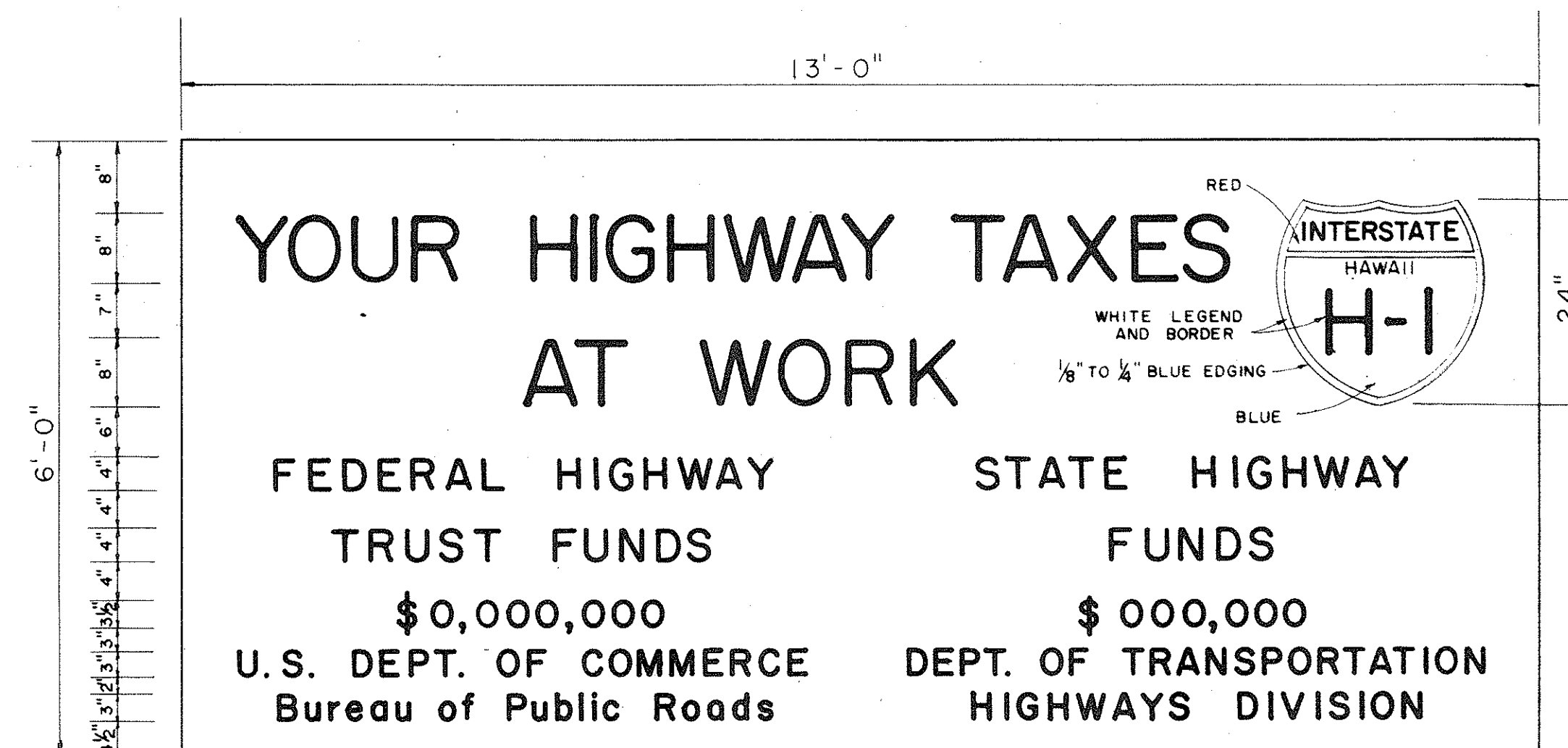
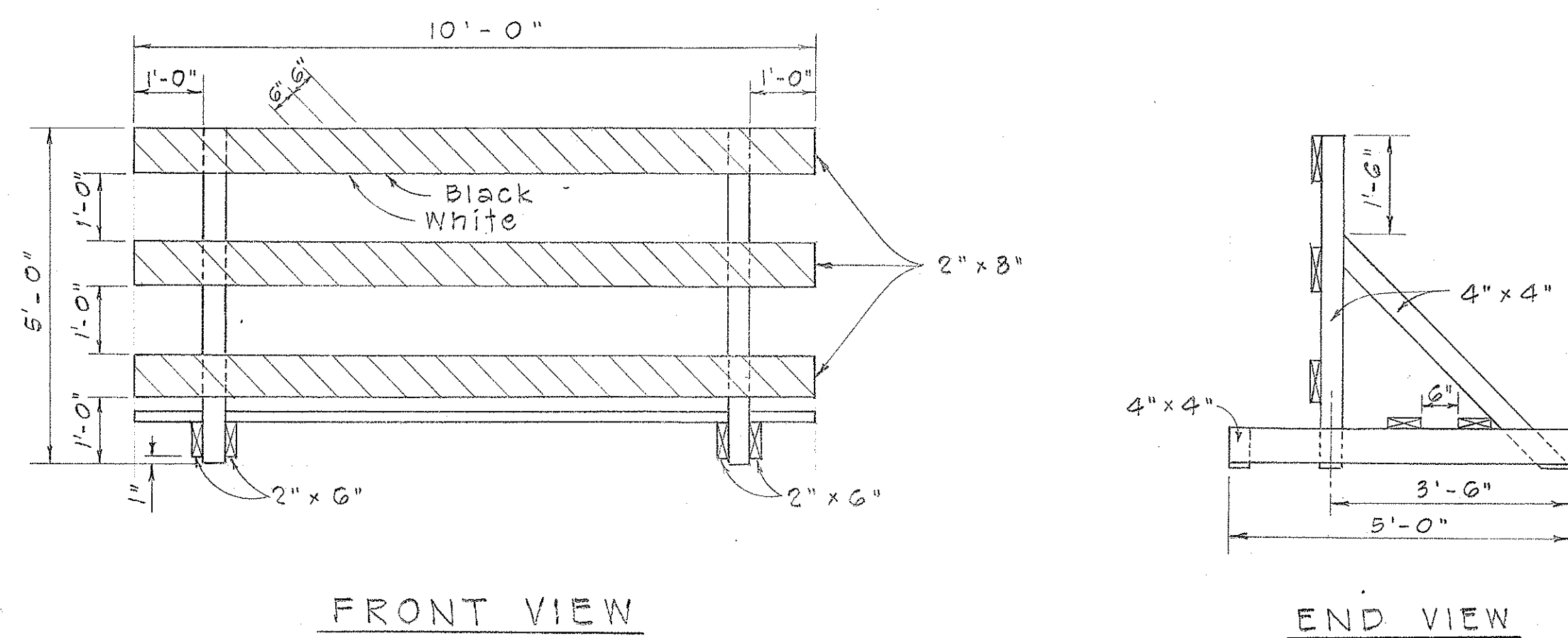
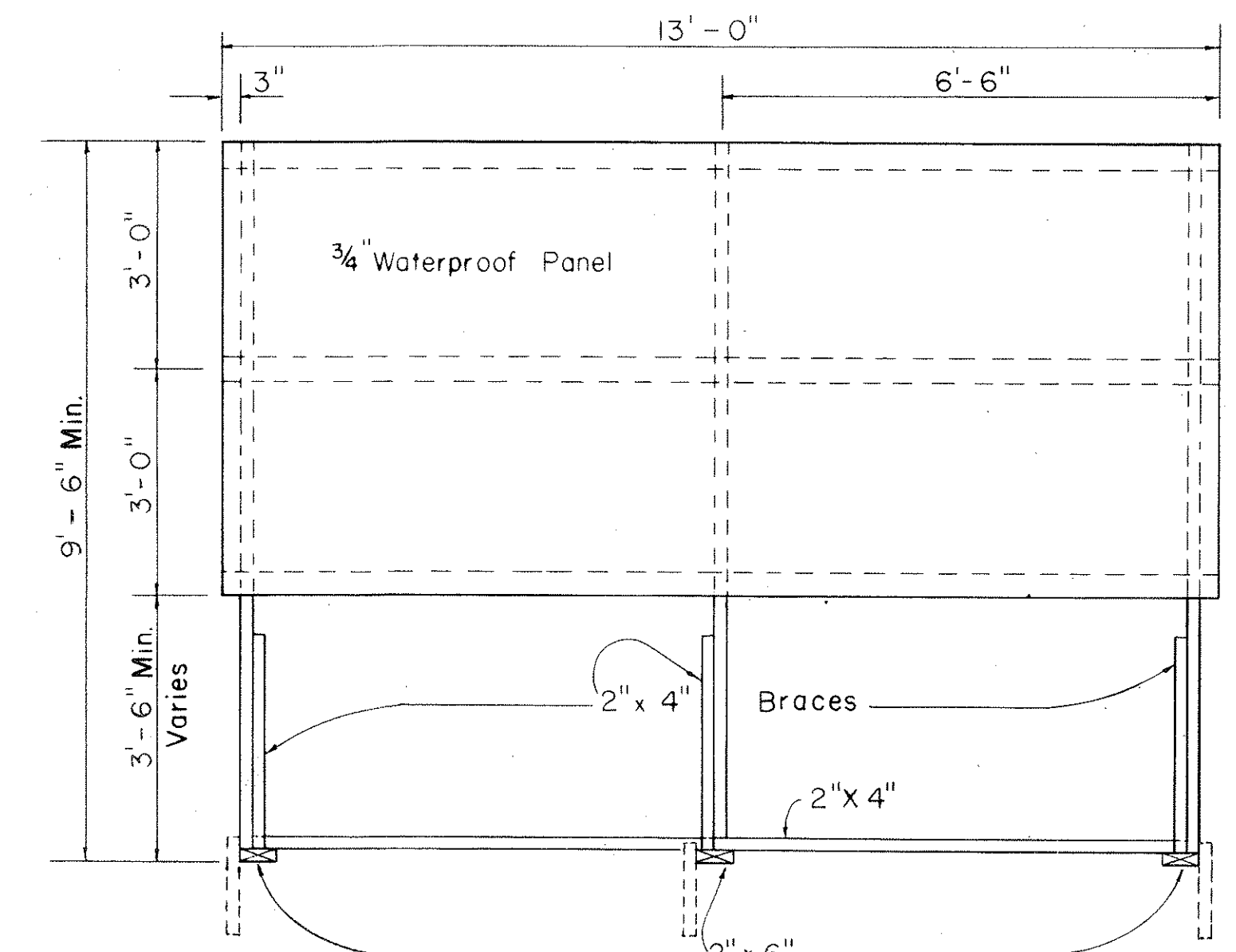
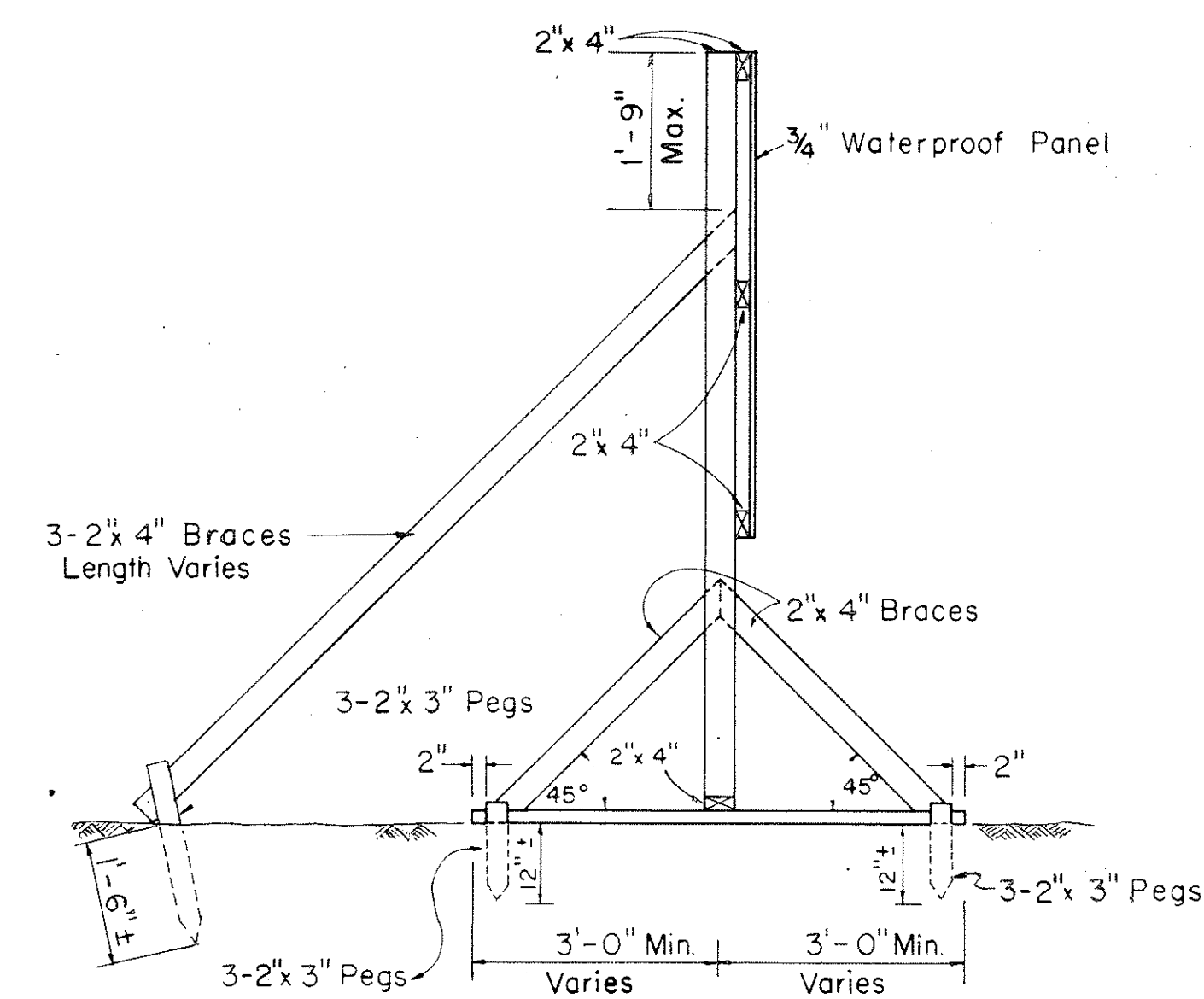
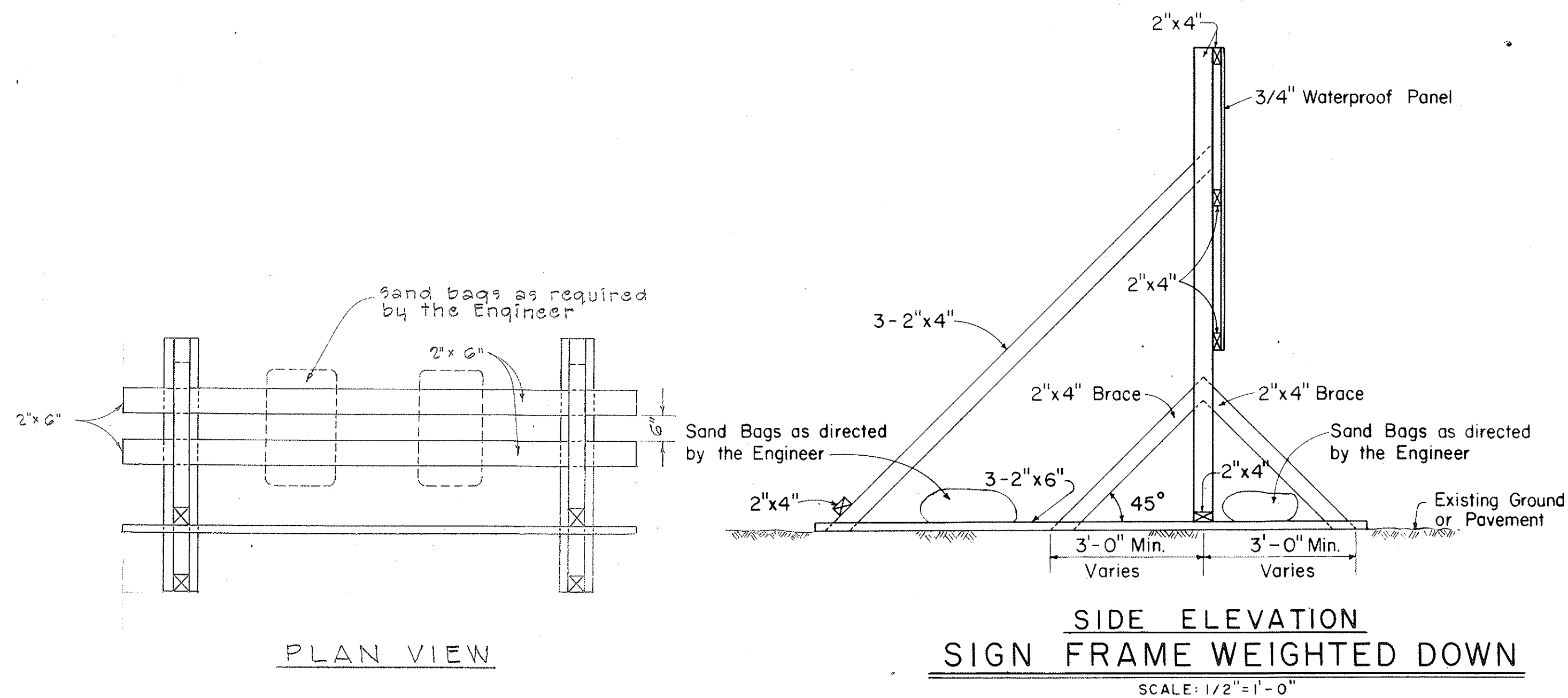
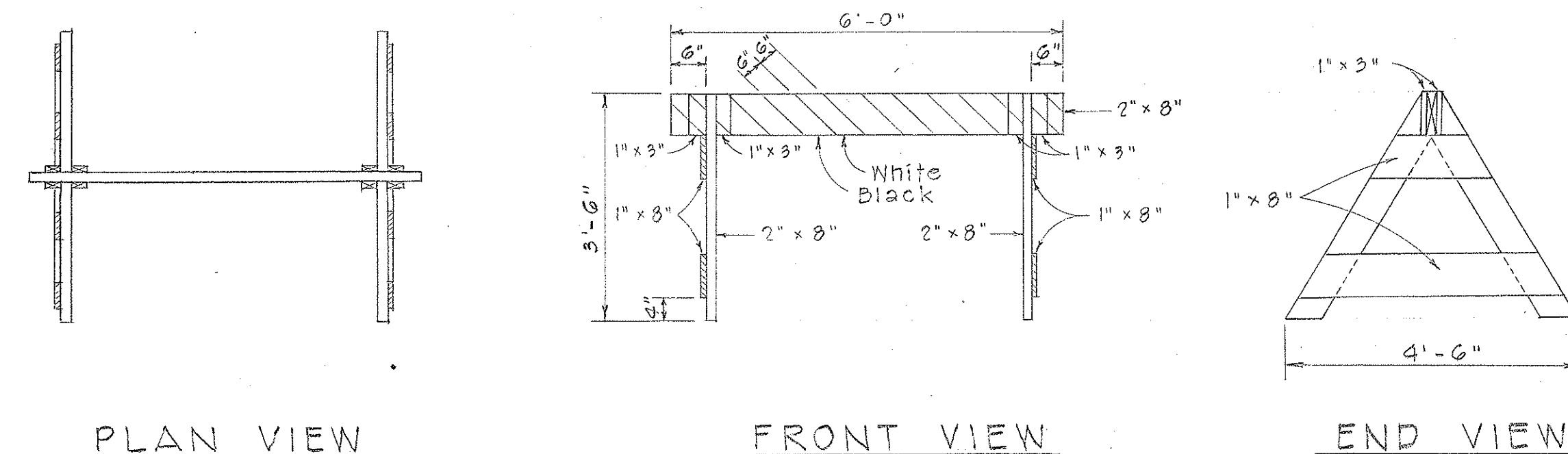


ORIGINAL	SURVEY PLOTTED BY	DATE
PLAN	DRAWN BY	
NOTE BOOK	TRACED BY	
	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	
No.		



