

A

AASHTO STANDARDS	Policy on Use of	82.3
ABANDONMENT	Water Wells	110.2
ABBREVIATIONS	Official names	61.1
ABRASION		855.2
ACCELERATION LANE	At Rural Intersections	405.1
ACCESS CONTROL	Definition	62.6
		104
	Alignment, Existing	104.3
	Alignment, New	104.3
	Frontage Roads	104.3
	Frontage Roads Financed by Others	104.3
	General Policy	104.1
	Highways, Definition	62.3
	Interchanges	504.8
	Intersections	405.6
	Openings	104.2
	Openings, Financial Responsibility	205.5
	Openings on Expressways	205.1
	Openings in Relation to Median Openings	104.5
	Rights, Protection of	104.4
ACCESSIBILITY REQUIREMENTS	Curb Ramps, Guidelines for	105.4
	Driveways	205.3
	Provisions for Disabled Persons	105.3
	Refuge Areas	403.7
	Roadside Sites	912.1
ACCIDENT DATA	Intersections	402.2
ACCRETION	Definition	806.2
ACQUISITION	Definition	62.6
	Partial	62.6
	of Material and Disposal Sites	111.5
ADT/AADT	see AVERAGE DAILY TRAFFIC	
AESTHETIC FACTORS	Contour Grading and Slope Rounding	304.4
	In Design	109.3
	Landscape Architecture Design	901.2
	Materials and Color Selection	705
	Noise Barrier	1102.6

December 31, 2020

	Retaining Walls	210.5
AGGRADATION	Definition	806.2
AGGREGATE BASE	see BASE Engineering Criteria	663
AGGREGATE SUBBASE	Engineering Criteria	663
AGGRESSIVE	Definition	806.2
AGREEMENTS	Drainage, Cooperative	803.2
	Materials	111.4
AIR POLLUTION	Control of Burning	110.3
	Control of Dust	110.3
AIR RIGHTS		62.6
AIRWAY-HIGHWAY		207
	Clearances	207.2
	Submittal of Data	207.3
ALIGNMENT	Aesthetic Factors	109.3
	Bridges	203.9
	Channel	862.2
	Consistency (Horizontal)	203.3
	Controls (Horizontal)	203.1
	Coordination (Horizontal/Vertical)	204.6
	Culverts	823.2
	Horizontal	203
	Vertical (Grade)	204
ALLEY	Definition	62.3
ALLUVIUM	Definition	806.2
ALTERNATIVES FOR CULVERT PIPES		857
ALUMINUM PIPE		852.5
ANGLE OF INTERSECTION		403.3
APPRAISAL		62.6
APPROACH SLABS, STRUCTURE	New Construction Projects	208.11
	Rehabilitation Projects	209.4
APPROVALS	Nonstandard Design Features	82.2
	Proprietary Items	110.10
	Special Designs	606.2
AREAS OF CONFLICT	Intersections	403.2
ARTERIAL	Minor, Definition	81.4

	Principal, Definition	81.4
AQUEDUCT	Definition	806.2
AQUIFER	Definition	806.2
		841.2
ARCH CULVERTS		852.3
		852.4
		852.5
		852.6
ARMOR		873.3
ARTERIAL HIGHWAYS		62.3
ARTESIAN WATERS	Definition	806.2
ASPHALT CONCRETE	see FLEXIBLE PAVEMENT	
ASPHALT TREATED PERMEABLE BASE	Definition	62.7
	Catalog	623.1
	Design, Asphalt Pavement	633.1
	Pavement Drainage	662.3
AUXILIARY LANES		62.1
	Interchange	504.5
AVAILABLE HEAD, USE OF		821.1
		821.4
AVERAGE DAILY TRAFFIC		62.8
		103.1
AVULSION	Definition	806.2
AXIS OF ROTATION	Superelevation	202.4
AXLE LOADS, EQUIVALENT SINGLE		
	see EQUIVALENT SINGLE AXLE LOADS	

B

BACKFILL, CULVERTS		829.2
BACKWATER	Definition	806.2
		821.4
		864.4
BAFFLE		873.4
BANK	Definition	806.2
	Guide	873.4

	Protection, Definition	806.2
BANK PROTECTION		870
	Armor	873.3
	Design, Concepts	873.1
	Design, High Water and Hydraulics	873.2
	Geomorphology and Site Considerations	872.3
	Training	873.4
BARRIER	Concrete on Walls	210.6
	Median	305.3
	Noise	1100
	Railing	208.10
BASE	Definitions	62.7
	Aggregate Base	662.1
	Cement Treated Base	662.2
	Engineering Properties for Base	663
	Concrete Base	662.2
	Hot Mixed Asphalt Base	662.2
	Lean Concrete Base	662.2
	Recycled Pavement Base	662.2
	Treated Base	662.2
	Treated Permeable Base	662.3
BASEMENT SOIL	see SUBGRADE	
Basin Characteristics	Elevation	812.7
	Land Use	812.4
	Orientation	812.8
	Shape	812.2
	Size	812.1
	Slope	812.3
	Soil & Geology	812.5
	Storage	812.6
BEDLOAD	Definition	806.2
		851.2
BENCHES	Drains	834.4
	Slope	304.3
BERM		835
BIKEWAY	Class I, Design Criteria	1003
	Class II Width	301.2
	Class III	1003.3
	Class IV	1002.1

	Definitions	62.1 1001.4
	Design Considerations	404.2
	Facilities	1002
	Markings	1004
	Overcrossings	208.6
	Planning Criteria	1002
	Railings	208.10
	Refuge Areas	403.7
	Standards	1000
	Traffic Control Devices	1004
	Trails	1003.4
	Undercrossings	208.6
BITUMINOUS	Coatings On Pipes	852.4
BORDER INSPECTION STATIONS		107.3
BORROW	Definition	62.7
BRANCH CONNECTION		62.4
	Freeway-to-freeway	504.4
	Interchange, Entrances and Exits	504.2
BRIDGE REPLACEMENT & REHABILITATION PROGRAM		43.3
BRIDGES		208
	Alignment	203.9
	Approach Railing	208.10
	Clearances	309
	Deer Crossing	208.8
	Definition	62.2
	Embankment Slopes	208.5
	Equipment Crossings	208.8
	Falsework Clearance	204.8
	Flood Design	821.3
	Grade Line	204.7
	Overloads	110.1
	Slope Treatment, End	707
	Structure Depth	204.8
	Structure, Open End	208.5
	Types of Structures	62.2
	also see GRADE SEPARATION STRUCTURES	
BROKEN-BACK CURVE	see CURVES	
BULBOUTS	see CURB, EXTENTIONS	
BULKHEADS	Type	873.3 883.3

May 20, 2022

BULKING	Definition	806.2
	Factors	813.8
		861.2
		864.3
BUSBAYS	see CURB, EXTENTIONS	
BUSBULBS	see CURB, EXTENTIONS	
BUSINESS DISTRICT	Definitions	62.6
BYPASS HIGHWAY		62.3

C

CALIFORNIA OPERATIONAL SAFETY AND HEALTH (CAL-OSHA)		
	Tunnel Safety Orders	110.12
CALIFORNIA R-VALUE	Definition	62.7
	Measurement of	614.4
CALIFORNIA ROAD SYSTEM MAP		81.4
CAMBER	Definition	806.2
		829.2
CANTILEVER WALLS		210.1
CAPACITY	Drainage Structure	806.2
	Highway	102
	Intersection	402.1
	Operational Features Affecting Design	402.1
	Ramp Intersection	406
CAPILLARITY	Definition	806.2
CAPILLARY WATER	Definition	806.2
		841.2
CAPITAL PREVENTATIVE MAINTENANCE		603.3
CATCH BASIN	Definition	806.2
	Inlets	837.2
CATCH POINT	Clearance to Right of Way Line	304.2
	Side Slope Standards	304.1
CATTLE PASSES		208.8
CEMENT TREATED PERMEABLE BASE	also see BASE Definition	62.7

CENTRAL ANGLE		203.4
CENTRIFUGAL FORCE	Formula	202.1
	Superelevation	202
CHAIN LINK	Fences	701.2
	Railings, Bridges	208.10
CHANNEL, ROADSIDE	Alignment & Grade	862.2
	Changes	867
	Characteristics	813
	Cross Section	863
	Design Consideration	861
	Flow Classifications	866.2
	Flow Equations	866.3
	Linings	865
	Stability	864
	Unlined	861.9
CHANNELIZATION		62.4
	Design Standards	405
	Left-turn	405.2
	Principles of	403
	Right-turn	405.3
CHANNELIZATION, PRINCIPLES OF		403
	Angle of Intersection	403.3
	Areas of Conflict	403.2
	Major Movements	403.1
	Points of Conflict	403.4
	Precautions	403.12
	Prohibited Turns	403.8
	Refuge Areas	403.7
	Signal Control	403.9
	Speed-change Areas	403.5
	Summary	403.11
	Traffic Control Devices	403.10
	Turning Traffic	403.6
CHECK DAM	Definition	806.2
CIENEGA	Definition	806.2
CLEANOUT	Definition	806.2
		842.4
CLEAR DISTANCE	Stopping Sight Distance on Horizontal Curves	201.6
CLEAR RECOVERY ZONE		309.1
CLEARANCES		309

