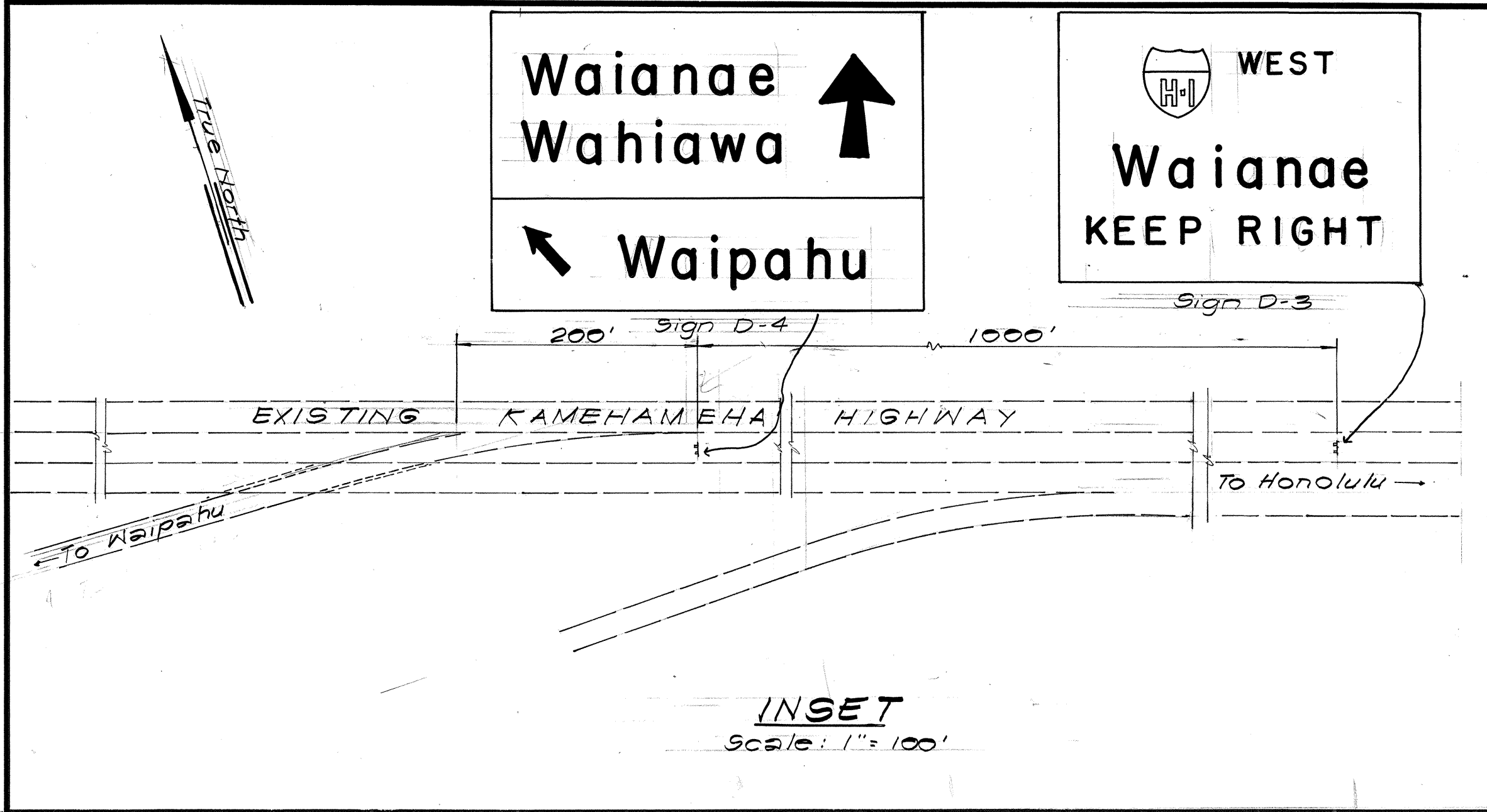




SUMMARY OF RAISED PAVEMENT MARKERS				
ROADWAY	STATION	QUANTITY		
		TYPE A	TYPE C	
H-1 Inbound	472+00 to 476+10	50 72	6	
H-1 Outbound	472+00 to 485+00	334 396	53 0	
H-2 Inbound to H-1 Outbound	472+00 to 481+95	92 76	28 0	
Total		534 564	97 6	

SPEED LIMIT 25

R2-1 (25)
24" x 30"

SPEED LIMIT 25

R2-1 (25)
On Class II Barricade

MERGE LEFT

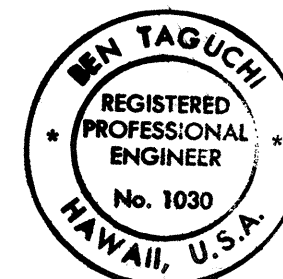
W4-1
on Class II Barricade
30" x 30"

NOTES FOR BARRICADES:

- The Class I and Class II Barricades required for this project are available in the vicinity of Kunia Interchange. The Contractor shall pick up and haul the Barricades to the jobsite and place them as indicated on the plans and as directed by the Engineer.
- Placement of the Barricades will be required at the latter part of the contract time. The Engineer will coordinate with and indicate to the Contractor which Barricades are to be used on this project and when the Contractor is to pick up, haul and place these Barricades.
- Picking up, hauling, and placing of Barricades as specified above shall not be measured or paid for separately but shall be considered as incidental to the various contract items of work including all materials, labor, equipment and incidentals necessary to install the Barricades in place complete.
- Damages to the Barricades as a result of the Contractor's operations shall be repaired as directed by the Engineer at the Contractor's own expense.

GENERAL NOTES:

- The Contractor shall furnish and install Traffic Drums. Exact location of drums as directed by the Engineer.
- The shape, color, dimensions, symbols, wording, lettering and reflectorization of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the SPR manual "Standard Highway Signs" dated September 1961 unless otherwise specified.
- All regulatory signs shall be reflectorized unless otherwise specified.
- All regulatory signs shall have 3/8" bolt holes drilled at appropriate locations unless otherwise noted.
- For R2 signs, number in () indicates speed and shall be as shown on the plans.
- Exact location of all signs shall be determined by the Engineer.



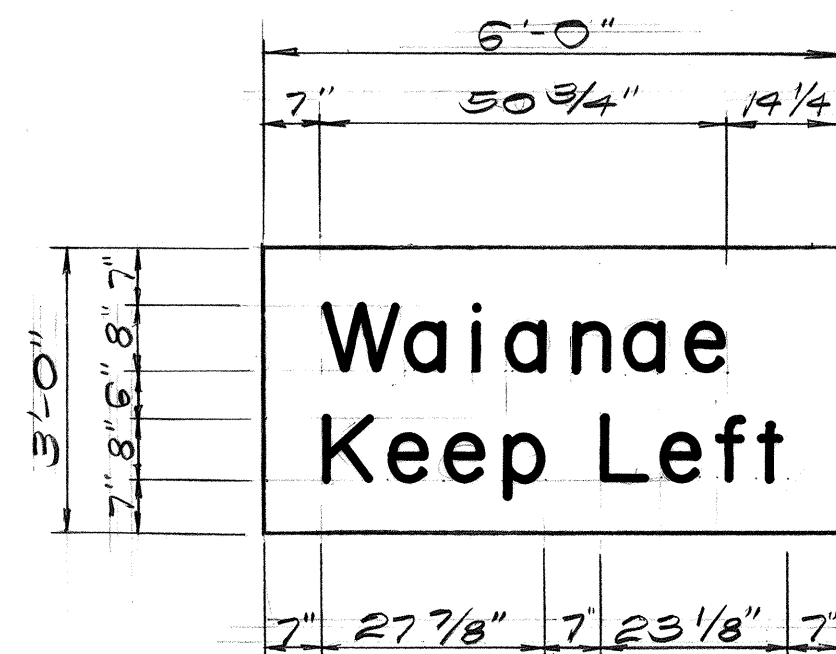
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

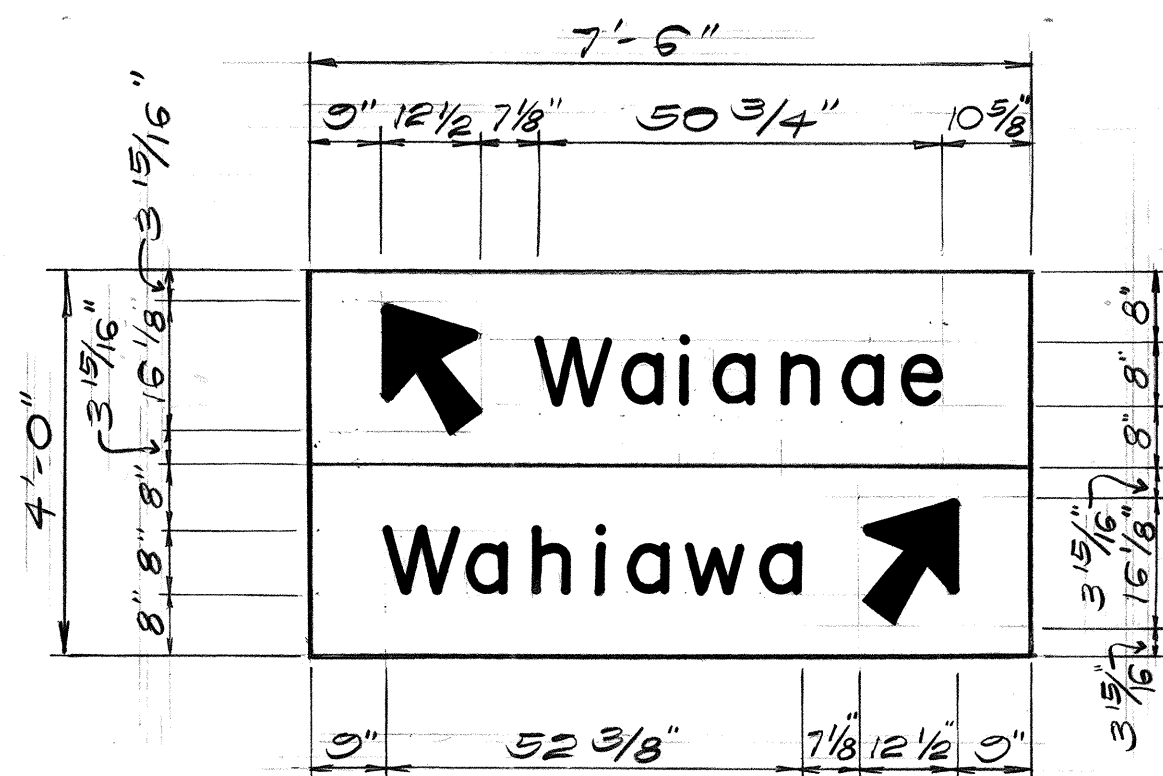
SIGNING AND PAVEMENT MARKING PLAN

WAIKAWA INTERCHANGE
F.A.I. Proj. No. I-HI-1(44):8

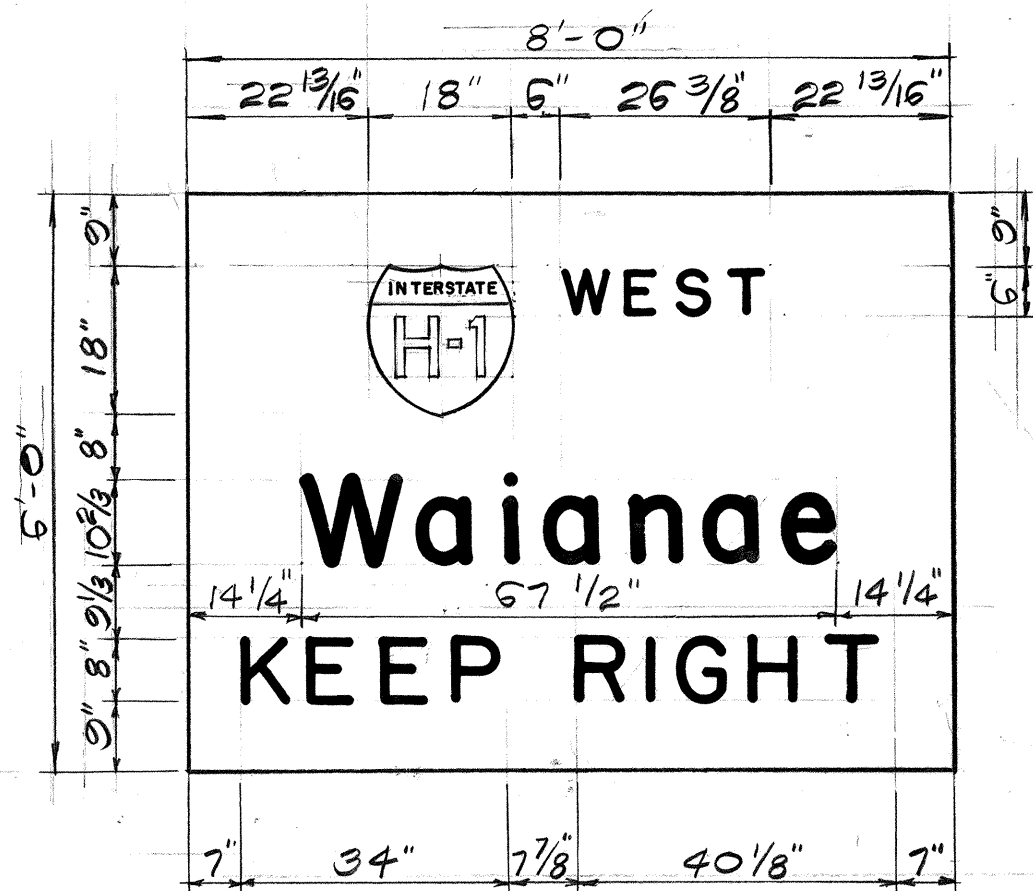
Scale: As shown Date: JAN. 1968
SHEET NO. OF SHEETS



