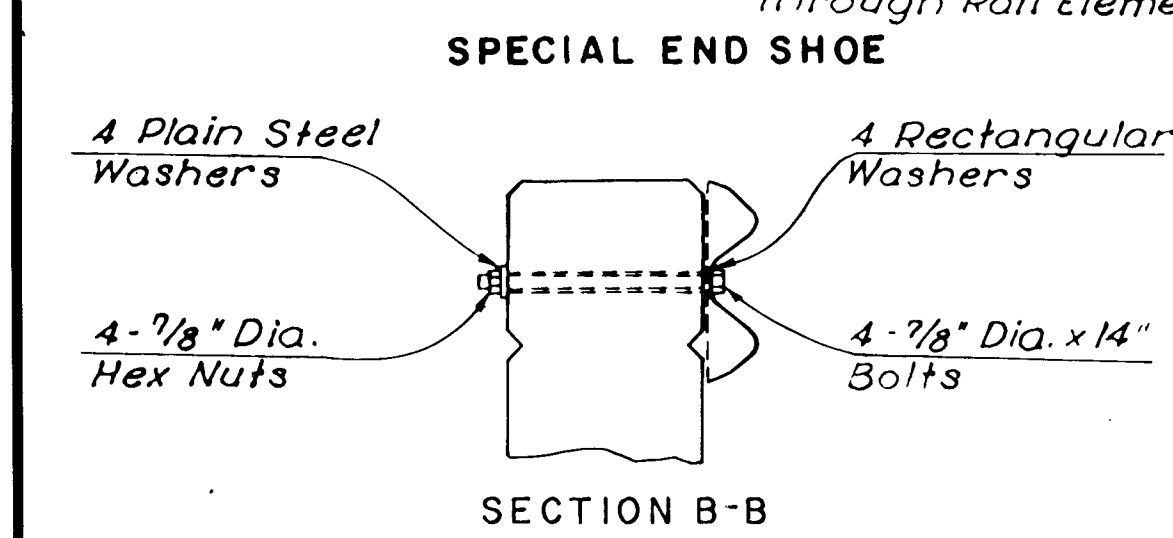
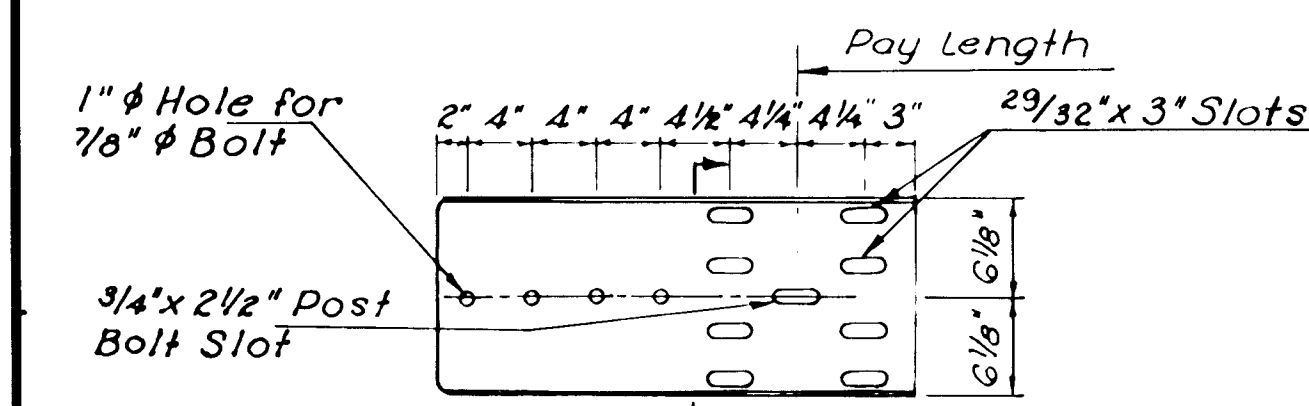
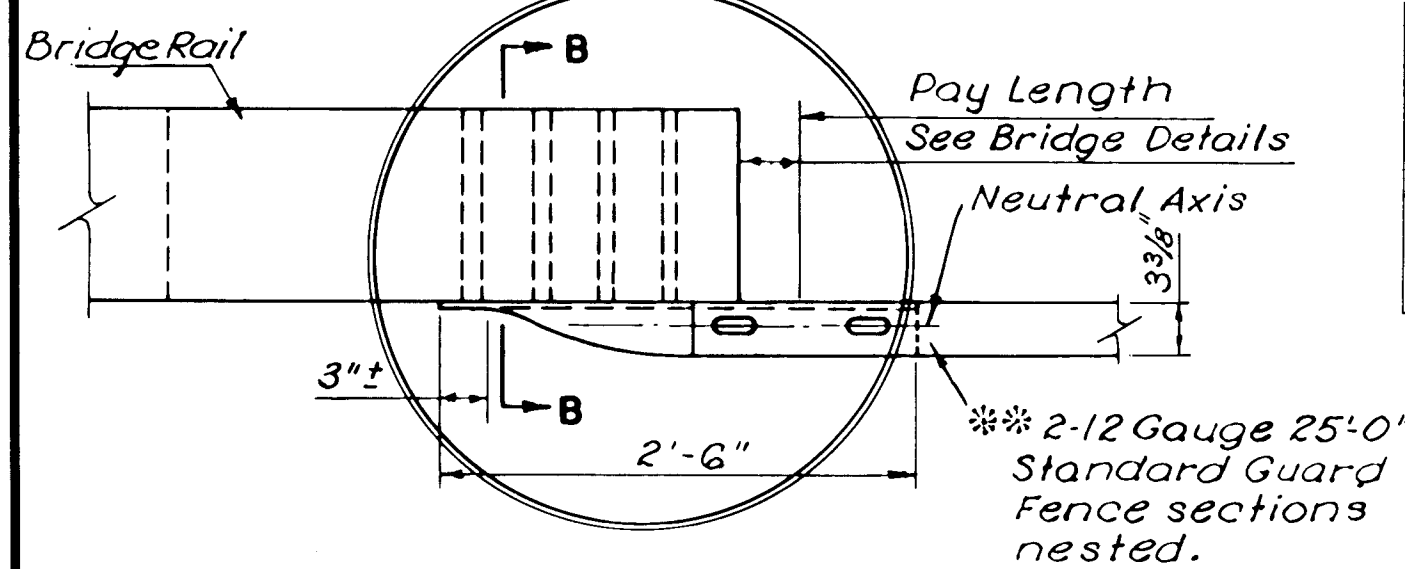
