**DESCRIPTION:**

**PLAN**

(Rails, Posts and Reinforcing Steel not shown for clarity)

**TRAFFIC RAILING NOTES**

(Reinforcing Steel not shown for clarity)

**CONCRETE AND REINFORCING STEEL:** See Structures Plans, General Notes.

**GUARDRAIL:** For Guardrail Connection details, see Index 536-001.

**Pedestrian/Bicycle Railing and Special Height Bicycle Railing Details:** See Index 515-022

**Concrete and Reinforcing Steel:** See Structures Plans, General Notes.

**VEHICLE RAILING**

**CONCRETE AND REINFORCING STEEL:** See Structures Plans, General Notes.

**GUARDRAIL:** For Guardrail Connection details, see Index 536-001.

**Concrete Railing:** For treatment of Railing on skewed bridges see Index 521-427.

**CROSS REFERENCE:**

For Section A-A and View B-B, see Sheet 2.

For Detail "A" see Sheet 3.

**TRAFFIC RAILING:**

**CONCRETE AND REINFORCING STEEL:** See Structures Plans, General Notes.

**GUARDRAIL:** For Guardrail Connection details, see Index 536-001.

**Pedestrian/Bicycle Railing and Special Height Bicycle Railing Details:** See Index 515-022

**Concrete and Reinforcing Steel:** See Structures Plans, General Notes.

**RAILINGS ON RETAINING WALLS:** If the Traffic Railing is to be provided on a retaining wall, the railing section will be the same as shown on Sheet 2. All other details such as the End Transition, Guardrail Connection, the maximum spacing of the ½ V-Groove shall apply.

**NAME, DATE, AND BRIDGE NUMBER:** The Name and Bridge Number shall be placed on the Traffic Railing so as to be seen on the driver's left side when approaching the bridge. The Date shall be the year the bridge is completed. For a widening when the existing railing is removed, use both the existing date and the year of the widening. Black plastic letters and figures 3" in height may be used, as approved by the Engineer, in lieu of the letters and figures formed by ½ V-Grooves.

**OPEN JOINTS:** See Structures Plans, General Notes, Approach Slab Joints and Retaining Walls for actual dimensions and joint orientation. Provide open Traffic Railing Joints at Deck Expansion Joint locations matching the dimensions of the Deck Joint.

For treatment of Railings on skewed bridges see Index 521-427.

**BARRIER DELETEDORS:** Install Barier Delimeters on top of the Traffic Railing 2" from the face on the traffic side in accordance with Specification Section 705. Match the Barrier Delimeter to the color (white or yellow) of the near edgeline.

**EDGE OF APPROACH SLAB:** When guardrail approaches are shown in the plans, provide Railing End Transition.

**BEGIN OR END APPROACH SLAB:** When guardrail approaches are shown in the plans, provide Railing End Transition.

**Open Traffic Railing Joint:** See Detail "A" for Pre-cured Silicone Sealant.

**RAIL END DETAIL:** Provide Tapered End Transition when Bullet Railing is continuous.

**RAIL END DETAIL:** Provide Rail End Transition at terminus of Bullet Railing.
SECTION A-A
TYPICAL SECTION THRU TRAFFIC RAILING
(Section Thru Bridge Deck shown)

NOTES:
1. Begin placing Railing Bars 5T and 5X on Approach Slab at the railing end and proceed toward Begin or End Bridge to avoid conflict with guardrail bolt holes. If required, adjustments to the bar spacing for Bars 5T and 5X shall be made immediately adjacent to Begin or End Bridge. Cut, shift, and rotate Bars 5T and 5X as required to maintain cover in Railing End Transition.

2. Omit Railing End Transition and Guardrail if Concrete Traffic Railing is used beyond the Approach Slab or Retaining Wall. See Structures Plans, Plan and Elevation Sheet and Roadway Plans. If Taper and Railing End Transition is omitted, extend Typical Section to end of the Approach Slab or limiting station on Retaining Wall, and space Bars 5T and 5X at 1'-0" (Typ.)

CROSS REFERENCE:
For location of Section A-A and View B-B see Sheet 1.

NOTE: For Bullet Railing Details, see Index 515-022.
CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS

<table>
<thead>
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<tr>
<td>5</td>
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<tr>
<td>7</td>
<td>5</td>
<td>9'-0&quot;</td>
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<td>X</td>
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ROADWAY CROSS-SLOPE

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<tr>
<td>2% to 6%</td>
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<tr>
<td>6% to 10%</td>
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<tr>
<td></td>
<td>90°</td>
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Reinforcement Steel

Concrete: 0.095
Reinforcing Steel: 25.90

INTERMEDIATE JOINT SEAL NOTES:
1. At Intermediate Open Joints, seal the lower 6" portion of the open joint with Pre-cured Silicone Sealant in accordance with Specification Section 932.
2. Apply sealant prior to any Class V finish coating and remove all curing compound and loose material from the surface prior to application of bonding agent.
3. The cost of the Pre-cured Silicone Sealant shall be included in the Contract Unit Price for the Traffic Railing.

DETAIL "A" - SECTION AT INTERMEDIATE OPEN JOINT

Paint Recessed Surfaces Black

SECTION THRU RECESSED "V" GROOVE TO FORM INSCRIBED LETTERS AND FIGURES

REINFORCING STEEL NOTES:
1. All bar dimensions in the bending diagrams are cut to cut.
2. The 3'-8" vertical dimensions shown for Bars 5T and 5X are based on a bridge deck with a 6" thick x 6' wide raised sidewalk at low side of deck, 2% deck cross slope and a counter 2% raised sidewalk cross slope. If the raised sidewalk thickness, width or cross slopes vary from the above amounts, adjust these vertical dimensions accordingly to achieve a 6" minimum embedment into the bridge deck.
3. The reinforcement for the railing on a Retaining Wall shall be the same as detailed with ØA = 90°.
4. All reinforcing steel at the open joints shall have a 2" minimum cover.
5. Bars 5S may be continuous or spliced at the construction joints. Bar splices for Bars 5S shall be a minimum of 2'-2".
6. The Contractor may utilize Welded Wire Reinforcement (WWR) when approved by the Engineer. WWR must consist of Deformed wire meeting the requirements of Specification Section 931.

ESTIMATED TRAFFIC RAILING QUANTITIES

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<tr>
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<tr>
<td>Concrete</td>
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<tr>
<td>Reinforcing Steel</td>
<td>LB/LF</td>
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</tr>
</tbody>
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(The above quantities are based on a 6" thick x 6' wide raised sidewalk at low side of deck, 2% deck cross slope and counter 2% sidewalk cross slope.)