December 31, 2020

	Airway-highway	207
	Falsework	204.6
	Lateral, for Elevated Structures	309.4
	Minimum	309.1
	Pedestrian Over Crossings	309.2
	Railroad	309.5
	Signs, Vertical	309.2
	Slope to Right of Way Line	304.2
	Structures, Horizontal	309.1
	Structures, Vertical	309.2
	Tunnel	309.3
CLIMATE	Pavement Map	615
CLIMBING LANES	Transitions	206.2
	Sustained Grades	204.5
CLOVERLEAF INTERCHANGE	Local Streets	502.2
	Freeway-to-freeway	502.3
COATINGS	Pipe	852.4
COEFFICIENT OF ROUGHNESS	Channels	866.3
	Conduit	851.2
COEFFICIENT OF RUNOFF	Definition	806.2
		819.2
COLLECTOR ROAD	Definition	62.3
		81.4
COLLISIONS		402.2
COLORS, SELECTION	Concrete	705.1
	Steel Structures	705.2
COMFORT FACILITIES	Safety Roadside Rest Area	913
COMFORTABLE SPEEDS	see MAXIMUM COMFORTABLE SPEED	
COMMERCIAL DRIVEWAYS		205
COMMUNITY NOISE ABATEMENT PROGRAM		1101.4
COMPOSITE PAVEMENT	Definition	62.7
	Engineering Properties	642.1
	Mechanistic-Empirical Method	606.3
	New Construction	643
	Pavement Preservation	644
	Performance Factors	642.2
	Reconstruction	643
	Rehabilitation	645

	Types	641
COMPOUND CURVES		203.5
	Superelevation	202.6
CONCENTRATED FLOW	Definition	806.2
CONCENTRATION	Drainage, Definition	806.2
CONCRETE	Base, Lean	62.7
		662.2
	Gravity Walls	210.2
	Painting	705.1
	Pavement, Rigid	620
	Portland Cement Pavement (PCCP)	
	see RIGID PAVEMENT	
	Retaining Walls	210.2
CONDEMNATION	Definition	62.6
	Inverse	62.6
CONDUIT	Cross Section	851.2
	Definition	806.2
	Irrigation	905.3
	Protective Coating	854.3
CONGESTION MITIGATION AND AIR QUALITY		
IMPROVEMENT PROGRAM (CMAQ)		43.2
CONNECTIONS	Access Openings on Expressways	205.1
	Branch	62.4
	Branch Interchange, Entrances and Exits	504.2
	Driveways on Frontage Roads	205.4
	Driveways on Rural Roads	205.4
	Driveways on Urban Roads	205.3
	Financial Responsibility	205.5
	Freeway-to-freeway	62.4
		504.4
	Freeway with Local Roads	106.2
	Local Facility	203.1
	Private Road	205.2
	Roadway	107.1
CONSERVATION OF MATERIALS AND ENERGY		110.11
CONSTRUCTIBILITY	Pavement	618.2
CONTINUOUSLY REINFORCED CONCRETE PAVEMENT		621.2
	also see RIGID PAVEMENT	

December 31, 2020

CONSTRUCTION	Freeway Connections with Local Roads	106.2
	Initial and Stage	106.1
	Temporary Features	82.1
	Temporary Pavements and Detours	612.6
CONTOUR GRADING		304.4
	Aesthetics	109.3
CONTRACTORS YARDS/PLANT SITES		112
CONTRAST TREATMENT		704
	Policy	704.1
CONTROL	Drainage, Definition	806.2
	Erosion	110.2
		906
	Traffic, Devices	62.8
		403.10
	Traffic, Special Problems	110.7
CONTROL OF ACCESS	see ACCESS CONTROL	
CONTROL OF POLLUTION	see POLLUTION CONTROL	
CONTROLLED ACCESS HIGHWAY		62.3
CONTROLLING CRITERIA		82.1
CONVENTIONAL HIGHWAYS		62.3
	Sidewalks	105.1
COORDINATION WITH OTHER AGENCIES		108
	Transit Loading Facilities	108.2
	Divided Nonfreeway Facilities	108.1
	with FHWA	108.3
COST REDUCTION INCENTIVE PROPOSALS	Walls	210.4
COUNTERFORT WALLS		210.2
CRASH CUSHIONS		702.1
CRIB WALLS		210.2
CRITICAL	Depth, Definition	806.2
	Flow, Definition	806.2
	Slope, Definition	806.2
	Velocity, Definition	806.2
CROSS DRAINAGE		820
CROSS SECTION	City Streets and County Roads	308.1
	Clear Recovery Zone,	309.1
	Effects on Drainage	833

	Frontage Roads	310.1
	Geometric	62.1
	Grade	204.2
	Multilane, All Paved	307.5
	Multilane, Divided	307.4
	Multilane, 2R & 3R Criteria	307.6
	Outer Separation	310.2
	State Highway	307
	Two-lane, New Construction	307.2
	Two-lane, 2R & 3R	307.3
	Warrants for	307.1
CROSS SECTION, OTHER THAN STATE HIGHWAY ROADS		308
	City and County Roads	308.1
CROSS SECTION, STATE HIGHWAY	see CROSS SECTION	
CROSS SLOPES	Effects on Drainage	833
	Gutter	303.2
	Median	305.2
	Pavement	301.2
	Shoulder	302.2
	Structures	208.2
CROSSINGS	Bicycle	208.6
	Deer	208.8
	Equestrian	208.7
	Equipment	208.8
	Pedestrian	208.6
	Railroad	104.3
CUL-DE-SAC STREET		62.3
CULVERTS	Alignment & Slope	823.4
	Alternative Pipes	857
	Anchorage	829.5
	Available Head	821.4
	Backwater	825.1
	Bedding & Backfill	829.2
	Box and Arch	852.3
	Bridges	821.3
	Buoyant Forces	826.3
	Camber	823.2
	Choice of Type	851.2
	Culvert Design System	825.3
	Curvature	823.2
	Definition	806.2
	Design Discharge	821.2
	Design Flood, Definition	806.2

December 31, 2020

Design Frequency, Definition	806.2
Design Storm, Definition	806.2
End Treatment	826.2
Entrance Design	826
Entrance Riser	826.3
Gradeline	823.2
Headwall	826.3
Headwater	821.4
Height of Cover	829.2
	856
Hydrologic Considerations	821.2
Improved Inlets	826.4
Inlet Control	825.2
Joints	829.4
Length	854.1
Minimum Cover	828.3
Multiple Pipes	856.5
Outlet Design	824.2
Piping	827
Roughness	829.3
Sag	851.2
Service Life	829.7
Settlement	855
Slope	829.2
Transitions	823.2
Type Selection	826.4
	824
CURB RAMPS	105.4
Guidelines for	105.4
Policy and Procedure	105.3
CURBS	303
Bridges	303.5
Design Considerations	404.2
Extensions	303.4
Frontage Roads and Streets	303.6
General Policy	303.1
Grade Separations	303.5
Gutter Pan, Cross Slope	303.2
Median	305.4
Position of	303.5
Ramps	504.3
Returns, for City Streets	405.8
Structures	303.5
Types and Uses	303.2

CURVES	Broken-back	203.7
	Compound	203.5
	Compound, Superelevation of	202.6
	Horizontal	203
	Length and Central Angle	203.4
	Location of Ramp on	504.2
	Maximum Comfortable Speeds	202.2
	Radius	203.2
	Ramp Widening	504.3
	Reversing	203.6
	Reversing, Superelevation Transition for	202.5
	Spiral	203.8
	Superelevation	202
	Three-Center	405.7
	Vertical	204.4
 CUT WIDENING		 304.3
 D		
 D-LOAD	 Cracking D-Load	 856.2
	Definition	806.2
	Reinforced Concrete Pipe	852.1
 DAM		 829.9
 DEAD END STREET	 Definition	 62.3
 DEBRIS		 813.8
	Barrier, Definition	806.2
	Basin, Definition	806.2
	Bulking	813.8
	Control Structure	822.2
	Definition	806.2
	Rack, Definition	806.2
	Riser	822.2
 DECELERATION LANE		 403.4
	Left Turns	405.2
	Right Turns	405.3
 DECISION SIGHT DISTANCE		 201.7
 DEER CROSSINGS		 208.8
 DEFENSE ROUTE	 Rural and Single Interstate Routes	 309.2
 DEFINITIONS		 62
	Drainage	806.2

	Pavement Structural Section	62.7
	Deflection Studies	635.2
DEGRADATION	Definition	806.2
DELAY	Definition	62.8
DENSITY		62.8
DESIGN	Bank Protection	873.1
	Capacities	102
	Designation	103
	Discharge	811.3
	Discharge, Estimating	819
	Flood, Establishing	818.2
	Frequency, Definition	806.2
	Geometric Standards	200
	Hourly Volume	103.1
	Hourly Volume, Definition	62.8
	Interchange	504
	Intersection	405
	Period	103.2
	Philosophy	81.1
	Shore Protection	883.1
	Speed (see DESIGN SPEED)	
	Standards, Applications	80
	Storm	821.2
	Storm, Definition	806.2
	Wave Heights	883.2
DESIGN DESIGNATION	Design Period	103.2
	Relation to Design	103.1
DESIGN HOURLY VOLUME		62.8
		103.1
DESIGN LIFE	Pavement	612
	Relation to Design Period	103.1
DESIGN SPEED		101
	Definition	62.8
	Entrances & Exits	504.2
	Freeway-to-freeway Minimum	504.4
	Freeway Entrances & Exits	504.2
	Local Facility	101.1
	Scenic Values	109
	Selection	101.1
	Standards	101.2
DESIGN VEHICLE	Definition	62.10

December 31, 2020

		404
	Transit	404.2
	California Truck	404.2
	Offtracking	404.1
	STAA Truck	404.2
	Swept Width	404.2
	Tracking With	404.2
	Turning Templates	404.3
	Wheelbase	404.2
DESIGN VOLUME	see DESIGN HOURLY VOLUME	
DESIGN, FACTORS AFFECTING		401
	Bicycles	401.6
	Driver	401.2
	Environment	401.4
	General	401.1
	Pavement	611
	Pedestrian	401.5
	Vehicle	401.3
DESIGN, OPERATIONAL FEATURES AFFECTING		402
	Accidents	402.2
	Capacity	402.1
	Undesirable Geometric Features	402.2
DESIGNATION, DESIGN	Design Period	103.2
	Relation to Design	103.1
DETOURS		110.7
	Local Roads Used as	106.2
DETRITUS	Definition	806.2
DHV	see DESIGN HOURLY VOLUME	
DIAMOND INTERCHANGE		502.2
DIKES	Frontage Roads and Streets	303.6
	General Policy	303.1
	Guide, Earthen	873.4
	PCC Grouted Riprap	873.4
	Position of	303.5
	Ramp	504.3
	Toe, Earthen	873.4
	Types and Uses	303.3
DISCHARGE	Definition	806.2
	Design	811.3
	Estimating	819
	Peak	811.3

