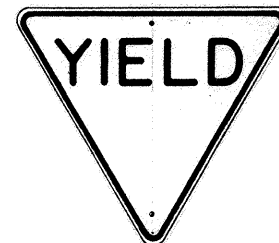
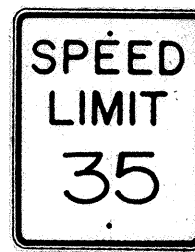


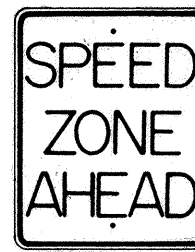
R1-1
30" x 30"



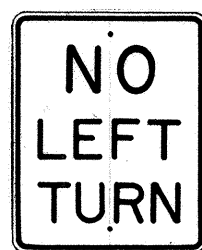
R1-2
36" x 36" x 36"



R2-1 (35)
24" x 30"



R2-5
24" x 30"



R3-2
24" x 30"



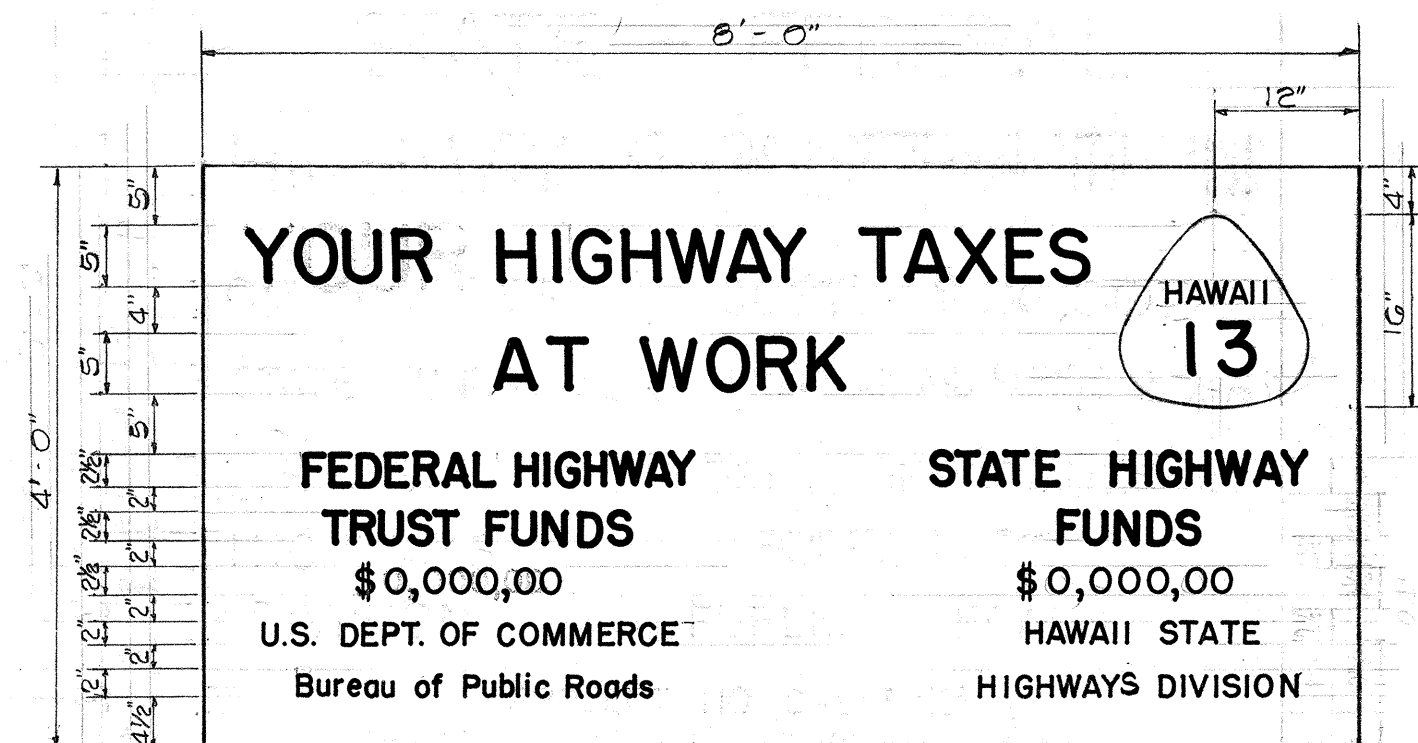
R4-7 (R)
24" x 30"



R5-1
24" x 24"



W9-1
30" x 30"



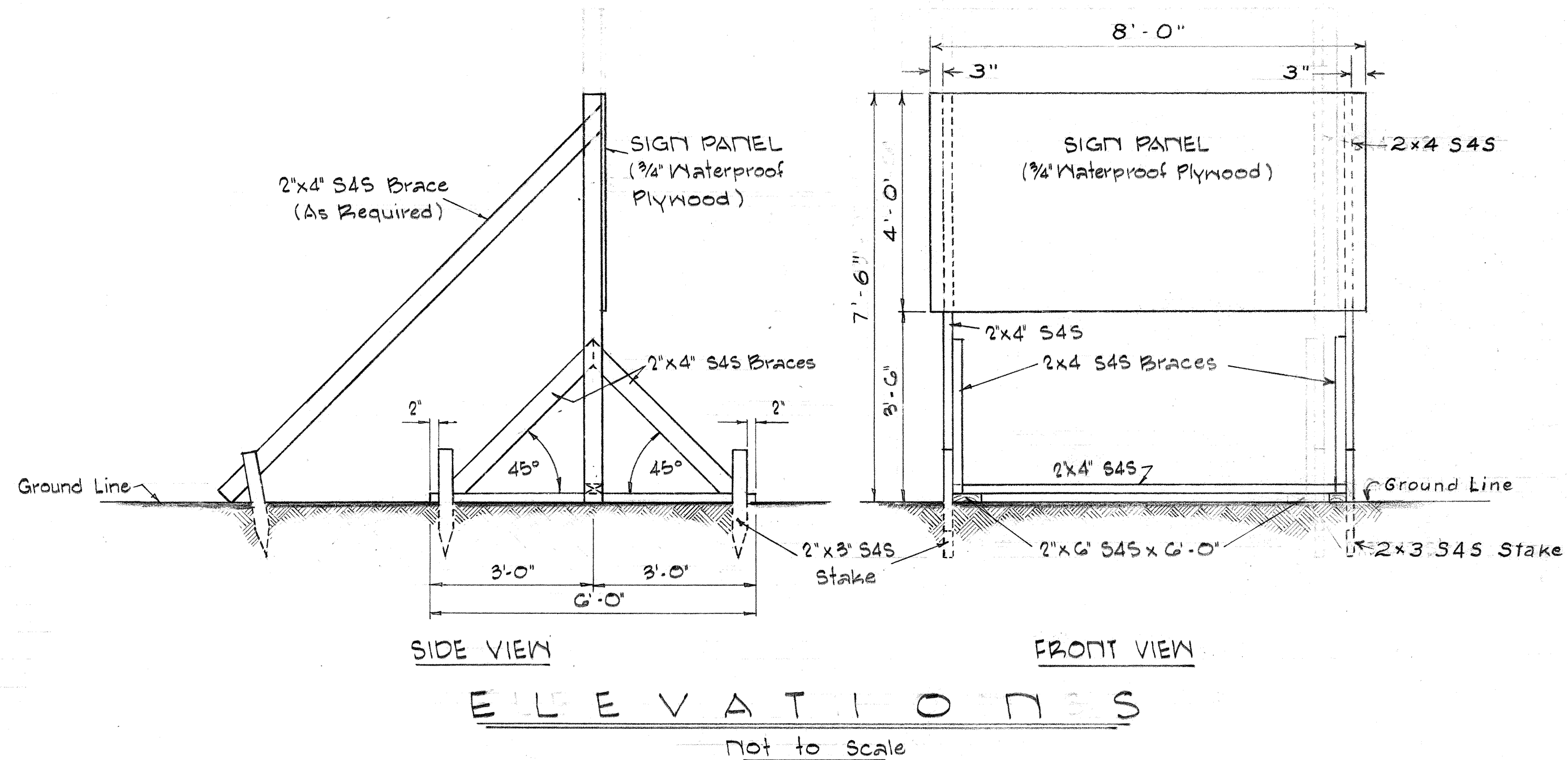
CONSTRUCTION IDENTIFICATION SIGN

Not to Scale

SUMMARY OF NEW REGULATORY AND WARNING SIGNS AND REFLECTOR MARKERS		
TYPE	DESCRIPTION	AMOUNT
R1-1	STOP	7
R1-2	YIELD	4
R2-1 (35)	SPEED LIMIT 35	2
R2-5	SPEED ZONE AHEAD	1
R3-2	NO LEFT TURN	1
R4-7 (R)	KEEP → RIGHT	2
R5-1	DO NOT ENTER	2
W9-1	SCHOOL	2
M1-3 (11)	STATE ROUTE MARKER - 11	2
M1-3 (13)	STATE ROUTE MARKER - 13	3
M1-4 (11)	STATE ROUTE MARKER - 11	4
M1-4 (13)	STATE ROUTE MARKER - 13	8
M2-1	JCT	5
M4-1	AUXILIARY MARKER →	1
M4-2-B	AUXILIARY MARKER ↗	1
M4-3	AUXILIARY MARKER ↑	2
M4-4	AUXILIARY MARKER ↔	3
RM-1	REFLECTOR MARKER	6
RM-3	REFLECTOR MARKER	7
TOTAL		63

NOTE:

- The shape, color, plate details, lettering and reflectorization of Regulatory Signs (Prefix R) and Warning Signs (Prefix W) 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 Regulatory and Warning signs shall be reflectorized unless otherwise specified.
- All Regulatory and Warning 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.
- (R) or (L) indicates right or left and shall be as shown on the plans.



CONSTRUCTION PROJECT IDENTIFICATION SIGN NOTES

- The legend shall be black on white background.
- All letters shall be of size and design shown and shall conform with "Standard Alphabets for Highway Signs" as set forth by the Public Roads Administration, Federal Works Agency.
- Letters shall be Series "D" sizes as shown, except where shown otherwise on the Plan.
- Contractor shall be responsible for maintenance of sign.
- All costs incurred in the construction, installation, and maintenance of the sign will not be paid for separately, but shall be considered as included in the unit prices paid for the various items of work.
- Contractor shall insert amount of Contract in place of ciphers.

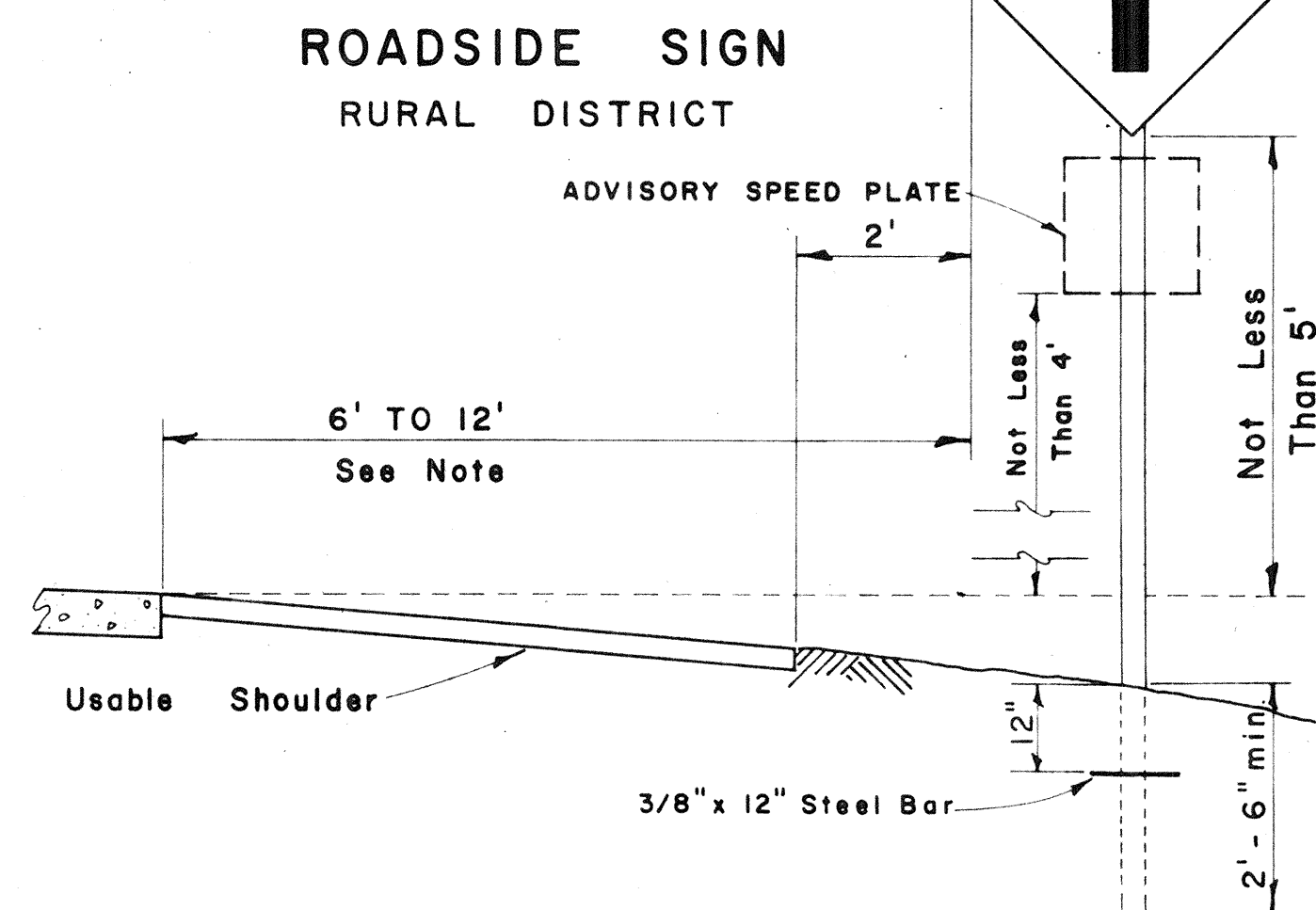
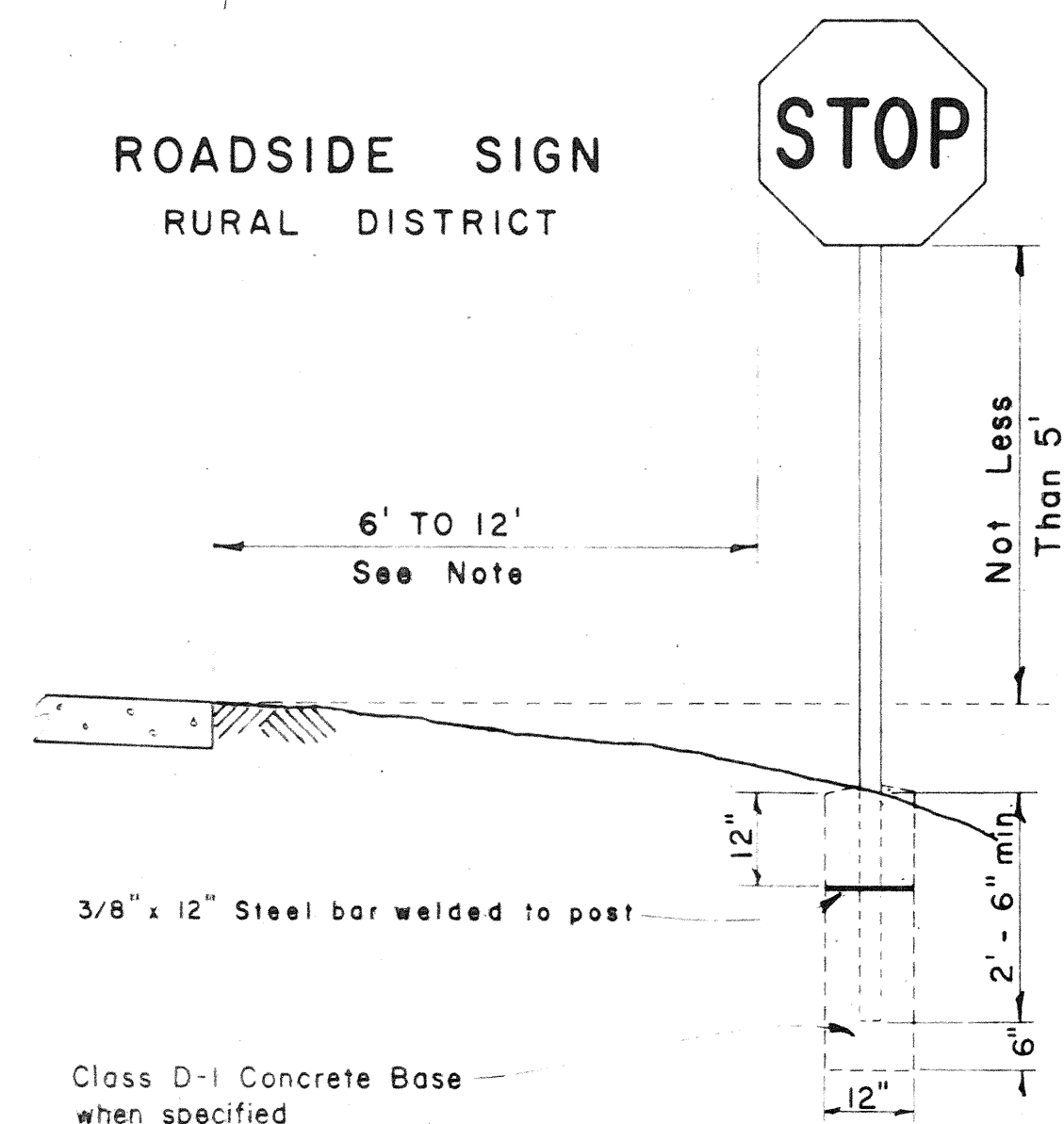
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

