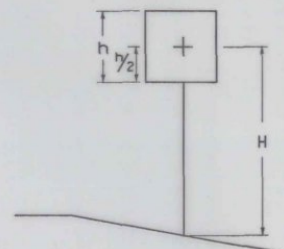


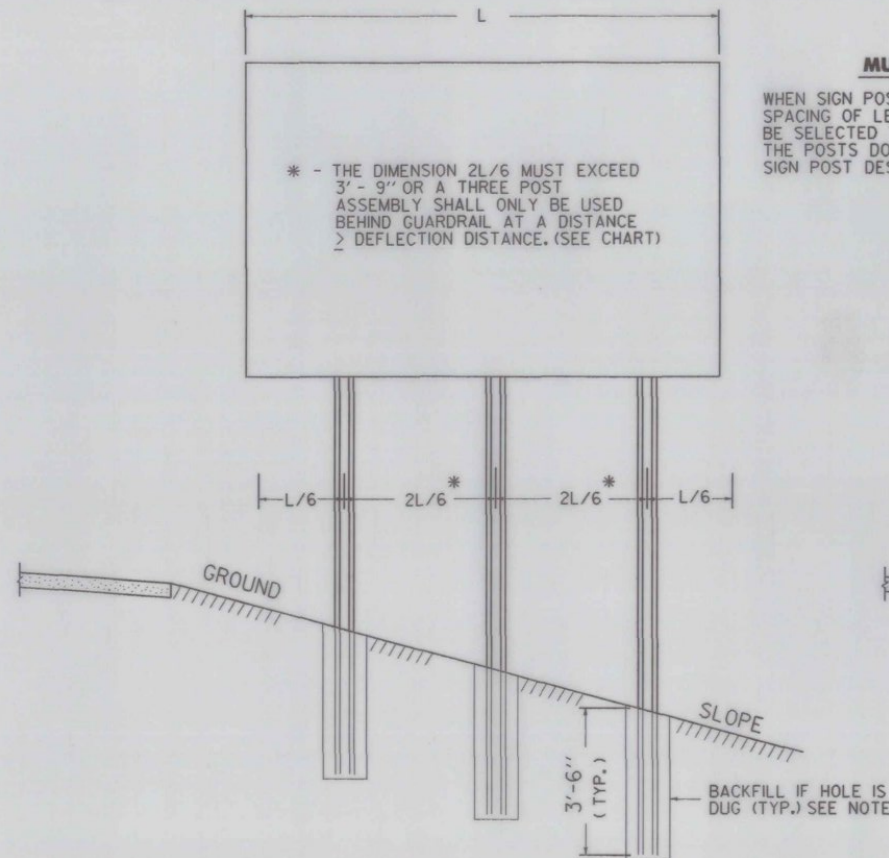
POST SIZE (LB./FT.)	DIMENSIONS			SECTION MODULUS, X-X
	A	B	C	
2	1 3/32"	1 3/64"	3 1/16"	0.225 IN. ³
2 1/2	1 3/32"	1 3/64"	3 1/16"	0.289 IN. ³
3	1 3/16"	1 7/8"	3 1/2"	0.403 IN. ³

SIMILAR DIMENSIONS ARE ACCEPTABLE, HOWEVER SECTION MODULUS VALUES SHALL NOT BE EXCEEDED.