December 31, 2020

DISPOSAL SITES/MATERIALS SITES		111
	Acquisition of	111.5
	Environmental Requirements	111.1
	Information Furnished to Prospective Bidders	111.3
	Investigation of Local Material Sources	111.2
	Mandatory, on Federal-aid Projects	111.6
	Material Arrangements	111.4
DISTANCE, CLEAR	Stopping Sight Distance on Horizontal Curves	201.6
DITCHES	Grade	834.3
	Side	303.2
		834.3
	Slope	834.3
DIVERGING		62.8
DIVERSION	Definition	806.2
DIVIDED HIGHWAY	Definition	62.3
	Grade Line	204.2
DIVIDED NONFREEWAY FACILITY		108.1
DIVISION OF DESIGN		10
DOWEL BAR		622.7
	Definition	62.7
DOWNDRAINS	Definition	806.2
	Flume	834.4
	Pipe	834.4
DRAIN	Edge System (see EDGE DRAIN)	
DRAINAGE	Area, Definition	806.2
	Area	819.2
	Basic Policy	803.1
	Channels	861
	Computer Programs	819.6
		825.3
	Cooperative Projects Policy	803.2
	Course, Definition	806.2
	Definition	806.2
	Design Responsibility	802.1
	Detention Basins	891.3
	Divide, Definition	806.2
	Easement, Definition	806.2
	Economics of Design	801.5
	Galleries	841.5
	Glossary of Terms	806.2

December 31, 2020

	Median	834.2
	Objectives of Design	801.4
	Pavement	650
	by Pumping	839
	Roadway	830
	Section, Duties of	802.1
	Subsurface	840
	System, Definition	806.2
DRAINS	Anchorage	834.4
	Benches	834.4
	Entrance Standards	834.4
	Geotextile	841.5
	Horizontal	841.5
	Outlet Treatment	834.4
	Overside, Spacing & Location	834.4
	Service Life	857.1
		857.2
	Slope	834.4
	Subsurface Types	841.5
DRIVEWAYS		205
	Access Openings on Expressways	205.1
	Commercial	205.3
	Financial Responsibility	205.5
	Frontage Roads	205.4
	Local Standards	205.3
	Pedestrian Access	205.3
	Private, Definition	62.3
	Residential	205.3
	Rural Areas	205.4
	Urban	205.3
DRY WEATHER FLOWS	Definition	806.2
DUFF	Site Preparation	904.2
E		
EARTH RETAINING SYSTEMS	Anchored Wall	210.2
	Cantilever Wall	210.2
	Concrete Gravity Wall	210.2
	Counterfort Wall	210.2
	Crib Wall; Concrete, Steel and Timber	210.2
	Drainage	210.8
	Electroliers and Signs	210.8

December 31, 2020

	Footings	210.8
	Gabion Basket Wall	210.2
	Gravity Wall	210.2
	L-Type Wall	210.2
	Masonry Wall	210.2
	Mechanically Stabilized Wall	210.2
	Non-Gravity Cantilevered Walls	210.2
	Proprietary	210.2
	Reinforced Embankments	210.2
	Rock Gravity Wall	210.2
	Rock/Soil Anchors	210.2
	Safety Railings	210.6
	Salvaged Material Retaining Wall	210.2
	Secant Soldier Pile Wall	210.2
	Sheet Pile Wall	210.2
	Slurry Diaphragm Wall	210.2
	Soil Mix Wall	210.2
	Soil Nail Wall	210.2
	Soil Reinforcement Systems	210.2
	Soldier Pile Wall with Lagging	210.2
	Tangent Soldier Pile Wall	210.2
	Tire Anchored Timber Wall	210.2
	Utilities	210.8
EARTHQUAKE CONSIDERATIONS		110.6
EASEMENT	Definition	62.6
	Definition	806.2
ECONOMIC ANALYSIS	see LIFE-CYCLE COST ANALYSIS	
EDDY LOSS	Definition	806.2
EDGE DRAIN		651.2
	System, Definition	62.7
ELECTROLIERS AND SIGNS	Walls	210.7
EMBANKMENT	Definition	62.7
	Side Slope Standards	304
	Slopes at Structures	208.5
	Structure Approach Embankment	208.11
EMINENT DOMAIN	Definition	62.6
ENCROACHMENT	Definition	62.6
END OF FREEWAY	Connections with Local Roads	106.2
ENDWALL	Definition	806.2
ENERGY	Dissipator, Definition	806.2

December 31, 2020

	Dissipator	827.2
	Grade Line, Definition	806.2
	Head, Definition	806.2
ENTRANCE	Design (Hydraulic)	826
	Freeway Interchange	504.2
	Head, Definition	806.2
	Loss, Definition	806.2
ENVIRONMENTAL REQUIREMENTS	Transit Loading Facilities	108.2
	Contractor's Yard and Plant Site	112
	FHWA	108.3
	Material Sites and Disposal Sites	111
	Median Width	305.1
	Project Development	81.1
	Special Considerations	110
EQUALIZER	Definition	806.2
	826.3	
EQUESTRIAN TRAILS	see TRAILS, MULTIPURPOSE	
EQUESTRIAN	Definition	62.10
	Undercrossing and Overcrossing	208.7
EQUIPMENT CROSSINGS		208.8
EQUIVALENT SINGLE AXLE LOADS	Definition	62.7
	Conversion ESAL to Traffic Index	613.3
	ESAL Constants	613.3
	Lane Distribution Factors	613.3
	Projections, Truck Traffic	613.3
EROSION	And Accretion, Definition	806.2
	Control, Channel & Shore	871.1
	Control, General	906.1
	Control, Planting	906.3
	Control, Sediment Control	906.2
	Control, Soil Surface Protection	906.2
	Control, Water Pollution	110.2
	Definition	806.2
	Permanent Erosion Control Establishment	906.5
EVAPORATION	Definition	806.2
		812.8
		814.4
		819.2
EXITS	Freeway Interchange	504.2
EXPRESSWAY		62.3

December 31, 2020

F

FAA	Abbreviation	61.1
	Notice Requirements	207.3
FACTORS AFFECTING INTERSECTION DESIGN		
	see DESIGN, FACTORS AFFECTING	
FALSEWORK		204.8
	Grade Line	204.8
	Vertical Clearance	204.8
	Width of Traffic Openings	204.8
	Worker Safety	204.8
FAN	Definition	806.2
FEDERAL-AID		40
	Funding Determination	44
	Programs (see also PROGRAMS)	43
	System	42
FEDERAL LANDS PROGRAM		43.4
FENCES		701
	Approval	701.1
	Barbed Wire, Type BW	701.2
	Chain Link	701.2
	Exceptions to Standard Types	701.2
	Freeways and Expressways	701.2
	Location of	701.2
	Locked Gates	701.2
	Median	701.2
	on Other Highways	701.3
	Policy and Purpose	701.1
	Retaining Walls	210.6
	Safety Roadside Rest Area Layout	913.3
	Standard Types	701.2
	Vinyl-clad	705.1
	Weathering Type Steel	705.1
	Wire Mesh, Type WM	701.2
FHWA	Approval of Locked Gates	701.2
	Approval of Mandatory Sites	111.6
	Coordination With	108.7
	Federal-aid	40
FILTER FABRIC		841.5

FLAP GATES	Definition	806.2
		821.6
		838.5
FLARED END SECTION		826.3
		834.4
FLEXIBLE PAVEMENT	Definition	62.7
	Analytical Depth	635.2
	California R-value	633.1
	Climate Region	632.2
	Cold In-Place Recycling	631.10
	Cold in-Place Recycled Asphalt	634.2
	Concrete Overlay	635.2
	Data Collection	635.2
	Deflection Studies	635.2
	Empirical Method	633.1
	Engineering Analysis Software	637
	Full Depth Recycling	631.10
	Hot In-Place Recycling	631.10
	Hot Mix Asphalt (HMA)	631.1
	Hot Mixed Asphalt Base	662.2
	International Roughness Index (IRI)	633.1
	Intersections	636.3
	Lean Concrete Base (LCB)	662.2
	Lime Treated Subbase	663.3
	Mainline	636.1
	Mill and Overlay	635.2
	Open Graded Friction Course (OGFC)	631.4
	Park & Ride Facilities	636.4
	Partial Depth Recycling	631.10
		634.2
	Pavement Preservation	634
	Performance Factors	642.2
	Performance Graded (PG)	632.1
	Polymer Modified Binders	632.1
	RHMA-G	631.3
	RHMA-O	631.4
	Ramp Termini	636.1
	Reconstruction	633.2
	Recycling	631.10
	Reflective Crack Retardation	635.2
	Ride Quality	635.2
	Roadside Facilities	636.4
	Safety Roadside Rest Areas	636.4
	Rubberized HMA	631.5

