### General Notes:

**Material:** Use SPEC. 3301, Grade B6 reinforcing bars, except for the loop bars (1901, 1902, and 1903).

The loop bars (1901, 1902, and 1903) shall be 3/4" smooth steel bars per SPEC. 3309 CH. 50W. The loops shall be installed within 0.5" of the plan dimensions.

The concrete mix shall be SW33 per SPEC. 2461.3.

Use 1 1/8" dia. anchor bolts with heavy hex nut & washer per SPEC. 3305. Type A connection pin shall be material complying with SPEC. 3301.2A.

All bolts and nuts shall be galvanized per SPEC. 3392 complying with SPEC. 3392.2A.

**Section:** The section furnished must generally comply with dimensions shown. Requests for minor variations in section geometry and attachments may be submitted to the state materials engineer for approval.

**Lifting Slots:** Lifting slots shall be constructed where specified on the plans to facilitate the drainage of water after installation on the roadway and should be kept free of debris.

- (1) 3/8" hole and retainer bolt at contractor's option.
- (2) V notch is optional.
- (3) Marked end.
- (4) See traffic control plan for type of barrier delineation and spacing. If no traffic control plan is provided, see my noted chapter of temporary traffic barrier for guidelines.
- (5) This will be a through bolt if mounted on bridges.

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**Notes:**

- Barrier sections shall not be permanently incorporated into construction or maintenance projects.
ELEVATION VIEW

ANCHOR BOLT BLOCKOUT (BOTH SIDES)

LIFTING SLOT DETAIL "B"

PLAN VIEW

ANCHOR BOLT HOLE SPACING

19A2 (IN PAIRS)

SECTION C-C

LIFTING SLOT DETAIL

Voids area for lifting

2" DIA. HOLE

SET WITH 3-5/8" WOODEN BLOCK

3-3/8" = 1/8" MEASURED FROM FACE OF BARRIER TO OUTSIDE EDGE OF LOOP BAR

GENERAL NOTES:

1. MARKING THE LEFT END OF EACH BARRIER SHALL BE PERMANENTLY MARKED BY STAMPING OR FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   - TYPE 8337B
   - NAME OR TRADEMARK OF MANUFACTURER AND LOCATION OF PLANT
   - DATE MANUFACTURED (MONTH AND YEAR)
   - A709 GR. 50W OR EQUAL.

2. 6" DIAMETER - 11 GAUGE STEEL ROUND MECHANICAL TUBING SLEEVE. THESE HOLES ARE OPTIONAL.

AT NO TIME SHALL THE BARRIERS BE LIFTED, MOVED, ETC., BY USE OF THE LOOP BARS; 1901, 1902 OR 1903.

PER 12'-6" BARRIER SECTION

REINFORCING ASTM A615 GR. 60 (SEE SPEC. 3303)

<table>
<thead>
<tr>
<th>BAR</th>
<th>BAR SIZE</th>
<th>SHAPE</th>
<th>NO. OF BARS</th>
<th>LENGTH FT.</th>
<th>WEIGHT LBS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13A1</td>
<td>13</td>
<td>A</td>
<td>12</td>
<td>6' - 0&quot;</td>
<td>48.1</td>
</tr>
<tr>
<td>19A2</td>
<td>19</td>
<td></td>
<td>6</td>
<td>2' -11&quot;</td>
<td>26.3</td>
</tr>
<tr>
<td>16B1</td>
<td>16</td>
<td></td>
<td>3</td>
<td>12'-2&quot;</td>
<td>58.1</td>
</tr>
<tr>
<td>13C1</td>
<td>13</td>
<td></td>
<td>2</td>
<td>12'-2&quot;</td>
<td>16.3</td>
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</tbody>
</table>

LOOP ASSEMBLY ASTM A709 GR. 50W (SEE SPEC. 3309)

<table>
<thead>
<tr>
<th>BAR</th>
<th>BAR SIZE</th>
<th>SHAPE</th>
<th>NO. OF BARS</th>
<th>LENGTH FT.</th>
<th>WEIGHT LBS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901</td>
<td>19</td>
<td></td>
<td>2</td>
<td>8'-5&quot;</td>
<td>25.3</td>
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<tr>
<td>1902</td>
<td>19</td>
<td></td>
<td>2</td>
<td>7'-7&quot;</td>
<td>22.8</td>
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<tr>
<td>1903</td>
<td>19</td>
<td></td>
<td>2</td>
<td>8'-6&quot;</td>
<td>25.5</td>
</tr>
</tbody>
</table>

CONCRETE QUANTITY = 1.318 C.Y.
CONCRETE WEIGHT = 5340 LBS.

APPROVED _Mar. 19, 2003_

STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION
TEMPORARY PORTABLE PRECAST CONCRETE BARRIER
TYPE "F"

SPECIFICATION REFERENCE 2533
STANDARD PLATE NO. 8337B
2 of 2