

Table of Contents

| | |
|--|--------|
| Chapter 100 Manual Description | 100-1 |
| 100.01 Overview | 100-1 |
| 100.02 Presentation and Revisions | 100-1 |
| 100.03 Practical Solutions | 100-2 |
| 100.04 Manual Applications | 100-2 |
| 100.05 Manual Use | 100-2 |
| 100.06 Manual Organization | 100-3 |
| 100.07 Jurisdiction for Design and Maintenance | 100-7 |
| Chapter 110 Design-Build Projects | 110-1 |
| 110.01 General | 110-1 |
| 110.02 Terminology and Language Used | 110-1 |
| 110.03 Design and Documentation Responsibility | 110-2 |
| 110.04 References | 110-3 |
| Chapter 210 Community Engagement and Public Hearings | 210-1 |
| 210.01 General | 210-1 |
| 210.02 References | 210-2 |
| 210.03 Definitions | 210-3 |
| 210.04 Community Engagement | 210-5 |
| 210.05 Public Hearings | 210-10 |
| 210.06 Environmental Hearing | 210-20 |
| 210.07 Corridor Hearing | 210-20 |
| 210.08 Design Hearing | 210-21 |
| 210.09 Limited Access Hearing | 210-22 |
| 210.10 Combined Hearings | 210-25 |
| 210.11 Administrative Appeal Hearing | 210-26 |
| 210.12 Follow-Up Hearing | 210-26 |
| Chapter 225 Environmental Coordination | 225-1 |
| 225.01 General | 225-1 |
| 225.02 Determining the Environmental Documentation | 225-1 |
| 225.03 Identifying the Project Classification | 225-2 |
| 225.04 Environmental Commitment File | 225-3 |
| 225.05 Environmental Permits and Approvals | 225-4 |
| 225.06 References | 225-7 |
| Chapter 300 Design Documentation, Approval, and Process Review | 300-1 |
| 300.01 General | 300-1 |
| 300.02 WSDOT Project Delivery | 300-1 |
| 300.03 Design Documentation | 300-3 |

| | |
|--|--------|
| 300.04 Project Approvals..... | 300-5 |
| 300.05 FHWA Coordination..... | 300-8 |
| 300.06 Changes to Approved Documents..... | 300-10 |
| 300.07 Process Review..... | 300-10 |
| 300.08 References..... | 300-11 |
| Chapter 301 Design and Maintenance Coordination..... | 301-1 |
| 301.01 Introduction..... | 301-1 |
| 301.02 Communication..... | 301-1 |
| 301.03 Incorporating Maintenance Considerations in Design..... | 301-7 |
| 301.04 References..... | 301-20 |
| Chapter 305 Project Management..... | 305-1 |
| 305.01 Introduction..... | 305-1 |
| 305.02 Project Management..... | 305-1 |
| 305.03 Project Management Tools..... | 305-3 |
| 305.04 Project Risk Management..... | 305-4 |
| 305.05 References..... | 305-7 |
| Chapter 310 Value Engineering..... | 310-1 |
| 310.01 General..... | 310-1 |
| 310.02 Statewide VE Program..... | 310-1 |
| 310.03 VE Procedure..... | 310-5 |
| 310.04 Value Engineering Job Plan..... | 310-8 |
| 310.05 Project Management Accountability..... | 310-9 |
| 310.06 Documentation..... | 310-9 |
| 310.07 References..... | 310-10 |
| Chapter 320 Traffic Analysis..... | 320-1 |
| 320.01 General..... | 320-1 |
| 320.02 Design Year and Forecasting Considerations..... | 320-2 |
| 320.03 Traffic Analysis Software..... | 320-3 |
| 320.04 Travel Demand Forecasting..... | 320-3 |
| 320.05 Traffic Impact Analysis (TIA)..... | 320-4 |
| 320.06 TIA Scope..... | 320-5 |
| 320.07 TIA Methods and Assumptions Document..... | 320-6 |
| 320.08 TIA Methodologies..... | 320-6 |
| 320.09 TIA Mitigation Measures..... | 320-7 |
| 320.10 TIA Report..... | 320-8 |
| 320.11 References..... | 320-9 |
| Chapter 321 Safety Analysis..... | 321-1 |
| 321.01 Safe System Related Policy..... | 321-1 |

| | |
|---|-------|
| 321.02 HQ Safety Technical Group | 321-2 |
| 321.03 Project Related Safety Analysis | 321-2 |
| 321.04 References | 321-2 |
| Chapter 400 Surveying and Mapping | 400-1 |
| 400.01 General | 400-1 |
| 400.02 References | 400-1 |
| 400.03 Procedures | 400-1 |
| 400.04 Datums | 400-3 |
| 400.05 Global Positioning System | 400-3 |
| 400.06 WSDOT Survey Monument Database | 400-3 |
| 400.07 Geographic Information System | 400-4 |
| 400.08 Photogrammetric Surveys | 400-4 |
| 400.09 Documentation | 400-4 |
| Chapter 410 Monumentation | 410-1 |
| 410.01 General | 410-1 |
| 410.02 References | 410-2 |
| 410.03 Control Monuments | 410-2 |
| 410.04 Alignment Monuments | 410-3 |
| 410.05 Property Corners | 410-3 |
| 410.06 Other Monuments | 410-4 |
| 410.07 Filing Requirements | 410-4 |
| 410.08 Documentation | 410-5 |
| Chapter 510 Right of Way Considerations | 510-1 |
| 510.01 General | 510-1 |
| 510.02 Special Features | 510-3 |
| 510.03 Permits (Rewritten 2024) | 510-4 |
| 510.04 Programming for Funds | 510-4 |
| 510.05 Appraisal and Acquisition | 510-5 |
| 510.06 Transactions | 510-6 |
| 510.07 References | 510-8 |
| Chapter 520 Access Control | 520-1 |
| 520.01 General | 520-1 |
| 520.02 References | 520-2 |
| 520.03 Definitions | 520-3 |
| 520.04 Vocabulary | 520-7 |
| Chapter 530 Limited Access Control | 530-1 |
| 530.01 General | 530-1 |
| 530.02 Achieving Limited Access | 530-1 |

| | |
|---|-----------|
| 530.03 Full Control (Most Restrictive)..... | 530-5 |
| 530.04 Partial Control..... | 530-8 |
| 530.05 Modified Control (Least Restrictive)..... | 530-13 |
| 530.06 Access Approaches | 530-16 |
| 530.07 Frontage Roads..... | 530-16 |
| 530.08 Turnbacks..... | 530-17 |
| 530.09 Adjacent Railroads | 530-17 |
| 530.10 Access Breaks and Inner Corridor Access | 530-18 |
| Chapter 540 Managed Access Control | 540-1 |
| 540.01 General | 540-1 |
| 540.02 Design Considerations | 540-1 |
| 540.03 Managed Access Highway Classes..... | 540-2 |
| 540.04 Corner Clearance Criteria | 540-9 |
| 540.05 Access Connection Categories..... | 540-10 |
| 540.06 Access Connection Permit | 540-11 |
| 540.07 Permitting and Design Documentation | 540-12 |
| 540.08 Other Considerations..... | 540-14 |
| 540.09 Preconstruction Conference..... | 540-15 |
| 540.10 Adjudicative Proceedings | 540-15 |
| 540.11 References | 540-17 |
| Chapter 550 Freeway Access Revision | 550-1 |
| 550.01 Overview..... | 550-1 |
| 550.02 Freeway Access Policy | 550-1 |
| 550.03 Access Revision Process..... | 550-2 |
| 550.04 Support Teams..... | 550-3 |
| 550.05 Non-Access Feasibility Study Process | 550-4 |
| 550.06 Access Revision Report Process..... | 550-10 |
| 550.07 Documentation..... | 550-15 |
| 550.08 References | 550-15 |
| Chapter 560 Fencing..... | 560-1 |
| 560.01 General | 560-1 |
| 560.02 Design Criteria | 560-1 |
| 560.03 Fencing Types | 560-3 |
| 560.04 Gates..... | 560-4 |
| 560.05 Procedure | 560-4 |
| 560.06 References | 560-4 |
| Chapter 610 Investigation of Soils, Rock, and Surfacing Materials | 610-1 |
| 610.01 General | 610-1 |
| 610.02 References | 610-2 |

| | |
|--|--------|
| 610.03 Materials Sources | 610-2 |
| 610.04 Geotechnical Investigation, Design, and Reporting | 610-2 |
| 610.05 Use of Geotechnical Consultants..... | 610-16 |
| 610.06 Geotechnical Work by Others | 610-17 |
| 610.07 Pavement Design Report..... | 610-17 |
| 610.08 Final Geotechnical Project Documentation and Geotechnical Information for the Construction Contract | 610-17 |
| Chapter 620 Design of Pavement Structure..... | 620-1 |
| 620.01 General | 620-1 |
| 620.02 Estimating Tables..... | 620-1 |
| Chapter 630 Geosynthetics | 630-1 |
| 630.01 General | 630-1 |
| 630.02 References | 630-1 |
| 630.03 Geosynthetic Types and Characteristics..... | 630-2 |
| 630.04 Geosynthetic Function Definitions and Applications | 630-2 |
| 630.05 Design Approach for Geosynthetics | 630-4 |
| 630.06 Design Responsibility | 630-13 |
| Chapter 700 Project Development Roles and Responsibilities for Projects with Structures | 700-1 |
| 700.01 General | 700-1 |
| 700.02 Procedures..... | 700-1 |
| Chapter 710 Site Data for Structures | 710-1 |
| 710.01 General | 710-1 |
| 710.02 Required Data for All Structures..... | 710-1 |
| 710.03 Additional Data for Waterway Crossings (Bridges and Buried Structures) | 710-3 |
| 710.04 Additional Data for Grade Separations..... | 710-4 |
| 710.05 Additional Data for Widening | 710-5 |
| 710.06 Site Data for Design-Build Conceptual Drawings..... | 710-5 |
| 710.07 Structure Preliminary Plan and Structure Conceptual Drawing Process Responsibilities..... | 710-6 |
| 710.08 References | 710-6 |
| Chapter 720 Bridges | 720-1 |
| 720.01 General | 720-1 |
| 720.02 Bridge Locations | 720-1 |
| 720.03 Bridge Site Design Elements | 720-2 |
| 720.04 Coordination with US Coast Guard for Existing Bridges | 720-13 |
| 720.05 References | 720-14 |
| Chapter 730 Retaining Walls and Steep Reinforced Slopes | 730-1 |
| 730.01 General | 730-1 |
| 730.02 Design Principles..... | 730-2 |

