

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(77):13	1969	55	154

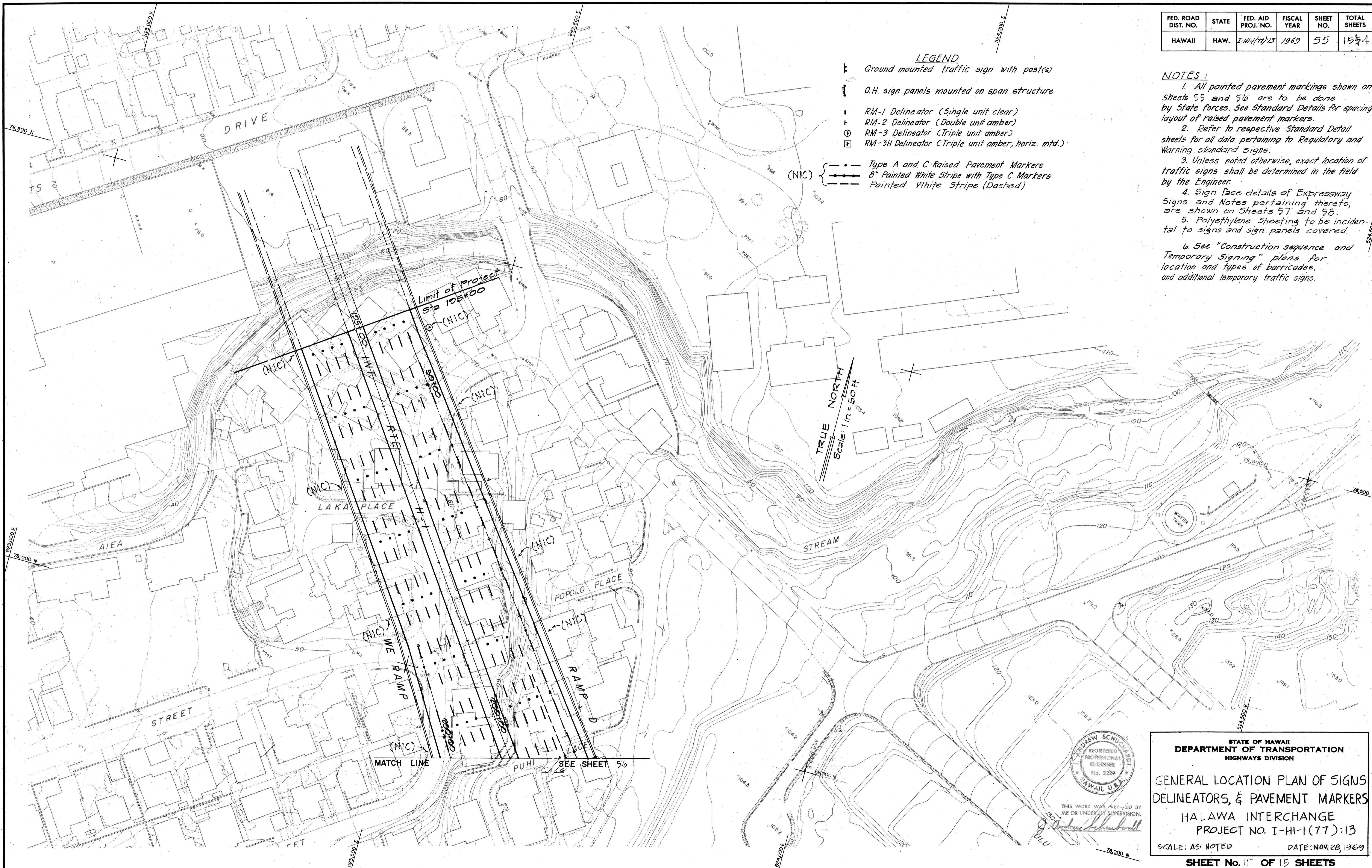
NOTES:

- All painted pavement markings shown on sheets 55 and 56 are to be done by State forces. See Standard Details for spacing layout of raised pavement markers.
- Refer to respective Standard Detail sheets for all data pertaining to Regulatory and Warning standard signs.
- Unless noted otherwise, exact location of traffic signs shall be determined in the field by the Engineer.
- Sign face details of Expressway Signs and Notes pertaining thereto, are shown on sheets 57 and 58.
- Polyethylene sheeting to be incidental to signs and sign panels covered.
- See "Construction sequence and Temporary Signing" plans for location and types of barricades, and additional temporary traffic signs.

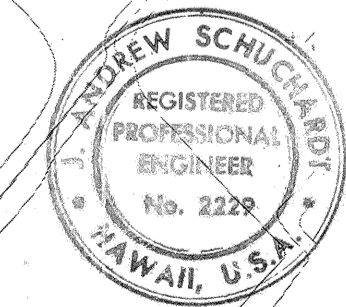
LEGEND

- Ground mounted traffic sign with post(s)
- O.H. sign panels mounted on span structure
- RM-1 Delineator (Single unit clear)
- RM-2 Delineator (Double unit amber)
- RM-3 Delineator (Triple unit amber)
- RM-3H Delineator (Triple unit amber, horiz. mtd.)

- Type A and C Raised Pavement Markers
- 8" Painted White Stripe with Type C Markers
- Painted White Stripe (Dashed)



ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	6-30-69
DESIGNED BY	7-8-69
QUANTITIES BY	7-17-69
CHECKED BY	7-24-69



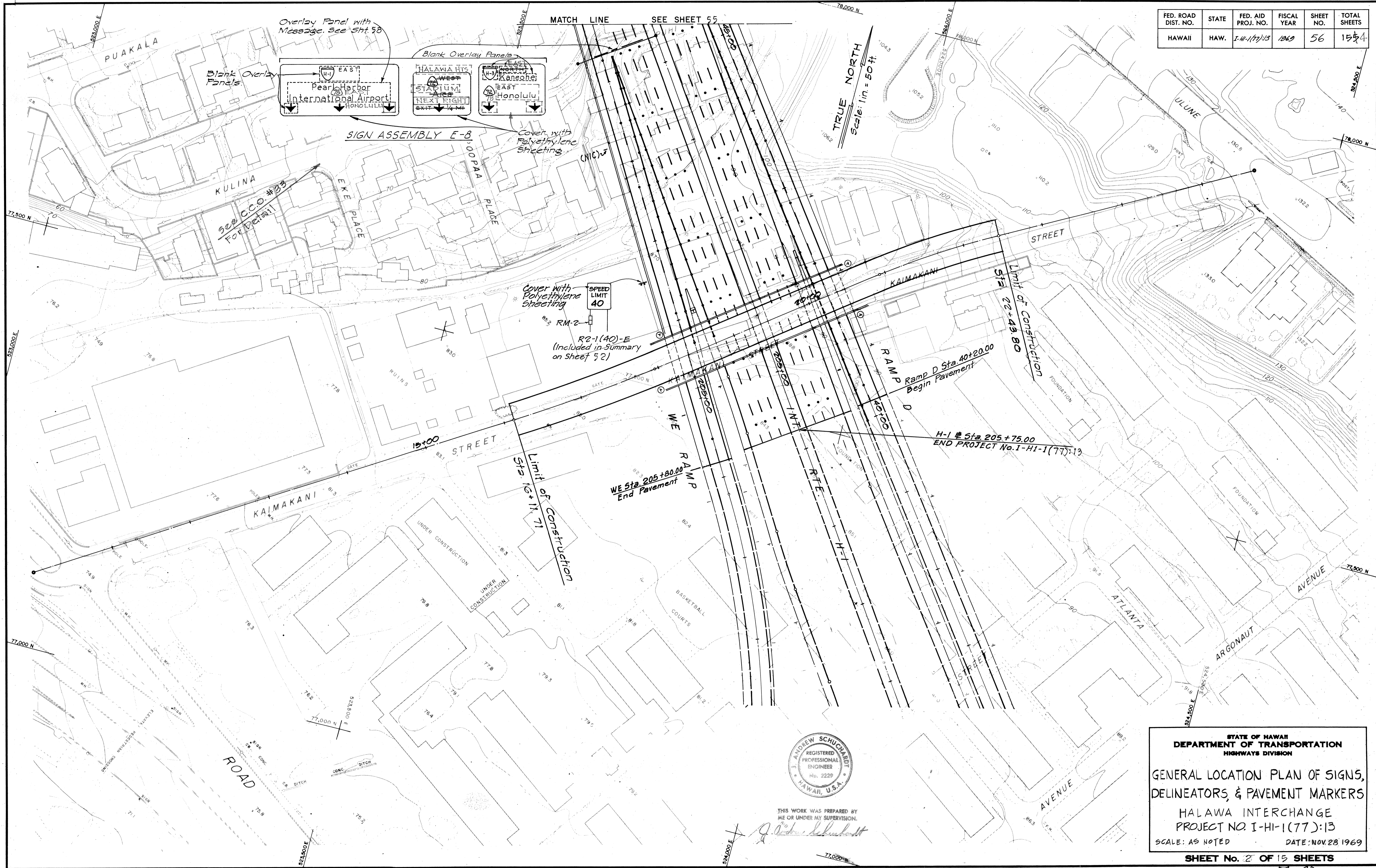
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL LOCATION PLAN OF SIGNS
DELINEATORS, & PAVEMENT MARKERS
HALAWA INTERCHANGE
PROJECT NO. I-HI-1(77):13
SCALE: AS NOTED DATE: NOV. 28, 1969

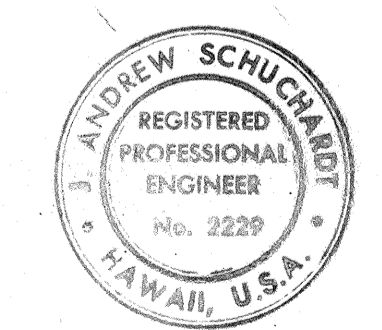
SHEET No. 11 OF 15 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(77):13	1969	56	154



DATE	BY
7/15/69	AS
7/18/69	AS
6/30/69	AS
7/7/69	AS
7/14/69	AS

SURVEY PLOTTED BY: _____
 DRAWN BY: _____
 DESIGNED BY: E.S. MORGAN / M. SONG
 QUANTITIES BY: _____
 CHECKED BY: E.S. MORGAN



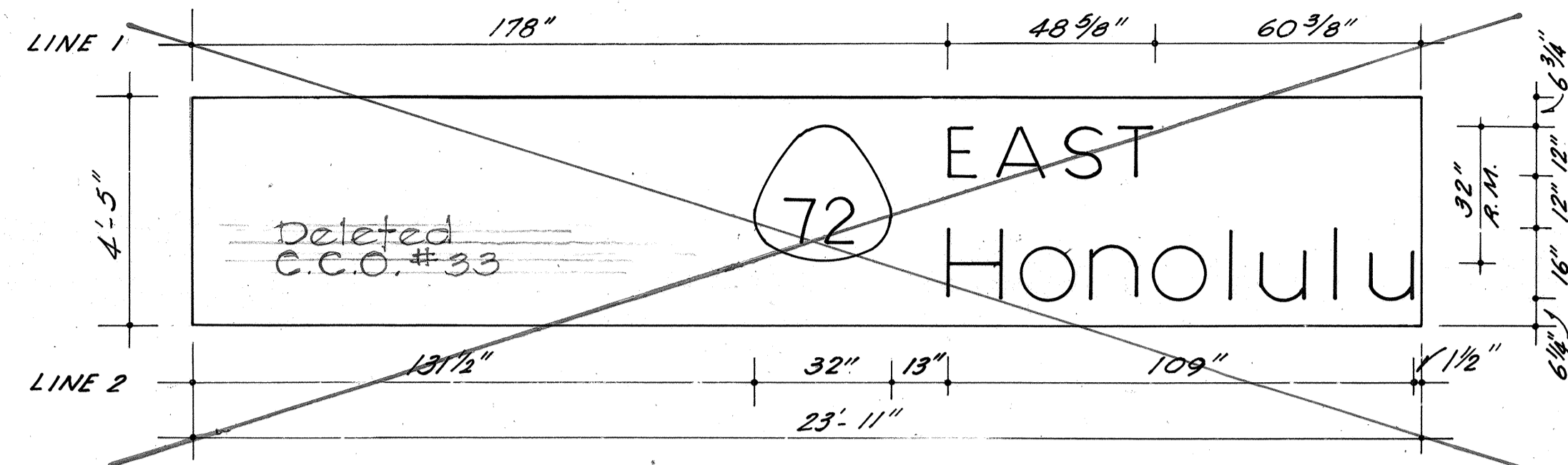
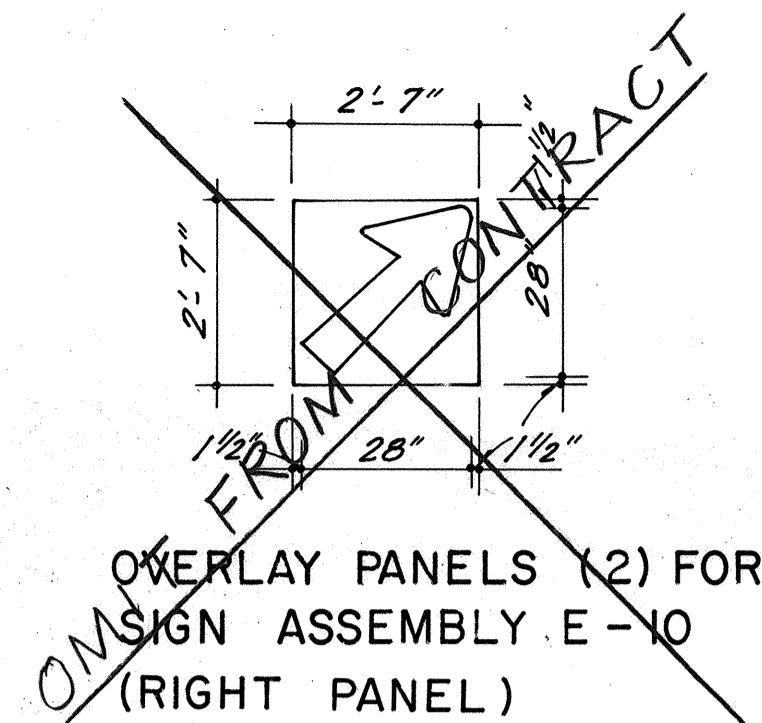
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Andrew Schuchman

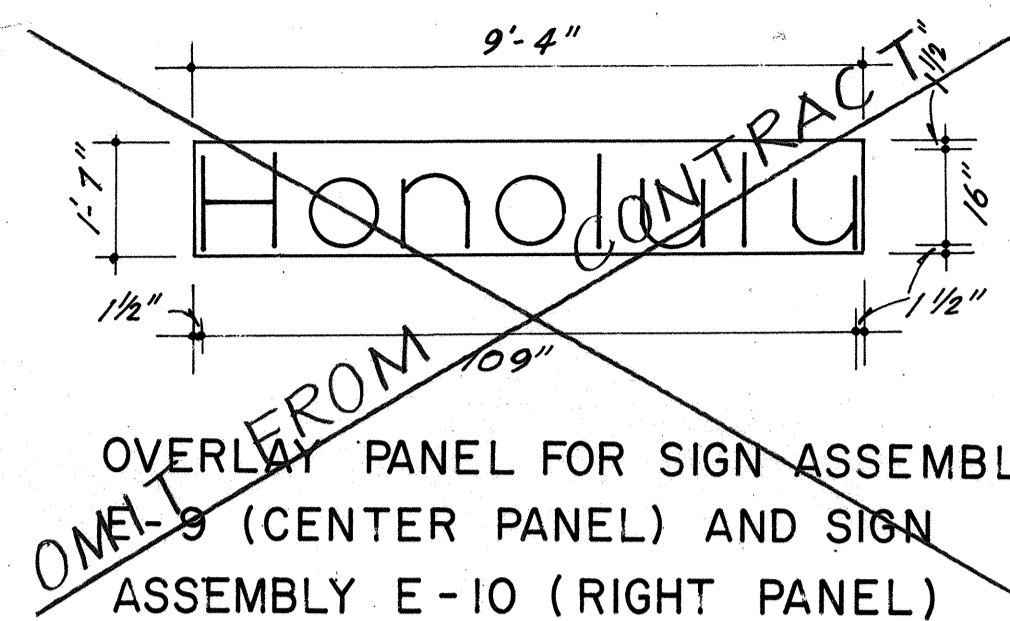
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 GENERAL LOCATION PLAN OF SIGNS,
 DELINEATORS, & PAVEMENT MARKERS
 HALAWA INTERCHANGE
 PROJECT NO. I-HI-1(77):13
 SCALE: AS NOTED DATE: NOV. 28 1969
 SHEET No. 2 OF 15 SHEETS

56

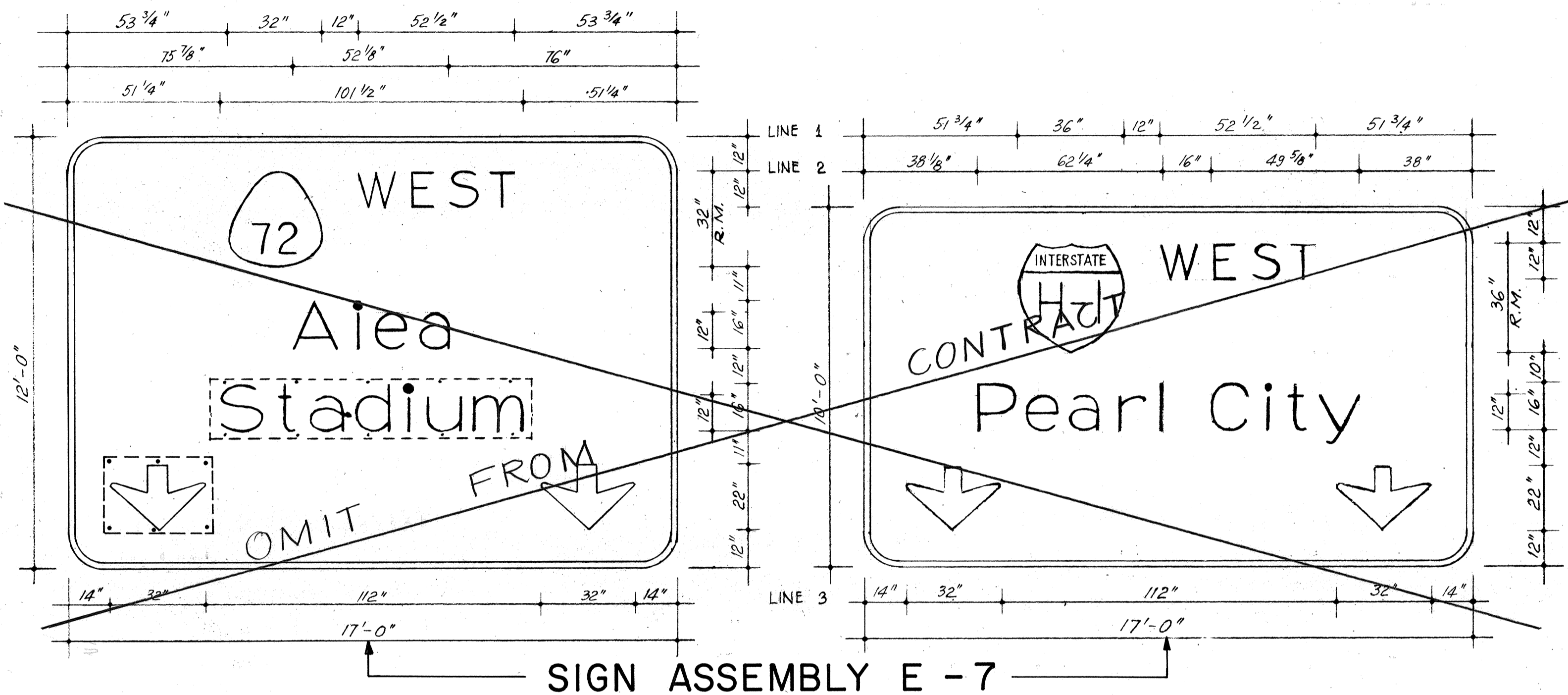
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(77):13	1969	57	154



OVERLAY PANEL FOR SIGN ASSEMBLY E-8 (LEFT PANEL)

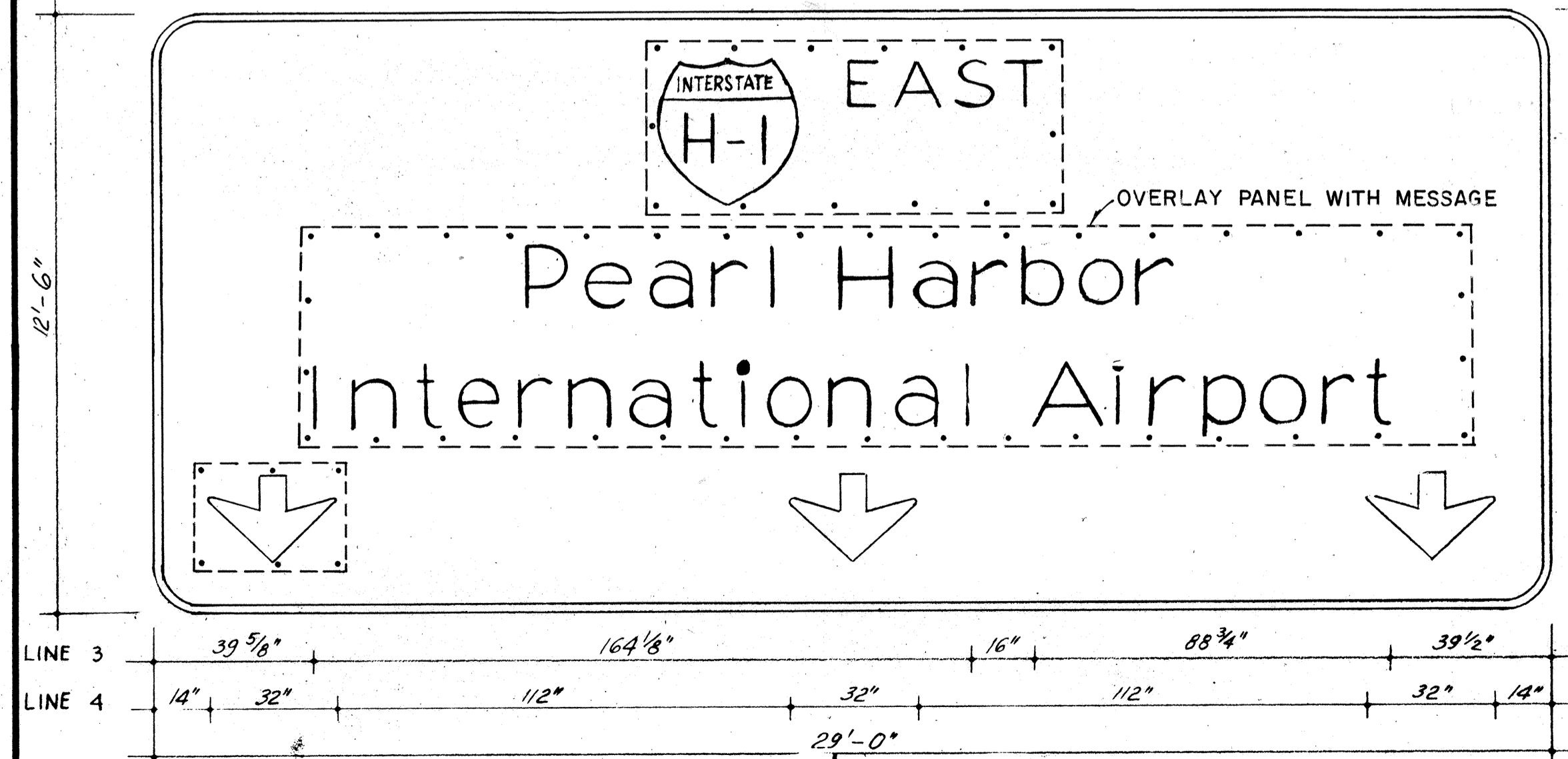
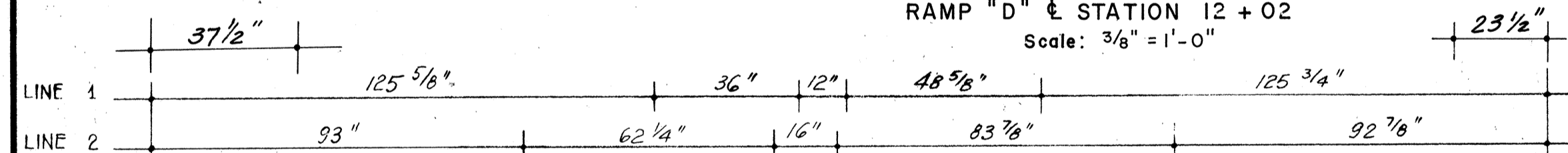


OVERLAY PANEL FOR SIGN ASSEMBLY E-10 (CENTER PANEL) AND SIGN ASSEMBLY E-10 (RIGHT PANEL)



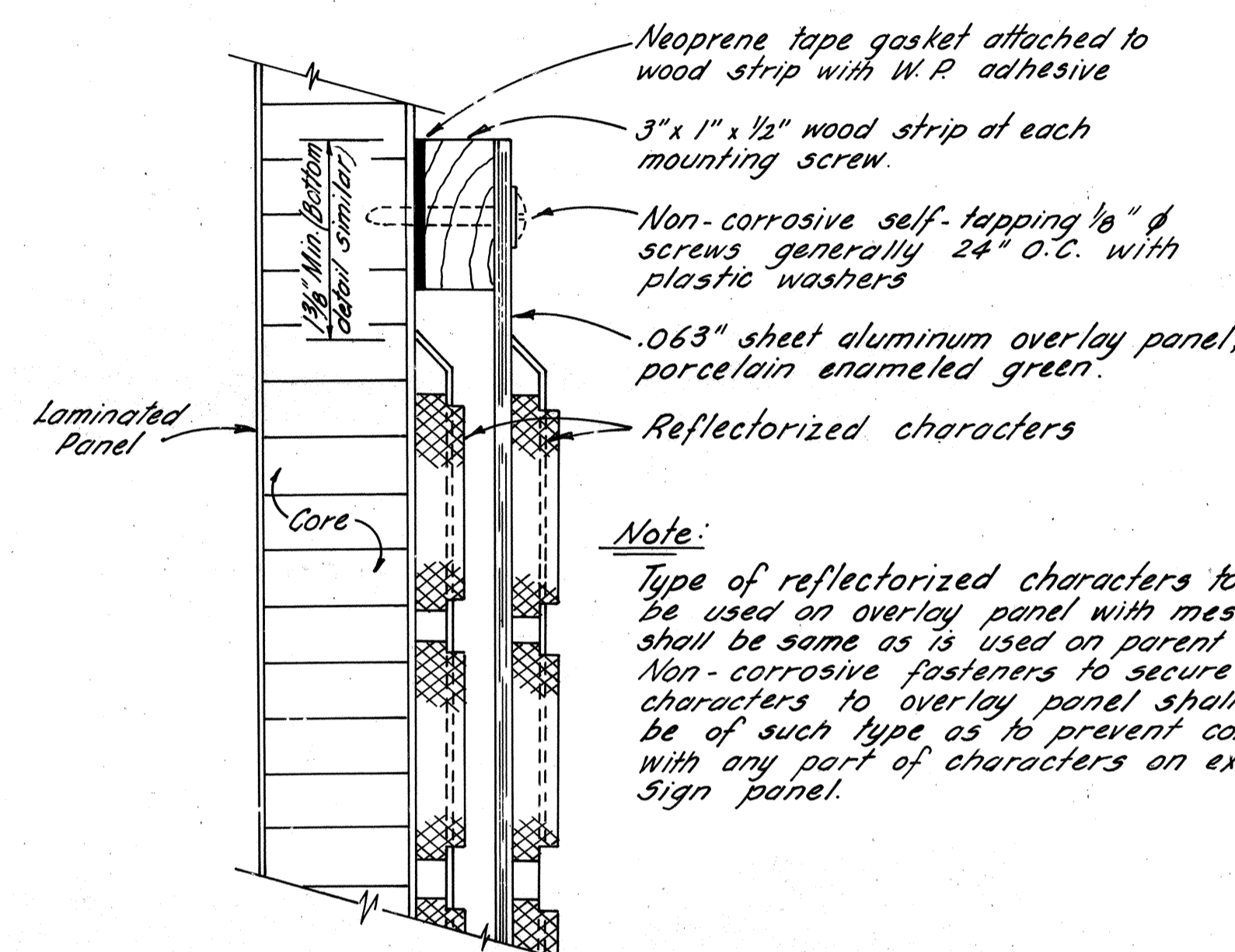
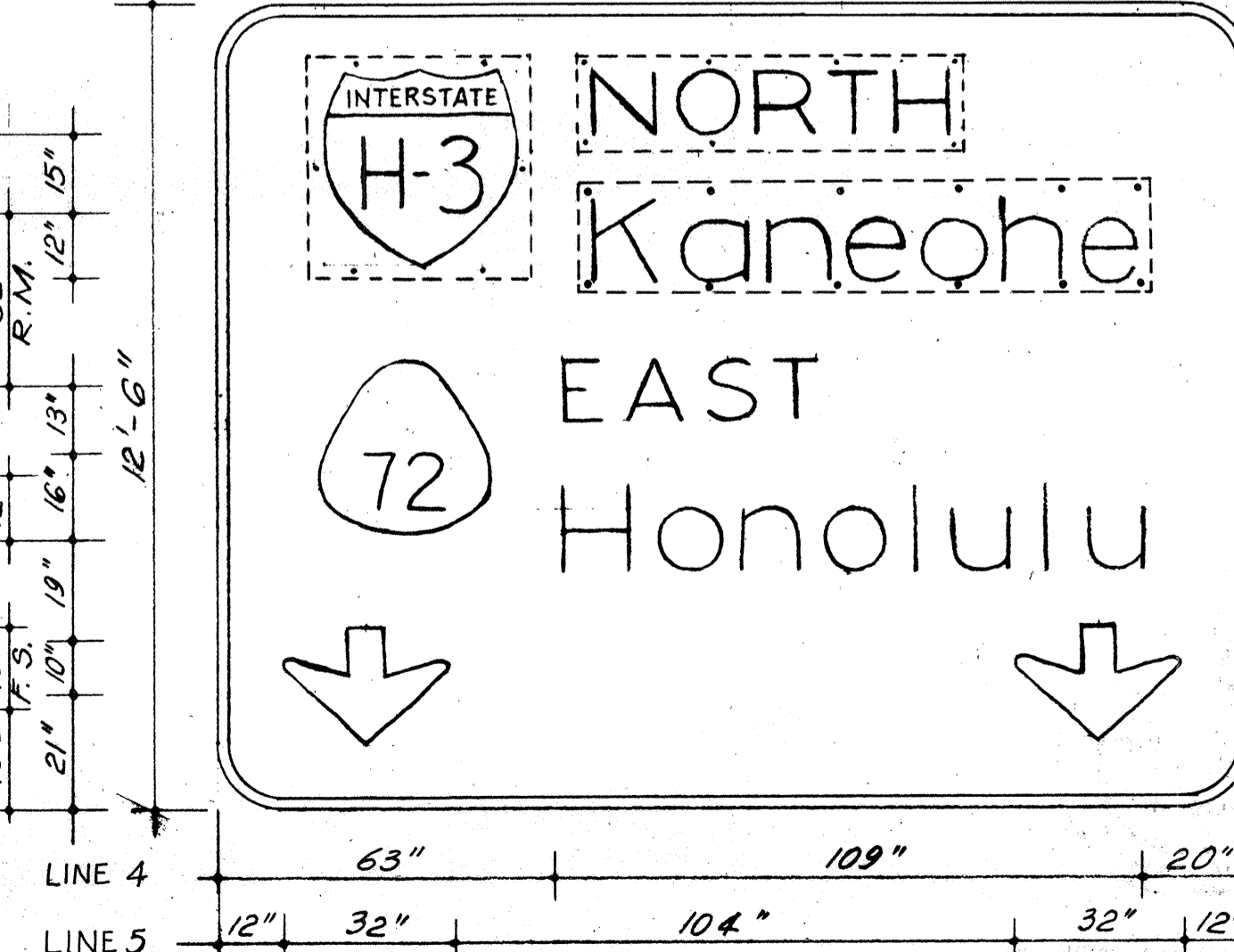
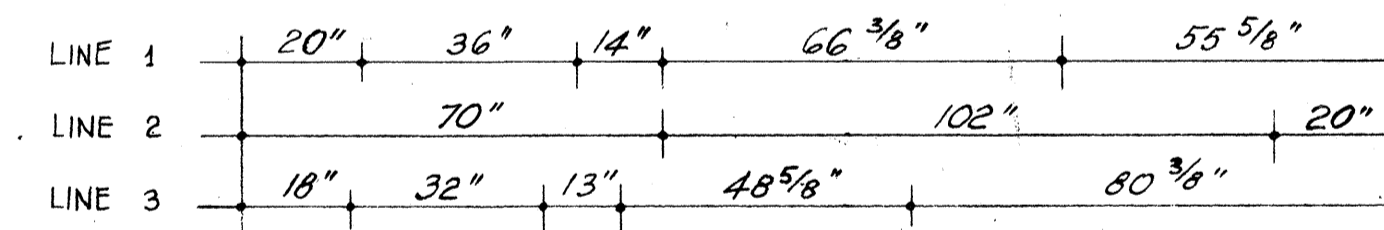
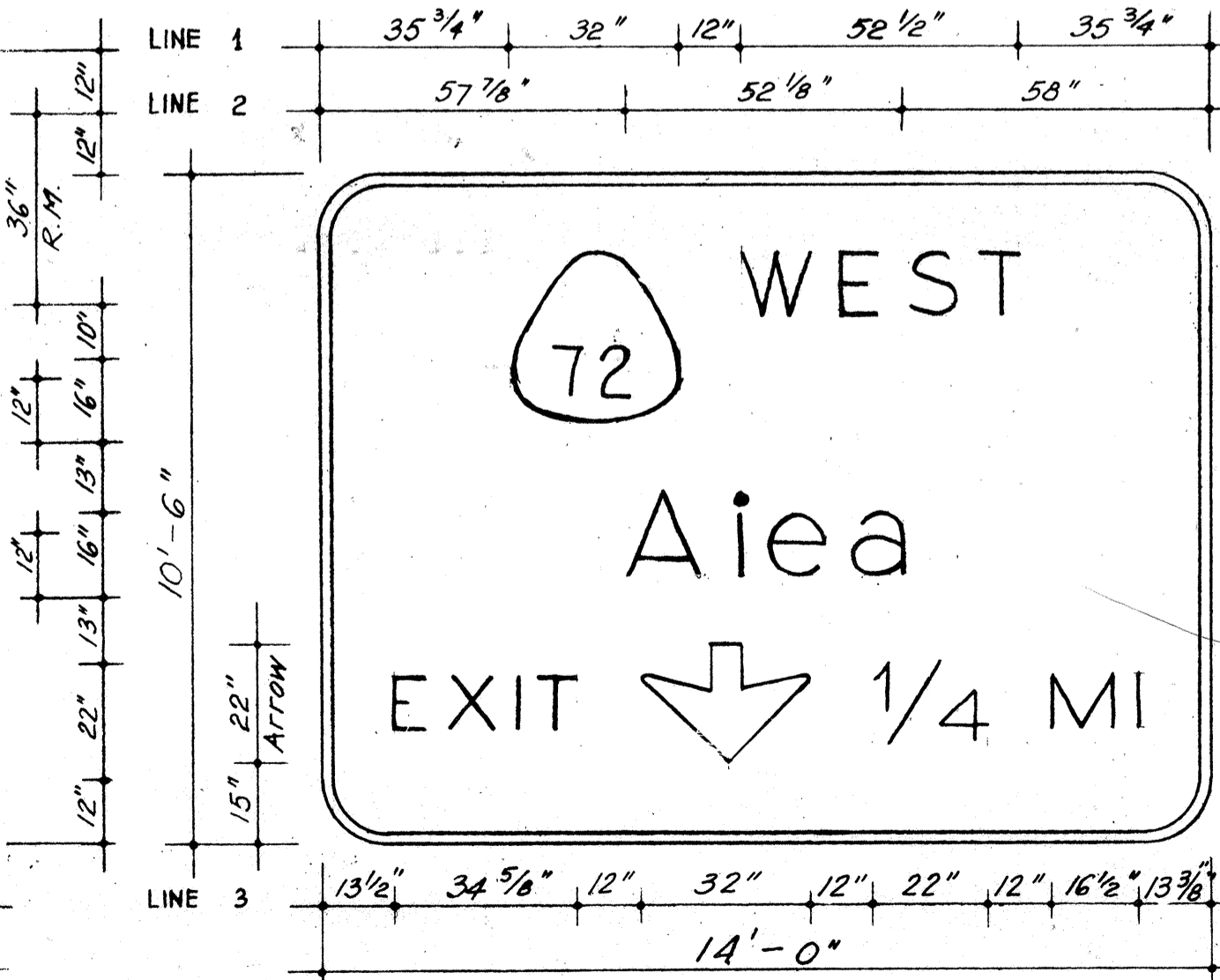
SIGN ASSEMBLY E-7

