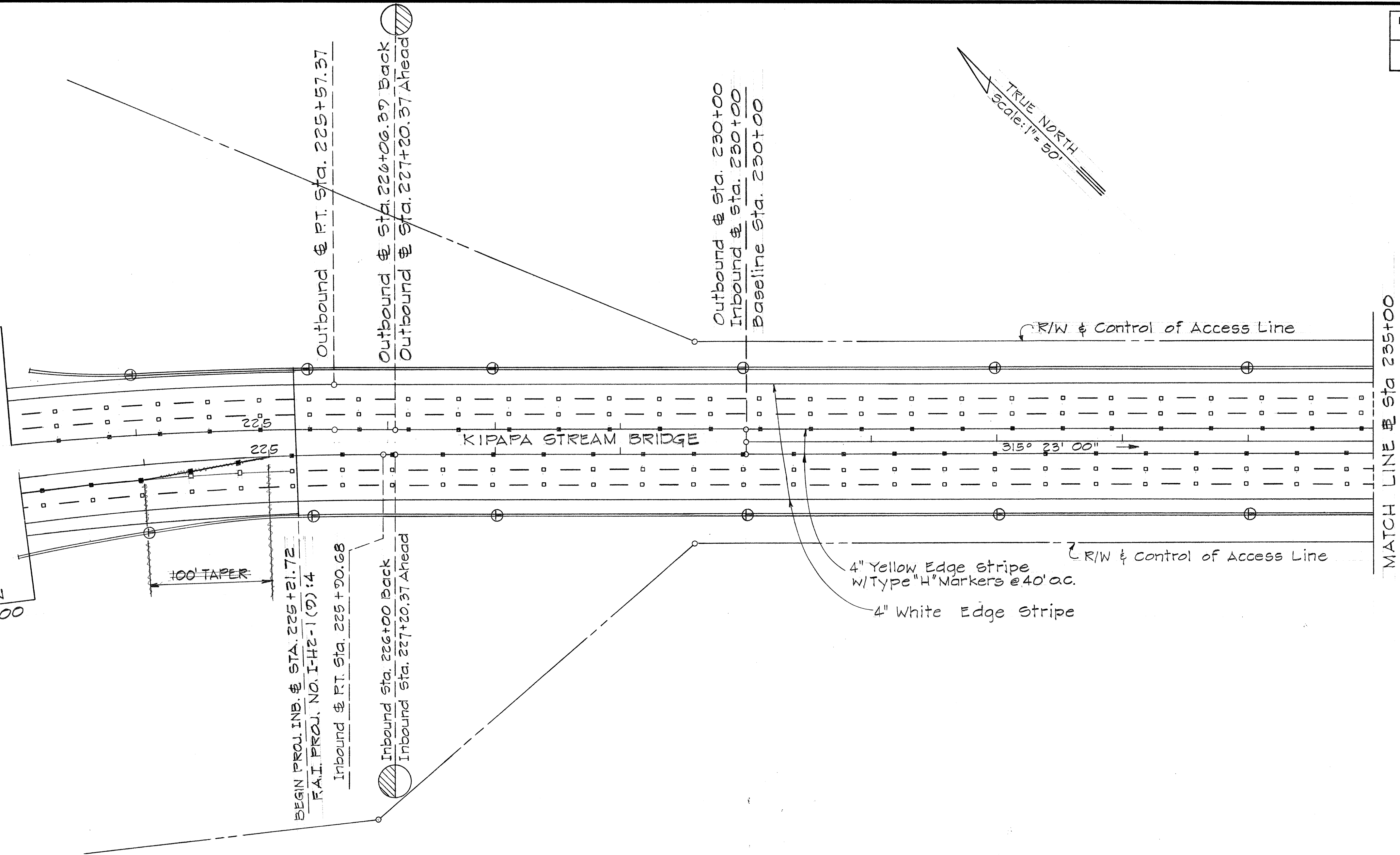


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-42-1(7):4	1973	28	122

BEGIN CONSTRUCTION
OUTBOUND @ STA. 223+00

BEGIN CONSTRUCTION
INBOUND @ STA. 223+00



MATCH LINE @ Sta 235+00

LEGEND

- ⊕ RM-1 Mounted on Bridge Railing (For Details, see Sheet No. 30)
- □ — Type "A" and "C" Pavement Markers (For Details, see Sheet No. 31)
- ■ — 4" Yellow Edge Stripe w/Type "H" Pavement Markers @ 40' O.C. (For Details see Sheet No. 31)
- ⊥ Destination Sign

GENERAL NOTES

1. All pavement striping shall be done by the Contractor.
2. Exact locations of all reflector markers, pavement markers, and striping shall be done in the field by the Engineer.
3. RM-1 mounted on Guard Rail, Type 4 similar to RM-1 mounted on bridge railing.

6/22/76	REVISE STRIPING @ STA. 223+00 ± TO STA. 225+00 ± INBOUND
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

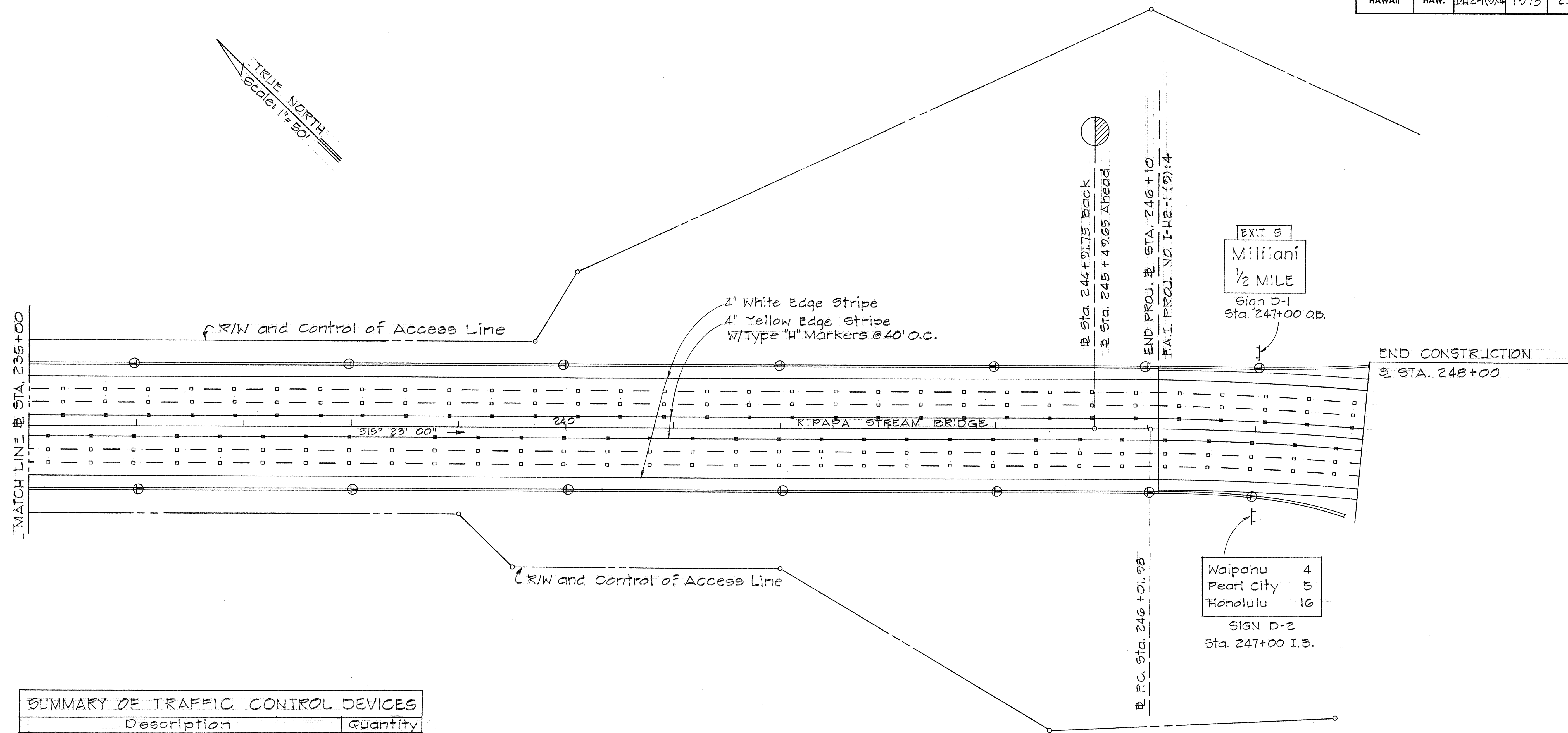
TRAFFIC CONTROL DEVICES

INTERSTATE ROUTE H-2
KIPAPA STREAM BRIDGE
F.A.I. Proj. No I-42-1(7):4

Scale: As Shown Date: June, 1973

SHEET No. 1 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H2-1(9):4	1973	29	122



SUMMARY OF TRAFFIC CONTROL DEVICES	
Description	Quantity
RM-1 Mounted on Bridge Railing and Guard Rail, Type 4	26 ea
Type "A" Pavement Markers	928 ea
Type "C" Pavement Markers	232 ea
Type "H" Pavement Markers	116 ea
4" Yellow Edge Stripe	4650 L.F.
4" White Edge Stripe	4650 L.F.

