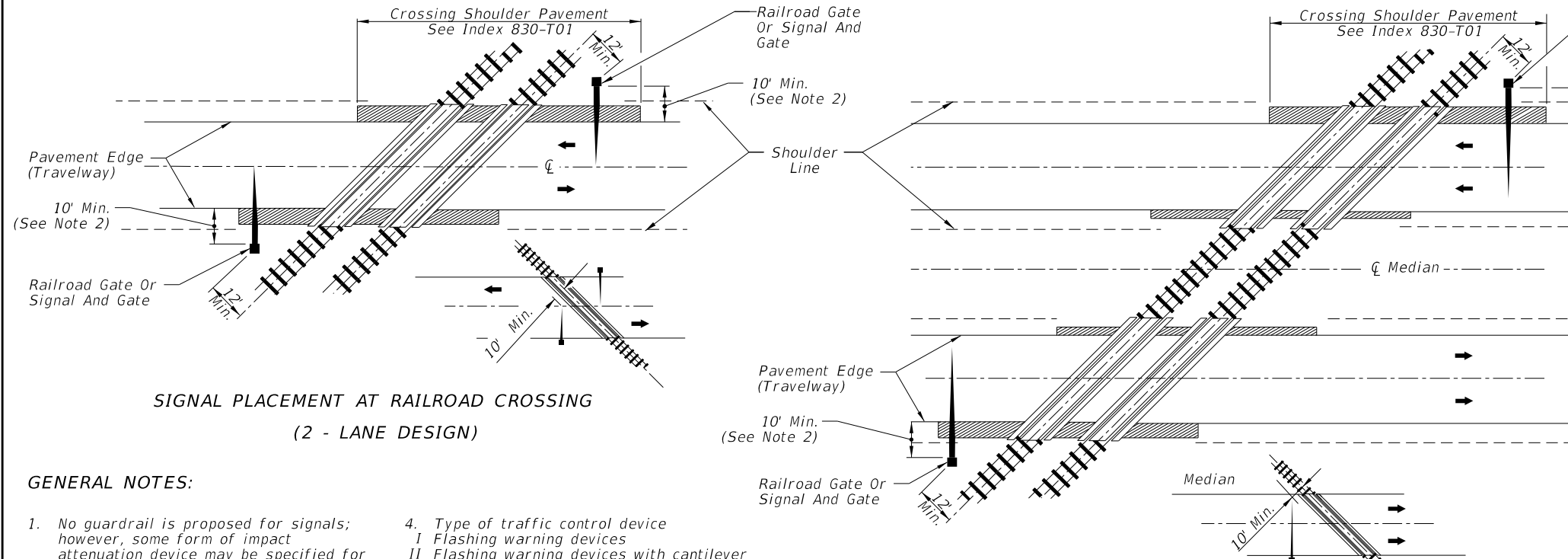
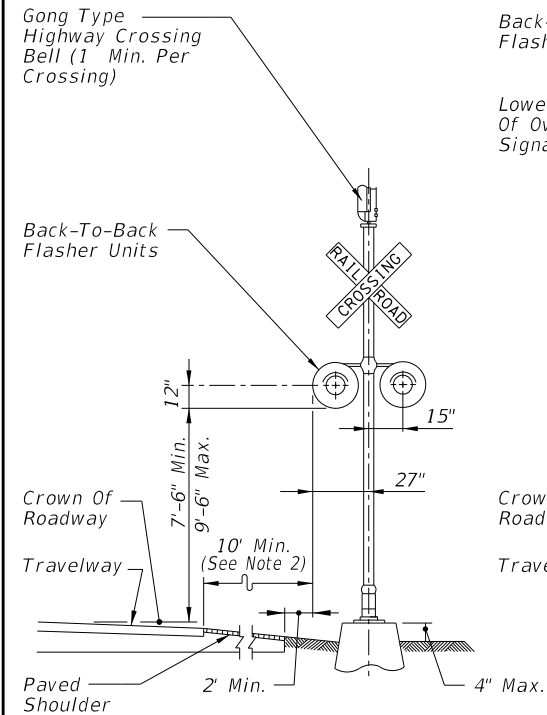