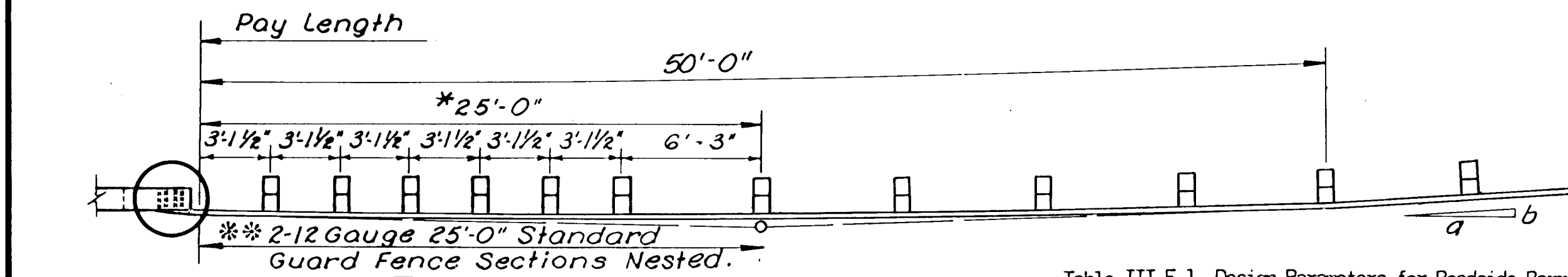
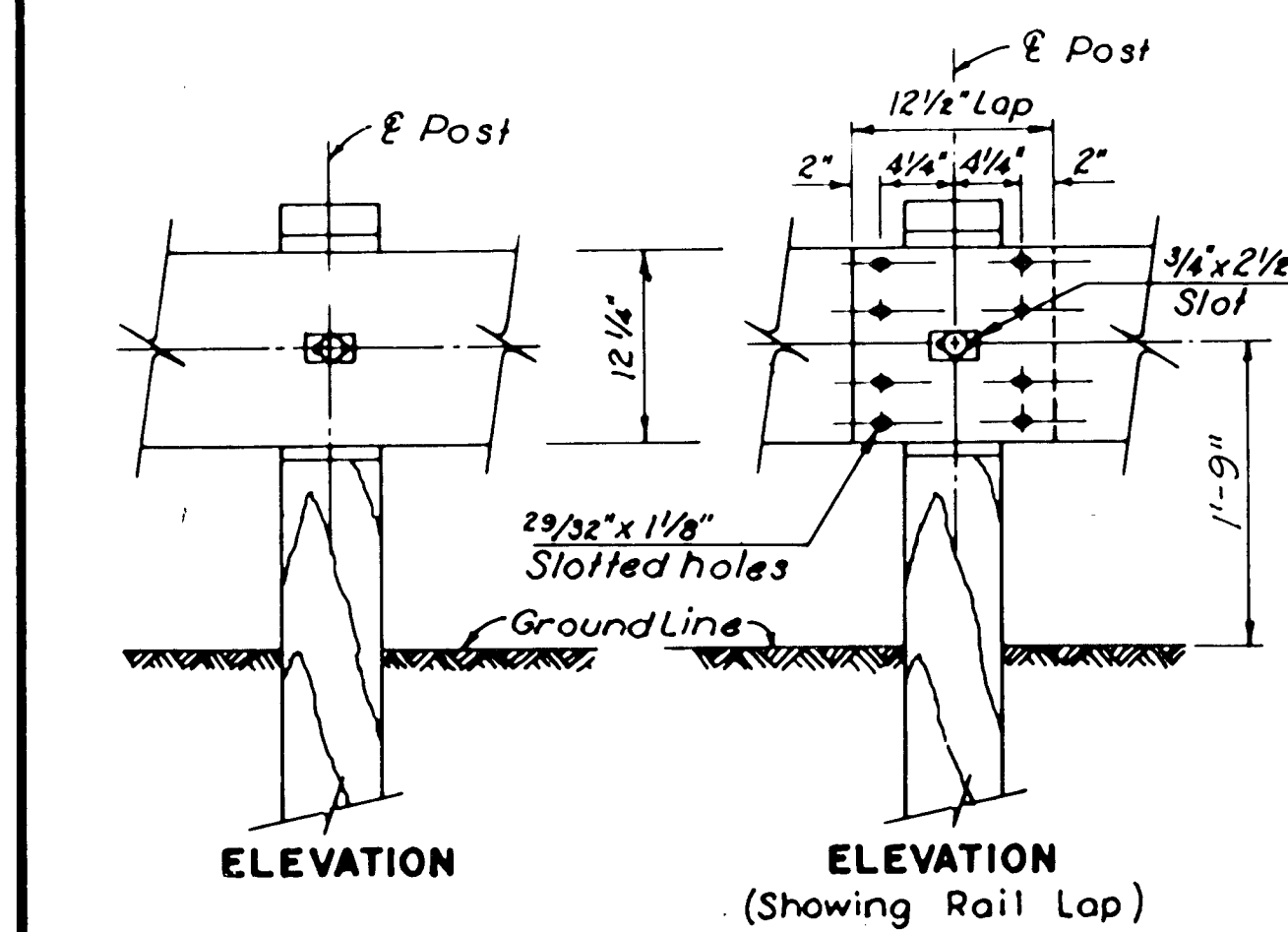