RAMP "D" & STATION 12 + 02
Scale: 3/8" = 1'-0"



SIGN ASSEMBLY E-8

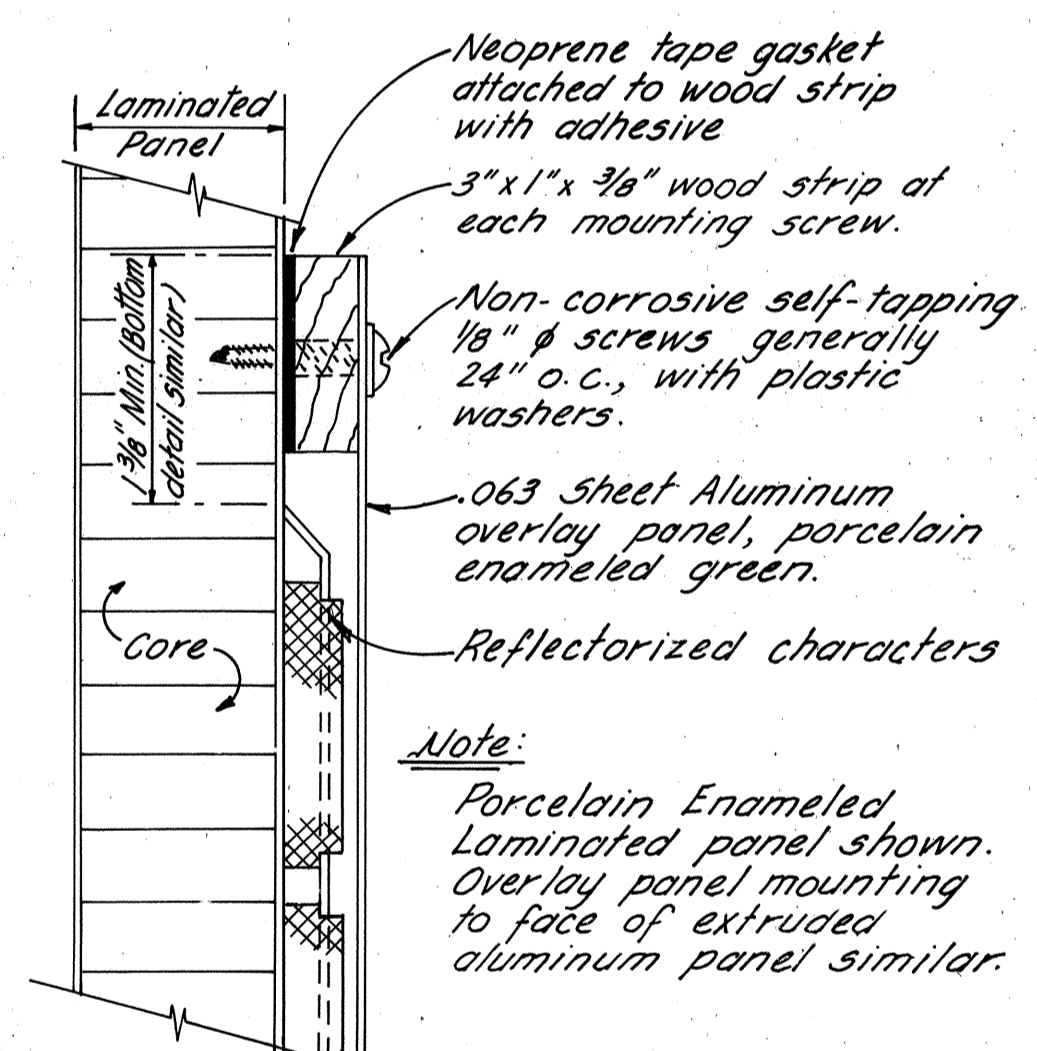
INT. H-1 & STATION 200 + 65 (INBOUND)
Scale: 3/8" = 1'-0"



DETAIL OF OVERLAY PANEL WITH MESSAGE

Scale: Full Size

Note:
Type of reflectorized characters to be used on overlay panel with message shall be same as is used on parent sign. Non-corrosive fasteners to secure characters to overlay panel shall be of such type as to prevent contact with any part of characters on existing sign panel.



DETAIL OF OVERLAY PANEL

Scale: Full Size

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
J. Andrew Schuchardt



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGN FACE DETAILS

HALAWA INTERCHANGE
PROJECT NO. I-HI-1(77):13

SCALE: AS SHOWN DATE: NOV 28 1969

SHEET No. 3 OF 15 SHEETS

DATE	7/1/69
DESIGNED BY	W.L.S.
CHECKED BY	W.L.S.
QUANTITIES BY	W.L.S.
NOTE BOOK	
ORIGINAL PLAN	
DATE	7/1/69

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-41-(77)-13	1969	58	154

NOTES PERTAINING TO EXPRESSWAY (E) SIGNS

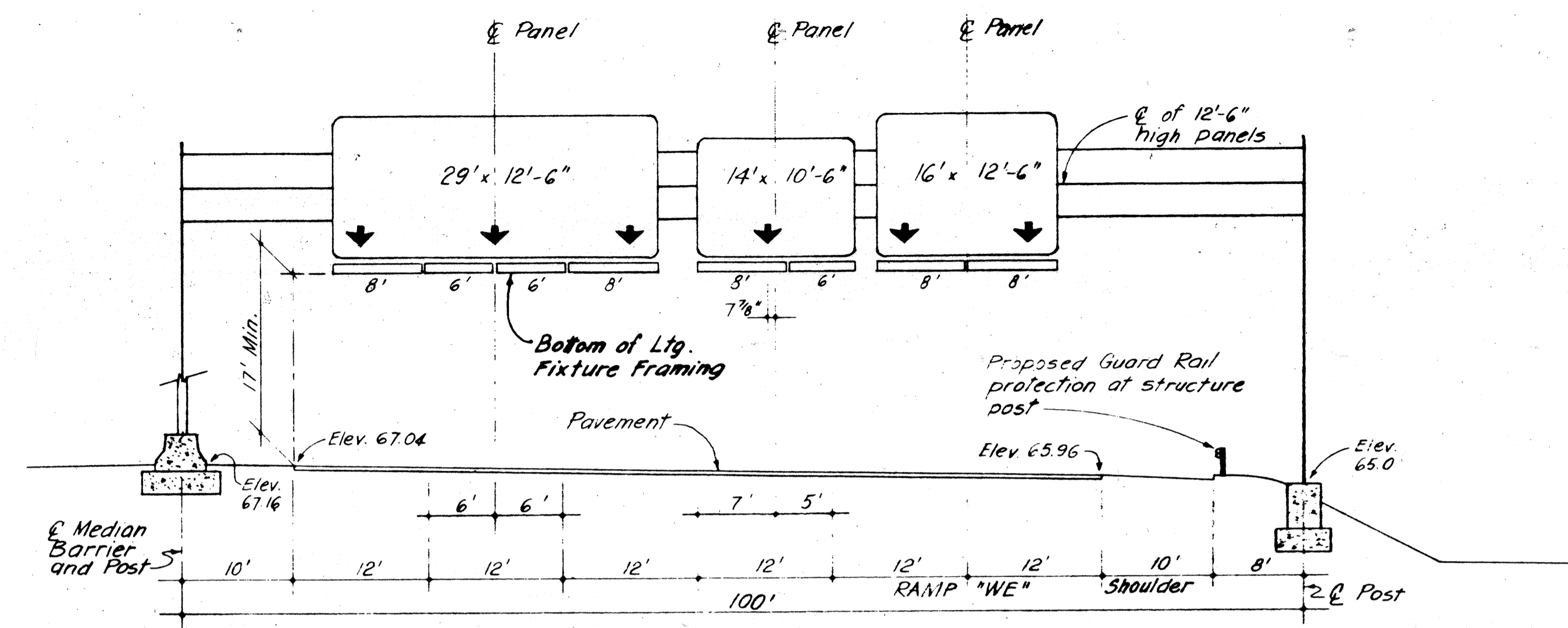
- DESIGN OF THE COMPANION UPPER AND LOWER CASE CHARACTERS, MODIFIED SERIES "E" CAPITAL LETTERS AND DIGITS, AND INTERCHARACTER SPACING FOR LINE MESSAGES SHALL MEET THE REQUIREMENTS ESTABLISHED BY THE BUREAU OF PUBLIC ROADS, U.S. DEPARTMENT OF COMMERCE, IN ITS REFERENCE GUIDE, "STANDARD ALPHABETS FOR HIGHWAY SIGNS", 1966 EDITION.
- UNLESS OTHERWISE NOTED, SIGN BORDERS AND CORNER RADII FOR ALL SIGN FACES DETAILED HEREIN SHALL BE 2 INCHES WIDE, AND 12 INCHES, RESPECTIVELY.
- STATE AND INTERSTATE ROUTE MARKERS INCORPORATED ON SIGN PANELS SHALL CONFORM TO THE DIMENSIONS AS SHOWN. MARKER SHAPE, COLOR, LETTER AND NUMERAL SERIES, ETC., ARE TO COMPLY WITH THOSE OF THE OFFICIAL MARKER DESIGNS ON THE STANDARD DETAIL SHEETS.
- ALL ARROWS SHALL BE AS PRESCRIBED FOR SIGNS ON THE NATIONAL SYSTEM OF INTERSTATE AND DEFENSE HIGHWAYS.
- INDIVIDUAL LETTERS, NUMERALS, SYMBOLS, AND BORDERS SHALL BE DEMOUNTABLE AND CONSIST OF:
 - (A) EMBOSSED ALUMINUM CUT-OUTS WITH APPLIED SILVER-WHITE REFLECTIVE SHEETING MATERIAL; OR
 - (B) WHITE PORCELAIN ENAMELED ALUMINUM FRAMES IN WHICH ARE INSTALLED PLASTIC REFLEX REFLECTORS.
- ALL ARTIFICIALLY ILLUMINATED EXPRESSWAY SIGNS SHALL HAVE REFLECTORIZED MESSAGE AND BORDER ON A GREEN PORCELAIN ENAMELED BACKGROUND.
- FASTENERS:
 - DEMOUNTABLE CHARACTERS SHALL BE FASTENED TO SIGN PANELS WITH BLIND RIVETS. OVERLAY PANELS SHALL BE FASTENED TO PARENT SIGN PANELS WITH SELF-TAPPING SCREWS AS SHOWN.
 - DEMOUNTABLE CHARACTERS, EXCEPT AS OTHERWISE SPECIFIED, SHALL BE OF ONE TYPE ON ANY SIGN PANEL OR GROUP OF SIGN PANELS MOUNTED ON A COMMON SUPPORT, AND SHALL INCLUDE LETTERS, NUMERALS, ARROWS AND BORDERS.
 - WHERE MORE THAN ONE SIGN PANEL IS MOUNTED ON THE SAME OVERHEAD SIGN PANEL SUPPORT, THE LEFT TO RIGHT POSITION OF SIGN FACES OF PANELS ON THE SUPPORT (AS VIEWED BY APPROACHING TRAFFIC) IS REPEATED IN THE SAME ORDER ON THESE SIGN FACE DETAIL SHEETS.

SHEET NO.	RM-1 CLEAR		RM-2 AMBER		RM-3 AMBER		RM-3H AMBER	
	W/POST	W/O POST	W/POST	W/O POST	W/POST	W/O POST	W/POST	W/O POST
55	4	-	5	-	1	-	-	-
56	4	-	6	1	-	4	1	-
TOTAL	8		11	1	1	4	1	

SHEET NO.	QUANTITY	
	TYPE A	TYPE C
55	672	59
56	633	116
TOTAL	1305	175

SIGN NO.	MESSAGE COVERED	AREA (SQ. FT.)
E-8	INT. H-1 EAST	27.08
E-8	(ARROW)	6.08
E-8	INT. H-3	10.56
E-8	NORTH	7.29
E-8	KANEOHE	13.85
TOTAL		64.86

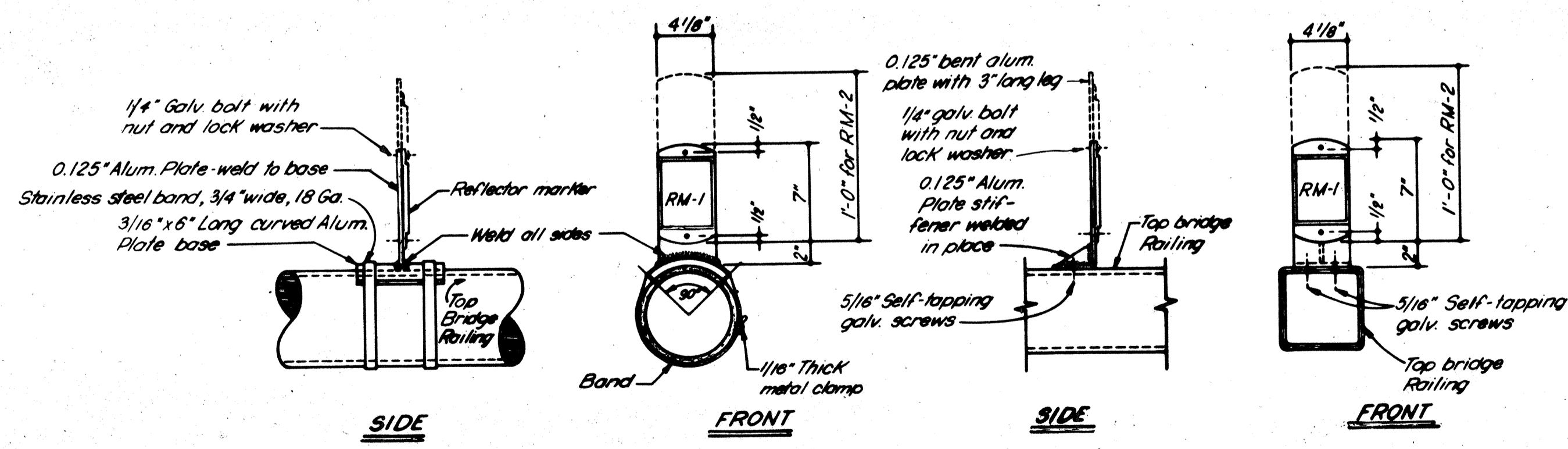
SIGN NO.	MESSAGE	AREA (SQ. FT.)
E-8	72 EAST HONOLULU	105.72



ELEVATION SIGN ASSEMBLY E-8
INTERSTATE ROUTE H-1 INBOUND STA. 200+65

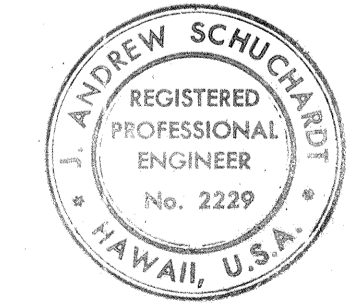
NOTES

- FOR SIGN FACE DETAILS OF PANELS MOUNTED ON OVERHEAD SIGN STRUCTURES, SEE SHEET 3T.
- FOR DETAILS OF (A) OUTRIGGER BRACKETS SUPPORTING SIGN PANEL LIGHTING FIXTURES, (B) OVERHEAD SIGN STRUCTURES, (C) STRUCTURE FOOTINGS, (D) SPECIAL CONCRETE MEDIAN BARRIER SECTION AT OVERHEAD SIGN STRUCTURE POSTS, (E) SIGN PANEL BRACKETS, SEE SHEETS 76 AND 59 TO 63.
- SEE ELECTRICAL DRAWINGS FOR SIGN PANEL LIGHTING FIXTURE TYPES, INSTALLATION DETAILS, ETC.
- FOR PROTECTIVE TREATMENT OF EXPOSED OVERHEAD SIGN STRUCTURE SUPPORTS, SEE SPECIAL GUARD RAIL INSTALLATIONS ON GENERAL LOCATION PLANS, SPECIFICATIONS AND STANDARD DETAILS.
- E-5 SIGN FACE AREA = 709.50 SQ. FT.



DETAILS OF BRACKETS FOR REFLECTOR MARKERS
MOUNTED ON BRIDGE RAILINGS
Scale: 1 1/2" = 1'-0"
(TYPICAL)

SURVEY PLOTTED BY: DATE: JUL 69
 TRACED BY: J. J. HARRIS
 DESIGNED BY: F. HARRIS
 QUANTITIES BY: J. HARRIS
 CHECKED BY: J. HARRIS



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION,
J. Andrew Schuchardt

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

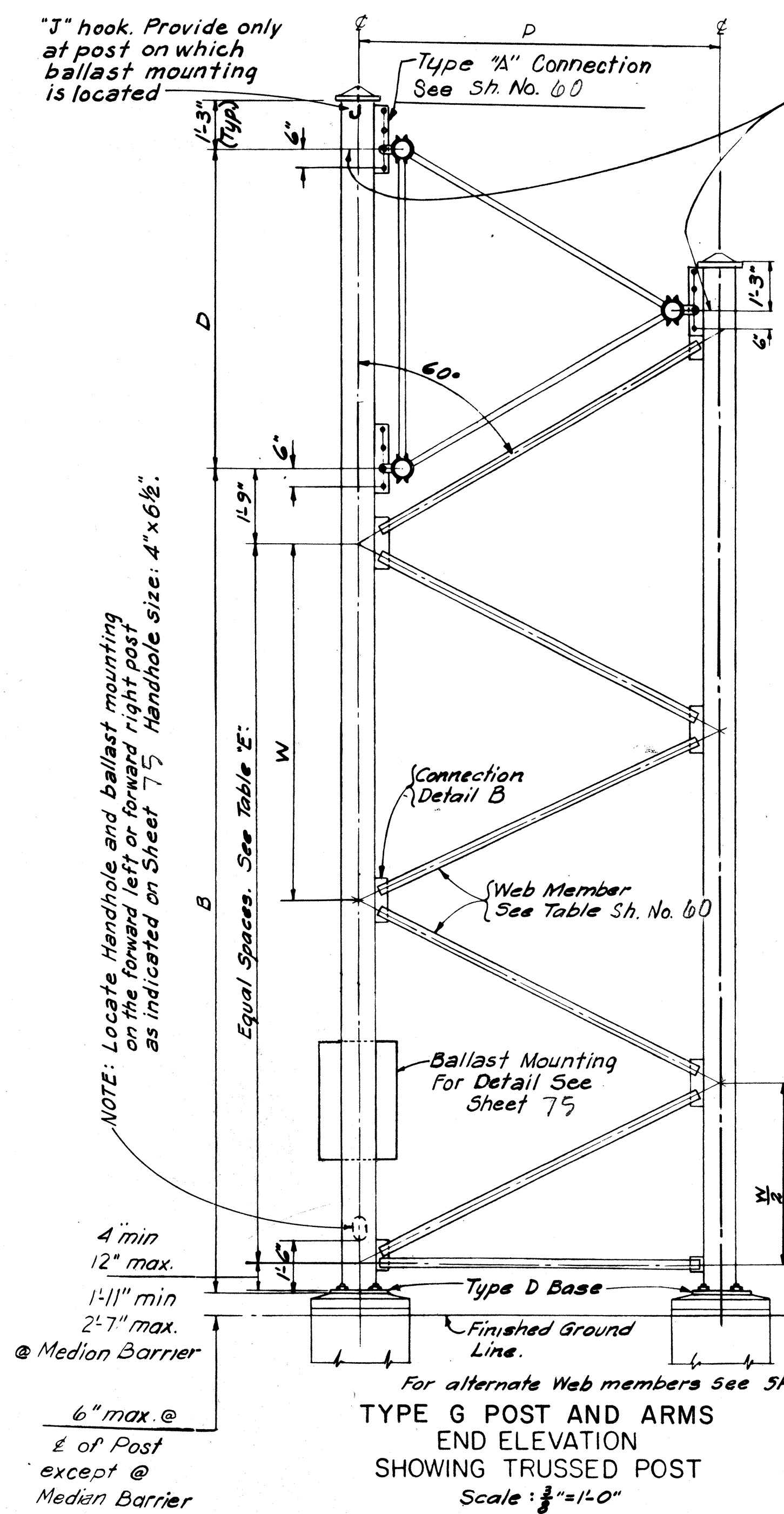
MISCELLANEOUS SIGN DETAILS

HALAWA INTERCHANGE
PROJECT NO. I-HI-1(77):13
SCALE: AS NOTED DATE: NOV 28, 1969

SHEET No. 4 OF 15 SHEETS

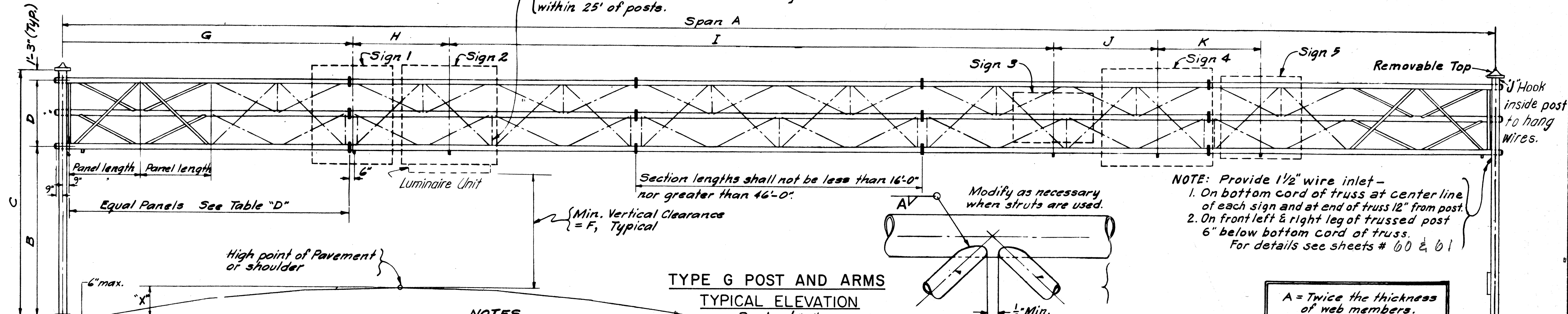
58

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(77):15	1969	59	1554



Design mounting location of truss chord. Dimensions "B" and "C" are based on chord being mounted opposite this hole. In the case of changes in "X" dimensions or sign heights after the trussed posts are fabricated, the truss should be mounted so that the minimum vertical clearance "F" is not exceeded by more than 6".

Use struts on 6'-0" and 8'-0" deep trusses only. Make struts same size as diagonal web members. Locate struts as shown in this view. Struts are not necessary within 25' of posts.



TYPE G POST AND ARMS
TYPICAL ELEVATION
Scale: 1/8" = 1'-0"

NOTES

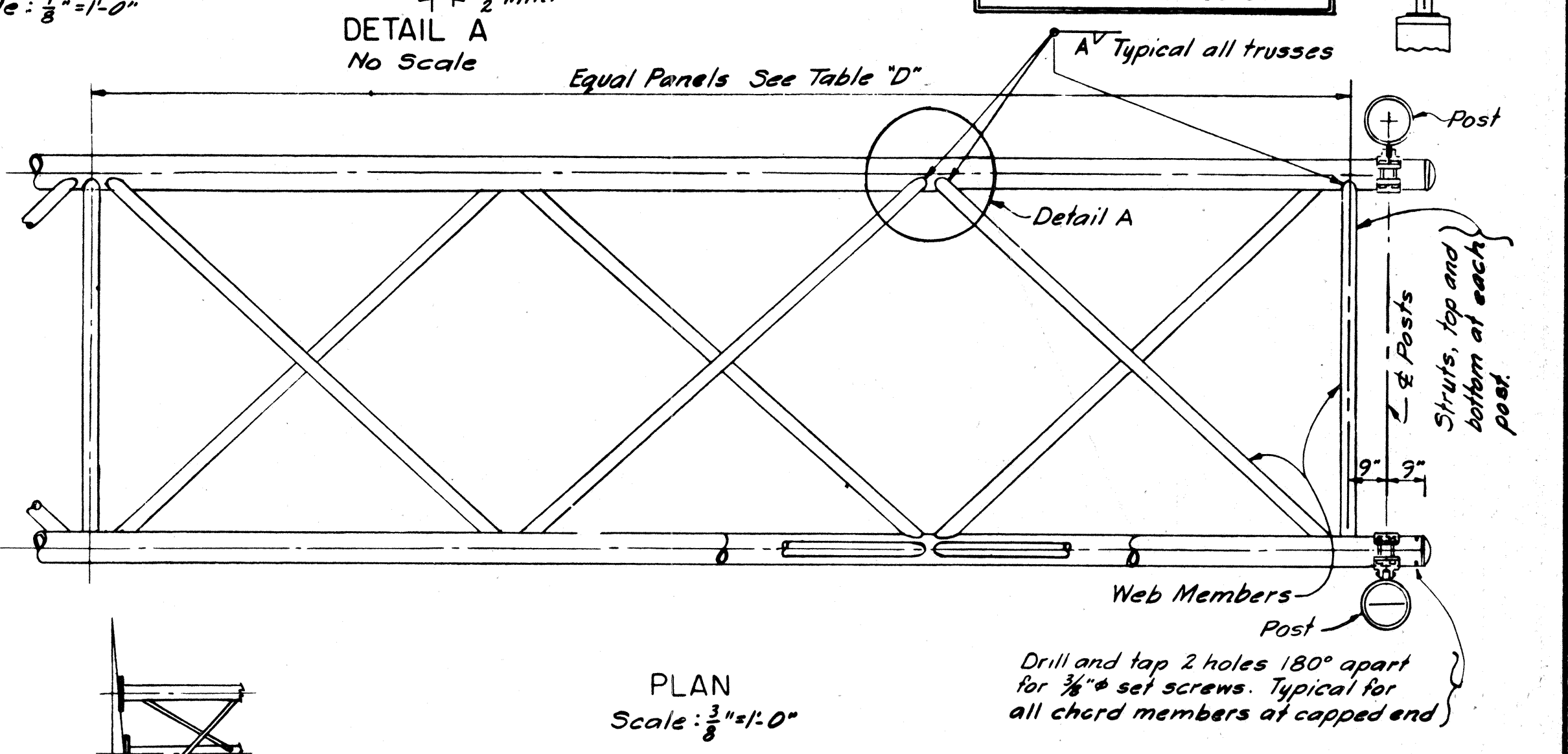
For dimensions of Type "D" bases and anchor bolts see Sh. No. 60.