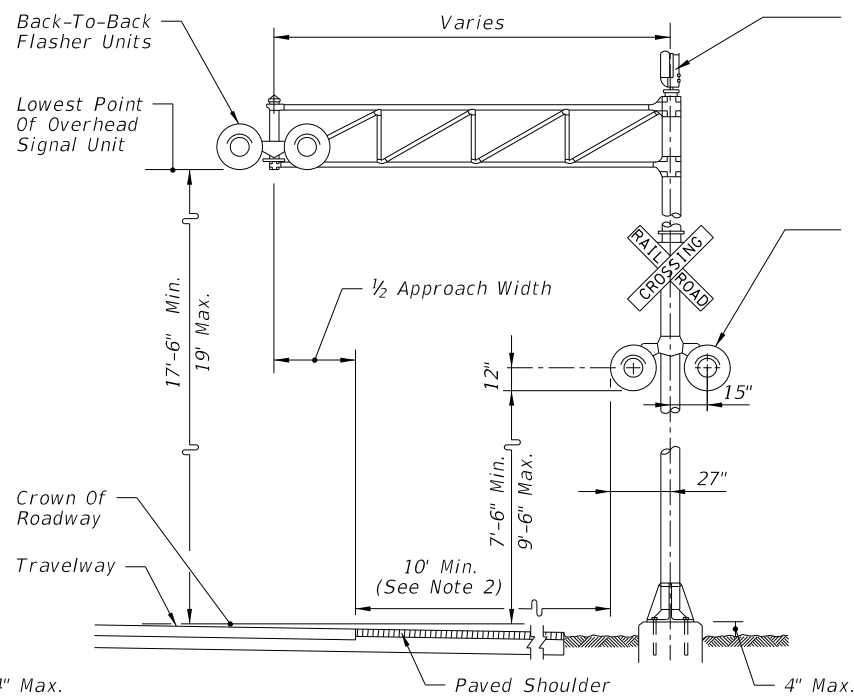
**SIGNAL PLACEMENT AT RAILROAD CROSSING
(2 - LANE DESIGN)**

GENERAL NOTES:

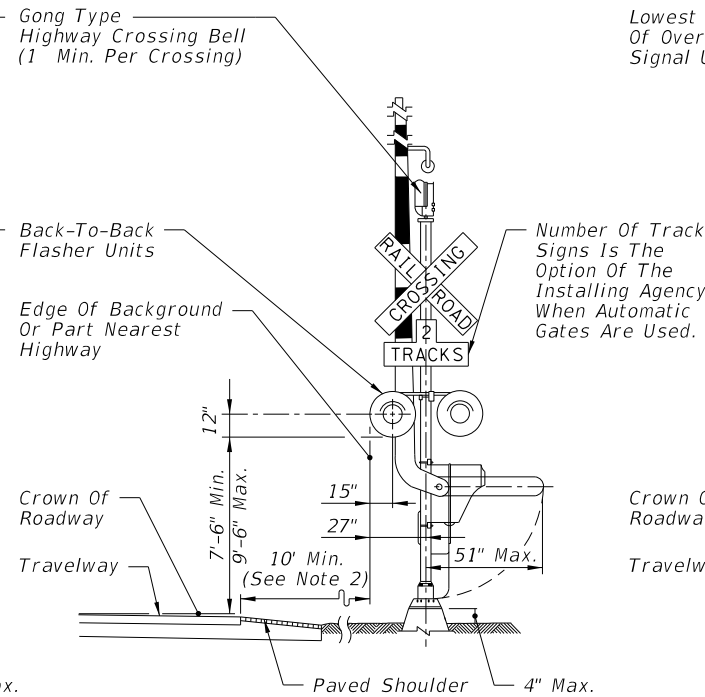
- No guardrail is proposed for signals; however, some form of impact attenuation device may be specified for certain locations.
- Advance flasher to be installed when and if called for in Plans or Specifications.
- Top of foundation shall be no higher than 4" above finished shoulder grade.
- Type of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