* If guard fence is shown on the plans, the 25 foot section is applicable at both entrance and exit ends of bridges. This section of nested fence and post spacing is also applicable when area of concern is 5' or less from guard fence.



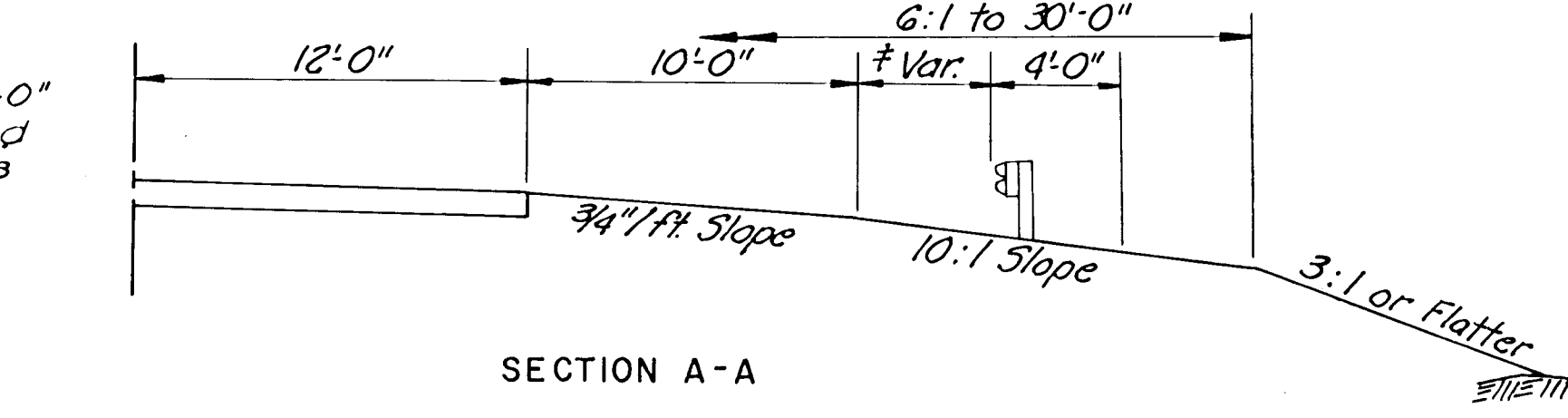
** One section of the two shall be considered as subsidiary to the bid item "Steel Plate Guard Fence (Galv)".



ELEVATION (Showing Rail Lap)

Table III-E-1. Design Parameters for Roadside Barrier Layout

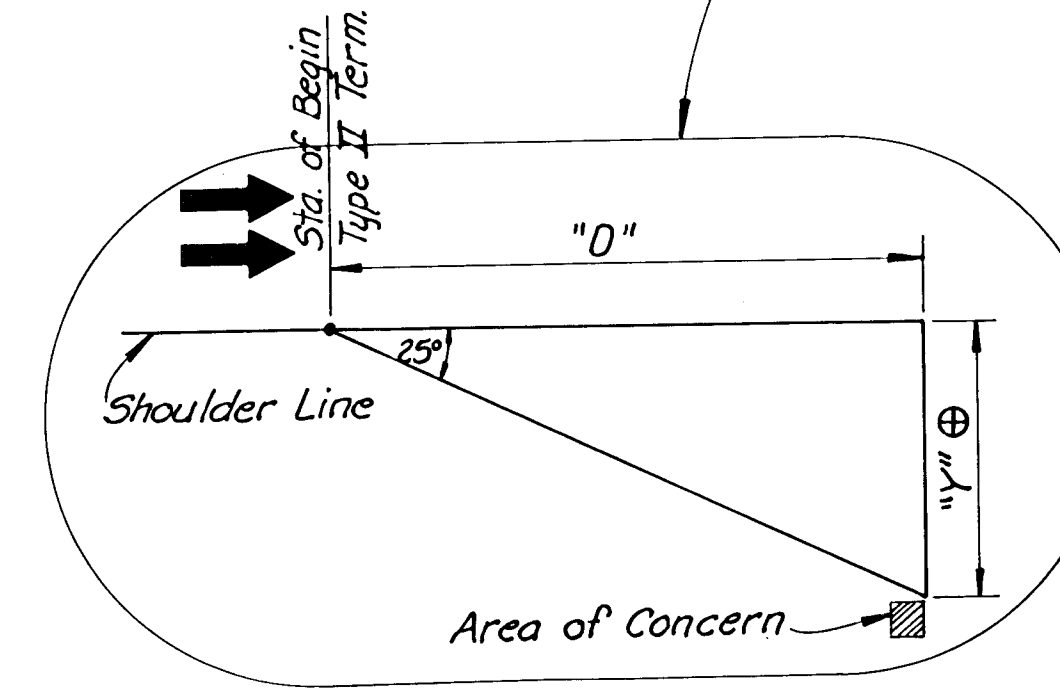
Operating Speed (mph)	Design Traffic Volume (ADT)					Sight Line Offset (ft)	Flare Rate (a/b)	Radius
	Over 6,000	2,000-6,000	800-2,000	800-250	Under 250			
60	400	360	330	300	270	8.0	13	651.3
50	320	290	260	240	210	6.5	11	551.5
40	240	220	200	180	160	5.0	9	451.8