- ## CONSTRUCTION IDENTIFICATION SIGN NOTES
1. The Contractor shall construct, install and maintain the Construction Identification Signs, at the locations shown on the plans and as ordered by the Engineer.
 2. All costs incurred in the construction, installation and maintenance of the Construction Identification Signs, will not be paid for separately, but shall be considered as included in the unit price paid for the various items in the proposal.
 3. The Construction Identification Signs shall be removed and stockpiled at the completion of the project as ordered by the Engineer and are to become State Property.
 4. The exact figures for the various funds involved will be furnished to the Contractor for the incorporation in the Construction Identification Signs.
 5. The legend shall be black on white background except for the interstate route marker which shall be as shown on the plan.
 6. Refer to Sheet No. 27 for details on the exact shape and size of the interstate route marker to be shown on these Construction Identification Signs.
 7. All letters shall be of size and design shown and shall conform with "Standard Alphabets for Highway Signs", Bureau of Public Roads, 1952. Use Series "c" letters unless otherwise noted.



CLASS II BARRICADE
Scale: $\frac{1}{2}" = 1'-0"$

SIGN PANEL
Scale : 3/4" = 1' - 0"

INTERSTATE SYSTEM
CONSTRUCTION IDENTIFICATION SIGN
Scale: As Shown

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION IDENTIFICATION SIGN
AND
WOOD BARRICADES

INTERSTATE HIGHWAY (LUNALILO FWY)
F.A.I. PROJ. NO. I-1-I(27)

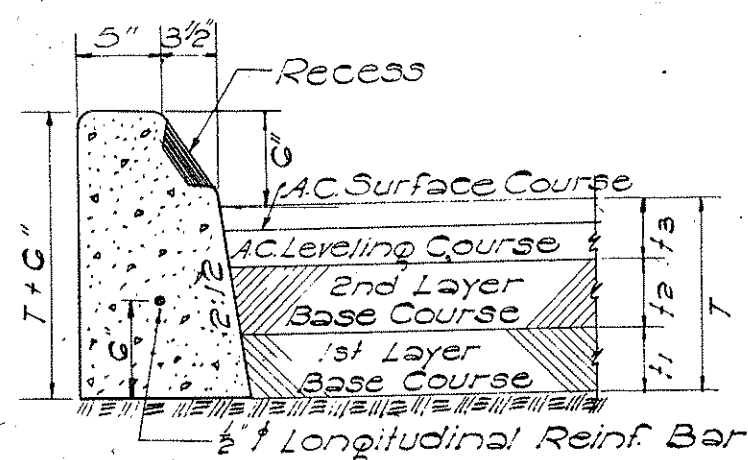
SCALE: AS SHOWN DATE: MAY 1966

SHEET No. OF SHEETS

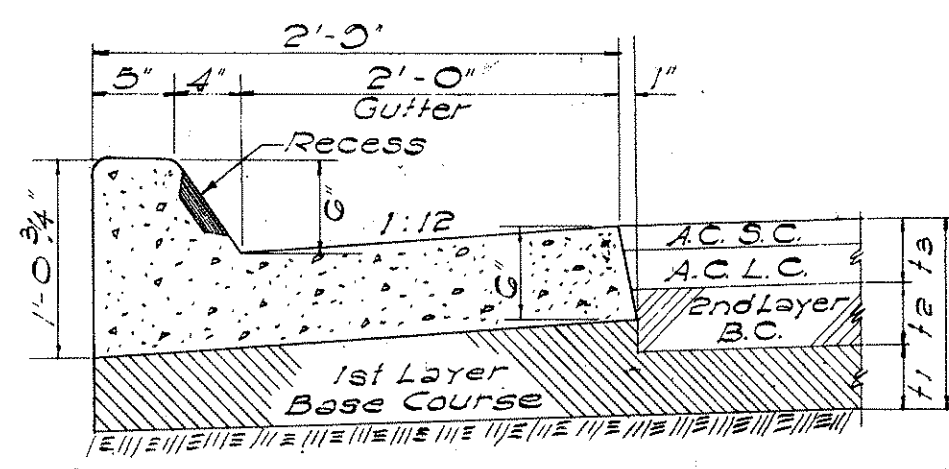
2/17/59
9/22/61

PROJ. NO.	SHEET NO.	DATE	BY	CHECKED BY	APPROVED BY
HAWAII	15	AUG 1957			

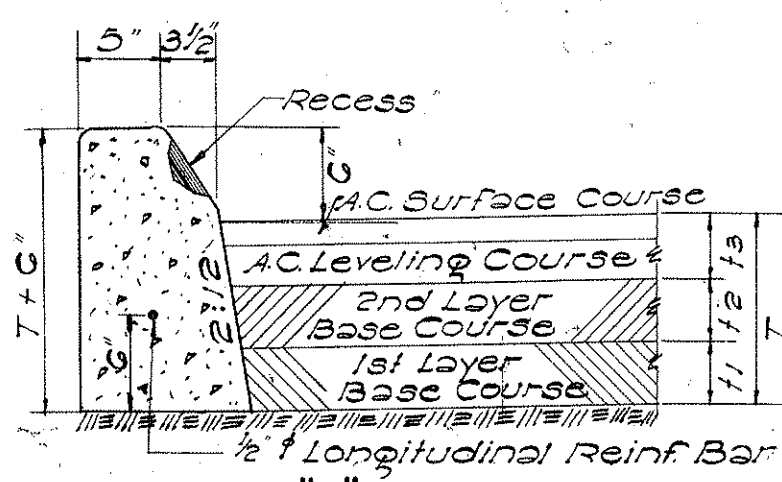
AUG 1957



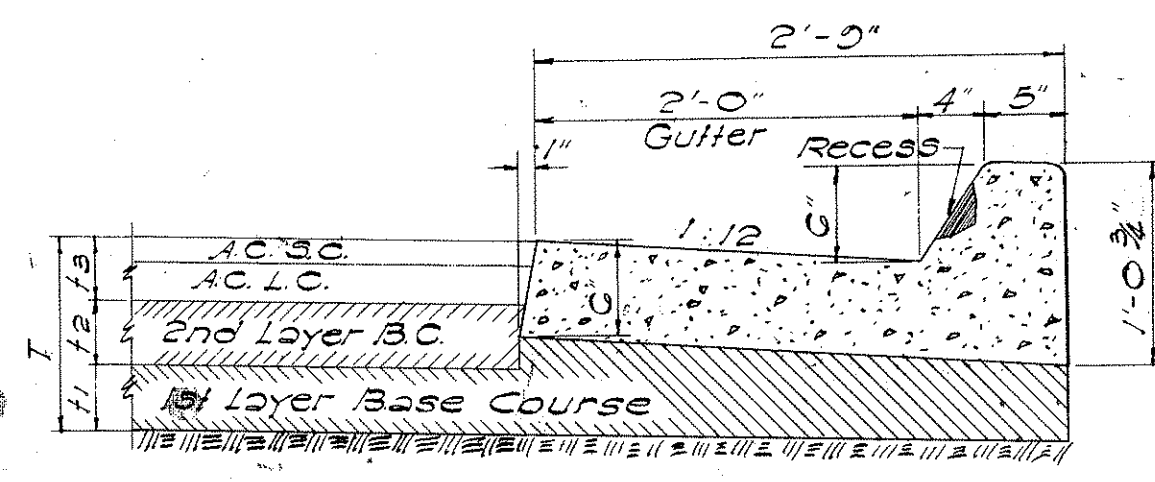
TYPE "A" & "B" CURB
SCALE: 1" = 1'-0"



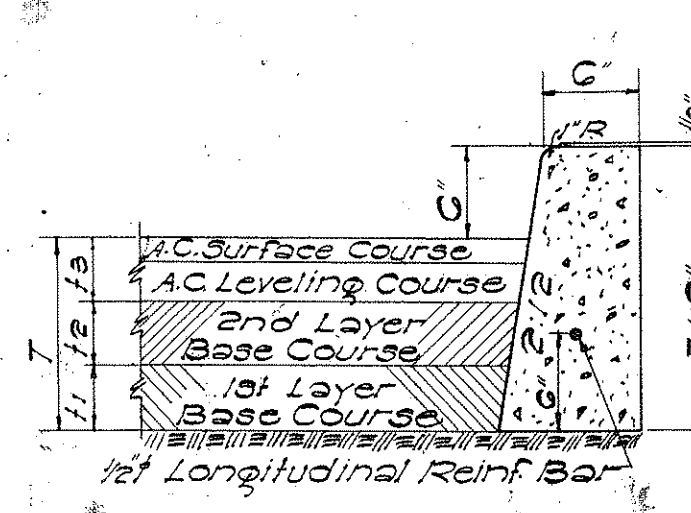
TYPE "AG" & "BG" CURB & GUTTER
SCALE: 1" = 1'-0"



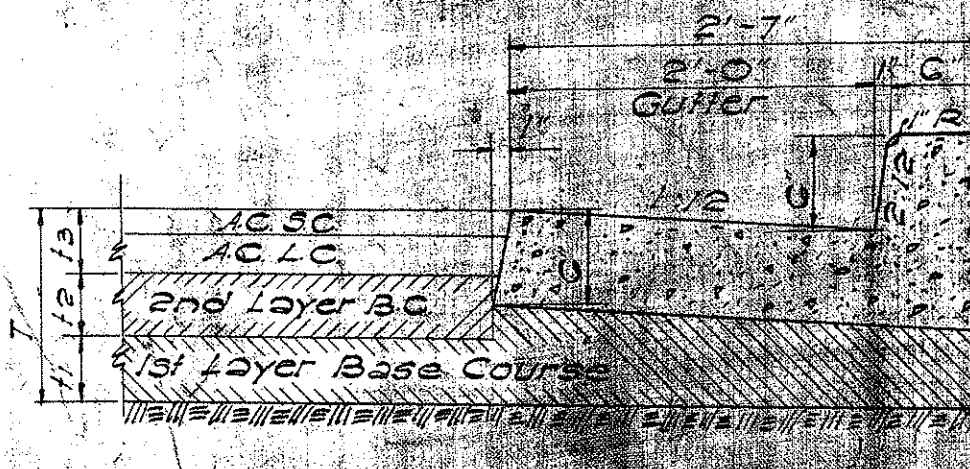
TYPE "C" CURB
SCALE: 1" = 1'-0"



TYPE "CG" CURB & GUTTER
SCALE: 1" = 1'-0"

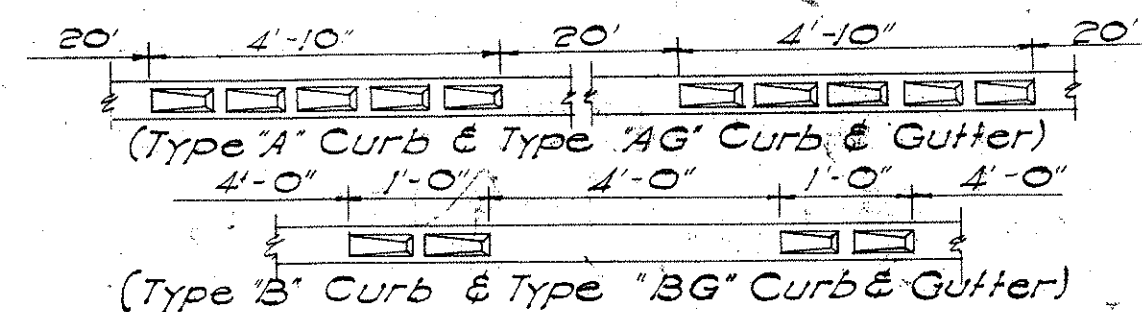


TYPE "D" CURB
SCALE: 1" = 1'-0"

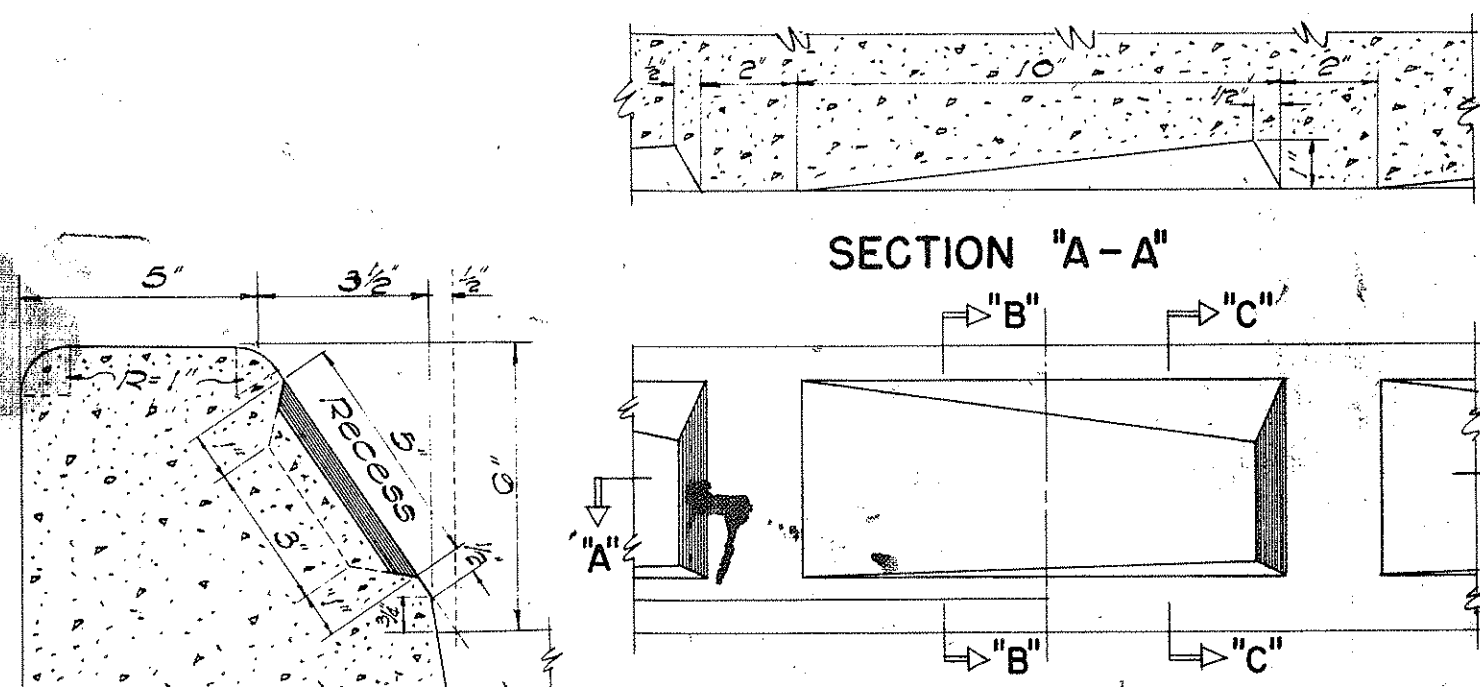


TYPE "DG" CURB & GUTTER
SCALE: 1" = 1'-0"

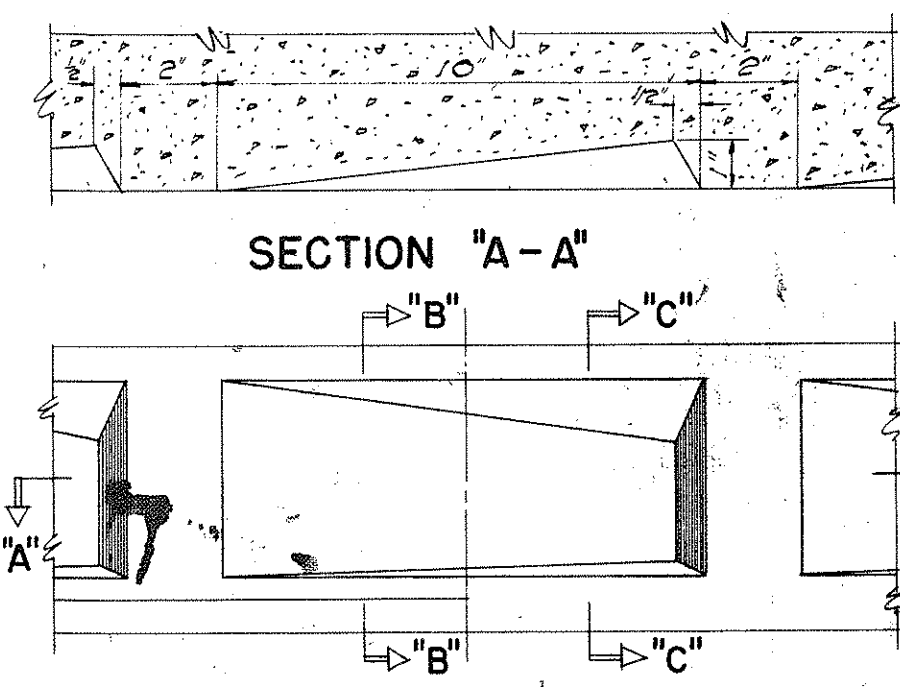
General Note Covering All Types of Curbs:
Occasionally curb rests on first layer of base course. See typical sections.