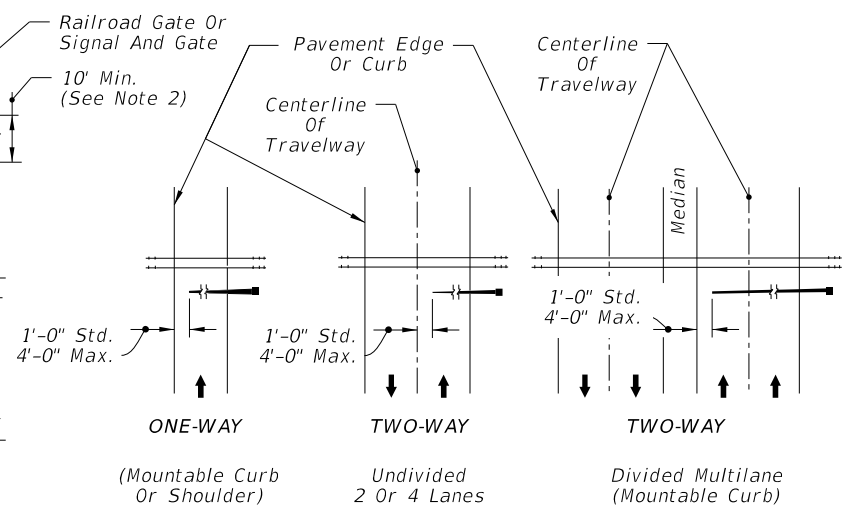
TYPE I



TYPE II



TYPE III AND TYPE V

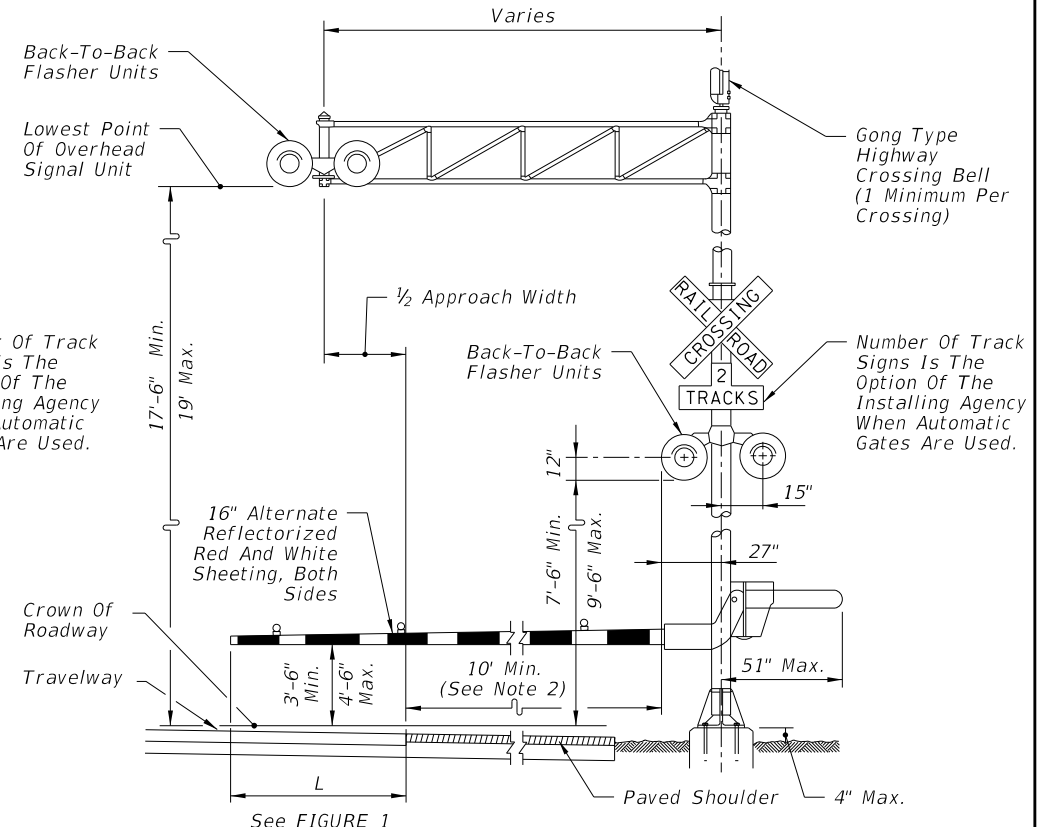


**SIGNAL PLACEMENT AT RAILROAD CROSSING
(4 - LANE DESIGN)**

NOTE:

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

FIGURE 1



TYPE IV AND TYPE VI

TRAFFIC CONTROL DEVICES FOR FLUSH SHOULDER ROADWAY

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Diagram illustrating the dimensions and components of a railroad crossing. The diagram shows a cross-section of the crossing with the following labeled dimensions and components:

- Railroad Gate Or Signal And Gate:** The structure spanning the tracks.
- Sidewalk:** The paved area on either side of the tracks.
- Dimensions:**
 - 10':** The width of the crossing area.
 - 4':** The width of the gate structure.
 - 6' Min.:** The minimum clearance height.
 - 2':** The width of the gate structure.
 - 0'-6':** The height of the gate structure.
