1.65549	46	1.70897	47	1.50414	48	3.31912
49	15.16241	50	4.42663	51	3.62957	52	3.18734	53	3.18136	54	3.20157	55	2.80136	56	5.64954
57	10.18132	58	2.87405	59	2.91850	60	2.52639	61	2.22255	62	2.28108	63	2.29836	64	5.57614
65	6.41310	66	1.47503	67	1.36119	68	1.16018	69	.98702	70	1.00439	71	.98354	72	2.72938
73	4.22740	74	.91065	75	.84087	76	.67237	77	.53988	78	.57517	79	.53711	80	1.37179

Appendix 6E-e 12 Inch PCCP Pavement

81	1.81453	82	.31330	83	.29307	84	.21477	85	.15267	86	.16444	87	.13121	88	.18744
89	.50548	90	.02954	91	.02404	92	-.00132	93	-.00760	94	-.02664	95	-.04766	96	-.31879
97	-.86563	98	-.30118	99	-.43035	100	-.41822	101	-.20690	102	-.44582	103	-.40430	104	-1.53591

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2464E-04	.2309E-03	2	.2434E-04	.2245E-03	3	.2664E-04	.2146E-03	4	.3292E-04	.2026E-03	5	.3788E-04	.1935E-03
6	.4354E-04	.1832E-03	7	.5156E-04	.1671E-03	8	.5544E-04	.1488E-03	9	.4631E-04	.2878E-03	10	.5100E-04	.2743E-03
11	.5781E-04	.2538E-03	12	.6793E-04	.2369E-03	13	.7738E-04	.2268E-03	14	.8722E-04	.2148E-03	15	.9981E-04	.1928E-03
16	.1062E-03	.2586E-03	17	.1051E-03	.2586E-03	18	.1144E-03	.2930E-03	19	.1051E-03	.2586E-03	20	.9544E-04	.2427E-03
21	.1065E-03	.2387E-03	22	.1322E-03	.2297E-03	23	.1609E-03	.2014E-03	24	.1671E-03	.1722E-03	25	.1436E-03	.2653E-03
26	.1391E-03	.2496E-03	27	.1215E-03	.2288E-03	28	.9968E-04	.2176E-03	29	.1105E-03	.2130E-03	30	.1466E-03	.2055E-03
31	.1834E-03	.1863E-03	32	.1881E-03	.1625E-03	33	.1508E-03	.2113E-03	34	.1488E-03	.2042E-03	35	.1287E-03	.1954E-03
36	.1053E-03	.1902E-03	37	.1180E-03	.1870E-03	38	.1548E-03	.1819E-03	39	.1963E-03	.1711E-03	40	.2047E-03	.1539E-03
41	.1602E-03	.1992E-03	42	.1597E-03	.1886E-03	43	.1345E-03	.1721E-03	44	.1026E-03	.1736E-03	45	.1163E-03	.1813E-03
46	.1612E-03	.1825E-03	47	.2091E-03	.1655E-03	48	.2170E-03	.1517E-03	49	.1710E-03	.1958E-03	50	.1724E-03	.1839E-03
51	.1401E-03	.1615E-03	52	.9382E-04	.1676E-03	53	.1066E-03	.1836E-03	54	.1671E-03	.1891E-03	55	.2216E-03	.1650E-03
56	.2248E-03	.1527E-03	57	.5221E-04	-.4932E-03	58	.6671E-04	-.4792E-03	59	.9534E-04	-.4443E-03	60	.1156E-03	-.4141E-03
61	.1319E-03	-.3972E-03	62	.1518E-03	-.3786E-03	63	.1696E-03	-.3478E-03	64	.1745E-03	-.3239E-03	65	.3756E-04	-.4735E-03
66	.4916E-04	-.4591E-03	67	.7471E-04	-.4290E-03	68	.9780E-04	-.4003E-03	69	.1145E-03	-.3831E-03	70	.1319E-03	-.3648E-03
71	.1505E-03	-.3362E-03	72	.1592E-03	-.3114E-03	73	.1791E-04	-.3997E-03	74	.2844E-04	-.3899E-03	75	.4969E-04	-.3704E-03
76	.7328E-04	-.3480E-03	77	.8915E-04	-.3326E-03	78	.1044E-03	-.3161E-03	79	.1225E-03	-.2904E-03	80	.1341E-03	-.2649E-03
81	.2790E-05	-.2631E-03	82	.1085E-04	-.2595E-03	83	.2572E-04	-.2516E-03	84	.4331E-04	-.2394E-03	85	.5527E-04	-.2293E-03
86	.6676E-04	-.2174E-03	87	.8084E-04	-.1975E-03	88	.9055E-04	-.1754E-03	89	.1415E-05	-.1618E-03	90	.6219E-05	-.1619E-03
91	.1518E-04	-.1595E-03	92	.2592E-04	-.1535E-03	93	.3342E-04	-.1476E-03	94	.4071E-04	-.1400E-03	95	.4960E-04	-.1268E-03
96	.5538E-04	-.1115E-03	97	.7590E-05	-.1068E-03	98	.7560E-05	-.1078E-03	99	.8996E-05	-.1073E-03	100	.1220E-04	-.1040E-03
101	.1419E-04	-.1004E-03	102	.1650E-04	-.9536E-04	103	.2030E-04	-.8634E-04	104	.2228E-04	-.7485E-04			

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.160671E+02	.000000E+00	.000000E+00	.000000E+00	.160671E+02	.803354E+01
25	1	.129741E+03	.000000E+00	.000000E+00	.000000E+00	.129741E+03	.648705E+02
29	1	.655778E+02	.512176E+02	-.699638E+01	.483726E+02	.684228E+02	.100251E+02
33	1	.179248E+02	.000000E+00	.000000E+00	.000000E+00	.179248E+02	.896238E+01
41	1	.104585E+02	.000000E+00	.000000E+00	.000000E+00	.104585E+02	.522924E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.807436E+01	-.180460E+02	-.144549E+02	.225292E+02	.184921E+02

Appendix 6E-e 12 Inch PCCP Pavement

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51	1	.000000E+00	-.701133E+02	-.759785E+01	-.709272E+02	.813896E+00	.358706E+02
52	1	.000000E+00	-.282233E+02	.150613E+02	-.347509E+02	.652765E+01	.206393E+02
53	1	.000000E+00	.682762E+02	.166783E+02	-.385633E+01	.721326E+02	.379944E+02
54	1	.000000E+00	.118484E+03	-.811664E+01	-.553440E+00	.119037E+03	.597954E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 129.74100 AND OCCURS AT NODE 25

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
*      12 inch PCCP Pavement with 115K load Single Axle
*
*****
    
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TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
    
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```

NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
    
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Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	170.81600	180.00000	.00000	6.32470	90.00000
1	170.81600	180.00000	8.00000	14.32470	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17      25      29      33      41      49      50      51      52      53      54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1    1    56    1    42            2    57    104    43    77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1    49    57    56    64    36    43    42    49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.14800	1.00000	-1.00000	-.20941	90.00000
36	-.14800	1.00000	.00000	.79059	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0

Appendix 6E-e 12 Inch PCCP Pavement

81 0 82 0 83 0 84 0 85 0 86 0 87 0 88 0 89 0 90 0  
 91 0 92 0 93 0 94 0 95 0 96 0 97 0 98 0 99 0 100 0  
 101 0 102 0 103 0 104 0

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .02471220

ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00335036

ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00036127

ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004266

ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000508

SUM OF APPLIED FORCES (FOSUM)= 10455.5 SUM OF TOTAL REACTIONS (SUBSUM)= 10440.8

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3374E-02	2	.3014E-02	3	.2496E-02	4	.2042E-02	5	.1775E-02	6	.1519E-02	7	.1142E-02	8	.7443E-03
9	.7228E-02	10	.6577E-02	11	.5543E-02	12	.4550E-02	13	.3945E-02	14	.3361E-02	15	.2542E-02	16	.1727E-02
17	.1325E-01	18	.1191E-01	19	.9838E-02	20	.7917E-02	21	.6803E-02	22	.5771E-02	23	.4388E-02	24	.3048E-02
25	.1646E-01	26	.1470E-01	27	.1199E-01	28	.9555E-02	29	.8182E-02	30	.6940E-02	31	.5315E-02	32	.3770E-02
33	.2031E-01	34	.1798E-01	35	.1445E-01	36	.1139E-01	37	.9730E-02	38	.8264E-02	39	.6394E-02	40	.4653E-02
41	.2462E-01	42	.2161E-01	43	.1710E-01	44	.1336E-01	45	.1140E-01	46	.9706E-02	47	.7600E-02	48	.5691E-02
49	.2847E-01	50	.2490E-01	51	.1948E-01	52	.1515E-01	53	.1292E-01	54	.1103E-01	55	.8729E-02	56	.6704E-02
57	.2398E-01	58	.2209E-01	59	.1864E-01	60	.1508E-01	61	.1300E-01	62	.1113E-01	63	.8812E-02	64	.6779E-02
65	.2035E-01	66	.1876E-01	67	.1598E-01	68	.1310E-01	69	.1135E-01	70	.9752E-02	71	.7692E-02	72	.5805E-02
73	.1547E-01	74	.1431E-01	75	.1235E-01	76	.1030E-01	77	.9014E-02	78	.7782E-02	79	.6113E-02	80	.4506E-02
81	.9518E-02	82	.8869E-02	83	.7777E-02	84	.6628E-02	85	.5877E-02	86	.5122E-02	87	.4030E-02	88	.2923E-02
89	.5915E-02	90	.5532E-02	91	.4893E-02	92	.4222E-02	93	.3778E-02	94	.3321E-02	95	.2639E-02	96	.1932E-02
97	.2886E-02	98	.2653E-02	99	.2313E-02	100	.1998E-02	101	.1802E-02	102	.1603E-02	103	.1297E-02	104	.9626E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3374E-02	2	.3014E-02	3	.2496E-02	4	.2042E-02	5	.1775E-02	6	.1519E-02	7	.1142E-02	8	.7443E-03
9	.7228E-02	10	.6577E-02	11	.5543E-02	12	.4550E-02	13	.3945E-02	14	.3361E-02	15	.2542E-02	16	.1727E-02
17	.1325E-01	18	.1191E-01	19	.9838E-02	20	.7917E-02	21	.6803E-02	22	.5771E-02	23	.4388E-02	24	.3048E-02
25	.1646E-01	26	.1470E-01	27	.1199E-01	28	.9555E-02	29	.8182E-02	30	.6940E-02	31	.5315E-02	32	.3770E-02
33	.2031E-01	34	.1798E-01	35	.1445E-01	36	.1139E-01	37	.9730E-02	38	.8264E-02	39	.6394E-02	40	.4653E-02
41	.2462E-01	42	.2161E-01	43	.1710E-01	44	.1336E-01	45	.1140E-01	46	.9706E-02	47	.7600E-02	48	.5691E-02

Appendix 6E-e 12 Inch PCCP Pavement

49	.2622E-01	50	.2350E-01	51	.1906E-01	52	.1512E-01	53	.1296E-01	54	.1108E-01	55	.8771E-02	56	.6742E-02
57	.2622E-01	58	.2350E-01	59	.1906E-01	60	.1512E-01	61	.1296E-01	62	.1108E-01	63	.8771E-02	64	.6742E-02
65	.2035E-01	66	.1876E-01	67	.1598E-01	68	.1310E-01	69	.1135E-01	70	.9752E-02	71	.7692E-02	72	.5805E-02
73	.1547E-01	74	.1431E-01	75	.1235E-01	76	.1030E-01	77	.9014E-02	78	.7782E-02	79	.6113E-02	80	.4506E-02
81	.9518E-02	82	.8869E-02	83	.7777E-02	84	.6628E-02	85	.5877E-02	86	.5122E-02	87	.4030E-02	88	.2923E-02
89	.5915E-02	90	.5532E-02	91	.4893E-02	92	.4222E-02	93	.3778E-02	94	.3321E-02	95	.2639E-02	96	.1932E-02
97	.2886E-02	98	.2653E-02	99	.2313E-02	100	.1998E-02	101	.1802E-02	102	.1603E-02	103	.1297E-02	104	.9626E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	72.1	2	-61.8	3	-103.1	4	-106.7	5	-41.0	6	-114.8	7	-124.2	8	-295.5
9	392.5	10	66.3	11	76.7	12	-5.1	13	-10.6	14	-42.5	15	-67.9	16	-250.8
17	474.3	18	191.3	19	139.9	20	47.6	21	14.6	22	2.6	23	-25.2	24	-123.5
25	411.5	26	179.2	27	128.0	28	54.3	29	24.9	30	19.2	31	5.4	32	-49.0
33	616.5	34	295.1	35	219.7	36	97.8	37	48.7	38	44.7	39	29.8	40	-24.9
41	847.5	42	449.3	43	326.9	44	149.3	45	77.5	46	77.1	47	64.3	48	22.0
49	613.4	50	424.0	51	331.0	52	165.0	53	94.7	54	98.4	55	95.7	56	74.5
57	359.9	58	237.1	59	265.7	60	161.0	61	99.3	62	105.0	63	101.8	64	79.8
65	563.2	66	286.1	67	282.0	68	164.4	69	92.6	70	95.9	71	82.0	72	35.5
73	634.4	74	299.8	75	277.4	76	138.0	77	67.8	78	67.8	79	43.6	80	-48.6
81	383.8	82	138.4	83	124.5	84	48.7	85	17.6	86	9.1	87	-16.9	88	-138.8
89	191.8	90	32.5	91	25.0	92	-8.1	93	-9.8	94	-29.0	95	-50.4	96	-178.5
97	17.4	98	-56.6	99	-95.7	100	-90.0	101	-34.4	102	-96.0	103	-104.3	104	-247.7