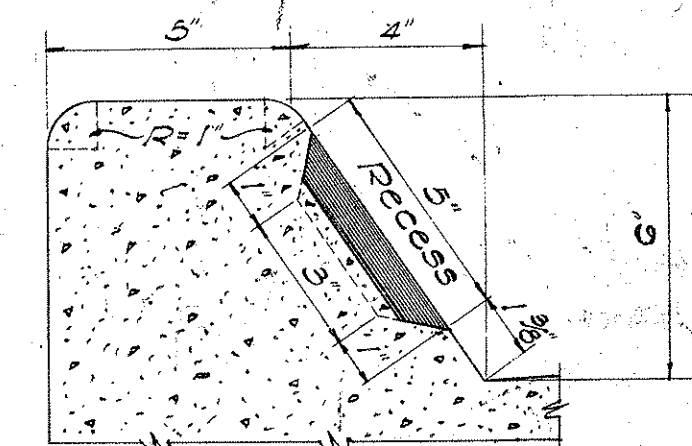
TYPE AND SPACING OF RECESSES



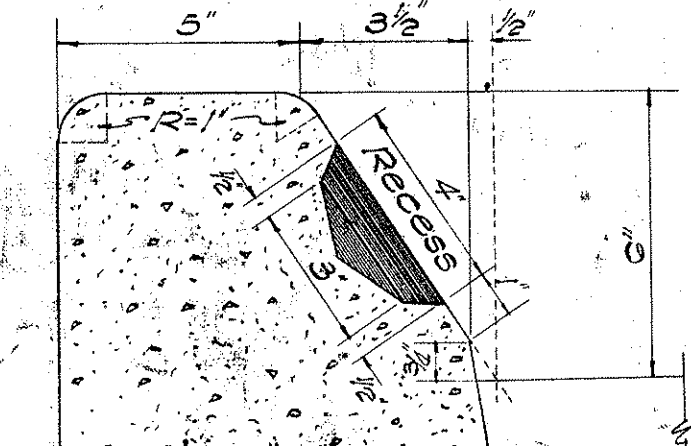
SECTION "B-B"
TYPE "A" & "B" CURB



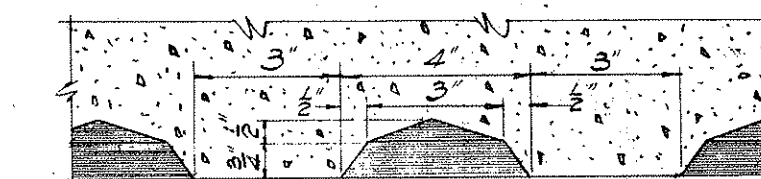
ELEVATION
SCALE: 3" = 1'-0"



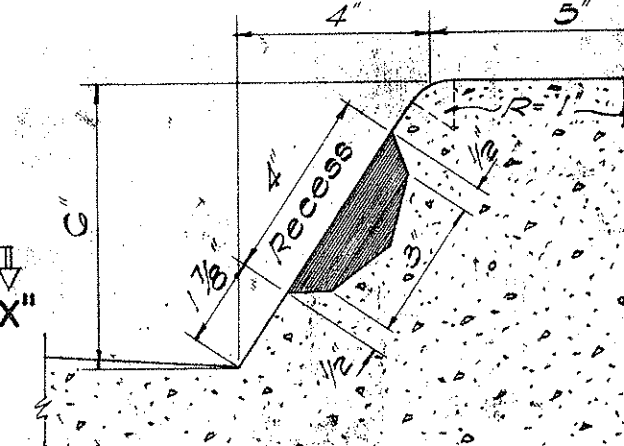
SECTION "C-C"
TYPE "AG" & "BG" CURB



SECTION "Y-Y"
TYPE "C" CURB



SECTION "X-X"
"Z" < "Y"
ELEVATION
SCALE: 3" = 1'-0"



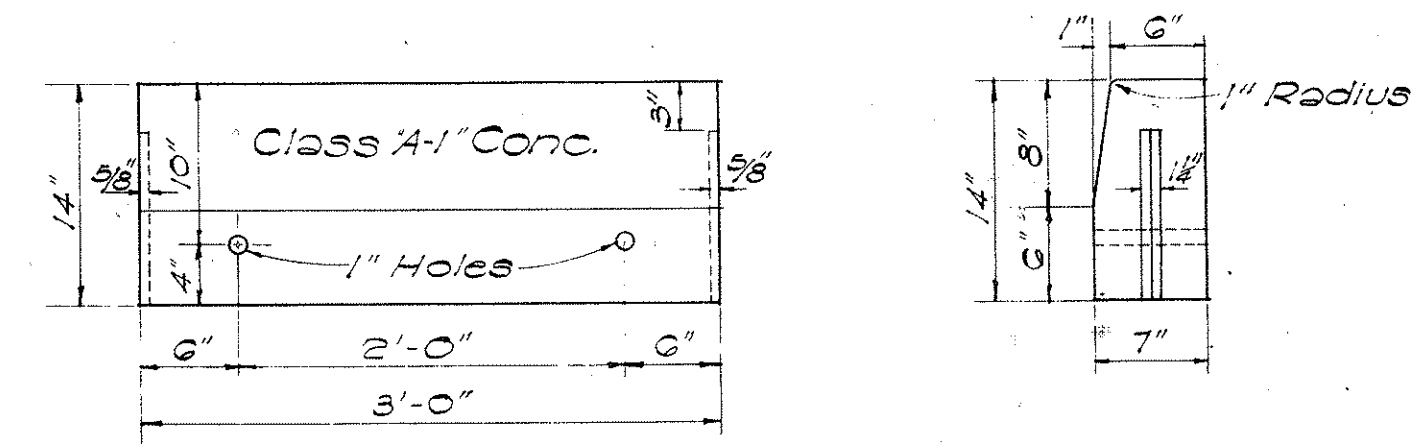
SECTION "Z-Z"
TYPE "CG" CURB

- NOTES:
- 1) Types "AG", "BG", "CG", "DG" and "E" Concrete Curbs and Gutters are to be poured monolithically.
 - 2) Types "A", "B" and "C" Curbs and Types "AG", "BG" and "CG" Curbs and Gutters occur at median strips and traffic islands.
 - 3) Shaded area in Curbs are to be painted with an approved white lacquer (One Coat).
 - 4) All Concrete Curbs and Gutters shown herein are to be of Class "A-1" Conc. and Cast in Place.

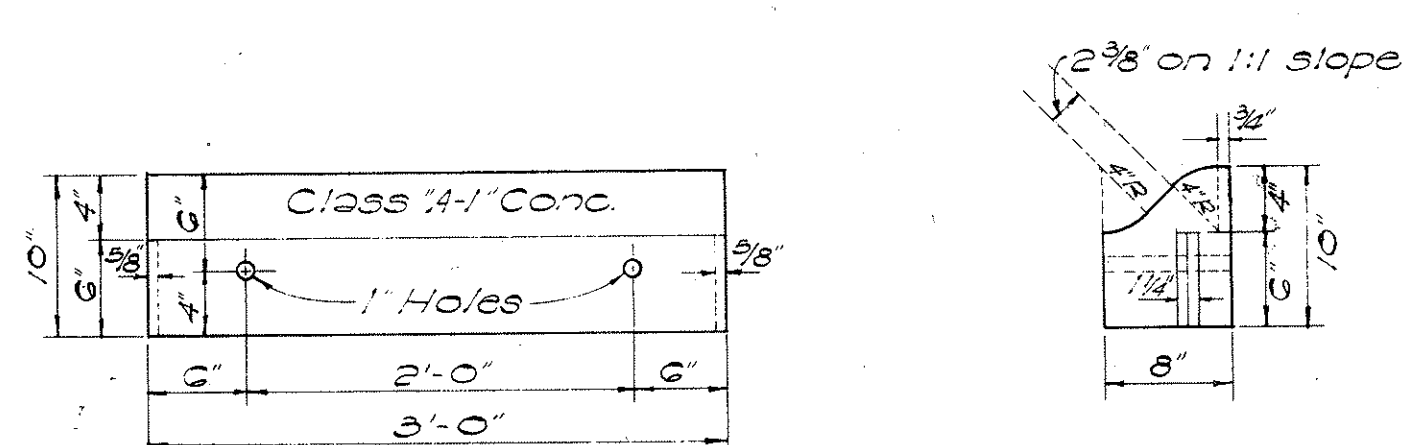


TYPE "G" GUTTER
SCALE: 1" = 1'-0"

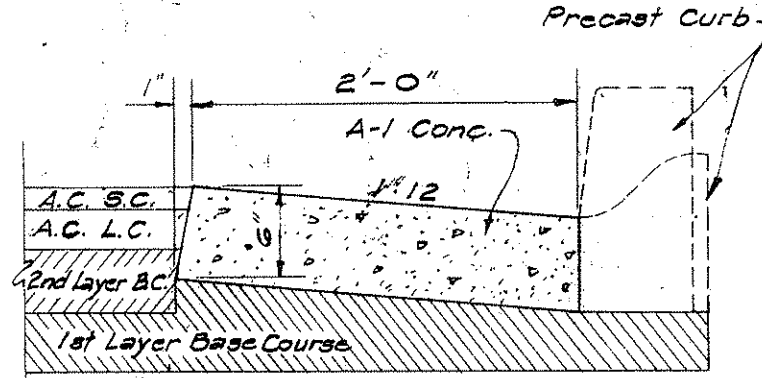
DETAILS OF CAST-IN-PLACE CONC. CURBS AND GUTTERS



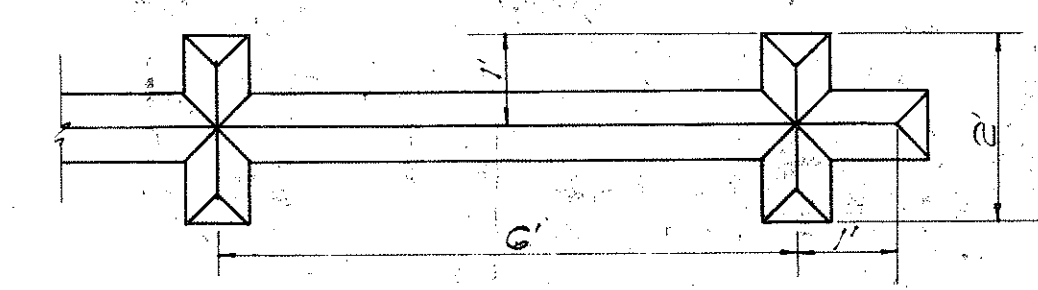
FRONT ELEV.
END ELEV.
PRECAST CONC. CURB
SCALE: 1" = 1'-0"



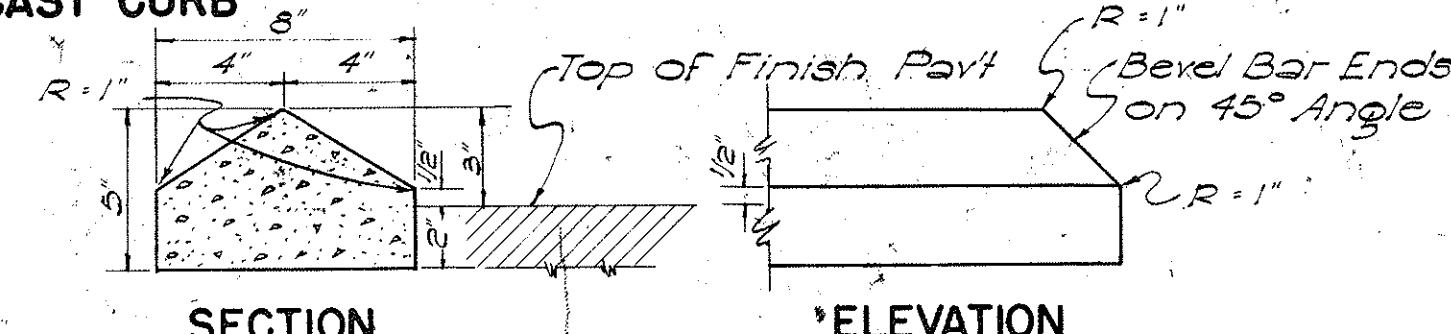
FRONT ELEV.
END ELEV.
PRECAST CONC. ROLL CURB
SCALE: 1" = 1'-0"



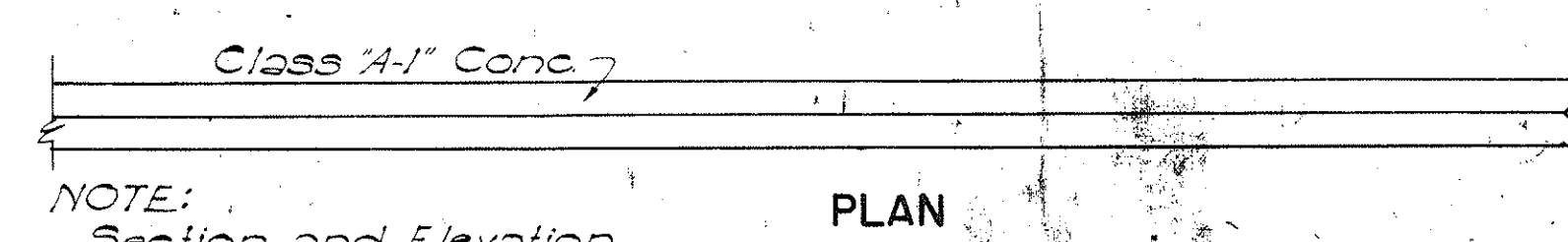
TYPE "F" GUTTER
FOR PRECAST CURB



PLAN
SCALE: 1/2" = 1'-0"



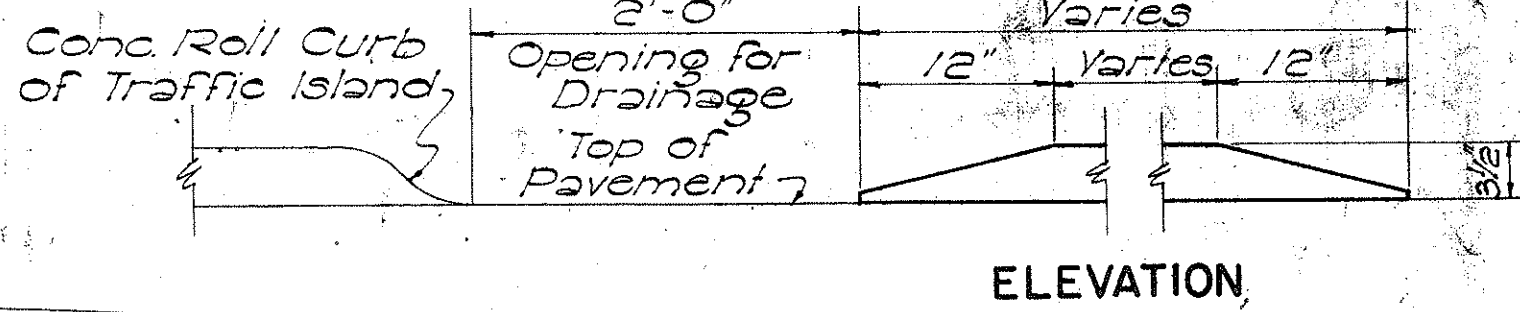
SECTION
ELEVATION
RAISED TRAFFIC BARS
SCALE: 2" = 1'-0"



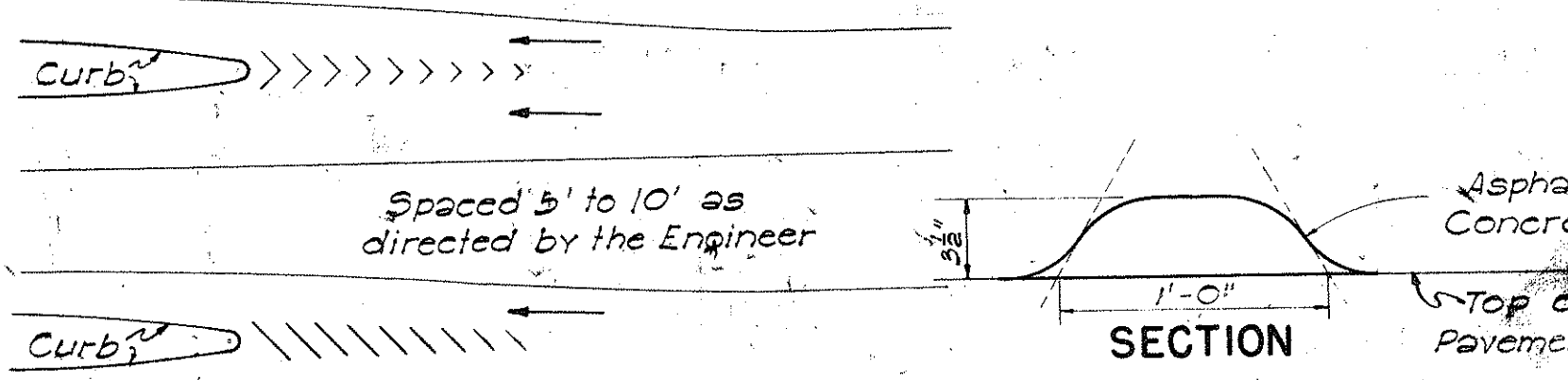
PLAN
RAISED JIGGLE BARS
SCALE: 1/2" = 1'-0"

NOTE:
Section and Elevation for Jiggle Bars are same as the Traffic Bars.

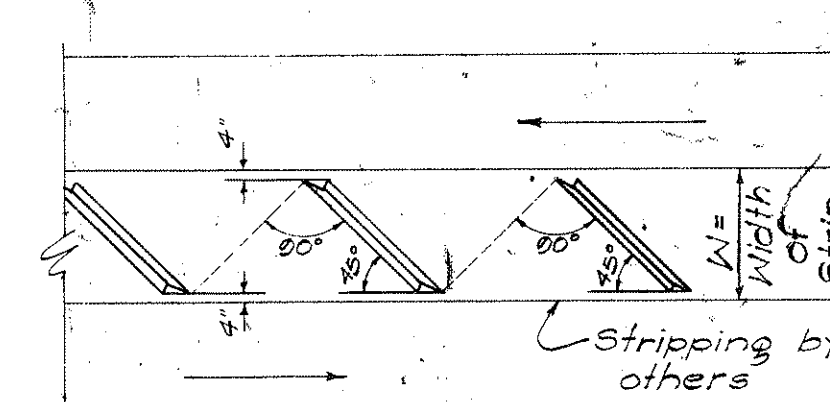
NOTE:
Paint all exposed surfaces of bars with beaded white traffic lacquer.