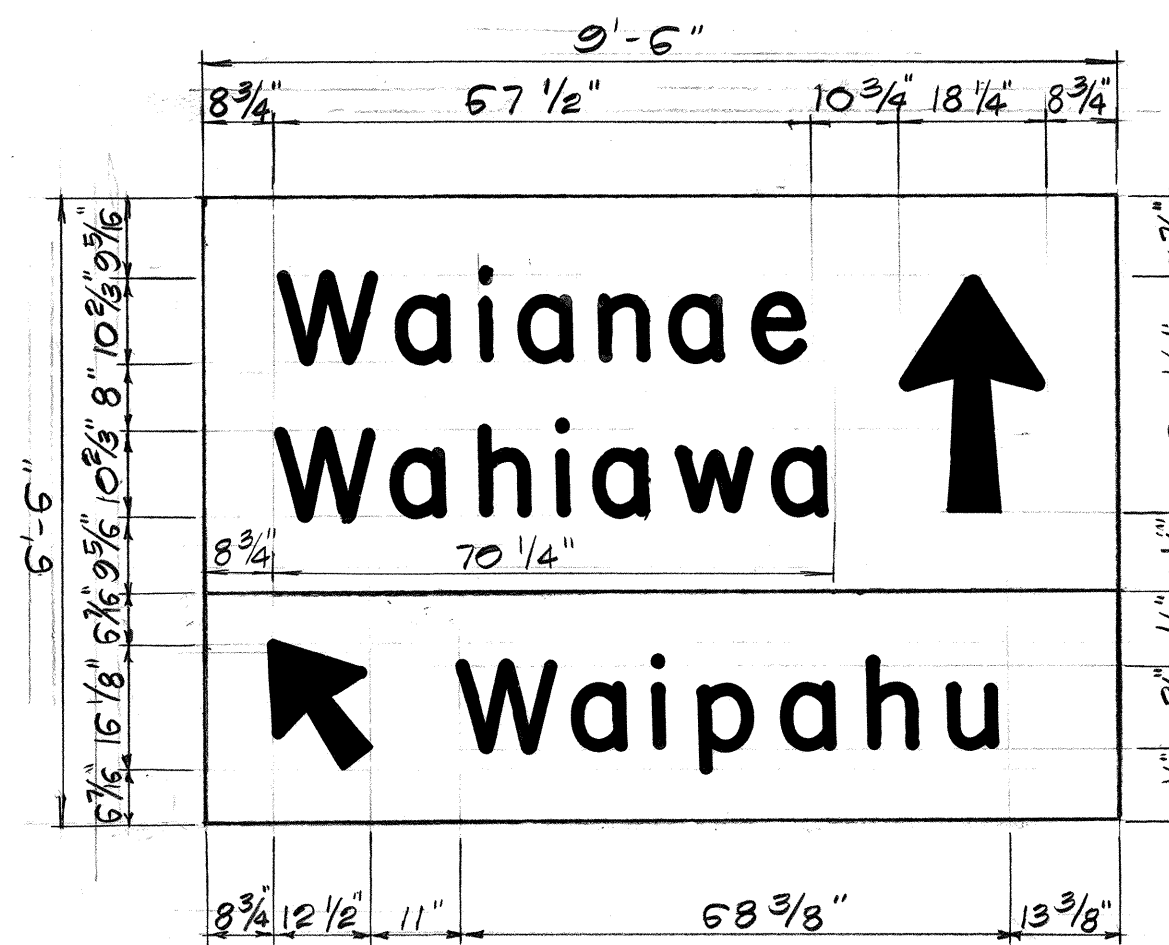
SIGN D-1



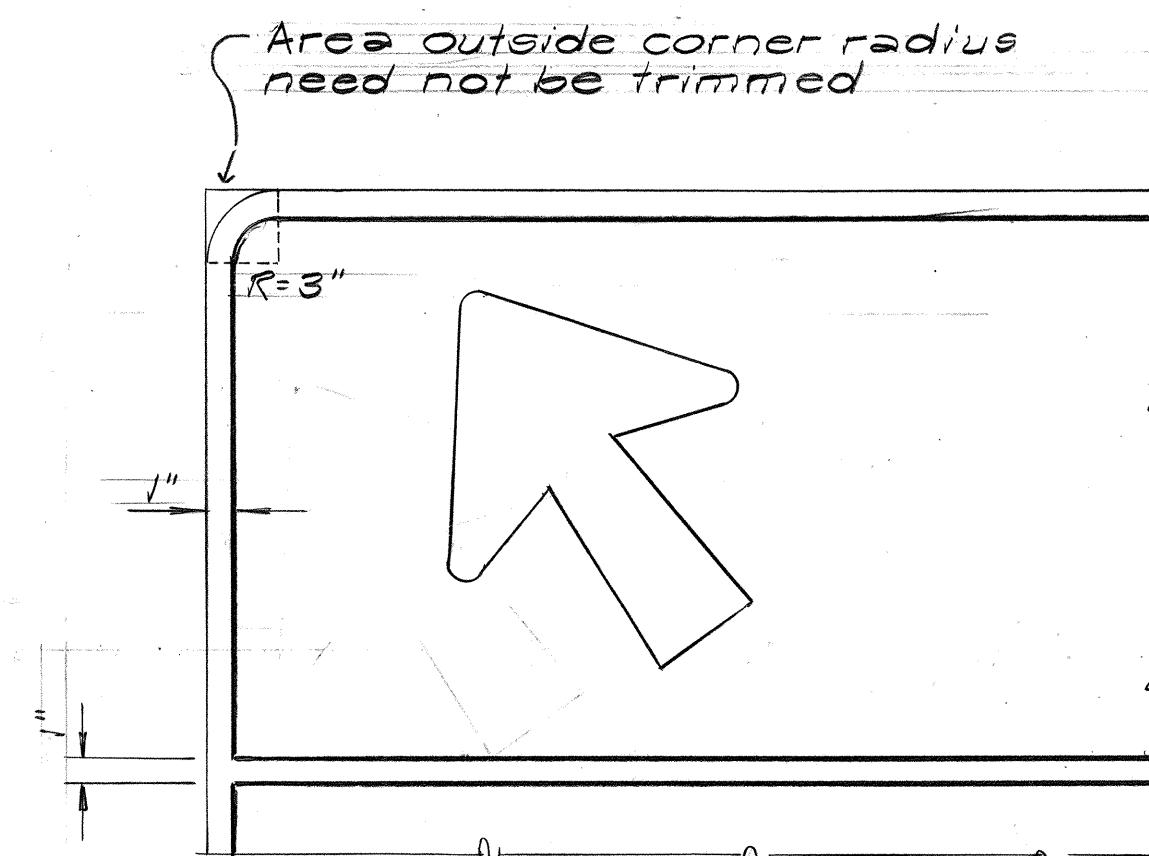
SIGN D-2
(With Type B Arrows)



SIGN D-3

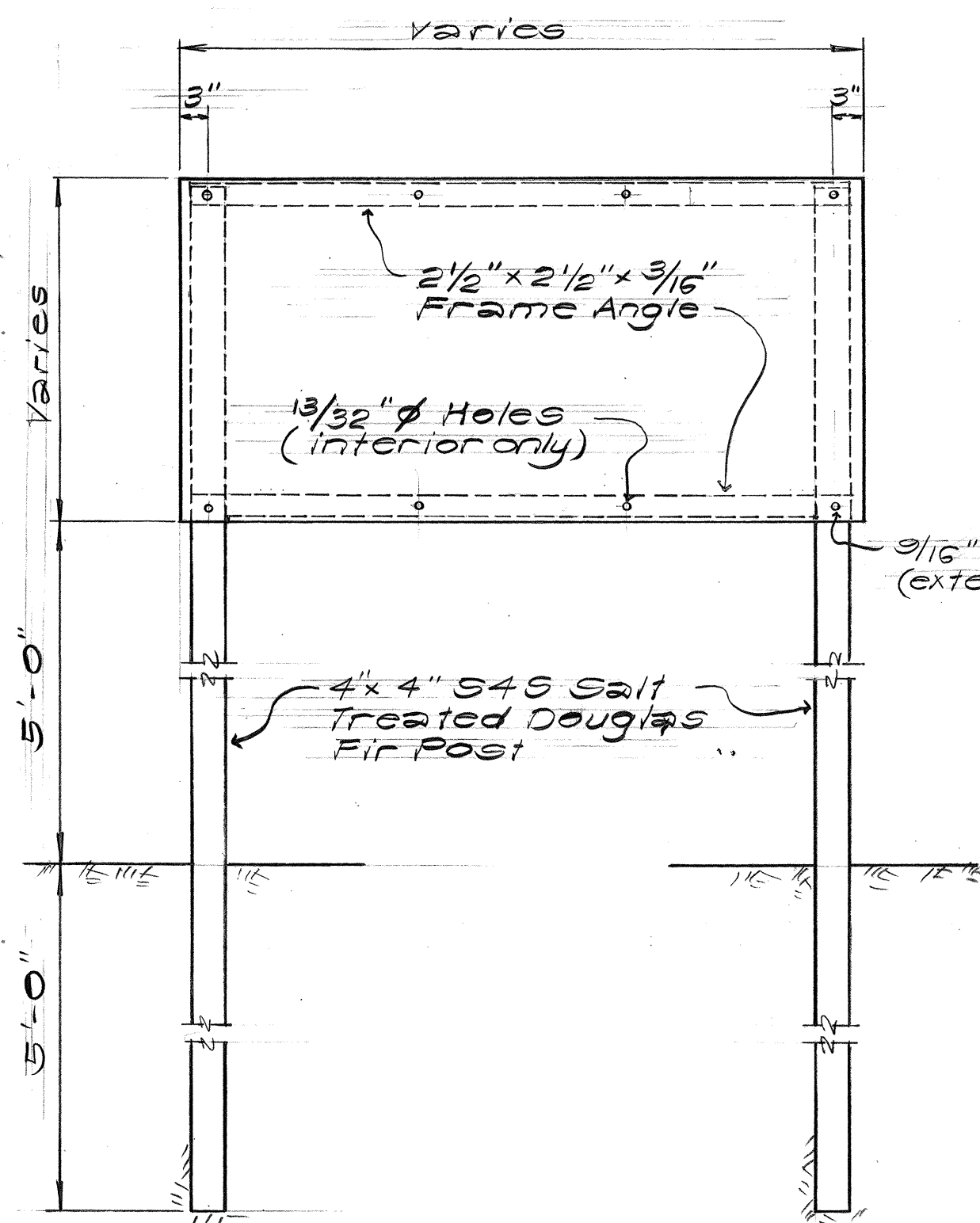


SIGN D-4
(With Type A Arrow above and Type B Arrow below)

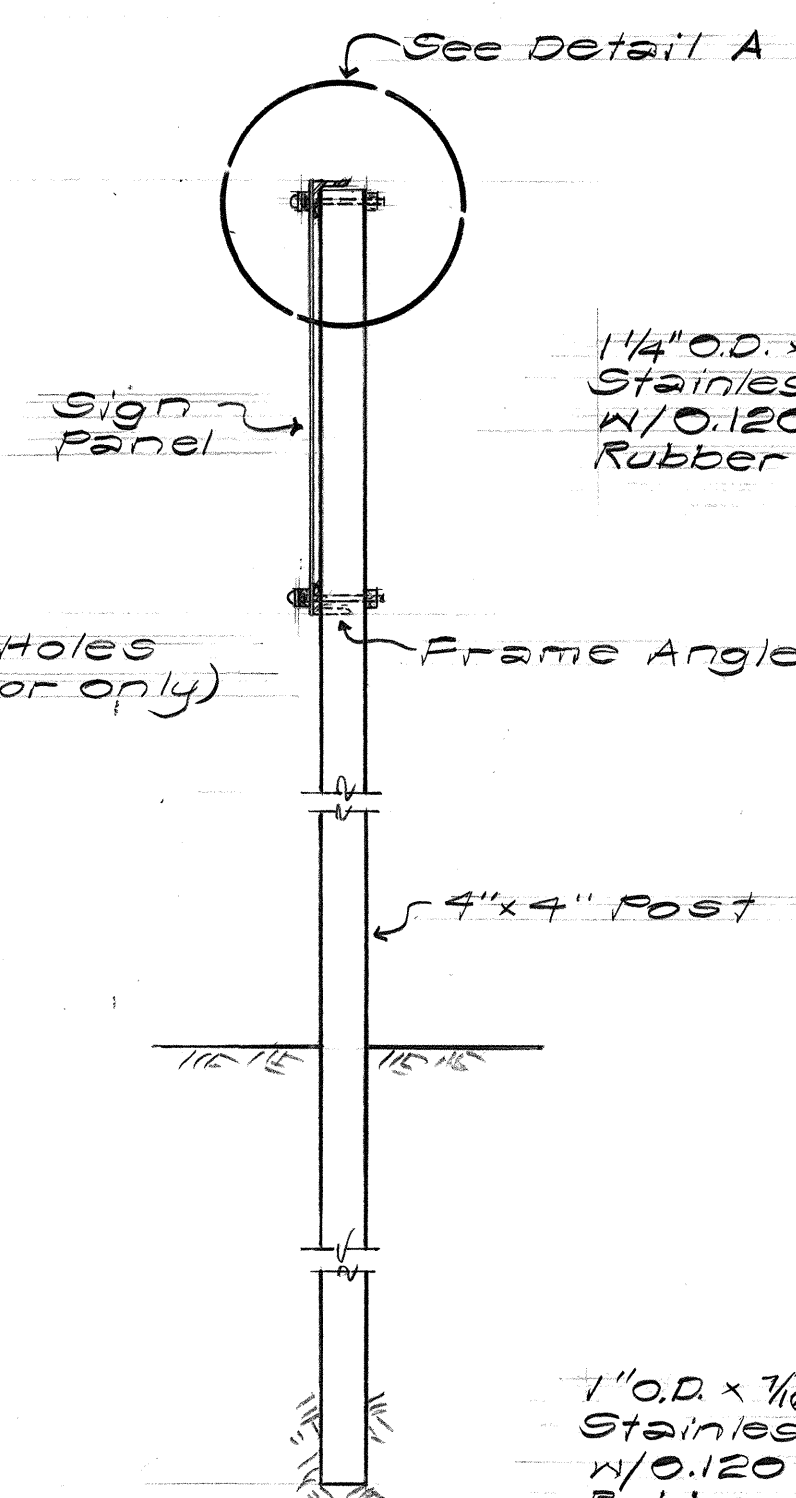


BORDER DETAIL
Scale: 1/2" = 1'-0"

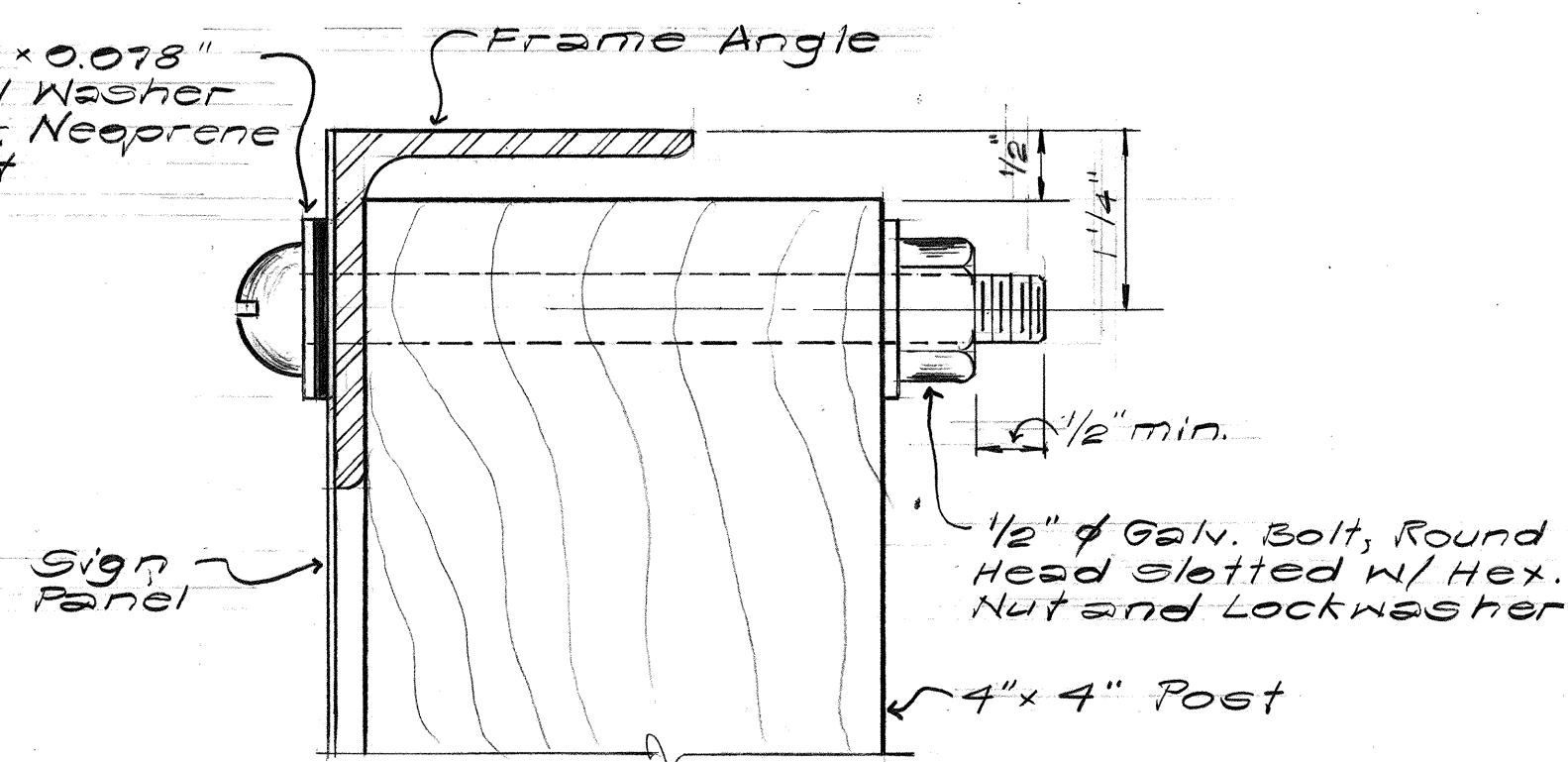
PANEL LAYOUT
Scale: 1/2" = 1'-0"



