



**Standard Details Index**

**Chapter 4 – Aesthetics**

- 4.01 Formliner Details
- 4.02 Aesthetic Concepts without Pedestrian Accommodations
- 4.03 Aesthetic Concepts with Pedestrian Accommodations
- 4.04 Wing & Parapet Aesthetic Details
- 4.05 Multi-Columned Pier Aesthetic Details

**Chapter 7 – Accelerated Bridge Construction**

- 7.01 GRS Abutments General Plan
- 7.02 GRS Abutments Details
- 7.03 Precast Pier Cap and Columns
- 7.04 Precast Pier Cap and Column Details
- 7.05 Precast (optional) Pier Cap and Columns
- 7.06 Precast Bearing Block Details
- 7.07 Cast-in-Place Bearing Block Details

**Chapter 9 – Materials**

- 9.01 Structure Backfill Limits and Notes 1
- 9.02 Structure Backfill Limits and Notes 2
- 9.03 Wing Fill Sections at Wing Tips

**Chapter 11 – Foundation Support**

- 11.01 Pile Details

**Chapter 12 – Abutments**

- 12.01 Abutment Type A1 (Integral Abutment)
- 12.02 Abutment Type A1
- 12.03 Abutment Type A3
- 12.04 Abutment Type A3
- 12.07 Details for Wings Parallel to A1 Abutment Center Line
- 12.08 Abutment A5 (Integral, Pile Encased Abutment)
- 12.09 Alternate Construction Joint
- 12.10 Structural Approach Slab
- 12.11 Structural Approach Slab Details 1
- 12.12 Structural Approach Slab Details 2
- 12.13 Structural Approach Slab Details 3

**Chapter 13 – Piers**

- 13.01 Multi-Columned Pier
- 13.02 Hammerhead Pier
- 13.03 Pile Encased Pier
- 13.04 Pile Bent
- 13.05 Multi-Columned Pier Type 2
- 13.06 Hammerhead Pier - Type 2
- 13.07 Multi-Columned Pier with Rectangular Columns
- 13.08 Pier Cap Reinforcement Detailing



- 13.09 Pile Encased Pier (Types)
- 13.10 51-inch Concrete Integral Barrier
- 13.11 Integral Barrier Details

**Chapter 14 – Retaining Walls**

- 14.02 MSE Retaining Wall Details
- 14.03 LRFD Proprietary Retaining Walls (General Plan)
- 14.04 MSE Wall at Abutment
- 14.05 MSE Wall at Abutment Layout Details
- 14.11 MSE Wall – Panel and Block Facing
- 14.12 MSE Wall – Wire Faced 1
- 14.13 MSE Wall – Wire Faced 2

**Chapter 15 – Slope Protection**

- 15.01 Placement of Heavy Riprap at River Crossings
- 15.02 Slope Paving - Structures (Crushed Aggregate & Select Crushed Material)
- 15.03 Slope Paving - Structures (Concrete Cast-In-Place)

**Chapter 17 – Superstructure - General**

- 17.01 Median and Raised Sidewalk Details
- 17.02 Deck and Slab Details
- 17.03 Edge of Deck Flashing

**Chapter 18 – Concrete Slab Structures**

- 18.01 Continuous Haunched Slab
- 18.02 Continuous Flat Slab
- 18.03 Concrete Slab Details

**Chapter 19 – Prestressed Concrete**

- 19.01 28” Prestressed Girder Details
- 19.02 28” Prestressed Girder Design Data
- 19.11 36W” Prestressed Girder Details
- 19.12 36W” Prestressed Girder Design Data
- 19.13 45W” Prestressed Girder Details
- 19.14 45W” Prestressed Girder Design Data
- 19.15 54W” Prestressed Girder Details
- 19.16 54W” Prestressed Girder Design Data
- 19.17 72W” Prestressed Girder Details
- 19.18 72W” Prestressed Girder Design Data
- 19.19 82W” Prestressed Girder Details
- 19.20 82W” Prestressed Girder Design Data
- 19.31 Bearing Pad Details for Prestressed Concrete Girders
- 19.32 Prestressed Girder Details
- 19.33 28” & 36” Prestressed Girder Slab & Superstructure Details
- 19.34 Prestressed 36W” & 45W” Girder Slab & Superstructure Details
- 19.35 Prestressed 54W”, 72W”, & 82W” Girder Slab & Superstructure Details
- 19.36 Interm. Steel Diaphs. for 28”, 36”, 45”, 45W”, 54”, & 54W” Prestressed Girders
- 19.37 Interm. Steel Diaphragms for 70”, 72W”, & 82W” Prestressed Girders