May 20, 2022

	SAMI-R	631.9
	Shoulders	636.2
	Smoothness	634.2
	Stress Absorbing Membrane Interlayers (SAMI)	631.9
	Structural Adequacy	635.2
	Traffic Index (TI)	633.1
	Traveled Way	636.1
	Treated Permeable Base (TPB)	662.3
	Wearing Course	631.7
	Whitetopping	635.2
FLOOD	Base	818.1
	Control Projects	803.2
	Design	818.1
	Design Criteria, Recommended	821.3
		831.3
	Greatest of Record	821.3
	Magnitude	817
	Maximum Historical	818.1
	Measurement	817.2
	Plain, Definition	806.2
	Plane, Definition	806.2
	Stage, Definition	806.2
	Waters, Definition	806.2
FLOW	Channel	816.6
	Critical	864.3
	Definition	806.2
	Line	806.2
	Subcritical	864.3
	Supercritical	864.3
FREE	Outlet, Definition	806.2
	Water, Definition	806.2
FREEBOARD	Definition	806.2
		866
FREEWAY		62.3
	Classified Landscape	62.5
	Entrances and Exits at Interchanges	504.2
		900
FREEWAY CONNECTIONS WITH EXISTING ROADS		106.2
FREEWAY-TO-FREEWAY CONNECTIONS		62.4
		504.4
	Branch Connections	504.4
	Grade Line	204.2

	Grades	504.4
	Lane Drops	504.4
	Metering	504.3
		504.4
	Shoulder Width	504.4
FREEWAY-TO-FREEWAY INTERCHANGES		502.3
FRENCH DRAINS	Definition	806.2
		841.5
FRICITION FACTORS		202.1
FRONTAGE ROADS	Definition	62.3
	Cross Section Standards	310
	Access Control	104.3
	Cross Section	310.1
	Curbs	303.6
	Driveways	205.4
	Financed by Others	104.3
	Headlight Glare	310.3
	Horizontal Clearance	309.1
	Outer Separation	310.2
	Railroad Crossings	104.3
	Sidewalks	105.1
FUNDING		44
	Federal-Aid Eligibility	44.1
	Federal Participation Ratio	44.2
FUNNELING		403.1
G		
GALLERIES	Drainage	841.5
GEOMETRIC CROSS SECTIONS		300
	Definition	62.1
GEOMETRIC DESIGN	Definition	62.4
	Structure Standards	200
	Undesirable Geometric Features, Intersections	402.2
GEOTECHNICAL DESIGN REPORT		113
	Content	113.2
	Local Materials Sources	111.2
	Policy	113.1
	Side Slope Standards	304.1
	Submittal and Approval	113.3

May 20, 2022

GORE		62.4
	Contrasting Surface Treatment	504.2
	Paved Gore	504.2
GRADE	Cross Section, Position with Respect to	204.2
	to Drain, Definition	806.2
	Freeway Entrance Standards	504.2
	Freeway Exit Standards	504.2
	Freeway-to-freeway Connection Standards	504.4
	General Controls	204.1
	Horizontal Alignment, Coordination with	204.6
	Ramps	504.2
	Rolling Profile	204.1
	Safety Roadside Rests	912.1
	Separate Lines	204.7
	Separation	62.4
	Separation Structures	208
	Separation, Pedestrian	105.2
	Standards	204.3
	Stopping Sight Distance at Crests	201.4
	Stopping Sight Distance at Sags	201.5
	Structures	204.8
	Sustained Grades	204.5
	Vertical Curves	204.4
GRADE LINE	Bridge Decks	204.8
	Depressed, Under Structures	204.8
	General	204.1
	Separate	204.7
	Structures	204.8
GRADE SEPARATION STRUCTURES		208
	Cattle Passes, Equipment, and Deer Crossings	208.8
	Cross Slope	208.2
	Curbs	303.5
	Equestrian Undercrossing	208.7
	Median	208.3
	Open End Structures	208.5
	Pedestrian	105.2
	Pedestrian Overcrossings and Undercrossing	208.6
	Railings	208.10
	Railroad Underpasses and Overheads	208.9
	Sidewalks	208.4
	Widths	208.1
GRADIENT (SLOPE)	Definition	806.2
GRADING PLANE	Definition	62.7

GRATED LINE DRAIN		837.2
GRAVEL EQUIVALENT		635.2
GRAVITY WALL		210.2
GROIN		883.3
GROUND WATER	Definition	806.2
		841.2
GUARDRAIL	Bridge Approach Railings	208.10
	References	702
GUIDE BANK		873.4
GUTTER PAN	Cross Slope	303.2
	General Policy	303.1
	Uses, Curb Types	303.2
GUTTERS, SIDE		834.3
	Capacity	836.2
	Grade	836.2
	Intersection, at	836.2
	Types	836.1
	Valley	836.2

H

HAULING	Overloaded Material/Equipment , Design for	110.1
HEAD	Available	821.4
HEADLIGHT GLARE		310.3
HEADLIGHT SIGHT DISTANCE	Grade Sags	201.5
HEADWAY		62.8
HIGH SPEED RAIL	Definition	62.10
	Clearances	309.1
HIGHWAY		62.3
	Capacity	102
	Context	81.6
	Controlled Access	62.3
	Conventional	62.3
	Federal Lands Program	43.4
	Interstate, Definition	81.4
	Major	62.3
	National Highway System	42
	Parkway	62.3

	Pedestrian Facilities	105
	Radial	62.3
	Route Numbers	21.2
	Scenic	62.3
	State System	81.4
	Structures, Definitions	62.2
	Structures, Grade Line	204.8
	Through	62.3
	Types, Definitions	62.3
HIGHWAY DESIGN MANUAL STANDARDS		82.1
HORIZONTAL ALIGNMENT		
	Aesthetic Factors	109.3
	Alignment Consistency	203.3
	Bridges	203.9
	Broken Back Curves	203.7
	Compound Curves	203.5
	Curve Length and Central Angle	203.4
	General Controls	203.1
	Grade, Coordination with	204.6
	Radius	203.2
	Reversing Curves	203.6
	Standards for Curvature	203.2
	Spiral Transition	203.8
HORIZONTAL CLEARANCE		
	Bridges	309.1
	Between Elevated Structures	309.4
	Clear Distance	201.6
	Noise Barriers	1102.2
	Off-track Maintenance	309.5
	Railroad Walkway	309.5
	Railroads, Adjacent to	309.5
	Retaining Walls	309.1
	Structure	309.1
	Tunnels	309.3
HORIZONTAL DRAINS		841.5
HOT MIX ASPHALT CONCRETE BASE		
	also see BASE, Engineering Properties for Base	663
	also see Treated Base	662.2
HOT MIXED ASPHALT		631.1
	also see FLEXIBLE PAVEMENT	
HYDRAULIC		
	Gradient, Definition	806.2
	Jump, Definition	806.2
	Mean Depth, Definition	806.2
	Mean Depth	864.3

	Radius, Definition	806.2
HYDRAULIC DESIGN DISCHARGE	Empirical Methods	819.2
	Field Investigation	815.3
	Hydrograph Methods	816.5
	Rational Methods	819.2
	Regional Analysis	819.2
	Statistical Methods	819.3
	Summary of Methods	819.1
HYDROGRAPH	Definition	806.2
		816.5
	SCS Triangular	819.4
	Synthetic	819.4
	Unit	819.4
HYDROGRAPHY	Definition	806.2
HYDROLOGIC DATA	Basin Characteristics	812
	Federal Agencies	815.3
	Field Investigations	815.3
	Precipitation	815.2
		815.3
	Rainfall	815.5
	Sources	815.3
	Stream Flow	815.4
	Surface Runoff	815.2
	Transfer of Data	819.5
HYDROLOGICAL ANALYSIS	Gumbel Extreme Value Distribution	819.3
	Log Normal Distribution	819.3
	Log Pearson Type III Distribution	819.3
	Objectives	811.2
	Rational Methods	819.2
	Regional Analysis Methods	819.2
	SCS Triangular Hydrograph	819.4
	Synthetic Hydrograph	819.4
	Unit Hydrograph	819.4
HYDROLOGY	Definition	806.2
		811.1
HYDROPLANING	Definition	831.4
INFILTRATION		602.1
		819.2

	Definition	806.2
INITIAL CONSTRUCTION	and Stage	106.1
INLETS	Combination	837.2
	Curb Opening	837.2
	Grate	837.2
	Hydraulic Design	837.4
	Location and Spacing	837.3
	Pipe Drop	837.2
	Time, Definition	806.2
	Transition	826.4
	Types	837.2
	Use of	837.1
INSPECTION STATIONS, BORDER		107.3
INTERCHANGES	Access Control	504.8
	Aesthetic Factors	109.3
	Approval of Design	503.2
	Auxiliary Lanes	504.5
	Cloverleaf	502.2
	Concepts	501.1
	Data Required for Design	503.1
	Definition	62.4
	Design, Procedure	503
	Design, Standards	504
	Diamond	502.2
	Elements	62.4
	Freeway Entrances and Exits, Design	504.2
	Freeway-to-freeway	502.3
	Freeway-to-freeway Connections, Definition	62.4
	Freeway-to-freeway Connections, Standards	504.4
	Freeway-to-freeway, Minimum Design Speed	504.4
	Freeway-to-freeway Omission of Movements	502.3
	Grade Separations	62.4
	Grades Exits/Entrances	504.2
	Lane Reduction	504.6
	Local Streets	502.2
	Parallel Street Systems	502.2
	Ramps	504.3
	Reviews	503.2
	Sight Distance for Planting	904.6
	Single Point Interchange	502.2
	Spacing	501.3
	Traffic	500
	Trumpet	502.2
	Two-quadrant Cloverleaf	502.2

