

	Page		Page
A		Urban Arterials.....	7-11
Acceleration Lanes.....	9-23	Urban Collectors	6-3
Acceleration Length.....	9-26	Branch Connections	10-59
Entrance Terminals	10-42	BRIDGE.....	15-1
Access Control and		Aesthetics	15-9
Access Management.....	2-5	Approach Slopes	15-5
Freeways	8-1	Bridge Roadway Width.....	15-3
Rural Arterials	7-7	Clearances	15-5
Urban Collectors	6-2	Coatings.....	15-9
Accident History	20-11	Cross Slope.....	15-4
Aesthetics (Bridge)	15-9	Design Submittal	15-6, 15-10
Alignment, Horizontal (see Horizontal		Detours	15-9
Alignment)		Environmental Requirements.....	15-8
Alignment, Vertical (see Vertical		Foundations	15-10
Alignment)		Historic Requirements.....	15-9
Arterials (see Rural Arterials and see		Horizontal Alignment.....	15-4
Urban Arterials)	1-1,7-1	Hydraulics Reports.....	15-7
Divided.....	7-5	Major Structures	15-1
Undivided.....	7-5	Median.....	15-4
Auxiliary Lanes (see: Left-Turn Lanes;		Minor Structures.....	15-1
Right-Turn Lanes; Acceleration Lanes;		Permits.....	15-8
and Deceleration Lanes)		Retaining Walls.....	15-3
Interchanges	10-17	Scoping.....	15-6
Intersections	9-23	Sidewalks and Bikeways.....	15-5
B		Survey Requests	15-6
Barriers, Noise	18-8	Skew Angle	15-4
Barriers, Traffic.....	4-19	Staging.....	15-9
Bridge Railings.....	4-22	Utilities	15-9
Crash Cushions.....	4-22	Vertical Alignment.....	15-4
Detour.....	3-39	Bridges	3-22
Longitudinal	4-20	Bridge Railings	4-22
Median.....	4-21,7-9	Bus Turnouts.....	4-29
Portable	3-38	Buses	2-1
Roadside.....	4-20	Park-and-Ride Facilities.....	4-30
Rural Arterials.....	7-5,7-6	C	
Rural Freeways.....	8-4	Capacity Analysis (Intersection).....	9-2
Urban Arterials.....	7-9	Capacity, Highway.....	2-3
Urban Freeways	8-6	Channelization	9-20,9-31,9-32
With Curbs	3-13	Clear Zone.....	3-31,4-12
Bicycle Facilities.....	4-29	Detours	3-38
Bridge.....	15-5	Freeways	8-3
Urban Streets.....	5-5	Rural Arterials.....	7-4
Intersections	9-40	Side Slopes	4-14
Border Areas		Urban Arterials.....	7-11
Freeways	8-3	Utilities	3-43
Local Urban Streets.....	5-5		

	Page		Page
Clearances to Structures and		Construction at Railroad-Highway	
Obstructions	3-31,4-12	Grade Crossings	20-17
Bridge	15-5	Signing and Striping.....	20-15
Ramps.....	10-36	Special Devices	20-17
Rural Arterials.....	7-3	Temporary Pavement Markings	20-15
Urban Arterials.....	7-8	Traffic Control Plan	20-14
Freeways	8-3	Construction Zone Noise	18-22
Climbing Lanes.....	3-35	Context Sensitive Solutions	20-5
Coatings (Bridge).....	15-9	Crash Cushions	4-22
Collector Roads.....	1-1	CROSS SECTION ELEMENTS	4-1
COLLECTOR ROADS AND		Cross Sections.....	4-17
STREETS	6-1	General Information	4-18
Combination of Horizontal and Vertical		Grade Line Position.....	3-29
Alignment.....	3-37	Interchanges	10-13
Compound Curves	3-21	Ramps.....	10-36
Configuration, Interchange	10-11	Shoulder	4-3
CONSTRUCTION SPECIFICATIONS	16-1	Typical Sections	4-5
Definition	16-1	Cross Slope	4-2
English Units.....	16-16	Bridge Approach	15-4
Format	16-6,16-9,16-10	Freeways	8-2
Guaranties	16-3	Local Urban Streets.....	5-4
Incentives	16-3	Ramps.....	10-28
Innovative Contract Practices.....	16-5	Rural Arterials.....	7-2