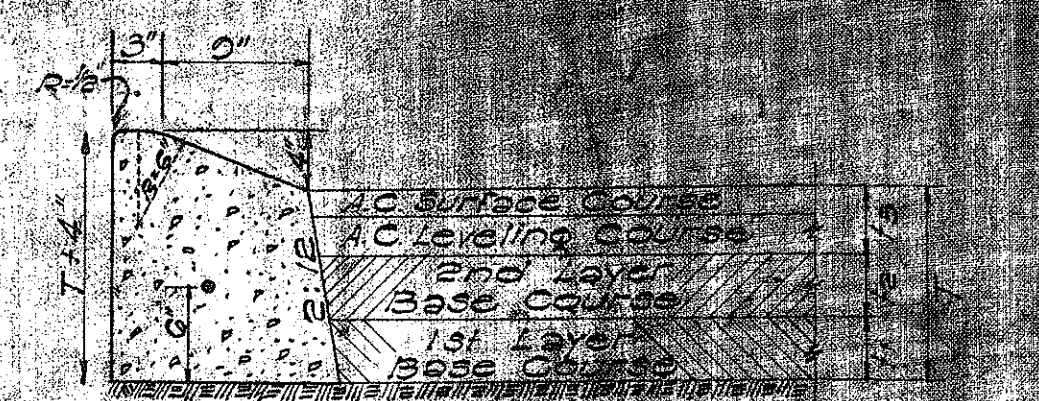
ELEVATION



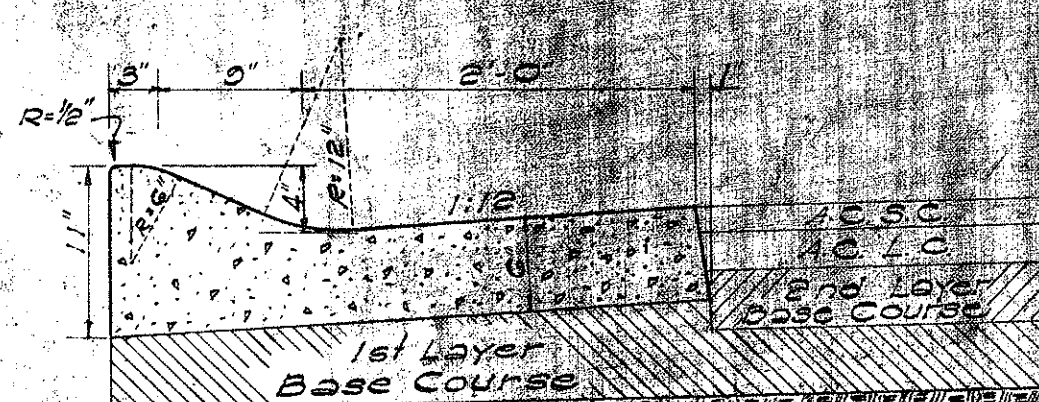
SECTION
A.C. TRAFFIC ROLL
NOT TO SCALE



AT CURBED ISLAND
MEDIAN STRIP
LAYOUT OF JIGGLE BARS
NOT TO SCALE



TYPE "E" CAST-IN-PLACE
CONCRETE CURB
SCALE: 1" = 1'-0"

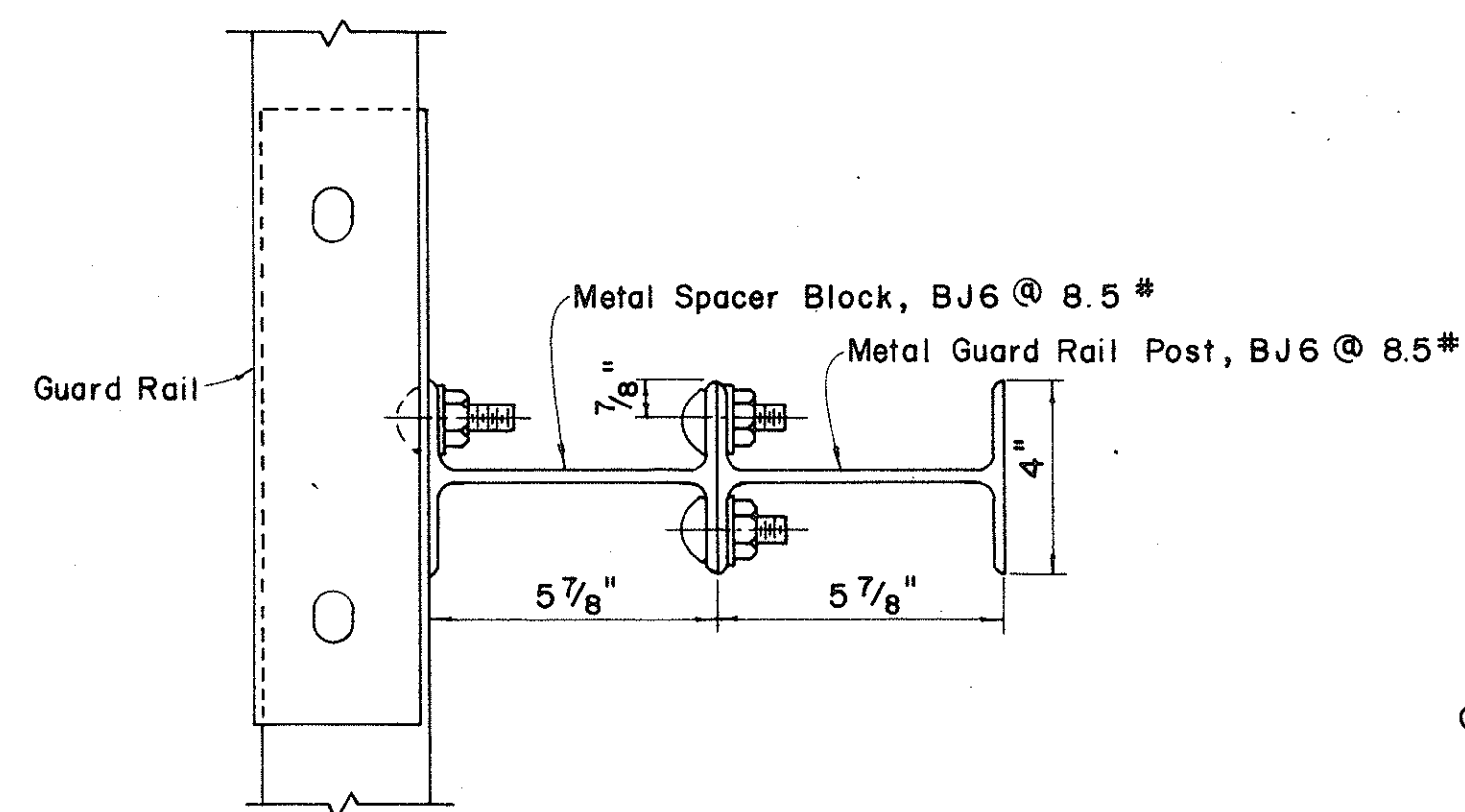


TYPE "EG" CAST-IN-PLACE
CONC. CURB & GUTTER
SCALE: 1" = 1'-0"

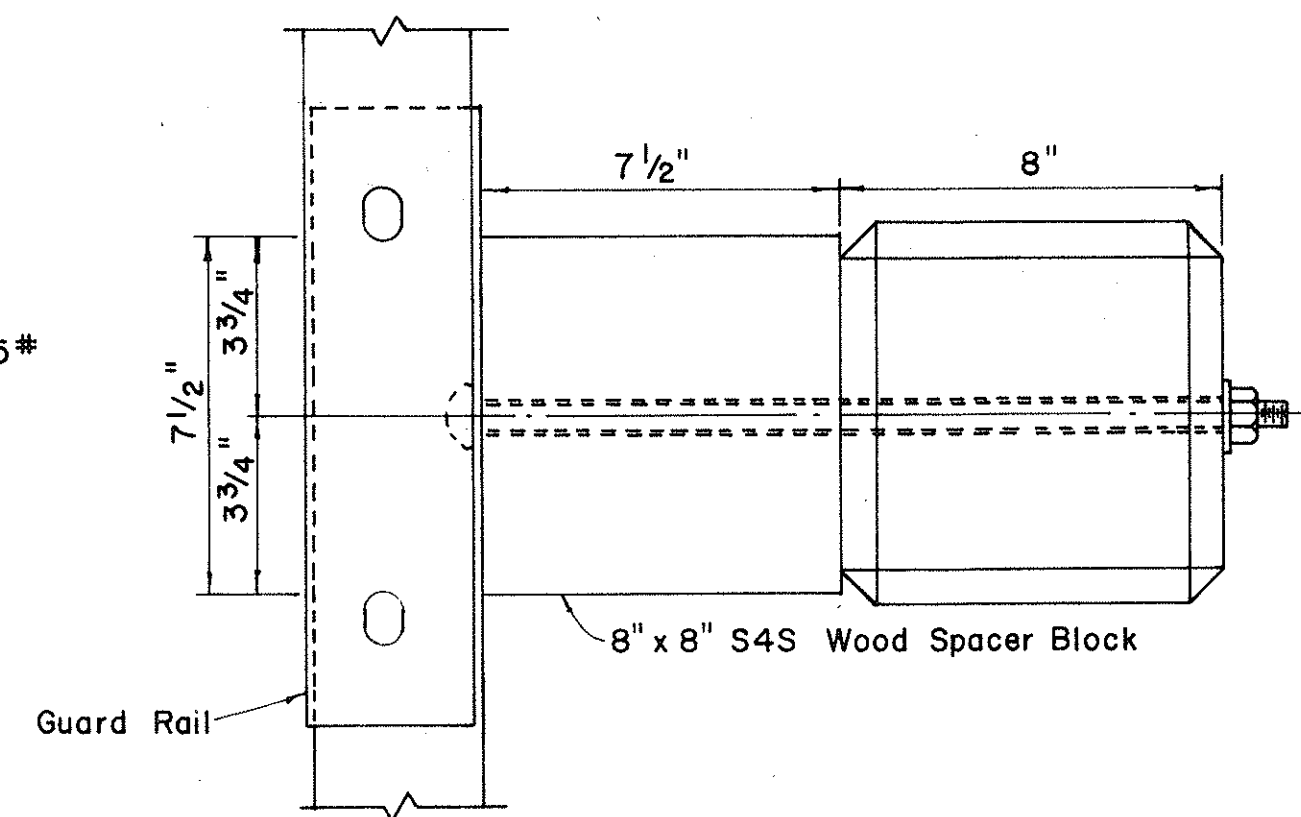
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
CONCRETE CURBS,
CONCRETE CURBS & GUTTERS
SCALES AS NOTED

SHEET NO. 15 OF 5 SHEETS

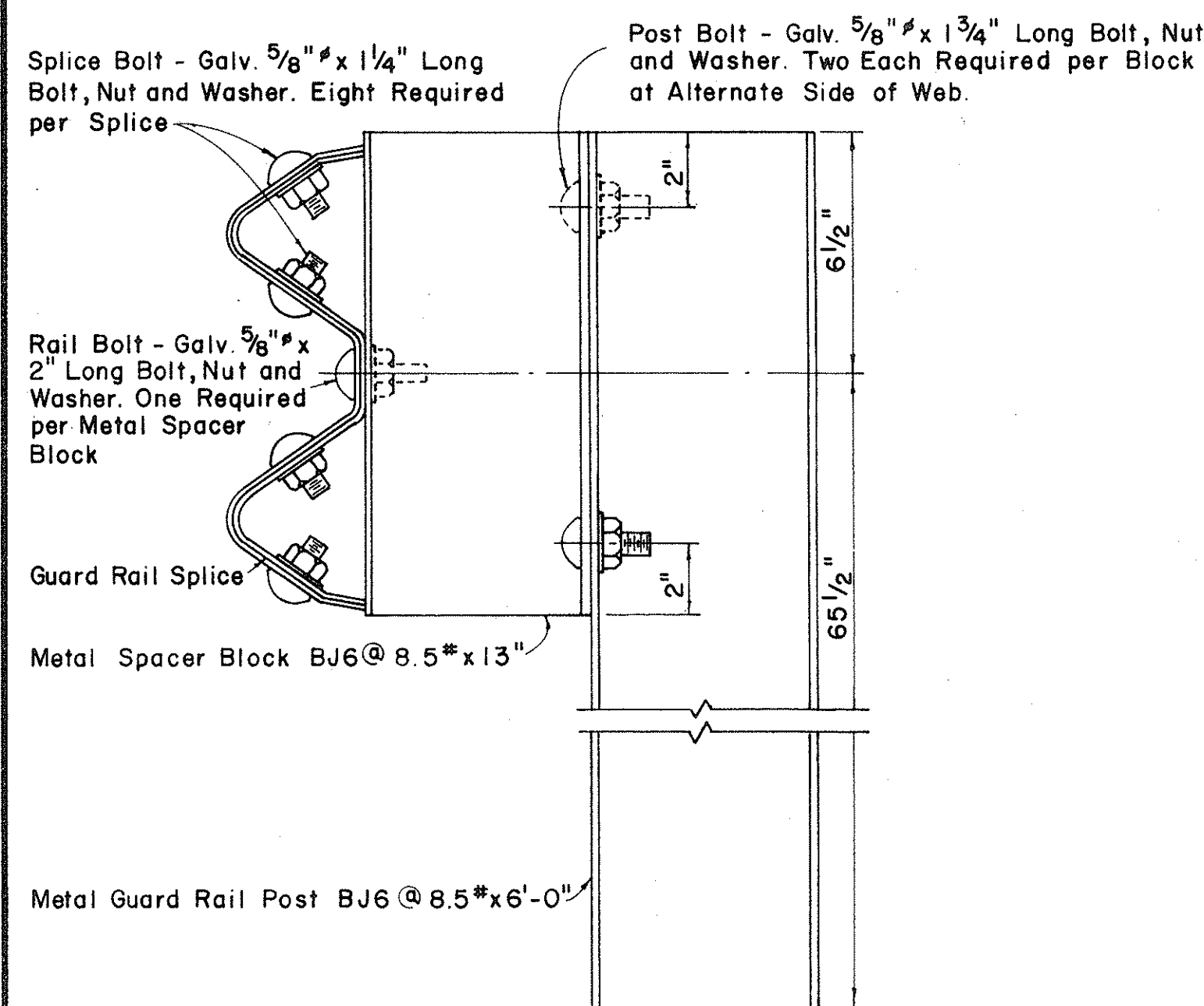
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	127	1966	16	25



PLAN

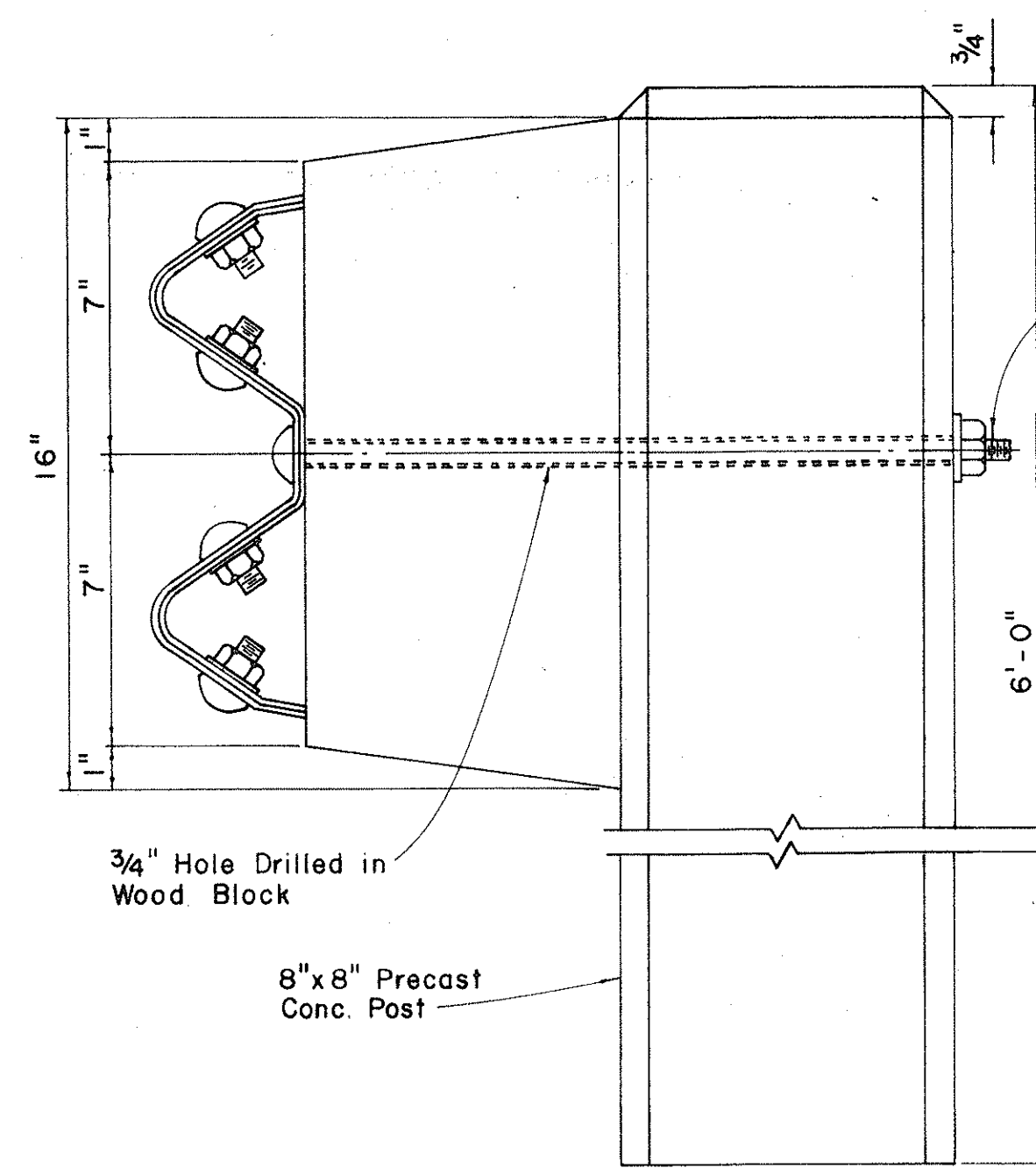


PLAN



SINGLE GUARD RAIL ON METAL POST
WITH METAL SPACER BLOCK

Scale: 3" = 1' - 0"