For Connection Detail "B" and for the alternate details of web members of trussed posts see

For flanged connections and post Cap details see Sh. No. 61.

Tri-truss span and brackets are fabricated of Aluminum.
Galvanized Steel in contact with Aluminum must be separated by "Fabco" or "Fabreka" Pads.
Single and double poles, base plates and post to truss connections are fabricated of galvanized steel.

EQUIVALENT SIZES FOR TRUSSED POSTS			
ASTM A53 TYPE B	UNION METAL	ASTM A252 GRADE 3	API 5Lx 52
6" Schedule 40s	3 Gauge 6"	6" Schedule 40s	6" Schedule 40s
8" Schedule 20	3 Gauge 8"	8" Schedule 20	8" Schedule 20
8" Schedule 30	3 Gauge 8"	8" Schedule 20	8" Schedule 20
8" Schedule 40s	3 Gauge 8"	8" Schedule 20	8" Schedule 20
8" Schedule 60	0 Gauge 8"	8" Schedule 40s	8" Schedule 30
8" Schedule 80x	7+7 Gauge 8"	8" Schedule 60	8" Schedule 60
10" Schedule 20	3 Gauge 10"	10" Schedule 20	10" Schedule 20
10" Schedule 30	3 Gauge 10"	10" Schedule 20	10" Schedule 20
10" Schedule 40s	3 Gauge 11"	10" Schedule 30	10" Schedule ?
10" Schedule 60x	0 Gauge 11"	10" Schedule 60x	10" Schedule 40s
10" Schedule 80	7+3 Gauge 10"	10" Schedule 60x	10" Schedule 60x
12" Schedule 20	3 Gauge 12"	12" Schedule 20	12" Schedule 20
12" Schedule 30	3 Gauge 12"	12" Schedule 30	12" Schedule 20
12" Schedule 40	0 Gauge 12"	12" Schedule 30	12" Schedule 20
12" Schedule 40x	0 Gauge 12"	12" Schedule 30	12" Schedule 30
12" Schedule x	7+7 Gauge 12"	12" Schedule 40	12" Schedule s
12" Schedule 60	7+3 Gauge 12"	12" Schedule x	12" Schedule s
12" Schedule 80	3+3 Gauge 12"	12" Schedule 60	12" Schedule x



CAMBER DETAILS			
SPAN A	CAMBER	SPAN A	CAMBER
Up to 50'	2"	125' to 150'	8"
50' to 75'	3"	150' to 170'	9"
75' to 100'	4"	170' to 190'	10"
100' to 125'	6"	190' to 210'	12"

MARTIN RUBIN
REGISTERED PROFESSIONAL ENGINEER
No. 1841
HAWAII, U.S.A.

THOMAS R. KUESEL
REGISTERED PROFESSIONAL ENGINEER
No. 1836
HAWAII, U.S.A.

SIGN NO.	SPAN A FT IN N/8	TYPE	PIPE SIZE ②	LEFT POST				RIGHT POST				TRUSS				SIGN 1 G	SIGN 2 H	SIGN 3 I	
				B	C	XL ③	P	B	C	XR ③	F	D	CHORD SIZE	WEB SIZE					
E8	100 00 00	T	10" SCH20	20 3 6	27 6 6	-12 6	7 2	T	10" SCH20	23 7 0	30 10 0	2 0 4	17 0 0	6 0 0	5" x 3/8"	3" x 3/16"	28 0 0	29 0 0	17 0 0

DATE: July 69

DESIGNED BY: L. W. G.

CHECKED BY: L. W. G.

NOTED BY: L. W. G.

QUANTITIES BY: L. W. G.

ORIGINAL PLAN: L. W. G.

DATE: July 69

① T = Trussed Post.

② The pipe sizes listed in this column are for ASTM A53 steel. See the table "Equivalent Post Sizes" on this sheet when using another Type of Steel. Tapered poles may be used for the structures shown on this sheet. Modify connections to fit taper. Large end of tapered sections must

have the same O.D. as the pipe specified in the table

③ XL L refers to X dimension in "Typical Elev" for left Post.
XR R refers to X dimension in "Typical Elev" for right Post. This dimension to be verified by contractor in field.

④ For details of Footings see Sh. No. 63.

⑤ For Sign Panel and Bracket details see Sh. No. 62.

⑥ For Luminaire Mounting details see Sh. No. 76.

TABLE "D"		
D'	Panel Lengths	
	Min.	Max.
4'-0"	3'-6"	4'-4"
6'-0"	5'-3"	6'-9"
8'-0"	7'-2"	8'-10"

TABLE "E"		
P	"W" Min.	"W" Max.
5'-2"	4'-8"	5'-8"
7'-2"	6'-8"	7'-8"
9'-2 3/4"	8'-8"	9'-8"

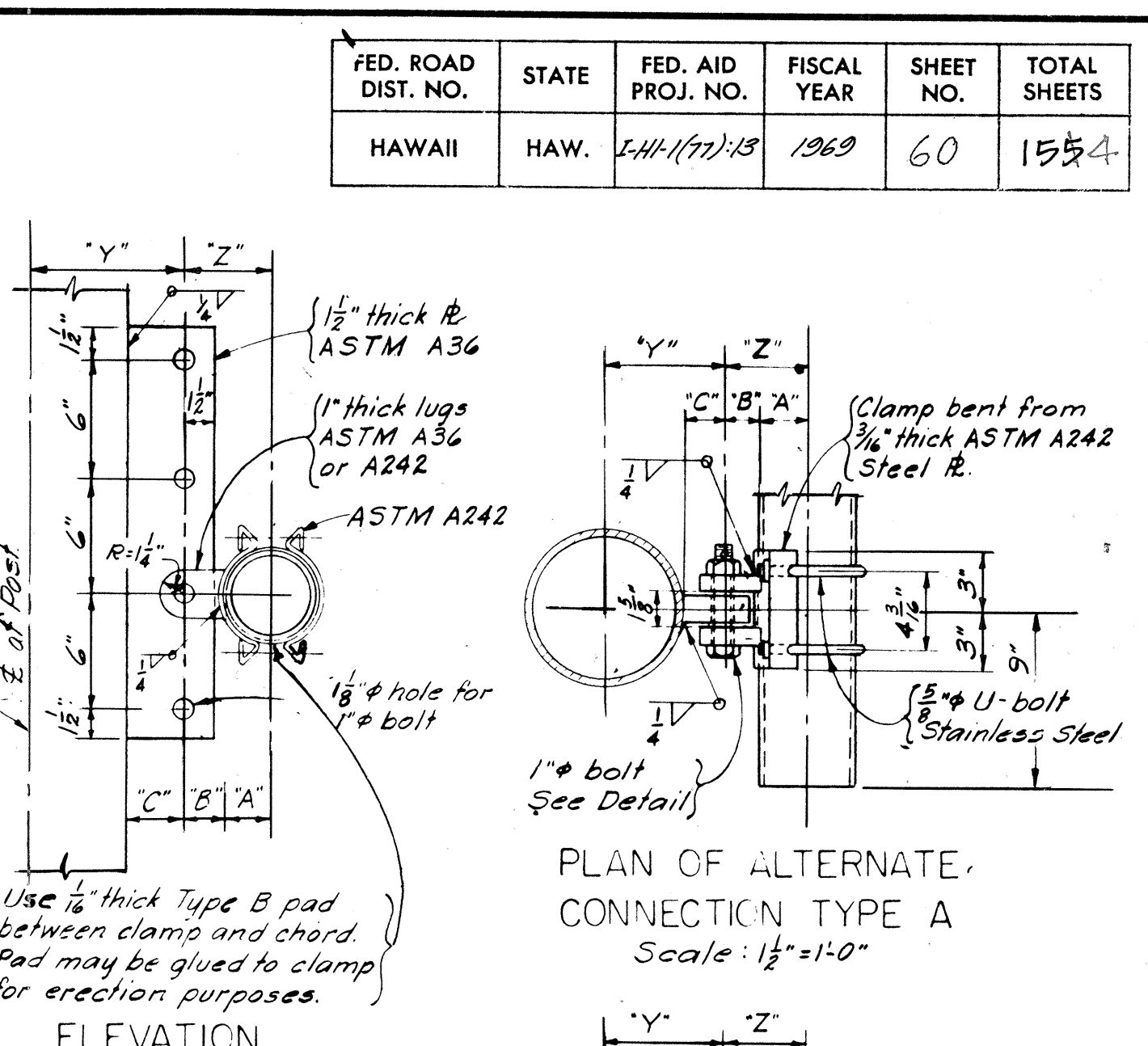
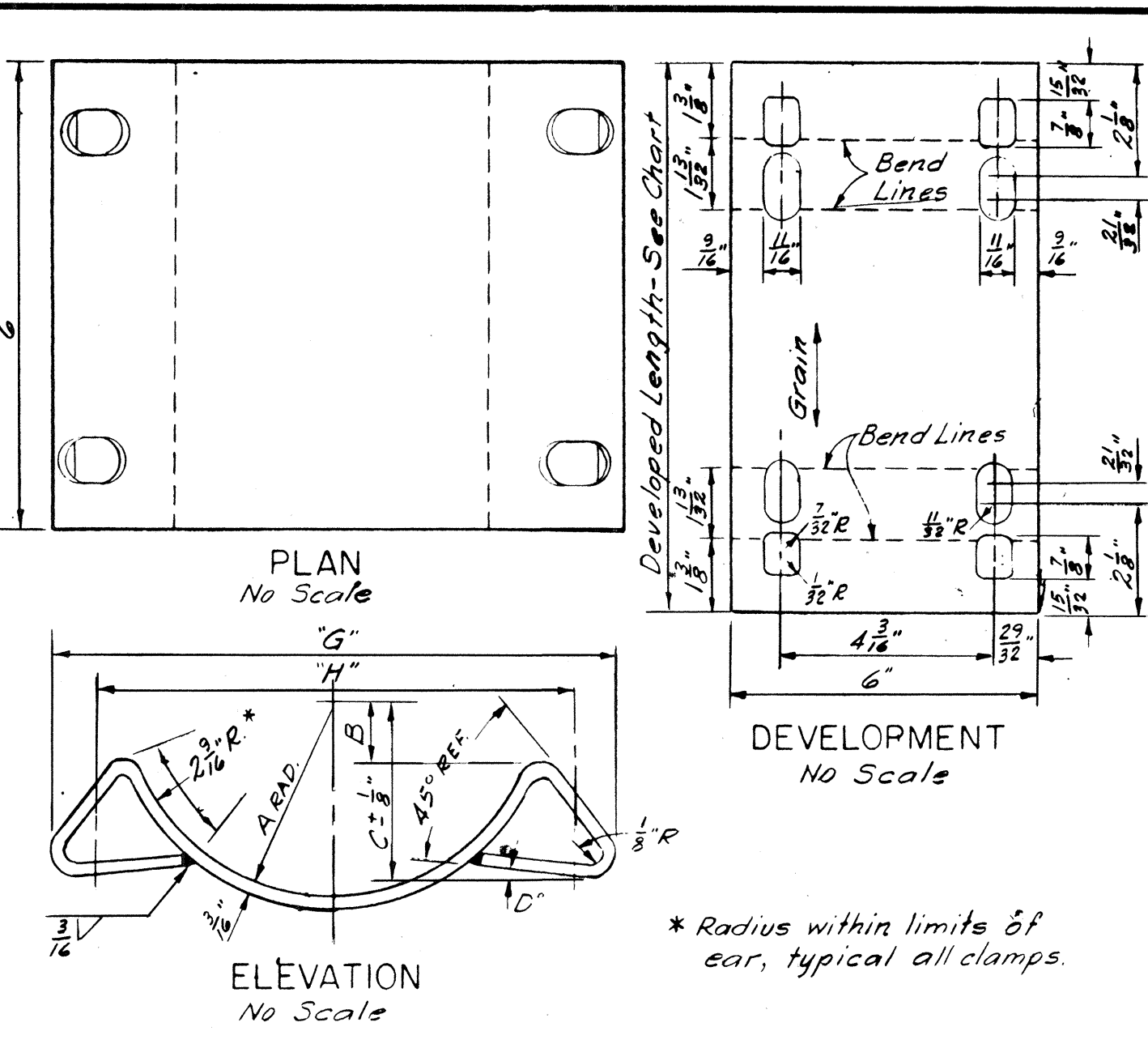
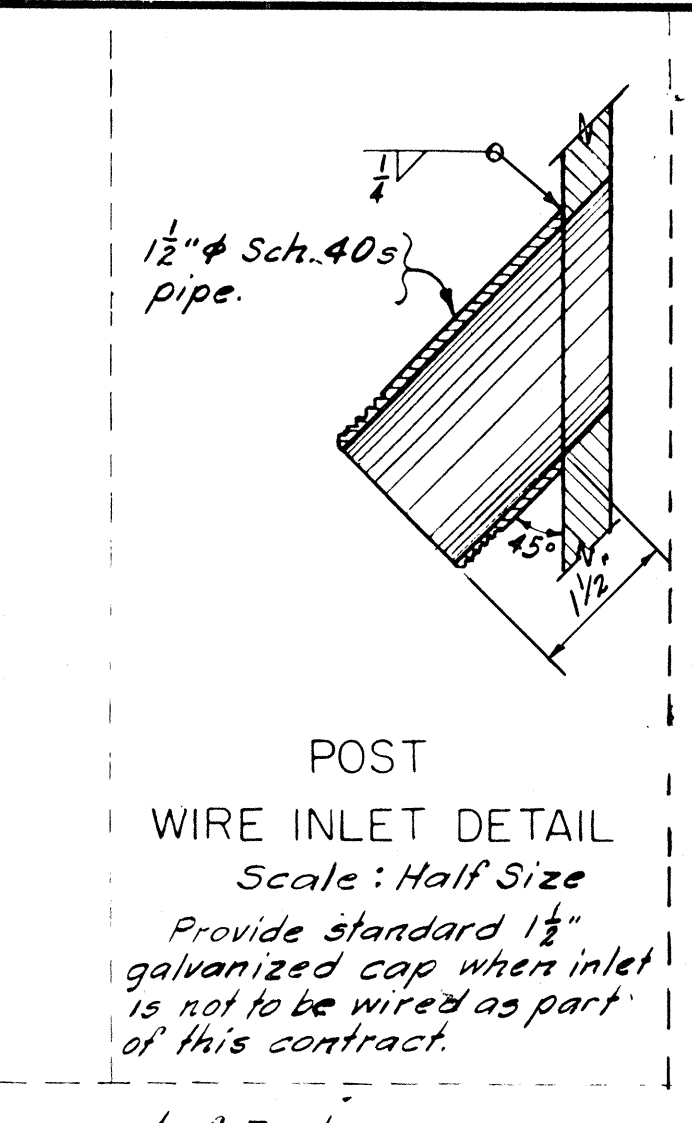
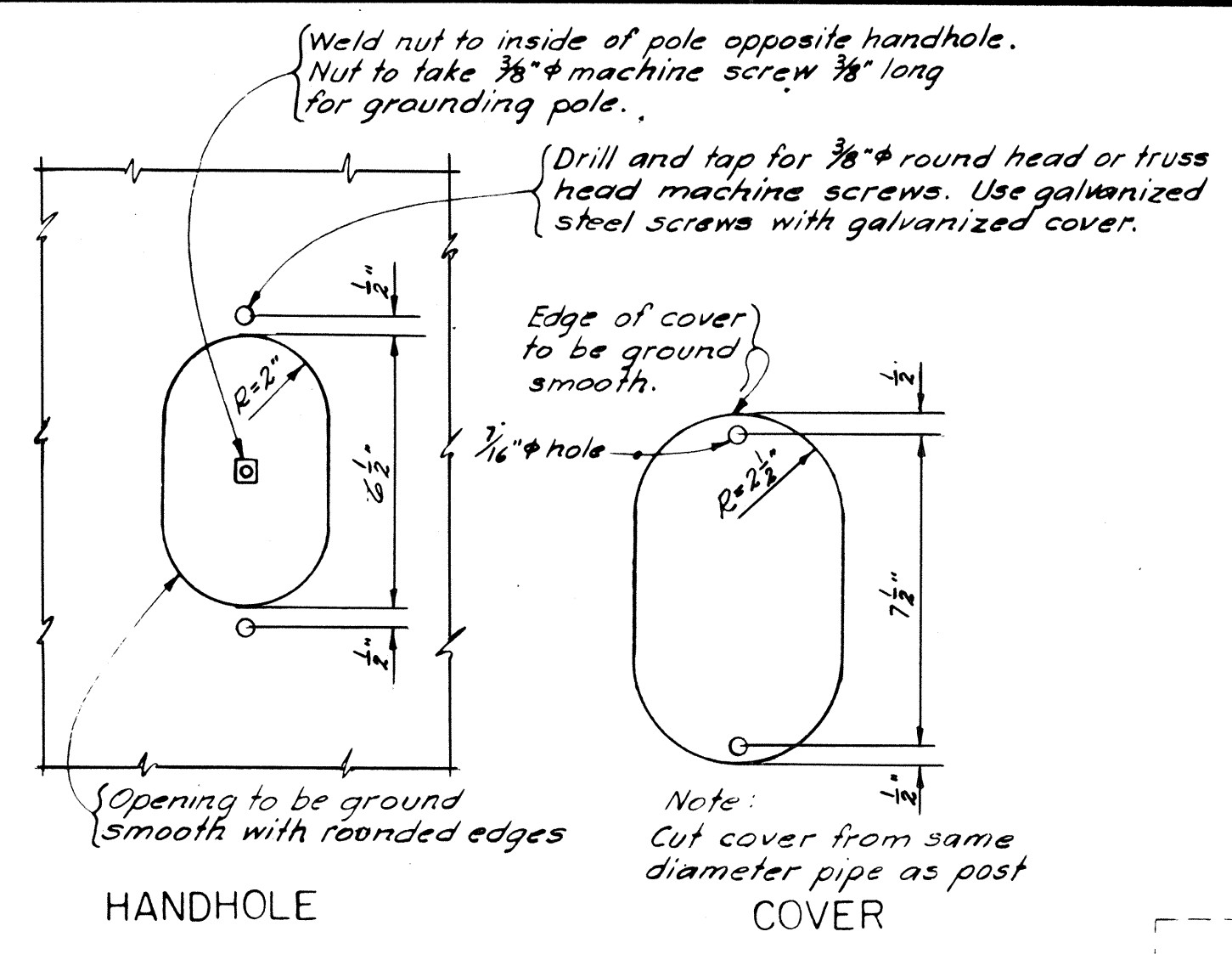
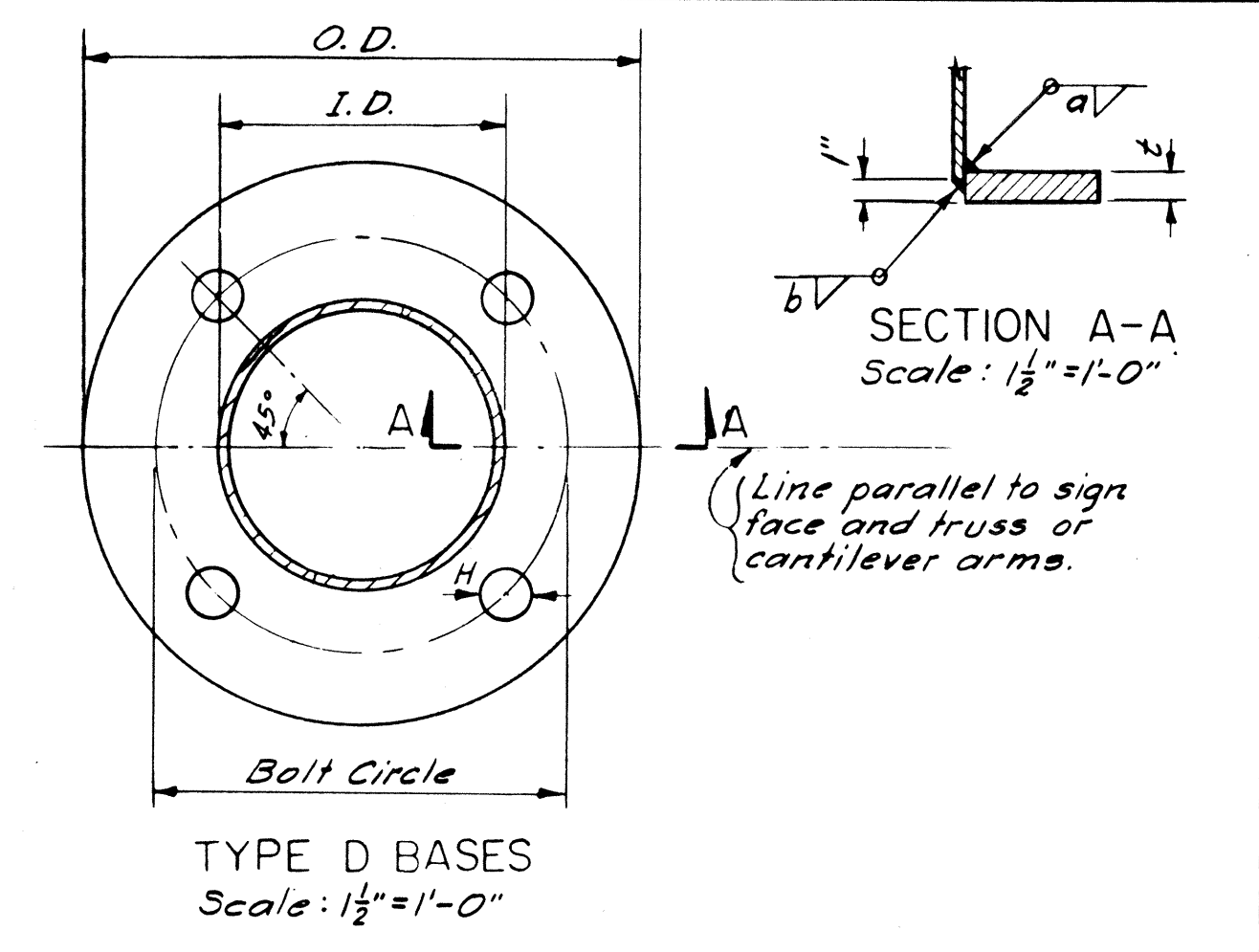
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

OVERHEAD SIGN SUPPORT
3 CHORD TRUSS
HALAWA INTERCHANGE
PROJECT NO. I-HI-1(77):13
SCALE: AS NOTED DATE: NOV. 28, 1969

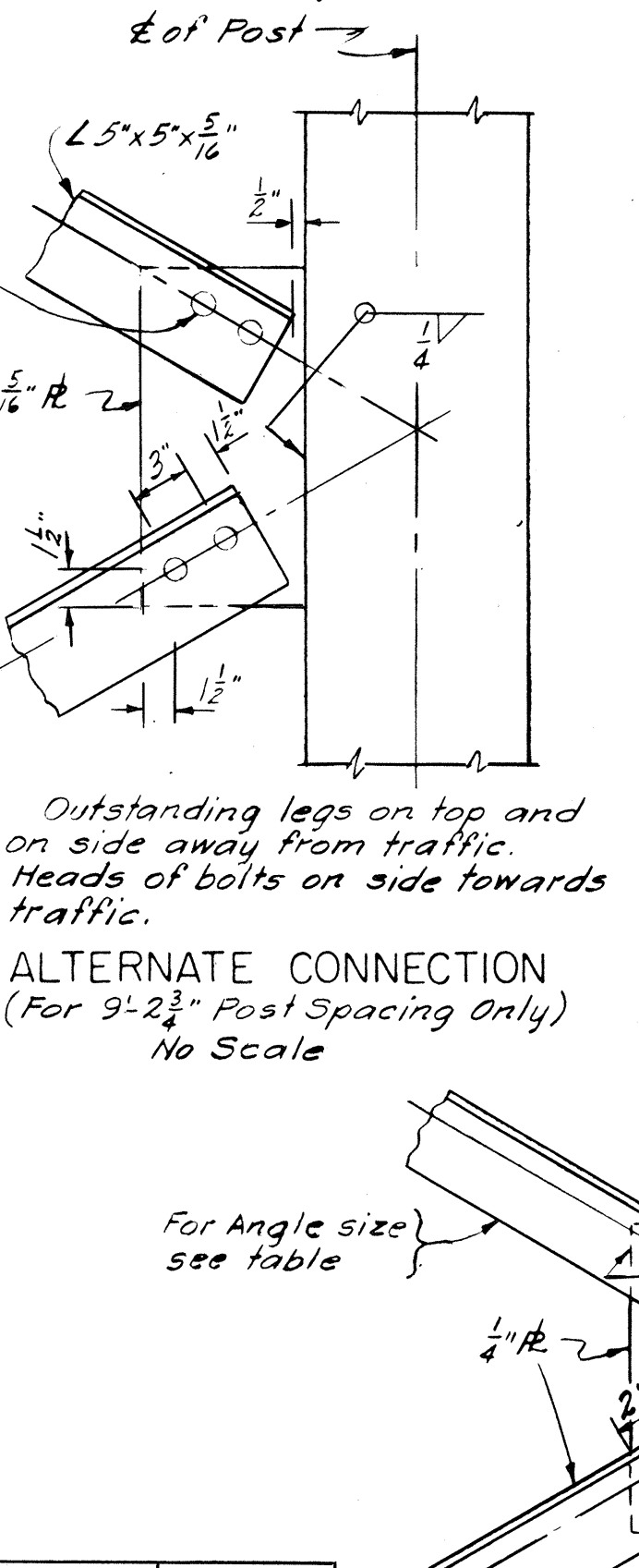
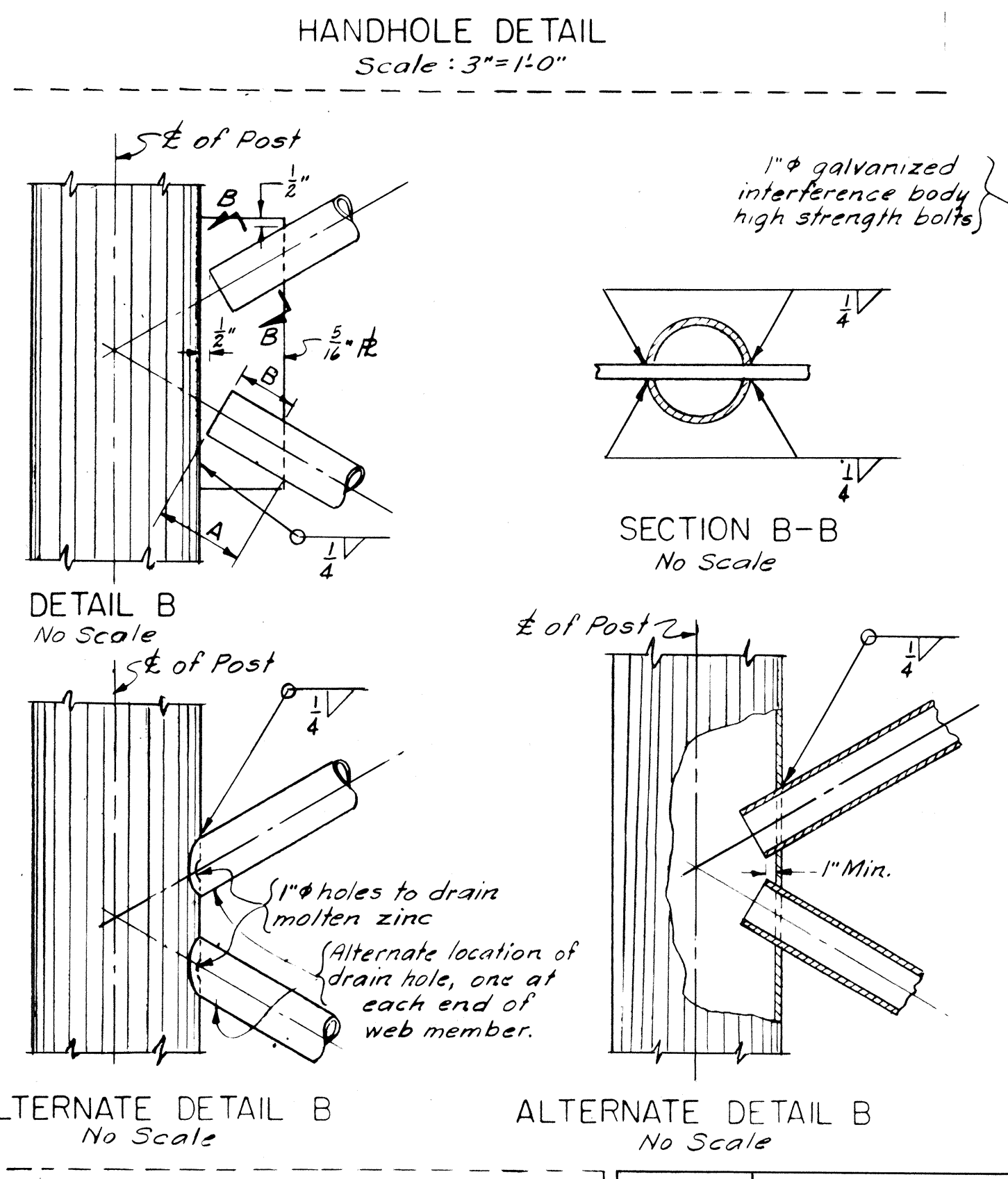
SHEET No. 5 OF 15 SHEETS

59

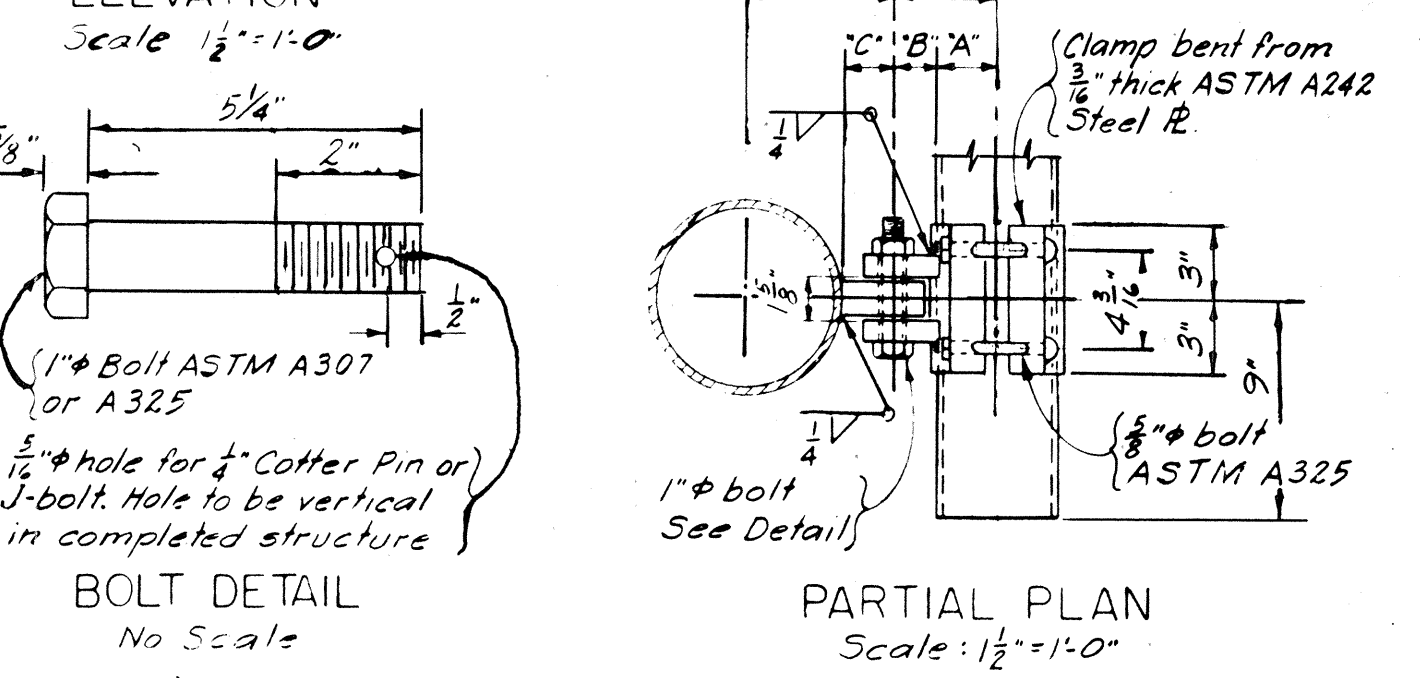
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(77):13	1969	60	1554



