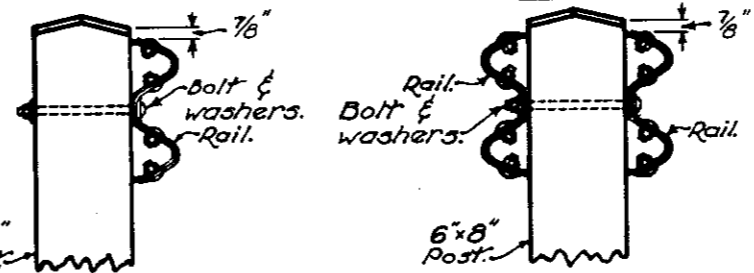
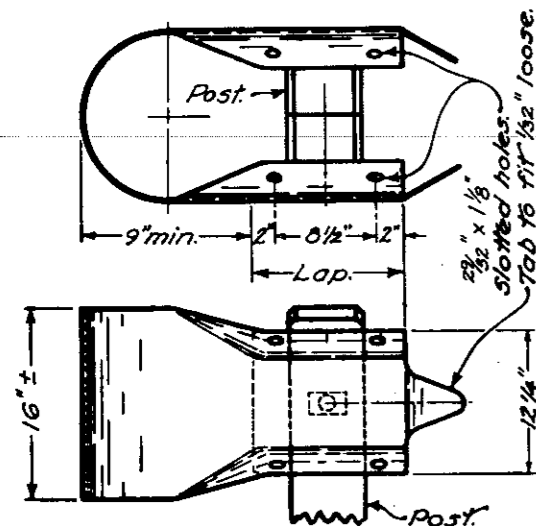