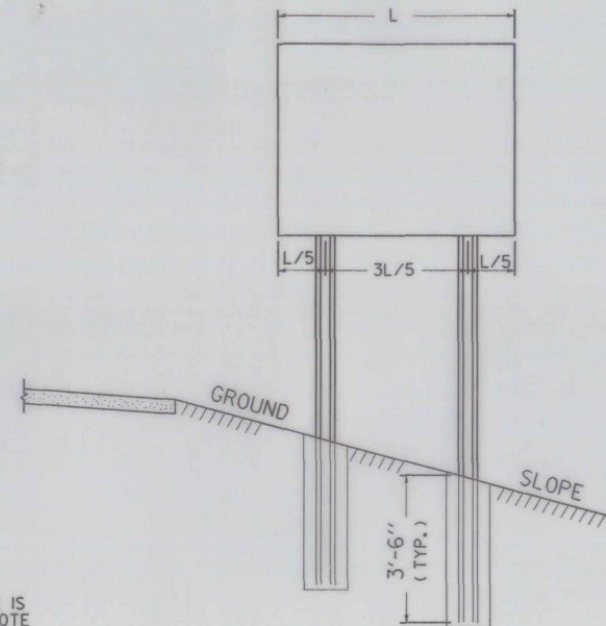
POST SELECTION CHART		
SIGN AREA (FT ²) x H (FT) ≤ SV (SELECTION VALUE)		
POST SIZE	SV	DESIGN CRITERIA
2 LB./FT. (ONE POST INSTALLATION)	32	WIND SPEED = 60 MPH (10-YEAR MEAN RECURRENCE INTERVAL) WIND PRESSURE = 13 PSF STEEL MIN YIELD F _y = 50,000 PSI ALLOWABLE STRESS = (1.4) 0.60 F _y
2 LB./FT. (TWO POST INSTALLATION)	62	
2.5 LB./FT. *	77	
3 LB./FT.	107	

SINGULAR 2 LB./FT. POSTS SHALL ONLY BE USED IN URBAN AREAS.
2.5 LB./FT. POSTS SHALL NOT BE USED FOR NEW INSTALLATIONS.
INFORMATION IS PROVIDED ONLY FOR CHECKING RETAINED POSTS.

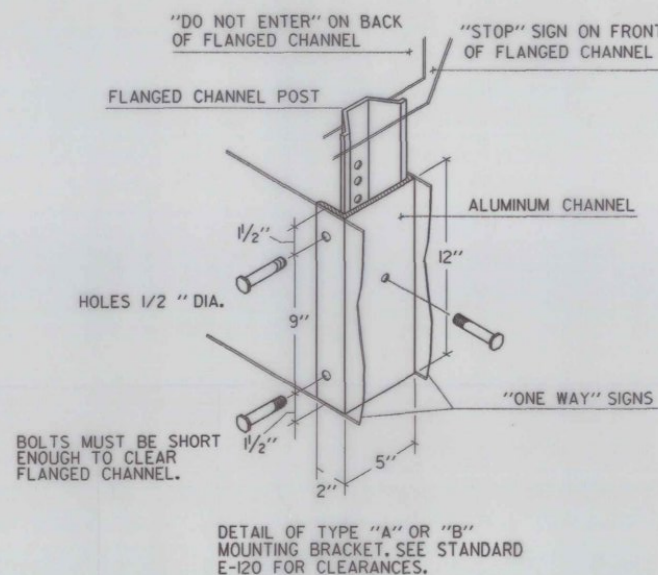
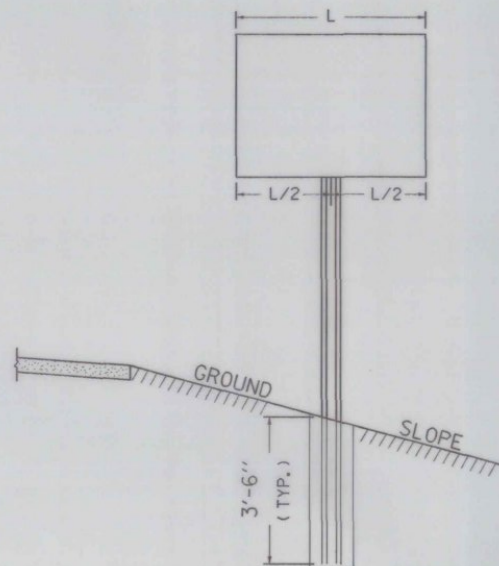


MULTI-POST INSTALLATIONS

WHEN SIGN POSTS ARE INSTALLED WITH A POST SPACING OF LESS THAN 8 FEET, POST SIZES MUST BE SELECTED TO INSURE THAT WHEN ACTING TOGETHER THE POSTS DO NOT CREATE A HAZARD, REFER TO V.A.O.T. SIGN POST DESIGN GUIDELINE FOR ADDITIONAL DETAILS.