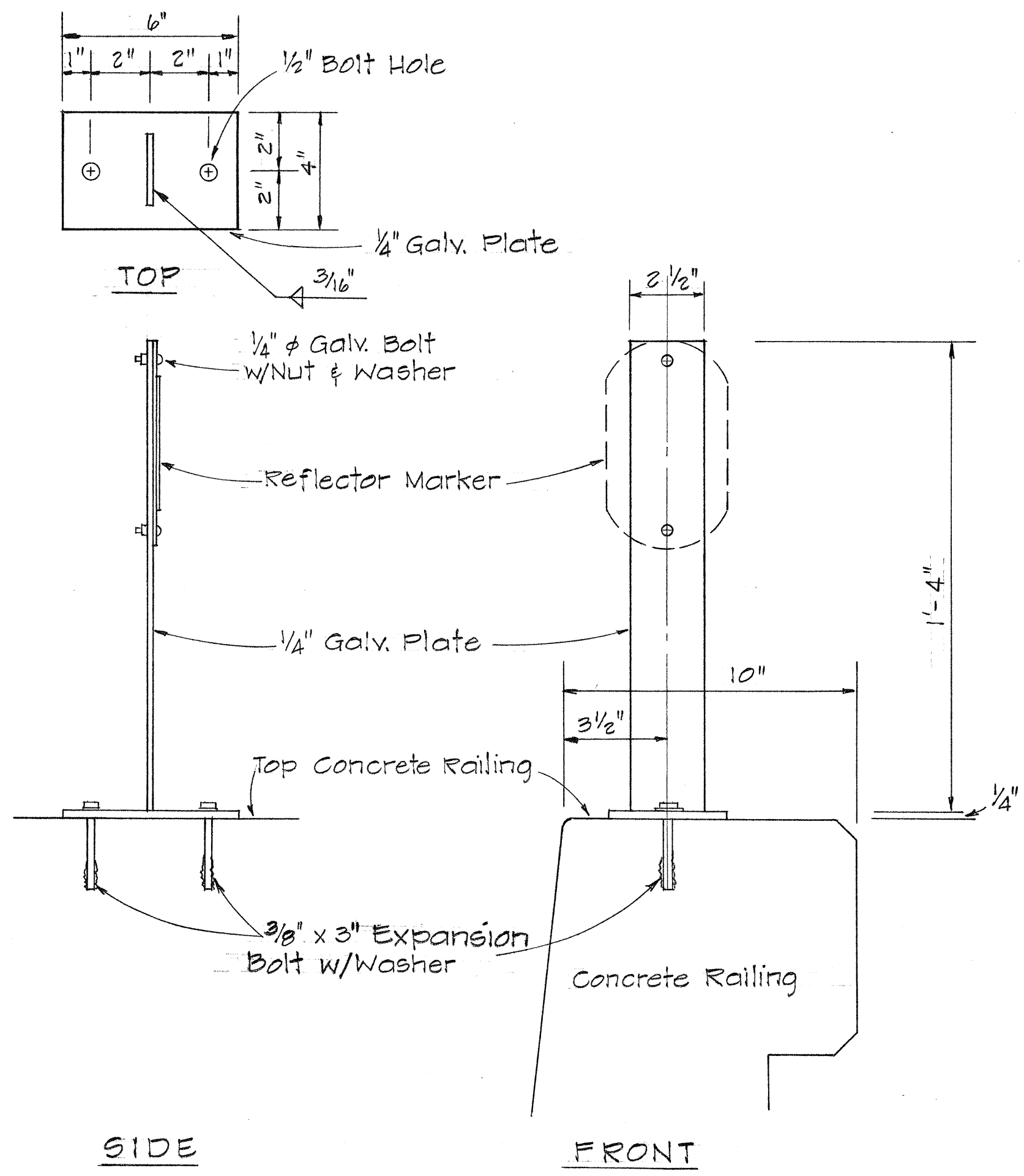
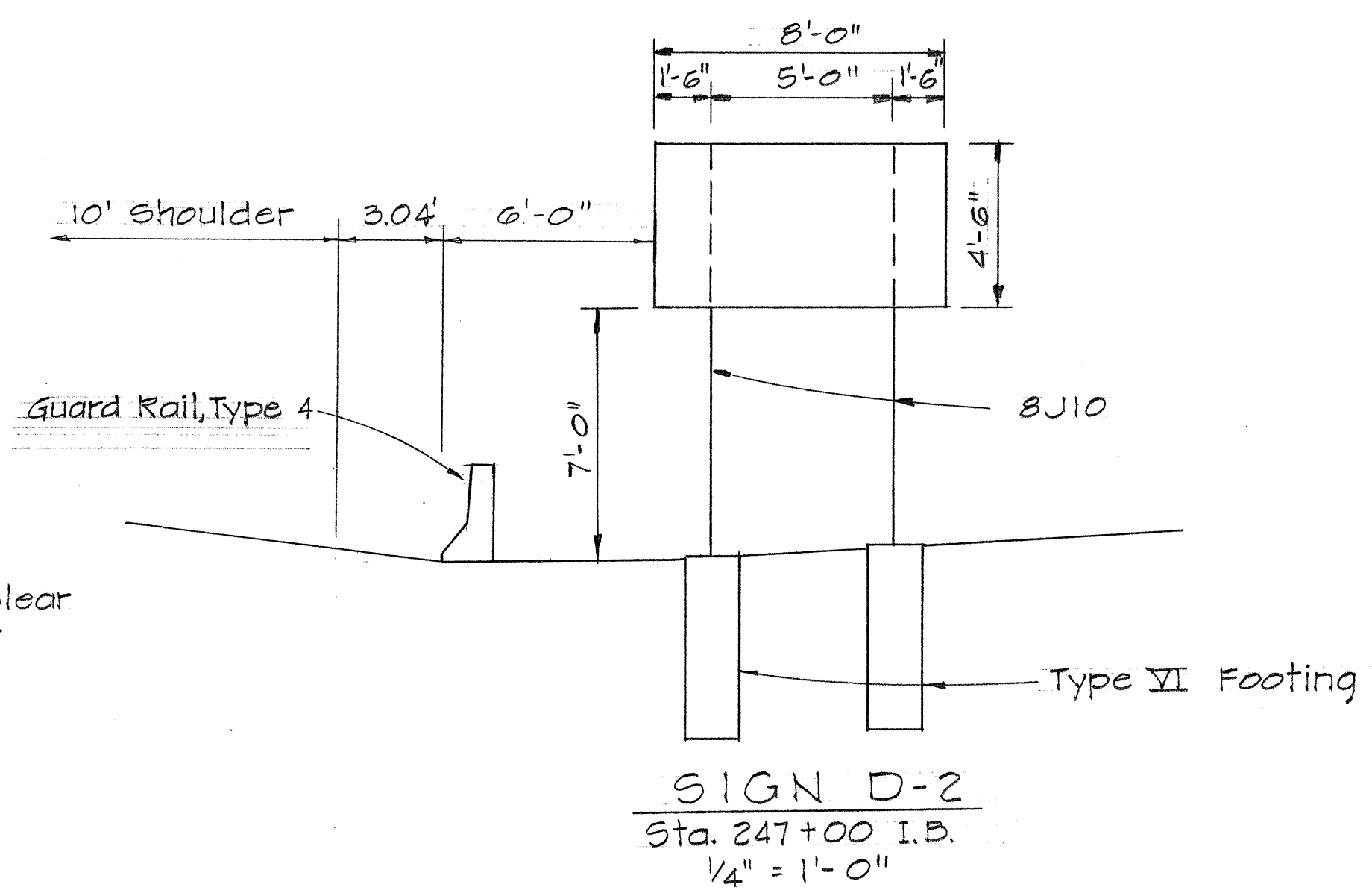
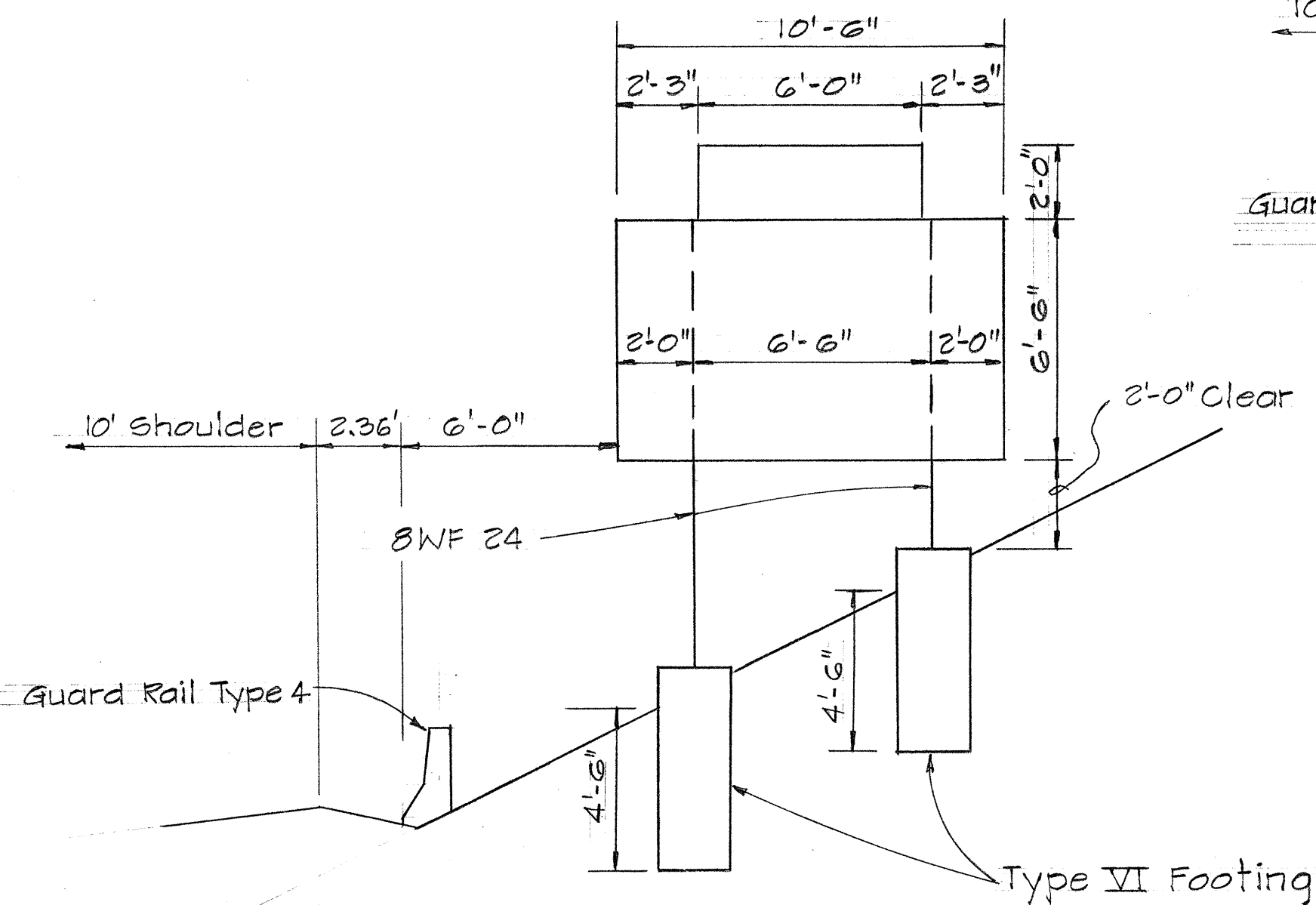
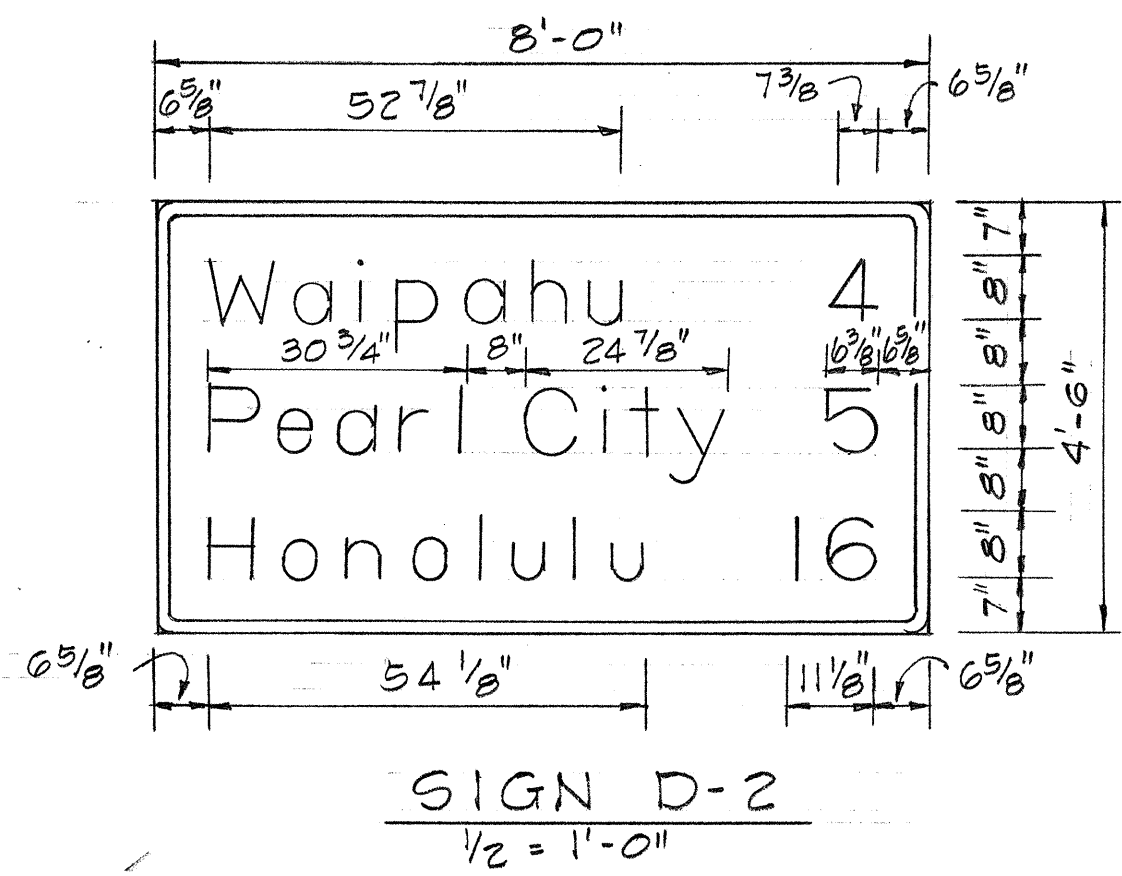
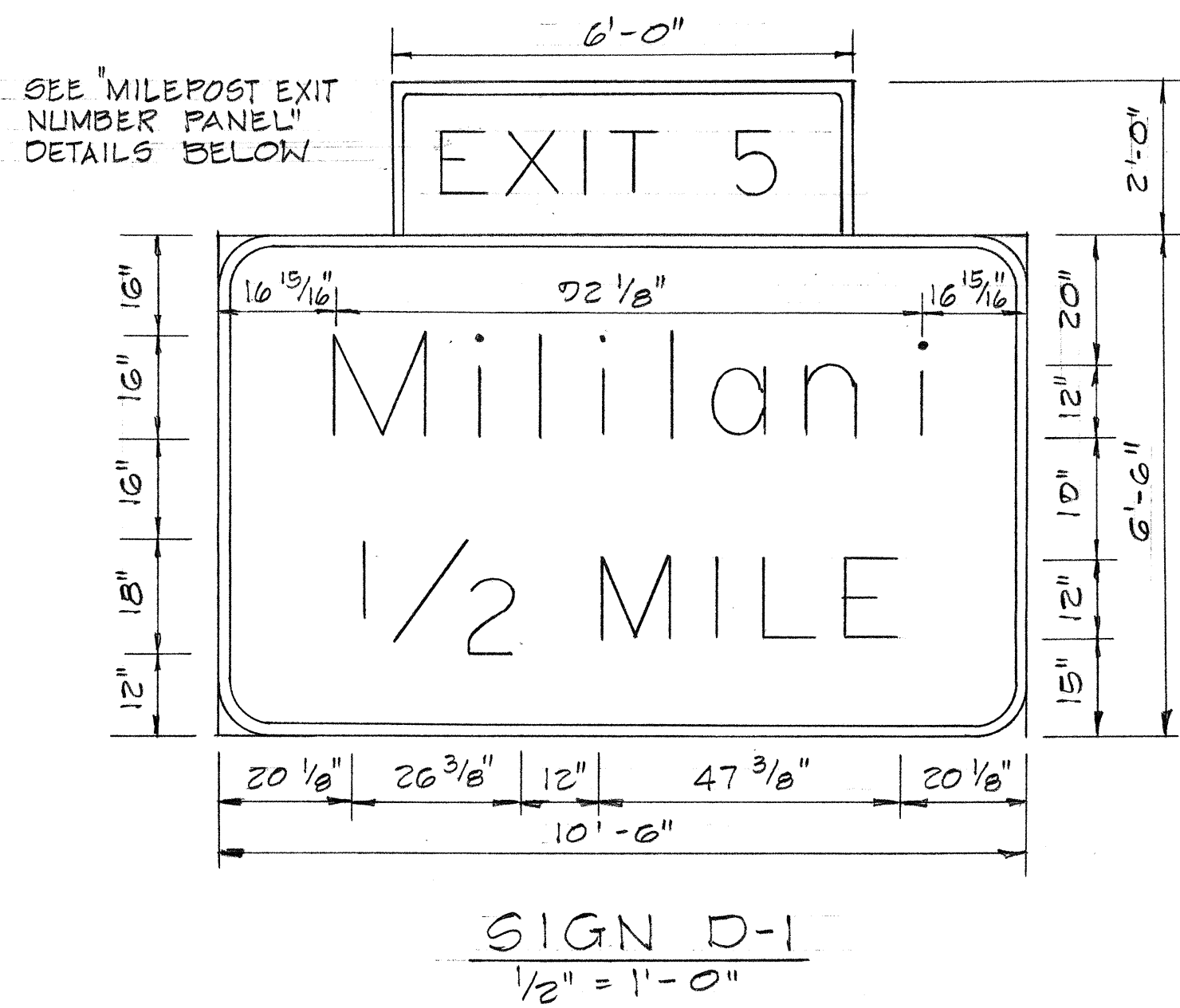
DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
NO.	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL DEVICES
INTERSTATE ROUTE H-2
KIPAPA STREAM BRIDGE
F.A.I. Proj. No. I-H2-1(9):4

Scale: As Shown Date: June, 1973
SHEET No. 2 OF 9 SHEETS

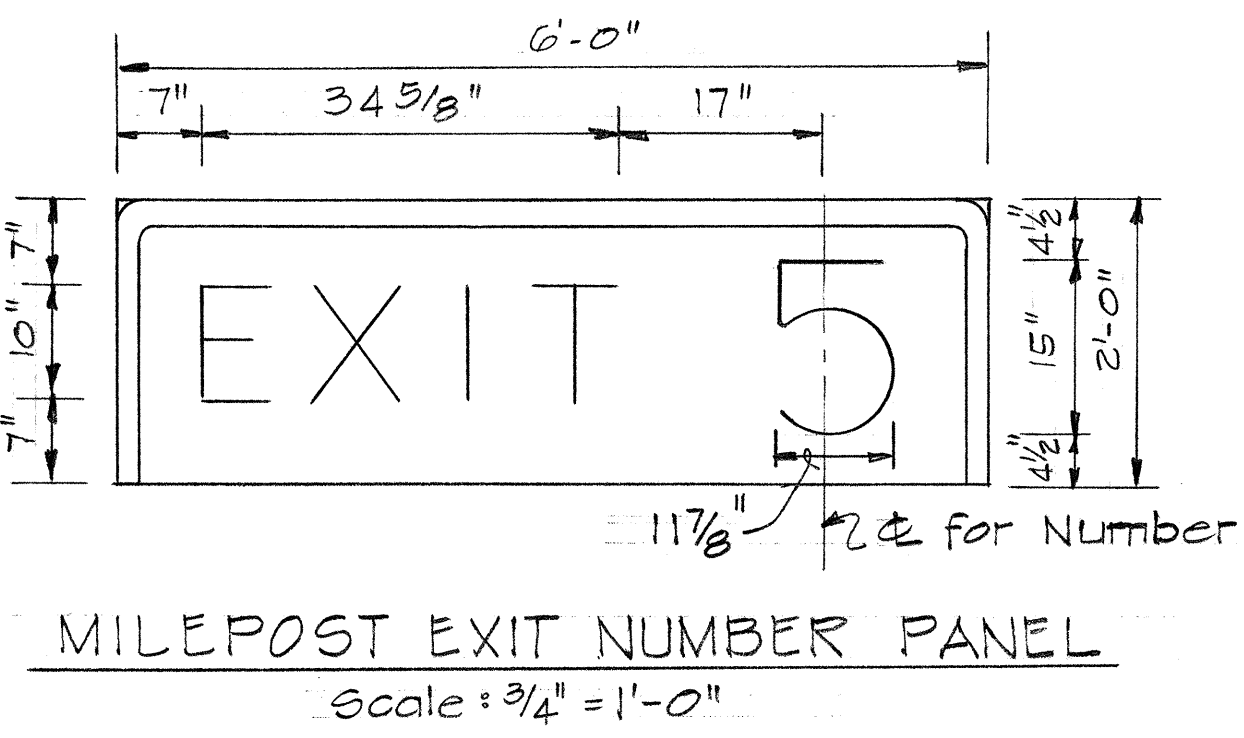
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1H2-1(9):4	1973	30	122



TYPICAL DETAIL
REFLECTOR MARKER
MOUNTED ON CONCRETE RAILING
Scale: 3" = 1'-0"

GENERAL NOTES

- Sign message shall be lettered in uppercase according to Standard Alphabets for Highway Signs; Bureau of Public Roads, 1966, and lower case according to Standard Lower-Case Alphabets for Highway Signs, Bureau of Public Roads, 1962. Use Series "E" modified unless otherwise noted.
- Arrows, borders, and route markers shall conform with details as shown on plans.
- Letters, numerals, symbols, and borders for all Destination (D) Signs shall be white reflective sheeting on aluminum cutouts on green reflective background.
- Cutouts shall be fastened to sign panel with aluminum blind rivets.
- Milepost Exit Number Panels shall conform to the plans and specifications for Destination Sign Panels.

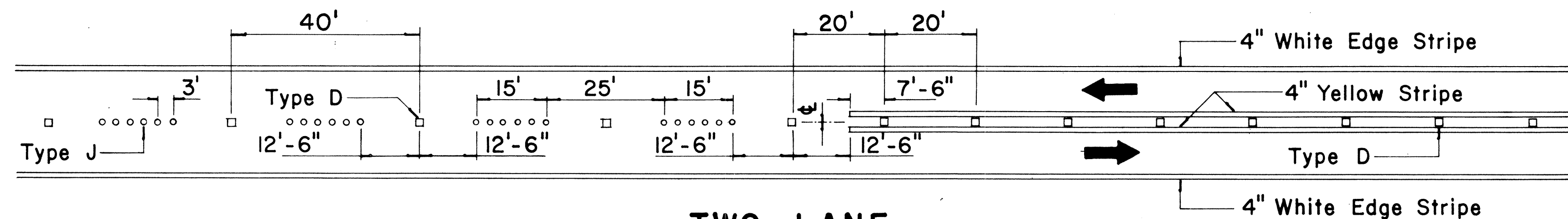


DESTINATION SIGN SUMMARY			
SIGN NO.	AREA (SQ FT)		
	EXIT PANEL	SIGN	TOTAL
D-1	12.00	68.25	80.25
D-2		36.00	36.00
TOTAL			116.25

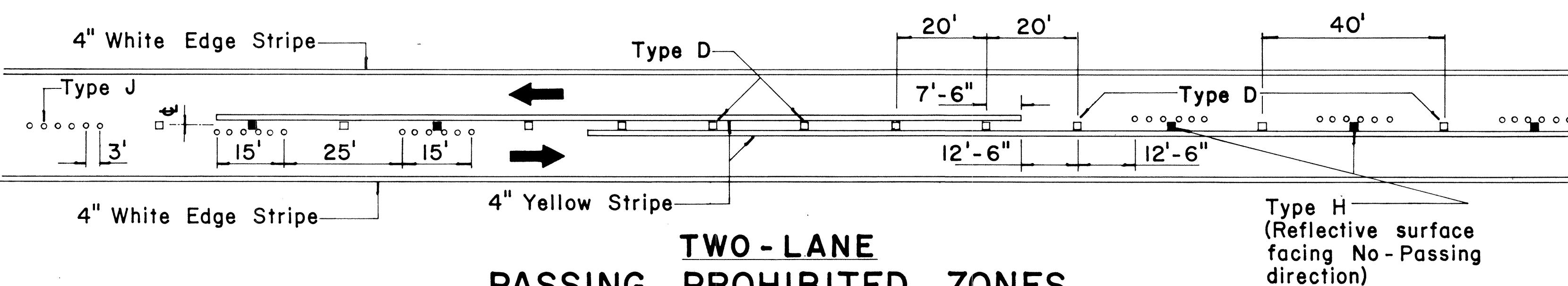
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DESTINATION SIGN DETAILS
INTERSTATE ROUTE H-2
KIPAPA STREAM BRIDGE
F.A.I. Proj. No. I-H2-1 (9):4
Scale: As Shown Date: June, 1973
SHEET No. 3 OF 7 SHEETS