REGULATORY & WARNING SIGNS
AND MISCELLANEOUS DETAILS

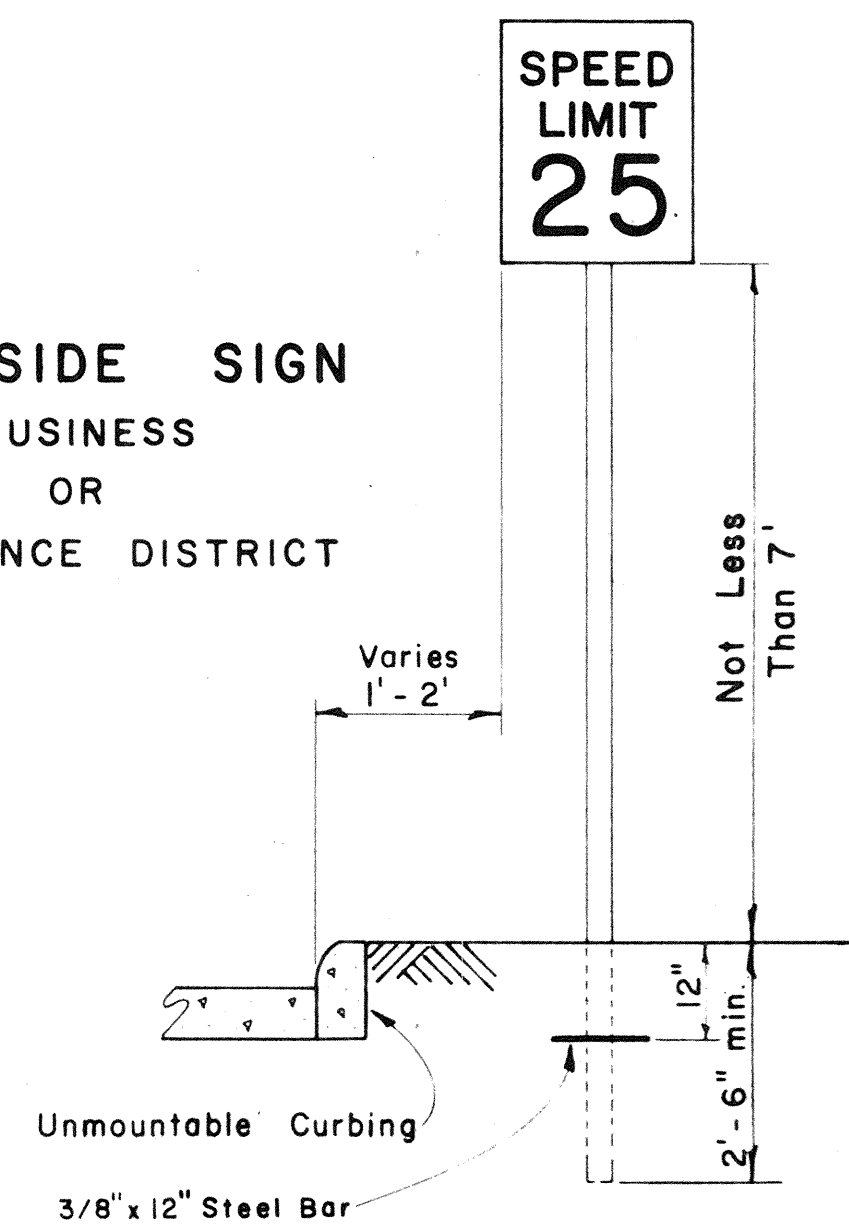
Not to Scale

SHEET No. OF SHEETS

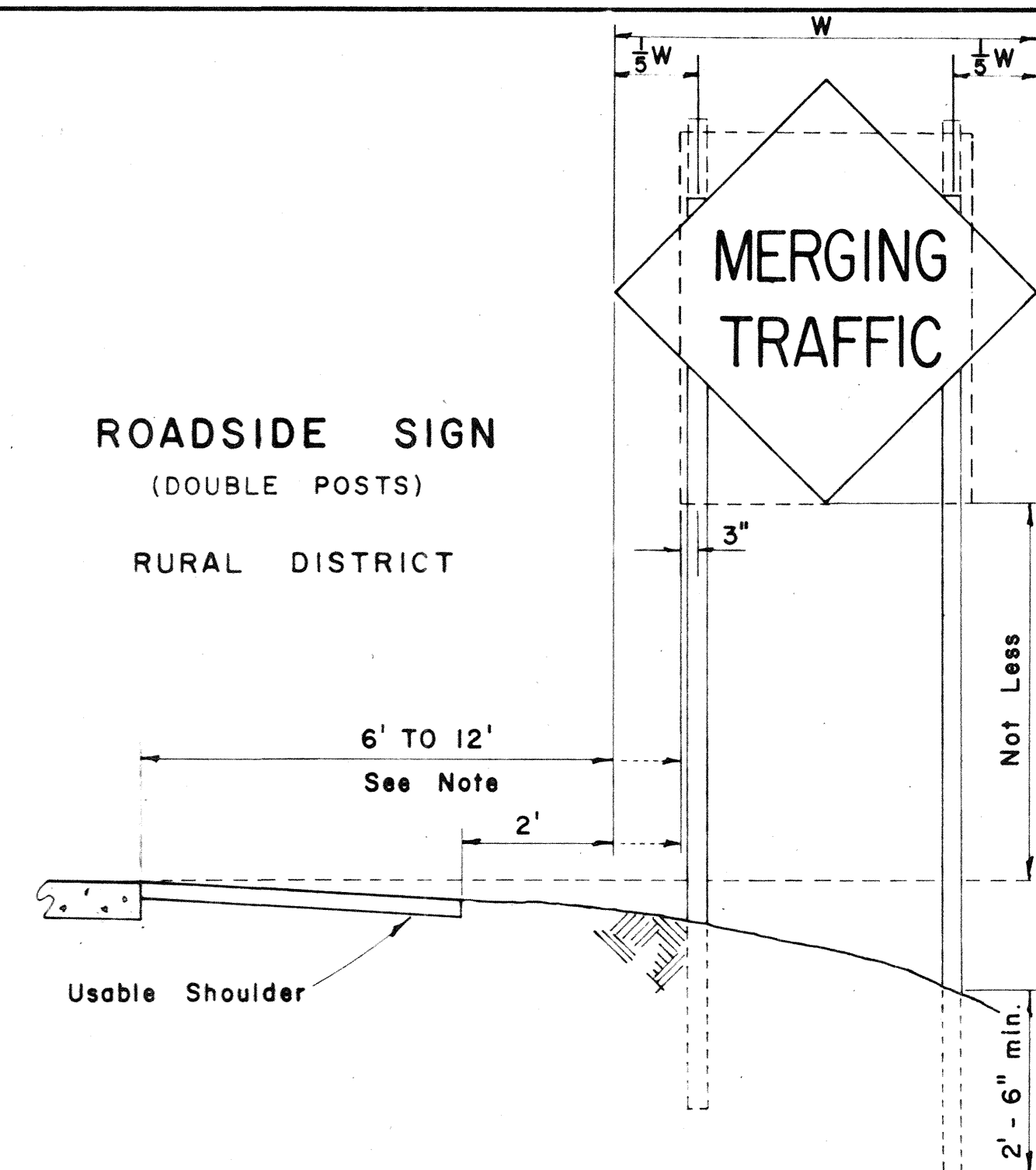
- NOTE:
- All signs and road delineators shall be placed 2' outside the usable roadway shoulder or 1' outside unmountable curbing present and within the limits shown below.
 - Except as noted below, sign posts shall be 3" galv. std. pipe for signs larger than 24" in any dimension and 2" galv. std. pipe for signs not over 24" in any dimension, with two $\frac{3}{8}$ " bolt holes or adjustable band brackets.
 - Sign shall be attached to post with $\frac{5}{16}$ " galvanized carriage bolts with nuts and $\frac{7}{8}$ " x $\frac{7}{16}$ " x .120 stainless-steel washers with neoprene rubber gasket.
 - Clearance Markers (RM-4, RM-3) 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 with appropriate $\frac{3}{8}$ " bolt holes.



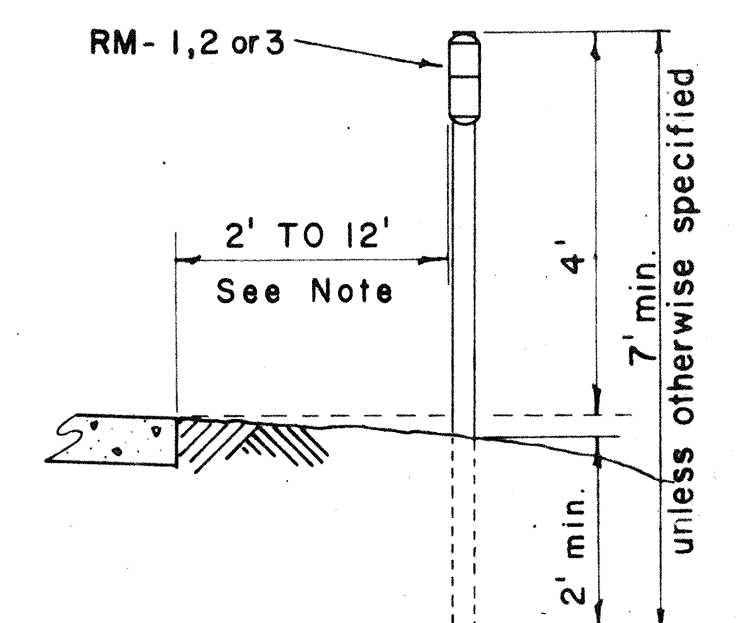
ROADSIDE SIGN
BUSINESS
OR
RESIDENCE DISTRICT



ROADSIDE SIGN
(DOUBLE POSTS)
RURAL DISTRICT

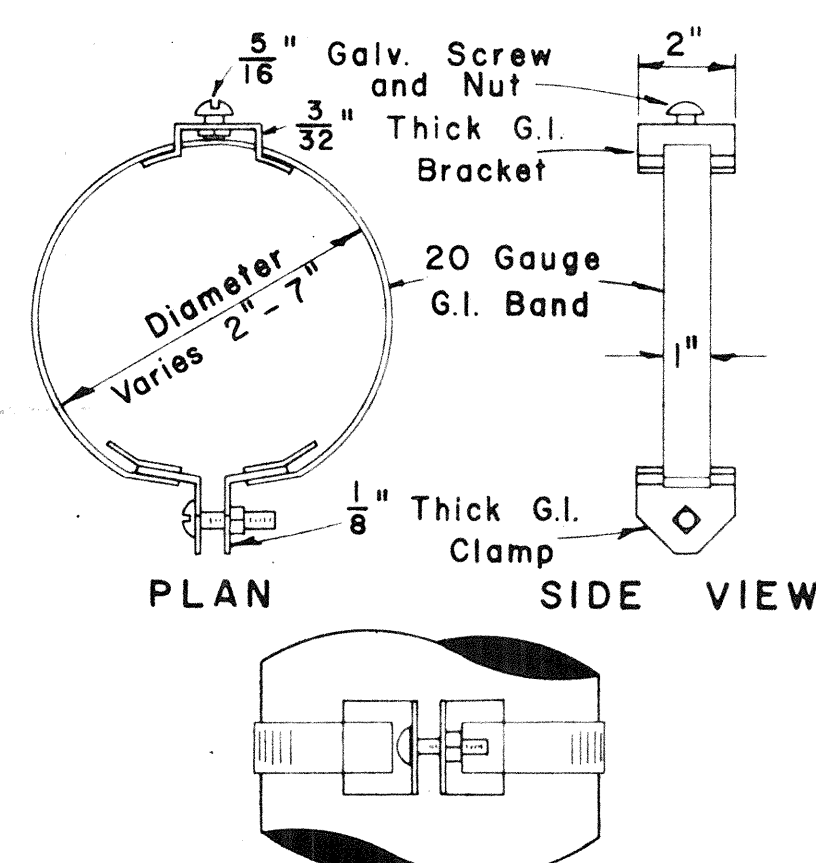
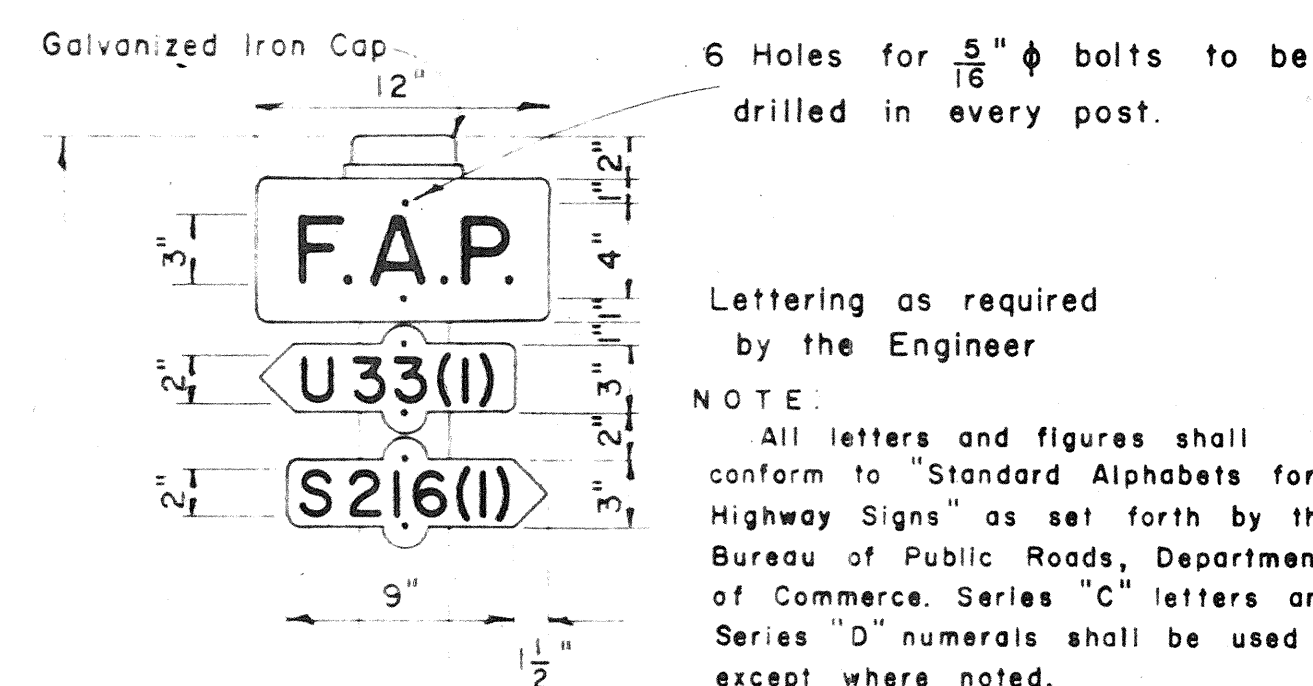