POST	BASE R. O. D.	BASE R. I. D.	MIN. t	BOLT CIRCLE	BOLT DIA.	HOLE DIA.	WELD a	WELD b
6 Sch 40s	14.0"	6 5/8"	1 1/8"	11 1/2"	1 3/8"	1 3/8"	1/2"	1/4"
6 Sch 80x	14.0"	6 3/8"	1 3/8"	11 1/2"	1 1/2"	1 3/4"	3/8"	3/8"
8 Sch 20	17.0"	8 3/8"	1 1/4"	13"	1 3/4"	2"	3/8"	1/4"
8 Sch 30	17.0"	8 3/8"	1 1/4"	13"	1 3/4"	2"	1/2"	1/4"
8 Sch 40s	17.0"	8 3/8"	1 3/8"	13"	1 3/4"	2"	1/2"	3/16"
8 Sch 60	18.0"	8 3/8"	1 1/2"	14"	2"	2 1/4"	5/8"	3/8"
8 Sch 80x	18.0"	8 3/8"	1 1/2"	14"	2"	2 1/4"	3/4"	1/8"
10 Sch 20	20.0"	10 3/4"	1 3/8"	16"	1 3/4"	2"	1/2"	1/4"
10 Sch 30	20.0"	10 3/4"	1 1/2"	16"	2"	2 1/4"	1/2"	1/4"
10 Sch 40s	20.0"	10 3/4"	1 1/4"	16"	2"	2 1/4"	3/8"	3/16"
10 Sch 60x	21.0"	10 3/4"	1 3/4"	17"	2 1/4"	2 1/2"	3/4"	1/2"
10 Sch 80	21.0"	10 3/4"	2 1/8"	17"	2 1/2"	2 3/4"	3/8"	1/2"
12 Sch 20	24.0"	12 3/4"	1 1/2"	19"	2"	2 1/4"	3/8"	1/4"
12 Sch 30	24.0"	12 3/4"	1 1/4"	19"	2 1/4"	2 1/2"	1/2"	3/16"
12 Sch 40	24.0"	12 3/4"	1 3/4"	19"	2 1/4"	2 1/2"	5/8"	3/8"
12 Sch 5	24.0"	12 3/4"	1 1/2"	19"	2 1/4"	2 1/2"	3/8"	3/8"
12 Sch 40	25.0"	12 3/4"	1 1/4"	20"	2 1/4"	2 1/2"	3/8"	3/8"
12 Sch x	25.0"	12 3/4"	2 1/8"	20"	2 1/2"	2 3/4"	3/4"	1/2"
12 Sch 60	25.0"	12 3/4"	2 1/4"	20"	2 3/4"	3"	3/8"	1/2"
12 Sch 80	25.0"	12 3/4"	2 1/2"	20"	2 3/4"	3"	1"	3/8"
14 Sch 10	25.0"	14"	1 3/4"	20"	2"	2 1/4"	3/8"	1/4"
14 Sch 20	25.0"	14"	1 3/4"	20"	2 1/4"	2 1/2"	1/2"	3/16"
14 Sch 30s	27.0"	14"	1 3/8"	22"	2 1/4"	2 1/2"	5/8"	3/8"
14 Sch 40	27.0"	14"	2 1/8"	22"	2 1/2"	2 3/4"	3/4"	3/8"
16 Sch 10	27.0"	16"	1 3/4"	22"	2 1/4"	2 1/2"	3/8"	1/4"
16 Sch 30s	29.0"	16"	2 1/8"	23 1/2"	2 1/2"	2 3/4"	3/8"	3/8"
16 Sch 40x	29.0"	16"	2 3/8"	23 1/2"	3"	3 1/4"	3/8"	3/8"
18 Sch 10	30.0"	18"	1 3/4"	24 1/2"	2 1/4"	2 1/2"	1/2"	1/4"
18 Sch 20	30.0"	18"	2 1/8"	24 1/2"	2 3/4"	3"	1/2"	5/16"
18 Sch x	32.0"	18"	2 3/8"	26"	3"	3 1/4"	3/4"	1/2"
20 Sch 30x	33.0"	20"	2 3/8"	28"	3 1/4"	3 1/4"	3/4"	1/2"



CHORD DIAM.	DEVELOPED LENGTH	DIMENSIONS						BOLT LENGTH
		A	B	C	D	G	H	
3	10 5/8"	1 3/16"	1/2"	1 15/16"	7"	5 1/2"	4 3/8"	4"
4	11 1/4"	2 1/4"	2 3/32"	2 1/2"	1 1/2"	6 9/16"	5 3/16"	5"
5	12 3/8"	2 3/8"	1 1/4"	2 3/2"	7"	7 1/4"	5 27/32"	5"
6	13 1/16"	3"	3 1/32"	2 7/16"	5"	8 1/8"	6 23/32"	6"
8	16 1/8"	4 1/16"	1 3/2"	2 3/4"	3 1/2"	10 3/32"	8 15/16"	7"



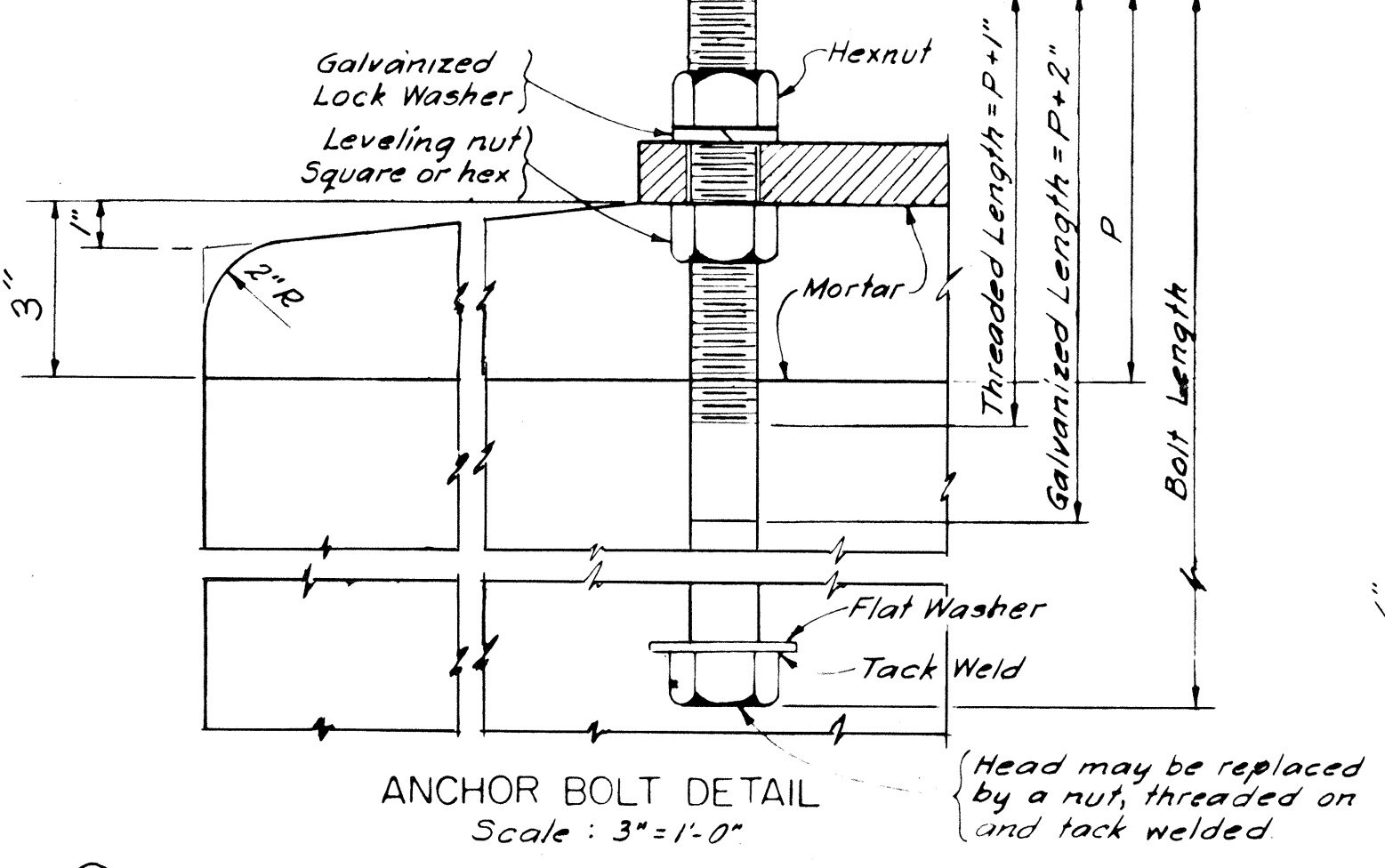
D	"Y"	"Z"	"D"	Chord Diam.	"B"	Post Diam.	"C"
4'-0"	6"	4 3/32"	4'-0"	3"	2 3/32"	6"	2 1/16"
6'-0"	7 1/8"	4 1/16"	6'-0"	4"	2 1/32"	8"	1 1/16"
8'-0"	8 3/8"	5 1/16"	8'-0"	5"	1 23/32"	10"	2 3/16"
			8'-0"	6"	2 1/16"	12"	2 3/4"
				8"	1 1/16"	12"	1 3/4"

"A" = 1/2 Chord Diameter
 "B" = "Z" - (1/2 Chord Diameter)
 "C" = "Y" - (1/2 Post Diameter)

Type "A" Connection to be galvanized steel.

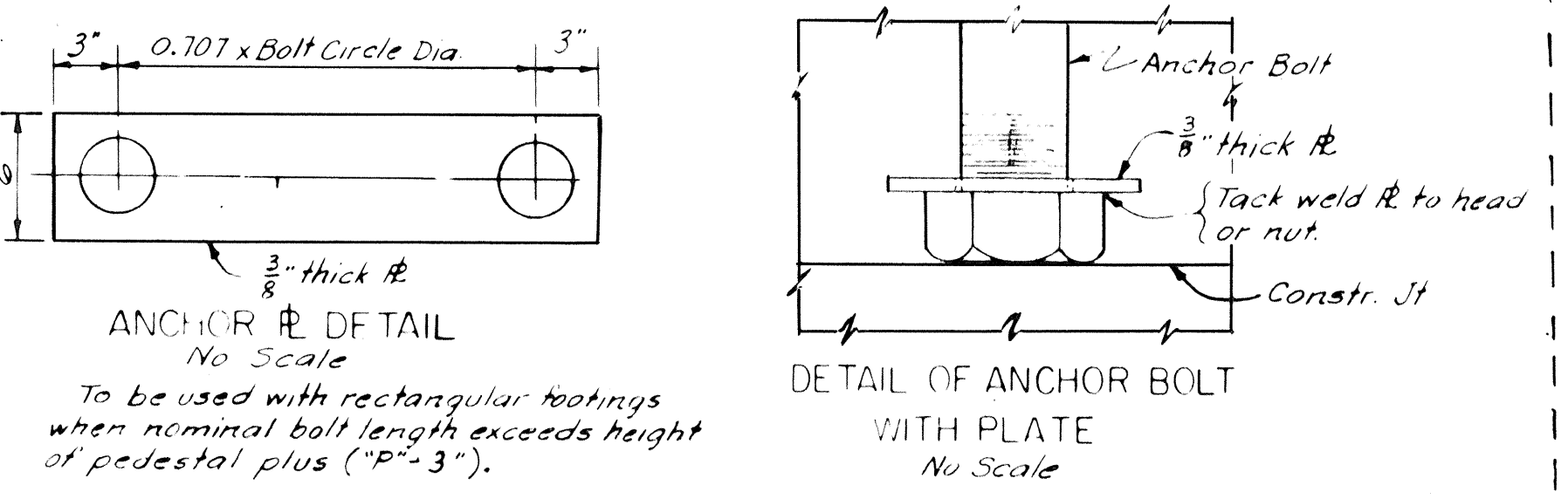
TYPE "A" CONNECTION FOR TRUSSED POSTS

BOLT DIA	BOLT LENGTH	P
1 3/8"	4'-1"	7"
1 1/2"	4'-5"	8"
1 3/4"	5'-0"	8"
2"	5'-9"	9"
2 1/4"	6'-5"	9"
2 1/2"	7'-1"	9"
2 3/4"	7'-9"	10"
3"	8'-5"	10"
3 1/4"	9'-1"	11"



P	DIAGONALS *		WELD LENGTH A+B
	PIPE SIZE	ANGLE SIZE	
5'-2"	2 1/2" Sch. 40s	(Do not use)	6"
7'-2"	2 1/2" Sch. 40x	4" x 4" x 1/4"	6"
9'-2 3/4"	3" Sch. 40s	5" x 5" x 5/16"	7"

* Use pipe when assembly is to be single dip galvanized.
 Use welded angles when assembly is to be double dip galvanized.
 Use bolted angles only when assembly cannot be double dip galvanized.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 Martin Rubin Thomas A. Kuehl

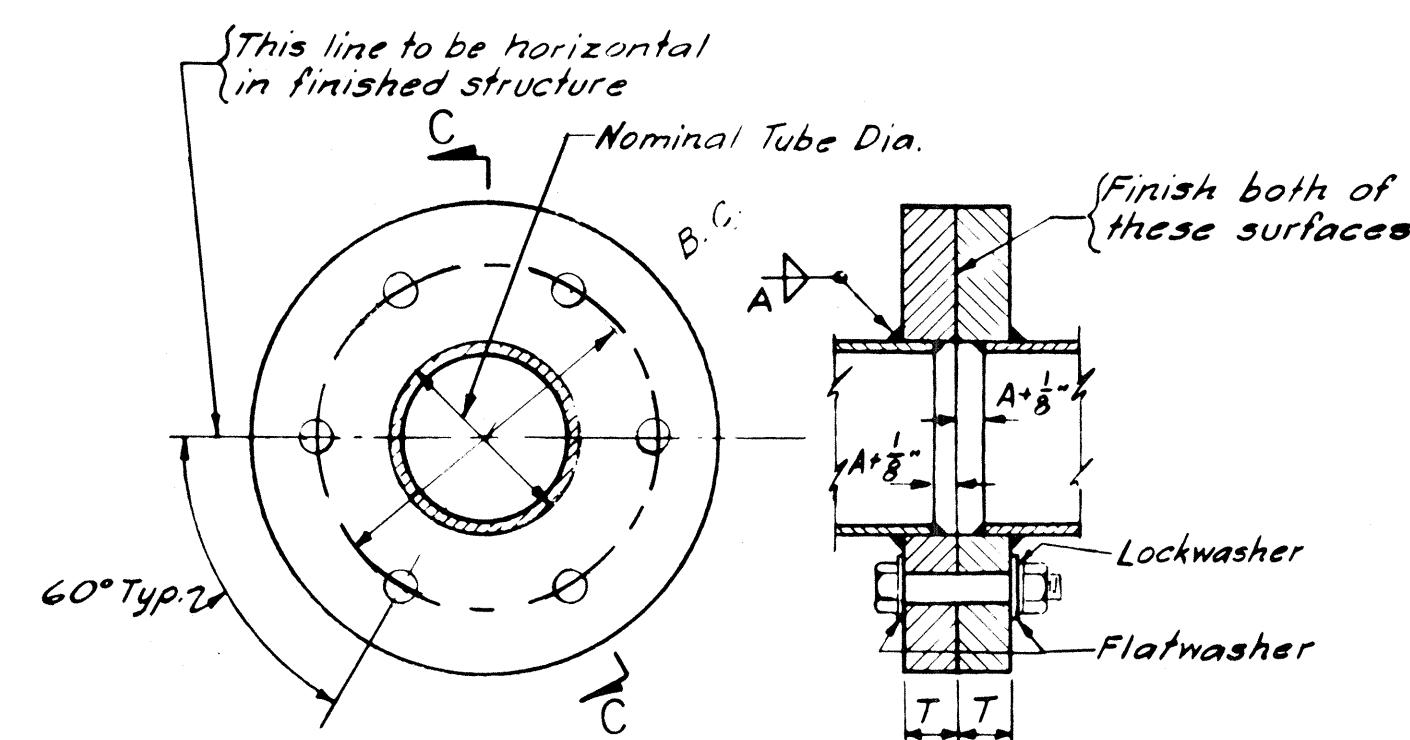
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

BASES & CONNECTION DETAILS
 HALAWA INTERCHANGE
 PROJECT NO. I-HI-1(77):13
 SCALE: AS NOTED DATE: NOV. 28, 1969

SHEET No. 6 OF 15 SHEETS

DATE: 11/17/67
 SURVEY PLOTTED BY: [Signature]
 DRAWN BY: [Signature]
 TRACED BY: [Signature]
 DESIGNED BY: [Signature]
 CHECKED BY: [Signature]

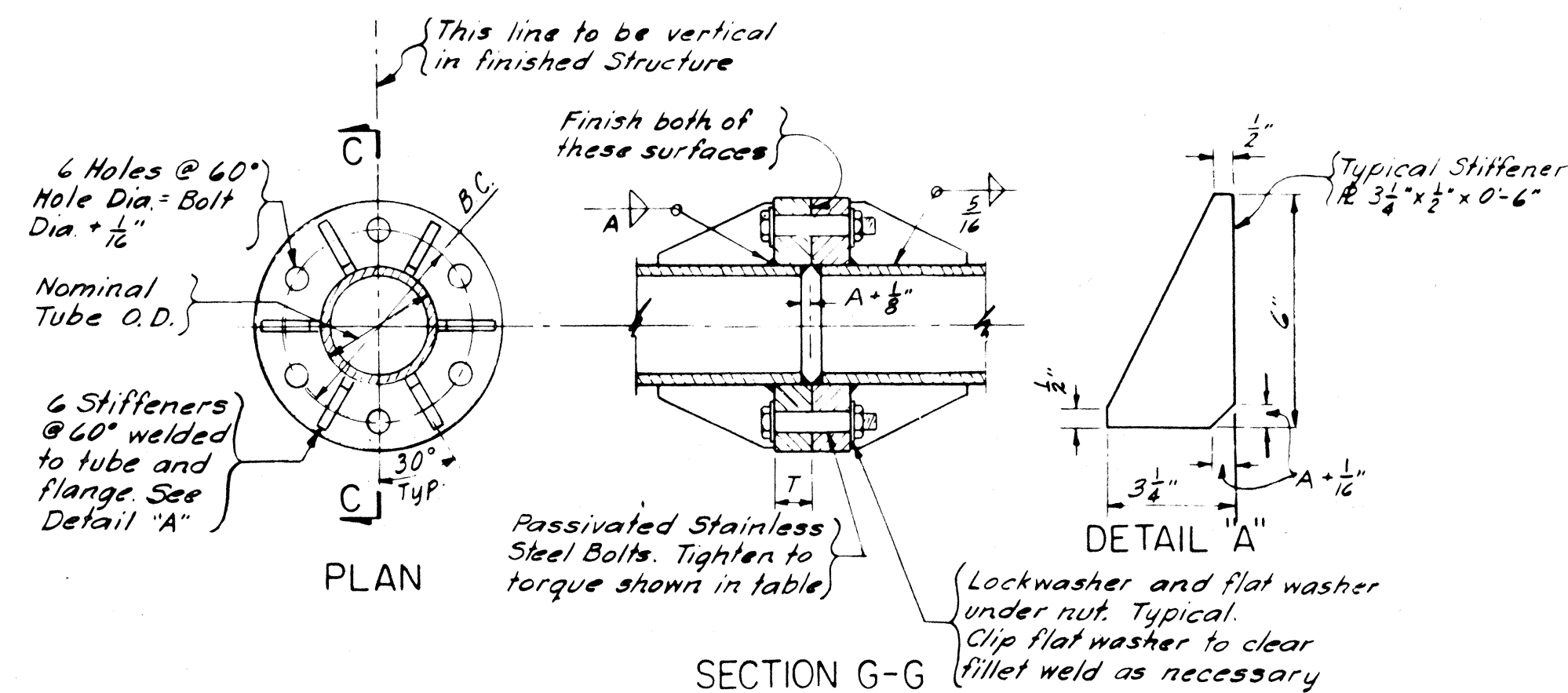
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(77)-13	1969	61	154



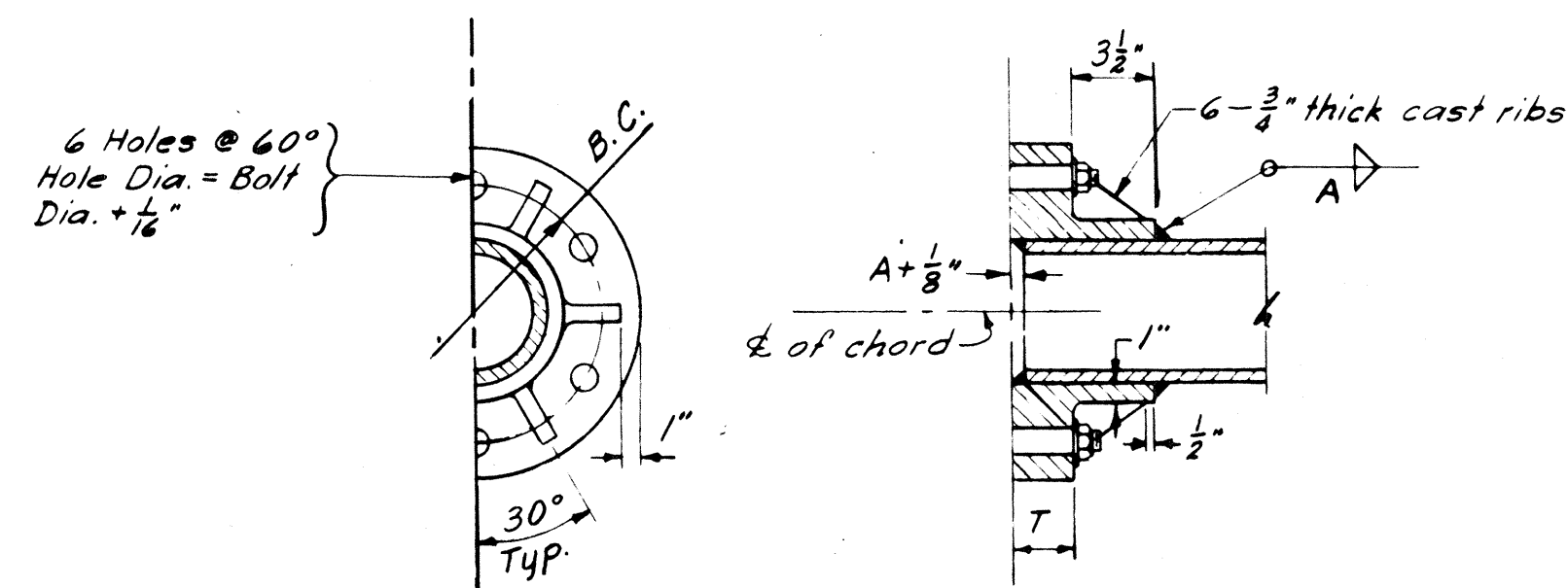
PLAN SECTION C-C
TYPE A FLANGE CONNECTION
Scale: 3"=1'-0"
All bolts are Passivated Stainless Steel

CHORD SIZE	FLANGE			BOLT DIA.	BOLT CIRCLE	BOLT TORQUE FT. LBS.
	"A"	O.D.	"T"			
3" x 3/16"	3/16"	7"	3/8"	1/2"	5"	100
3" x 1/4"	1/4"	7"	3/8"	1/2"	5"	100
3" x 5/16"	5/16"	7"	3/8"	1/2"	5"	100
4" x 1/4"	1/4"	8 1/2"	3/8"	5/8"	6 1/2"	150
4" x 5/16"	5/16"	8 1/2"	3/8"	5/8"	6 1/2"	150
4" x 3/8"	3/8"	8 1/2"	3/8"	5/8"	6 1/2"	150
5" x 3/16"	3/16"	9 1/2"	1"	3/8"	7 1/2"	150
5" x 3/8"	3/8"	9 1/2"	1"	3/8"	7 1/2"	150
6" x 1/4"	1/4"	11 1/2"	1 1/4"	3/4"	9"	200
6" x 5/16"	5/16"	11 1/2"	1 1/4"	3/4"	9"	200
6" x 3/8"	3/8"	11 1/2"	1 1/4"	3/4"	9"	200
8" x 1/4"	1/4"	13 1/2"	1 1/4"	3/4"	11"	200
8" x 5/16"	5/16"	13 1/2"	1 1/4"	3/4"	11"	200
8" x 3/8"	3/8"	13 1/2"	1 1/4"	3/4"	11"	200

* Cast flanges may be used. All dimensions will be the same except that the thickness "T" shall be 1/4" greater in each case.

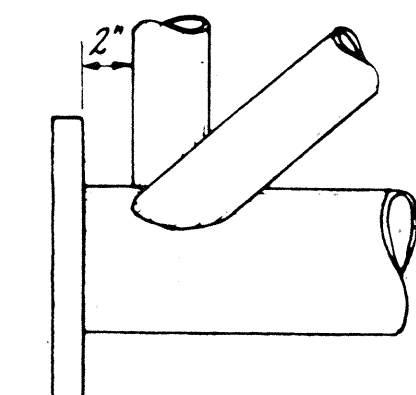


TYPE B FLANGE CONNECTION
FABRICATED
Not to Scale

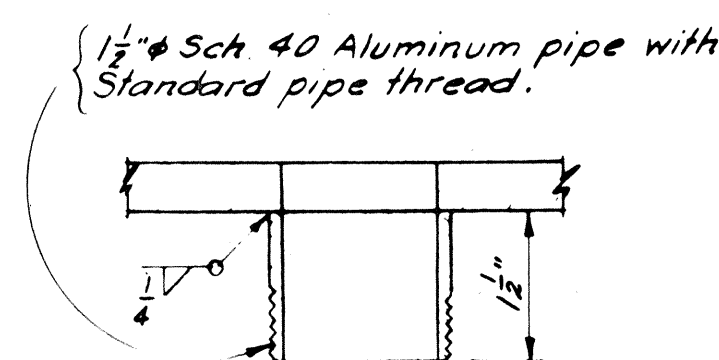
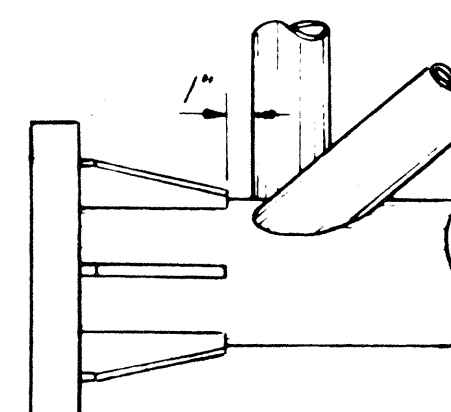


TYPE B FLANGE CONNECTION
CAST
Not to Scale

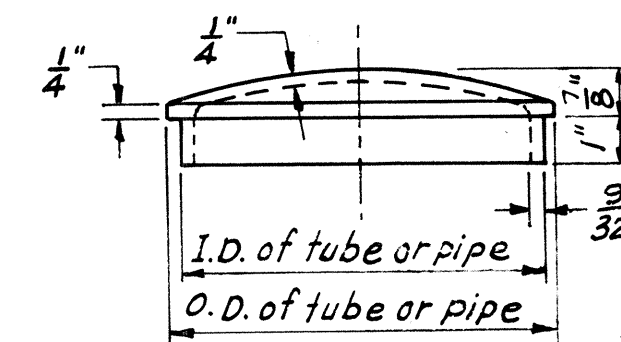
	CHORD SIZE	FLANGE			BOLT DIA.	BOLT CIRCLE	BOLT TORQUE FT. LBS.
		A	O.D.	T			
FABRICATED FLANGE	5" x 1/2"	3/8"	10 1/2"	1"	3/4"	8"	75
	6" x 1/2"	3/8"	11 1/2"	1 1/4"	3/4"	9"	75
	8" x 1/2"	3/8"	13 1/2"	1 1/4"	3/8"	11"	75
	8" x 3/8"	1/2"	13 1/2"	1 1/4"	1"	11"	100
	8" x 3/4"	5/8"	13 1/2"	1 1/4"	1"	11"	150
CAST FLANGE	5" x 1/2"	1/2"	13"	1 1/4"	3/4"	10"	100
	6" x 1/2"	1/2"	14"	1 1/2"	3/4"	11"	100
	8" x 1/2"	1/2"	16"	1 1/2"	7/8"	13"	100
	8" x 3/8"	5/8"	16"	1 1/2"	1"	13"	150
	8" x 3/4"	3/4"	16"	1 1/2"	1"	13"	200