	Types	502
	Warrants	501.2
	Weaving Sections	504.7
	also see RAMPS	
INTERMODAL SURFACE TRANSPORTATION		
EFFICIENCY ACT (ISTEA)		40
INTERSECTION	Access Control	405.6
	Accidents	402.2
	Angle of Intersection	403.3
	Areas of Conflict	403.2
	Bicycle, Affecting Design of	401.6
	Capacity	402.1
	Capacity, Ramps	406
	Channelization	403
	Definition	62.4
	Design, Factors Affecting	401
	Design, Operational Features Affecting	402
	Design, Standards	405
	Design Vehicle	404
	Driver, Affecting Design of	401.2
	Environment, Affecting Design of	401.4
	General, Factors Affecting Design	401.1
	at Grade	400
	Grade Separations	62.4
	Left-turn Channelization	405.2
	Major Movement, Preference to	403.1
	Median Openings	405.5
	Operational Features	402
	Pedestrian, Affecting Design of	401.5
	Points of Conflict	403.4
	Precautions	403.12
	Prohibited Turns	403.8
	Public Road	405.7
	Ramp	406
	Refuge Area	403.7
	Returns and Corner Radii, City Street	405.8
	Right-turn Channelization	405.3
	Right-turn Lanes at Off Ramp	405.3
	Roundabout, Definition	62.4
	Sight Distance	405.1
	Signal Control	403.9
	Speed-change Areas	403.5
	Traffic Control Devices	403.10
	Traffic Islands	405.4
	Turning Traffic	403.6

	Types	401.5
	Undesirable Geometric Features	402.2
	Vehicle, Affecting Design of	401.3
	Widening at Signalized Intersections	405.9
INTERSTATE	Definition	81.4
	Funding	42.2
	Numbering	21.2
INUNDATE	Definition	806.2
INVERSE CONDEMNATION	Definition	62.6
INVERT	Definition	806.2
	Paving, Definition	806.2
	Paving	852.1
		852.4
		853.6
	Protection	852.4
		852.5
INVERTED SIPHON	Definition	806.2
		829.7
IRRIGATION		905
	Conduit	905.3
	Design, General	905.1
	System Equipment	905.4
	Temporary	905.5
	Water Supply	905.2
ISLAND		62.4
	Traffic	405.4
ISOHYETAL	Line, Definition	806.2
	Map, Definition	806.2
ISOVEL	Definition	806.2
ISTEA		41.1
		42.2
J		
JACK	Definition	806.2
JACKING OPERATIONS	Definition	806.2
JETTY	Definition	806.2
	Types	873.4

JOINT	Longitudinal	62.7
	Pavement	622.4
	Seals	62.7
JOINT BANK PROTECTION COMMITTEE		802.3
JOINT PLAIN CONCRETE PAVEMENT		621.2
	also see RIGID PAVEMENT	
JOINTS	Culverts	829.4
		854.1
JUNCTION STRUCTURES		838.5
K		
KINEMATIC WAVE EQUATION		816.6
KIRPICH EQUATION		816.6
K-RAIL		204.8
L		
L-TYPE WALL		210.2
LAG	Definition	806.2
LAMINAR FLOW	Definition	806.2
LANDSCAPE	Aesthetic Factors	109.3
	Architecture, Definitions	62.5
	Architecture - Roadsides	900
	Architecture – Roadside Sites	910
	Design Standards	901.2
LANE	Addition	206.2
	Addition on Ramps	504.3
	Auxiliary	62.1
		504.5
	Climbing	204.5
		206.2
	Deceleration	405.2
		405.3
	Definitions	62.1
	Drops	206.3
	Drops on Freeway-to-freeway Connectors	504.4
	Drops on Ramps	504.3

	Express Toll Lanes	62.8
	High-Occupancy Vehicle	62.8
	High Occupancy Toll	62.8
	Left Turn	405.2
	Managed, Definition	62.8
	Median, Definition	62.1
	Multiple, Definition	62.1
	Numbering	62.1
	Passing	204.5
	Reductions	206.3
	Reduction at Interchanges	504.6
	Right Turn	405.3
	Separate Turning	403.6
	Speed Change	403.5
	Speed Change, Definition	62.1
	Traffic, Definition	62.1
	Two-way Left-turn Lanes	405.2
	Width	301.1
	Width on Curves	504.3
	Width of Opening for Falsework	204.8
	Width, Ramps	504.3
LATERAL	Definition	806.2
		838.4
		838.5
LEAN CONCRETE BASE	see BASE	
	Definition	62.7
LEFT-TURN CHANNELIZATION		405.2
LEFT-TURN REFUGE		403.7
LEGISLATION		41
	ISTEA	41.1
LEVEE	Definition	806.2
LEVEL OF SERVICE	Definition	62.8
		102
LIFE-CYCLE COST ANALYSIS (LCCA)		619
LIME	Treatment Definition	614.5
LIME TREATED SUBBASE	see SUBBASE	
LOAD TRANSFER DEVICE	see DOWEL BAR	
LOADING FACILITIES	Transit	108.2
LOCAL STREETS/ROADS	Cross Section	308.1

	Definition	62.3
		81.4
	Design Speed	101.1
	Driveways	205.3
	Grade	204.1
	Horizontal Alignment	203.1
	Interchanges	502.2
	Returns and Corner Radii	405.8
	Superelevation	202.7
LOCKED GATES		701.2
LOG OF TEST BORINGS		210.8
M		
MAINTAINABILITY	Pavement	618.1
MAINTENANCE	Definitions	62.7
MAINTENANCE VEHICLE PULLOUT	Definition	62.1
MAINTENANCE YARDS	On Freeways	107.2
MAJOR STREET/MAJOR HIGHWAY	Definition	62.3
MANDATORY MATERIAL SITES	Federal-aid Projects	111.6
MANNING	Equation	866.3
	Roughness Coefficient	851.2
		866.3
MARKERS		702.1
	Contrast Treatment	704.1
MATERIALS	Availability, Pavement	617.1
	Color Selection for Steel Structures	705.2
	Conservation of	110.11
	Hauling, Overloaded Design	110.1
	Information Furnished to Prospective Bidders	111.3
	Plants	112
	Recycling, Pavement	617.2
	Report (see MATERIALS REPORT)	
	Sites	111
	Sites, Acquisition	111.5
	Sites, Arrangements	111.4
	Sites, Environmental Requirements	111.1
	Sites, Investigation of Local Sources	111.2
	Sites, Mandatory	111.6
	Special Treatment	705.1

May 20, 2022

MATERIALS REPORT	Content	114.3
	Local Materials Sources	111.2
	Policy	114.1
	Preliminary	114.4
	Requesting	114.2
	Retention of Records	114.5
	Reviews	114.5
MAXIMUM COMFORTABLE SPEED	Chart	202.2
	Superelevation	202.2
MAY	Definition and Usage	82.1
MEAN VELOCITY		864.3
MECHANISTIC-EMPIRICAL DESIGN		604.2
MEDIAN	Definition	62.1
	Aesthetic Factors	109.3
	Barriers	305.3
	Cross Slope	305.2
	Curbs	305.4
	Decking on Bridge	208.3
	Fencing	701.2
	Grade	834.2
	Lane	62.1
	Left-turn Lane	405.2
	Openings	405.5
	Paved	305.5
	Position	303.5
	Separate Roadways	305.6
	Standards	305
	Tree Planting	904.5
	Width	305.1
MERGING	Definition	62.8
METEOROLOGY	Evapo-transpiration	814.4
	Rainfall	814.2
	Snow	814.3
	Tides and Waves	814.5
	Tsunami	814.5
METERING		504.3
	Definition	62.8
	Freeway-to-Freeway Connections	504.4
	Lane Merges	206.3
	Ramp Lane Drops	504.3
MINIMUM TURNING RADIUS	Definition	62.4

MINOR ARTERIAL	Definition	81.4
MISCELLANEOUS STANDARDS		700
	Fences	701
	Guardrail	702
	Mailboxes	702
	Markers	702
MUD FLOW	Definition	806.2
MULTILANE CROSS SECTIONS	All Paved	307.5
	Divided	307.4
MULTIPLE LANES	Definition	62.1
MULTIPLE PIPES		824.2
N		
NATIONAL HIGHWAY SYSTEM		42.1
NAVIGABLE WATERS	Definition	806.2
NEGATIVE PROJECTING CONDUIT	Definition	806.2
NOISE ABATEMENT		1100
	By Others	1101.2
	Objective	1101.2
	Prioritizing	1101.5
	Terminology	1101.3
NOISE BARRIERS	Aesthetics	1102.6
	Alternate Designs	1102.5
	Clearances	1102.2
	Design Criteria	1102
	Design Procedures	1102.5
	Drainage Openings	1102.9
	Emergency Access	102.8
	Heights	1102.3
	Lengths	1102.4
	Location	1102.2
	Maintenance Considerations	1102.7
	Pay Quantities	1102.5
	Planting	904.6
		1102.6
	Preliminary Site Data	1102.5
	Sight Distance Requirements	1102.2
NONFREEWAY FACILITIES	Conversion to Divided	108.1

May 20, 2022

NONMOTORIZED TRAFFIC	Provisions for	104.3
NORMAL DEPTH	Definition	806.2 864.2
O		
OFF-SET LEFT-TURN LANE	Definition	62.4
OFF-SITE DRAINAGE	Definition	806.2
OFFTRACKING	Definition	62.4
	Design Considerations	404.1
ON-SITE DRAINAGE	Definition	806.2
ON-STREET PARKING	Definition	62.1 402.3
OPEN CHANNEL	Definition	62.8
OUTER SEPARATION	Definition	62.1 310.2
OUTFALL	Definition	806.2
OUTWASH	Definition	806.2
OVERFLOW	Channel	861.5
OVERLAND FLOW		816.6
OVERLAYS	Definition	62.7
OVERLOADS	Design for	110.1
P		
PAINTING	Concrete	705.1
	Steel	705.2
PARALLEL STREET SYSTEMS	Interchanges	502.2
PARK AND RIDE LOTS		915
	Definition	62.5
	Pavement Structural Section Design	636.4
PARKING	Area Design	912.2
PARKWAY	Definition	62.3
PARTIAL ACQUISITION	Definition	62.6