| | |
|--|---------|
| 730.03 Design Requirements..... | 730-3 |
| 730.04 Guidelines for Wall/Slope Selection | 730-5 |
| 730.05 Design Responsibility and Process..... | 730-9 |
| 730.01 References | 730-14 |
| | |
| Chapter 740 Noise Barriers | 740-1 |
| 740.01 General | 740-1 |
| 740.02 Design | 740-1 |
| 740.03 Procedures..... | 740-4 |
| 740.04 References | 740-5 |
| | |
| Chapter 800 Hydraulic Design | 800-1 |
| 800.01 General | 800-1 |
| 800.02 Coordination with Other Specialty Groups | 800-2 |
| 800.03 Hydraulic Design Process..... | 800-3 |
| 800.04 Floodplain Management | 800-4 |
| 800.05 Water Crossings..... | 800-4 |
| 800.06 Safety Considerations..... | 800-4 |
| 800.07 Documentation..... | 800-5 |
| 800.08 References | 800-5 |
| | |
| Chapter 900 Roadsides..... | 900-1 |
| 900.01 General | 900-1 |
| 900.02 Project Development..... | 900-1 |
| 900.03 References | 900-3 |
| | |
| Chapter 950 Public Art | 950-1 |
| 950.01 General | 950-1 |
| 950.02 References | 950-2 |
| 950.03 Standard Architectural Design..... | 950-2 |
| 950.04 Criteria for Public Art..... | 950-2 |
| 950.05 Community-Identified Mitigation..... | 950-4 |
| 950.06 Process and Project Delivery Timing | 950-4 |
| 950.07 Approvals..... | 950-6 |
| | |
| Chapter 1010 Work Zone Safety and Mobility | 1010-1 |
| 1010.01 General | 1010-1 |
| 1010.02 Work Zone Design Strategy Meeting & Statement | 1010-1 |
| 1010.03 Transportation Management Plans and Significant Projects | 1010-2 |
| 1010.04 Developing TMP Strategies..... | 1010-4 |
| 1010.05 Work Zone Traffic Analysis (Rewritten 2024)..... | 1010-19 |
| 1010.06 Work Zone Design..... | 1010-20 |
| 1010.07 Temporary Traffic Control Devices..... | 1010-24 |

| | |
|--|---------|
| 1010.08 Positive Protection Devices | 1010-28 |
| 1010.09 Other Traffic Control Devices or Features | 1010-32 |
| 1010.10 Traffic Control Plan Development and PS&E..... | 1010-34 |
| 1010.11 Training and Additional Guidance | 1010-36 |
| 1010.12 References | 1010-36 |
| Chapter 1020 Signing..... | 1020-1 |
| 1020.01 General | 1020-1 |
| 1020.02 Design Components..... | 1020-1 |
| 1020.03 Overhead Installation | 1020-4 |
| 1020.04 State Highway Route Numbers..... | 1020-5 |
| 1020.05 Mileposts | 1020-5 |
| 1020.06 Guide Sign Plan | 1020-6 |
| 1020.07 References | 1020-6 |
| Chapter 1030 Delineation | 1030-1 |
| 1030.01 General | 1030-1 |
| 1030.02 Definitions..... | 1030-1 |
| 1030.03 Pavement Markings..... | 1030-1 |
| 1030.04 Guideposts..... | 1030-8 |
| 1030.05 Barrier Delineation | 1030-9 |
| 1030.06 Object Markers | 1030-10 |
| 1030.07 References | 1030-10 |
| Chapter 1040 Illumination..... | 1040-1 |
| 1040.01 General | 1040-1 |
| 1040.02 Conventional Roadways – Required Illumination | 1040-6 |
| 1040.03 Conventional Roadways – Additional Illumination..... | 1040-14 |
| 1040.04 Freeways and Expressways..... | 1040-17 |
| 1040.05 Bridges and Tunnels..... | 1040-32 |
| 1040.06 Work Zone and Construction Lighting | 1040-35 |
| 1040.07 Parking Lots | 1040-37 |
| 1040.08 Pedestrian Facility Lighting..... | 1040-39 |
| 1040.09 Adjacent Lighting Areas | 1040-40 |
| 1040.10 Light Level Criteria | 1040-40 |
| 1040.11 Basic System Design..... | 1040-42 |
| 1040.12 Documentation..... | 1040-50 |
| 1040.13 References | 1040-51 |
| Chapter 1050 Intelligent Transportation Systems | 1050-1 |
| 1050.01 General | 1050-1 |
| 1050.02 References | 1050-1 |
| 1050.03 Systems Engineering..... | 1050-2 |

| | |
|---|---------|
| 1050.04 FHWA Washington Division ITS Project Contracting Guidance | 1050-4 |
| 1050.05 Documentation | 1050-5 |
| Chapter 1060 Worker Fall Protection..... | 1060-1 |
| 1060.01 General | 1060-1 |
| 1060.02 Design Criteria | 1060-1 |
| 1060.03 Design Solutions | 1060-2 |
| 1060.04 Documentation | 1060-2 |
| 1060.05 References | 1060-2 |
| Chapter 1100 Design Process | 1100-1 |
| 1100.01 General | 1100-1 |
| 1100.02 Design Principles..... | 1100-2 |
| 1100.03 Complete Streets | 1100-3 |
| 1100.04 Practical Design..... | 1100-5 |
| 1100.05 Documentation Tools | 1100-7 |
| 1100.06 References | 1100-9 |
| Chapter 1101 Need Identification | 1101-1 |
| 1101.01 General | 1101-1 |
| 1101.02 Baseline Needs | 1101-1 |
| 1101.03 Complete Streets Needs | 1101-2 |
| 1101.04 Baseline Performance Metrics | 1101-2 |
| 1101.05 Contextual Needs | 1101-5 |
| 1101.06 Contributing Factors Analysis | 1101-5 |
| 1101.07 Project Need Statement | 1101-6 |
| 1101.08 Documentation | 1101-6 |
| 1101.09 References | 1101-7 |
| Chapter 1102 Context Determination..... | 1102-1 |
| 1102.01 General Overview | 1102-1 |
| 1102.02 Land Use Context..... | 1102-1 |
| 1102.03 Transportation Context | 1102-4 |
| 1102.04 Documentation | 1102-7 |
| 1102.05 References | 1102-8 |
| Chapter 1103 Design Control Selection..... | 1103-1 |
| 1103.01 General Overview | 1103-1 |
| 1103.02 Control: Design Year | 1103-2 |
| 1103.03 Control: Modal Priority | 1103-2 |
| 1103.04 Control: Access Control | 1103-6 |
| 1103.05 Control: Design Speed | 1103-6 |
| 1103.06 Control: Terrain Classification | 1103-14 |

| | |
|---|---------|
| 1103.07 Documentation..... | 1103-14 |
| 1103.08 References..... | 1103-14 |
| Chapter 1104 Alternatives Analysis..... | 1104-1 |
| 1104.01 General..... | 1104-1 |
| 1104.02 Environmental Documentation Considerations..... | 1104-1 |
| 1104.03 Alternative Solution Formulation..... | 1104-1 |
| 1104.04 Alternative Solution Evaluation..... | 1104-2 |
| 1104.05 Preferred Alternative..... | 1104-4 |
| 1104.06 Documentation..... | 1104-4 |
| 1104.07 References..... | 1104-4 |
| Chapter 1105 Design Element Selection..... | 1105-1 |
| 1105.01 General..... | 1105-1 |
| 1105.02 Selecting Design Elements..... | 1105-1 |
| 1105.03 Related Elements..... | 1105-3 |
| 1105.04 Documentation..... | 1105-3 |
| 1105.05 References..... | 1105-3 |
| Chapter 1106 Design Element Dimensions..... | 1106-1 |
| 1106.01 General..... | 1106-1 |
| 1106.02 Choosing Dimensions..... | 1106-1 |
| 1106.03 The Mode/Function/Performance Approach..... | 1106-2 |
| 1106.04 Design up Method..... | 1106-4 |
| 1106.05 Quantitative Analysis Methods and Tools..... | 1106-4 |
| 1106.06 Documenting Dimensions..... | 1106-5 |
| 1106.07 Design Analysis..... | 1106-5 |
| 1106.08 References..... | 1106-5 |
| Chapter 1120 Preservation Projects..... | 1120-1 |
| 1120.01 General..... | 1120-1 |
| 1120.02 Roadway Preservation (P1)..... | 1120-1 |
| 1120.03 Structures Preservation (P2) and Other Facilities (P3)..... | 1120-5 |
| Chapter 1130 Development Services..... | 1130-1 |
| 1130.01 Overview..... | 1130-1 |
| 1130.02 WSDOT Development Services Policy..... | 1130-2 |
| 1130.03 Local Agency and WSDOT Authority..... | 1130-3 |
| 1130.04 State Environmental Policy Act (SEPA)..... | 1130-4 |
| 1130.05 Growth Management Act (GMA)..... | 1130-6 |
| 1130.06 Highway Access Connections..... | 1130-8 |
| 1130.07 Early and Ongoing Coordination..... | 1130-9 |
| 1130.08 Establishing Reimbursable Accounts..... | 1130-10 |

| | |
|---|------------|
| 1130.09 Review Procedures and Criteria | 1130-11 |
| 1130.10 Development Services Agreements..... | 1130-19 |
| 1130.11 Using Interlocal Agreements | 1130-28 |
| 1130.12 Using Developer Permits | 1130-30 |
| 1130.13 Construction Oversight..... | 1130-32 |
| 1130.14 Final Inspection/Acceptance | 1130-34 |
| 1130.15 Documentation..... | 1130-34 |
| 1130.16 References | 1130-35 |
| Chapter 1210 Geometric Plan Elements | 1210-1 |
| 1210.01 General | 1210-1 |
| 1210.02 Horizontal Alignment..... | 1210-1 |
| 1210.03 Distribution Facilities | 1210-3 |
| 1210.04 Number of Lanes and Arrangement..... | 1210-5 |
| 1210.05 Pavement Transitions | 1210-5 |
| 1210.06 References | 1210-7 |
| Chapter 1220 Geometric Profile Elements..... | 1220-1 |
| 1220.01 General | 1220-1 |
| 1220.02 Vertical Alignment | 1220-1 |
| 1220.03 Coordination of Vertical and Horizontal Alignments..... | 1220-4 |
| 1220.04 Airport Clearance..... | 1220-5 |
| 1220.05 Railroad Crossings..... | 1220-5 |
| 1220.06 Vertical Clearance for Water Crossing (Bridges and Buried Structures) | 1220-5 |
| 1220.07 Procedures..... | 1220-6 |
| 1220.08 References | 1220-6 |
| Chapter 1230 Geometric Cross Section Basics..... | 1230-1 |
| 1230.01 General | 1230-1 |
| 1230.02 Guidance for Specific Facility Types | 1230-1 |
| 1230.03 Common Elements | 1230-3 |
| 1230.04 References | 1230-3 |
| Chapter 1231 Geometric Cross Section – Highways | 1231-1 |
| 1231.01 General | 1231-1 |
| 1231.02 Design Up..... | 1231-1 |
| 1231.03 Common Elements | 1231-1 |
| 1231.04 Cross Section Elements..... | 1231-1 |
| 1231.05 Bicycle and Pedestrian Elements..... | 1231-3 |
| 1231.06 Designing Cross Sections | 1231-3 |
| 1231.07 Cross Section Examples | 1231-4 |
| 1231.08 Roadway Section Reallocation | 1231-15 |
| 1231.09 References | 1231-15 |

