NOTES
1. Separators Types I and IV are to be used with flexible pavement. Separators Types II and V are to be used with rigid pavement.
2. Either Option I or Option II may be used for Types I and IV separators except when a specific option is called for in the plans.
3. For all separators provide 3'-6" contraction joints at 10' centers (max.). Contraction joints adjacent to concrete pavement on tangents and flat curves are to match the pavement joint, with intermediate joints not to exceed 10' centers.
4. Separators having widths of 4', 6' or 8'-6" shall be detailed in the plans as special separators and paid for under the contract unit price for Concrete Traffic Separator (Special).

ROADWAY INSTALLATIONS

FY 2016-17
DESIGN STANDARDS

TRAFFIC SEPARATORS

INDEX NO.
302
SHEET NO.
1 of 4
TYPICAL SECTION THRU TRAFFIC SEPARATOR
(Bridge Deck Shown, Approach Slab Similar)

LONGITUDINAL SECTION THRU TRAFFIC
SEPARATOR AT NOSE
(Bridge Deck Shown, Approach Slab Similar)

REINFORCING STEEL OPTION A

PARTIAL PLAN VIEW OF SKEWED BRIDGE DECK AND
APPROACH SLAB WITH TRAFFIC SEPARATOR
(Deck Expansion Joint at Begin or End Bridge Shown, Expansion Joint at 0° Pier or Intermediate Bents Similar)

Notes:
1. Traffic Separator transverse reinforcement adjacent to deck expansion joints shall be field adjusted to maintain clearance and spacing. Bars shall be field cut as shown, bars may be rotated to maintain clearance.
2. Traffic Separator ends at deck expansion joints shall follow the deck joint limits. Drainage joints and 1/2" V-Grooves shall be placed perpendicular or radial to the 0° of the Traffic Separator. See Structures Plans, Superstructure and Approach Slab Sheets for details.

BRIDGE INSTALLATIONS - TYPE "E" CURB
TYPICAL SECTION THRU TRAFFIC SEPARATOR
(Bridge Deck Shown, Approach Slab Similar)

LONGITUDINAL SECTION THRU TRAFFIC SEPARATOR AT NOSE
(Bridge Deck Shown, Approach Slab Similar)

REINFORCING STEEL OPTION A

DETAIL AT EXPANSION JOINTS
(Strip Seal Shown, Other Armored Joint Types Similar)

DETAIL AT Poured JOINT WITH BACKER ROD EXPANSION JOINTS

BRIDGE INSTALLATIONS - TYPE "F" CURB
CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS

<table>
<thead>
<tr>
<th>Bars 4E</th>
<th>See Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bars 4A</td>
<td>length as required</td>
</tr>
</tbody>
</table>

Bars 4A & 4E  Bar 4B

Note: Length of Bars 4E is 2'-5" for 4'-0" Separator. Length of Bars 4B is 2'-5" for 6'-0" Separator. Length of Bars 4E is 6'-11" for 8'-6" Separator.

REINFORCING STEEL OPTION A

Bars 4C  See Note

Bars 4A & 4C  Bar 4D

Note: Length of Bars 4C is 2'-4½" for 4'-0" Separator. Length of Bars 4C is 4'-4½" for 6'-0" Separator. Length of Bars 4C is 6'-10½" for 8'-6" Separator.

REINFORCING STEEL OPTION B

REINFORCING STEEL NOTES:
1. All dimensions are out to out.
2. The 8" vertical dimension shown for Bars 4B and 4D are based on a slab 8" thick or greater without a wearing surface. If slab thickness is less than 8", decrease this dimension by an amount equal to the difference in thickness. If a wearing surface is to be provided, increase this dimension by an amount equal to the wearing surface thickness.

ALTERNATE REINFORCING STEEL DETAILS (WELDED WIRE REINFORCEMENT)

OPTION A: Use Welded Wire Reinforcement 3 x 4 - W5.0 x W6.7 as required by plans in place of Bars 4A, 4B and 4E. Bend the Welded Wire Reinforcement to the dimensions of Bar 4B shown in the Bending Diagram for Reinforcing Steel Option A.

OPTION B: Use Welded Wire Reinforcement 3 x 4 - W5.0 x W6.7 as required by plans in place of Bars 4A and 4C shown in Reinforcing Steel Option B.

Note: Welded Wire Reinforcement to consist of smooth wire meeting the requirements of Specification Section 933.

<table>
<thead>
<tr>
<th>Details (Welded Wire Reinforcement)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPTION A</strong>: Welded Wire Reinforcement 3 x 4 - W5.0 x W6.7 as required by plans in place of Bars 4A, 4B and 4E. Bend the Welded Wire Reinforcement to the dimensions of Bar 4B shown in the Bending Diagram for Reinforcing Steel Option A.</td>
</tr>
<tr>
<td><strong>OPTION B</strong>: Use Welded Wire Reinforcement 3 x 4 - W5.0 x W6.7 as required by plans in place of Bars 4A and 4C shown in Reinforcing Steel Option B.</td>
</tr>
</tbody>
</table>

W5.0 (Lap Splice Each 1'-0" Min. Lap)

W5.0

SPLICE DETAIL

(Between WWR 3 x 4 - W5.0 x W6.7 Sections)

DRAINAGE JOINT DETAIL

FOR 5" OPENING OR LESS

See Structures Plans, Superstructure Sheets for locations of drainage joints. Locations for drainage joints shall be limited to the constant width section of separator.