- 19.38 Interm. Steel Diaphs. for 36W” Prestressed Girders
- 19.50 3'-0" Prestressed Box Girder Sections
- 19.51 4'-0" Prestressed Box Girder Sections
- 19.52 Prestressed Box Girder Details 1
- 19.53 Prestressed Box Girder Details 2
- 19.54 Prestressed Box Girder Details 3
- 19.55 Prestressed Box Girder Details 4
- 19.56 Prestressed Box Girder Details 5

**Chapter 23 – Timber Structures**

- 23.01 Timber Abutments General
- 23.02 Timber Abutment
- 23.03 Timber Abutment Details

**Chapter 24 – Steel Girder Structures**

- 24.02 Plate Girder Details
- 24.03 Plate Girder Diaphragms and Cross Frames
- 24.04 End Diaphragms
- 24.06 Rolled Girder Diaphragms
- 24.08 Expansion Hinge Joint Details
- 24.09 Blocking & Slab Haunch Details
- 24.10 Girder Layout on Curve
- 24.11 Slab Pouring Sequence
- 24.12 Steel Girder Slab & Superstructure Details

**Chapter 27 – Bearings**

- 27.02 Fixed Bearing Details Type ‘A’ - Steel Girders
- 27.05 Brg. Details for Steel Gdrs. and Precast Units on A1 Abutments
- 27.06 Hold Down Devices
- 27.07 Elastomeric Bearings for Prestressed Concrete Girders
- 27.08 Stainless Steel – TFE Expansion Bearing Details Type ‘A-T’
- 27.09 Steel Bearings for Prestressed Concrete Girders
- 27.10 Steel Expansion Bearing Details

**Chapter 28 – Expansion Devices**

- 28.01 Strip Seal Expansion Joint Details
- 28.02 Strip Seal cover Plates Single Slope Para./Sdwk.
- 28.03 Modular Expansion Joint Details
- 28.04 Cover Plates for Sidewalk w/Conc. Para.
- 28.05 Cover Plates for Single Slope Parapet
- 28.06 Cover Plates for Sidewalk w/Steel Rail
- 28.07 Strip Seal Cover Plates Sloped Face Para./Sdwk.
- 28.08 Cover Plates for Parapet ‘LF/HF’

**Chapter 29 – Floor Drains**

- 29.01 Floor Drain Type ‘GC’
- 29.02 Floor Drain Type ‘H’
- 29.03 Floor Drain Type ‘WF’



**Chapter 30 – Railings**

- 30.02 Steel Railing Type ‘W’
- 30.04 Tubular Railing Type ‘H’ (Alum.)
- 30.05 Tubular Railing Type ‘H’ (Steel)
- 30.07 Vertical Face Parapet ‘A’
- 30.08 Combination Railing Type ‘3T’
- 30.09 Combination Railing Type ‘3T’ Details
- 30.10 Parapet Footing
- 30.11 Chain Link Fence Details
- 30.12 Chain Link Fence Side-Mounted Details
- 30.14 Lighting Detail
- 30.15 Tubular Steel Railing - Screening
- 30.16 Tubular Steel Railing Type ‘M’
- 30.17 Combination Railings Type ‘C1-C6’
- 30.18 Combination Railings Details
- 30.19 Vertical Face Parapet ‘TX’
- 30.20 Sloped Face Parapet ‘51F’
- 30.21 Light Standard and Junction Box for Parapets
- 30.22 Conduit Details and Notes
- 30.24 Timber Railing Attached to Concrete Slab
- 30.25 Timber Railing Attached to Concrete Slab Details
- 30.26 Tubular Steel Railing Type NY3
- 30.27 Tubular Steel Railing Type NY4
- 30.28 End Post Details for Tubular Steel Railing Type NY3 & NY4
- 30.29 Sidewalk Details for Tubular Steel Railing Type NY4
- 30.30 Single Slope Parapet 32SS
- 30.31 Single Slope Parapet 36SS
- 30.32 Single Slope Parapet 42SS
- 30.33 Single Slope Parapet 56SS
- 30.34 Single Slope Parapet 32SS with Structural Approach Slab
- 30.35 Single Slope Parapet 36SS with Structural Approach Slab
- 30.36 Single Slope Parapet 42SS with Structural Approach Slab
- 30.37 Single Slope Parapet 56SS with Structural Approach Slab