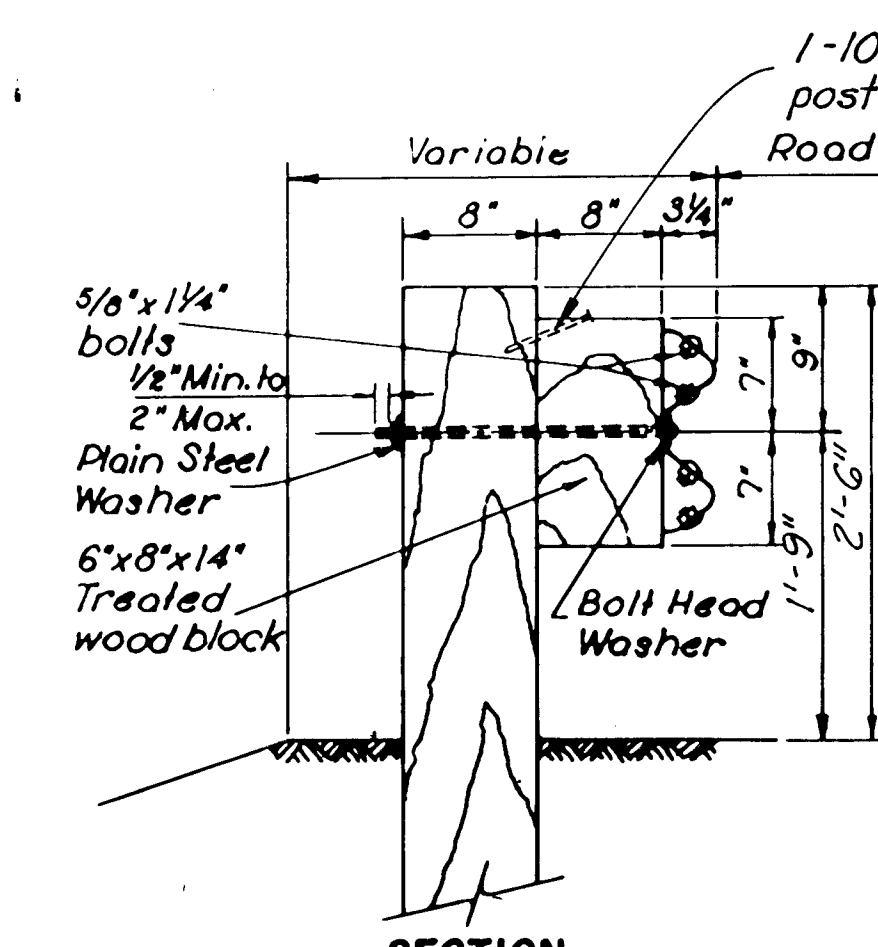
SECTION A-A

* 4'-0" when guard fence is on shoulder line.

