REINFORCING STEEL BENDING DIAGRAMS

BILL OF REINFORCING STEEL

<table>
<thead>
<tr>
<th>MARK</th>
<th>SIZE</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5</td>
<td>8'-1&quot;</td>
</tr>
<tr>
<td>A</td>
<td>5</td>
<td>AS REGD.</td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td>3'-10&quot;</td>
</tr>
<tr>
<td>V</td>
<td>5</td>
<td>4'-3&quot;</td>
</tr>
<tr>
<td>DOWEL</td>
<td>1&quot; Ø Smooth Bar</td>
<td>2'-0&quot;</td>
</tr>
</tbody>
</table>

NOTES

1. CONSTRUCTION REQUIREMENTS: Construct the Trench Footing and expansion joints plumb, do not construct the Trench Footing perpendicular to the roadway surface. Slip forming is not permitted.

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

3. DOWEL: Dowel Load Transfer Devices will be ASTM A36 smooth round bar and hot-dip galvanized in accordance with Specification Section 962. Install Dowel Load Transfer Devices in accordance with Specification Section 350.

4. Con Snyder Expansion Joints plumb and perpendicular to Gutter Line. Provide at 90'-0" max. intervals as shown.

5. Provide and install Preformed Expansion Joint Filler in accordance with Specification Section 932.

6. Construct 1/2" V-Grooves plumb and provide at 90'-0" max. intervals as shown. Space V-Grooves equally between 1/2" Expansion Joints and/or Begin or End Trench Footing. V-Groove locations are to coincide with V-Groove locations in the Railing/Noise Wall.

7. FILL REQUIREMENTS: Fill is required a distance of 4'-0" on both sides for the entire depth of the trench footing. See Typical Section for details.

8. Reach Cross Slope of Travel Lane or Shoulder.

9. Spacing shown along the Gutter line.

10. Work this Standard Drawing with one or both of the following:
   a. Index No. 5210 - Traffic Railing/Noise Wall (8'-0").
   b. Index No. 5211 - Traffic Railing/Noise Wall (14'-0").

ESTIMATED TRENCH FOOTING QUANTITIES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>UNIT</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete (Footing)</td>
<td>CY/FT</td>
<td>0.336</td>
</tr>
<tr>
<td>Reinforcing Steel (Typical)</td>
<td>LB/FT</td>
<td>56.84</td>
</tr>
<tr>
<td>Additional Rein. @ Expansion Joint</td>
<td>LB</td>
<td>32.04</td>
</tr>
<tr>
<td>1&quot; Ø Dowel Load Transfer Devices</td>
<td>LB</td>
<td>42.72</td>
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</tbody>
</table>

SUBTRACT 1269 lb/ft from typical reinforcing steel quantity shown on Index No. 5210 to account for the absence of Stirrup Bars 5V and SSI in Trench Footings.

DETAIL "A"

(Showing locations of 1/2" V-Grooves and 1/2" Preferred Expansion Joint Filler)

1" Ø Dowel Load Transfer Devices (See Typical Section for details)

EXPRESSION JOINT DETAIL

(Show Footing Expansion joints are required at 1/2" open joints in Traffic Railing/Noise Wall)

TYPICAL SECTION THRU TRENCH FOOTING

LEGEND: NW = Traffic Railing/Noise Wall

Footing (Const.)

1/2" V-Groove (Typ.)

Approved metal or fiber cap

1/2" Preferred Expansion Joint Filler

Top of Trench Footing

Riding Surface (See Note B)

2" Cover (Bottom & Sides)

3/4" Expansion Joint

Trench Footing

1/2" Dowel Load Transfer Devices

Expansion Joint (See Detail this sheet)

3" Min. Cover @ Expansion Joints

Approve metal or fiber cap

Placing 1/2" Expansion Joint Filler

V-Groove Spacing ~ 30'-0" Max. (See Note 9)

2" Min. Cover @ Expansion Joints

Plan

EXPANSION JOINT DETAIL

(Show Footing Expansion joints are required at 1/2" open joints in Traffic Railing/Noise Wall)

TYPICAL SECTION THRU TRENCH FOOTING

LEGEND: NW = Traffic Railing/Noise Wall

Footing (Const.)

1/2" V-Groove (Typ.)

Approved metal or fiber cap

1/2" Preferred Expansion Joint Filler

Top of Trench Footing

Riding Surface (See Note B)

2" Cover (Bottom & Sides)

3/4" Expansion Joint

Trench Footing

1/2" Dowel Load Transfer Devices

Expansion Joint (See Detail this sheet)

3" Min. Cover @ Expansion Joints

Approve metal or fiber cap

Placing 1/2" Expansion Joint Filler

V-Groove Spacing ~ 30'-0" Max. (See Note 9)

2" Min. Cover @ Expansion Joints

Plan

EXPANSION JOINT DETAIL

(Show Footing Expansion joints are required at 1/2" open joints in Traffic Railing/Noise Wall)