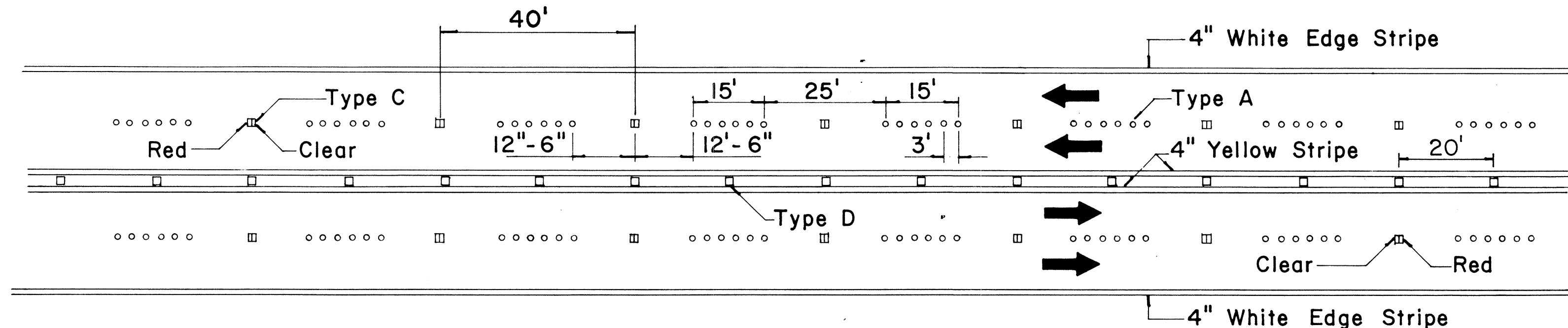
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H2-1(7):4	1973	31	122



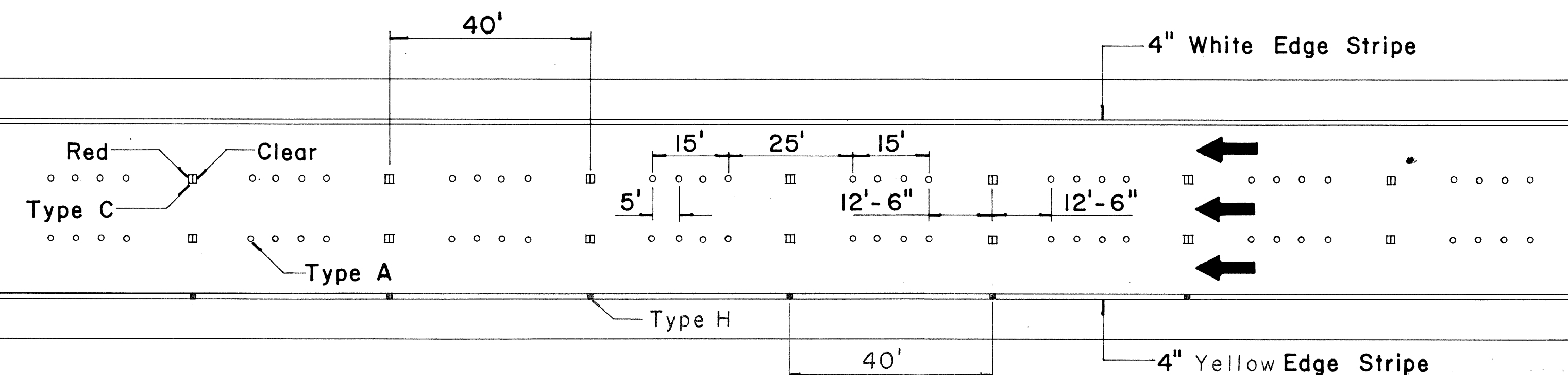
**TWO-LANE
PASSING PERMITTED AND PASSING PROHIBITED**



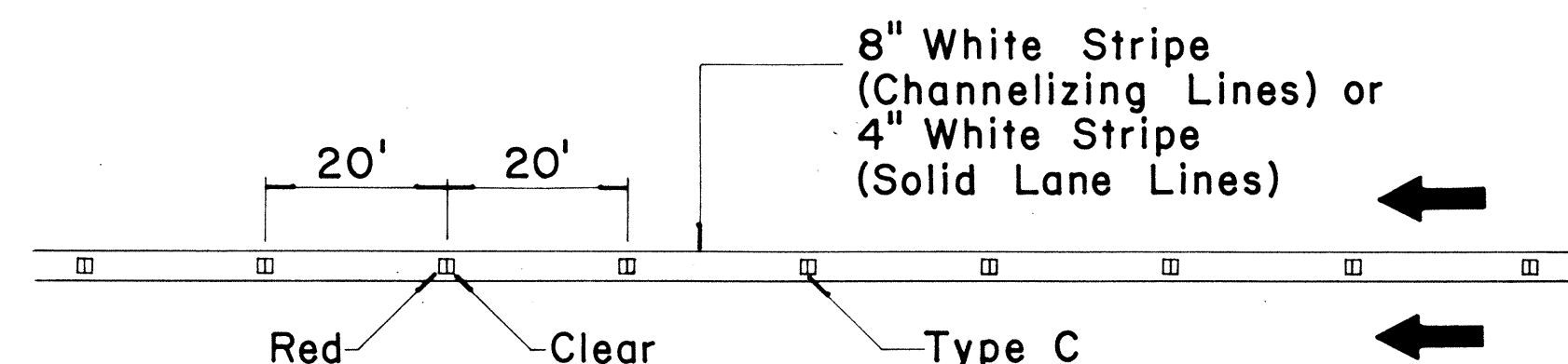
**TWO-LANE
PASSING PROHIBITED ZONES**



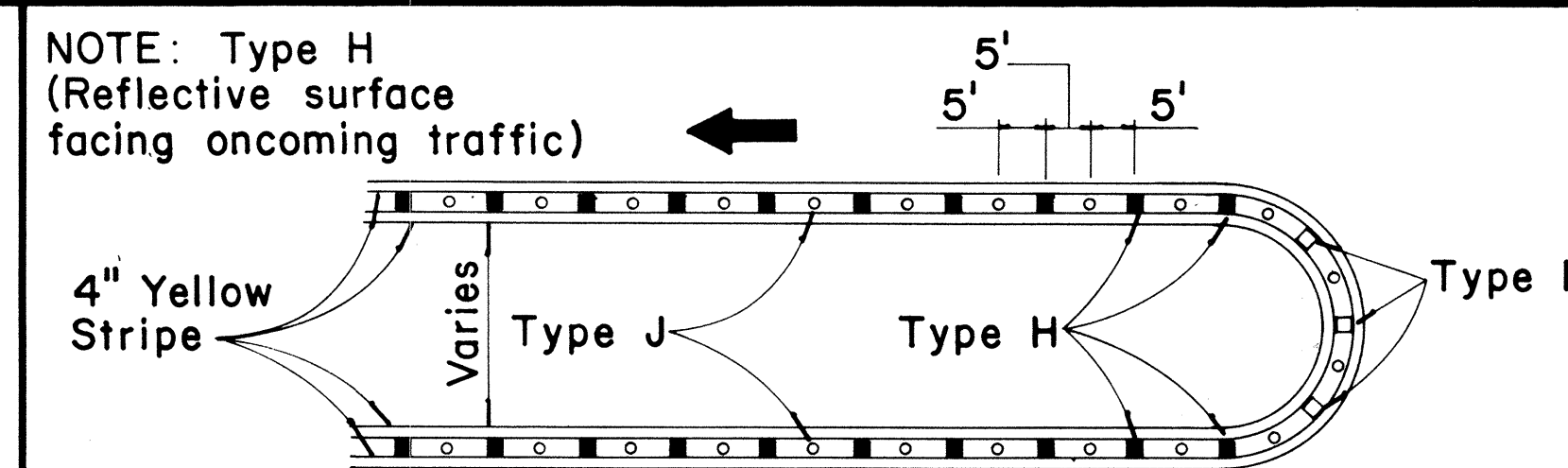
**MULTI-LANE
LANE LINES AND CENTER LINE**



FREEWAY LANE LINES



**CHANNELIZING LINES
OR SOLID LANE LINES**



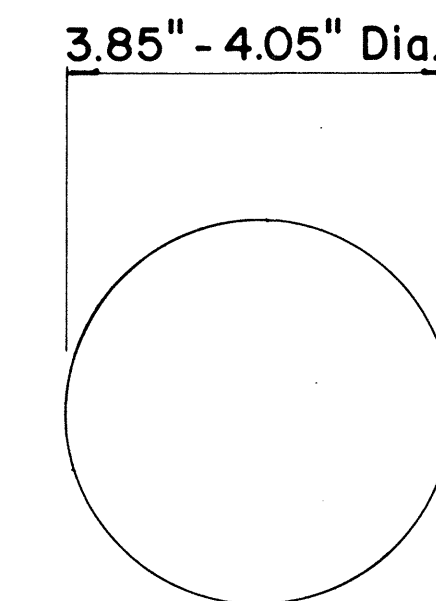
MEDIAN NOSE DELINEATION

TWO-LANE

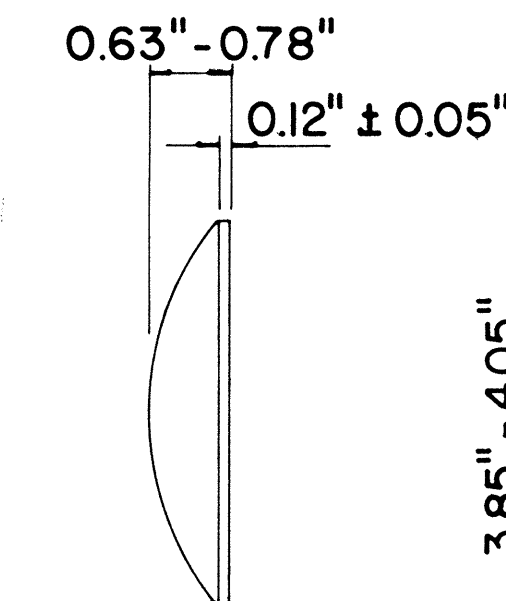
MULTI-LANE

FREEWAY

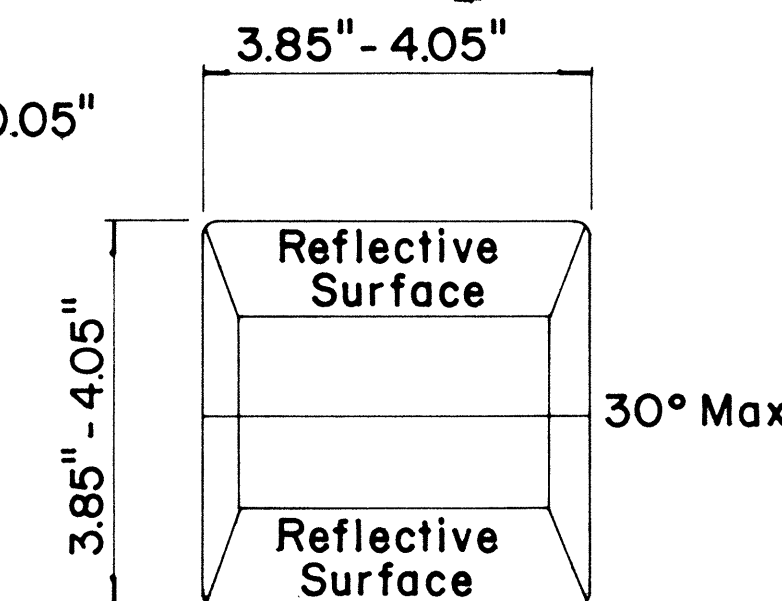
MISCELLANEOUS



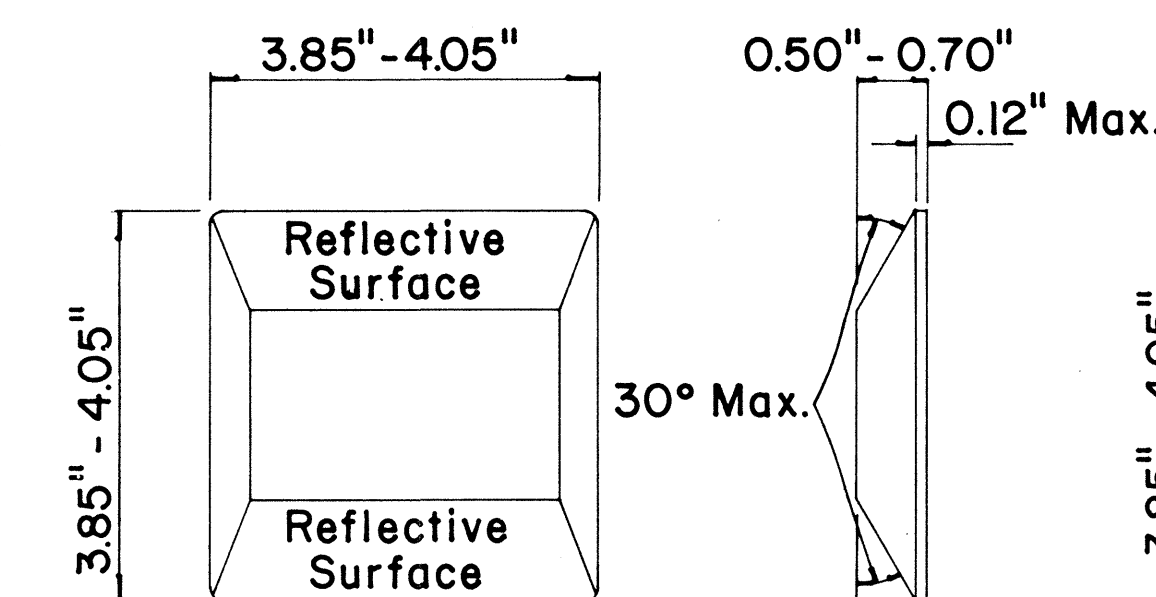
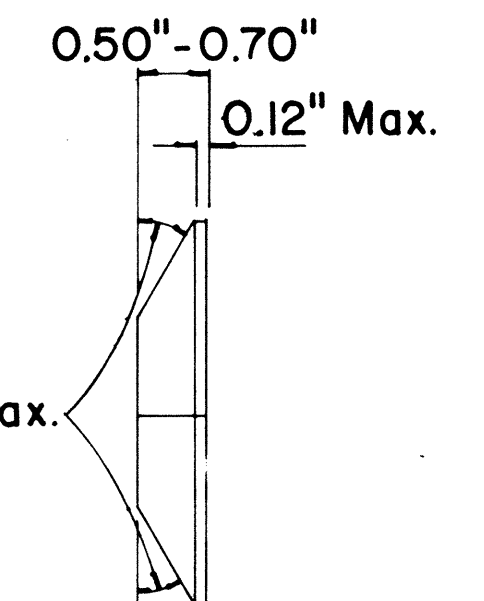
**TYPE A
NON-REFLECTIVE WHITE MARKER**



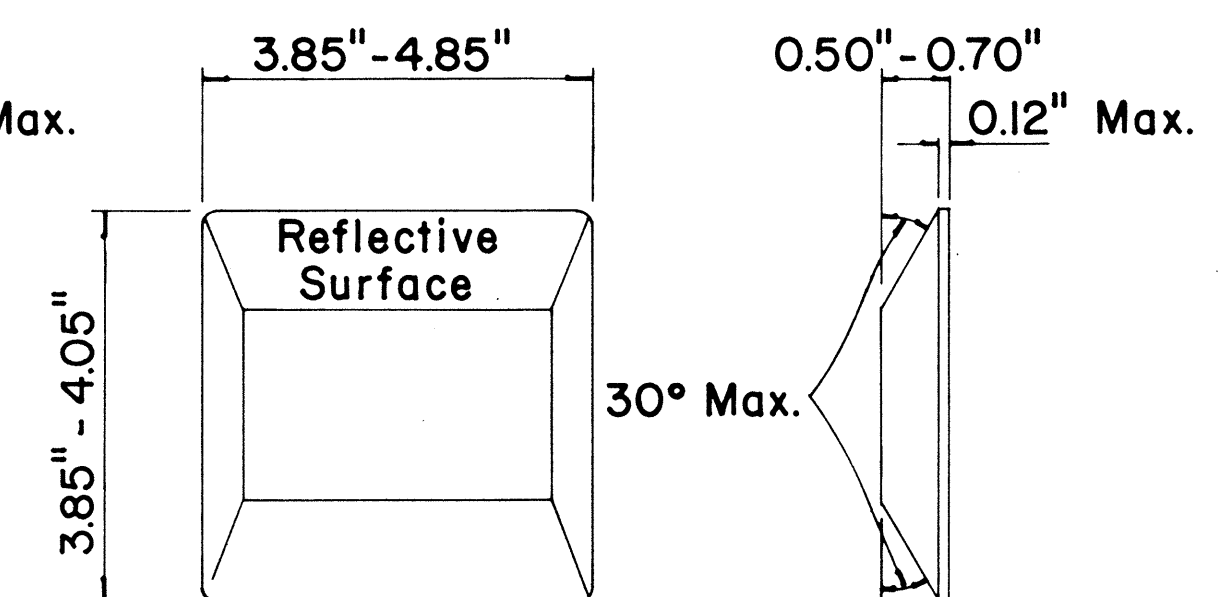
**TYPE J
NON-REFLECTIVE YELLOW MARKER**



**TYPE C
RED-CLEAR REFLECTIVE MARKER**



**TYPE D
TWO-WAY YELLOW REFLECTIVE MARKER**



**TYPE H
ONE-WAY YELLOW REFLECTIVE MARKER**

GENERAL NOTES

1. Painted stripes to be done by Contractor unless otherwise specified.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