- Arrows:** Indicate the direction of traffic flow.

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 medians, 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. Over 6' - 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 17'-6" from above the Crown of Roadway to the Lowest Point of the Overhead Signal Unit.*



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.
7. See Sheets 1 and 2 for dimension.

<i>Design Speed (mph)</i>	<i>Distance "A" (ft)</i>
60	400
55	325
50	250
45	175
40	125
35	100
URBAN	85 Min.

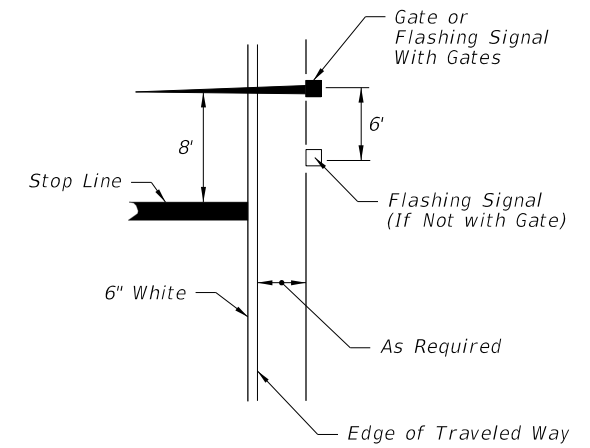


Diagram illustrating the cross-section of a diamond plate. The plate has a thickness of 6'-0" and a width of 12" White (Typ.). The diamond pattern is formed by intersecting lines, with the top surface labeled "Rail Side" and the bottom surface labeled "Traffic Side". The distance between the centers of the diamond patterns is 13'-0" (See Note 5). The bottom surface is also labeled "6" White".