PASSING LANE	204.5
PASSING SIGHT DISTANCE	201.2
PAVEMENT/PAVEMENT STRUCTURE	603.3
Capital Preventive Maintenance	
Composite see COMPOSITE PAVEMENT	
Cross Slopes	301.2
Definition	62.7
Design Life, Definition	62.7
Design Life	612
Detours	603.6
Drainage, Impact of	651.1
Flexible see FLEXIBLE PAVEMENT	
Joints	622.4
Layers	602
New	603.1
Performance see PAVEMENT SERVICE LIFE	62.7
Portland Cement Concrete	602.1
Preservation	603.3
Reconstruction	603.5
Reductions	206.3
Rehabilitation, Definition	62.7
Roadway Rehabilitation	603.4
Rigid see RIGID PAVEMENT	
Tapered Edge	302.3
Serviceability, Definition	62.7
Service Life, Definition	62.7
Structure	62.7
Surface Course	62.7
Temporary	603.6
Transitions	206
Transitions for Freeways, Temporary	206.4
Type Selection	611.1
Types of Projects	603
Widening	603.2
Width	680
Width	301.1
PEAK FLOW	806.2
Definition	811.3
PEDESTRIAN FACILITIES	105
Accessibility Requirements	105.3
Bridges	208.4
Conventional Highways	105.1
Crosswalk, Definition	62.4
Curb Ramps, Guidelines	105.4
Design Considerations	404.2

	Freeway Facilities	105.1
	Frontage Roads	105.1
	Grade Separations	105.2
	Pedestrian, Definition	62.10
	Overcrossings	105.2
	Overcrossing/Undercrossing, Standards	208.6
	Railings	208.10
	Refuge, Definition	62.4
	Refuge Areas	403.7
	Replacement in Kind	105.1
	School Walkways	105.1
	Sidewalks	105.1
	Sidewalks, Definition	62.1
	Sidewalks, Structures	208.4
	Trails	1003.4
	Undercrossings	105.2
		208.6
PERCHED WATER	Definition	806.2
		841.4
PERCOLATING WATERS	Definition	806.2
PERMEABILITY	Definition	806.2
		841.2
PHYSICALLY DISABLED PERSONS		
	see ACCESSIBILITY REQUIREMENTS	
PIPE	Alternative Pipe Culvert Selection Procedure Using AltPipe	857.2
	Cast in Place Concrete	852.2
	Concrete Box and Arch, Strength Requirements	852.3
	Corrugated Aluminum Pipe and Arch, Strength Requirements	852.5
	Corrugated Steel Pipe and Arch, Strength Requirements	852.4
	Culverts	828.2
		828.3
	Minimum Cover	856.5
	Minimum Diameter	838.4
	Multiple	824.2
	Plastic, Strength Requirements	852.7
	Protective Coatings	852.4
	Reinforced Concrete, Strength Requirements	852.1
	Standards for Drain	838.4
	Structural Metal Pipe and Arch, Strength Requirements	852.6
PIPING	Definition	806.2
		829.3
PLACE TYPES	Definition	81.3

	Rural Area	81.3
	Suburban Area	81.3
	Urban Area	81.3
PLANT SITES/CONTRACTOR'S YARD		112
PLANTING	Aesthetic Factors	109.3
	Airports and Heliports	904.8
	Design	904
	Establishment	904.9
	General	904.1
	Locating Plants	904.4
	Locating Trees	904.5
	Selection	904.3
	Sight Distance	904.6
	Site Preparation	904.2
	Trees	904.5
	Vines	904.7
PLASTIC COATINGS		852.4
POINT OF CONCENTRATION	Definition	806.2
POINTS OF CONFLICT	Intersections	403.4
POLICE FACILITIES		107.2
POLLUTION CONTROL	Air	110.3
	Water	110.2
PONDING		821.4
PORTLAND CEMENT CONCRETE	Channel Linings	865.2
	Pavement see RIGID PAVEMENT	
POSITIVE PROJECTING CONDUIT	Definition	806.2
POTAMOLOGY	Definition	806.2
PRECAST PANEL CONCRETE PAVEMENT		621.3
	also see RIGID PAVEMENT	
PRECIPITATION	Area, Definition	806.2
	Definition	806.2
	Mean Annual	819.2
	Point, Definition	806.2
PRELIMINARY HYDRAULIC DATA		805.1
PRESENT WORTH	see ECONOMIC ANALYSIS	
PRIORITY NETWORK	42 000 km	309.2

May 20, 2022

PRINCIPAL ARTIRIAL	Definition	62.3
PRIVATE ROAD	Definition	62.3
PRIVATE ROAD CONNECTIONS		205.2
	Financial Responsibility	205.5
	Sight Distance	405.1
PROCEDURAL REQUIREMENTS		82.4
PROGRAMS, FEDERAL-AID		
	Bridge Replacement and Rehabilitation Program	43.3
	Congestion Mitigation and Air Quality Improvement Program (CMAQ)	43.2
	Federal Lands Program	43.4
	Special Programs	43.5
	Surface Transportation Program (STP)	43.1
PROHIBITED TURNS		403.8
PROJECTING BARREL		826.3
PROJECTING ENDS		826.3
PROPRIETARY ITEMS		110.10
	Earth Retaining Systems	210.2
PROTECTION OF ACCESS RIGHTS		104.4
PROTECTION OF WETLANDS	see WETLANDS	
PROTECTIVE COATINGS		852.4
PUBLIC ROAD INTERSECTION		405.7
	Sight Distance	405.1
PULL OUTS	see TURNOUTS	
PUMPING	Definition	62.7
PUMPING PLANT		839.1

R

R-VALUE	see CALIFORNIA R-VALUE	
RADIAL HIGHWAY	Definition	62.3
RADIUS	Curb	405.8
	Horizontal Alignment	203.2
RAILINGS	Bicycle	208.10
	Bridge	208.10

	Bridge Approach	208.10
	Cable	210.6
	Chain Link	208.10
	Earth Retaining Systems	210.6
	Guardrail	208.10
		702.1
	Pedestrian	208.10
	Vehicular	208.10
RAIL	Clearances	309.2
	Structures Adjacent to	309.5
	Commuter, Definition	62.10
	Conventional, Definition	62.10
	Crossings	104.3
	Grade Line of Structures	204.8
	High Speed, Definition	62.10
	High Speed, Clearances	309.1
	Light, Definition	62.10
	Overheads	208.9
	Slope Treatment, Structures	707
	Underpasses	208.9
RAINFALL	Definition	806.2
	Sources of Data	815.3
RAIN GAGE		819.5
RAINWASH	Definition	806.2
RAMPS	Curbs on	504.3
	Curb Ramps	105.4
	Definition	62.4
	Dikes	504.3
	Distance Between Exits	504.3
	Distance Between On-Ramps	504.3
	Entrance and Exit	504.2
	Grade	504.2
	Grade Line	204.2
	Grade, Standards	204.3
	Hook	502.2
	Intersection Capacity	406
	Intersections on Crossroad, Location of	504.3
	Lane Drops	504.3
	Loop	504.3
	Metering (see METERING)	
	Pavement, Flexible	636.1
	Pavement, Rigid	626.1
	Pavement, Traffic Considerations	613.4

	Pavement Transitions	206
	Ramps and Connectors	636.1
	Single Lane	504.3
	Structural Design	633
	Superelevation	504.3
	Tapers	206.3
	Termini, Flexible Pavement	636.1
	Termini, Rigid Pavement	626.1
	Transitions	504.3
	Two-lane Entrance	504.3
	Two-lane Exit	504.3
	Width	504.3
	Widening for Trucks	504.3
RATIONAL METHOD		819.2
RAVELING	Definition	62.7
REACH	Definition	806.2
RECORD KEEPING	Documentation	605.1
	Subsequent Revisions	605.2
RECOVERY AREA		309.1
RECYCLING, ASPHALT CONCRETE	General	110.11
	Hot, Definition	62.7
REFUGE AREAS		403.7
REGIME	Definition	806.2
REHABILITATION, CULVERTS	General	853.1
	Caltrans Host Pipe Structural Philosophy	853.2
	Problem Identification and Coordination	853.3
	Alternative Pipe Liner Materials	853.4
	Cementitious Pipe Lining	853.5
	Invert Paving with Concrete	853.6
	Structural Repairs with Steel Tunnel Liner	
	Plate	853.7
REHABILITATION, PAVEMENT	Capital Preventive Maintenance, part of	603.3
	Definitions	62.7
	Design Life	612.4
	Composite	645
	Flexible Pavement	635
	Rigid Pavement Strategies	625.2
REHABILITATION, ROADWAY		603.4
	Definitions	62.7

	Design Life	612.5
	Composite Pavement	645
	Flexible Pavement	635
	Rigid Pavement Strategies	625.2
REINFORCED EARTH SLOPES		210
RELICION	Definition	806.2
RELINQUISHMENT	Definition	62.6
REPLACEMENT IN-KIND	Sidewalks	105.1
REPLACEMENT PLANTING	Aesthetic Factors	109.3
RESEARCH/SPECIAL DESIGNS	Research, Experimentation	606.1
	Special Designs	606.2
RESOURCES	Other, Pavement	604.4
RESTORATION PLANTING	Aesthetic Factors	109.3
RESURFACING	Definition	62.7
	see PRESERVATION, PAVEMENT	
	see REHABILITATION, PAVEMENT	
	see REHABILITATION, ROADWAY	
RETAINING WALLS		210
	Aesthetic Considerations	210.5
	Construction Methods and Types	210.2
	Guidelines for Plan Preparation	210.8
	Safety Railing, Fences, and Concrete Barriers	210.6
RETARD	Types	873.4
RETARDING BASIN	Definition	806.2
RETENTION BASIN	Definition	806.2
RETROGRESSION	Definition	806.2
RETURN WALLS		210.8
RETURNS, CITY STREET AND CORNER RADII		405.8
REVEGETATION	Aesthetic Factors	109.3
REVERSING CURVES		203.6
	Superelevation Transitions	202.5
REVETMENT	Definition	806.2
RIGHT OF ACCESS	Definition	62.6
RIGHT OF WAY	Definitions	62.6
	Through Public Domain	306.2