ROAD DELINEATOR

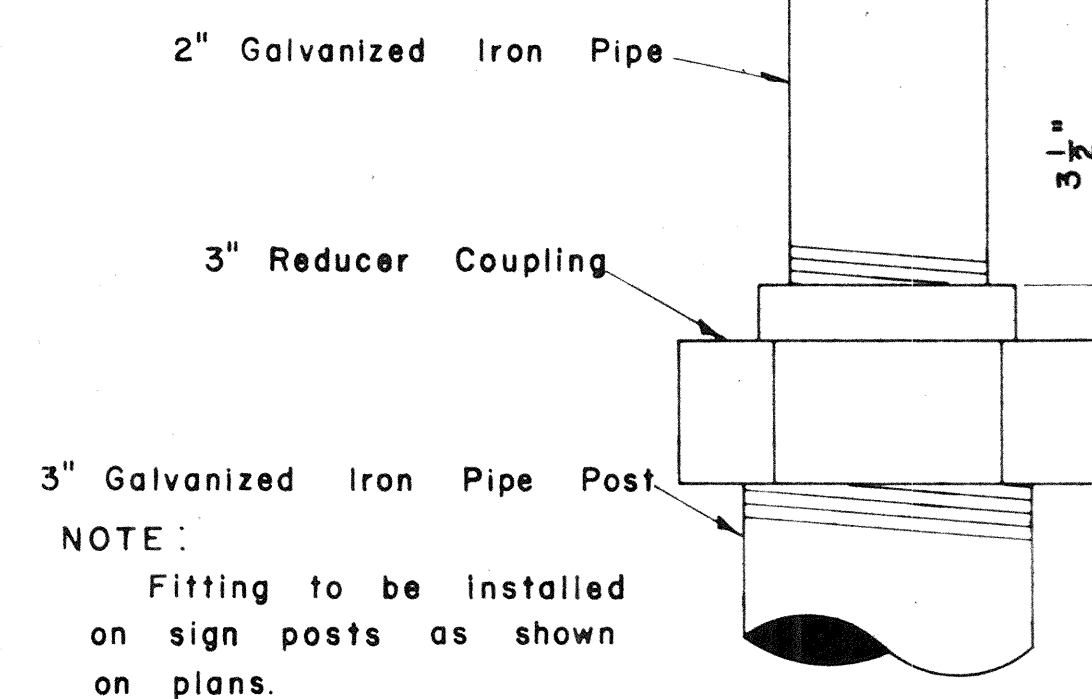


HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS

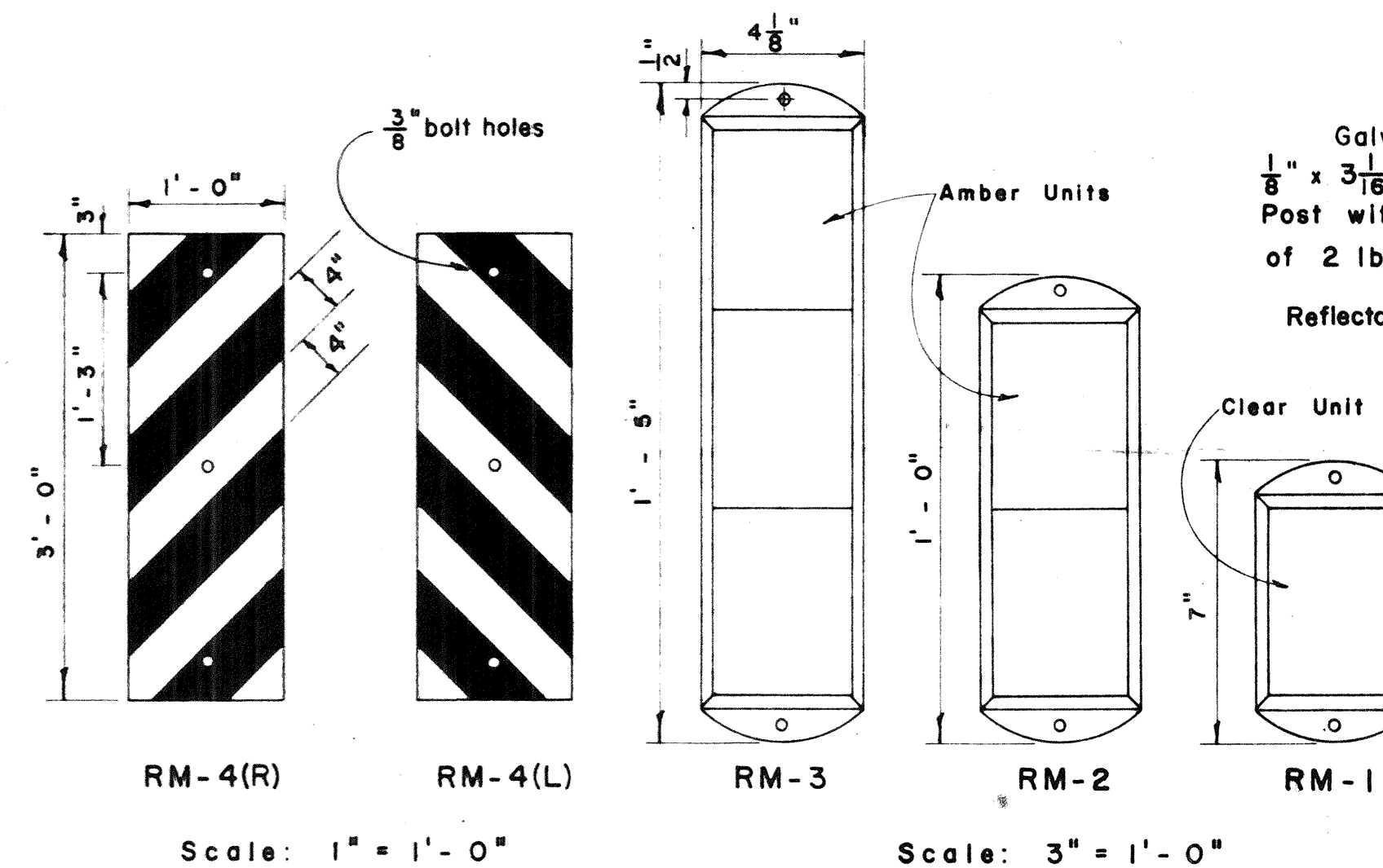
Scale: $\frac{1}{2}$ " = 1' - 0"



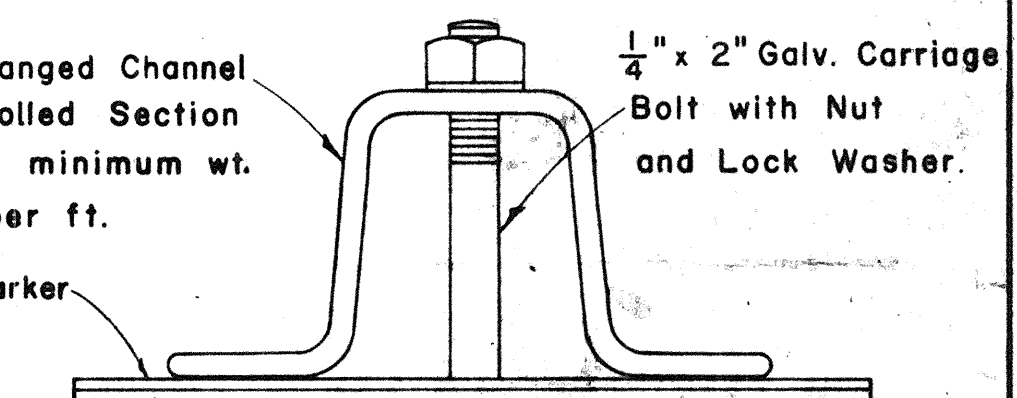
ADJUSTABLE BAND BRACKET FOR MOUNTING TRAFFIC SIGNS
Scale: 3" = 1' - 0"



DETAIL OF SIGN POST FITTING FOR CITY & COUNTY STREET NAME SIGNS
Scale: $\frac{1}{2}$ " = 1"

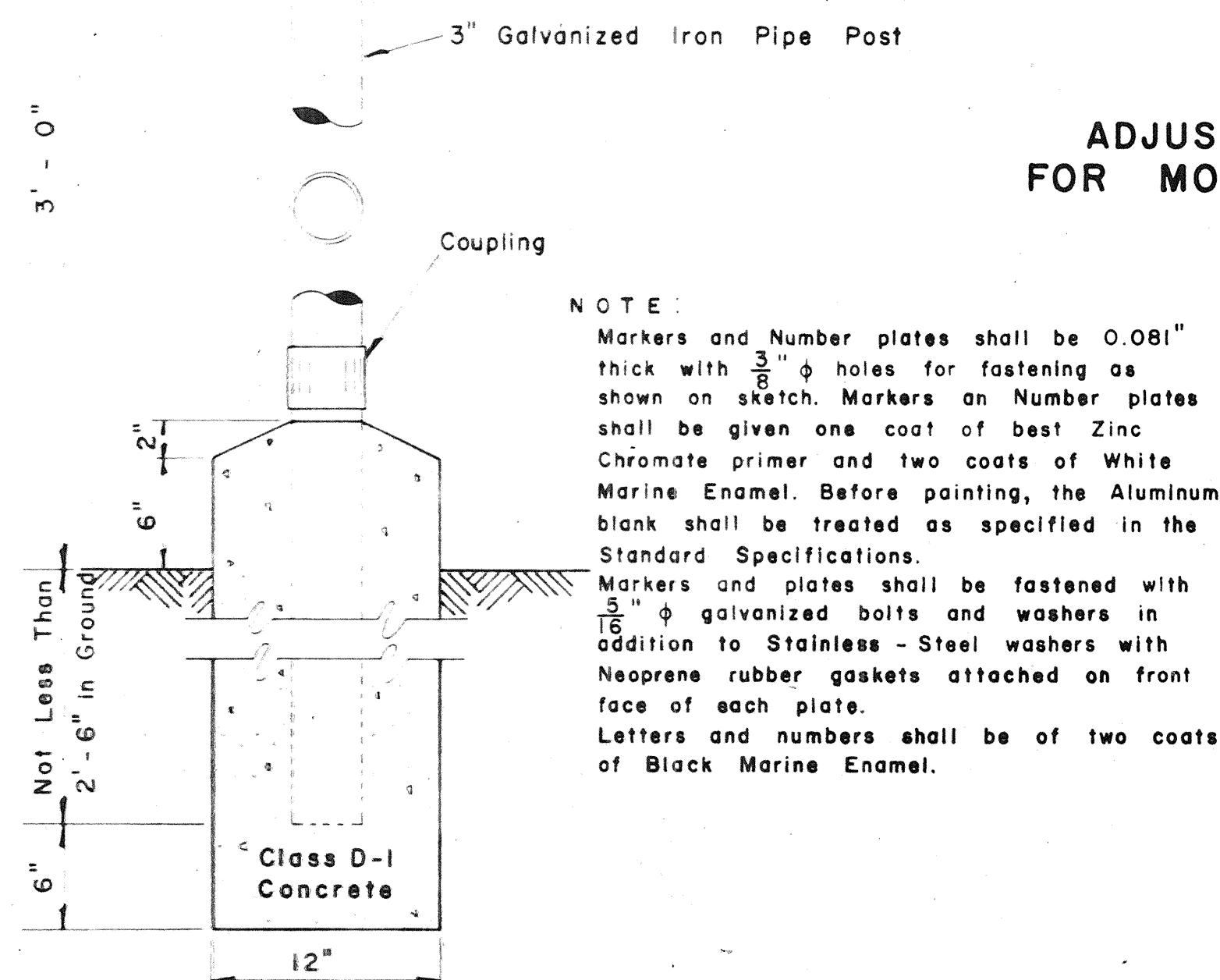


REFLECTOR MARKERS
Scale: As Shown

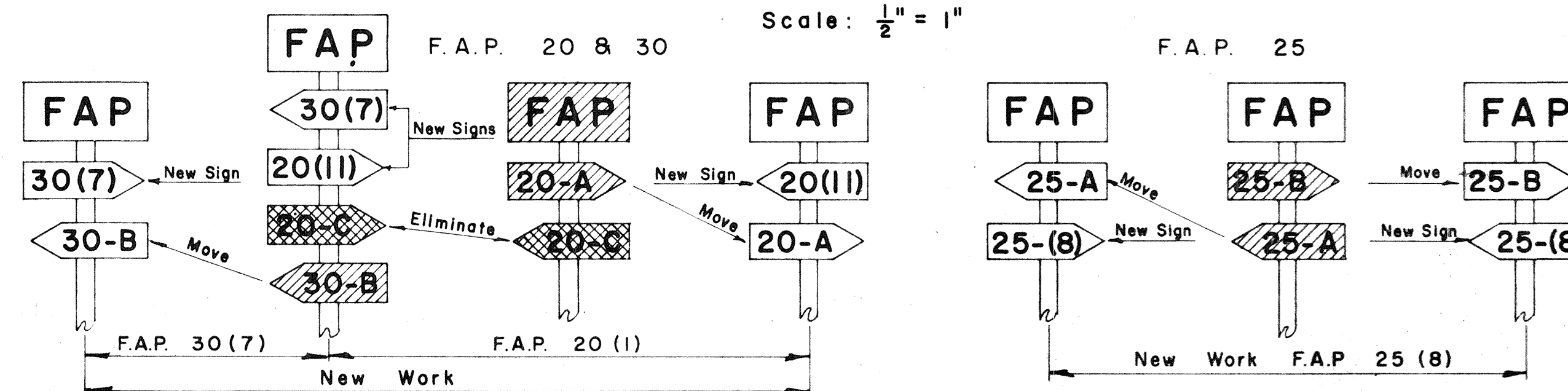


TYPICAL SECTION OF ROAD DELINEATOR
Full Size

- NOTE:
- Reflector Units for RM-1, 2, 3 shall be 4" x 5" in size and shall consist of reflective sheeting encapsulated in acrylic plastic.
 - The upper 2 feet of the Galvanized Flanged Channel shall have a single row of $\frac{3}{8}$ " holes centered in the web and spaced 1 inch on centers.



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



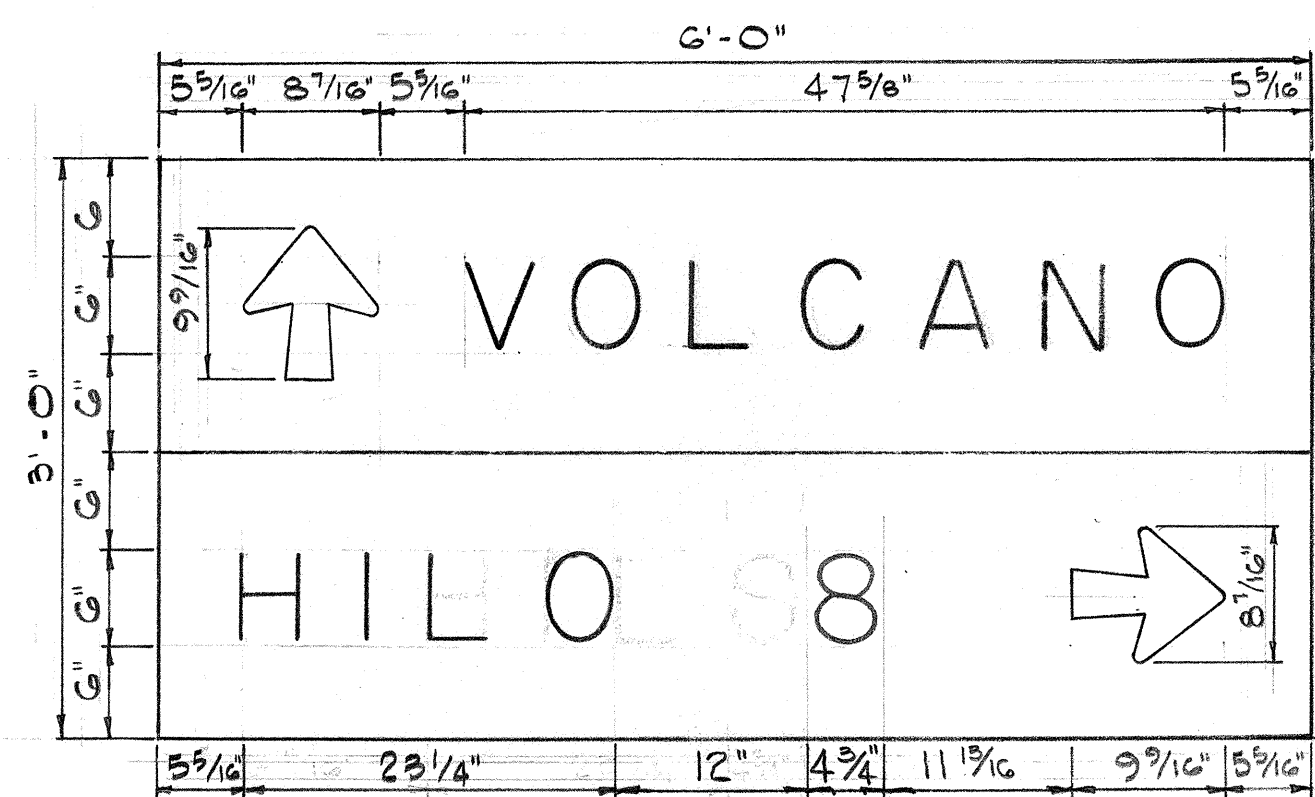
METHOD OF MARKING F.A. PROJECTS AT OVERLAPS
(USING NUMBER SUFFIX ON NEW WORK)