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000061

SUM OF APPLIED FORCES (FOSUM)= 10455.5 SUM OF TOTAL REACTIONS (SUBSUM)= 10441.6

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3374E-02	2	.3014E-02	3	.2497E-02	4	.2042E-02	5	.1776E-02	6	.1519E-02	7	.1143E-02	8	.7447E-03
9	.7228E-02	10	.6578E-02	11	.5543E-02	12	.4550E-02	13	.3946E-02	14	.3362E-02	15	.2542E-02	16	.1728E-02
17	.1325E-01	18	.1191E-01	19	.9839E-02	20	.7918E-02	21	.6803E-02	22	.5771E-02	23	.4388E-02	24	.3048E-02
25	.1646E-01	26	.1470E-01	27	.1200E-01	28	.9556E-02	29	.8182E-02	30	.6940E-02	31	.5316E-02	32	.3771E-02
33	.2031E-01	34	.1798E-01	35	.1445E-01	36	.1139E-01	37	.9730E-02	38	.8264E-02	39	.6395E-02	40	.4653E-02
41	.2462E-01	42	.2161E-01	43	.1710E-01	44	.1336E-01	45	.1140E-01	46	.9707E-02	47	.7601E-02	48	.5691E-02
49	.2847E-01	50	.2490E-01	51	.1948E-01	52	.1515E-01	53	.1292E-01	54	.1103E-01	55	.8730E-02	56	.6705E-02
57	.2398E-01	58	.2210E-01	59	.1864E-01	60	.1509E-01	61	.1300E-01	62	.1113E-01	63	.8813E-02	64	.6780E-02
65	.2035E-01	66	.1876E-01	67	.1598E-01	68	.1310E-01	69	.1135E-01	70	.9753E-02	71	.7693E-02	72	.5806E-02
73	.1547E-01	74	.1431E-01	75	.1235E-01	76	.1030E-01	77	.9014E-02	78	.7783E-02	79	.6114E-02	80	.4507E-02
81	.9518E-02	82	.8869E-02	83	.7778E-02	84	.6629E-02	85	.5878E-02	86	.5122E-02	87	.4031E-02	88	.2923E-02
89	.5916E-02	90	.5533E-02	91	.4893E-02	92	.4222E-02	93	.3779E-02	94	.3321E-02	95	.2640E-02	96	.1933E-02

Appendix 6E-e 12 Inch PCCP Pavement

97 .2886E-02 98 .2653E-02 99 .2313E-02 100 .1998E-02 101 .1802E-02 102 .1604E-02 103 .1297E-02 104 .9629E-03

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3374E-02	2	.3014E-02	3	.2497E-02	4	.2042E-02	5	.1776E-02	6	.1519E-02	7	.1143E-02	8	.7447E-03
9	.7228E-02	10	.6578E-02	11	.5543E-02	12	.4550E-02	13	.3946E-02	14	.3362E-02	15	.2542E-02	16	.1728E-02
17	.1325E-01	18	.1191E-01	19	.9839E-02	20	.7918E-02	21	.6803E-02	22	.5771E-02	23	.4388E-02	24	.3048E-02
25	.1646E-01	26	.1470E-01	27	.1200E-01	28	.9556E-02	29	.8182E-02	30	.6940E-02	31	.5316E-02	32	.3771E-02
33	.2031E-01	34	.1798E-01	35	.1445E-01	36	.1139E-01	37	.9730E-02	38	.8264E-02	39	.6395E-02	40	.4653E-02
41	.2462E-01	42	.2161E-01	43	.1710E-01	44	.1336E-01	45	.1140E-01	46	.9707E-02	47	.7601E-02	48	.5691E-02
49	.2622E-01	50	.2350E-01	51	.1906E-01	52	.1512E-01	53	.1296E-01	54	.1108E-01	55	.8772E-02	56	.6742E-02
57	.2622E-01	58	.2350E-01	59	.1906E-01	60	.1512E-01	61	.1296E-01	62	.1108E-01	63	.8772E-02	64	.6742E-02
65	.2035E-01	66	.1876E-01	67	.1598E-01	68	.1310E-01	69	.1135E-01	70	.9753E-02	71	.7693E-02	72	.5806E-02
73	.1547E-01	74	.1431E-01	75	.1235E-01	76	.1030E-01	77	.9014E-02	78	.7783E-02	79	.6114E-02	80	.4507E-02
81	.9518E-02	82	.8869E-02	83	.7778E-02	84	.6629E-02	85	.5878E-02	86	.5122E-02	87	.4031E-02	88	.2923E-02
89	.5916E-02	90	.5533E-02	91	.4893E-02	92	.4222E-02	93	.3779E-02	94	.3321E-02	95	.2640E-02	96	.1933E-02
97	.2886E-02	98	.2653E-02	99	.2313E-02	100	.1998E-02	101	.1802E-02	102	.1604E-02	103	.1297E-02	104	.9629E-03

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	72.1	2	-61.8	3	-103.1	4	-106.7	5	-41.0	6	-114.8	7	-124.2	8	-295.5
9	392.6	10	66.3	11	76.7	12	-5.1	13	-10.6	14	-42.5	15	-67.9	16	-250.8
17	474.3	18	191.3	19	139.9	20	47.7	21	14.6	22	2.6	23	-25.2	24	-123.5
25	411.5	26	179.2	27	128.0	28	54.3	29	24.9	30	19.2	31	5.4	32	-49.0
33	616.5	34	295.1	35	219.7	36	97.8	37	48.7	38	44.7	39	29.8	40	-24.9
41	847.5	42	449.3	43	326.9	44	149.3	45	77.5	46	77.1	47	64.3	48	22.0
49	613.4	50	424.0	51	331.0	52	165.0	53	94.7	54	98.4	55	95.7	56	74.5
57	359.9	58	237.1	59	265.7	60	161.0	61	99.3	62	105.0	63	101.8	64	79.8
65	563.2	66	286.1	67	282.0	68	164.4	69	92.6	70	95.9	71	82.0	72	35.5
73	634.4	74	299.8	75	277.4	76	138.0	77	67.8	78	67.8	79	43.6	80	-48.6
81	383.8	82	138.4	83	124.5	84	48.7	85	17.6	86	9.1	87	-16.9	88	-138.8
89	191.8	90	32.5	91	25.0	92	-8.1	93	-9.8	94	-28.9	95	-50.4	96	-178.5
97	17.4	98	-56.6	99	-95.7	100	-90.0	101	-34.4	102	-95.9	103	-104.3	104	-247.6

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1419.526	.000	50	-2271.332	.000	51	-826.322	.000	52	-49.041	.000
53	48.602	.000	54	77.954	.000	55	75.386	.000	56	33.880	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2129.289	50	-1329.560	51	-396.635	52	-28.707	53	36.452	54	47.971
55	39.332	56	35.353								

Appendix 6E-e 12 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3325.736	-2711.089	50	-2076.640	-1692.845	51	-619.504	-505.010	52	-44.837	-36.551
53	56.934	46.412	54	74.927	61.079	55	61.432	50.079	56	55.218	45.013

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.30060	2	-.10050	3	-.13742	4	-.17347	5	-.08547	6	-.19625	7	-.17994	8	-.85655
9	.89218	10	.05879	11	.05580	12	-.00454	13	-.01208	14	-.03960	15	-.05368	16	-.39648
17	1.74385	18	.27440	19	.16457	20	.06837	21	.02680	22	.00394	23	-.03220	24	-.31591
25	2.85762	26	.48558	27	.28443	28	.14712	29	.08632	30	.05473	31	.01297	32	-.23653
33	4.28132	34	.79976	35	.48826	36	.26508	37	.16922	38	.12746	39	.07188	40	-.12015
41	6.23144	42	1.28917	43	.76927	44	.42832	45	.28504	46	.23268	47	.16445	48	.11241
49	9.58424	50	2.58518	51	1.65499	52	1.00614	53	.74010	54	.63095	55	.52030	56	.80959
57	5.62416	58	1.44553	59	1.32837	60	.98153	61	.77544	62	.67305	63	.55332	64	.86789
65	3.52012	66	.69792	67	.56407	68	.40098	69	.28942	70	.24601	71	.17824	72	.15425
73	2.47809	74	.45705	75	.34679	76	.21033	77	.13251	78	.10870	79	.05926	80	-.13200
81	1.19932	82	.16884	83	.12454	84	.05937	85	.02744	86	.01173	87	-.01835	88	-.30169
89	.47941	90	.03170	91	.02000	92	-.00790	93	-.01222	94	-.02969	95	-.04379	96	-.31045
97	.07260	98	-.09204	99	-.12757	100	-.14637	101	-.07170	102	-.16401	103	-.15122	104	-.71781

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2285E-04	.5530E-04	2	.2195E-04	.5056E-04	3	.1940E-04	.4381E-04	4	.1714E-04	.3660E-04
5	.1622E-04	.3184E-04	6	.1602E-04	.2708E-04	7	.1686E-04	.2052E-04	8	.1756E-04	.1385E-04
9	.3963E-04	.8719E-04	10	.4138E-04	.7827E-04	11	.4085E-04	.6473E-04	12	.3850E-04	.5203E-04
13	.3708E-04	.4456E-04	14	.3603E-04	.3764E-04	15	.3537E-04	.2851E-04	16	.3560E-04	.1988E-04
17	.8185E-04	.1589E-03	18	.8417E-04	.1405E-03	19	.8077E-04	.1104E-03	20	.7249E-04	.8471E-04
21	.6692E-04	.7142E-04	22	.6233E-04	.6035E-04	23	.5858E-04	.4723E-04	24	.5849E-04	.3597E-04
25	.1082E-03	.1970E-03	26	.1105E-03	.1692E-03	27	.1042E-03	.1289E-03	28	.9040E-04	.9697E-04
29	.8144E-04	.8162E-04	30	.7417E-04	.6946E-04	31	.6801E-04	.5582E-04	32	.6719E-04	.4451E-04
33	.1445E-03	.2300E-03	34	.1456E-03	.1944E-03	35	.1337E-03	.1432E-03	36	.1109E-03	.1065E-03
37	.9727E-04	.8997E-04	38	.8657E-04	.7733E-04	39	.7728E-04	.6385E-04	40	.7533E-04	.5358E-04
41	.1882E-03	.2423E-03	42	.1875E-03	.2054E-03	43	.1677E-03	.1492E-03	44	.1323E-03	.1115E-03
45	.1135E-03	.9483E-04	46	.9894E-04	.8232E-04	47	.8572E-04	.6960E-04	48	.8192E-04	.6137E-04
49	.2229E-03	.2401E-03	50	.2240E-03	.2056E-03	51	.1983E-03	.1472E-03	52	.1517E-03	.1106E-03
53	.1276E-03	.9446E-04	54	.1094E-03	.8252E-04	55	.9231E-04	.7075E-04	56	.8631E-04	.6429E-04
57	.1138E-03	-.2302E-03	58	.1261E-03	-.2128E-03	59	.1437E-03	-.1683E-03	60	.1369E-03	-.1248E-03
61	.1237E-03	-.1028E-03	62	.1095E-03	-.8611E-04	63	.9317E-04	-.7013E-04	64	.8655E-04	-.6180E-04
65	.9658E-04	-.2201E-03	66	.1039E-03	-.2016E-03	67	.1159E-03	-.1622E-03	68	.1127E-03	-.1227E-03
69	.1047E-03	-.1019E-03	70	.9543E-04	-.8563E-04	71	.8460E-04	-.6923E-04	72	.8095E-04	-.5888E-04
73	.7016E-04	-.1828E-03	74	.7490E-04	-.1671E-03	75	.8129E-04	-.1383E-03	76	.8166E-04	-.1085E-03



Appendix 6E-e 12 Inch PCCP Pavement

77	.7884E-04	-.9160E-04	78	.7501E-04	-.7737E-04	79	.7058E-04	-.6134E-04	80	.6991E-04	-.4889E-04
81	.3897E-04	-.1167E-03	82	.4200E-04	-.1071E-03	83	.4506E-04	-.9130E-04	84	.4666E-04	-.7485E-04
85	.4711E-04	-.6468E-04	86	.4731E-04	-.5516E-04	87	.4769E-04	-.4270E-04	88	.4871E-04	-.3129E-04
89	.2298E-04	-.6793E-04	90	.2474E-04	-.6360E-04	91	.2629E-04	-.5599E-04	92	.2736E-04	-.4753E-04
93	.2815E-04	-.4188E-04	94	.2902E-04	-.3616E-04	95	.3025E-04	-.2804E-04	96	.3114E-04	-.2006E-04
97	.1476E-04	-.4297E-04	98	.1424E-04	-.4057E-04	99	.1301E-04	-.3660E-04	100	.1232E-04	-.3182E-04
101	.1225E-04	-.2838E-04	102	.1269E-04	-.2471E-04	103	.1401E-04	-.1928E-04	104	.1485E-04	-.1338E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX.SHEAR
17	1	-.478603E+02	.000000E+00	.000000E+00	-.478603E+02	.000000E+00	.239301E+02
25	1	-.485135E+02	.000000E+00	.000000E+00	-.485135E+02	.000000E+00	.242567E+02
29	1	-.151140E+02	-.148498E+02	-.177569E+02	-.327393E+02	.277549E+01	.177574E+02
33	1	-.408886E+02	.000000E+00	.000000E+00	-.408886E+02	.000000E+00	.204443E+02
41	1	.909957E+01	.000000E+00	.000000E+00	.000000E+00	.909957E+01	.454978E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.662288E+01	-.477881E+02	-.445912E+02	.512141E+02	.479026E+02
51	1	.000000E+00	-.560913E+02	-.402911E+02	-.771367E+02	.210454E+02	.490910E+02
52	1	.000000E+00	-.385931E+02	-.248585E+02	-.507656E+02	.121725E+02	.314691E+02
53	1	.000000E+00	-.306396E+02	-.180468E+02	-.389922E+02	.835258E+01	.236724E+02
54	1	.000000E+00	-.231222E+02	-.131689E+02	-.290848E+02	.596255E+01	.175237E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 77.13666 AND OCCURS AT NODE 51