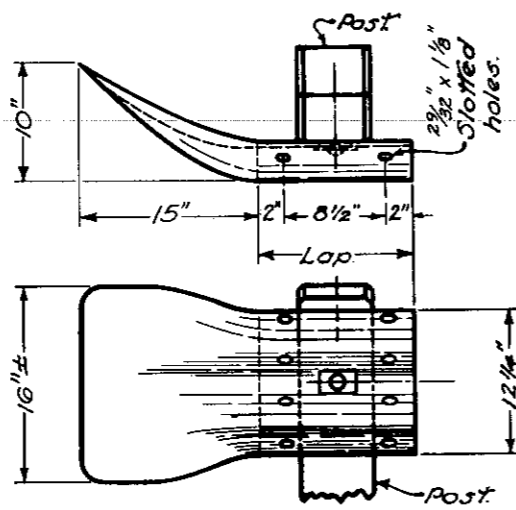
**ELEVATION TERMINAL SECTION**  
TO BE USED WITH BOTH STEEL AND WOOD POSTS



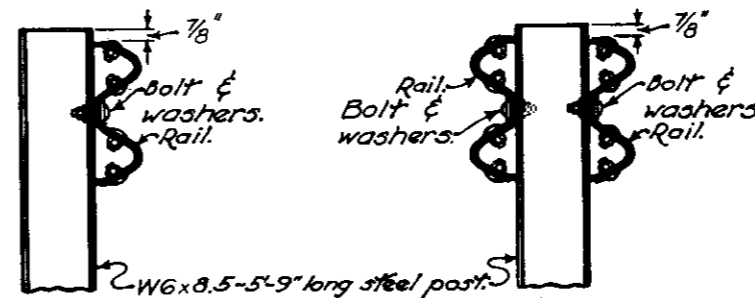
**STANDARD DESIGN USING WOOD POSTS**      **BARRIER DESIGN USING WOOD POSTS**



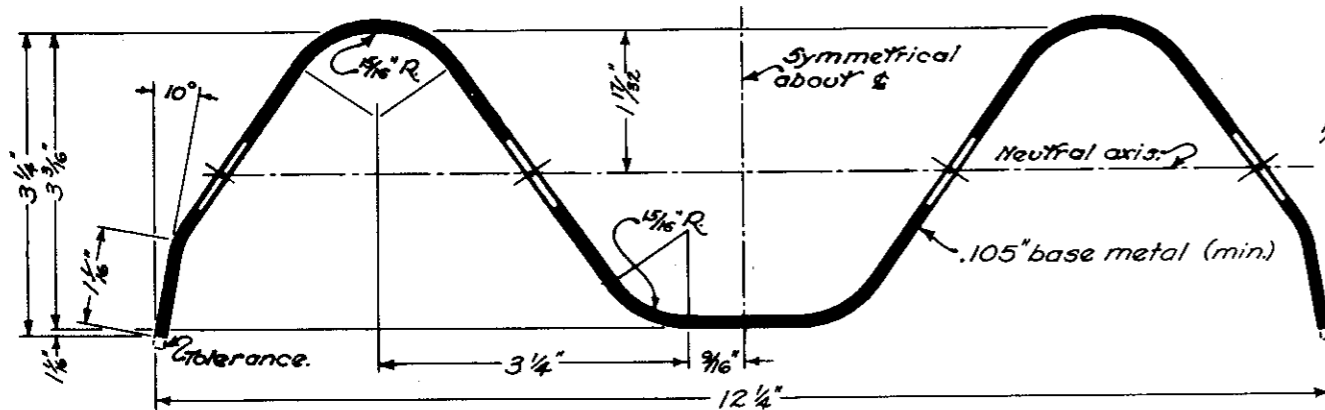
**BARRIER TERMINAL**



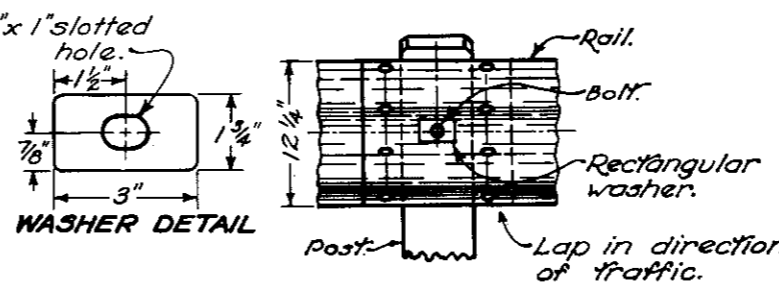
**STANDARD TERMINAL**



**STANDARD DESIGN USING STEEL POSTS**      **BARRIER DESIGN USING STEEL POSTS**



**SECTION THRU RAIL ELEMENT**



**WASHER DETAIL**

**RAIL SPLICE**

**NOTES**

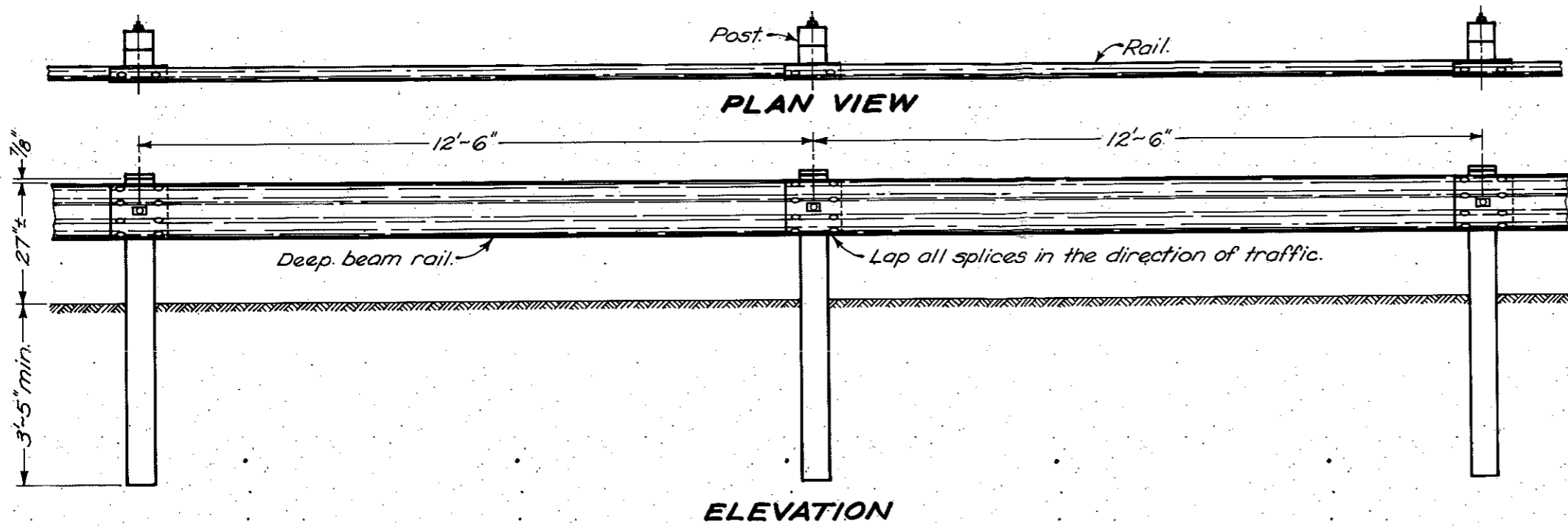
**POSTS:** Posts for standard design may be round or square-sawn pressure-treated wood or may be W6 x 8 1/2 pound galvanized steel. Posts for barrier design shall be square-sawn pressure-treated wood or W6 x 8 1/2 pound galvanized steel. The same type post shall be used throughout the length of a project unless otherwise required by the plans or permitted by the Engineer. Round posts shall be 8" ± 1" in dia. at the top and 11" maximum at the bottom. Posts other than the last three at each end of each continuous run need not be set in concrete, and shall be spaced at 12'-6" centers unless otherwise specified, except that post spacing in runs of less than 100 feet in length and in flares shall be 6'-5".