APPROVED: _____ DATE: 1/23/62
DIRECTOR OF TRANSPORTATION

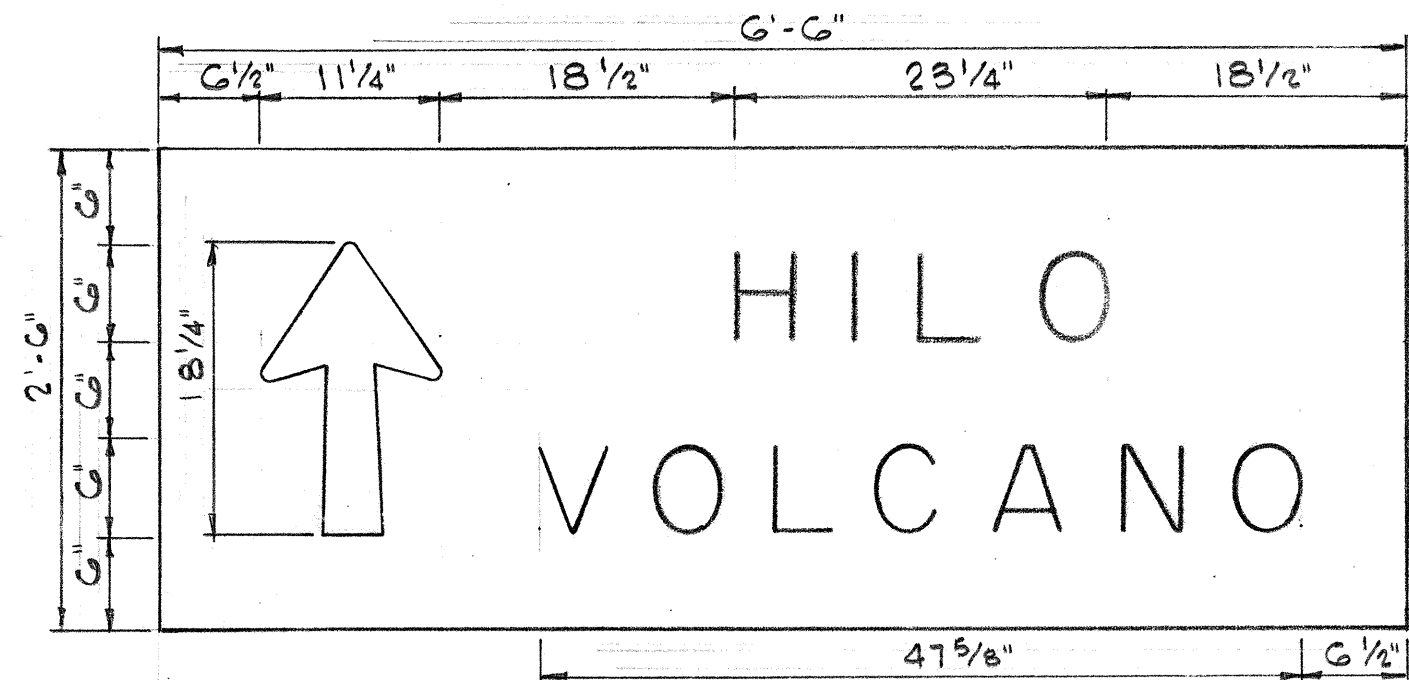
REVISED: JULY 3, 1963

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

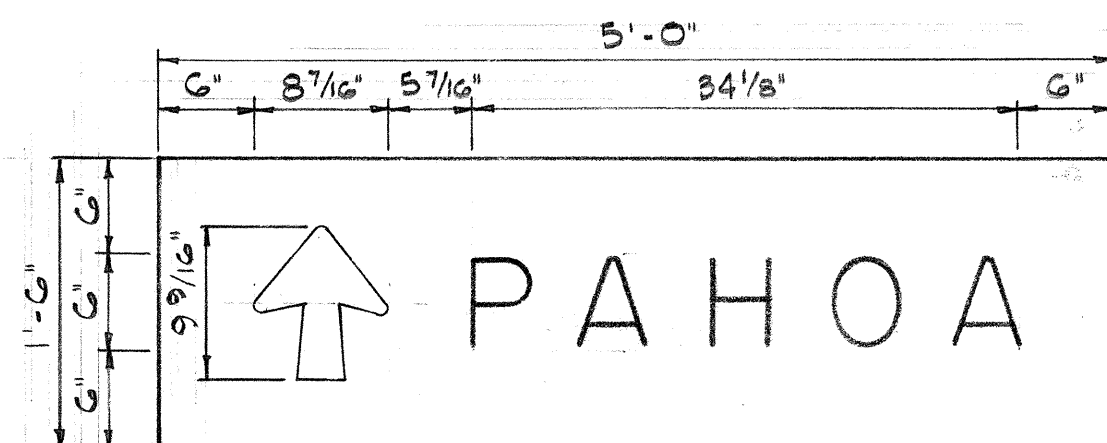
SHEET No. OF SHEETS



D-1

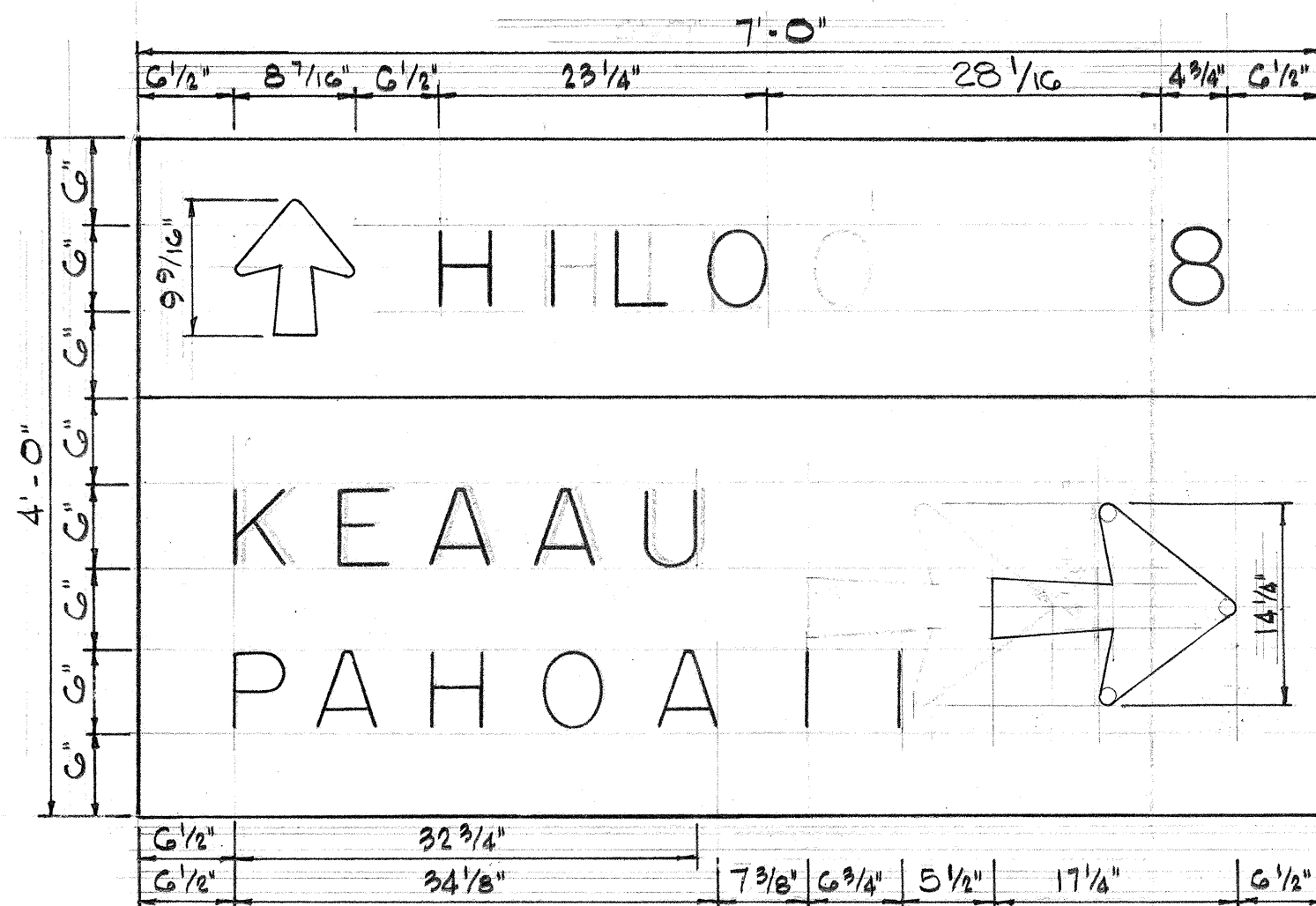


D-2

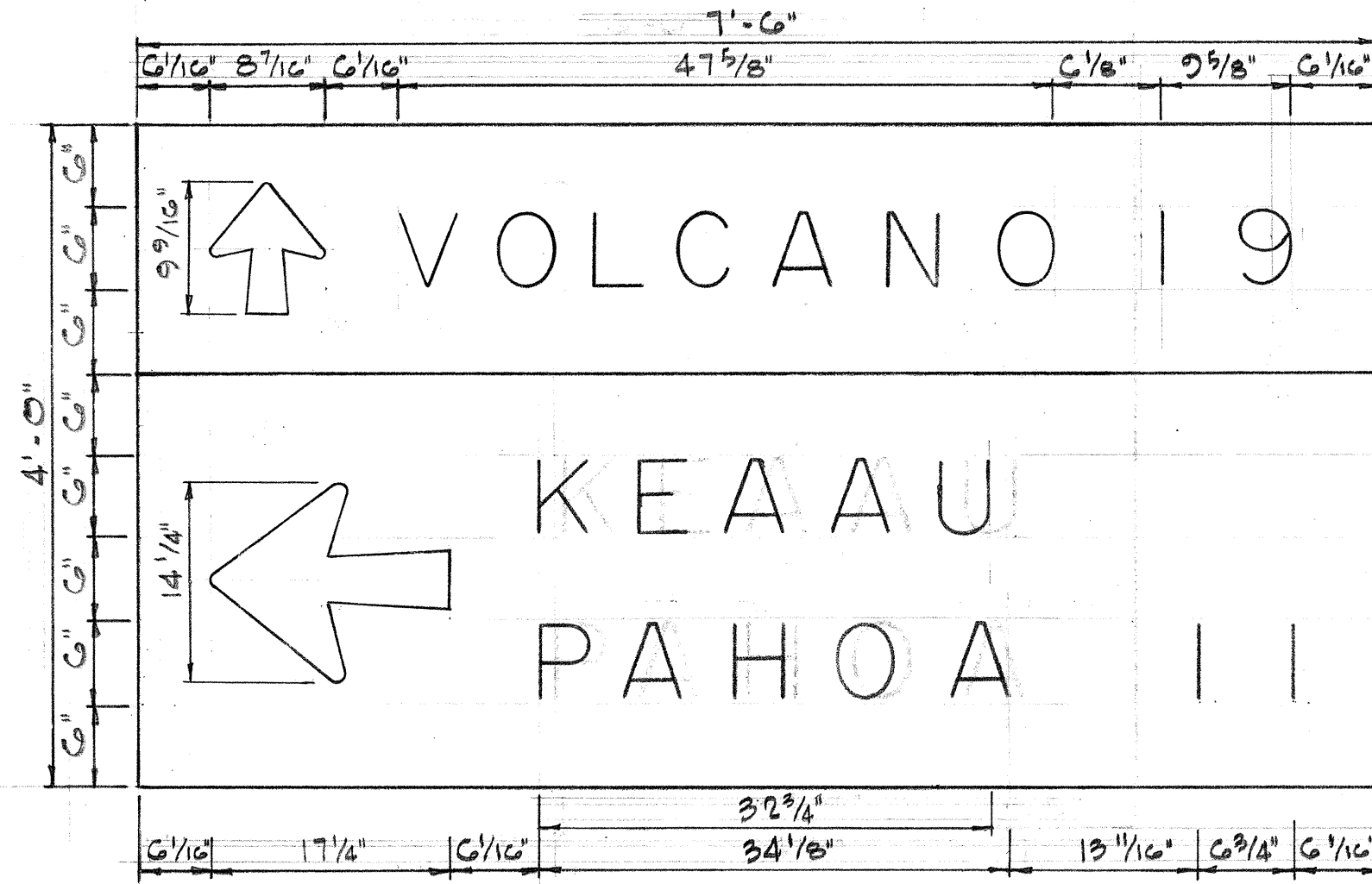


D-3

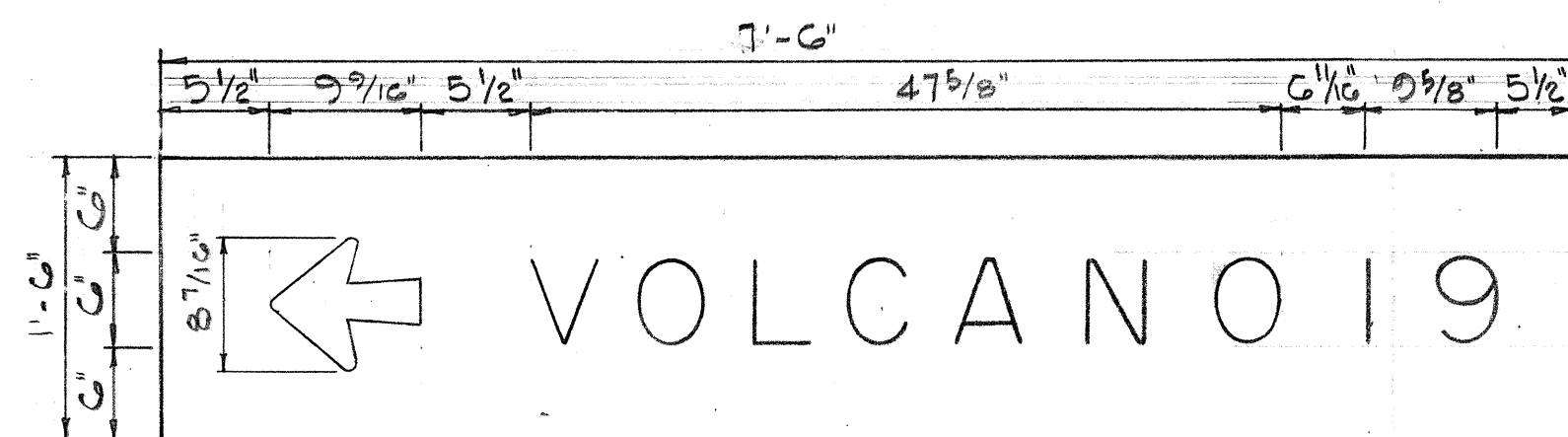
SUMMARY OF SIGN AREAS		
Sign No	MESSAGE	AREA SQ. FT.
D-1	VOLCANO, HILO	18.00
D-2	HILO, VOLCANO	16.25
D-3	PAHOA	7.50
D-4	HILO, KEAAU, PAHOA	28.00
D-5	VOLCANO, KEAAU, PAHOA	30.00
D-6	VOLCANO	11.25
TOTAL AREA		111.00