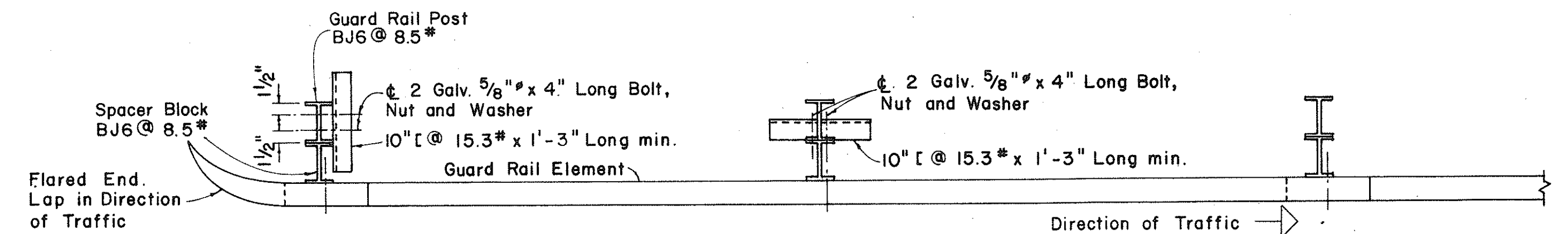


SINGLE GUARD RAIL ON PRECAST
CONCRETE POST WITH WOOD SPACER BLOCK

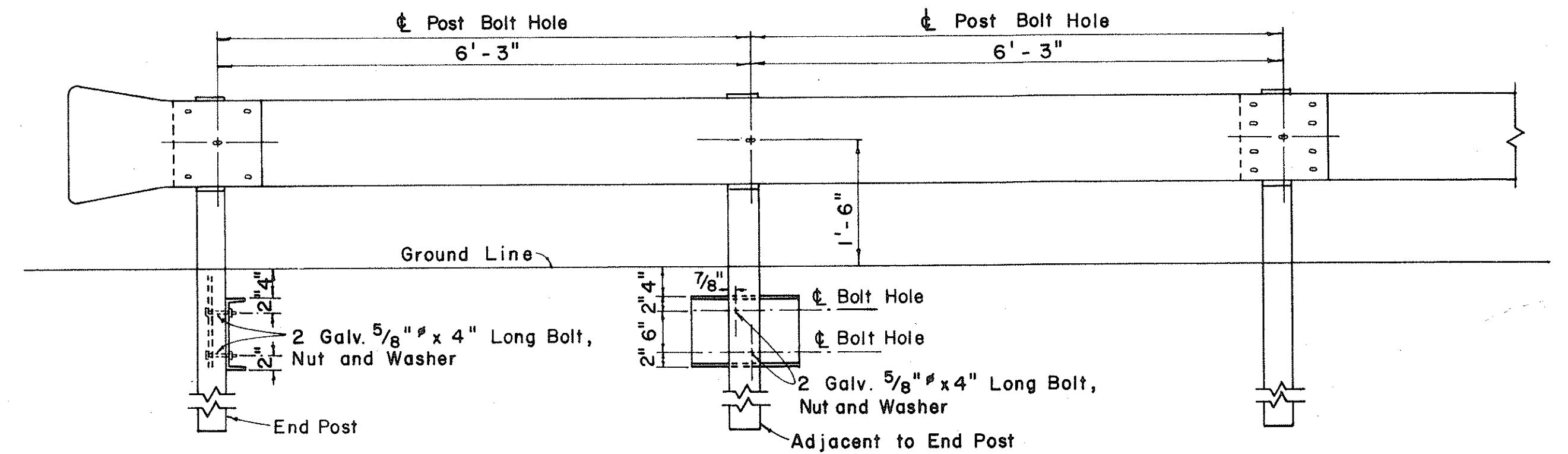
Scale: 3" = 1' - 0"

NOTE:

Wood Blocks shall be Douglas Fir, "Construction Grade - Posts and Timbers," 1200c Painted with Creosote Conforming to the Requirements of AASHTO Designation: M-133



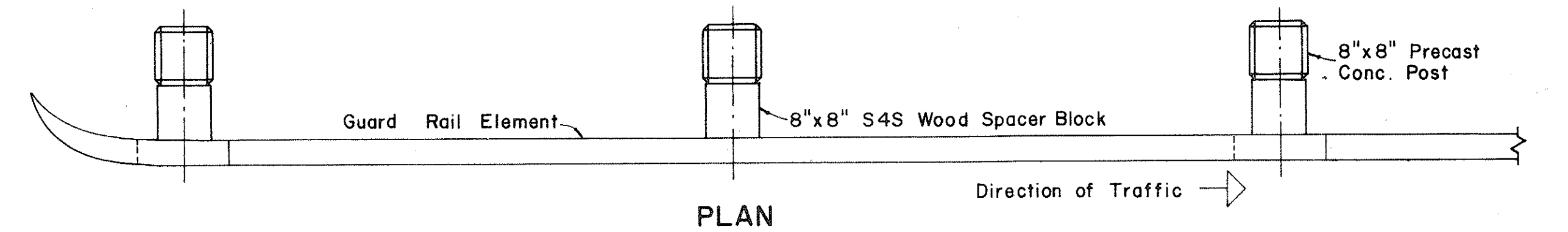
PLAN



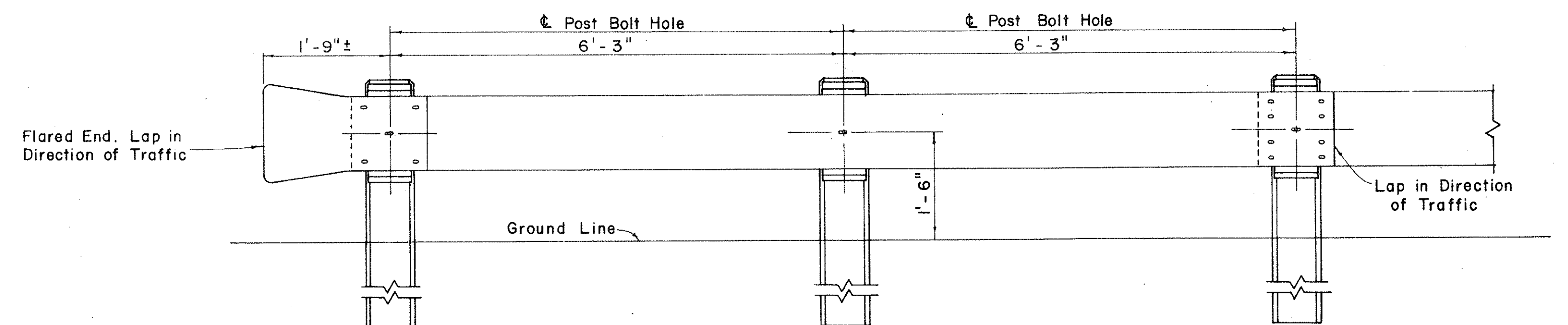
ELEVATION

METAL GUARD RAIL ON METAL POST WITH METAL SPACER BLOCK

Scale: 3/4" = 1' - 0"



PLAN



ELEVATION

METAL GUARD RAIL ON CONCRETE POST WITH WOOD SPACER BLOCK

Scale: 3/4" = 1' - 0"

DETAILS FOR SINGLE GUARD RAIL

Scale: As Shown

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

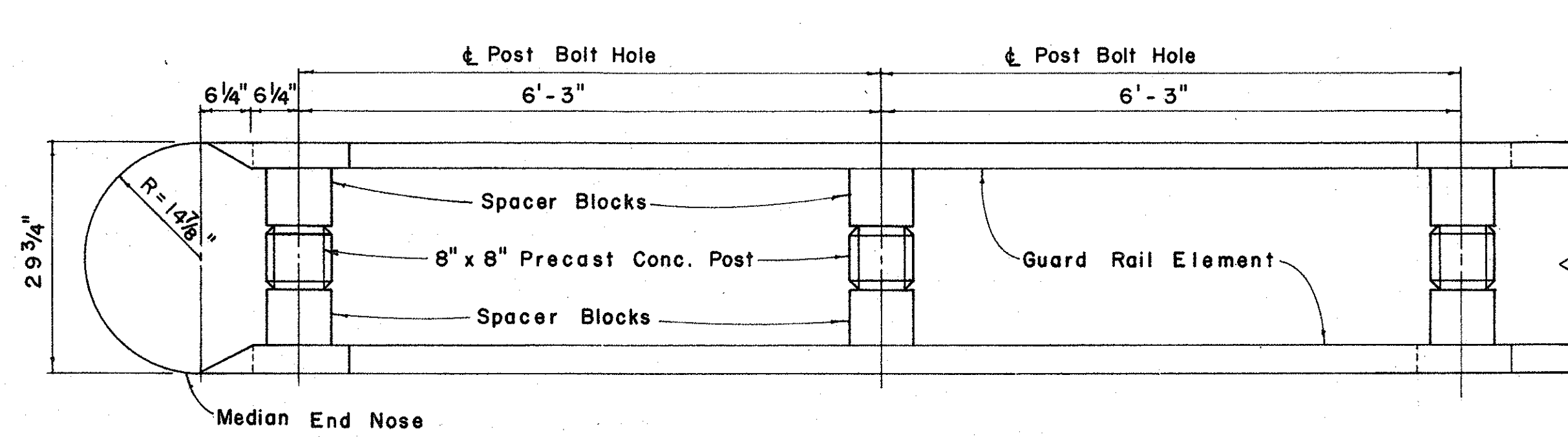
METAL GUARD RAIL

INTERSTATE HIGHWAY (LUNALILO FWY)
F.A.I. PROJ. NO. IHH(27)

SHEET No. 2 OF 5 SHEETS

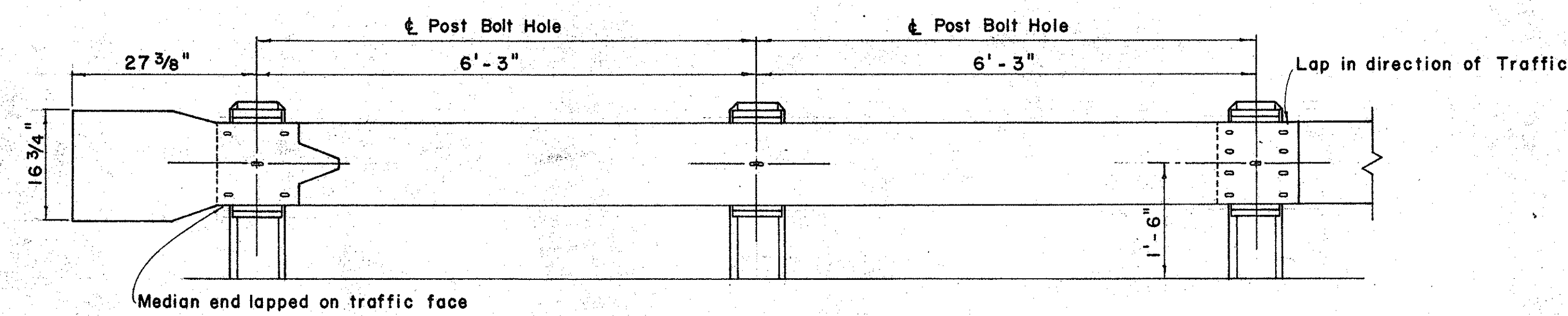
116

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(27)	1966	17	33



PLAN

Scale: $\frac{3}{4}$ " = 1' - 0"

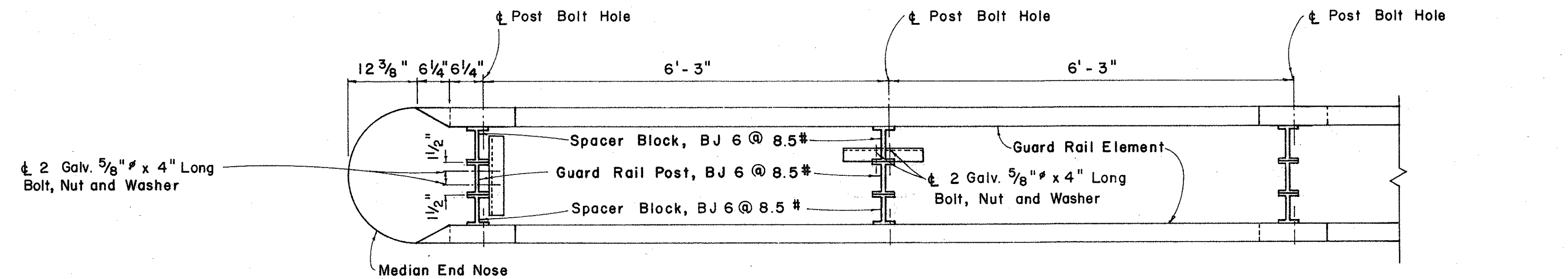


DIRECTION OF TRAFFIC →

ELEVATION

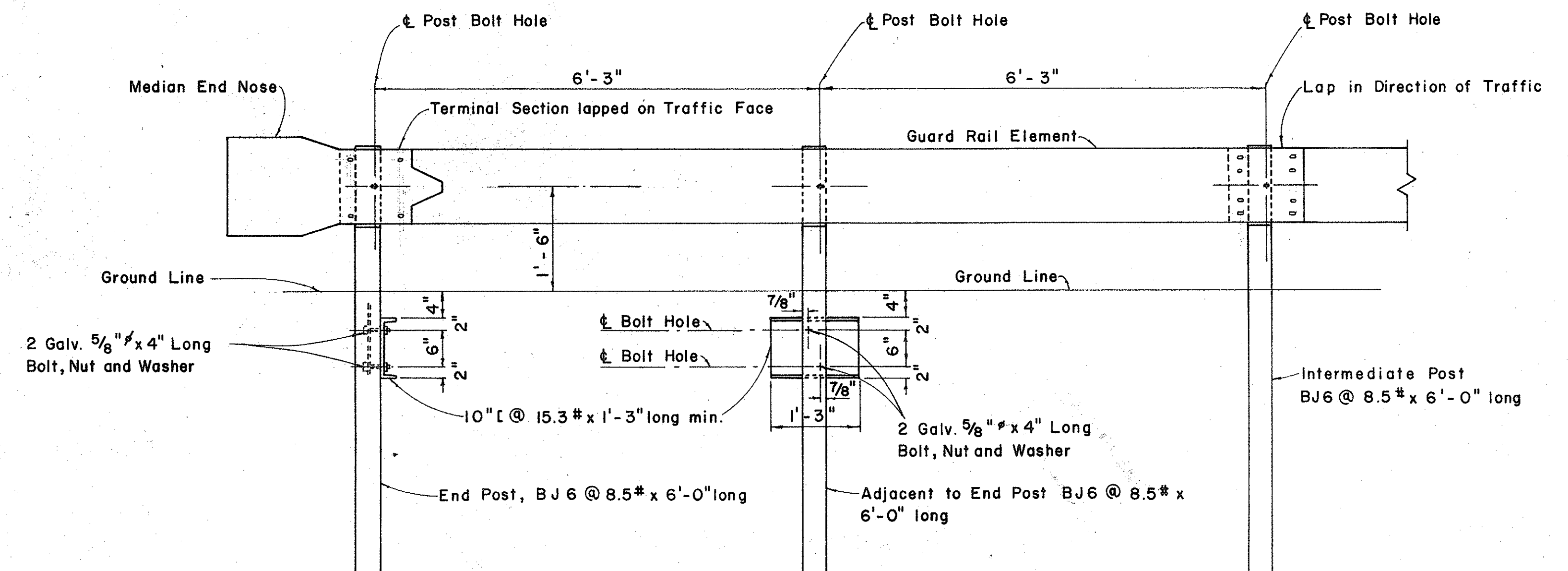
METAL GUARD RAIL ON CONCRETE POSTS AND WOOD SPACER BLOCKS

Scale: $\frac{3}{4}$ " = 1' - 0"



PLAN

Scale: $\frac{3}{4}$ " = 1' - 0"



ELEVATION

METAL GUARD RAIL ON METAL POSTS AND METAL SPACER BLOCKS

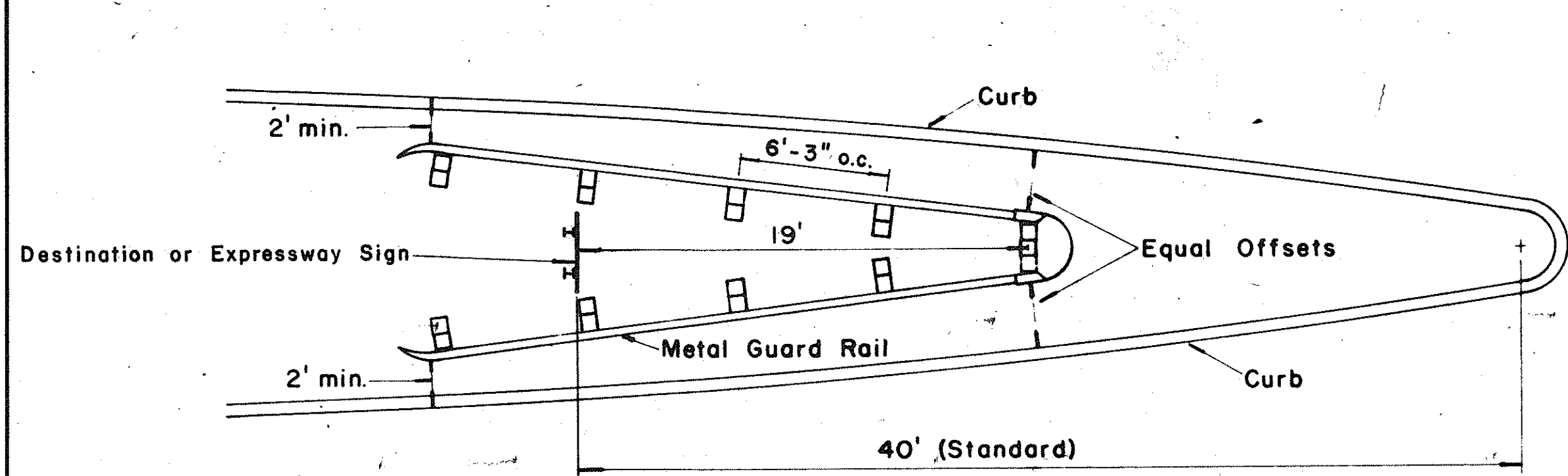
Scale: $\frac{3}{4}$ " = 1' - 0"