Laws, Statutes, and Regulations.....	16-5	Superelevation Transition	3-24
Liquidated Damages.....	16-3	Curb Ramps	4-29
Metric Units	16-16	Intersections	9-40
Pay Items	16-5	Local Urban Streets.....	5-7
Penalties	16-3	Urban Collectors	6-3
Project Special		Curbs.....	4-12
Provisions.....	16-10,16-14,16-20	Freeways	8-2
Proprietary Items	16-4	Islands	9-13
Special Provisions	16-9,16-15	Medians.....	9-28
Standard Special Provisions.....	16-10	Minimum Grade	3-32
Standard Specifications.....	16-6	Turning Paths	9-10
Standards and Specifications Unit ..	16-2	Urban Arterials.....	7-8
Supplemental Specifications	16-9	Vertical Curves.....	3-35
Traffic.....	20-22	Curvature (see Horizontal Alignment)	
Uniformity.....	16-3	Curves, Horizontal (see Horizontal	
Warranties	16-3	Alignment and Horizontal Curves)	
Website.....	16-15	Curves, Intersection	9-3
Writing Style.....	16-16	Curves, Vertical (see Vertical Curves)	
Construction Staging/Phasing.....	20-17	Cut Slope Standards.....	4-15
Construction Traffic Control.....	20-14	Cut Slope Treatment	4-17
Channelizing Devices.....	20-16		
Construction Staging/Phasing	20-17	D	
		Deceleration Lane	9-23
		Deceleration Length.....	9-25

	Page		Page
Exit Terminals.....	10-42	Vertical Curves.....	3-35
DESIGN CONTROLS AND		Drainage Channels and Sideslopes	4-14
CRITERIA	2-1	Cut Slope Standards	4-15
Design Speed		Cut Slope Treatment	4-17
Detour.....	3-38	Drainage Channels	4-14
Freeways	8-1	Fill Slope Standards	4-15
Grade	3-33	Sideslopes.....	4-14
Local Rural Roads.....	5-1	Slope Benches	4-16
Local Urban Streets.....	5-3	Driveways	4-26,9-41
Passing Sight Distance	3-2	E	
Ramps.....	10-24	ELEMENTS OF DESIGN.....	3-1
Rural Arterials.....	7-1	Entrances.....	10-37,10-38,10-48,10-56
Stopping Sight Distance	3-2	Environment.....	2-5
Superelevation.....	3-24	Bridge.....	15-8
Urban Arterials.....	7-7	Detours	3-42
Design Traffic Volume		Drainage and Erosion Control.....	3-42
Freeways	8-2	Local Urban Streets.....	5-2
Local Urban Streets.....	5-3	Noise Control	4-25
Rural Arterials.....	7-1	Erosion Control.....	3-42
Urban Arterials.....	7-7	Exits	10-37,10-38,10-49,10-52,10-56
Design Vehicles	2-1	F	
Buses	2-1	Federal-Aid Highway.....	1-2
Intersections	9-10	Fill Slope Standards	4-15
Median Openings	9-21	FREEWAYS	8-1
Passenger Cars	2-1	Curbs	8-2
Recreational Vehicles.....	2-1	Design Speed.....	8-1
Trucks.....	2-1	Design Traffic Volumes	8-2
Turning Roadways	9-4,9-5,9-15	Grades	8-3
Detours.....	3-38	Horizontal Clearance to Obstructions	8-3
Barrier	3-39	Outer Separations, Borders, and	
Bridge.....	15-9	Frontage Roads.....	8-3
Clear Zone.....	3-38	Pavement and Shoulders	8-2
Design Speed.....	3-38	Rural.....	8-3
Detour on Local Roads.....	3-41	Structures.....	8-3
Environmental Considerations	3-42	Superelevation.....	8-2
Guidelines for Designing	3-38	Urban.....	8-5
Superelevation.....	3-40	Vertical Clearance	8-3
Surfacing	3-39	Freeways	1-2
Typical Section.....	3-39	Format (Specifications).....	16-6,16-9,16-10
Drainage.....	3-42	Foundations.....	15-10
Cross Slope.....	4-2	Frontage Roads	4-24
Curbs	4-13	Freeways	8-3
Local Urban Streets.....	5-5	Intersections	9-40
Median.....	4-23	Outer Separation.....	4-25
Urban Arterials.....	7-11	Typical Section.....	4-9