**ANCHOR ASSEMBLY, TYPE 4** shown in elevation shall be used at each free end of Type 4 guardrail. Minimum strength of the anchor assembly shall be 40,000 lbs. Other anchor assembly designs (GR-4 is one example) may be used when specified elsewhere in the plan.

**BRIDGE RAILING:** Where deep beam rail is used as bridge railing, post spacing shall be 6'-3" on the bridge and for a minimum distance of 12'-6" beyond each corner of the bridge. If the deep beam guardrail terminates within 18'-6" of the last bridge post, all standard design posts shall be set in concrete and an anchor assembly provided as detailed hereon.

**RAIL ELEMENT:** Rail elements may be 12'-6" or 25' with post bolt hole slots on 6'-3" centers regardless of post spacing. At each post where an overlap of rail elements does not occur, a 12-inch-long section of rail shall be provided between the main rail element and the post, fastened by the post bolt. Washers shall be provided at each end of each post bolt: provide a standard 1 3/4" round steel washer between the nut and post; provide a 1 1/4" x 3" x 3/16" steel washer at each rail connection between bolt and rail.

BUREAU OF ROADWAY DESIGN OHIO DEPARTMENT OF TRANSPORTATION	
<b>GUARDRAIL TYPE 4</b>	
STANDARD CONSTRUCTION DRAWING	GR-2C
APPROVED <i>[Signature]</i>	ENGR., R.D.
DATE 7-3-76	



**NOTES**

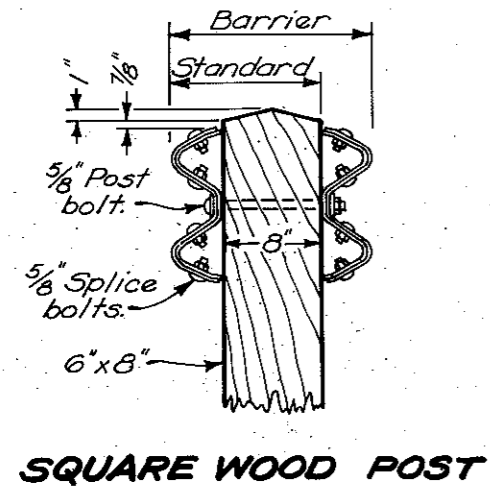
**POSTS** may be round (single rail only) or 6"x8" square-sawed pressure-treated wood or W6x8.5 galvanized steel. The same type post shall be used throughout the length of the project unless otherwise required by the plans or permitted by the Engineer. Round posts shall be 3" plus or minus 1" in diameter at the top and not more than 11" at the butt with uniform taper from top to butt.

Posts may be set in drilled holes or driven to grade. Wood posts shall be fabricated with square ends. Posts shall be pressure-treated as per 710.14. Bolt holes shall be bored and tops of posts trimmed after posts are set. Posts set or driven to within 1/2" of grade need not be trimmed.

