T-Shaped Spread Footing

3/8" Open Joint

1/2" V-Groove in both faces and top of Traffic Railing/Noise Wall (See Note 4)

30'-0" Maximum (See Note 4)

Begin or End 8'-0" Traffic Railing/Noise Wall or End Taper (See Note 6)

TRAFFIC RAILING/NOISE WALL NOTES

1. This railing has been structurally evaluated to be equivalent or greater in strength to a safety shape/Noise Wall combination railing which has been crash tested to NCHRP Report 350 TL-4 Criteria.

2. CONSTRUCTION REQUIREMENTS: Construct the Traffic Railing/Noise Wall and joints plumb; do not construct the Traffic Railing/Noise Wall perpendicular to the roadway surface.

3. CONCRETE: Use Class II concrete for slightly aggressive environments. Use Class IV concrete for moderately or extremely aggressive environments. Concrete will be in accordance with Specification Section 346.

4. Construct 3/8" Open Joints plumb and perpendicular or radial to Gutter Line. Provide at 90'-0" maximum intervals as shown. 3/8" Open Joint locations are to coincide with 1/2" Expansion Joints in footings.

5. Construct 1/8" V-Grooves plumb and provide at 30'-0" maximum intervals as shown. Space V-Grooves equally between 3/8" Open Joints and/or Begin or End Traffic Railing/Noise Wall. V-Groove locations are to coincide with V-groove locations in footings.

6. 14'-0" Noise Wall End Taper is required when adjacent to an 8'-0" Traffic Railing/Noise Wall and may be used when an 8'-0" Traffic Railing/Noise Wall End Taper is provided (see Index 5210 for details). See Roadway Plans for Traffic Railing/Noise Wall End Treatment.

7. Work this Standard Drawing with Index 5210 - Traffic Railing/Noise Wall (8'-0") and one or more of the following:
   a. Index 5213 - Traffic Railing/Noise Wall T-Shaped Spread Footing
   b. Index 5214 - Traffic Railing/Noise Wall L-Shaped Spread Footing or
   c. Index 5215 - Traffic Railing/Noise Wall Trench Footing.

TRAFFIC RAILING/NOISE WALL (14'-0")

PLAN (Reinforcing Steel not shown for clarity) (T-Shaped Spread Footing Shown, L-Shaped Spread Footing and Trench Footing Similar)

1/2" Open Joint

1/2" V-Groove in both faces and top of Traffic Railing/Noise Wall (See Note 4)

30'-0" Maximum (See Note 4)

Begin or End 14'-0" Traffic Railing/Noise Wall (See Note 6)

CROSS REFERENCE:
For Section A-A, Detail "A" and Estimated Quantities, see Sheet 3.
For Expansion Joint Detail in Footing, see Index 5213, 5214 or 5215.

ELEVATION OF INSIDE FACE OF TRAFFIC RAILING/NOISE WALL (14'-0")

Begin or End 8'-0" Traffic Railing/Noise Wall or End Taper (See Note 6 & 7)

Begin or End 8'-0" Traffic Railing/Noise Wall End Taper (See Note 6 & 7)*

* 3/8" Open Joint may be omitted when 8'-0" Railing/Noise Wall End Taper is adjacent to a 14'-0" Traffic Railing/Noise Wall End Taper.
ELEVATION OF TRAFFIC RAILING/NOISE WALL REINFORCING STEEL (Bars 5S1 in Railing not shown for clarity)

NOTES:
1. Field Cut Bars 5R & 5S1 in Noise Wall End Taper as required to maintain minimum cover.
2. See Index 5213, 5214 and 5215 for footing reinforcement.
3. 3/16" Open Joint may be omitted when 8'-0" Traffic Railing/Noise Wall End Taper is adjacent to a 14'-0" Traffic Railing/Noise Wall End Taper as shown on Sheet 1. See Index 5210 for reinforcement details and spacing. Bars 5S2 are not required when 3/16" Open Joint is omitted.
4. Bar spacing shown is along the Gutter Line.

ELEVATION OF TRAFFIC RAILING/NOISE WALL END TAPER (Bars 5S1 in Railing not shown for clarity)
REINFORCING STEEL BENDING DIAGRAMS

BILL OF REINFORCING STEEL

<table>
<thead>
<tr>
<th>MARK</th>
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<tr>
<td>P</td>
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<tr>
<td>R</td>
<td>5</td>
<td>13'-9&quot;</td>
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<tr>
<td>S1</td>
<td>5</td>
<td>AS REQ.</td>
</tr>
<tr>
<td>S2</td>
<td>5</td>
<td>7'-3&quot;</td>
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BARS S51 & S52

REINFORCING STEEL NOTES:
1. All bar dimensions in the bending diagrams are out to out.
2. All reinforcing steel at the open joints will have a 2" minimum cover.
3. Bars SR may be continuous or spliced at construction joints. Lap splices for Bars SR and S51 will be a minimum of 2'-2".
4. The Contractor may use 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 BARRIER/NOISE WALL QUANTITIES

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<tr>
<th>ITEM</th>
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<tbody>
<tr>
<td>Concrete (Traffic Railing)</td>
<td>CY/FT</td>
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</tr>
<tr>
<td>Concrete (Noise Wall, excluding any thickening)</td>
<td>CY/FT</td>
<td>0.202</td>
</tr>
<tr>
<td>Reinforcing Steel (Rail/Noise Wall) (Typical, excluding Footing Reinforcement)</td>
<td>LB/FT</td>
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<tr>
<td>Additional Reinf. @ Open Joint (Rail/Noise Wall)</td>
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CROSS REFERENCE:
For locations of Section A-A and Detail "A", see Sheet 1.

SECTION A-A
TYPICAL SECTION THRU TRAFFIC RAILING/NOISE WALL

NOTES:
1. See Index 5213, 5214 and 5215 for footing reinforcement.
2. At 3" Open Joints, plug the lower 3" portion of the open joint by filling it with mortar in accordance with Specification Section 400.