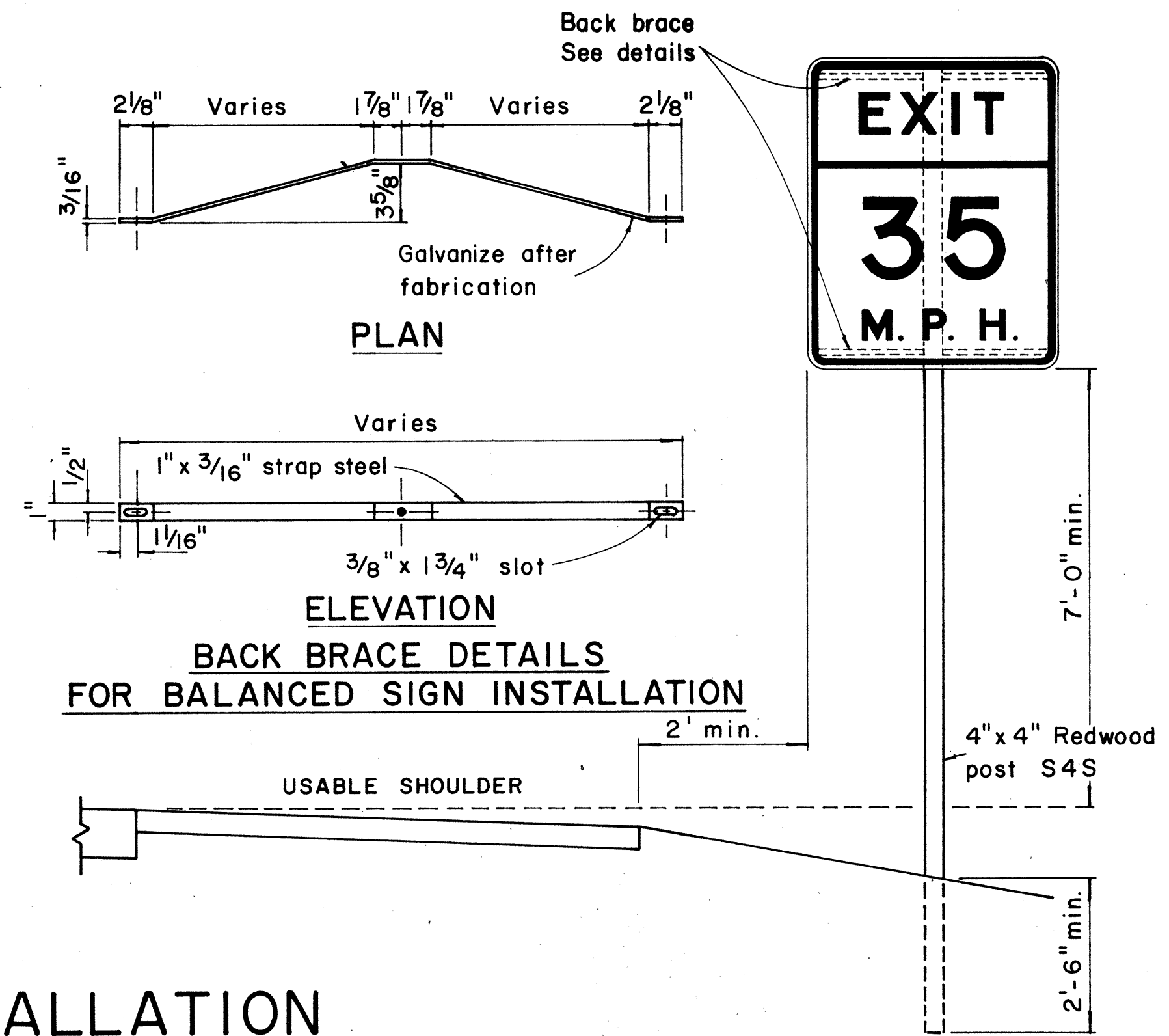
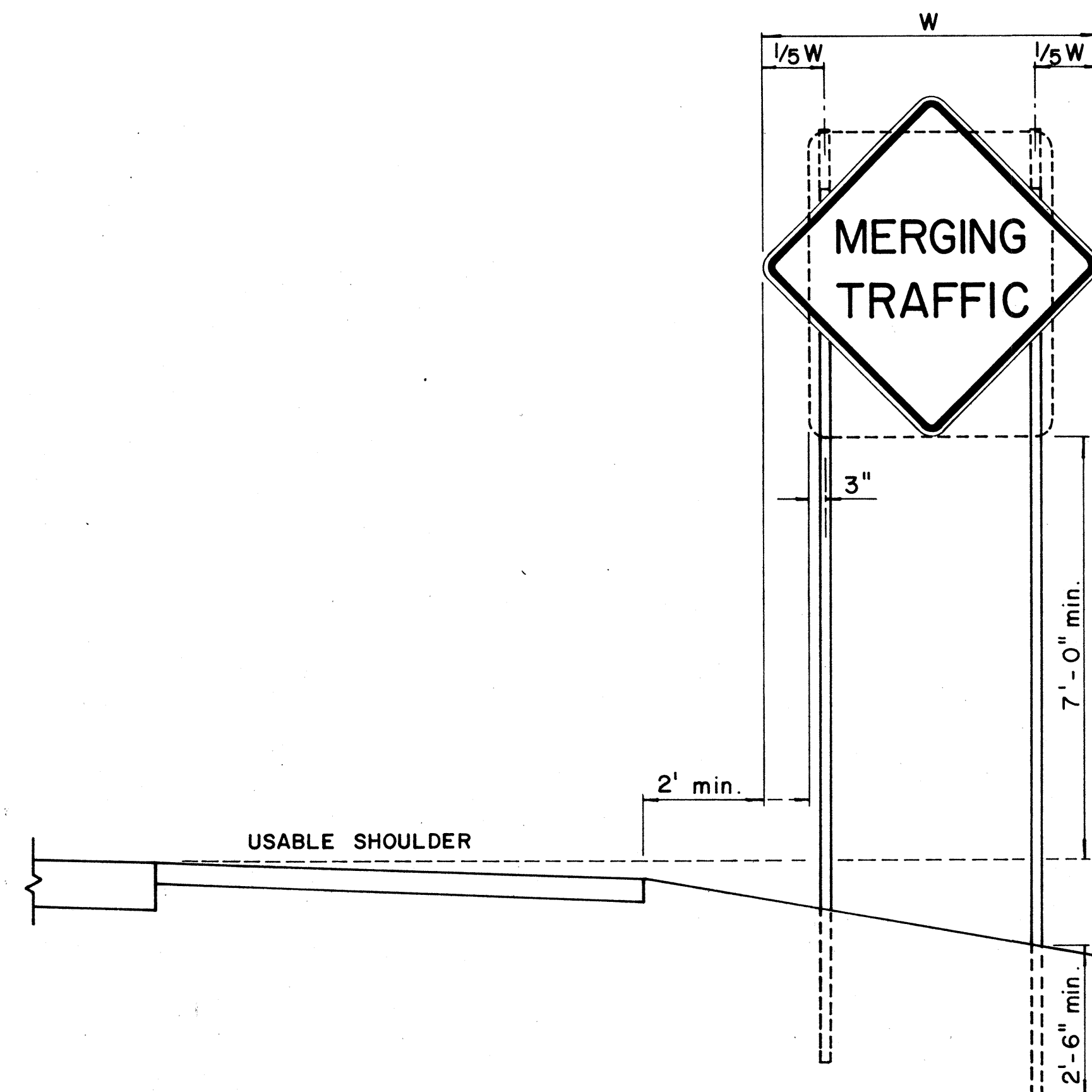
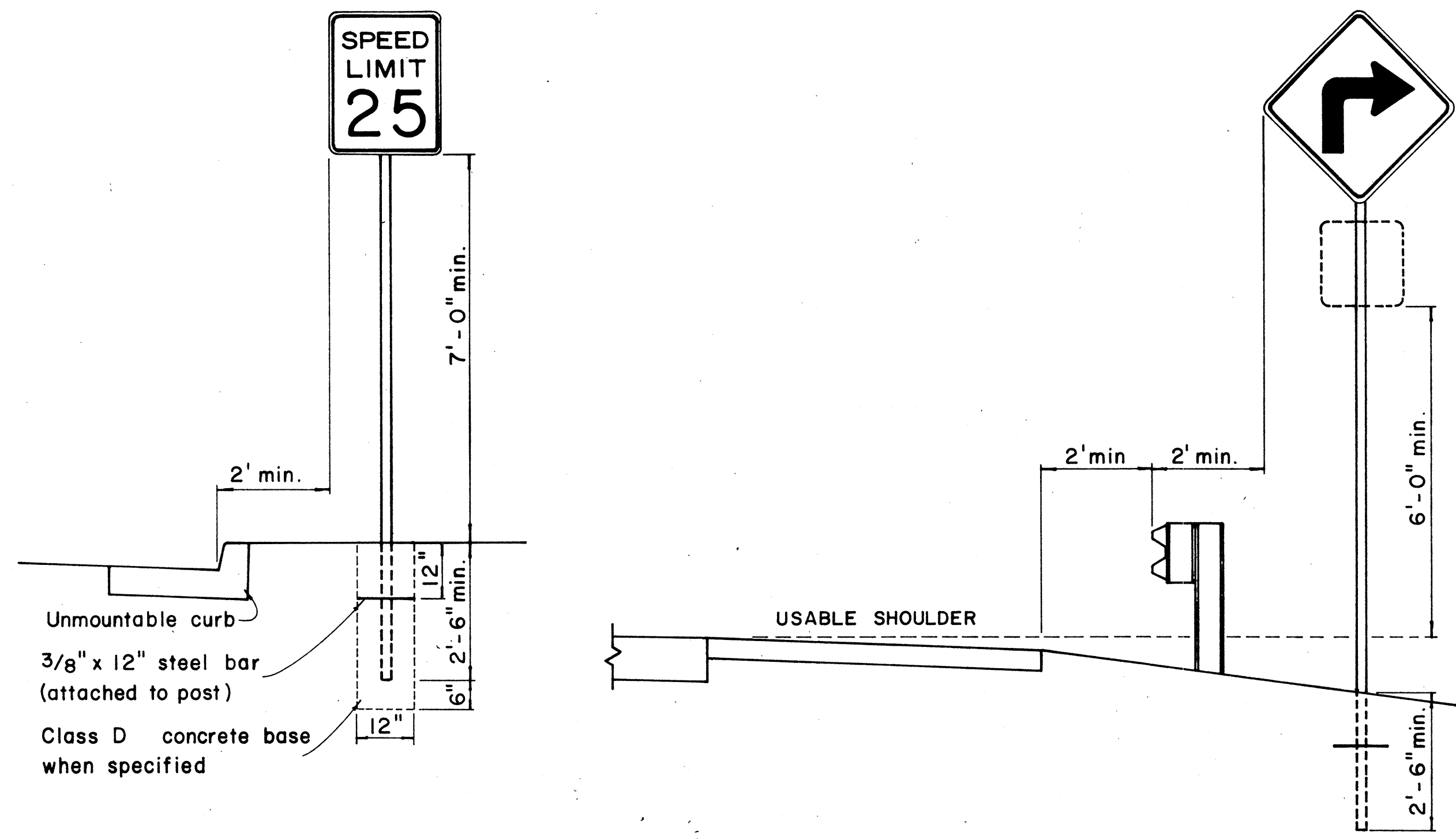
TYPICAL DETAILS
RAISED PAVEMENT MARKERS

INTERSTATE ROUTE H-2
KIPAPA STREAM BRIDGE
F.A.I. Proj. No. I-H2-1(7):4

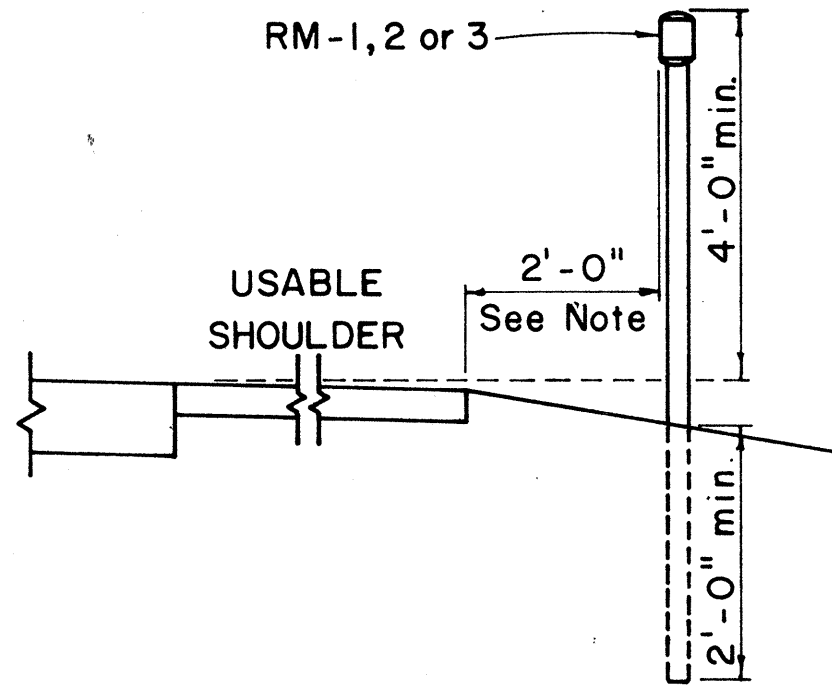
Not to Scale October 1971

SHEET No. 4 OF 7 SHEETS

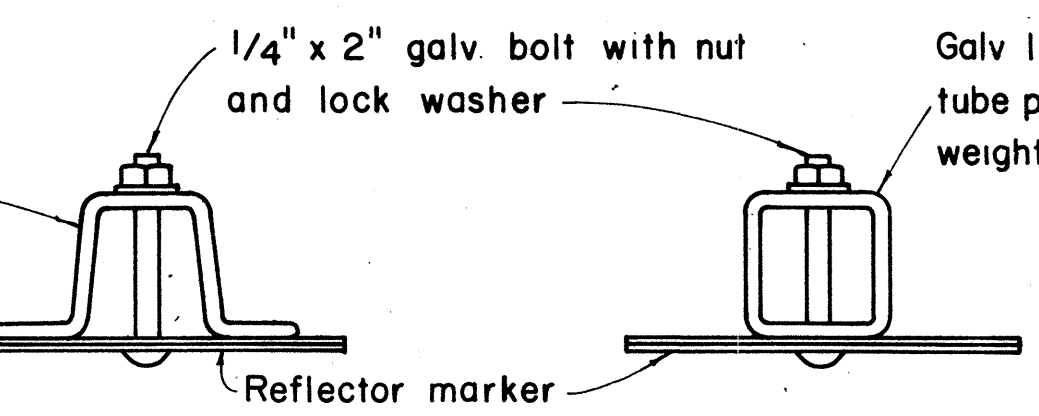
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	142-1(7):4	1973	32	122



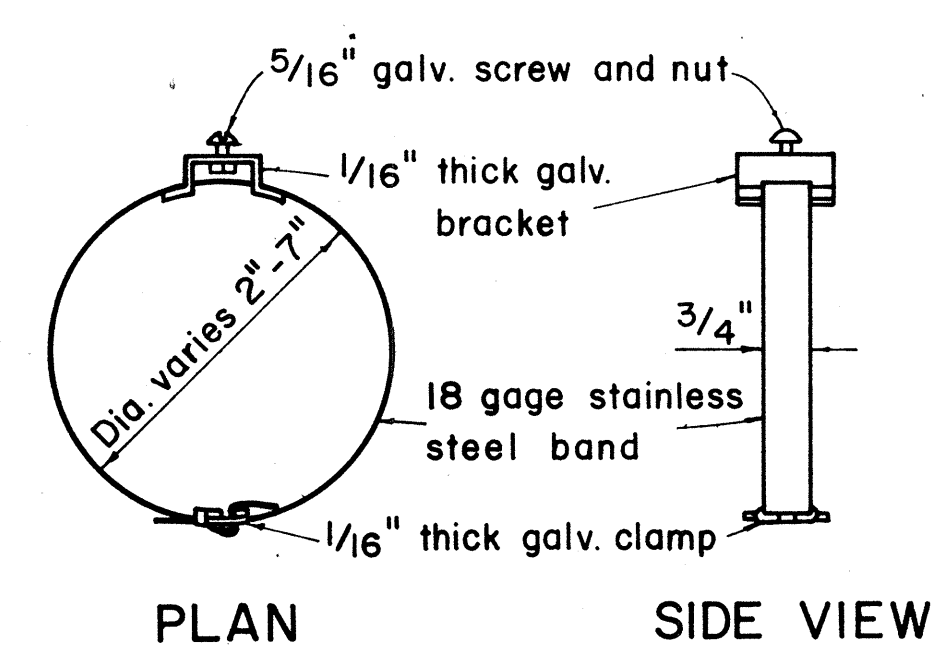
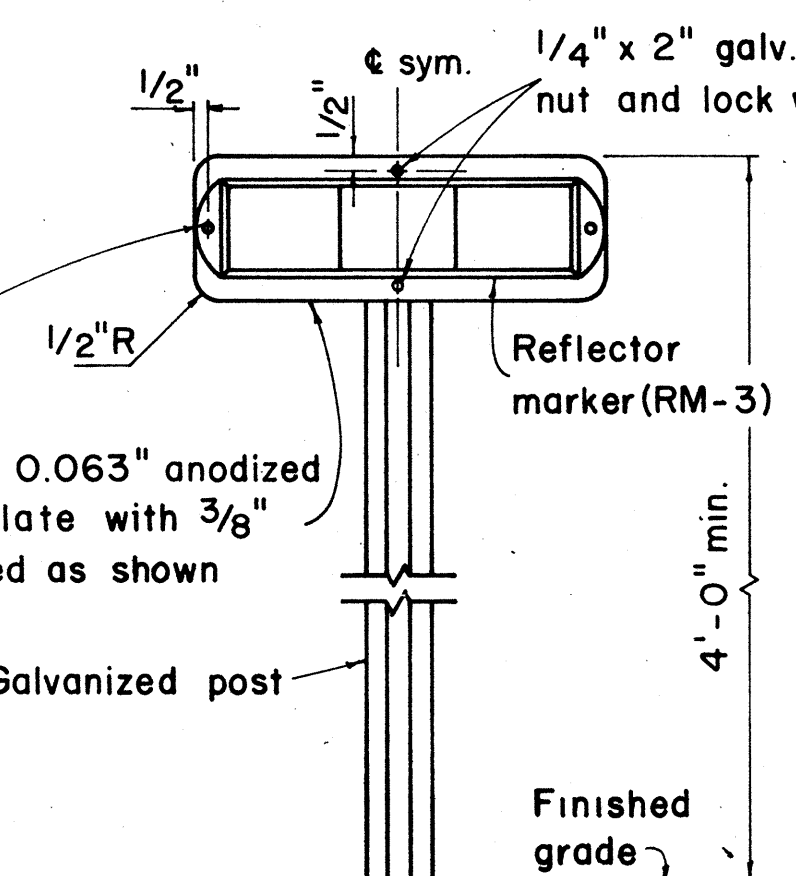
HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATION



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.