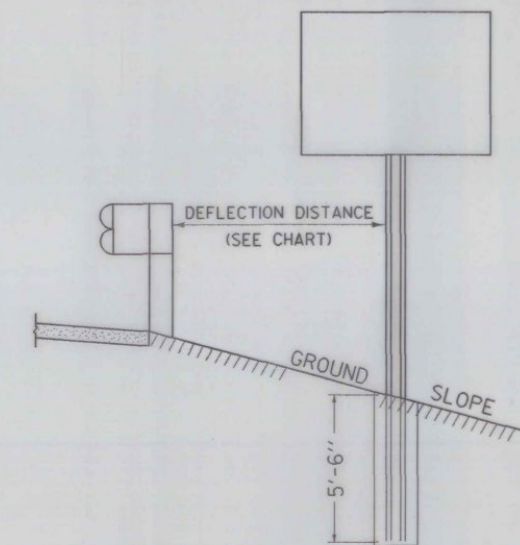


POST SPACING DETAILS



GUARDRAIL DEFLECTION CHART (PER AASHTO - ROADSIDE DESIGN GUIDE - 1988)		
TYPE	GR POST SPACING	DEFLECTION
THREE CABLE W/STEEL POSTS	16' - 0"	12'
W/WOODEN POSTS	12' - 6"	12'
W-BEAM W/WEAK POST	12' - 6"	7'
W/STRONG POST	6' - 3"	3'
BOX BEAM	6' - 0"	5'
THRIE BEAM W/WEAK POST	12' - 6"	4'
W/STRONG POST	6' - 3"	2'
TWO-RAIL ELLIPTICAL ALUMINUM		2'

THIS CHART LISTS THE THEORETICAL DEFLECTION DISTANCE UPON IMPACT OF VARIOUS GUARDRAIL WITH DIFFERENT TYPES AND SPACING OF POSTS.



WHEN USING FLANGED CHANNEL POSTS ON STEEP SLOPES (1 ON 2 OR STEEPER FILL SLOPES BEHIND GUARDRAIL), ADD 2' EMBEDMENT TO THE POST LENGTH TO GIVE THE ASSEMBLY MORE STABILITY. HOWEVER IF SIGN POST IS LOCATED INSIDE THE DEFLECTION DISTANCE, THE SIGN POST SHALL BE SET AT A DEPTH OF 3' - 6".

GENERAL NOTES

CONSTRUCTION METHODS - POSTS MAY BE DRIVEN OR SET IN A DUG HOLE AND BACKFILLED. IF DRIVEN, A DRIVING CAP SHALL BE USED. THE DUG HOLE INSTALLATION SHALL BE USED IN AREAS OF POOR SOIL CONDITIONS OR AS DIRECTED BY THE RESIDENT ENGINEER. BACKFILL SHALL BE COMPACTED AS DIRECTED BY THE RESIDENT ENGINEER.

SIGN CLEARANCES - HORIZONTAL AND VERTICAL SIGN CLEARANCES SHALL BE SHOWN ON THE PLANS OR THE APPROPRIATE STD. SHEETS.

SINGLE POST INSTALLATIONS SHALL BE LIMITED TO A SIGN AREA OF 12 1/2 SQ. FT. OR LESS

REVISIONS AND CORRECTIONS
MARCH 1, 1988 - FHWA REVIEW COMMENTS
OCT 21, 1992 - ADDED DETAILS, REVISED NOTES & REVISED TITLE BLOCK

APPROVED _____
DATE SEPT. 10, 1987
Ernest S. MacArthur
DIRECTOR OF ENGINEERING
David A. Ross
TRAFFIC AND SAFETY ENGINEER

**FLANGED CHANNEL
STEEL SIGN POST**



**STANDARD
E-160**