TYPICAL CONNECTION AT FLANGE
No Scale

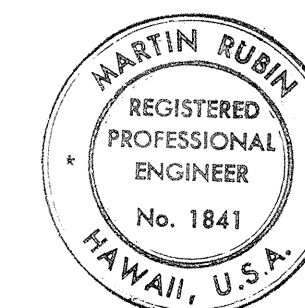


WIRE INLET DETAIL FOR
TRUSS OR CHORD
Scale Half Size



ELEVATION
CAP FOR ARMS
No Scale

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



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

Martin Rubin *Thomas R. Kussel*

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FLANGE CONNECTIONS

HALAWA INTERCHANGE
PROJECT NO I-HI-1(77):13

SCALE: AS NOTED

DATE: NOV 28, 1969

SHEET No. 7 OF 15 SHEETS

(OVERHEAD SIGNS)
SUPPORT SPACING TABLE

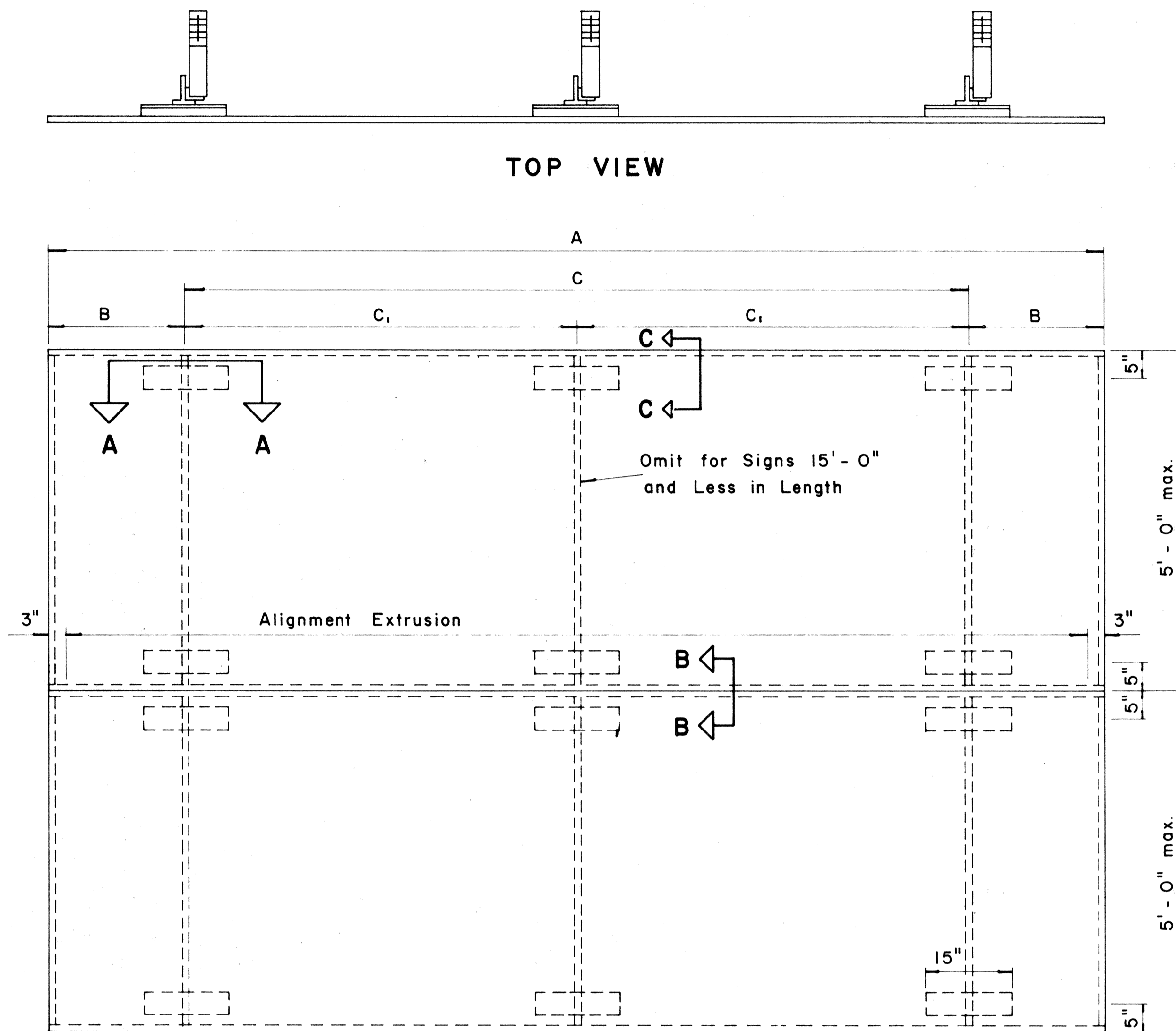
PANEL THICK.	LENGTH OF SIGN A	NO. OF SUPPORTS	OVERHANG B	SUPPORT SPACING C or C ₁
1"	6'-0"	2	12"	48"
1"	6'-6"	2	15"	48"
1"	7'-0"	2	15"	54"
1"	7'-6"	2	18"	54"
1"	8'-0"	2	18"	60"
1"	8'-6"	2	20"	62"
1"	9'-0"	2	22"	64"
1"	9'-6"	2	23"	68"
1"	10'-0"	2	24"	72"
1"	10'-6"	2	24"	78"
1"	11'-0"	2	24"	84"
1"	11'-6"	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"

APPROVAL RECOMMENDED:
Eishi Tanaka 12/29/69
TRAFFIC ENGINEER DATE

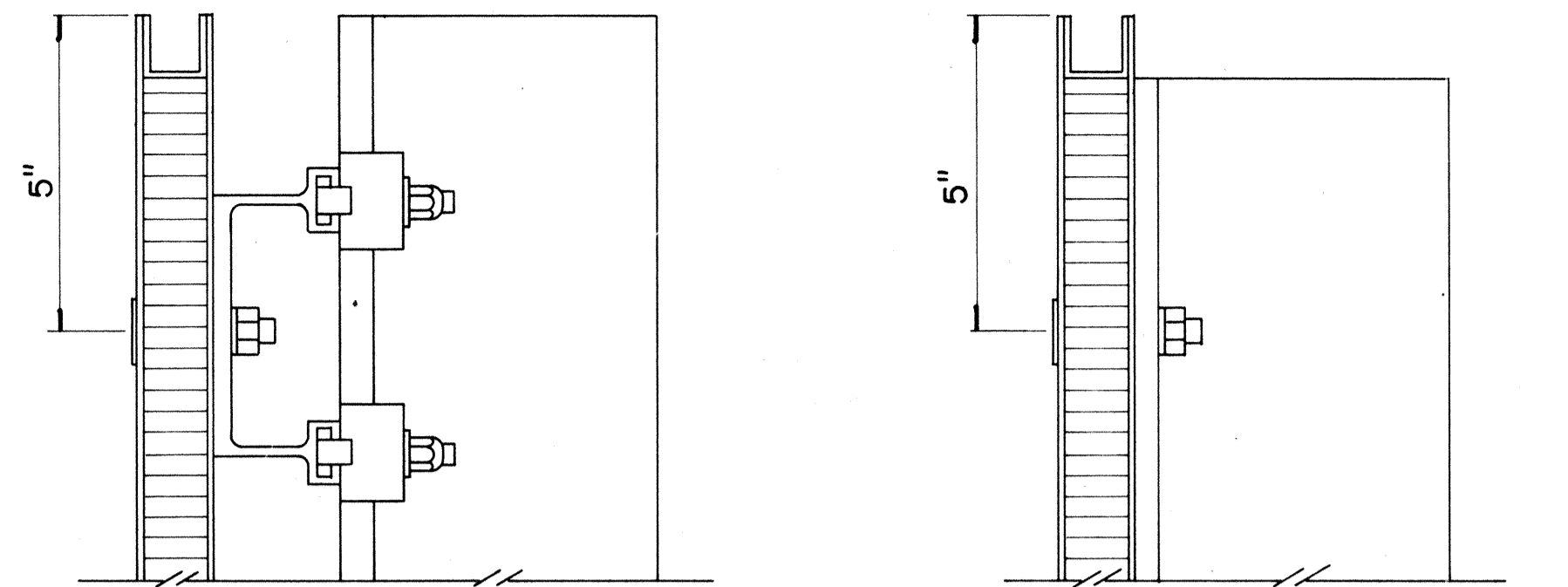
APPROVED:
[Signature] 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

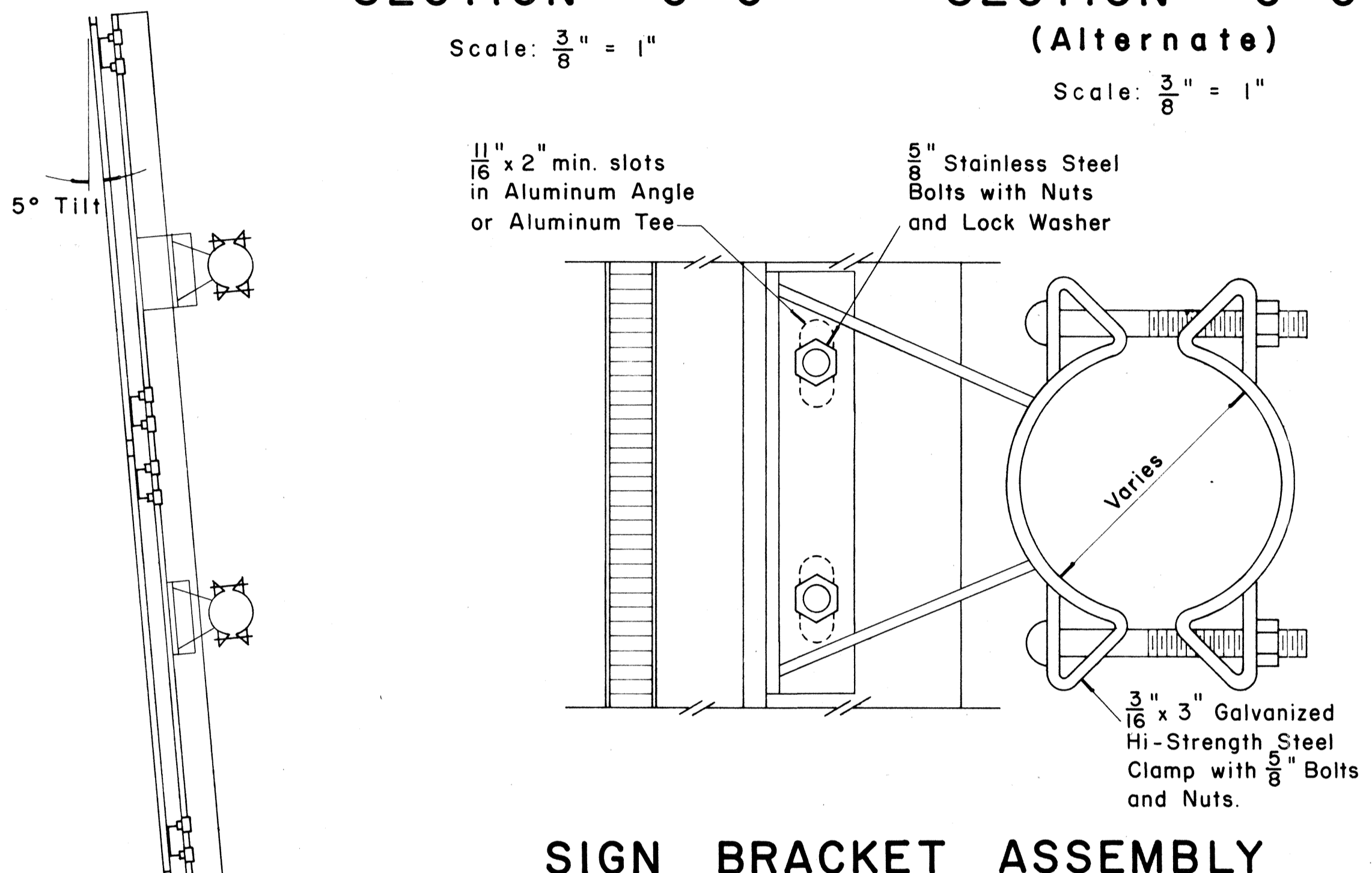
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
LAMINATED ALUMINUM
SIGN PANELS
(OVERHEAD)
Scale: As Shown



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

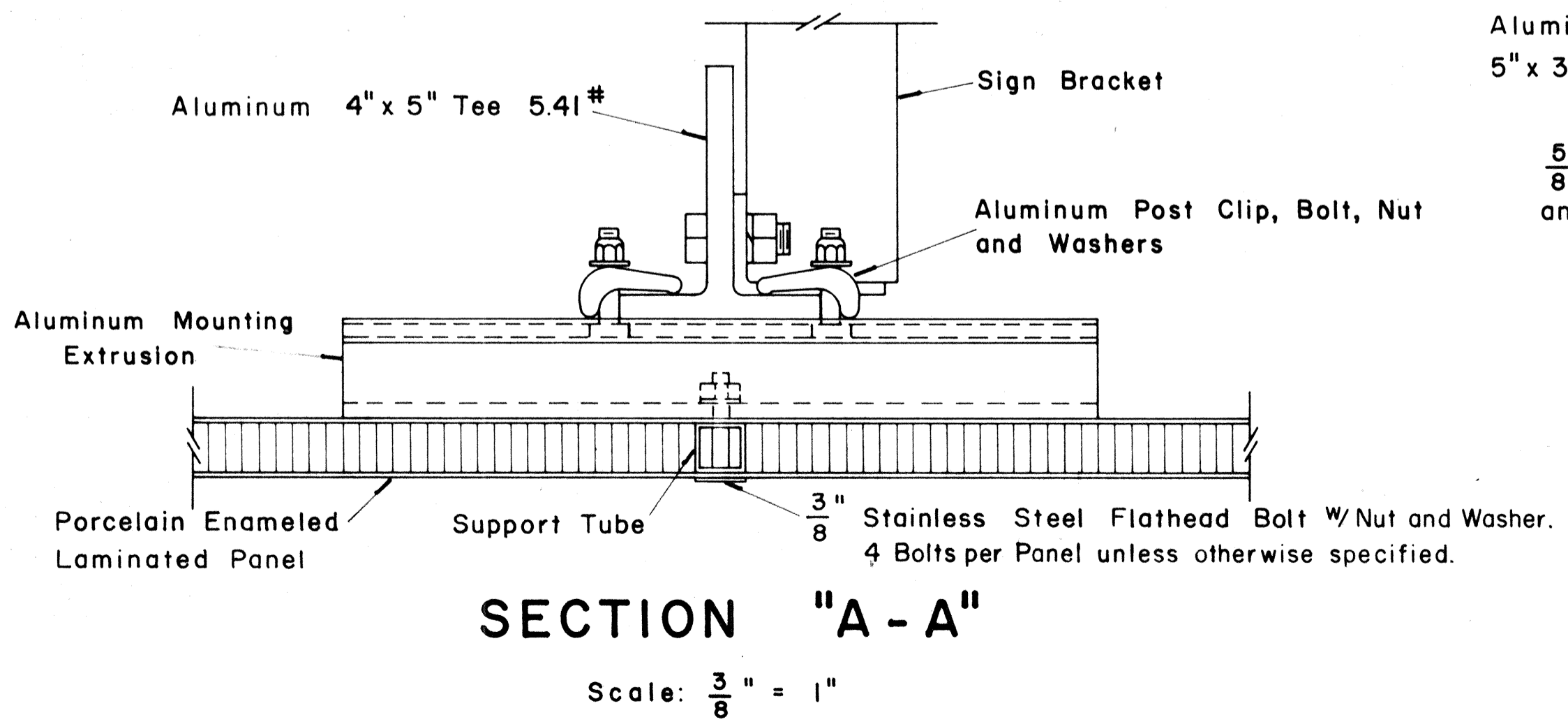


SECTION "C-C" Scale: $\frac{3}{8}$ " = 1"
SECTION "C-C" (Alternate) Scale: $\frac{3}{8}$ " = 1"

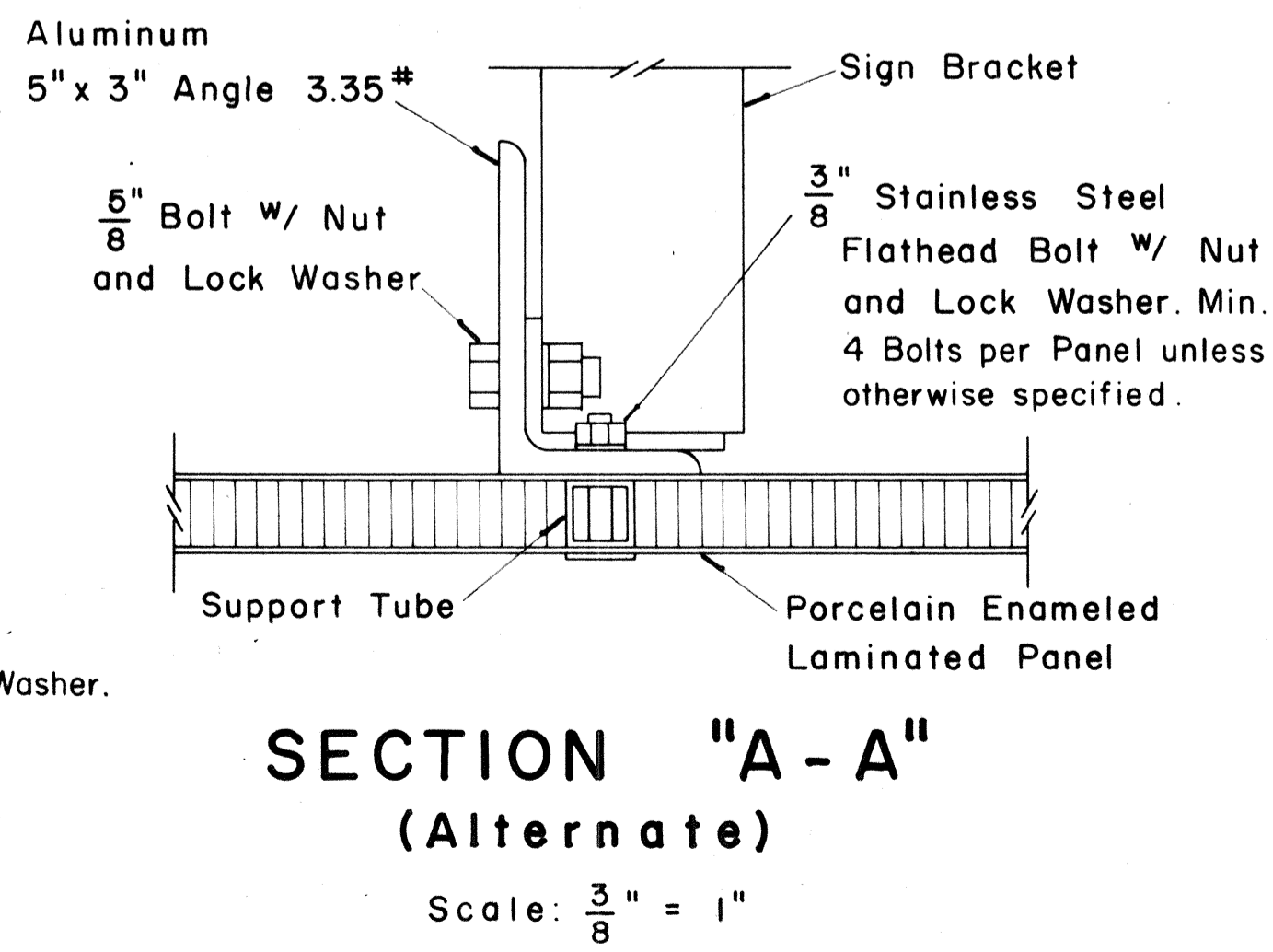


SIGN BRACKET ASSEMBLY
Scale: $\frac{3}{8}$ " = 1"

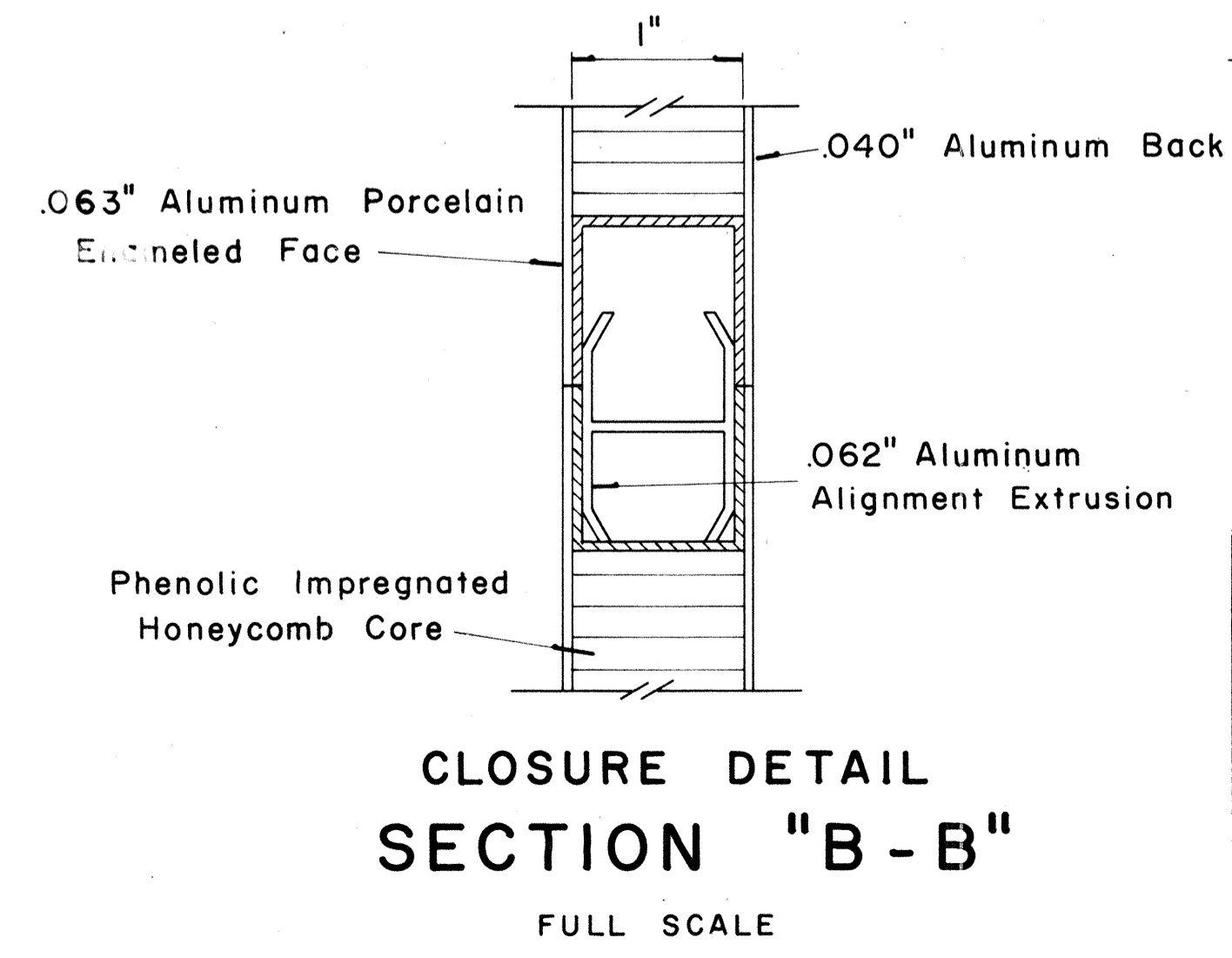
NOTE: For additional details of Sign Bracket Assembly, see Standard Detail Sheet "Overhead Sign Supports."



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



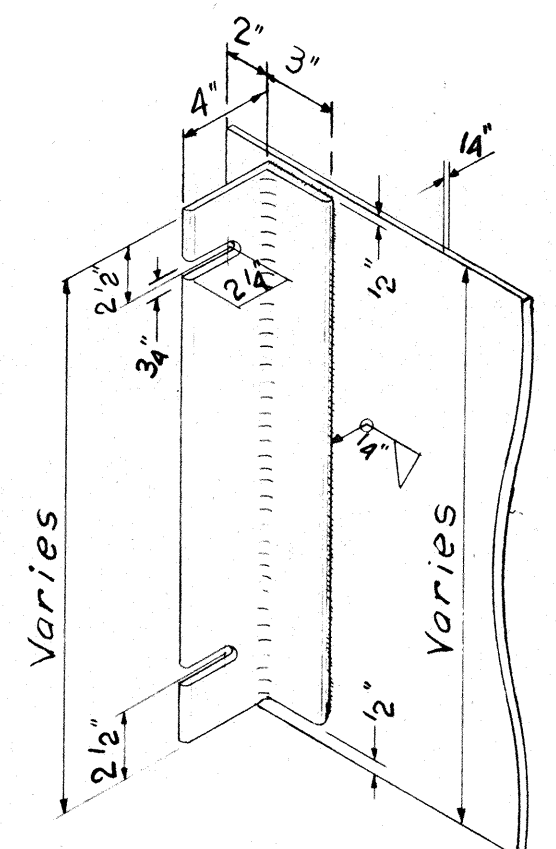
SECTION "A-A" (Alternate)
Scale: $\frac{3}{8}$ " = 1"



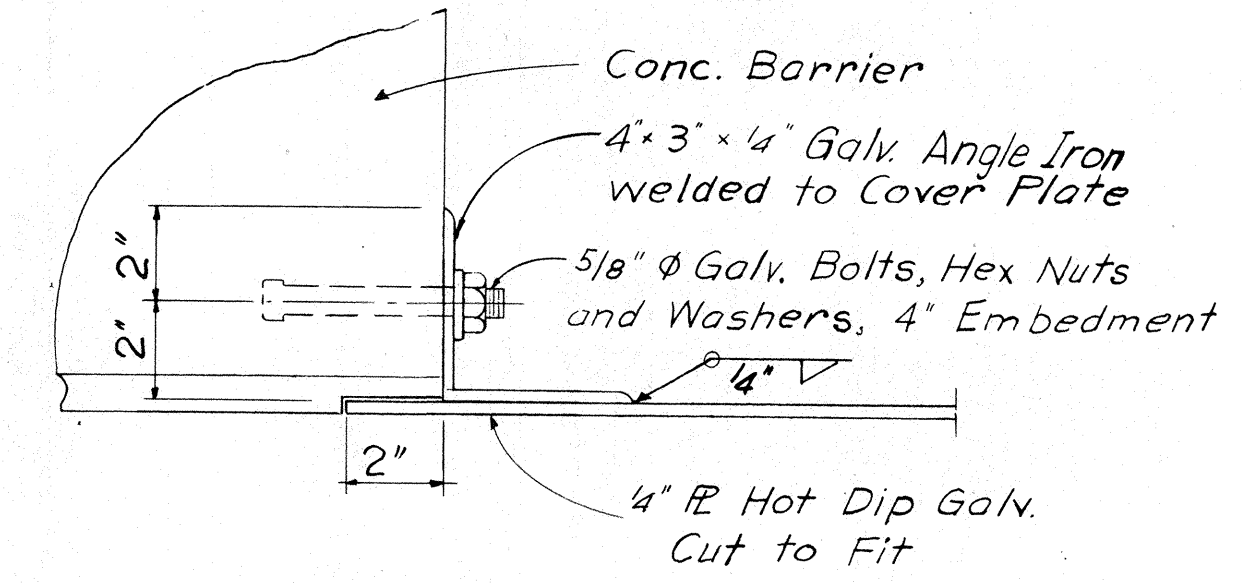
CLOSURE DETAIL SECTION "B-B"
FULL SCALE

DATE
SERVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
CHECKED BY
No.

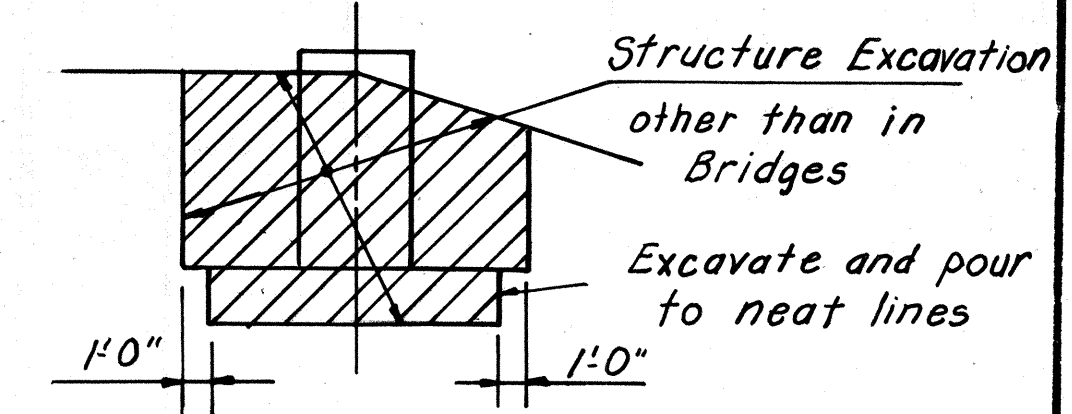
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(77):15	1969	63	154



COVER PLATE DETAIL
Scale: 1 1/2" = 1' - 0"

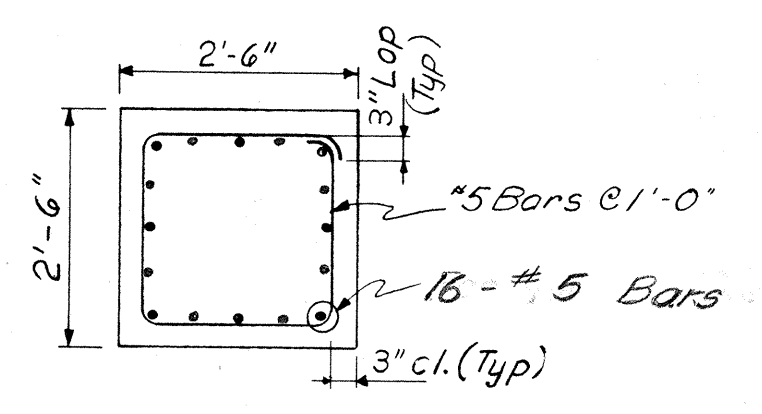


COVER PLATE ANCHOR DETAIL
Scale: 3" = 1' - 0"

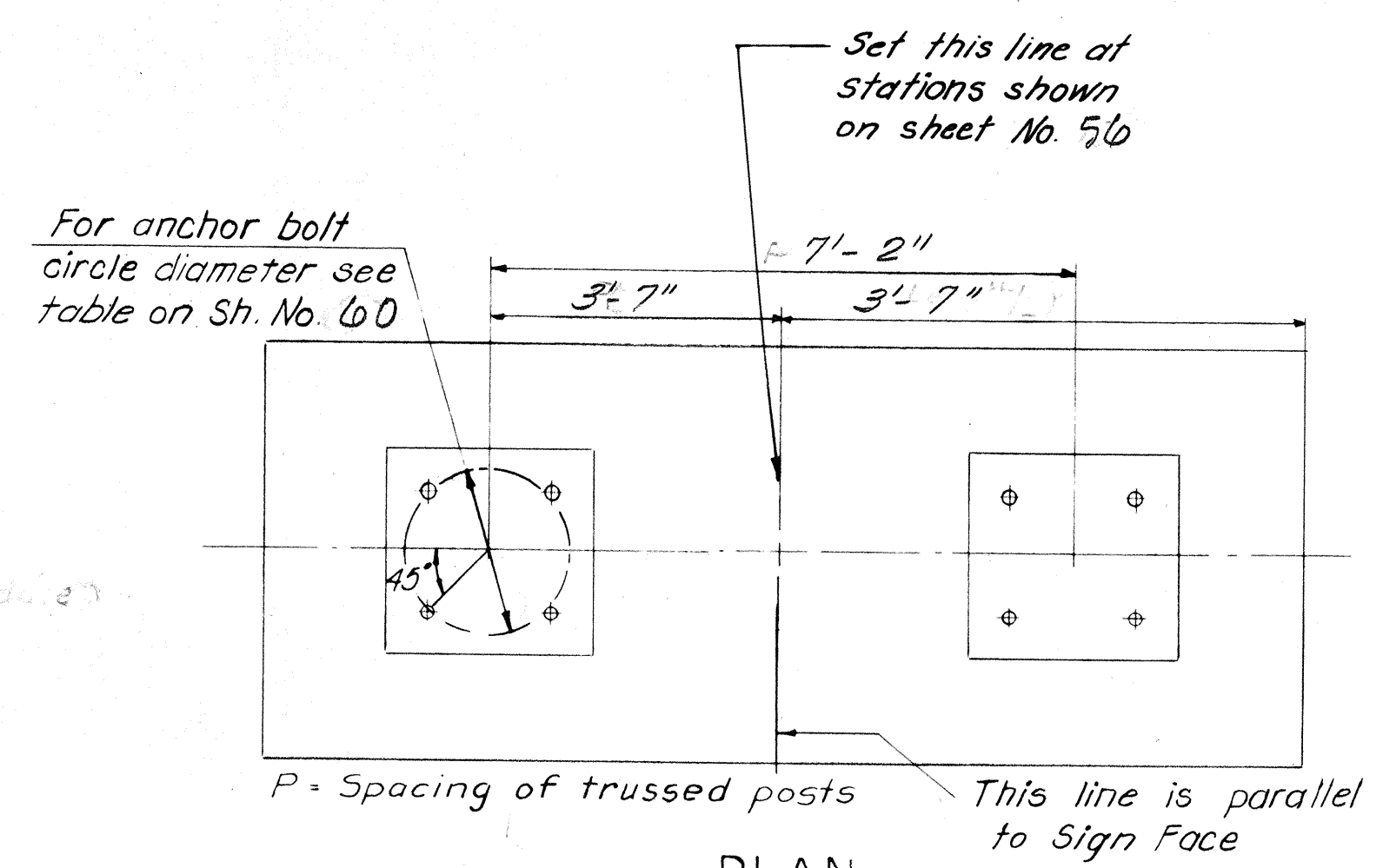


EXCAVATION PAYMENT LIMITS

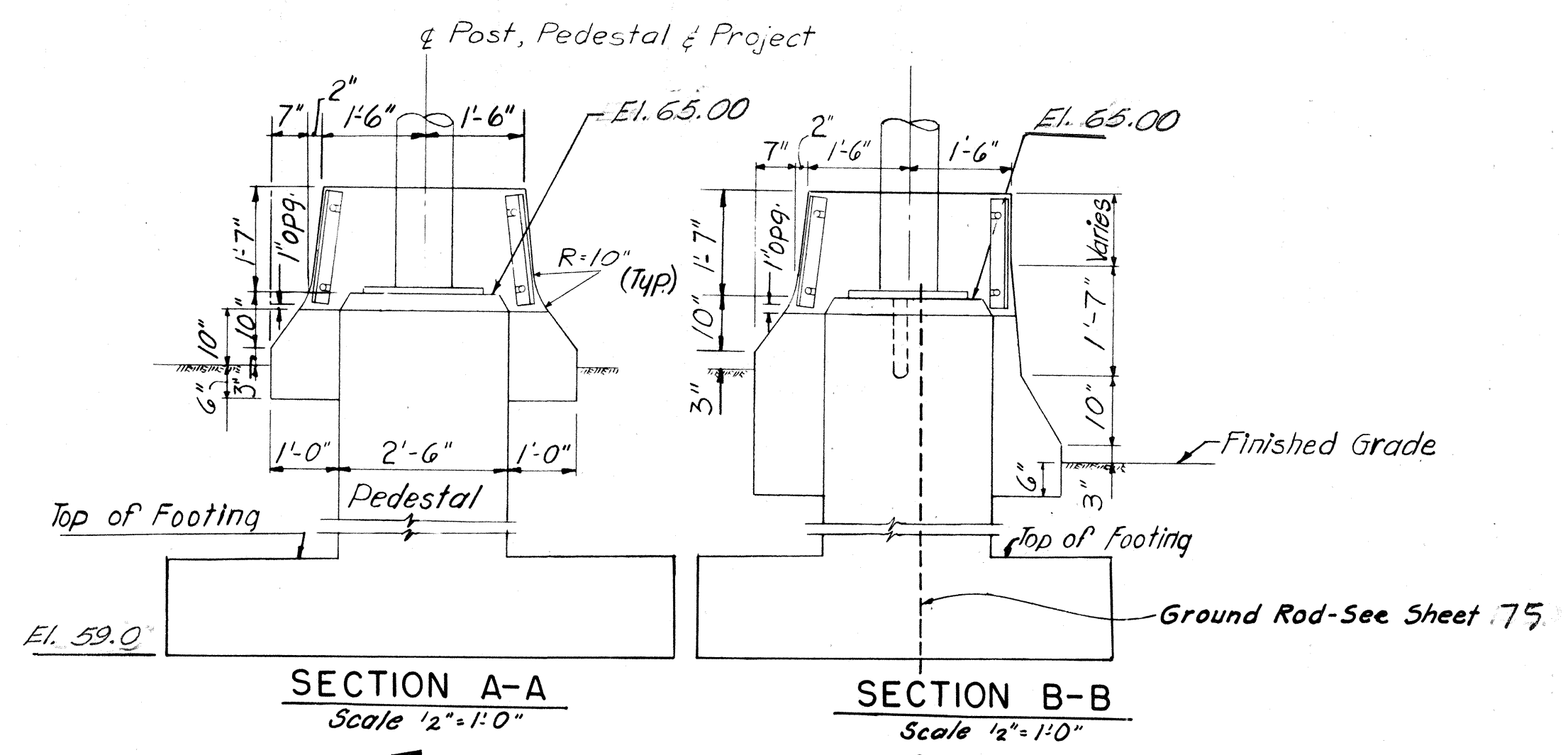
NOTE:
Upper limit for payment of Structure Excavation shall be the lower of: Existing Ground, Finished Ground, or Subgrade of Roadway.