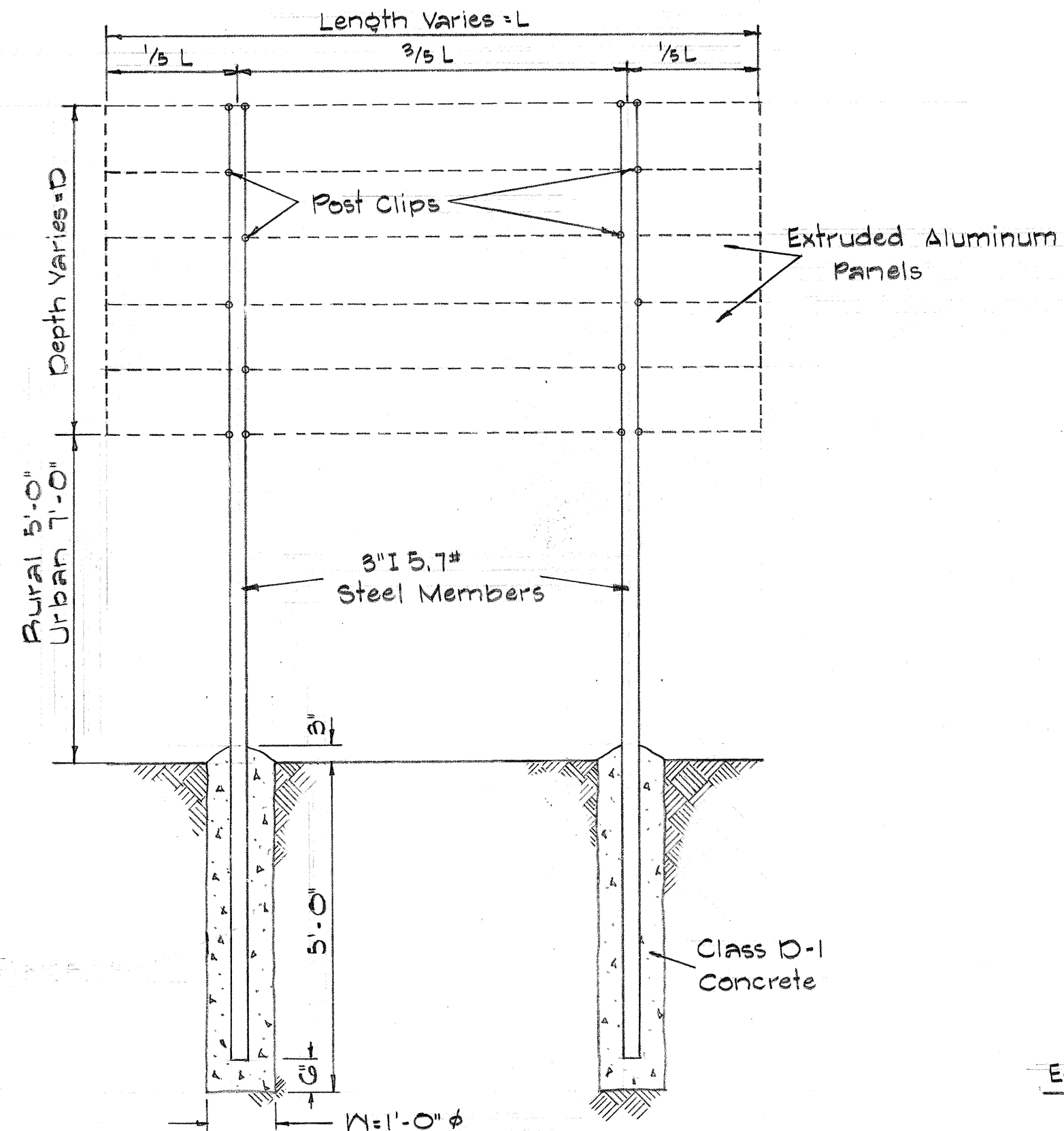
D-4



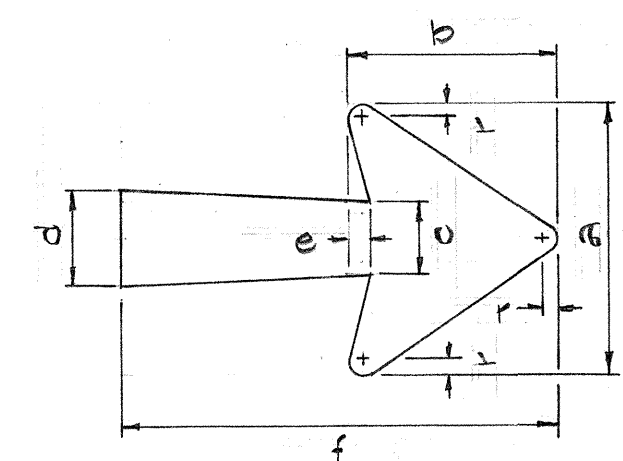
D-5



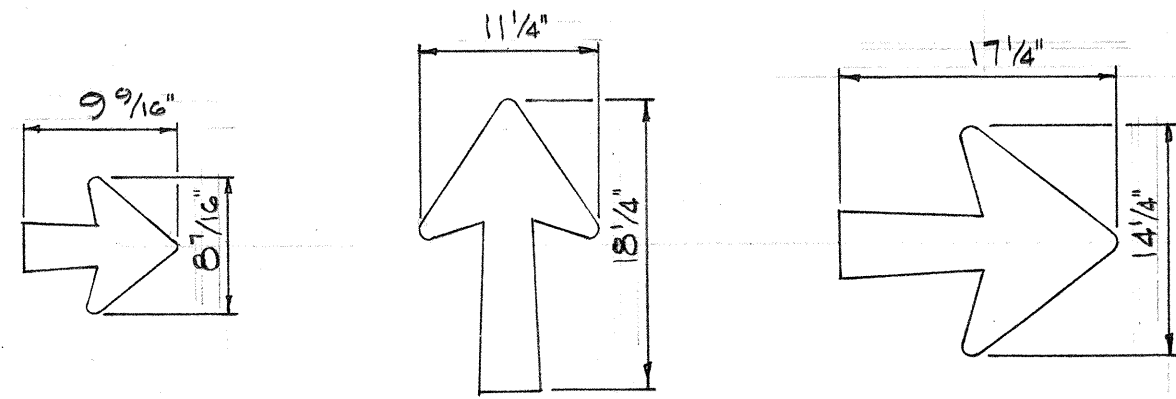
D-6



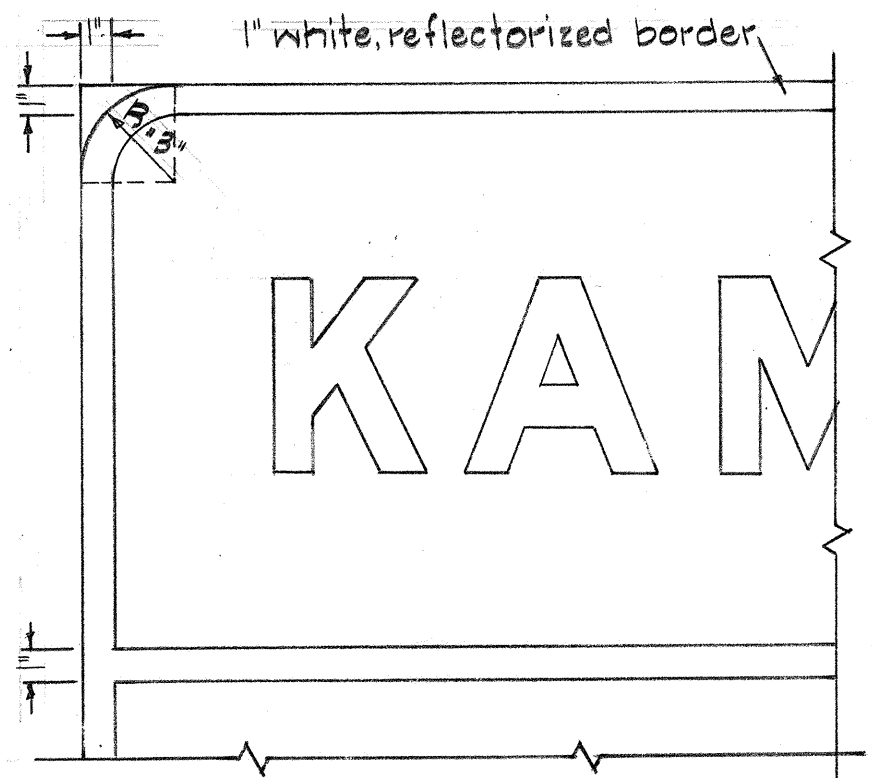
TYPICAL EXTRUDED SIGN PANEL AND POST



Arrow Size	Dimensions in inches						
	a	b	c	d	e	f	r
5 1/4" x 9 1/4"	8 1/4	5 1/4	2 1/4	2 1/4	9/8	9 1/4	1/2
11 1/4" x 18 1/4"	11 1/4	8 3/4	3 1/8	3 1/8	7/8	18 1/4	5/8
14 1/4" x 17 1/4"	14 1/4	9 1/4	3 3/8	4 1/2	1 1/4	17 1/4	3/4

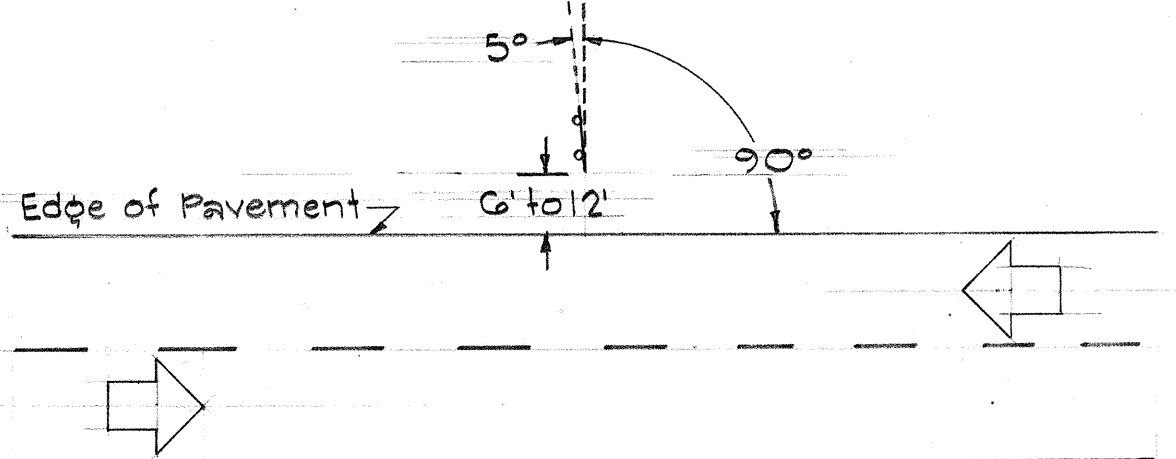


TYPICAL ARROW DETAIL



NOTE: Area outside corner radius need not be trimmed

TYPICAL CORNER AND BORDER DETAIL



TYPICAL SIGN LOCATION

GENERAL NOTES

- Sign message shall be lettered in upper case according to "Standard Alphabets for Highway Signs," Bureau of Public Roads, 1952, and lower case according to "Standard Lower Case Alphabets for Highway Signs," Bureau of Public Roads, 1962. Use Series "E" modified letters unless otherwise noted.
- Arrows shall conform with details as shown on plans.
- All borders shall conform with details as shown on plans.
- Letters, numerals, symbols and borders shall be reflectorized cut-outs.
- All reflectorized cut-outs and demountable copies shall be fastened on sign panel with blind rivets. See Special Provisions.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DESTINATION SIGNS AND ARROW DETAILS

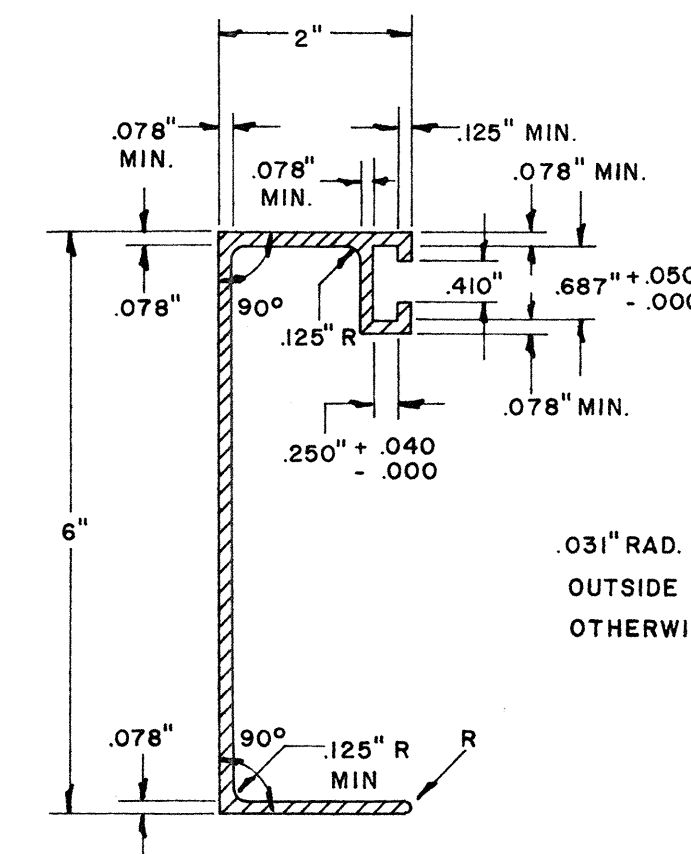
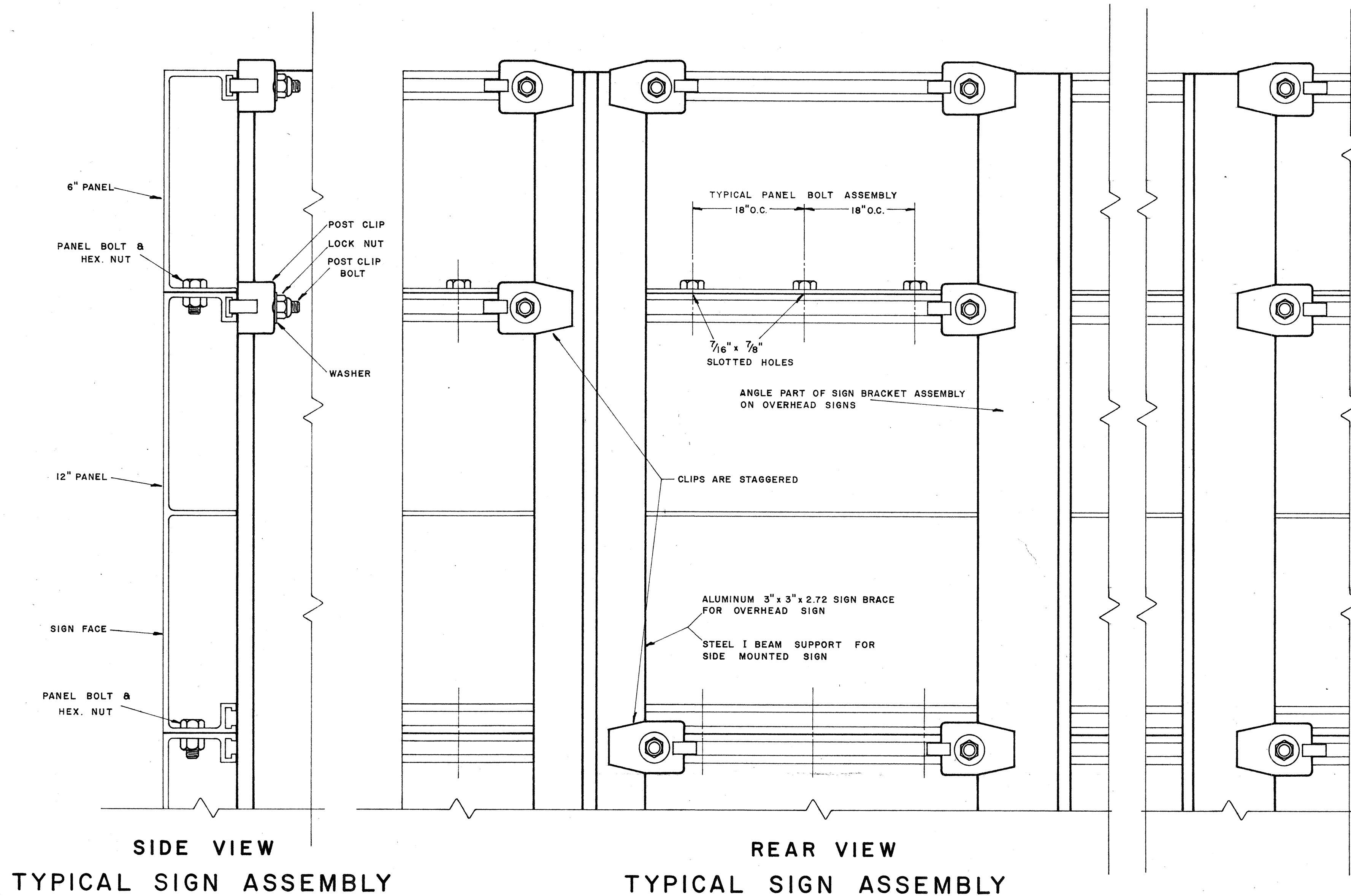
PROJ. NO S-0130(2) Keau, Puna, Hawaii
Not to Scale