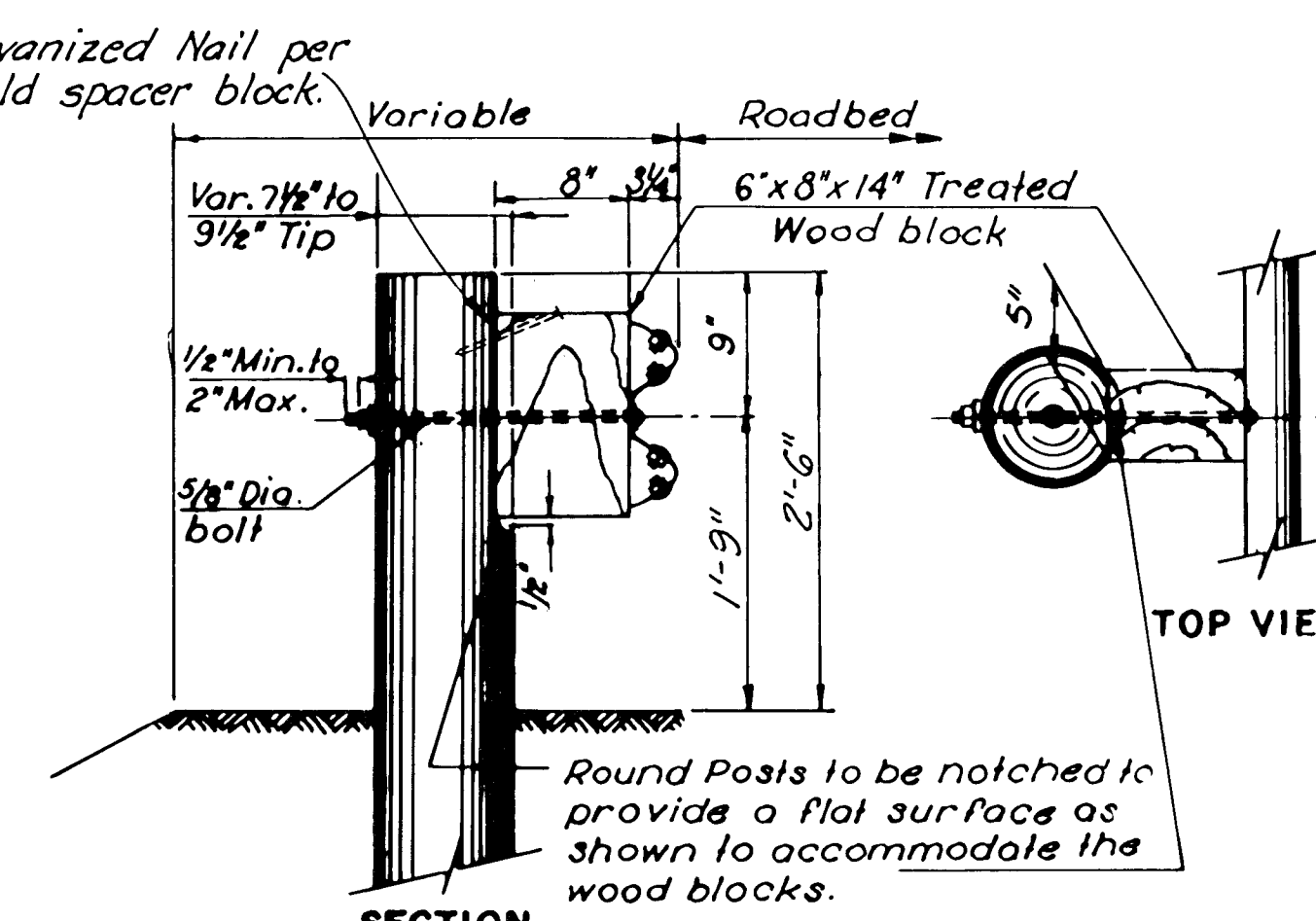
⊕ When "Y" is greater than 10' the "D" distance ($\frac{Y}{\tan 25^\circ}$) may be subtracted from the total length of guard fence. The length of guard fence when "Y" is greater than 10' equals the length of need plus the length of the area of concern, plus 2 terminal end sections (37.5) minus "D" distance ($\frac{Y}{\tan 25^\circ}$).



* When "Y" is less than 5' the guard rail shall be double nested for 25'. The posts shall be equally spaced at 3'-1 1/2" ctrs. from the area of concern. See plan in upper left corner and note.