Urban Collectors	6-3		

	Page		Page
Functional Classifications	1-1	Superelevation	3-24
Collector Roads and Streets	1-1	Horizontal and Vertical Alignment, Combination	3-37
Freeways	1-2	Horizontal Clearance to Obstructions... ..	4-12
Local Roads and Streets	1-1	Freeways	8-3
Rural and Urban Arterials	1-1	Ramps.....	10-36
G			
Gores	10-33	Rural Arterials.....	7-4
GRADE SEPARATIONS AND		Urban Arterials.....	7-11
INTERCHANGES	10-1	Horizontal Curves (see Horizontal Alignment)	3-4,3-14
Warrants	10-7	Widening	3-26
Grade Separation Structures	10-8	Hydraulics	15-7
Grades	3-29	I	
Climbing Lanes	3-35	Incentives	16-3
Design Speed.....	3-33	Illustrative General Cross Sections.....	4-17
Freeways	8-3	Indirect Left Turns	9-22
Intersections	9-3	Innovative Contract Practices	16-5
Local Urban Streets.....	5-3	Interchanges	10-1
Ramps.....	10-26	Alignment, Profile, and Cross Section	10-13
Rural Arterials.....	7-2	Approaches to the Structure	10-12
Standards	3-32	Auxiliary Lanes.....	10-17
Stopping Sight Distance	3-2,3-3	Basic Number of Lanes.....	10-15
Urban Arterials.....	7-8	Branch Connections	10-59
Vertical Curves.....	3-35	Design Criteria	10-29
Guaranties	16-3	Determination of Interchange Configuration.....	10-11
Guardrail	20-11	Entrances	10-48,10-56
Access Treatments	20-12	Exits.....	10-49,10-52,10-56
Accident History	20-11	Freeway-to-Freeway Connections. ..	10-59
Continuity.....	20-11	General Design Considerations.....	10-10
Length	20-12	General Types	10-1
Offset.....	20-12	Gores	10-33
H			
Highway Capacity.....	2-3	Interchange Spacing	10-13
HIGHWAY FUNCTIONS	1-1	Lane Balance.....	10-15
Hinge Point	4-5	Major Forks.....	10-59
Historic Requirements (Bridge).....	15-9	Pedestrians.....	10-60
Horizontal Alignment	3-13	Ramp Metering.....	10-60
Bridge.....	15-4	Ramps.....	10-23
Compound Curves.....	3-21	Cross Slope.....	10-28
Interchanges	10-13	Curvature	10-25
Intersections	9-3	Design Speed	10-24
Local Urban Streets.....	5-4	Lateral Clearances	10-36
Ramps.....	10-25	Pavement Widths.....	10-26
Reverse Curves.....	3-18	Profiles.....	10-26
Rural Freeways.....	8-4	Shoulders	10-36
Simple Curves	3-14		
Spiral Curves.....	3-15		

	Page		Page
Speed-Change Lanes	10-40	Superelevation for Curves at	
Stopping Sight Distance	10-26	Intersections.....	9-20
Superelevation	10-28	Taper	9-27,9-39
Terminals.....	10-37	Turn Lane Widths	9-24,9-39
Widths.....	10-36	Types and Examples of Intersections	9-1
Safety.....	20-5	Wheelchair Ramps at Intersections .	9-40
Sight Distance	10-13,10-29,10-30	Widths for Turning Roadways at	
Terminals.....	10-48,10-53	Intersections.....	9-4
Warrants	10-7	Islands	9-12
Weaving Sections.....	10-17		
Wrong-Way Entrances	10-23	L	
Intersection Design		Lane Widths	4-3
At-Grade Ramp Terminals..	10-25,10-31	Auxiliary	9-24
Compound Curves.....	3-21	Climbing Lanes	3-36
Local Rural Roads.....	5-1	Detour.....	3-39
Safety.....	20-4	Freeways	8-2
Urban Arterials.....	7-12	Geometric Design Standards.....	4-6
Types	10-7	Local Urban Streets.....	5-5
INTERSECTIONS.....	9-1	Turning Roadways	9-4,9-15
Acceleration Length	9-26	Two Way Left-Turn	9-23
Alignment and Profile	9-2	Urban Arterials.....	7-8
Auxiliary Lanes.....	9-23,10-17	Laws, Statutes, and Regulations	16-5