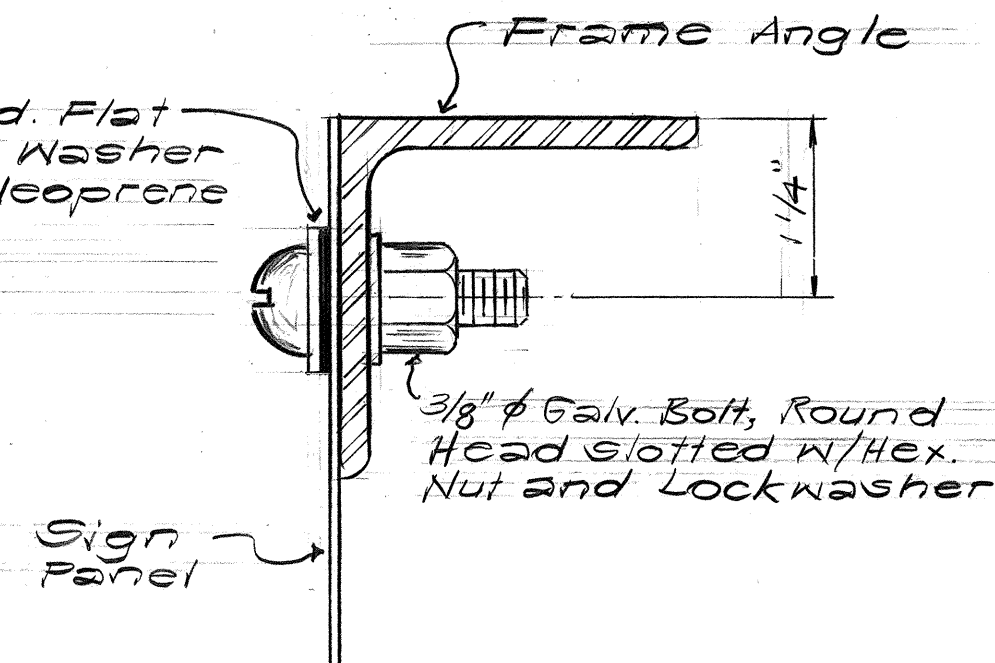
ELEVATION
Scale: 3/4" = 1'-0"



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



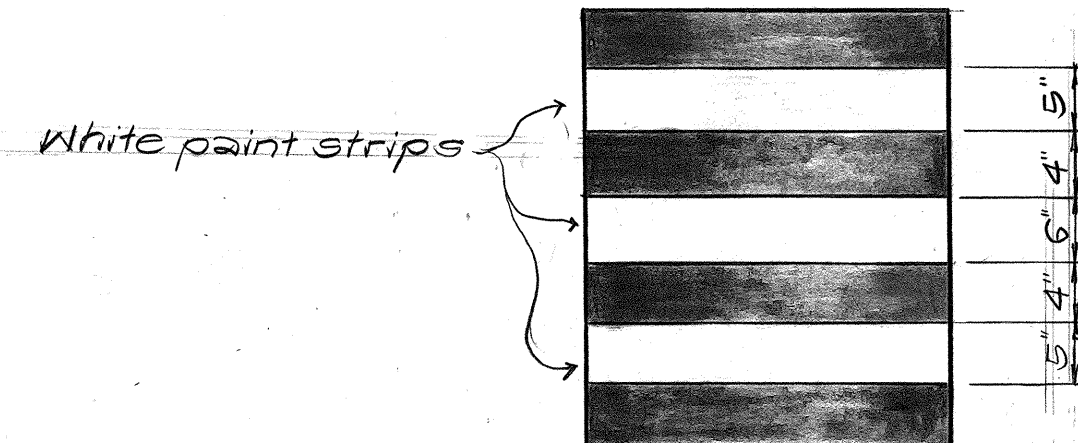
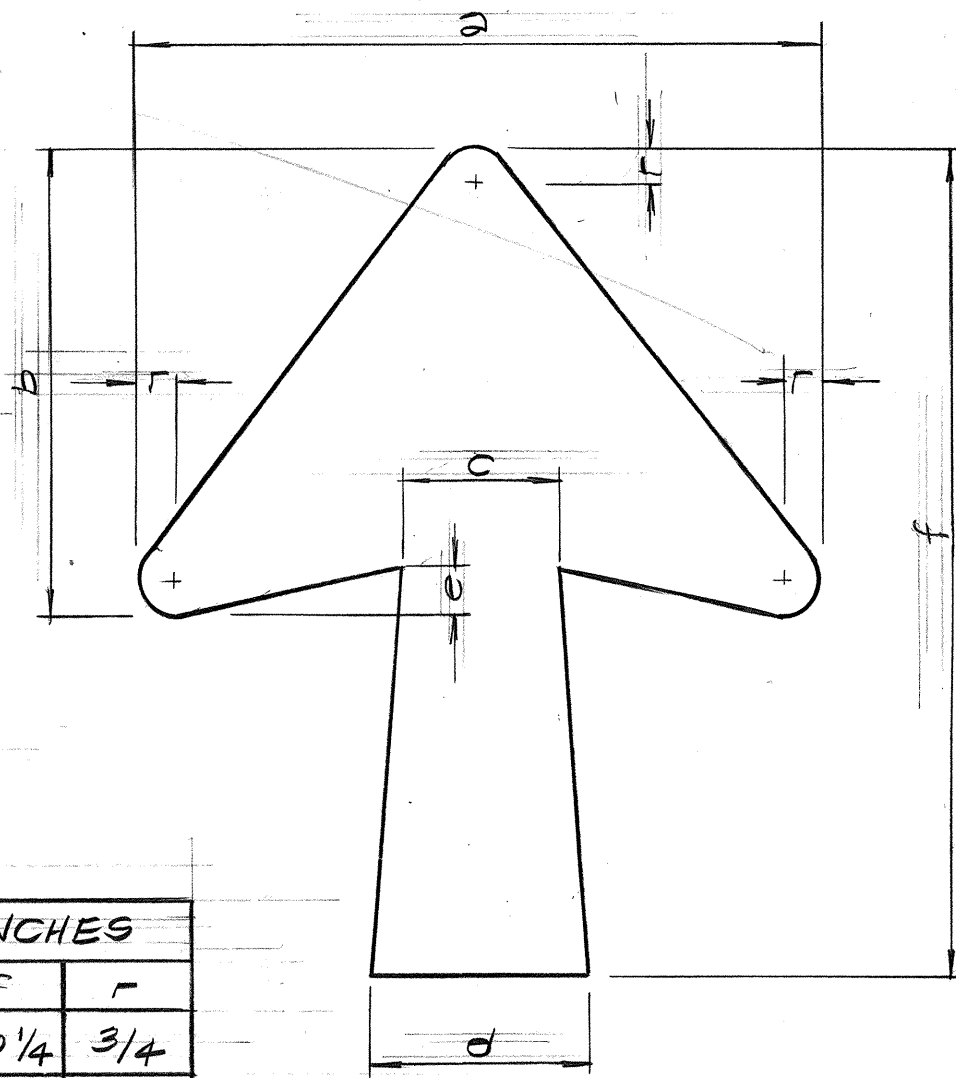
DETAIL A
Scale: 3/4" = 1"



ATTACHMENT OF SIGN PANEL TO FRAME
Scale: 3/4" = 1"

TYPE ARROW	ARROW DIMENSIONS IN INCHES						
	a	b	c	d	e	f	r
A	18 1/4	14	4 1/2	6	1 1/2	20 1/4	3/4
B	14 1/4	9 13/16	3 3/8	4 1/2	1 5/16	17 1/4	3/4

TYPICAL ARROW DETAIL



TRAFFIC DRUMS
No Scale

GENERAL NOTES:

- Letters shall conform to the Modified Series "E" letters shown in the "Standard Alphabets for Highway Signs", Bureau of Public Roads, 1961.
- Arrows and borders shall conform with details as shown on plans.
- Letters, numerals, symbols and borders shall be demountable aluminum cutouts with white reflective sheeting or clear reflex reflectors, and shall be fastened on the sign panel with blind rivets. See Special Provisions.
- Destination Signs (D) shall have white reflective sheeting on aluminum cutouts on green reflective sheeting background.
- Sign panels shall be made from 0.100" thick sheet aluminum.
- Traffic Drums shall conform to the 50 gal. capacity drum as described on this plan and in the "Manual on Uniform Traffic Control Devices for Streets and Highways", Bureau of Public Roads, 1961. Traffic drums shall be measured and paid for as indicated in the proposal schedule.

DESTINATION SIGN PANEL & POST

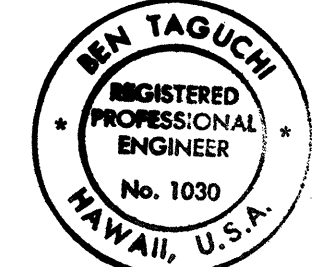
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGNING DETAILS

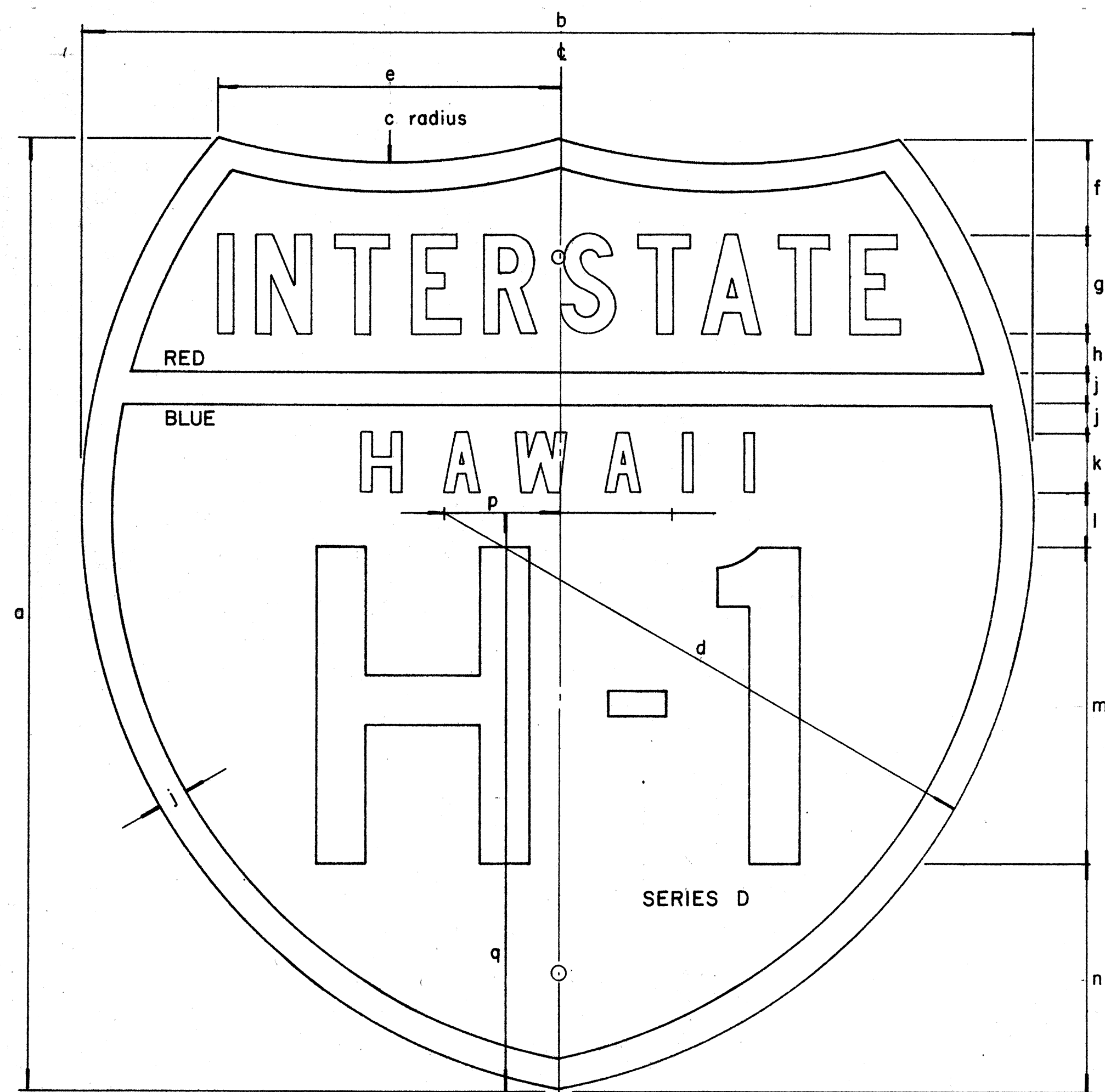
WAIANA INTERCHANGE
F.A.I. Proj. No. I - HI - 1 (44): 8

Scale: As shown Date: JAN. 1968

SHEET No. OF SHEETS



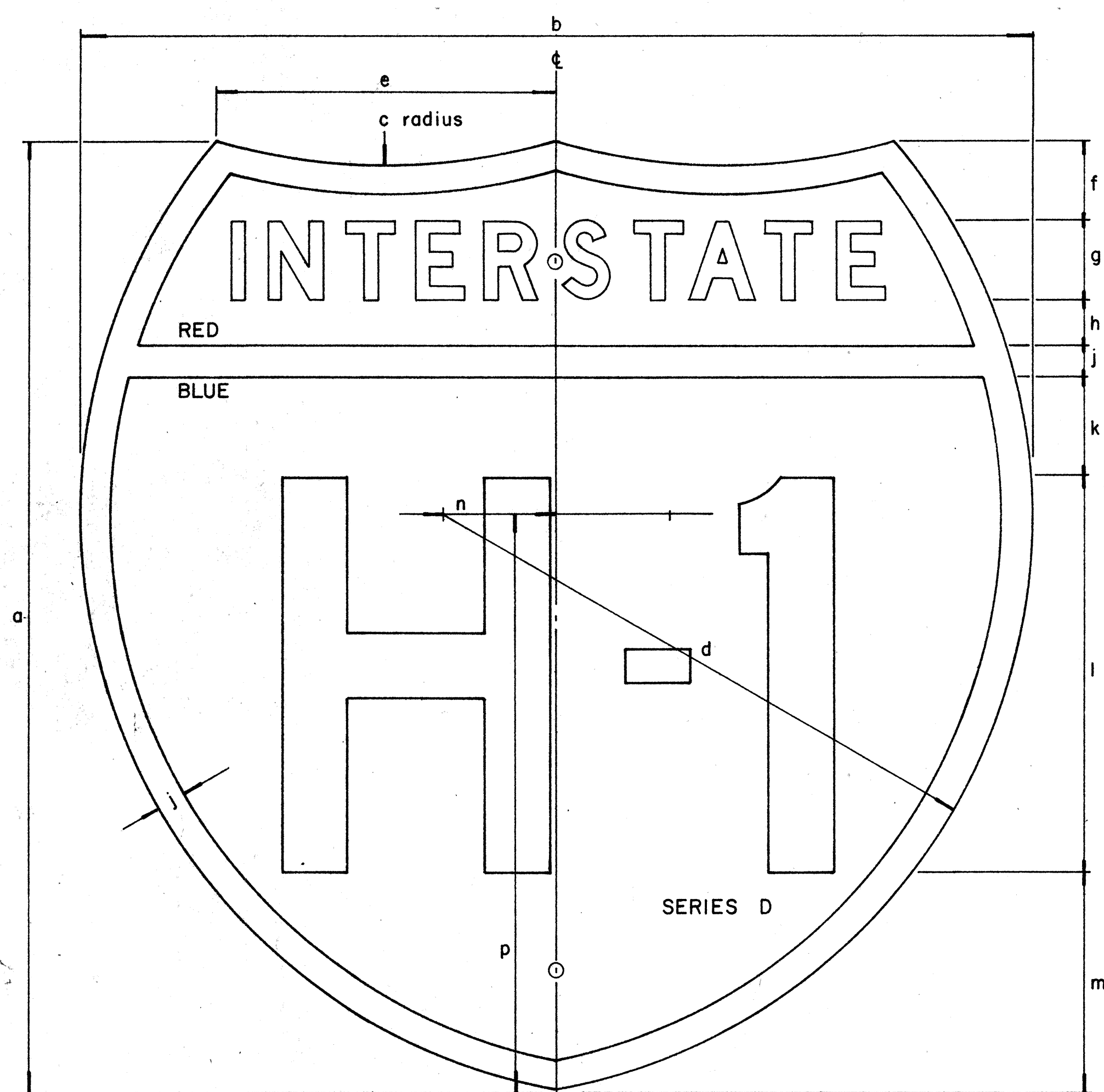
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.