Area = 89 S.F.
8'-0"

Pavement Message White

6'-0"

20'

16"

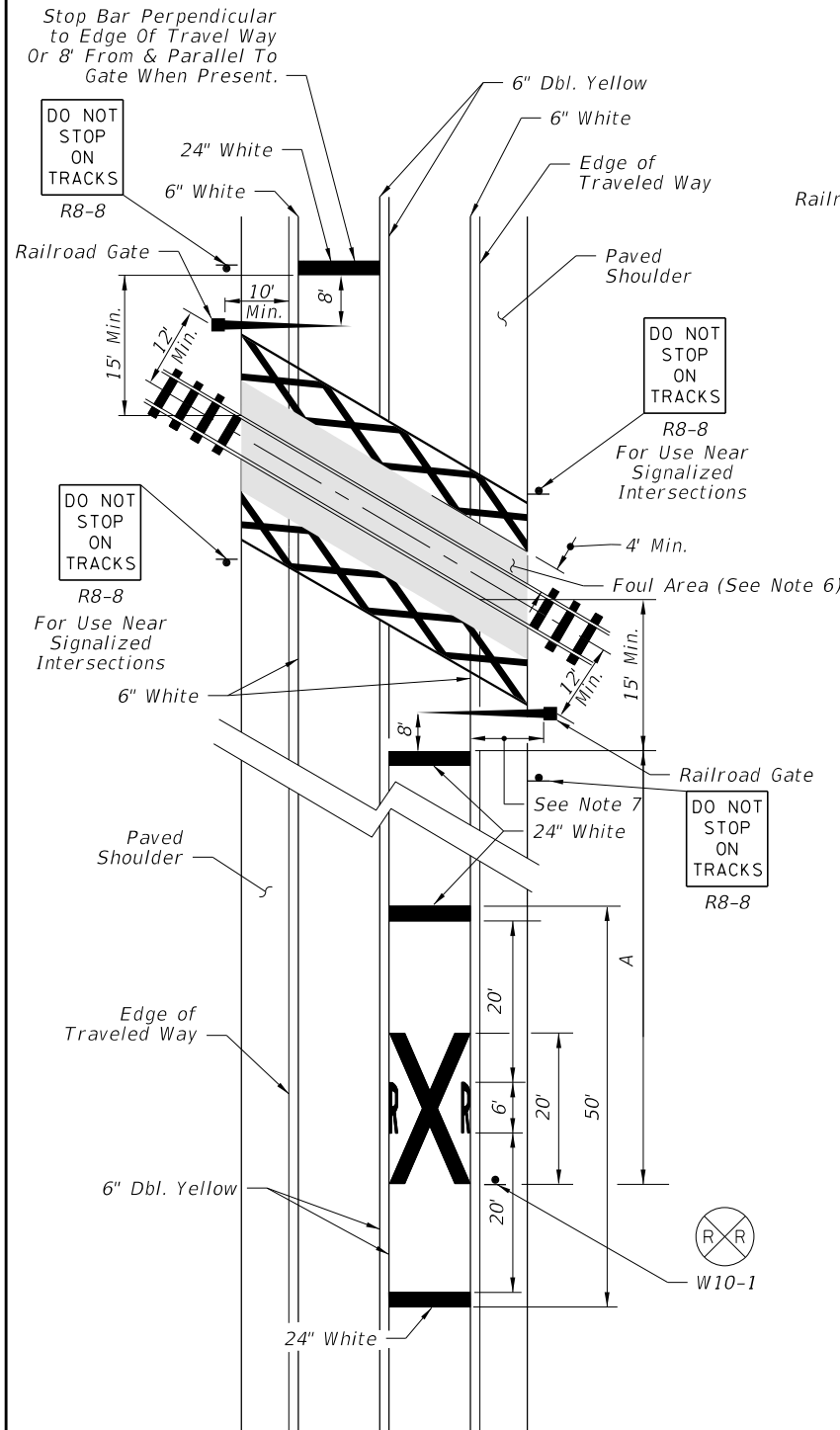
Center Line

12"