DETAIL FOR DOUBLE METAL GUARD RAIL IN MEDIAN

Scale: As Shown

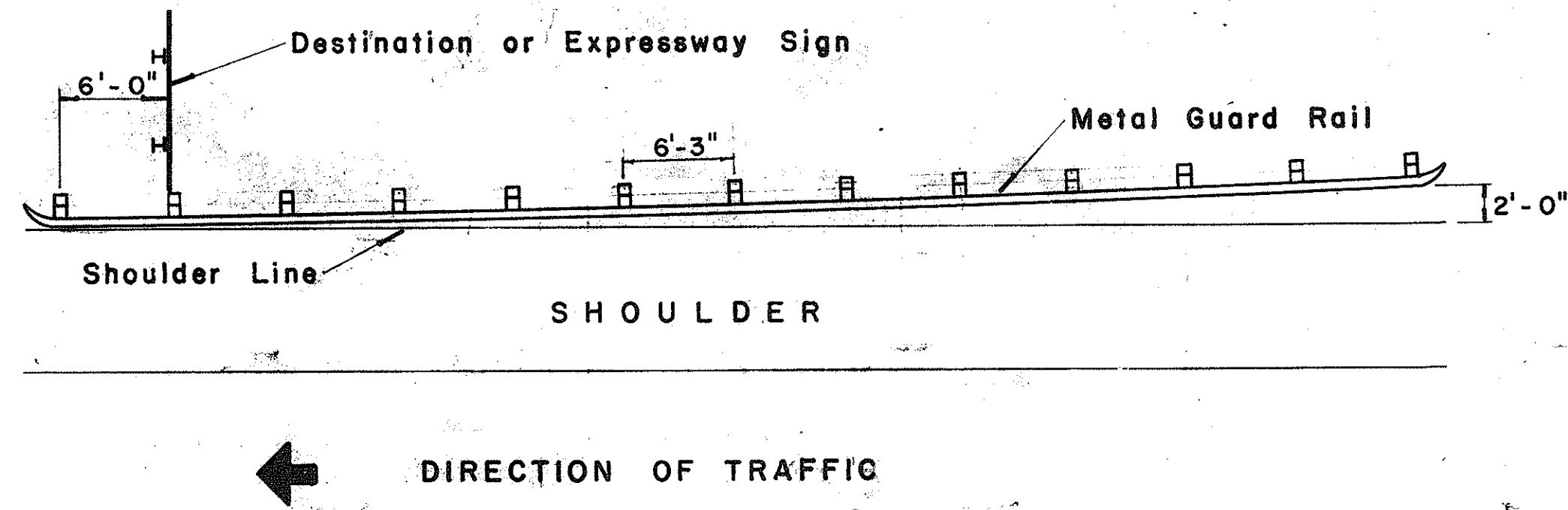
DATE	BY
DESIGNED BY	
DRAWN BY	
CHECKED BY	
NOTED BY	
NO.	

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION STANDARD DETAILS METAL GUARD RAIL INTERSTATE HIGHWAY (LUNALILO FWY) F.A.I. PROJ. NO. I-HI-1(27) SHEET No. 3 OF 5 SHEETS



GORE MOUNTED SIGN

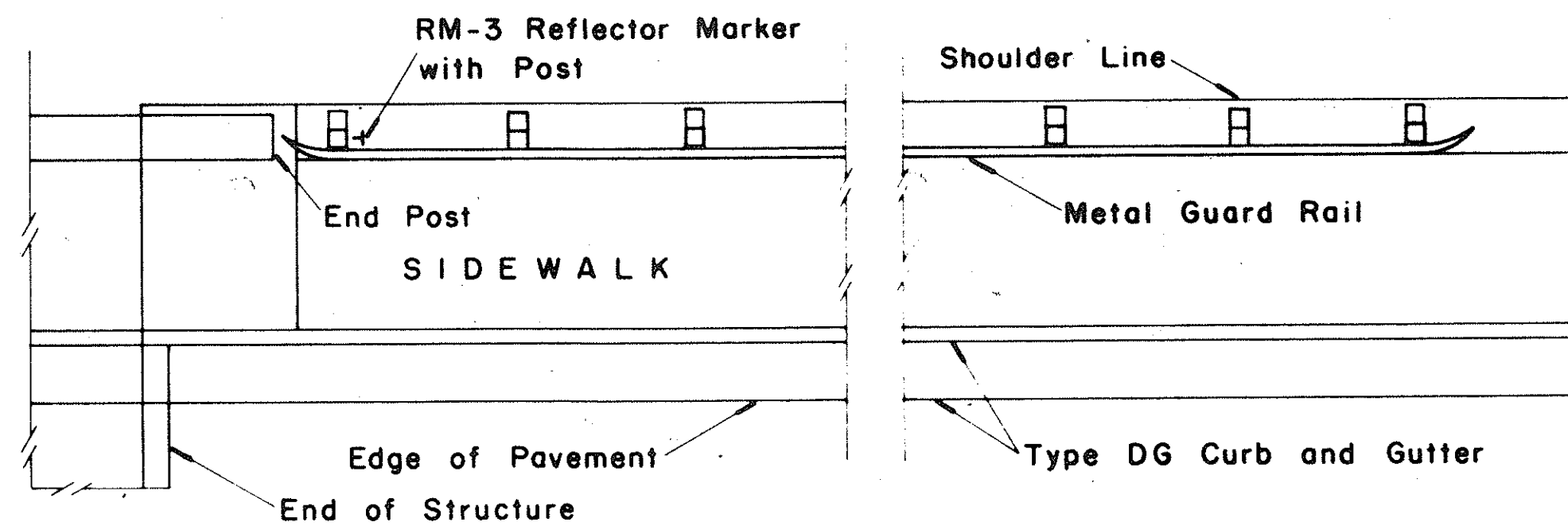
Scale: $\frac{3}{16}" = 1' - 0"$



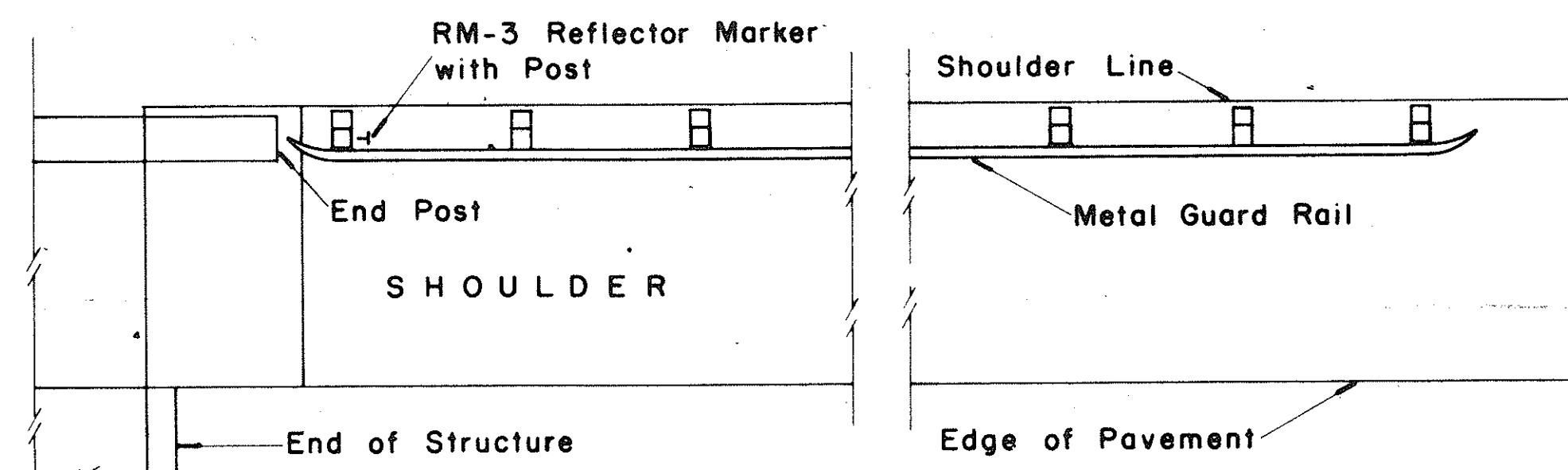
SHOULDER MOUNTED SIGN

Scale: $\frac{1}{8}" = 1' - 0"$

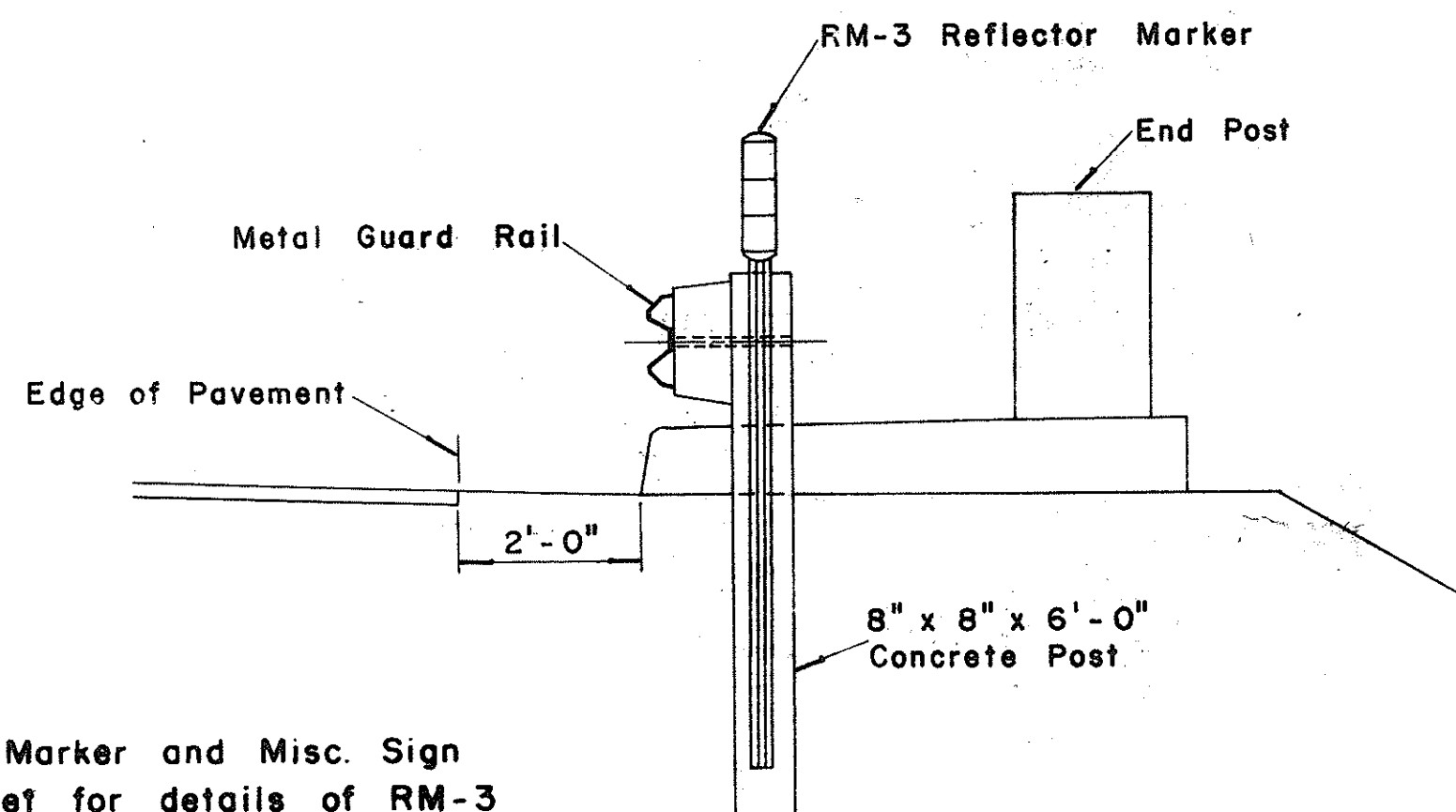
INSTALLATION OF METAL GUARD RAIL FOR DESTINATION AND EXPRESSWAY SIGNS



SIDEWALK CARRIED THROUGH STRUCTURE



SHOULDER CARRIED THROUGH STRUCTURE



SECTION "A-A"

Scale: $\frac{1}{2}" = 1' - 0"$

NOTE:
See F.A. Marker and Misc. Sign
Detail sheet for details of RM-3
Reflector Marker with Post.

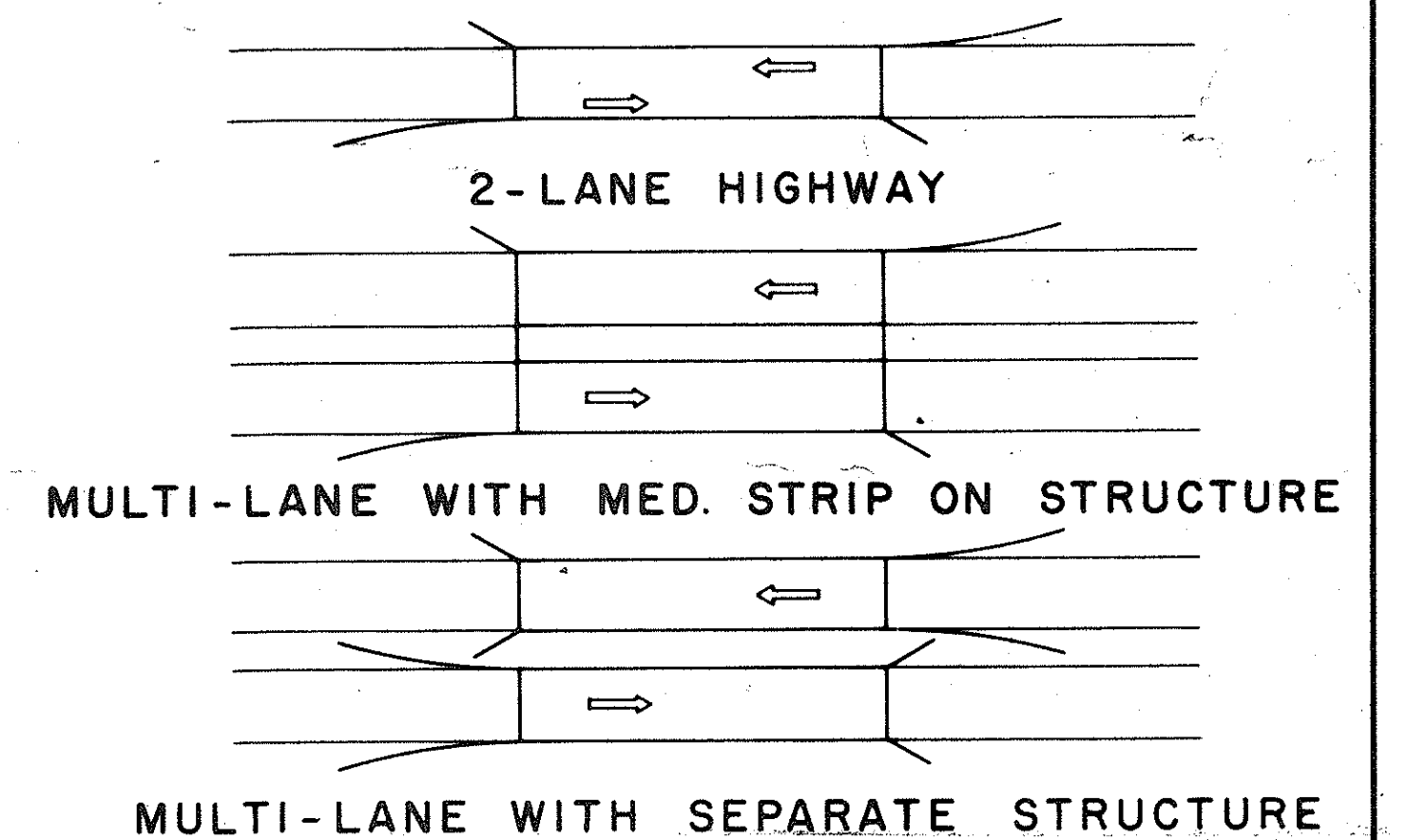
X	Y					
	W=3'	W=4'	W=5'	W=6'	W=7'	W=8'
12.5	0.19	0.16	0.14	0.12	0.09	0.08
25.0	0.75	0.64	0.55	0.49	0.35	0.32
37.5	1.69	1.44	1.25	1.10	0.78	0.72
50.0	3.00	2.56	2.22	1.96	1.38	1.28
62.5		4.00	3.47	3.06	2.16	2.00
75.0			5.00	4.41	3.11	2.85
87.5				6.00	4.23	3.92
100.0					5.53	5.12
112.5					7.00	6.48
125.0						8.00

