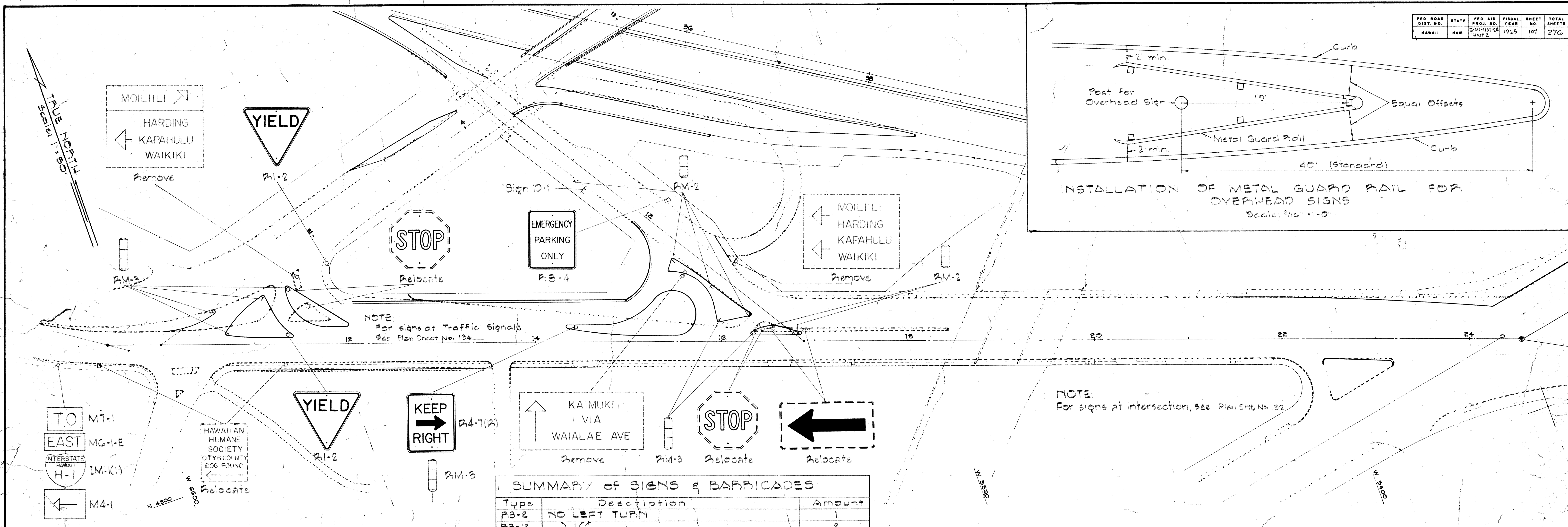
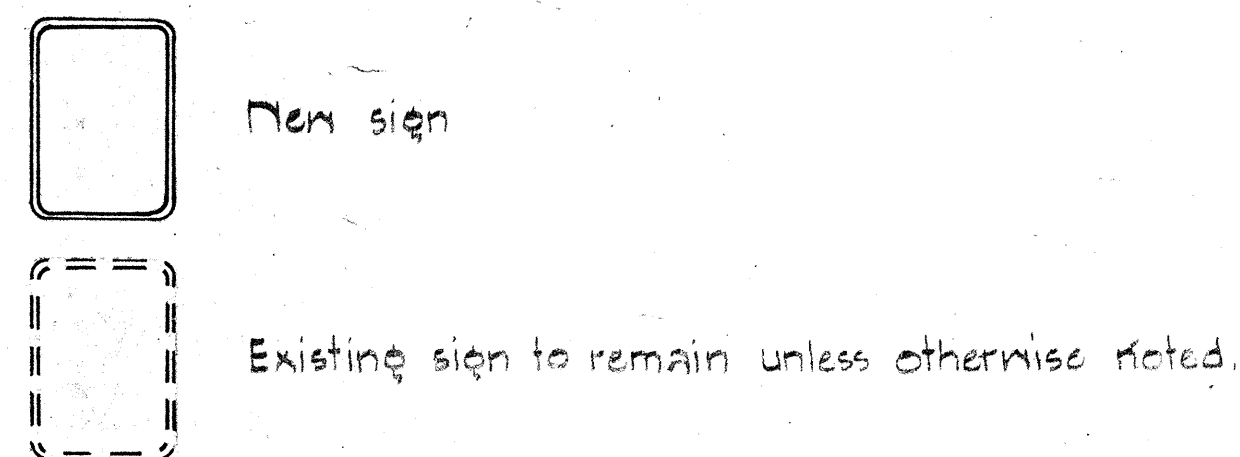


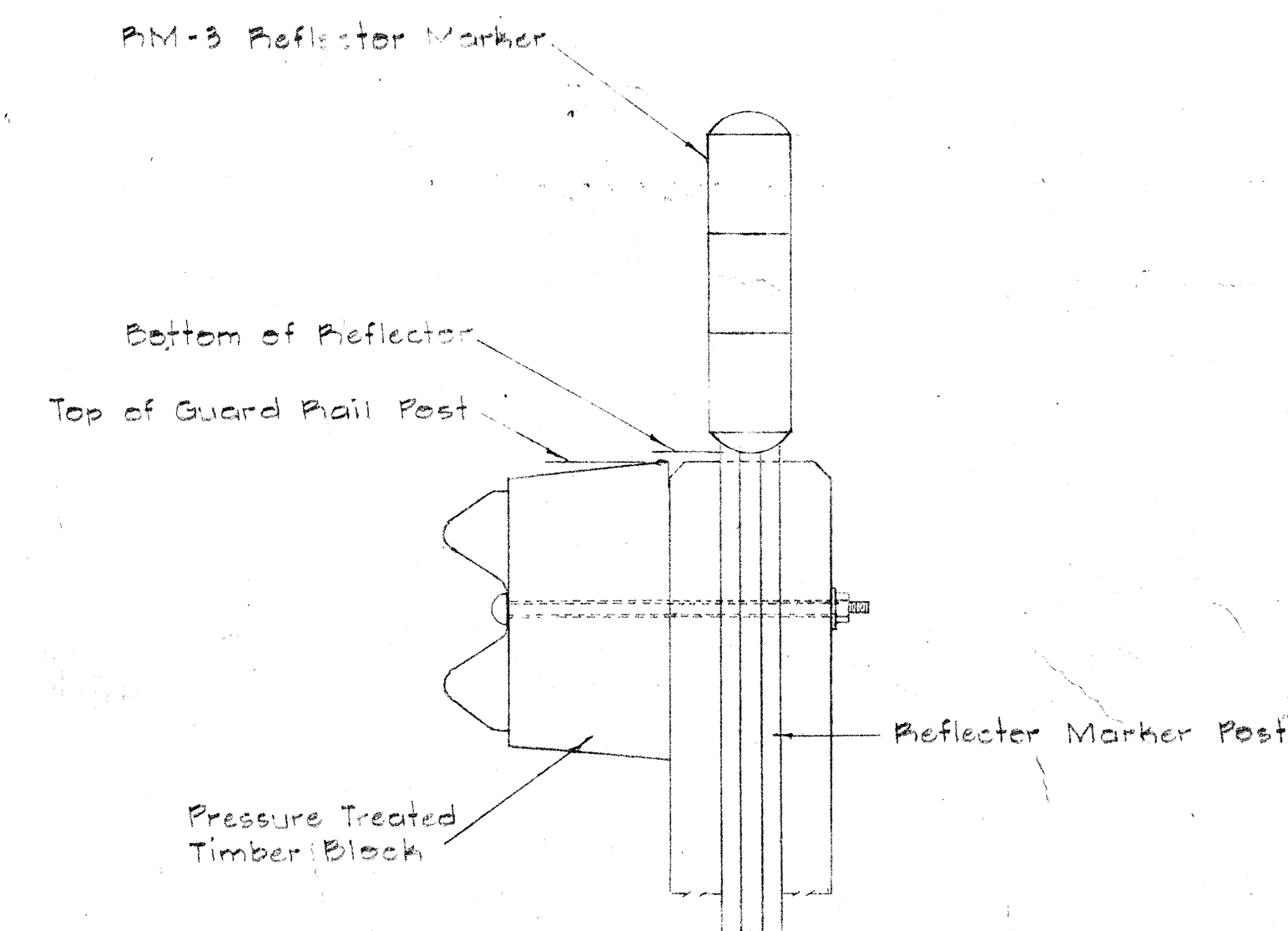


TRAFFIC SIGN LEGEND



- b Sign mounted on galvanized iron pipe
- ⌘ Sign mounted on two galvanized iron pipe
- ⊗ Sign mounted on highway lighting standard, traffic signal standard or utility pole
- + Reflectorized markers on galvanized channel
- ⌈ Ground mounted Destination sign
- ⌈ Ground mounted Expressway sign
- ⊖ Overhead Expressway sign (two signs)
- Project Identification sign
- Relocated Class I Barricade
- Existing Class I Barricade
- Relocated Class II Barricade
- Existing Class II Barricade

SUMMARY OF SIGNS & BARRICADES		
Type	Description	Amount
P3-2	NO LEFT TURN	1
P3-12	NO LEFT TURN	2
P3-1	DO NOT ENTER	1
P10-3	ROAD CLOSED	3
P10-3a	ROAD CLOSED, LOCAL TRAFFIC, etc.	1
W20-1a	ROAD CONSTRUCTION AHEAD	7
W20-2a	DETOUR AHEAD	5
CW-1	BRIDGE UNDER CONSTRUCTION	1
M3-7(L)	DETOUR	3
M3-7(R)	DETOUR	3
RM-1	Reflector Marker	25
P1-1	STOP	3
P1-2	YIELD	4
P2-1(45)	SPEED LIMIT 45	2
P3-2(L)	NO LEFT TURN	2
P4-7(R)	KEEP → RIGHT	2
P8-4	EMERGENCY PARKING ONLY	1
W4-1-1	MERGING TRAFFIC	2
W4-1-2	EXIT 25 M.P.H.	2
RM-2	REFLECTOR MARKER	68
RM-2	REFLECTOR MARKER (Sign plate only)	4
RM-3	REFLECTOR MARKER	23
RM-3	REFLECTOR MARKER (Sign plate only)	2
M4-1	AUXILIARY MARKER	1
M4-2	AUXILIARY MARKER	1
MG-1-E	CARDINAL DIRECTION MARKER	1
MG-1-E	CARDINAL DIRECTION MARKER	1
MG-1-E	CARDINAL DIRECTION MARKER	1
M7-1	INTERSTATE SHIELD	1
IM-1(1)	INTERSTATE SHIELD	1
IM-1(1)	INTERSTATE SHIELD	2
IM-1(3)	INTERSTATE SHIELD	1
MG-1-W(2)	CARDINAL DIRECTION MARKER	1
PT-1	NO PARKING ANY TIME	2
W20-5b	RIGHT LANE CLOSED 1000 FT.	1
W20-5c	RIGHT LANE CLOSED 500 FT.	1
W20-5(L)	USE LEFT LANE	2
TOTAL		126
Class I Barricade		6
Class II Barricade		23



P.M.-3 REFLECTOR MARKER AT BRIDGE END POST
SCALE: 1/8" = 1'-0"

- ### GENERAL NOTES
- Exact location of signs to be determined in the field by the Engineer
 - Existing signs not incorporated into the new traffic sign layout shall be removed unless otherwise noted. (All costs incidental to the item of "Installation of signs.")

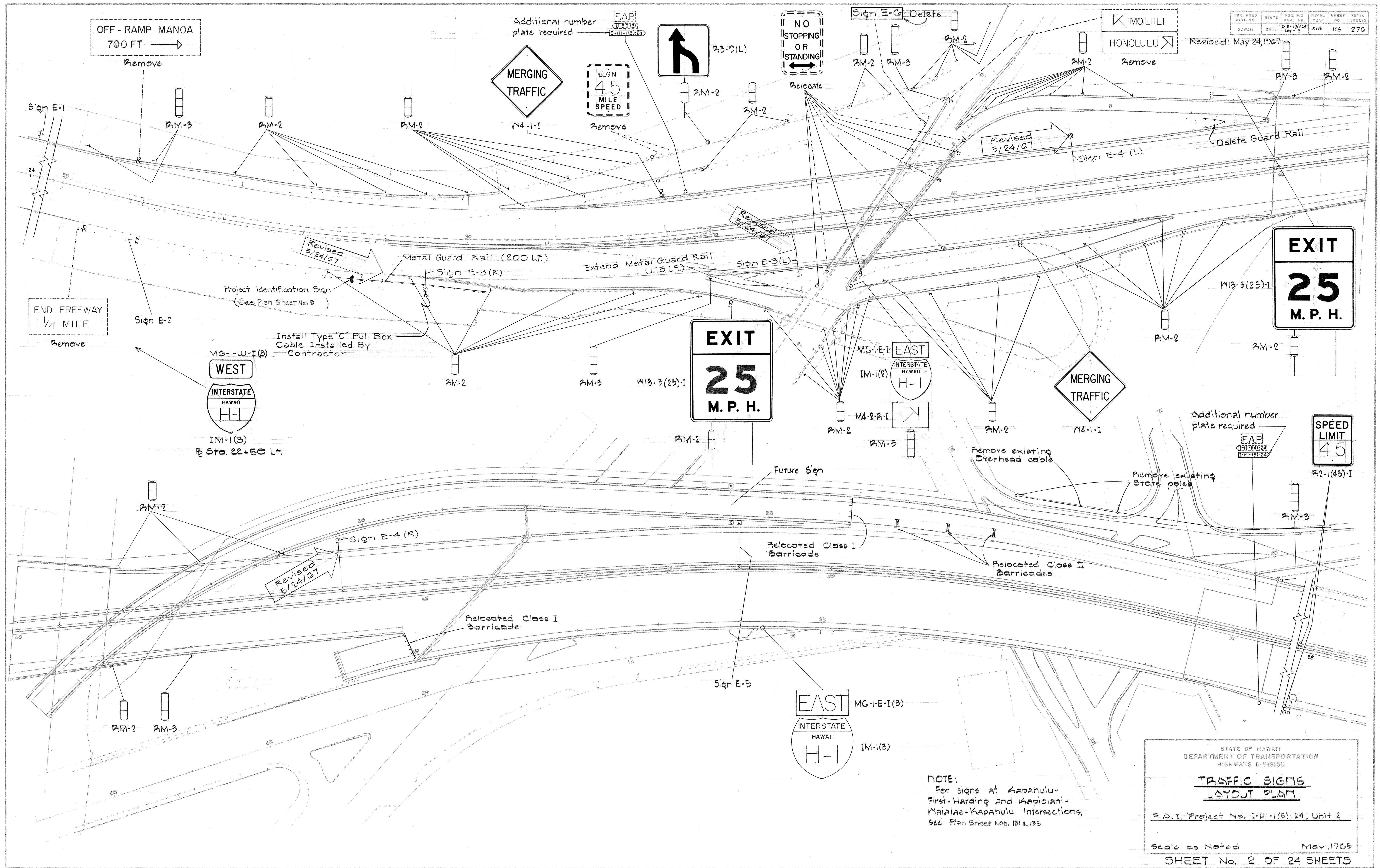
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TRAFFIC SIGNS
LAYOUT PLAN**

P.A. Project No. I-H-1(5)-24, Unit 2

Scale as Noted May, 1965

SHEET No. 1 OF 24 SHEETS



NOTE:
For signs at Kapahulu-
First-Warding and Kapiolani-
Maialae-Kapahulu Intersections,
see Plan Sheet Nos. 131 & 133

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNS
LAYOUT PLAN

F.D.I. Project No. I-1(15):24, Unit 2

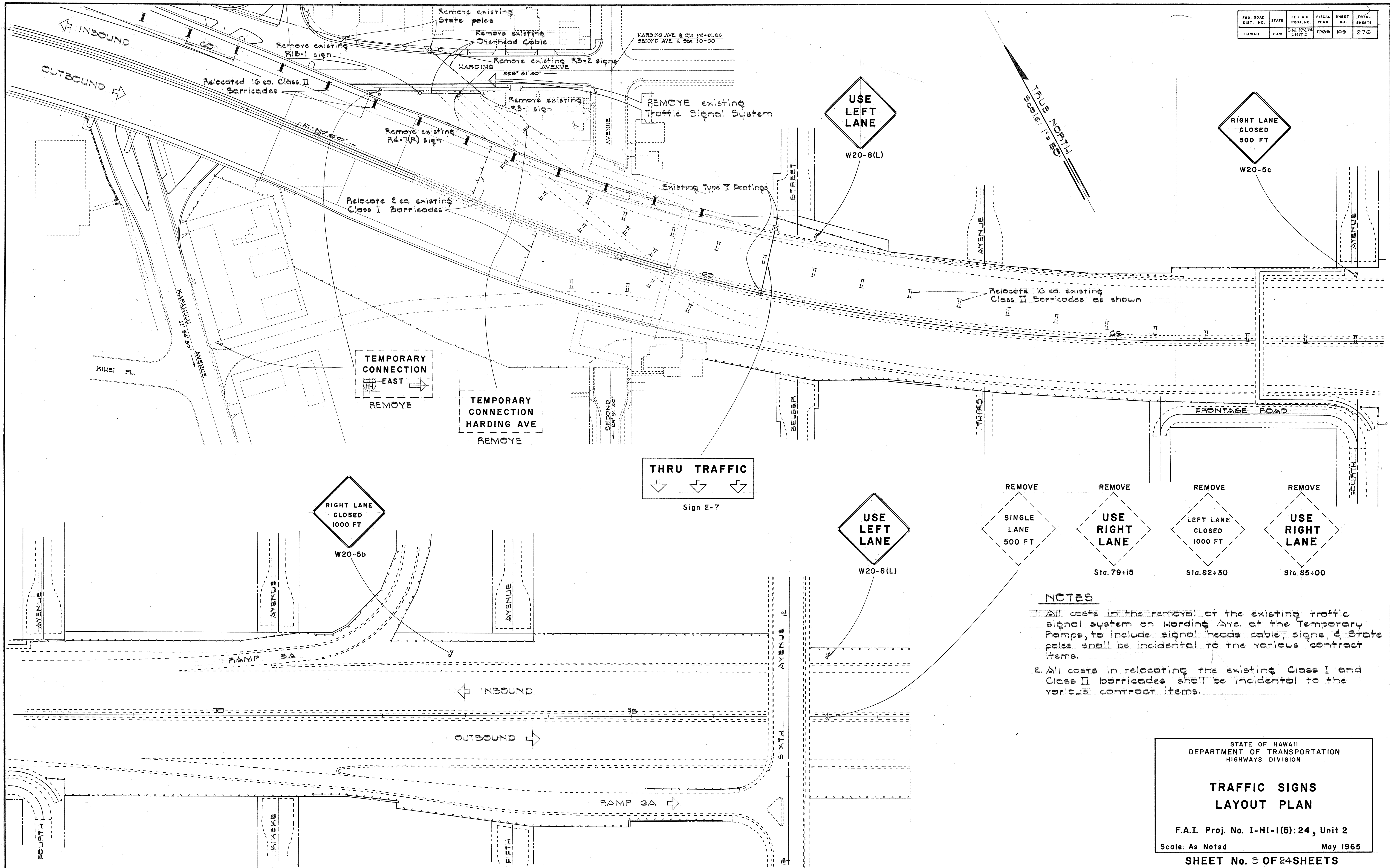
Scale as Noted May, 1965

SHEET No. 2 OF 24 SHEETS

C.O.O. 1115

PLAN	DATE	BY
SURVEYED		
PLOTTED		
CHECKED		
NO.		

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	2-1-1(5)-24 UNIT 2	1965	109	276

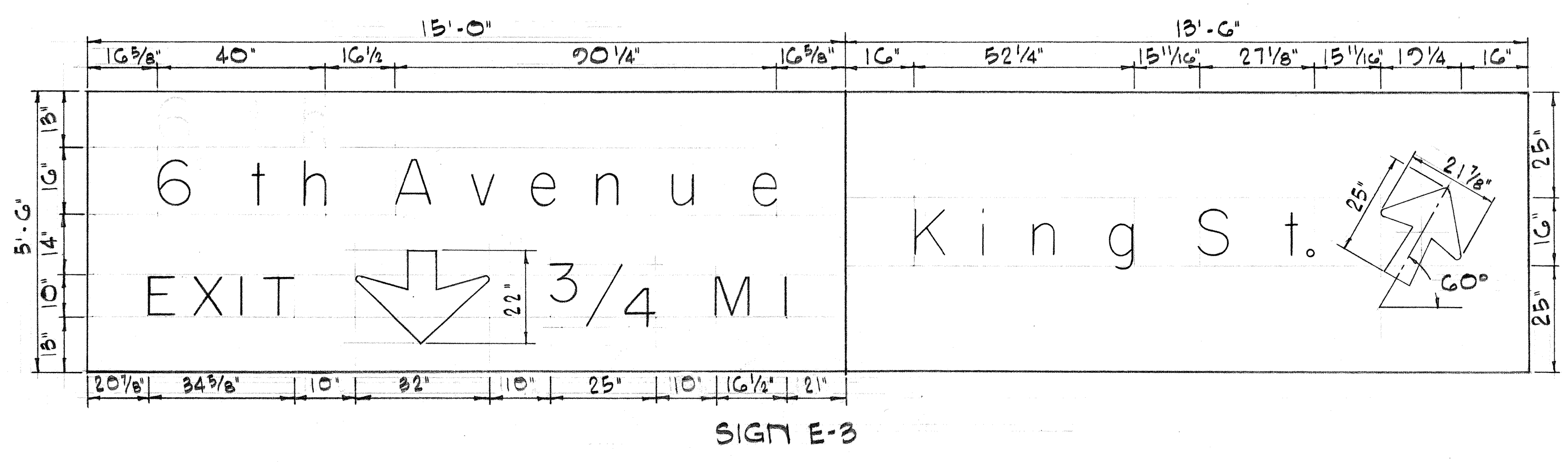
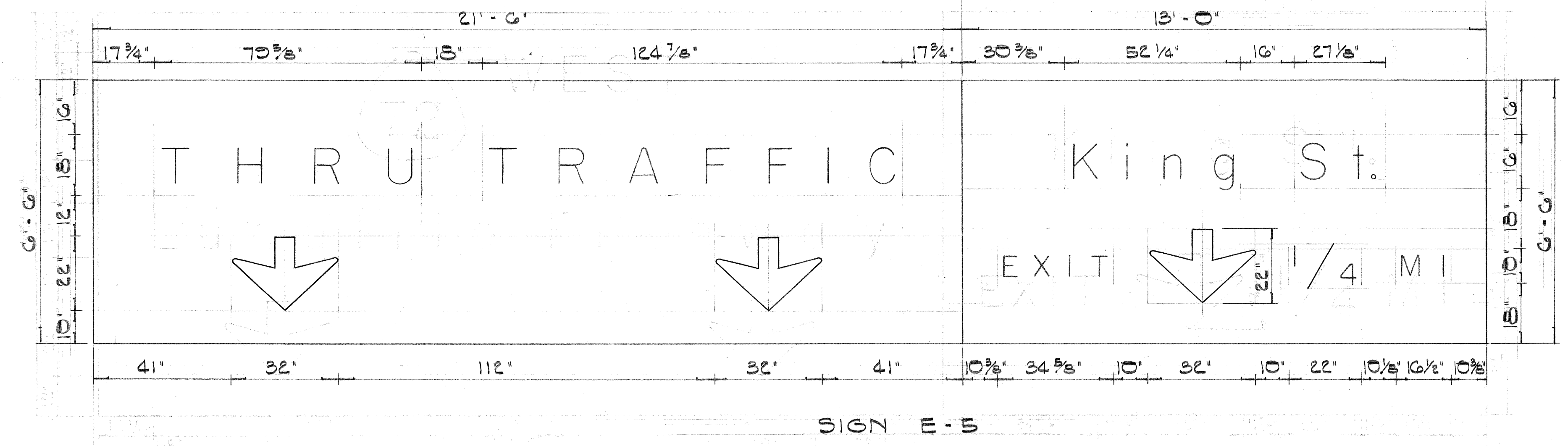
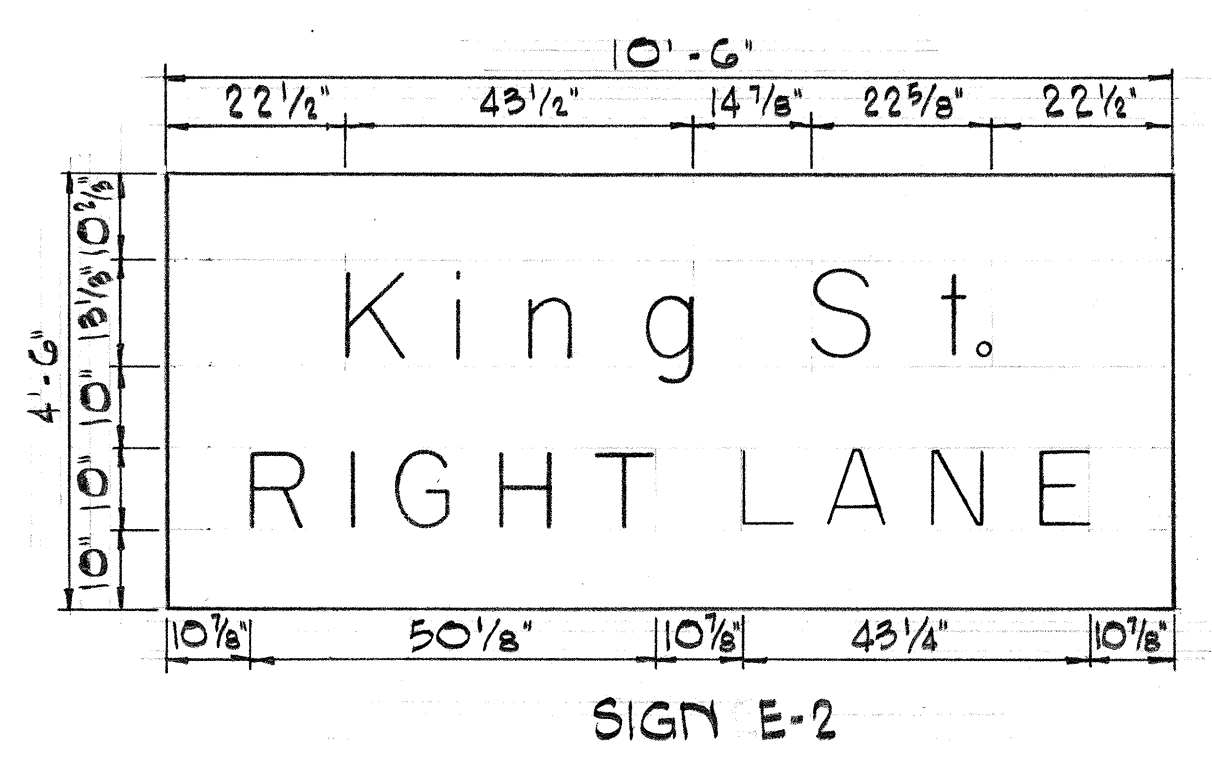
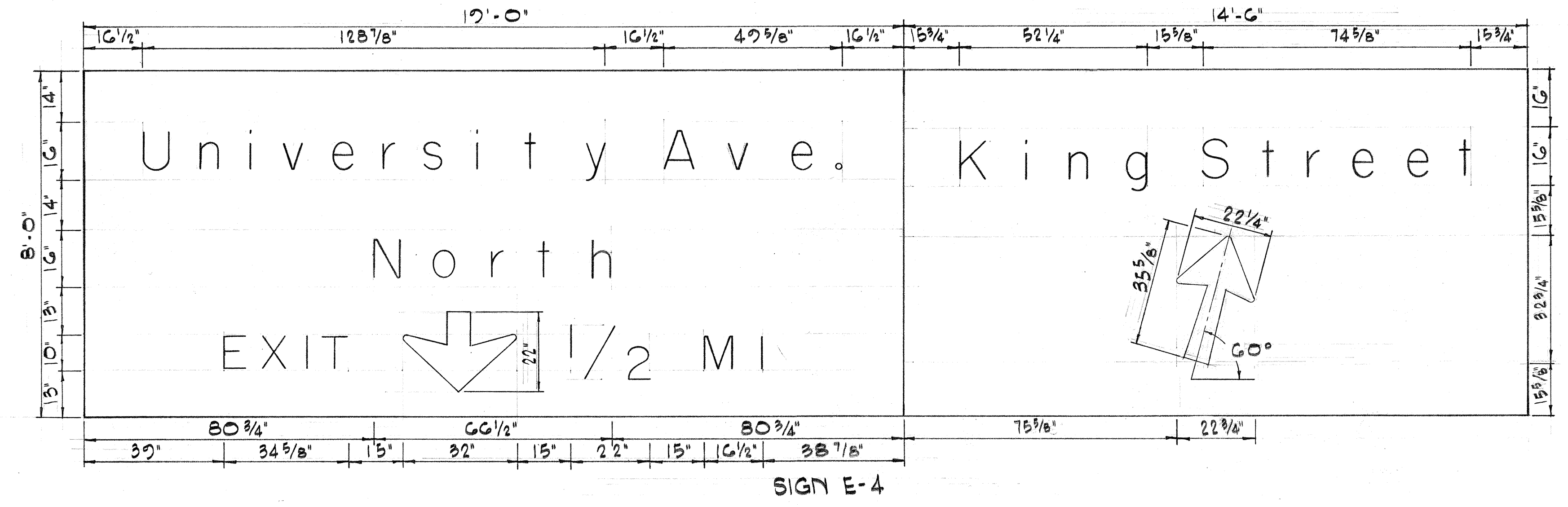
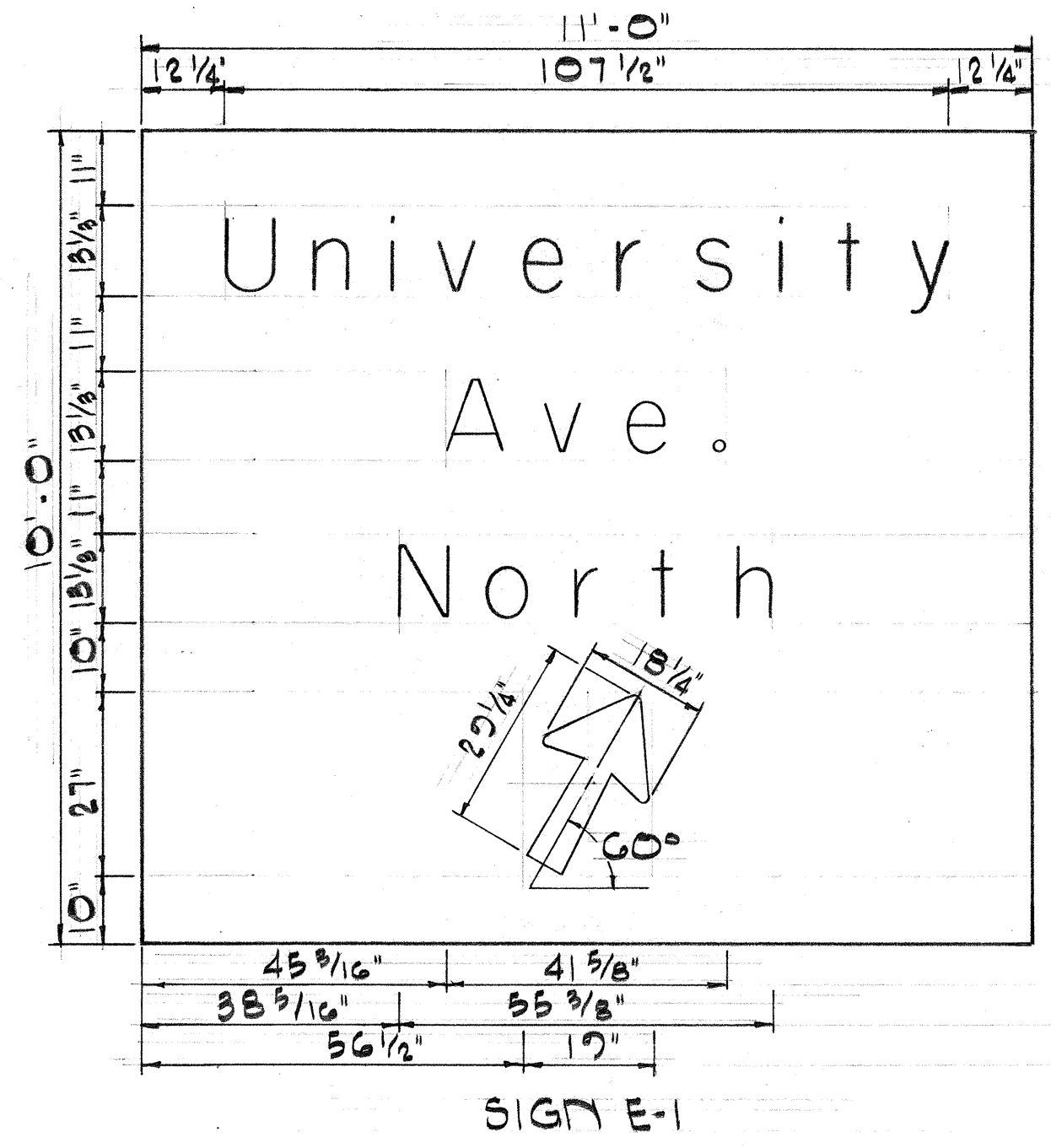


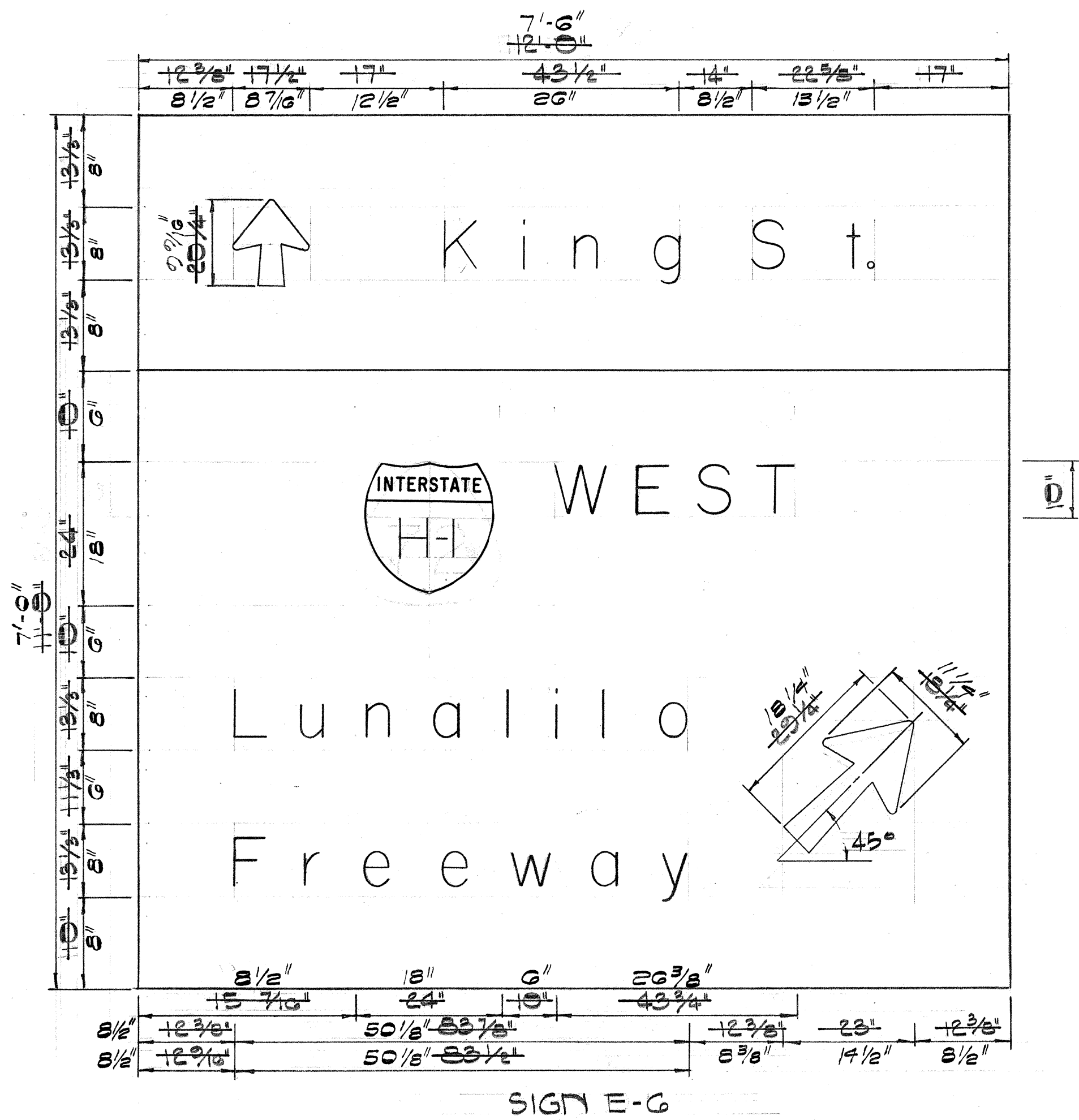
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TRAFFIC SIGNS
LAYOUT PLAN**

F.A.I. Proj. No. I-HI-1(5):24, Unit 2
Scale: As Noted May 1965

SHEET No. 3 OF 24 SHEETS



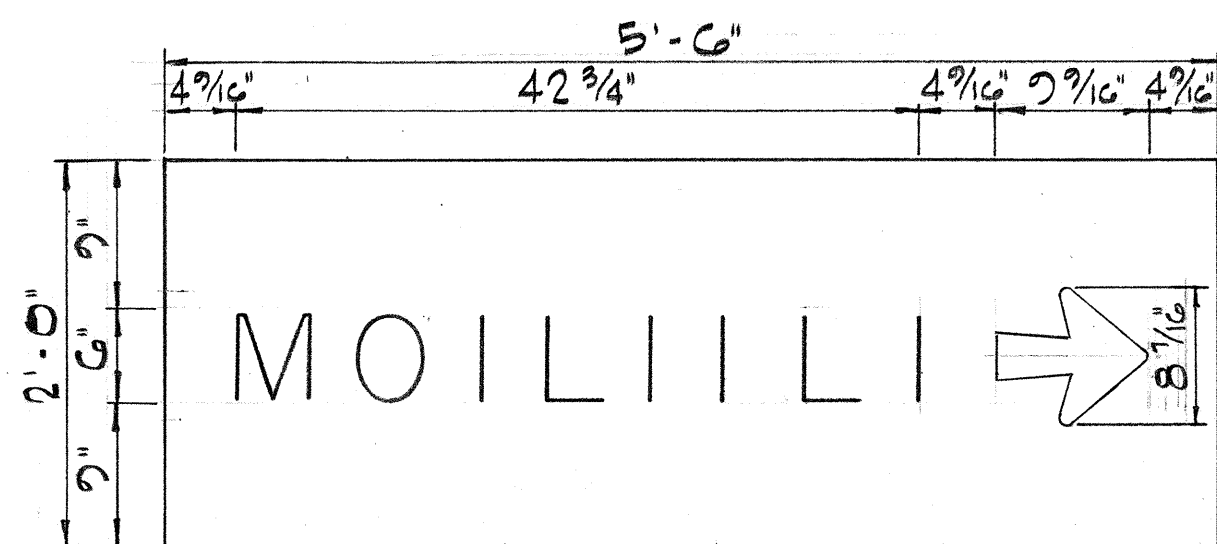


SUMMARY OF EXPRESSWAY AND DESTINATION SIGNS

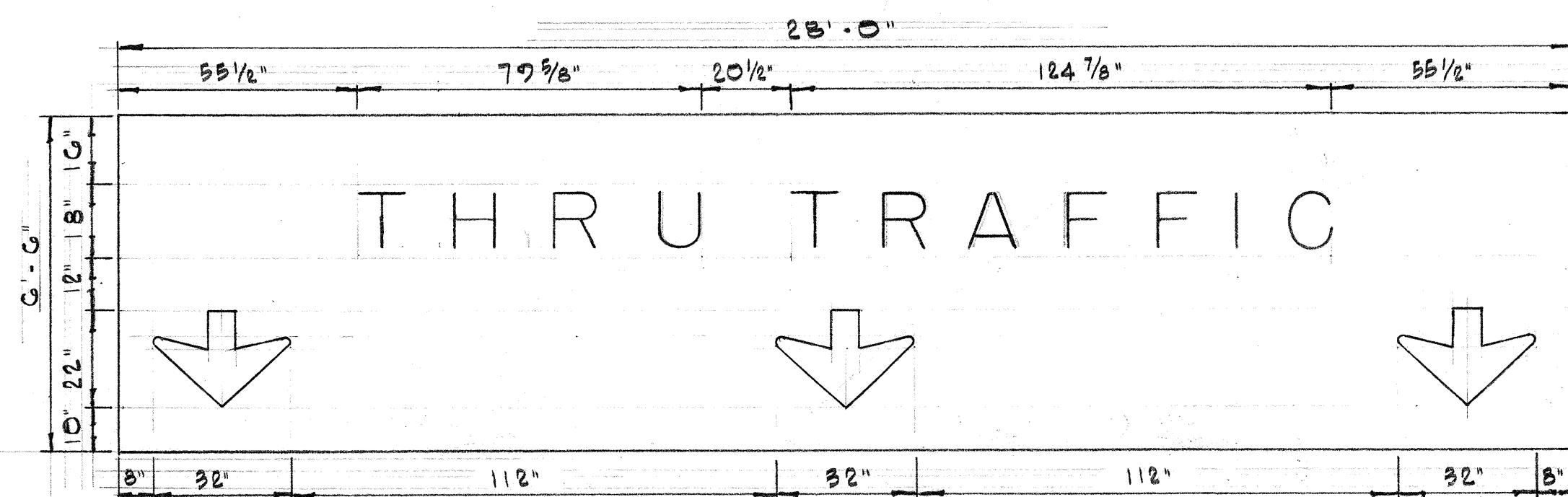
Sign No	Message	Area (sq. ft.)
E-1	University Ave.	110.00
E-2	King St.	47.25
E-3	6th Avenue	82.50
E-3R	King St.	74.25
E-4	University Ave.	152.00
E-4R	King Street	116.00
E-5	THRU TRAFFIC	139.75
E-5R	King St.	84.50
E-6	King St., etc.	132.00
E-7	THRU TRAFFIC	182.00
	TOTAL (E)	1,120.25
D-1	MOILIILI	11.00
	TOTAL (D)	11.00

GENERAL NOTES

1. 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.
2. Arrows shall conform with details as shown on plans.
3. All borders and State Route Markers shall conform with detail sheet "Destination and Expressway Signs State Route Marker and Border Details."
4. Letters, numerals, symbols and borders shall be reflectorized cut-outs or demountable copies. Destination signs will use reflectorized cut-outs.
5. All reflectorized cut-outs and demountable copies shall be fastened on sign panel with blind rivets. See Special Provision.

