TRAFFIC RAILING/NOISE WALL NOTES

CONSTRUCTION REQUIREMENTS: The Traffic Railing/Noise Wall and joints shall be constructed plumb, they shall not be constructed perpendicular to the roadway surface.

CONCRETE: For Railing/Noise Wall on bridges see General Notes. For Wall and Footing mounted Railing/Noise Wall, concrete shall be Class II for slightly aggressive environments and Class IV for moderately or extremely aggressive environments.

NAME, DATE AND BRIDGE NUMBER: For Railing/Noise Wall on bridges, the name and bridge number shall be placed on the Traffic Railing so as to be seen on the driver’s right side when approaching the bridge. The Date shall be placed on the driver’s left side when approaching the bridge. The Name shall be shown as in the General Notes in the Structures Plans. 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 3/8” V-Grooves. V-Grooves shall be formed by preformed letters and figures.

BARRIER DELINERATORS: Barrier Delineators shall meet Specification Section 993. Install Barrier Delineators 2’-4” above the riding surface at the spacing shown in the table below. Barrier Delineator color (white or yellow) shall match the color of the near edgeline. The cost of the Barrier Delineators shall be included in the Contract Unit Price for the Traffic Railing/Noise Wall.

TRAFFIC RAILING/NOISE WALL QUANTITIES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>UNIT</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete (Railing)</td>
<td>CY/LF</td>
<td>0.104</td>
</tr>
<tr>
<td>Concrete (Noise Wall)</td>
<td>CY/LF</td>
<td>0.145</td>
</tr>
<tr>
<td>Reinforcing Steel (Typical)</td>
<td>LB/LF</td>
<td>78.57</td>
</tr>
<tr>
<td>Additional Rein. @ Open Joint</td>
<td>LB</td>
<td>0.24</td>
</tr>
</tbody>
</table>

(The above quantities are based on the bridge mounted typical section, 2% deck cross slope and railing on low side of deck.)

BILL OF REINFORCING STEEL

<table>
<thead>
<tr>
<th>MARK</th>
<th>SIZE</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>5</td>
<td>5-7”</td>
</tr>
<tr>
<td>R</td>
<td>5</td>
<td>7-9”</td>
</tr>
<tr>
<td>S1</td>
<td>5</td>
<td>As Rod.</td>
</tr>
<tr>
<td>S2</td>
<td>5</td>
<td>7-3”</td>
</tr>
<tr>
<td>V</td>
<td>5</td>
<td>5-1”</td>
</tr>
<tr>
<td>V</td>
<td>5</td>
<td>7-7”</td>
</tr>
</tbody>
</table>

REINFORCING STEEL BENDING DIAGRAMS

1. All bar dimensions in the bending diagrams are out to out.
2. All reinforcing steel at the open joints shall have a 2” minimum cover.
3. Bars SR shall be one continuous or lap spliced bar. No mechanical couplers are permitted.
4. Bars S51 may be continuous or spliced at the construction joints. Lap splices for Bars SR and S51 shall be a minimum of 2-2’.
5. The Contractor may use Welded Wire Reinforcement (WWR) when approved by the Engineer. The WWR must consist of deformed wire meeting the requirements of Specification Section 931.

REINFORCEMENT STANDARDS:

- Bridge & Wall: For Railing/Noise Wall on bridges see General Notes. For Wall & Footing, concrete shall be Class II for slightly aggressive environments and Class IV for moderately or extremely aggressive environments. No mechanical couplers permitted.
- Construction Requirements: The Traffic Railing/Noise Wall and joints shall be constructed plumb, they shall not be constructed perpendicular to the roadway surface.
- Concrete: For Railing/Noise Wall on bridges see General Notes. For Wall and Footing mounted Railing/Noise Wall, concrete shall be Class II for slightly aggressive environments and Class IV for moderately or extremely aggressive environments.

Last Revision: 01/01/16

Design Standards: FY 2017-18
ELEVATION OF RAILING/NOISE WALL REINFORCING STEEL
(INTERMEDIATE OPEN JOINT SHOWN, DECK JOINT SIMILAR)
(Bars 5S1 in Railing not shown for clarity)

NOTES:
* Field cut Bars 5R & 5S1 to maintain clearance.
** Terminate 5/8" V-groove at construction joint & cast top of railing with End Taper.
*** Bar spacing shown for Bars 5V applies only to bridge mounted Railing/Noise Wall. See Index 5212 for spacing of Bars 5V in junction slabs and Index 5213 (T-Shape), 5214 (L-Shaped) or 5215 (Trench) for Bars 5V spacing in footings.
SECTION A-A
TYPICAL SECTION THRU TRAFFIC RAILING/NOISE WALL
(Section Thru Bridge Deck Shown, Section Thru Approach Slab, Junction Slab or Footing Similar)

NOTES:
1. Bottom Bars S51 and End Bar SV are not present in L-shaped (Index 5214) or Trench (Index 5215) Footings. For Bridge Mounted installations, see the Superstructure Sheets for Deck Steel.

CROSS REFERENCE:
For locations of Section A-A see Sheet 1.
For location of View B-B, see Sheet 5.

VIEW B-B
END VIEW OF RAILING END TRANSITION FOR GUARDRAIL ATTACHMENT AT END OF APPROACH SLAB
(Flexible Pavement Approach Slab Shown, Rigid Pavement Approach Slab, Junction Slab or Footing Similar)
**DETAIL "A" NOTES:**

1. Rotate Bars 5P & 5V in Railing End Transition to maintain cover. Begin placing Railing Bars 5P and 5V at the railing end and proceed toward the guardrail (thrie beam) terminal connector to ensure placement of guardrail bolt holes. Pair Bars 5R with Bars 5P as shown. Clearance of Bars 5P, 5R & 5V to guardrail bolt holes shall be checked to prevent cutting of bars if holes are to be drilled. Shift bars locally where conflicts occur.

2. For Guardrail connection details see Design Standards Index 400.

3. Omit Railing End Transition if a 32" F-Shape Traffic Railing is used beyond the End Taper. See the Plan Sheets. If Railing End Transition is omitted, space Bars 5P, 5R & 5V at 6" as shown above (Typ.).

4. For L-Shaped (Index 5214) and Trench (Index 5215) footings, Bars 5V and 5T replace Bars 5V as shown at left. Details and bar spacing shown apply except that it is not necessary to rotate Bars 5V and 5T to maintain cover and there is no field cut End Bar 5V.

5. Bottom Bars 5S1 are not present in L-Shaped or Trench Footings.

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**PLAN - RAILING END TRANSITION**

(Showing Bars 5P, 5R, and Bars 5S1) (Bars 5V, Noise Wall & Reinforcement not shown for Clarity)

**SECTION C-C**

THRU NOISE WALL END TAPER

**CROSS REFERENCE:**
For location of Detail "A" see Sheet 1.
For location of Section C-C see Sheet 1.
For View B-B see Sheet 4.

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**TRAFFIC RAILING/NOISE WALL (8'-0")**

**INDEX NO.**
5210

**SHEET NO.**
5 of 5