SHEET No. OF SHEETS

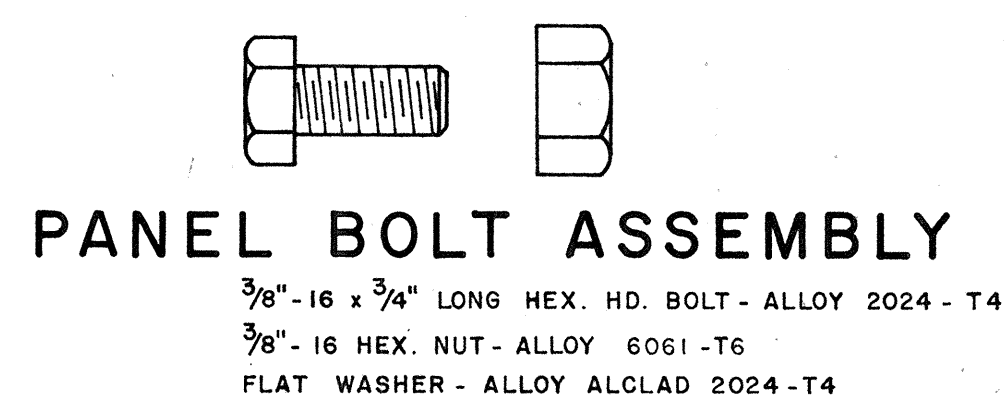
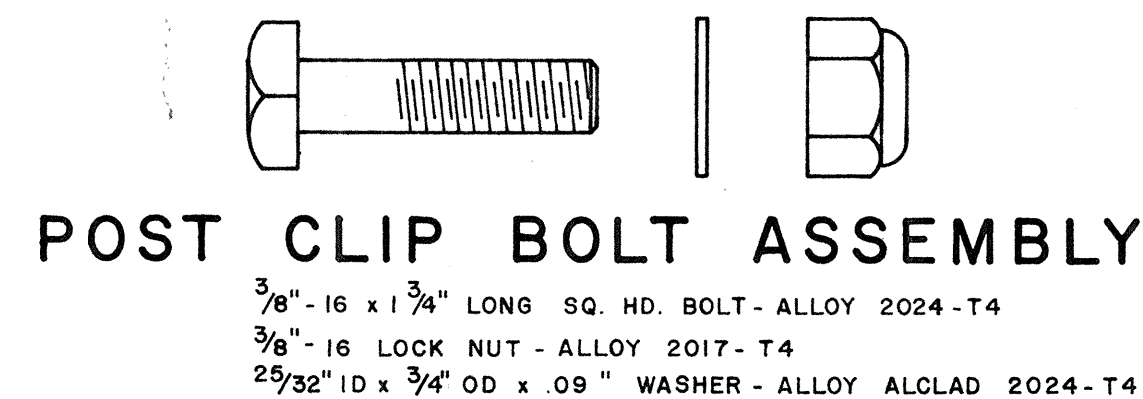
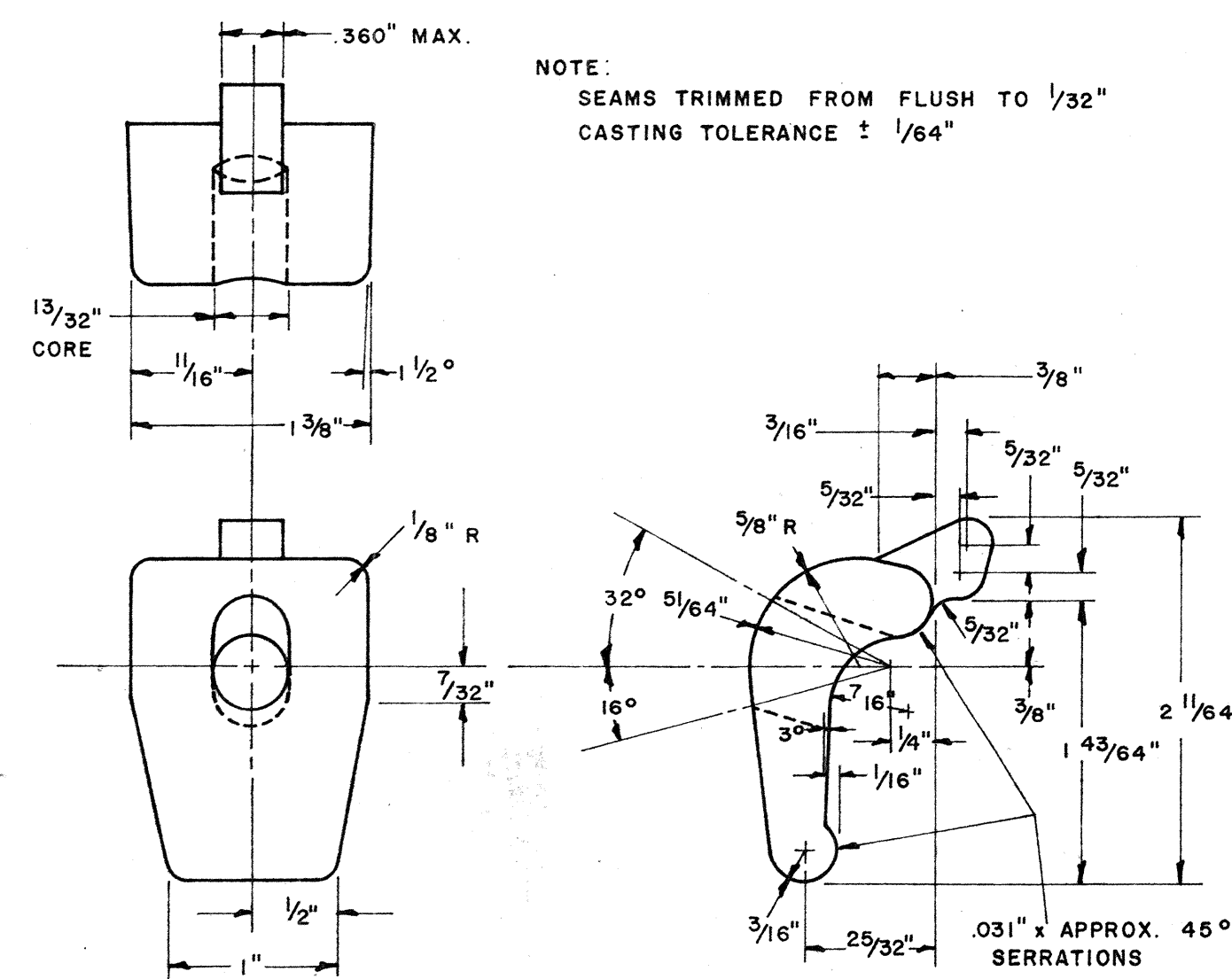
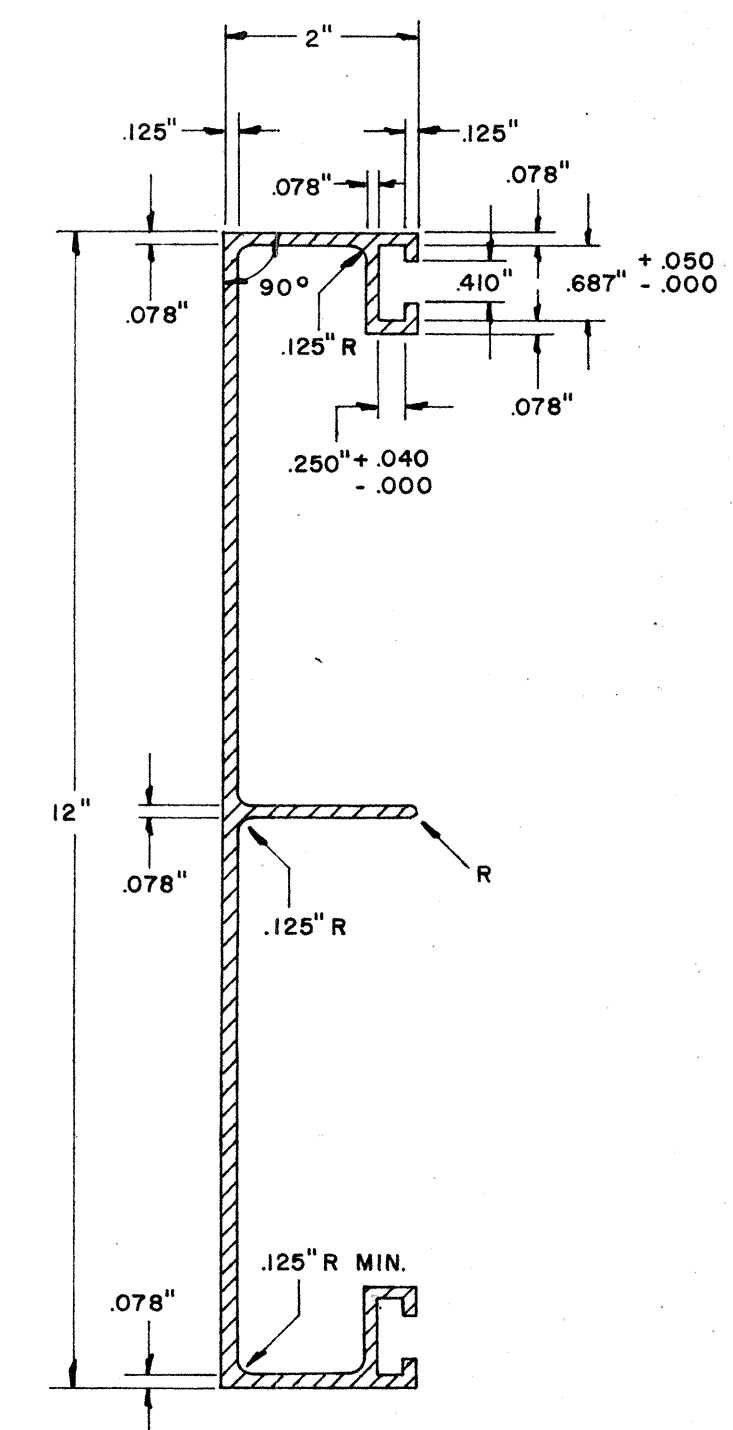
ORIGINAL PLAN
NOTE BOOK
No.

SURVEY PLOTTED BY
DATE
DRAWN BY
DESIGNED BY
CHECKED BY

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
HAWAII	HAW.	5-0130(2)	1964	11	19



SOLID EXTRUDED SIGN PANEL DETAILS



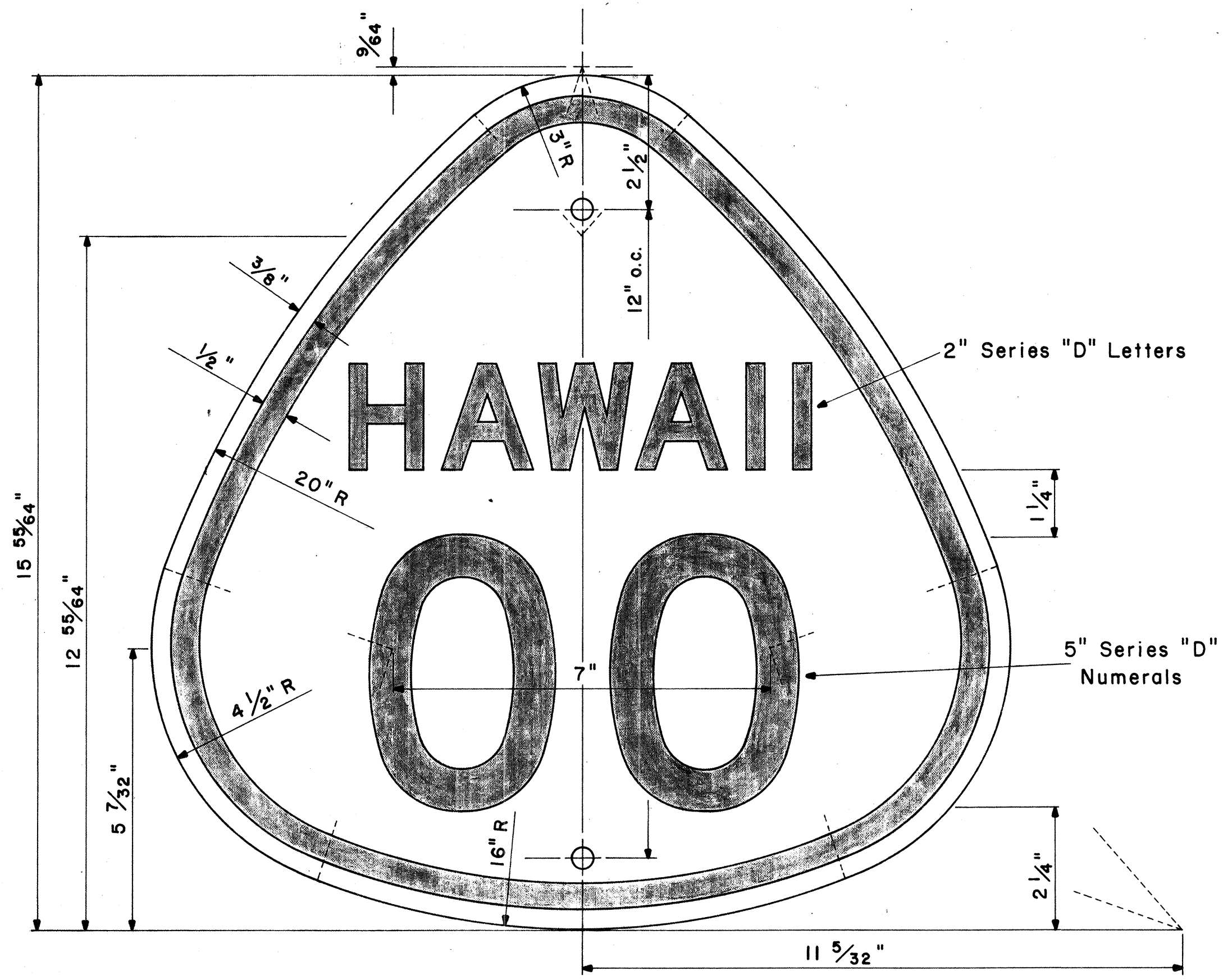
NOTE:
EXTRUDED ALUMINUM PANELS SHALL BE USED
FOR DESTINATION AND EXPRESSWAY SIGNS.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

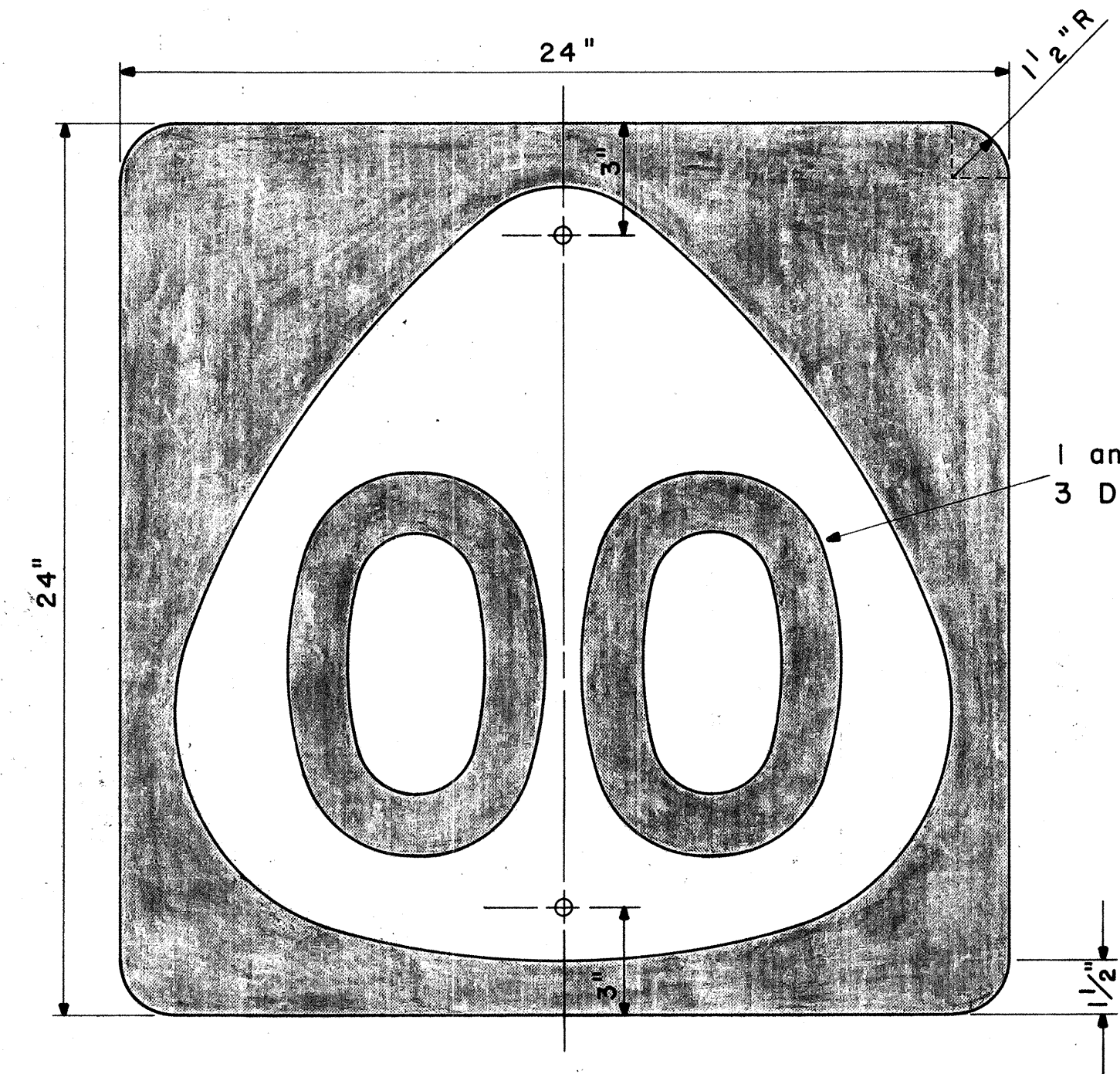
SOLID ALUMINUM
EXTRUDED SIGN PANEL
AND
ACCESSORY DETAILS

SCALE:



STATE ROUTE MARKER
M1-3(OO)

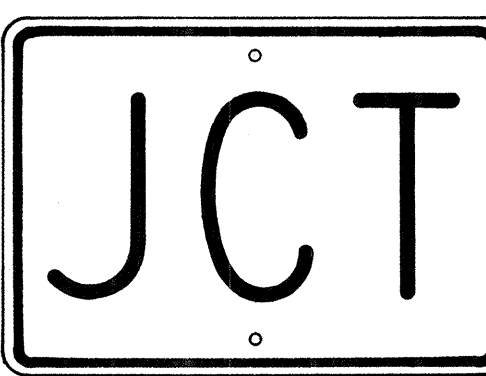
Scale: 1/2" = 1"



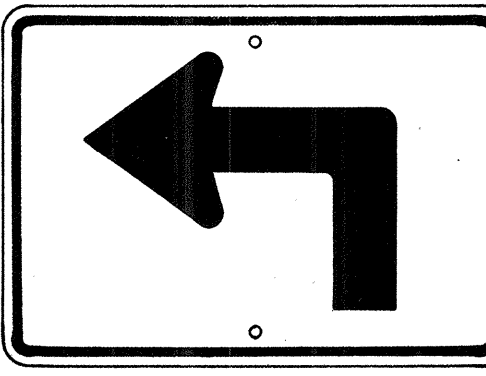
STATE ROUTE MARKER
M1-4(OO)

Scale: 1/4" = 1"

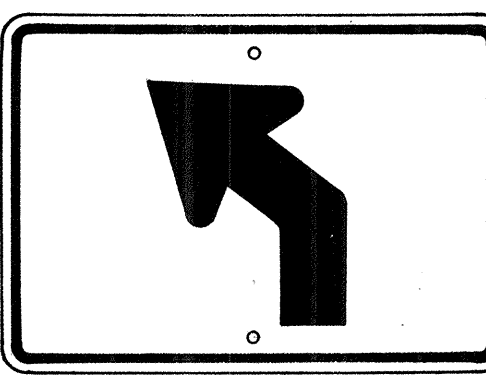
NOTE: Multiply all dimensions of State Route Marker M1-3 by 1.3 for the dimensions of the shield for M1-4.