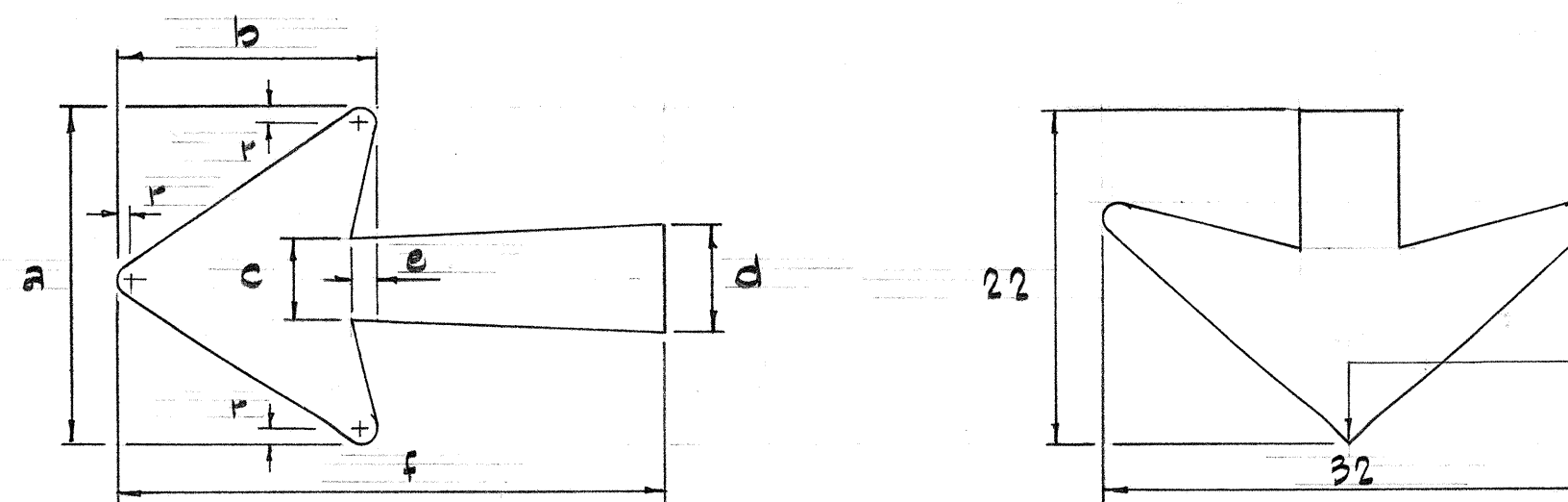


SIGN D-1

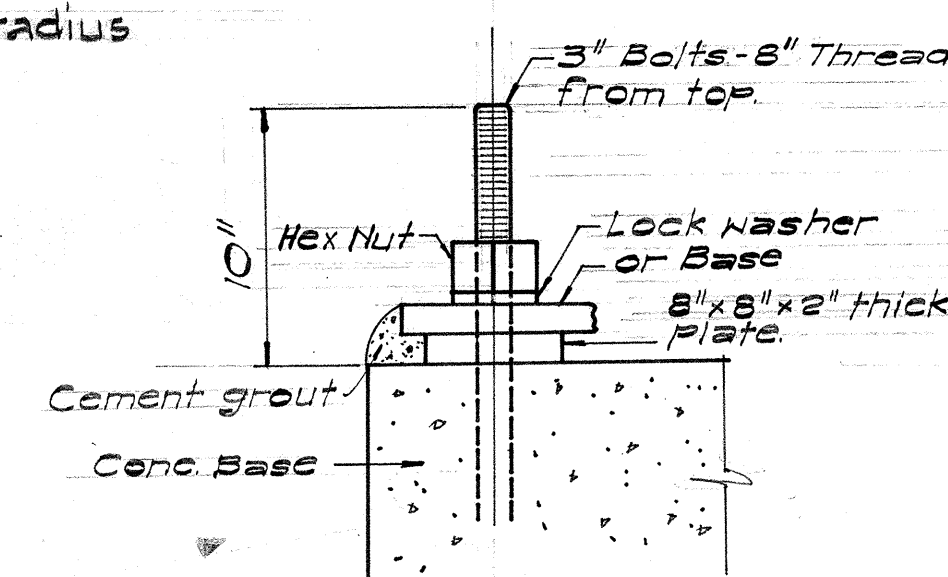
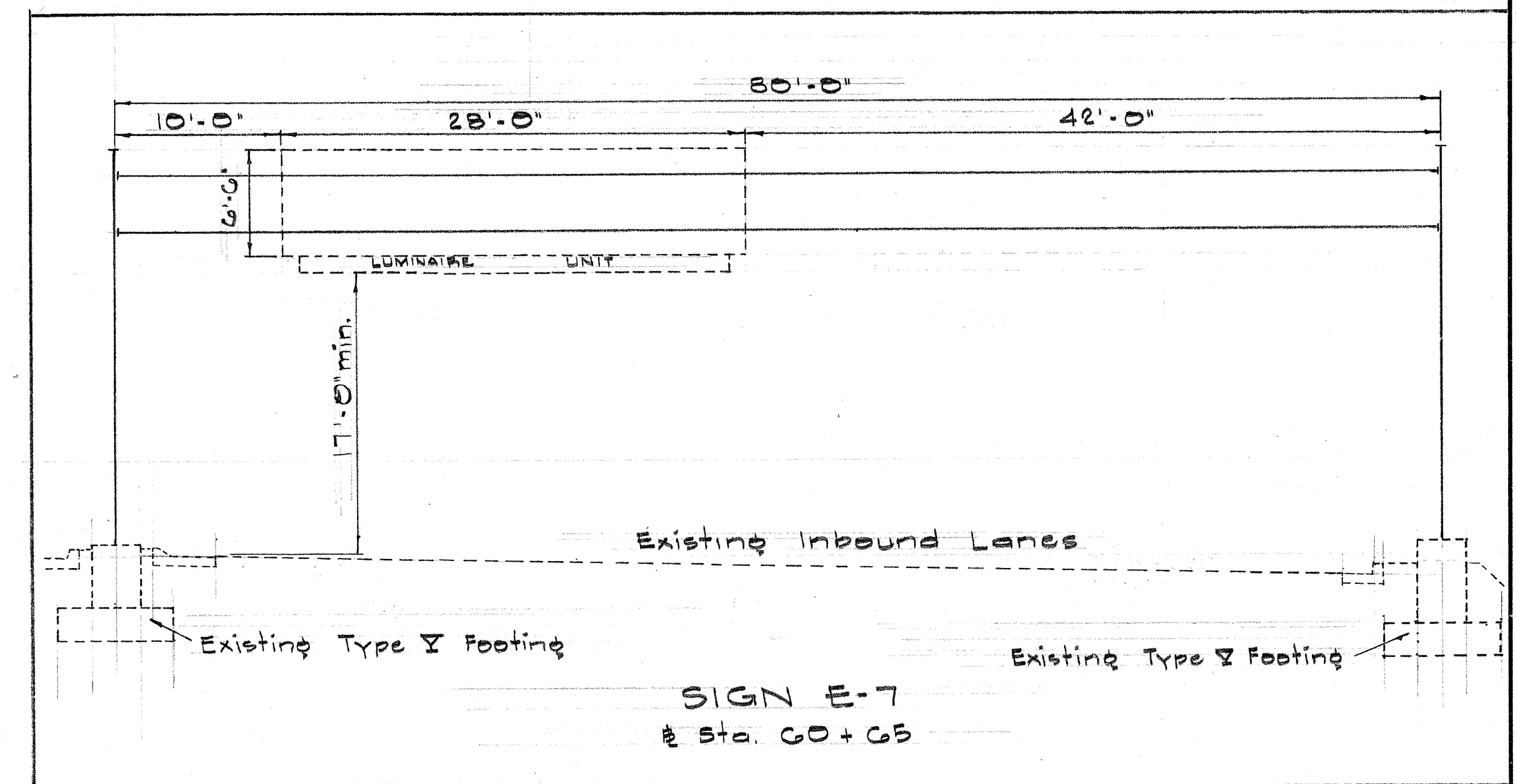


SIGN E-7

ARROW SIZE	DIMENSIONS IN INCHES						
	a	b	c	d	e	f	r
8 7/16" x 9 7/16"	8 7/16	5 7/16	2 5/16	2 15/16	5/8	9 7/16	1/2
21 7/8" x 25"	21 7/8	14 1/4	5	6 3/4	1 3/4	25	1
11 1/4" x 18 1/4"	11 1/4	8 3/4	3 1/8	3 7/8	7/8	18 1/4	5/8
18 1/4" x 29 1/4"	18 1/4	14	4 1/2	6	1 1/2	29 1/4	3/4
22 1/4" x 35 5/8"	22 1/4	17	5 3/8	7 1/8	1 3/4	35 5/8	1
32" x 22"	32	16	6 1/2	6 1/2	3	22	1
17 1/2" x 20 1/4"	17 1/2	11 3/4	4 3/8	5 5/8	1 1/2	20 1/4	7/8



TYPICAL ARROW DETAILS



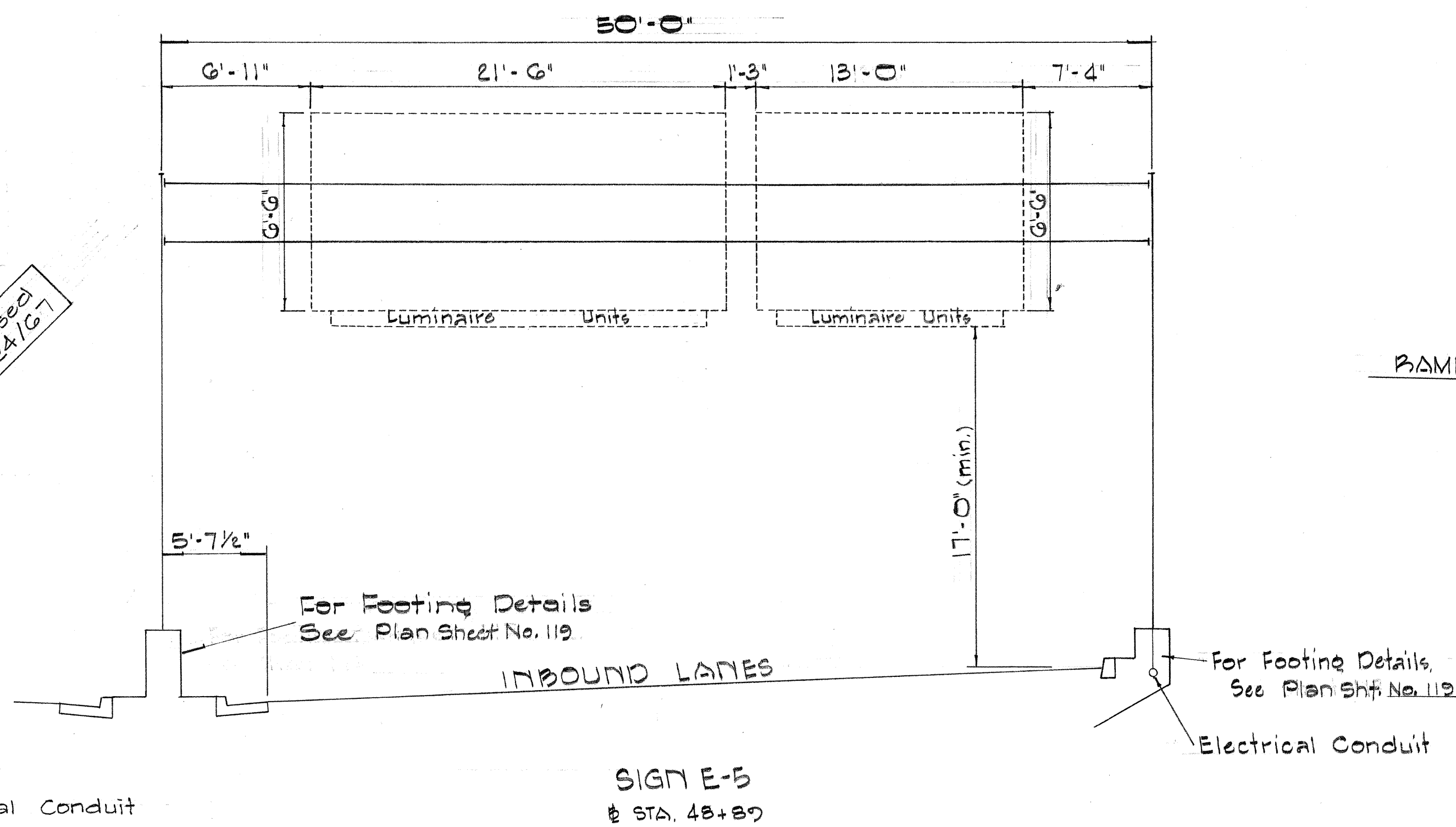
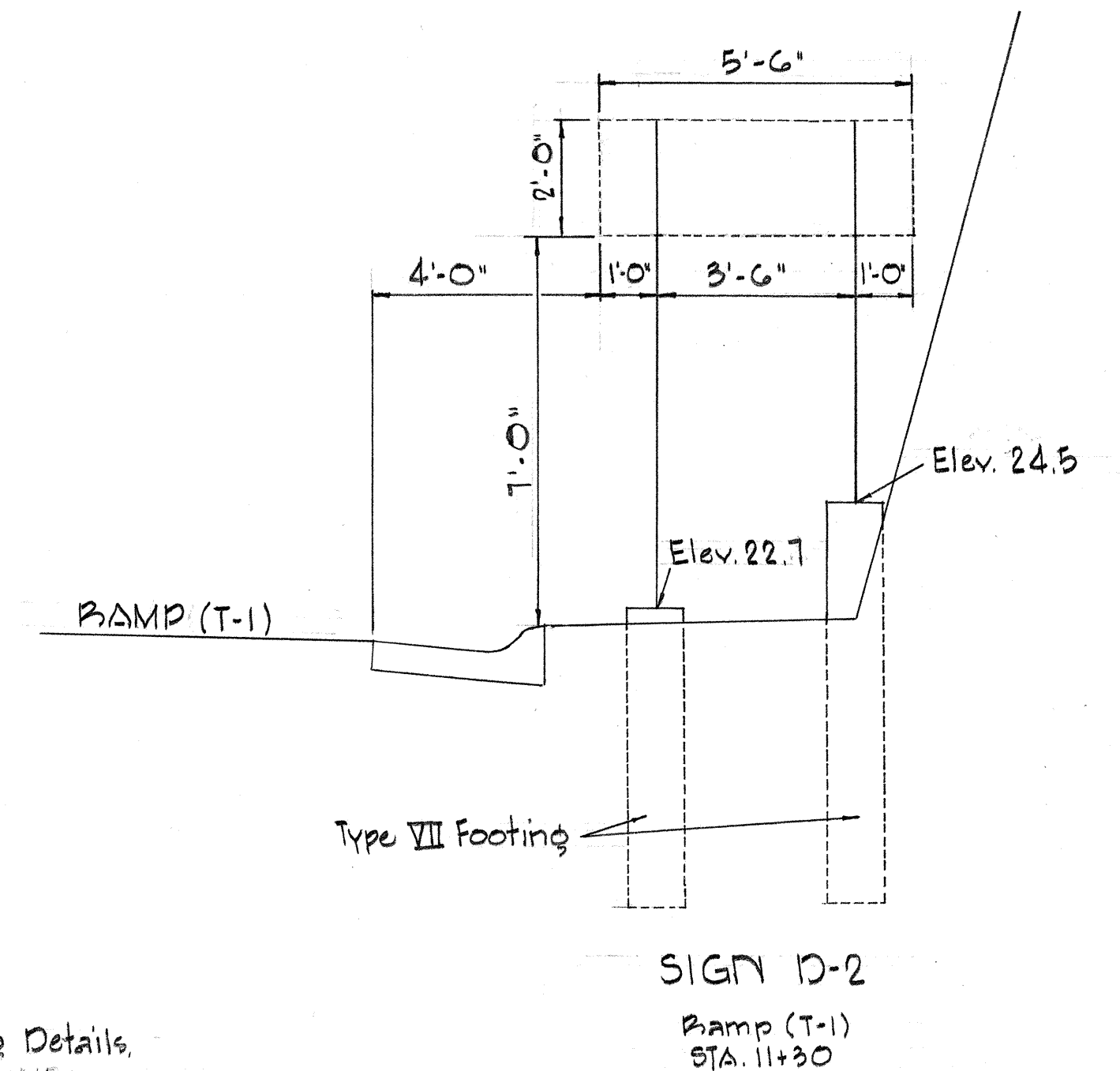
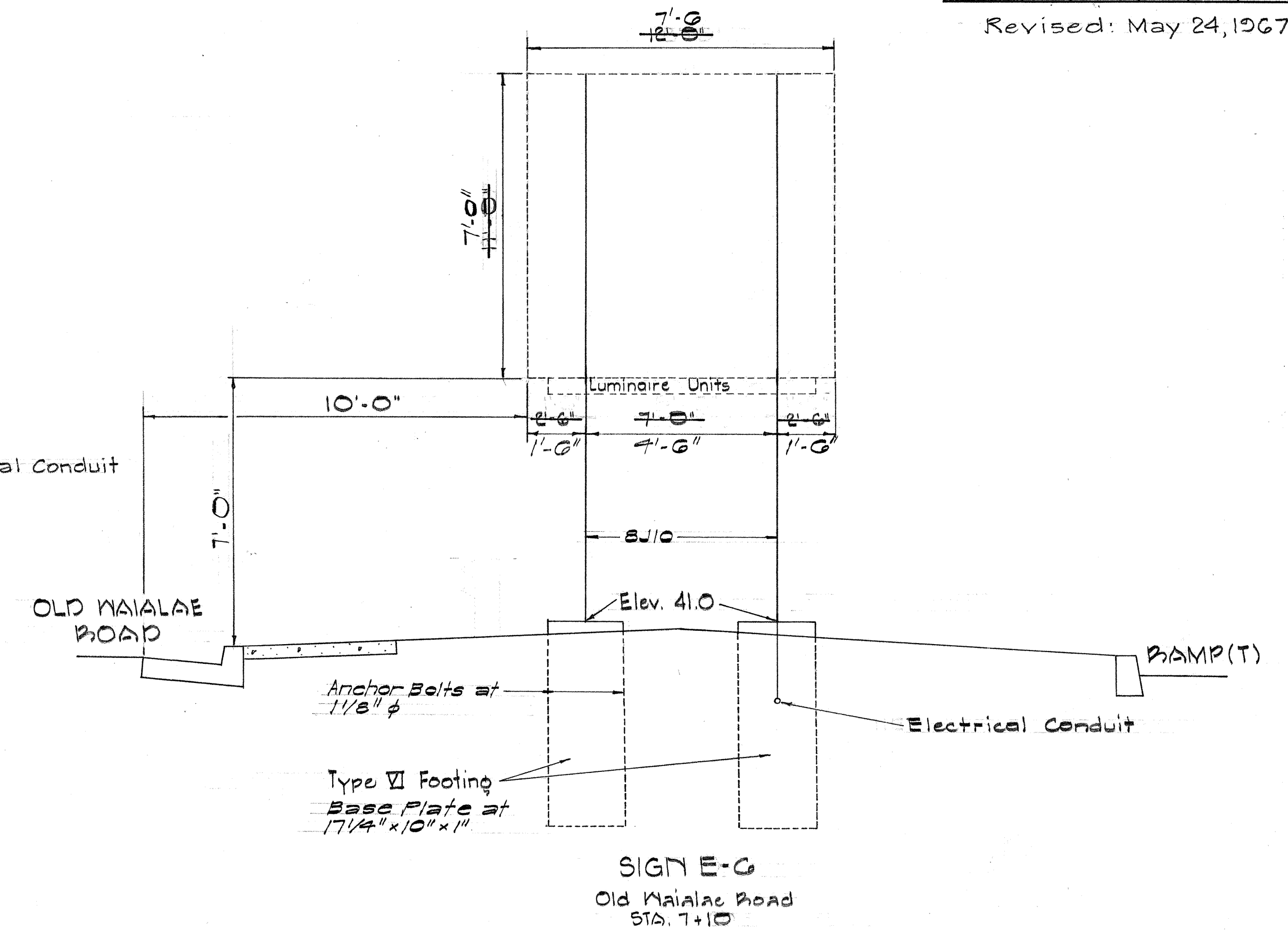
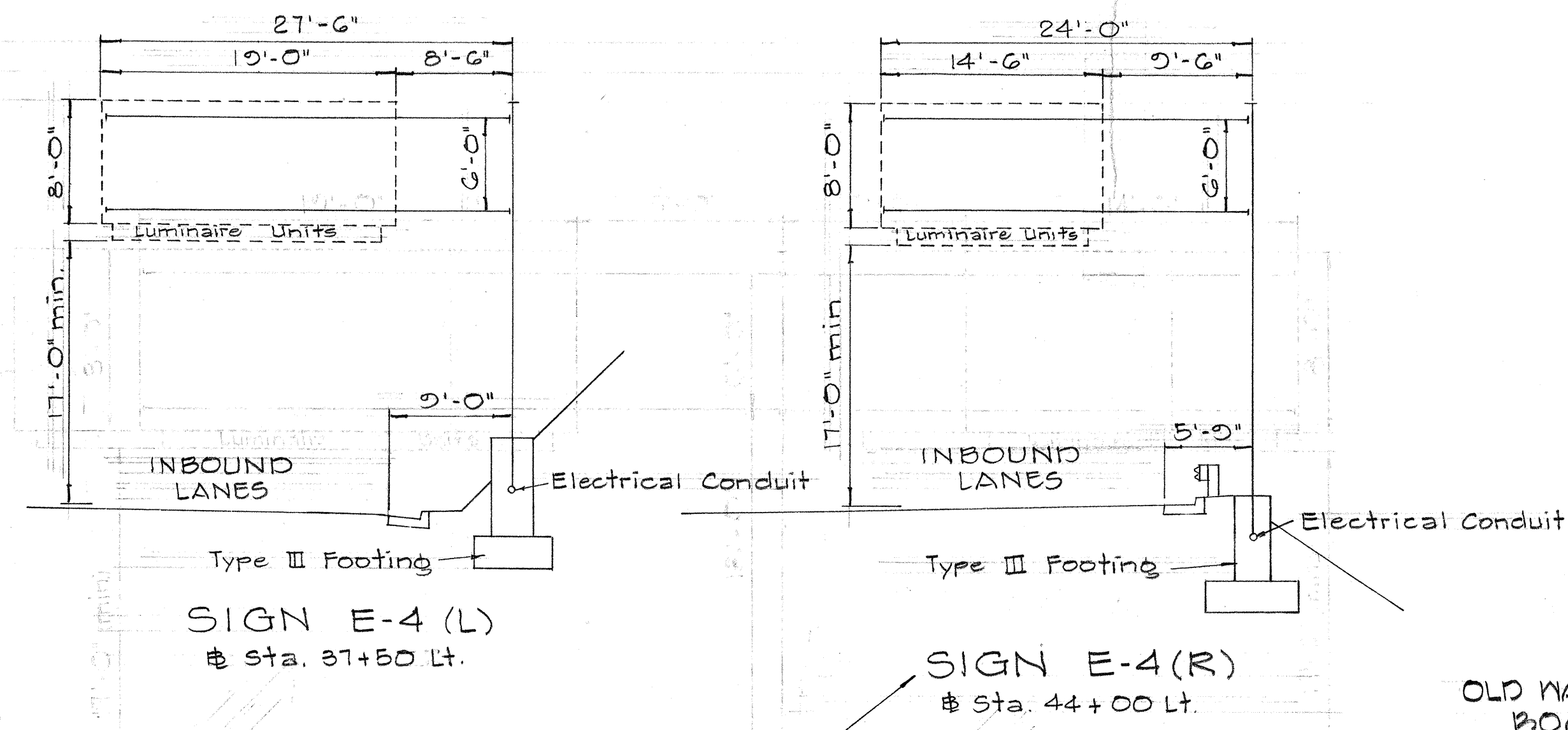
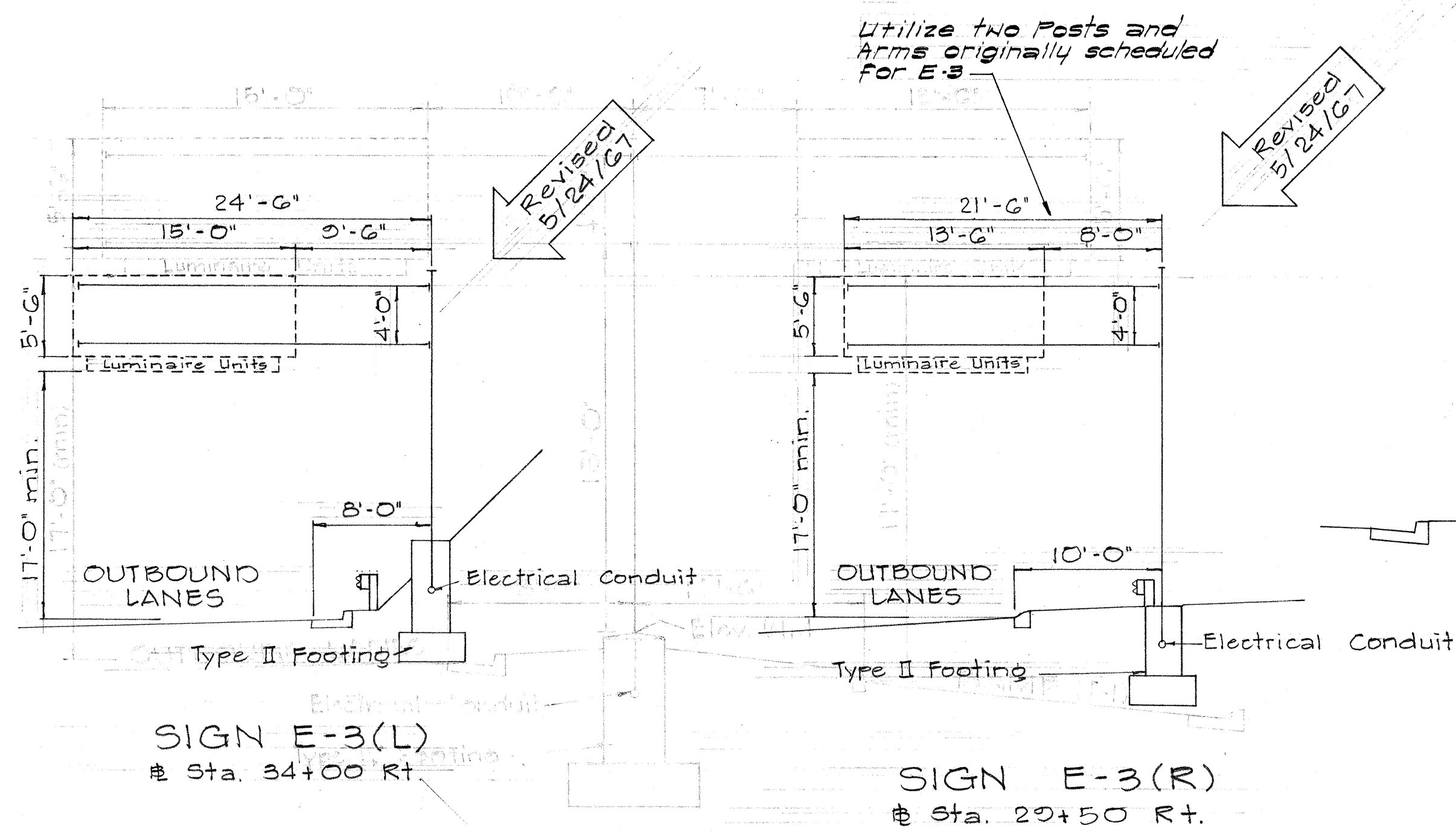
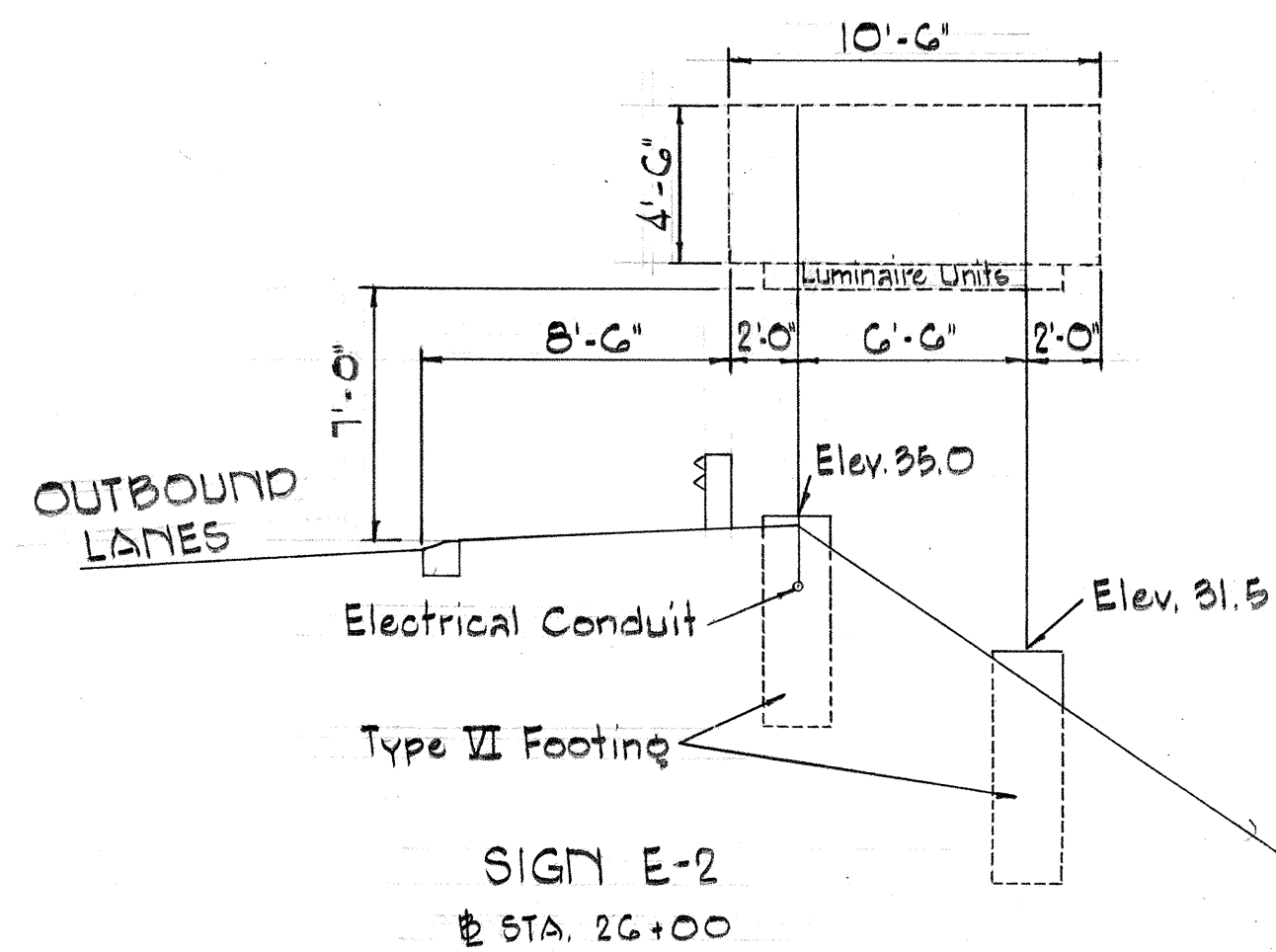
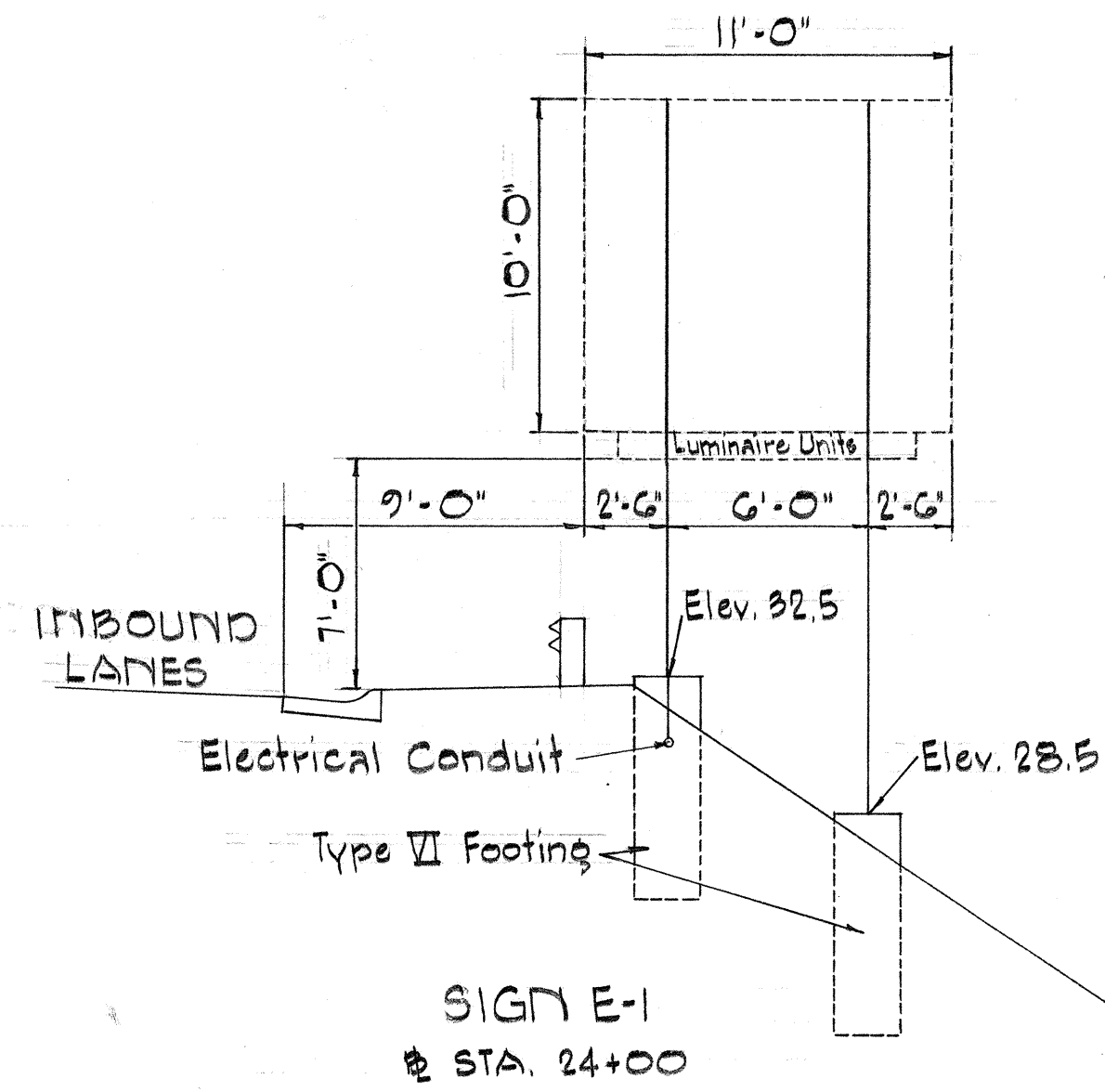
PROPOSED REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**DESTINATION SIGN
PANEL LAYOUT
& ARROW DETAILS**

F.A.I. Project No. I-H-1(5) 24, Unit 2
Not to Scale
May, 1965
SHEET No. 5 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-11-1(5) UNIT 2	1965	112	276

Revised: May 24, 1967



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EXPRESSWAY & DESTINATION
SIGNS
FRAME LAYOUT

F.A.I. Proj. No. I-H-1-1(5):24, Unit 2

Date: May, 1965.

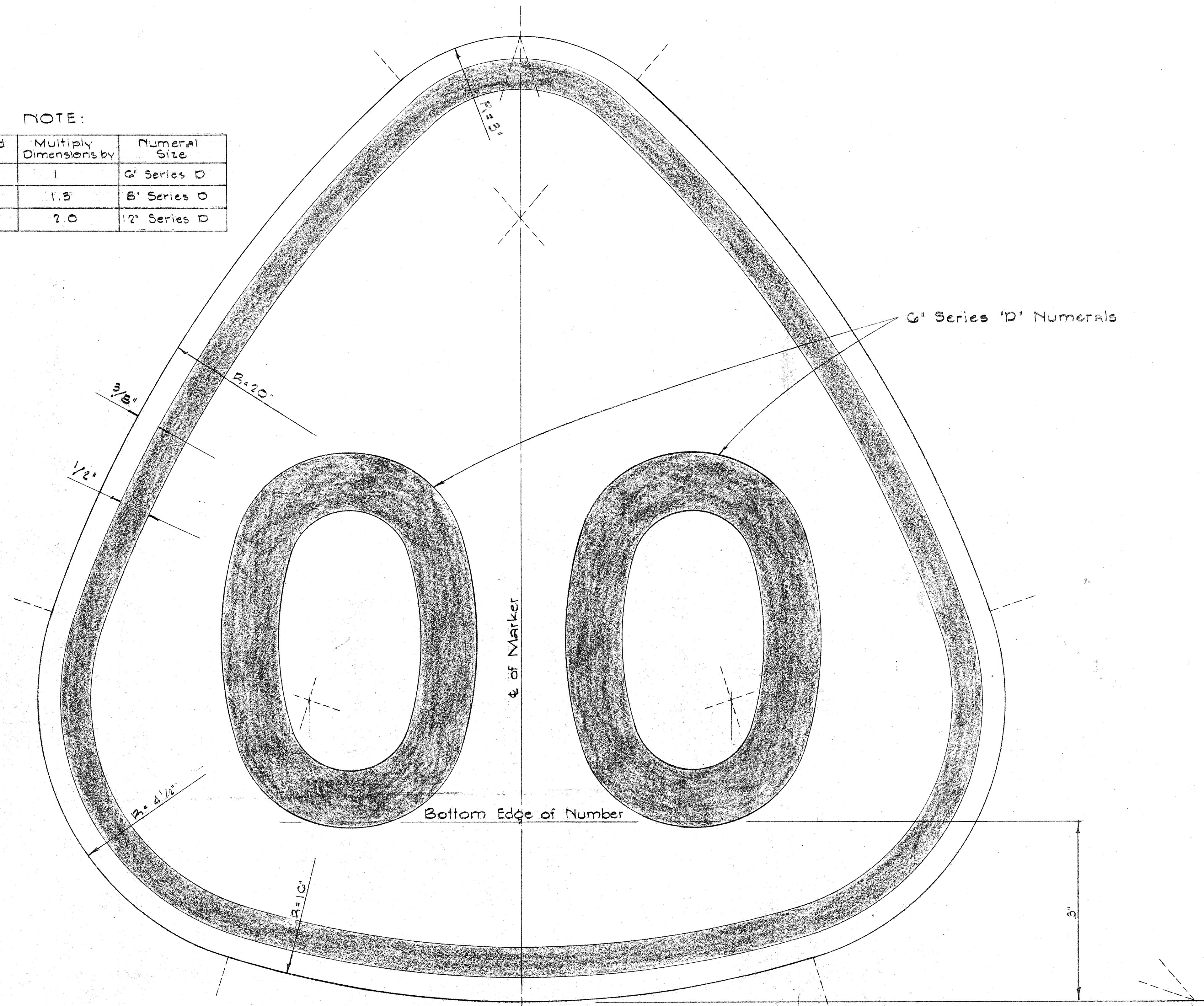
SHEET No. 6 OF 24 SHEETS

GENERAL NOTES

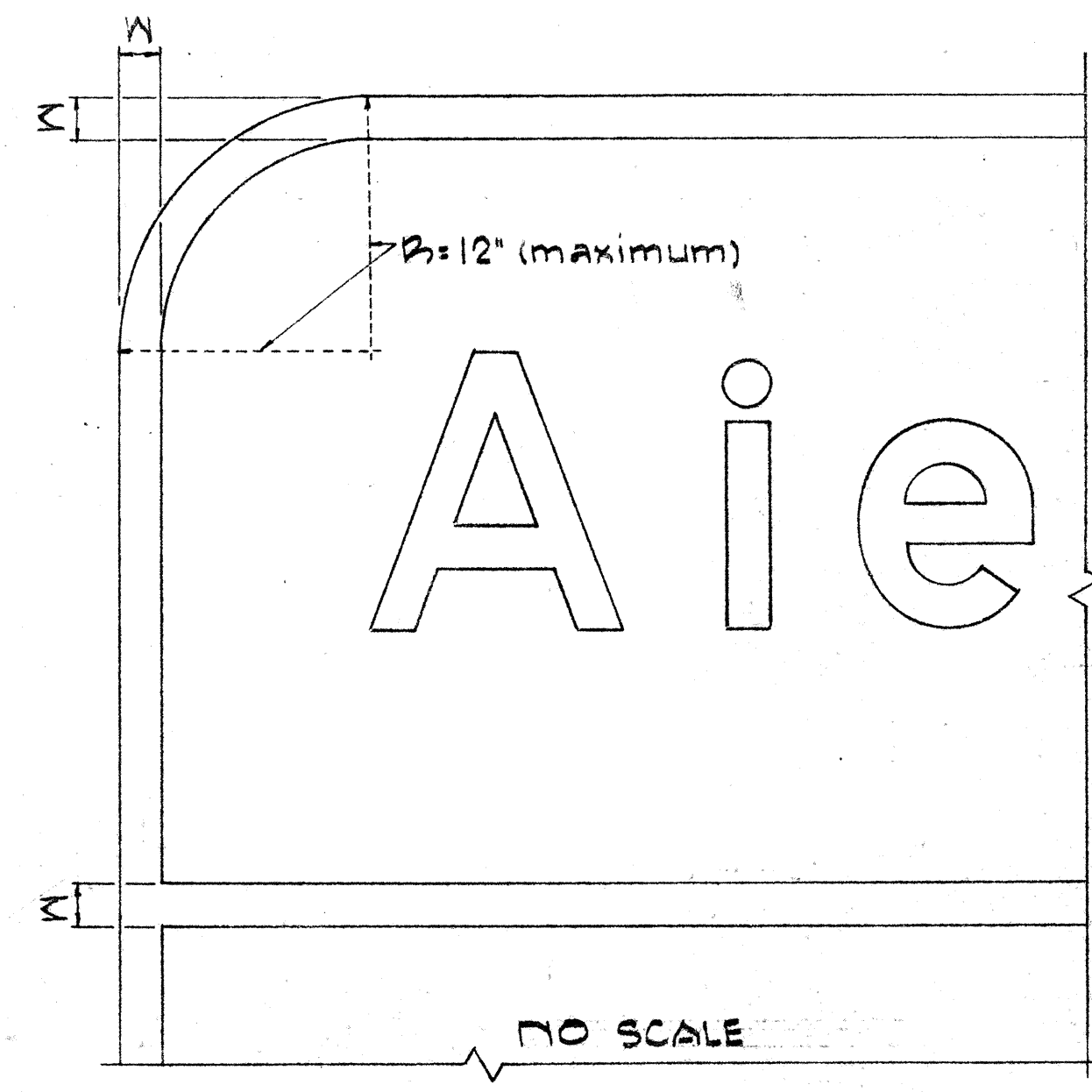
1. State Route Markers on Destination & Expressway signs shall have black numerals and borders on a white reflectorized background mounted on a flat Aluminum cut-out.
2. All numerals shall be Series 'D' from the "Standard Alphabets for Highway Signs," Bureau of Public Roads, 1957.
3. All Cut-outs shall be fastened on sign panel with Aluminum blind rivets. See Special Provisions.

NOTE:

Shield Size	Multiply Dimensions by	Numerical Size
10"	1	6" Series D
21"	1.5	8" Series D
32"	2.0	12" Series D



STATE ROUTE MARKER
FOR
DESTINATION & EXPRESSWAY SIGNS
Scale: Full Size



- NOTE:
1. Area outside corner need not be trimmed.
 2. All borders shall be embossed cut-outs, white and reflectorized.
 3. All signs shall have borders.

RADI FOR EXPRESSWAY SIGNS (2" Border)		
Least Dimension of Sign	W	R
3'-0" to 4'-6"	2"	3'
4'-9" to 5'-6"	2"	6'
5'-9" to 7'-6"	2"	9'
7'-9" and greater	2"	12"
RADI FOR DESTINATION SIGNS (1" Border)		
Least Dimension of Sign	W	R
Any Size	1"	3"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

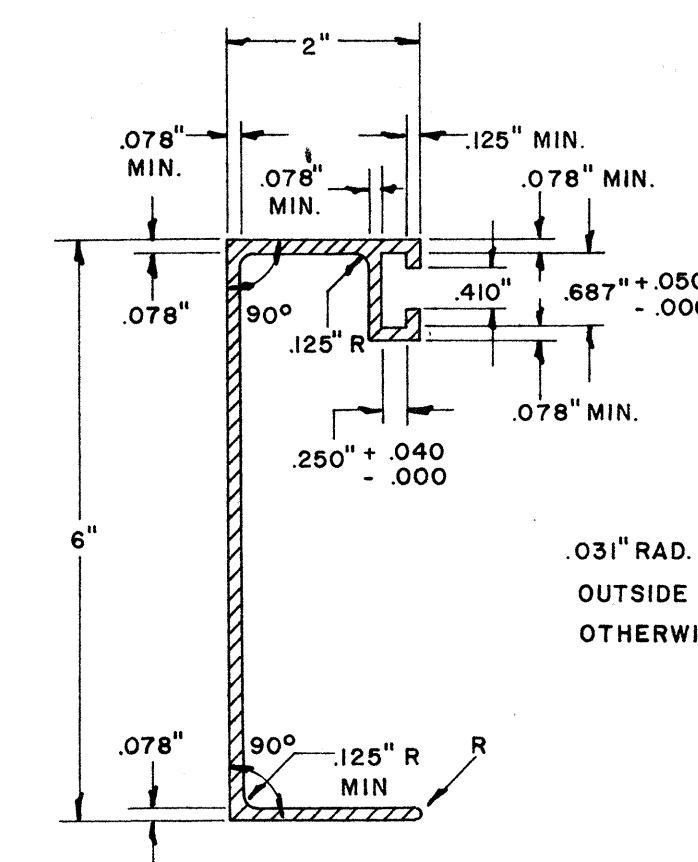
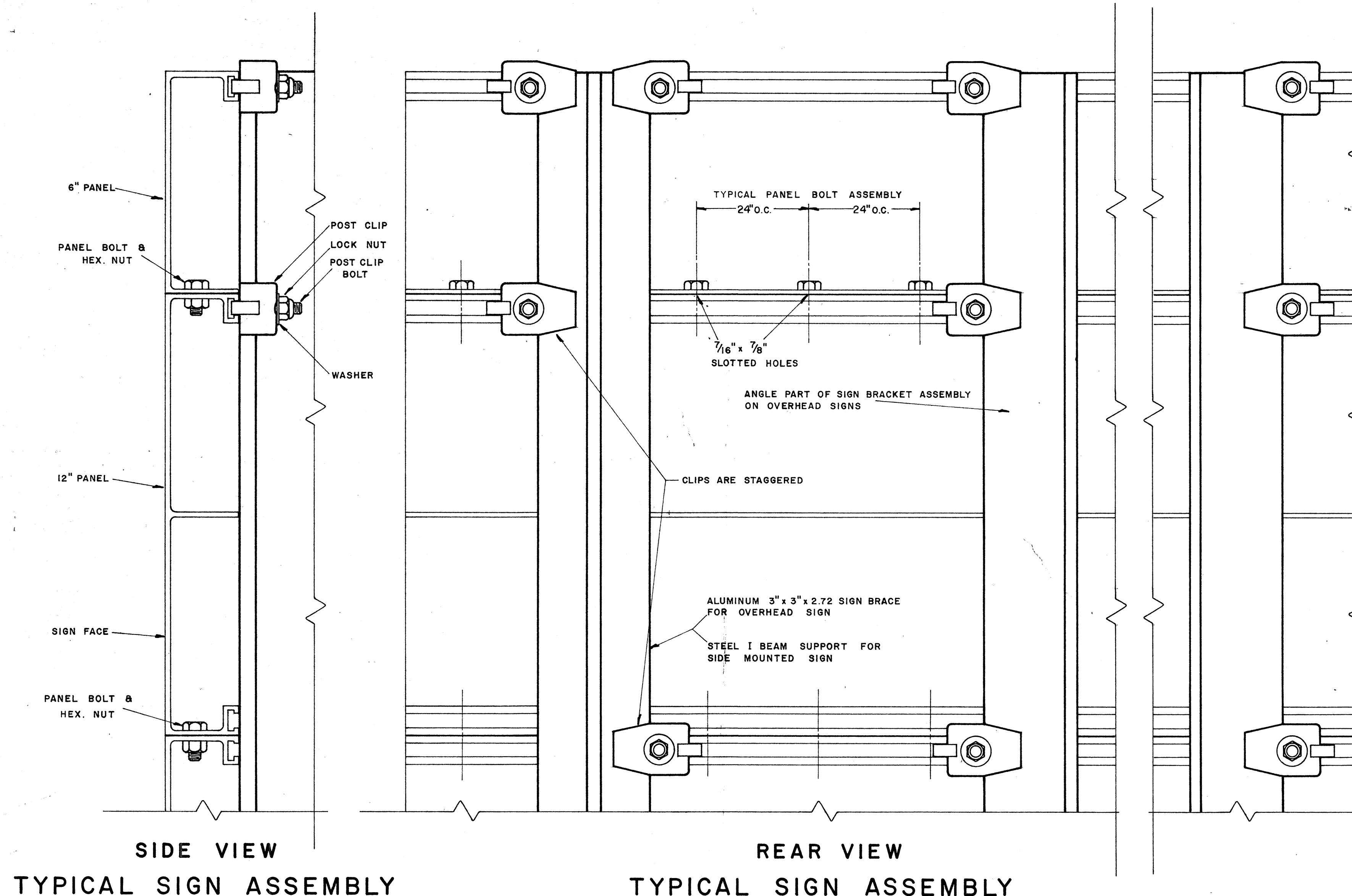
DESTINATION AND EXPRESSWAY SIGN
STATE ROUTE MARKER
AND BORDER DETAILS

F.A.T. Proj. No. I-HI-1(5):24, Unit 2

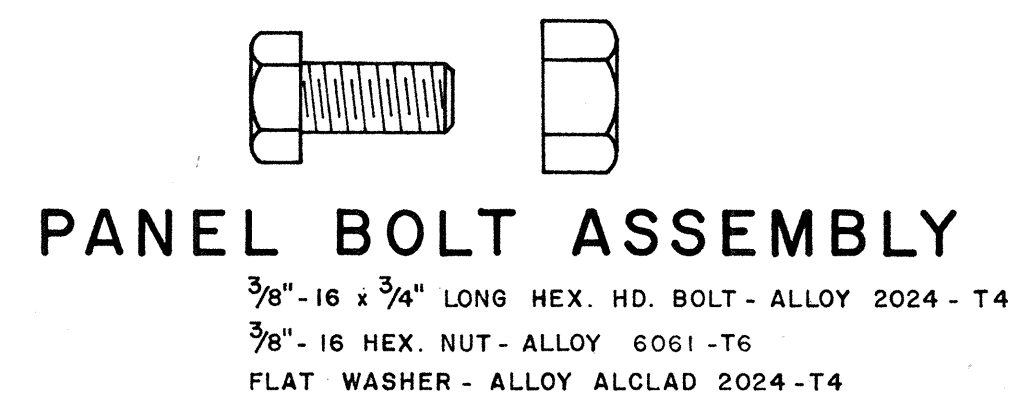
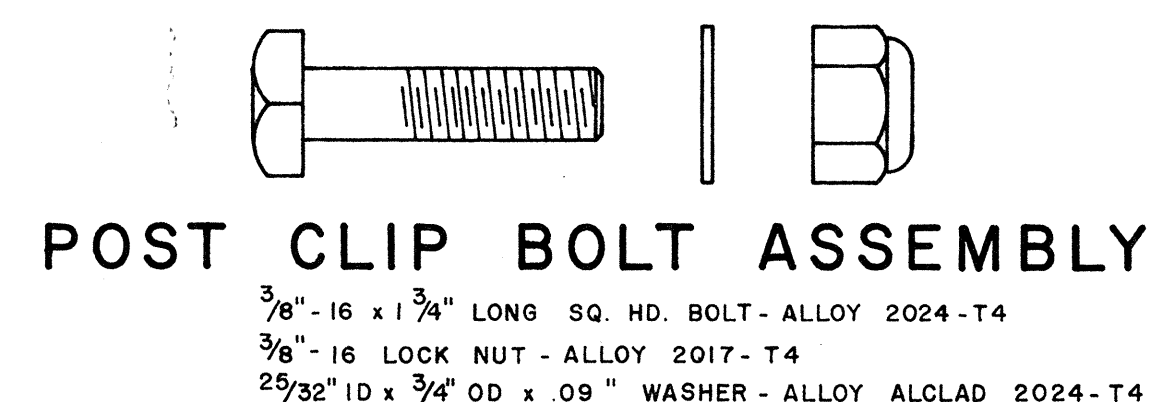
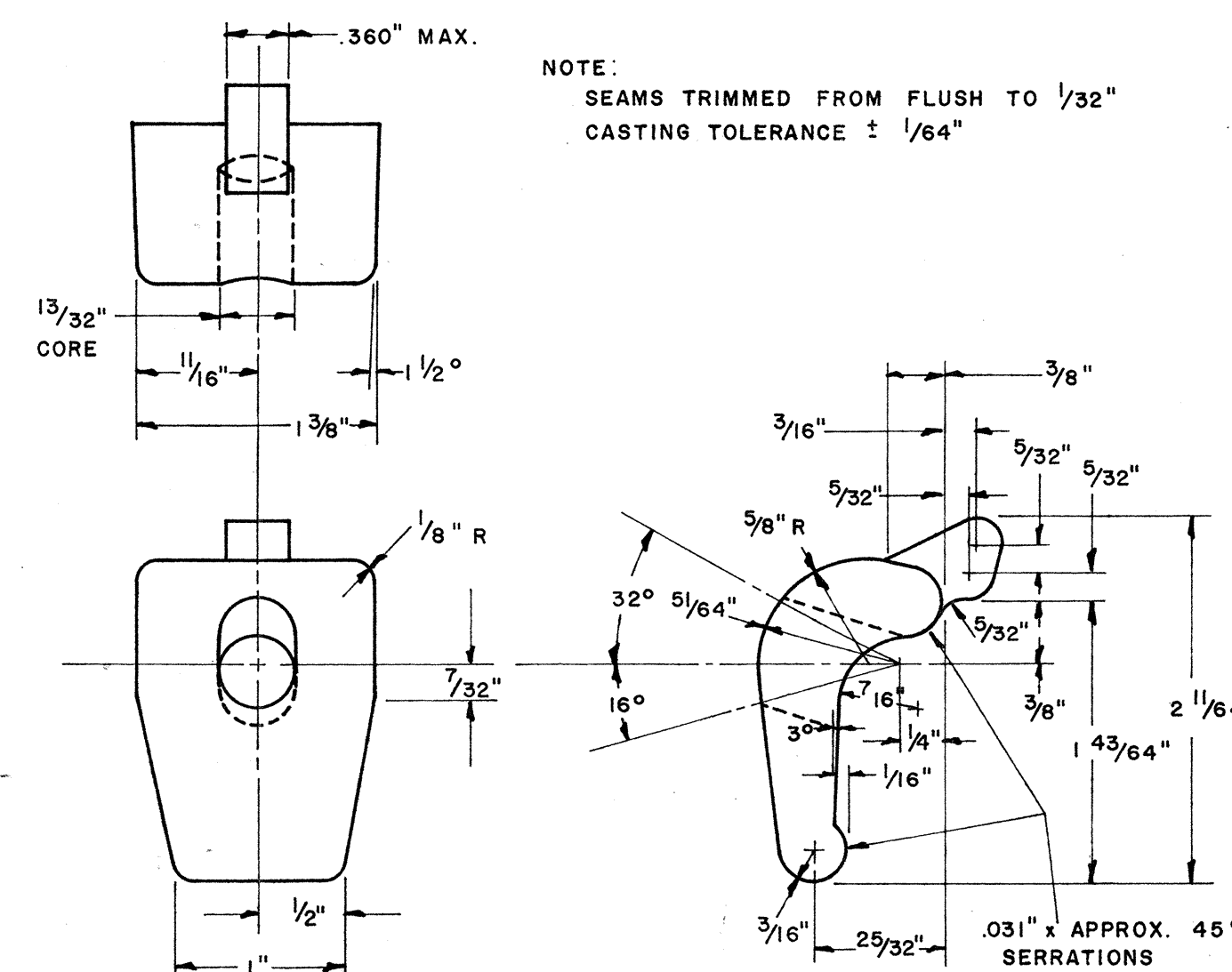
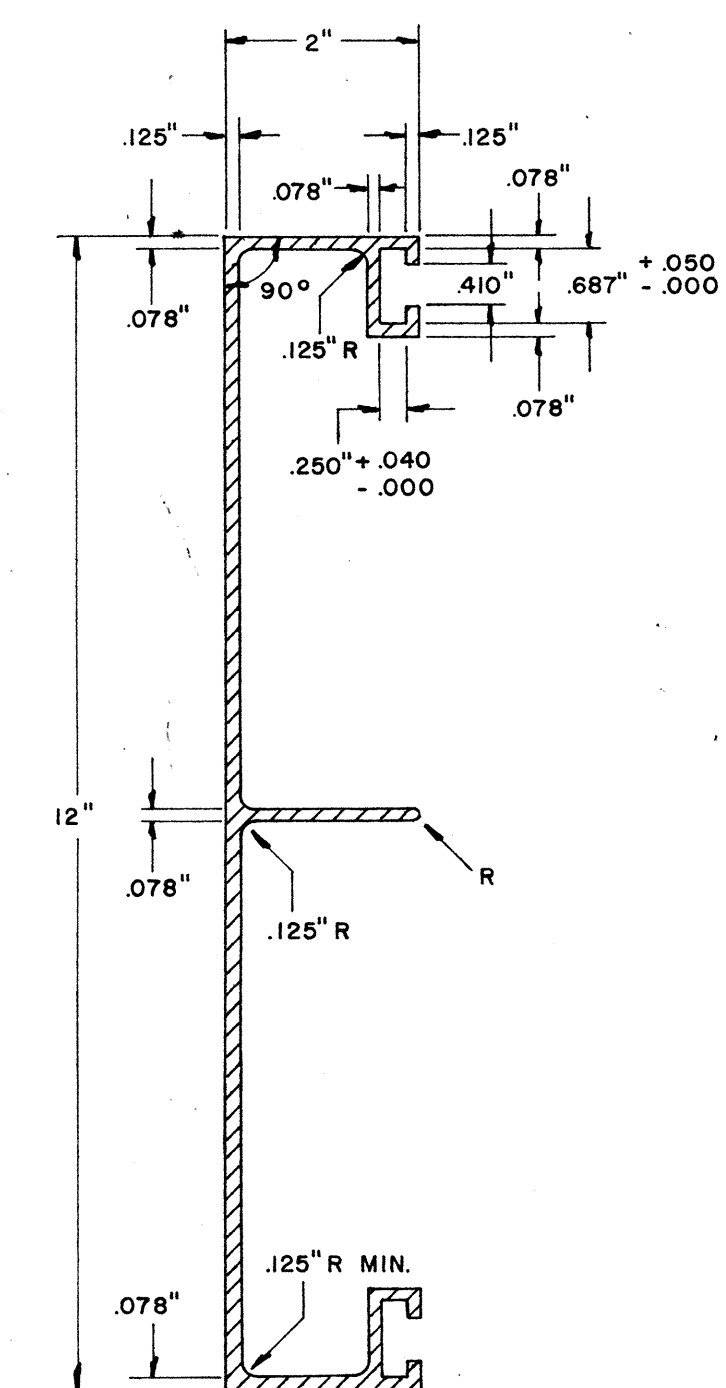
Scale: As Noted Date: May, 1965