NOTES:
1. All dimensions are out to out.
2. The 8" vertical dimension shown for Bars 4B and 4D are based on a slab 8" thick or greater without a wearing surface. If slab thickness is less than 8", decrease this dimension by an amount equal to the difference in thickness. If a wearing surface is to be provided, increase this dimension by an amount equal to the wearing surface thickness.

Bars 4A & 4C  Bar 4D

Note: Length of Bars 4C is 2'-4½" for 4'-0" Separator. Length of Bars 4C is 4'-4½" for 6'-0" Separator. Length of Bars 4C is 6'-10½" for 8'-6" Separator.

REINFORCING STEEL OPTION B

REINFORCING STEEL NOTES:
1. All dimensions are out to out.
2. The 8" vertical dimension shown for Bars 4B and 4D are based on a slab 8" thick or greater without a wearing surface. If slab thickness is less than 8", decrease this dimension by an amount equal to the difference in thickness. If a wearing surface is to be provided, increase this dimension by an amount equal to the wearing surface thickness.

ESTIMATED TRAFFIC SEPARATOR QUANTITIES

| CONCRETE: | SEE GENERAL NOTES IN STRUCTURES PLANS. |

TRAFFIC SEPARATOR CONSTRUCTION: The Contractor may construct separators and pay under the contract unit price for Traffic Separator Concrete (Special), S.Y.

PAYMENT: Separators having widths of 4'-0", 6'-0", and 8'-6" shall be paid under the contract unit price for Traffic Separator Concrete. Separators having widths other than 4'-0", 6'-0", or 8'-6" shall be detailed in the plans as special (Type II or V) (" Wide), LF. Separators having widths other than 4'-0", 6'-0", or 8'-6" shall be paid under the contract unit price for Traffic Separator Concrete (Special), S.Y.

REINFORCING STEEL: Reinforcing Steel shall be ASTM A615 Grade 60.

NOTES:
1. All dimensions are out to out.
2. The 8" vertical dimension shown for Bars 4B and 4D are based on a slab 8" thick or greater without a wearing surface. If slab thickness is less than 8", decrease this dimension by an amount equal to the difference in thickness. If a wearing surface is to be provided, increase this dimension by an amount equal to the wearing surface thickness.

OPTION A:
- 4'-0" Width = 0.956 CY per Ft.
- 6'-0" Width = 0.889 CY per Ft.
- 8'-6" Width = 0.819 CY per Ft.

OPTION B:
- 4'-0" Width = 0.980 CY
- 6'-0" Width = 0.913 CY
- 8'-6" Width = 0.843 CY

REINFORCING STEEL:
(All quantities are based on an 8" slab.)

<table>
<thead>
<tr>
<th>Option</th>
<th>Width</th>
<th>Length as required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option A</td>
<td>Width = 6.37 Lbs. per Ft.</td>
<td></td>
</tr>
<tr>
<td>Option B</td>
<td>Width = 7.00 Lbs. per Ft.</td>
<td></td>
</tr>
<tr>
<td>Option C</td>
<td>Width = 9.45 Lbs. per Ft.</td>
<td></td>
</tr>
</tbody>
</table>

BRIDGE INSTALLATIONS - TYPE "E" AND "F" CURBS

DOWEL DETAIL

Dowel Notes:
1. Shift Dowel Holes to clear if existing reinforcement is encountered.
2. Provide and install an adhesive bonding material system in accordance with Sections 416 and 937 of the Specifications.

<table>
<thead>
<tr>
<th>Material System</th>
<th>Dowel Bar 4D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesive Bonding</td>
<td>Hole diameter to meet adhesive bonding material system manufacturer's requirements</td>
</tr>
</tbody>
</table>

NOTE:
- Dowel Bar 4D
- 1'-0" Min. Length
- See Note

8" (Typ.)

W5.0

1'-0" Min. Lap

6'-11" for 8'-6" Separator.

Length of Bars 4E is 4'-5" for 6'-0" Separator.

Length of Bars 4E is 2'-5" for 4'-0" Separator.

Note: Length of Bars 4C is 2'-5" for 4'-0" Separator. Length of Bars 4C is 4'-5" for 6'-0" Separator. Length of Bars 4C is 6'-11" for 8'-6" Separator.

8'-6" Width - 9.45 Lbs. per Ft.

6'-0" Width - 7.00 Lbs. per Ft.

4'-0" Width - 4.77 Lbs. per Ft.

OPTION A:
- 8'-6" Width = 0.403 CY
- 6'-0" Width = 0.193 CY
- 4'-0" Width = 0.080 CY

OPTION B:
- 8'-6" Width = 0.536 CY
- 6'-0" Width = 0.257 CY
- 4'-0" Width = 0.109 CY

8'-6" Width = 0.132 CY per Ft. for 8'-6" Width = 0.164 CY per Ft.

SPLICE IN EMBE DMENT

1'-0" Min. Lap

6'-11" for 8'-6" Separator.

Length of Bars 4E is 4'-5" for 6'-0" Separator.

Length of Bars 4E is 2'-5" for 4'-0" Separator.

Note: Length of Bars 4C is 2'-5" for 4'-0" Separator. Length of Bars 4C is 4'-5" for 6'-0" Separator. Length of Bars 4C is 6'-10½" for 8'-6" Separator.