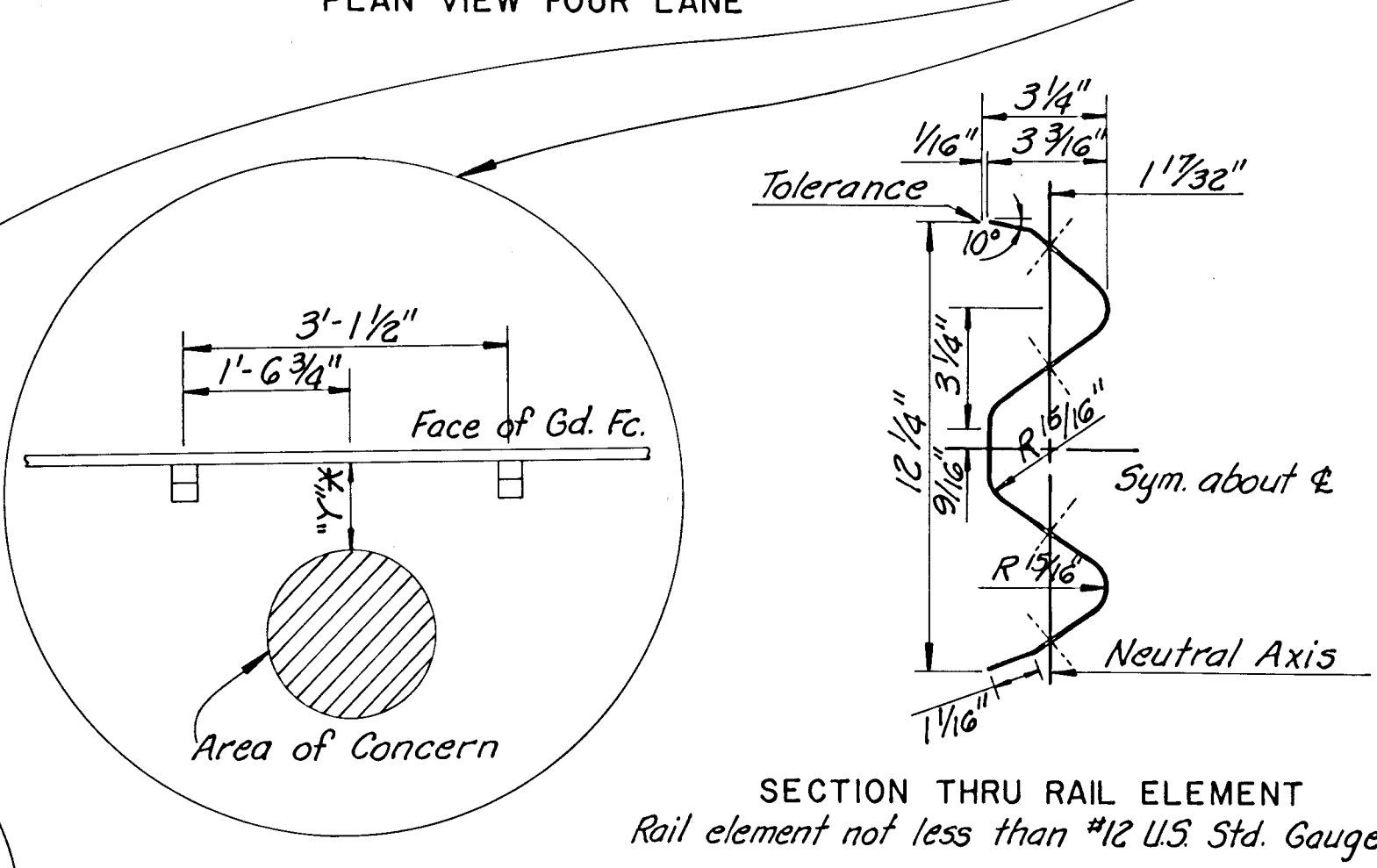
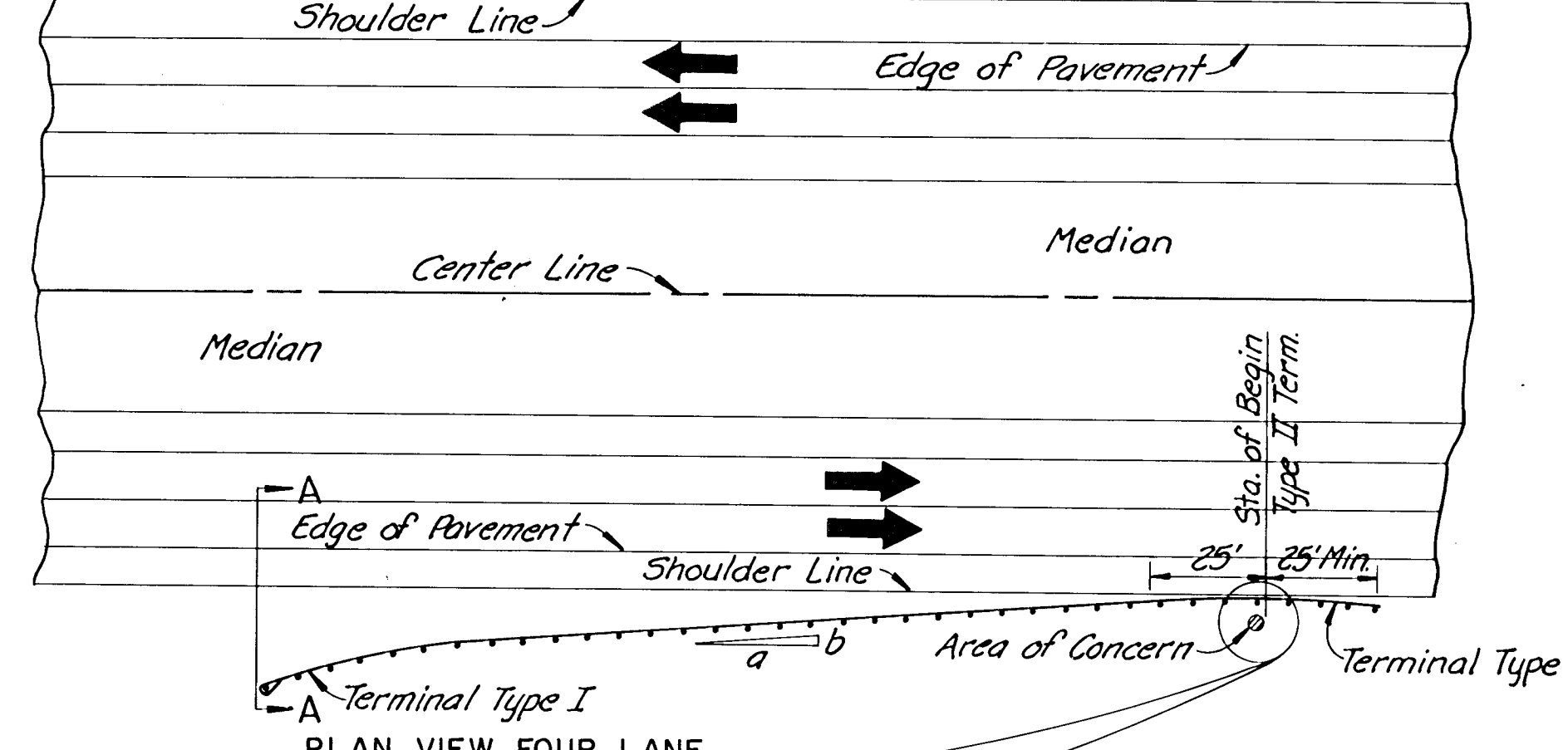
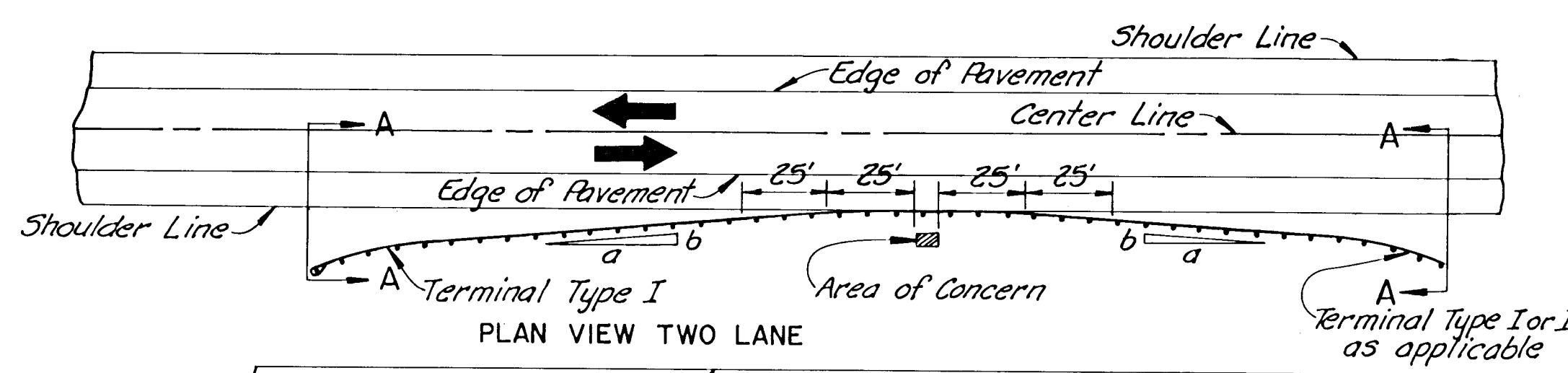