SHEET No. 7 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
541-15372	HAWAII	541-15372	1965	114	276



SOLID EXTRUDED SIGN PANEL DETAILS



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

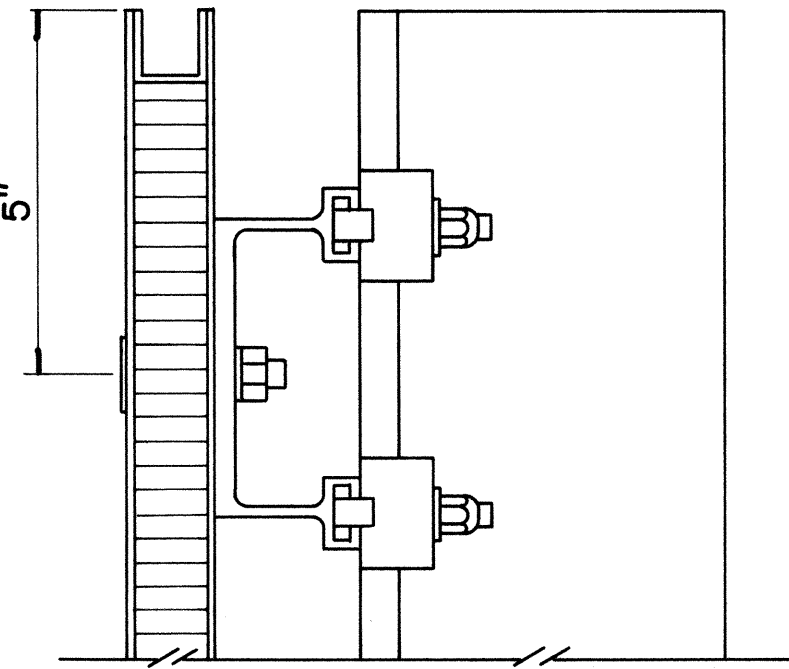
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
SOLID ALUMINUM
EXTRUDED SIGN PANEL
AND
ACCESSORY DETAILS
SCALE:

SHEET NO. 8 OF 24 SHEETS

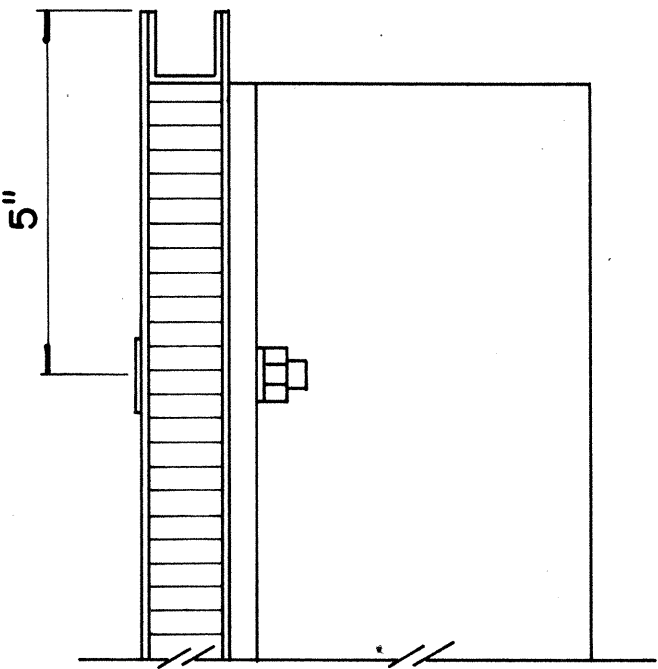
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	SH-11-17-74 UNIT 2	1966	115	276

(OVERHEAD SIGNS)
SUPPORT SPACING TABLE

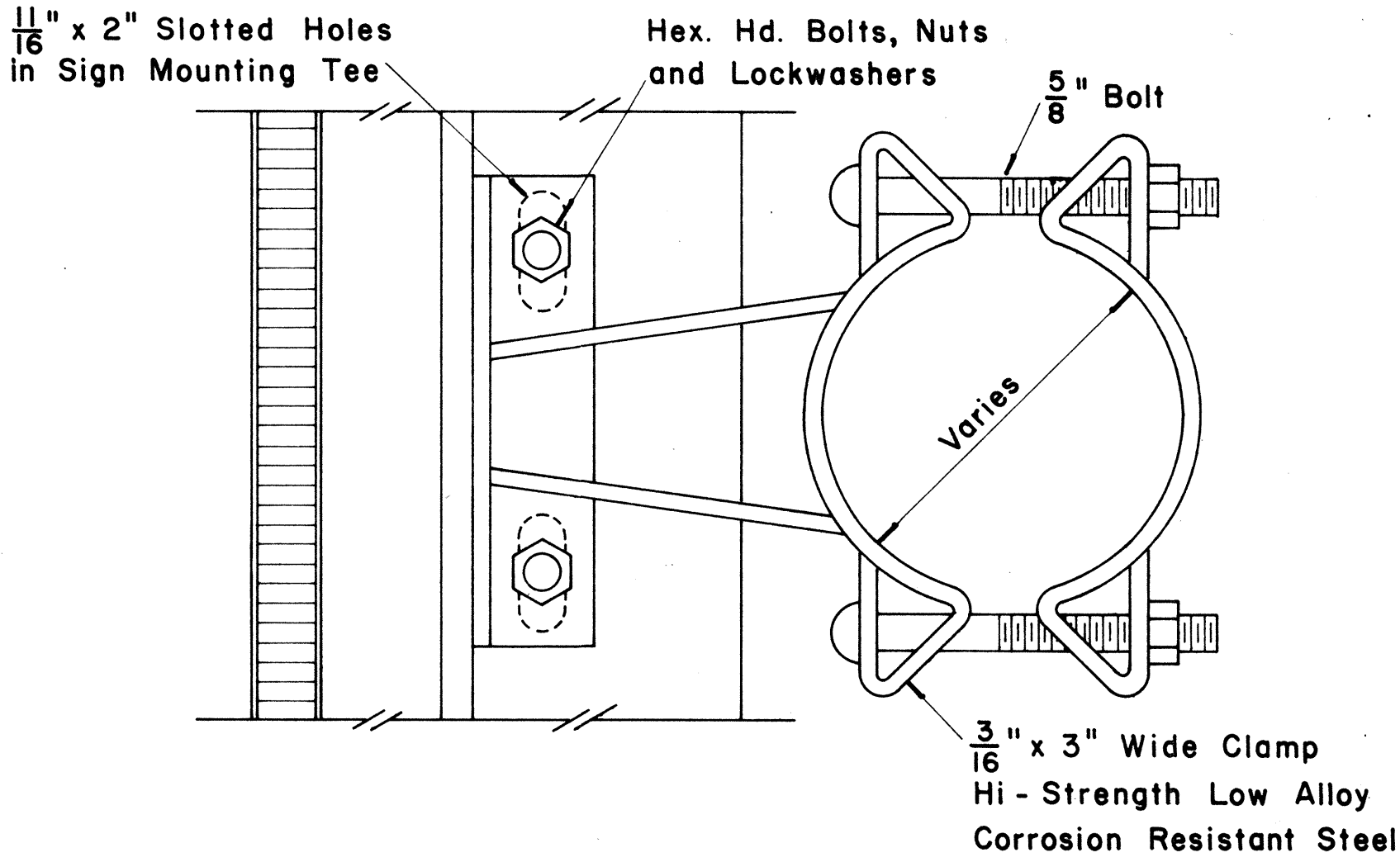
PANEL THICK.	LENGTH OF SIGN A	NO. OF SUPPORTS	OVERHANG B	SUPPORT SPACING C or C ₁
1"	6'-0"	2	12"	48"
1"	6'-6"	2	15"	48"
1"	7'-0"	2	15"	54"
1"	7'-6"	2	18"	54"
1"	8'-0"	2	18"	60"
1"	8'-6"	2	20"	62"
1"	9'-0"	2	22"	64"
1"	9'-6"	2	23"	68"
1"	10'-0"	2	24"	72"
1"	10'-6"	2	24"	78"
1"	11'-0"	2	24"	84"
1"	11'-6"	2	27"	84"
1"	12'-0"	2	30"	84"
1"	12'-6"	2	30"	90"
1"	13'-0"	2	30"	96"
1"	13'-6"	2	30"	102"
1"	14'-0"	2	30"	108"
1"	14'-6"	2	36"	102"
1"	15'-0"	2	36"	108"
1"	15'-6"	3	24"	69"
1"	16'-0"	3	24"	72"
1"	16'-6"	3	24"	75"
1"	17'-0"	3	24"	78"
1"	17'-6"	3	24"	81"
1"	18'-0"	3	24"	84"
1"	18'-6"	3	27"	84"
1"	19'-0"	3	27"	87"
1"	19'-6"	3	27"	90"
1"	20'-0"	3	30"	90"
1"	20'-6"	3	30"	93"
1"	21'-0"	3	30"	96"
1"	21'-6"	3	33"	96"
1"	22'-0"	3	36"	96"
1"	22'-6"	3	36"	99"
1"	23'-0"	3	36"	102"
1"	23'-6"	3	36"	105"
1"	24'-0"	3	36"	108"



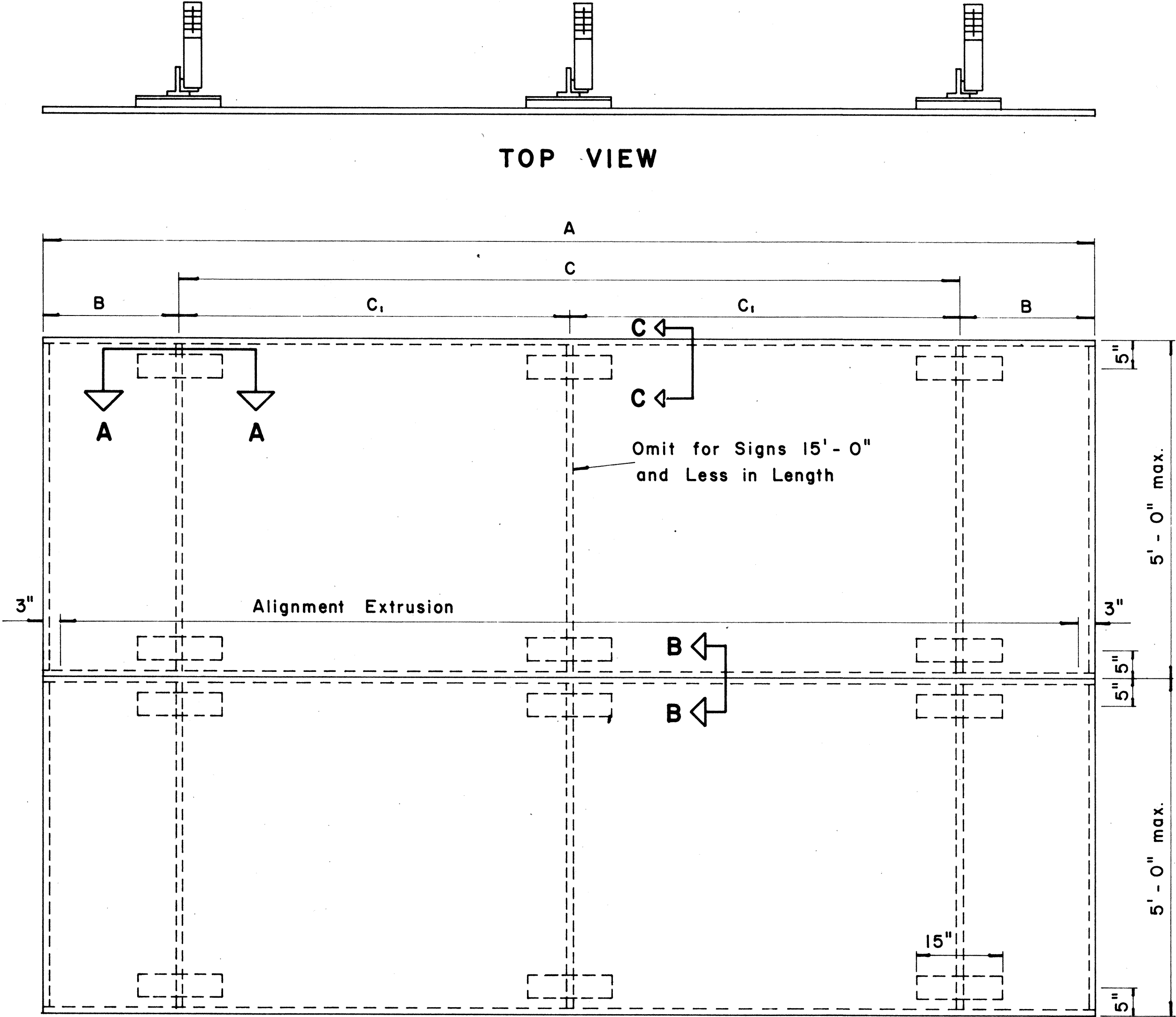
SECTION "C-C"
Scale: $\frac{3}{8}$ " = 1"



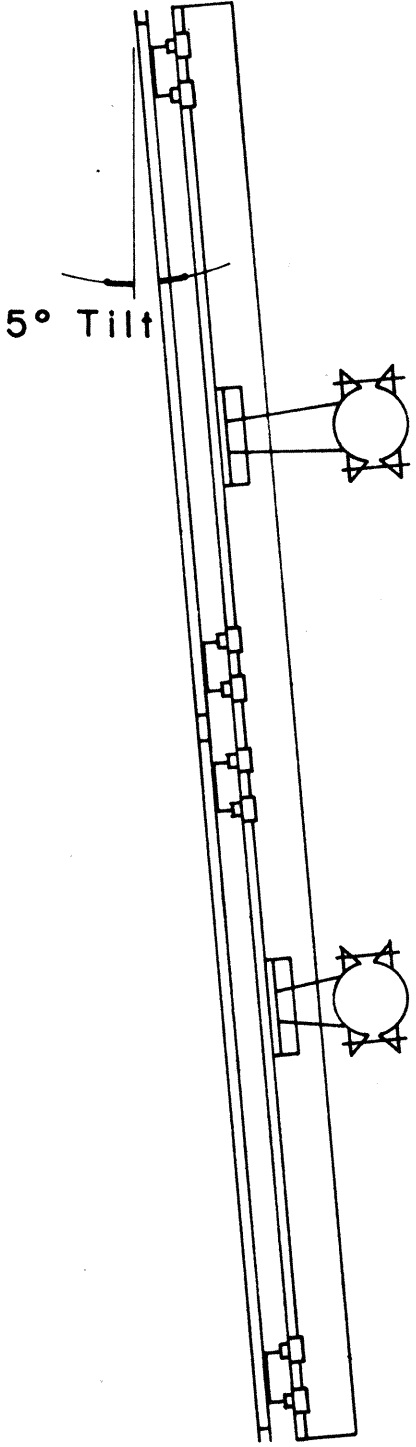
SECTION "C-C"
(Alternate)
Scale: $\frac{3}{8}$ " = 1"



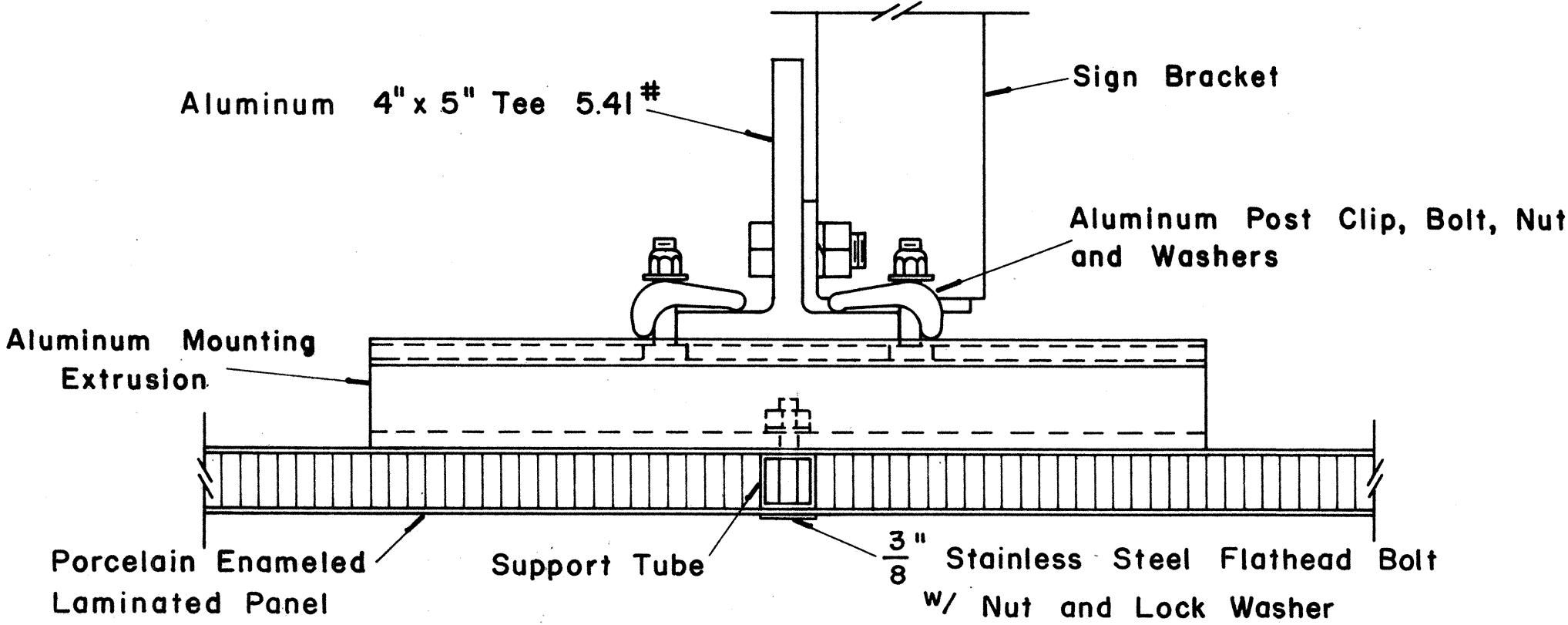
SIGN BRACKET ASSEMBLY
Scale: $\frac{3}{8}$ " = 1"



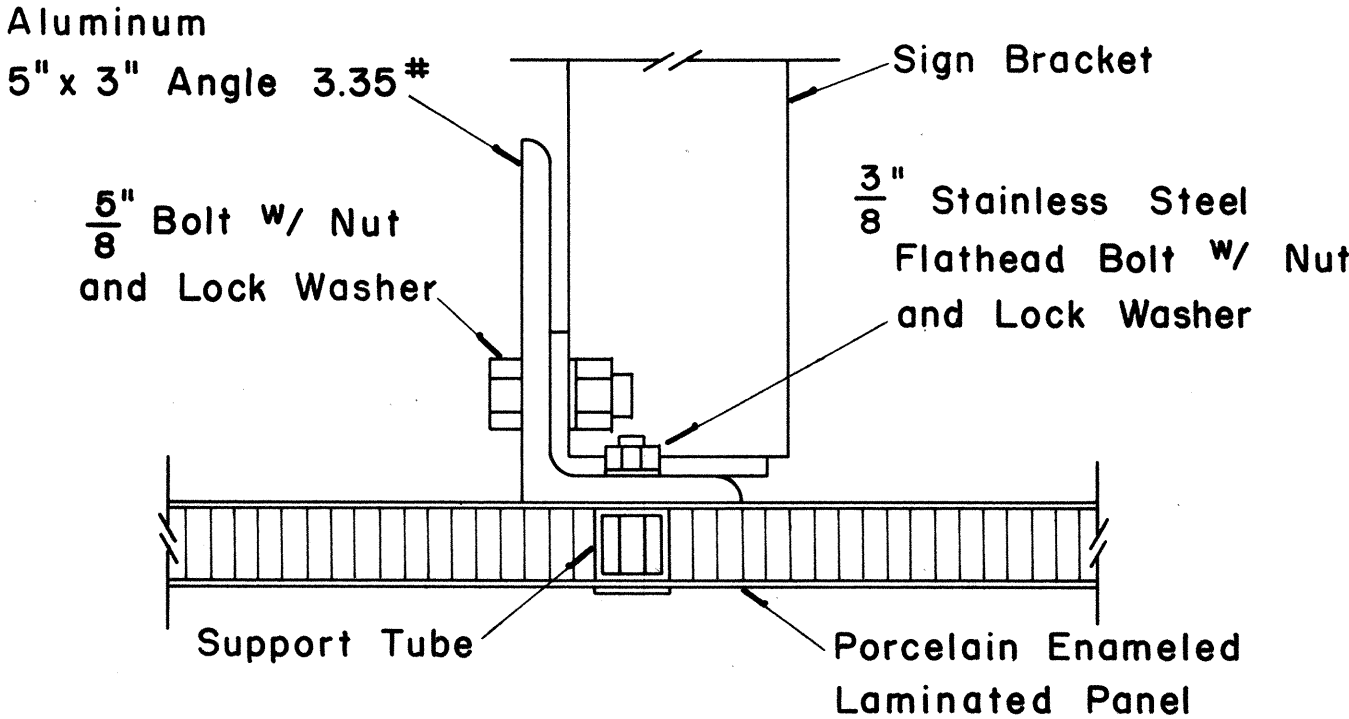
ELEVATION
TYPICAL SIGN ASSEMBLY
Scale: $\frac{3}{4}$ " = 1'-0"



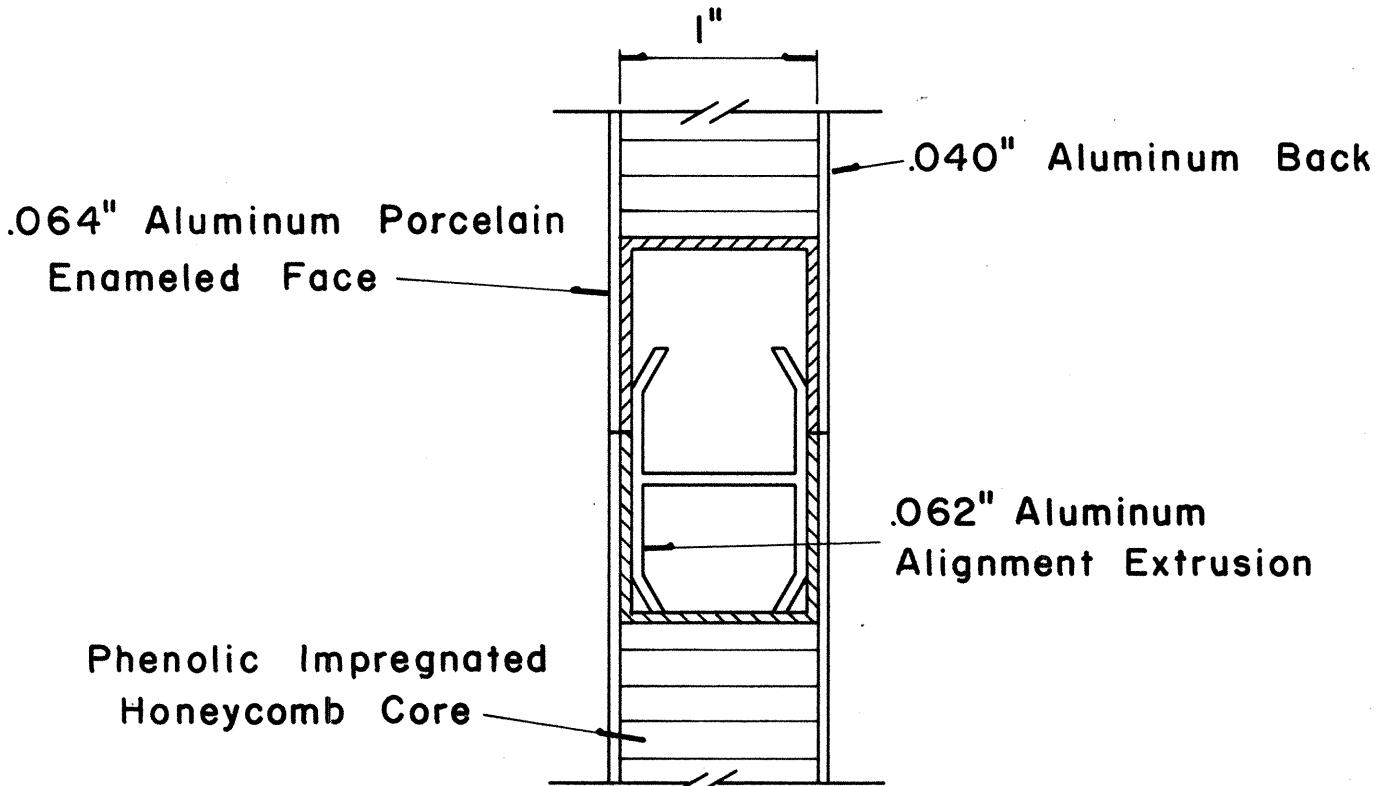
SIDE VIEW



SECTION "A-A"
Scale: $\frac{3}{8}$ " = 1"



SECTION "A-A"
(Alternate)
Scale: $\frac{3}{8}$ " = 1"



CLOSURE DETAIL
SECTION "B-B"
FULL SCALE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

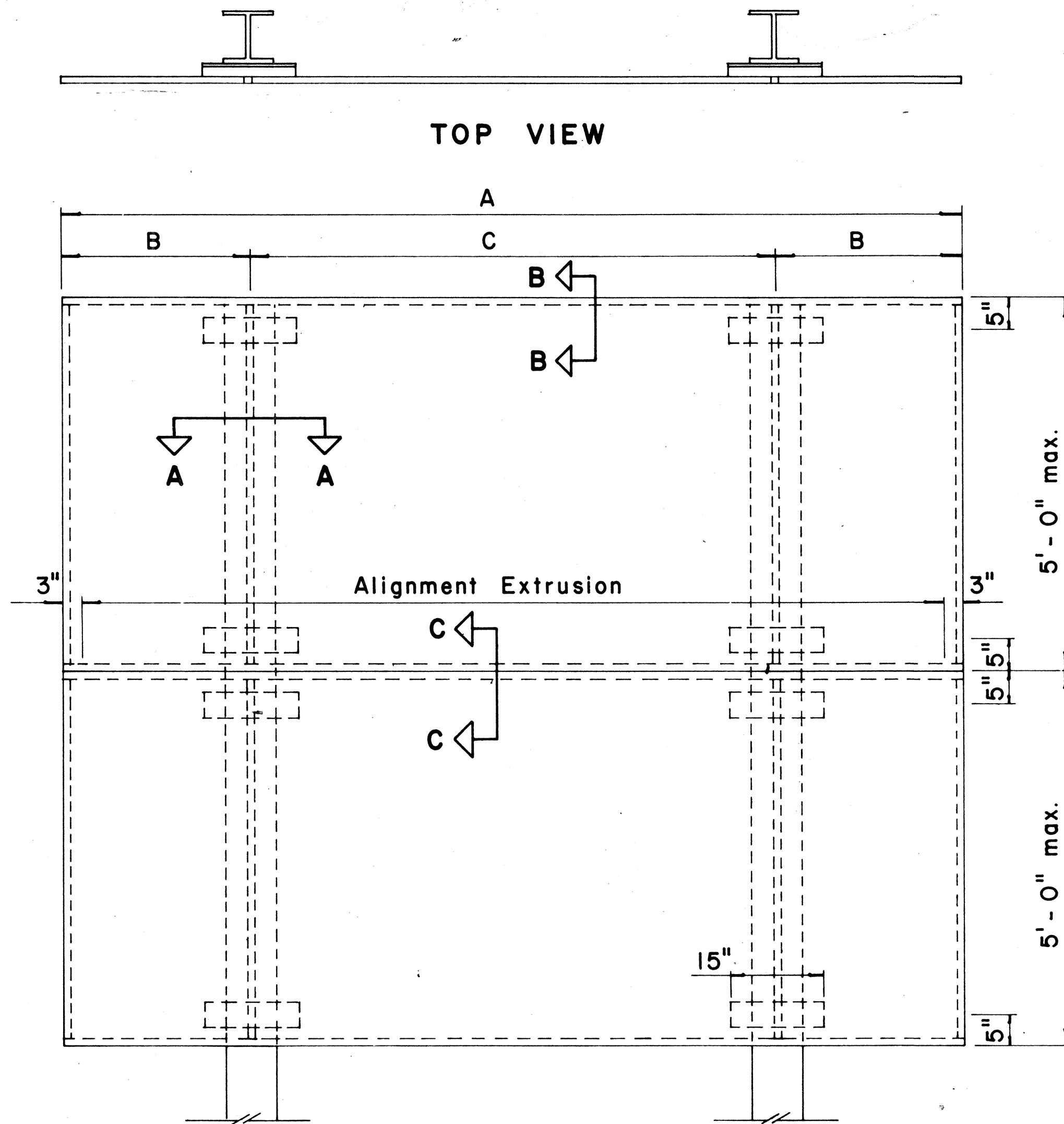
STANDARD DETAILS
LAMINATED ALUMINUM
SIGN PANELS
(OVERHEAD)
Scale: As Shown

SHEET No. 115 OF 24 SHEETS

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
ORIGINAL	

(GROUND MOUNTED SIGNS)
SUPPORT SPACING TABLE

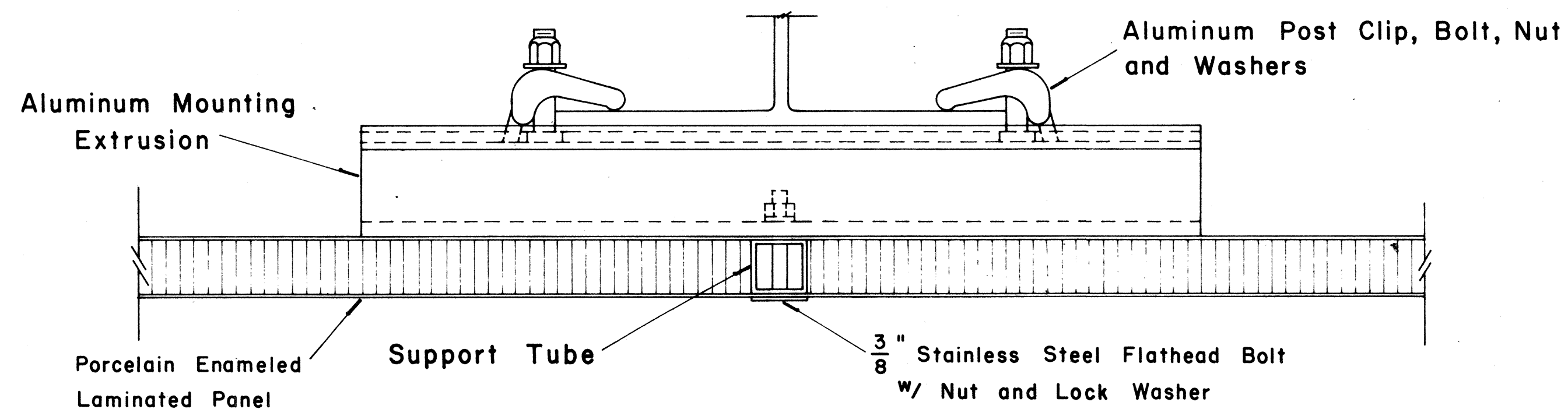
PANEL THICK.	LENGTH OF SIGN	NO. OF SUPPORTS	OVERHANG	SUPPORT SPACING
A	B	C		
1"	6'-0"	2	12"	48"
1"	6'-6"	2	15"	48"
1"	7'-0"	2	15"	54"
1"	7'-6"	2	18"	54"
1"	8'-0"	2	18"	60"
1"	8'-6"	2	20"	62"
1"	9'-0"	2	22"	64"
1"	9'-6"	2	23"	68"
1"	10'-0"	2	24"	72"
1"	10'-6"	2	24"	78"
1"	11'-0"	2	24"	84"
1"	11'-6"	2	27"	84"
1"	12'-0"	2	30"	84"
1"	12'-6"	2	30"	90"
1"	13'-0"	2	30"	96"
1"	13'-6"	2	30"	102"
1"	14'-0"	2	30"	108"
1"	14'-6"	2	36"	102"
1"	15'-0"	2	36"	108"
2.5"	15'-6"	2	36"	114"
2.5"	16'-0"	2	39"	114"
2.5"	16'-6"	2	39"	120"
2.5"	17'-0"	2	39"	126"
2.5"	17'-6"	2	42"	126"
2.5"	18'-0"	2	42"	132"
2.5"	18'-6"	2	45"	132"
2.5"	19'-0"	2	45"	138"
2.5"	19'-6"	2	45"	144"
2.5"	20'-0"	2	48"	144"
2.5"	20'-6"	2	48"	150"
2.5"	21'-0"	2	51"	150"
2.5"	21'-6"	2	51"	156"
2.5"	22'-0"	2	51"	162"
2.5"	22'-6"	2	54"	162"
2.5"	23'-0"	2	54"	168"
2.5"	23'-6"	2	54"	174"
2.5"	24'-0"	2	57"	174"



ELEVATION

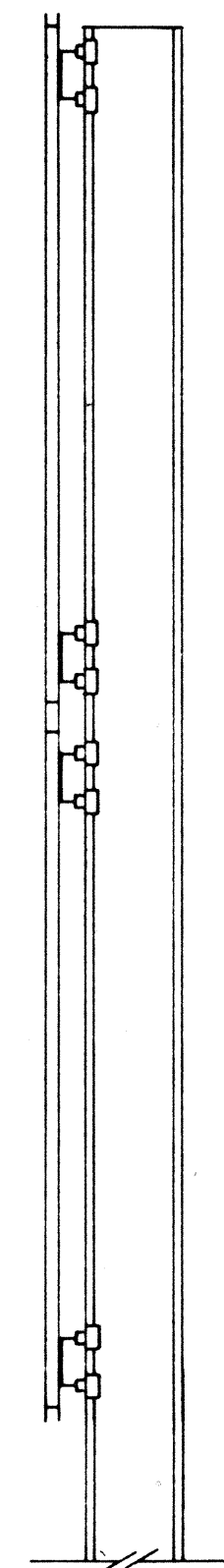
TYPICAL SIGN ASSEMBLY

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

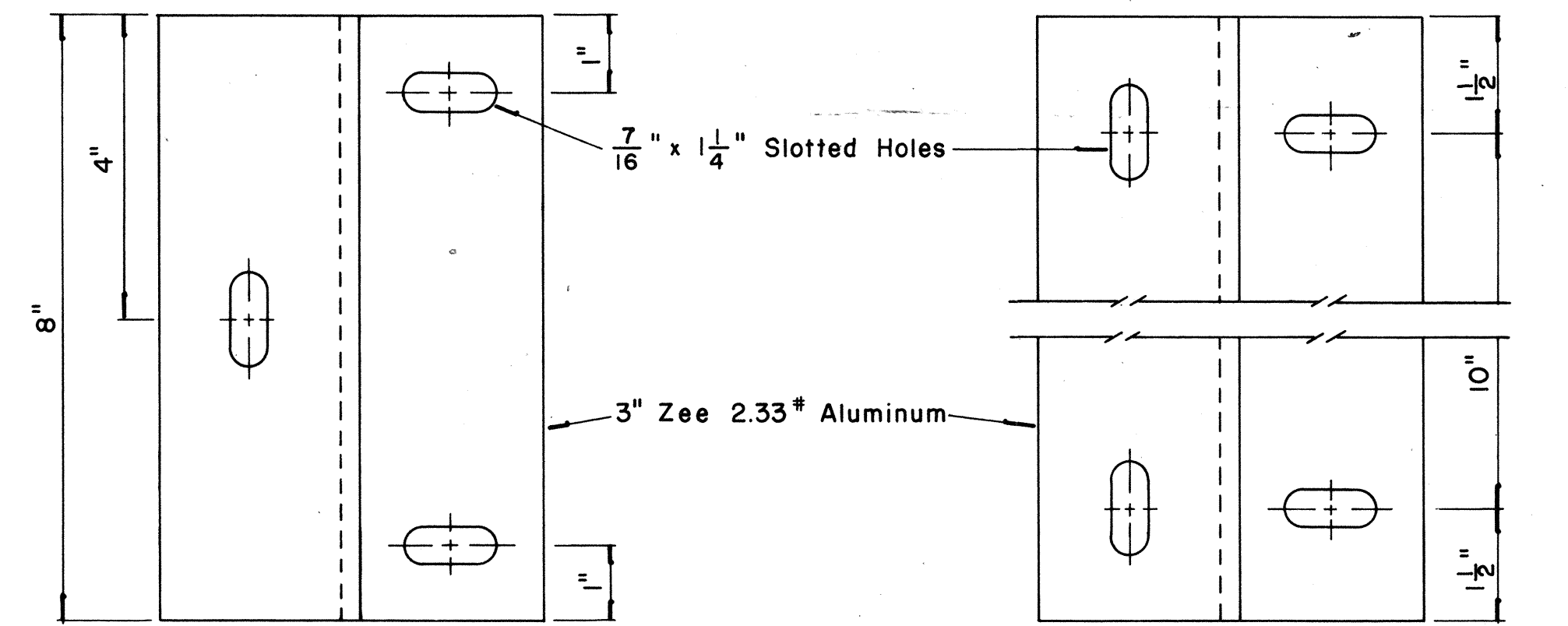


SECTION "A-A"

Scale: $\frac{1}{2}$ " = 1"



SIDE VIEW

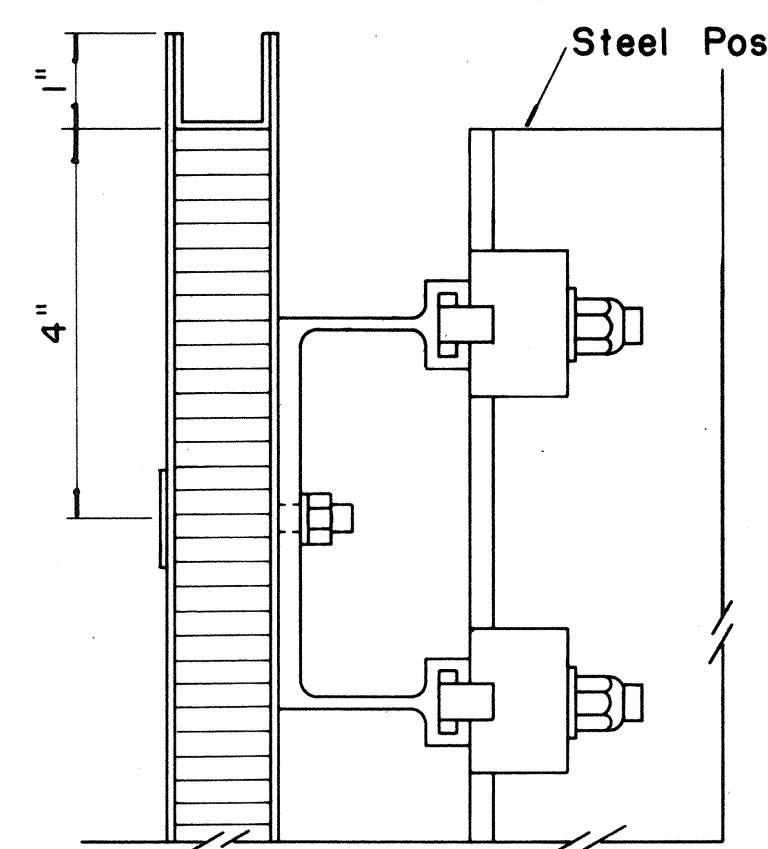


END MOUNTING

INTERMEDIATE MOUNTING

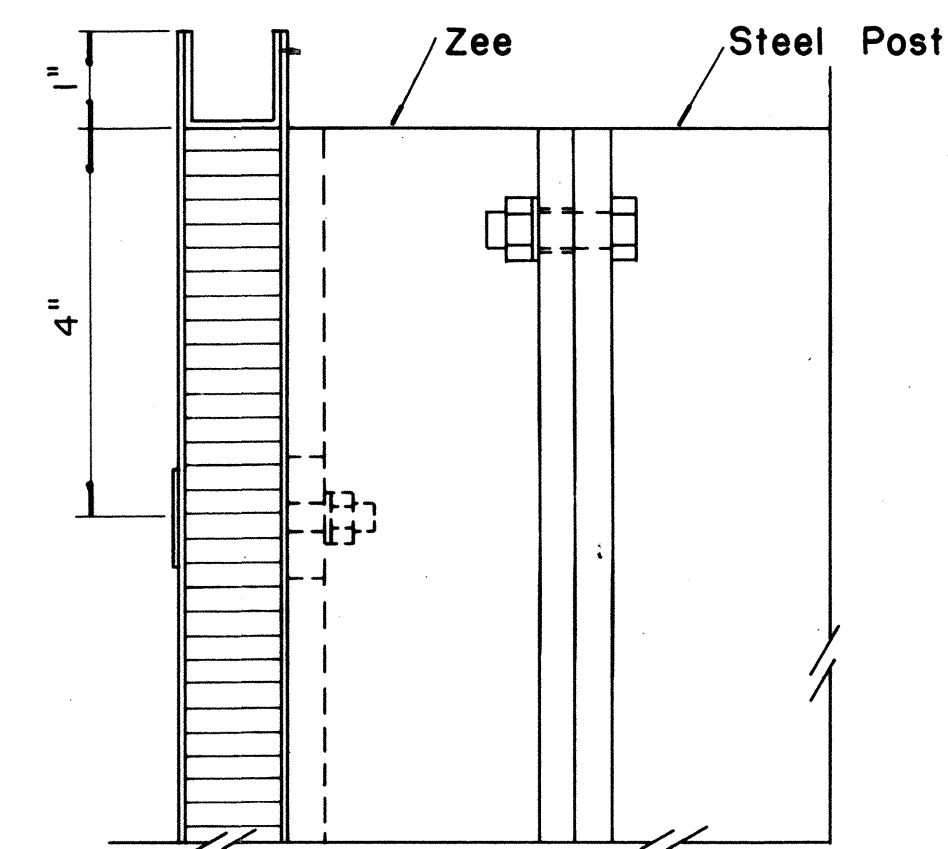
ZEE MOUNTING DETAILS

Scale: $\frac{1}{2}$ " = 1"



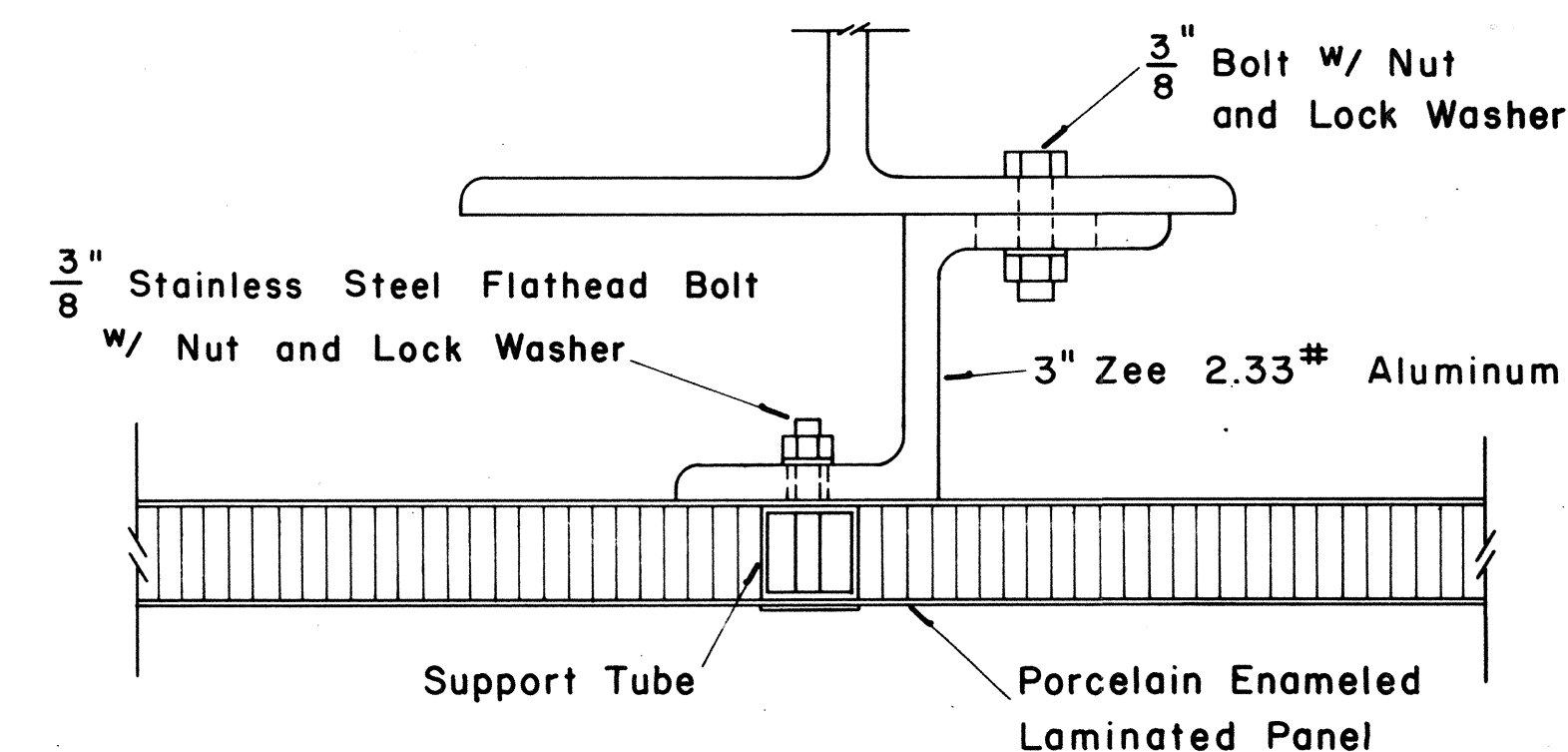
SECTION "B-B"

Scale: $\frac{1}{2}$ " = 1"



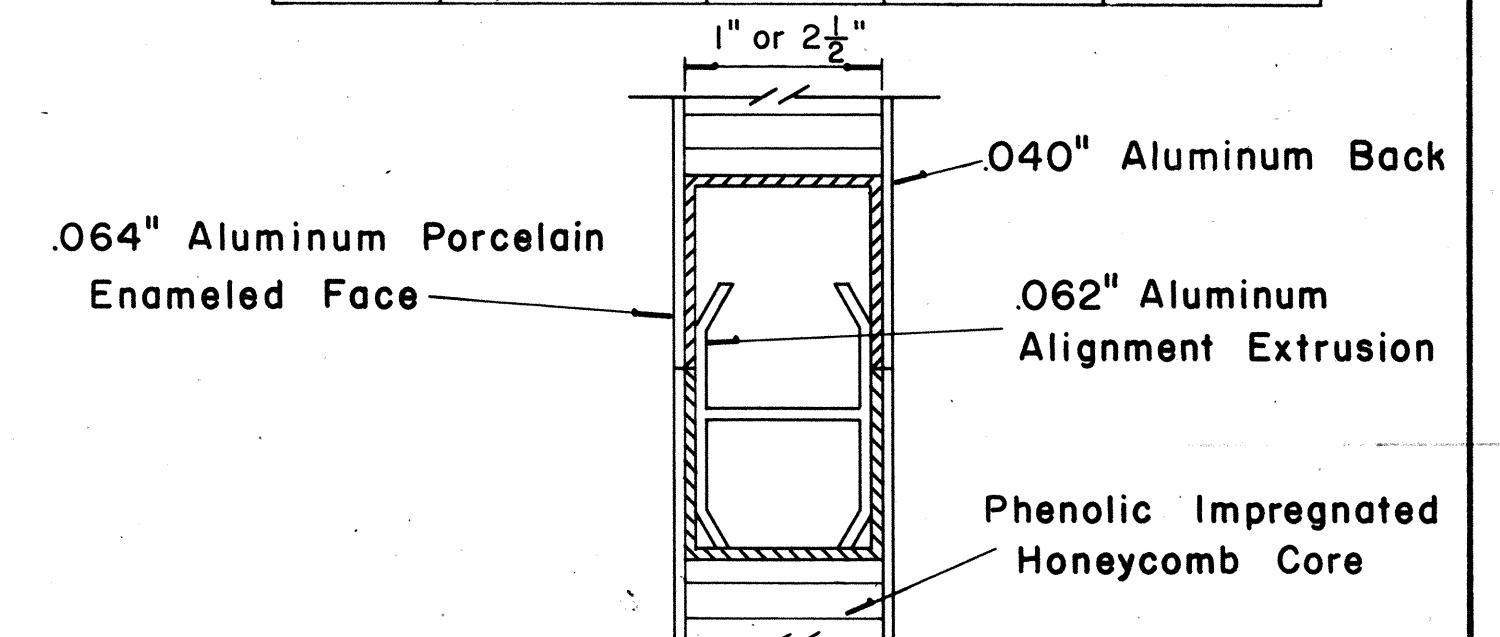
SECTION "B-B"
(Alternate)