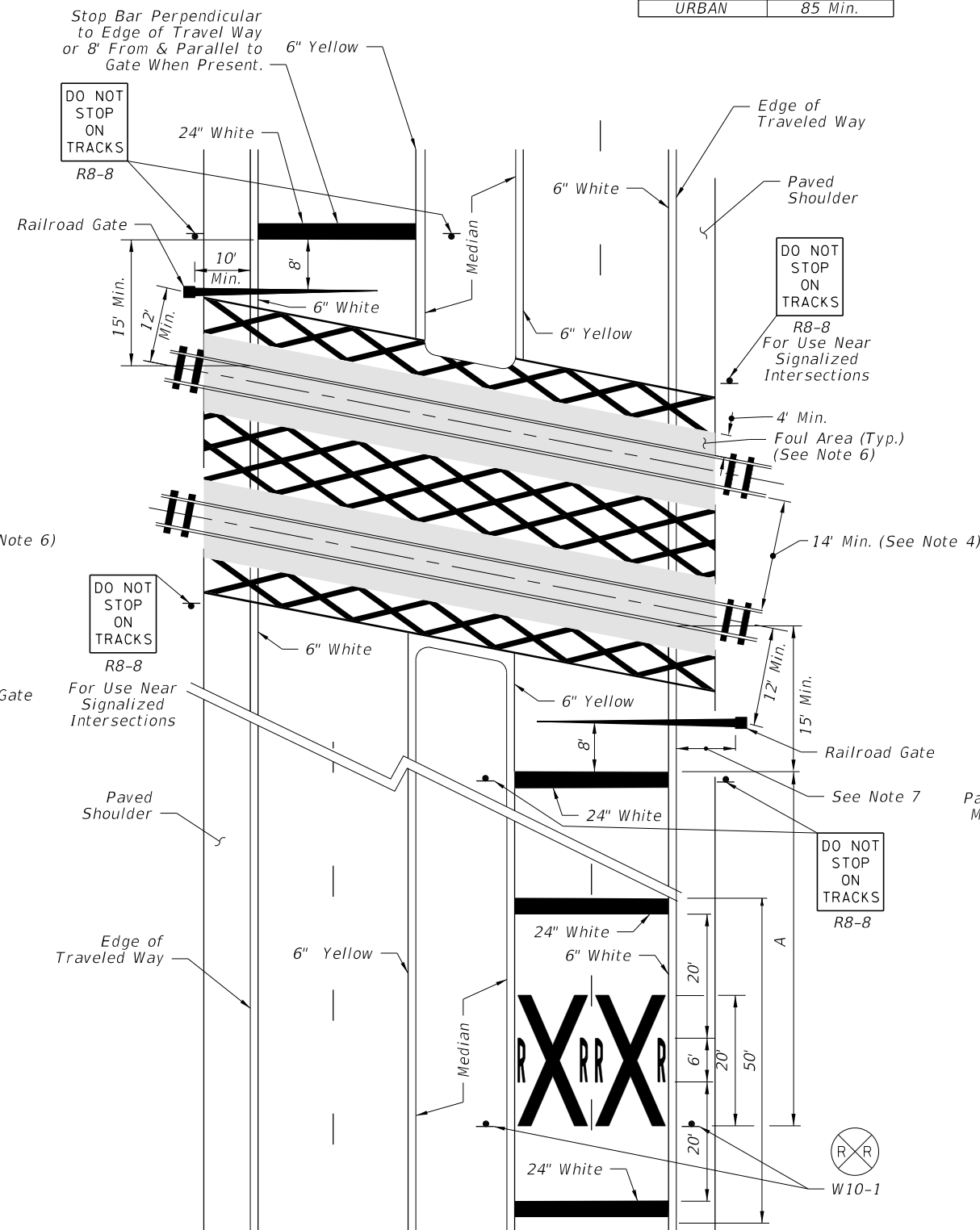
6'

4" (Typ.)