INTERSTATE ROUTE MARKER
IM - 1 ()

INTERSTATE SHIELDS - INDEPENDENT USE

()	a	b	c	d	e	f	g	h	j	k	l	m	n	p	q
1	18	21	13 1/8	12 9/16	9 3/16	12 5/32	1 7/8 C	3/4	9/16	1 1/8 D	1 1/32	6	4 5/16	2 1/16	12 7/16
2	24	24	15	14 7/8	8 5/8	2 3/8	2 1/2 C	1	3/4	1 1/2 D	1 3/8	8	5 3/4	2 7/8	14 5/8
3	36	36	22 1/2	22 5/16	12 15/16	3 9/16	3 3/4 C	1 1/2	1 1/8	2 1/4 D	2 1/16	12	8 5/8	4 5/16	21 15/16



INTERSTATE ROUTE MARKER
IM - 2 ()

INTERSTATE SHIELDS ON GUIDE SIGNS

()	a	b	c	d	e	f	g	h	j	k	l	m	n	p
2	24	24	15	14 7/8	8 5/8	2	2 D	1 3/16	3/4	2 9/16	10	5 1/2	2 7/8	14 5/8
3	36	36	22 1/2	22 5/16	12 15/16	3 7/16	3 C	1 5/16	1 1/8	3 1/8	15	9	4 5/16	21 15/16
4	48	48	30	29 3/4	17 1/4	4 3/4	5 C	2	1 1/2	4	18	12 3/4	5 3/4	29 1/4
5	18	18	11 1/4	11 13/16	6 1/2	1 3/4	1 1/2 C	1 1/6	9/16	1 9/16	7 1/2	4 1/2	2 3/16	11

GENERAL NOTES

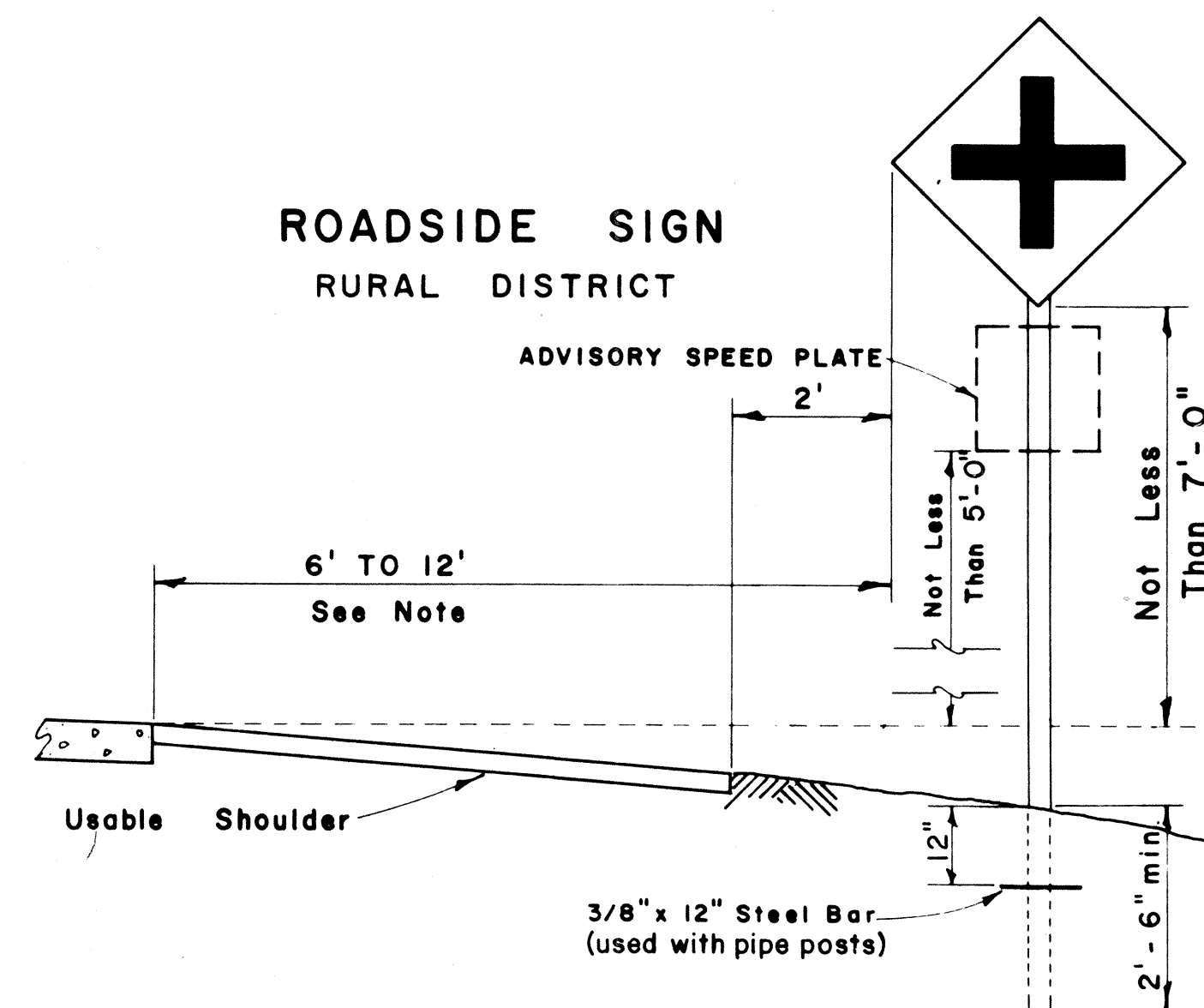
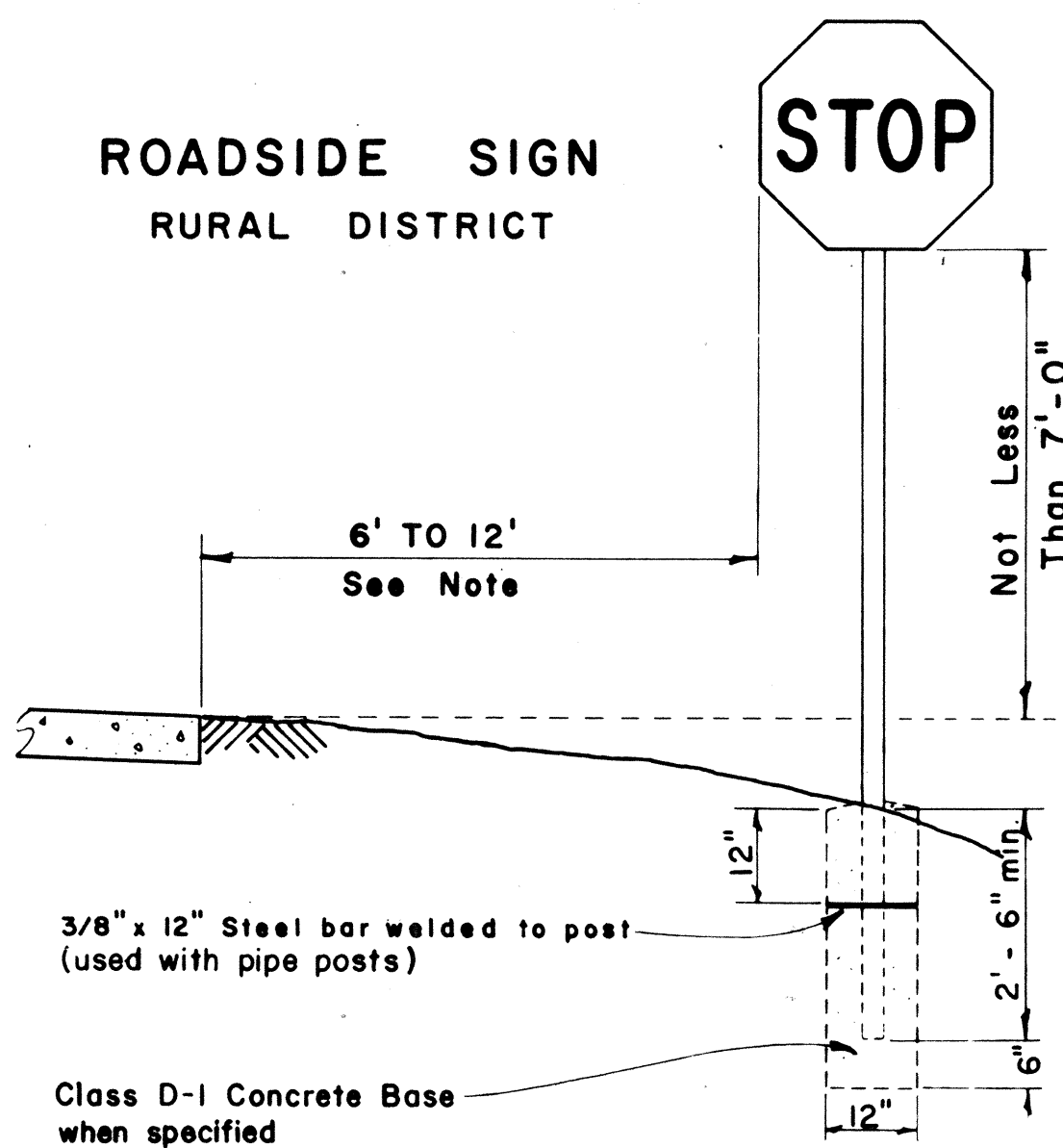
- The shape, dimensions, symbols, wording, lettering, color and reflectorizing of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June, 1961 and the BPR manual "Standard Highway Signs," dated September, 1961, unless otherwise specified.
- All letters and figures shall conform to the manual "Standard Alphabets for Highway Signs," Dept. of Commerce, Bureau of Public Roads, 1952.
- All markers shall be reflectorized unless otherwise specified.
- All markers shall have 3/8" bolt holes drilled at appropriate locations unless otherwise specified.
- The Interstate Route Marker shall be a cut-out shield, in a red, white and blue design as shown on the plans.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