Scale: $\frac{1}{2}$ " = 1"



SECTION "A-A"
(Alternate)

Scale: $\frac{1}{2}$ " = 1"



CLOSURE DETAIL
SECTION "C-C"

FULL SCALE

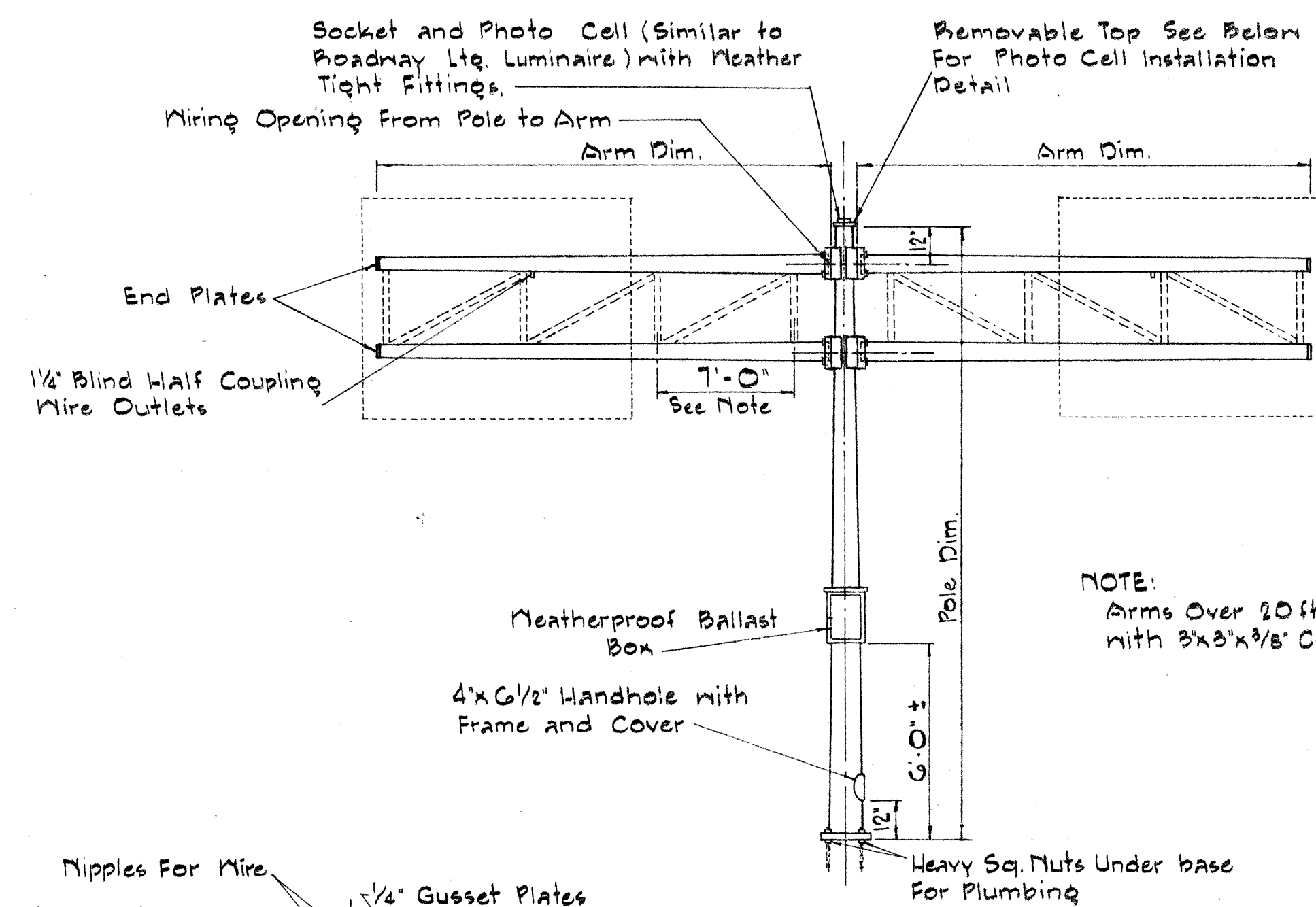
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
LAMINATED ALUMINUM
SIGN PANELS
(GROUND MOUNTED)

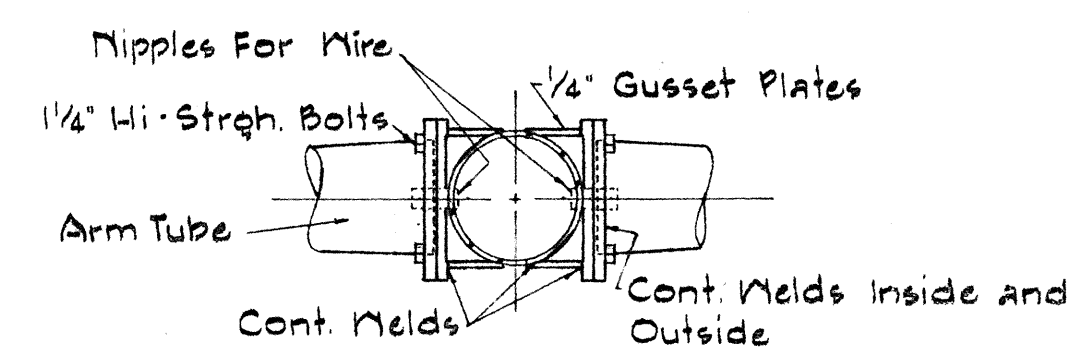
Scale: As Shown

SHEET No. 10 OF 24 SHEETS

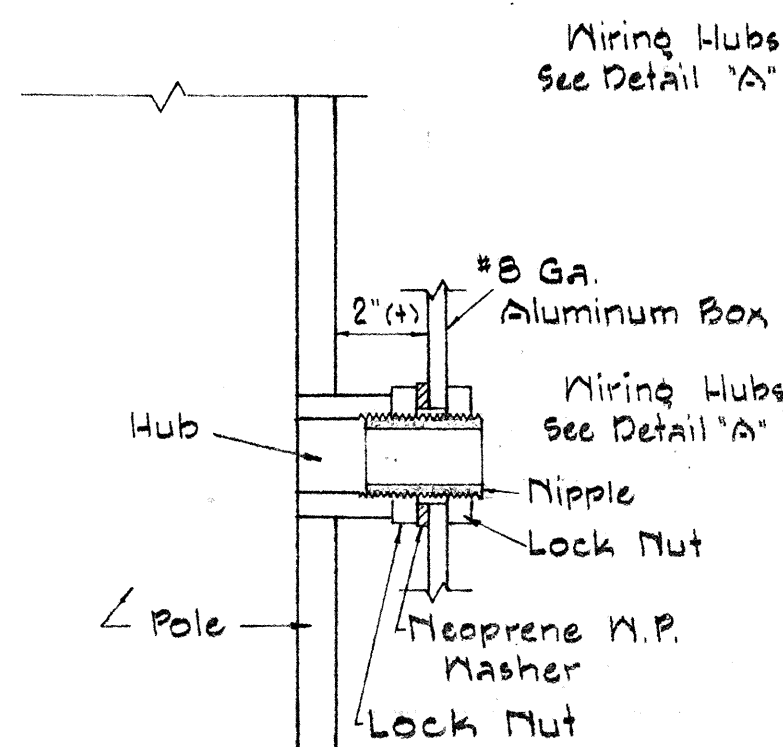
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HA-1(5):24 UNIT 2	1965	117	276



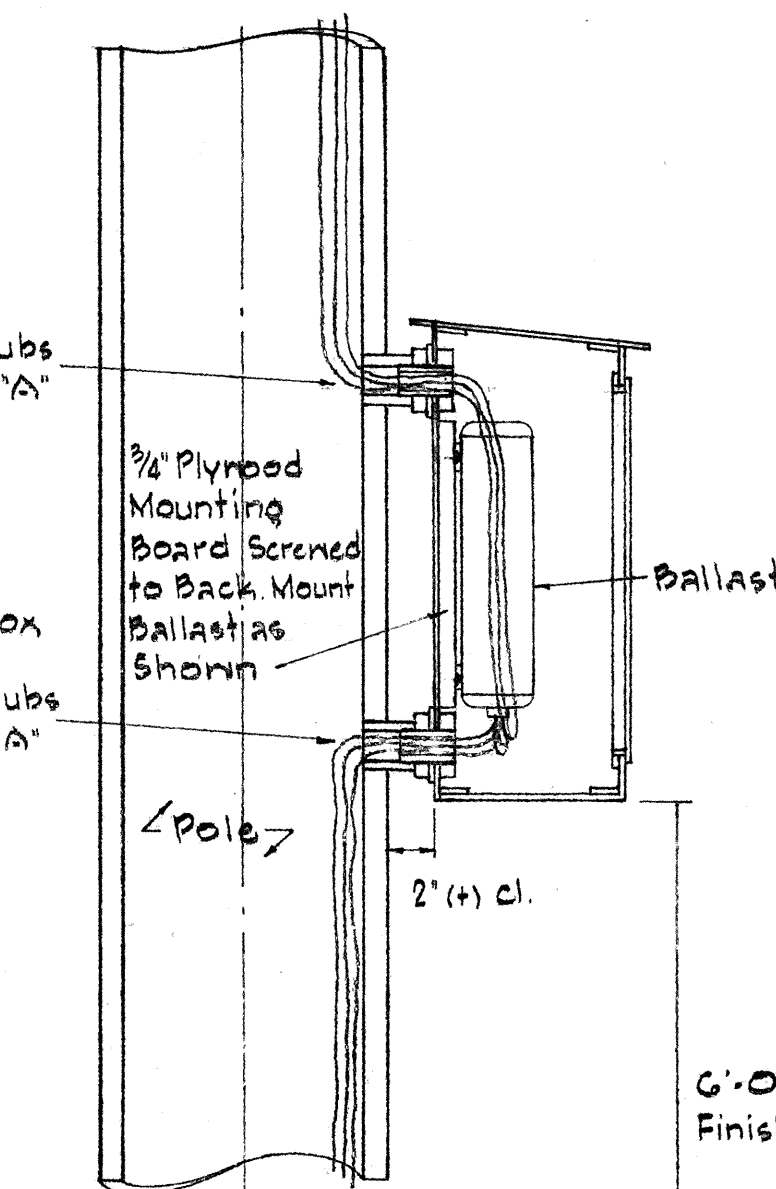
NOTE:
Arms Over 20 ft. To Be Truss Type
with 3"x3"x3/8" Center Angles



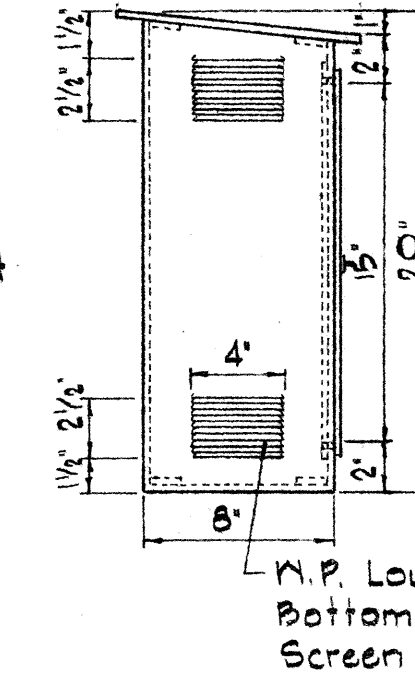
ARM ATTACHMENT



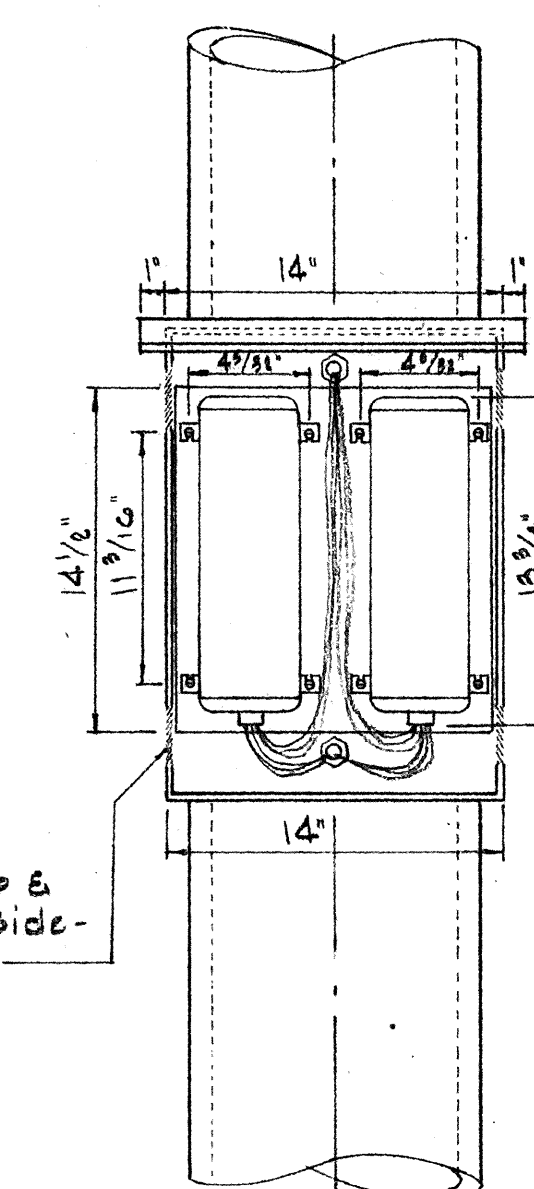
WIRING HUB
DETAIL "A"
not to scale



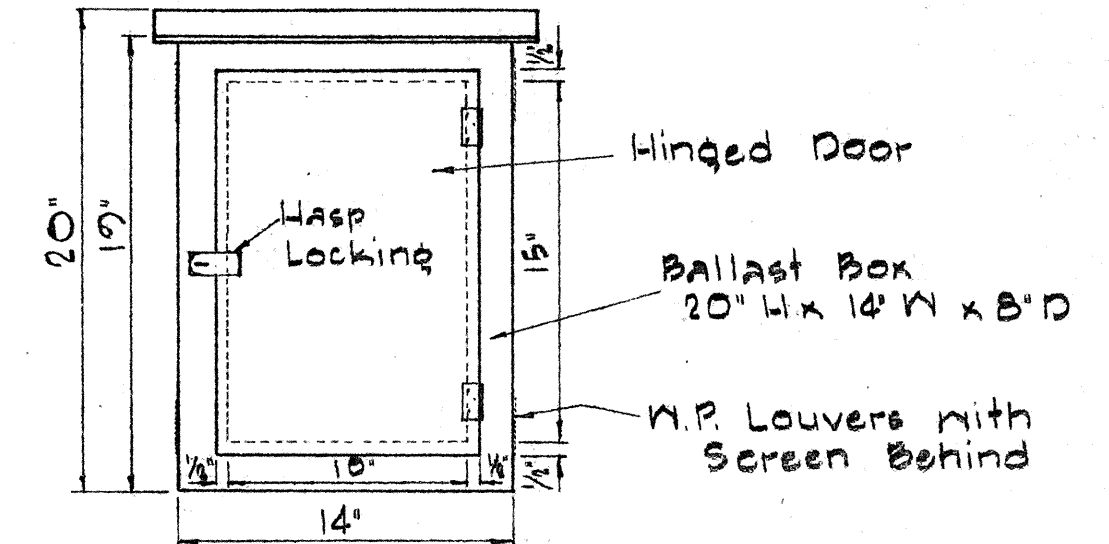
SIDE SECTION
Scale 1 1/2" = 1'-0"



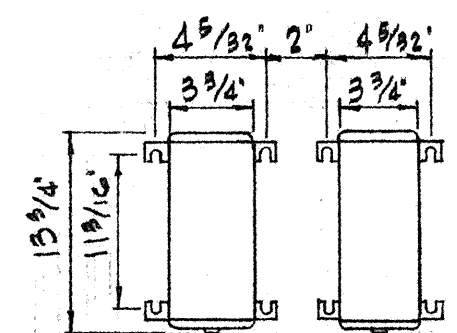
SIDE VIEW
Scale 1 1/2" = 1'-0"



FRONT THRU VIEW
Scale 1 1/2" = 1'-0"

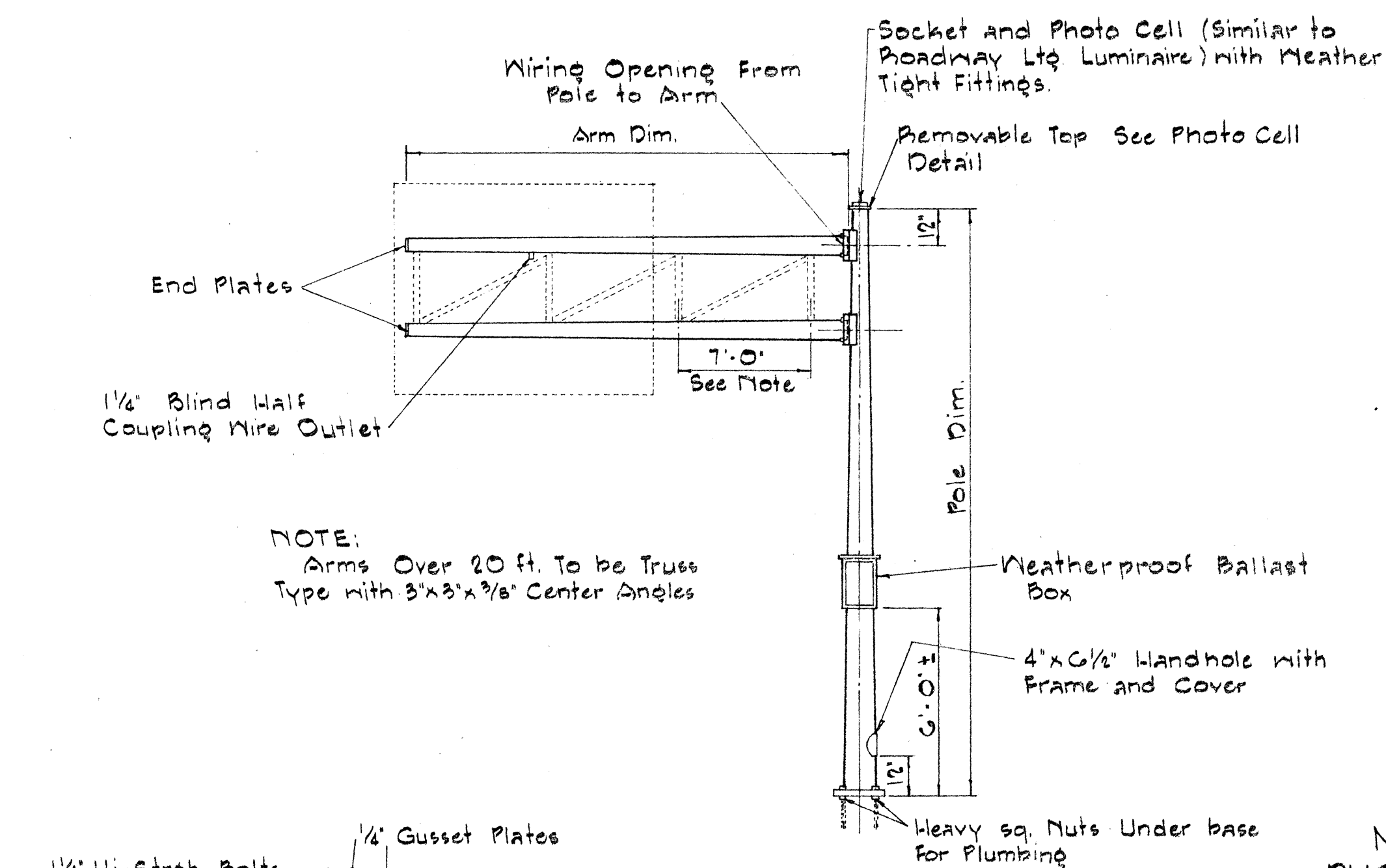


FRONT VIEW
Scale $1\frac{1}{2}" = 1'-0"$

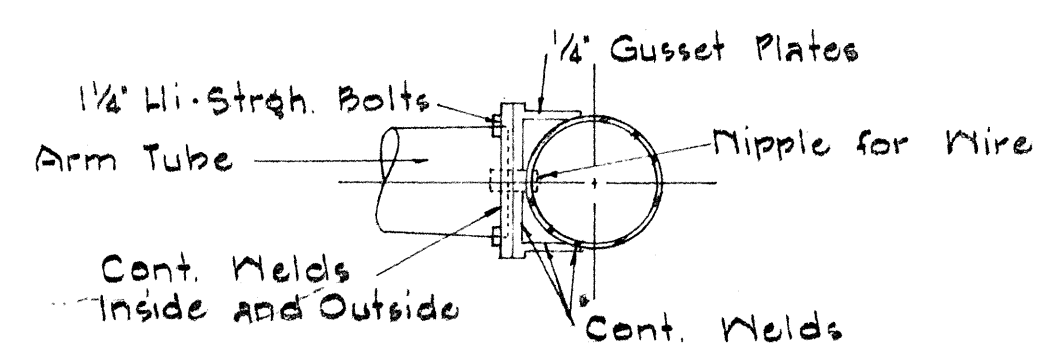


2-BALLAST DIM.

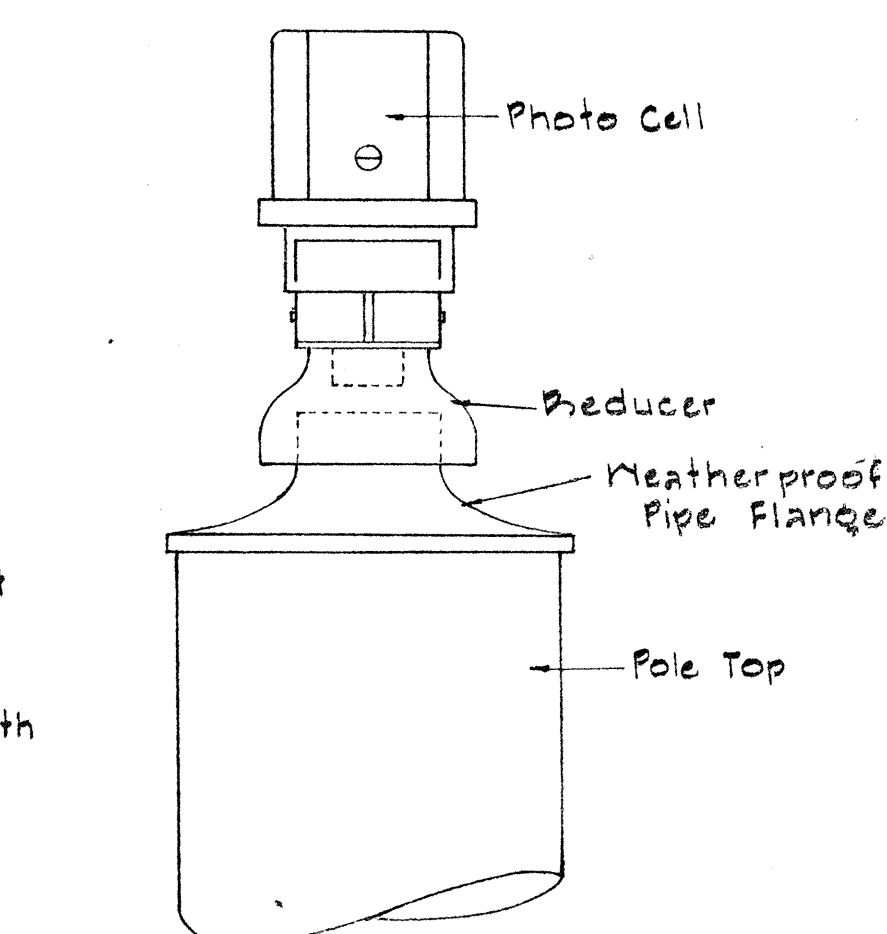
WEATHER PROOF BALLASTS MOUNTING DETAIL



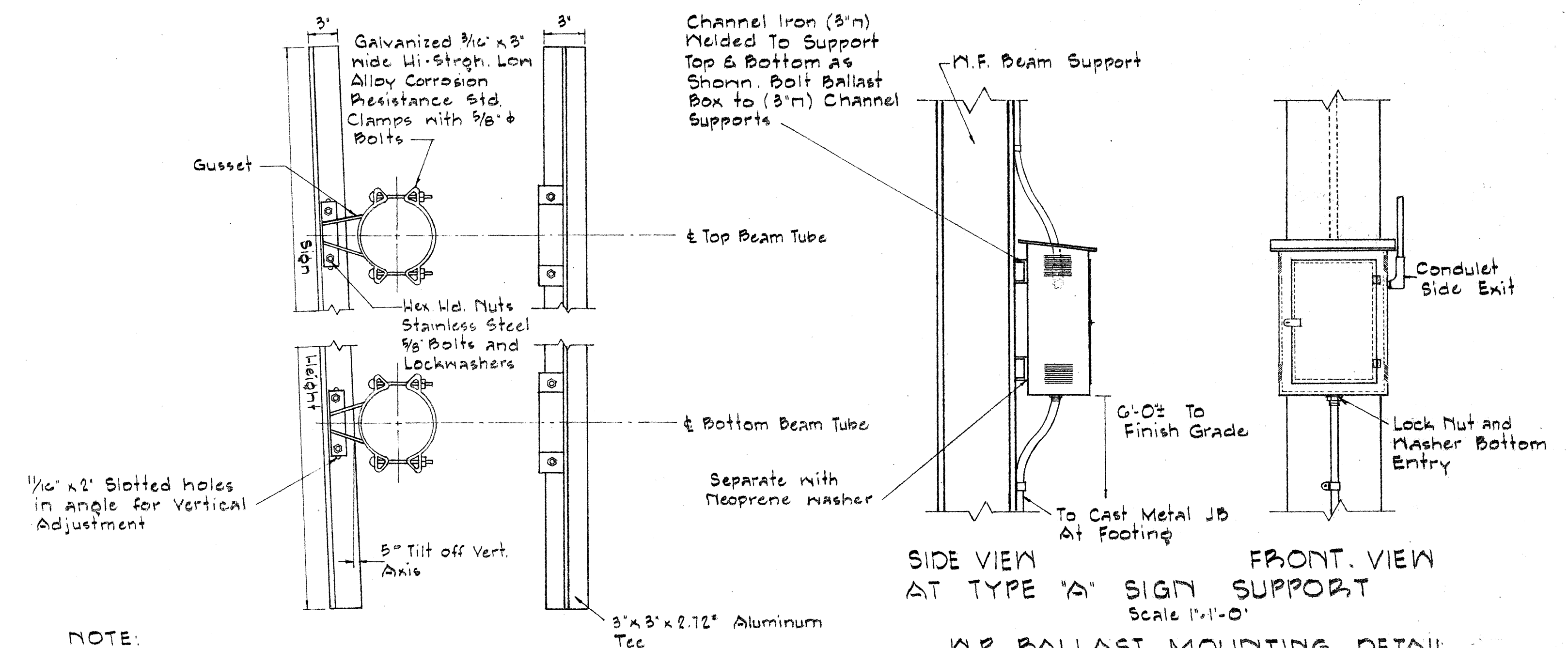
NOTE:
Arms Over 20 ft. To be Truss
Type with 3"x3"x $\frac{3}{8}$ " Center Angles



ARM ATTACHMENT



METAL POLE TOP
PHOTOCELL INSTALLATION
Not to Scale



NOTE:
Minimum of one sign bracket assembly required for each 5 linear ft. of sign width for signs over 7 ft. high. Minimum of one sign bracket assembly for each 7 linear ft. of sign width for signs up to 7 ft. high.

SIGN BRACKET ASSEMBLY

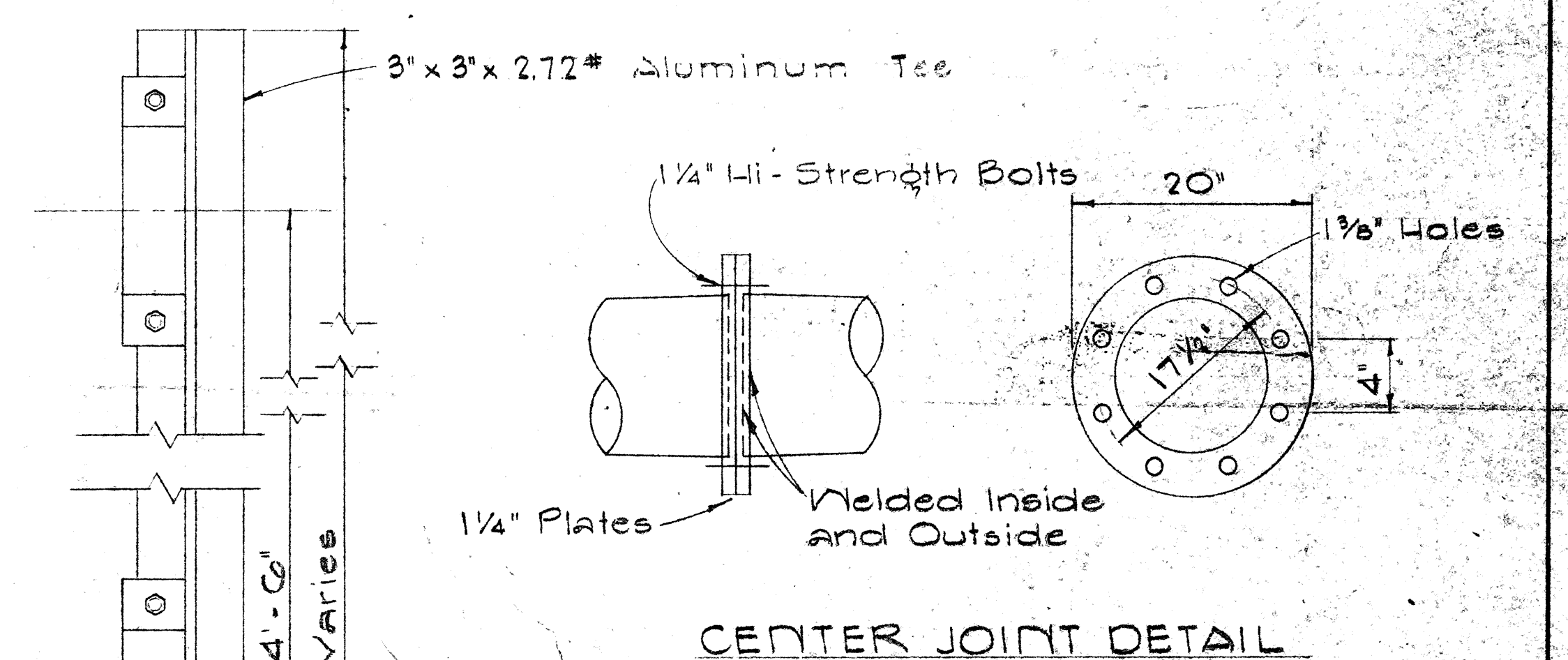
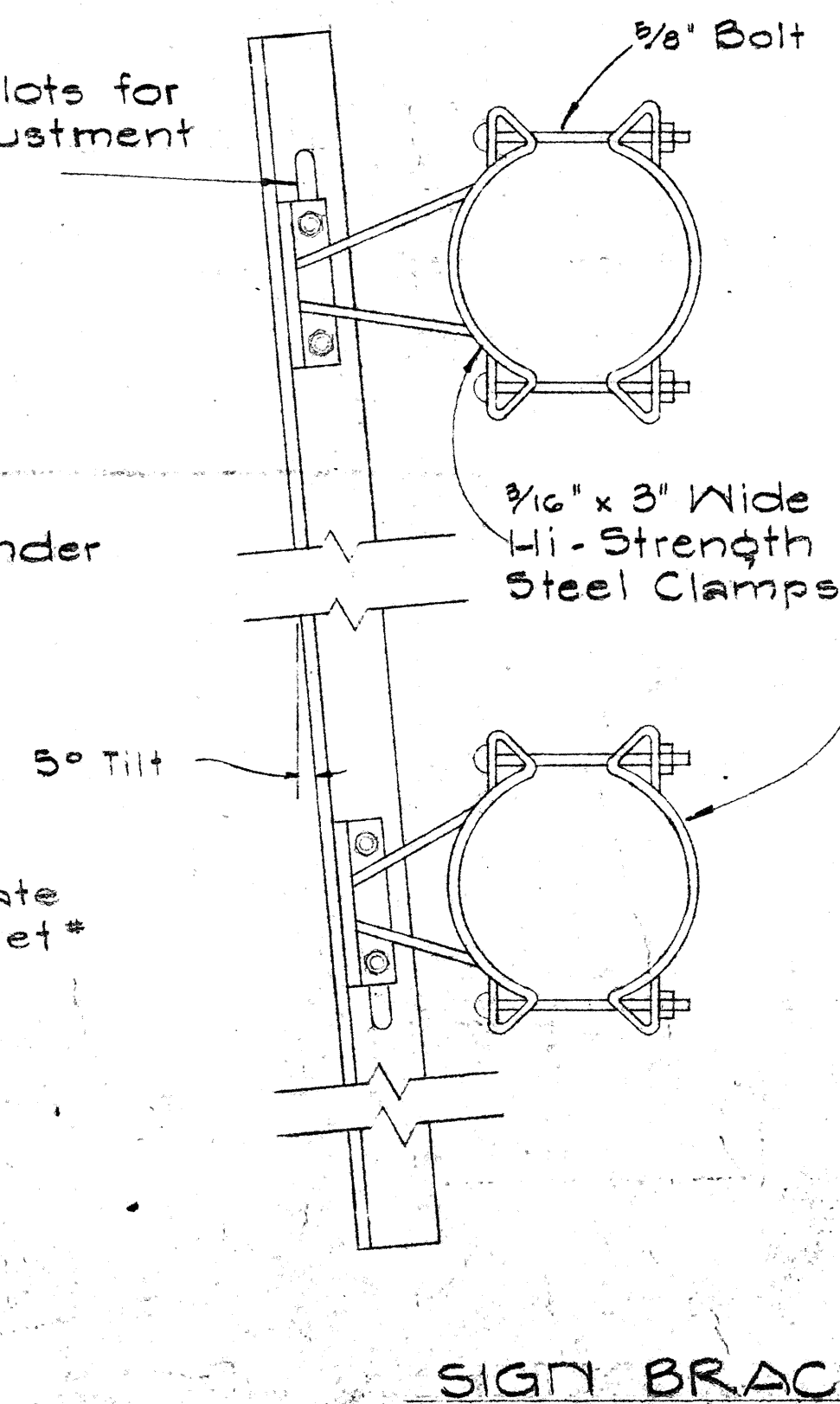
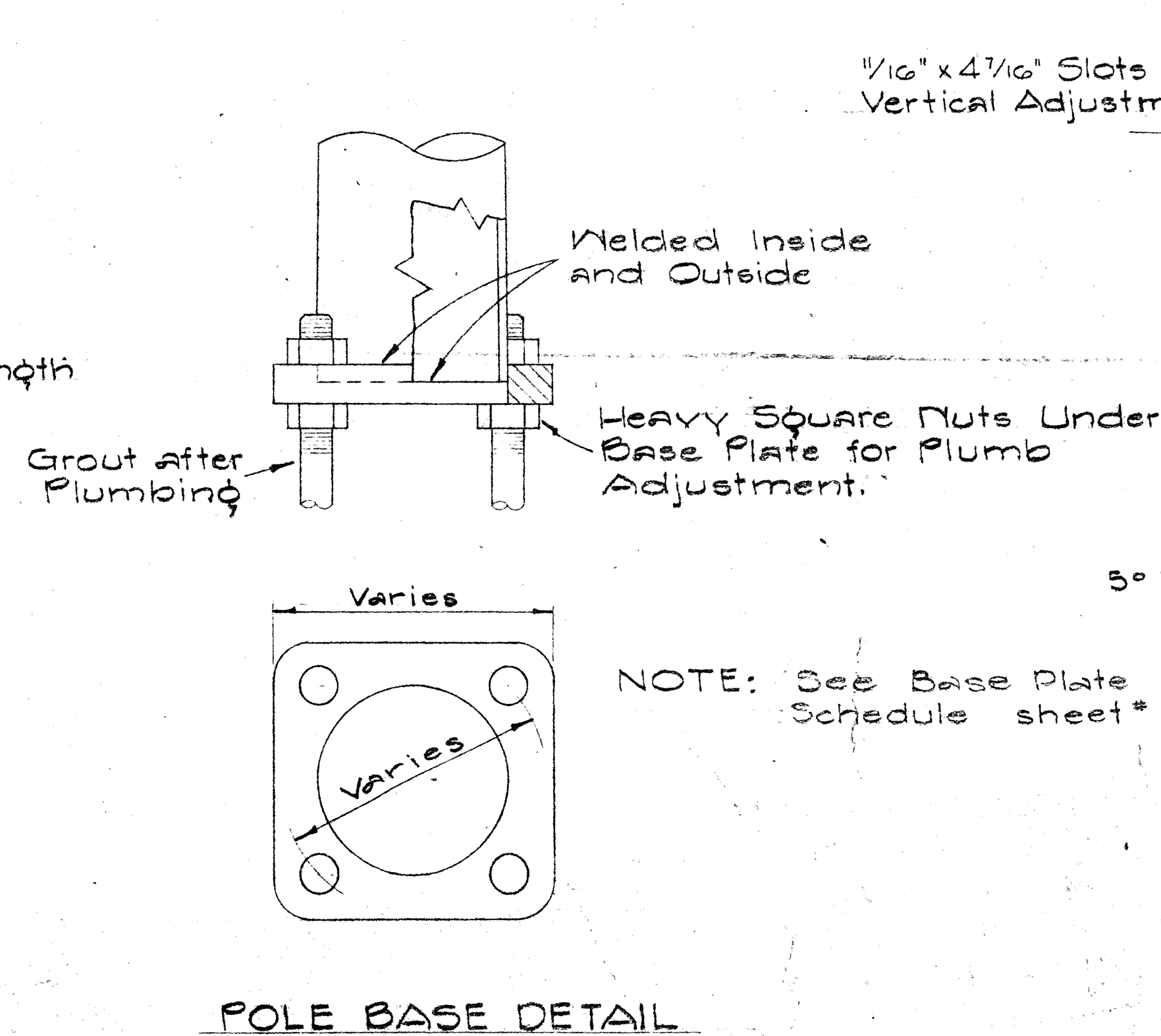
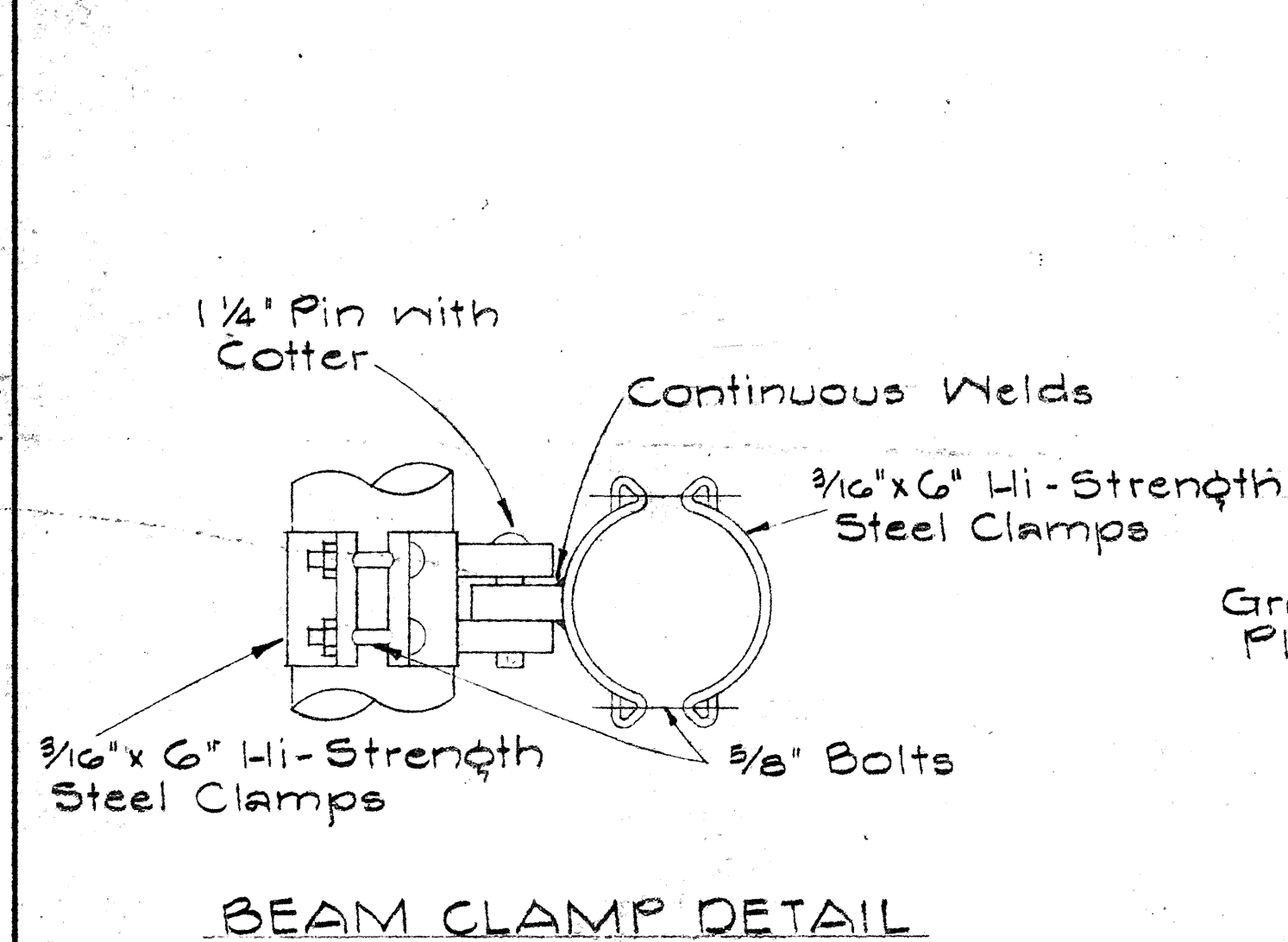
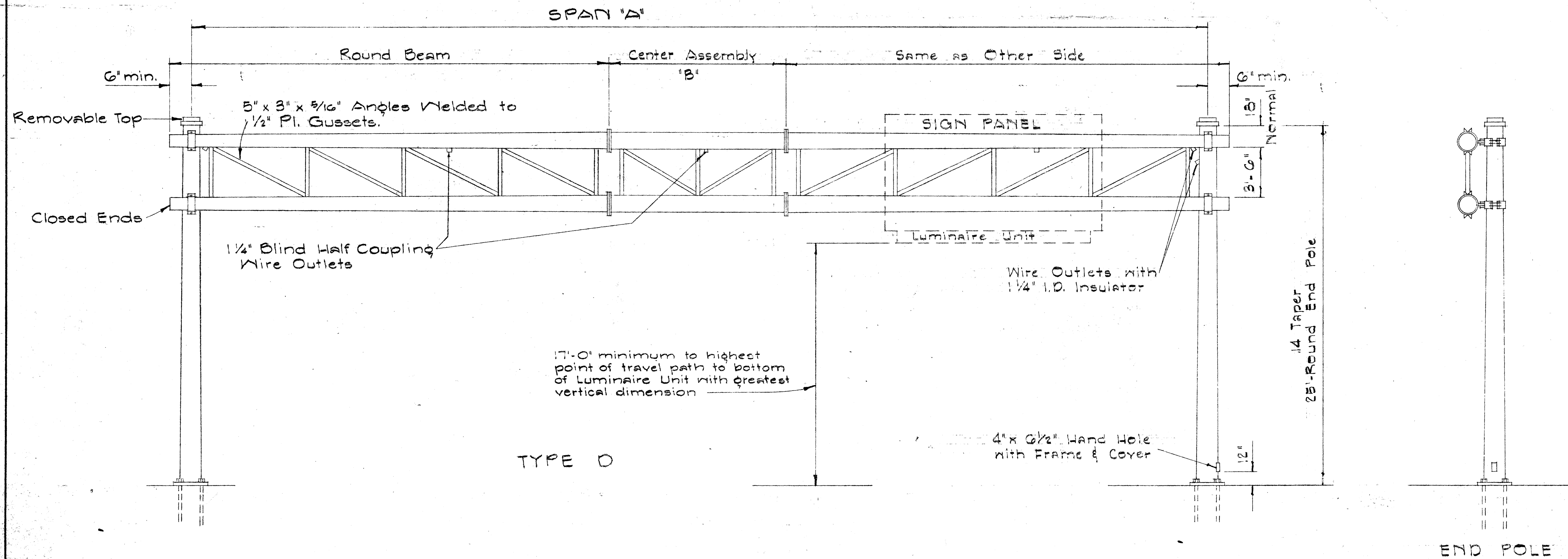
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPE B & C
OVERHEAD SIGN SUPPORT
BALLAST MOUNTING
DETAIL

F.A.I. Proj. No. I-HI-1(5):24, Unit 2

Scale: As Shown Date: May, 1965.