| | |
|--|---------|
| Chapter 1232 Geometric Cross Section – Freeways | 1232-1 |
| 1232.01 General | 1232-1 |
| 1232.02 Lane Width..... | 1232-1 |
| 1232.03 Shoulder Width..... | 1232-1 |
| 1232.04 Other Elements..... | 1232-2 |
| 1232.05 Design Flexibility | 1232-3 |
| 1232.06 References | 1232-4 |
| Chapter 1238 Geometric Cross Section – Streetside and Parking | 1238-1 |
| 1238.01 General | 1238-1 |
| 1238.02 Parking | 1238-1 |
| 1238.03 Streetside..... | 1238-1 |
| 1238.04 Retrofit Options | 1238-4 |
| 1238.05 References | 1238-7 |
| Chapter 1239 Geometric Cross Section – Shoulders, Side Slopes, Curbs, and Medians..... | 1239-1 |
| 1239.01 Introduction | 1239-1 |
| 1239.02 Shoulders | 1239-1 |
| 1239.03 Fill Sections, Cut Sections, and Ditch Sections..... | 1239-6 |
| 1239.04 Roadway Sections in Rock Cuts | 1239-11 |
| 1239.05 Curbs..... | 1239-15 |
| 1239.06 Lateral Clearance to Curb and Barrier | 1239-16 |
| 1239.07 Chain-Up and/or Chain-Off Areas..... | 1239-17 |
| 1239.08 Medians and Outer Separations..... | 1239-19 |
| Chapter 1240 Turning Roadways | 1240-1 |
| 1240.01 General | 1240-1 |
| 1240.02 Turning Roadway Widths..... | 1240-1 |
| 1240.03 References | 1240-3 |
| Chapter 1250 Cross Slope and Superelevation | 1250-1 |
| 1250.01 General | 1250-1 |
| 1250.02 Roadway Cross Slope | 1250-1 |
| 1250.03 Superelevation Rate Selection..... | 1250-2 |
| 1250.04 Existing Curves | 1250-3 |
| 1250.05 Turning Movements at Intersections | 1250-4 |
| 1250.06 Runoff for Highway Curves..... | 1250-4 |
| 1250.07 Runoff for Ramp Curves..... | 1250-5 |
| 1250.08 References | 1250-5 |
| Chapter 1260 Sight Distance | 1260-1 |
| 1260.01 General | 1260-1 |
| 1260.02 References | 1260-1 |

| | |
|---|---------|
| 1260.03 Stopping Sight Distance (Eye height – 3.5 ft, Object height – 2.0 ft) | 1260-1 |
| 1260.04 Passing Sight Distance (Eye height – 3.5 ft, Object height – 3.5 ft)..... | 1260-11 |
| 1260.05 Decision Sight Distance (Eye height – 3.5 ft, Object height – 2.0 ft) | 1260-14 |
| Chapter 1270 Auxiliary Lanes | 1270-1 |
| 1270.01 General | 1270-1 |
| 1270.02 Climbing Lanes | 1270-1 |
| 1270.03 Passing Lanes | 1270-6 |
| 1270.04 Slow-Moving Vehicle Turnouts..... | 1270-14 |
| 1270.05 Shoulder Driving for Slow Vehicles..... | 1270-14 |
| 1270.06 Emergency Escape Ramps | 1270-15 |
| 1270.07 References | 1270-18 |
| Chapter 1300 Intersection Control Type | 1300-1 |
| 1300.01 General | 1300-1 |
| 1300.02 Intersection Control Objectives..... | 1300-2 |
| 1300.03 Common Types of Intersection Control | 1300-4 |
| 1300.04 Modal Considerations..... | 1300-12 |
| 1300.05 Procedures..... | 1300-14 |
| 1300.06 Documentation..... | 1300-17 |
| 1300.07 References | 1300-17 |
| Chapter 1310 Intersections | 1310-1 |
| 1310.01 General | 1310-1 |
| 1310.02 Designing for Motor Vehicles | 1310-2 |
| 1310.03 Designing for Active Transportation..... | 1310-40 |
| 1310.04 Signing and Delineation..... | 1310-46 |
| 1310.05 Intersection Plan for Approval..... | 1310-46 |
| 1310.06 References | 1310-46 |
| Chapter 1320 Roundabouts..... | 1320-1 |
| 1320.01 General (Rewritten 2024)..... | 1320-1 |
| 1320.02 Roundabout Features (New 2024) | 1320-3 |
| 1320.03 Roundabout Types..... | 1320-4 |
| 1320.04 Motor Vehicle Geometric Design | 1320-7 |
| 1320.05 Active Transportation (New 2024) | 1320-24 |
| 1320.06 Drainage Features..... | 1320-31 |
| 1320.07 Pavement Marking | 1320-31 |
| 1320.08 Illumination..... | 1320-31 |
| 1320.09 Road Approach, Parking, and Transit Facilities | 1320-31 |
| 1320.10 Geometric Design Peer Review (Rewritten 2024)..... | 1320-32 |
| 1320.11 Intersection Plan for Approval (New 2024)..... | 1320-33 |
| 1320.12 References | 1320-33 |

| | |
|--|------------|
| Chapter 1330 Traffic Control Signals | 1330-1 |
| 1330.01 General | 1330-1 |
| 1330.02 Procedures..... | 1330-1 |
| 1330.03 Intersection Design Considerations..... | 1330-4 |
| 1330.04 Conventional Traffic Signal Design | 1330-8 |
| 1330.05 Pedestrian Hybrid Beacons and Flashing Beacon Systems (New 2024) | 1330-29 |
| 1330.06 Preliminary Signal Plan | 1330-53 |
| 1330.07 Operational Considerations for Design | 1330-54 |
| 1330.08 Documentation..... | 1330-61 |
| 1330.09 References | 1330-61 |
| Chapter 1340 Driveways | 1340-1 |
| 1340.01 General | 1340-1 |
| 1340.02 Access Control | 1340-1 |
| 1340.03 Driveway Design | 1340-2 |
| 1340.04 References | 1340-8 |
| Chapter 1350 Railroad Grade Crossings..... | 1350-1 |
| 1350.01 General | 1350-1 |
| 1350.02 Plans..... | 1350-2 |
| 1350.03 Traffic Control Systems..... | 1350-4 |
| 1350.04 Nearby Roadway Intersections..... | 1350-6 |
| 1350.05 Pullout Lanes | 1350-7 |
| 1350.06 Crossing Surfaces..... | 1350-7 |
| 1350.07 Crossing Closure | 1350-8 |
| 1350.08 Traffic Control during Construction and Maintenance | 1350-8 |
| 1350.09 Railroad Grade Crossing Petitions and WUTC Orders | 1350-8 |
| 1350.10 Grade Crossing Improvement Projects..... | 1350-9 |
| 1350.11 Light Rail | 1350-9 |
| 1350.12 Documentation..... | 1350-9 |
| 1350.13 References | 1350-9 |
| Chapter 1360 Interchanges | 1360-1 |
| 1360.01 General | 1360-1 |
| 1360.02 Interchange Design..... | 1360-1 |
| 1360.03 Ramps | 1360-7 |
| 1360.04 Interchange Connections..... | 1360-10 |
| 1360.05 Ramp Terminal Intersections at Crossroads..... | 1360-24 |
| 1360.06 Interchanges on Two-Lane Highways..... | 1360-24 |
| 1360.07 Interchange Plans for Approval | 1360-25 |
| 1360.08 References | 1360-25 |

| | |
|--|---------|
| Chapter 1370 Median Crossovers | 1370-1 |
| 1370.01 General | 1370-1 |
| 1370.02 Analysis | 1370-1 |
| 1370.03 Design | 1370-2 |
| 1370.04 Plan Updates and Approvals..... | 1370-2 |
| 1370.05 Documentation..... | 1370-3 |
| Chapter 1400 Managed Lanes..... | 1400-1 |
| 1400.01 General | 1400-1 |
| 1400.02 Managed Lane Selection..... | 1400-3 |
| 1400.03 Managed Lane Design and Operational Considerations | 1400-3 |
| 1400.04 Documentation..... | 1400-6 |
| 1400.05 References | 1400-6 |
| Chapter 1410 High-Occupancy Vehicle Facilities | 1410-1 |
| 1410.01 General | 1410-1 |
| 1410.02 Preliminary Design and Planning | 1410-1 |
| 1410.03 Operations | 1410-7 |
| 1410.04 Design Criteria | 1410-8 |
| 1410.05 References | 1410-12 |
| Chapter 1420 HOV Direct Access | 1420-1 |
| 1420.01 General | 1420-1 |
| 1420.02 HOV Access Types and Locations | 1420-2 |
| 1420.03 Direct Access Geometrics | 1420-10 |
| 1420.04 Passenger Access | 1420-19 |
| 1420.05 Traffic Design Elements | 1420-20 |
| 1420.06 References | 1420-27 |
| Chapter 1430 Part-time Shoulder | 1430-1 |
| 1430.01 General | 1430-1 |
| 1430.02 Viability Assessment | 1430-1 |
| 1430.03 Operational Parameters | 1430-2 |
| 1430.04 Design Criteria | 1430-3 |
| 1430.05 Other Considerations..... | 1430-8 |
| 1430.06 References | 1430-9 |
| Chapter 1440 Metered Shoulder..... | 1440-1 |
| 1440.01 General | 1440-1 |
| 1440.02 Design Considerations | 1440-1 |
| 1440.03 References | 1440-3 |
| Chapter 1510 Pedestrian Facilities | 1510-1 |
| 1510.01 General | 1510-1 |