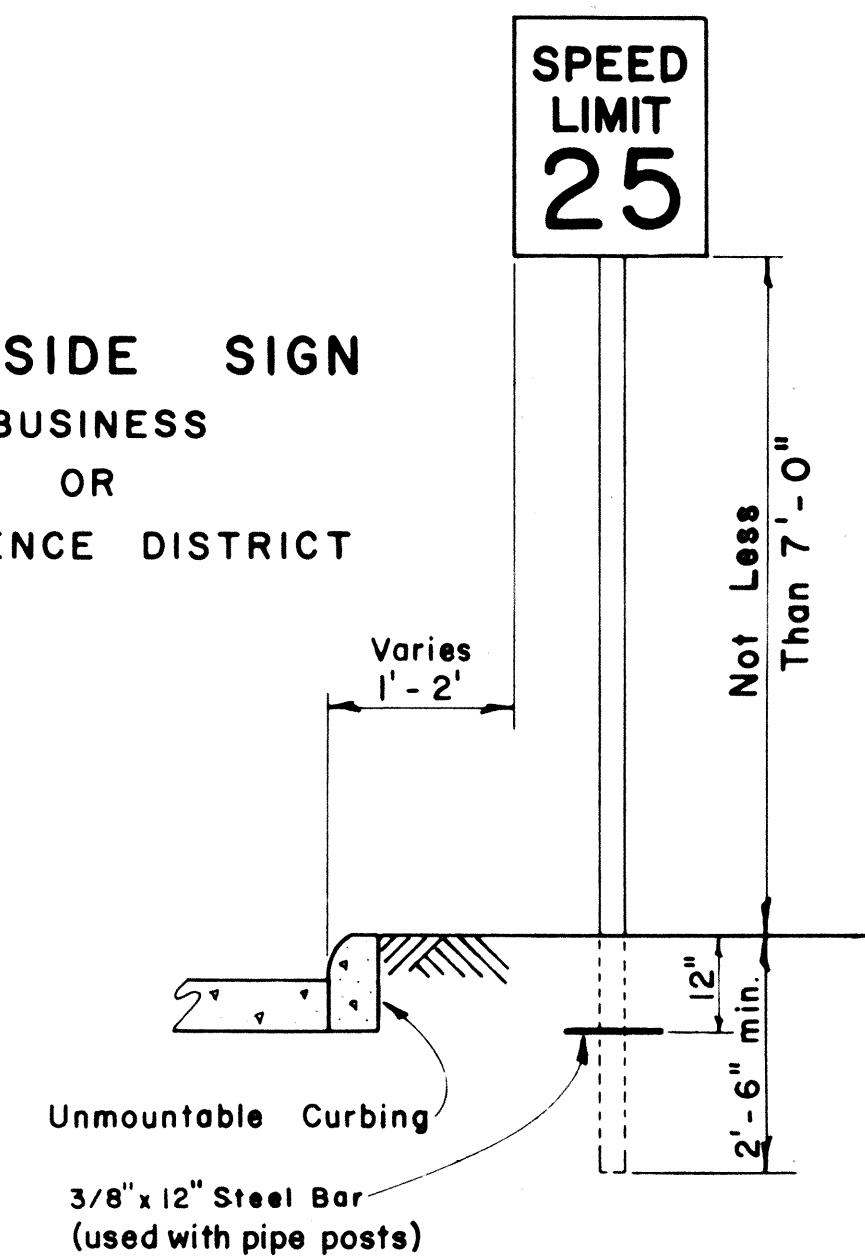
STANDARD DETAILS
INTERSTATE ROUTE MARKERS

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
REVISIONS	

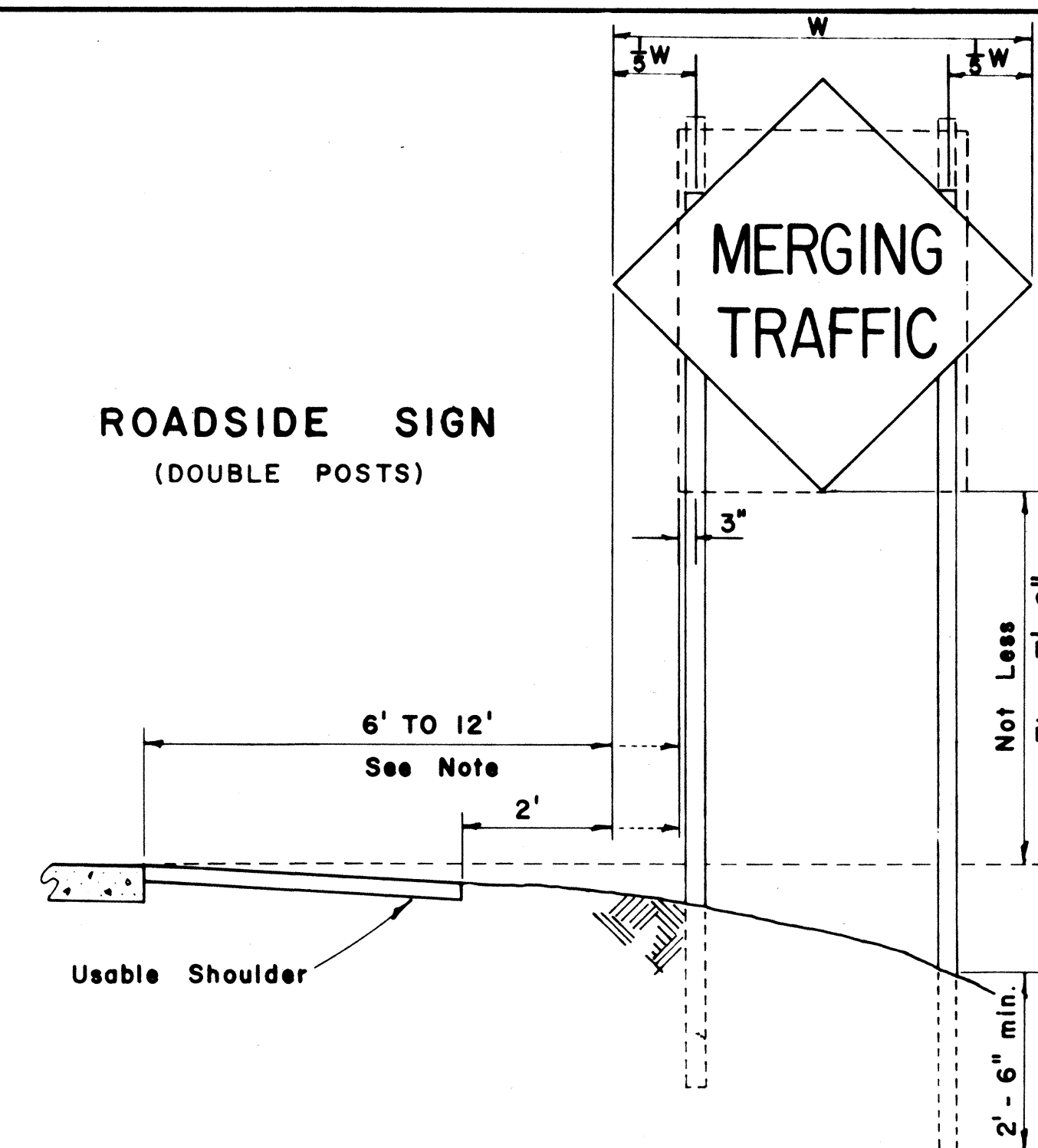
- NOTE:
- All signs and road delineators shall be placed 2' outside the usable roadway shoulder or 1' outside unmountable curbing present and within the limits shown below.
 - Except as noted below, sign posts shall be either 3" galv. std. pipe or 2 1/2" x 2 1/2" galv. square tube posts for signs larger than 24" in any dimension; 2" galv. std. pipe or 2" x 2" galv. square tube posts for signs 24" or less in any dimension.
 - Sign shall be attached to post with 5/16" galvanized bolts with nuts and 7/8" x 7/8" x .120" stainless-steel washers with neoprene rubber gasket.
 - Clearance Markers (RM-3, RM-4) shall be installed with the inside edge of the marker in line with the inner edge of the obstruction.
 - Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two 3" galv. std. pipe or two 2 1/2" x 2 1/2" galv. square tube posts.



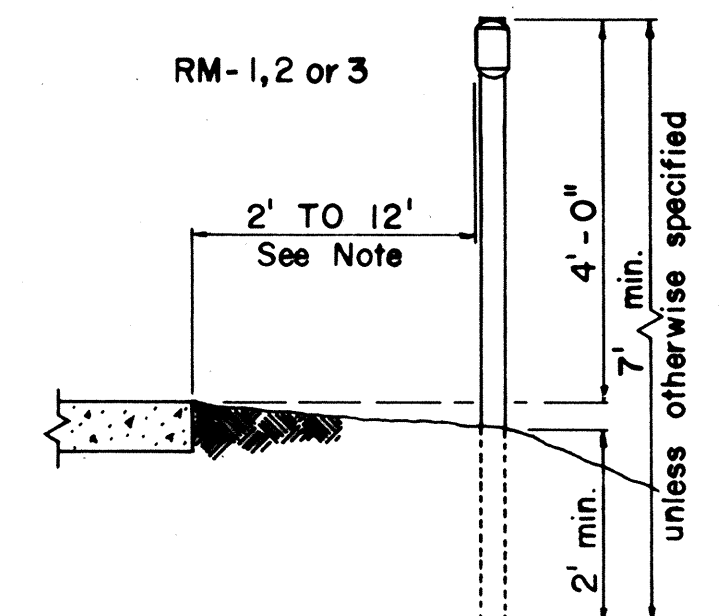
ROADSIDE SIGN
BUSINESS
OR
RESIDENCE DISTRICT



ROADSIDE SIGN
(DOUBLE POSTS)