May 20, 2022

	Width	306.1
RIGHT-TURN CHANNELIZATION		405.3
RIGID PAVEMENT	Catalog	623.1
	Definition	62.7
	Design Procedure for	623
	Engineering Properties	622.1
	Joints	622.4
	New Construction	623
	Engineering Procedures for Pavement Preservation	624
	Performance Factors	622.2
	Reconstruction	623
	Engineering Procedures for Pavement Rehabilitation	625
	Texturing	622.9
	Types	621
	also see CONCRETE	
RIPARIAN	Definition	806.2
RIPRAP	Definition	806.2
		827.2
		873.3
RISER	Culvert Entrance	822.2
	Definition	806.2
RISK ANALYSIS	Definition	806.2
		818.2
ROADBED	Definition	62.1
		62.7
ROADSIDE	Definition	62.1
	Landscape Architecture	900
ROADSIDE INSTALLATIONS		107
	Border Inspection Stations, Location of	107.3
	Define Roadside	62.1
	Maintenance Yards and Police Facilities	107.2
	Roadway Connections	107.1
ROADSIDE REST AREA, SAFETY	Definition	62.5
	Buildings and Structures	913.4
	General	913.1
	Layout	913.3
	Parking	913.6
	Pavement Design	613.4
	Pavement, Flexible	636.4
	Pavement, Rigid	626.4

	Public Information Display	913.8
	Signage	913.7
	Site Selection	913.2
	Utilities and Facilities	913.5
	Vending Facilities	913.9
	Water Supply	110.2
ROADSIDE MANAGEMENT	Vegetation Control	706.2
ROADSIDE SITES, LANDSCAPE ARCHITECTURE		910
ROADWAY	Connections	107.1
	Definition	62.1
	Drainage	830
	Structural Elements	601.2
ROCKFALL RESTRAINING NETS		703.2
ROUNDBABOUTS	Access Control	405.10
	Bicyclist Use	405.10
	Central Island	62.4
	Circulatory Roadway	62.4
	Definition	62.4
	Design Guidance	405.10
	Design Vehicle	405.10
	Entry Speeds	405.10
	Exit Design	405.10
	Inscribed Circle Diameter	62.4
		405.10
	Landscape Buffer/Strip	62.4
		405.10
	Lighting	405.10
	Number of Legs	405.10
	Path Alignment (Natural Path)	405.10
	Pedestrian Refuge	62.4
	Pedestrian Use	405.10
	Splitter Island	62.4
		405.10
	Stopping Sight Distance and Visibility	405.10
	Transit Use	405.10
	Truck Apron	62.4
	Vertical Clearance	405.10
ROUNDED INLET	Definition	806.2
ROUNDED LIP		826.3
RRR CRITERIA	Design Period	103.2
	Left-Turn Lanes	405.2
	Multi lane Cross Section	307.6

	Pavement Design Life	612.5
	Two-lane Cross Section	307.3
RUNNING	Speed	62.8
	Time	62.8
RUNOFF		816
	Drainage, Definition	806.2
	Factors Affecting	811.5
	Superelevation Transition	202.5
RURAL	Acceleration Lane at Intersection	405.1
	Access Control	504.8
	Area, Definition	81.3
	Design Speed	101.2
	Driveway Connection	205.4
	Interchange Spacing	501.3
	Median Standards	305.1
	Outer Separation	310.2
	Weaving Section	504.7
RURAL AND SINGLE INTERSTATE ROUTING		309.2
RUTTING	Definition	62.7
S		
SAFETY	Railings on Walls	210.5
	Reviews	110.8
	Roadside Rest Areas	913
	Tunnel Safety Orders	110.12
	Worker	110.7
		901.2
	Worker, Falsework Clearance	204.8
SAFETY ROADSIDE REST AREAS	see ROADSIDE REST AREA, SAFETY	
SAG CULVERT	Definition	806.2
		829.7
SCENIC	Highway	62.3
	Values	109
SCENIC VALUES IN PLANNING AND DESIGN		109
	Aesthetic Factors	109.3
	Basic Precepts	109.1
	Design Speed	109.2

SCHOOL PEDESTRIAN WALKWAYS		105.1
SCOUR	Definition	806.2
		827.2
SEA LEVEL RISE		883.2
SEAL	Fog	613.4
	Slurry	613.5
SEDIMENTATION	Definition	806.2
		823.2
		862.2
		865.2
SEPARATE ROADWAY		305.6
SERVICEABILITY	Definition	62.7
SETTLEMENT	Definition	62.7
	Structure Approach	208.11
SEVERANCE DAMAGES	Definition	62.6
SHADE REQUIREMENTS		912.2
SHALL	Definition and Usage	82.1
SHEET FLOW	Definition	806.2
SHOALING	Definition	806.2
SHORE PROTECTION		880
	Armor	883.3
	Design, Concepts	883.1
	Design, High Water and Design Wave Height	883.2
	Planning	882.1
	Site Considerations	882.3
SHOULD	Definition and Usage	82.1
SHOULDER	Cross Slope	302.2
	Definition	62.1
	Design Considerations	404.2
	Pavement, Flexible	636.2
	Pavement, Rigid	626.2
	Standards, Geometric	302
	Standards, Pavement	613.4
	Superelevation Transitions	202.5
	Transitions (Widen, Reduction)	206
	Width	302.1
	Width, Right Turn Channelization	405.3
	Width, Two-lane Roads, New Construction	307.2

May 20, 2022

SHOULDER BACKING		670
SIDE GUTTERS/DITCHES		834.3
SIDE SLOPES		304
	Benches and Cut Widening	304.3
	Clearance to Right of Way Line	304.2
	Contour Grading and Slope Rounding	304.4
	Standards	304.1
	Stepped	304.5
	Structures	208.5
	Transition Slopes	304.1
	Widening	304.3
SIDEWALKS	see PEDESTRIAN FACILITIES	
SIGHT DISTANCE	Clear Distance (m)	201.6
	Corner	405.1
	Decision	201.7
	Decision at Intersections	405.1
	Exit Nose	504.2
	General	201.1
	Headlight, at Grade Sags	201.5
	Intersection	405.1
	Passing	201.2
	Planting	904.6
	Ramp Intersections	504.3
	Standards	201.1
	Stopping	201.3
	Stopping at Grade Crests	201.4
	Stopping at Grade Sags	201.5
	Stopping on Horizontal Curves	201.6
	Stopping at Intersections	405.1
SIGNAL CONTROL		403.9
SIGNALIZED INTERSECTION	Widening	405.9
SIGNS	Vertical Clearance	309.2
SILT	Definition	806.2
SILTATION		110.2
SIPHONS		829.7
SITE FINISHINGS	Definitions	62.5
SKEW	Angle	62.4
	Angle of Intersection	403.3
	Definition (Hydraulic)	806.2
SLIDE	Definition	806.2

SLIPOUT	Definition	806.2
SLOPE	Aesthetic Factors	109.3
	Cross	301.2
	Crown	301.2
	Definition (Hydraulic)	806.2
	Rounding	110.2
	Protection	873.3
	Shoulder Cross Slopes	302.2
	Side	304
	Side, Benches and Cut Widening	304.3
	Standards, Side Slopes	304.1
	Stepped	304.5
	Treatment Under Structures	707
SLOPE TREATMENT UNDER STRUCTURES		707
	Guidelines	707.2
	Policy	707.1
	Procedure	707.3
SLOTTED DRAINS		837.2
SLOUGH	Definition	806.2
SLUG FLOW	Definition	806.2
SNOW PACK		812.8
		814.3
SOFFIT	Definition	806.2
SOIL	Amending Soil	904.2
	Characteristics for Pavements	614.1
	Health	904.2
	Imported Topsoil	904.2
	Preserve Existing Topsoil	904.2
	Texture Rehabilitation	904.2
	Topsoil	904.2
	Unified Soil Classification System	614.2
SPACING	Drainage Pipes	824.2
	Vehicle	62.8
SPECIAL CONSIDERATIONS		110
	Air Pollution, Control of	110.3
	Control of Noxious Weeds	110.5
	Earthquake Consideration	110.6
	Overloaded Material Hauling, Design for	110.1
	Safety Reviews	110.8
	Traffic Control Plans	110.7
	Water Pollution, Control of	110.2

May 20, 2022

	Wetlands Protection	110.4
SPECIAL DESIGNS	see RESEARCH/SPECIAL DESIGNS	
SPECIAL STRUCTURES AND INSTALLATION		703
SPECIFIC ENERGY	Definition	806.2
		864.3
SPEED	Definition	62.8
	Comfortable (see MAXIMUM COMFORTABLE SPEED)	
	Design (see DESIGN SPEED)	
	High, Definition	62.8
	Low, Definition	62.8
	Operating	62.8
	Posted	62.8
	Running	62.8
	Speed Change Areas	402.5
SPEED-CHANGE LANES		62.1
	Intersections	403.5
	Left-turn Channelization	405.2
	Pavement Transitions	206
	Right-turn Channelization	405.3
	Speed Change Areas	402.5
SPILLWAY	Paved	834.4
SPIRAL TRANSITIONS		203.8
STABILIZATION TRENCHES		841.5
STAGE	Definition	806.2
STAGE CONSTRUCTION		106.1
	Freeway Connections with Local Roads	106.2
STANDARDS		80
	Approval for Nonstandard Design	82.2
	Boldface Standard	82.1
	FHWA and AASHTO	82.3
	Other Approval	82.1
	Permissive	82.1
	Underlined Standard	82.1
STATE HIGHWAY, CROSS SECTIONS		307
	also see CROSS SECTIONS	
STEEL STRUCTURES	Colors	705.2
STEPPED SLOPES		304.5
STOPPING SIGHT DISTANCE	see SIGHT DISTANCE	