| | |
|---|------------|
| 1510.02 Policy..... | 1510-2 |
| 1510.03 ADA Requirements by Project Type | 1510-5 |
| 1510.04 Pedestrian Circulation Paths..... | 1510-8 |
| 1510.05 Pedestrian Access Routes | 1510-10 |
| 1510.06 Linear Pedestrian Facilities | 1510-15 |
| 1510.07 Sidewalks | 1510-15 |
| 1510.08 Curb Ramps..... | 1510-21 |
| 1510.09 Pedestrian Crossings..... | 1510-29 |
| 1510.10 Raised Medians/Traffic Islands..... | 1510-39 |
| 1510.11 Intersection Design | 1510-41 |
| 1510.12 Pedestrian Pushbuttons | 1510-42 |
| 1510.13 At-Grade Railroad Crossings..... | 1510-48 |
| 1510.14 Pedestrian Grade Separations (Structures) | 1510-49 |
| 1510.15 Other Pedestrian Facilities..... | 1510-52 |
| 1510.16 Illumination and Signing | 1510-55 |
| 1510.17 Work Zone Pedestrian Accommodation | 1510-56 |
| 1510.18 References | 1510-57 |
| Chapter 1515 Shared-Use Paths..... | 1515-1 |
| 1515.01 General | 1515-1 |
| 1515.02 Accessibility (New 2024)..... | 1515-2 |
| 1515.03 Complete Streets and Level of Traffic Stress (LTS) (New 2024) | 1515-2 |
| 1515.04 Shared-Use Path Design | 1515-2 |
| 1515.05 Intersections and Crossings Design | 1515-15 |
| 1515.06 Grade Separated Structures | 1515-20 |
| 1515.07 Signing, Pavement Markings, and Illumination | 1515-21 |
| 1515.08 Restricted Use Controls | 1515-21 |
| 1515.09 Documentation..... | 1515-24 |
| Chapter 1520 Roadway Bicycle Facilities | 1520-1 |
| 1520.01 General | 1520-1 |
| 1520.02 Policy..... | 1520-1 |
| 1520.03 Bicycle Facility Selection | 1520-2 |
| 1520.04 Intersection Design | 1520-10 |
| 1520.05 Additional Bicycle Design Requirements and Considerations..... | 1520-17 |
| 1520.06 Documentation..... | 1520-28 |
| 1520.07 References | 1520-28 |
| Chapter 1600 Roadside Safety | 1600-1 |
| 1600.01 General | 1600-1 |
| 1600.02 Clear Zone..... | 1600-2 |
| 1600.03 Mitigation Guidance | 1600-9 |

| | |
|---|---------|
| 1600.04 Medians | 1600-15 |
| 1600.05 Other Roadside Safety Features | 1600-15 |
| 1600.06 References | 1600-21 |
| Chapter 1610 Traffic Barriers | 1610-1 |
| 1610.01 Introduction | 1610-1 |
| 1610.02 Barrier Impacts | 1610-2 |
| 1610.03 General Barrier Design | 1610-4 |
| 1610.04 Beam Guardrail | 1610-17 |
| 1610.05 High-Tension Cable Barrier | 1610-29 |
| 1610.06 Concrete Barrier | 1610-36 |
| 1610.07 Bridge Traffic Barriers | 1610-42 |
| 1610.08 Other Barriers | 1610-45 |
| 1610.09 References | 1610-46 |
| Chapter 1620 Impact Attenuator Systems | 1620-1 |
| 1620.01 General | 1620-1 |
| 1620.02 Design Criteria | 1620-1 |
| 1620.03 Selection Considerations | 1620-1 |
| 1620.04 Transportable Attenuators (Truck-Mounted and Trailer-Mounted) | 1620-4 |
| 1620.05 Older Systems | 1620-4 |
| 1620.06 Inertial Barrier Systems (Sand Barrels) | 1620-4 |
| Chapter 1710 Safety Rest Areas | 1710-1 |
| 1710.01 General | 1710-1 |
| 1710.02 References | 1710-1 |
| 1710.03 Definitions | 1710-3 |
| 1710.04 Safety Rest Area Project Team | 1710-3 |
| 1710.05 Location, Access, and Site Design | 1710-4 |
| 1710.06 Buildings | 1710-11 |
| 1710.07 Utilities | 1710-13 |
| 1710.08 Documentation | 1710-14 |
| Chapter 1720 Weigh Sites | 1720-1 |
| 1720.01 General | 1720-1 |
| 1720.02 Definitions | 1720-1 |
| 1720.03 Planning, Development, and Responsibilities | 1720-1 |
| 1720.04 Permanent Facilities | 1720-2 |
| 1720.05 Portable Facilities | 1720-3 |
| 1720.06 Shoulder Sites | 1720-4 |
| 1720.07 Federal Participation | 1720-5 |
| 1720.08 Procedures | 1720-5 |

| | |
|---|---------|
| Chapter 1730 Transit Facilities | 1730-1 |
| 1730.01 General | 1730-1 |
| 1730.02 Bus Stops and Pullouts | 1730-1 |
| 1730.03 Passenger Amenities..... | 1730-8 |
| 1730.04 Park and Ride Lots | 1730-11 |
| 1730.05 Transfer/Transit Centers..... | 1730-18 |
| 1730.06 Roadway and Intersection Design | 1730-21 |
| 1730.07 References | 1730-23 |
| Glossary of Terms | 1 |
| Acronyms | 1 |
| Glossary of Terms | 3 |

List of Exhibits

| | |
|---|--------|
| Exhibit 100-1 State and City Jurisdictional Responsibilities | 100-8 |
| Exhibit 110-1 Design Documentation Sequence for a Typical Design-Build Project | 110-3 |
| Exhibit 210-1 Types of Public Hearings | 210-27 |
| Exhibit 210-2 Public Hearing Formats | 210-28 |
| Exhibit 210-3 Prehearing Packet Checklist | 210-29 |
| Exhibit 210-4 Sequence for Corridor, Design, and Environmental Hearings..... | 210-30 |
| Exhibit 210-5 Sequence for Limited Access Hearing | 210-31 |
| Exhibit 210-6 Hearing Summary Approvals..... | 210-32 |
| Exhibit 300-1 Design Documentation Package..... | 300-12 |
| Exhibit 300-2 Approval Authorities | 300-13 |
| Exhibit 300-3 Approvals..... | 300-14 |
| Exhibit 300-4 Local Agency and Development Services Approving Authority | 300-17 |
| Exhibit 300-5 Design to Construction Transition Project Turnover Checklist Example..... | 300-18 |
| Exhibit 301-1 General Input Form with Listed Performance Objectives..... | 301-10 |
| Exhibit 301-2 Design Option Worksheet Showing Example of Life Cycle Cost Assessment | 301-12 |
| Exhibit 301-3 Excerpts from Olympic Region Review Checklist | 301-17 |
| Exhibit 305-1 WSDOT Project Management Process | 305-2 |
| Exhibit 305-2 Minimum Project Risk Management Process based on project size | 305-5 |
| Exhibit 310-1 Job Plan for VE Studies | 310-7 |
| Exhibit 310-2 VE Analysis Team Tools | 310-8 |
| Exhibit 310-3 Value Engineering Job Plan | 310-9 |
| Exhibit 400-1 Interagency Agreement..... | 400-5 |
| Exhibit 400-2 Report of Survey Mark Example..... | 400-7 |
| Exhibit 410-1 Monument Documentation Summary | 410-5 |
| Exhibit 410-2 DNR Permit Application..... | 410-6 |
| Exhibit 410-3 DNR Completion Report Form..... | 410-7 |
| Exhibit 410-4 Land Corner Record..... | 410-8 |
| Exhibit 510-1 Environmental Site Assessment (ESA) Screening Process (New 2024)..... | 510-2 |
| Exhibit 510-2 Appraisal and Acquisition Plan Development Phases | 510-9 |
| Exhibit 520-1 Access Control Vocabulary | 520-7 |
| Exhibit 530-1 Full Access Control Limits: Interchange..... | 530-22 |
| Exhibit 530-2 Full Access Control Limits: Interchange..... | 530-23 |
| Exhibit 530-3 Full Access Control Limits: Interchange with Roundabouts..... | 530-24 |
| Exhibit 530-4 Full Access Control Limits: Ramp Terminal with Transition Taper | 530-25 |
| Exhibit 530-5 Full Access Control Limits: Single Point Urban Interchange..... | 530-26 |
| Exhibit 530-6 Full Access Control Limits: Diverging Diamond Interchange..... | 530-27 |
| Exhibit 530-7 Partial Access Control Limits: At-Grade Intersections..... | 530-28 |
| Exhibit 530-8 Partial Access Control Limits: Roundabout Intersections | 530-29 |
| Exhibit 530-9 Modified Access Control Limits: Roundabout Intersections | 530-30 |
| Exhibit 530-10 Modified Access Control Limits: Intersections | 530-31 |

| | |
|---|--------|
| Exhibit 540-1 Managed Access Highway Class Description..... | 540-8 |
| Exhibit 540-2 Minimum Corner Clearance: Distance From Access Connection to Public Road or Street | 540-10 |
| Exhibit 550-1 Non-Access Feasibility Study Process..... | 550-5 |
| Exhibit 550-2 Access Revision Report Process | 550-11 |
| Exhibit 550-3 Access Revision Documentation and Review/Approval Levels..... | 550-17 |
| Exhibit 610-1 Materials Source Development..... | 610-18 |
| Exhibit 620-1 Estimating: Miscellaneous Tables | 620-2 |
| Exhibit 620-2 Estimating: Hot Mix Asphalt Pavement and Asphalt Distribution Tables | 620-3 |
| Exhibit 620-3 Estimating: Bituminous Surface Treatment | 620-4 |
| Exhibit 620-4 Estimating: Base and Surfacing Typical Section Formulae and Example | 620-6 |
| Exhibit 620-5 Estimating: Base and Surfacing Quantities..... | 620-7 |
| Exhibit 620-6 Estimating: Base and Surfacing Quantities..... | 620-8 |
| Exhibit 620-7 Estimating: Base and Surfacing Quantities..... | 620-9 |
| Exhibit 620-8 Estimating: Base and Surfacing Quantities..... | 620-10 |
| Exhibit 620-9 Estimating: Base and Surfacing Quantities..... | 620-11 |
| Exhibit 620-10 Estimating: Base and Surfacing Quantities..... | 620-12 |
| Exhibit 620-11 Estimating: Base and Surfacing Quantities..... | 620-13 |
| Exhibit 620-12 Estimating: Base and Surfacing Quantities..... | 620-14 |
| Exhibit 630-1 Selection Criteria for Geotextile Class..... | 630-4 |
| Exhibit 630-2 Maximum Sheet Flow Lengths for Silt Fences..... | 630-9 |
| Exhibit 630-3 Maximum Contributing Area for Ditch and Swale Applications | 630-10 |
| Exhibit 630-4 Design Process for Drainage and Erosion Control: Geotextiles and Nonstandard Applications | 630-14 |
| Exhibit 630-5 Design Process for Separation, Soil Stabilization, and Silt Fence | 630-15 |
| Exhibit 630-6 Examples of Various Geosynthetics | 630-16 |
| Exhibit 630-7 Geotextile Application Examples..... | 630-18 |
| Exhibit 630-8 Definition of Slope Length..... | 630-22 |
| Exhibit 630-9 Definition of Ditch or Swale Storage Length and Width | 630-22 |
| Exhibit 630-10 Silt Fences for Large Contributing Area..... | 630-23 |
| Exhibit 630-11 Silt Fence End Treatment | 630-24 |
| Exhibit 630-12 Gravel Check Dams for Silt Fences | 630-25 |
| Exhibit 700-1 Determination of the Roles and Responsibilities for Projects with Structures: Project Development Phase | 700-2 |
| Exhibit 710-1 Structure Site Data Checklist..... | 710-7 |
| Exhibit 710-2 Conceptual Plan Structure Site Data Checklist..... | 710-8 |
| Exhibit 720-1 Phased Development of Multilane Divided Highways | 720-4 |
| Exhibit 720-2 Highway Structure Over Railroad..... | 720-5 |
| Exhibit 720-3 Bridge Vertical Clearances..... | 720-8 |
| Exhibit 720-4 Embankment Slope at Bridge Ends | 720-11 |
| Exhibit 730-1 Summary of Mechanically Stabilized Earth Gravity Wall/Slope Options Available | 730-15 |
| Exhibit 730-2 Summary of Prefabricated Modular Gravity Wall Options Available | 730-16 |
| Exhibit 730-3 Summary of Rigid Gravity and Semigravity Wall Options Available | 730-17 |
| Exhibit 730-4 Summary of Nongravity Wall Options Available | 730-18 |