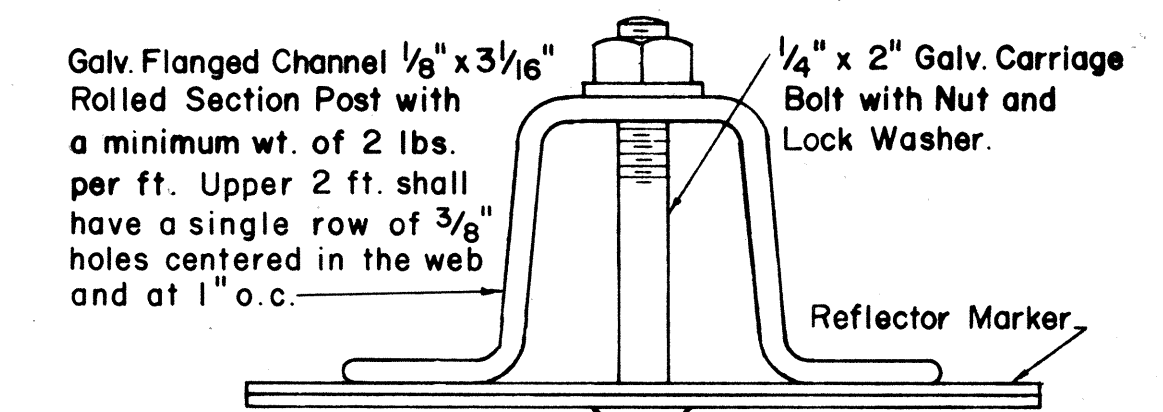


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7-HI-(44)8	1967	18	28

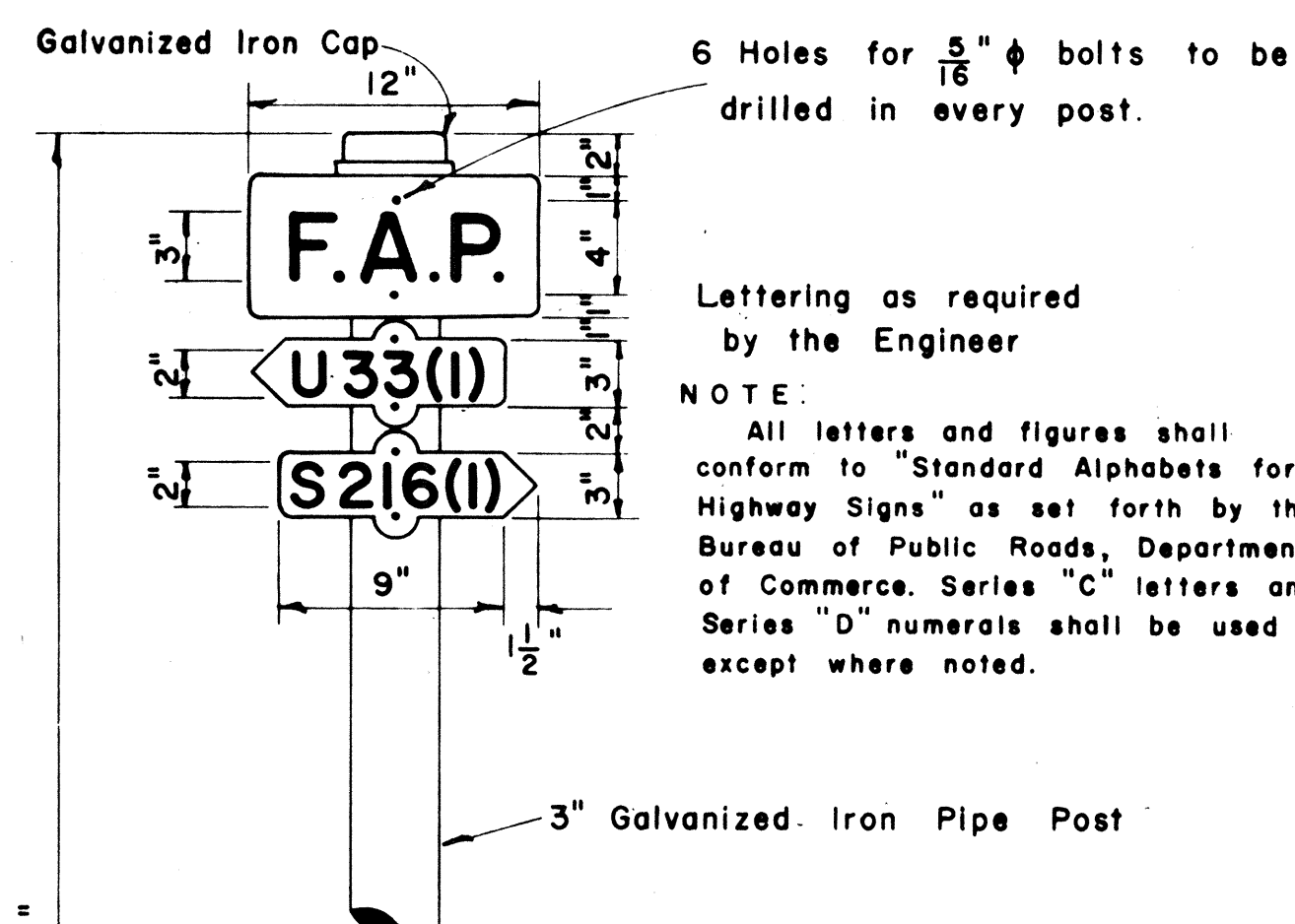


ROAD DELINEATOR

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

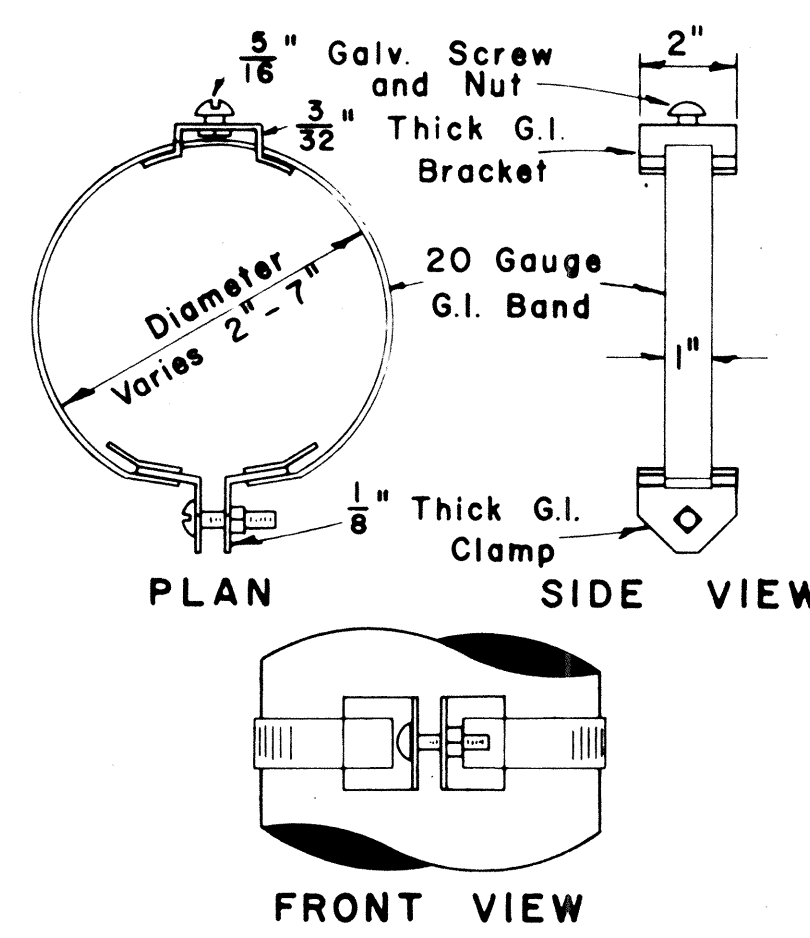


HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS

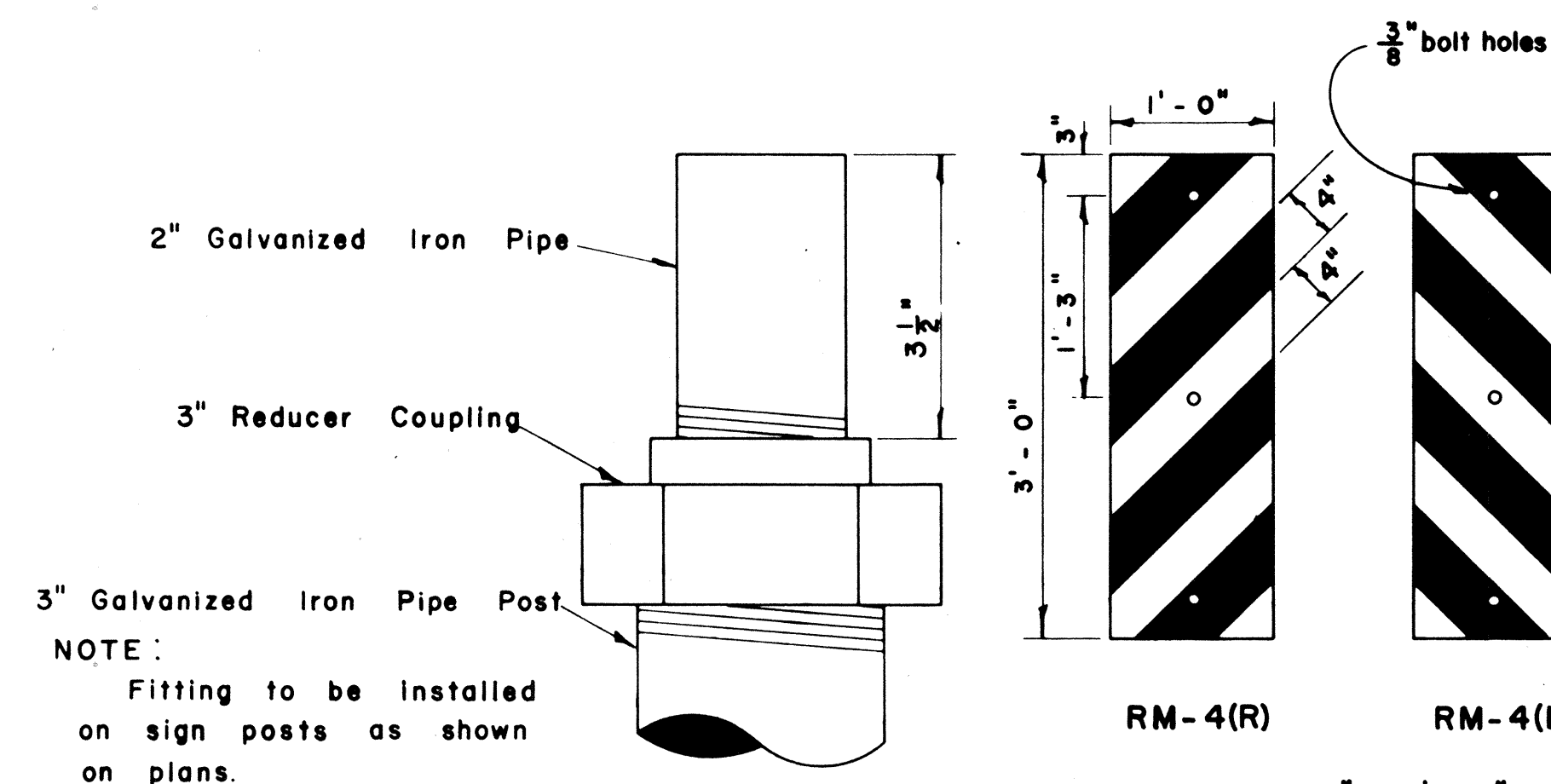


Lettering as required by the Engineer

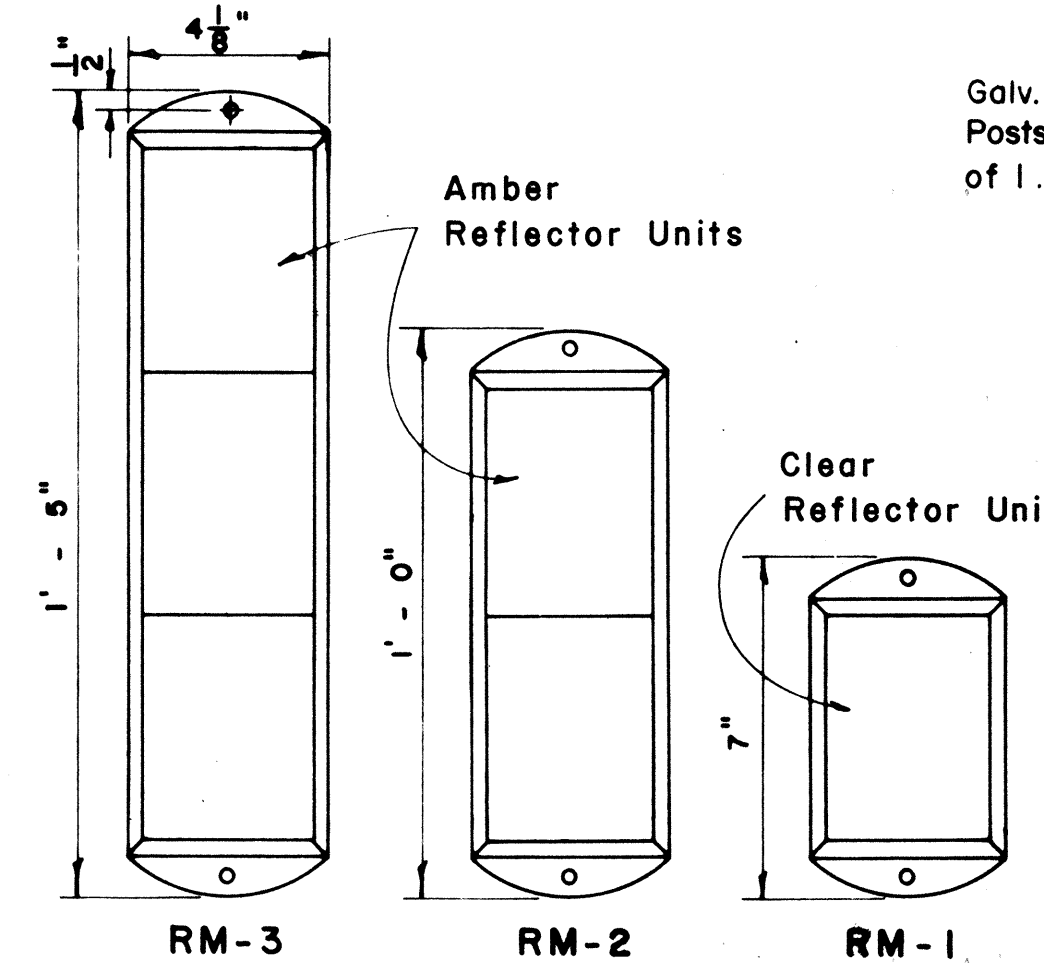
NOTE: All letters and figures shall conform to "Standard Alphabets for Highway Signs" as set forth by the Bureau of Public Roads, Department of Commerce, Series "C" letters and Series "D" numerals shall be used except where noted.



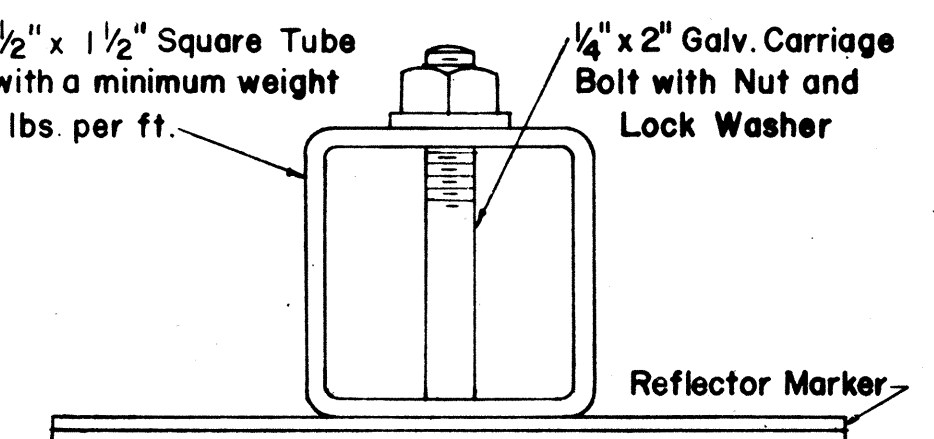
TYPICAL BAND BRACKET
FOR MOUNTING TRAFFIC SIGNS
Scale: 3" = 1' - 0"



DETAIL OF SIGN POST FITTING
FOR CITY & COUNTY
STREET NAME SIGNS
Scale: 1/2" = 1'

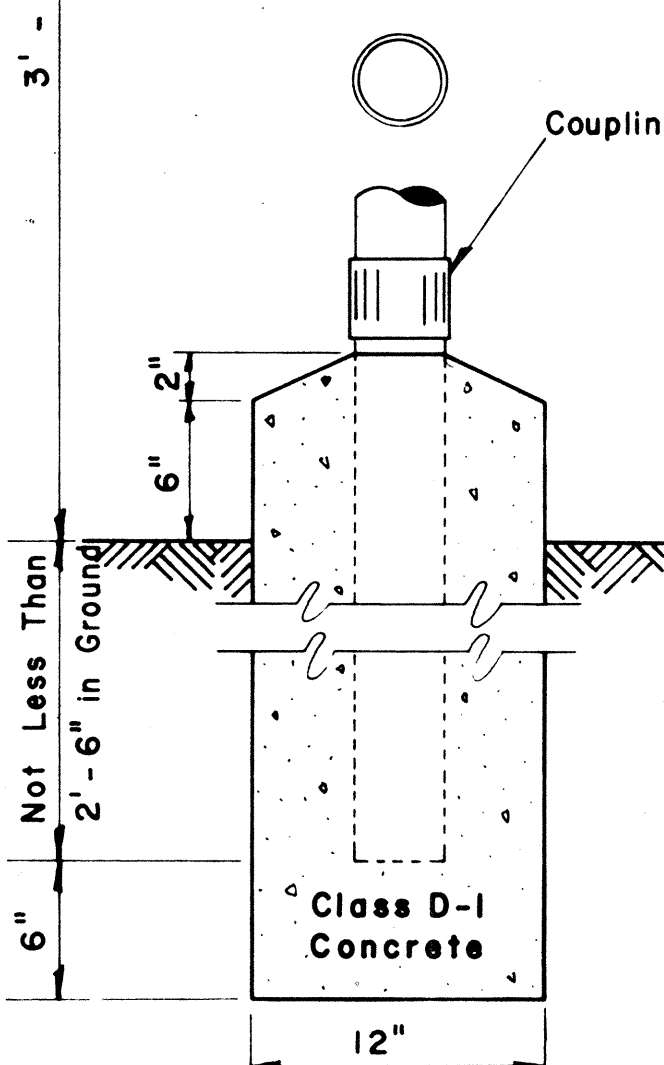


REFLECTOR MARKERS
Scale: As Shown

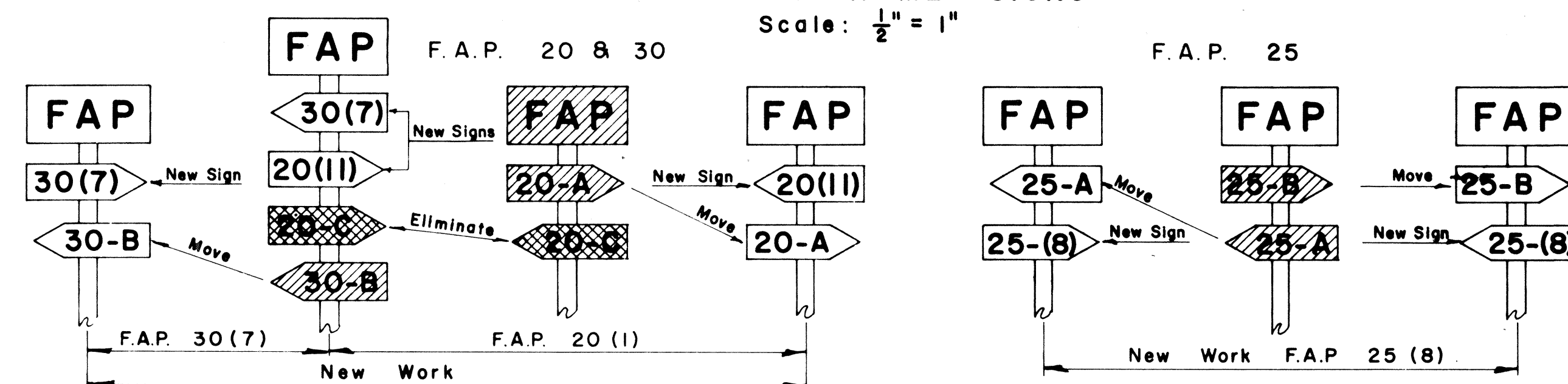


TYPICAL SECTION
OF ROAD DELINEATOR
Full Size

NOTE: Reflector Markers RM-1,2,3 shall be glass sphere reflector markers with 4" x 5" reflector units (as shown) or plastic prismatic reflector markers with 3" diameter reflector units.

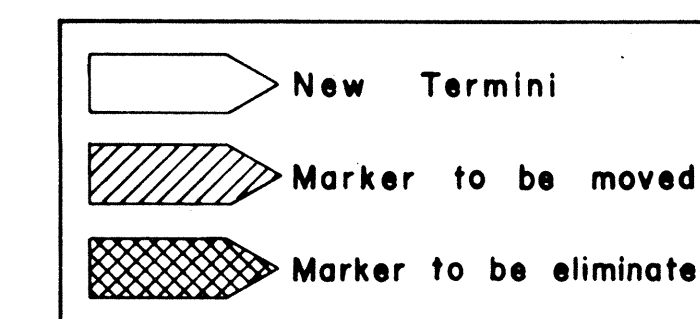


FEDERAL AID MARKER
Scale: 1/2" = 1' - 0"



NOTE: Federal Aid Markers should be placed at the terminus of suffix designated sections. Intermediate letter designated markers of adjacent sections located within the limits of new improvements should be moved to the terminus of the new work. The same procedure should be followed on each successive improvement until all markers for letter designated sections are eventually eliminated.

METHOD OF MARKING F.A. PROJECTS AT OVERLAPS
(USING NUMBER SUFFIX ON NEW WORK)



APPROVED: *[Signature]* DATE: 1/10/67
DIRECTOR OF TRANSPORTATION

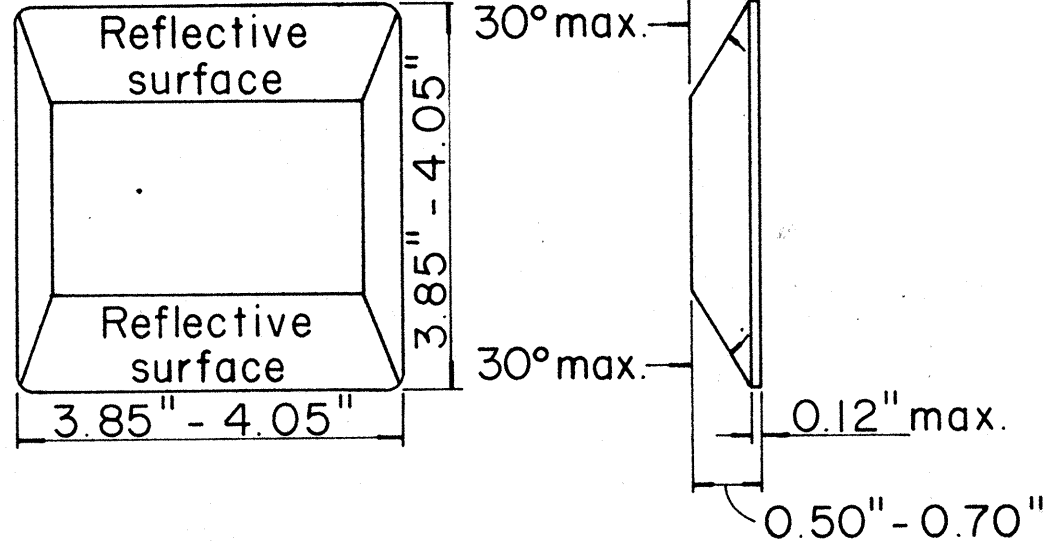
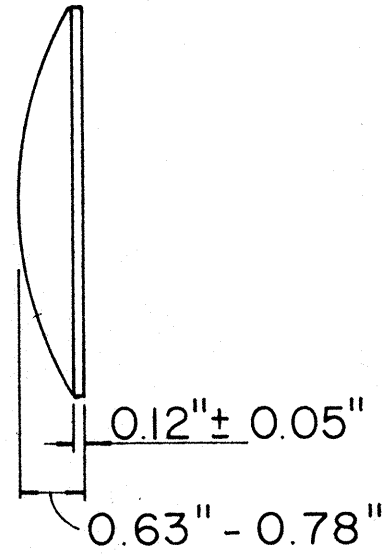
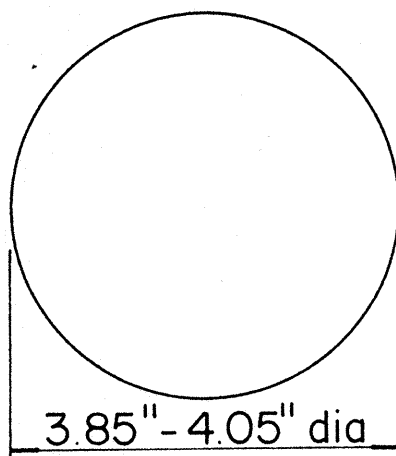
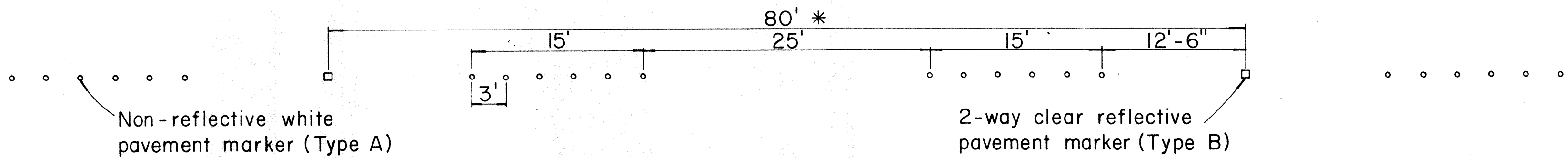
JANUARY 27, 1967
DECEMBER 8, 1964
REVISED: FEBRUARY 25, 1964