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
* 12 inch PCCP Pavement with 120K load Tridem
*
*****
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TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
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Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

12

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	74.61900	84.00000	.00000	6.46070	90.00000
1	74.61900	84.00000	12.00000	18.46070	90.00000
1	74.61900	84.00000	84.00000	90.46070	90.00000
1	74.61900	84.00000	96.00000	102.46000	90.00000
1	122.61900	132.00000	.00000	6.46070	90.00000
1	122.61900	132.00000	12.00000	18.46070	90.00000
1	122.61900	132.00000	84.00000	90.46070	90.00000
1	122.61900	132.00000	96.00000	102.46000	90.00000
1	170.61900	180.00000	.00000	6.46070	90.00000
1	170.61900	180.00000	12.00000	18.46070	90.00000
1	170.61900	180.00000	84.00000	90.46070	90.00000
1	170.61900	180.00000	96.00000	102.46000	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),

INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1 .00000 .00000 2 .00000 16.00000 3 .00000 41.00000 4 .00000 66.00000

Appendix 6E-e 12 Inch PCCP Pavement

5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

8	-.41524	-.04000	-1.00000	-.19241	90.00000
8	-.41524	-.04000	.50000	1.00000	90.00000
9	-.41524	-.04000	-1.00000	-.80314	90.00000
12	-.41524	-.04000	-.75000	.05759	90.00000
12	-.41524	-.04000	.75000	1.00000	90.00000
13	-.41524	-.04000	-1.00000	-.61217	90.00000
15	.40211	1.00000	-1.00000	-.19241	90.00000
22	-1.00000	-.55556	-1.00000	-.19241	90.00000
15	.40211	1.00000	.50000	1.00000	90.00000
16	.40211	1.00000	-1.00000	-.80314	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.80314	90.00000
19	.40211	1.00000	-.75000	.05759	90.00000
26	-1.00000	-.55556	-.75000	.05759	90.00000
19	.40211	1.00000	.75000	1.00000	90.00000

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20	.40211	1.00000	-1.00000	-.61217	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.61217	90.00000
36	-.17262	1.00000	-1.00000	-.19241	90.00000
36	-.17262	1.00000	.50000	1.00000	90.00000
37	-.17262	1.00000	-1.00000	-.80314	90.00000
40	-.17262	1.00000	-.75000	.05759	90.00000
40	-.17262	1.00000	.75000	1.00000	90.00000
41	-.17262	1.00000	-1.00000	-.61217	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000

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69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0
81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .05779892

Appendix 6E-e 12 Inch PCCP Pavement

ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01745031  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00199600  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00023659  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00002824

SUM OF APPLIED FORCES (FOSUM)= 65454.6 SUM OF TOTAL REACTIONS (SUBSUM)= 65376.4

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000338

SUM OF APPLIED FORCES (FOSUM)= 65454.6 SUM OF TOTAL REACTIONS (SUBSUM)= 65380.8

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3349E-01	2	.3248E-01	3	.3092E-01	4	.2915E-01	5	.2778E-01	6	.2620E-01	7	.2353E-01	8	.2048E-01
9	.5759E-01	10	.5539E-01	11	.5195E-01	12	.4872E-01	13	.4659E-01	14	.4409E-01	15	.3975E-01	16	.3507E-01
17	.7233E-01	18	.6919E-01	19	.6450E-01	20	.6047E-01	21	.5793E-01	22	.5492E-01	23	.4951E-01	24	.4362E-01
25	.7528E-01	26	.7196E-01	27	.6703E-01	28	.6293E-01	29	.6040E-01	30	.5734E-01	31	.5167E-01	32	.4549E-01
33	.7650E-01	34	.7326E-01	35	.6845E-01	36	.6440E-01	37	.6186E-01	38	.5879E-01	39	.5314E-01	40	.4681E-01
41	.7710E-01	42	.7387E-01	43	.6909E-01	44	.6524E-01	45	.6288E-01	46	.5992E-01	47	.5423E-01	48	.4781E-01
49	.7751E-01	50	.7419E-01	51	.6930E-01	52	.6573E-01	53	.6370E-01	54	.6093E-01	55	.5509E-01	56	.4861E-01
57	.7101E-01	58	.6983E-01	59	.6720E-01	60	.6386E-01	61	.6136E-01	62	.5849E-01	63	.5380E-01	64	.4888E-01
65	.6161E-01	66	.6072E-01	67	.5872E-01	68	.5597E-01	69	.5382E-01	70	.5133E-01	71	.4724E-01	72	.4280E-01
73	.4881E-01	74	.4830E-01	75	.4702E-01	76	.4505E-01	77	.4340E-01	78	.4144E-01	79	.3817E-01	80	.3450E-01
81	.3264E-01	82	.3246E-01	83	.3184E-01	84	.3072E-01	85	.2972E-01	86	.2848E-01	87	.2635E-01	88	.2389E-01
89	.2226E-01	90	.2216E-01	91	.2179E-01	92	.2112E-01	93	.2051E-01	94	.1975E-01	95	.1844E-01	96	.1692E-01
97	.1266E-01	98	.1250E-01	99	.1223E-01	100	.1188E-01	101	.1161E-01	102	.1129E-01	103	.1074E-01	104	.1010E-01

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3349E-01	2	.3248E-01	3	.3092E-01	4	.2915E-01	5	.2778E-01	6	.2620E-01	7	.2353E-01	8	.2048E-01
9	.5759E-01	10	.5539E-01	11	.5195E-01	12	.4872E-01	13	.4659E-01	14	.4409E-01	15	.3975E-01	16	.3507E-01
17	.7233E-01	18	.6919E-01	19	.6450E-01	20	.6047E-01	21	.5793E-01	22	.5492E-01	23	.4951E-01	24	.4362E-01
25	.7528E-01	26	.7196E-01	27	.6703E-01	28	.6293E-01	29	.6040E-01	30	.5734E-01	31	.5167E-01	32	.4549E-01
33	.7650E-01	34	.7326E-01	35	.6845E-01	36	.6440E-01	37	.6186E-01	38	.5879E-01	39	.5314E-01	40	.4681E-01
41	.7710E-01	42	.7387E-01	43	.6909E-01	44	.6524E-01	45	.6288E-01	46	.5992E-01	47	.5423E-01	48	.4781E-01
49	.7426E-01	50	.7201E-01	51	.6825E-01	52	.6479E-01	53	.6253E-01	54	.5971E-01	55	.5445E-01	56	.4875E-01
57	.7426E-01	58	.7201E-01	59	.6825E-01	60	.6479E-01	61	.6253E-01	62	.5971E-01	63	.5445E-01	64	.4875E-01
65	.6161E-01	66	.6072E-01	67	.5872E-01	68	.5597E-01	69	.5382E-01	70	.5133E-01	71	.4724E-01	72	.4280E-01
73	.4881E-01	74	.4830E-01	75	.4702E-01	76	.4505E-01	77	.4340E-01	78	.4144E-01	79	.3817E-01	80	.3450E-01
81	.3264E-01	82	.3246E-01	83	.3184E-01	84	.3072E-01	85	.2972E-01	86	.2848E-01	87	.2635E-01	88	.2389E-01
89	.2226E-01	90	.2216E-01	91	.2179E-01	92	.2112E-01	93	.2051E-01	94	.1975E-01	95	.1844E-01	96	.1692E-01



Appendix 6E-e 12 Inch PCCP Pavement

97 .1266E-01 98 .1250E-01 99 .1223E-01 100 .1188E-01 101 .1161E-01 102 .1129E-01 103 .1074E-01 104 .1010E-01

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	1533.2	2	285.8	3	605.6	4	272.8	5	93.7	6	133.5	7	52.7	8	-393.2
9	3902.7	10	1476.0	11	2254.9	12	1357.3	13	630.5	14	1171.6	15	1111.7	16	1192.4
17	2730.0	18	1561.0	19	1622.3	20	1039.7	21	689.0	22	897.1	23	943.3	24	1017.3
25	1682.9	26	910.6	27	858.6	28	585.4	29	424.9	30	526.8	31	529.5	32	596.5
33	1834.2	34	1044.6	35	1019.3	36	683.5	37	484.9	38	600.7	39	637.5	40	716.8
41	1861.2	42	1104.7	43	1059.9	44	726.9	45	529.8	46	661.5	47	683.8	48	741.2
49	1078.8	50	774.8	51	758.7	52	543.9	53	423.3	54	517.2	55	525.1	56	518.2
57	712.2	58	484.5	59	594.8	60	419.5	61	285.6	62	358.8	63	430.4	64	537.3
65	1190.4	66	686.0	67	760.8	68	525.6	69	347.8	70	429.4	71	497.3	72	693.6
73	1285.5	74	697.8	75	775.9	76	503.7	77	314.0	78	405.4	79	443.6	80	559.9
81	716.0	82	312.4	83	353.0	84	209.8	85	115.7	86	151.1	87	141.1	88	96.4
89	271.0	90	45.7	91	48.3	92	5.0	93	-4.0	94	-25.9	95	-60.1	96	-211.7
97	-231.5	98	-221.0	99	-383.5	100	-308.0	101	-119.0	102	-313.0	103	-335.5	104	-638.0

ITERATION NO. (IC) = 13 DIFFERENCE IN DEFLECTION (DF) = .00000039

SUM OF APPLIED FORCES (FOSUM)= 65454.6 SUM OF TOTAL REACTIONS (SUBSUM)= 65381.3

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3349E-01	2	.3248E-01	3	.3092E-01	4	.2915E-01	5	.2778E-01	6	.2620E-01	7	.2353E-01	8	.2048E-01
9	.5759E-01	10	.5539E-01	11	.5195E-01	12	.4872E-01	13	.4659E-01	14	.4409E-01	15	.3975E-01	16	.3507E-01
17	.7233E-01	18	.6919E-01	19	.6450E-01	20	.6047E-01	21	.5793E-01	22	.5492E-01	23	.4951E-01	24	.4362E-01
25	.7528E-01	26	.7196E-01	27	.6703E-01	28	.6293E-01	29	.6040E-01	30	.5734E-01	31	.5167E-01	32	.4549E-01
33	.7650E-01	34	.7326E-01	35	.6845E-01	36	.6440E-01	37	.6186E-01	38	.5879E-01	39	.5314E-01	40	.4681E-01
41	.7710E-01	42	.7387E-01	43	.6909E-01	44	.6524E-01	45	.6288E-01	46	.5992E-01	47	.5423E-01	48	.4781E-01
49	.7751E-01	50	.7419E-01	51	.6930E-01	52	.6573E-01	53	.6370E-01	54	.6093E-01	55	.5509E-01	56	.4861E-01
57	.7101E-01	58	.6983E-01	59	.6720E-01	60	.6386E-01	61	.6136E-01	62	.5849E-01	63	.5380E-01	64	.4888E-01
65	.6161E-01	66	.6072E-01	67	.5872E-01	68	.5597E-01	69	.5382E-01	70	.5133E-01	71	.4724E-01	72	.4280E-01
73	.4881E-01	74	.4830E-01	75	.4702E-01	76	.4505E-01	77	.4340E-01	78	.4144E-01	79	.3817E-01	80	.3450E-01
81	.3264E-01	82	.3246E-01	83	.3184E-01	84	.3072E-01	85	.2972E-01	86	.2848E-01	87	.2635E-01	88	.2389E-01
89	.2226E-01	90	.2216E-01	91	.2179E-01	92	.2112E-01	93	.2051E-01	94	.1975E-01	95	.1844E-01	96	.1692E-01
97	.1266E-01	98	.1250E-01	99	.1223E-01	100	.1188E-01	101	.1161E-01	102	.1129E-01	103	.1074E-01	104	.1010E-01

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3349E-01	2	.3248E-01	3	.3092E-01	4	.2915E-01	5	.2778E-01	6	.2620E-01	7	.2353E-01	8	.2048E-01
9	.5759E-01	10	.5539E-01	11	.5195E-01	12	.4872E-01	13	.4659E-01	14	.4409E-01	15	.3975E-01	16	.3507E-01

Appendix 6E-e 12 Inch PCCP Pavement

17	.7233E-01	18	.6919E-01	19	.6450E-01	20	.6047E-01	21	.5793E-01	22	.5492E-01	23	.4951E-01	24	.4362E-01
25	.7528E-01	26	.7196E-01	27	.6703E-01	28	.6293E-01	29	.6040E-01	30	.5734E-01	31	.5167E-01	32	.4549E-01
33	.7650E-01	34	.7326E-01	35	.6845E-01	36	.6440E-01	37	.6186E-01	38	.5879E-01	39	.5314E-01	40	.4681E-01
41	.7710E-01	42	.7387E-01	43	.6909E-01	44	.6524E-01	45	.6288E-01	46	.5992E-01	47	.5423E-01	48	.4781E-01
49	.7426E-01	50	.7201E-01	51	.6825E-01	52	.6480E-01	53	.6253E-01	54	.5971E-01	55	.5445E-01	56	.4875E-01
57	.7426E-01	58	.7201E-01	59	.6825E-01	60	.6480E-01	61	.6253E-01	62	.5971E-01	63	.5445E-01	64	.4875E-01
65	.6161E-01	66	.6072E-01	67	.5872E-01	68	.5597E-01	69	.5382E-01	70	.5133E-01	71	.4724E-01	72	.4280E-01
73	.4881E-01	74	.4830E-01	75	.4702E-01	76	.4505E-01	77	.4340E-01	78	.4144E-01	79	.3817E-01	80	.3450E-01
81	.3264E-01	82	.3246E-01	83	.3184E-01	84	.3072E-01	85	.2972E-01	86	.2848E-01	87	.2635E-01	88	.2389E-01
89	.2226E-01	90	.2216E-01	91	.2179E-01	92	.2112E-01	93	.2051E-01	94	.1975E-01	95	.1844E-01	96	.1692E-01
97	.1266E-01	98	.1250E-01	99	.1223E-01	100	.1188E-01	101	.1161E-01	102	.1129E-01	103	.1074E-01	104	.1010E-01