W = GUARD RAIL FLARE

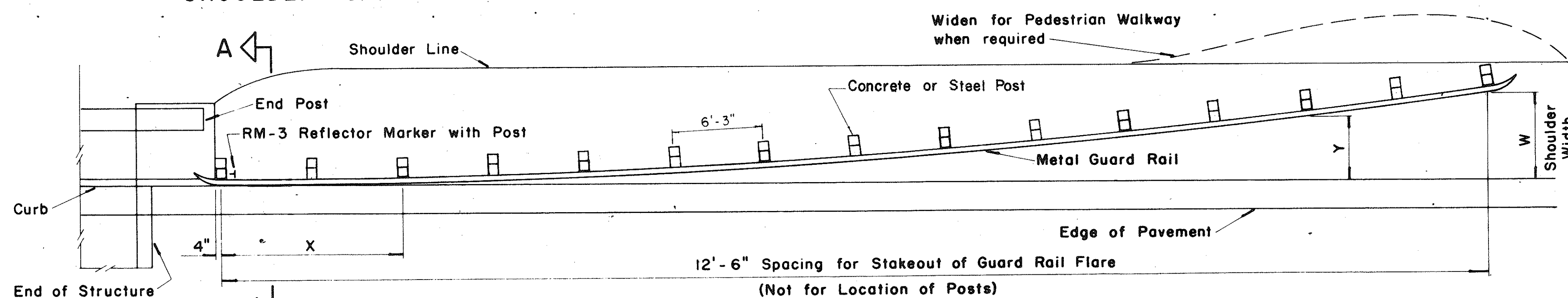
X = DISTANCE FROM POST AT
BRIDGE TO OFFSET POINTS

Y = GUARD RAIL FLARE OFFSET

GUARD RAIL OFFSET



TYPICAL GUARD RAIL FLARES AT STRUCTURE APPROACHES



SHOULDER NOT CARRIED THROUGH STRUCTURE

INSTALLATION OF METAL GUARD RAIL FLARE AT STRUCTURES

Scale: $\frac{3}{16}" = 1' - 0"$

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

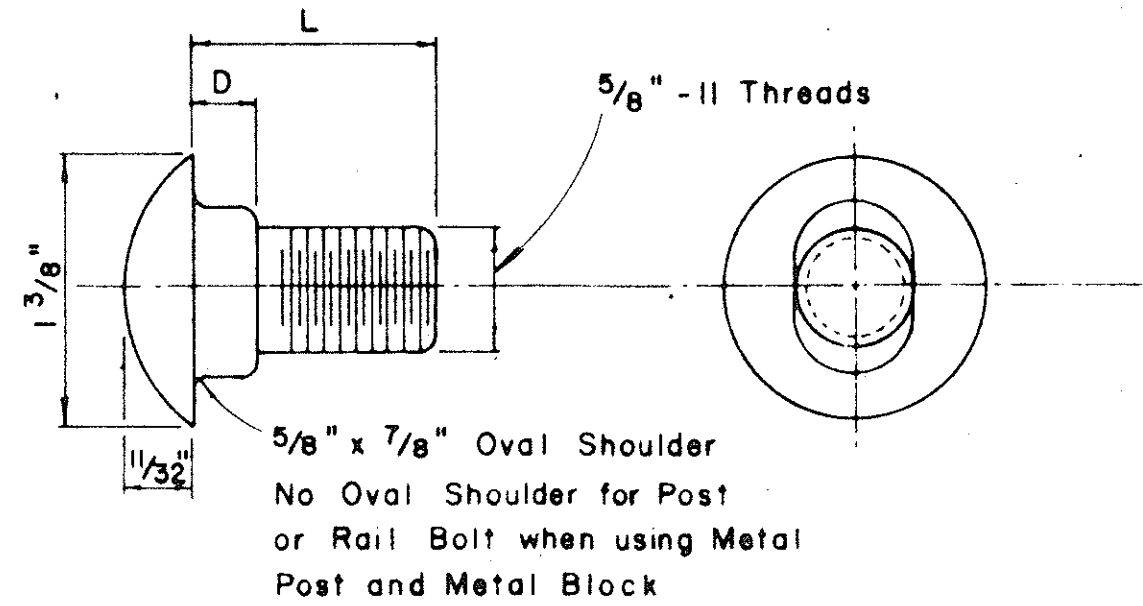
**TYPICAL DETAILS
METAL GUARD RAILS
AT
STRUCTURES & GUIDE SIGNS**

Scale: As Noted

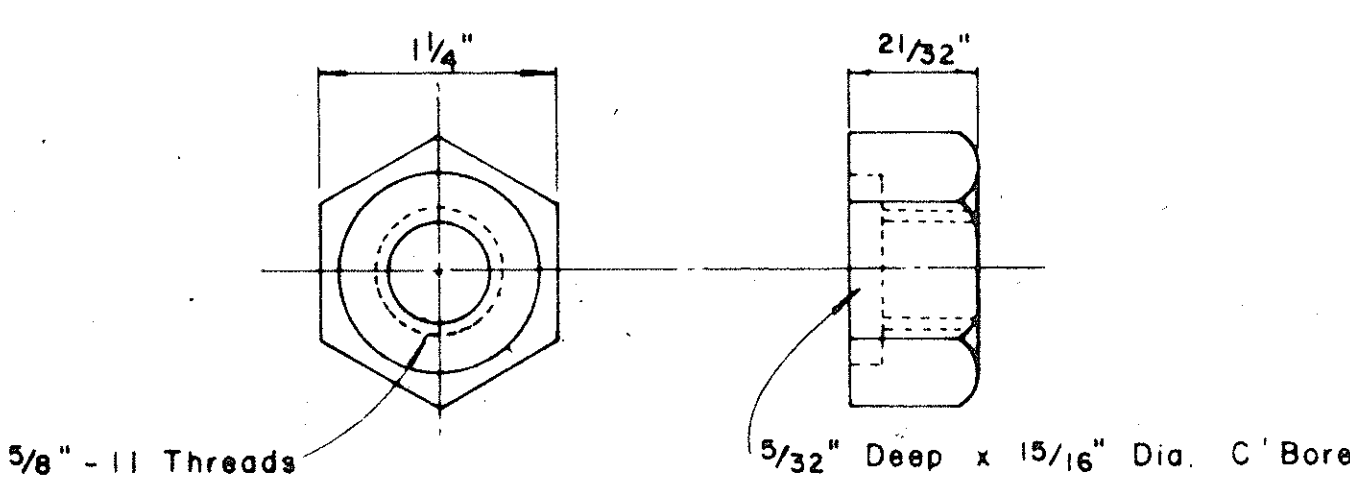
SHEET No. 4 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HIT(27)	1966	19	28

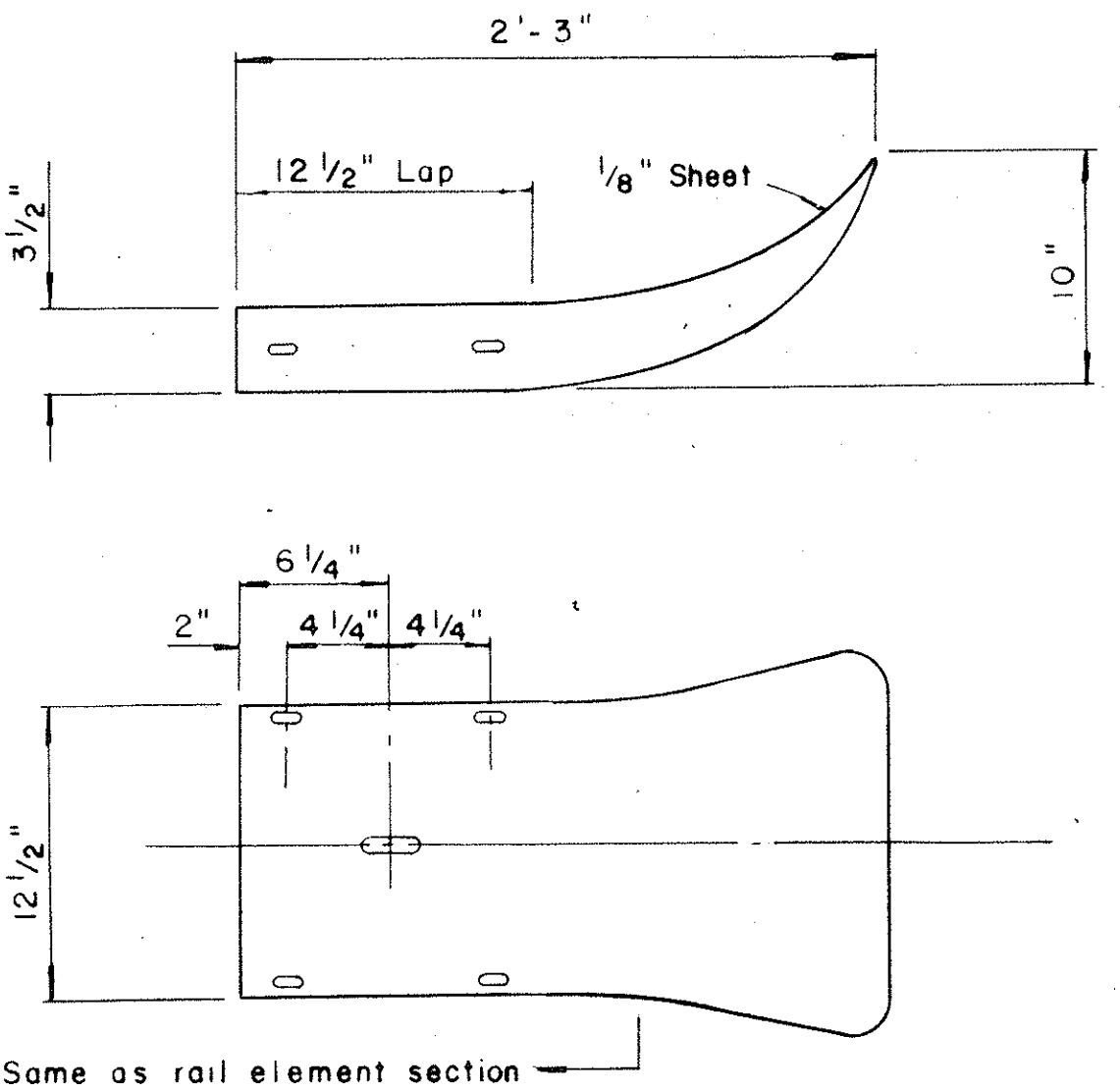
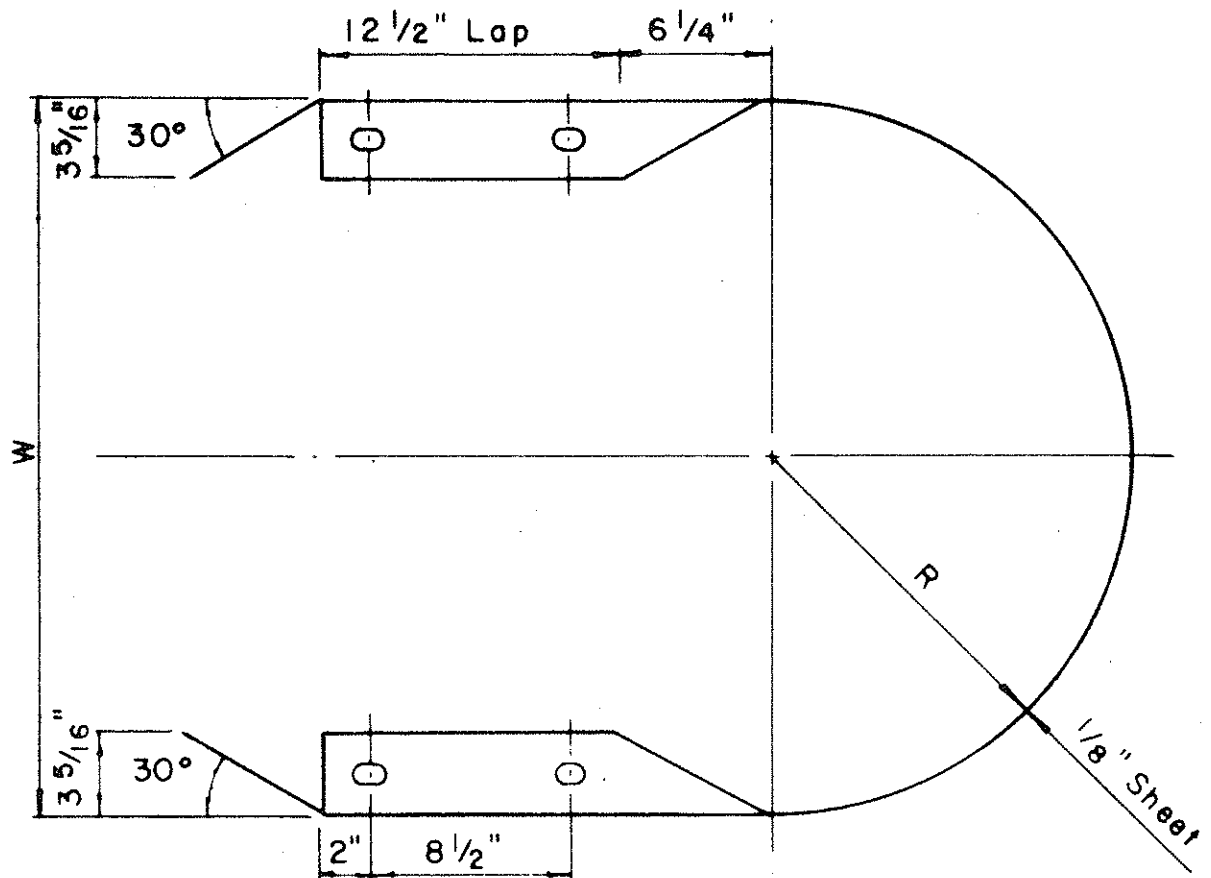
BOLT DIMENSIONS		
TYPE BOLT	D	L
Splice Bolt	5/16"	1 1/4"
Post Bolt for Conc. Post w/ Double Wood Blocks	3/32"	25"
Rail Bolt for Metal Block	3/32"	2"
Post Bolt for Metal Post w/ Metal Block	0"	1 3/4"
Post Bolt for Conc. Post w/ Single Wood Block	3/32"	18"



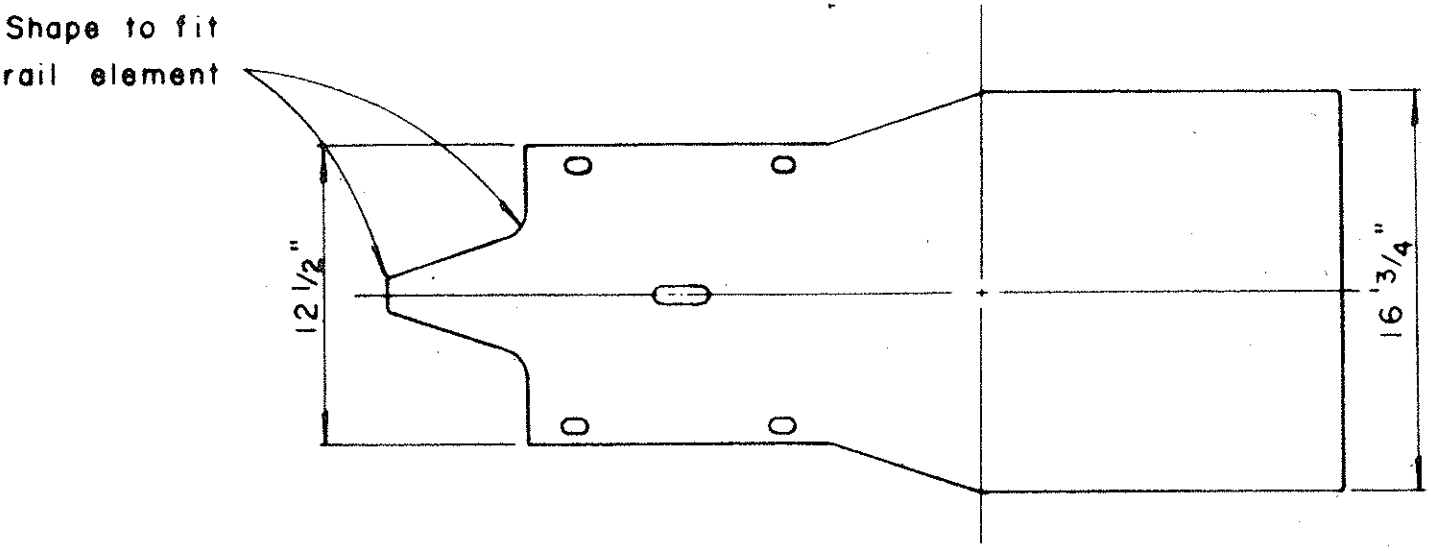
SPlice RAIL AND POST BOLTS
Scale: Full Size



HEXAGON NUT
Scale: Full Size

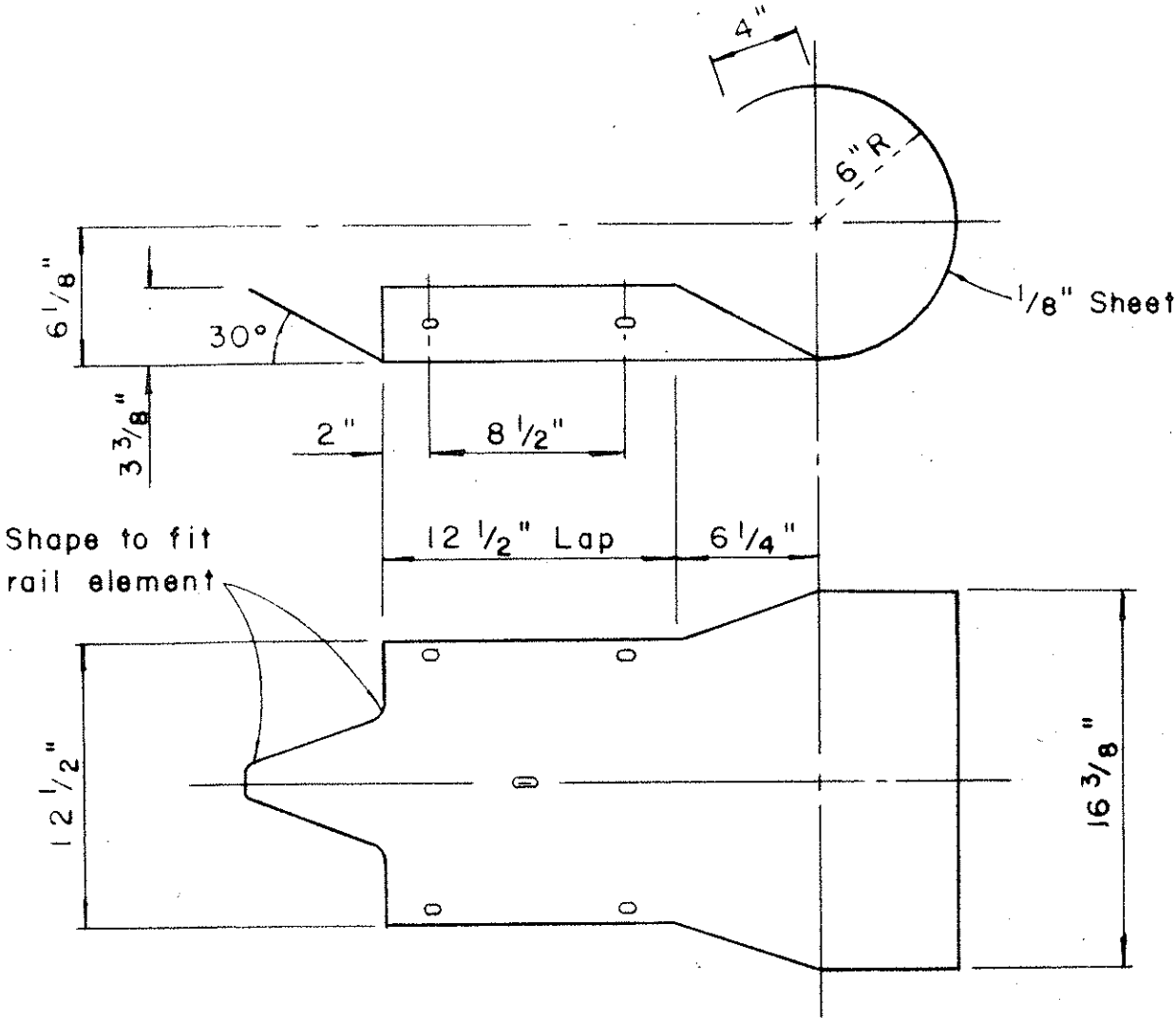


FLARED END
Scale: 1 1/2" = 1'-0"