Bicycles at Intersections.....	9-40	Left-Turn Lanes	9-30,9-34
Capacity Analysis.....	9-2	Double	9-34
Channelization.....	9-20	Median.....	9-30
Deceleration Length	9-25	Triple	9-34
Design Vehicles	9-10	Two-Way.....	9-22
Driveways	9-41	Urban Arterials.....	7-9,7-10
Flush or Traversable Medians	9-22	Width.....	9-34
Frontage Roads.....	9-40	Levels of Service.....	2-3
Indirect Left Turns and U-Turns	9-22	Climbing Lane.....	3-35
Intersection Curves.....	9-3	Collector Roads and Streets	6-1
Intersection Sight Distance	9-16	Freeways	8-2
Islands	9-12	Rural Arterials.....	7-1
Lighting at Intersections.....	9-40	Urban Arterials.....	7-7
Median End Treatment.....	9-38	Weaving Sections.....	10-20
Median Lane Width.....	9-34	Lighting.....	3-43
Median Left-Turn Lanes	9-30	Intersection	9-40
Median Openings	9-20	Liquidated Damages	16-3
Railroad-Highway Grade Crossings	9-41	Local Roads	1-1
Right-Turn Lanes	9-38	LOCAL ROADS AND STREETS	5-1
Stopping Sight Distance at		Local Rural Roads.....	5-1
Intersections for Turning		Design Speed.....	5-1
Roadways	9-19	Intersection Design.....	5-1
Storage Length	9-25,9-39	Local Urban Streets.....	5-2
		Alignment.....	5-4
		Border Area.....	5-5

	Page		Page
Cross Slope.....	5-4	Walls	18-10
Design Speed.....	5-3	Noise Barriers	3-44,18-10
Design Traffic Volume	5-3	Noise Control	4-25
Drainage	5-5	Noise Walls.....	18-10
Grades	5-3	O	
Medians	5-5	Outer Separations.....	4-25
Sidewalk Curb Ramps.....	5-7	P	
Sidewalks	5-6	Park-and Ride-Facilities.....	4-30
Sight Distance	5-3	Parking, On-Street.....	4-31
Width of Roadway	5-5	Local Urban Streets.....	5-3,5-5
Longitudinal Barrier.....	4-20	Urban Collectors	6-2
M		Urban Arterials.....	7-8,7-11
Mail Boxes.....	4-27	Passenger Cars	2-1
Major Forks.....	10-59	Passing Lanes.....	3-36
Major Structure	15-1	Passing Sight Distance.....	3-12
Median Barrier	4-21	Crest Vertical Curves	3-13
Median Lanes.....	7-10	Design Speed.....	3-2
Medians.....	4-23	Local Urban Streets.....	5-3
Bridge.....	15-4	Undercrossings	3-13
End Treatment.....	9-21,9-38	Pavement.....	4-1
Flush or Traversable.....	9-22	Cross Slope.....	4-2
Lane Width.....	9-34	Detour Surfacing	3-39
Left-Turn Lanes	9-30,9-34	Skid Resistance	4-2
Local Urban Streets.....	5-5	Surface Type	4-1
Openings	9-20	Transitions.....	3-28
Rural Arterials.....	7-6	Traveled Lane Texturing.....	4-2
Rural Freeways.....	8-4	Types	4-1,4-6
Two-way Left-Turn.....	9-22	Widening	3-26,3-27
Urban Arterials.....	7-9	Widths	7-3,8-2,9-4,10-26,10-36
Urban Freeways	8-5	Pavement Markings	20-23
Width.....	9-33	Permanent.....	20-23
Minimum Turning Paths.....	2-2	Temporary	20-15,20-24
Minor Structure	15-1	Pavement Transitions.....	3-28
N		Pay Items.....	16-5
National Highway System	1-1,1-2	Pedestrian Facilities	4-28
NOISE.....	18-1	Sidewalk Curb Ramps.....	4-29,9-40
Abatement	18-5	Sidewalks	4-29
Analysis.....	18-2,18-5	Pedestrians	2-5,10-60
Barriers.....	18-10,18-21	Penalties	16-3
Berms	18-20	Permanent Signing.....	20-19
Construction Zone.....	18-22	Cross Sections at Sign Structure	
Fundamentals	18-1	Locations	20-21
Regulations.....	18-2	Ground Sign Supports and	
Highway Traffic Noise Mitigation		Foundations	20-20