SHEET No. 11 OF 24 SHEETS



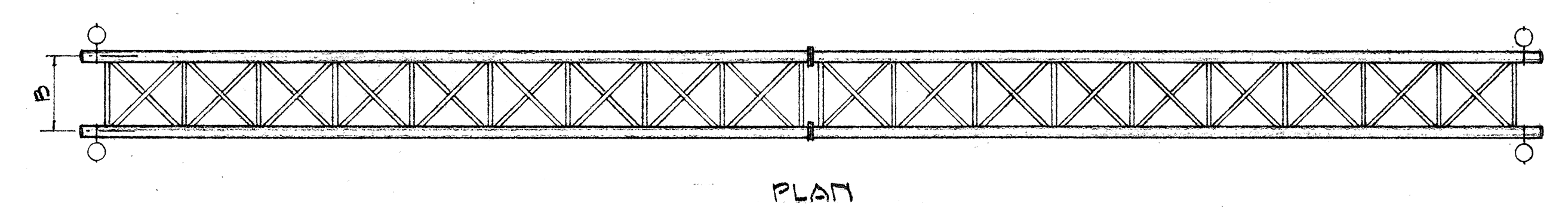
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPE D
OVERHEAD SIGN SUPPORT
TWO-TUBE TRUSS TYPE
STEEL

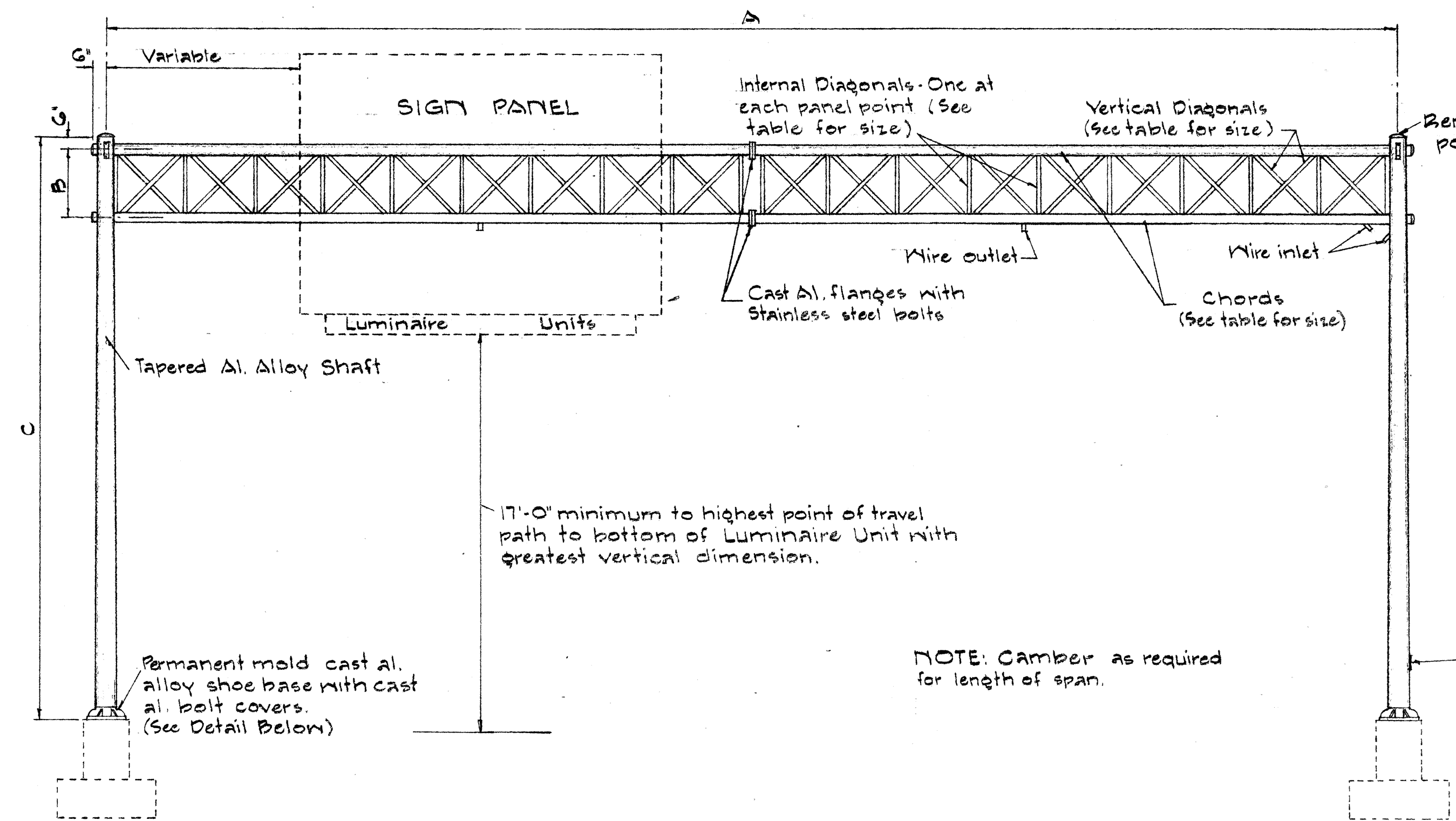
F.A.I. Proj. No. I-HI-1(15)24, Unit 2
Date: May 1965

SHEET No. 12 OF 24 SHEETS

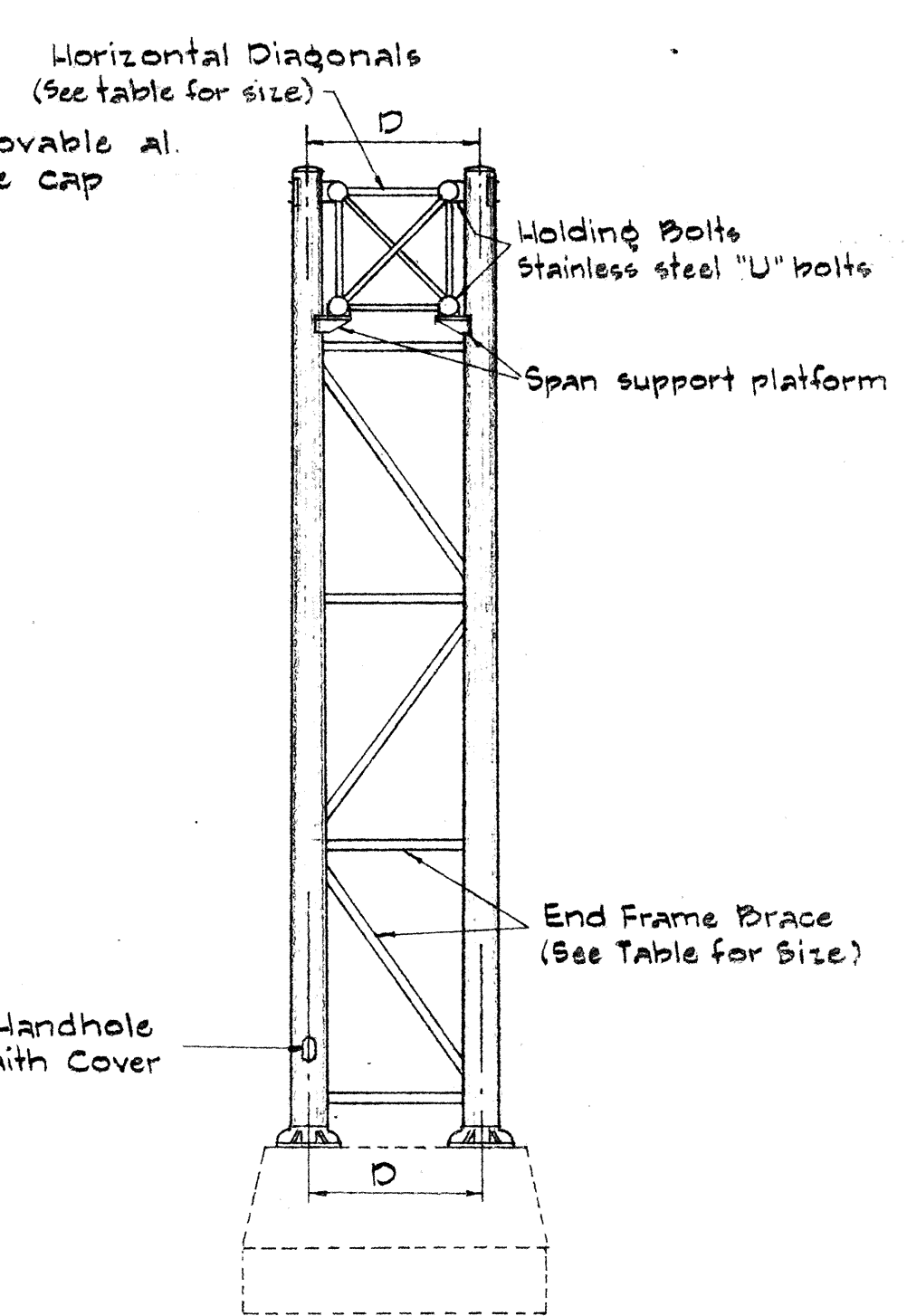
118



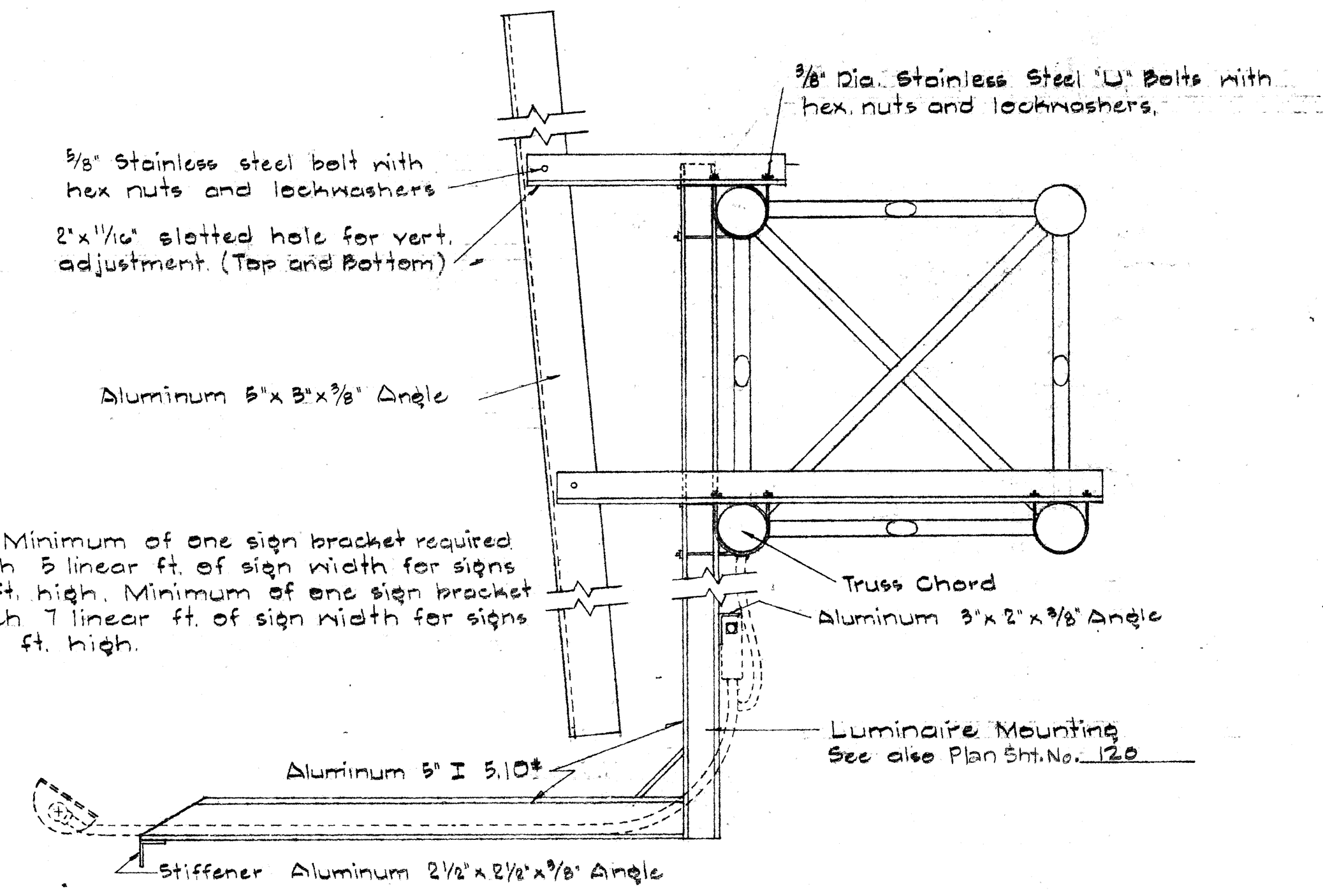
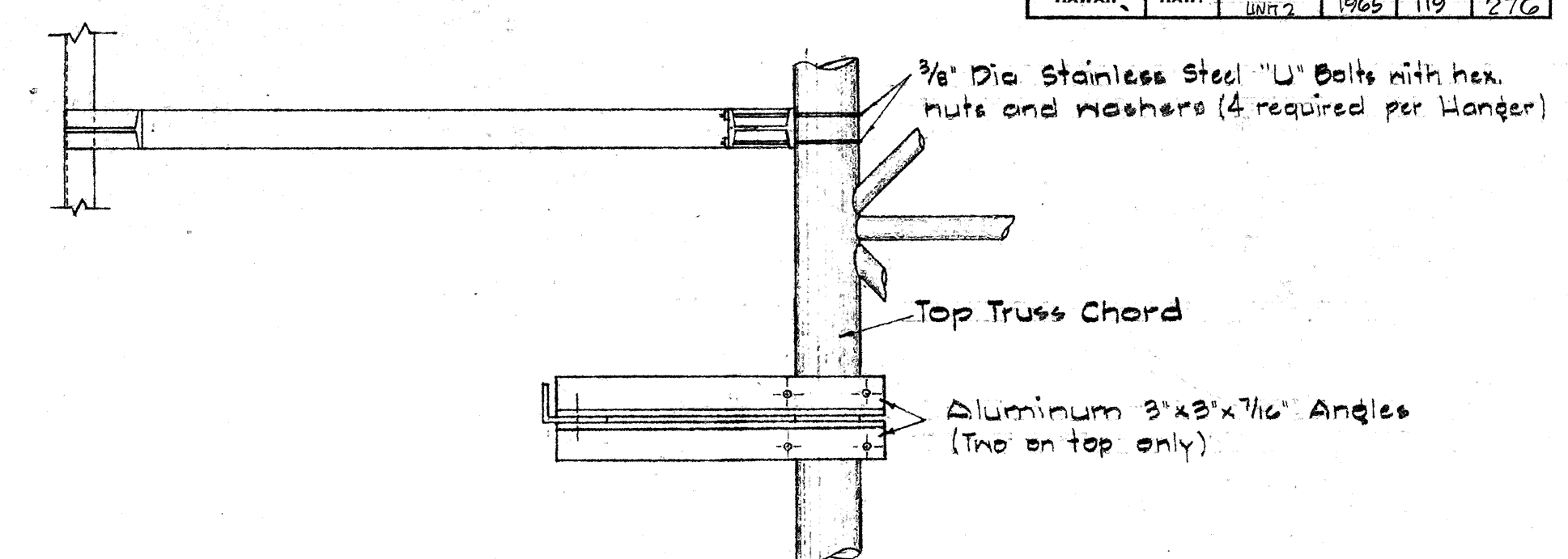
PLAN



ELEVATION
TYPE F



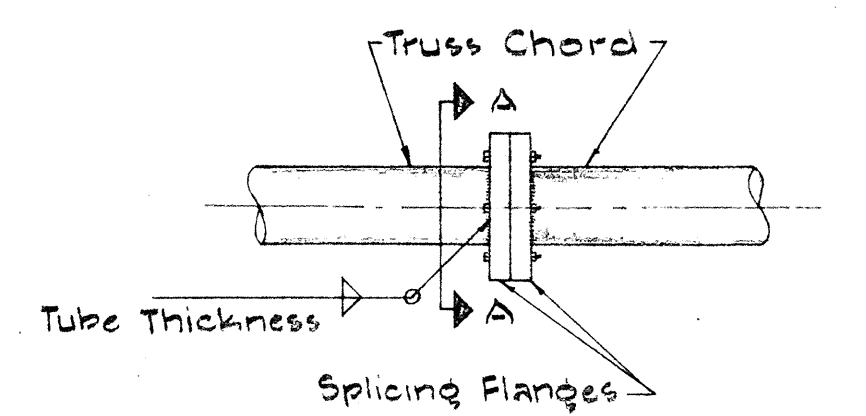
END VIEW



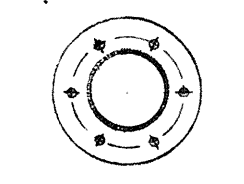
SIGN BRACKET ASSEMBLY

NOTE: Minimum of one sign bracket required for each 5 linear ft. of sign width for signs over 7 ft. high. Minimum of one sign bracket for each 7 linear ft. of sign width for signs up to 7 ft. high.

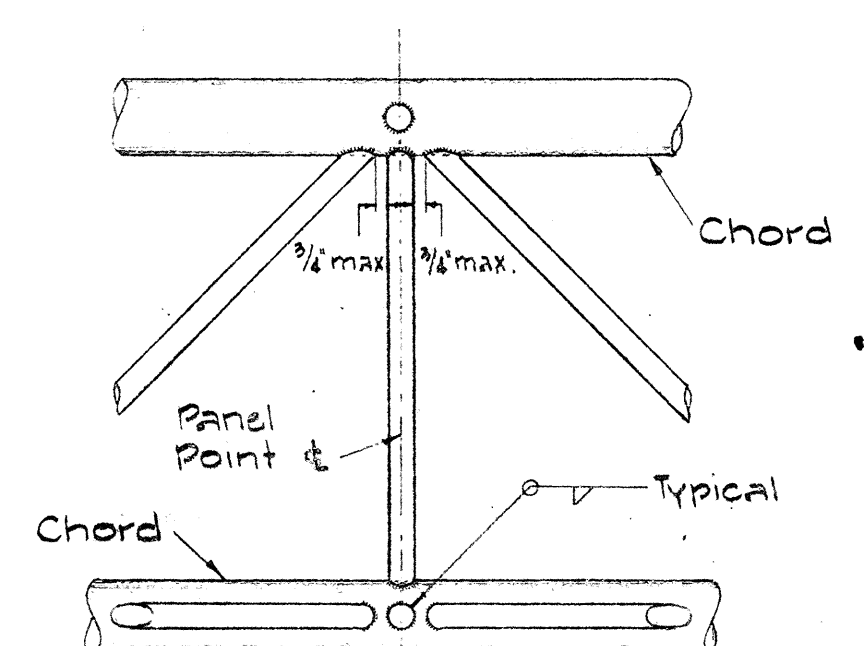
SIGN TYPE	A	B	C	D	E	F	SPAN SECTIONS REQ'D	CHORD SIZE	END FRAME SHAFT SIZE AND TAPER	VERTICAL DIAGONAL SIZE	HORIZONTAL DIAGONAL SIZE	INTERNAL DIAGONAL SIZE	END FRAME BRACE SIZE	BOLT CIRCLE DIA.	ANCHORAGE
I-1	37'-0"	3'-0"	22'-6"	4'-0"	2 3/4"	4 1/4"	2	3 1/2" o.d. .188 wall	8x6"x.250 wall	1.660" o.d. .140 wall	1.660" o.d. .140 wall	1.660" o.d. .140 wall	2" o.d. .188 wall	12"	1" dia. x 36" lq.
E-5	30'-0"	3'-0"	21'-6"	4'-0"	3 1/4"	5 1/4"	2	4 3/4" o.d. .188 wall	10"x8"x.188 wall	1.660" o.d. .140 wall	1.660" o.d. .140 wall	1.660" o.d. .140 wall	2 1/2" o.d. .188 wall	16"	1 1/2" dia. x 48" lq.



DETAIL AT CHORD SPLICES

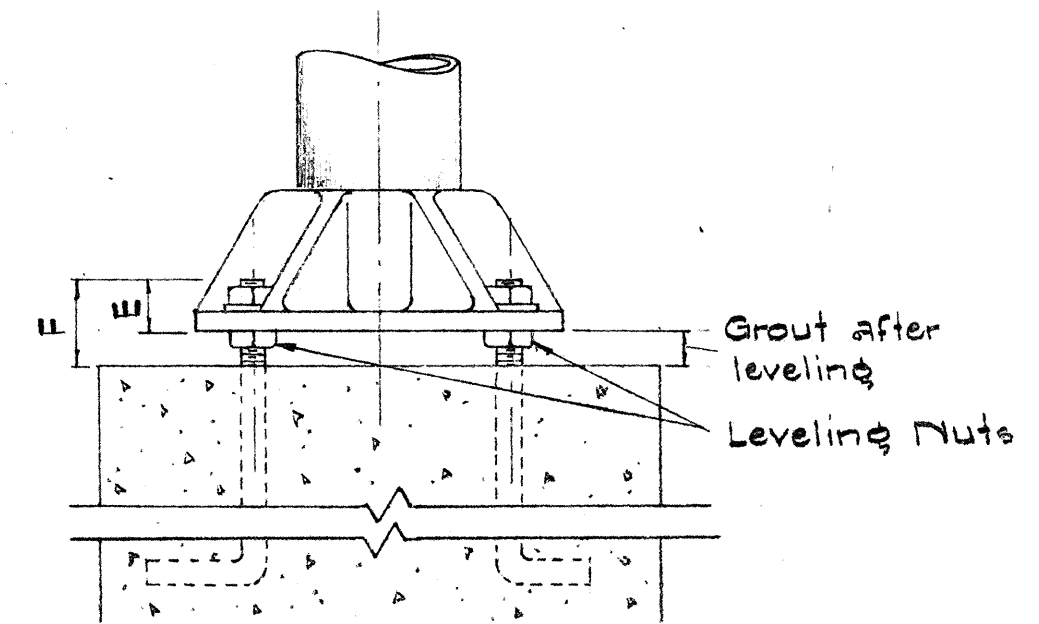


SECTION A-A
Typical at Splices



TYPICAL JOINT DETAIL

NOTE: Fillet weld size to be tube thickness plus 1/16"



DETAIL OF BASE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

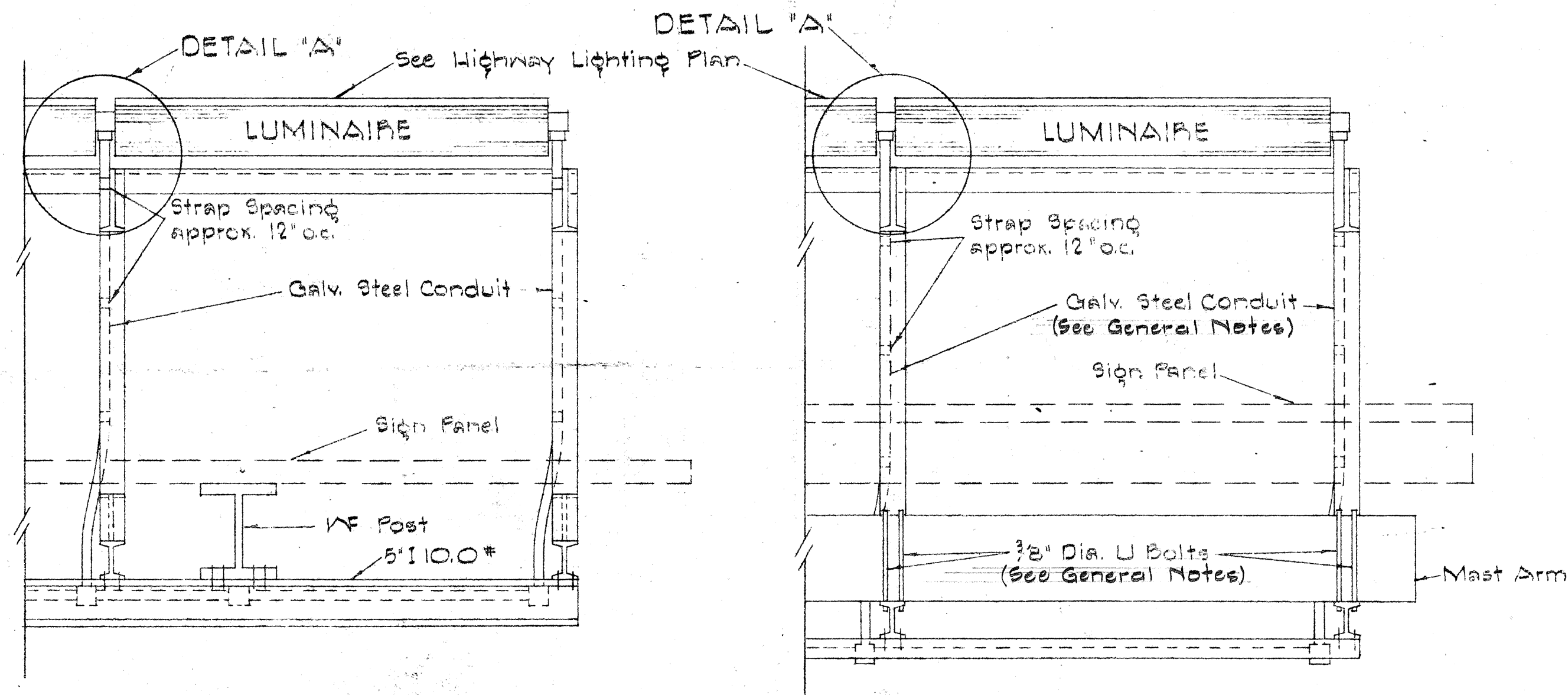
TYPE - F
OVERHEAD SIGN SUPPORT
BOX TRUSS TYPE ALUMINUM

F.A.I. Proj. No. I-HI-1(5)24 Unit 2

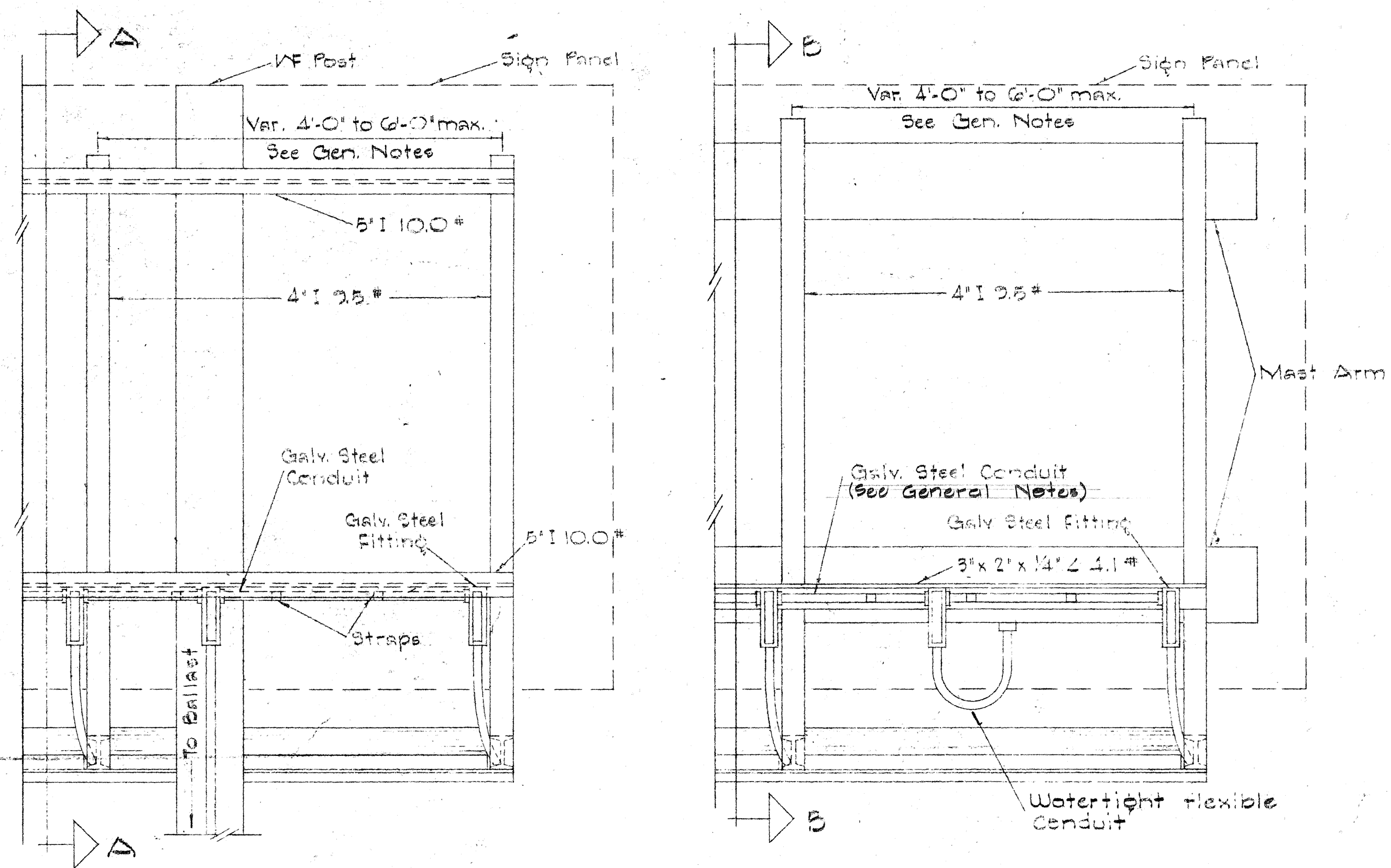
Date: May, 1965

SHEET No. 13 OF 24 SHEETS

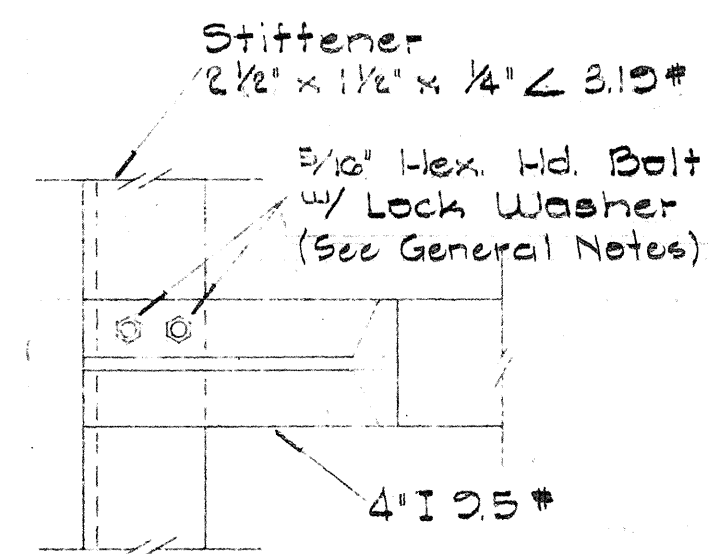
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	SH-1(5)24 UNIT 2	1965	120	276



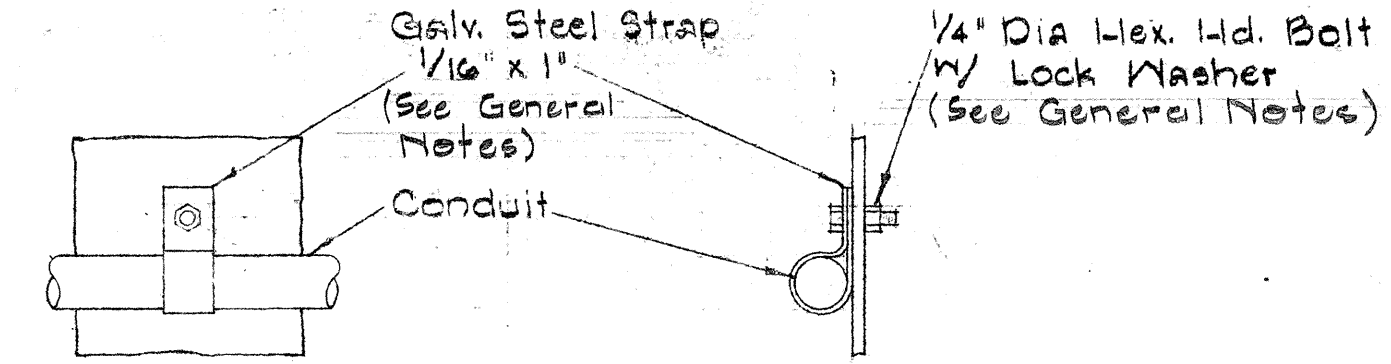
GROUND MOUNTED OVERHEAD
TOP VIEW
LUMINAIRE MOUNTING
Scale: 1" = 1'-0"



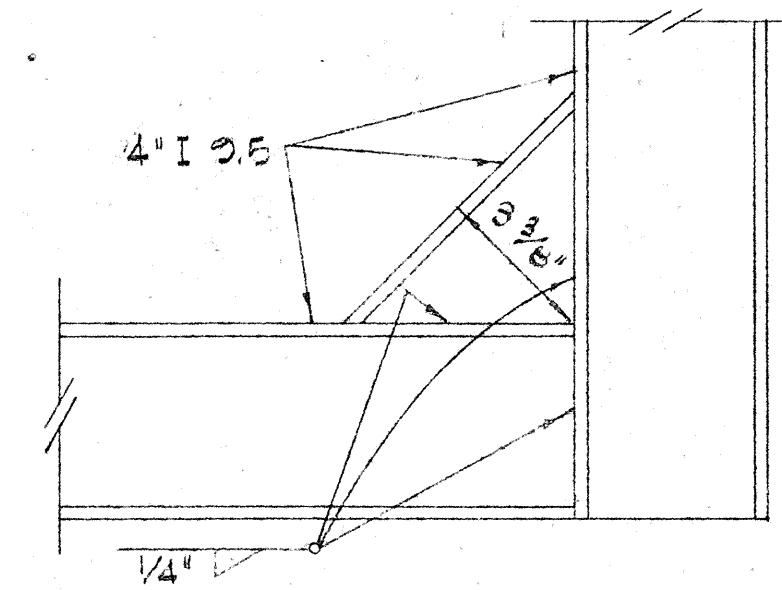
GROUND MOUNTED OVERHEAD
REAR VIEW
LUMINAIRE MOUNTING
Scale: 1" = 1'-0"



DETAIL 'A'
Scale: 3" = 1'-0"



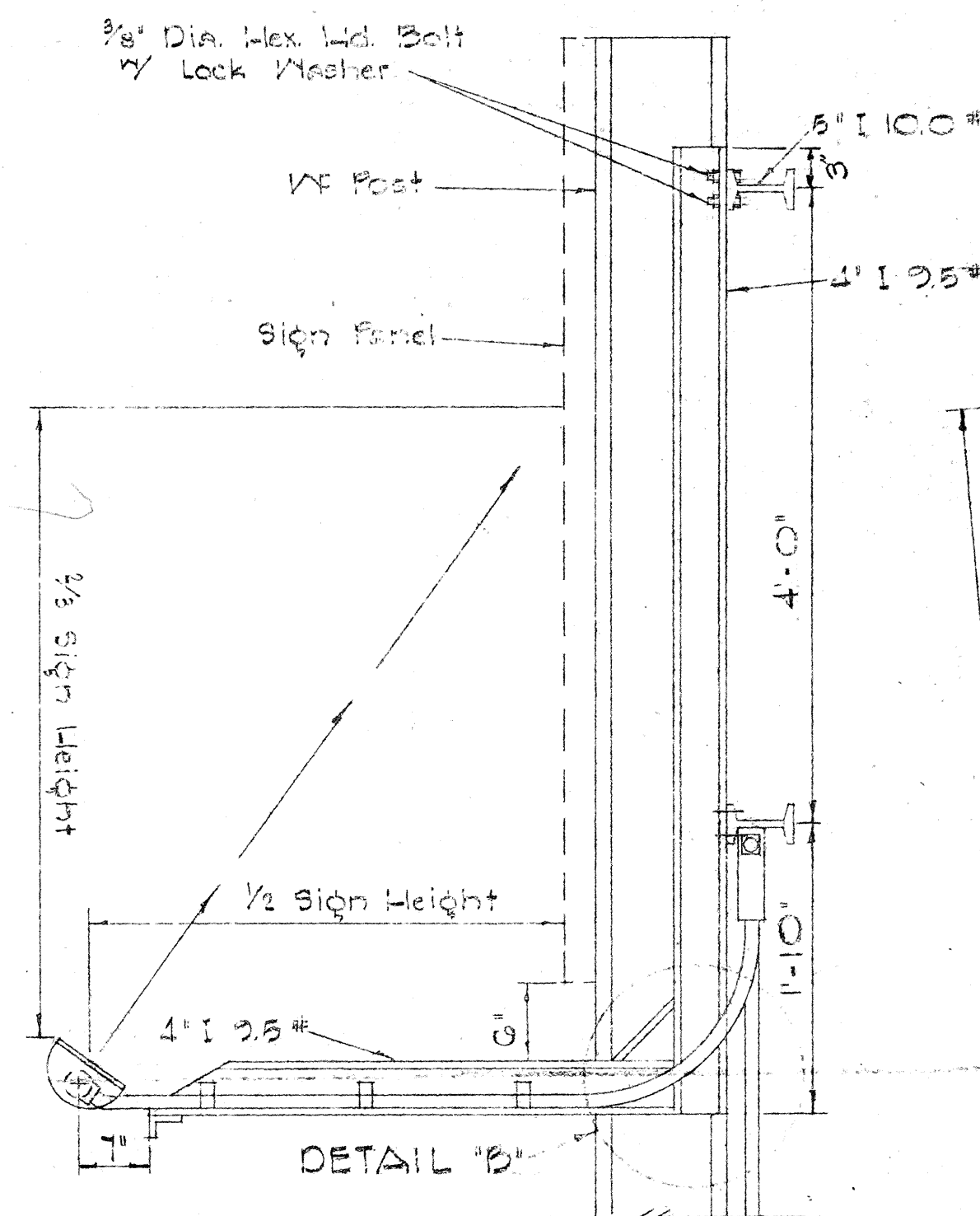
CONDUIT STRAP DETAIL
Scale: 3" = 1'-0"



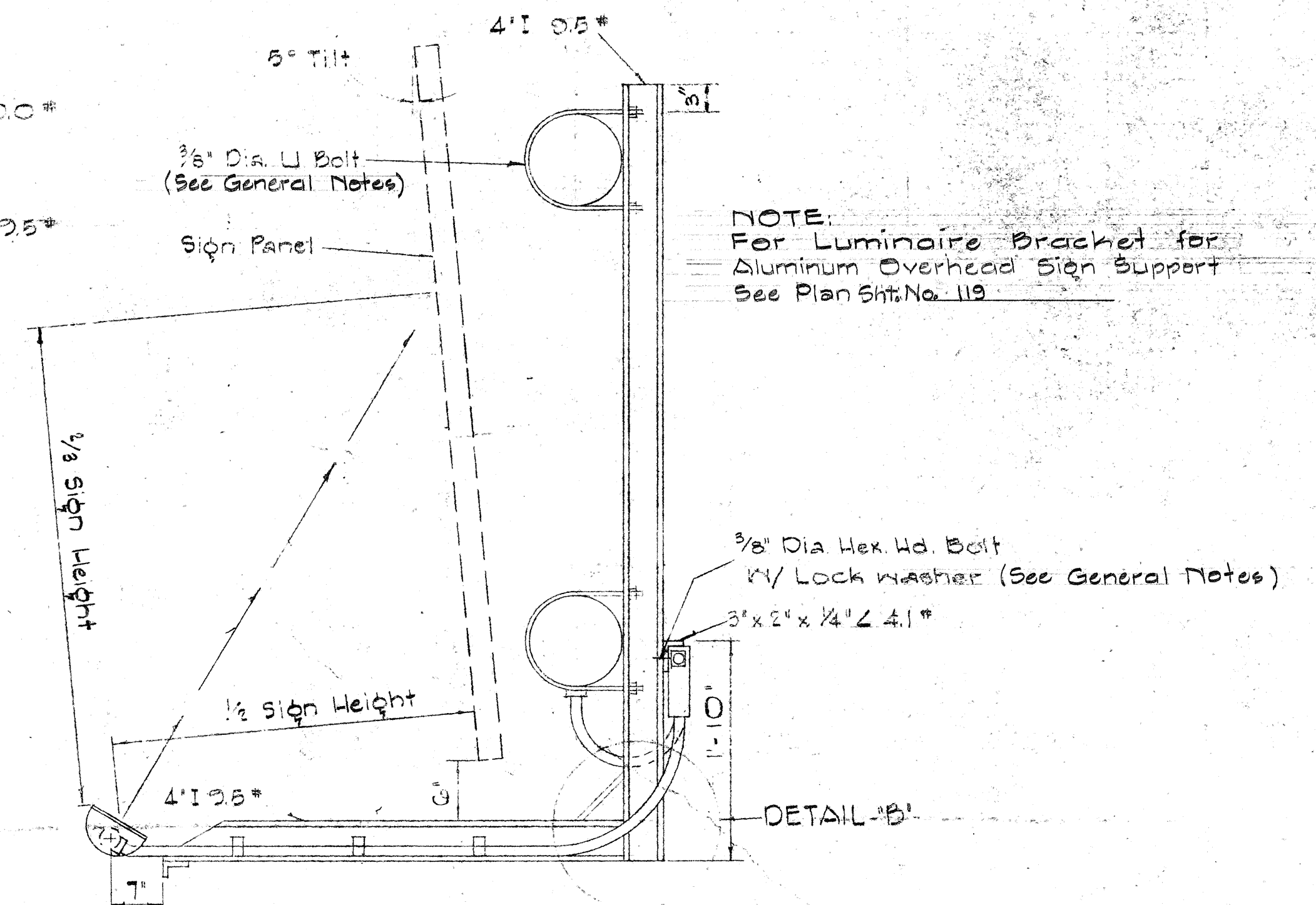
DETAIL 'B'
Scale: 3" = 1'-0"

GENERAL NOTES

- Conduit sizes: 3/4" diameter for one or two Luminaire Units, 1" diameter for three or more luminaire Units.
- Fluorescent Fixtures shall be installed as recommended by the manufacturer.
- Luminaire brackets shall be spaced 4'-0" to 6'-0" maximum. 8' long luminaires shall have an additional bracket at midpoint.
- All parts of the bracket shall be hot-dip galvanized, prime coated with a suitable primer and painted with three coats of dark green enamel.
- Luminaire brackets for Aluminum Overhead Sign Supports shall use stainless steel bolts, washers, nuts, etc.
- The stiffener angle at the ends of the luminaire brackets shall be of a length adequate to accommodate the luminaire and luminaire couplings.



SECTION 'A-A'
Scale: 1" = 1'-0"



SECTION 'B-B'
Scale: 1" = 1'-0"

NOTE:
For Luminaire Bracket for
Aluminum Overhead Sign Support
See Plan Sheet No. 119.

REVISED: Nov. 23, 1964

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

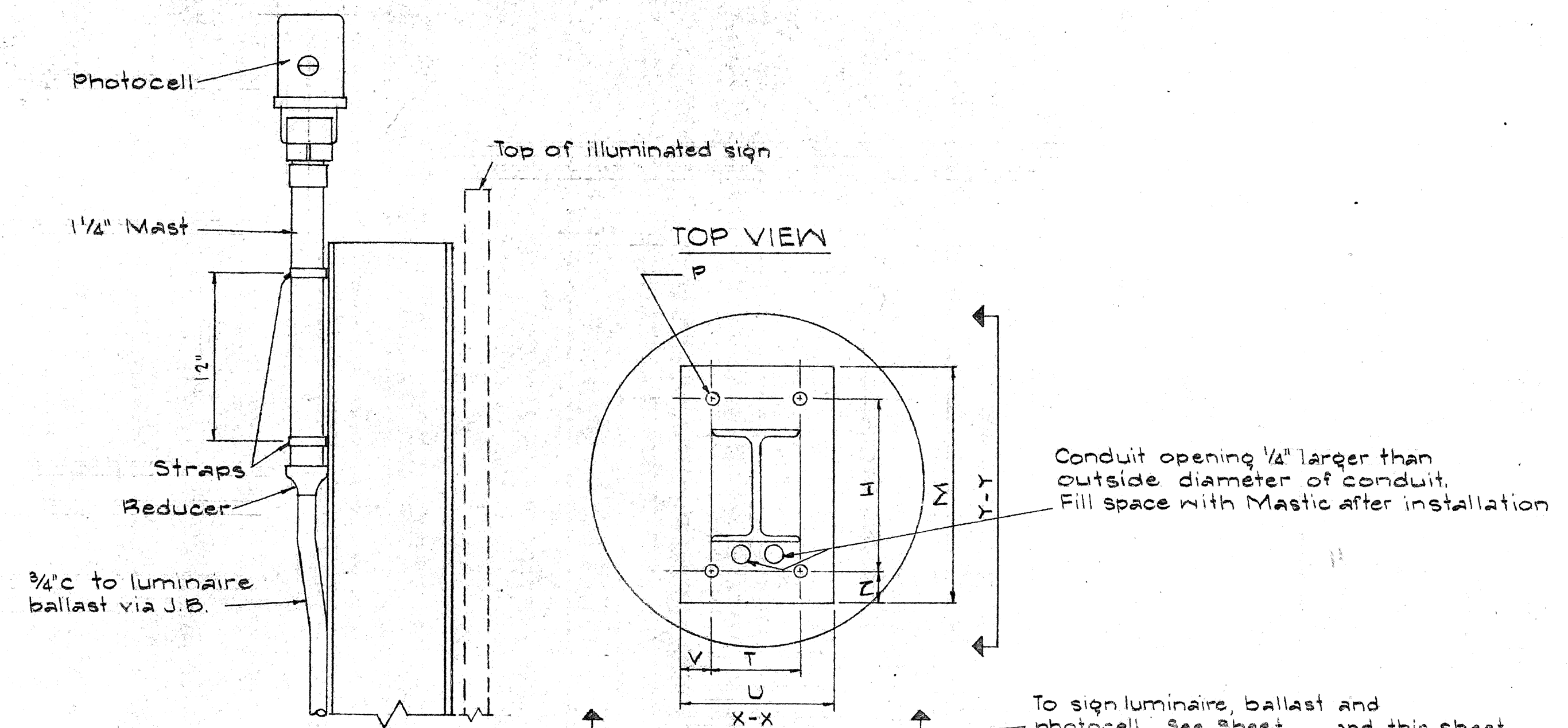
EXPRESSWAY SIGNS

LUMINAIRE MOUNTINGS

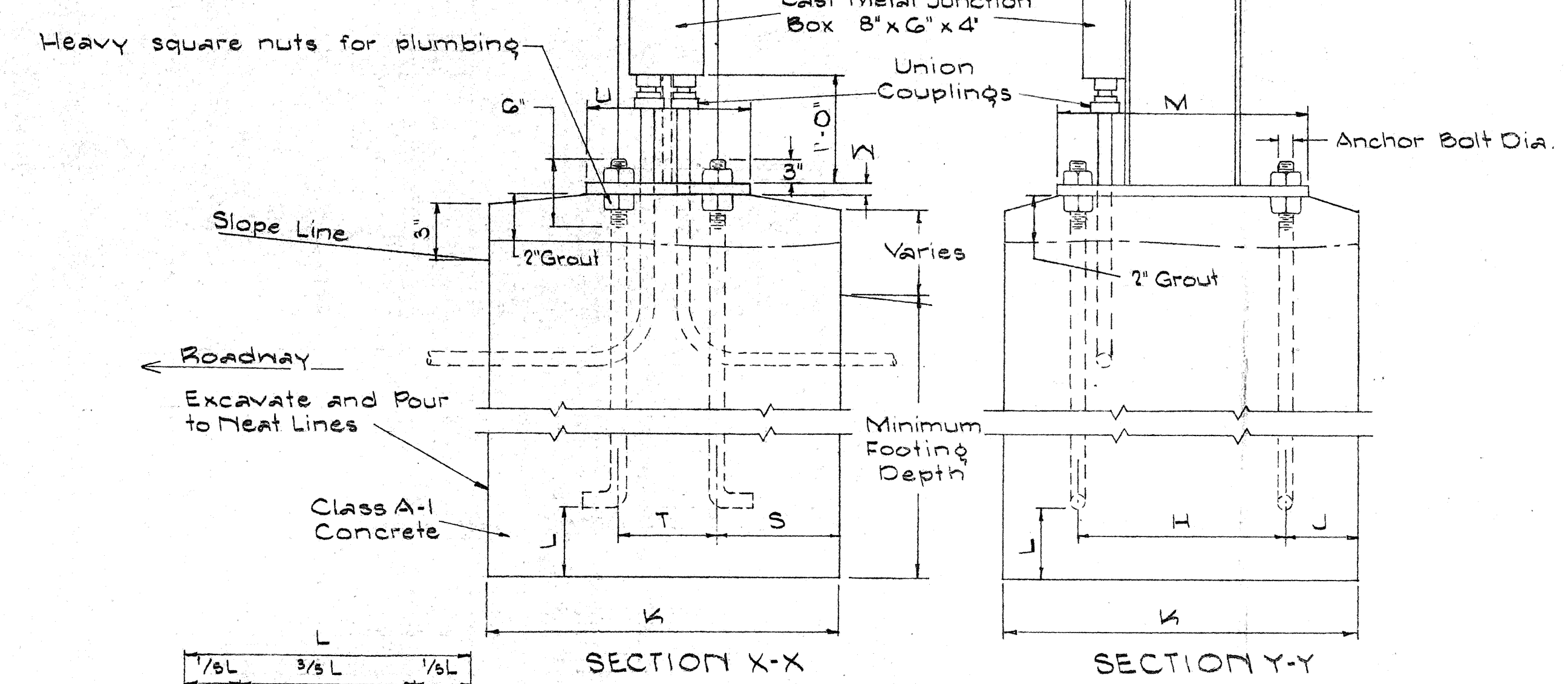
F.A.I. Proj. No. I-H-1(5)24 Unit 2

Scale: As Shown Date: May, 1965

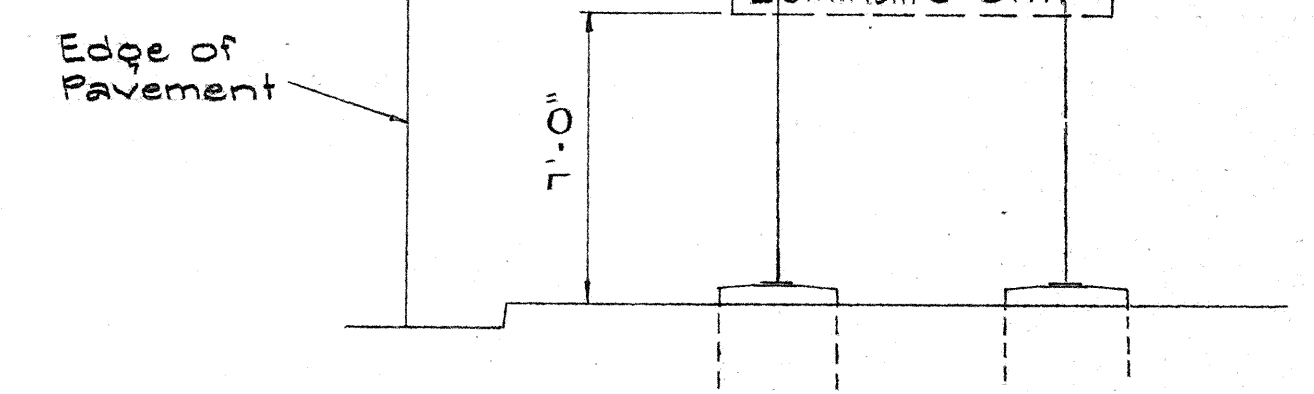
SHEET No. 14 OF 24 SHEETS



PHOTOCELL INSTALLATION ON I-BEAM POST



FOUNDATION DETAILS FOR GROUND MOUNTED EXPRESSWAY SIGN EXTRUDED ALUMINUM TYPE VI FOOTING

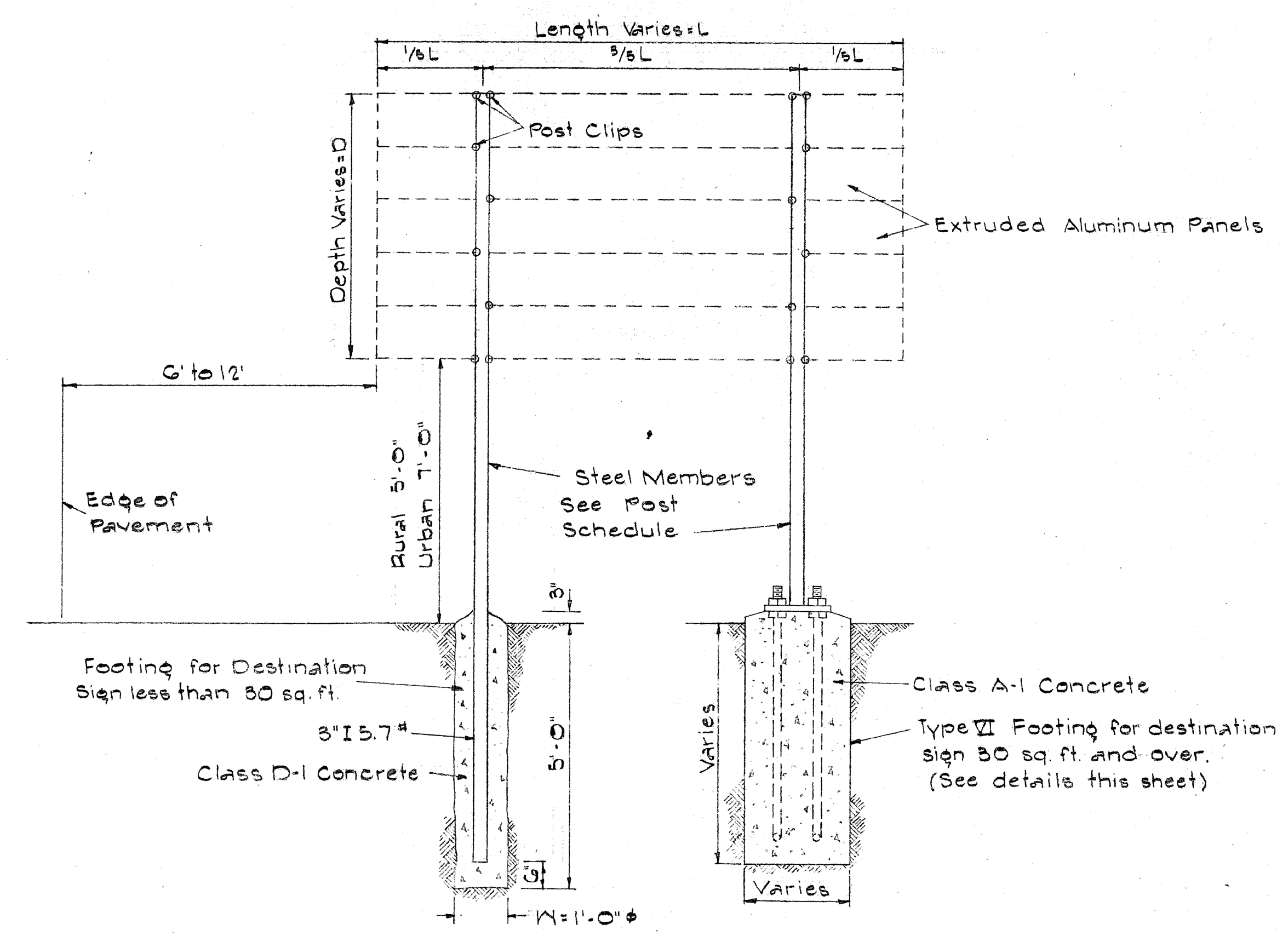


TYPICAL GROUND MOUNTED EXPRESSWAY SIGN TYPE A

NOTE: Conduit and ballast details are shown only for ground mounted illuminated Expressway signs.