| | |
|--|---------|
| Exhibit 730-5 Summary of Anchored Wall Options Available | 730-18 |
| Exhibit 730-6 Other Wall/Slope Options Available | 730-19 |
| Exhibit 730-7 Typical Mechanically Stabilized Earth Gravity Walls | 730-20 |
| Exhibit 730-8 Typical Prefabricated Modular Gravity Walls..... | 730-21 |
| Exhibit 730-9 Typical Rigid Gravity, Semigravity Cantilever, Nongravity Cantilever, and Anchored Walls | 730-22 |
| Exhibit 730-10 Typical Rockery and Reinforced Slopes..... | 730-23 |
| Exhibit 730-11 MSE Wall Drainage Detail..... | 730-24 |
| Exhibit 730-12 Retaining Walls with Traffic Barriers..... | 730-25 |
| Exhibit 730-13 Retaining Wall Design Process | 730-26 |
| Exhibit 730-14 Retaining Wall Design Process: Proprietary..... | 730-27 |
| Exhibit 740-1 Standard Noise Wall Types..... | 740-4 |
| Exhibit 800-1 Specialty Group Coordination: Pre-Design..... | 800-6 |
| Exhibit 800-2 Specialty Group Coordination: Contractor Supplied Design** | 800-7 |
| Exhibit 800-3 Specialty Group Coordination: Design | 800-8 |
| Exhibit 800-4 Hydraulic Design Process..... | 800-9 |
| Exhibit 800-5 Preliminary Hydraulic Design: Stream Design Process..... | 800-10 |
| Exhibit 1010-1 Minimum Work Zone Clear Zone Distance | 1010-21 |
| Exhibit 1010-2 Transportation Management Plan Components Checklist | 1010-38 |
| Exhibit 1020-1 Reflective Sheeting Requirements for Overhead Signs..... | 1020-5 |
| Exhibit 1020-2 Timber Posts..... | 1020-7 |
| Exhibit 1020-3 Wide Flange Steel Posts | 1020-9 |
| Exhibit 1020-4 Square Steel Posts..... | 1020-11 |
| Exhibit 1030-1 Pavement Marking Material Guide – Consult Region Striping Policy | 1030-11 |
| Exhibit 1030-2 Guidepost Placement | 1030-12 |
| Exhibit 1040-1 Interchange Lighting Responsibility – Basic Interchange | 1040-3 |
| Exhibit 1040-2 Interchange Lighting Responsibility – Complex Interchange | 1040-3 |
| Exhibit 1040-3 Ramp to Street Transition Lighting Responsibility | 1040-4 |
| Exhibit 1040-4 Roundabout Ramp Terminal Street Lighting Responsibility | 1040-5 |
| Exhibit 1040-5 Local Street Lighting Responsibility – No Interchange | 1040-6 |
| Exhibit 1040-6 Basic Intersection Lighting Design Area | 1040-7 |
| Exhibit 1040-7 Basic Intersection with Raised Channelization Lighting Design Area..... | 1040-8 |
| Exhibit 1040-8 Basic Intersection with Traffic Island | 1040-8 |
| Exhibit 1040-9 Roundabout Core Lighting Design Area | 1040-9 |
| Exhibit 1040-10 Roundabout Approach Lighting Design Areas – Simple Approaches..... | 1040-10 |
| Exhibit 1040-11 Roundabout Approach Lighting Design Areas – Reverse Curves | 1040-11 |
| Exhibit 1040-12 Roundabout Approach Lighting Design Area – Exit Only Approach..... | 1040-11 |
| Exhibit 1040-13 Midblock Crossing Lighting Design Areas..... | 1040-12 |
| Exhibit 1040-14 Railroad Crossing Lighting Design Areas | 1040-13 |
| Exhibit 1040-15 Weigh Station Lighting Design Areas | 1040-14 |
| Exhibit 1040-16 Pullout Transit Stop Lighting Design Areas | 1040-16 |
| Exhibit 1040-17 In-Lane Transit Stop Lighting Design Areas..... | 1040-16 |

| | |
|---|---------|
| Exhibit 1040-18 Rural Transit Stop Lighting Design Areas | 1040-17 |
| Exhibit 1040-19 Single Lane Off-Ramp Lighting Design Area | 1040-18 |
| Exhibit 1040-20 Multi-Lane Off-Ramp Lighting Design Area..... | 1040-18 |
| Exhibit 1040-21 Off-Ramp Lighting Design Area Adjustment Limit | 1040-19 |
| Exhibit 1040-22 Single Lane On-Ramp Merge Lighting Design Area | 1040-19 |
| Exhibit 1040-23 Add Lane On-Ramp Lighting Design Area..... | 1040-20 |
| Exhibit 1040-24 Multi-Lane On-Ramp Lighting Design Area | 1040-20 |
| Exhibit 1040-25 Metered On-Ramp Lighting Design Area | 1040-21 |
| Exhibit 1040-26 Loop Ramp Lighting Design Area..... | 1040-22 |
| Exhibit 1040-27 Diverging Diamond Interchange (DDI) Lighting Design Area | 1040-23 |
| Exhibit 1040-28 Single Point Urban Interchange (SPUI) Lighting Design Area..... | 1040-24 |
| Exhibit 1040-29 Lane Reduction Lighting Design Area..... | 1040-25 |
| Exhibit 1040-30 Special Use Lane – Basic Access Zone Lighting Design Area | 1040-25 |
| Exhibit 1040-31 Special Use Lane – Start Weaving Access Zone Lighting Design Area..... | 1040-26 |
| Exhibit 1040-32 Special Use Lane – End Weaving Access Zone Lighting Design Area | 1040-26 |
| Exhibit 1040-33 Safety Rest Area Lighting Design Areas..... | 1040-28 |
| Exhibit 1040-34 Chain-Up and Chain-Off Area Lighting Design Area | 1040-29 |
| Exhibit 1040-35 Freeway Weigh Station Lighting Design Areas..... | 1040-30 |
| Exhibit 1040-36 Lane Split Lighting Design Area | 1040-31 |
| Exhibit 1040-37 Bridge Inspection Lighting and Receptacle Circuit Layout..... | 1040-32 |
| Exhibit 1040-38 Bridge Inspection Lighting and Receptacle Layout | 1040-33 |
| Exhibit 1040-39 Bridge Inspection Lighting Circuit Control Layouts | 1040-34 |
| Exhibit 1040-40 Barrier Constrained Roadway Lighting Design Areas..... | 1040-36 |
| Exhibit 1040-41 Two-Way One Lane Signal Control Lighting Design Areas | 1040-37 |
| Exhibit 1040-42 Major Parking Lot Lighting Design Area | 1040-38 |
| Exhibit 1040-43 Minor Parking Lot Lighting Design Areas | 1040-39 |
| Exhibit 1040-44 Light Level Requirements for Conventional Roadways..... | 1040-41 |
| Exhibit 1040-45 Light Level Requirements for Freeways and Expressways..... | 1040-41 |
| Exhibit 1040-46 Light Level Requirements for Special Locations..... | 1040-42 |
| Exhibit 1040-47 Typical Temporary High Mast Light Arrangements..... | 1040-47 |
| Exhibit 1040-48 Basic Lighting Circuit Divisions | 1040-49 |
| Exhibit 1050-1 Systems Engineering Process “V” Diagram | 1050-4 |
| Exhibit 1050-2 ITS Systems Engineering Analysis Worksheet | 1050-6 |
| Exhibit 1050-3 FHWA Washington Division – ITS Project Contracting Guidance..... | 1050-9 |
| Exhibit 1100-1 Basis of Design Flowchart..... | 1100-10 |
| Exhibit 1101-1 Safety Scoping Process Flowchart..... | 1101-3 |
| Exhibit 1102-1 Factors for Determining Initial Land Use Context..... | 1102-2 |
| Exhibit 1103-1 WSDOT Design Controls | 1103-1 |
| Exhibit 1103-2 Initial Modal Accommodation Level..... | 1103-3 |
| Exhibit 1103-3 Example Characteristics Related to Modal Accommodation..... | 1103-4 |
| Exhibit 1103-4 Suggested Target Speed Ranges Based on Land Use Context and Roadway Type (SUGGESTIONS ONLY)..... | 1103-7 |