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	1533.2	2	285.8	3	605.6	4	272.8	5	93.7	6	133.5	7	52.7	8	-393.2
9	3902.7	10	1476.0	11	2254.9	12	1357.3	13	630.5	14	1171.6	15	1111.7	16	1192.4
17	2730.1	18	1561.0	19	1622.3	20	1039.7	21	689.0	22	897.1	23	943.3	24	1017.3
25	1682.9	26	910.6	27	858.7	28	585.4	29	424.9	30	526.8	31	529.5	32	596.5
33	1834.2	34	1044.6	35	1019.3	36	683.5	37	484.9	38	600.7	39	637.5	40	716.9
41	1861.2	42	1104.7	43	1059.9	44	726.9	45	529.8	46	661.5	47	683.8	48	741.2
49	1078.8	50	774.8	51	758.7	52	543.9	53	423.3	54	517.2	55	525.1	56	518.2
57	712.2	58	484.5	59	594.8	60	419.5	61	285.6	62	358.8	63	430.4	64	537.3
65	1190.4	66	686.0	67	760.8	68	525.6	69	347.8	70	429.4	71	497.3	72	693.6
73	1285.5	74	697.8	75	775.9	76	503.7	77	314.0	78	405.4	79	443.6	80	559.9
81	716.0	82	312.4	83	353.0	84	209.8	85	115.7	86	151.1	87	141.1	88	96.4
89	271.0	90	45.7	91	48.3	92	5.0	93	-4.0	94	-25.9	95	-60.1	96	-211.7
97	-231.5	98	-221.0	99	-383.5	100	-308.0	101	-119.0	102	-313.0	103	-335.5	104	-638.0

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-2053.500	.000	50	-3527.951	.000	51	-2072.898	.000	52	-1510.894	.000
53	-1479.447	.000	54	-1880.770	.000	55	-1175.729	.000	56	120.382	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-3080.250	50	-2065.142	51	-994.991	52	-884.426	53	-1109.586	54	-1157.397
55	-613.424	56	125.616								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4811.043	-3921.889	50	-3225.546	-2629.416	51	-1554.077	-1266.860	52	-1381.385	-1126.083
53	-1733.062	-1412.765	54	-1807.738	-1473.640	55	-958.107	-781.034	56	196.200	159.939

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

Appendix 6E-e 12 Inch PCCP Pavement

1	6.38826	2	.46476	3	.80741	4	.44357	5	.19517	6	.22826	7	.07643	8	-1.13970
9	8.86987	10	1.30906	11	1.63992	12	1.20381	13	.71645	14	1.09243	15	.87882	16	1.88522
17	10.03696	18	2.23964	19	1.90861	20	1.49166	21	1.26658	22	1.35311	23	1.20629	24	2.60188
25	11.68711	26	2.46767	27	1.90812	28	1.58635	29	1.47533	30	1.50095	31	1.27889	32	2.88172
33	12.73728	34	2.83090	35	2.26514	36	1.85225	37	1.68367	38	1.71148	39	1.53995	40	3.46307
41	13.68515	42	3.16993	43	2.49391	44	2.08579	45	1.94780	46	1.99558	47	1.74877	48	3.79152
49	16.85686	50	4.72435	51	3.79356	52	3.31653	53	3.30723	54	3.31554	55	2.85395	56	5.63292
57	11.12817	58	2.95419	59	2.97421	60	2.55807	61	2.23143	62	2.29990	63	2.33896	64	5.84007
65	7.43988	66	1.67319	67	1.52164	68	1.28193	69	1.08686	70	1.10114	71	1.08114	72	3.01550
73	5.02147	74	1.06371	75	.96983	76	.76779	77	.61331	78	.64961	79	.60274	80	1.52156
81	2.23760	82	.38092	83	.35301	84	.25582	85	.18084	86	.19378	87	.15335	88	.20963
89	.67758	90	.04463	91	.03861	92	.00485	93	-.00505	94	-.02656	95	-.05223	96	-.36817
97	-.96461	98	-.35935	99	-.51137	100	-.50080	101	-.24783	102	-.53509	103	-.48627	104	-1.84919

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.6331E-04	.4212E-03	2	.6236E-04	.4012E-03	3	.6501E-04	.3684E-03	4	.7856E-04	.3422E-03	5	.9215E-04	.3284E-03
5	.9215E-04	.3284E-03	6	.1059E-03	.3125E-03	7	.1259E-03	.2840E-03	8	.1357E-03	.2570E-03	9	.1379E-03	.3614E-03
9	.1379E-03	.3614E-03	10	.1381E-03	.3420E-03	11	.1334E-03	.3130E-03	12	.1280E-03	.2914E-03	13	.1423E-03	.2800E-03
13	.1423E-03	.2800E-03	14	.1711E-03	.2664E-03	15	.2004E-03	.2407E-03	16	.2039E-03	.2147E-03	17	.1999E-03	.2095E-03
17	.1999E-03	.2095E-03	18	.1941E-03	.1939E-03	19	.1746E-03	.1742E-03	20	.1539E-03	.1661E-03	21	.1691E-03	.1646E-03
21	.1691E-03	.1646E-03	22	.2095E-03	.1597E-03	23	.2521E-03	.1419E-03	24	.2564E-03	.1214E-03	25	.2123E-03	.1113E-03
25	.2123E-03	.1113E-03	26	.2050E-03	.1097E-03	27	.1811E-03	.1076E-03	28	.1542E-03	.1072E-03	29	.1695E-03	.1066E-03
29	.1695E-03	.1066E-03	30	.2163E-03	.1047E-03	31	.2647E-03	.9869E-04	32	.2698E-03	.8703E-04	33	.2038E-03	.4181E-04
33	.2038E-03	.4181E-04	34	.2008E-03	.4591E-04	35	.1774E-03	.5321E-04	36	.1533E-03	.6047E-04	37	.1708E-03	.6391E-04
37	.1708E-03	.6391E-04	38	.2157E-03	.6620E-04	39	.2674E-03	.6772E-04	40	.2779E-03	.6203E-04	41	.2026E-03	.2757E-04
41	.2026E-03	.2757E-04	42	.2014E-03	.2434E-04	43	.1733E-03	.2082E-04	44	.1420E-03	.3554E-04	45	.1604E-03	.5156E-04
45	.1604E-03	.5156E-04	46	.2129E-03	.6106E-04	47	.2713E-03	.5544E-04	48	.2826E-03	.5122E-04	49	.2078E-03	.2465E-04
49	.2078E-03	.2465E-04	50	.2071E-03	.1821E-04	51	.1705E-03	.8009E-05	52	.1245E-03	.2789E-04	53	.1420E-03	.5299E-04
53	.1420E-03	.5299E-04	54	.2106E-03	.6722E-04	55	.2768E-03	.5411E-04	56	.2848E-03	.4991E-04	57	.6797E-04	-.5952E-03
57	.6797E-04	-.5952E-03	58	.8513E-04	-.5783E-03	59	.1205E-03	-.5366E-03	60	.1471E-03	-.4990E-03	61	.1675E-03	-.4772E-03
61	.1675E-03	-.4772E-03	62	.1911E-03	-.4533E-03	63	.2112E-03	-.4144E-03	64	.2163E-03	-.3843E-03	65	.5033E-04	-.5724E-03
65	.5033E-04	-.5724E-03	66	.6405E-04	-.5549E-03	67	.9537E-04	-.5186E-03	68	.1245E-03	-.4829E-03	69	.1450E-03	-.4609E-03
69	.1450E-03	-.4609E-03	70	.1658E-03	-.4375E-03	71	.1873E-03	-.4014E-03	72	.1969E-03	-.3704E-03	73	.2626E-04	-.4864E-03
73	.2626E-04	-.4864E-03	74	.3875E-04	-.4742E-03	75	.6456E-04	-.4501E-03	76	.9351E-04	-.4220E-03	77	.1128E-03	-.4025E-03
77	.1128E-03	-.4025E-03	78	.1310E-03	-.3816E-03	79	.1523E-03	-.3495E-03	80	.1656E-03	-.3179E-03	81	.6641E-05	-.3256E-03
81	.6641E-05	-.3256E-03	82	.1627E-04	-.3207E-03	83	.3426E-04	-.3103E-03	84	.5560E-04	-.2948E-03	85	.7007E-04	-.2821E-03
85	.7007E-04	-.2821E-03	86	.8391E-04	-.2672E-03	87	.1007E-03	-.2425E-03	88	.1122E-03	-.2154E-03	89	.3711E-05	-.2046E-03
89	.3711E-05	-.2046E-03	90	.9516E-05	-.2044E-03	91	.2040E-04	-.2009E-03	92	.3350E-04	-.1931E-03	93	.4266E-04	-.1856E-03
93	.4266E-04	-.1856E-03	94	.5155E-04	-.1762E-03	95	.6234E-04	-.1598E-03	96	.6924E-04	-.1411E-03	97	.1011E-04	-.1385E-03
97	.1011E-04	-.1385E-03	98	.1008E-04	-.1394E-03	99	.1188E-04	-.1384E-03	100	.1592E-04	-.1341E-03			

Appendix 6E-e 12 Inch PCCP Pavement

101 .1850E-04 -.1295E-03 102 .2148E-04 -.1232E-03 103 .2632E-04 -.1121E-03 104 .2882E-04 -.9800E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.101059E+03	.000000E+00	.000000E+00	.000000E+00	.101059E+03	.505296E+02
25	1	.162344E+03	.000000E+00	.000000E+00	.000000E+00	.162344E+03	.811718E+02
29	1	.987826E+02	.693092E+02	-.136545E+01	.692460E+02	.988458E+02	.147999E+02
33	1	.242858E+02	.000000E+00	.000000E+00	.000000E+00	.242858E+02	.121429E+02
41	1	.858519E+01	.000000E+00	.000000E+00	.000000E+00	.858519E+01	.429259E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.168542E+01	-.948947E+01	-.868411E+01	.103695E+02	.952682E+01
51	1	.000000E+00	-.732164E+02	.338932E+01	-.733730E+02	.156563E+00	.367648E+02
52	1	.000000E+00	-.242290E+02	.267260E+02	-.414580E+02	.172290E+02	.293435E+02
53	1	.000000E+00	.783672E+02	.283951E+02	-.920683E+01	.875740E+02	.483904E+02
54	1	.000000E+00	.132606E+03	.271479E+01	-.555573E-01	.132662E+03	.663586E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 162.34360 AND OCCURS AT NODE 25

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

```
*****
*
*      12 inch PCCP Pavement with 120K load
*
*****
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TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
```

Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

8

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	122.61900	132.00000	.00000	6.46070	90.00000
1	122.61900	132.00000	12.00000	18.46070	90.00000
1	122.61900	132.00000	84.00000	90.46070	90.00000
1	122.61900	132.00000	96.00000	102.46000	90.00000
1	170.61900	180.00000	.00000	6.46070	90.00000
1	170.61900	180.00000	12.00000	18.46070	90.00000
1	170.61900	180.00000	84.00000	90.46070	90.00000
1	170.61900	180.00000	96.00000	102.46000	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

15	.40211	1.00000	-1.00000	-.19241	90.00000
22	-1.00000	-.55556	-1.00000	-.19241	90.00000
15	.40211	1.00000	.50000	1.00000	90.00000
16	.40211	1.00000	-1.00000	-.80314	90.00000
22	-1.00000	-.55556	.50000	1.00000	90.00000
23	-1.00000	-.55556	-1.00000	-.80314	90.00000
19	.40211	1.00000	-.75000	.05759	90.00000
26	-1.00000	-.55556	-.75000	.05759	90.00000
19	.40211	1.00000	.75000	1.00000	90.00000
20	.40211	1.00000	-1.00000	-.61217	90.00000
26	-1.00000	-.55556	.75000	1.00000	90.00000
27	-1.00000	-.55556	-1.00000	-.61217	90.00000
36	-.17262	1.00000	-1.00000	-.19241	90.00000
36	-.17262	1.00000	.50000	1.00000	90.00000
37	-.17262	1.00000	-1.00000	-.80314	90.00000
40	-.17262	1.00000	-.75000	.05759	90.00000
40	-.17262	1.00000	.75000	1.00000	90.00000
41	-.17262	1.00000	-1.00000	-.61217	90.00000



Appendix 6E-e 12 Inch PCCP Pavement

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
 POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SPRING SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

Appendix 6E-e 12 Inch PCCP Pavement

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0
81	0	82	0	83	0	84	0	85	0	86	0	87	0	88	0	89	0	90	0
91	0	92	0	93	0	94	0	95	0	96	0	97	0	98	0	99	0	100	0
101	0	102	0	103	0	104	0												

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .05015324  
 ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .01220226  
 ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00142150  
 ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00016863  
 ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00002003