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



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:
E. Tanaka 12/29/69
TRAFFIC ENGINEER DATE

APPROVED:
[Signature] 12-29-69
ASSISTANT CHIEF, ENGINEERING DATE

TYPICAL BAND BRACKET FOR MOUNTING TRAFFIC SIGNS

NO	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

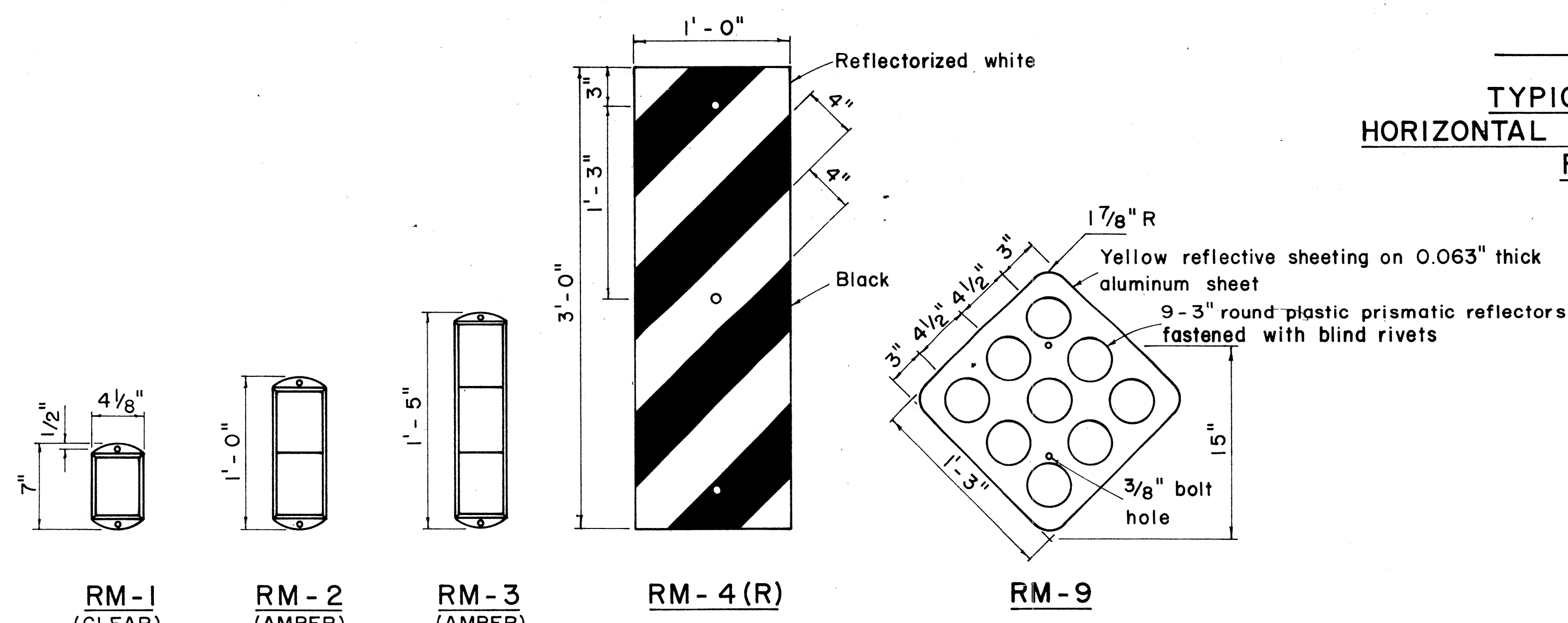
STANDARD DETAILS
MISCELLANEOUS SIGN DETAILS

Not to scale March, 1968

SHEET No. 5 OF 7 SHEETS DT 100

TYPICAL SECTION OF ROAD DELINEATOR

TYPICAL DETAIL HORIZONTAL REFLECTOR MARKER RM-3H

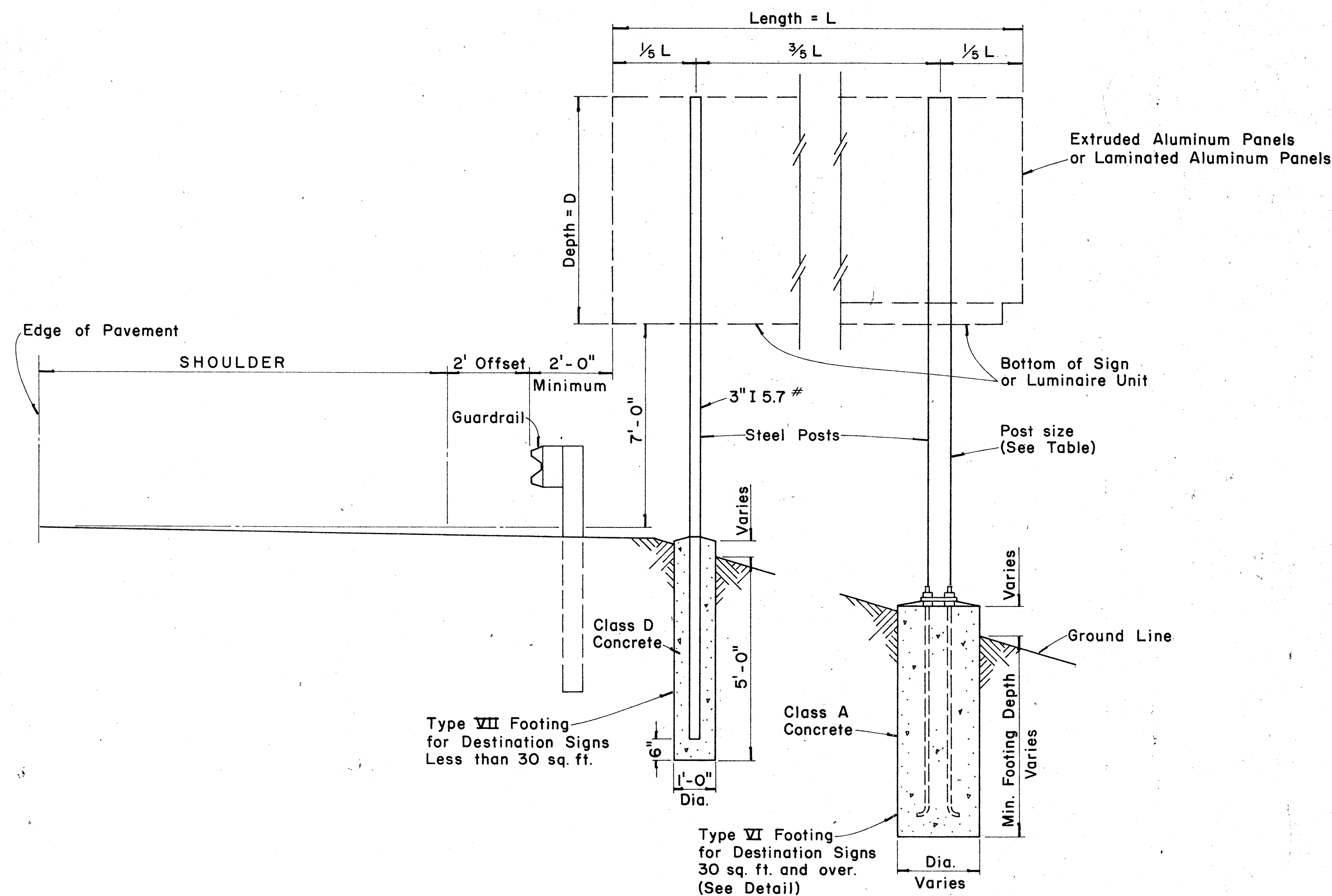


REFLECTOR MARKERS

PLAN
DESIGNED BY
CHECKED BY
NOTED BY
QUANTITIES BY
DRAWN BY
No.

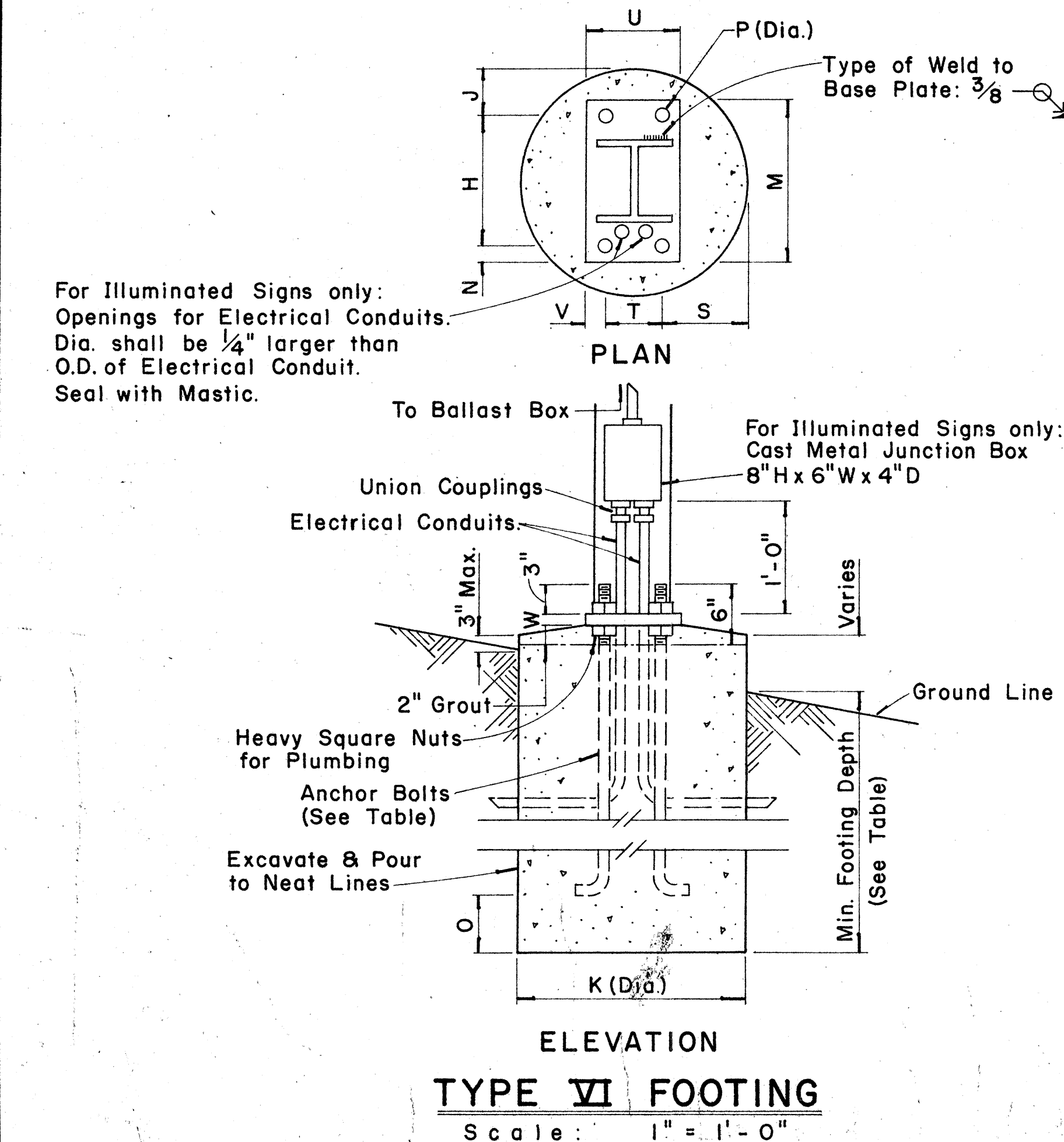
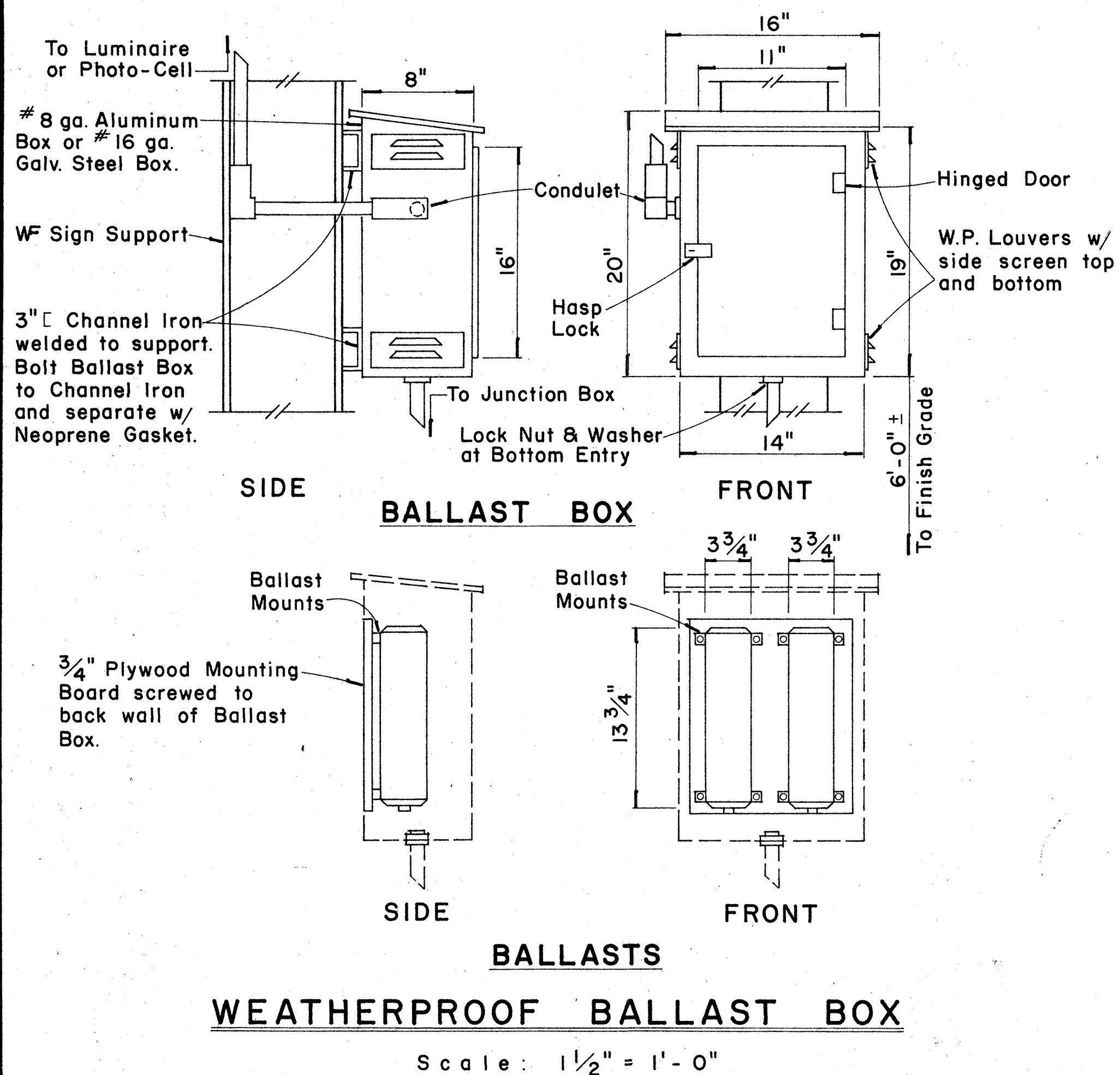
* For moment calculations only. Post shall be from top of foundation to top of sign.
 ** For fills with side slopes flatter than 4:1, Minimum Footing Depth shall be 4½ feet.