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

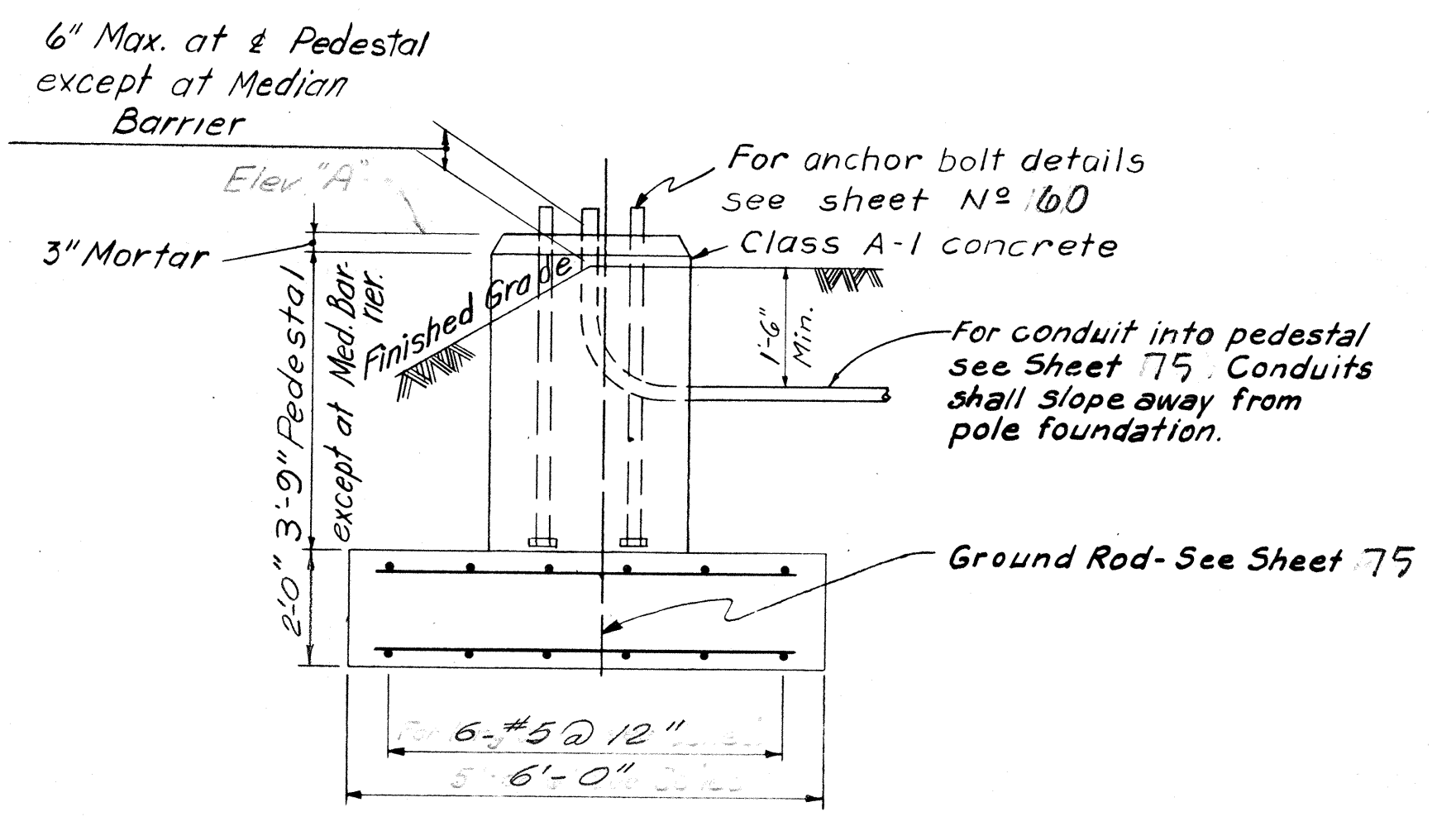


PLAN
Scale: 1/2" = 1' - 0"

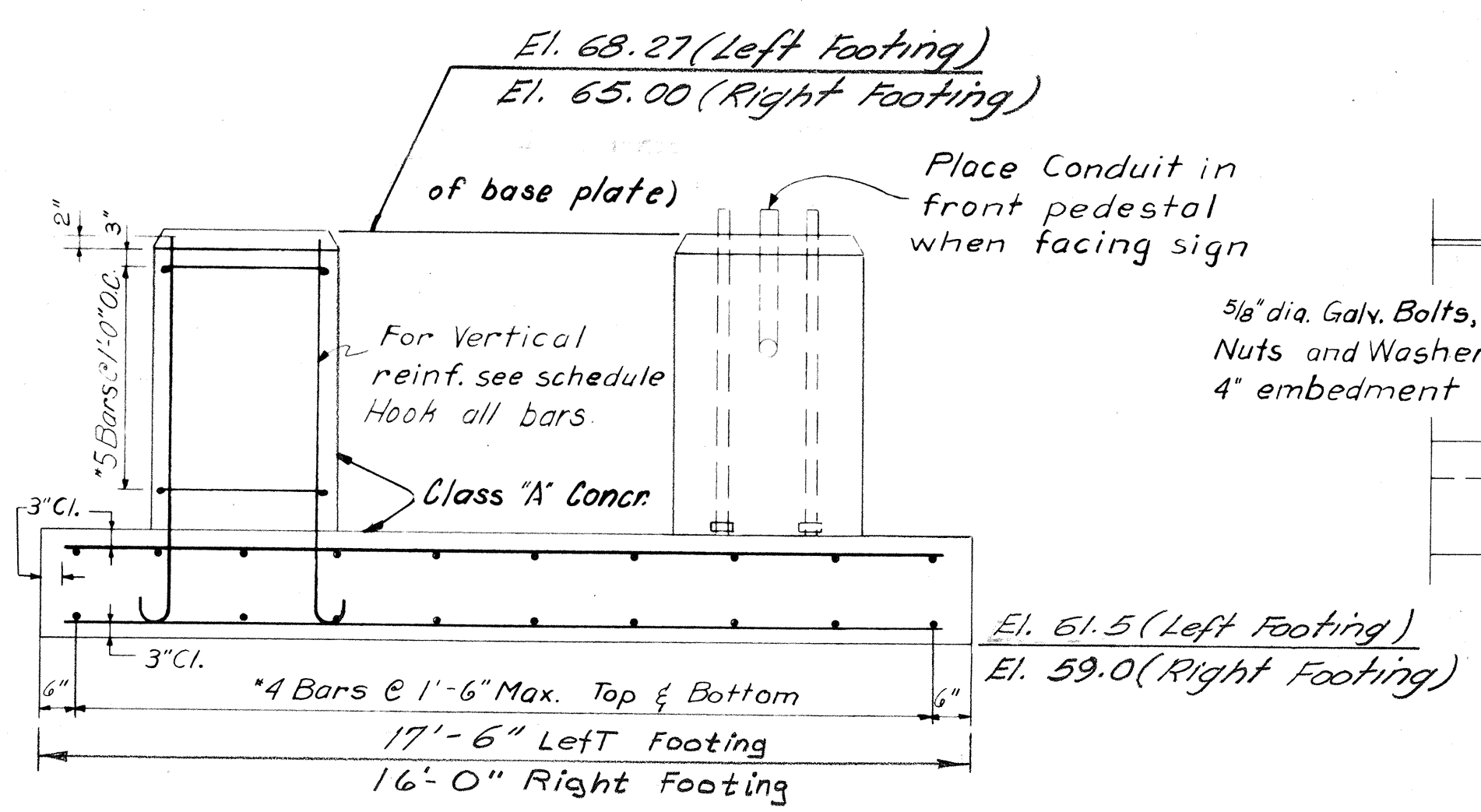


SECTION A-A
Scale: 1/2" = 1' - 0"

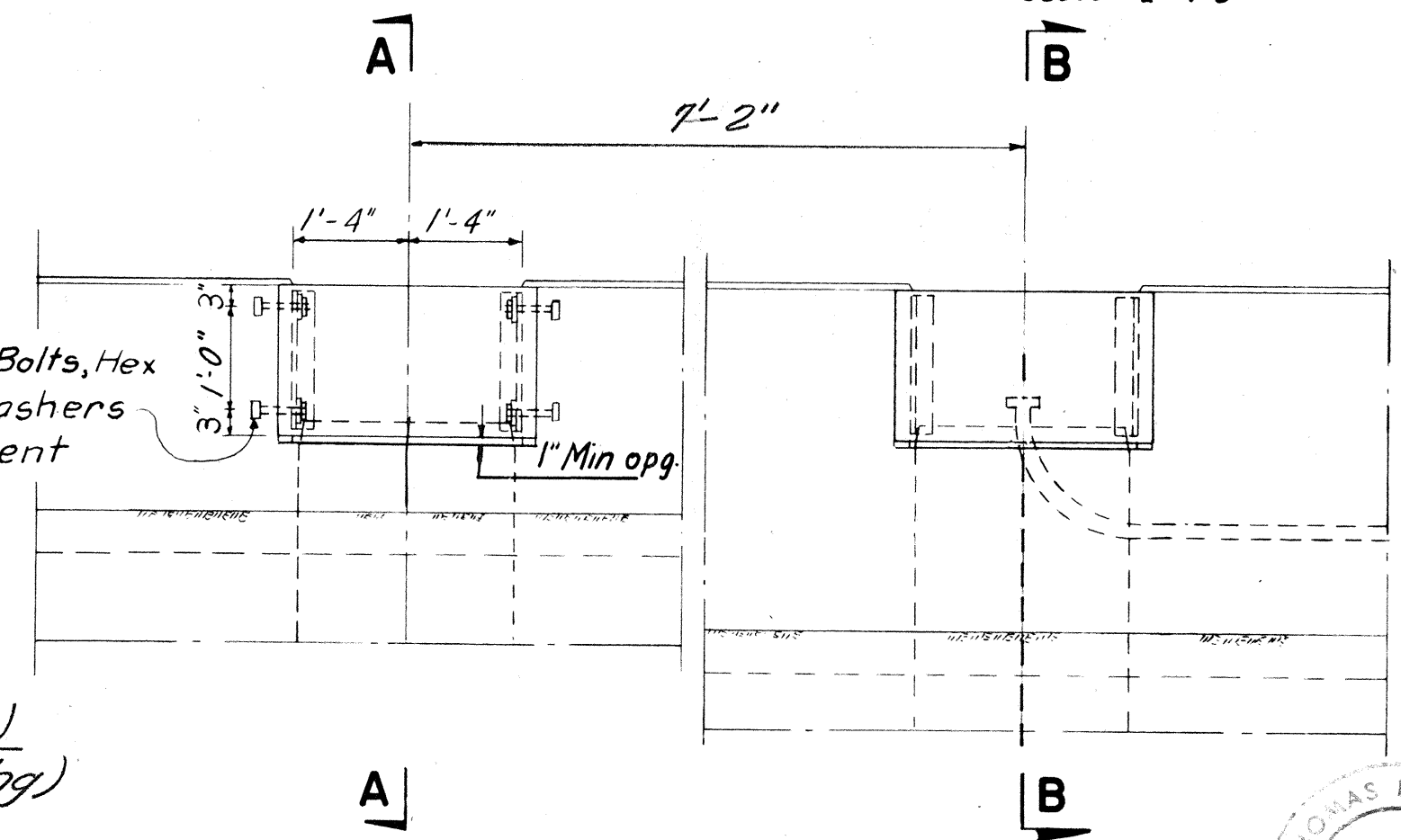
SECTION B-B
Scale: 1/2" = 1' - 0"



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

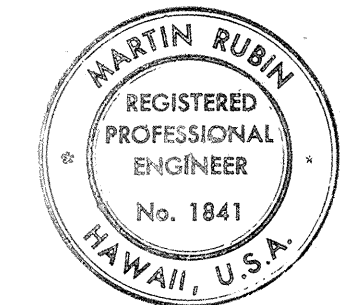


SIDE ELEVATION
Scale: 1/2" = 1' - 0"

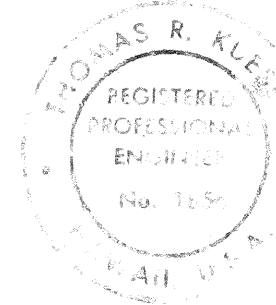


SIDE ELEVATION
Scale: 1/2" = 1' - 0"

MEDIAN BARRIER DETAILS
For Additional Barrier Details See Construction Detail Plans.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Marty Rubin



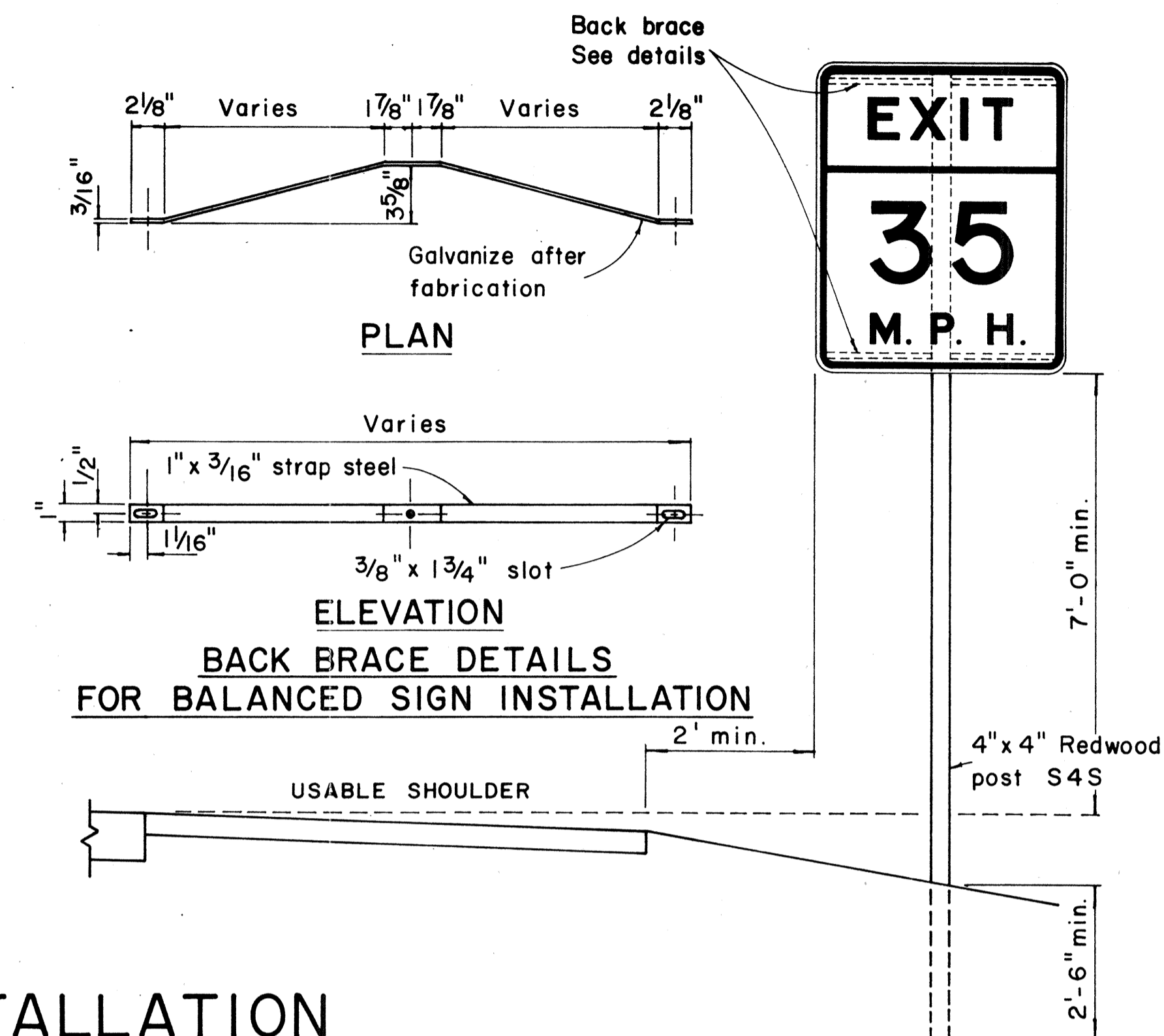
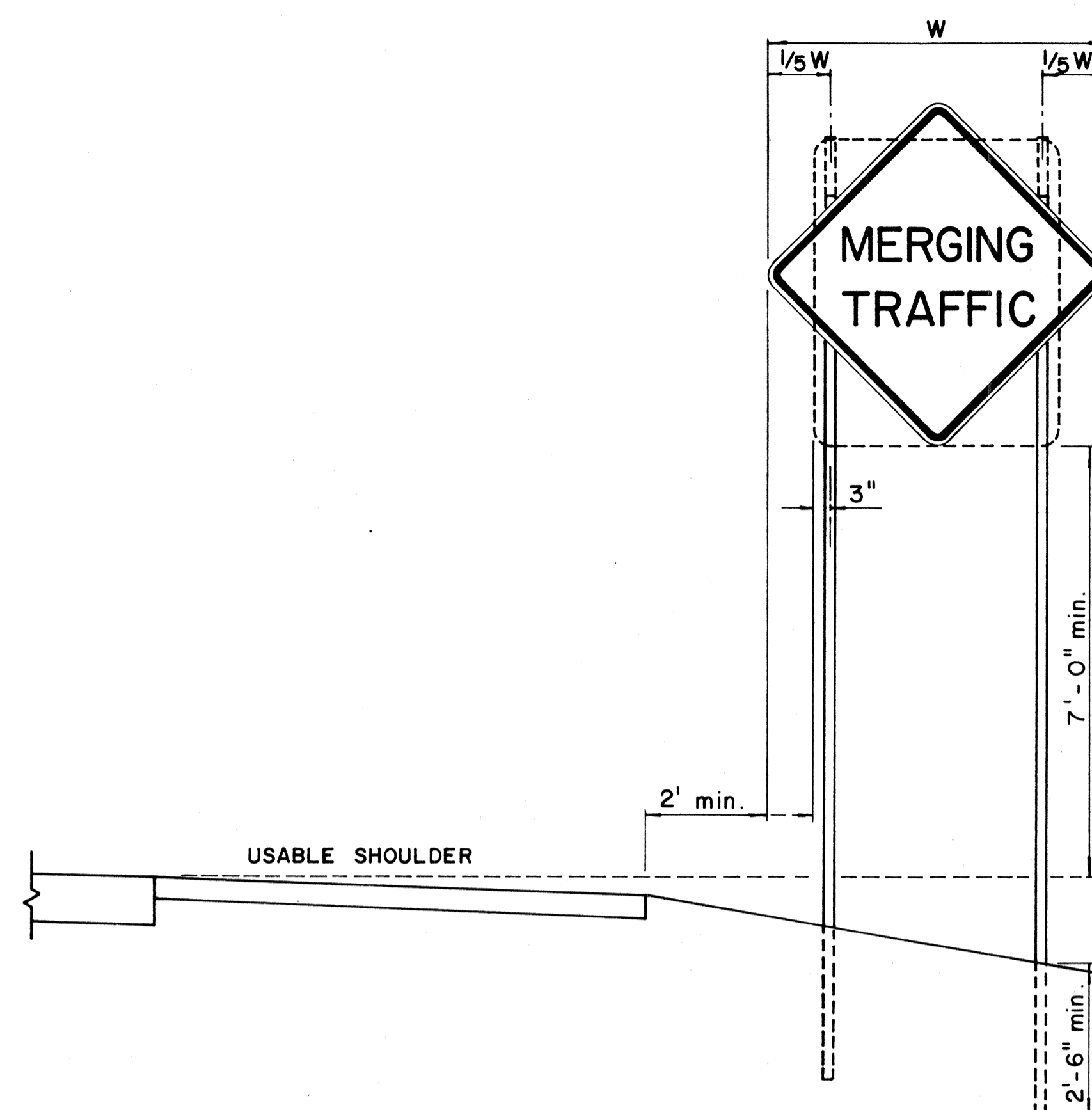
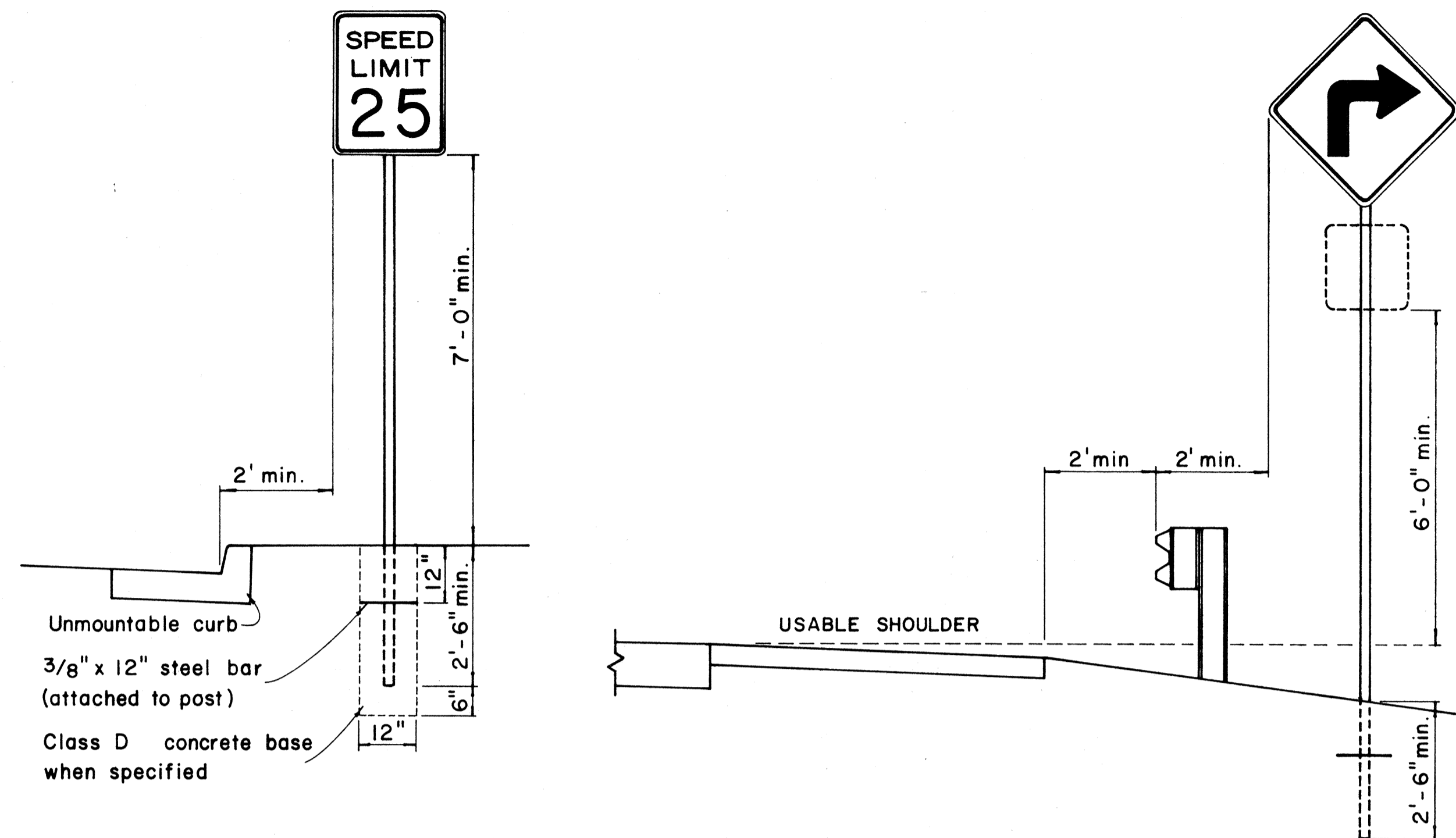
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

OVERHEAD SIGN
FOUNDATIONS
HALAWA INTERCHANGE
PROJECT NO. I-HI-1(77):13
SCALE: AS NOTED DATE: NOV. 28, 1969

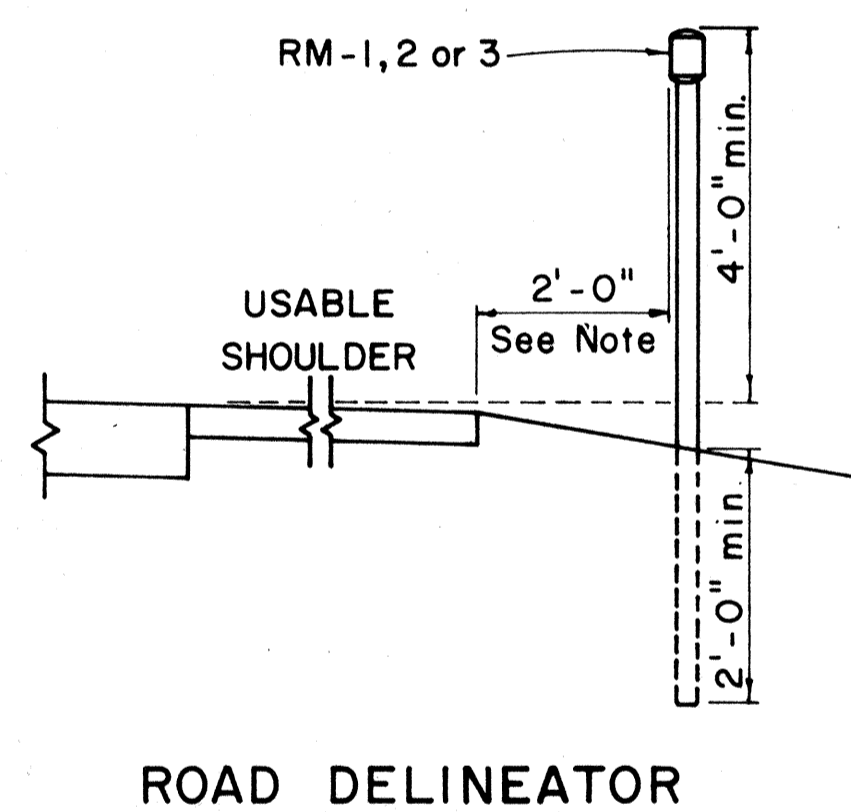
SHEET No. 63 OF 154 SHEETS

DATE: 11/28/69
DRAWN BY: [Signature]
DESIGNED BY: [Signature]
CHECKED BY: [Signature]
ORIGINAL PLAN
NOTE BOOK
No.

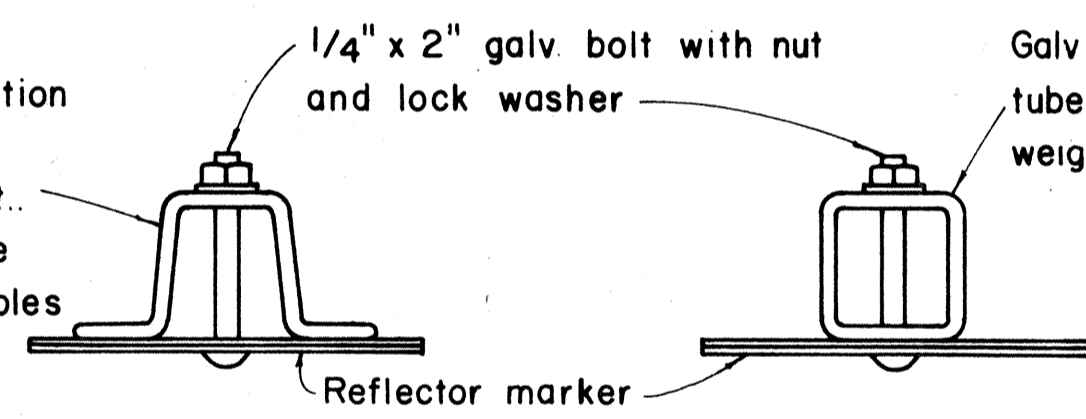
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H1-1(77)-37	1969	64	154



HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATION



Galv. flanged channel 1/8" x 3/16" rolled section post with a minimum weight of 2 lbs. per ft. Upper 2 ft. shall have a single row of 3/8" holes centered in the web at 1" o.c.