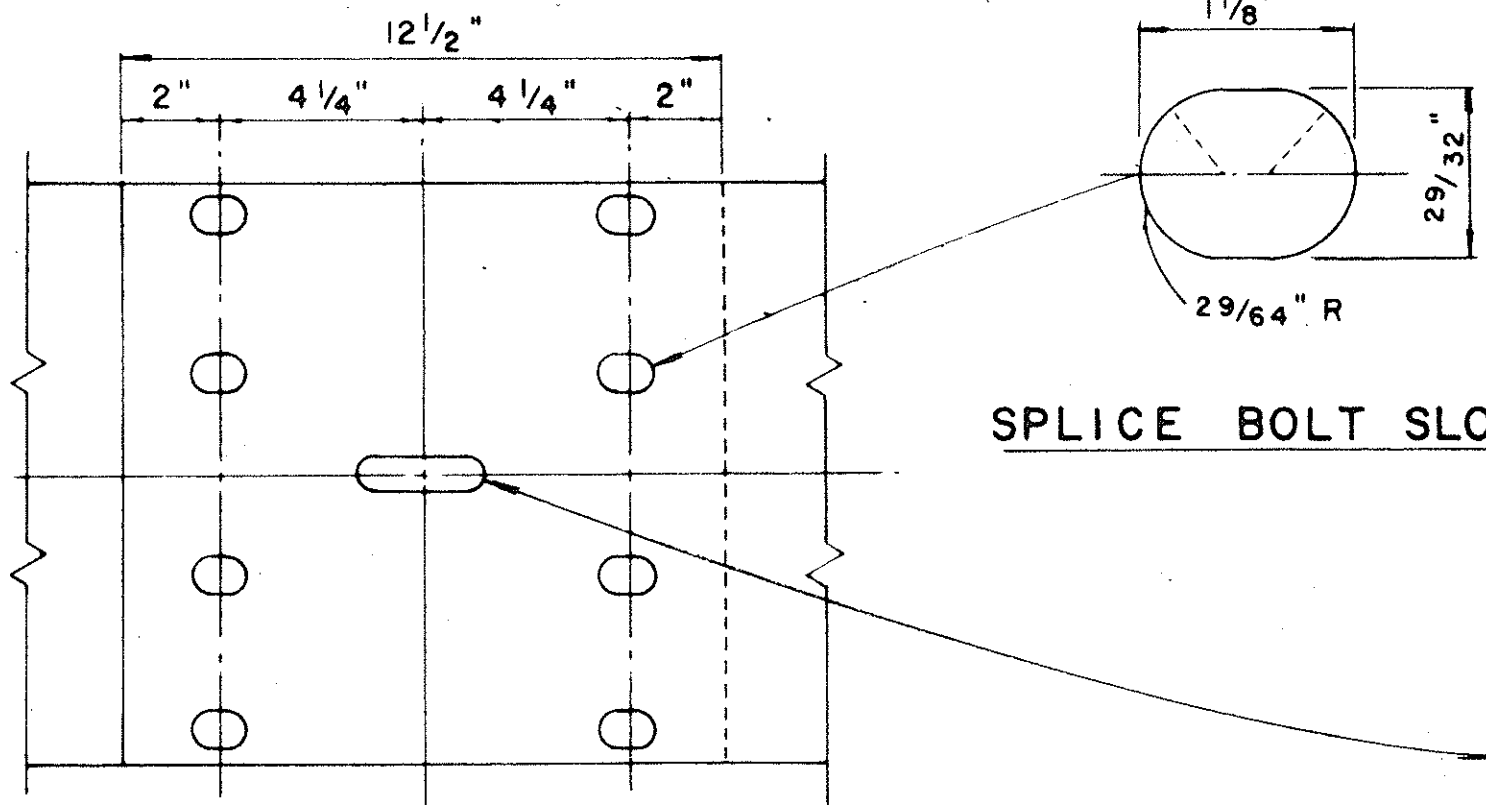


MEDIAN END
Scale: 1 1/2" = 1'-0"

MEDIAN END DIMENSIONS		W	R
TYPE OF POST AND BLOCK			
Double Metal Guard Rail on Concrete Post with Wood Blocks		29 3/4"	14 7/8"
Double Metal Guard Rail on Metal Post with Metal Blocks (B J 6)		24 3/4"	12 3/8"

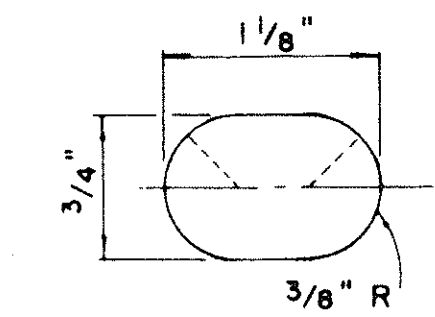


CURVED END
Scale: 1 1/2" = 1'-0"

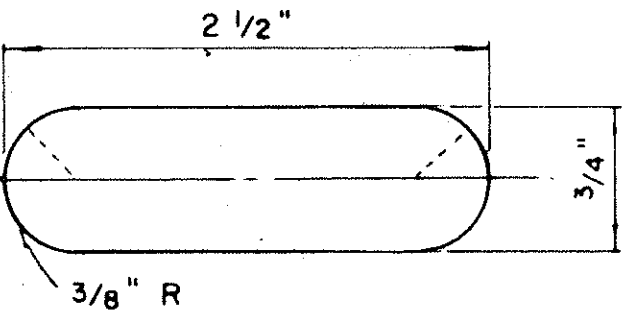


RAIL SPLICE
Scale: 3" = 1'-0"

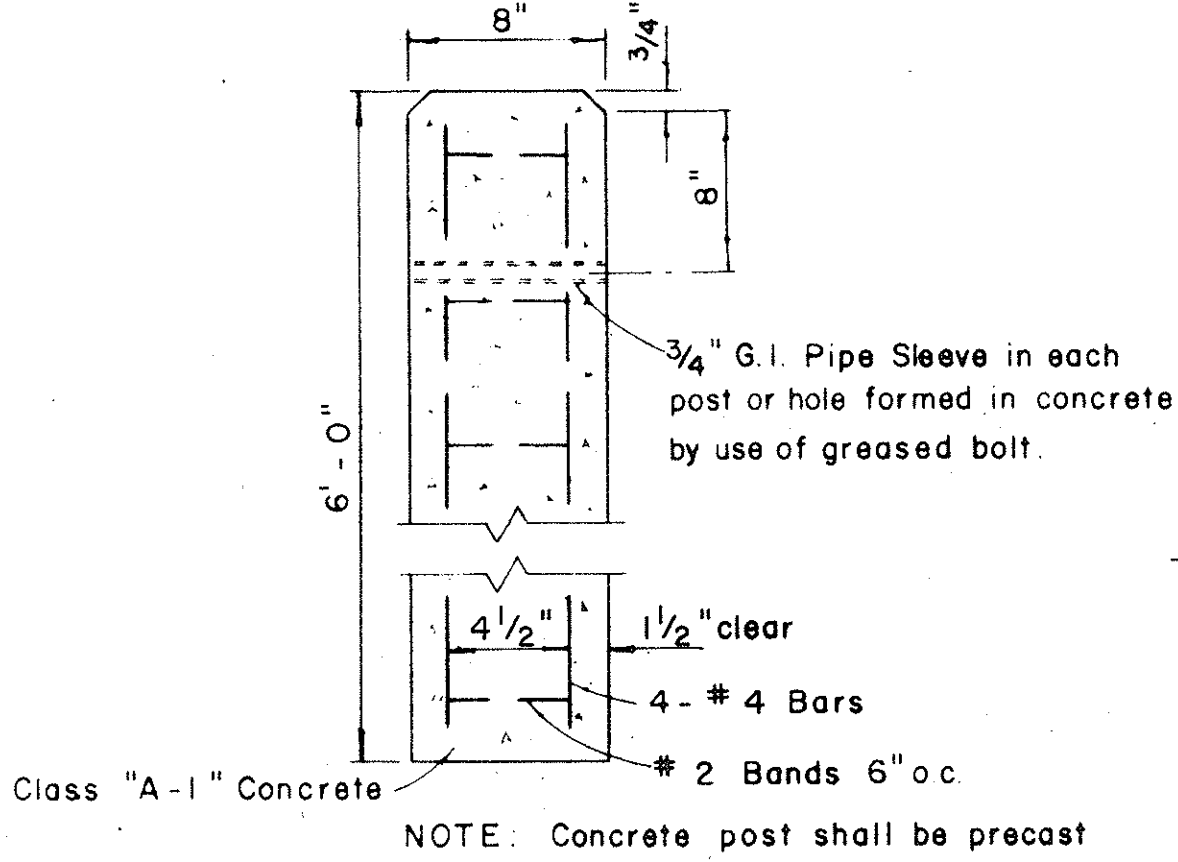
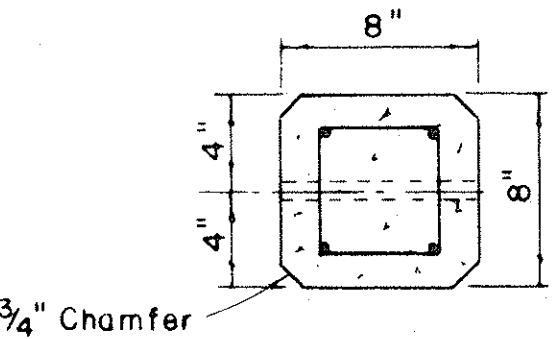
SPlice BOLT SLOT



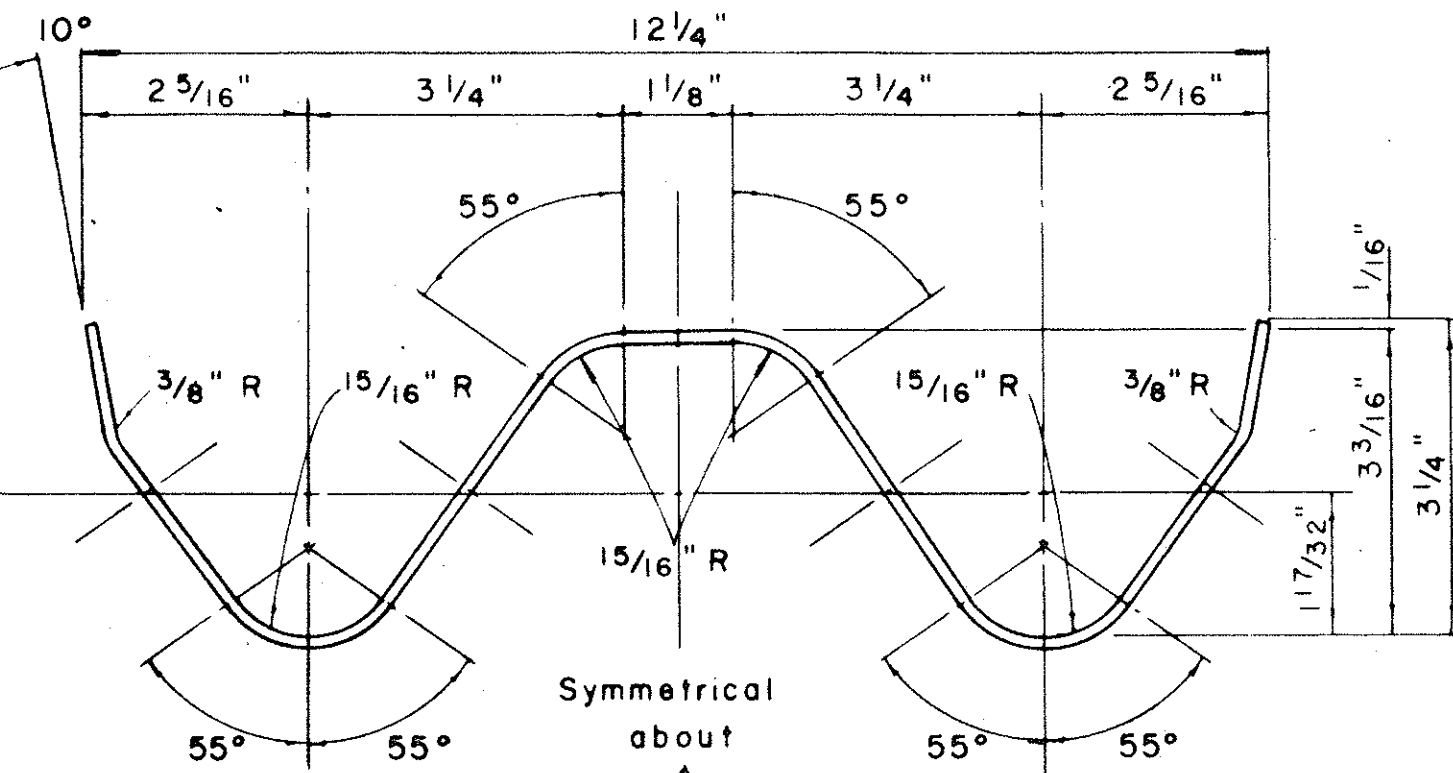
SPlice BOLT SLOT
FOR ALL ENDS



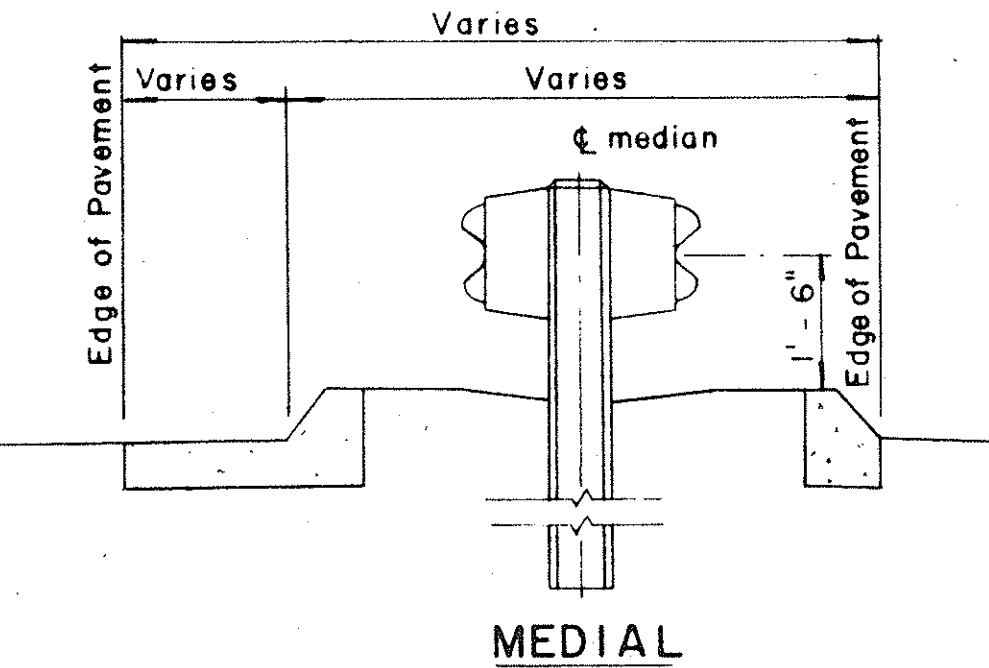
POST BOLT SLOT
Scale: Full Size



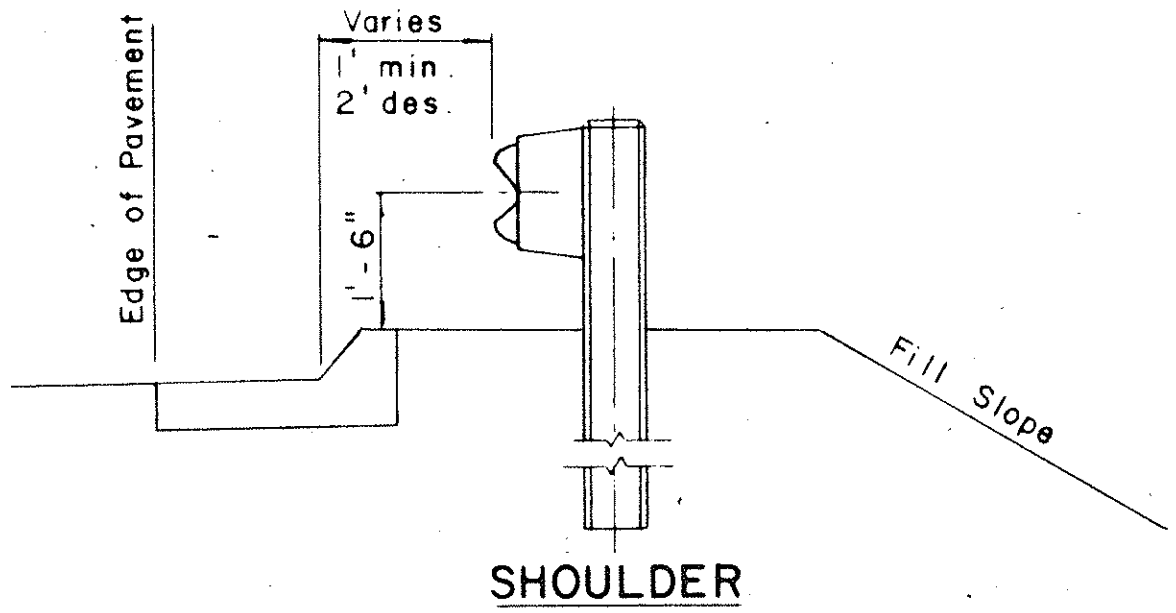
DETAIL OF CONCRETE POST
Scale: 1 1/2" = 1'-0"



RAIL ELEMENT SECTION
Scale: 6" = 1'-0"



TYPICAL GUARD RAIL DETAIL
Scale: 1/2" = 1'-0"



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
METAL GUARD RAIL

SHEET No. 5 OF 5 SHEETS