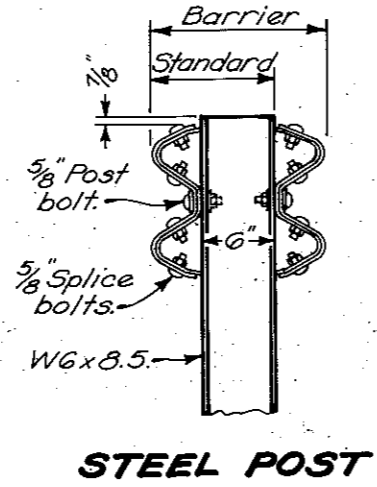
**WASHERS:** Standard galvanized washers of appropriate size are required on post bolts except use one 1 3/4" x 3" washer between post bolt head or nut and face of rail.

**BARRICADE GUARDRAIL** shall be mounted on Type 4 posts with 3/8" post bolts and washers as specified hereon. Omit anchor assemblies and place a flared end section at each end.

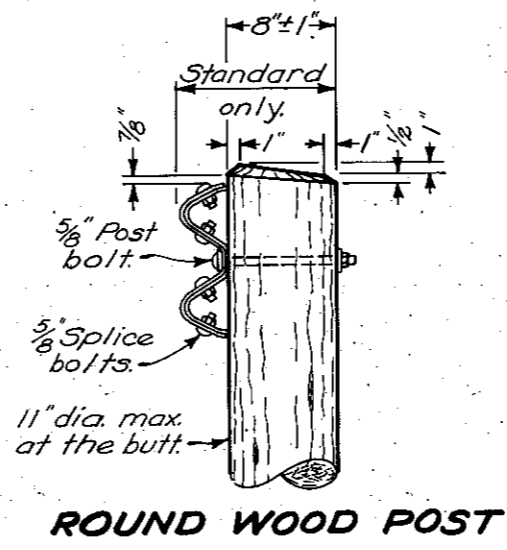
**FOR DETAILS** not shown see GR-1.



**SQUARE WOOD POST**



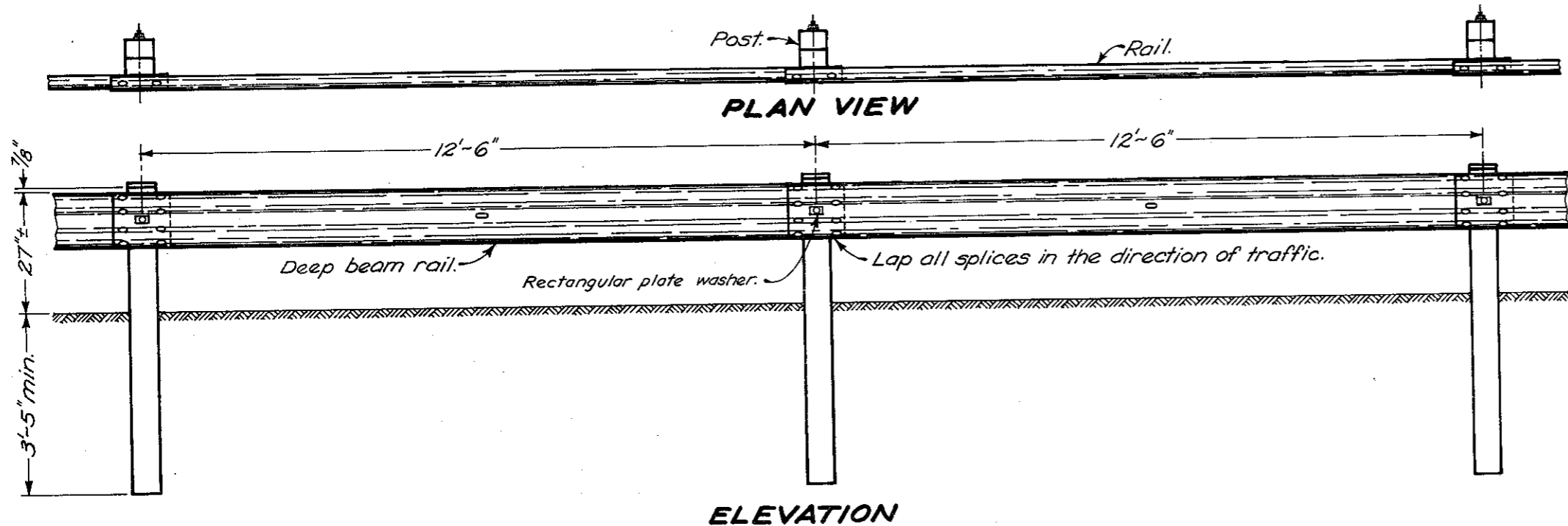
**STEEL POST**



**ROUND WOOD POST**

BUREAU OF LOCATION AND DESIGN  
OHIO DEPARTMENT OF TRANSPORTATION

<b>GUARDRAIL TYPE 4</b>		DATE 7-3-75 12-6-76
STANDARD CONSTRUCTION DRAWING		GR-2C
APPROVED <i>H. Cunningham</i>		ENGR., L. & D.