DATA TABLE FOR TYPE VI FOOTING																	
POST SIZE	MAXIMUM SIGN AREA	POST HEIGHT TOP OF FOUNDATION TO CENTER OF SIGN *	D I M E N S I O N S											ANCHOR BOLT DIA.	MINIMUM FOOTING DEPTH		
			H	J	K	M	N	O	P	S	T	U	V		W	CUT	FILL**
8 J 10	50 sq. ft.	14'	14"	5"	24"	17¼"	1⅝"	6"	1¼"	9"	6"	10"	2"	1"	1⅝" Ø	4½'	4½'
8 WF 24	90 sq. ft.	21'	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	5'
8 WF 35	190 sq. ft.	15'	16½"	6¾"	30"	20"	1¾"	6"	1⅝"	11¾"	6½"	10"	1¾"	1"	1¼" Ø	6'	7'
10 WF 45	190 sq. ft.	25'	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
10 WF 45	200 sq. ft.	25'	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
12 WF 50	230 sq. ft.	25'	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	7'	↓
12 WF 50	250 sq. ft.	23'	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓



TYPICAL DESTINATION & GROUND MOUNTED EXPRESSWAY SIGN

Not to Scale



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-42-1(7)-4	1973	33	122

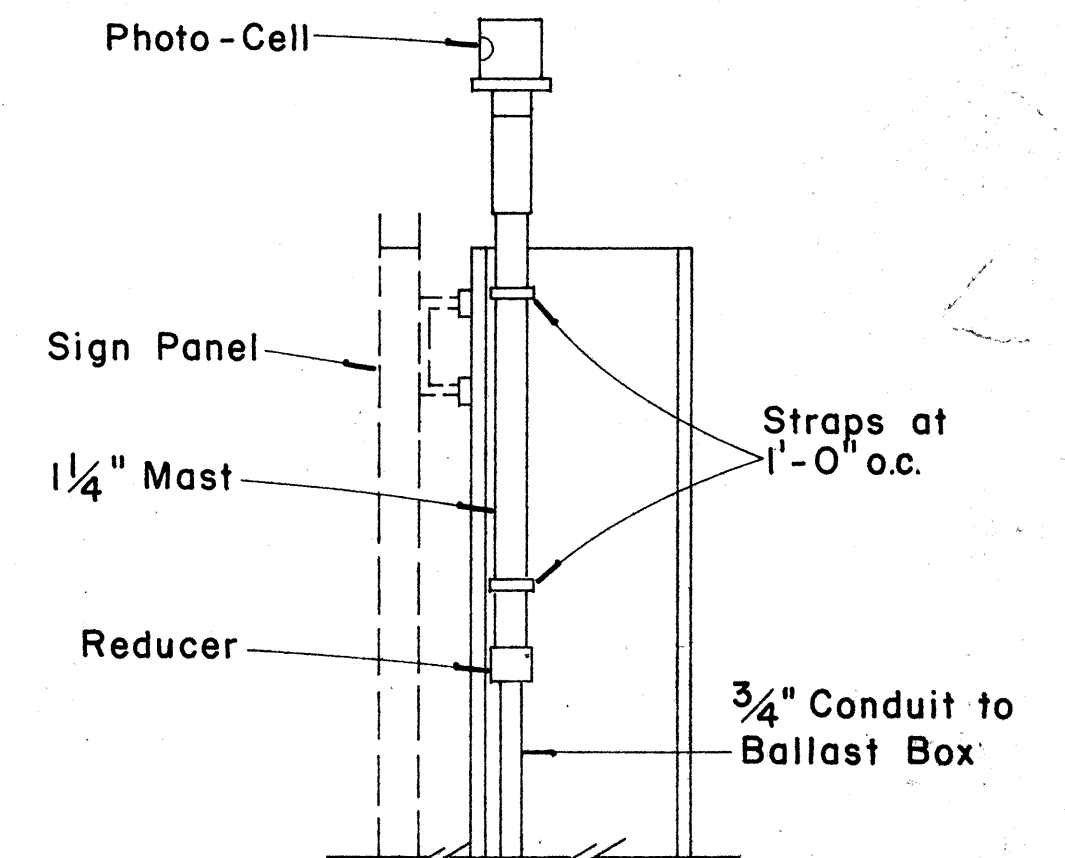


PHOTO-CELL DETAIL

Scale: 1½" = 1'-0"

APPROVAL RECOMMENDED:
Eishi Tanaka 12/29/67
 TRAFFIC ENGINEER DATE
 APPROVED:
John E. Zelen 12-30-67
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

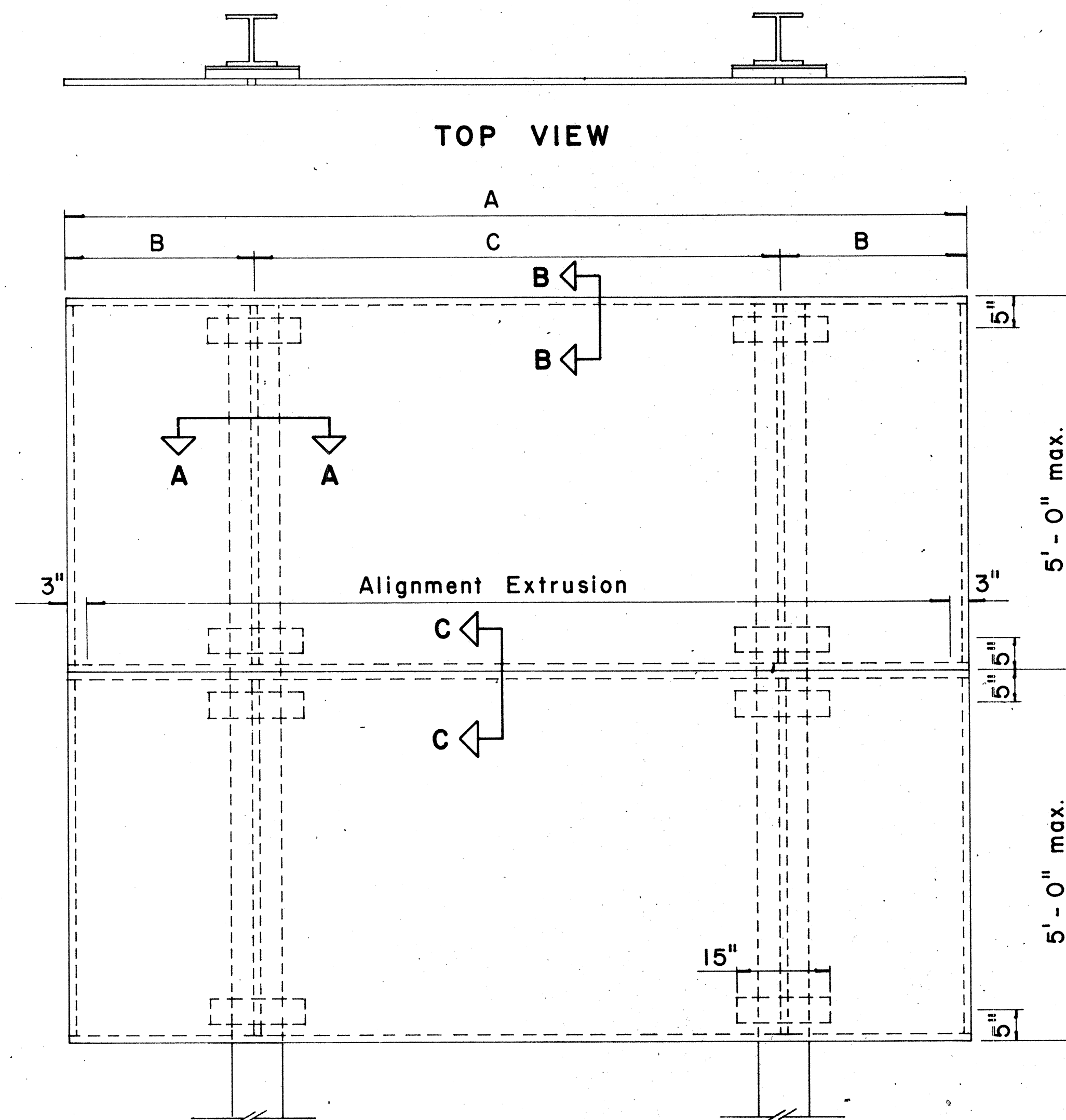
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 STANDARD DETAILS
 DESTINATION & GROUND MOUNTED
 EXPRESSWAY SIGNS

Scale: As Shown
 SHEET No. 6 OF 7 SHEETS DT 203

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	142-1(2)4	1973	34	122

(GROUND MOUNTED SIGNS)
SUPPORT SPACING TABLE

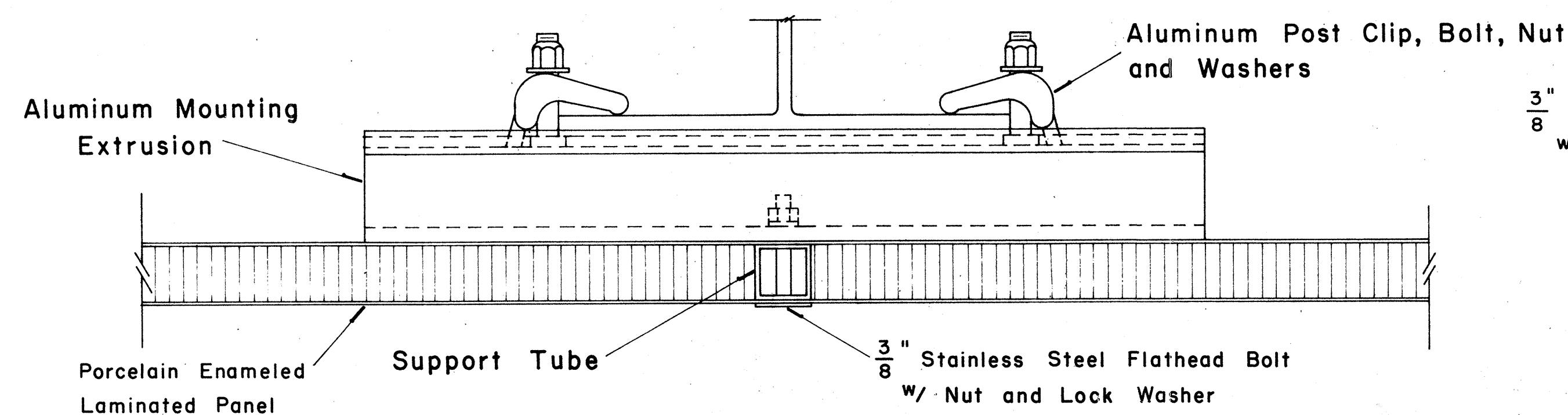
PANEL THICK.	LENGTH OF SIGN A	NO. OF SUPPORTS	OVERHANG B	SUPPORT SPACING C
1"	6'-0"	2	12"	48"
1"	6'-6"	2	15"	48"
1"	7'-0"	2	15"	54"
1"	7'-6"	2	18"	54"
1"	8'-0"	2	18"	60"
1"	8'-6"	2	20"	62"
1"	9'-0"	2	22"	64"
1"	9'-6"	2	23"	68"
1"	10'-0"	2	24"	72"
1"	10'-6"	2	24"	78"
1"	11'-0"	2	24"	84"
1"	11'-6"	2	27"	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

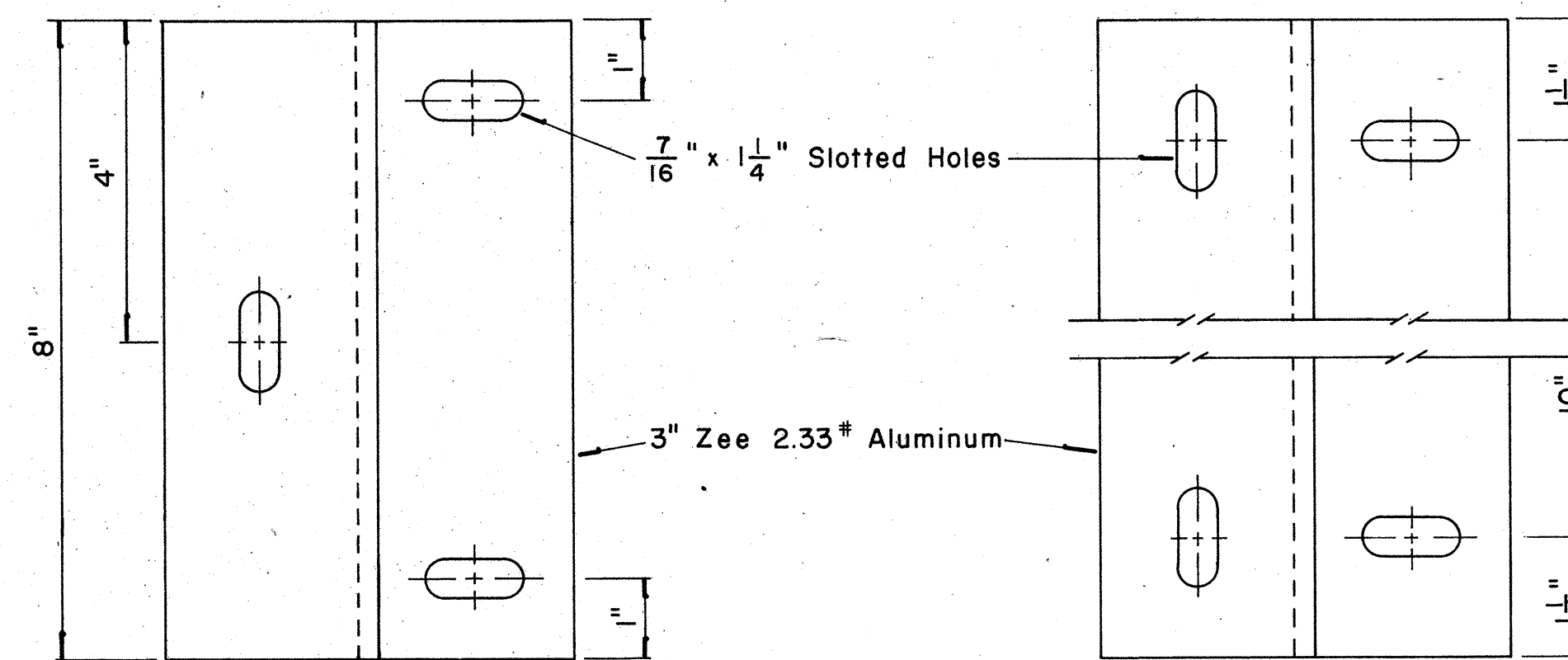
TYPICAL SIGN ASSEMBLY

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



SECTION "A-A"

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

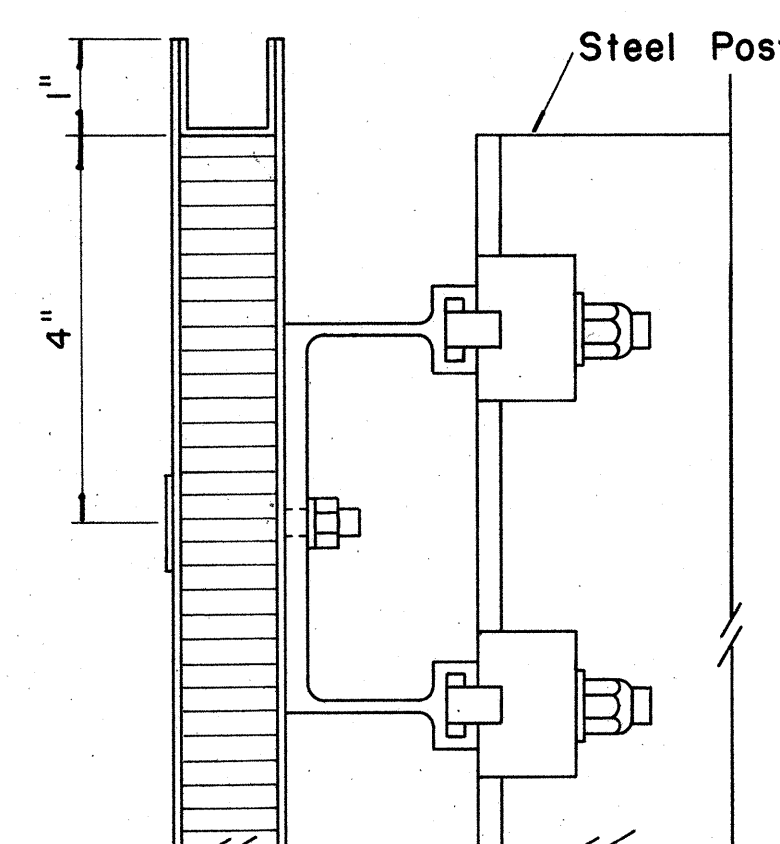


END MOUNTING

INTERMEDIATE MOUNTING

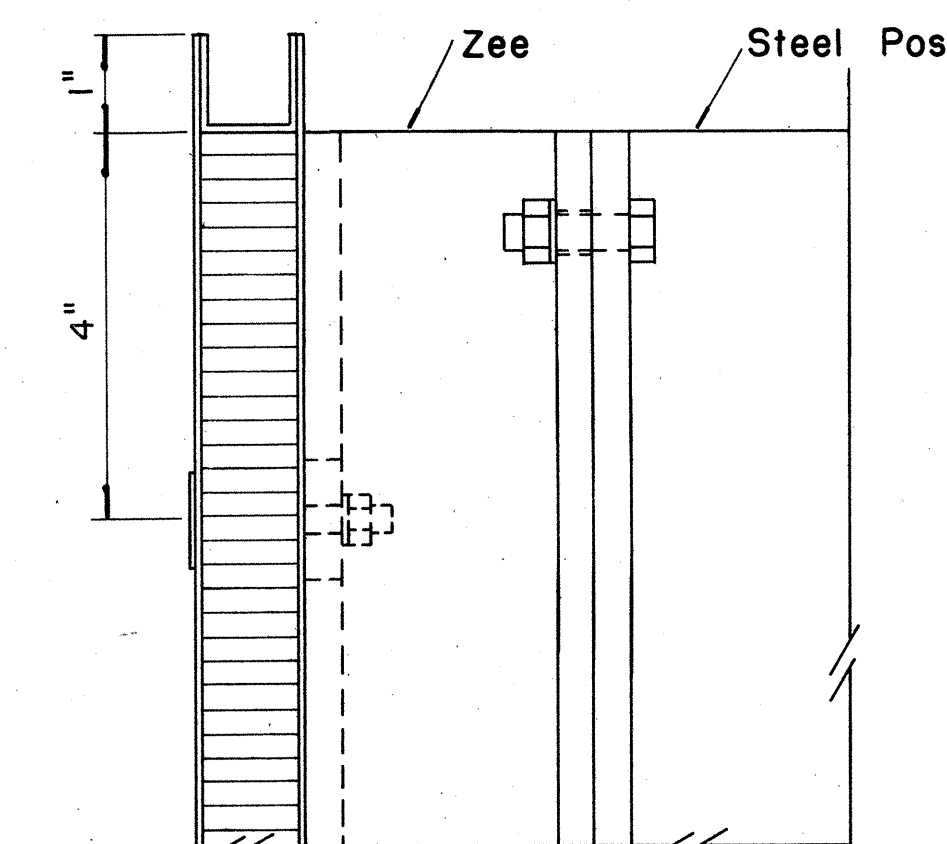
ZEE MOUNTING DETAILS

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



SECTION "B-B"