SUPPORT STRUCTURE DATA FOR GROUND MOUNTED SIGNS																				
POST SIZE	MAXIMUM SIGN AREA	POST HGT. TOP OF FOUND. TO CENTER OF SIGN *	DIMENSIONS SEC. Y-Y							DIMENSIONS SEC. X-X							ANCHOR BOLT DIA.	MIN. FOOTING DEPTH (FEET)		TYPE OF WELD TO BASE PLATE
			H	J	K	L	M	N	O	P	Q	R	S	T	U	V		W	CUT	
BJ 10	50 sq.ft.	14'	14"	5"	24"	6"	17 1/4"	1 5/8"	1 1/4"	24"	1 1/4"	9"	6"	10"	2"	1"	1 1/8" d	5	5	3/8" 
BK 17	70 sq.ft.	18'																		
BL 24	110 sq.ft.	17'																		
BM 35	140 sq.ft.	20'																6	7	

NOTE: For signs with panel areas of less than 50 sq. ft. but greater than 16 sq. ft. use 3" I 5.7# steel I beam.
* For moment calculations only. Post to be from top of foundation to top of sign



TYPICAL DESTINATION SIGN PANEL & POST

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DESTINATION & EXPRESSWAY SIGNS

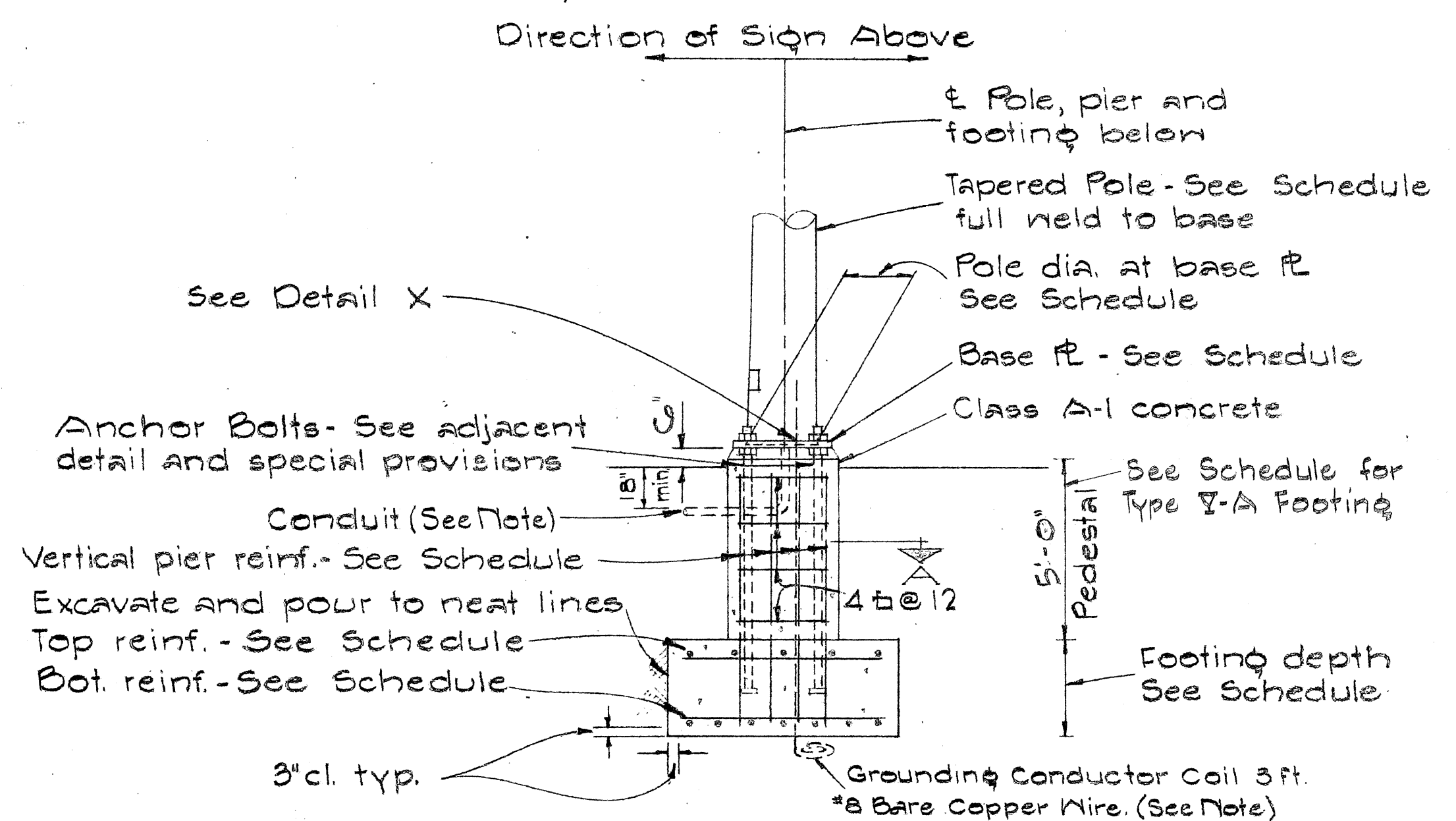
DETAILS & SCHEDULES
TYPE A SIGN SUPPORT
TYPE VI FOOTING

F.A.I. Proj. No. I-HI-1(5):24 Unit 2

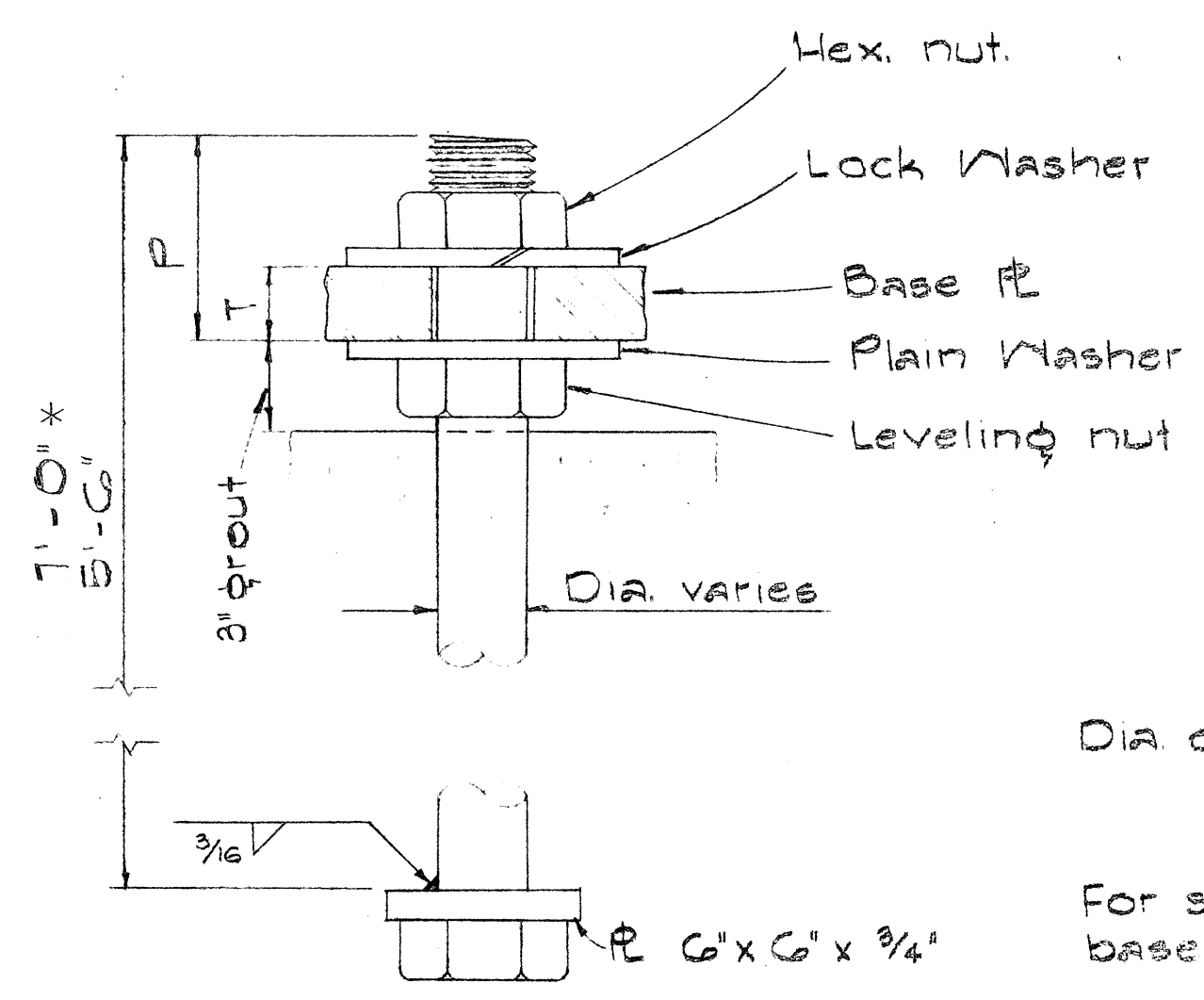
Date: May, 1965

SHEET No. 15 OF 24 SHEETS

Revised: May 24, 1967

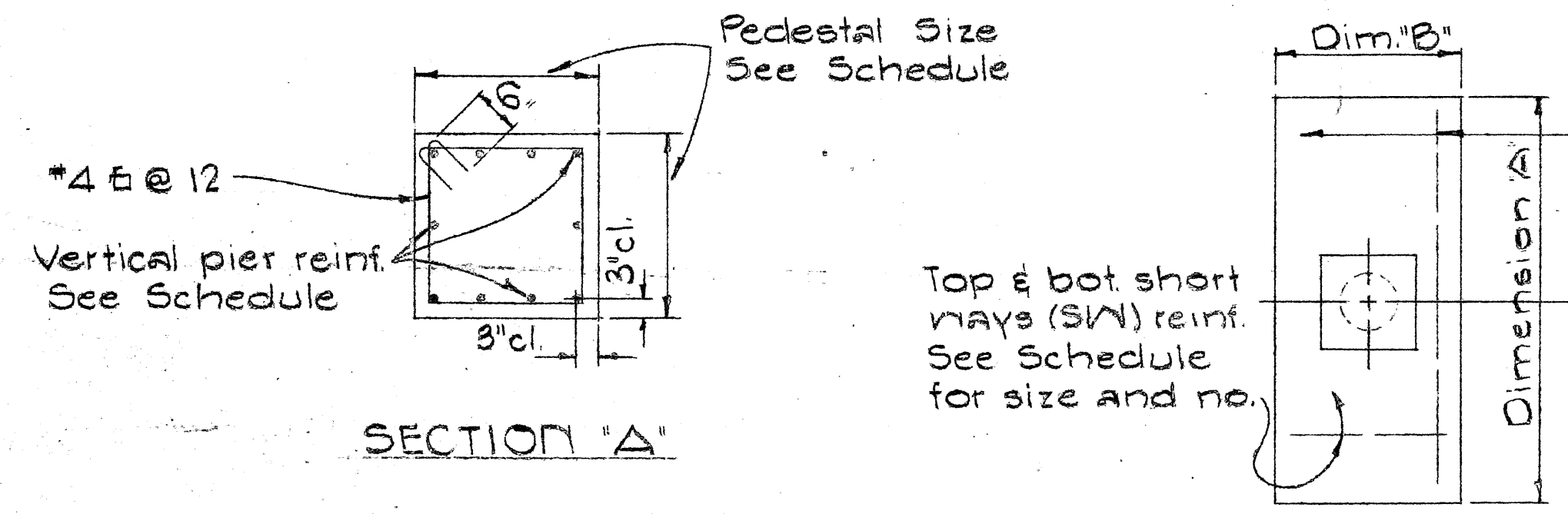


TYPICAL POLE FOUNDATION DETAIL



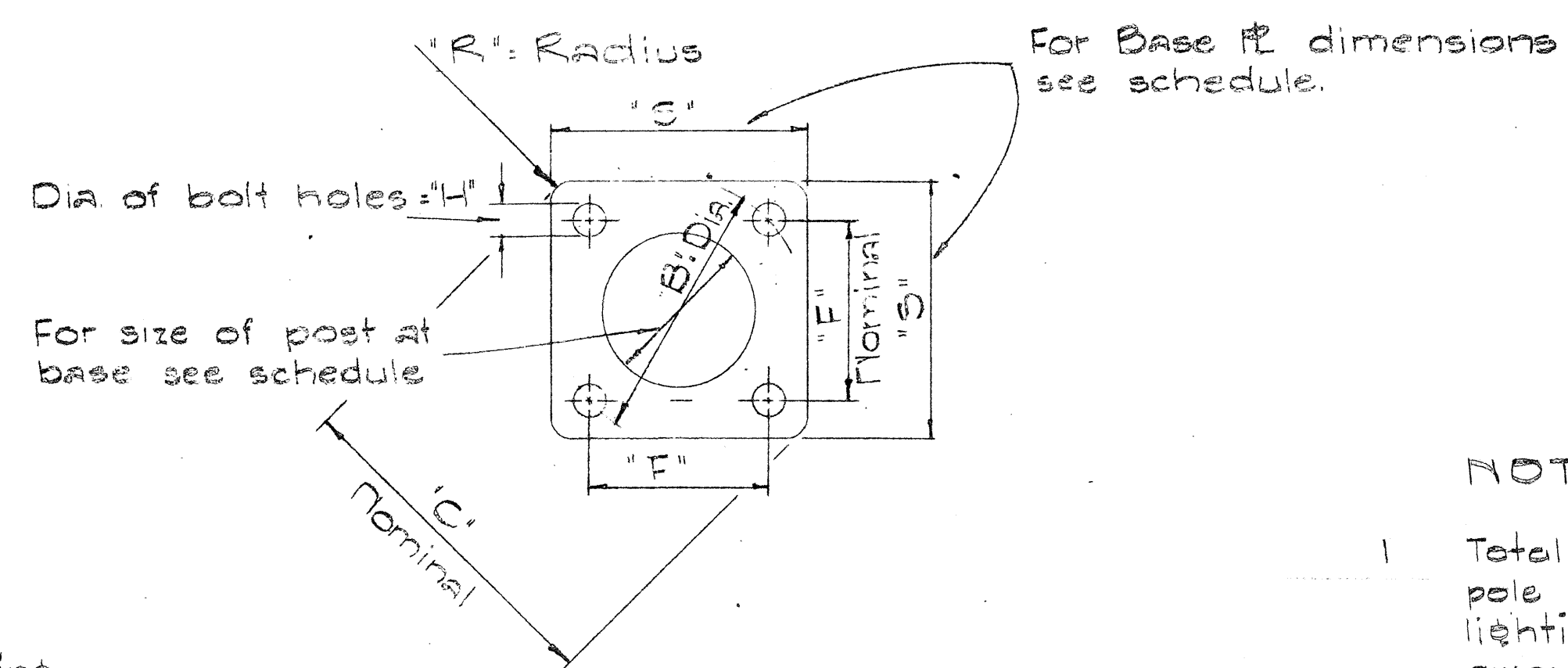
TYPICAL ANCHOR BOLT 4 REQ'D

* Anchor Bolt length for Type V-A Footing



TYPICAL FOOTING PLAN

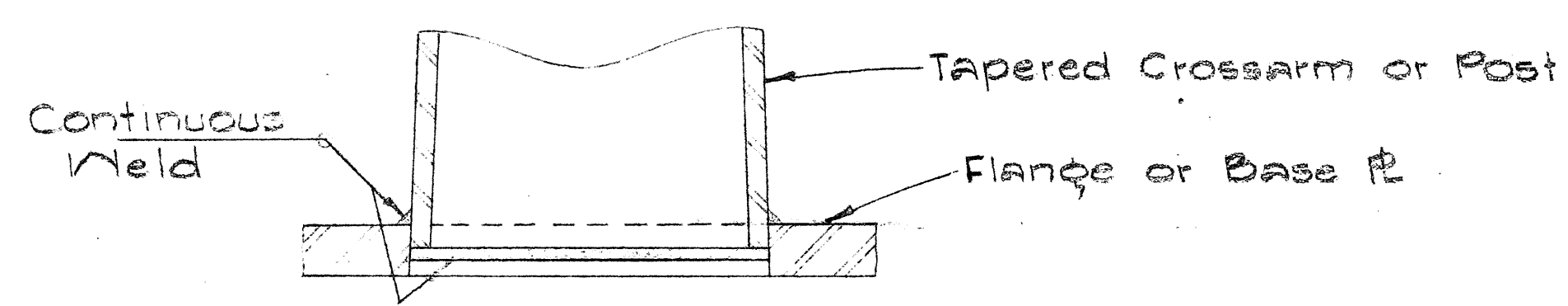
BASE PLATE SCHEDULE										
POST DIA.	GAGE IN.	B	C	F	H	P	R	S	T	BOLT DIA.
18	0	25 1/2	33	18	2 3/8	4 1/4	5 1/2	26 1/2	2 1/2	2 1/4
18	0-0	25 1/2	33	18	3 3/8	6	5 1/2	26 1/2	3	3
15	3	22	28 5/8	15 1/2	2 3/8	6	4 5/8	23	2	2



TYPICAL BASE PLATE

NOTE:

- Total number of conduits into pole foundation as indicated on lighting plans. Conduits shall slope away from pole foundation. Conduit shall stub out 5'-0" min. for direct burial entry.
- Grounding conductor shall be bonded to sign support.



DETAIL 'X'

TWO-TUBE TRUSS-SPAN - TYPE 'D'							
Sig. No.	Station	Cross Beams	Center Section "B"	Post Dim.	Base Plate	Footing	
						Type	Anchor Bolts
E-7	@ 60+05	3ga. 14.25" x 30'-0"	.312 x 14.238 OD x 19'-0"	2ply. 1/2" x 17" x 25'-0"	26 1/2" x 3" x 26 1/2"	Existing	

FOUNDATION SCHEDULE									
Type	Dimension		Depth	Bot. Reinf.		Top Reinf.		Pedestal	
	A	B		L.W.	S.W.	L.W.	S.W.	Size	Vert. Reinf.
I	7'-0"	3'-0"	2'-0"	3-#4	8-#4	*4 @ 12 Each Way.		1'-11"	10-#5
II	3'-0"	4'-6"	2'-0"	6-#6	10-#4	Do.		2'-6"	10-#7
III	10'-0"	5'-0"	2'-0"	5-#8	11-#4	Do.		2'-6"	10-#8
IV	12'-0"	6'-0"	2'-0"	7-#9	12-#4	Do.		2'-9"	10-#10
V	14'-0"	7'-0"	2'-0"	8-#11	13-#4	Do.		2'-9"	10-#11
V-A	16'-0"	8'-0"	2'-0"	9-#11	21-#4	Do.		2'-9"x 3'-9"	10-#11

DELETE

Revised 5/24/67

TYPE C - DOUBLE MASTARM - SINGLE POST - CANTILEVER						
Sign No.	Station	Arm Dimensions	Post Dimensions	Base Plate	Footing	
					Type	Anchor Bolts
E-3(L)	@ 34+00 Rt.	7ga.10.0"xG.64"x24'	3ga. 15'x 18'-G"	23"x 23" x 2"	II	4@ 2" Dia.
E-3(R)	@ 29+50 Rt.	7ga. 20"xG.20"x20'	0ga. 18'x 23'-0"	2G½"x 2G½"x 2½"	I	4@ 2¼" Dia.
E-4(L)	@ 37+50 Lt.	3ga.12.5"x8.58"x27'	0ga. 18"x 22'-0"	2G½"x 2G½"x 2"	III	4@ 2" Dia.
E-4(R)	@ 44+00 Lt.	7ga.11.0"xG.20"x20'	0 1/2 ga.18"x 25'-0"	2G½"x 2G½"x 3"	III	4@ 3" Dia.

GROUND MOUNTED TYPE - EXPRESSWAY SIGNS						
Sign No	Station	Steel Members		Base Plate	Footing	
		Left	Right		Type	Anchor Bolts
E-1	@ 24+00	B WF 24		10" x 1" x 17 1/4"	VI	4-1 1/8" Dia.
E-2	@ 26+00	B J 10		10" x 1" x 17 1/4"	VI	4-1 1/8" Dia.
E-6	Old Waialeale Rd. 7+10	B WF 35		10" x 1" x 17 1/4"	VI	4-1 1/8" Dia.

NOTE:

For schedule for Sign E-5 See Plan Sheet No. 119

GROUND MOUNTED TYPE - DESTINATION SIGNS						
Sign No	Station	Steel Members		Base Plate	Footing	
		Left	Right		Type	Anchor Bolts
D-1	Old Waialeale Rd. 7+20	2 WF 17		10" x 1" x 17 1/4"	VI	4-1 1/8" Dia.
D-1	Ramp (T-1) 11+30	3 I 5.7		None	VII	None

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EXPRESSWAY SIGNS
SCHEDULES & DETAILS

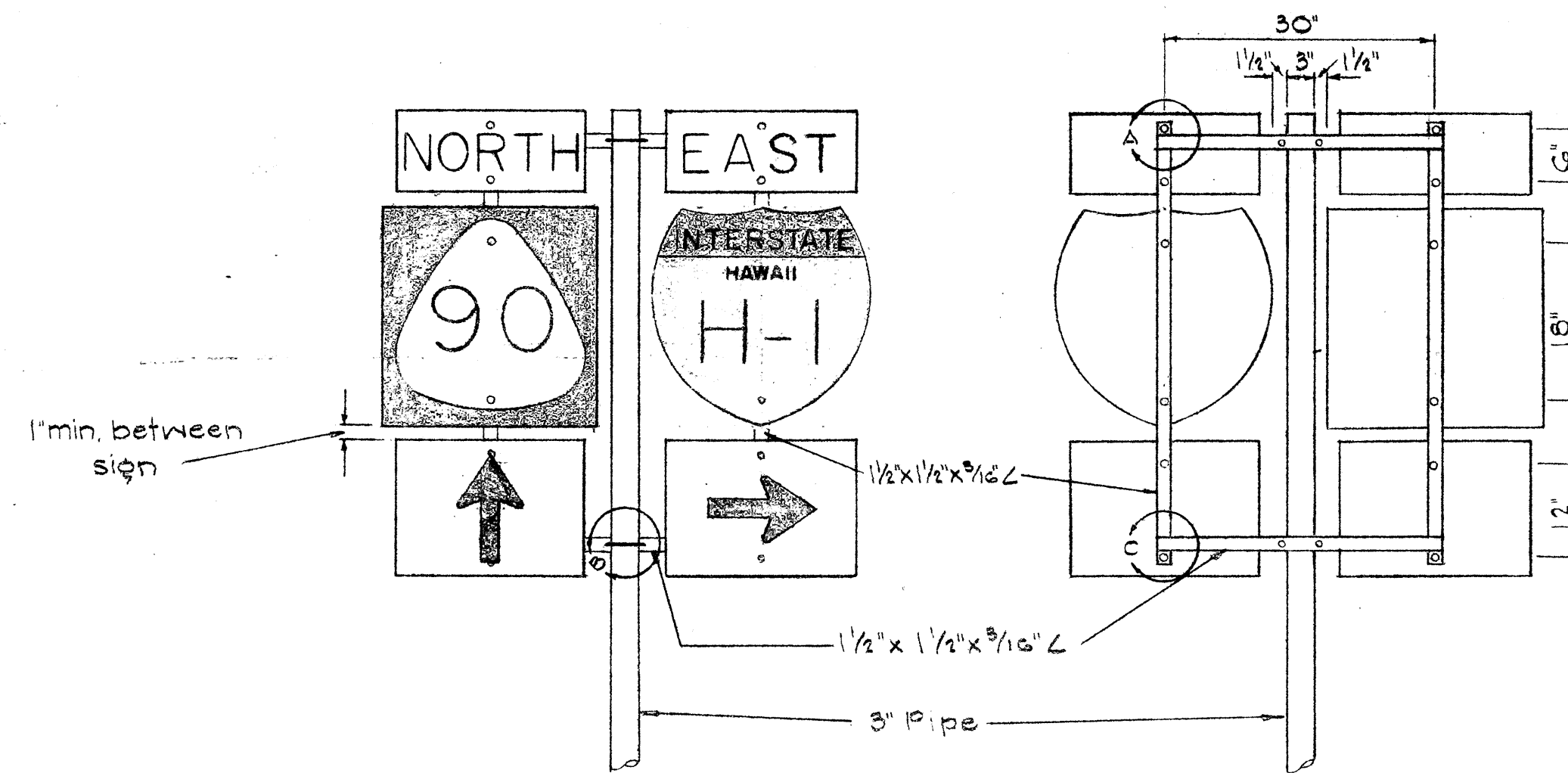
F.A.I. Project No. I-011(5)24 Unit 2

Not to Scale

May, 1965

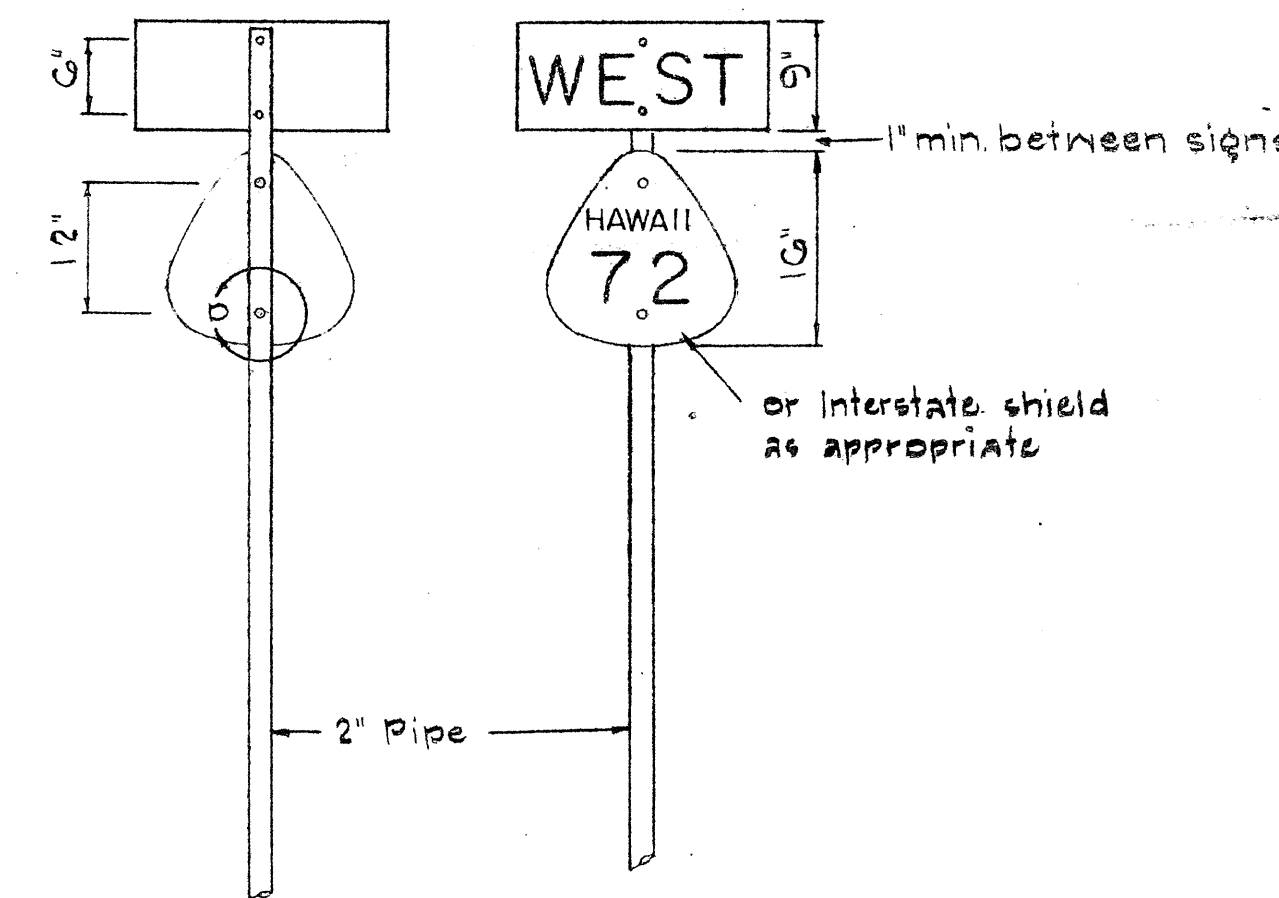
SHEET No. 16 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FH-1(5)24 UNIT 2	1965	123	276



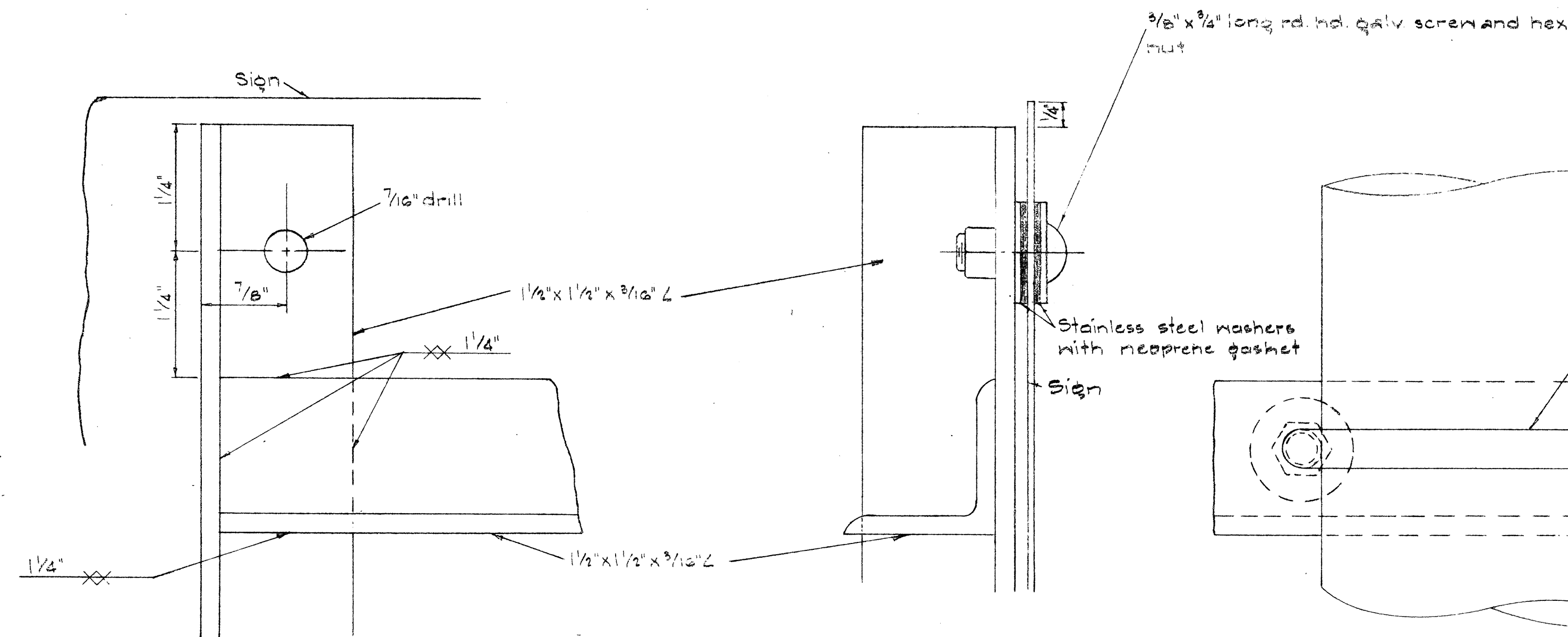
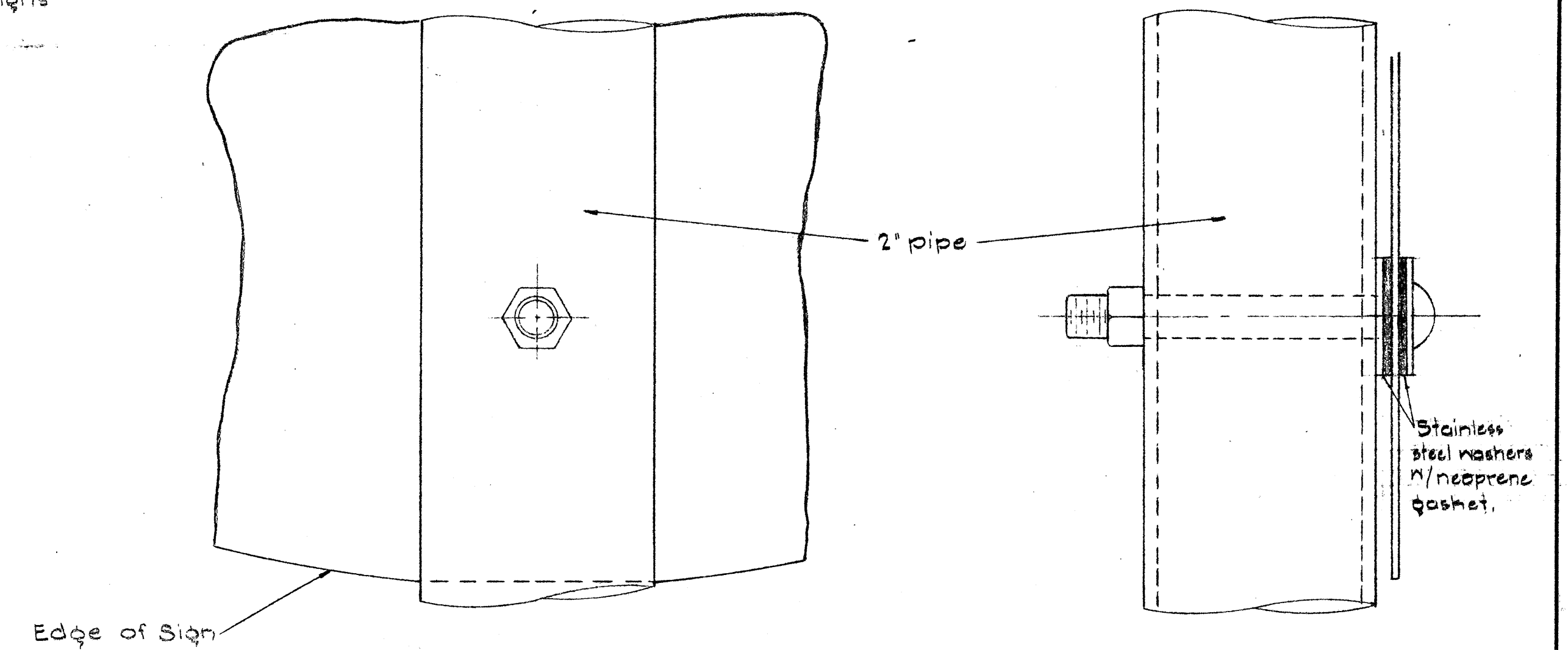
TYPE "B" ASSEMBLY
NOT TO SCALE

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

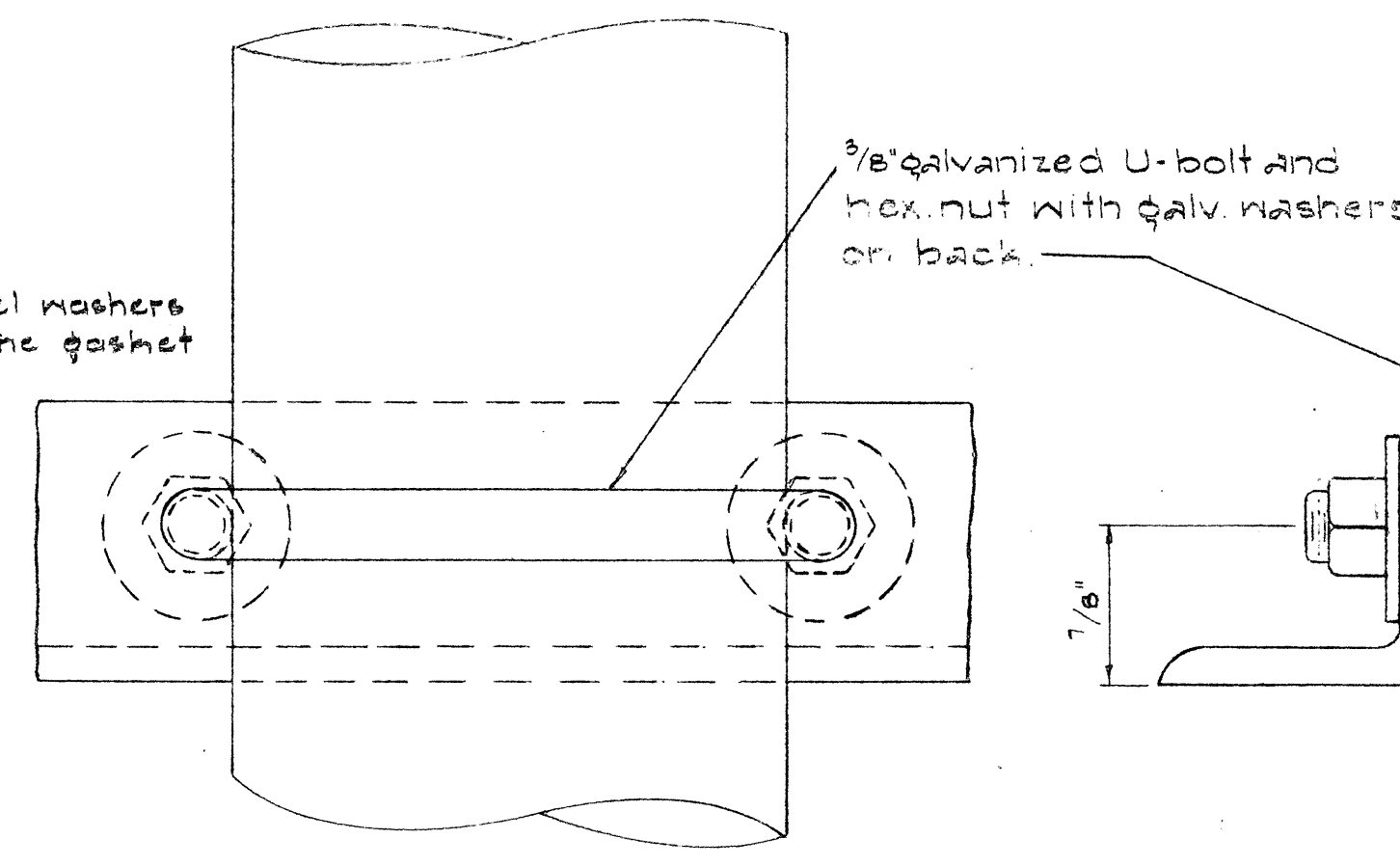


TYPE "A" ASSEMBLY
NOT TO SCALE

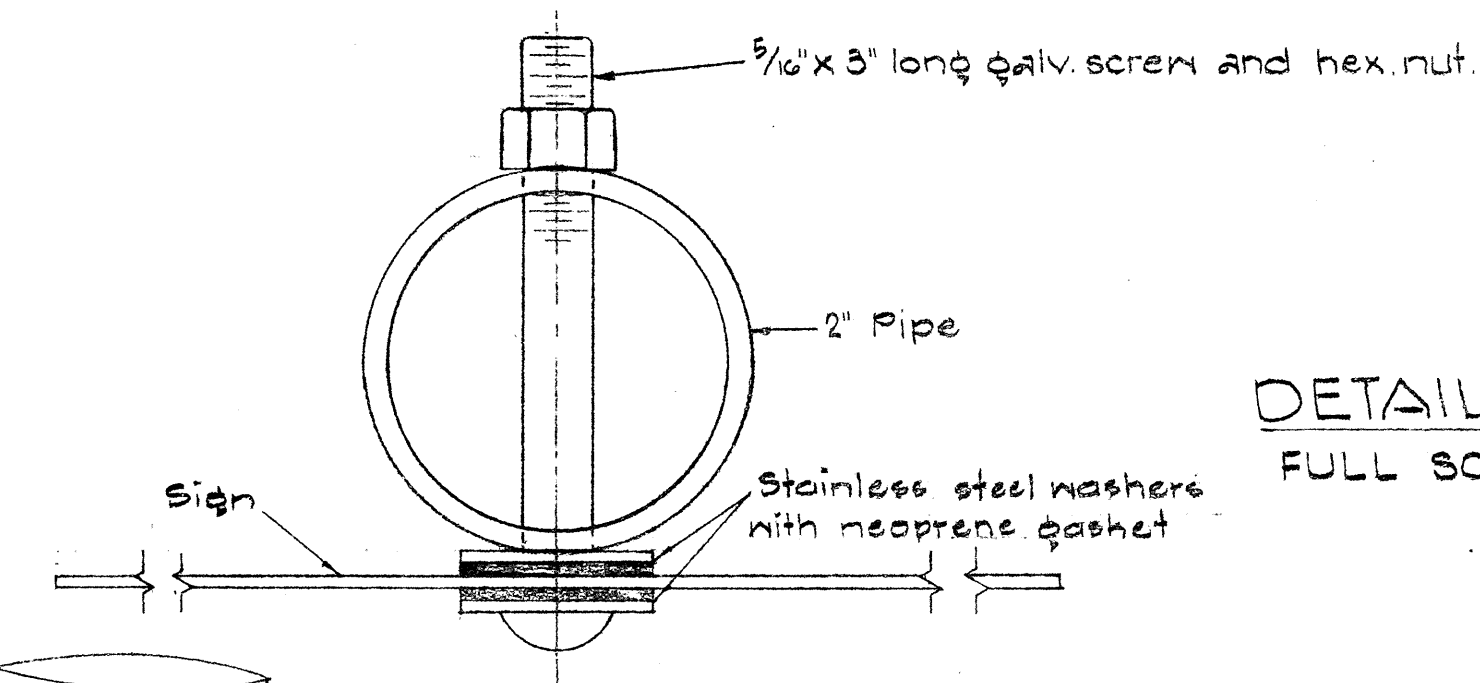
NOTE:
Use 2" pipe for Type "A" Assembly.
Use 3" pipe for Type "B" Assembly.



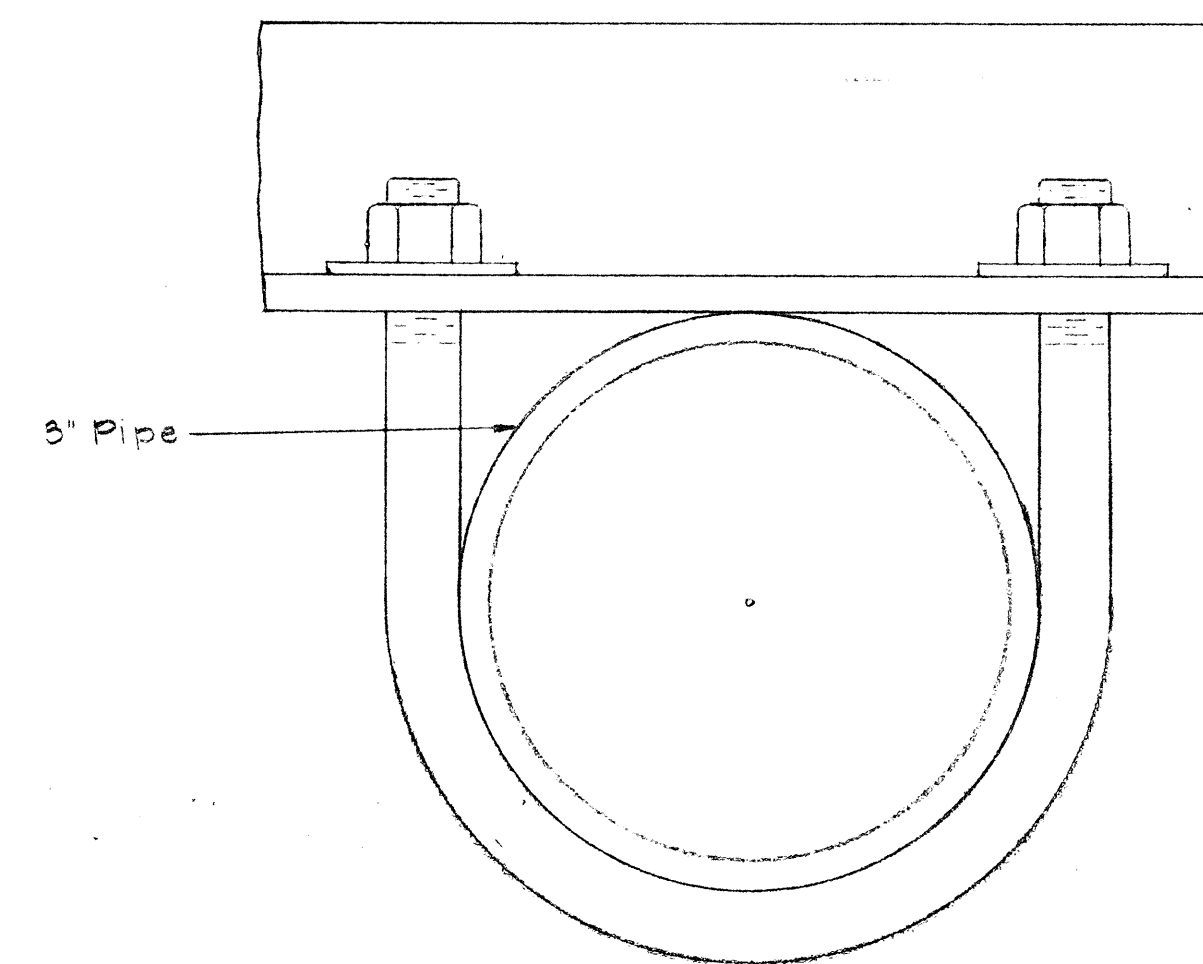
DETAIL "A"
FULL SCALE



DETAIL "B"
FULL SCALE



DETAIL "D"
FULL SCALE



DETAIL "C"
FULL SCALE

NOTE:
For height and lateral location of Route Marker Assembly, see Plan Sheet No. 126

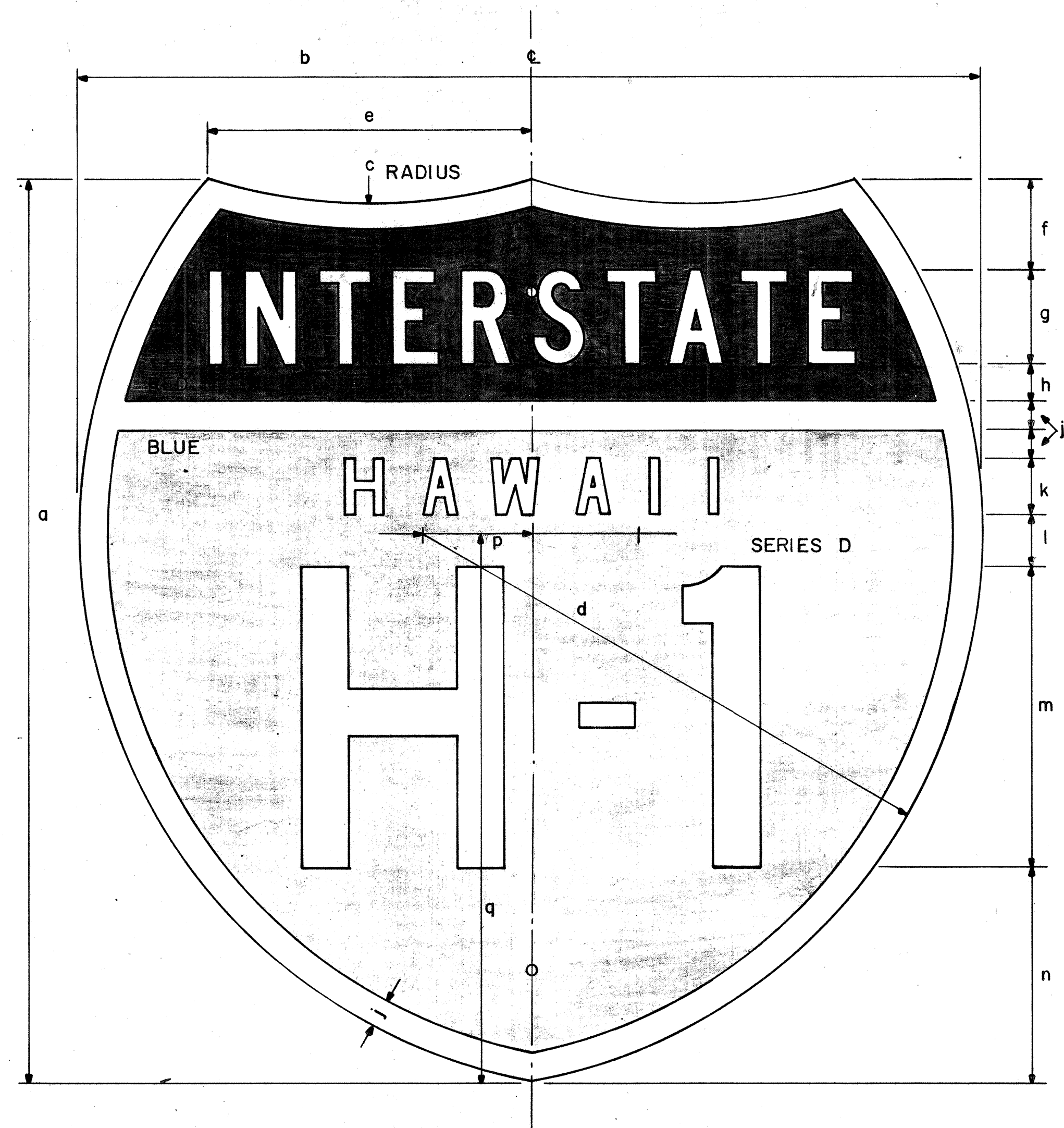
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS OF
ROUTE MARKER ASSEMBLY

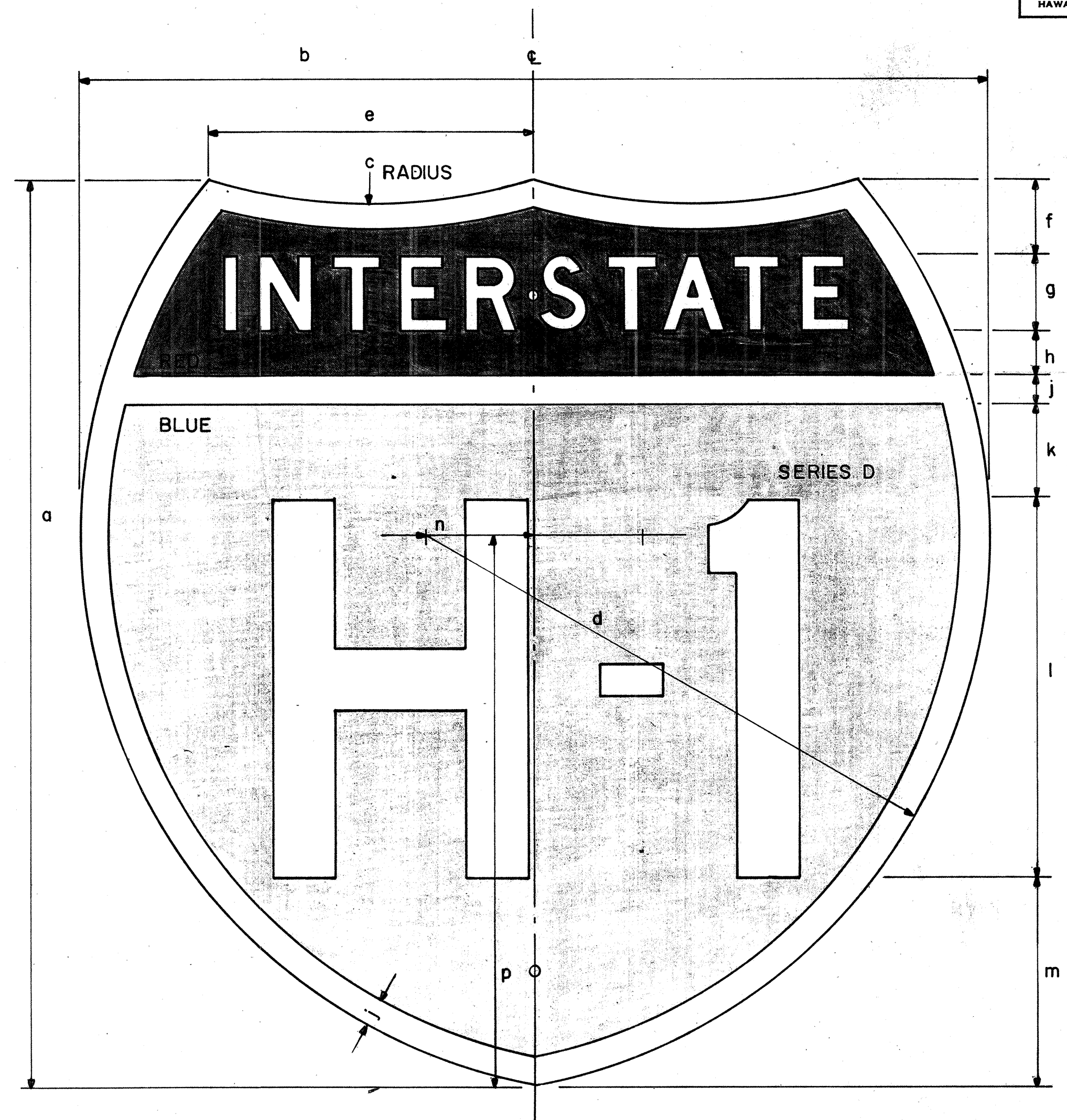
F.A.I. Proj. No. I-H-1(5):24, Unit 2

Scale: As Noted Date: May, 1965

SHEET No. 17 OF 24 SHEETS



INTERSTATE ROUTE MARKER
IM-1 ()



INTERSTATE ROUTE MARKER
IM-2 ()

INTERSTATE SHIELDS - INDEPENDENT USE

()	a	b	c	d	e	f	g	h	j	k	l	m	n	p	q
1	18	21	13 7/8	12 9/16	9 3/16	1 25/32	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 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

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.
- The Interstate Route Marker shall be a cut-out shield, in a red, white and blue design as shown on the plans.