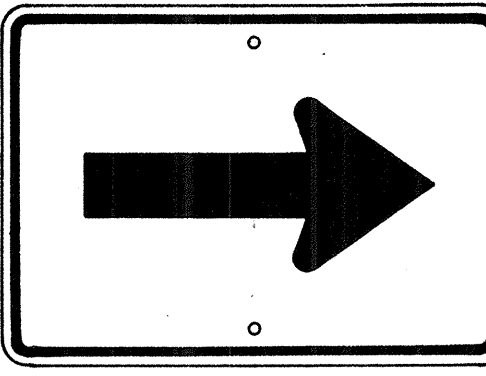
M2-1
21" x 15"



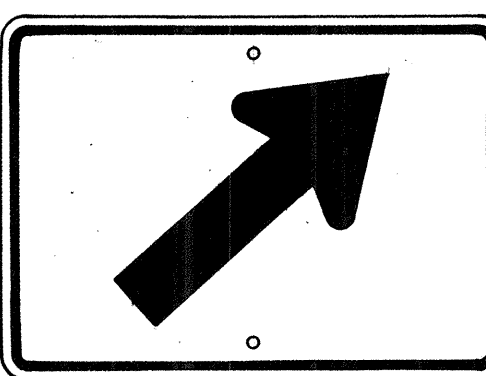
M3-1-L
* M3-1-R ↗
21" x 15"



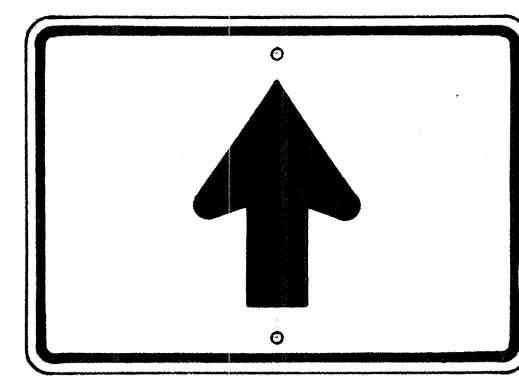
M3-2-L
* M3-2-R ↘
21" x 15"



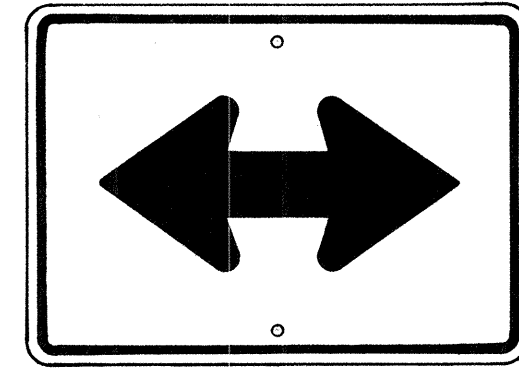
M4-1
21" x 15"



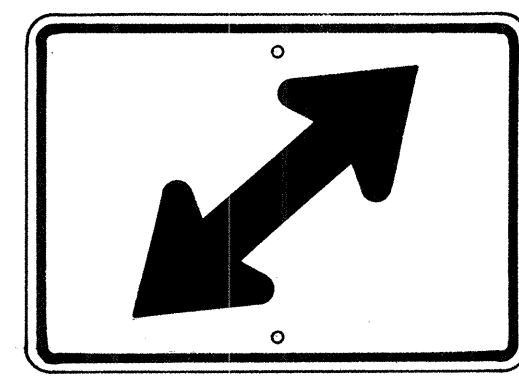
M4-2-R
* M4-2-L ↙
21" x 15"



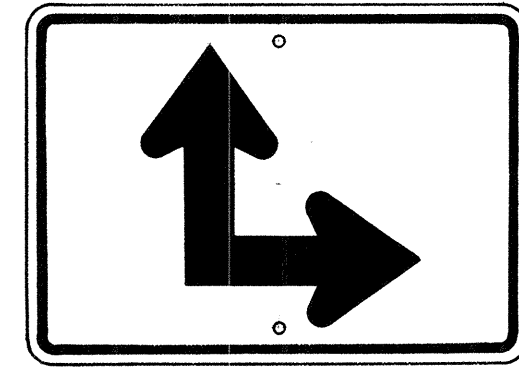
M4-3
21" x 15"



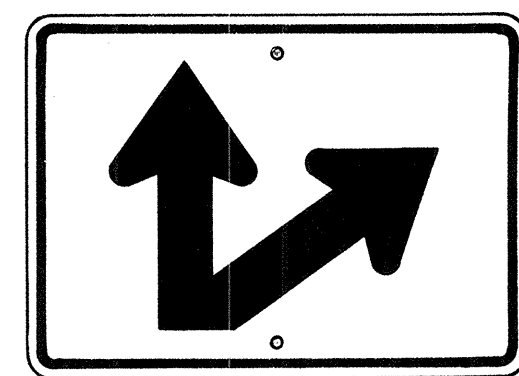
M4-4
21" x 15"



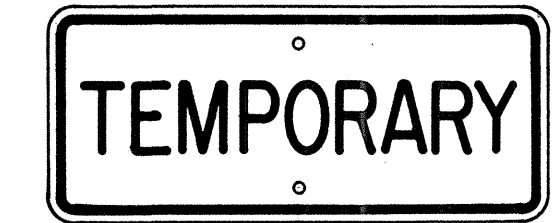
M4-5-R
* M4-5-L ↖
21" x 15"



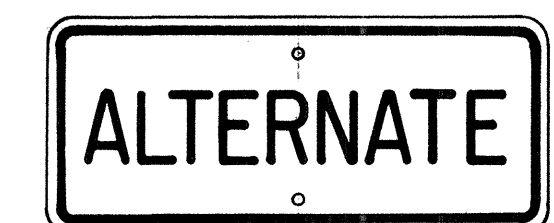
M4-6-R
* M4-6-L ↗
21" x 15"



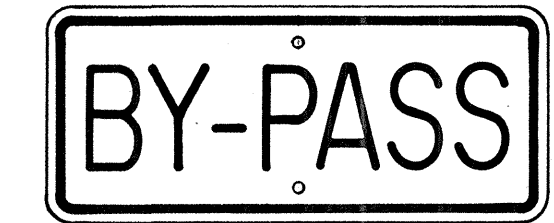
M4-7-R
* M4-7-L ↘
21" x 15"



M5-1
21" x 9"



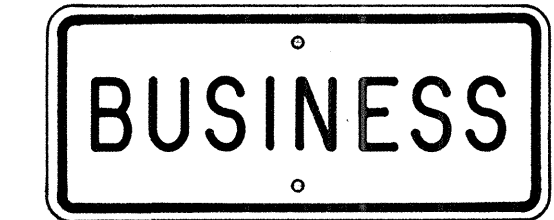
M5-2
21" x 9"



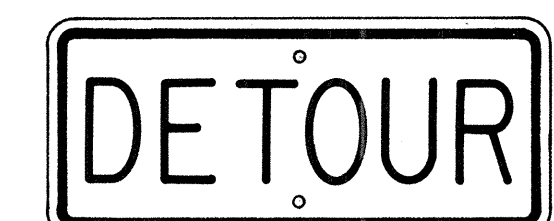
M5-3
21" x 9"



M5-4
21" x 9"



M5-5
21" x 9"



M5-6
21" x 9"



M6-1-N
21" x 9"
(See Note 6)



M7-1
18" x 12"

AUXILIARY MARKERS

Scale: 1/8" = 1"

* NOTE: Signs shall be similar but opposite in direction.

GENERAL NOTES

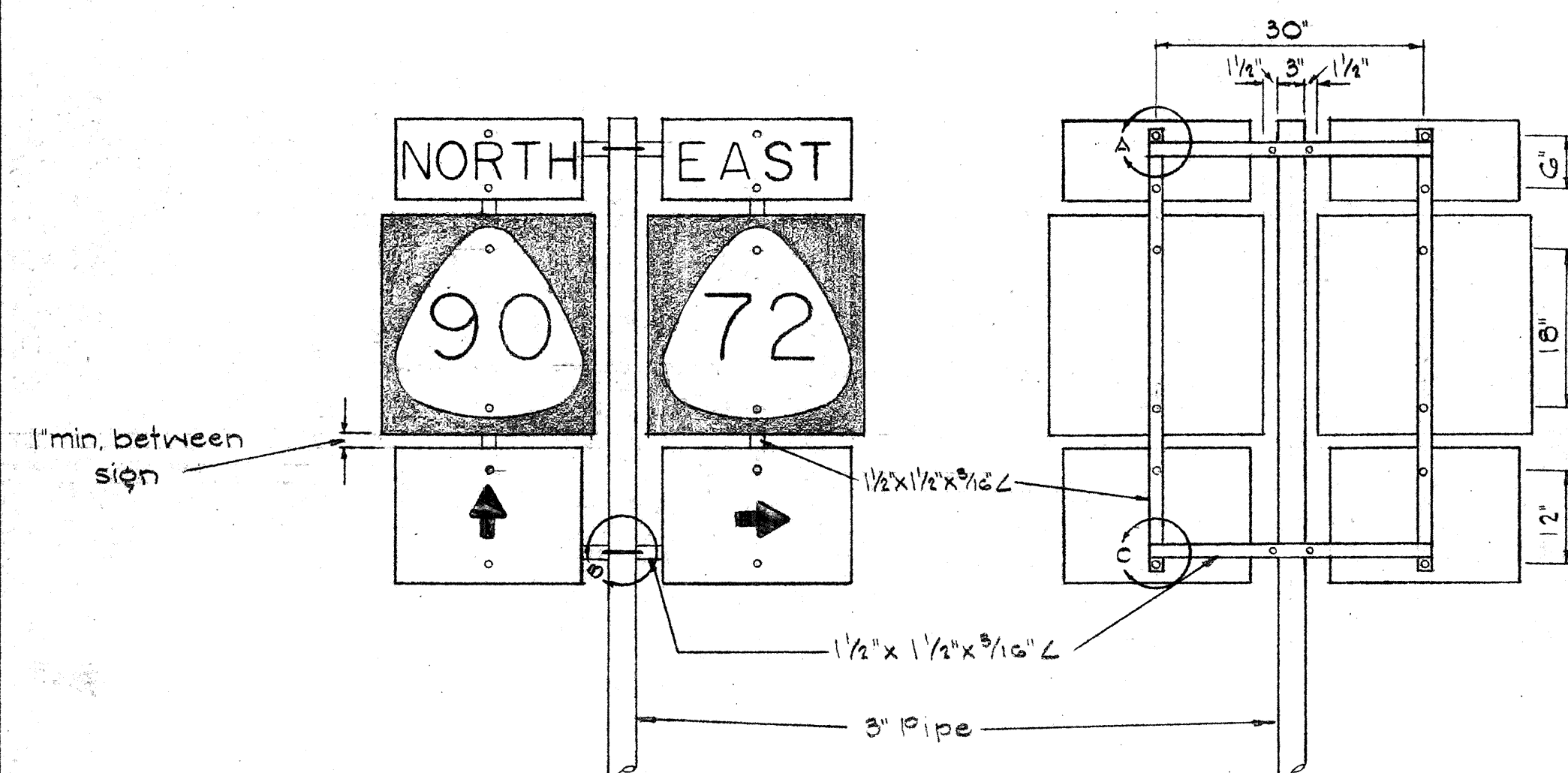
- The shape, color, dimensions, symbols, wording, lettering and reflectorizing of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961, unless otherwise specified.
- 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.
- All markers shall have a black legend on a white background unless otherwise specified.
- Sign message of Cardinal Direction Marker (M6-1) shall be denoted by the following suffixes:
M6-1-N : NORTH
M6-1-E : EAST
M6-1-S : SOUTH
M6-1-W : WEST
- Auxiliary markers denoted with the suffix "1": (M4-1-I) shall have a white legend on a blue background.
- Cardinal Direction Marker (M6-1) with suffix I (3) shall have a white legend on a blue background and shall be 30" x 15" in size.
- For M1-3, and M1-4 signs, number in () indicates route number and shall be as shown on the plan.

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NO.	

APPROVED:	DATE:
DIRECTOR OF TRANSPORTATION	

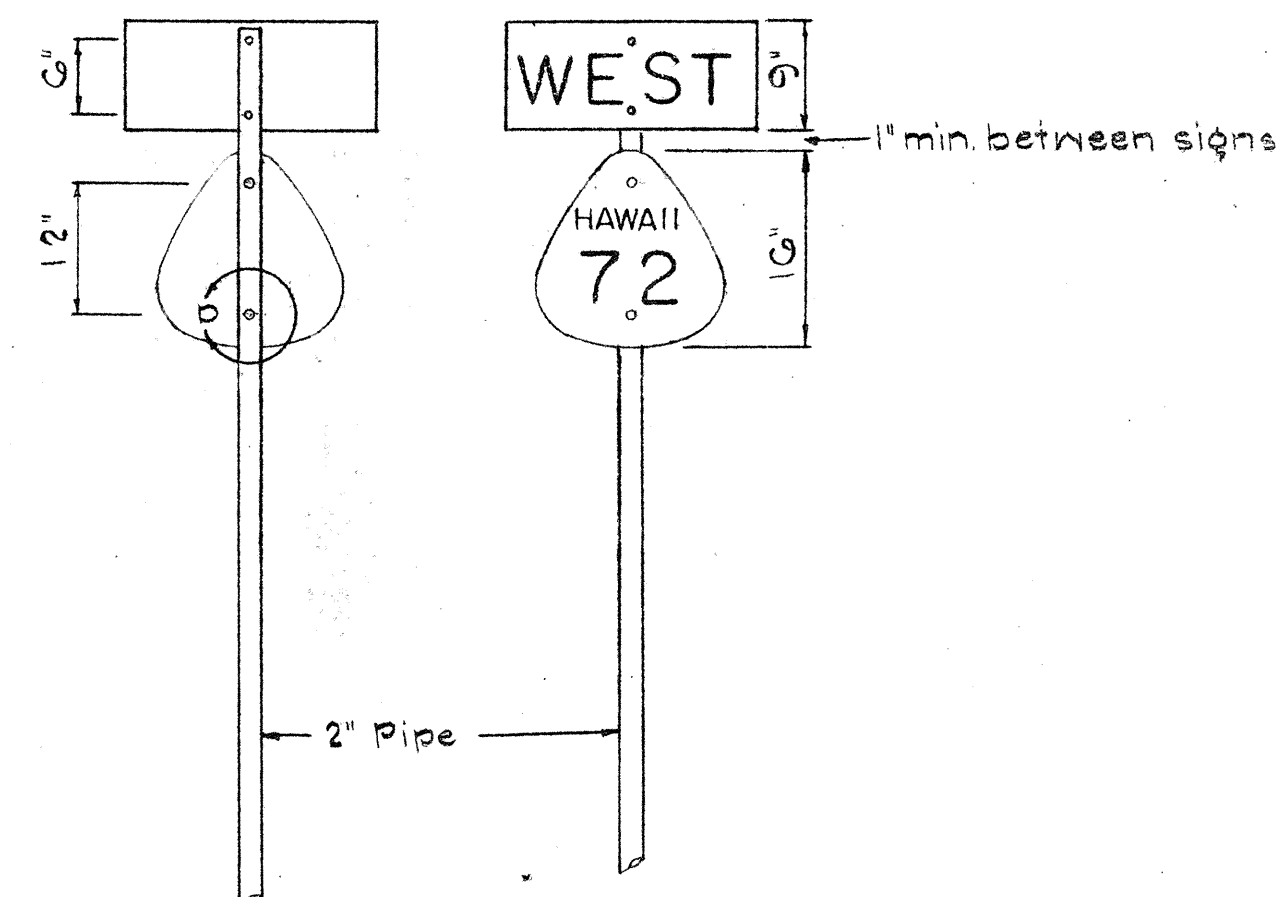
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
STATE ROUTE MARKERS
AND
AUXILIARY MARKERS
Scale: As Noted
SHEET NO. OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	5-0130(2)	1964	13	19