Measures	18-5	Overhead Sign Structures.....	20-21
Wall Materials.....	18-19	Special Signs	20-20

	Page		Page
Sign Classifications	20-20	Railroad-Highway Grade Crossings	20-2
Uniform Standard and Regulatory		Roadway Geometry	20-4
Warning Signs	20-19	Shoulders	20-7
Permits	15-8	Work Zone	20-7
Phasing	20-17	Roadway Width (See Width of	
Pivot Point	4-5	Roadway)	
Point of Slope Selection	4-5	Rumble Strips	4-2,4-4,20-8
Profile Grade	4-5	Criteria	20-8
Profiles (see Vertical Alignment)		Interstate Highways	20-9
Project Scoping	15-6	Shoulders	20-9
Project Special		Runoff, Superelevation	3-24
Provisions	16-10,16-14,16-20	Run-Off-The-Road Crashes	20-7
Proprietary Items	16-4	Rumble Strips	20-8
R		Runout, Tangent (Superelevation)	3-25
Railroads	9-41	RURAL AND URBAN ARTERIALS ...	7-1
Railroad-Highway Grade Crossings	20-3	Rural Arterials	7-1
Ramp Metering	10-60	Access Management	7-7
Ramps (see Interchanges: Ramps)	10-23	Cross Slope	7-2
Recreational Vehicles	2-1	Design Speed	7-1
Rest Areas	3-43	Design Traffic Volume	7-1
Retaining Walls	15-3	Divided Arterials	7-5
Reverse Curves	3-18	Grades	7-2
Right of Way		Horizontal Clearance to	
Geometric Design Standards	4-6	Obstructions	7-4
Rural Arterials	7-4	Levels of Service	7-1
Urban Arterials	7-12	Medians	7-6
Utilities	3-43	Multilane Undivided Arterials	7-5
Right-Turn Lanes	9-38	Number of Lanes	7-2
Width	9-39	Right of Way	7-4
Roadside Barrier	4-20	Sight Distance	7-2
Roadside Control	4-26	Structures	7-3
Driveways	4-26	Superelevation	7-2
Mailboxes	4-27	Undivided Arterials	7-5
Roadside Safety	20-10	Vertical Clearances	7-3
Guardrail	20-11	Widths	7-3
Access Treatments	20-12	Rural Collectors	6-1
Accident History	20-11	Rural Freeways	8-3
Continuity	20-11	Alignment and Profile	8-4
Length	20-12	Frontage Roads	8-5
Offset	20-12	Medians	8-4
Unique Hazards	20-10	Sideslopes	8-5
Roadway Safety	20-1	S	
Bicycle and Pedestrian	20-2	Safety	2-5
Context Sensitive Solutions	20-5	SAFETY AND TRAFFIC	
Interchanges	20-5	ENGINEERING	20-1
Intersections	20-4	Construction Traffic Control	20-14

	Page		Page
Pavement Markings.....	20-23	Construction	20-15
Permanent Signing	20-19	Permanent.....	20-19
Reasearch	20-24	Simple Curves.....	3-14
Reducing Run-Off-The-Road		Skew Angle (Bridge)	15-4
Crashes	20-7	Skid Resistance	4-2
Roadside Safety.....	20-10	Special Provisions.....	16-9,16-15
Roadway Safety	20-1	Specifications (see CONSTRUCTION	
Signals	20-22	SPECIFICATIONS)	
Specifications	20-22	Speed-Change Lanes.....	10-40
Traffic Engineering Plans	20-13	Spiral Curves.....	3-15
Shoulders.....	4-3	Staging	20-17
Auxiliary Lanes.....	10-17	Standard Special Provisions.....	16-10
Contrast	4-4	Standard Specifications.....	16-6
Cross Section.....	4-3,4-18	Stopping Sight Distance.....	3-1
Detour Barrier	3-39	Design Speed.....	3-2
Freeway	8-2	Divided Highway	3-9
Intersection.....	9-4	Effect of Grade	3-3
Ramps.....	10-36	Horizontal Curves	3-4
Stability	4-4	Intersections	9-19
Urban Arterials.....	7-8	Local Urban Streets.....	5-3
Width.....	4-3,4-6,7-3	Ramps.....	10-26
Sideslopes	4-14	Storage Length.....	9-25,9-39
Bridge Approach	15-5	Streets.....	1-1,5-6
Rural Freeways.....	8-5	Striping (See Pavement Marking)	
Sidewalks	4-28	Structures (See also BRIDGE)	