APPROVED:

DATE:

DIRECTOR OF TRANSPORTATION

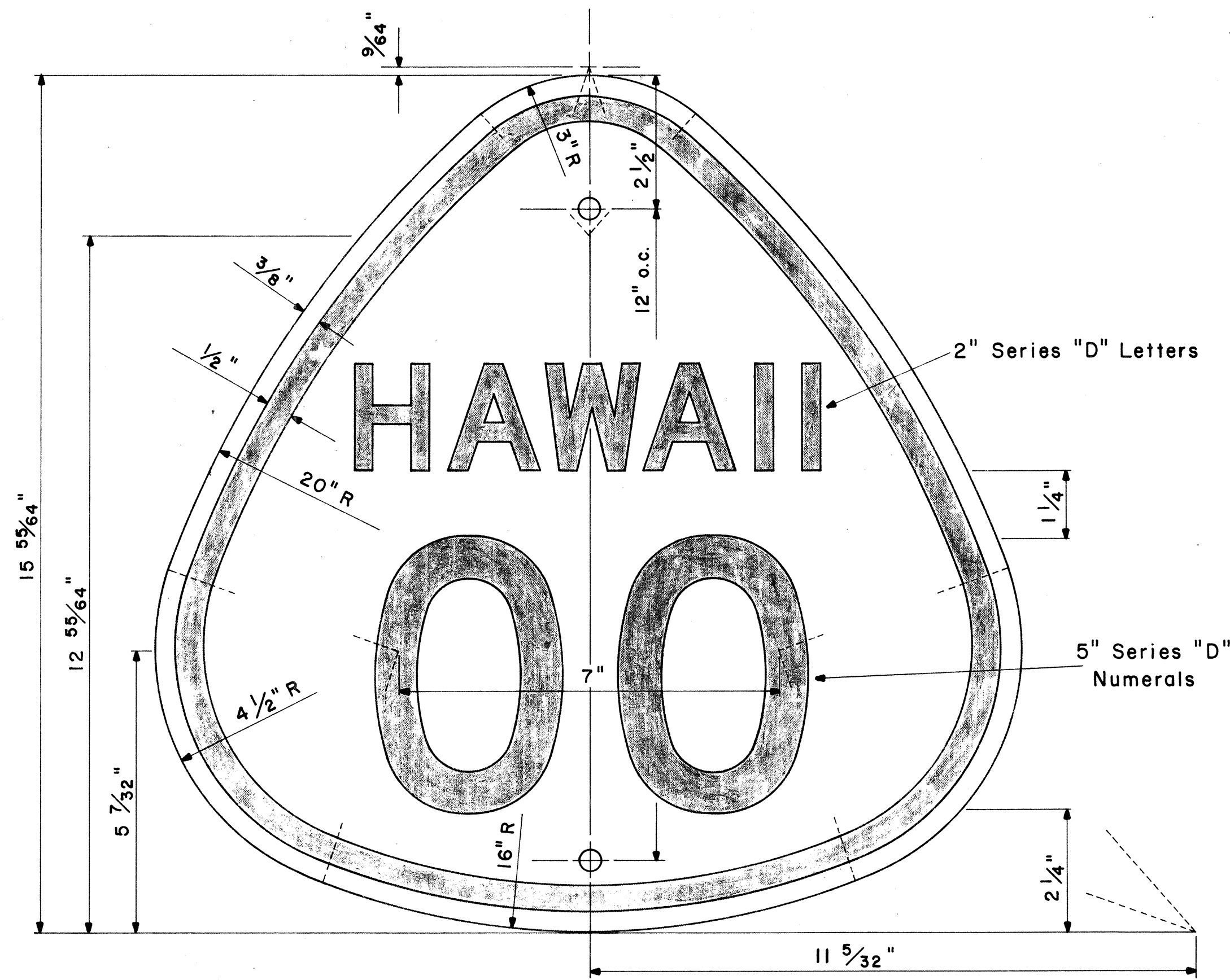
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
INTERSTATE ROUTE MARKERS

No Scale

SHEET NO 18 OF 24 SHEETS

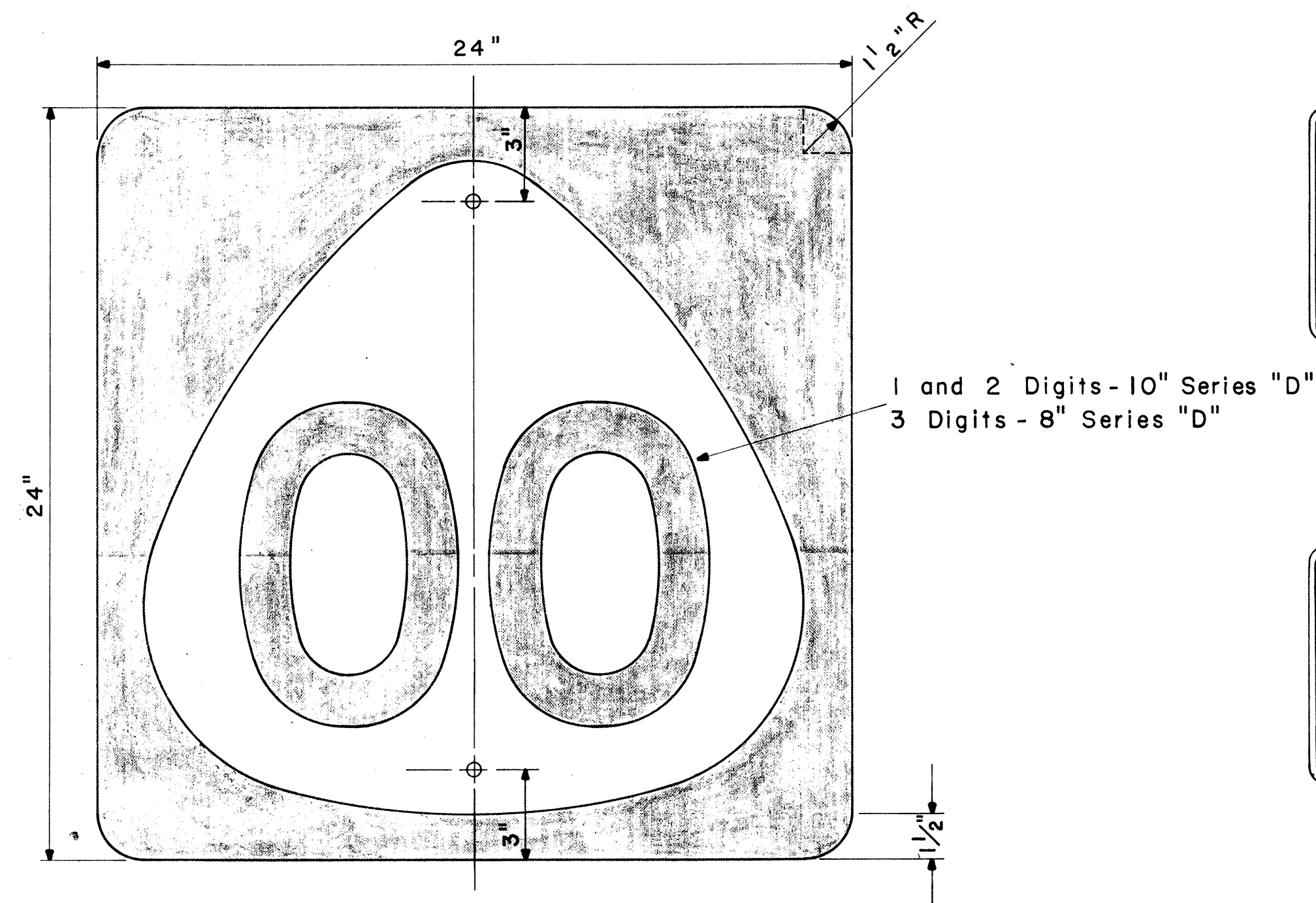
11241

DATE: _____
SURVEY PLOTTED BY: _____
DRAWN BY: _____
DESIGNED BY: _____
NOTED BY: _____
CHECKED BY: _____
ORIGINAL PLAN: _____
NOTE BOOK: _____
No. _____



STATE ROUTE MARKER
MI-3(OO)

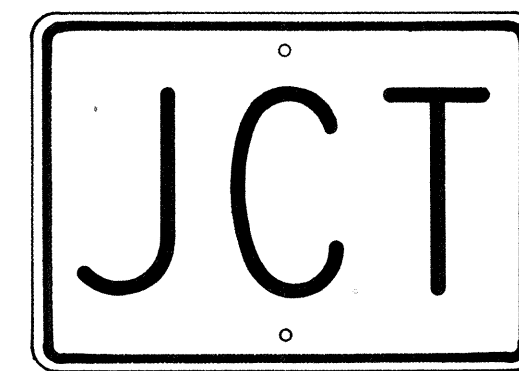
Scale: $\frac{1}{2}$ " = 1"



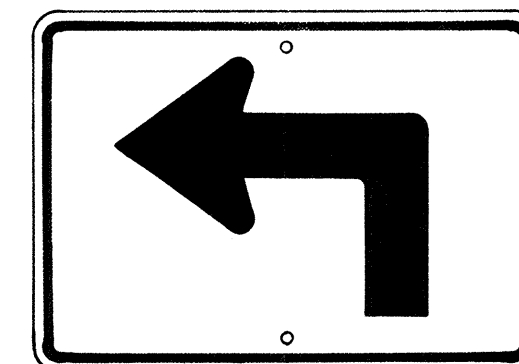
STATE ROUTE MARKER
MI-4(OO)

Scale: $\frac{1}{4}$ " = 1"

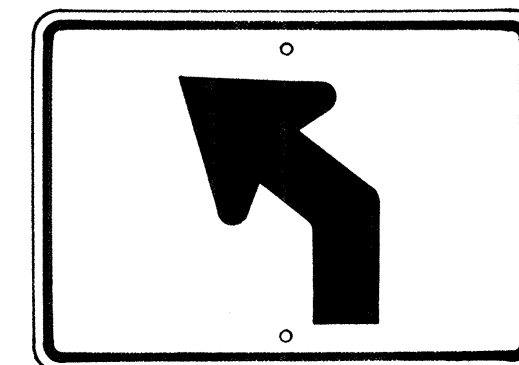
NOTE:
Multiply all dimensions of State Route Marker MI-3 by 1.3 for the dimensions of the shield for MI-4.



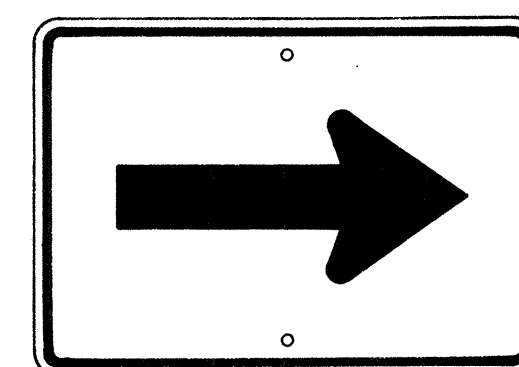
M2-1
21" x 15"



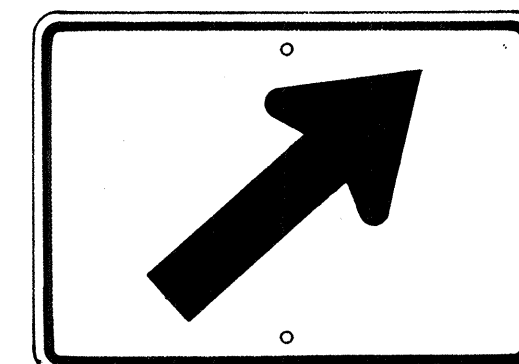
M3-1-L
* M3-1-R ↗
21" x 15"



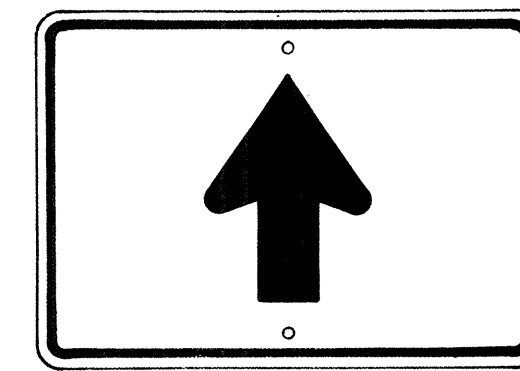
M3-2-L
* M3-2-R ↗
21" x 15"



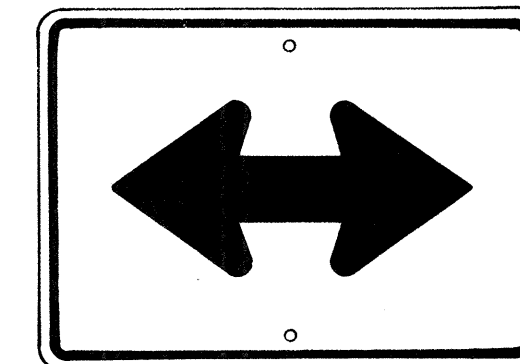
M4-1
21" x 15"



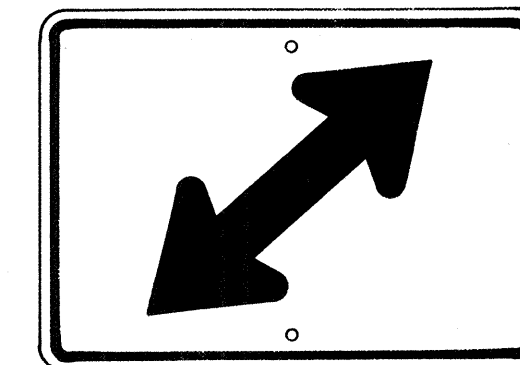
M4-2-R
* M4-2-L ↖
21" x 15"



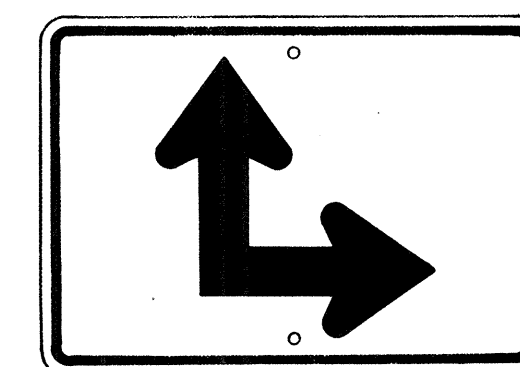
M4-3
21" x 15"



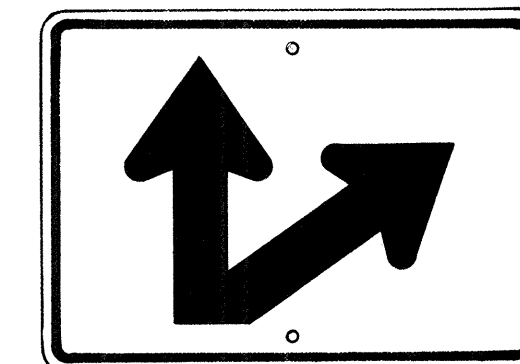
M4-4
21" x 15"



M4-5-R
* M4-5-L ↙
21" x 15"



M4-6-R
* M4-6-L ↙
21" x 15"

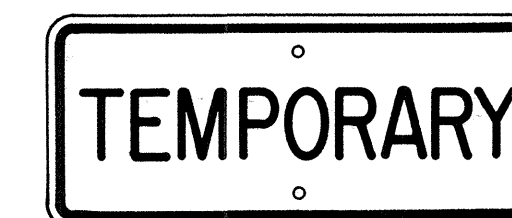


M4-7-R
* M4-7-L ↙
21" x 15"

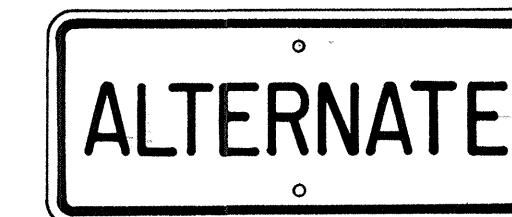
AUXILIARY MARKERS

Scale: $\frac{1}{8}$ " = 1"

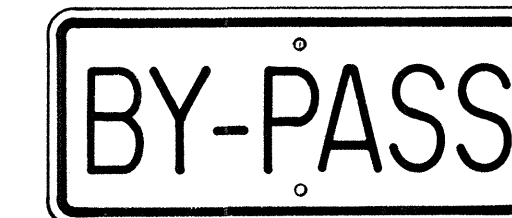
* NOTE:
Signs shall be similar but opposite in direction.



M5-1
21" x 9"



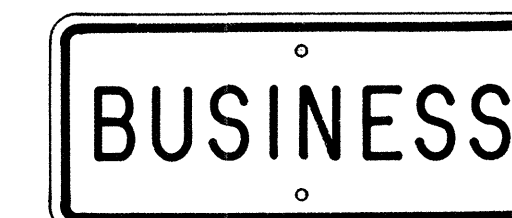
M5-2
21" x 9"



M5-3
21" x 9"



M5-4
21" x 9"



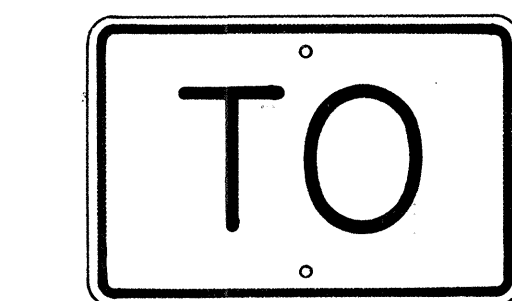
M5-5
21" x 9"



M5-6
21" x 9"



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



M7-1
18" x 12"

GENERAL NOTES

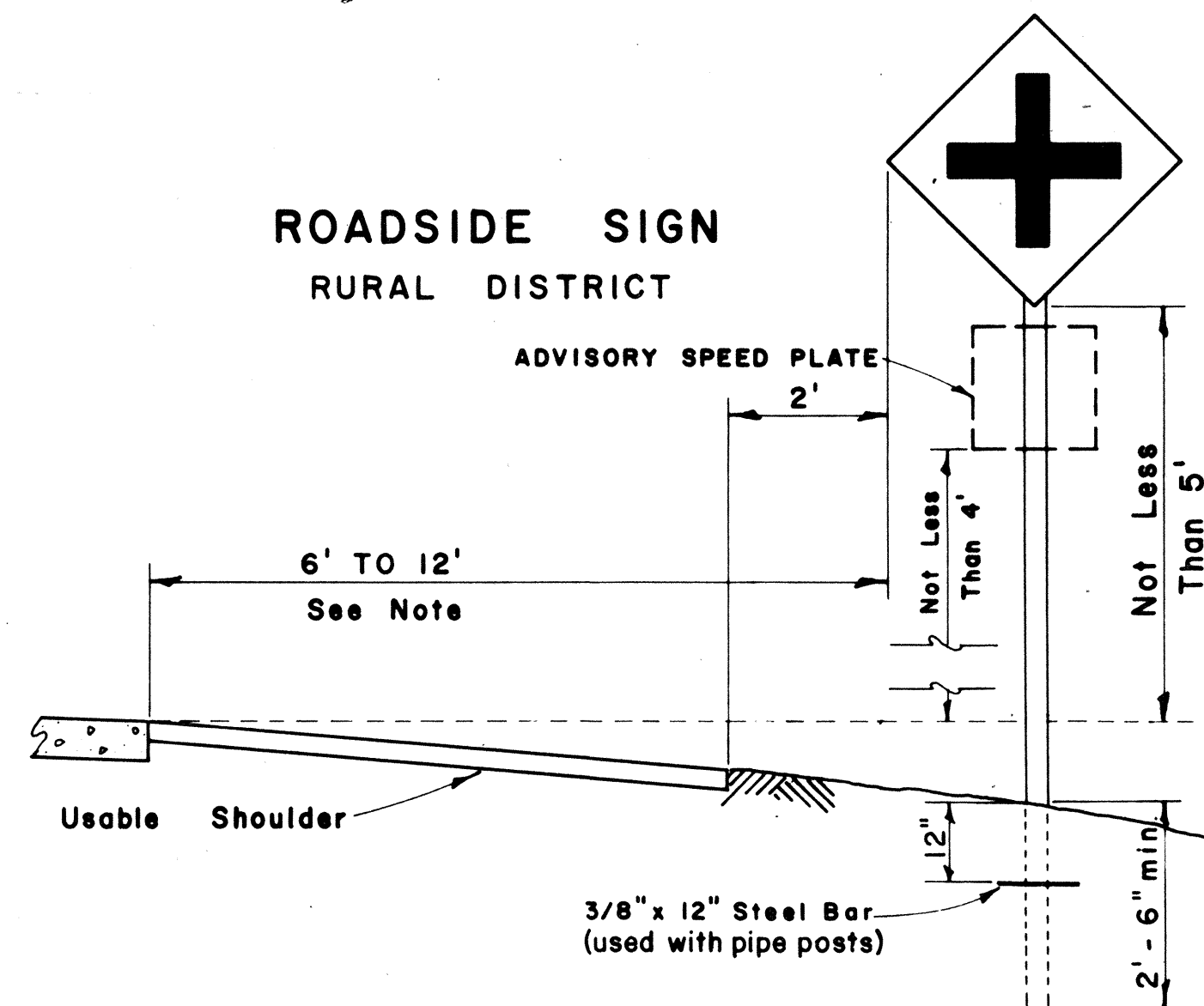
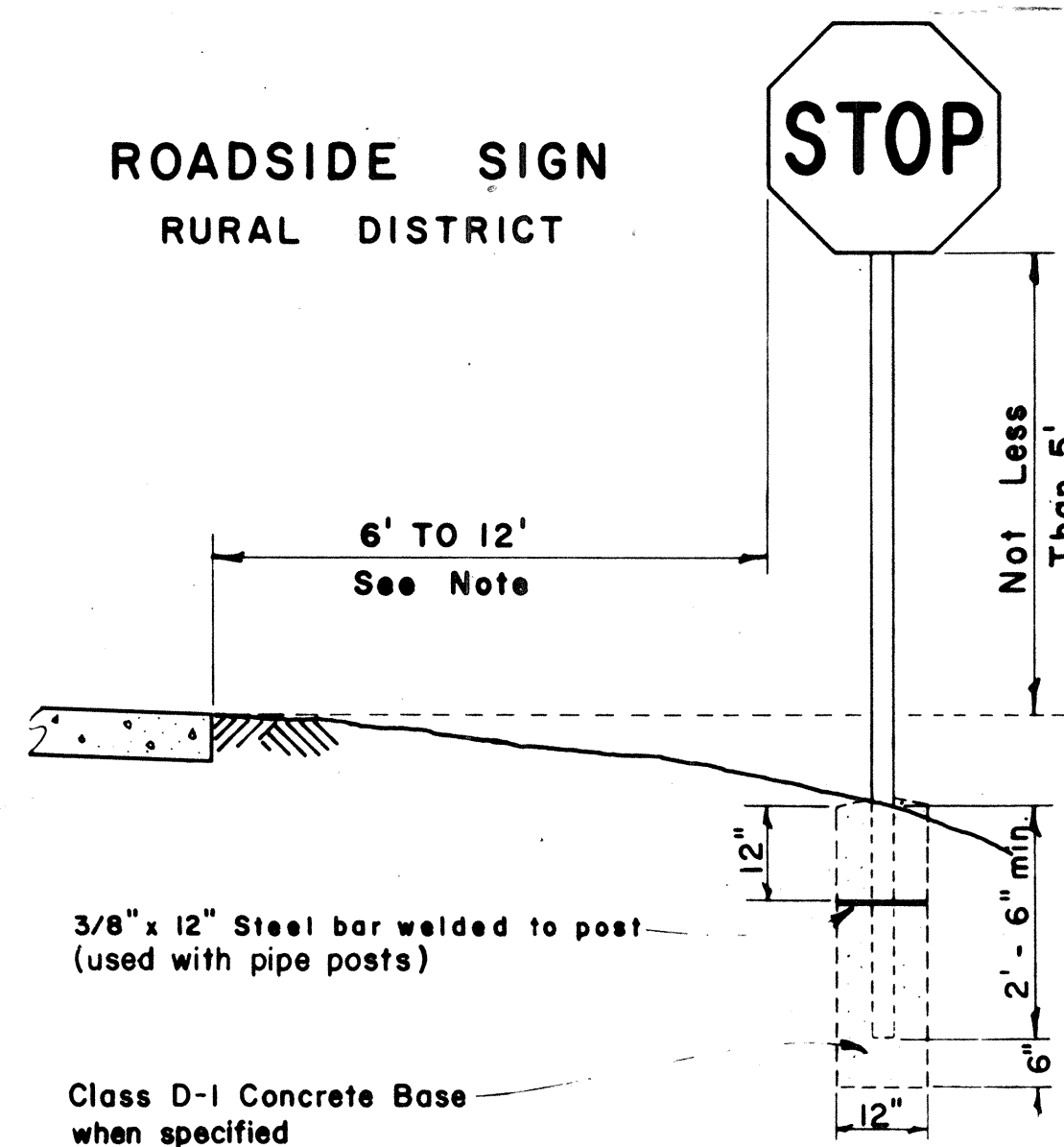
- The shape, color, dimensions, symbols, wording, lettering and reflectorizing of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961, unless otherwise specified.
- 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 $\frac{3}{8}$ " 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 "I": (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 MI-3, and MI-4 signs, number in () indicates route number and shall be as shown on the plan.

APPROVED: _____ DATE: _____

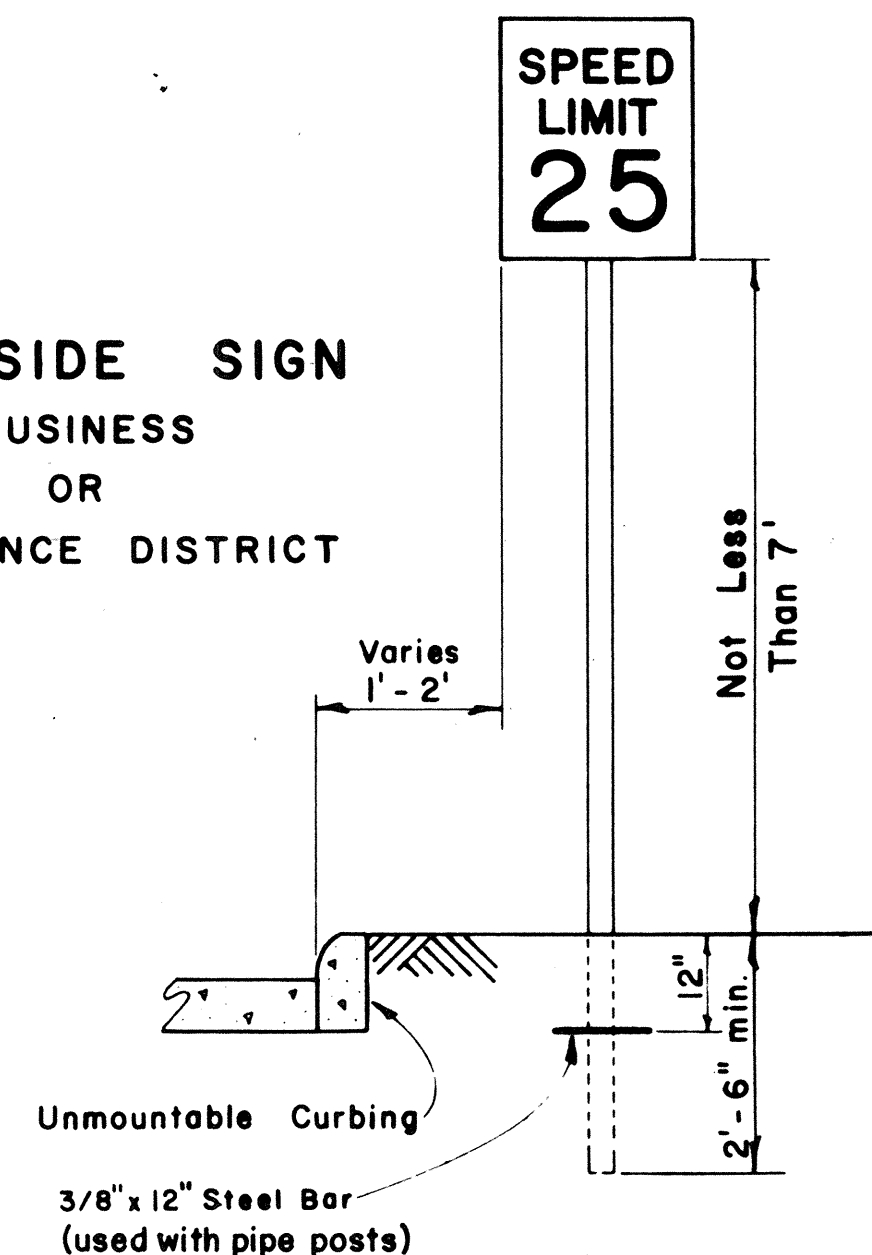
DIRECTOR OF TRANSPORTATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
STATE ROUTE MARKERS
AND
AUXILIARY MARKERS
Scale: As Noted
SHEET NO 125 OF 24 SHEETS

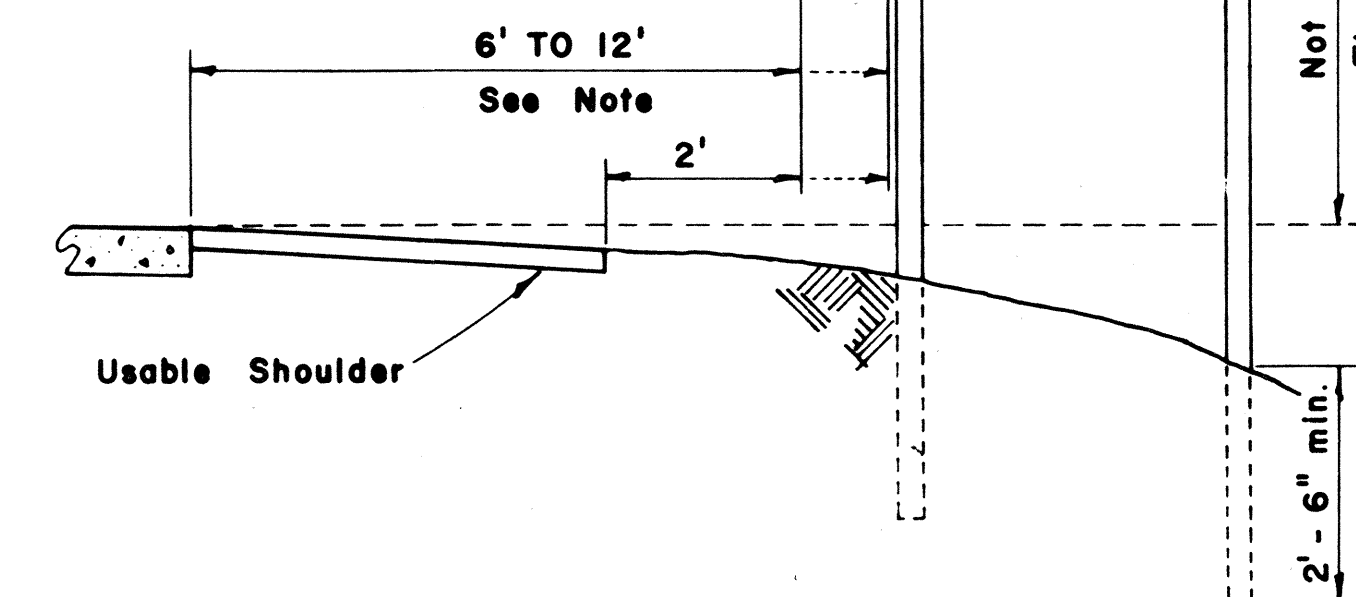
- NOTE:
- All signs and road delineators shall be placed 2' outside the usable roadway shoulder or 1' outside unmountable curbing present and within the limits shown below.
 - Except as noted below, sign posts shall be either 3" galv. std. pipe or 2 1/2" x 2 1/2" galv. square tube posts for signs larger 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.



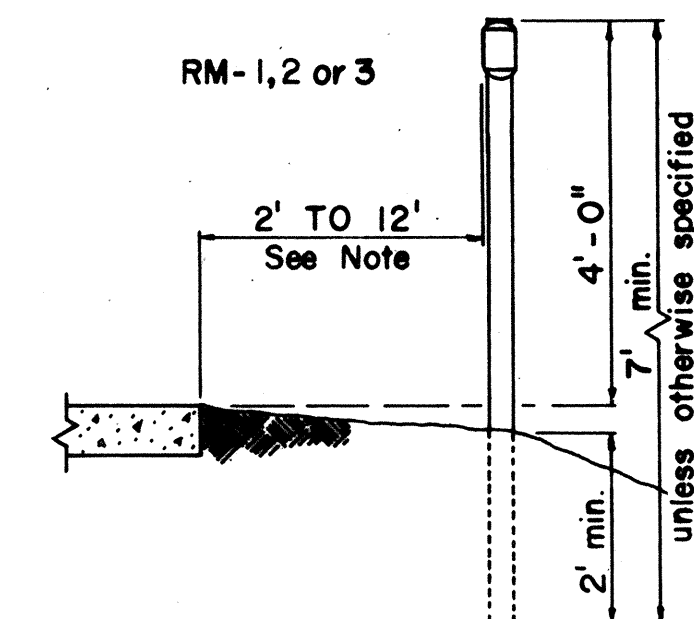
ROADSIDE SIGN
BUSINESS
OR
RESIDENCE DISTRICT



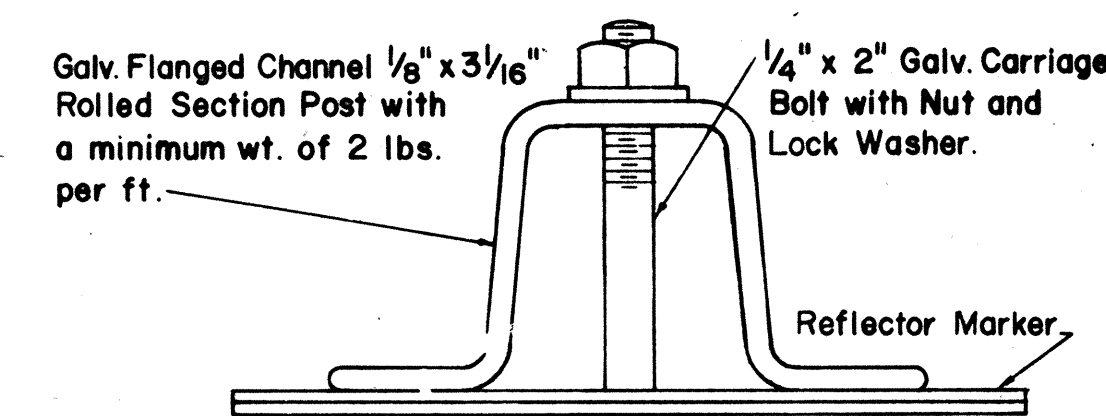
ROADSIDE SIGN
(DOUBLE POSTS)
EXPRESSWAY



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-1(5)24 UNIT 2	1965	126	276

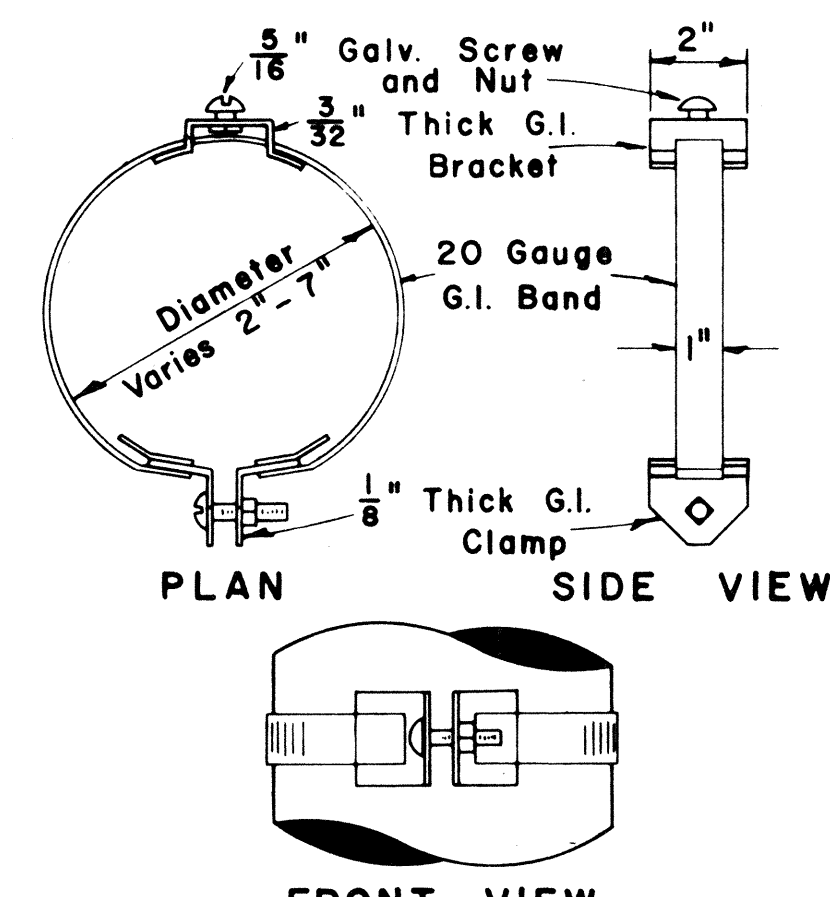
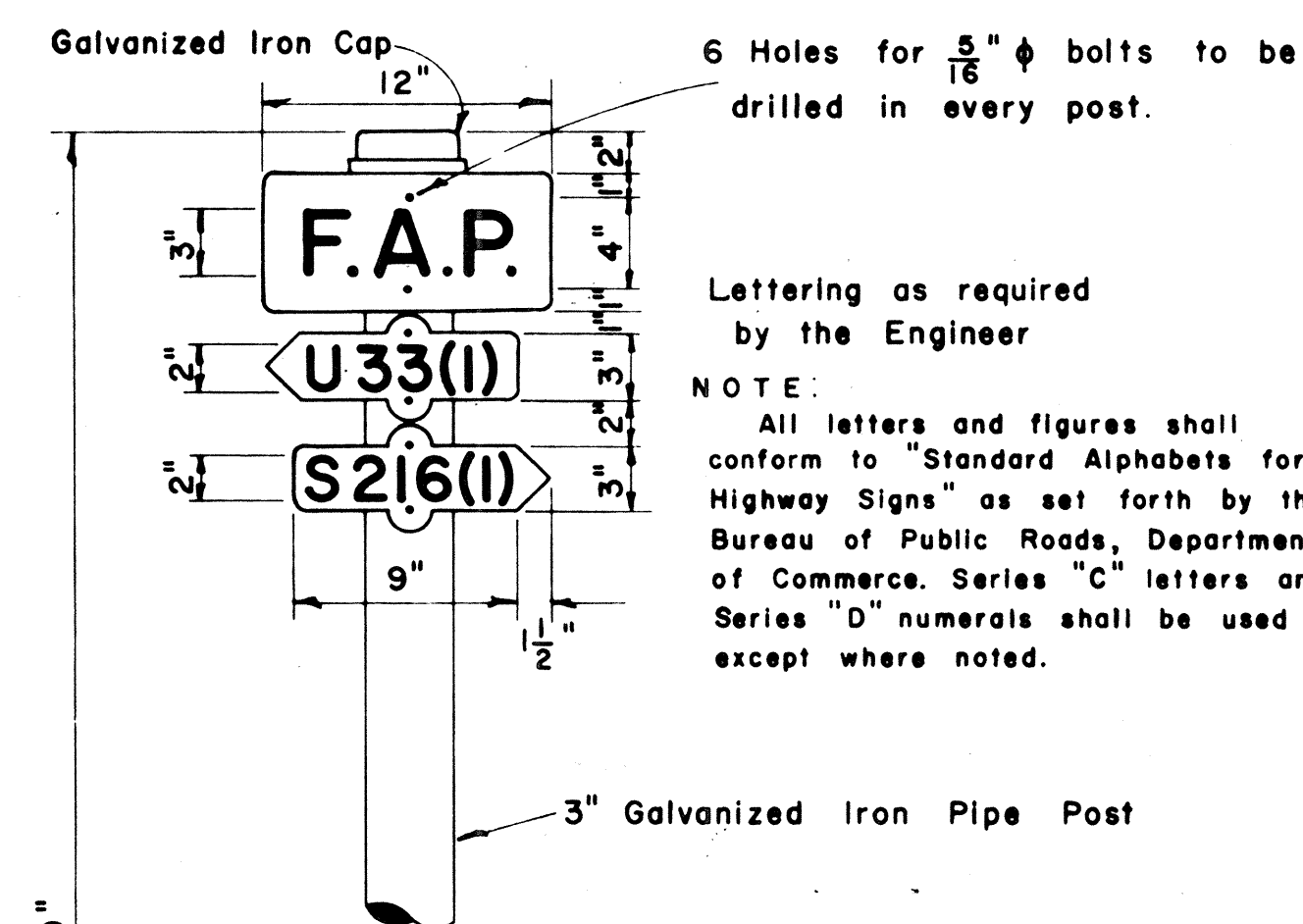


ROAD DELINEATOR
Scale: 1/2" = 1' - 0"

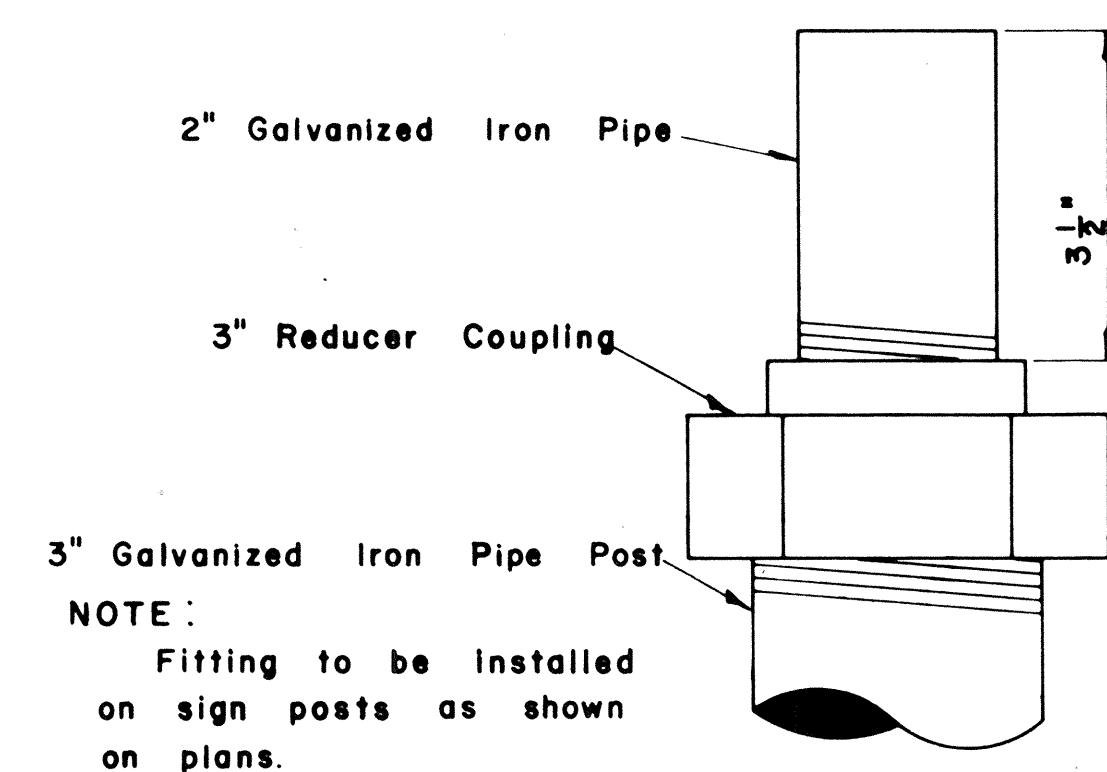


HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS

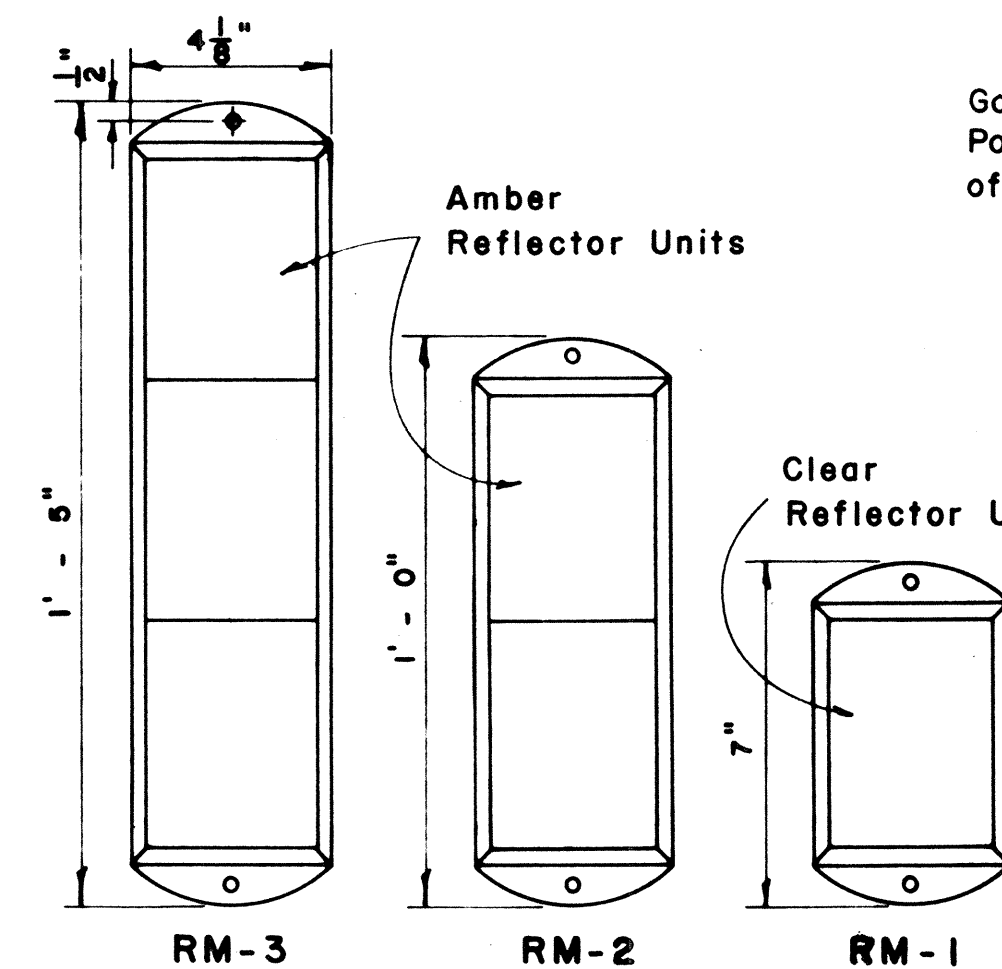
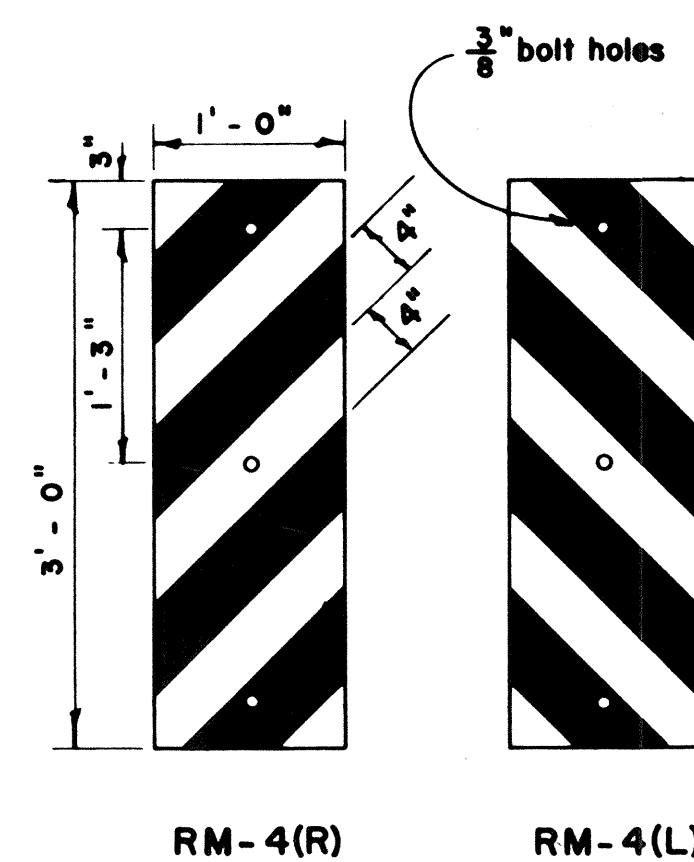
Scale: 1/2" = 1' - 0"