SUM OF APPLIED FORCES (FOSUM)= 43636.4 SUM OF TOTAL REACTIONS (SUBSUM)= 43579.3

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000243

SUM OF APPLIED FORCES (FOSUM)= 43636.4 SUM OF TOTAL REACTIONS (SUBSUM)= 43582.5

Appendix 6E-e 12 Inch PCCP Pavement

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1506E-01	2	.1466E-01	3	.1401E-01	4	.1324E-01	5	.1265E-01	6	.1197E-01	7	.1083E-01	8	.9530E-02
9	.3054E-01	10	.2973E-01	11	.2832E-01	12	.2670E-01	13	.2549E-01	14	.2412E-01	15	.2187E-01	16	.1938E-01
17	.4699E-01	18	.4509E-01	19	.4219E-01	20	.3963E-01	21	.3797E-01	22	.3600E-01	23	.3243E-01	24	.2847E-01
25	.5258E-01	26	.5025E-01	27	.4677E-01	28	.4396E-01	29	.4226E-01	30	.4014E-01	31	.3608E-01	32	.3161E-01
33	.5690E-01	34	.5441E-01	35	.5073E-01	36	.4776E-01	37	.4594E-01	38	.4369E-01	39	.3941E-01	40	.3456E-01
41	.6071E-01	42	.5806E-01	43	.5414E-01	44	.5114E-01	45	.4937E-01	46	.4709E-01	47	.4254E-01	48	.3740E-01
49	.6397E-01	50	.6113E-01	51	.5689E-01	52	.5395E-01	53	.5238E-01	54	.5016E-01	55	.4528E-01	56	.3993E-01
57	.5809E-01	58	.5715E-01	59	.5499E-01	60	.5226E-01	61	.5021E-01	62	.4785E-01	63	.4396E-01	64	.3983E-01
65	.4999E-01	66	.4928E-01	67	.4767E-01	68	.4543E-01	69	.4367E-01	70	.4162E-01	71	.3822E-01	72	.3450E-01
73	.3899E-01	74	.3861E-01	75	.3761E-01	76	.3602E-01	77	.3467E-01	78	.3306E-01	79	.3033E-01	80	.2725E-01
81	.2525E-01	82	.2514E-01	83	.2468E-01	84	.2379E-01	85	.2297E-01	86	.2195E-01	87	.2018E-01	88	.1812E-01
89	.1660E-01	90	.1654E-01	91	.1626E-01	92	.1573E-01	93	.1524E-01	94	.1462E-01	95	.1354E-01	96	.1227E-01
97	.8799E-02	98	.8673E-02	99	.8464E-02	100	.8191E-02	101	.7971E-02	102	.7717E-02	103	.7276E-02	104	.6761E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1506E-01	2	.1466E-01	3	.1401E-01	4	.1324E-01	5	.1265E-01	6	.1197E-01	7	.1083E-01	8	.9530E-02
9	.3054E-01	10	.2973E-01	11	.2832E-01	12	.2670E-01	13	.2549E-01	14	.2412E-01	15	.2187E-01	16	.1938E-01
17	.4699E-01	18	.4509E-01	19	.4219E-01	20	.3963E-01	21	.3797E-01	22	.3600E-01	23	.3243E-01	24	.2847E-01
25	.5258E-01	26	.5025E-01	27	.4677E-01	28	.4396E-01	29	.4226E-01	30	.4014E-01	31	.3608E-01	32	.3161E-01
33	.5690E-01	34	.5441E-01	35	.5073E-01	36	.4776E-01	37	.4594E-01	38	.4369E-01	39	.3941E-01	40	.3456E-01
41	.6071E-01	42	.5806E-01	43	.5414E-01	44	.5114E-01	45	.4937E-01	46	.4709E-01	47	.4254E-01	48	.3740E-01
49	.6103E-01	50	.5914E-01	51	.5594E-01	52	.5310E-01	53	.5130E-01	54	.4900E-01	55	.4462E-01	56	.3988E-01
57	.6103E-01	58	.5914E-01	59	.5594E-01	60	.5310E-01	61	.5130E-01	62	.4900E-01	63	.4462E-01	64	.3988E-01
65	.4999E-01	66	.4928E-01	67	.4767E-01	68	.4543E-01	69	.4367E-01	70	.4162E-01	71	.3822E-01	72	.3450E-01
73	.3899E-01	74	.3861E-01	75	.3761E-01	76	.3602E-01	77	.3467E-01	78	.3306E-01	79	.3033E-01	80	.2725E-01
81	.2525E-01	82	.2514E-01	83	.2468E-01	84	.2379E-01	85	.2297E-01	86	.2195E-01	87	.2018E-01	88	.1812E-01
89	.1660E-01	90	.1654E-01	91	.1626E-01	92	.1573E-01	93	.1524E-01	94	.1462E-01	95	.1354E-01	96	.1227E-01
97	.8799E-02	98	.8673E-02	99	.8464E-02	100	.8191E-02	101	.7971E-02	102	.7717E-02	103	.7276E-02	104	.6761E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	194.5	2	-127.6	3	-192.5	4	-209.7	5	-83.3	6	-246.3	7	-288.7	8	-654.0
9	1608.0	10	573.0	11	895.7	12	520.3	13	225.3	14	403.1	15	382.8	16	334.9
17	1654.5	18	914.4	19	948.2	20	603.9	21	396.5	22	514.4	23	536.3	24	564.2
25	1199.8	26	652.2	27	606.8	28	412.8	29	304.2	30	380.0	31	376.3	32	415.0
33	1430.7	34	818.7	35	797.0	36	537.1	37	385.0	38	480.2	39	508.0	40	571.0
41	1585.9	42	956.6	43	922.0	44	638.2	45	469.4	46	590.9	47	613.7	48	677.8

Appendix 6E-e 12 Inch PCCP Pavement

49	1009.5	50	755.5	51	755.8	52	544.2	53	423.9	54	520.1	55	537.2	56	542.0
57	678.2	58	490.5	59	607.5	60	431.3	61	296.2	62	370.5	63	440.5	64	534.7
65	1068.2	66	629.7	67	708.7	68	495.5	69	329.1	70	408.2	71	471.5	72	654.9
73	1126.5	74	622.0	75	700.6	76	459.5	77	288.0	78	374.1	79	412.2	80	527.1
81	604.3	82	267.5	83	305.2	84	183.5	85	101.9	86	133.8	87	126.0	88	90.7
89	210.2	90	31.5	91	31.2	92	-1.4	93	-6.3	94	-27.0	95	-56.9	96	-190.4
97	-216.9	98	-193.1	99	-336.4	100	-268.0	101	-103.5	102	-271.8	103	-290.7	104	-551.8

ITERATION NO. (IC) = 13 DIFFERENCE IN DEFLECTION (DF) = .00000028

SUM OF APPLIED FORCES (FOSUM)= 43636.4 SUM OF TOTAL REACTIONS (SUBSUM)= 43582.8

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.1506E-01	2	.1466E-01	3	.1401E-01	4	.1324E-01	5	.1265E-01	6	.1197E-01	7	.1083E-01	8	.9530E-02
9	.3054E-01	10	.2973E-01	11	.2832E-01	12	.2670E-01	13	.2549E-01	14	.2412E-01	15	.2187E-01	16	.1938E-01
17	.4699E-01	18	.4509E-01	19	.4219E-01	20	.3963E-01	21	.3797E-01	22	.3600E-01	23	.3243E-01	24	.2847E-01
25	.5258E-01	26	.5025E-01	27	.4677E-01	28	.4396E-01	29	.4226E-01	30	.4014E-01	31	.3608E-01	32	.3161E-01
33	.5690E-01	34	.5441E-01	35	.5073E-01	36	.4776E-01	37	.4594E-01	38	.4369E-01	39	.3941E-01	40	.3456E-01
41	.6071E-01	42	.5806E-01	43	.5414E-01	44	.5114E-01	45	.4937E-01	46	.4709E-01	47	.4254E-01	48	.3740E-01
49	.6397E-01	50	.6113E-01	51	.5689E-01	52	.5395E-01	53	.5238E-01	54	.5016E-01	55	.4528E-01	56	.3993E-01
57	.5809E-01	58	.5715E-01	59	.5499E-01	60	.5226E-01	61	.5021E-01	62	.4785E-01	63	.4396E-01	64	.3983E-01
65	.4999E-01	66	.4928E-01	67	.4767E-01	68	.4543E-01	69	.4367E-01	70	.4162E-01	71	.3822E-01	72	.3450E-01
73	.3899E-01	74	.3861E-01	75	.3761E-01	76	.3602E-01	77	.3467E-01	78	.3306E-01	79	.3033E-01	80	.2725E-01
81	.2525E-01	82	.2514E-01	83	.2468E-01	84	.2379E-01	85	.2297E-01	86	.2195E-01	87	.2018E-01	88	.1812E-01
89	.1660E-01	90	.1654E-01	91	.1626E-01	92	.1573E-01	93	.1524E-01	94	.1462E-01	95	.1354E-01	96	.1227E-01
97	.8799E-02	98	.8673E-02	99	.8464E-02	100	.8191E-02	101	.7971E-02	102	.7717E-02	103	.7276E-02	104	.6761E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.1506E-01	2	.1466E-01	3	.1401E-01	4	.1324E-01	5	.1265E-01	6	.1197E-01	7	.1083E-01	8	.9530E-02
9	.3054E-01	10	.2973E-01	11	.2832E-01	12	.2670E-01	13	.2549E-01	14	.2412E-01	15	.2187E-01	16	.1938E-01
17	.4699E-01	18	.4509E-01	19	.4219E-01	20	.3963E-01	21	.3797E-01	22	.3600E-01	23	.3243E-01	24	.2847E-01
25	.5258E-01	26	.5025E-01	27	.4677E-01	28	.4396E-01	29	.4226E-01	30	.4014E-01	31	.3608E-01	32	.3161E-01
33	.5690E-01	34	.5441E-01	35	.5073E-01	36	.4776E-01	37	.4594E-01	38	.4369E-01	39	.3941E-01	40	.3456E-01
41	.6071E-01	42	.5806E-01	43	.5414E-01	44	.5114E-01	45	.4937E-01	46	.4709E-01	47	.4254E-01	48	.3740E-01
49	.6103E-01	50	.5914E-01	51	.5594E-01	52	.5310E-01	53	.5130E-01	54	.4901E-01	55	.4462E-01	56	.3988E-01
57	.6103E-01	58	.5914E-01	59	.5594E-01	60	.5310E-01	61	.5130E-01	62	.4901E-01	63	.4462E-01	64	.3988E-01
65	.4999E-01	66	.4928E-01	67	.4767E-01	68	.4543E-01	69	.4367E-01	70	.4162E-01	71	.3822E-01	72	.3450E-01
73	.3899E-01	74	.3861E-01	75	.3761E-01	76	.3602E-01	77	.3467E-01	78	.3306E-01	79	.3033E-01	80	.2725E-01
81	.2525E-01	82	.2514E-01	83	.2468E-01	84	.2379E-01	85	.2297E-01	86	.2195E-01	87	.2018E-01	88	.1812E-01
89	.1660E-01	90	.1654E-01	91	.1626E-01	92	.1573E-01	93	.1524E-01	94	.1462E-01	95	.1354E-01	96	.1227E-01

Appendix 6E-e 12 Inch PCCP Pavement

97 .8799E-02 98 .8673E-02 99 .8464E-02 100 .8191E-02 101 .7971E-02 102 .7717E-02 103 .7276E-02 104 .6761E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	194.5	2	-127.6	3	-192.5	4	-209.7	5	-83.3	6	-246.3	7	-288.7	8	-653.9
9	1608.0	10	573.0	11	895.7	12	520.3	13	225.3	14	403.1	15	382.8	16	334.9
17	1654.5	18	914.4	19	948.3	20	603.9	21	396.5	22	514.4	23	536.3	24	564.2
25	1199.8	26	652.2	27	606.8	28	412.8	29	304.2	30	380.0	31	376.3	32	415.1
33	1430.7	34	818.7	35	797.0	36	537.1	37	385.0	38	480.2	39	508.0	40	571.0
41	1585.9	42	956.6	43	922.0	44	638.2	45	469.4	46	590.9	47	613.7	48	677.8
49	1009.5	50	755.5	51	755.8	52	544.2	53	423.9	54	520.1	55	537.2	56	542.0
57	678.2	58	490.5	59	607.5	60	431.3	61	296.2	62	370.5	63	440.5	64	534.7
65	1068.2	66	629.7	67	708.7	68	495.5	69	329.1	70	408.2	71	471.5	72	654.9
73	1126.5	74	622.0	75	700.6	76	459.5	77	288.0	78	374.1	79	412.2	80	527.1
81	604.3	82	267.5	83	305.2	84	183.5	85	101.9	86	133.8	87	126.0	88	90.8
89	210.2	90	31.5	91	31.3	92	-1.4	93	-6.3	94	-27.0	95	-56.9	96	-190.4
97	-216.8	98	-193.1	99	-336.4	100	-268.0	101	-103.5	102	-271.7	103	-290.7	104	-551.8

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1855.554	.000	50	-3220.022	.000	51	-1876.460	.000	52	-1371.806	.000
53	-1372.449	.000	54	-1775.568	.000	55	-1199.872	.000	56	-46.315	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2783.332	50	-1884.891	51	-900.701	52	-803.009	53	-1029.337	54	-1092.657
55	-626.020	56	-48.328								

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-4347.285	-3543.841	50	-2944.011	-2399.913	51	-1406.805	-1146.806	52	-1254.219	-1022.420
53	-1607.721	-1310.589	54	-1706.621	-1391.212	55	-977.781	-797.072	56	-75.484	-61.533

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.81045	2	-.20748	3	-.25670	4	-.34099	5	-.17364	6	-.42110	7	-.41842	8	-1.89550
9	3.65461	10	.50817	11	.65142	12	.46147	13	.25607	14	.37585	15	.30264	16	.52946
17	6.08263	18	1.31193	19	1.11559	20	.86646	21	.72891	22	.77592	23	.68578	24	1.44298
25	8.33167	26	1.76743	27	1.34849	28	1.11875	29	1.05625	30	1.08251	31	.90884	32	2.00508
33	9.93550	34	2.21879	35	1.77110	36	1.45546	37	1.33693	38	1.36797	39	1.22716	40	2.75830
41	11.66106	42	2.74496	43	2.16947	44	1.83116	45	1.72589	46	1.78243	47	1.56962	48	3.46720
49	15.77270	50	4.60665	51	3.77922	52	3.31859	53	3.31183	54	3.33402	55	2.91937	56	5.89166
57	10.59621	58	2.99099	59	3.03751	60	2.62995	61	2.31383	62	2.37519	63	2.39381	64	5.81196
65	6.67652	66	1.53585	67	1.41743	68	1.20843	69	1.02833	70	1.04659	71	1.02510	72	2.84723
73	4.40056	74	.94819	75	.87577	76	.70047	77	.56257	78	.59950	79	.56008	80	1.43241

