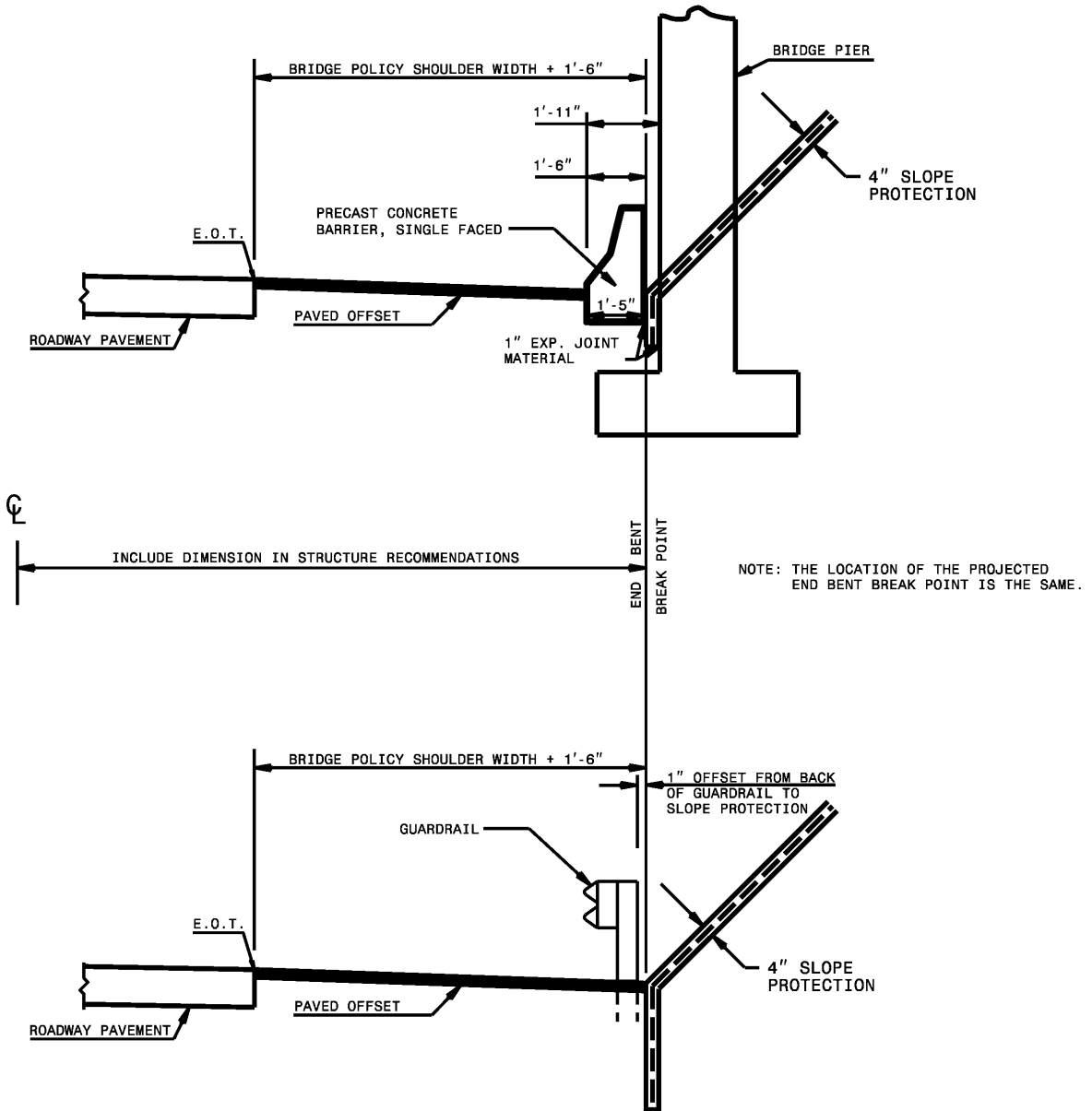


FIGURE 1R

6-1
F-1R

**DETAIL WITH BRIDGE PIER
ON OUTSIDE SHOULDER UNDER BRIDGE**

TO BE USED IN CONJUNCTION WITH STANDARD DRAWING 610.01



**DETAIL WITH GUARDRAIL ON
OUTSIDE SHOULDER UNDER BRIDGE**

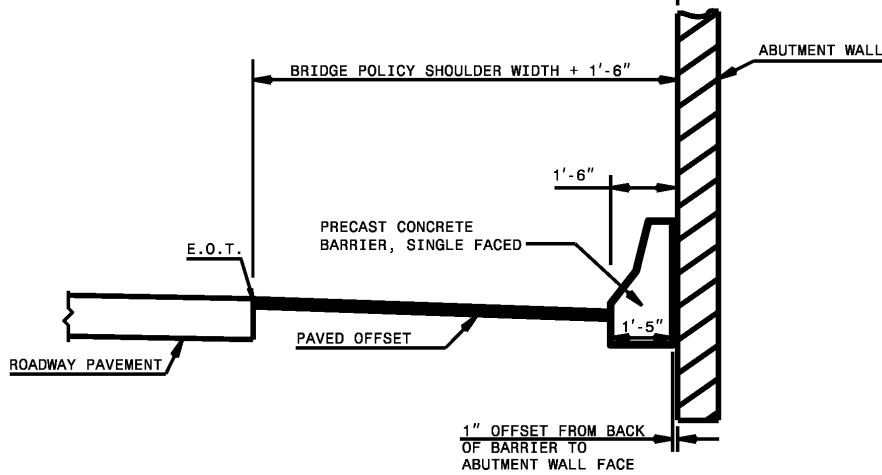
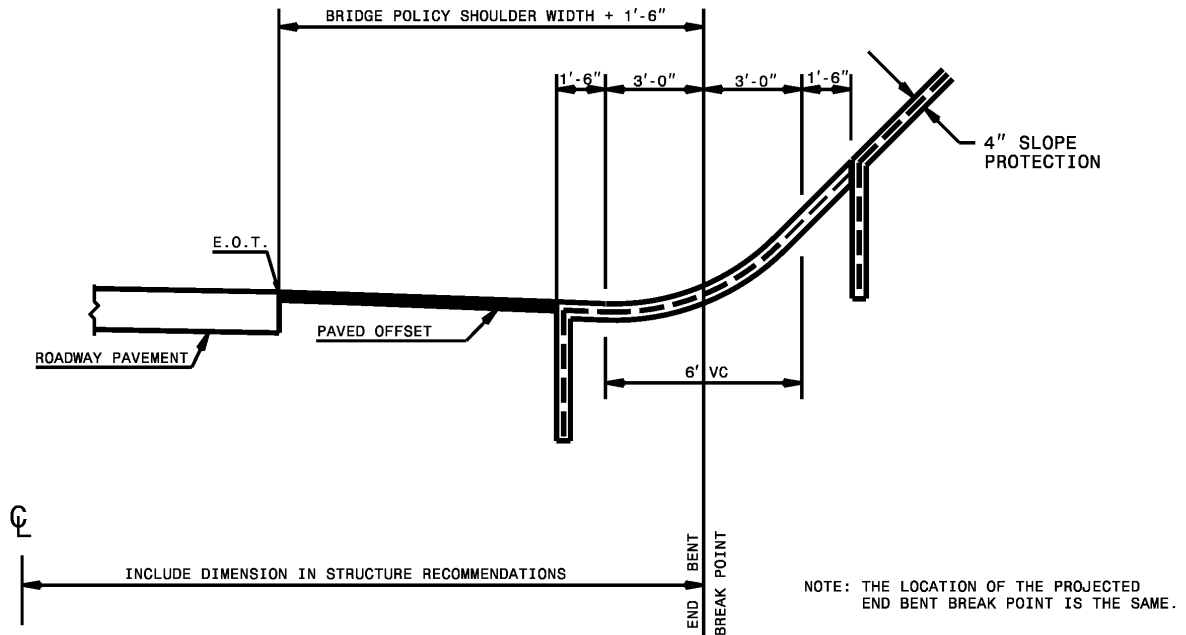
TO BE USED IN CONJUNCTION WITH STANDARD DRAWING 610.02

FIGURE 1S

6-1
F-IS

**DETAIL WITH 6" SLOPE PROTECTION (NO BARRIER)
ON OUTSIDE SHOULDER UNDER BRIDGE**

TO BE USED IN CONJUNCTION WITH STANDARD DRAWING 610.03



**DETAIL WITH ABUTMENT WALL ON
OUTSIDE SHOULDER UNDER BRIDGE**

TO BE USED IN CONJUNCTION WITH STANDARD DRAWING 610.04

BRIDGE VERTICAL AND HORIZONTAL CLEARANCES OVER ROADS

6-1A

Bridge horizontal and vertical clearances are provided in accordance with the criteria in 6-1 of this Chapter.

The paved offset will vary based on the proposed end bent shoulder treatment under the bridge (bridge pier, guardrail, 6" slope protection, abutment wall). See 6-1, Figures F-1R and F-1S for details to be used with the Roadway Standard Drawings for clarification. The break point for the end bent slope is the same in each case. This will result in a consistent bridge length regardless of the end bent shoulder treatment.

The Roadway Design Project Engineer or Contract Standards and Development Engineer shall maintain close coordination with the Structure Management Unit during the planning stages when grades are being established. Any information that would affect the structure shall be furnished to the Structure Management Unit immediately.

Structure recommendations shall be provided to the Structure Management Unit in accordance with the sample structure recommendations that are covered in this chapter (see 6-6I).

VERTICAL AND HORIZONTAL CLEARANCES FOR HIGHWAY BRIDGES OVER RAILROADS

6-2

The vertical clearance for a highway bridge over a railroad is 23'-0" to 23'-6", unless otherwise approved by the Railroad Company.

The horizontal clearance shown on 6-2, Figure 1 is the general horizontal clearances required; however, on the structure recommendations, no horizontal dimensions will be shown on the railroad typical section.

If accommodations are required for off-track equipment, a minimum distance of 8' shall be added to the horizontal distances. (See 6- 2, Figure 1)

The Structure Management Unit is responsible for the coordination of the bridge vertical and horizontal clearances with the railroad companies.

When structure recommendations are prepared for railroad structures, any information that is available shall be provided. It is realized that the information that will be available when the structure recommendations are prepared will be limited. The Roadway Design Project Engineer or Contract Standards and Development Engineer shall maintain close contact with the Structure Management Project Engineer until the final vertical and horizontal clearances have been approved.