CONCRETE AND REINFORCING STEEL: See Structures Plans, General Notes.
GUARDRAIL: For Guardrail Connection details, see Index 378-060.
PEDESTRIAN/BICYCLE RAILING AND SPECIAL HEIGHT BICYCLE RAILING DETAILS: See Index 515-022
For Post, Rail and Rail Splice/Expansion Assembly Fabrication and installation Details and Notes.
V-GROOVES: Construct V-Grooves plumb. Space V-Grooves equally between Open Joints and V-Grooves locations on Retaining Wall foundations.
TOE TRANSITION: When guardrail approaches are shown in the plans, provide Railing End Transition.

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 Transitions, Guardrail Connection, the maximum spacing of the V-Grooves 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 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 as shown in the General Notes of 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 V-Grooves. V-Grooves shall be formed by preformed letters and figures.

For Detail "A" see Sheet 3.

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

For Detail "A" see Sheet 3.

TRAFFIC RAILING - (32" VERTICAL SHAPE)
SECTION AA
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.
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.

### Bill of Reinforcing Steel

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<th>MARK</th>
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<tr>
<td>5</td>
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<tr>
<td>7</td>
<td>5</td>
<td>9'-0&quot;</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>5'-10&quot;</td>
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### Reinforcing Steel Notes:

1. All bar dimensions in the bending diagrams are cut to cut.
2. The 3'-8 3/4" 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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<td>Reinforcing Steel</td>
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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.)