Bridge.....	15-5	Clearances	3-31,7-3
Local Urban Streets.....	5-6	Freeways	8-3
Urban Arterials.....	7-11	Grade Separation.....	10-8
Urban Collectors	6-3	Major/Minor	15-1
Sight Distance	3-1	Rural Arterials.....	7-3
Decision.....	3-3	Superelevation.....	3-24
Horizontal Curves	3-4	Bridges	3-22
Interchange.....	10-13,10-29,10-30	Detour.....	3-40
Intersection.....	9-16	Freeways	8-2
Local Urban Streets.....	5-3	Intersections	9-11,9-20
Passing.....	3-12	Ramps.....	10-28
Ramps.....	10-26,10-32	Runoff	3-24
Rural Arterials.....	7-2	Runout	3-25
Stopping	3-1,9-19	Rural Arterials.....	7-2
Undercrossings	13	Rural Highways.....	3-25
Urban Arterials.....	7-7	Spiral Curves.....	3-15
Vertical Curves.....	3-10	Standards	3-24
Signals.....	20-22	Transition	3-24
Plans	20-22	Urban Freeways	3-25
Warrant Studies.....	20-23	Urban Streets.....	3-25,5-4
Signing		Supplemental Specifications.....	16-9

	Page		Page
Surface Type	4-1	Curbs and Shoulders	7-8
Local Urban Streets.....	5-4	Design Speed.....	7-7
T		Design Traffic Volume	7-7
Tapers.....	9-27,9-39	Drainage	7-11
Bay	9-29	Geometric Design Type	7-9
Climbing Lane.....	3-36	Grades	7-8
Entrance.....	10-48	Horizontal Clearance to	
Exit	10-53	Obstructions.....	7-11
Lane reduction.....	10-17	Levels of Service.....	7-7
Offset Nose.....	10-52	Medians	7-9
Passing Lane.....	3-37	Number of Lanes.....	7-8
Redirect	9-30	Parking Lanes.....	7-11
Terminals	10-37,10-48,10-53	Right of Way Width	7-12
Traffic Barriers (see Barriers, Traffic)..	4-19	Sight Distance	7-7
Traffic Control Devices	3-43	Vertical Clearances	7-8
Traffic Control Plan	20-14	Width of Roadway	7-8
Traffic Engineering.....	20-1	Urban Collectors	6-2
Traffic Engineering Plans	20-13	Border Area.....	6-3
Traffic Noise	18-5	Drainage	6-3
Source Documents	20-13	Parking Lanes.....	6-2
Traffic Volume.....	2-2	Sidewalk Curb Ramps.....	6-3
Collector Roads and Streets	6-1	Sidewalks	6-3
Freeways	8-2	Urban Freeways	8-5
Local Urban Streets.....	5-3	Medians	8-5
Rural Arterials.....	7-1,7-4	Utilities.....	3-43
Trucks.....	3-3,3-35	Bridge-related.....	15-9
Urban Arterials.....	7-7	V	
Transitions, Pavement.....	3-28	Vehicles, Design	2-1
Trucks	2-1	Vertical Alignment.....	3-29
Climbing Lanes	3-35	Bridge.....	15-4
Grade	3-3,3-32,5-3	Climbing Lanes	3-35
Stopping Sight Distance	3-3,3-13	Interchanges	10-13
Tunnels.....	4-27	Intersections	9-3
Turn Lanes	9-30,9-34,9-38	Passing Lanes	3-36
Widths	9-24,9-39	Profile Grade	4-5
Turning Paths, Minimum	2-2	Ramps.....	10-26
Turning Roadways	9-11	Rural Freeways.....	8-4
Turnouts	3-37	Standards for Grades	3-32
Bus.....	4-29	Turnouts	3-37
Two-Way Left-Turn Lanes	9-22	Vertical Curves.....	3-33
Typical Sections.....	4-5	Vertical Curves	3-10,3-33
Detour.....	3-39	Volume, Traffic (see Traffic Volume)	
U		W	
U-Turns	9-22	Walls, Noise.....	18-10
Urban Arterials.....	7-7	Walls, Retaining.....	15-3
Borders and Sidewalks	7-11	Warranties	16-3

	Page	Page
Weaving Sections.....	10-17	
Widening on Horizontal Curves	3-26	
Width of Roadway	4-3,4-6	
Bridge.....	15-3	
Freeways	8-2	
Local Urban Streets.....	5-5	
Rural Arterials.....	7-3	
Turning Roadways	9-4	
Urban Arterials.....	7-8	
Work Zone Safety	20-7	
Wrong Way Entrances	10-23	
Z		
Z Slope	4-5	