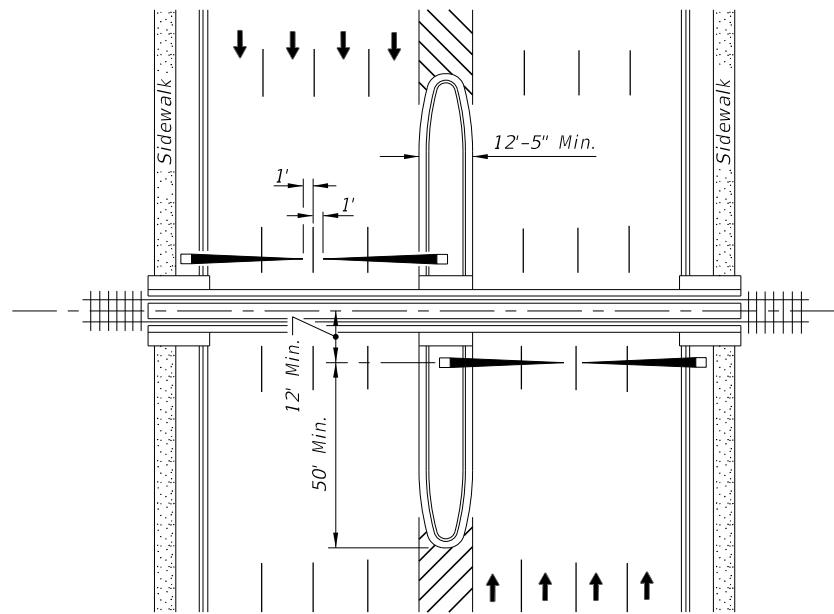
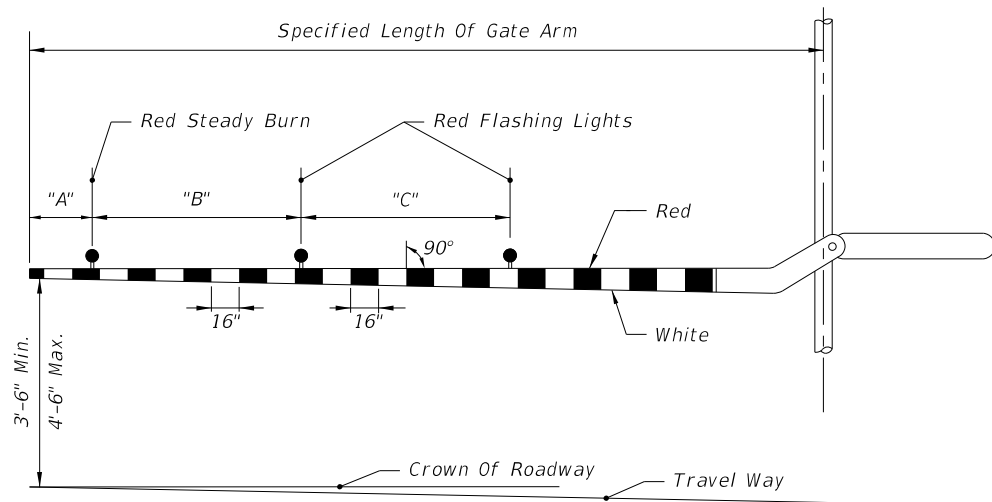
Detailed description: This technical drawing illustrates the specifications for a 20-foot X-shaped pavement marking. The main diagram shows a large 'X' centered on a 'Center Line'. The total width of the 'X' at its base is 8 feet (8'-0"), and its total height is 20 feet (20'). The area of the 'X' is specified as 89 square feet (S.F.). The 'X' is formed by two intersecting diagonal lines, each 16 inches (16") thick. The 'R' shapes at the ends of the 'X' are 6 feet (6'-0") high. A detail view on the right shows the 'R' shape on a 6-foot by 12-foot grid. The 'R' is 4 inches (4" (Typ.)) thick and has a total height of 6 feet (6'). The 'R' is composed of a vertical stem and a curved top section.