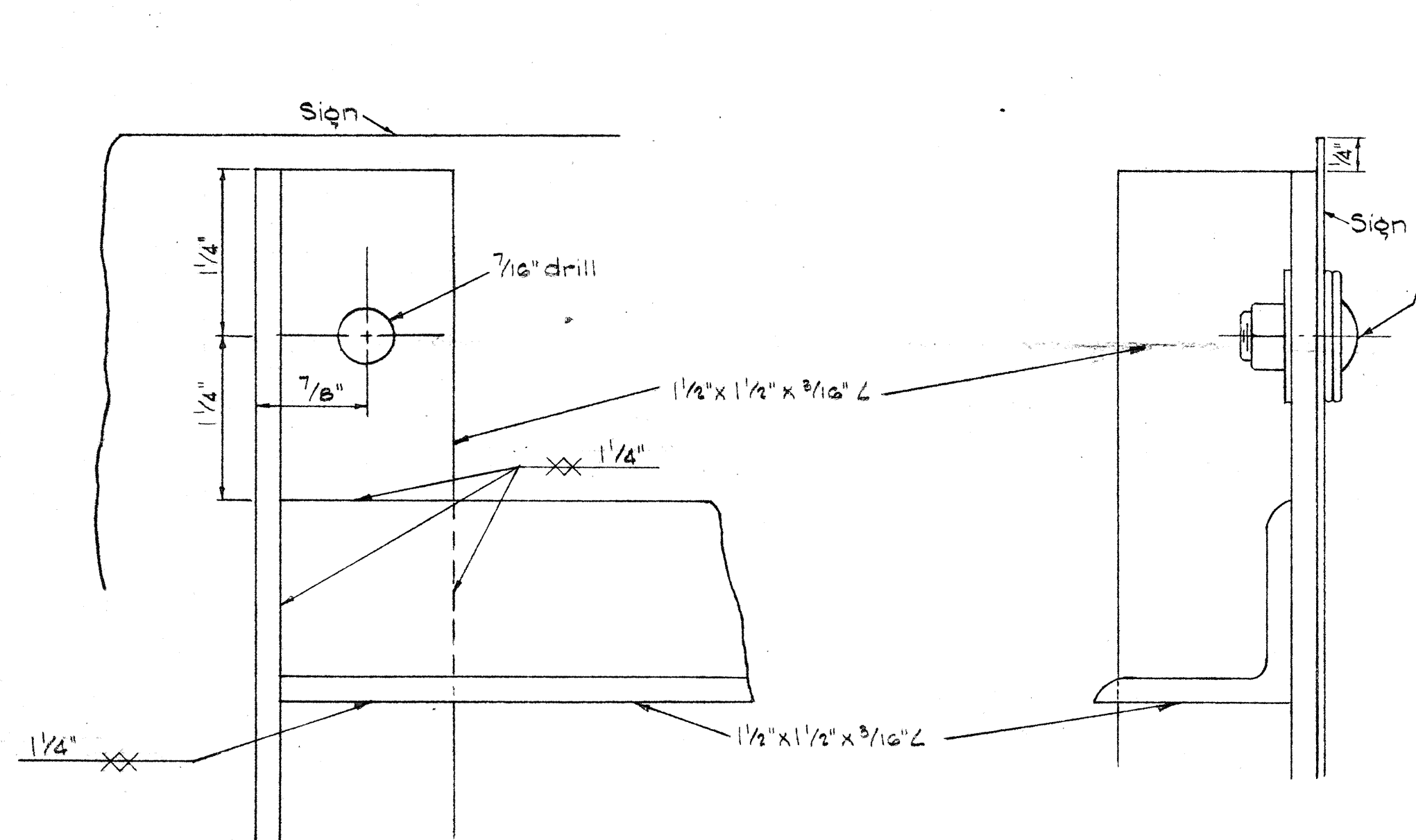
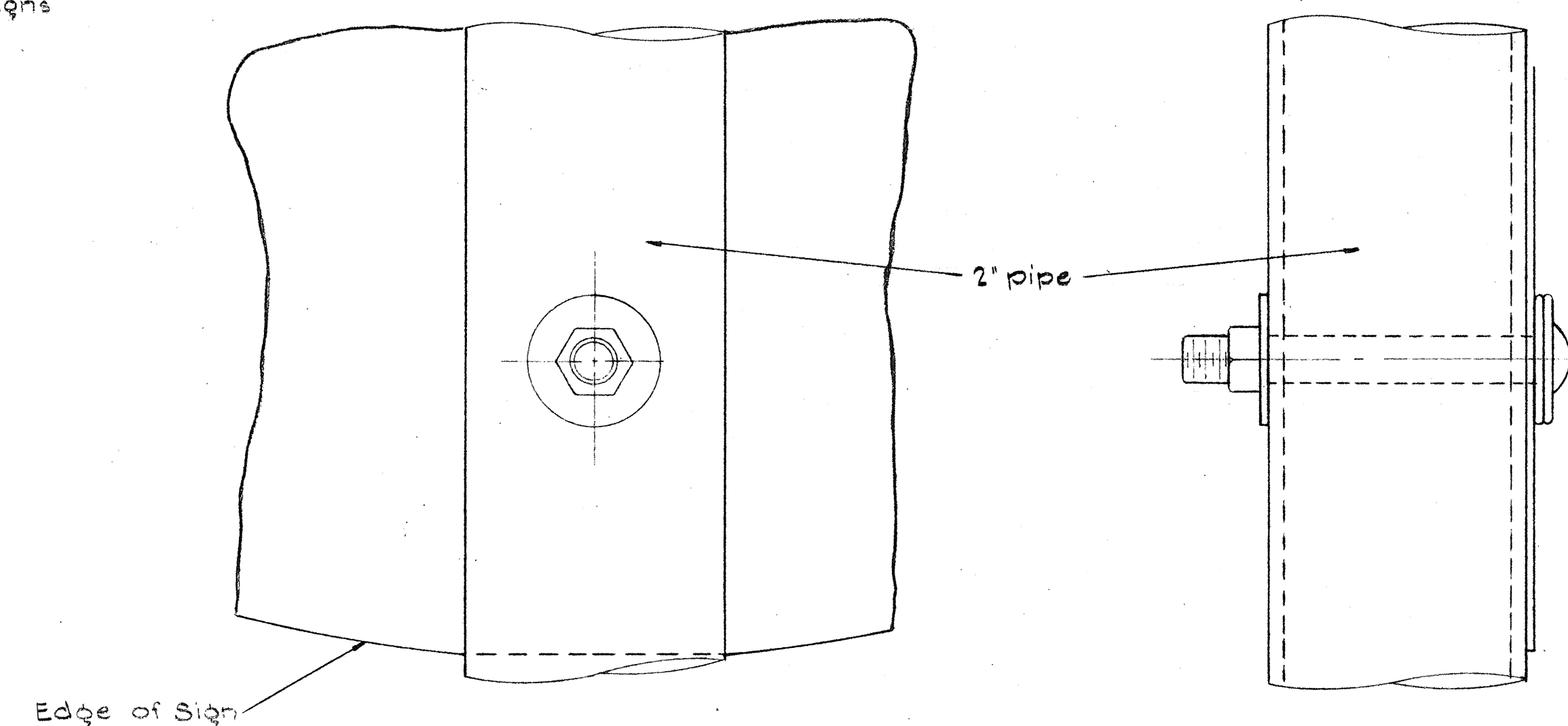
TYPE "B" ASSEMBLY
NOT TO SCALE

NOTE:
Minimum clearance between signs shall be 1 inch. (Larger clearances shall be in multiples of 1 inch.)



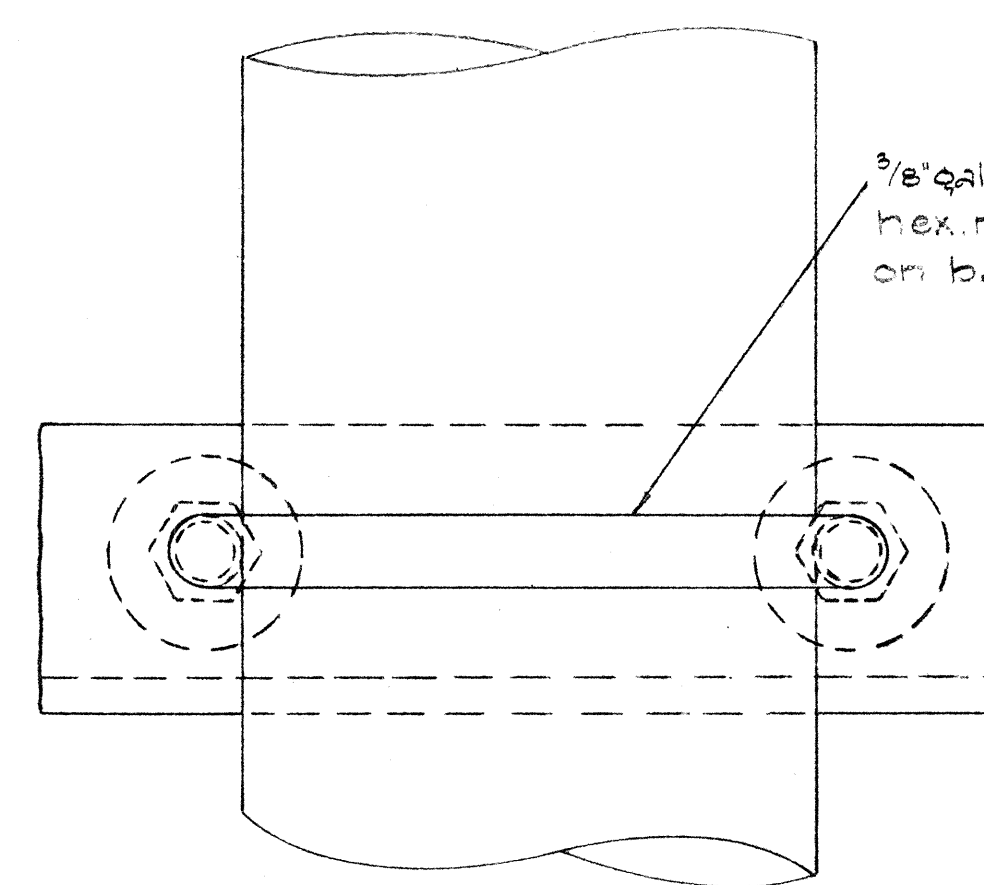
TYPE "A" ASSEMBLY
NOT TO SCALE

NOTE:
Use 2" pipe for Type "A" Assembly.
Use 3" pipe for Type "B" Assembly.

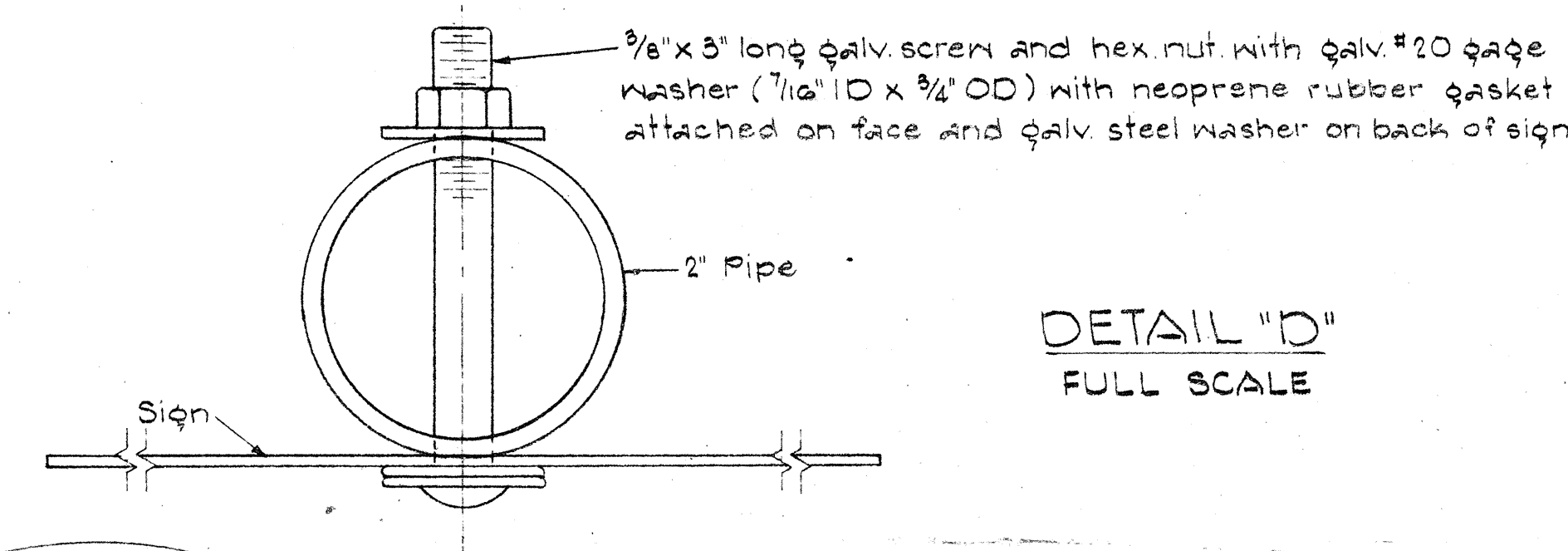


DETAIL "A"
FULL SCALE

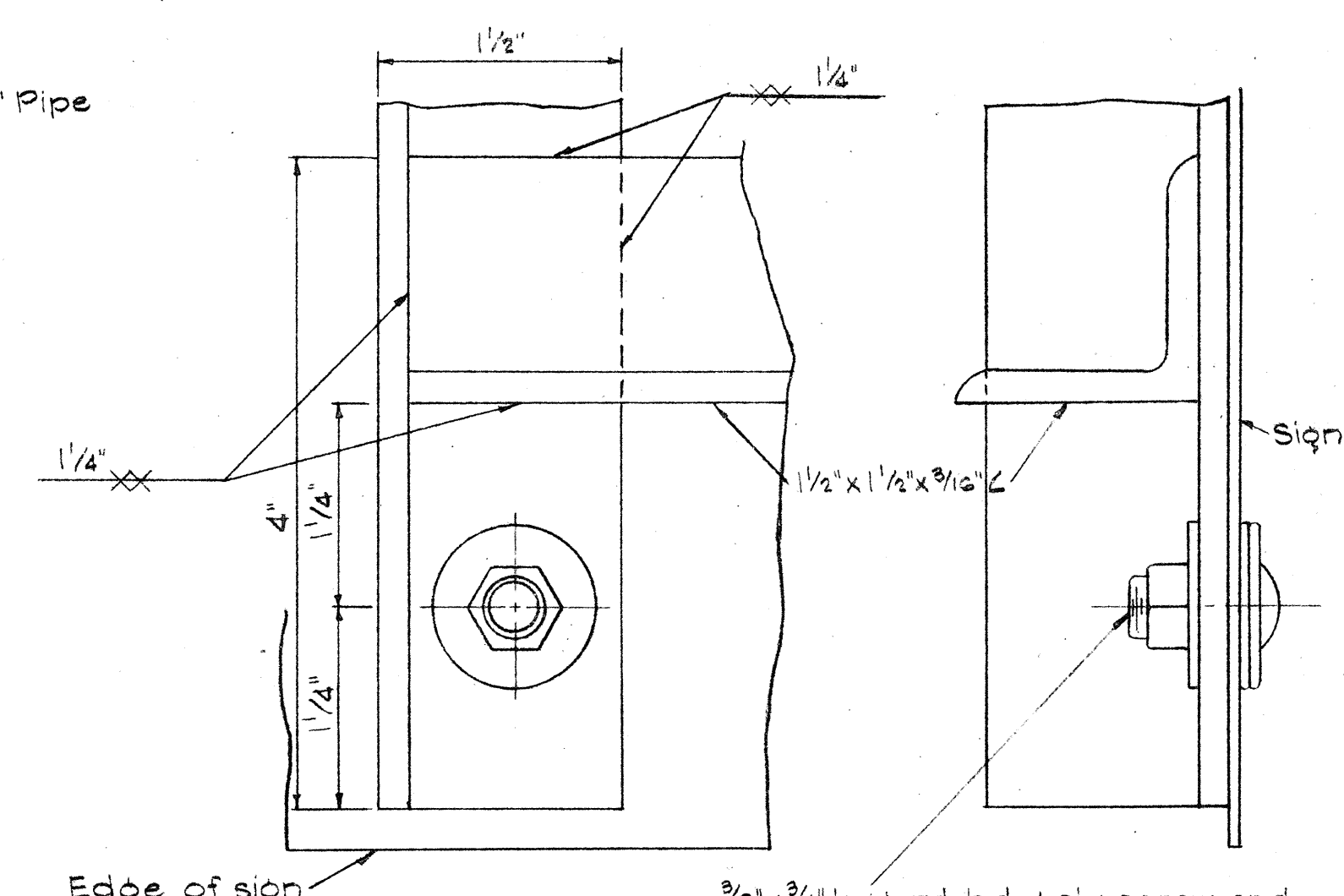
3/8" x 3/4" long rd. hd. galv. screw and hex. nut with galv. #20 gage washer with neoprene rubber gasket attached on face and galv. steel washer on back of sign



DETAIL "B"
FULL SCALE



DETAIL "D"
FULL SCALE



DETAIL "C"
FULL SCALE

3/8" x 3/4" long rd. hd. galv. screw and hex. nut with galv. #20 gage washer with neoprene rubber gasket attached on face and galv. steel washer on back of sign

NOTE:
For height and lateral location of State Route Markers. See Sheet 119

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS OF
STATE ROUTE MARKER

Scale: As Noted

SHEET NO. OF SHEETS