**NOTES**

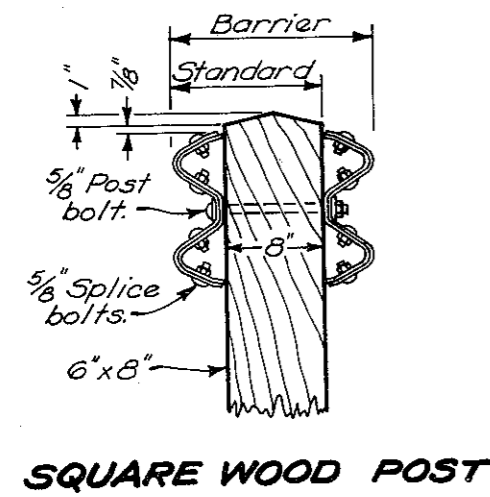
**POSTS** may be round (single rail only) or 6"x8" square-sawed pressure-treated wood or W6x9 galvanized steel. The same type post shall be used throughout the length of the project unless otherwise required by the plans or permitted by the Engineer. Round posts shall be 8" plus or minus 1" in diameter at the top and not more than 3" larger at the butt with a uniform taper.

Posts may be set in drilled holes or driven to grade. Wood posts shall be fabricated with square ends. Posts shall be pressure-treated as per 710.14. Bolt holes shall be bored and tops of posts trimmed, if required, after posts are set.

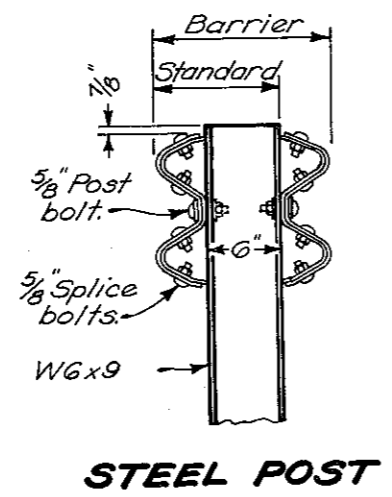
**WASHERS:** Place a rectangular plate washer between the face of rail and post bolt head or nut. All other washers indicated are standard galvanized steel of the appropriate size.

**WELDED BEAM** posts may be used. See note and dimensions on GR-2B.

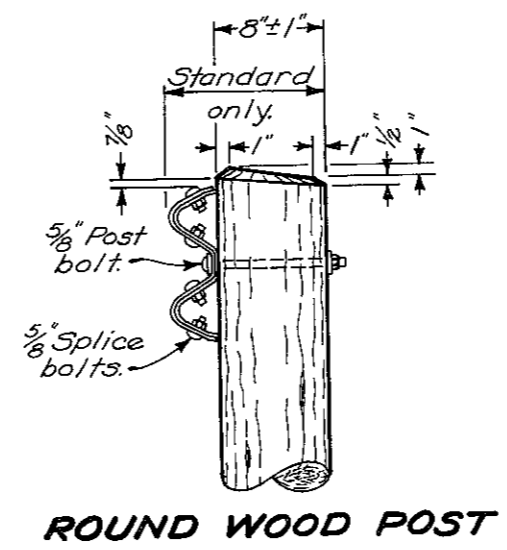
**FOR DETAILS** not shown see GR-1.



**SQUARE WOOD POST**



**STEEL POST**



**ROUND WOOD POST**

BUREAU OF LOCATION AND DESIGN OHIO DEPARTMENT OF TRANSPORTATION	
<b>GUARDRAIL TYPE 4</b>	
STANDARD CONSTRUCTION DRAWING	<b>GR-2C</b>
APPROVED: <i>[Signature]</i> ENGR., L. & D.	
DATE 7-3-75 12-6-76 2-5-82	