| | |
|--|---------|
| Exhibit 1103-5 Speed Management Strategies | 1103-12 |
| Exhibit 1105-1 Required Design Elements | 1105-2 |
| Exhibit 1106-1 Dimensioning Guidance Variations | 1106-2 |
| Exhibit 1106-2 Mode/Function/Performance Approach | 1106-3 |
| Exhibit 1130-1 Preliminary Assessment Land Use Proposal..... | 1130-12 |
| Exhibit 1130-2 Further Assessing land use Proposal..... | 1130-13 |
| Exhibit 1130-3 Assessment questions for State Highway connections..... | 1130-14 |
| Exhibit 1130-4 Common Plans and Reports | 1130-25 |
| Exhibit 1210-1 Maximum Angle without Curve | 1210-3 |
| Exhibit 1210-2 Alignment Examples..... | 1210-8 |
| Exhibit 1210-3 Alignment Examples..... | 1210-9 |
| Exhibit 1220-1 Minimum Length of Sag Vertical Curves | 1220-2 |
| Exhibit 1220-2 Maximum Grades | 1220-3 |
| Exhibit 1220-3 Grade Length | 1220-4 |
| Exhibit 1220-4 Coordination of Horizontal and Vertical Alignments | 1220-7 |
| Exhibit 1220-5 Coordination of Horizontal and Vertical Alignments | 1220-8 |
| Exhibit 1220-6 Alignment Examples..... | 1220-9 |
| Exhibit 1220-7 Coordination of Horizontal and Vertical Alignments | 1220-10 |
| Exhibit 1220-8 Grading at Railroad Crossings..... | 1220-11 |
| Exhibit 1230-1 Geometric Cross Section - Guide to Chapters..... | 1230-2 |
| Exhibit 1231-1 Lane Widths for Highways..... | 1231-2 |
| Exhibit 1231-2 Motor Vehicle Oriented Cross Sections | 1231-5 |
| Exhibit 1231-3 Cross Sections Featuring Bicycle Facilities | 1231-7 |
| Exhibit 1231-4 Cross Sections Featuring Bicycle Facilities | 1231-8 |
| Exhibit 1231-5 Cross Sections Featuring Pedestrian Facilities | 1231-10 |
| Exhibit 1231-6 Cross Sections Featuring Transit Facilities | 1231-12 |
| Exhibit 1231-7 Complete Streets Cross Sections..... | 1231-14 |
| Exhibit 1232-1 Geometric Cross Section - Interstate (4 lanes shown, can vary)..... | 1232-2 |
| Exhibit 1232-2 Geometric Cross Section – Non-Interstate (4 lanes shown, can vary)..... | 1232-3 |
| Exhibit 1232-3 Median Section without Median Barrier..... | 1232-3 |
| Exhibit 1238-1 Zones within the Streetside | 1238-2 |
| Exhibit 1239-1 Shoulder Widths for Highways..... | 1239-2 |
| Exhibit 1239-2 Shoulder Function & Modal Accommodation Width Considerations..... | 1239-3 |
| Exhibit 1239-3 Shoulder Grading Details..... | 1239-4 |
| Exhibit 1239-4 Shoulder Widening Details..... | 1239-5 |
| Exhibit 1239-5 Drainage Ditch Details..... | 1239-8 |
| Exhibit 1239-6 Bridge End Slopes..... | 1239-9 |
| Exhibit 1239-7 Bridge End Slope Details..... | 1239-10 |
| Exhibit 1239-8 Roadway Sections in Rock Cuts: Design A..... | 1239-12 |
| Exhibit 1239-9 Roadway Sections in Rock Cuts: Design B | 1239-13 |
| Exhibit 1239-10 Stepped Slope Design..... | 1239-14 |

| | |
|--|---------|
| Exhibit 1239-11 Minimum Lateral Clearance to Barrier and Curb [6] | 1239-16 |
| Exhibit 1239-12 Chain-Up/Chain-Off Shoulders | 1239-18 |
| Exhibit 1239-13 Median Functions and Guidance: Speeds of ≥ 40 mph | 1239-21 |
| Exhibit 1239-14 Median Functions and Guidance: Speeds ≤ 45 mph | 1239-22 |
| Exhibit 1239-15 Divided Highway Median Sections | 1239-23 |
| Exhibit 1239-16 Divided Highway Median Sections | 1239-24 |
| Exhibit 1239-17 Divided Highway Median Sections | 1239-25 |
| Exhibit 1240-1 Traveled Way Width for Two-Lane Two-Way Turning Roadways | 1240-4 |
| Exhibit 1240-2 Traveled Way Width for Two-Lane Two-Way Turning Roadways: Based on the Delta Angle . | 1240-5 |
| Exhibit 1240-3 Traveled Way Width for Two-Lane One-Way Turning Roadway | 1240-6 |
| Exhibit 1240-4 Traveled Way Width for Two-Lane One-Way Turning Roadways: Based on the Delta Angle . | 1240-7 |
| Exhibit 1240-5 Traveled Way Width for One-Lane Turning Roadways | 1240-8 |
| Exhibit 1240-6 Traveled Way Width for One-Lane Turning Roadways: Based on the Delta Angle, Radius on Outside Edge of Traveled Way | 1240-9 |
| Exhibit 1240-7 Traveled Way Width for One-Lane Turning Roadways: Based on the Delta Angle, Radius on Inside Edge of Traveled Way | 1240-10 |
| Exhibit 1250-1 Minimum Radius for Normal Crown Section | 1250-3 |
| Exhibit 1250-2 Minimum Radius for Existing Curves | 1250-3 |
| Exhibit 1250-3 Side Friction Factor | 1250-4 |
| Exhibit 1250-4 Superelevation Rates (10% Max) | 1250-6 |
| Exhibit 1250-5 Superelevation Rates (8% Max) | 1250-7 |
| Exhibit 1250-6 Superelevation Rates (6% Max) | 1250-8 |
| Exhibit 1250-7 Superelevation Rates for Streets in Urban Areas Where Posted Speed is ≤ 40 mph or at Intersections | 1250-9 |
| Exhibit 1250-8 Superelevation Transitions for Highway Curves | 1250-10 |
| Exhibit 1250-9 Superelevation Transitions for Highway Curves | 1250-11 |
| Exhibit 1250-10 Superelevation Transitions for Highway Curves | 1250-12 |
| Exhibit 1250-11 Superelevation Transitions for Highway Curves | 1250-13 |
| Exhibit 1250-12 Superelevation Transitions for Highway Curves | 1250-14 |
| Exhibit 1260-1 Design Stopping Sight Distance | 1260-2 |
| Exhibit 1260-2 Design Stopping Sight Distance on Grades | 1260-3 |
| Exhibit 1260-3 Stopping Sight Distance on Grades | 1260-3 |
| Exhibit 1260-4 Stopping Sight Distance: Crest Vertical Curves | 1260-4 |
| Exhibit 1260-5 Sight Distance: Crest Vertical Curve | 1260-5 |
| Exhibit 1260-6 Stopping Sight Distance for Sag Vertical Curves | 1260-6 |
| Exhibit 1260-7 Sight Distance: Sag Vertical Curve | 1260-7 |
| Exhibit 1260-8 Horizontal Stopping Sight Distance | 1260-8 |
| Exhibit 1260-9 Sight Distance: Horizontal Curves | 1260-9 |
| Exhibit 1260-10 Existing Stopping Sight Distance | 1260-11 |
| Exhibit 1260-11 Passing Sight Distance | 1260-11 |
| Exhibit 1260-12 Passing Sight Distance: Crest Vertical Curve Calculations | 1260-12 |
| Exhibit 1260-13 Passing Sight Distance: Crest Vertical Curves | 1260-13 |

| | |
|--|---------|
| Exhibit 1260-14 Decision Sight Distance | 1260-14 |
| Exhibit 1270-1 Climbing Lane Example | 1270-2 |
| Exhibit 1270-2 Speed Reduction Warrant: Performance for Trucks | 1270-3 |
| Exhibit 1270-3 Speed Reduction Warrant Example | 1270-4 |
| Exhibit 1270-4 Auxiliary Climbing Lane | 1270-5 |
| Exhibit 1270-5 Passing Lane Example..... | 1270-6 |
| Exhibit 1270-6 Length of Passing Lanes..... | 1270-7 |
| Exhibit 1270-7 Passing Lane Configurations..... | 1270-11 |
| Exhibit 1270-8 Buffer Between Opposing Passing Lanes | 1270-12 |
| Exhibit 1270-9 Auxiliary Passing Lane | 1270-13 |
| Exhibit 1270-10 Emergency Escape Ramp Example..... | 1270-15 |
| Exhibit 1270-11 Emergency Escape Ramp Length..... | 1270-16 |
| Exhibit 1270-12 Rolling Resistance (R) | 1270-17 |
| Exhibit 1270-13 Typical Emergency Escape Ramp | 1270-18 |
| Exhibit 1300-1 Intersection Design Considerations | 1300-3 |
| Exhibit 1300-2 Median U-Turn Intersection Example | 1300-10 |
| Exhibit 1300-3 Restricted Crossing U-Turn Intersection Example with Stop-control | 1300-11 |
| Exhibit 1300-4 Displaced Left Turn Intersection Example..... | 1300-12 |
| Exhibit 1310-1 Lane Alignment Taper Rate | 1310-3 |
| Exhibit 1310-2 Ramp Terminal Intersection Details..... | 1310-5 |
| Exhibit 1310-3 Sight Distance at Intersections | 1310-7 |
| Exhibit 1310-4 Sight Distance at Intersections..... | 1310-8 |
| Exhibit 1310-5 Median at Two-Way Ramp Terminal..... | 1310-10 |
| Exhibit 1310-6 Intersection Balance Example | 1310-11 |
| Exhibit 1310-7 Diamond Interchange with Advance Storage..... | 1310-12 |
| Exhibit 1310-8 Initial Ranges for Right-Turn Corner (Simple Curve-Taper)..... | 1310-14 |
| Exhibit 1310-9 Left-Turn Storage Guidelines: Two-Lane, Unsignalized | 1310-16 |
| Exhibit 1310-10 Left-Turn Storage Guidelines: Four-Lane, Unsignalized | 1310-17 |
| Exhibit 1310-11 Left-Turn Storage Length: Two-Lane, Unsignalized (40 mph)..... | 1310-18 |
| Exhibit 1310-12 Left-Turn Storage Length: Two-Lane, Unsignalized (50 mph)..... | 1310-19 |
| Exhibit 1310-13 Left-Turn Storage Length: Two-Lane, Unsignalized (60 mph)..... | 1310-20 |
| Exhibit 1310-14 Left-Turn Storage with Trucks (ft) | 1310-21 |
| Exhibit 1310-15 Median Channelization: Widening..... | 1310-22 |
| Exhibit 1310-16 Median Channelization: Median Width 11 ft or More..... | 1310-23 |
| Exhibit 1310-17 Median Channelization: Median Width 23 ft to 26 ft | 1310-24 |
| Exhibit 1310-18 Median Channelization: Median Width of More Than 26 ft..... | 1310-25 |
| Exhibit 1310-19 Median Channelization: Minimum Protected Storage | 1310-26 |
| Exhibit 1310-20 Median Channelization: Two-Way Left-Turn Lane..... | 1310-28 |
| Exhibit 1310-21 Traffic Island Designs..... | 1310-30 |
| Exhibit 1310-22 Traffic Island Designs: Compound Curve..... | 1310-31 |
| Exhibit 1310-23 Traffic Island Designs..... | 1310-32 |