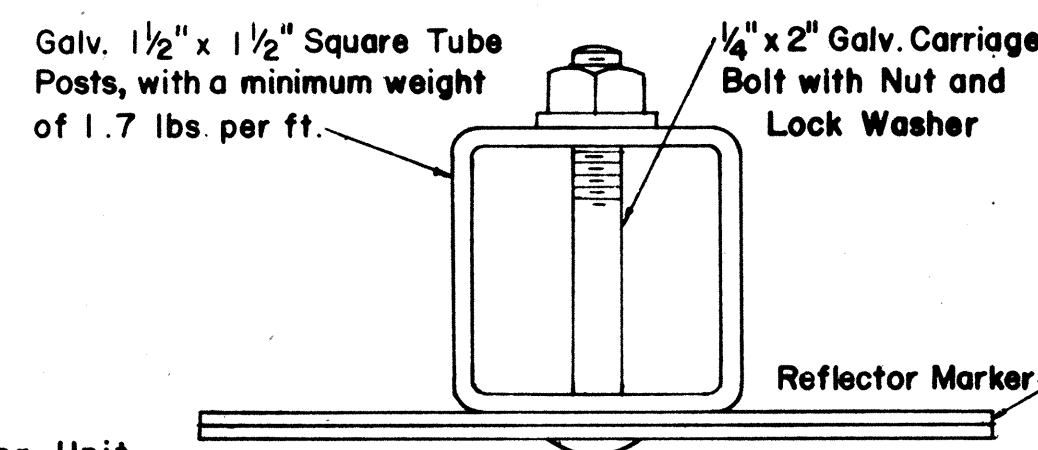
TYPICAL BAND BRACKET
FOR MOUNTING TRAFFIC SIGNS
Scale: 3" = 1' - 0"



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

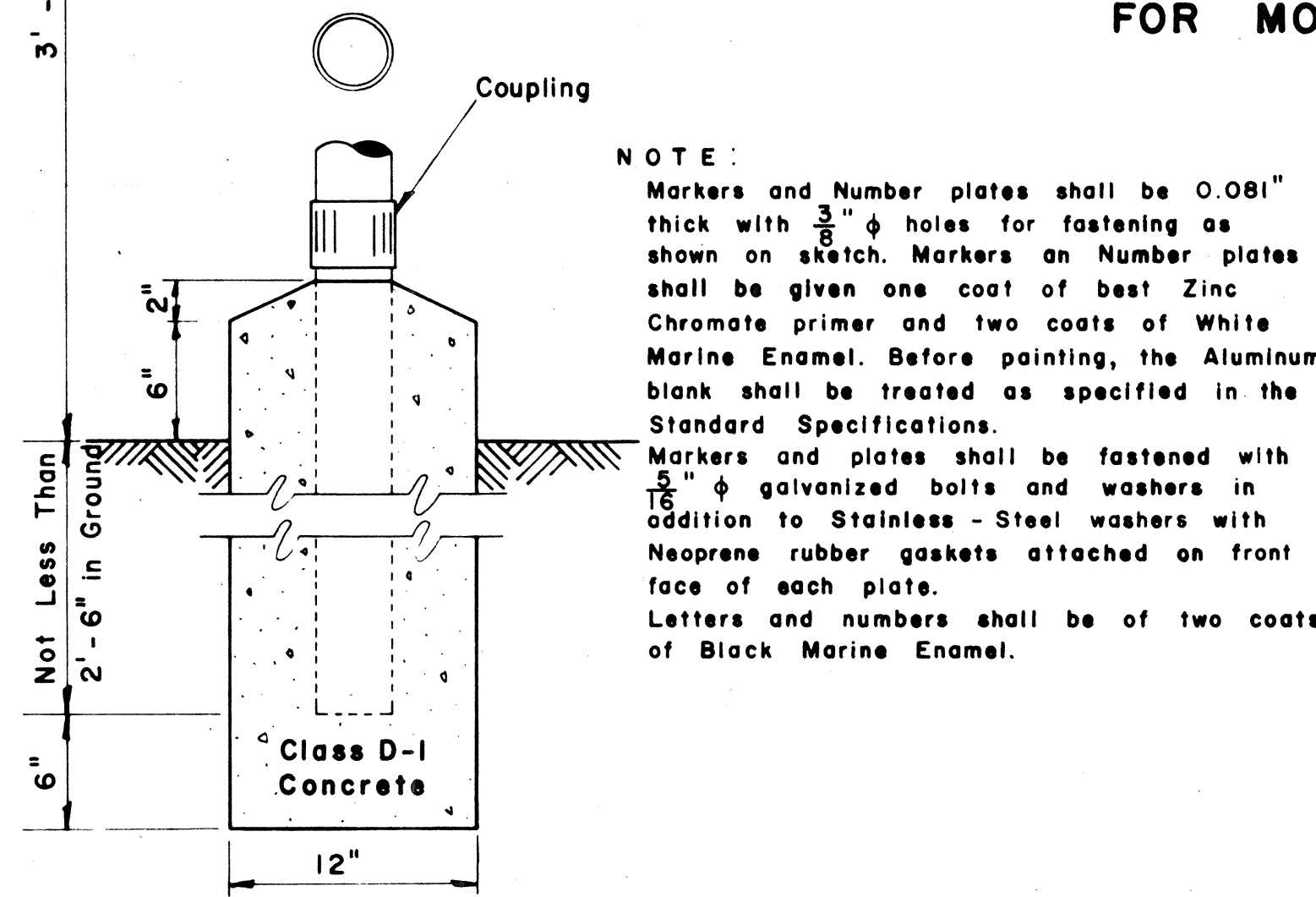


REFLECTOR MARKERS
Scale: As Shown

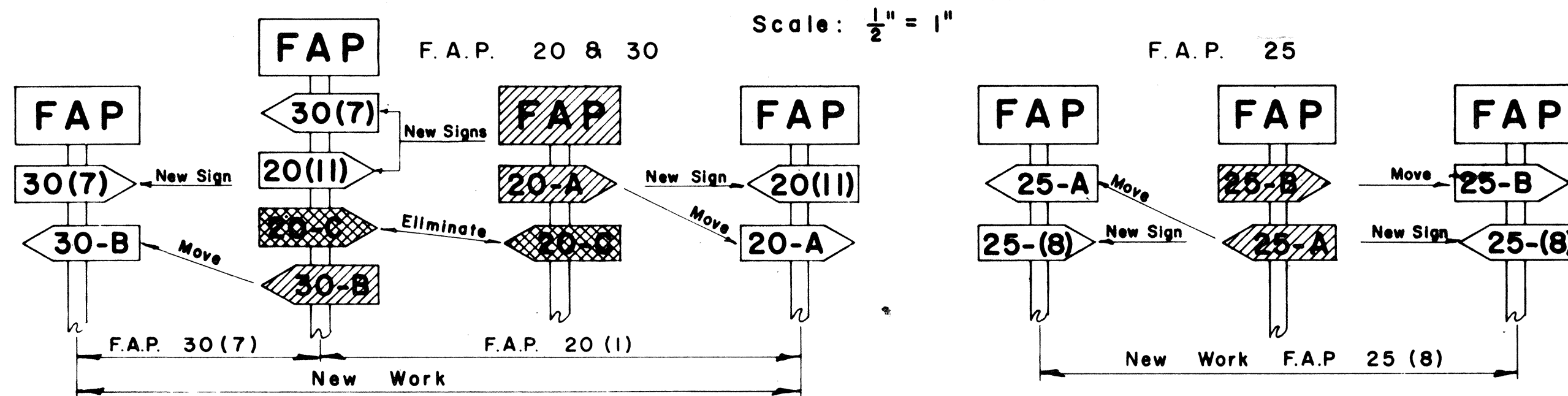


TYPICAL SECTION
OF ROAD DELINEATOR
Full Size

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.

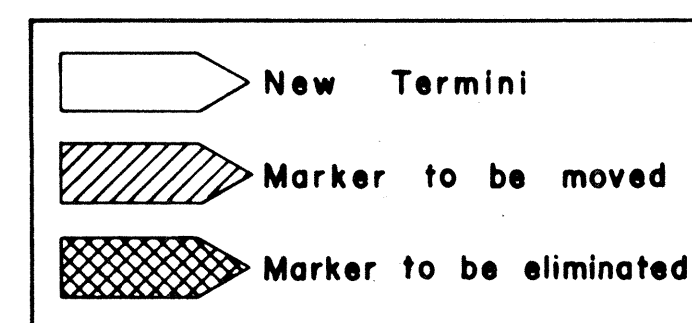


FEDERAL AID MARKER
Scale: 1/2" = 1' - 0"



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)



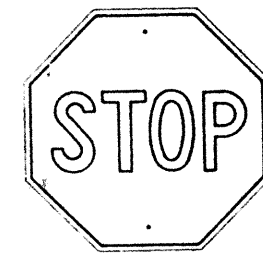
APPROVED: *[Signature]*
DIRECTOR OF TRANSPORTATION

DECEMBER 8, 1964
REVISED: FEBRUARY 25, 1964

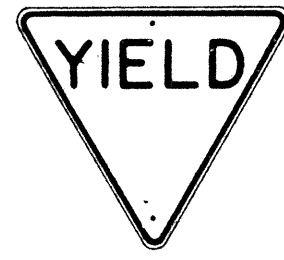
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
F. A. MARKER
AND
MISCELLANEOUS SIGN
DETAILS
Scale: As Shown

SHEET No. 20 OF 24 SHEETS

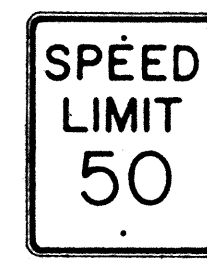
126



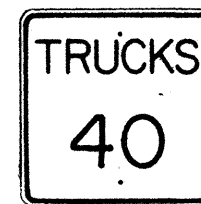
R1-1 30"x 30"



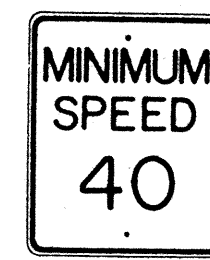
R1-2 36"x 36"x 36"
R1-2-E 48"x 48"x 48"
R1-2-I 60"x 60"x 60"



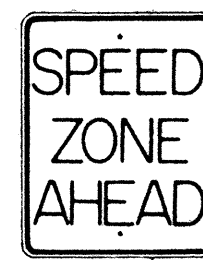
R2-1(50) 24"x 30"
R2-1(50)-E 36"x 48"
R2-1(50)-I 48"x 60"



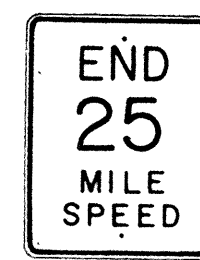
R2-2(40) 24"x 24"
R2-2(40)-E 36"x 36"
R2-2(40)-I 48"x 48"



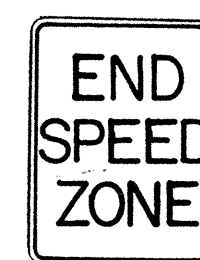
R2-4(40) 24"x 30"
R2-4(40)-E 36"x 48"
R2-4(40)-I 48"x 60"



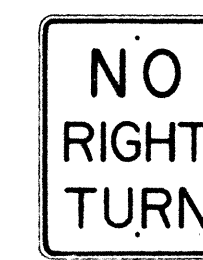
R2-5 24"x 30"
R2-5-E 36"x 48"
R2-5-I 48"x 60"



R2-6(25) 24"x 30"
R2-6(25)-E 36"x 48"
R2-6(25)-I 48"x 60"



R2-7 24"x 30"
R2-7-E 36"x 48"
R2-7-I 48"x 60"



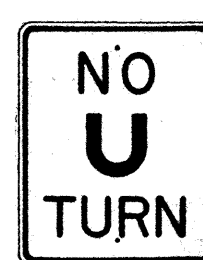
R3-1 24"x 30"
R3-1-E 36"x 48"



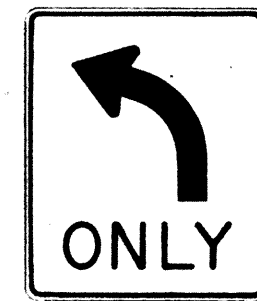
R3-2 24"x 30"
R3-2-E 36"x 48"



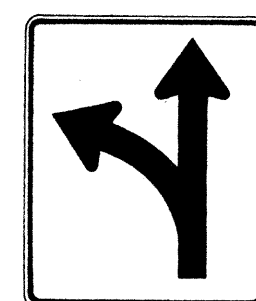
R3-3 24"x 24"



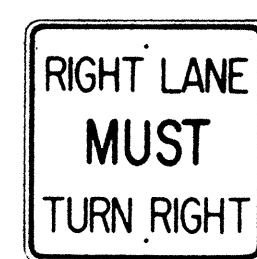
R3-4 24"x 30"
R3-4-E 36"x 48"
R3-4-I 48"x 60"



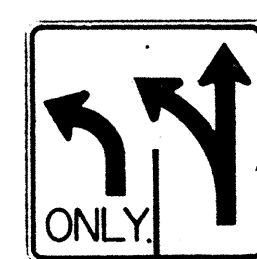
R3-5(L) 30"x 36"



R3-6(L) 30"x 36"



R3-7(R) 30"x 30"



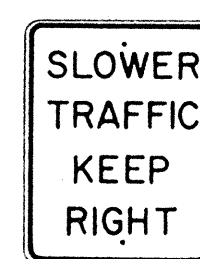
R3-8(L) 30"x 30"



R4-1 24"x 30"



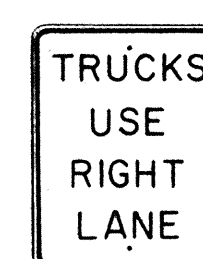
R4-2 24"x 30"



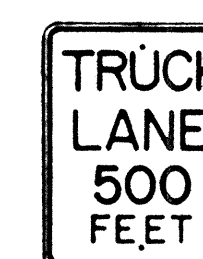
R4-3 24"x 30"
R4-3-E 36"x 48"
R4-3-I 48"x 60"



R4-4 24"x 30"
R4-4-E 36"x 48"
R4-4-I 48"x 60"



R4-5 24"x 30"
R4-5-E 36"x 48"



R4-6 24"x 30"
R4-6-E 36"x 48"



R4-7(R) 24"x 30"
R4-7(R)-E 36"x 48"



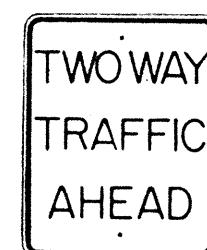
R5-1 24"x 24"



R6-1(R) 36"x 12"



R6-2(R) 18"x 24"



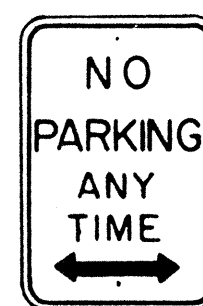
R6-3 24"x 30"



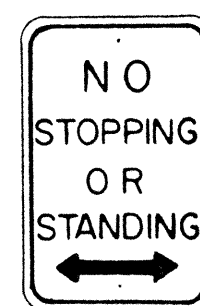
R6-4 24"x 30"



R6-5 24"x 30"



R7-1 12"x 18"



R7-4 12"x 18"
R7-4-E 24"x 30"



R7-107(R) 12"x 18"



R7-201 12"x 6"



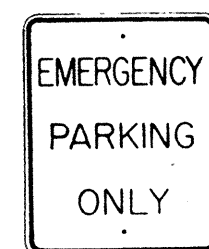
R8-1 24"x 30"
R8-1-E 36"x 48"
R8-1-I 48"x 60"



R8-2 24"x 30"
R8-2-E 36"x 48"



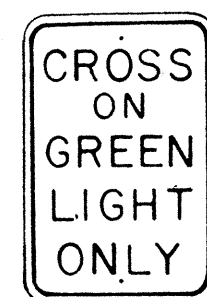
R8-3 24"x 30"
R8-3-E 36"x 48"



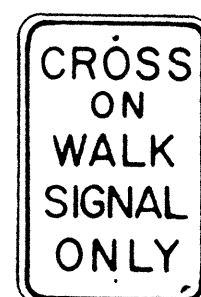
R8-4 24"x 30"
R8-4-E 36"x 48"
R8-4-I 48"x 36"



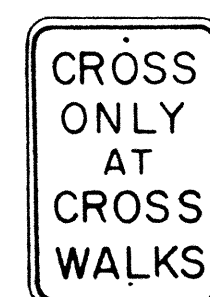
R9-1 18"x 24"



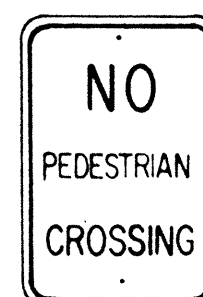
R9-2 12"x 18"



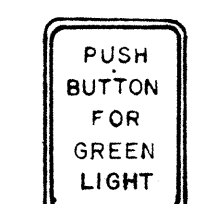
R9-3 12"x 18"



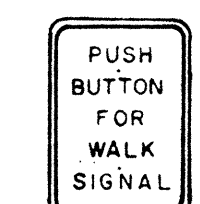
R9-4 12"x 18"



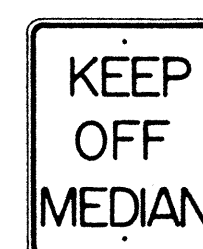
R9-5 12"x 18"



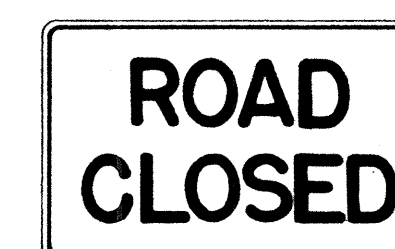
R9-6 9"x 12"



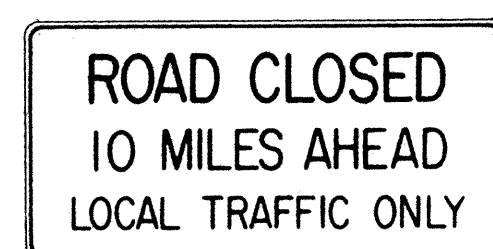
R9-7 9"x 12"



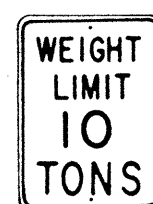
R10-1 24"x 30"
R10-1-E 36"x 48"
R10-1-I 48"x 60"



R10-2 48"x 30"



R10-3(10) 60"x 30"



R10-4(10) 18"x 24"

NOTE:

1. 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 BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
2. All regulatory signs shall be reflectorized unless otherwise specified.
3. All regulatory signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations unless otherwise noted.
4. The suffix "E" denotes Expressway signs and "I" denotes Interstate signs.
5. For R2 signs, number in () indicates speed and shall be as shown on the plans.
6. (R) or (L) indicates right or left and shall be as shown on the plans.
7. For R10-4 sign, number in () indicates weight and shall be as shown on the plan.

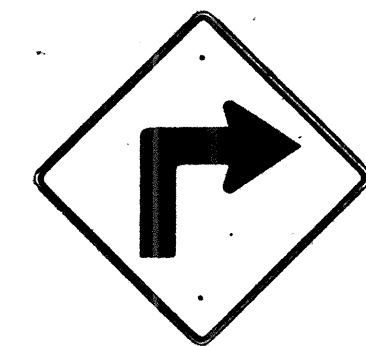
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
REGULATORY SIGNS

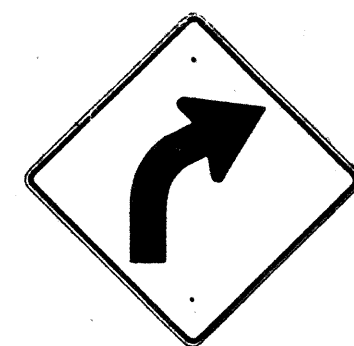
NOT TO SCALE

SHEET No. 21 OF 24 SHEETS

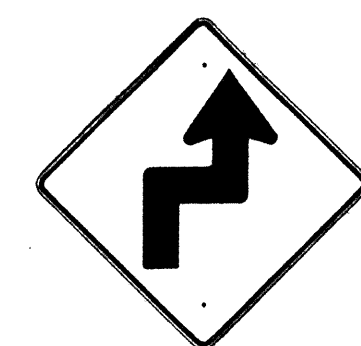
127



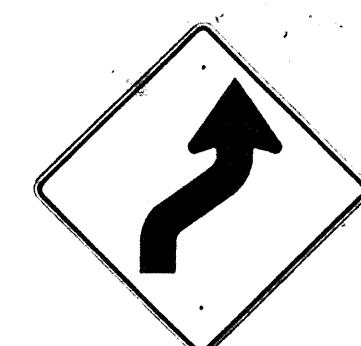
W1-1(R) 30" x 30"



W1-2(R) 30" x 30"



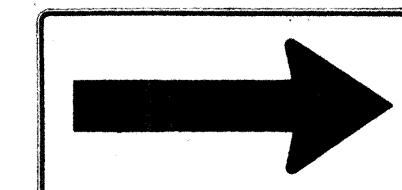
W1-3(R) 30" x 30"



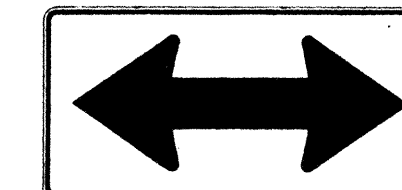
W1-4(R) 30" x 30"



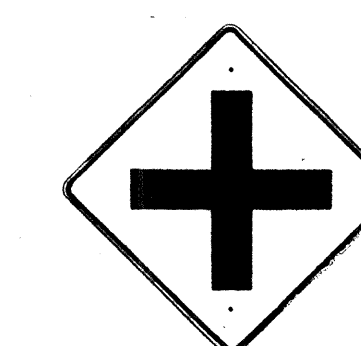
W1-5(R) 30" x 30"



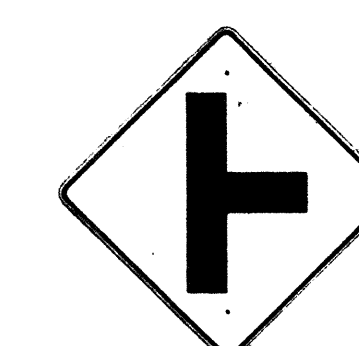
W1-6 48" x 24"



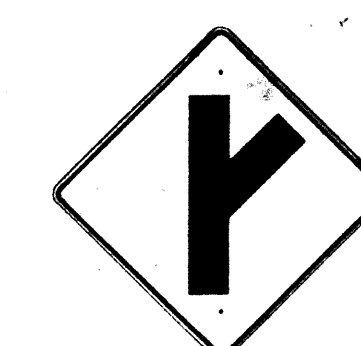
W1-7 48" x 24"



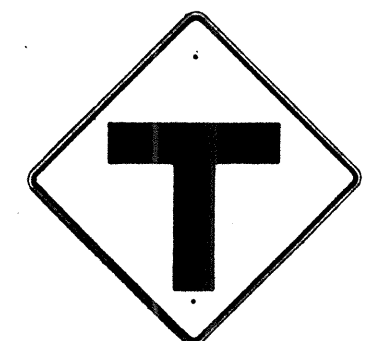
W2-1 30" x 30"



W2-2 30" x 30"



W2-3(R) 30" x 30"



W2-4 30" x 30"



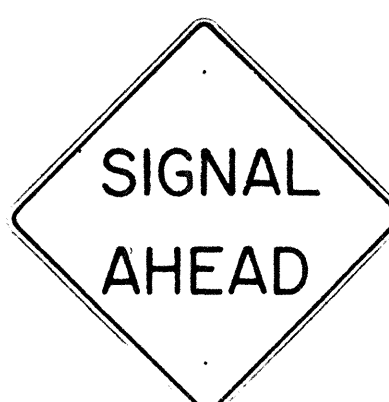
W2-5 30" x 30"



W3-1 30" x 30"



W3-2 30" x 30"



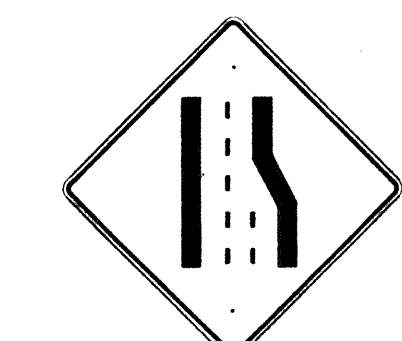
W3-3 36" x 36"



W4-1 30" x 30"

W4-1-E 36" x 36"

W4-1-I 48" x 48"



W4-2 30" x 30"

W4-2-E 36" x 36"



W5-1 30" x 30"

W5-1-E 36" x 36"



W5-2 30" x 30"



W5-3 30" x 30"



W6-1 36" x 36"



W6-2 36" x 36"



W7-1 30" x 30"



W8-1 30" x 30"



W8-2 30" x 30"



W8-3 30" x 30"



W8-4 30" x 30"



W8-5 30" x 30"



W9-1 30" x 30"



W9-2 30" x 30"



W10-1 36" DIAMETER



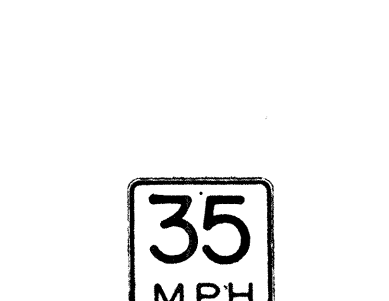
W11-1 30" x 30"



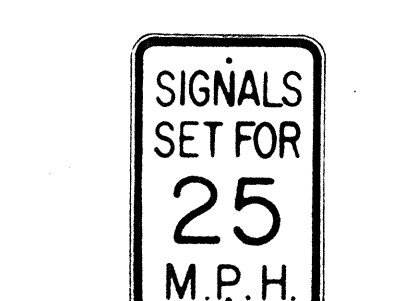
W11-5 30" x 30"



W12-2 36" x 36"



W13-1(35) 18" x 18"



W13-2(25) 12" x 18"



W13-3(25)-I 48" x 60"

NOTE:

1. 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 BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
2. All warning signs shall be reflectorized unless otherwise specified.
3. All warning signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations unless otherwise noted.
4. (R) or (L) indicates right or left and shall be as shown on the plan.
5. The suffix "E" denotes Expressway signs and "I" denotes Interstate signs.
6. For W13 sign, number in () indicates speed and shall be as shown on the plans.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

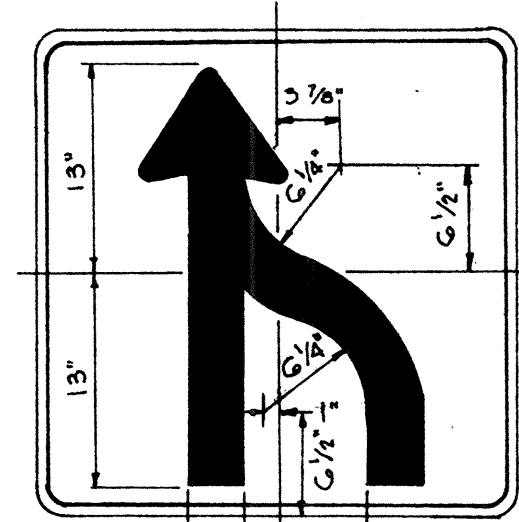
STANDARD DETAILS
WARNING SIGNS

NOT TO SCALE

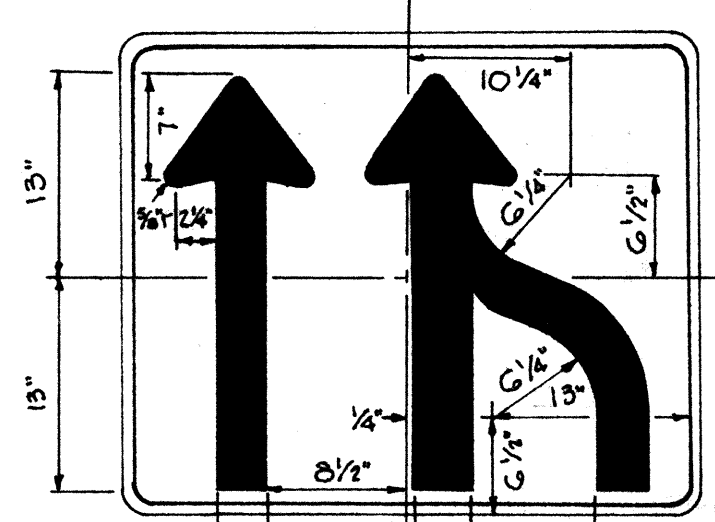
SHEET No. 22 OF 24 SHEETS

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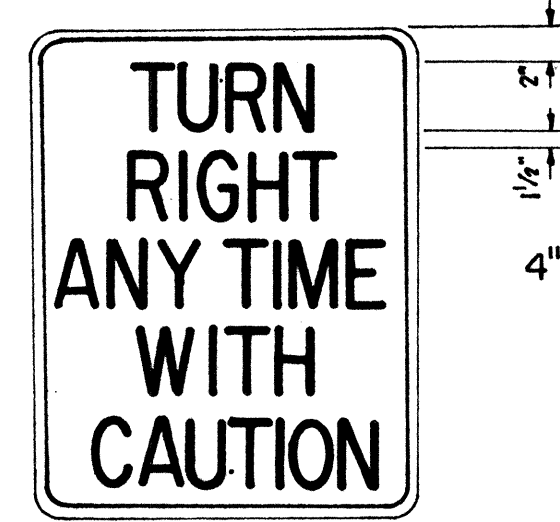
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FW-1-16-34 UNIT 2	1965	129	276



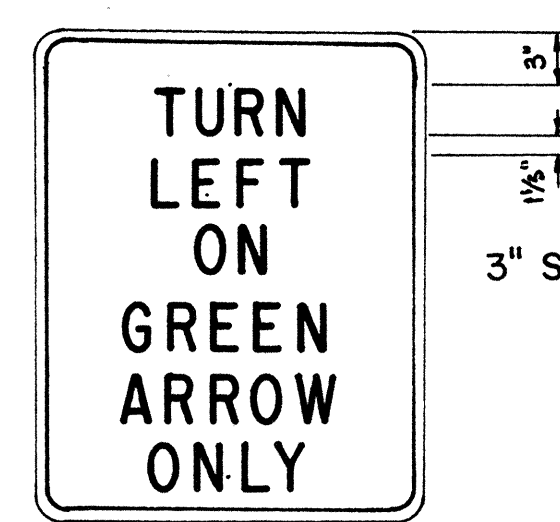
R3 - 9 30" x 30"



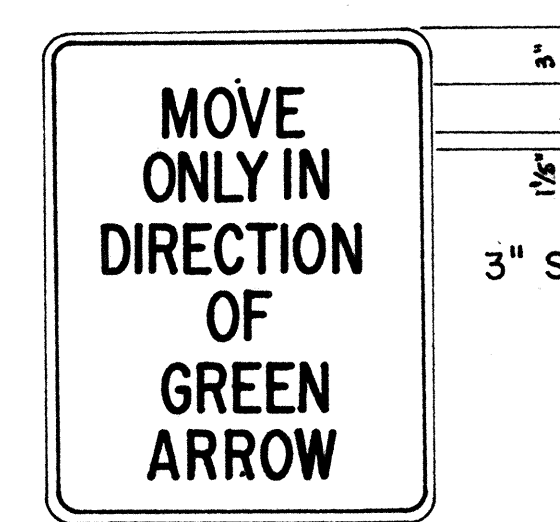
R3 - 10 36" x 30"



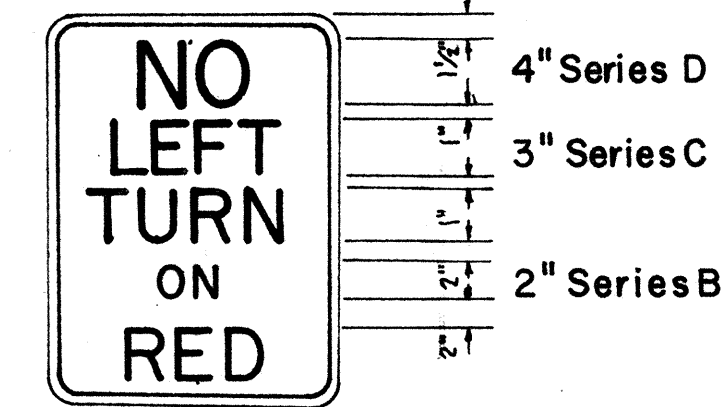
R15 - 1 24" x 30"



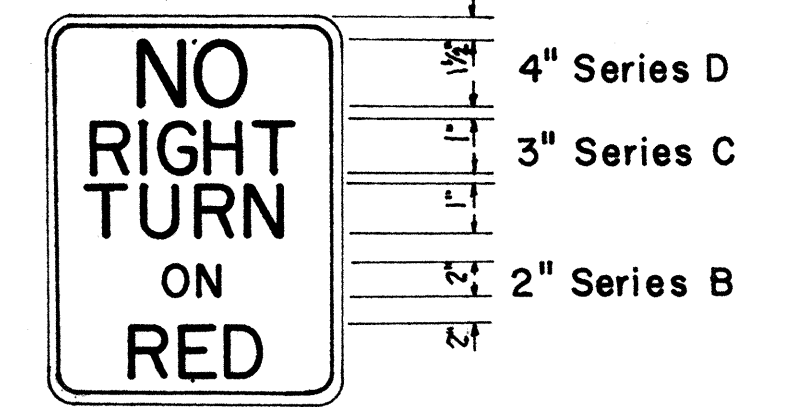
R16 - 1 24" x 30"



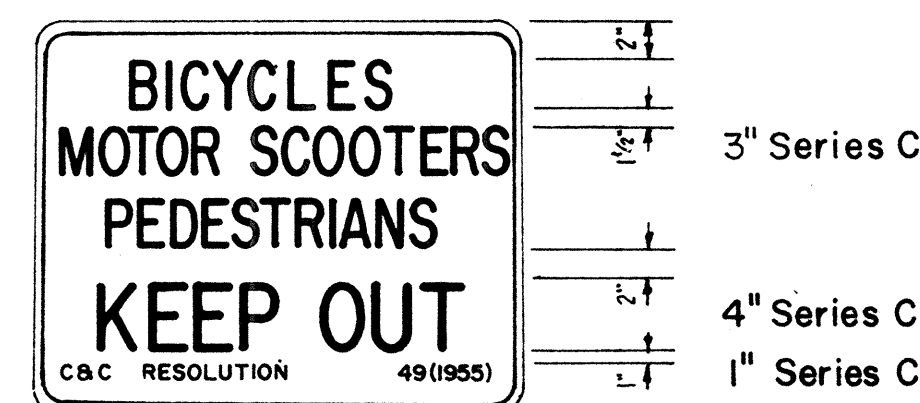
R16 - 2 24" x 30"



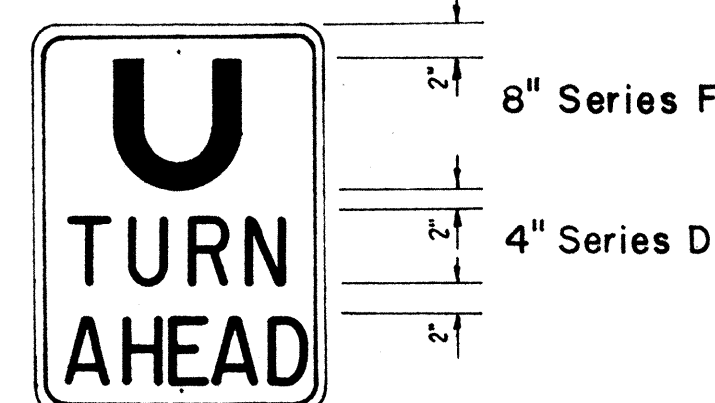
R17 - 1 18" x 24"



R17 - 2 18" x 24"



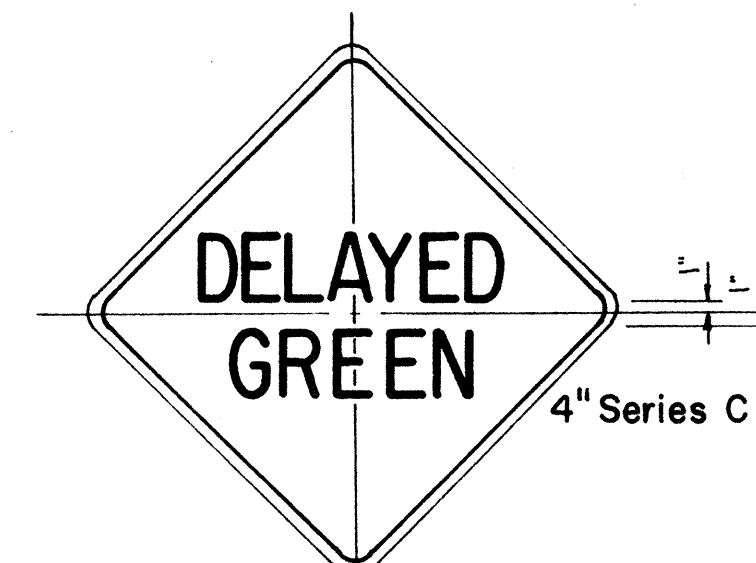
R18 - 1 30" x 24"



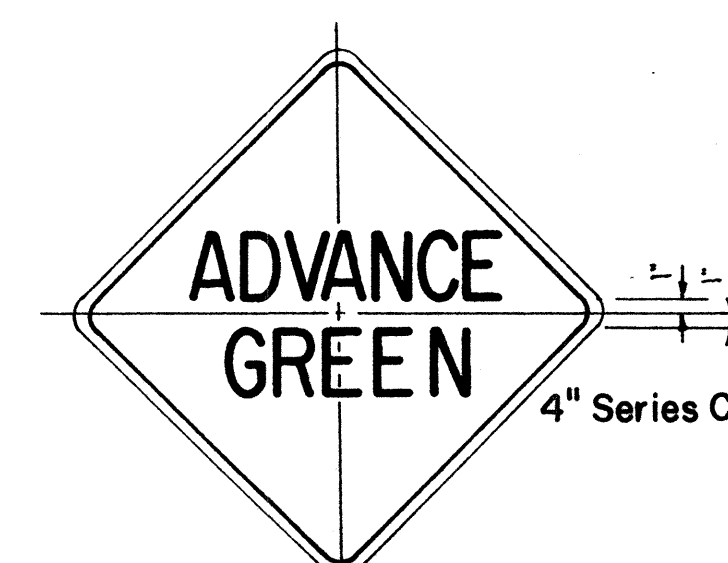
R19 - 1 18" x 24"



W13 - 4 24" x 24"



W15 - 1 24" x 24"



W15 - 2 24" x 24"

NOTE:

1. 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.
2. All regulatory and warning signs shall be reflectorized unless otherwise specified.
3. All regulatory and warning signs shall have 3/8" bolt holes drilled at appropriate locations unless otherwise noted.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
MISCELLANEOUS
REGULATORY & WARNING SIGNS

Scale: 1" = 1'-0"

SHEET No. 23 OF 24 SHEETS

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ORIGINAL PLAN	DESIGNED BY	DATE
NOTE BOOK	QUANTITIES BY	
No.	CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-141(0)164 UNIT 2	1965	130	276



W 7-2 48"x 48"



W 8-7 30"x 30"



W 14-1 30"x 30"



W 20-1a 48"x 48"



W 20-2d 48"x 48"



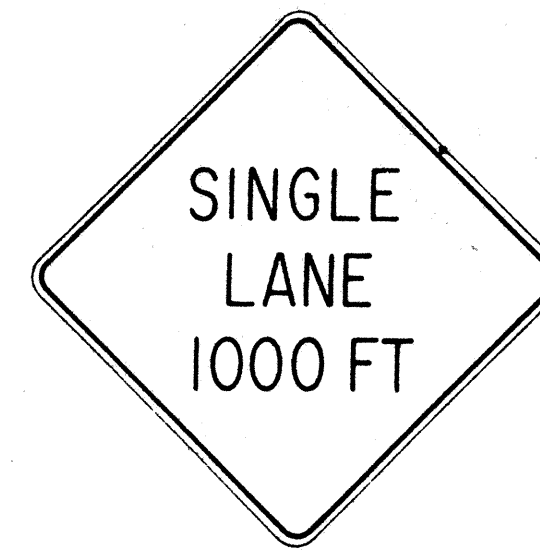
W 20-3b 48"x 48"



W 20-4d 48"x 48"



W 20-5d(L) 48"x 48"



W 20-6b 48" x 48"



W 20-7c 48"x 48"



W 21-1 30"x 30"



W 21-2 24"x 24"



W 21-3 36"x 36"



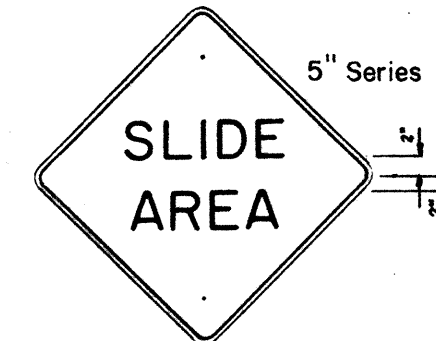
W 21-4 30"x 30"



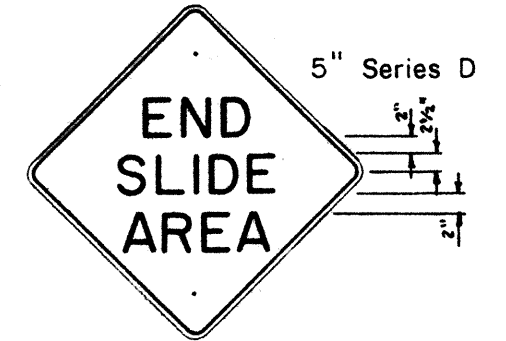
W 21-5 30"x 30"



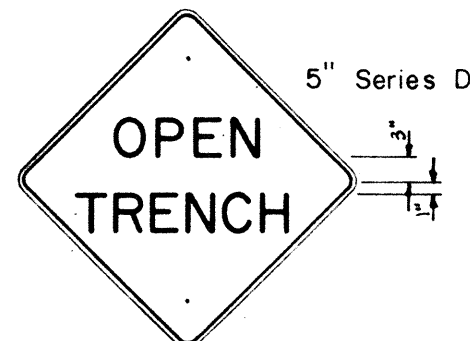
W 21-6 30"x 30"



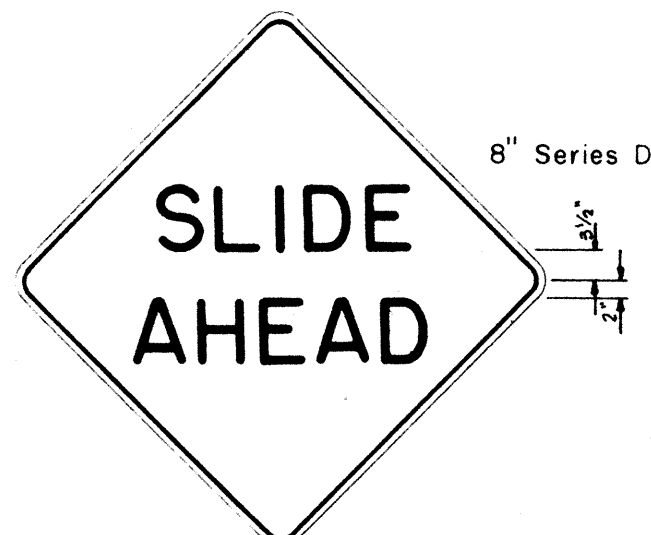
W 22-1 30"x 30"



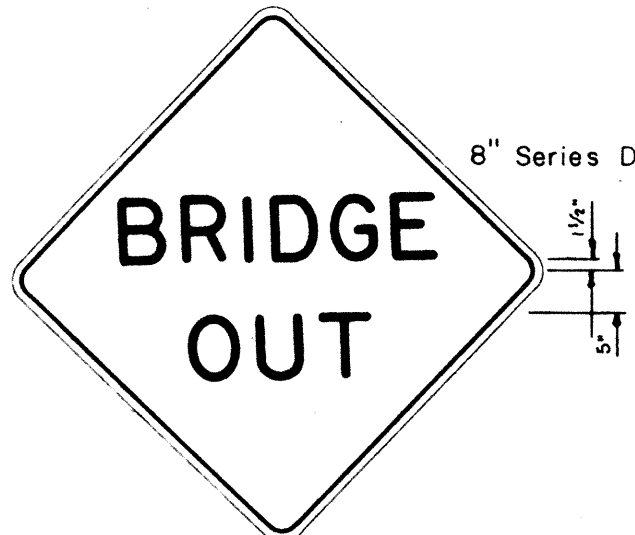
W 22-2 30"x 30"



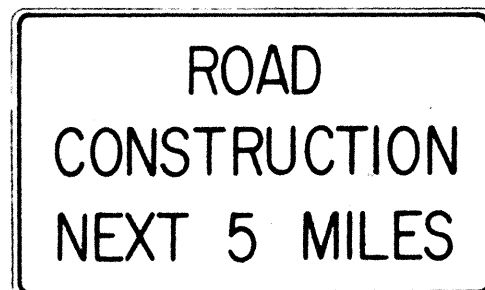
W 22-3 30"x 30"



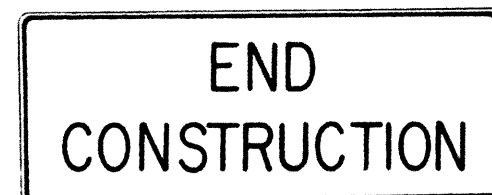
W 22-4 48"x 48"



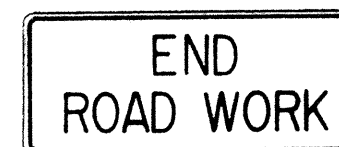
W 22-5 48" x 48"



G 20-1(5) 60" x 36"



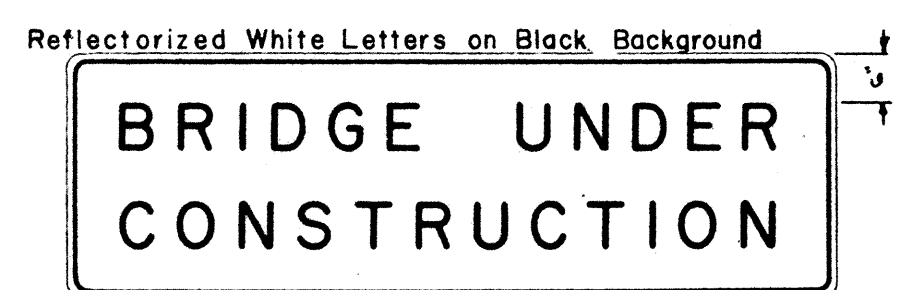
G 20-2 60" x 24"



G 20-3 42" x 18"



M 5-7(L) 48" x 18"



CW-1 96" x 30"



W 20-8(L) 48" x 48"

- NOTE:
- 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 BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
 - All signs shall be reflectorized unless otherwise specified.
 - All signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations unless otherwise noted.
 - For W 20 series signs, suffixes a,b,c and d are as follows a 1500 FT, b 1000 FT, c 500 FT and d AHEAD
 - (R) or (L) indicates right or left and shall be as shown on the plans.
 - Number in () indicates miles and shall be as shown on the plans.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS CONSTRUCTION SIGNS

NOT TO SCALE

SHEET No. 24 OF 24 SHEETS

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