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
13.10 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

**Chapter 19 – Prestressed Concrete**
19.01 28” Prestressed Girder Details
19.02 28” Prestressed Girder Design Data
19.03 36” Prestressed Girder Details
19.04 36” 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 Interim. Steel Diaphs. for 28”, 36”, 45”, 45W”, 54”, & 54W” Prestressed Girders
19.37 Interim. 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
30.14 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
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>36.11</td>
<td>Precast Three-Sided Box Culvert Layout Designs</td>
</tr>
<tr>
<td>36.12</td>
<td>Precast Three-Sided Box Culvert Details</td>
</tr>
<tr>
<td>36.13</td>
<td>Precast Three-Sided Box Culvert Headwall Details</td>
</tr>
<tr>
<td>36.14</td>
<td>Precast Three-Sided Box Culvert Headwall Details</td>
</tr>
<tr>
<td>36.15</td>
<td>Precast Three-Sided Box Culvert Cross Sections</td>
</tr>
<tr>
<td>36.16</td>
<td>Precast Three-Sided Box Culvert Reinforcement</td>
</tr>
<tr>
<td>Chapter 37 – Pedestrian Bridges</td>
<td></td>
</tr>
<tr>
<td>37.01</td>
<td>Pedestrian Overpass</td>
</tr>
<tr>
<td>37.02</td>
<td>Pedestrian Overpass Details</td>
</tr>
<tr>
<td>Chapter 38 – Railroad Structures</td>
<td></td>
</tr>
<tr>
<td>38.01</td>
<td>Highway Over Railroad Design Requirements</td>
</tr>
<tr>
<td>Chapter 39 – Sign Structures</td>
<td></td>
</tr>
<tr>
<td>39.02</td>
<td>4-Chord Galvanized Steel Sign Bridge</td>
</tr>
<tr>
<td>39.03</td>
<td>4-Chord Sign Bridge Details</td>
</tr>
<tr>
<td>39.09</td>
<td>Sign Bridge Catwalk</td>
</tr>
<tr>
<td>39.10</td>
<td>Galvanized Steel Cantilever Sign Truss</td>
</tr>
<tr>
<td>39.11</td>
<td>Galvanized Steel Cantilever Sign Truss Details</td>
</tr>
<tr>
<td>39.12</td>
<td>Cantilever Truss Footing</td>
</tr>
<tr>
<td>39.13</td>
<td>Handhole Details</td>
</tr>
<tr>
<td>Chapter 40 – Bridge Rehabilitation</td>
<td></td>
</tr>
<tr>
<td>40.01</td>
<td>Concrete Repair Details</td>
</tr>
<tr>
<td>40.02</td>
<td>Cathodic Protection</td>
</tr>
<tr>
<td>40.03</td>
<td>Overlay Details</td>
</tr>
<tr>
<td>40.04</td>
<td>Strip Seals &amp; Diaph. Details for Overlays</td>
</tr>
<tr>
<td>40.05</td>
<td>Longit. Const. Joint Repairs</td>
</tr>
<tr>
<td>40.06</td>
<td>Abutment Widening</td>
</tr>
<tr>
<td>40.07</td>
<td>Slab Widening</td>
</tr>
<tr>
<td>40.08</td>
<td>Expansion Bearing Replacement Details</td>
</tr>
<tr>
<td>40.09</td>
<td>Hinged Joint Rehabilitation</td>
</tr>
<tr>
<td>40.10</td>
<td>Concrete Bearing Block Details</td>
</tr>
<tr>
<td>40.11</td>
<td>Bar Splicer (Coupler) Details at Stage Construction</td>
</tr>
<tr>
<td>40.12</td>
<td>Finger Type Expansion Joint – Plate Girder</td>
</tr>
<tr>
<td>40.13</td>
<td>54” Pretensioned Girder Details</td>
</tr>
<tr>
<td>40.14</td>
<td>54” Pretensioned Girder Design Data</td>
</tr>
<tr>
<td>40.15</td>
<td>Sloped Face Parapet ‘B’</td>
</tr>
<tr>
<td>40.16</td>
<td>Expansion Bearing Details, Type ‘A’ – Steel Girders</td>
</tr>
<tr>
<td>40.17</td>
<td>45” Prestressed Girder Details</td>
</tr>
<tr>
<td>40.18</td>
<td>45” Prestressed Girder Design Data</td>
</tr>
<tr>
<td>40.19</td>
<td>70” Prestressed Girder Details</td>
</tr>
<tr>
<td>40.20</td>
<td>70” Prestressed Girder Design Data</td>
</tr>
<tr>
<td>40.21</td>
<td>Rocker Bearing Type ‘B’ – Steel Girders</td>
</tr>
<tr>
<td>40.22</td>
<td>Type ‘B’ – Steel Girders Fixed Shoe</td>
</tr>
<tr>
<td>40.23</td>
<td>Wing Strapping</td>
</tr>
</tbody>
</table>

January 2019
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