ARRANGEMENT AT POSTS

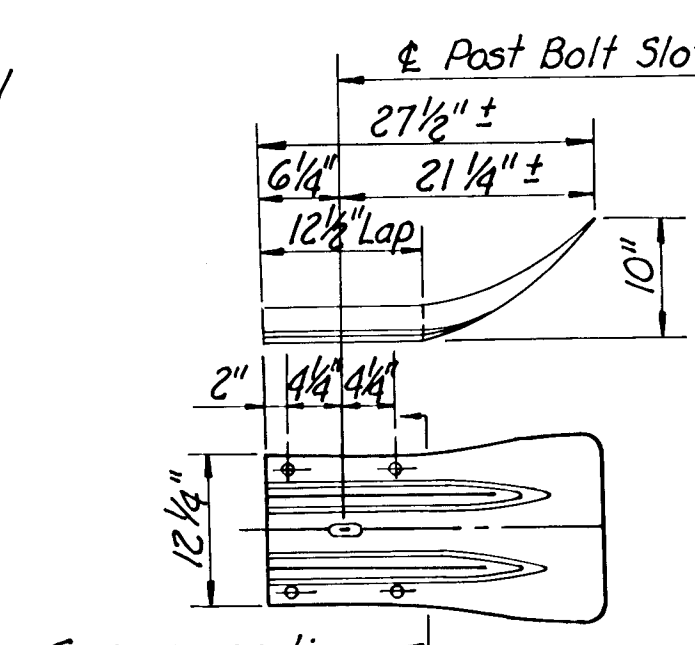


(Alternate round post)

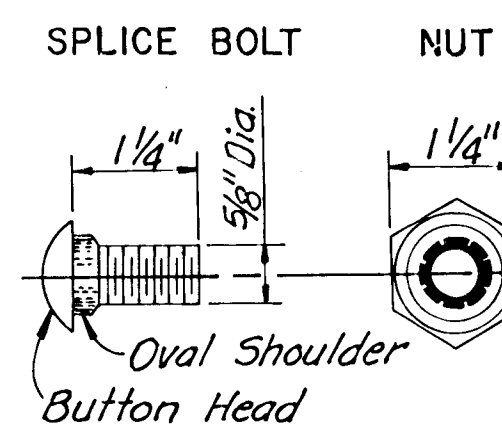
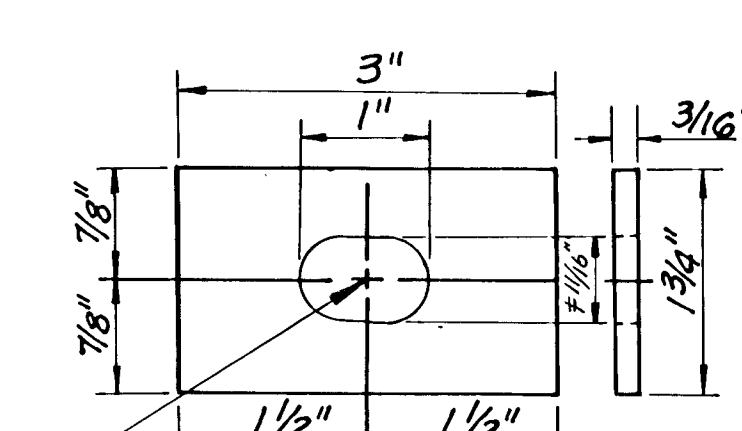
Note: All dimensions subject to manufacturing tolerances.