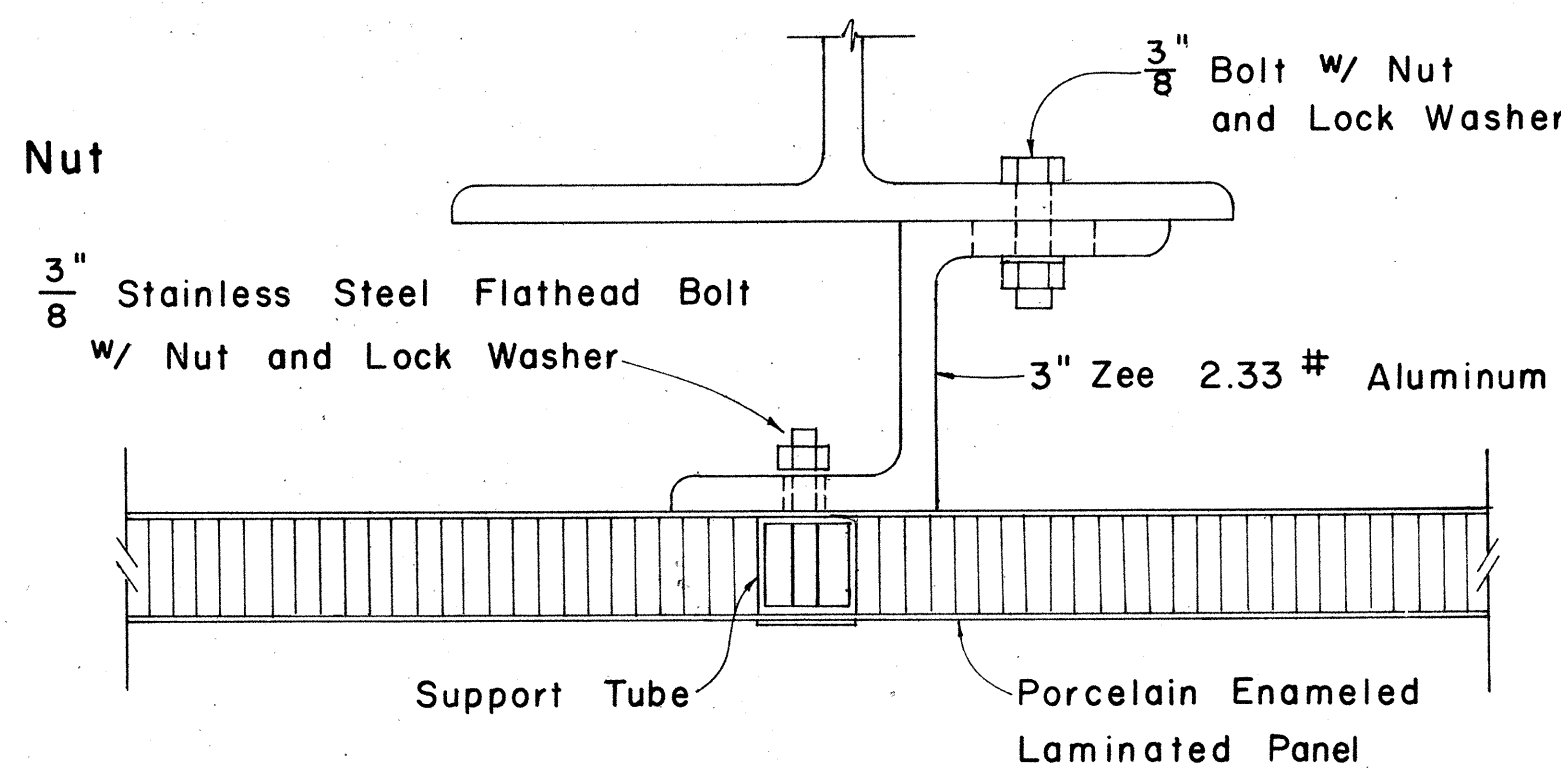
Scale: $\frac{1}{2}$ " = 1"



SECTION "B-B"

(Alternate)

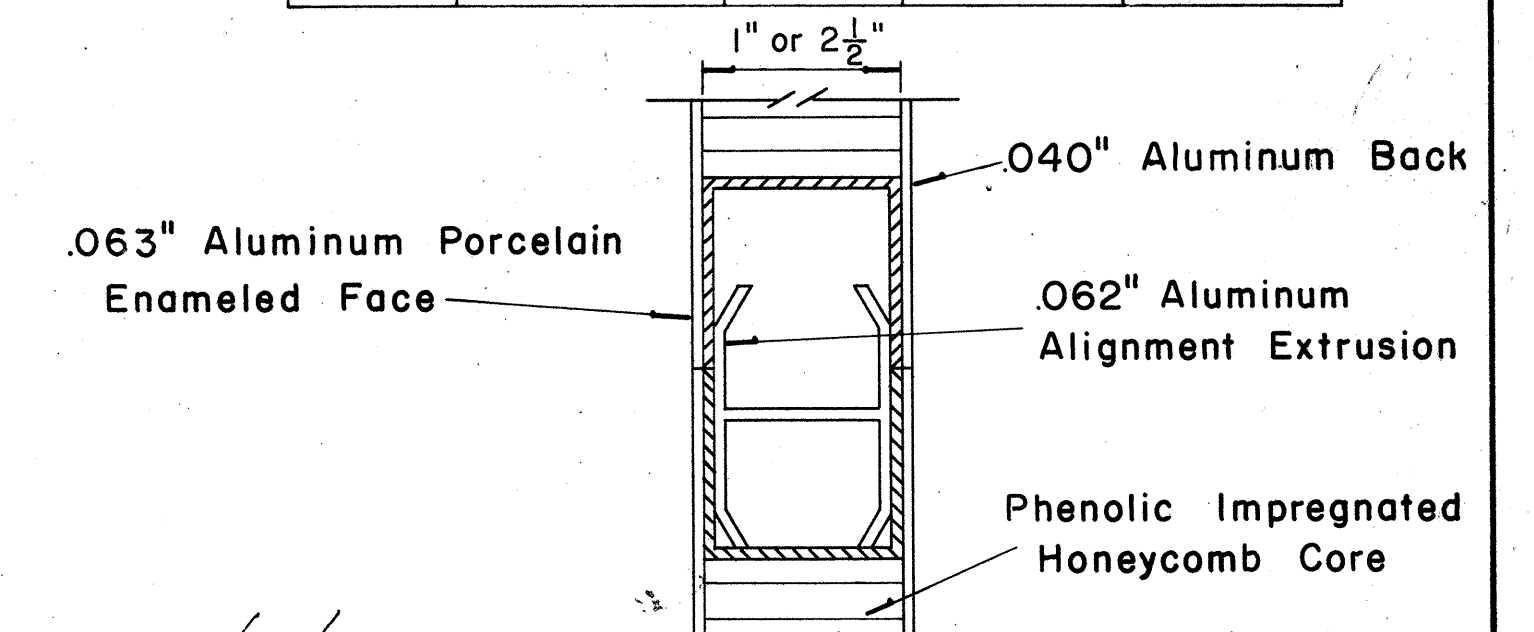
Scale: $\frac{1}{2}$ " = 1"



SECTION "A-A"

(Alternate)

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



CLOSURE DETAIL
SECTION "C-C"

FULL SCALE

APPROVAL RECOMMENDED:

Eishi Tanaka
TRAFFIC ENGINEER

12/29/69
DATE

APPROVED:

2 S. J.
ASSISTANT CHIEF, ENGINEERING

12-30-69
DATE

NO.	REVISION	APPROVED BY	DATE

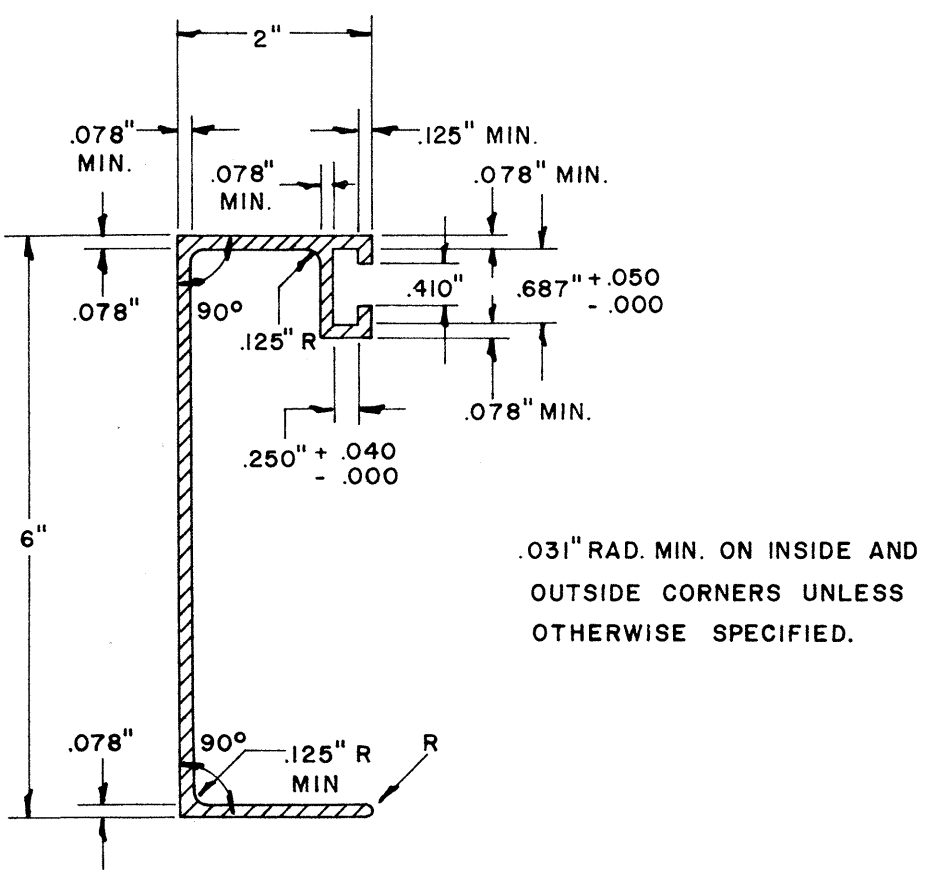
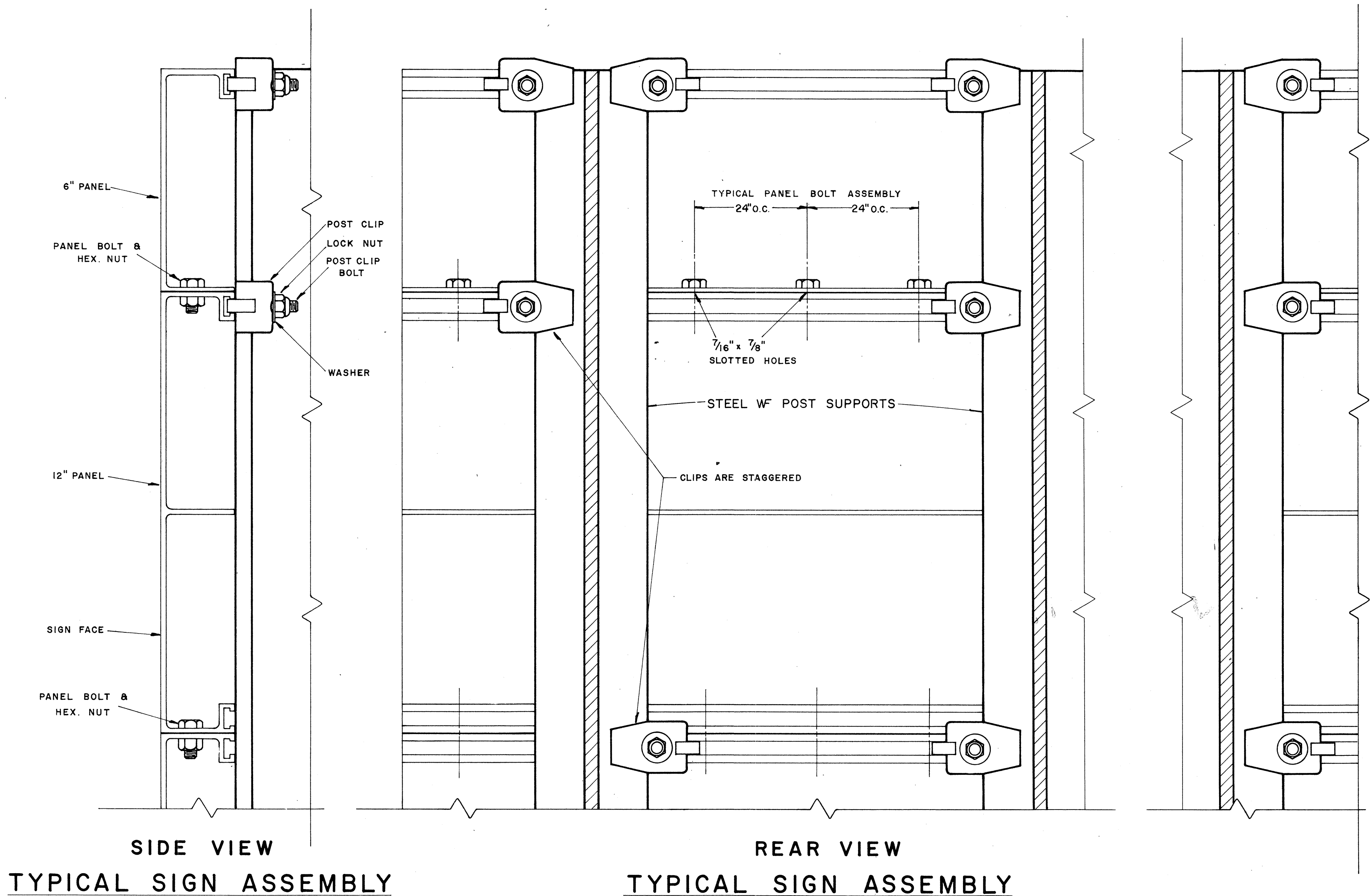
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
LAMINATED ALUMINUM
SIGN PANELS
(GROUND MOUNTED)