| | |
|---|---------|
| Exhibit 1310-24 Right-Turn Lane Guidelines | 1310-33 |
| Exhibit 1310-25 Right-Turn Pocket and Right-Turn Taper..... | 1310-34 |
| Exhibit 1310-26 Right-Turn Lane | 1310-35 |
| Exhibit 1310-27 Acceleration Lane | 1310-36 |
| Exhibit 1310-28 U-Turn Spacing | 1310-37 |
| Exhibit 1310-29 U-Turn Roadway..... | 1310-38 |
| Exhibit 1310-30 U-Turn Median Openings | 1310-39 |
| Exhibit 1310-31 Pedestrian and Bicycle Intersection Treatments | 1310-43 |
| Exhibit 1310-32 Protected Intersection Design Elements (from the AASHTO Bike Guide 2021 Draft) | 1310-45 |
| Exhibit 1320-1 Suggested Initial Design Ranges | 1320-13 |
| Exhibit 1320-2 Radii-Speed Relationship on Approach Legs and R Value Relationships (Replotted 2024) ... | 1320-17 |
| Exhibit 1320-4 Intersection Sight Distance..... | 1320-23 |
| Exhibit 1320-5 Typical Features of Angled Crossing (New 2024)..... | 1320-27 |
| Exhibit 1320-6 Typical Features of Straight Crossing (New 2024) | 1320-28 |
| Exhibit 1320-7 Splitter Island Pedestrian Refuge Design Details (New 2024)..... | 1320-29 |
| Exhibit 1320-8 Typical Layout of Separated Bike Lanes at Roundabouts (New 2024)..... | 1320-30 |
| Exhibit 1330-1 Responsibility for Facilities..... | 1330-4 |
| Exhibit 1330-2 Example Continuous Green “T” Intersection Layout | 1330-5 |
| Exhibit 1330-3 Left-Turn Lane Configuration Examples | 1330-6 |
| Exhibit 1330-4 Recommended Features for Intersections near Rail Crossings..... | 1330-8 |
| Exhibit 1330-5 Standard Intersection Movements, Head Numbers, and Phase Operation | 1330-9 |
| Exhibit 1330-6 Detector Numbering Examples | 1330-12 |
| Exhibit 1330-7 Signal Display Placements – Key to Diagrams | 1330-15 |
| Exhibit 1330-8 Signal Displays for Single Lane Approach..... | 1330-16 |
| Exhibit 1330-9 Signal Display Mounting Locations for Multi-Lane Approaches | 1330-17 |
| Exhibit 1330-10 Signal Displays for Dedicated Left Turn Lanes..... | 1330-18 |
| Exhibit 1330-11 Signal Displays for Shared Through-Left Lanes – Multiple Through Lanes | 1330-19 |
| Exhibit 1330-12 Signal Displays for Shared Through-Right Lanes | 1330-20 |
| Exhibit 1330-13 Signal Displays for Dedicated Right Turn Lanes | 1330-21 |
| Exhibit 1330-14 Signal Displays for Multiple Turn Lanes | 1330-22 |
| Exhibit 1330-15 Example Signal Display Placement for Skew Intersection..... | 1330-23 |
| Exhibit 1330-16 Signal Display Maximum Heights | 1330-24 |
| Exhibit 1330-17 Pedestrian Display Placement Requirements | 1330-25 |
| Exhibit 1330-18 PPB Placement Requirements..... | 1330-26 |
| Exhibit 1330-19 PPB Placement on Vertical Shaft Poles | 1330-27 |
| Exhibit 1330-20 PPB Placement on Large Signal Standards | 1330-27 |
| Exhibit 1330-21 PHB Signal Equipment (New 2024) | 1330-30 |
| Exhibit 1330-22 RRFB System (New 2024) | 1330-30 |
| Exhibit 1330-23 FB System Pole Placement (New 2024) | 1330-32 |
| Exhibit 1330-24 Typical Roundabout FB Pole Placement (New 2024)..... | 1330-33 |
| Exhibit 1330-25 Signal Display Surface Areas..... | 1330-36 |

| | |
|--|---------|
| Exhibit 1330-26 Timber Strain Pole Classes | 1330-37 |
| Exhibit 1330-27 Fixed Vehicle Detection Placement..... | 1330-40 |
| Exhibit 1330-28 Decision Zone Detection Placement | 1330-41 |
| Exhibit 1330-29 Video Detector Placement | 1330-44 |
| Exhibit 1330-30 Signal Display Layout for Rail Crossings | 1330-47 |
| Exhibit 1330-31 Conduit and Conductor Sizes | 1330-51 |
| Exhibit 1330-32 Phase Diagrams: Four-Way Intersections | 1330-58 |
| Exhibit 1330-33 Phase Diagrams: Three-Way Intersections | 1330-59 |
| Exhibit 1330-34 Phasing at Railroad Crossings..... | 1330-60 |
| Exhibit 1340-1 Driveway Design Template SU-30 and Smaller | 1340-4 |
| Exhibit 1340-2 Driveway Design Template SU-30 and Larger | 1340-5 |
| Exhibit 1340-3 Driveway Sight Distance | 1340-7 |
| Exhibit 1350-1 Sight Distance at Railroad Crossing..... | 1350-3 |
| Exhibit 1350-2 Typical Pullout Lane at Railroad Crossing..... | 1350-7 |
| Exhibit 1360-1 Basic Interchange Patterns..... | 1360-4 |
| Exhibit 1360-2 Interchange Spacing | 1360-5 |
| Exhibit 1360-3 Minimum Ramp Connection Spacing | 1360-6 |
| Exhibit 1360-4 Ramp Design Speed..... | 1360-8 |
| Exhibit 1360-5 Maximum Ramp Grade | 1360-8 |
| Exhibit 1360-6 Ramp Widths | 1360-9 |
| Exhibit 1360-7 Lane Balance..... | 1360-11 |
| Exhibit 1360-8 Lane Balance..... | 1360-12 |
| Exhibit 1360-9 Main Line Lane Reduction Alternatives..... | 1360-13 |
| Exhibit 1360-10 Acceleration Lane Length | 1360-15 |
| Exhibit 1360-11 Deceleration Lane Length | 1360-17 |
| Exhibit 1360-12 Single-Lane Tapered Off-Ramp EXIT ONLY..... | 1360-19 |
| Exhibit 1360-13 Gore Area Characteristics..... | 1360-20 |
| Exhibit 1360-14 Gore Area Characteristics..... | 1360-21 |
| Exhibit 1360-15 Length of Weaving Sections | 1360-23 |
| Exhibit 1360-16 On-Connection: Single-Lane, Tapered..... | 1360-26 |
| Exhibit 1360-17 On-Connection: Single-Lane, Parallel..... | 1360-27 |
| Exhibit 1360-18 On-Connection: Two-Lane, Parallel..... | 1360-28 |
| Exhibit 1360-19 On-Connection: Two-Lane, Tapered | 1360-29 |
| Exhibit 1360-20 Off-Connection: Single-Lane, Tapered | 1360-30 |
| Exhibit 1360-21 Off-Connection: Single-Lane, Parallel..... | 1360-31 |
| Exhibit 1360-22 Off-Connection: Single-Lane, One-Lane Reduction..... | 1360-32 |
| Exhibit 1360-23 Single-Lane Tapered Off-Ramp EXIT ONLY..... | 1360-33 |
| Exhibit 1360-24 Off-Connection: Two-Lane, Tapered | 1360-34 |
| Exhibit 1360-25 Off-Connection: Two-Lane, Parallel | 1360-35 |
| Exhibit 1360-26 Two-Lane Tapered Off-Ramp EXIT ONLY..... | 1360-36 |
| Exhibit 1360-27 Collector-Distributor: Outer Separations | 1360-37 |

| | |
|--|---------|
| Exhibit 1360-28 Collector Distributor: Off-Connections | 1360-38 |
| Exhibit 1360-29 Collector Distributor: On-Connections..... | 1360-39 |
| Exhibit 1360-30 Loop Ramp Connections..... | 1360-40 |
| Exhibit 1360-31 Temporary Ramps | 1360-41 |
| Exhibit 1360-32 Interchange Plan | 1360-42 |
| Exhibit 1400-1 Managed Lane Types..... | 1400-2 |
| Exhibit 1410-1 Minimum Traveled Way Widths for Articulated Buses..... | 1410-9 |
| Exhibit 1410-2 Typical HOV Lane Sections | 1410-13 |
| Exhibit 1410-3 Roadway Widths for Two-Lane Ramps with an HOV Lane..... | 1410-14 |
| Exhibit 1410-4 Single-Lane Ramp Meter with HOV Bypass..... | 1410-15 |
| Exhibit 1410-5 Two-Lane Ramp Meter with HOV Bypass | 1410-15 |
| Exhibit 1410-6 Enforcement Area: One Direction Only | 1410-16 |
| Exhibit 1410-7 Enforcement Area: Median | 1410-17 |
| Exhibit 1430-1 Part Time Shoulder Layout ^[1] | 1430-4 |
| Exhibit 1430-2 Considerations for Part-Time Shoulder Utilization ^[1] | 1430-5 |
| Exhibit 1440-1 Metered Shoulder Layout ^[1] | 1440-2 |
| Exhibit 1440-2 Considerations for Metered Shoulder Utilization ^[1] | 1440-2 |
| Exhibit 1510-1 Pedestrian Level of Traffic Stress (PLTS) no dedicated pedestrian facility, with shoulder | 1510-3 |
| Exhibit 1510-2 Pedestrian Level of Traffic Stress (PLTS) based on Sidewalk Width..... | 1510-4 |
| Exhibit 1510-3 Pedestrian Level of Traffic Stress (PLTS) based on Buffer Type | 1510-5 |
| Exhibit 1510-4 Pedestrian Circulation Paths | 1510-9 |
| Exhibit 1510-5 Relationship Between Pedestrian Circulation Paths and Pedestrian Access Routes | 1510-11 |
| Exhibit 1510-6 Obstructed Pedestrian Access Route | 1510-12 |
| Exhibit 1510-7 Beveling Options | 1510-14 |
| Exhibit 1510-8 Surface Discontinuities (Noncompliant)..... | 1510-14 |
| Exhibit 1510-9 Suggested Sidewalk and Buffer Widths* | 1510-16 |
| Exhibit 1510-10 Sidewalks with Buffers | 1510-17 |
| Exhibit 1510-11 Typical Sidewalk Designs | 1510-18 |
| Exhibit 1510-12 Typical Driveways | 1510-19 |
| Exhibit 1510-13 Driveway Approach Designs..... | 1510-20 |
| Exhibit 1510-14 Perpendicular Curb Ramp | 1510-22 |
| Exhibit 1510-15 Perpendicular Curb Ramp Common Elements..... | 1510-23 |
| Exhibit 1510-16 Parallel Curb Ramp..... | 1510-24 |
| Exhibit 1510-17 Parallel Curb Ramp Common Elements | 1510-24 |
| Exhibit 1510-18 Combination Curb Ramps..... | 1510-25 |
| Exhibit 1510-19 Perpendicular Curb Ramp Extension..... | 1510-26 |
| Exhibit 1510-20 Typical Curb Ramp Drainage | 1510-29 |
| Exhibit 1510-21 Unmarked Crosswalks | 1510-31 |
| Exhibit 1510-22 Marked Pedestrian Crossing | 1510-32 |
| Exhibit 1510-23 Essential Signal Operations at a Location That Does Not Support the Pedestrian Crossing | 1510-32 |
| Exhibit 1510-24 Midblock Pedestrian Crossing | 1510-34 |