SECTION THRU RAIL ELEMENT
Rail element not less than #12 U.S. Std. Gauge



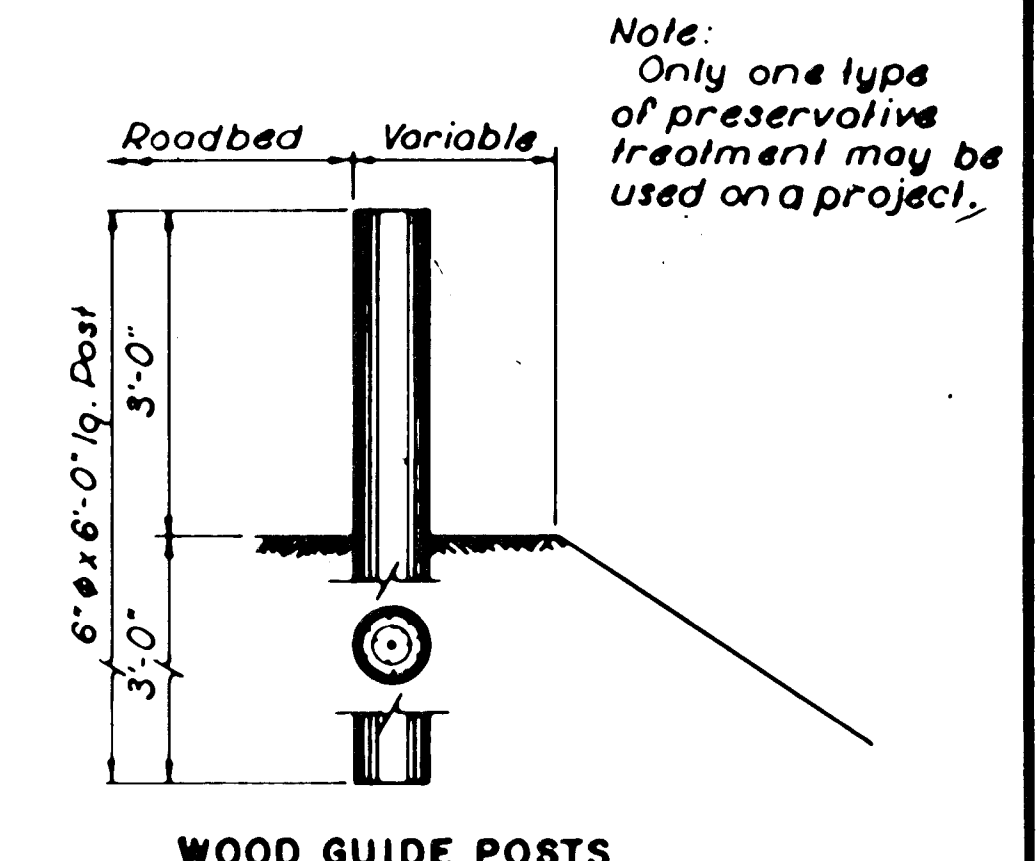
STANDARD END SECTION



SPLICE BOLT NUT

WASHER FOR BOLT HEAD
Other approved washer may be used.
* Use 1" Round hole in Rectangular washer for special end shoe.

FHWA REG. NO.	STATE	PROJECT NO.	YEAR	SHEET	TOTAL
7	KANSAS	54-87-5942(2)	1980	21	32



WOOD GUIDE POSTS

NOTE: Treated wood posts shall be used.
All wood posts shall be given a preservative treatment of creosote or penta-solution as provided in the Specifications. ReflectORIZED material to be applied to the post by the State. Where wood guide posts are to be used as underdrain markers, the top 18" of the posts shall be given 2 coats of aluminum paint and the top 12" of the post shall be given one coat of red lead paint.
See Std. No. 650.1 (Underdrains) for typical location when posts are used as underdrain markers.

GENERAL NOTE FOR GUARD FENCE

All wood posts and wood blocks shall be given a preservative treatment of creosote or penta solution as provided in the Specifications. All cuts, injuries and bolt holes in treated posts and wood blocks shall be thoroughly saturated with preservative.
Only one type of preservative treatment may be used on a project. Rectangular posts and wood blocks (6"x 8"x 14") may be S4S, or they may be rough sawn and graded in accordance with the "Methods for Establishing Structural Grades of Lumber", ASTM Designation D 245.
Round treated wood posts 7 1/2" to 9 1/2" tip diameter, 6'-0" long may be substituted in place of the rectangular post shown.
The butt diameter for round posts shall be larger than the tip diameter and the maximum taper from tip to butt shall be 2 inches.
Galvanized steel rail plates shall be used. All post rail fittings and anchor bolts shall be galvanized in accordance with Standard Specifications. Guard rail parts furnished under this specification shall be interchangeable with similar parts regardless of the source or manufacturer.
Steel rail plates may be furnished in 25' sections.
All steel plate guard fence rails to be shop curved when radius is less than 150'.
Special End Shoe shall be 10 Gauge steel and galvanized in accordance with ASTM Designation: A 525 with coating class 2.50. The shoe has the same section as through beam guard rail. Special end shoe shall be subsidiary to Guard Fence.
All bolts, nuts and washers to be galvanized in accordance with sub section 1006.16 of the standard specifications.
Excavation of all classes, including rock, shale and other materials regardless of the elevations encountered, required for the erection of Guard Fence and Guide Posts shall be considered as subsidiary to the various bid items for which payment is made.
Guard fence posts or Guide Posts may be set by digging or by driving. During driving operations, post caps shall be used, which are so designed as to protect the post from crushing.
Guard Fence Posts may be Wood (as shown on this sheet) or Steel (as shown on Std. 608.6A) with no change in type of Post permitted within a single project.
Steel blocks or metal offset brackets will not be permitted on wood posts. See Std. 608.5D for barrier terminals Type I and Type II.
Flare rate (a/b) = 0

REV.	DATE	REVISIONS	BY	APP'D
1	10-11-79	New Design Criteria and BCT	W.L.H.	L.R.P.
KANSAS DEPARTMENT OF TRANSPORTATION				
STEEL PLATE GUARD FENCE WITH WOOD POSTS				
WOOD GUIDE POSTS				
DESIGNED	October 11, 1979	SCALE None	APP'D	
DESIGNED		QUANTITIES	TRACED	
DESIGN C.E.		QUAN. C.E.	TRACE C.E.	