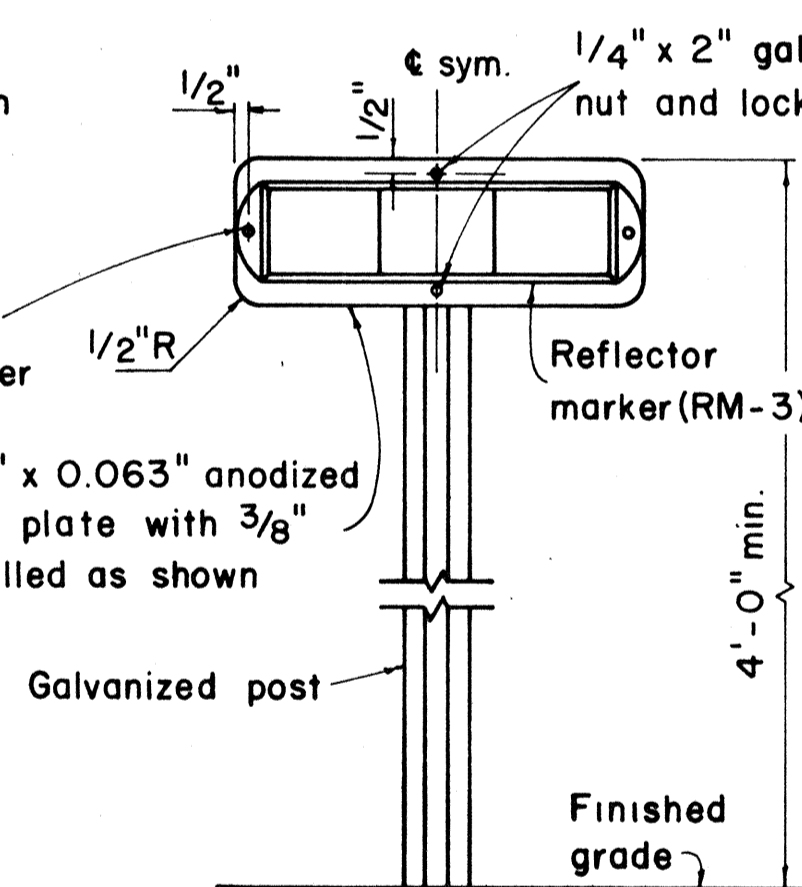


TYPICAL SECTION OF ROAD DELINEATOR

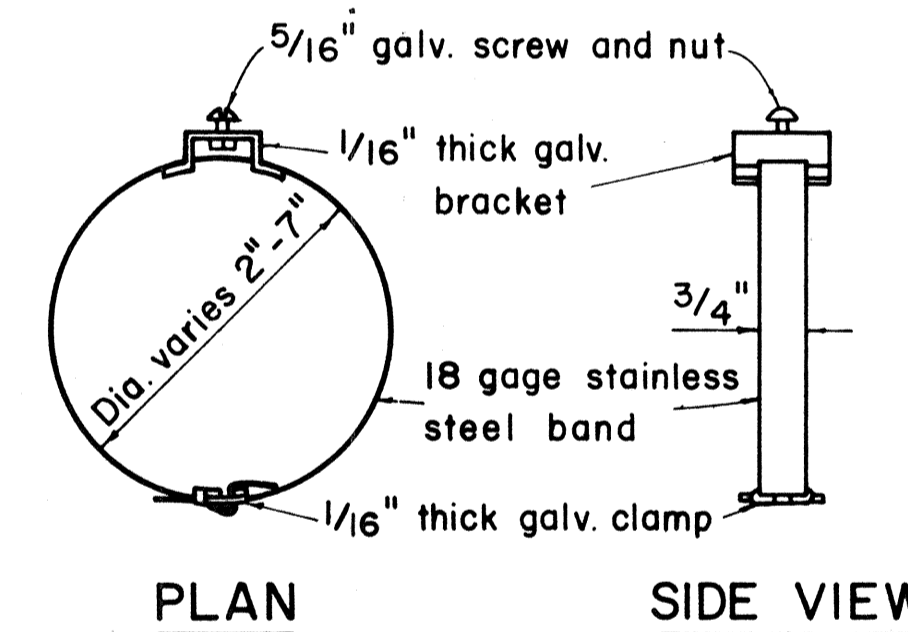
Galv. 1/2" x 1/2" square tube post with a minimum weight of 1.7 lbs per ft

1/4" x 1/2" galv. bolt with nut and lock washer

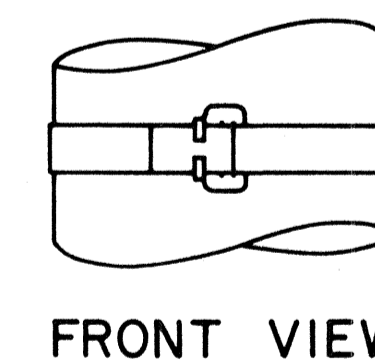
1'-5" x 6" x 0.063" anodized aluminum plate with 3/8" holes drilled as shown



TYPICAL DETAIL HORIZONTAL REFLECTOR MARKER RM-3H



PLAN SIDE VIEW



TYPICAL BAND BRACKET FOR MOUNTING TRAFFIC SIGNS

GENERAL NOTES:

- Sign posts shall be 2" galv. standard pipe or 2" x 2" galv. sq. tube post.
- Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two 2" galv. standard pipe or two 2" x 2" galv. sq. tube post or 4" x 4" redwood post S4S.
- Signs shall be attached to post with 5/16" galv. bolts with nuts and 7/8" x 0.06 stainless steel washers with neoprene rubber gasket.
- Sign posts shall extend 3 1/2" above sign where required for City and County street name signs.
- 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.
- Clearance markers (RM-3, RM-4) shall be installed with the edge of the marker in line with the inner edge of the obstruction.
- (R) or (L) indicates right or left and shall be as shown on the plans.

APPROVAL RECOMMENDED:
Eiichi Tanaka 12/29/69
TRAFFIC ENGINEER DATE

APPROVED:
Assistant Chief, Engineering 12-30-69
DATE

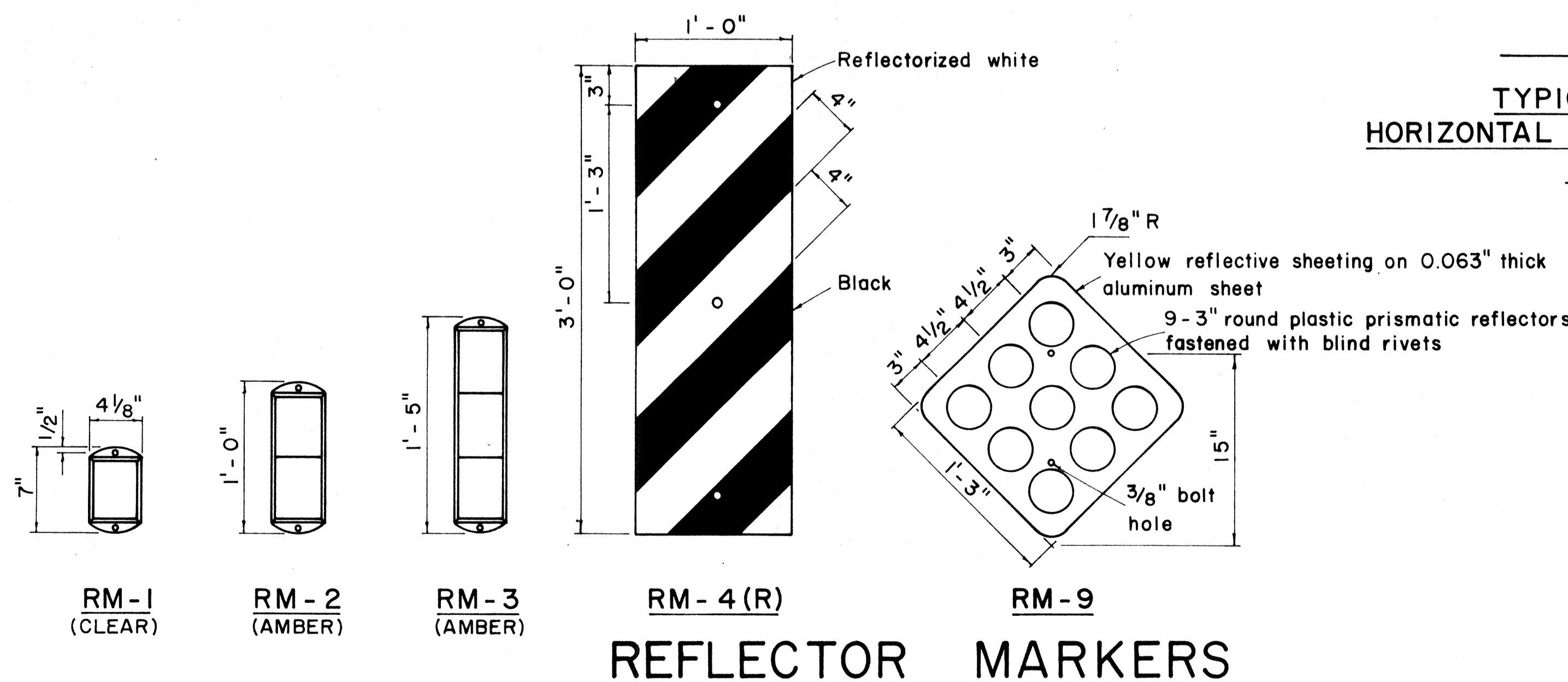
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
MISCELLANEOUS SIGN DETAILS

Not to scale March, 1968

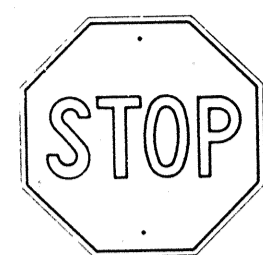
NO	REVISION	APPROVED BY	DATE

DATE
DESIGNED BY
CHECKED BY
NO.

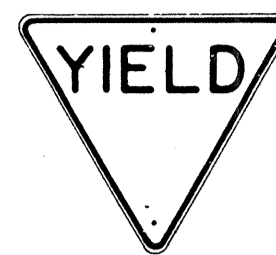


REFLECTOR MARKERS

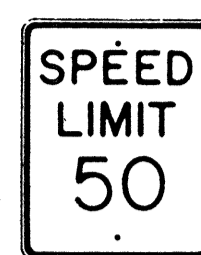
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-111(17)-13	1969	65	154



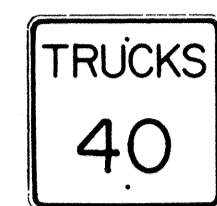
R1-1 30"x 30"



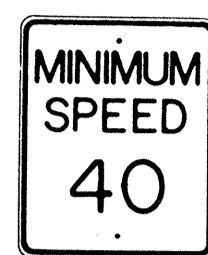
R1-2 36"x 36"x 36"
R1-2-E 48"x 48"x 48"
R1-2-I 60"x 60"x 60"



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



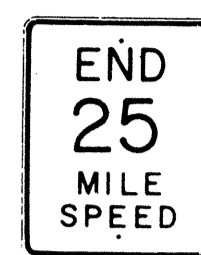
R2-2(40) 24"x 24"
R2-2(40)-E 36"x 36"
R2-2(40)-I 48"x 48"



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"



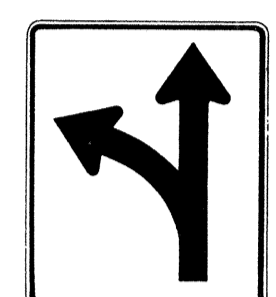
R3-3 24"x 24"



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



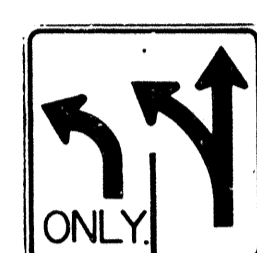
R3-5(L) 30"x 36"



R3-6(L) 30"x 36"



R3-7(R) 30"x 30"



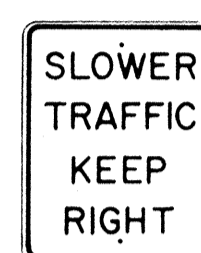
R3-8(L) 30"x 30"



R4-1 24"x 30"



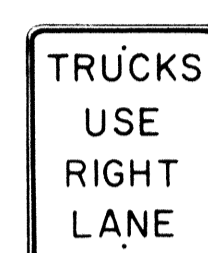
R4-2 24"x 30"



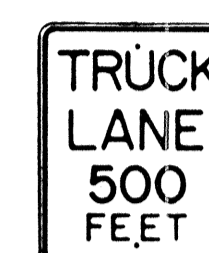
R4-3 24"x 30"
R4-3-E 36"x 48"
R4-3-I 48"x 60"



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"



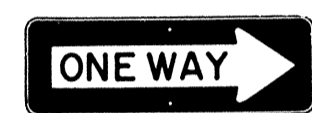
R4-6 24"x 30"
R4-6-E 36"x 48"



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



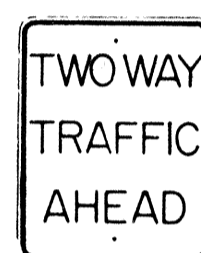
R5-1 24"x 24"



R6-1(R) 36"x 12"



R6-2(R) 18"x 24"



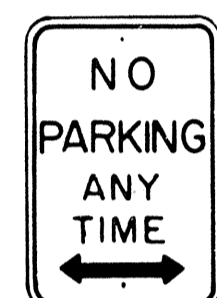
R6-3 24"x 30"



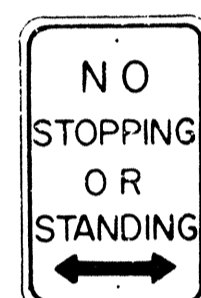
R6-4 24"x 30"



R6-5 24"x 30"



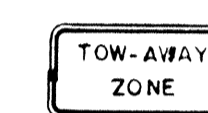
R7-1 12"x 18"



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"



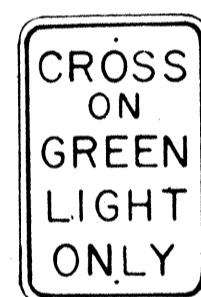
R8-3 24"x 30"
R8-3-E 36"x 48"



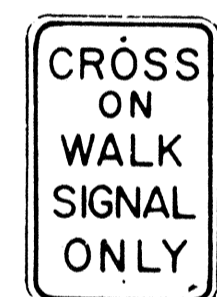
R8-4 24"x 30"
R8-4-E 36"x 48"
R8-4-I 48"x 36"



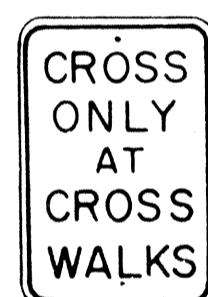
R9-1 18"x 24"



R9-2 12"x 18"



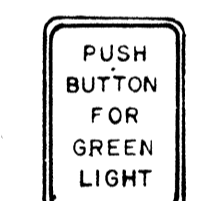
R9-3 12"x 18"



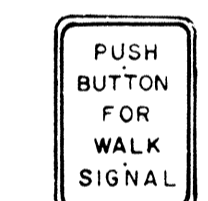
R9-4 12"x 18"



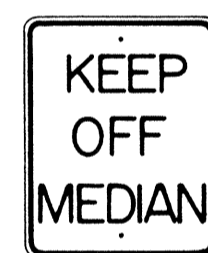
R9-5 12"x 18"



R9-6 9"x 12"



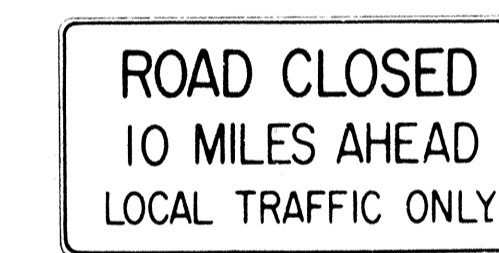
R9-7 9"x 12"



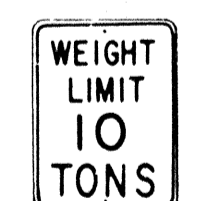
R10-1 24"x 30"
R10-1-E 36"x 48"
R10-1-I 48"x 60"



R10-2 48"x 30"



R10-3(10) 60"x 30"



R10-4(10) 18"x 24"

NOTE:

- 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 regulatory signs shall be reflectorized unless otherwise specified.
- All regulatory signs shall have 3/8" bolt holes drilled at appropriate locations unless otherwise noted.
- The suffix "E" denotes Expressway signs and "I" denotes Interstate signs.
- 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.
- For R10-4 sign, number in () indicates weight and shall be as shown on the plan.

APPROVAL RECOMMENDED:

Eishi Tanaka 12/23/69
TRAFFIC ENGINEER DATE

APPROVED:

John J. DeSantis 12-23-69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

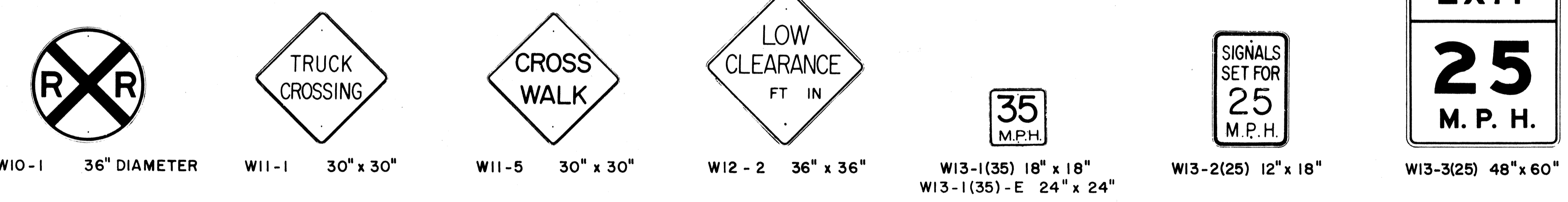
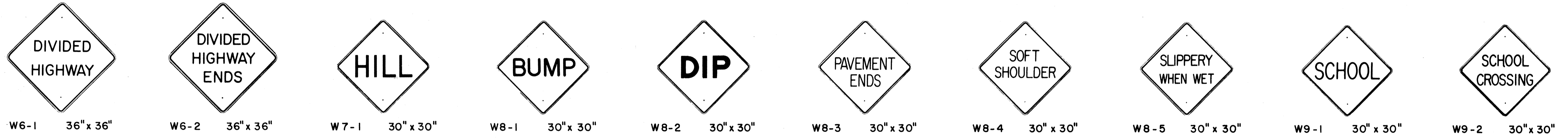
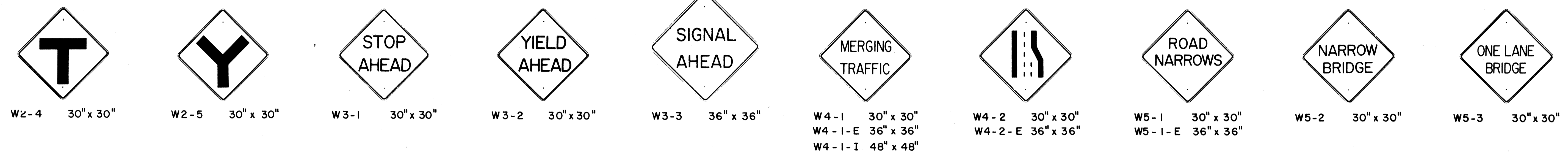
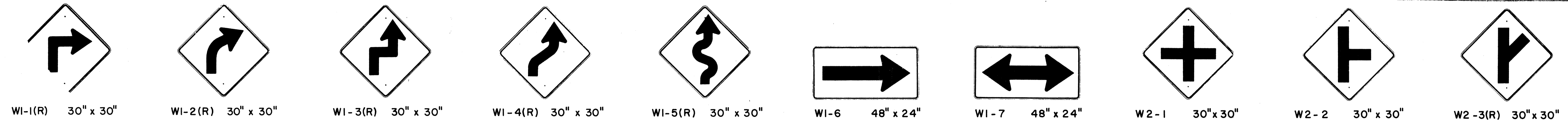
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
REGULATORY SIGNS

NOT TO SCALE

SURVEY PLOTTED BY	DATE
DESIGNED BY	
CHECKED BY	
QUANTITIES BY	
NOTE BOOK	
FRACED BY	
ORIGINAL PLAN	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FH-1(77)13	1969	66	154



- 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 warning signs shall be reflectorized unless otherwise specified.
 - All warning signs shall have 3/8" bolt holes drilled at appropriate locations unless otherwise noted.
 - (R) or (L) indicates right or left and shall be as shown on the plan.
 - The suffix "E" denotes Expressway signs and "I" denotes Interstate signs.
 - For W13 sign, number in () indicates speed and shall be as shown on the plans.

APPROVAL RECOMMENDED:
Etsuki Tanaka 12/27/69
 TRAFFIC ENGINEER DATE

APPROVED:
William S. Sisti 12-30-69
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

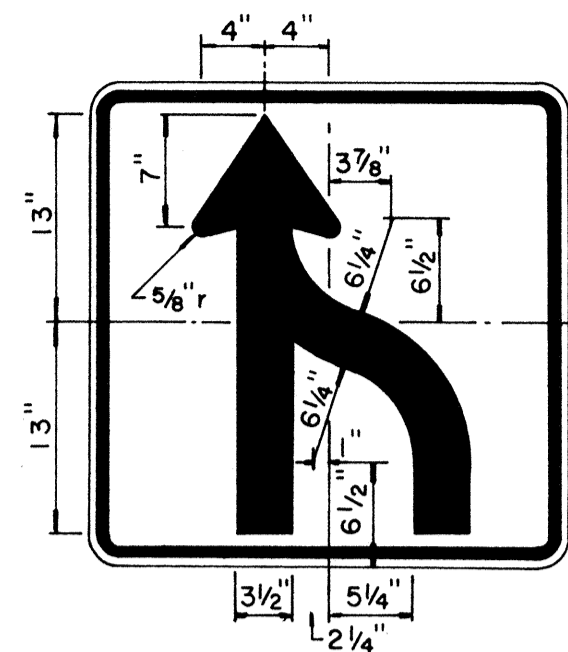
STANDARD DETAILS
WARNING SIGNS

NOT TO SCALE

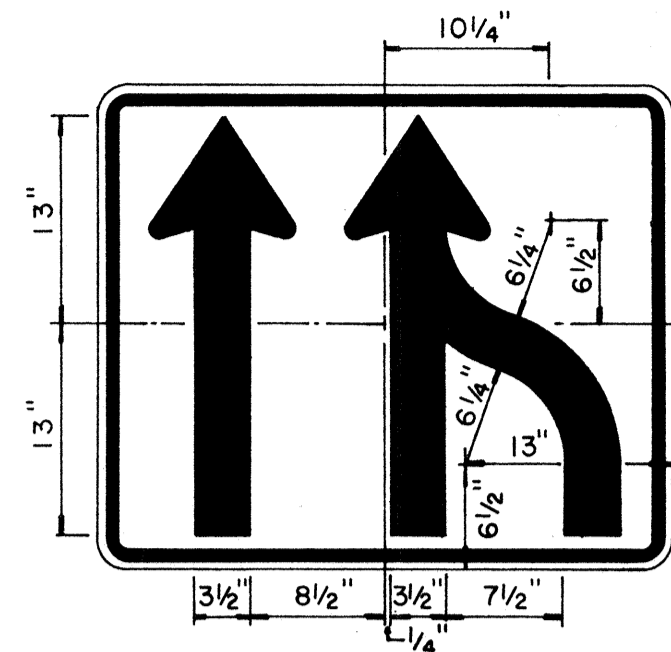
SHEET No. 12 OF 15 SHEETS DT 102

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

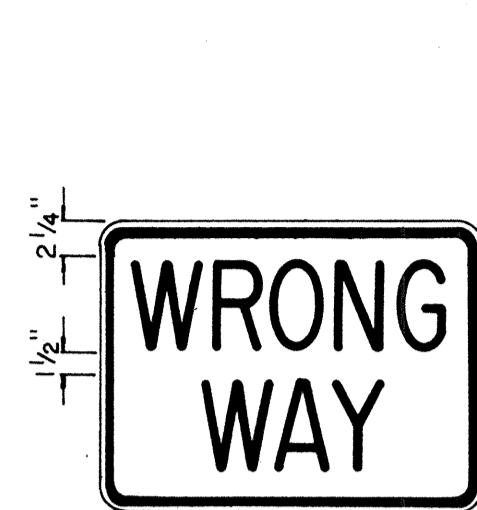
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IHI-1(77)-19	1969	67	154



R3-9 30" x 30"



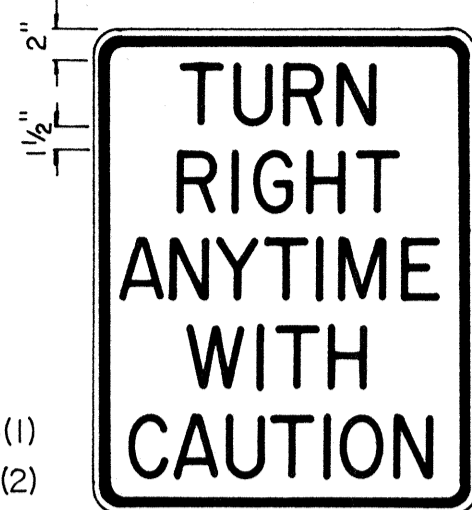
R3-10 36" x 30"



R5-5(1) 24" x 18"
R5-5(2) 36" x 24"

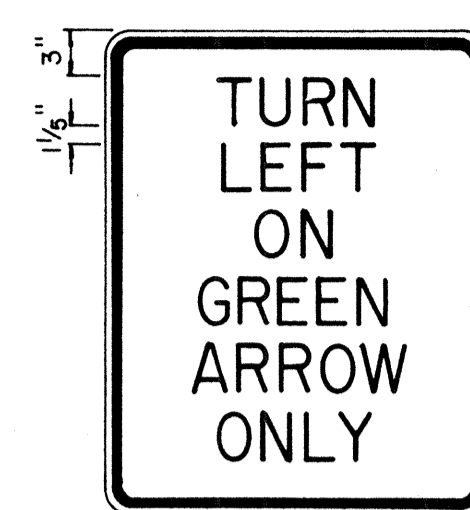
NOTE:
White legend and border
on Red background.

6" Series C: R5-5(1)
8" Series C: R5-5(2)



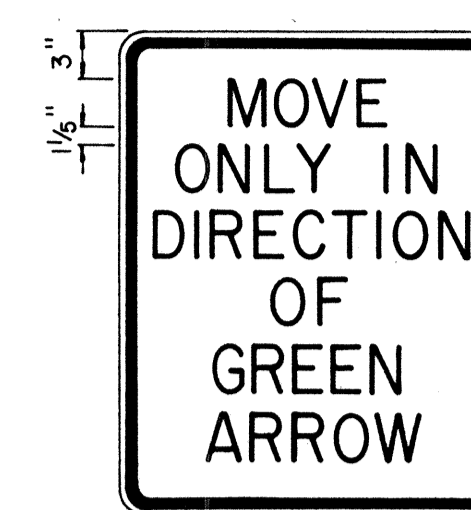
R15-1 24" x 30"

4" Series C



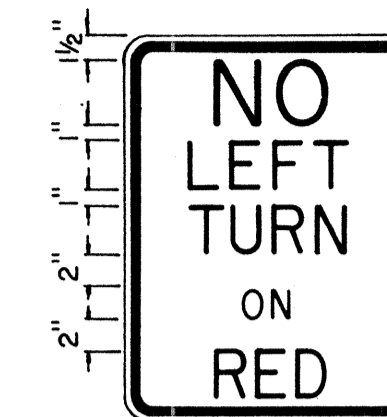
R16-1 24" x 30"

3" Series C



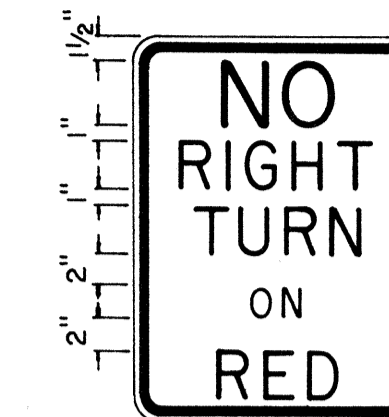
R16-2 24" x 30"

3" Series C



R17-1 18" x 24"

4" Series D
3" Series C
2" Series B



R17-2 18" x 24"

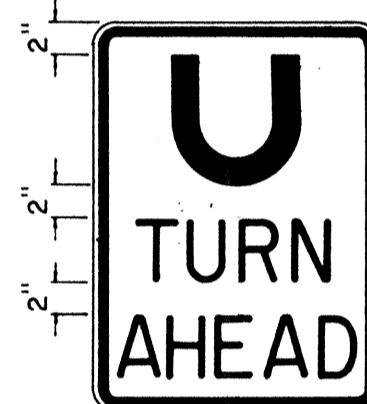
4" Series D
3" Series C
2" Series B



R18-1 36" x 30"

3" Series C

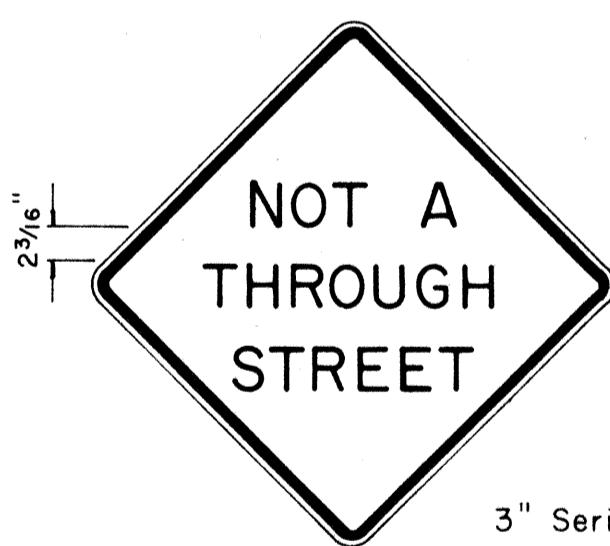
4" Series E



R19-1 18" x 24"

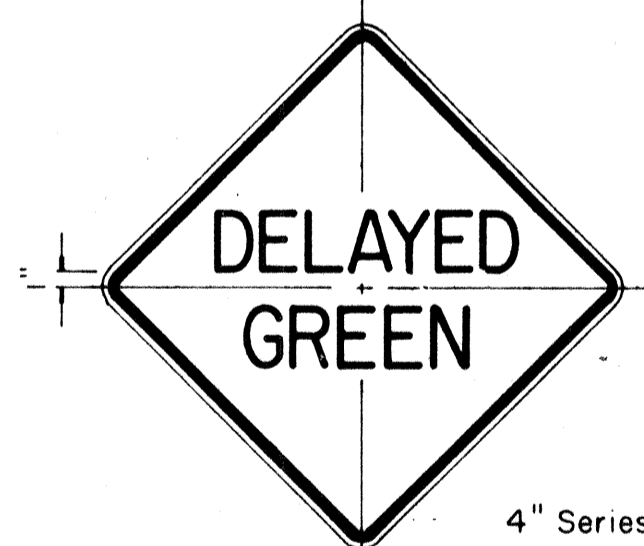
8" Series F

4" Series D



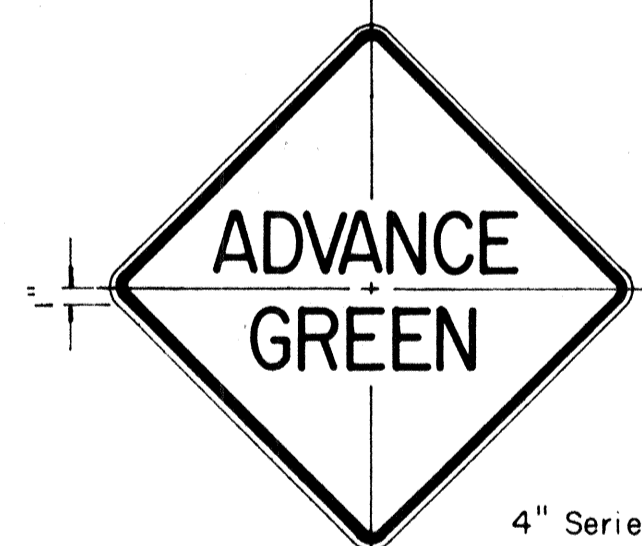
W13-4 24" x 24"

3" Series D



W15-1 24" x 24"

4" Series C



W15-2 24" x 24"

4" Series C

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 specified.