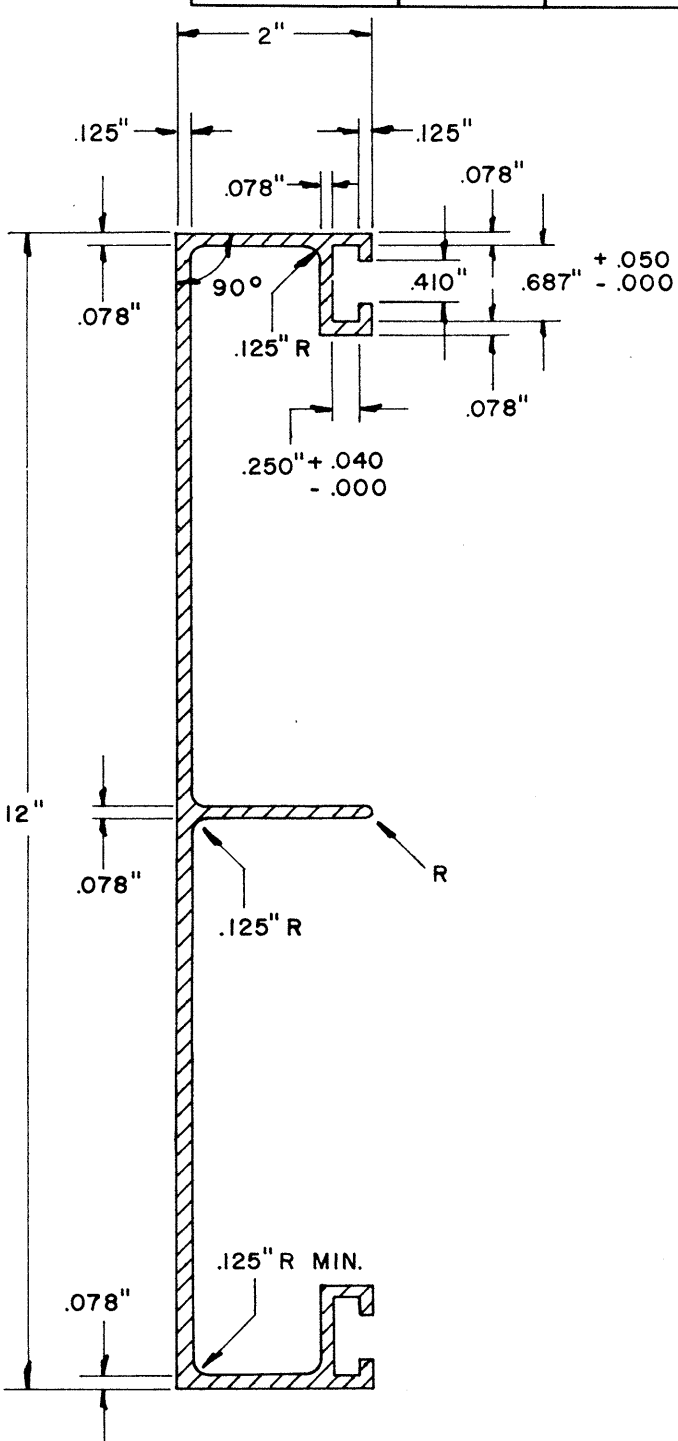
Scale: As Shown

SHEET No. 7 OF 7 SHEETS DT 206

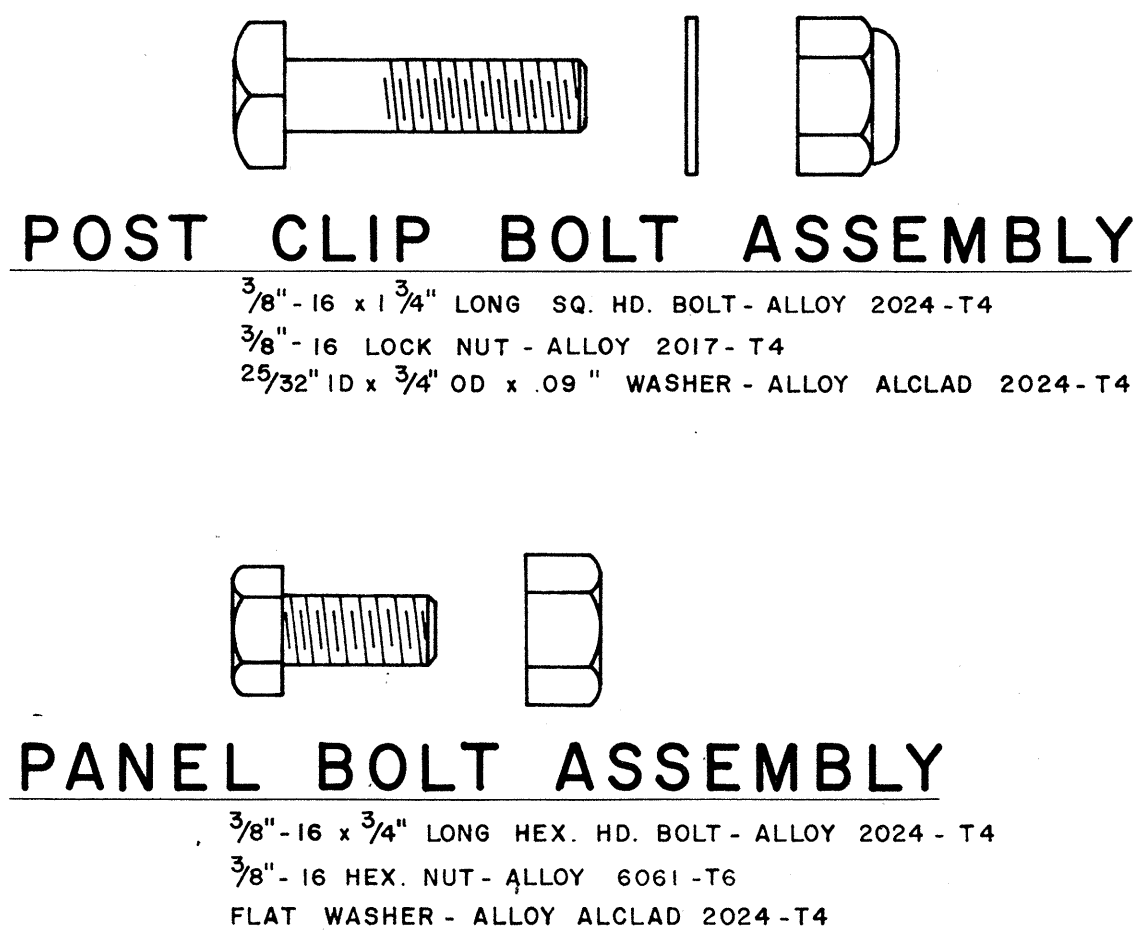
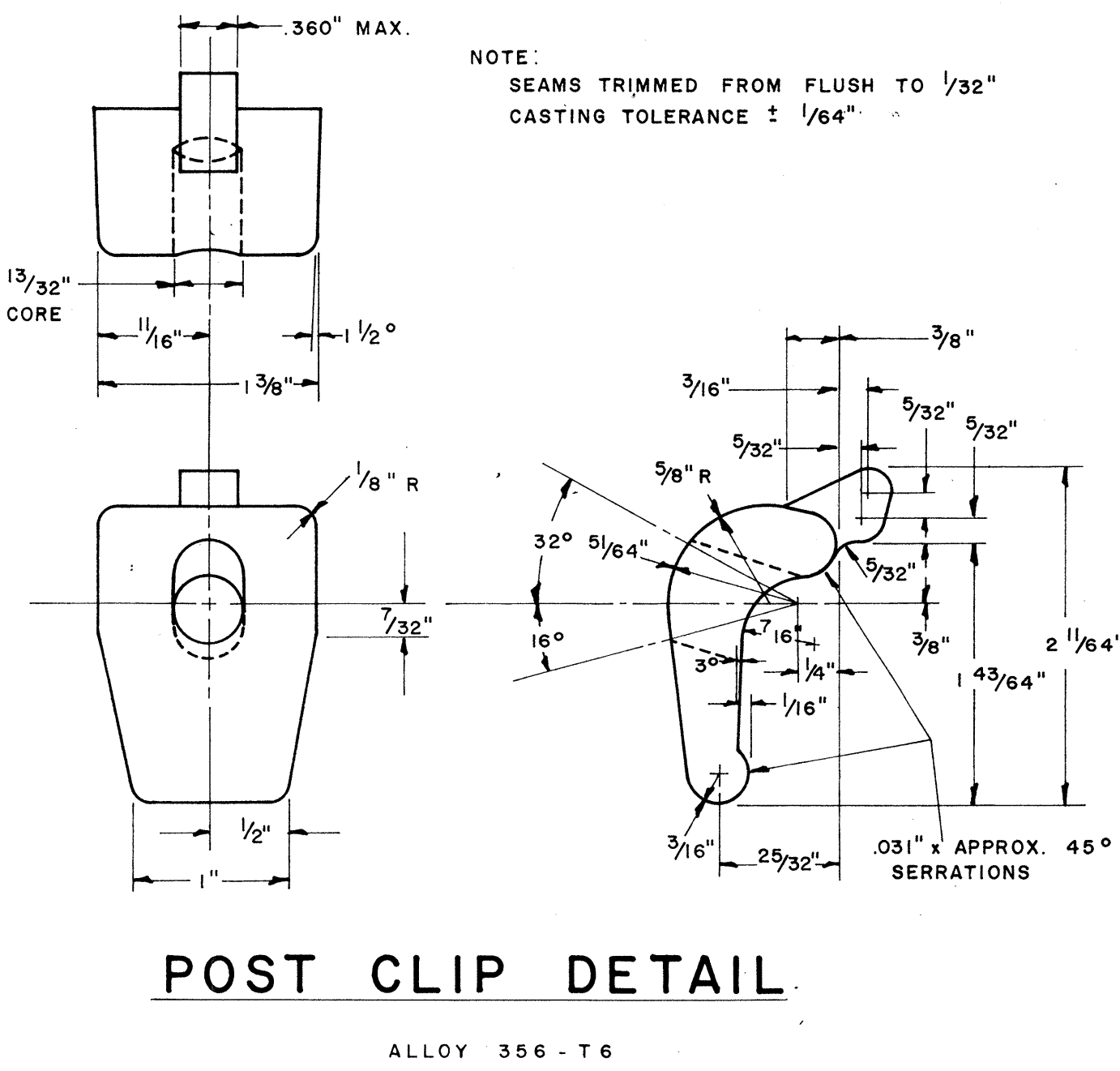
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	142-1(7)-4	1973	35	122



**SOLID EXTRUDED SIGN
PANEL DETAILS**



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



NOTE:
Extruded Aluminum Panels to be used for
Destination Signs with Reflective Sheeting Background

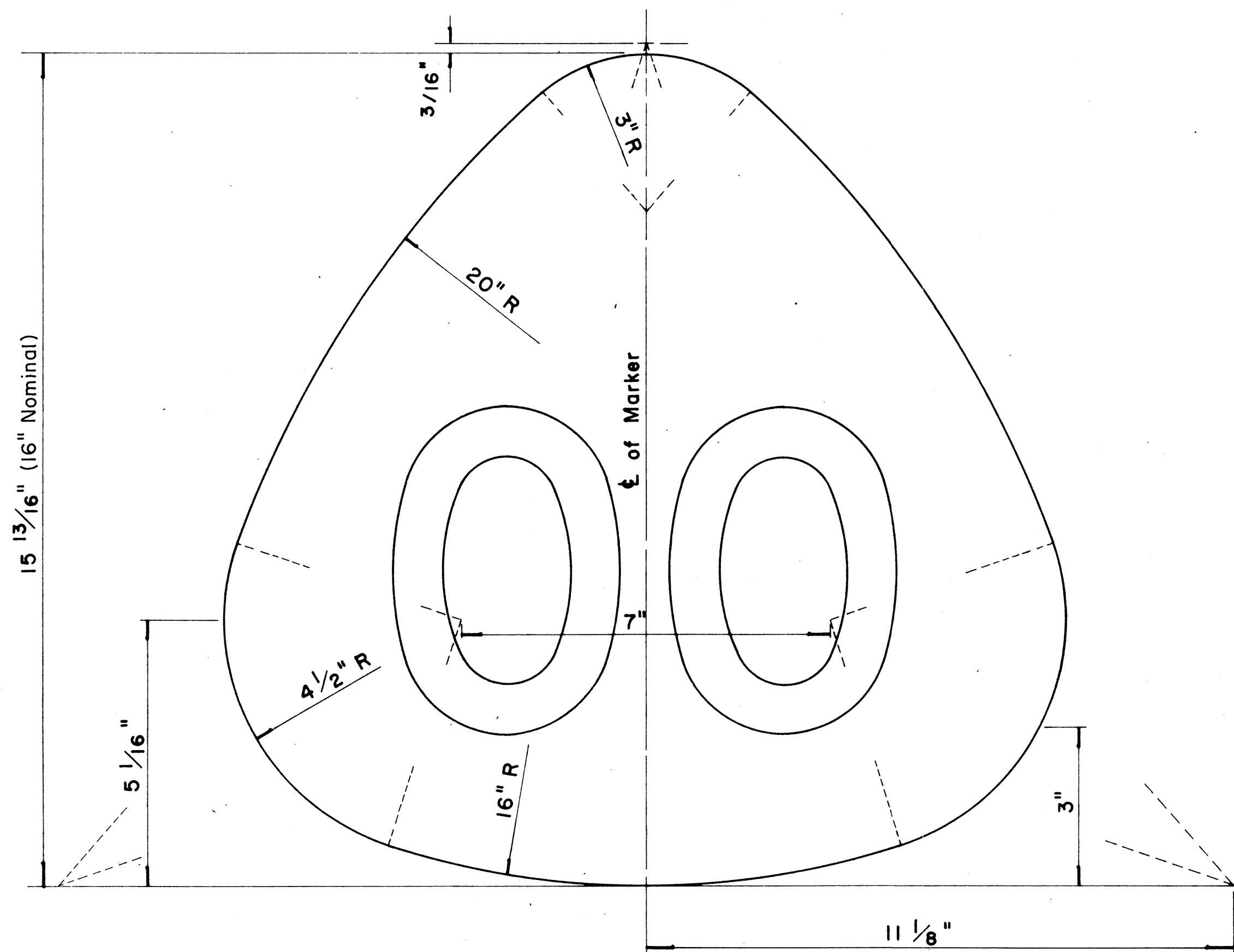
APPROVAL RECOMMENDED:
Eishi Tanaka 12/29/22
TRAFFIC ENGINEER DATE

APPROVED:
[Signature] 12-30-22
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

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

MARKER SIZE	MULTIPLY DIMENSIONS BY	NUMERAL SIZE
		2 Digit - Series D 3 Digit - Series C
* 16"	1	6"
21"	1.3	8"
32"	2.0	12"
42"	2.63	16"



STATE ROUTE MARKER FOR GUIDE SIGNS

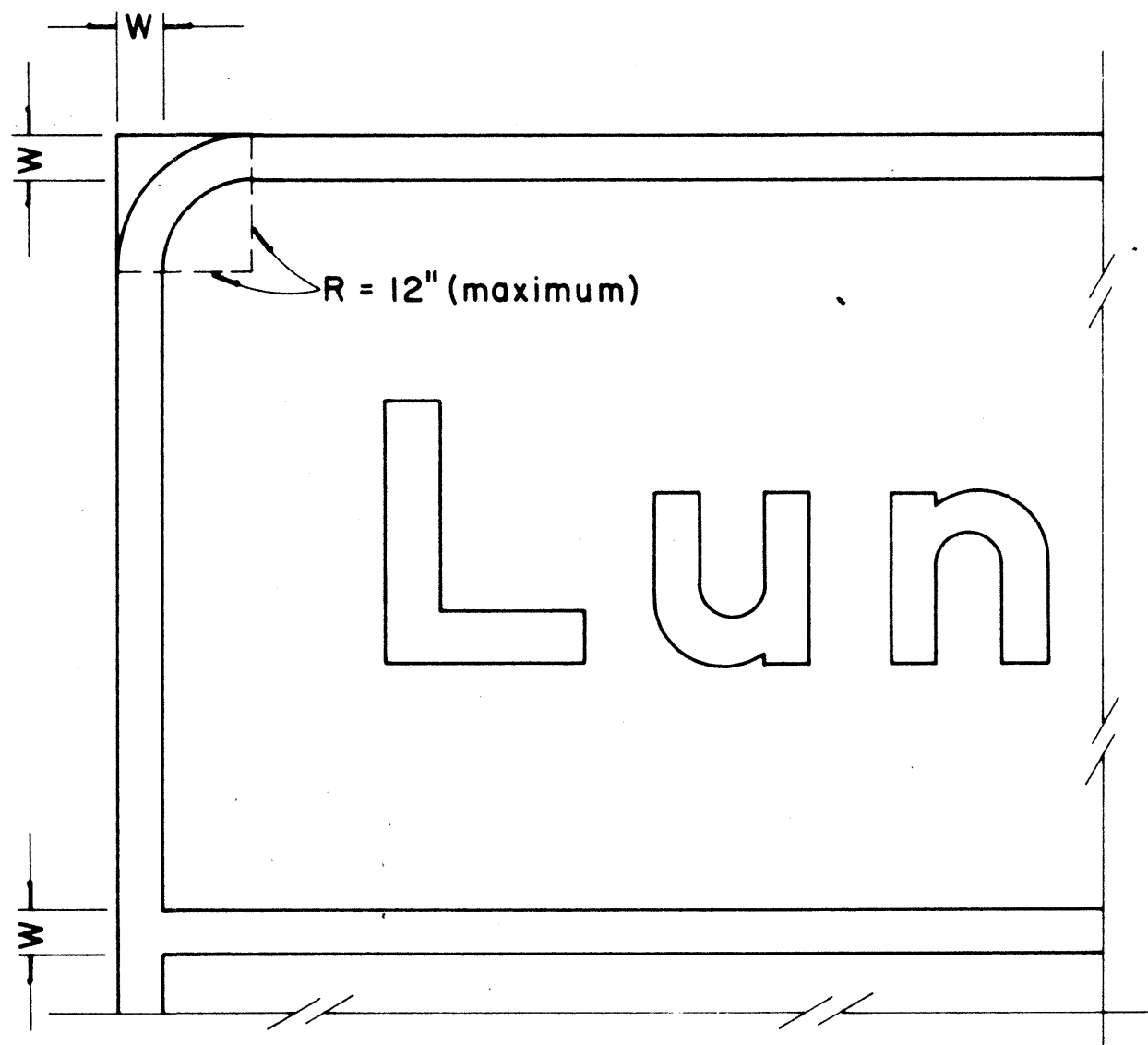
Scale: Half Size

NOTE:

- State Route Markers on Guide signs shall have black numerals on a white reflectorized background mounted on a flat aluminum cut-out.
- Numerals shall conform to the FHWA publication "Standard Alphabets for Highway Signs," 1966.
- Cut-outs shall be fastened on sign panel with aluminum blind rivets. See Standard Specifications.
- * The 16" State Route Marker shall be used only with the Construction Identification sign.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1H2-1(7):4	1973	36	122

RADII 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 GUIDE SIGNS

Not to Scale

NOTE:

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

APPROVAL RECOMMENDED:
Eisaku Tanaka 4/11/72
 TRAFFIC ENGINEER DATE
 APPROVED:
Walter Z. Galschi 4/12/72
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 209 Approved 12-30-69	H.T.	4/12/72

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
STATE ROUTE MARKER
AND BORDER DETAIL
FOR GUIDE SIGNS

Scale: As Shown
SHEET No. 7 OF 7 SHEETS DT 209

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