Appendix 6E-e 12 Inch PCCP Pavement

81	1.88848	82	.32620	83	.30524	84	.22380	85	.15915	86	.17150	87	.13700	88	.19729
89	.52557	90	.03070	91	.02500	92	-.00134	93	-.00788	94	-.02767	95	-.04952	96	-.33105
97	-.90352	98	-.31390	99	-.44855	100	-.43581	101	-.21561	102	-.46453	103	-.42124	104	-1.59942

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y
1	.2559E-04	.2411E-03	2	.2528E-04	.2344E-03	3	.2769E-04	.2241E-03	4	.3428E-04	.2116E-03
5	.3948E-04	.2021E-03	6	.4540E-04	.1914E-03	7	.5379E-04	.1746E-03	8	.5784E-04	.1555E-03
9	.4816E-04	.3002E-03	10	.5304E-04	.2861E-03	11	.6015E-04	.2648E-03	12	.7073E-04	.2473E-03
13	.8061E-04	.2367E-03	14	.9089E-04	.2242E-03	15	.1041E-03	.2013E-03	16	.1107E-03	.1767E-03
17	.1198E-03	.3294E-03	18	.1189E-03	.3049E-03	19	.1094E-03	.2692E-03	20	.9930E-04	.2527E-03
21	.1108E-03	.2485E-03	22	.1376E-03	.2391E-03	23	.1677E-03	.2098E-03	24	.1741E-03	.1794E-03
25	.1491E-03	.2755E-03	26	.1445E-03	.2594E-03	27	.1264E-03	.2378E-03	28	.1037E-03	.2262E-03
29	.1149E-03	.2215E-03	30	.1526E-03	.2137E-03	31	.1909E-03	.1938E-03	32	.1959E-03	.1691E-03
33	.1565E-03	.2192E-03	34	.1546E-03	.2119E-03	35	.1338E-03	.2028E-03	36	.1095E-03	.1974E-03
37	.1227E-03	.1941E-03	38	.1610E-03	.1889E-03	39	.2044E-03	.1778E-03	40	.2132E-03	.1599E-03
41	.1661E-03	.2060E-03	42	.1658E-03	.1952E-03	43	.1398E-03	.1783E-03	44	.1067E-03	.1799E-03
45	.1209E-03	.1879E-03	46	.1676E-03	.1892E-03	47	.2177E-03	.1717E-03	48	.2259E-03	.1574E-03
49	.1771E-03	.2021E-03	50	.1787E-03	.1901E-03	51	.1455E-03	.1672E-03	52	.9758E-04	.1735E-03
53	.1108E-03	.1901E-03	54	.1736E-03	.1958E-03	55	.2305E-03	.1711E-03	56	.2340E-03	.1584E-03
57	.5399E-04	-.5137E-03	58	.6909E-04	-.4992E-03	59	.9894E-04	-.4629E-03	60	.1201E-03	-.4315E-03
61	.1371E-03	-.4140E-03	62	.1578E-03	-.3947E-03	63	.1764E-03	-.3626E-03	64	.1816E-03	-.3377E-03
65	.3879E-04	-.4931E-03	66	.5087E-04	-.4782E-03	67	.7751E-04	-.4470E-03	68	.1016E-03	-.4171E-03
69	.1190E-03	-.3993E-03	70	.1372E-03	-.3803E-03	71	.1566E-03	-.3506E-03	72	.1657E-03	-.3248E-03
73	.1841E-04	-.4163E-03	74	.2937E-04	-.4061E-03	75	.5153E-04	-.3859E-03	76	.7613E-04	-.3627E-03
77	.9268E-04	-.3467E-03	78	.1086E-03	-.3295E-03	79	.1275E-03	-.3028E-03	80	.1395E-03	-.2762E-03
81	.2755E-05	-.2741E-03	82	.1115E-04	-.2704E-03	83	.2665E-04	-.2621E-03	84	.4499E-04	-.2496E-03
85	.5746E-04	-.2391E-03	86	.6944E-04	-.2267E-03	87	.8412E-04	-.2059E-03	88	.9425E-04	-.1830E-03
89	.1382E-05	-.1686E-03	90	.6387E-05	-.1687E-03	91	.1573E-04	-.1662E-03	92	.2693E-04	-.1600E-03
93	.3475E-04	-.1538E-03	94	.4235E-04	-.1460E-03	95	.5161E-04	-.1322E-03	96	.5764E-04	-.1163E-03
97	.7856E-05	-.1113E-03	98	.7827E-05	-.1124E-03	99	.9330E-05	-.1118E-03	100	.1268E-04	-.1084E-03
101	.1475E-04	-.1046E-03	102	.1716E-04	-.9943E-04	103	.2112E-04	-.9005E-04	104	.2318E-04	-.7808E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX. SHEAR
17	1	.177486E+02	.000000E+00	.000000E+00	.000000E+00	.177486E+02	.887430E+01
25	1	.134868E+03	.000000E+00	.000000E+00	.000000E+00	.134868E+03	.674340E+02
29	1	.684130E+02	.532010E+02	-.724836E+01	.503004E+02	.713136E+02	.105066E+02
33	1	.190728E+02	.000000E+00	.000000E+00	.000000E+00	.190728E+02	.953640E+01
41	1	.120578E+02	.000000E+00	.000000E+00	.000000E+00	.120578E+02	.602891E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.888813E+01	-.183737E+02	-.144595E+02	.233476E+02	.189035E+02

Appendix 6E-e 12 Inch PCCP Pavement

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51	1	.000000E+00	-.725436E+02	-.774955E+01	-.733622E+02	.818619E+00	.370904E+02
52	1	.000000E+00	-.292738E+02	.155760E+02	-.360109E+02	.673716E+01	.213741E+02
53	1	.000000E+00	.705814E+02	.173173E+02	-.401987E+01	.746012E+02	.393106E+02
54	1	.000000E+00	.123299E+03	-.822802E+01	-.546650E+00	.123846E+03	.621962E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 134.86810 AND OCCURS AT NODE 25

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF PROBLEMS TO BE SOLVED (NPROB) = 1

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*****
*
* 12 inch PCCP Pavement with 120K load Single Axle
*
*****
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TYPE OF FOUNDATION (NFOUND)      = 1
TYPE OF DAMAGE ANALYSIS (NDAMA)   = 0
NUMBER OF PERIODS PER YEAR (NPY)  = 1
NUMBER OF LOAD GROUPS (NLG)       = 1
TOTAL NUMBER OF SLABS (NSLAB)     = 2
TOTAL NUMBER OF JOINTS (NJOINT)   = 1
```

ARRANGEMENT OF SLABS

SLAB NO.	NO. OF NODES (NX) IN X DIRECTION	NO. OF NODES (NY) IN Y DIRECTION	JOINT NO. AT FOUR SIDES (JONO)			
			LEFT	RIGHT	BOTTOM	TOP
1	7	8	0	1	0	0
2	6	8	1	0	0	0

```
NUMBER OF LAYERS (NLAYER)-----= 1
NODAL NUMBER USED TO CHECK CONVERGENCE (NNCK)-----= 49
NUMBER OF NODES NOT IN CONTACT (NOTCON)-----= 0
NUMBER OF GAPS (NGAP)-----= 0
NUMBER OF POINTS FOR PRINTOUT (NPRINT)-----= 11
CODE FOR INPUT OF GAPS OR PRECOMPRESSIONS (INPUT)-----= 0
BOND BETWEEN TWO LAYERS (NBOND)-----= 0
CONDITION OF WARPING (NTEMP)-----= 0
CODE INDICATING WHETHER SLAB WEIGHT IS CONSIDERED (NWT)-----= 0
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Appendix 6E-e 12 Inch PCCP Pavement

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MAX NO. OF CYCLES FOR CHECKING CONTACT (NCYCLE)-----= 1
NUMBER OF ADDITIONAL THICKNESSES TO BE READ IN (NAT)
  FOR LAYER 1 -----= 0
  FOR LAYER 2 -----= 0
NUMBER OF POINTS ON X AXIS OF SYMMETRY (NSX)-----= 0
NUMBER OF POINTS ON Y AXIS OF SYMMETRY (NSY)-----= 0
MORE DETAILED PRINTOUT FOR EACH CONTACT CYCLE (MDPO)-----= 1
DIFFERENCE IN TEMP. BETWEEN TOP AND BOTTOM OF SLAB (TEMP)-----= .00000
UNIT WEIGHT OF LAYER 1 (GAMA(1))-----= .00000
UNIT WEIGHT OF LAYER 2 (GAMA(2))-----= .00000
MODULUS OF RUPTURE OF LAYER 1 (PMR(1))-----= .00000
MODULUS OF RUPTURE OF LAYER 2 (PMR(2))-----= .00000
COEFFICIENT OF THERMAL EXPANSION (CT)-----= .500E-05
TOLERANCE FOR ITERATIONS (DEL)-----= .100E-02
MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT (FMAX)-----= 1.00000
FOR LAYER 1 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR LAYER 2 FATIGUE COEFFICIENTS:  F1 = .00000  F2 = .00000
FOR SLAB NO. 1 : X= .00000 60.00000 110.00000 128.00000 146.00000 164.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
FOR SLAB NO. 2 : X= .00000 16.00000 40.00000 80.00000 120.00000 180.00000
                  Y= .00000 16.00000 41.00000 66.00000 82.00000 98.00000 121.00000 144.00000
LAYER  THICKNESS (T)  POISSON'S  YOUNG'S
NO.    12.00000      RATIO (PR)  MODULUS (YM)
  1          .15000          .400E+07
    