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
F.A. MARKER
AND
MISCELLANEOUS SIGN
DETAILS
Scale: As Shown

SHEET No. OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HI-44-8	1967	19	28

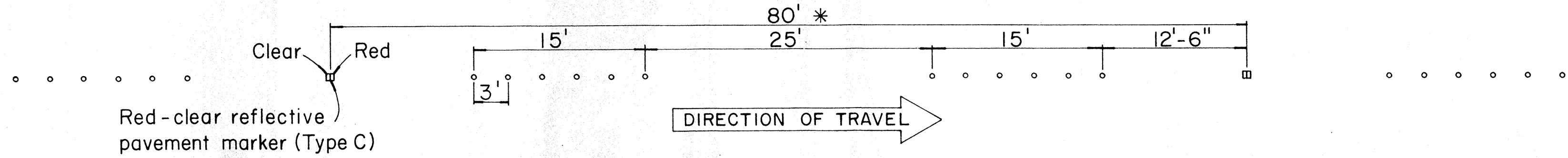
1 CENTER LINES ON TWO - LANE RURAL ROADS AND CITY STREETS



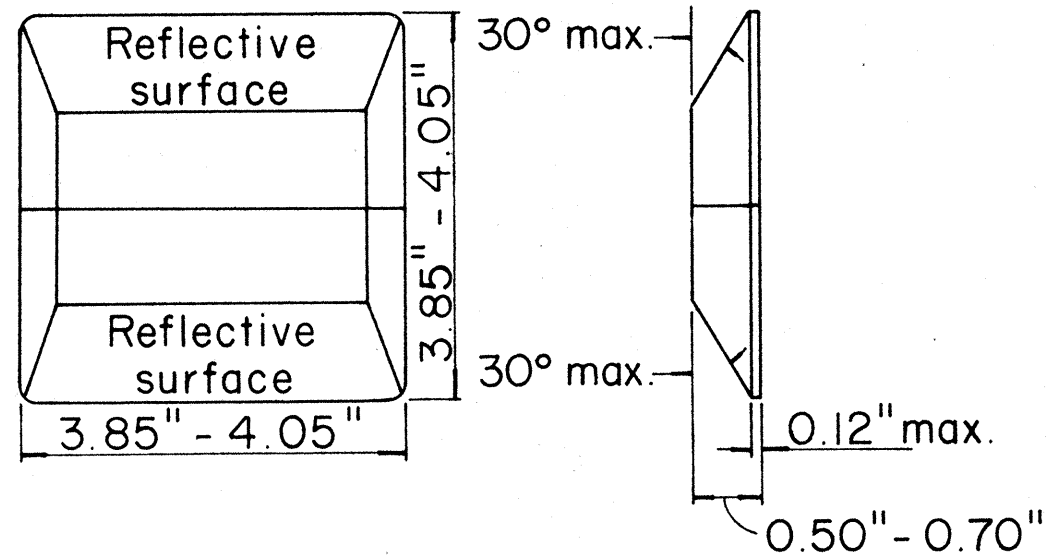
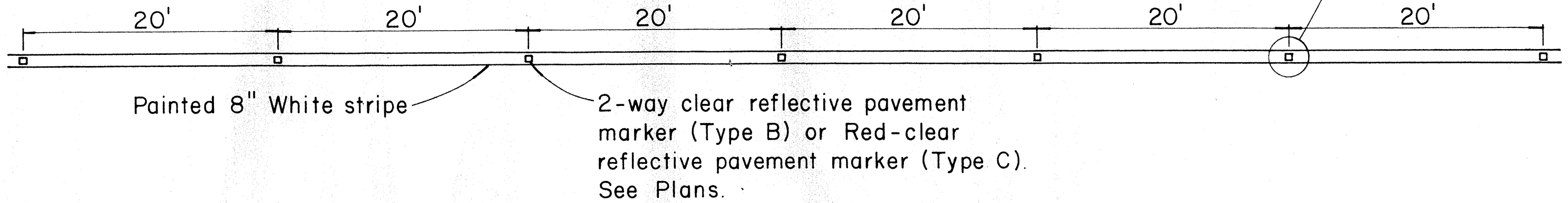
TYPE A
Non - reflective white marker

TYPE B
2-way clear reflective surface

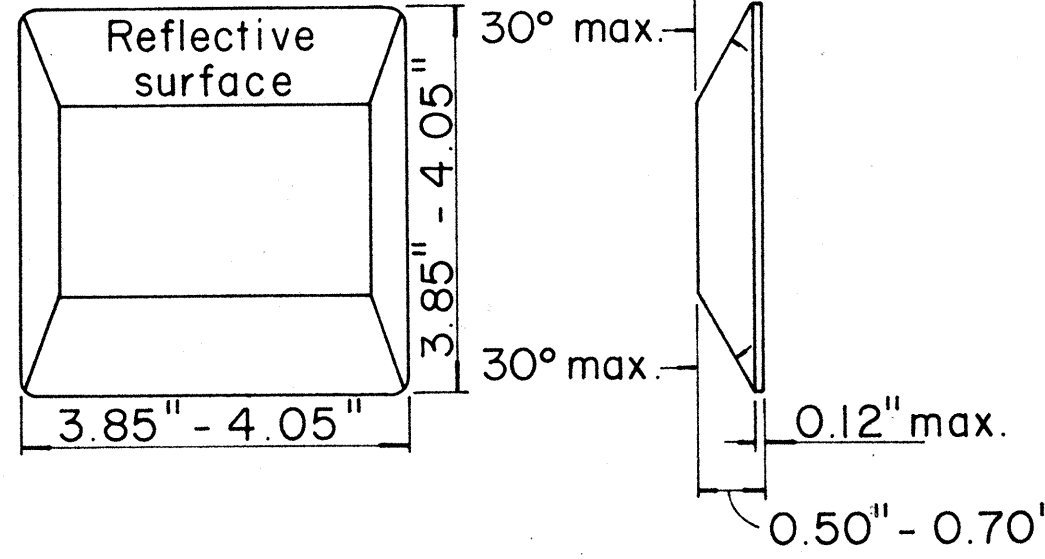
2 LANE LINES



3 CHANNELIZING LINES

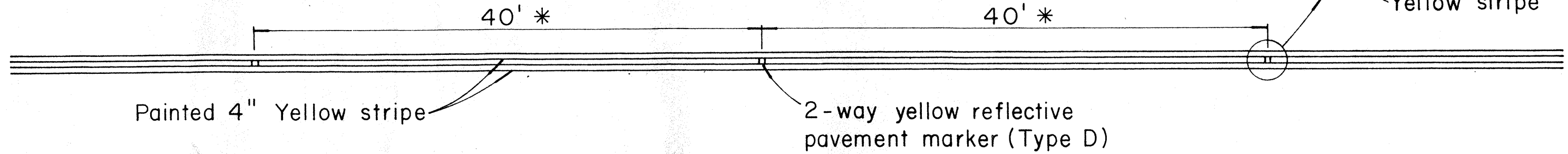


TYPE C
Red - clear reflective surface



TYPE H
One - way yellow reflective surface

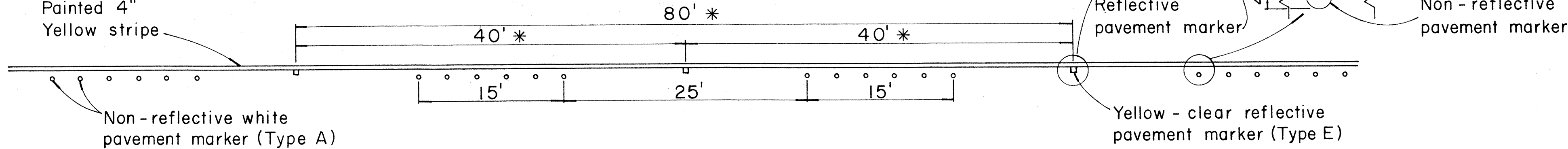
4 YELLOW DOUBLE CENTER LINES



TYPE E
Yellow - clear reflective surface

TYPE G
One - way clear reflective surface

5 NO PASSING - PASSING ZONES ON TWO - LANE ROADS



NOTE:
Painted stripes to be done by State forces

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

STANDARD DETAILS

RAISED PAVEMENT MARKERS

Not to Scale

Sept., 1967

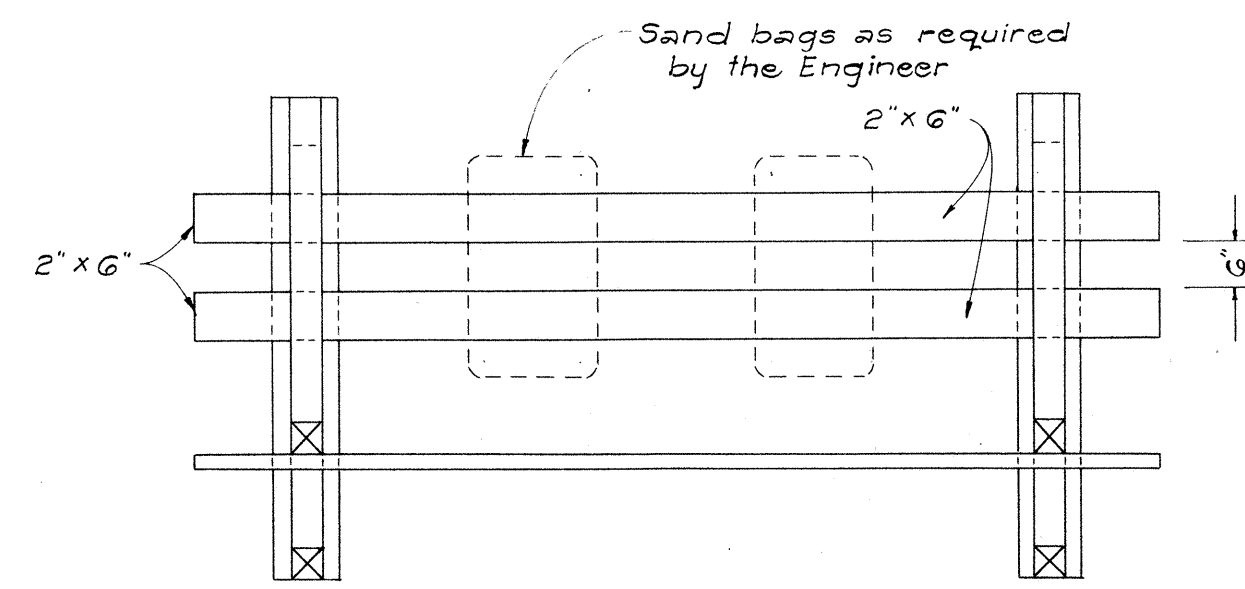
SHEET No.

