TRAFFIC CONTROL DEVICES FOR FLUSH SHOULDER ROADWAY

GENERAL NOTES:

1. No guardrail is proposed for signals; however, some form of impact attenuation device may be specified for certain locations.
2. Advance flasher to be installed when and if called for in Plans or Specifications.
3. Top of foundation shall be no higher than 4" above finished shoulder grade.
4. Type of traffic control device (Not Shown)
   I) Flashing warning devices with cantilever
   II) Flashing warning devices with guard and gate
   III) Flashing warning devices with cantilever and gate
   IV) Flashing warning devices with guard
   V) Gate
5. Class of traffic control devices (Not Shown)
   I) 2 Quadrant flashing warning devices-one track
   II) 2 Quadrant flashing warning devices-multiple tracks
   III) 2 Quadrant flashing warning devices and gates-one track
   IV) 2 Quadrant flashing warning devices and gates-multiple tracks
   V) 3-4 Quadrant flashing warning devices and gates-one track
   VI) 2-4 Quadrant flashing warning devices and gates-multiple tracks

SIGNAL PLACEMENT AT RAILROAD CROSSING
(2-LANE DESIGN)

SIGNAL PLACEMENT AT RAILROAD CROSSING
(4-LANE DESIGN)

NOTE:
1. Two separate foundations may be required (one for signals, one for gate), depending on type of equipment used.
2. When 10' is deemed impractical the control device can be located as close as 2' from the edge of the paved shoulder but not less than 6' from the edge of the near traffic lane.

TRAFFIC CONTROL DEVICES FOR FLUSH SHOULDER ROADWAY

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NOTES:

1. The location of flashing warning devices and stop lines shall be established based on future (or present) installation of gate with appropriate track clearances.

2. Where plans call for railroad traffic control devices to be installed in curbed median, the minimum median width shall be 12'-6".

3. Location of railroad traffic control device is based on the distance available between face of curb & sidewalk. 0' to 6' - Locate device outside sidewalk. 6' to 8'- Locate device between face of curb and sidewalk.

4. Stop line to be perpendicular to edge of roadway, approx. 15' from nearest rail; or 8' from and parallel to gate when present.

5. When a cantilevered-arm flashing warning device is used, the minimum vertical clearance shall be 12'-6" from above the Crown of Roadway to the Lowest Point of the Overhead Signal Unit.

TRAFFIC CONTROL DEVICES FOR CURBED ROADWAY

TYPE I

TYPE II

TYPE III

TYPE IV

TYPE V

SIGNAL PLACEMENT AT RAILROAD CROSSING

(2 LANES, CURB & GUTTER)
**NOTES:**

1. Place an additional W10-1 sign where intersections occur between the R/R pavement message and the tracks.

2. Place FTP-61-06 or FTP-62-06 sign 100' in advance of crossing for urban conditions and 300' in advance of crossing for rural conditions. See Index 700-102 for sign details.

3. Install Railroad Dynamic Envelope Pavement Markings only when called for in the Plans.

4. Do not install pavement markings when the distance between tracks is less than 14'.

5. The transverse dimension for the RDE "X" may be reduced to the lane width for two-lane roadways without shoulders or when shown in the Plans.

6. Do not install pavement markings in the Foul areas.

---

**Traffic Control Devices**

**Railroad Grade Crossing**

**Pavement Message**

**Railroad Dynamic Envelope (RDE)**

**Pavement Marking Details**

**Design Speed (mph) | Distance (ft)**
--- | ---
40 | 850
55 | 325
60 | 295
45 | 175
30 | 100
20 | 50
**TOTAL** | **850 ft.**

---

**Stop Line**

**Flashing Signal (With Gates)**

**Flashing Signal (If Not with Gates)**

**As Required**

**Edge of Travelled Way**

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**Railroad Gate**

**Stop Bar Perpendicular to Edge of Travelled Way or 8' from & Parallel to Gate When Present**

**Pavement Shoulder**

**6" Dbl. Yellow**

**24" White**

**6" White**

**24" White**

**6" Yellow**

**24" White**

**6" White**

**24" White**

**6" Yellow**

**24" White**

**6" White**

---

**Foul Area**

**Traffic Side**

**Rail Side**

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**Railroad Crossing at Two-Lane Roadway**

**Railroad Crossing at Multilane Roadway**

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**RAILROAD GATE ARM LIGHT SPACING**

<table>
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<tr>
<th>Specified Length Of Gate Arm</th>
<th>Dimension &quot;A&quot;</th>
<th>Dimension &quot;B&quot;</th>
<th>Dimension &quot;C&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 Ft.</td>
<td>6&quot;</td>
<td>36&quot;</td>
<td>3&quot;</td>
</tr>
<tr>
<td>15 Ft.</td>
<td>18&quot;</td>
<td>36&quot;</td>
<td>3&quot;</td>
</tr>
<tr>
<td>16-17 Ft.</td>
<td>24&quot;</td>
<td>36&quot;</td>
<td>3&quot;</td>
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<tr>
<td>18-19 Ft.</td>
<td>28&quot;</td>
<td>43&quot;</td>
<td>3&quot;</td>
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<tr>
<td>20-23 Ft.</td>
<td>38&quot;</td>
<td>4&quot;</td>
<td>5&quot;</td>
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<tr>
<td>24-28 Ft.</td>
<td>36&quot;</td>
<td>5&quot;</td>
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<tr>
<td>29-33 Ft.</td>
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<tr>
<td>34-36 Ft.</td>
<td>36&quot;</td>
<td>5&quot;</td>
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<tr>
<td>37-37 Ft.</td>
<td>36&quot;</td>
<td>5&quot;</td>
<td>7&quot;</td>
</tr>
<tr>
<td>38 And Over</td>
<td>36&quot;</td>
<td>10&quot;</td>
<td>10&quot;</td>
</tr>
</tbody>
</table>

**NOTE:**

**MEDIAN SECTION AT SIGNAL GATES**

**MEDIAN SIGNAL GATES FOR MULTILANE UNDIVIDED URBAN SECTIONS (THREE OR MORE DRIVING LANES IN ONE DIRECTION, 45 MPH OR LESS)**