```

Appendix 6E-e 12 Inch PCCP Pavement

NUMBER OF LOADED AREAS (NUDL) FOR EACH LOAD GROUP ARE:

2

NUMBER OF CONCENTRATED NODAL FORCES (NCNF) FOR EACH LOAD GROUP ARE:

0

GROUP 1 LOADS ARE APPLIED ON THE SLAB NO.(LS) WITH COORDINATES (XL AND YL) AND INTENSITY(QQ) AS SHOWN:

1	170.61900	180.00000	.00000	6.46080	90.00000
1	170.61900	180.00000	8.00000	14.46080	90.00000

NODAL NUMBERS FOR STRESS PRINTOUT (NP) ARE:

17 25 29 33 41 49 50 51 52 53 54

FOUNDATION SEASONAL ADJUSTMENT FACTOR (FSAF) FOR EACH PERIOD ARE

1.00000

YOUNG'S MODULUS OF FOUNDATION (YMS) = .500E+04

POISSON'S RATIO OF FOUNDATION (PRS) = .45000

SLAB NO., INITIAL NODAL NUMBER(INITNP), LAST NODAL NUMBER(LASTNP),  
INITIAL ELEMENT NO.(INITEN), AND LAST ELEMENT NO.(LASTEN) ARE:

1 1 56 1 42 2 57 104 43 77

JOINT NO. INITIAL STARTING NODAL NO. (ISNN) AND LAST FINAL NODAL NO. (LFNN)

INITIAL STARTING ELEMENT NO.(ISEN) ,LAST FINAL ELEMENT NO.(LFEN) ON BOTH SIDES OF THE JOINT ARE:

1 49 57 56 64 36 43 42 49

NODAL COORDINATES(XN AND YN) OF INDIVIDUAL SLAB ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000
29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	.00000	.00000	58	.00000	16.00000	59	.00000	41.00000	60	.00000	66.00000
61	.00000	82.00000	62	.00000	98.00000	63	.00000	121.00000	64	.00000	144.00000
65	16.00000	.00000	66	16.00000	16.00000	67	16.00000	41.00000	68	16.00000	66.00000
69	16.00000	82.00000	70	16.00000	98.00000	71	16.00000	121.00000	72	16.00000	144.00000
73	40.00000	.00000	74	40.00000	16.00000	75	40.00000	41.00000	76	40.00000	66.00000
77	40.00000	82.00000	78	40.00000	98.00000	79	40.00000	121.00000	80	40.00000	144.00000
81	80.00000	.00000	82	80.00000	16.00000	83	80.00000	41.00000	84	80.00000	66.00000
85	80.00000	82.00000	86	80.00000	98.00000	87	80.00000	121.00000	88	80.00000	144.00000
89	120.00000	.00000	90	120.00000	16.00000	91	120.00000	41.00000	92	120.00000	66.00000
93	120.00000	82.00000	94	120.00000	98.00000	95	120.00000	121.00000	96	120.00000	144.00000
97	180.00000	.00000	98	180.00000	16.00000	99	180.00000	41.00000	100	180.00000	66.00000
101	180.00000	82.00000	102	180.00000	98.00000	103	180.00000	121.00000	104	180.00000	144.00000

LOADS ARE APPLIED ON THE ELEMENT NO.(NL) WITH COORDINATES(XDA AND YDA) AND INTENSITY(Q) AS SHOWN:

36	-.17262	1.00000	-1.00000	-.19240	90.00000
36	-.17262	1.00000	.00000	.80760	90.00000

YOUNG MODULUS OF DOWEL BAR (YMSB) = .290E+08  
POISSON RATIO OF DOWEL BAR (PRSB) = .30000

JOINT NO.	SHEAR (SPCON1)	CONSTANT MOMENT (SPCON2)	MODULUS OF DOWEL SUP. (SCKV)	DOWEL DIAMETER (BD)	DOWEL SPACING (BS)	JOINT WIDTH (WJ)	GAP BETWEEN DOWEL AND CONC. (GDC)	NO. OF NODES ALONG JOINT (NNAJ)
1	.000E+00	.000E+00	.150E+07	1.00000	12.00000	.25000	.00000	0

JOINT NO. 1 EQUIVALENT SPRING CONSTANT (SPCON) .395E+05

THE GLOBAL COORDINATES (XO AND YO) OF EACH NODE ARE:

1	.00000	.00000	2	.00000	16.00000	3	.00000	41.00000	4	.00000	66.00000
5	.00000	82.00000	6	.00000	98.00000	7	.00000	121.00000	8	.00000	144.00000
9	60.00000	.00000	10	60.00000	16.00000	11	60.00000	41.00000	12	60.00000	66.00000
13	60.00000	82.00000	14	60.00000	98.00000	15	60.00000	121.00000	16	60.00000	144.00000
17	110.00000	.00000	18	110.00000	16.00000	19	110.00000	41.00000	20	110.00000	66.00000
21	110.00000	82.00000	22	110.00000	98.00000	23	110.00000	121.00000	24	110.00000	144.00000
25	128.00000	.00000	26	128.00000	16.00000	27	128.00000	41.00000	28	128.00000	66.00000

Appendix 6E-e 12 Inch PCCP Pavement

29	128.00000	82.00000	30	128.00000	98.00000	31	128.00000	121.00000	32	128.00000	144.00000
33	146.00000	.00000	34	146.00000	16.00000	35	146.00000	41.00000	36	146.00000	66.00000
37	146.00000	82.00000	38	146.00000	98.00000	39	146.00000	121.00000	40	146.00000	144.00000
41	164.00000	.00000	42	164.00000	16.00000	43	164.00000	41.00000	44	164.00000	66.00000
45	164.00000	82.00000	46	164.00000	98.00000	47	164.00000	121.00000	48	164.00000	144.00000
49	180.00000	.00000	50	180.00000	16.00000	51	180.00000	41.00000	52	180.00000	66.00000
53	180.00000	82.00000	54	180.00000	98.00000	55	180.00000	121.00000	56	180.00000	144.00000
57	180.00000	.00000	58	180.00000	16.00000	59	180.00000	41.00000	60	180.00000	66.00000
61	180.00000	82.00000	62	180.00000	98.00000	63	180.00000	121.00000	64	180.00000	144.00000
65	196.00000	.00000	66	196.00000	16.00000	67	196.00000	41.00000	68	196.00000	66.00000
69	196.00000	82.00000	70	196.00000	98.00000	71	196.00000	121.00000	72	196.00000	144.00000
73	220.00000	.00000	74	220.00000	16.00000	75	220.00000	41.00000	76	220.00000	66.00000
77	220.00000	82.00000	78	220.00000	98.00000	79	220.00000	121.00000	80	220.00000	144.00000
81	260.00000	.00000	82	260.00000	16.00000	83	260.00000	41.00000	84	260.00000	66.00000
85	260.00000	82.00000	86	260.00000	98.00000	87	260.00000	121.00000	88	260.00000	144.00000
89	300.00000	.00000	90	300.00000	16.00000	91	300.00000	41.00000	92	300.00000	66.00000
93	300.00000	82.00000	94	300.00000	98.00000	95	300.00000	121.00000	96	300.00000	144.00000
97	360.00000	.00000	98	360.00000	16.00000	99	360.00000	41.00000	100	360.00000	66.00000
101	360.00000	82.00000	102	360.00000	98.00000	103	360.00000	121.00000	104	360.00000	144.00000

NODAL NUMBER AND TYPE OF NODES (NDTY) ARE:

1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	10	1
11	1	12	1	13	1	14	1	15	1	16	1	17	1	18	1	19	1	20	1
21	1	22	1	23	1	24	1	25	1	26	1	27	1	28	1	29	1	30	1
31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1	40	1
41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	2	50	2
51	2	52	2	53	2	54	2	55	2	56	2	57	0	58	0	59	0	60	0
61	0	62	0	63	0	64	0	65	1	66	1	67	1	68	1	69	1	70	1
71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1
81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
101	1	102	1	103	1	104	1												

NODAL NUMBERS AND OPPOSITE NODES (NPOP) ARE:

1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	10	0
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0	30	0
31	0	32	0	33	0	34	0	35	0	36	0	37	0	38	0	39	0	40	0
41	0	42	0	43	0	44	0	45	0	46	0	47	0	48	0	49	57	50	58
51	59	52	60	53	61	54	62	55	63	56	64	57	49	58	50	59	51	60	52
61	53	62	54	63	55	64	56	65	0	66	0	67	0	68	0	69	0	70	0
71	0	72	0	73	0	74	0	75	0	76	0	77	0	78	0	79	0	80	0

Appendix 6E-e 12 Inch PCCP Pavement

81 0 82 0 83 0 84 0 85 0 86 0 87 0 88 0 89 0 90 0  
 91 0 92 0 93 0 94 0 95 0 96 0 97 0 98 0 99 0 100 0  
 101 0 102 0 103 0 104 0

HALF BAND WIDTH (NB) = 93

PERIOD 1 LOAD GROUP 1 AND CYCLE NO. 1

ITERATION NO. (IC) = 1 DIFFERENCE IN DEFLECTION (DF) = .02573288

ITERATION NO. (IC) = 3 DIFFERENCE IN DEFLECTION (DF) = .00349505

ITERATION NO. (IC) = 5 DIFFERENCE IN DEFLECTION (DF) = .00037687

ITERATION NO. (IC) = 7 DIFFERENCE IN DEFLECTION (DF) = .00004452

ITERATION NO. (IC) = 9 DIFFERENCE IN DEFLECTION (DF) = .00000529

SUM OF APPLIED FORCES (FOSUM)= 10909.6 SUM OF TOTAL REACTIONS (SUBSUM)= 10894.2

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3525E-02	2	.3149E-02	3	.2609E-02	4	.2135E-02	5	.1857E-02	6	.1589E-02	7	.1196E-02	8	.7795E-03
9	.7550E-02	10	.6871E-02	11	.5792E-02	12	.4756E-02	13	.4125E-02	14	.3514E-02	15	.2659E-02	16	.1808E-02
17	.1383E-01	18	.1244E-01	19	.1027E-01	20	.8269E-02	21	.7106E-02	22	.6028E-02	23	.4585E-02	24	.3186E-02
25	.1717E-01	26	.1534E-01	27	.1252E-01	28	.9976E-02	29	.8543E-02	30	.7247E-02	31	.5551E-02	32	.3939E-02
33	.2119E-01	34	.1876E-01	35	.1508E-01	36	.1189E-01	37	.1016E-01	38	.8626E-02	39	.6675E-02	40	.4858E-02
41	.2566E-01	42	.2253E-01	43	.1784E-01	44	.1394E-01	45	.1189E-01	46	.1013E-01	47	.7931E-02	48	.5939E-02
49	.2965E-01	50	.2595E-01	51	.2031E-01	52	.1579E-01	53	.1348E-01	54	.1151E-01	55	.9106E-02	56	.6994E-02
57	.2498E-01	58	.2303E-01	59	.1943E-01	60	.1573E-01	61	.1356E-01	62	.1161E-01	63	.9193E-02	64	.7073E-02
65	.2120E-01	66	.1955E-01	67	.1666E-01	68	.1365E-01	69	.1184E-01	70	.1017E-01	71	.8024E-02	72	.6057E-02
73	.1612E-01	74	.1492E-01	75	.1288E-01	76	.1074E-01	77	.9400E-02	78	.8117E-02	79	.6378E-02	80	.4703E-02
81	.9920E-02	82	.9244E-02	83	.8108E-02	84	.6912E-02	85	.6130E-02	86	.5343E-02	87	.4206E-02	88	.3051E-02
89	.6166E-02	90	.5768E-02	91	.5102E-02	92	.4404E-02	93	.3941E-02	94	.3465E-02	95	.2755E-02	96	.2018E-02
97	.3009E-02	98	.2767E-02	99	.2412E-02	100	.2085E-02	101	.1881E-02	102	.1674E-02	103	.1355E-02	104	.1006E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3525E-02	2	.3149E-02	3	.2609E-02	4	.2135E-02	5	.1857E-02	6	.1589E-02	7	.1196E-02	8	.7795E-03
9	.7550E-02	10	.6871E-02	11	.5792E-02	12	.4756E-02	13	.4125E-02	14	.3514E-02	15	.2659E-02	16	.1808E-02
17	.1383E-01	18	.1244E-01	19	.1027E-01	20	.8269E-02	21	.7106E-02	22	.6028E-02	23	.4585E-02	24	.3186E-02
25	.1717E-01	26	.1534E-01	27	.1252E-01	28	.9976E-02	29	.8543E-02	30	.7247E-02	31	.5551E-02	32	.3939E-02
33	.2119E-01	34	.1876E-01	35	.1508E-01	36	.1189E-01	37	.1016E-01	38	.8625E-02	39	.6675E-02	40	.4858E-02
41	.2566E-01	42	.2253E-01	43	.1784E-01	44	.1394E-01	45	.1189E-01	46	.1013E-01	47	.7931E-02	48	.5939E-02

Appendix 6E-e 12 Inch PCCP Pavement

49	.2732E-01	50	.2449E-01	51	.1987E-01	52	.1576E-01	53	.1352E-01	54	.1156E-01	55	.9150E-02	56	.7034E-02
57	.2732E-01	58	.2449E-01	59	.1987E-01	60	.1576E-01	61	.1352E-01	62	.1156E-01	63	.9150E-02	64	.7034E-02
65	.2120E-01	66	.1955E-01	67	.1666E-01	68	.1365E-01	69	.1184E-01	70	.1017E-01	71	.8024E-02	72	.6057E-02
73	.1612E-01	74	.1492E-01	75	.1288E-01	76	.1074E-01	77	.9400E-02	78	.8117E-02	79	.6378E-02	80	.4703E-02
81	.9920E-02	82	.9244E-02	83	.8108E-02	84	.6912E-02	85	.6130E-02	86	.5343E-02	87	.4206E-02	88	.3051E-02
89	.6166E-02	90	.5768E-02	91	.5102E-02	92	.4404E-02	93	.3941E-02	94	.3465E-02	95	.2755E-02	96	.2018E-02
97	.3009E-02	98	.2767E-02	99	.2412E-02	100	.2085E-02	101	.1881E-02	102	.1674E-02	103	.1355E-02	104	.1006E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	75.6	2	-64.4	3	-107.3	4	-111.2	5	-42.7	6	-119.7	7	-129.4	8	-308.3
9	410.5	10	69.6	11	80.8	12	-4.8	13	-10.9	14	-43.9	15	-70.5	16	-261.2
17	495.5	18	200.1	19	146.6	20	50.2	21	15.5	22	3.0	23	-26.0	24	-128.5
25	429.5	26	187.2	27	133.9	28	56.9	29	26.1	30	20.2	31	5.7	32	-50.9