APPROVAL RECOMMENDED:
Euschi Tanaka 12/29/69
TRAFFIC ENGINEER DATE

APPROVED:
John S. S. S. 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

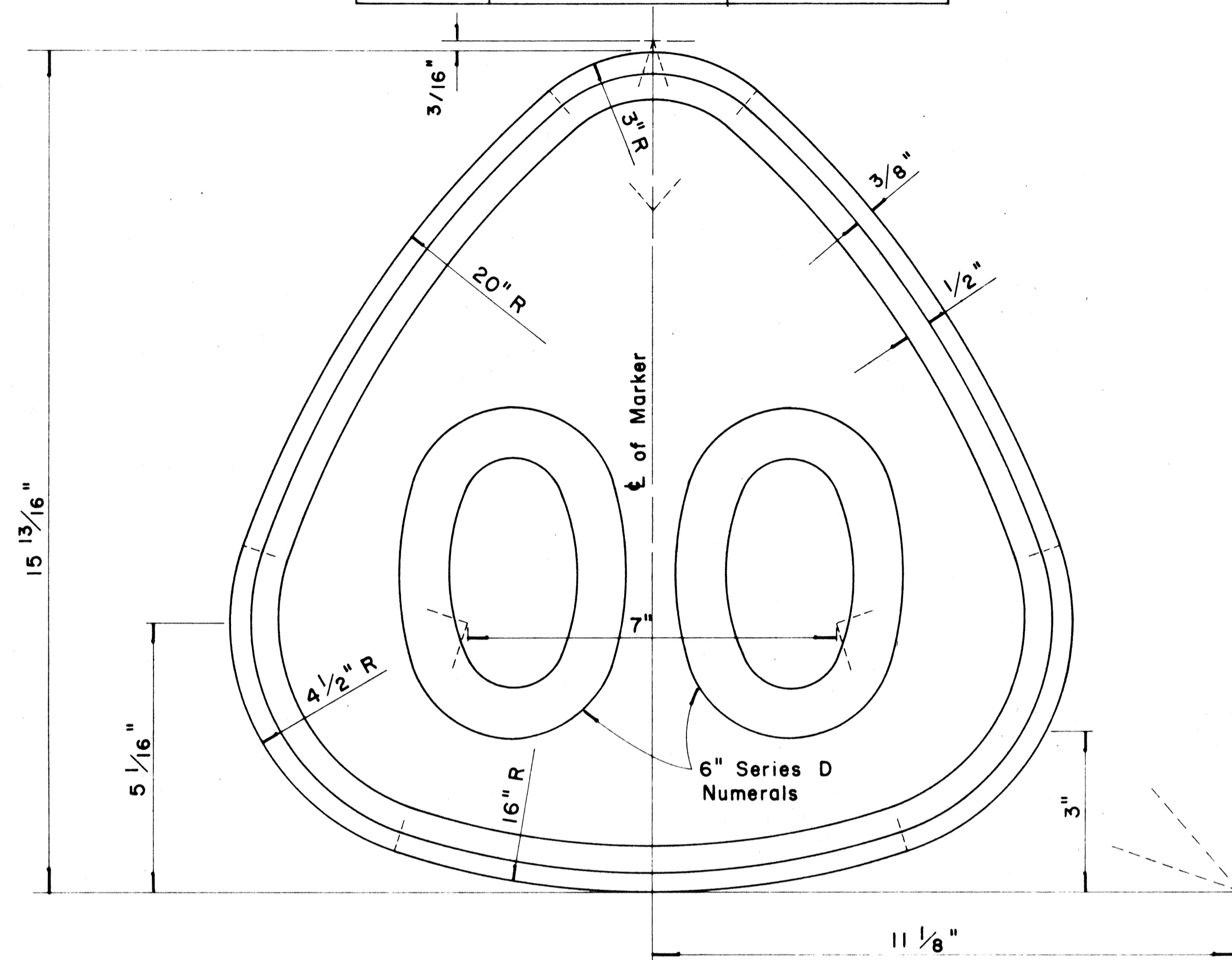
STANDARD DETAILS

MISCELLANEOUS
REGULATORY & WARNING SIGNS

Scale: 1" = 1' - 0"

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

Shield Size	Multiply Dimensions by	Numeral Size
16"	1	6" Series D
21"	1.3	8" Series D
32"	2.0	12" Series D
42"	2.63	15" Series D
48"	3	18" Series D



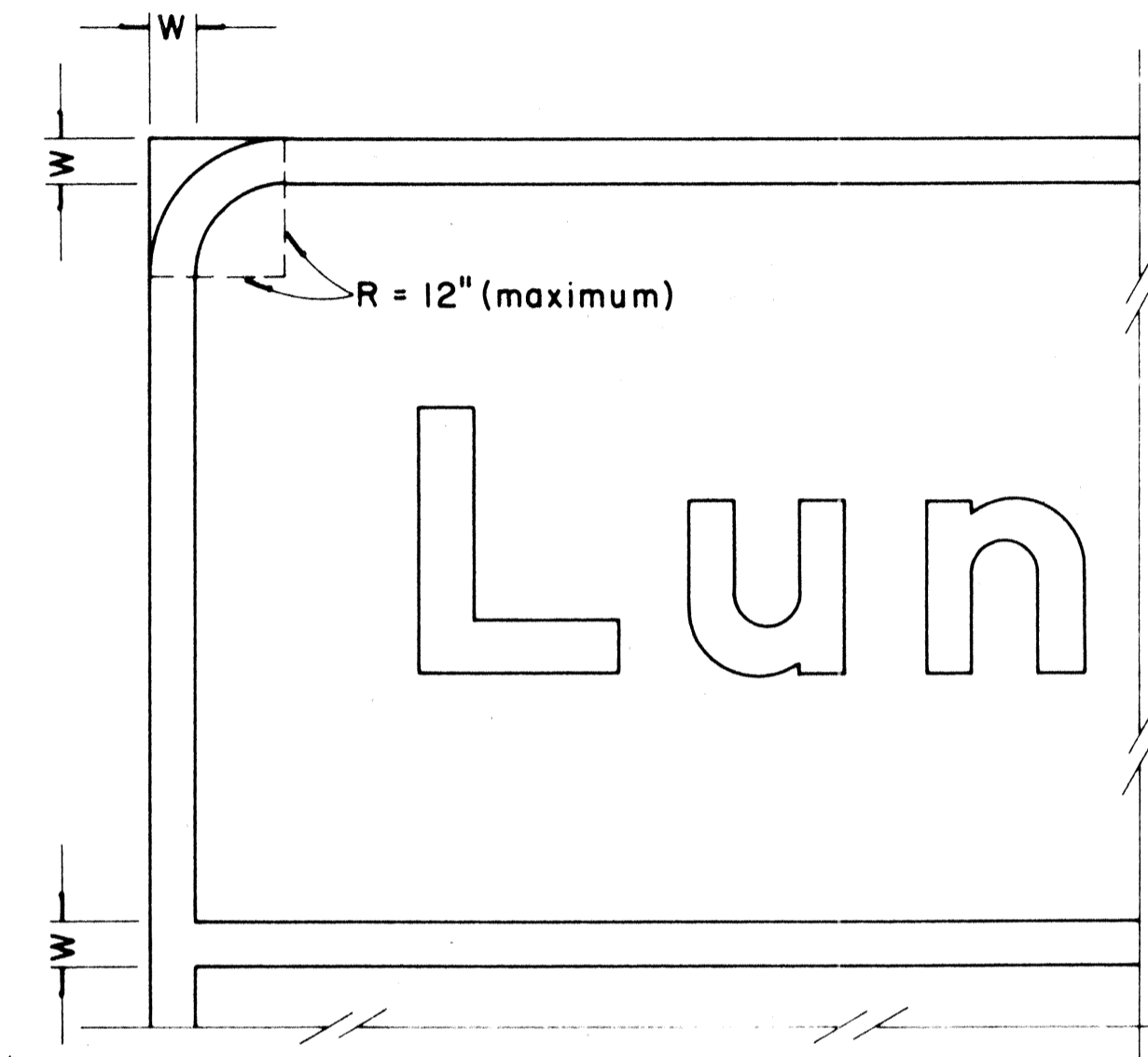
**STATE ROUTE MARKER
FOR
DESTINATION & EXPRESSWAY SIGNS**

Scale: Half Size

NOTE:

1. State Route Markers on Destination and 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, 1966.
3. All Cut-outs shall be fastened on sign panel with Aluminum blind rivets. See Standard Specification.

RADI FOR SIGNS		
Least Dimension of Sign	W	R
2'- 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"



**BORDER DETAIL
FOR
DESTINATION & EXPRESSWAY SIGNS**

No Scale

NOTE:

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

APPROVAL RECOMMENDED:

Etschi Tanaka 12/29/67
TRAFFIC ENGINEER DATE

APPROVED:

John S. Slaton 12/30/67
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DESTINATION & EXPRESSWAY SIGNS
**STATE ROUTE MARKER
AND
BORDER DETAIL**

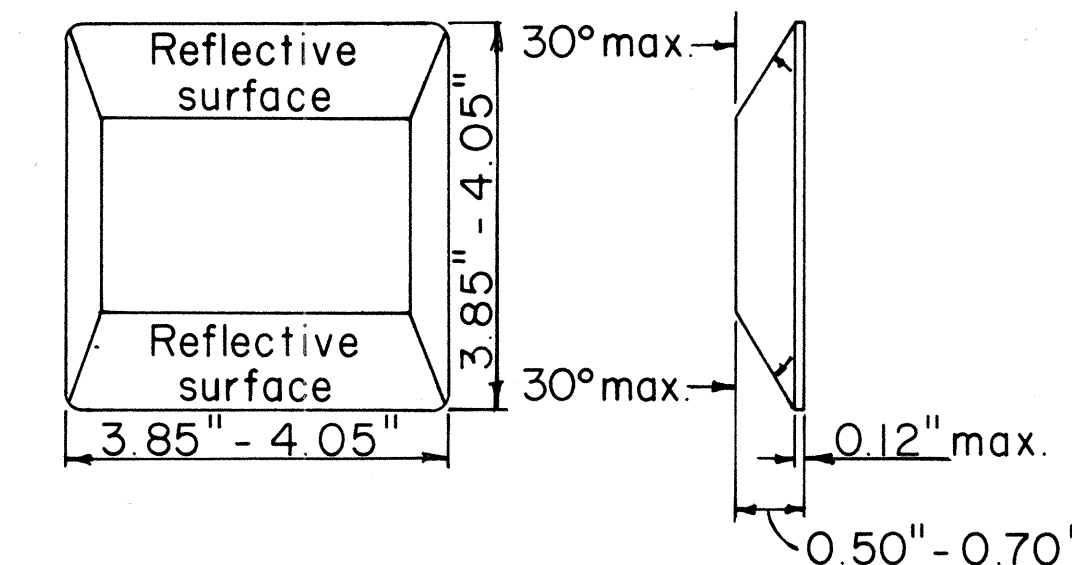
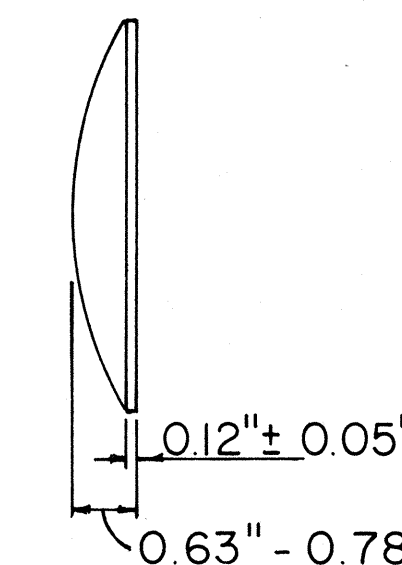
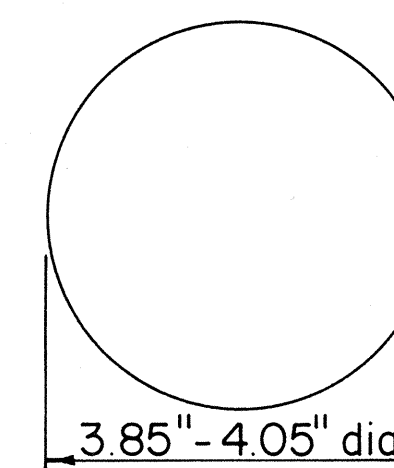
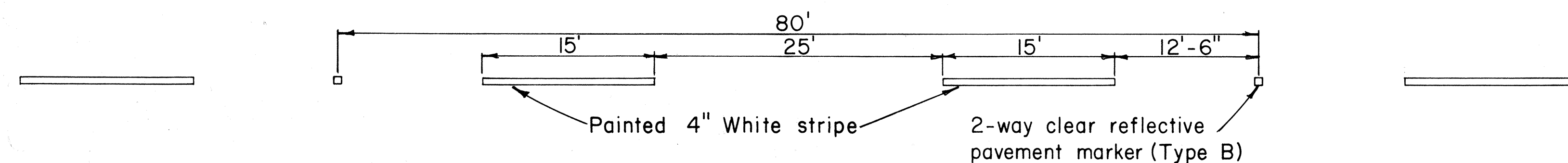
Scale: As Shown

SHEET No. 14 OF 15 SHEETS DT 209

DATE _____
SURVEY PLOTTED BY _____
DRAWN BY _____
TRACED BY _____
QUANTITIES BY _____
CHECKED BY _____
ORIGINAL PLAN _____
NOTE BOOK _____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1-(17)-13	1967	67	154

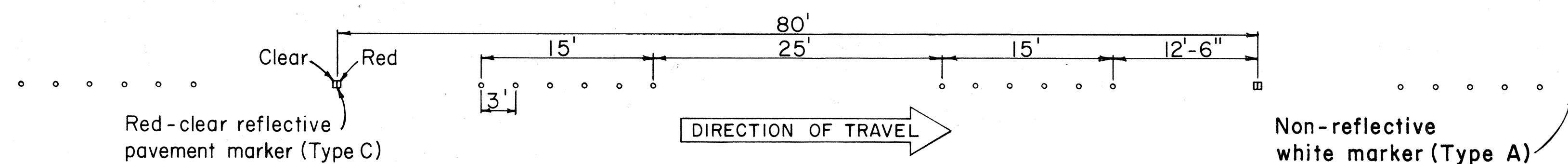
① CENTER LINES ON TWO - LANE RURAL ROADS AND CITY STREETS



TYPE A
Non-reflective white marker

TYPE B
2-way clear reflective surface

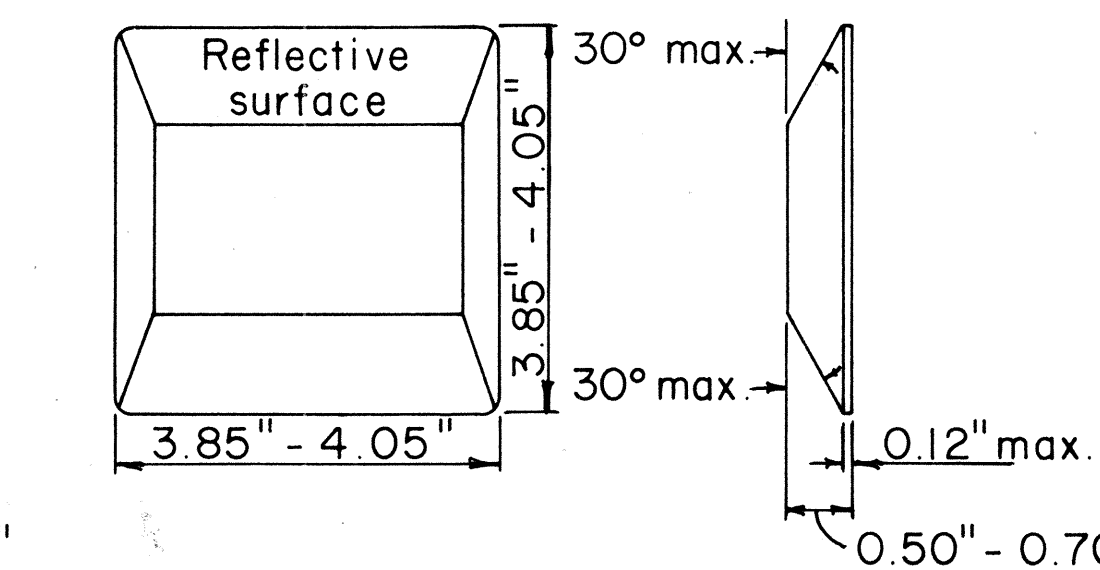
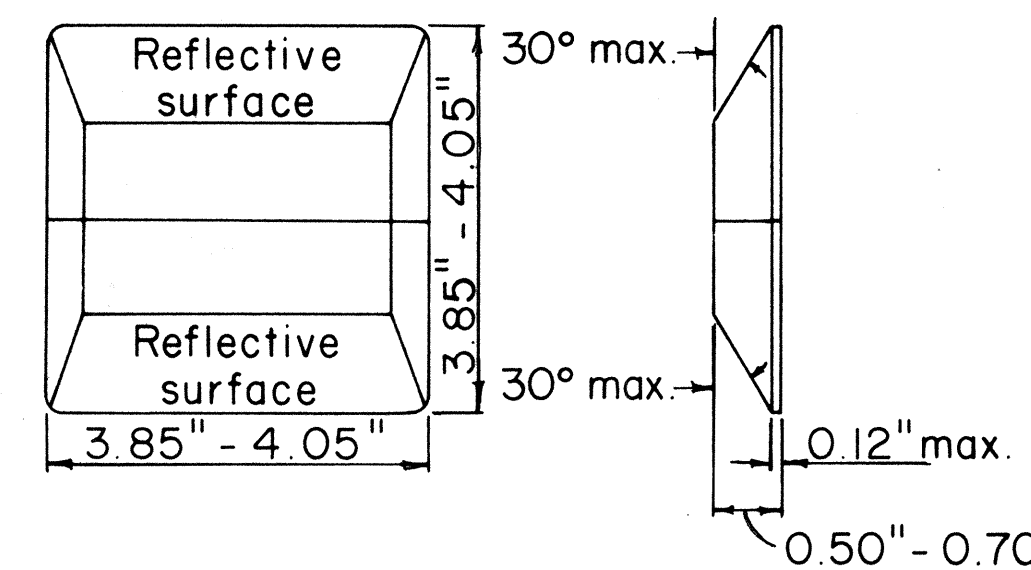
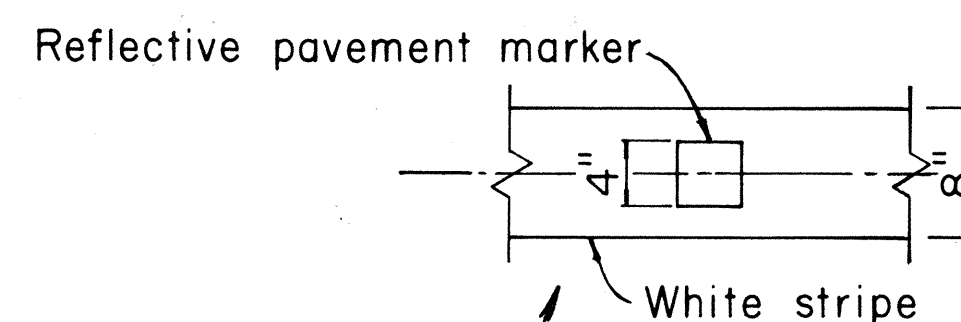
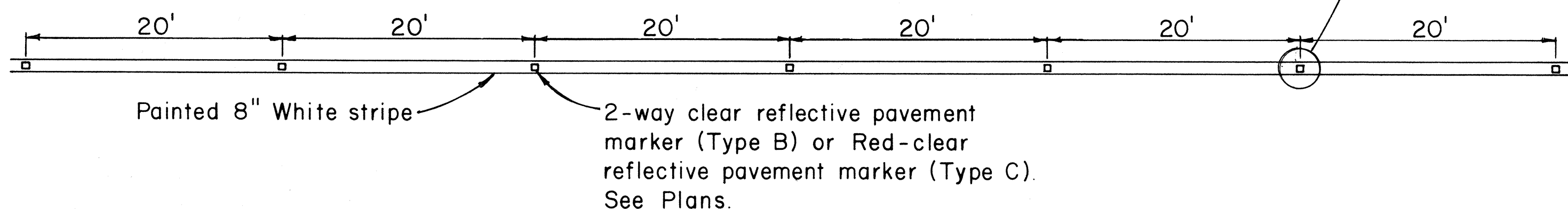
② LANE LINES



TYPE J
Non-reflective yellow marker

TYPE D
2-way yellow reflective surface

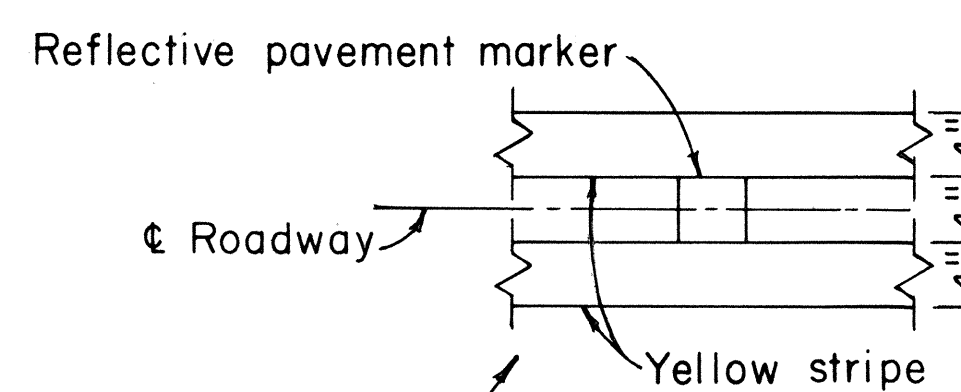
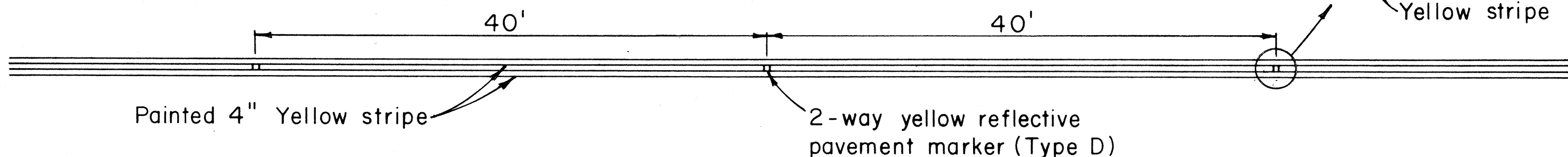
③ CHANNELIZING LINES



TYPE C
Red - clear reflective surface

TYPE H
One - way yellow reflective surface

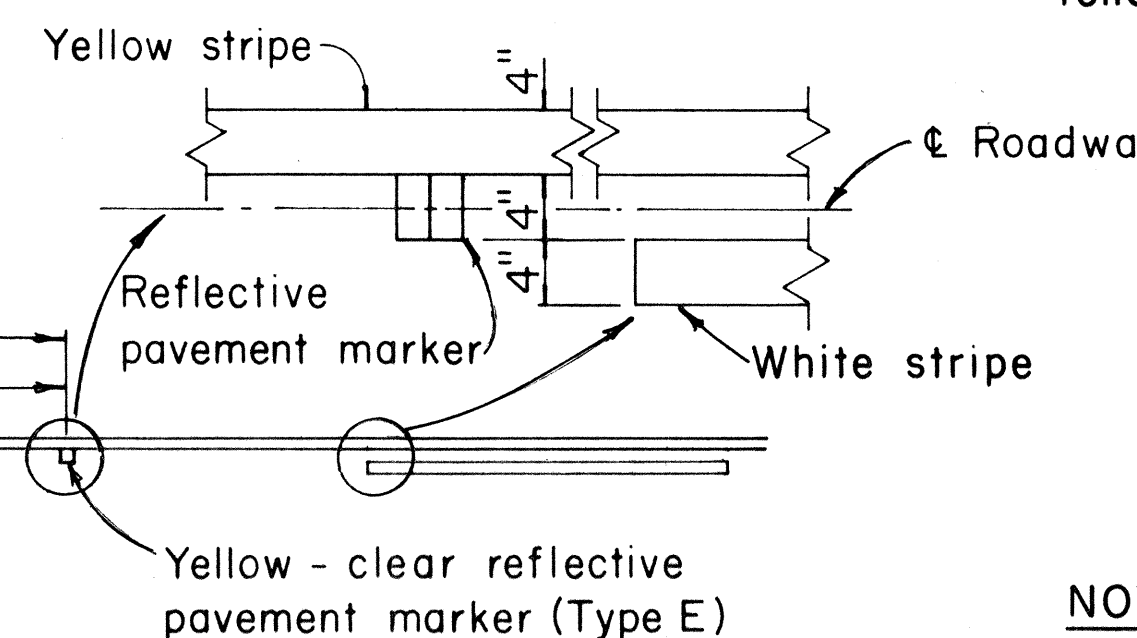
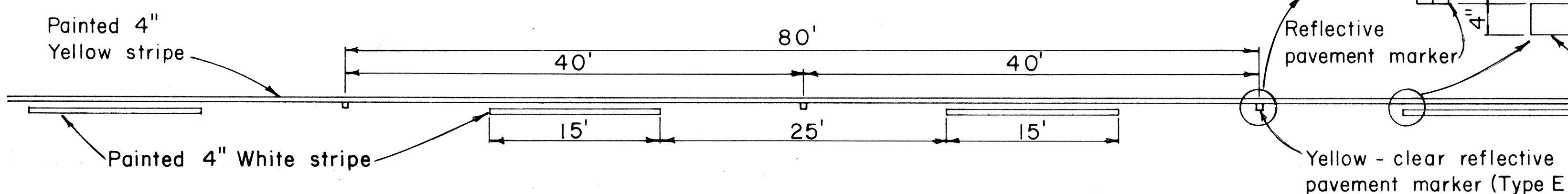
④ YELLOW DOUBLE CENTER LINES



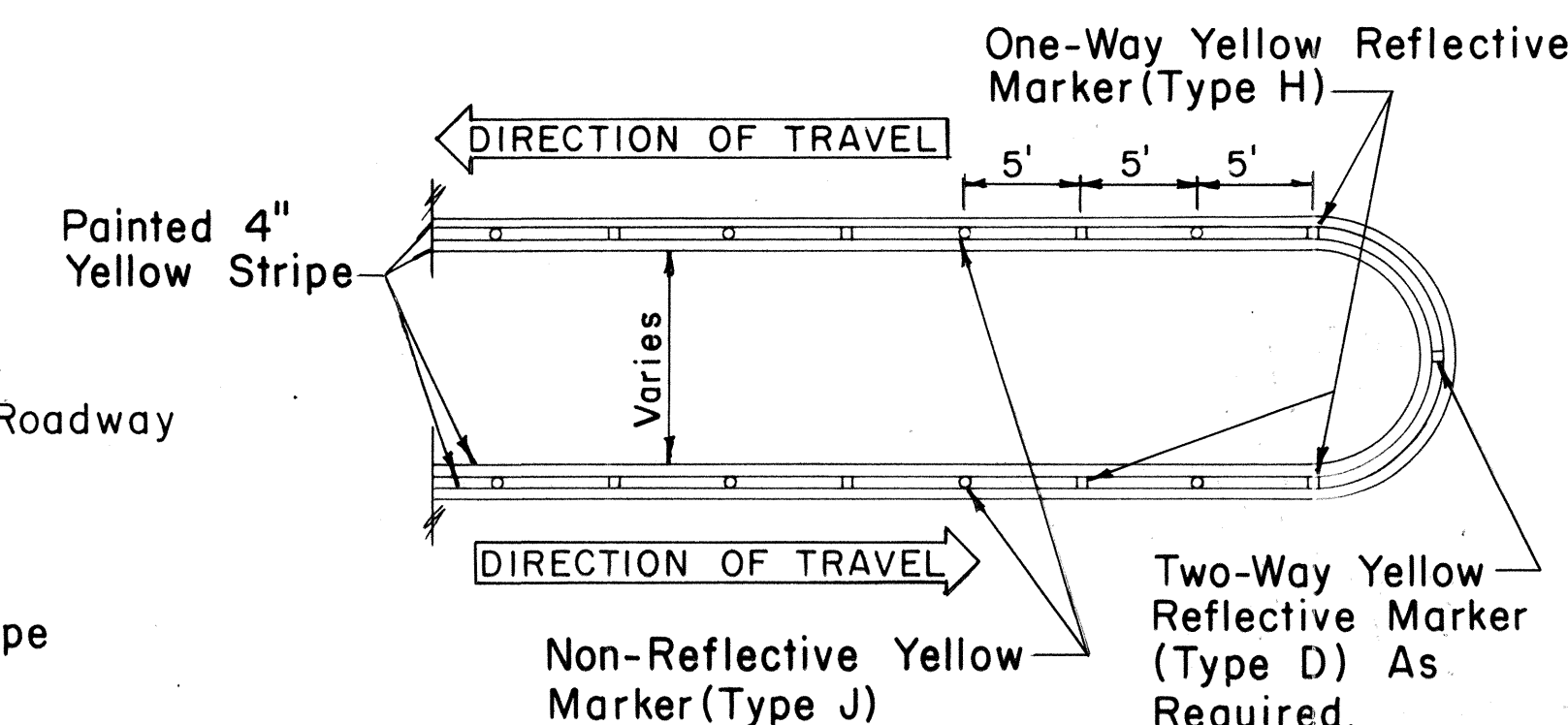
TYPE E
Yellow - clear reflective surface

TYPE G
One - way clear reflective surface

⑤ NO PASSING - PASSING ZONES ON TWO-LANE ROADS



⑥ MEDIAN NOSE DELINEATION



NOTE
Painted stripes to be done by State forces.

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
RAISED PAVEMENT MARKERS

Not to Scale
Sept., 1967

SHEET No. 15 OF 15 SHEETS DT 300

DATE	DESIGNED BY	CHECKED BY
ORIGINAL PLAN	TRACED BY	QUANTITIES BY
NOTE BOOK		