**Chapter 36 – Box Culverts**

- 36.01 Box Culvert Layout
- 36.02 Box Culvert Apron Details
- 36.03 Box Culvert Details
- 36.04 Box Culvert Manhole for Inlet Type 8 & 9
- 36.05 Precast Concrete Box Culvert Barrel Details
- 36.06 Precast Wings, Headers, & Cutoff Walls for Precast Concrete Box Culvert
- 36.07 Pipe Opening in Culvert Wall
- 36.08 Guardrail Post Anchorage System
- 36.10 Precast Three-Sided Box Culvert Design Notes



- 36.11 Precast Three-Sided Box Culvert Layout Designs
- 36.12 Precast Three-Sided Box Culvert Details
- 36.13 Precast Three-Sided Box Culvert Headwall Details
- 36.14 Precast Three-Sided Box Culvert Headwall Details
- 36.15 Precast Three-Sided Box Culvert Cross Sections
- 36.16 Precast Three-Sided Box Culvert Reinforcement

**Chapter 37 – Pedestrian Bridges**

- 37.01 Pedestrian Overpass
- 37.02 Pedestrian Overpass Details

**Chapter 38 – Railroad Structures**

- 38.01 Highway Over Railroad Design Requirements

**Chapter 39 – Sign Structures**

- 39.01 Monotube & 2-Chord Truss Connections 1
- 39.02 Monotube & 2-Chord Truss Connections 2
- 39.03 Monotube & 2-Chord Truss Electrical Details
- 39.04 Monotube & 2-Chord Truss Foundations
- 39.11 2-Chord Butterfly Details
- 39.12 2-Chord Butterfly Pole Details
- 39.13 2-Chord Butterfly Electrical Details
- 39.14 2-Chord Butterfly Foundation Details
- 39.21 4-Chord Truss Cantilever Details
- 39.22 4-Chord Truss Cantilever Connections 1
- 39.23 4-Chord Truss Cantilever Connections 2
- 39.24 4-Chord Truss Cantilever Connections 3
- 39.25 4-Chord Truss Cantilever Catwalk Details
- 39.26 4-Chord Truss Cantilever Electrical Details
- 39.27 4-Chord Truss Cantilever Foundations
- 39.31 4-Chord Truss Full Span Details
- 39.32 4-Chord Truss Full Span Column Details
- 39.33 4-Chord Truss Full Span Connections 1
- 39.34 4-Chord Truss Full Span Connections 2
- 39.35 4-Chord Truss Full Span Catwalk Details
- 39.36 4-Chord Truss Full Span Electrical Details
- 39.37 4-Chord Truss Full Span Foundations 1
- 39.38 4-Chord Truss Full Span Foundations 2

**Chapter 40 – Bridge Rehabilitation**

- 40.01 Concrete Repair Details
- 40.02 Cathodic Protection
- 40.03 Overlay Details
- 40.04 Strip Seals & Diaph. Details for Overlays
- 40.05 Longit. Const. Joint Repairs
- 40.06 Abutment Widening
- 40.07 Slab Widening



- 40.08 Expansion Bearing Replacement Details
- 40.09 Hinged Joint Rehabilitation
- 40.10 Concrete Bearing Block Details
- 40.11 Bar Splicer (Coupler) Details at Stage Construction
- 40.12 Finger Type Expansion Joint – Plate Girder
- 40.13 54” Pretensioned Girder Details
- 40.14 54” Pretensioned Girder Design Data
- 40.15 Sloped Face Parapet ‘B’
- 40.16 Expansion Bearing Details, Type ‘A’ – Steel Girders
- 40.17 45” Prestressed Girder Details
- 40.18 45” Prestressed Girder Design Data
- 40.19 70” Prestressed Girder Details
- 40.20 70” Prestressed Girder Design Data
- 40.21 Rocker Bearing Type ‘B’ – Steel Girders
- 40.22 Type ‘B’ – Steel Girders Fixed Shoe
- 40.23 Wing Strapping
- 40.24 Railing Tubular Type ‘PF’
- 40.25 Railing Tubular Type ‘PF’ Details
- 40.26 Tubular Steel Railing Type ‘F’
- 40.27 Sloped Face Parapet ‘LF’
- 40.28 Sloped Face Parapet ‘HF’
- 40.31 Concrete Overlay
- 40.32 Polymer Overlay
- 40.33 Polymer Modified Asphaltic and Asphaltic Overlays
- 40.34 Polyester Polymer Concrete Overlay
- 40.40 Abutment A4 Pile Footing
- 40.41 Abutment A4 Pile Footing
- 40.42 36” Prestressed Girder Details
- 40.43 36” Prestressed Girder Design Data