| | |
|---|---------|
| Exhibit 1510-25 Raised Crosswalk Cross-Section | 1510-35 |
| Exhibit 1510-26 Obstructed Line of Sight at Intersection | 1510-36 |
| Exhibit 1510-27 Improved Line of Sight at Intersection | 1510-37 |
| Exhibit 1510-28 Curb Extension Examples | 1510-37 |
| Exhibit 1510-29 Mountable Truck Apron Design Elements | 1510-38 |
| Exhibit 1510-30 Raised Islands with Curb Ramps and Pedestrian Cut-Throughs..... | 1510-40 |
| Exhibit 1510-31 Clear Space for Pedestrian Pushbutton | 1510-43 |
| Exhibit 1510-32 Perpendicular Ramp Concurrent Clear Space Examples | 1510-44 |
| Exhibit 1510-33 Parallel Ramp Concurrent Clear Space Examples..... | 1510-45 |
| Exhibit 1510-34 Reach Range for Pedestrian Pushbuttons | 1510-47 |
| Exhibit 1510-35 Pedestrian Railroad Crossings | 1510-48 |
| Exhibit 1510-36 Pedestrian Railroad Warning Device | 1510-49 |
| Exhibit 1510-37 Pedestrian Bridges..... | 1510-51 |
| Exhibit 1510-38 Pedestrian Tunnel | 1510-51 |
| Exhibit 1510-39 Pedestrian Ramp with Accessible Handrails | 1510-53 |
| Exhibit 1510-40 Work Zones and Pedestrian Facilities | 1510-57 |
| Exhibit 1515-1 Typical Shared-Use Path..... | 1515-3 |
| Exhibit 1515-2 Bicycle Design Speeds | 1515-5 |
| Exhibit 1515-3 Two-Way Shared-Use Path: Independent Alignment | 1515-9 |
| Exhibit 1515-4 Two-Way Shared-Use Path: Adjacent to Roadway (≤ 35 mph)..... | 1515-10 |
| Exhibit 1515-5 Two-Way Shared-Use Path: Adjacent to Roadway (> 35 mph)..... | 1515-10 |
| Exhibit 1515-6 Two-Way Shared-Use Path: Barrier Between Roadway and Shared-Use Path..... | 1515-11 |
| Exhibit 1515-7 Shared-Use Path Side Slopes and Railing | 1515-12 |
| Exhibit 1515-8 Shared-Use Path Landing Profile | 1515-13 |
| Exhibit 1515-9 Shared-Use Path Landing and Rest Area | 1515-14 |
| Exhibit 1515-10 Typical Redesign of a Diagonal Midblock Crossing | 1515-16 |
| Exhibit 1515-11 Adjacent Shared-Use Path Intersection | 1515-17 |
| Exhibit 1515-12 Roadway Crossing Refuge Area | 1515-19 |
| Exhibit 1515-13 Shared-Use Path Bridge and Approach Walls | 1515-20 |
| Exhibit 1515-14 Bridge and Pedestrian Rail | 1515-21 |
| Exhibit 1515-15 Shared-Use Path in Limited Access Corridor | 1515-22 |
| Exhibit 1515-16 Landscaped Islands..... | 1515-23 |
| Exhibit 1515-17 Stopping Sight Distance for Downgrades..... | 1515-24 |
| Exhibit 1515-18 Stopping Sight Distance for Upgrades..... | 1515-25 |
| Exhibit 1515-19 Minimum Lengths for Crest Vertical Curves | 1515-26 |
| Exhibit 1515-20 Lateral Clearance for Horizontal Curves..... | 1515-27 |
| Exhibit 1520-1 Roadway Bicycle Facilities | 1520-3 |
| Exhibit 1520-2 Conventional Bike Lane | 1520-4 |
| Exhibit 1520-3 Buffered Bike Lane | 1520-5 |
| Exhibit 1520-4 Separated Bike Lane (tubular markers shown as vertical feature) | 1520-7 |
| Exhibit 1520-5 Bicycle Level of Traffic Stress in mixed traffic (no bicycle facility) | 1520-8 |

| | |
|--|---------|
| Exhibit 1520-6 Bicycle Level of Traffic Stress for Conventional Bike Lane | 1520-9 |
| Exhibit 1520-7 Bicycle Level of Traffic Stress for Buffered Bike Lane | 1520-9 |
| Exhibit 1520-8 Bicycle Level of Traffic Stress for Separated Bike Lane | 1520-9 |
| Exhibit 1520-9 Approach Through Lanes..... | 1520-12 |
| Exhibit 1520-10 Bike Box and Intersection Crossing Markings | 1520-13 |
| Exhibit 1520-11 Two-Stage Turn Box | 1520-14 |
| Exhibit 1520-12 Median Diverter | 1520-15 |
| Exhibit 1520-13 Detectable Directional Strip Details (New 2024) | 1520-19 |
| Exhibit 1520-14 Bike Ramp Details (New 2024) | 1520-20 |
| Exhibit 1520-15 At-Grade Railroad Crossings..... | 1520-22 |
| Exhibit 1520-16 Bike Facility Crossing On- and Off-Ramps | 1520-24 |
| Exhibit 1520-17 Bicycle Facility Crossing Single-Lane On-Ramp | 1520-25 |
| Exhibit 1520-18 Bicycle Facility Crossing Option for Dual Lane On-Ramp Configuration | 1520-26 |
| Exhibit 1520-19 Bicycle Facility Crossing Option for Dual Off-Ramp | 1520-27 |
| Exhibit 1600-1 Clear Zone Plan View..... | 1600-2 |
| Exhibit 1600-2 City and State Responsibilities and Jurisdictions..... | 1600-3 |
| Exhibit 1600-3 Design Clear Zone Distance Table | 1600-5 |
| Exhibit 1600-4 Recovery Area | 1600-6 |
| Exhibit 1600-5 Design Clear Zone Examples for Ditch Sections: 3 Cases | 1600-7 |
| Exhibit 1600-6 Requirements for Embankment Mitigation | 1600-10 |
| Exhibit 1600-7 Mailbox Location and Turnout Design | 1600-12 |
| Exhibit 1600-8 Glare Screens..... | 1600-20 |
| Exhibit 1610-1 Concrete Barrier Placement Guidance: Assessing Impacts to Wildlife | 1610-3 |
| Exhibit 1610-2 Traffic Barrier Locations on Slopes..... | 1610-6 |
| Exhibit 1610-3 Longitudinal Barrier Deflection | 1610-10 |
| Exhibit 1610-4 Barrier Standard Run Minimum/Maximum Lengths..... | 1610-11 |
| Exhibit 1610-5 Longitudinal Barrier Flare Rates | 1610-12 |
| Exhibit 1610-6 Barrier Length of Need on Tangent Sections | 1610-14 |
| Exhibit 1610-7 Barrier Length of Need | 1610-15 |
| Exhibit 1610-8 Barrier Length of Need on Curves | 1610-16 |
| Exhibit 1610-9 Beam Guardrail Trailing End Placement for Divided Highways | 1610-16 |
| Exhibit 1610-10 Beam Guardrail Post Installation..... | 1610-19 |
| Exhibit 1610-11 Guardrail Connections..... | 1610-26 |
| Exhibit 1610-12 Transitions and Connections | 1610-27 |
| Exhibit 1610-13 Median Cable Barrier Placement | 1610-31 |
| Exhibit 1610-14 Roadside Cable Barrier Placement | 1610-32 |
| Exhibit 1610-15 Cable Barrier Placement: Overlap on Divided Highways | 1610-34 |
| Exhibit 1610-16 Cable Barrier Placement: Cable Barrier Termination/Overlap with Beam Guardrail | 1610-35 |
| Exhibit 1610-17 Concrete Barrier Shapes..... | 1610-36 |
| Exhibit 1610-18 Single-Slope Barrier Placement – In Front of Fill Slope (New 2024) | 1610-39 |
| Exhibit 1610-19 Type 7 Bridge Rail Upgrade Criteria | 1610-43 |

| | |
|---|---------|
| Exhibit 1610-20 Thrie Beam Rail Retrofit Criteria | 1610-44 |
| Exhibit 1620-1 Impact Attenuator Distance Beyond Length of Need | 1620-2 |
| Exhibit 1710-1 WSDOT Safety Rest Area | 1710-1 |
| Exhibit 1710-2 WSDOT’s SRA Project and Programming Roles..... | 1710-5 |
| Exhibit 1710-3 Additional Safety Rest Area Resources | 1710-6 |
| Exhibit 1710-4 Roadside Facilities Level of Development..... | 1710-8 |
| Exhibit 1710-5 Typical Truck Storage | 1710-10 |
| Exhibit 1710-6 WSDOT Safety Rest Area Building – Adaptive Reuse Historic Preservation | 1710-12 |
| Exhibit 1720-1 Truck Weigh Site: Multilane Highways..... | 1720-6 |
| Exhibit 1720-2 Truck Weigh Site: Two-Lane Highways | 1720-7 |
| Exhibit 1720-3 Vehicle Inspection Installation | 1720-8 |
| Exhibit 1720-4 Minor Portable Scale Site | 1720-9 |
| Exhibit 1720-5 Major Portable Scale Site | 1720-10 |
| Exhibit 1720-6 Small Shoulder Site..... | 1720-11 |
| Exhibit 1720-7 Large Shoulder Site..... | 1720-11 |
| Exhibit 1720-8 MOU Related to Vehicle Weighing and Equipment: Inspections Facilities (23 pages) | 1720-12 |
| Exhibit 1730-1 Bus Zone Dimensions | 1730-5 |
| Exhibit 1730-2 Pullout for Bus Stop along a Road..... | 1730-6 |
| Exhibit 1730-3 Bus Stop Pullouts: Arterial Streets | 1730-7 |
| Exhibit 1730-4 Bus Zone and Pullout after Right Turn | 1730-8 |
| Exhibit 1730-5 Bus Stop Accessibility Features | 1730-10 |
| Exhibit 1730-6 Bus Berth Design | 1730-20 |
| Exhibit 1730-7 Design Alternative for a Combination of Bus Berths at a Platform..... | 1730-21 |