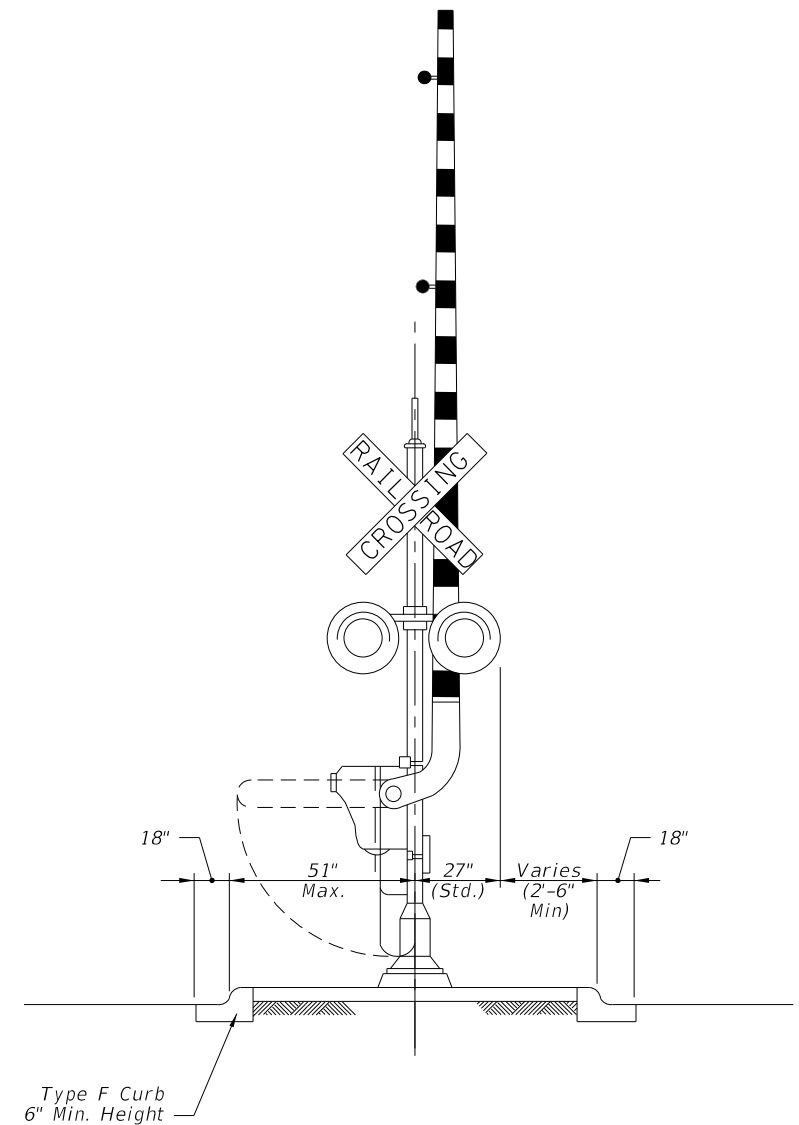
RAILROAD CROSSING AT TWO-LANE ROADWAY



RAILROAD CROSSING AT MULTILANE ROADWAY



PLAN



MEDIAN SECTION AT SIGNAL GATES

RAILROAD GATE ARM LIGHT SPACING

Specified Length Of Gate Arm	Dimension "A"	Dimension "B"	Dimension "C"
14 Ft.	6"	36"	5'
15 Ft.	18"	36"	5'
16-17 Ft.	24"	36"	5'
18-19 Ft.	28"	41"	5'
20-23 Ft.	28"	4'	5'
24-28 Ft.	28"	5'	5'
29-31 Ft.	36"	6'	6'
32-34 Ft.	36"	7'	7'
35-37 Ft.	36"	9'	9'
38 And Over	36"	10'	10'

NOTE:
For additional information see the "Manual On Uniform Traffic Control Devices", Part 8; The "Traffic Control Handbook", Part VIII; and AASHTO "A Policy On Geometric Design Of Streets And Highways".

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

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