Cover plate and edge armor steel to be ASTM A 36, galvanized after fabrication.

Remove cover plate before constructing concrete barrier.

Cast frames into intake top so tops of grates are \( \frac{3}{8}'' \) below Form Grade Elevation. Bolt intake frames together on both sides with four \( \frac{3}{4}'' \times 4'' \) bolts.

For joint details, refer to PV-101.

Maximum pipe diameter is 48 inches.

1. Trowel smooth and place two layers of 30 pound roofing felt to prevent bond.
2. Match slope of top and grade to slope of adjacent pavement.
3. 12 inch minimum wall height above all pipes.

Possible Contract Item:
Barrier Intake, SW-549

Possible Tabulation:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>&quot;S&quot;</th>
<th>&quot;H1&quot;</th>
<th>&quot;H2&quot;</th>
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<tr>
<td>1</td>
<td>18.33</td>
<td>16.60</td>
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<tr>
<td>2</td>
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<td>3</td>
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<td>18.07</td>
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<td>5</td>
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<tr>
<td>6</td>
<td>18.00</td>
<td>20.14</td>
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</tbody>
</table>

Possible Tabulation:

Barrier Intake, SW-549
PART SECTION A-A
(Where H = 3' to 14')

13 Spa. @ 1'-0" = 13'-0"
5-4c1 & 10-4c2 = 4'-0"
4 Spa. @ 1'-0"
4c2

PART SECTION A-A
(Where H = 15'-28')

3'-2"

WALLS

SECTION A-A

PIPE OPENINGS

3'-2"

SECTION B-B

3'-2"

SECTION C-C

(Wall joint detail)

4" dia. x 3'-0" dowel bars at 12-inch spacing at all wall joints. Twenty-four 4r1 bars required per joint. Total weight = 48 lbs.

- 4r1 bar length to be pipe diameter plus 12 inches. Place 4r1 bar inside of vertical reinforcing. Shift main reinforcing bars as required for pipe entrance. Field cut bars to maintain 3 inch clearance from bottom and 2 inch clearance from face of walls. Four 4r1 bars required per pipe entrance.

APPROVED BY DESIGN METHODS ENGINEER

SINGLE-GRATE BARRIER INTAKE,
RECTANGULAR
LID REINFORCING BAR LIST
EPOXY-COATED

<table>
<thead>
<tr>
<th>BAR</th>
<th>LOCATION</th>
<th>SHAPE</th>
<th>NO.</th>
<th>LENGTH</th>
<th>WEIGHT (lb.)</th>
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<td>5a1</td>
<td>Ld. Exterior Edge</td>
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<tr>
<td>5a2</td>
<td>Ld. Interior Longitudinal</td>
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<td>16</td>
<td>4</td>
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<tr>
<td>5a4</td>
<td>Ld. Interior Transverse</td>
<td>5a1</td>
<td>3</td>
<td>8</td>
<td>58</td>
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<tr>
<td>5a8</td>
<td>Ld. Edging</td>
<td>4b2 &amp; 4b3</td>
<td>5a2</td>
<td>3</td>
<td>23</td>
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</tbody>
</table>

NOTE: ALL DIMENSIONS SHOWN OUT TO OUT. D = PIN DIAMETER

EPOXY-COATED REINFORCING STEEL - TOTAL 285

LID BENT BAR DETAILS

NOTE: ALL DIMENSIONS SHOWN OUT TO OUT. D = PIN DIAMETER

IOWA DOT
STANDARD ROAD PLAN
SW-549
SHEET 4 of 5

REVISION: 04-17-18

APPROVED BY DESIGN METHODS ENGINEER

SINGLE-GRADE BARRIER INTAKE,
RECTANGULAR