PLAN (BRIDGE MOUNTED RAILING/NOISE WALL SHOWN, WALL OR FOOTING MOUNTED RAILING/NOISE WALL SIMILAR) (Reinforcing Steel not shown for clarity)

ELEVATION OF INSIDE FACE OF RAILING/NOISE WALL (BRIDGE MOUNTED RAILING/NOISE WALL SHOWN, WALL OR FOOTING MOUNTED RAILING/NOISE WALL SIMILAR) (Reinforcing Steel not shown for clarity)

Notes:
1. Work this with Indexes 521-512 through 521-515.
2. Construct Traffic Railing/Noise Wall and joints plumb, not perpendicular to the roadway surface.
3. Concrete:
   A. Class II for slightly aggressive environments.
   B. Class IV for moderately or extremely aggressive environments.
4. Provide 2" open joints every 30 to 90 feet. Align open joints with construction joints in the slab.
5. Install Barrier Delineators 2'-4" above the riding surface in accordance with Specification Section 705. Match the Delineator color (White or Yellow) to the near edgeline.
6. Slip forming of the traffic railing portion is permitted.

CROSS REFERENCE:
For Detail "B" and V-Groove Lettering Detail see Sheet 4.
For Section A-A see Sheet 3.
For Section C-C and Detail "A" see Sheet 5.

NAME, DATE AND BRIDGE NUMBER: For Railing/Noise Wall on bridges, place the Name as shown in the General Notes in the Structures Plans and Bridge Number on the Traffic Railing so as to be seen on the driver's right side when approaching the bridge. Place the Date 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 2" V-Grooves. V-Grooves shall be formed by preformed letters and figures.

LAST REVISION 11/01/18
STANDARD PLANS
FY 2020-21
TRAFFIC RAILING/NOISE WALL (8'-0") - BRIDGE
INDEX 521-509
1 of 5
ELEVATION OF RAILING/NOISE WALL REINFORCING STEEL

(INTERMEDIATE OPEN JOINT SHOWN. DECK/JOINT SIMILAR)

(Bars S51 in Railing not shown for clarity)

NOTES:

* Field Cut Bars SR & S51 to maintain clearance.
** Terminate 3⁄8" V-groove at construction joint & cast top of railing with End Taper.
*** Bar spacing shown for Bars S5V only applies when Single-Slope Traffic Railing continues. For transition to guardrail see Sheet 5.

Bridge Deck or Approach Slab

360° Single-Slope Traffic Railing continued on Bridge or Approach Slab. 38" Traffic Railing or Barrier Wall continued on Retaining Wall or Roadway.
CROSS REFERENCE:
For locations of Section A-A see Sheet 1.
For location of View B-B, see Sheet 5.

SECTION A-A
TYPICAL SECTION THRU TRAFFIC RAILING/NOISE WALL
(Section Thru Bridge Deck Shown, Section Thru Approach Slab Similar)

NOTES:
1. Bottom Bars 5S1 shown are part of the Traffic Railing/Noise Wall reinforcing.
   See Superstructure Sheets in the Plans for additional Bridge Deck Reinforcing.

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 Similar)
Paint Recessed Surfaces Black

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

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 "B" - SECTION AT INTERMEDIATE OPEN JOINT

ESTIMATED TRAFFIC RAILING/NOISE WALL QUANTITIES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>UNIT</th>
<th>QUANTITY</th>
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</thead>
<tbody>
<tr>
<td>Concrete (Railing)</td>
<td>CY/LF</td>
<td>0.107</td>
</tr>
<tr>
<td>Concrete (Noise Wall)</td>
<td>CY/LF</td>
<td>0.136</td>
</tr>
<tr>
<td>Reinforcing Steel (Typical)</td>
<td>LB/LF</td>
<td>69.36</td>
</tr>
<tr>
<td>Additional Rein. @ Open Joint</td>
<td>LB</td>
<td>228.85</td>
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</table>

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

REINFORCING STEEL BENDING DIAGRAMS

<table>
<thead>
<tr>
<th>MARK</th>
<th>SIZE</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>5</td>
<td>5'-2&quot;</td>
</tr>
<tr>
<td>R2</td>
<td>5</td>
<td>5'-2½&quot;</td>
</tr>
<tr>
<td>R3</td>
<td>5</td>
<td>4'-10&quot;</td>
</tr>
<tr>
<td>S1</td>
<td>5</td>
<td>As Req.</td>
</tr>
<tr>
<td>S2</td>
<td>5</td>
<td>7'-3&quot;</td>
</tr>
<tr>
<td>V</td>
<td>5</td>
<td>6'-6½&quot;</td>
</tr>
</tbody>
</table>

(Pre-cured Silicone Sealant (4" wide))

CROSS REFERENCE:
For locations of Detail "B", see Sheet 1.
DETAIL "A" NOTES:
1. Begin placing Railing Bars 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 5V as shown. Clearance of Bars 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 Index 536-001.
3. Omit Railing End Transition if a 36° Single-Slope Traffic Railing is used beyond the End Taper. See the Plan Sheet.
4. Field cut Bars 5R2 to maintain cover. Field cut Bars 5V and lap as necessary to maintain cover; field cut & bend Bars 5R1 front leg (more plumb) to maintain cover and tie to SI Bars.

PLAN - RAILING END TRANSITION
(Showing Bars 5R, and Bars 5S1) (Bars 5V & Noise Wall Reinforcement not shown for Clarity)

PLAN - RAILING END TRANSITION
(Showing Bars 5V and Bars 5S1) (Bars 5R not shown for Clarity)