33	643.1	34	308.2	35	229.6	36	102.3	37	51.0	38	46.8	39	31.1	40	-25.8
41	883.0	42	468.6	43	341.2	44	155.8	45	80.9	46	80.5	47	67.1	48	22.9
49	638.1	50	441.5	51	344.9	52	172.0	53	98.8	54	102.6	55	99.8	56	77.6
57	374.7	58	246.8	59	276.6	60	167.7	61	103.4	62	109.4	63	106.1	64	83.3
65	586.6	66	298.1	67	293.8	68	171.3	69	96.6	70	100.0	71	85.5	72	37.1
73	660.7	74	312.3	75	289.1	76	143.9	77	70.8	78	70.8	79	45.6	80	-50.5
81	399.7	82	144.2	83	129.8	84	50.8	85	18.3	86	9.6	87	-17.5	88	-144.5
89	199.7	90	33.8	91	26.1	92	-8.4	93	-10.2	94	-30.1	95	-52.4	96	-185.9
97	18.0	98	-59.0	99	-99.7	100	-93.8	101	-35.9	102	-100.0	103	-108.7	104	-258.1

ITERATION NO. (IC) = 11 DIFFERENCE IN DEFLECTION (DF) = .00000065

SUM OF APPLIED FORCES (FOSUM)= 10909.6 SUM OF TOTAL REACTIONS (SUBSUM)= 10895.0

DEFLECTIONS OF SLABS (F) ARE: (DOWNWARD POSITIVE)

1	.3525E-02	2	.3149E-02	3	.2609E-02	4	.2135E-02	5	.1857E-02	6	.1589E-02	7	.1196E-02	8	.7799E-03
9	.7551E-02	10	.6872E-02	11	.5792E-02	12	.4756E-02	13	.4125E-02	14	.3515E-02	15	.2659E-02	16	.1808E-02
17	.1383E-01	18	.1244E-01	19	.1027E-01	20	.8270E-02	21	.7107E-02	22	.6029E-02	23	.4585E-02	24	.3187E-02
25	.1717E-01	26	.1534E-01	27	.1252E-01	28	.9977E-02	29	.8544E-02	30	.7247E-02	31	.5552E-02	32	.3939E-02
33	.2119E-01	34	.1876E-01	35	.1508E-01	36	.1189E-01	37	.1016E-01	38	.8626E-02	39	.6675E-02	40	.4859E-02
41	.2566E-01	42	.2254E-01	43	.1784E-01	44	.1394E-01	45	.1189E-01	46	.1013E-01	47	.7932E-02	48	.5939E-02
49	.2966E-01	50	.2595E-01	51	.2031E-01	52	.1580E-01	53	.1348E-01	54	.1151E-01	55	.9107E-02	56	.6995E-02
57	.2498E-01	58	.2303E-01	59	.1943E-01	60	.1573E-01	61	.1356E-01	62	.1161E-01	63	.9194E-02	64	.7074E-02
65	.2121E-01	66	.1955E-01	67	.1666E-01	68	.1366E-01	69	.1184E-01	70	.1017E-01	71	.8025E-02	72	.6058E-02
73	.1612E-01	74	.1492E-01	75	.1288E-01	76	.1074E-01	77	.9401E-02	78	.8118E-02	79	.6379E-02	80	.4704E-02
81	.9921E-02	82	.9245E-02	83	.8109E-02	84	.6913E-02	85	.6131E-02	86	.5344E-02	87	.4206E-02	88	.3052E-02
89	.6167E-02	90	.5768E-02	91	.5102E-02	92	.4404E-02	93	.3942E-02	94	.3465E-02	95	.2755E-02	96	.2018E-02

Appendix 6E-e 12 Inch PCCP Pavement

97 .3010E-02 98 .2767E-02 99 .2413E-02 100 .2085E-02 101 .1881E-02 102 .1674E-02 103 .1355E-02 104 .1006E-02

DEFLECTIONS OF SUBGRADE (SUBD) ARE: (DOWNWARD POSITIVE)

1	.3525E-02	2	.3149E-02	3	.2609E-02	4	.2135E-02	5	.1857E-02	6	.1589E-02	7	.1196E-02	8	.7799E-03
9	.7551E-02	10	.6872E-02	11	.5792E-02	12	.4756E-02	13	.4125E-02	14	.3515E-02	15	.2659E-02	16	.1808E-02
17	.1383E-01	18	.1244E-01	19	.1027E-01	20	.8270E-02	21	.7107E-02	22	.6029E-02	23	.4585E-02	24	.3187E-02
25	.1717E-01	26	.1534E-01	27	.1252E-01	28	.9977E-02	29	.8544E-02	30	.7247E-02	31	.5552E-02	32	.3939E-02
33	.2119E-01	34	.1876E-01	35	.1508E-01	36	.1189E-01	37	.1016E-01	38	.8626E-02	39	.6675E-02	40	.4859E-02
41	.2566E-01	42	.2254E-01	43	.1784E-01	44	.1394E-01	45	.1189E-01	46	.1013E-01	47	.7932E-02	48	.5939E-02
49	.2732E-01	50	.2449E-01	51	.1987E-01	52	.1576E-01	53	.1352E-01	54	.1156E-01	55	.9150E-02	56	.7034E-02
57	.2732E-01	58	.2449E-01	59	.1987E-01	60	.1576E-01	61	.1352E-01	62	.1156E-01	63	.9150E-02	64	.7034E-02
65	.2121E-01	66	.1955E-01	67	.1666E-01	68	.1366E-01	69	.1184E-01	70	.1017E-01	71	.8025E-02	72	.6058E-02
73	.1612E-01	74	.1492E-01	75	.1288E-01	76	.1074E-01	77	.9401E-02	78	.8118E-02	79	.6379E-02	80	.4704E-02
81	.9921E-02	82	.9245E-02	83	.8109E-02	84	.6913E-02	85	.6131E-02	86	.5344E-02	87	.4206E-02	88	.3052E-02
89	.6167E-02	90	.5768E-02	91	.5102E-02	92	.4404E-02	93	.3942E-02	94	.3465E-02	95	.2755E-02	96	.2018E-02
97	.3010E-02	98	.2767E-02	99	.2413E-02	100	.2085E-02	101	.1881E-02	102	.1674E-02	103	.1355E-02	104	.1006E-02

SUM OF REACTION FORCE AND PRECOMPRESSION (SUMP) IS : (TENSION IS NEGATIVE)

1	75.6	2	-64.4	3	-107.3	4	-111.1	5	-42.7	6	-119.7	7	-129.4	8	-308.3
9	410.5	10	69.7	11	80.8	12	-4.8	13	-10.9	14	-43.9	15	-70.5	16	-261.2
17	495.5	18	200.1	19	146.7	20	50.2	21	15.5	22	3.0	23	-26.0	24	-128.5
25	429.5	26	187.3	27	133.9	28	56.9	29	26.1	30	20.2	31	5.7	32	-50.9
33	643.1	34	308.2	35	229.6	36	102.3	37	51.0	38	46.8	39	31.2	40	-25.8
41	883.0	42	468.6	43	341.2	44	155.8	45	80.9	46	80.5	47	67.1	48	23.0
49	638.1	50	441.5	51	344.9	52	172.0	53	98.8	54	102.6	55	99.8	56	77.6
57	374.7	58	246.8	59	276.6	60	167.7	61	103.4	62	109.4	63	106.1	64	83.3
65	586.6	66	298.1	67	293.8	68	171.3	69	96.6	70	100.1	71	85.5	72	37.1
73	660.7	74	312.3	75	289.1	76	143.9	77	70.8	78	70.8	79	45.6	80	-50.5
81	399.7	82	144.2	83	129.8	84	50.8	85	18.3	86	9.6	87	-17.5	88	-144.5
89	199.7	90	33.9	91	26.1	92	-8.4	93	-10.2	94	-30.1	95	-52.4	96	-185.9
97	18.0	98	-59.0	99	-99.7	100	-93.8	101	-35.9	102	-100.0	103	-108.7	104	-258.0

FOR JOINT NO. 1 SHEAR (FAJ1) AND MOMENT (FAJ2) AT THE NODES ARE:

49	-1475.306	.000	50	-2365.579	.000	51	-864.020	.000	52	-52.576	.000
53	50.068	.000	54	81.005	.000	55	78.831	.000	56	35.754	.000

FOR JOINT NO. 1 SHEAR IN ONE DOWEL BAR (FAJPD) AT THE NODES IS:

49	-2212.959	50	-1384.729	51	-414.729	52	-30.776	53	37.551	54	49.849
55	41.129	56	37.309								

Appendix 6E-e 12 Inch PCCP Pavement

FOR JOINT NO. 1 BEARING STRESS (BEARS) OF CONCRETE AND SHEAR STRESS (SHEARS) OF DOWELS AT THE NODES ARE:

49	-3456.421	-2817.622	50	-2162.808	-1763.088	51	-647.766	-528.049	52	-48.069	-39.186
53	58.651	47.811	54	77.859	63.470	55	64.240	52.368	56	58.273	47.503

NODAL NUMBER AND REACTIVE PRESSURE (SUBR) ARE: (COMPRESSION POSITIVE)

1	.31502	2	-.10465	3	-.14305	4	-.18072	5	-.08904	6	-.20453	7	-.18759	8	-.89354
9	.93289	10	.06178	11	.05880	12	-.00428	13	-.01235	14	-.04095	15	-.05571	16	-.41289
17	1.82156	18	.28709	19	.17253	20	.07197	21	.02842	22	.00455	23	-.03322	24	-.32869
25	2.98295	26	.50746	27	.29763	28	.15414	29	.09053	30	.05750	31	.01386	32	-.24596
33	4.46602	34	.83519	35	.51027	36	.27713	37	.17694	38	.13330	39	.07525	40	-.12469
41	6.49274	42	1.34472	43	.80291	44	.44713	45	.29755	46	.24287	47	.17162	48	.11743
49	9.97055	50	2.69182	51	1.72475	52	1.04888	53	.77157	54	.65772	55	.54230	56	.84364
57	5.85486	58	1.50488	59	1.38323	60	1.02248	61	.80798	62	.70147	63	.57682	64	.90516
65	3.66634	66	.72702	67	.58764	68	.41790	69	.30173	70	.25655	71	.18594	72	.16134
73	2.58075	74	.47611	75	.36139	76	.21930	77	.13822	78	.11343	79	.06190	80	-.13713
81	1.24901	82	.17589	83	.12980	84	.06194	85	.02867	86	.01231	87	-.01904	88	-.31409
89	.49922	90	.03303	91	.02085	92	-.00820	93	-.01270	94	-.03089	95	-.04559	96	-.32334
97	.07517	98	-.09594	99	-.13297	100	-.15252	101	-.07472	102	-.17090	103	-.15758	104	-.74795

NODE	ROTAT.X	ROTAT.Y	NODE	ROTAT.X	ROTAT.Y	NODE	RORAT.X	ROTAT.Y	NODEROTAT.X	ROTAT.Y	
1	.2383E-04	.5777E-04	2	.2289E-04	.5283E-04	3	.2024E-04	.4579E-04	4	.1789E-04	.3826E-04
5	.1694E-04	.3329E-04	6	.1674E-04	.2832E-04	7	.1762E-04	.2147E-04	8	.1836E-04	.1451E-04
9	.4134E-04	.9102E-04	10	.4316E-04	.8172E-04	11	.4263E-04	.6759E-04	12	.4020E-04	.5433E-04
13	.3872E-04	.4654E-04	14	.3763E-04	.3931E-04	15	.3695E-04	.2978E-04	16	.3718E-04	.2077E-04
17	.8533E-04	.1656E-03	18	.8776E-04	.1464E-03	19	.8426E-04	.1151E-03	20	.7566E-04	.8832E-04
21	.6986E-04	.7445E-04	22	.6507E-04	.6291E-04	23	.6115E-04	.4923E-04	24	.6105E-04	.3750E-04
25	.1128E-03	.2052E-03	26	.1152E-03	.1763E-03	27	.1086E-03	.1343E-03	28	.9434E-04	.1010E-03
29	.8500E-04	.8503E-04	30	.7741E-04	.7236E-04	31	.7098E-04	.5815E-04	32	.7011E-04	.4638E-04
33	.1504E-03	.2392E-03	34	.1516E-03	.2024E-03	35	.1394E-03	.1491E-03	36	.1157E-03	.1109E-03
37	.1015E-03	.9367E-04	38	.9032E-04	.8051E-04	39	.8063E-04	.6649E-04	40	.7859E-04	.5581E-04
41	.1957E-03	.2514E-03	42	.1951E-03	.2134E-03	43	.1747E-03	.1551E-03	44	.1379E-03	.1160E-03
45	.1183E-03	.9868E-04	46	.1032E-03	.8568E-04	47	.8941E-04	.7246E-04	48	.8545E-04	.6391E-04
49	.2313E-03	.2487E-03	50	.2327E-03	.2133E-03	51	.2064E-03	.1530E-03	52	.1580E-03	.1150E-03
53	.1330E-03	.9828E-04	54	.1140E-03	.8588E-04	55	.9625E-04	.7365E-04	56	.9001E-04	.6694E-04
57	.1183E-03	-.2398E-03	58	.1312E-03	-.2217E-03	59	.1496E-03	-.1755E-03	60	.1426E-03	-.1301E-03
61	.1289E-03	-.1072E-03	62	.1141E-03	-.8981E-04	63	.9712E-04	-.7314E-04	64	.9023E-04	-.6444E-04
65	.1005E-03	-.2293E-03	66	.1081E-03	-.2100E-03	67	.1206E-03	-.1691E-03	68	.1173E-03	-.1280E-03
69	.1090E-03	-.1063E-03	70	.9945E-04	-.8930E-04	71	.8818E-04	-.7220E-04	72	.8438E-04	-.6140E-04
73	.7299E-04	-.1904E-03	74	.7793E-04	-.1741E-03	75	.8462E-04	-.1442E-03	76	.8504E-04	-.1131E-03



Appendix 6E-e 12 Inch PCCP Pavement

77	.8214E-04	-.9551E-04	78	.7817E-04	-.8068E-04	79	.7356E-04	-.6398E-04	80	.7287E-04	-.5099E-04
81	.4054E-04	-.1215E-03	82	.4371E-04	-.1116E-03	83	.4691E-04	-.9516E-04	84	.4859E-04	-.7804E-04
85	.4908E-04	-.6744E-04	86	.4929E-04	-.5753E-04	87	.4971E-04	-.4454E-04	88	.5077E-04	-.3264E-04
89	.2391E-04	-.7079E-04	90	.2574E-04	-.6628E-04	91	.2736E-04	-.5836E-04	92	.2849E-04	-.4955E-04
93	.2932E-04	-.4367E-04	94	.3023E-04	-.3771E-04	95	.3152E-04	-.2925E-04	96	.3245E-04	-.2093E-04
97	.1536E-04	-.4479E-04	98	.1482E-04	-.4229E-04	99	.1355E-04	-.3816E-04	100	.1283E-04	-.3317E-04
101	.1276E-04	-.2960E-04	102	.1322E-04	-.2577E-04	103	.1460E-04	-.2012E-04	104	.1548E-04	-.1396E-04

NODE	LAYER	STRESS X	STRESS Y	STRESS XY	MAJOR	MINOR	MAX.SHEAR
17	1	-.497481E+02	.000000E+00	.000000E+00	-.497481E+02	.000000E+00	.248741E+02
25	1	-.502921E+02	.000000E+00	.000000E+00	-.502921E+02	.000000E+00	.251461E+02
29	1	-.156643E+02	-.154744E+02	-.185019E+02	-.340715E+02	.293278E+01	.185021E+02
33	1	-.420639E+02	.000000E+00	.000000E+00	-.420639E+02	.000000E+00	.210320E+02
41	1	.107738E+02	.000000E+00	.000000E+00	.000000E+00	.107738E+02	.538692E+01
49	1	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
50	1	.000000E+00	.778935E+01	-.491977E+02	-.454569E+02	.532463E+02	.493516E+02
51	1	.000000E+00	-.581918E+02	-.417276E+02	-.799660E+02	.217742E+02	.508701E+02
52	1	.000000E+00	-.401552E+02	-.257948E+02	-.527653E+02	.126101E+02	.326877E+02
53	1	.000000E+00	-.319004E+02	-.187386E+02	-.405580E+02	.865762E+01	.246078E+02
54	1	.000000E+00	-.240794E+02	-.136762E+02	-.302603E+02	.618093E+01	.182206E+02

MAXIMUM STRESS (SMAX) IN LAYER 1 IS 79.96597 AND OCCURS AT NODE 51