STORAGE		838.4
	Basin, Definition	806.2
	Definition	806.2
	Depression	819.2
	Detention	812.6
	Interception	812.6
	Left-turns	405.2
	Retention, Definition	806.2
	Right-turns	405.3
STORM	Definition	806.2
	Design, Establishing	818.2
	Design, Recommended Criteria	821.2
	Drain, Definition	806.2
STP	see SURFACE TRANSPORTATION PROGRAM	
STREAM WATERS	Definition	806.2
STREETS	Definitions	62.3
STRUCTURAL PLATE	Arches	852.6
	Vehicular Underpasses	852.6
STRUCTURAL SECTION	see PAVEMENT STRUCTURE	
STRUCTURE APPROACH	Design Responsibilities	601
	Pavement Systems	672
	Structure Approach Slabs	209
	Slab-Rehabilitation Projects	673
STRUCTURE CLEARANCE		309
	Elevated Structures	309.4
	Horizontal	309.1
	Railroad	309.5
	Tunnel	309.3
	Vertical	309.2
STRUCTURES, SLOPE TREATMENT UNDER	see SLOPE TREATMENT	
STRUTTING	Definition	806.2
SUBBASE	Definition	62.7
	Description	602.1
	Engineering Properties	663
	Lime Treated	662.2
	Selection Criteria	663.1
	Treated	662.2
SUBCRITICAL FLOW	Definition	806.2
		864.3

May 20, 2022

SUBDRAIN	Definition	806.2
		841.5
SUBGRADE		614
	Definition	62.7
	Description	602.1
	Engineering Considerations	614.1
	Enhancement Fabrics	614.5
SUBSURFACE DRAINAGE		840
SUBURBAN		81.3
SUMP	Definition	806.2
		831.3
SUPERCritical FLOW	Definition	806.2
		864.3
SUPERELEVATION	Axis of Rotation	202.4
	Basic Criteria	202.1
	Bridge	203.9
	Channels	866.2
	City Streets and County Roads	202.7
	Comfortable Speeds	202.2
	Compound Curves	202.6
	Ramps	504.3
	Relationship to Speed on Curves	203.2
	Reversing Curves	203.6
	Runoff	202.5
	Standards	202.2
	Transition	202.5
SURFACE	Course, Definition	62.7
	Course, Description	602.1
	Runoff, Definition	806.2
	Water, Definition	806.2
	Water	831.1
SURFACE TRANSPORTATION PROGRAM		43.1
SWALE	Definition	806.2
SWEPT WIDTH	Definition	62.4
		404.1
	Design Considerations	404.2

T

TAPERED INLET	Definition	806.2 826.4
TEXTURING	Rigid Pavement	622.9
THREE-CENTER CURVE	Intersections	405.7
THROUGHWAY	Definition	62.3
TIME OF CONCENTRATION	Channel Flow Combined Flow Culvert Flow Kinematic Wave Equation Kirpich Equation Overland Equation Soil Conservation Service (SCS) Equation Upland Method	816.6 816.6 816.6 816.6 816.6 816.6 816.6 816.6
TOLL ROAD, BRIDGE OR TUNNELH		62.3
TOPSOIL	Site Preparation	904.2
TRACKING WIDTH	Definition Design Considerations	62.4 404.1 404.2
TRAFFIC	Axle Load Spectra Considerations Considerations in Pavement Engineering Control Devices Control Devices Control Plans, Special Problems Definitions Engineering Index, TI Interchanges Islands Lane Manual Traffic Index Calculations Markings Noise Abatement Pedestrian Refuge Ramp Intersection Flow Sign Signals Specific Traffic Loading Considerations Volumes	613.3 401.3 613 62.8 403.10 110.7 62.8 82.7 613.2 500 405.4 62.1 613.2 62.8 1100 405.4 406 62.8 62.8 613.4 102.1
TRAILS	Multipurpose	1003.5
TRANSIT	Bus Rapid Transit (BRT)	62.10

May 20, 2022

	Definition	62.10
	Design Vehicle	404.3
	Factors Affecting Design	401.6
	Loading Facilities	108.2
	Turning Templates	404.5
TRANSITIONS	General Standards, Pavement	206.1
	Lane Additions	206.2
	Lane Drops	206.3
	Pavement	206
	Spiral	203.8
	Superelevation	202.5
	Temporary Freeway	206.4
TRANSPARATION		812.8
		819.2
TRANSPORTATION MANAGEMENT AREA	Definition	81.3
	Interchange Spacing	501.3
TRASH RACK	Definition	806.2
		822.2
TRAVELED WAY	Definition	62.1
	Design Considerations	404.2
	Standards	301
TREATED BASE		662.2
TREATED PERMEABLE BASE		662.3
TREATED SUBGRADE		662.4
TREES	Conventional Highways	904.5
	Freeways and Expressways	904.5
	Selection	904.3
	Shade Requirements	912.2
TRUCK	Critical Lengths of Grade	204.5
	Design Vehicle	404.3
	Escape Ramps	702.1
	Turning Templates	404.5
	Turns	404.5
	Weighing Facilities	703.1
TRUMPET INTERCHANGE		502.2
TRUNK LINE	Definition	806.2
TUNNEL	Classification	110.12
	Clearances	309.3
	Liner Plate	852.6

	Projects	110.12
	Structural Repairs with Steel Tunnel Liner Plate	853.7 838.4
TURBULENCE	Definition	806.2
TURBULENT FLOW	Definition	806.2
TURNING LANES	Left-turn Channelization	405.2
	Right-turn Channelization	405.3
	Separate	62.1
	Traffic	403.6
	Two-way Left-turn	405.2
TURNING RADIUS	Minimum	62.4
TURNING TEMPLATES		404.3
	Truck and Transit	407
TURNOUTS		204.5
URNS, PROHIBITED	Intersections	403.8
TWO-LANE CROSS SECTIONS	New Construction	307.2
	RRR Projects	307.3
TWO-QUADRANT CLOVERLEAF INTERCHANGE		502.2
TWO-WAY LEFT-TURN LANES		405.2

U

UNDERCUT	Definition	806.2
		865.2
UNDERDRAINS	Design Criteria	842.4
	Installations	842.2
	Open Joint	842.5
	Perforated Pipe	842.5
	Pipe	842.5
	Selection of Type	842.7
	Service Life	842.6
UNDERFLOW	Definition	806.2
UNDERPASS	Railroad, Grade Line	204.8
	Railroad	208.9
UNDIVIDED HIGHWAYS	Axis of Rotation	202.4
	Grade Line	204.2
UNTREATED GRANULAR BASE	see BASE	

May 20, 2022

URBAN/URBANIZED	Access Control	504.8
	Corner Radii	405.8
	Definition	81.3
	Design Speed	101.2
	Drive way	205.3
	Horizontal Clearance	309.1
	Interchange Spacing	501.3
	Median Standards	305.1
	Outer Separation	310.2
	Position of Curbs and Dikes	303.5
	Weaving Section	504.7
UTILITIES	at Walls	210.8
V		
VACATION	Definition	110.9
VALUE ANALYSIS		110.9
VEGETATION	Control	706.2
	Preserve Existing	904.2
VELOCITY HEAD	Definition	806.2
		864.3
VERTICAL CLEARANCE	see CLEARANCES	
VERTICAL CURVES		204.4
	also see SIGHT DISTANCE	
VISTA POINTS		914
	Definition	62.5
	Amenities	914.3
	Aesthetic Factors	109.3
	General	914.1
	Parking	914.4
	Site Selection	914.2
VOLUME		62.8
	Design Hourly Volume	103.1
	Design Volume	62.8

W

WALKWAYS	see PEDESTRIAN FACILITIES	
-----------------	---------------------------	--

WALLS	Head	826.3
WALLS, RETAINING	see EARTH RETAINING SYSTEMS	
WATER	Conservation	901.2
	Course, Definition	806.2
	Holding Tank	913.5
	Irrigation Supply	905.2
	Pollution, Control of	110.2
	Quality Control Boards	110.2
	Shed	819.2
	Table, Definition	806.2
	Wastewater Disposal	913.5
	Way, Definition	806.2
	Wells, Abandonment	110.2
WATER LEVEL PROVINCE	Definition	820.5
	Annual Exceedance Probability	820.3
	Tide Gauge Stations	820.3
	Tailwater Elevation	820.4
	Co-tidal Lines	820.5
	Tidal Datums	820.8
WATER SUPPLY	Irrigation	905.2
	Safety Roadside Rest Areas	913.5
	Vista Points	914.3
WAVE	Height	873.2
	Run-up	873.2
WEAVING		62.8
	Sections	62.4
	Sections, Interchange	504.7
WEED CONTROL	Noxious, Control of	110.5
WEEPHOLES	Definition	806.2
WEIGHING FACILITIES	Truck	703.1
WEIR	Definition	806.2
WELLS		841.5
	Water, Abandonment	110.2
WETLANDS PROTECTION		110.4
WHEELBASE	Definition	62.4
WHEELCHAIR RAMPS	see CURB RAMPS	
WIDENING	Pavement	206.2

May 20, 2022

	Ramps, for Trucks	504.3
	Pavement Design Life	612.3
	Pavement, Project Type	603.2
	Signalized Intersections	405.9
	Slope Benches and Cut Widening	304.3
WIDTH	Driveway, Access Openings on Expressways	205.1
	Driveway, Urban	205.3
	Lane	301.1
	Lane, on Curves	504.3
	Left Turn Lanes	405.2
	Median	305.1
	Opening for Falsework	204.8
	Pavement	301.1
	Right of Way	306
	Shoulder	302.1
	Structures	208.1
	Swept, Definition	62.4
	Swept, Design Considerations	404.2
	Tracking, Definition	62.4
	Tracking, Design Considerations	404.2
	Y	
YARDS	Maintenance	107.2
	Plant Sites, Contractors	112