OF

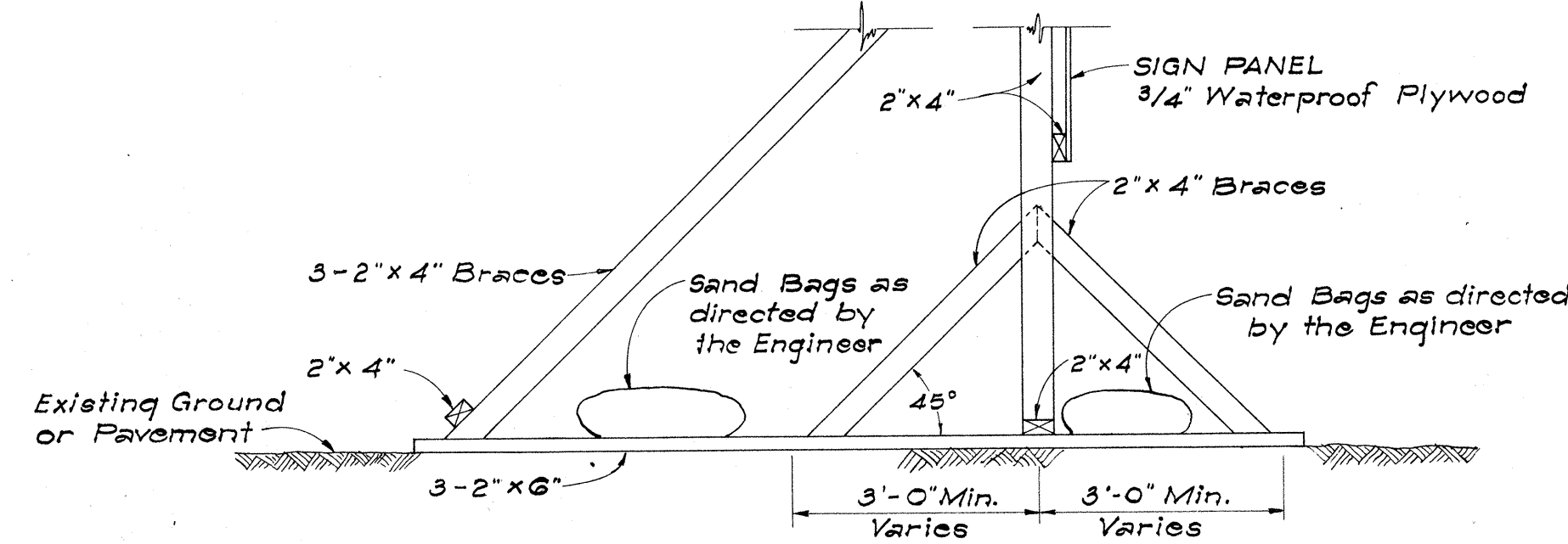
SHEETS

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

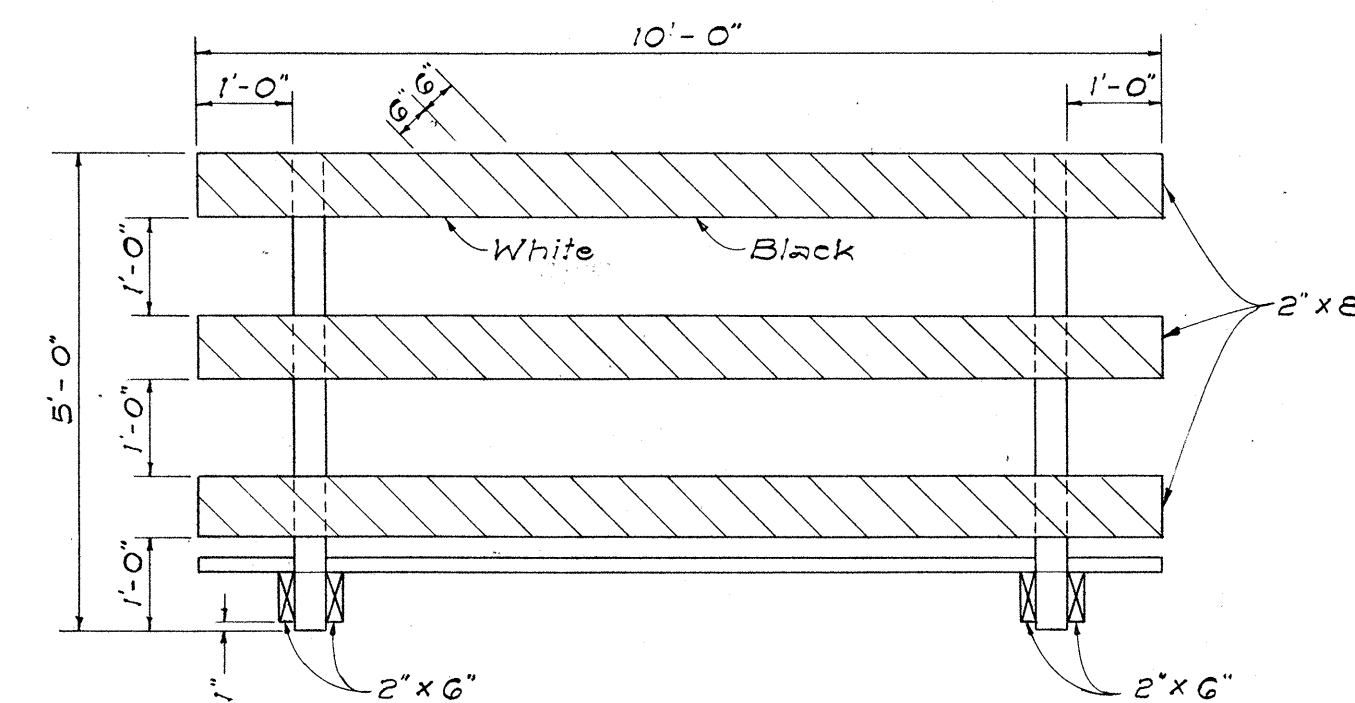
* For curves less than 1000' radius use one - half spacing



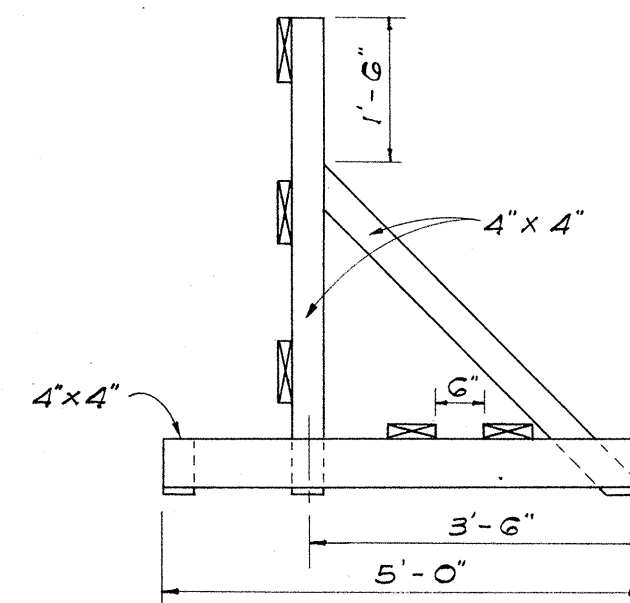
PLAN VIEW



SIDE VIEW
(SIGN FRAME WEIGHTED DOWN)

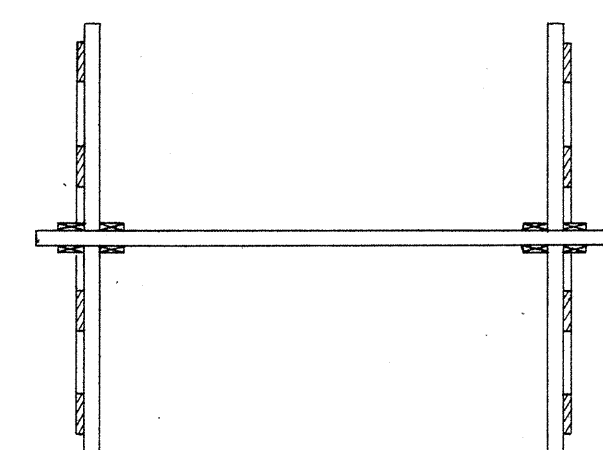


FRONT VIEW

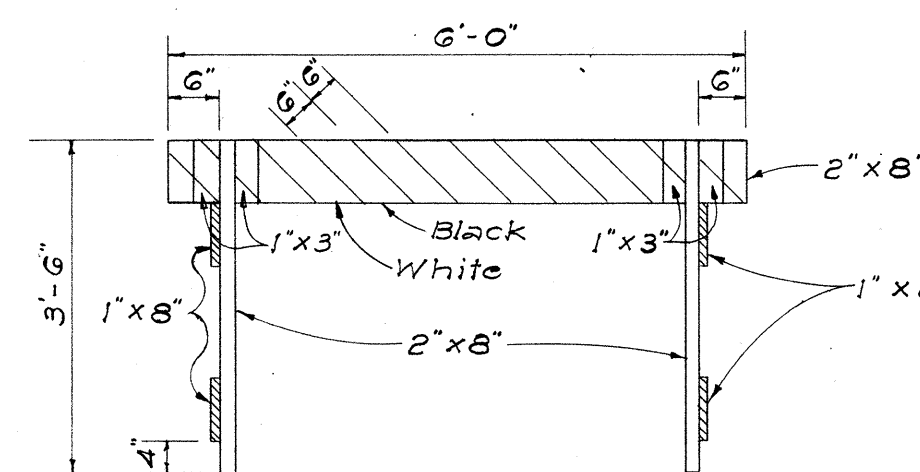


END VIEW

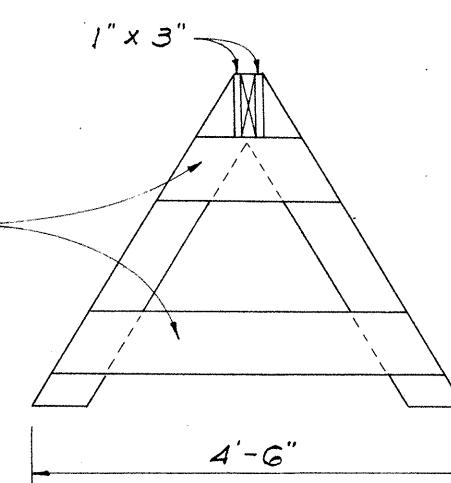
CLASS I BARRICADE



PLAN VIEW



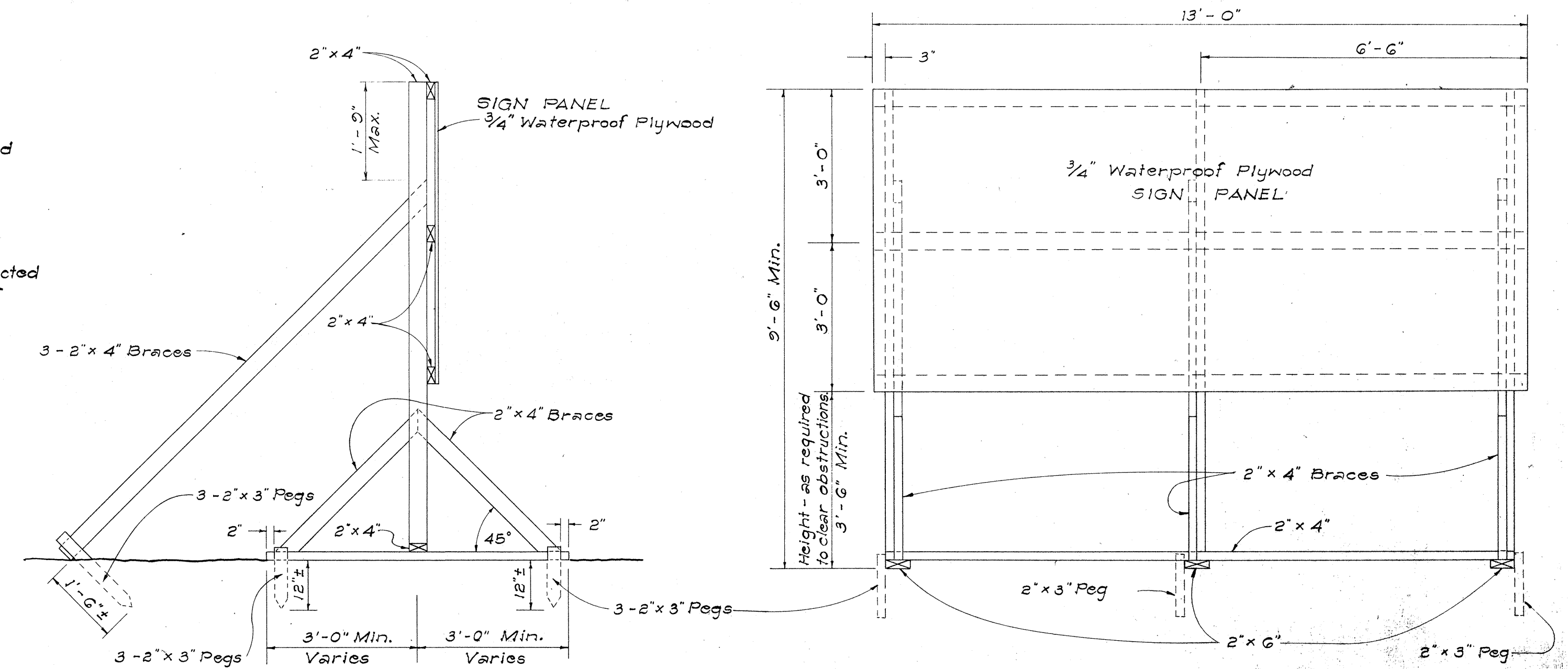
FRONT VIEW



END VIEW

CLASS II BARRICADE

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

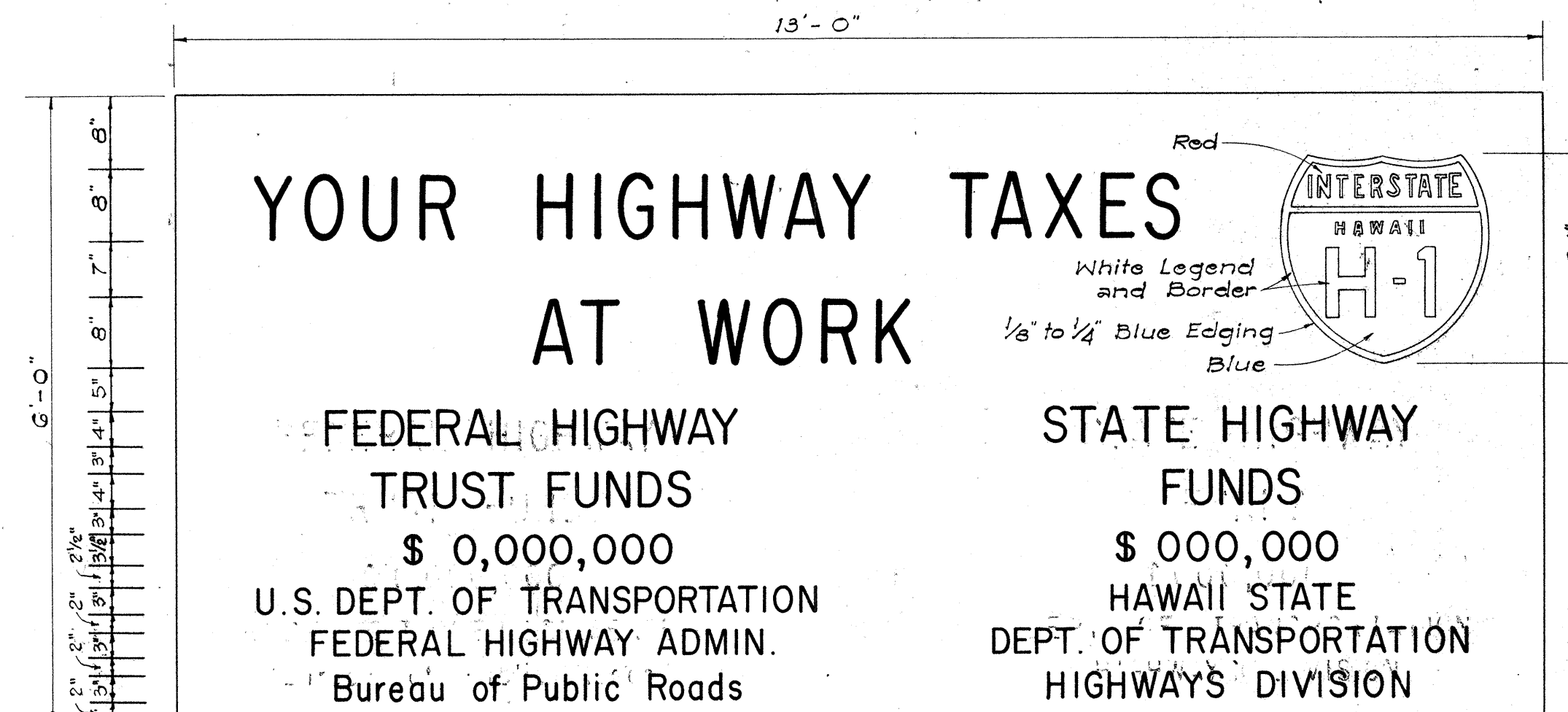


SIDE VIEW
(SIGN FRAME ANCHORED IN GROUND)

FRONT VIEW

ELEVATIONS

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



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

INTERSTATE SYSTEM CONSTRUCTION IDENTIFICATION SIGN

Scale: As Shown

NOTES:

- A. CONSTRUCTION IDENTIFICATION SIGNS**
- The sign legend shall be black on white background except for the Interstate Route marker which shall be as shown on the plan.
 - The Contractor shall construct, install and maintain the project signs at the locations shown on the Plans and as ordered by the Engineer.
 - The signs shall be removed and stockpiled upon completion of the project as ordered by the Engineer and are to become State property.
 - Letters shall be Series 'C' of the sizes shown on the Plan and shall conform with the Standard Alphabet for Highway Signs, Bureau of Public Roads, 1952.
 - The Contractor shall fill in the proper numerals in place of ciphers as ordered by the Engineer.

B. WOOD BARRICADES

- The Contractor shall construct, install and maintain the wood barricades at the locations shown on the Plans and as ordered by the Engineer.
- The permanent wood barricades shall be left in place or relocated upon completion of the project as ordered by the Engineer and are to become State property.

REVISED: October 2, 1967

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL DETAILS
CONSTRUCTION IDENTIFICATION SIGN
AND
WOOD BARRICADES

SCALE: As Shown

DATE:

SHEET No. OF SHEETS

20

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