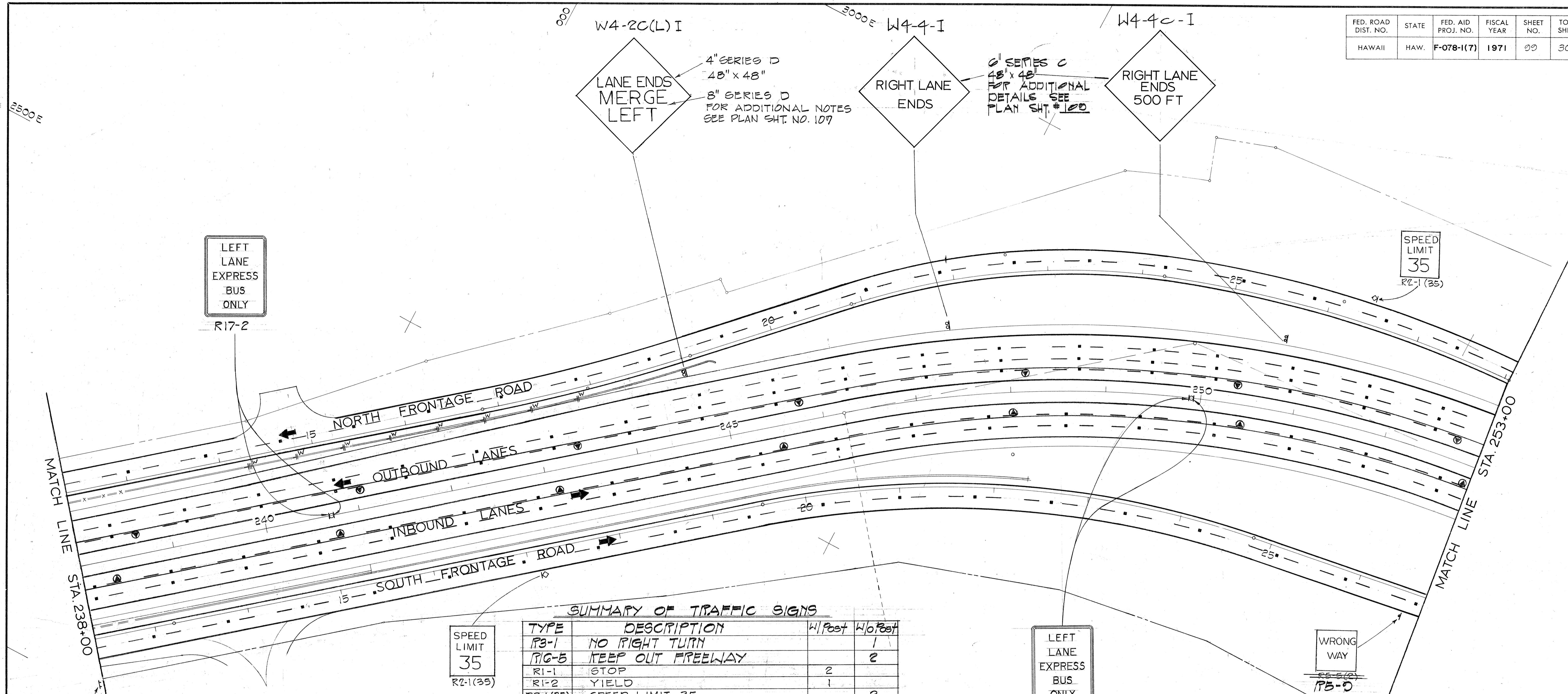


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	09	302



SUMMARY OF TRAFFIC SIGNS

TYPE	DESCRIPTION	W/Post	W/o Post
R3-1	NO RIGHT TURN		1
R10-5	KEEP OUT FREEWAY		2
R1-1	STOP	2	
R1-2	YIELD	1	
R2-1(35)	SPEED LIMIT 35		2
R2-1(45)XA	SPEED LIMIT 45	2	2
R3-9	X 15		
R3-20	YIELD		1
R4-7	KEEP RIGHT	2	
R5-1	DO NOT ENTER	2	X 2
R5-3(1)	WRONG WAY		
R5-3	WRONG WAY	X 2	
R6-1(L)	ONE WAY		
R6-1(R)	ONE WAY		
W1-6(L)	←		
W4-1	MERGING TRAFFIC & MERGE		
W4-4-I	RIGHT LANE ENDS	1	
W4-4c-I	RIGHT LANE ENDS 500 FT.	1	
W4-2C(L)I	LANE ENDS MERGE LEFT	1	
W13-2(25)	EXIST - 25 MPH		
W20-5a(R)	RIGHT LANE CLOSED 1500 FT.		
W20-5c(R)	RIGHT LANE CLOSED 500 FT.		
REFLECTOR MARKERS			
RM-2		2522	1213
RM-2W			7
RM-3		1	3
RM-3W			
MI-3(7B)		1	
MG-1-E			
MG-1-W			
TYPE A Pavement Marker		4,322	
TYPE C Pavement Marker		420	

LEGEND

- ⊙ Regulatory and Warning Sign w/Post.
- ⊙ Regulatory and Warning Sign mounted on Light Standard
- ⊙ Reflector Markers RM-1, RM-2, RM-3 w/Post
- ⊙ Reflector Markers RM-1, RM-2, RM-3 Mounted on Wall
- ⊙ Reflector Markers RM-1, RM-2, RM-3 on Light Standard
- ⊙ Pavement Markers Type A & C
- ⊙ Overhead Expressway Sign (Span)
- ⊙ Overhead Expressway Sign (Cantilever)
- ⊙ Warning Sign Mounted on Traffic Drums.

DATE	REVISION
2/8/74	Revise pavement striping, markers, and signs for express bus lanes.
6/30/72	Revised sign code nos. & Summary CCO #48

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGNING AND PAVEMENT MARKINGS

MOANALUA ROAD
F.A.P. Proj. No. F-078-1(7)

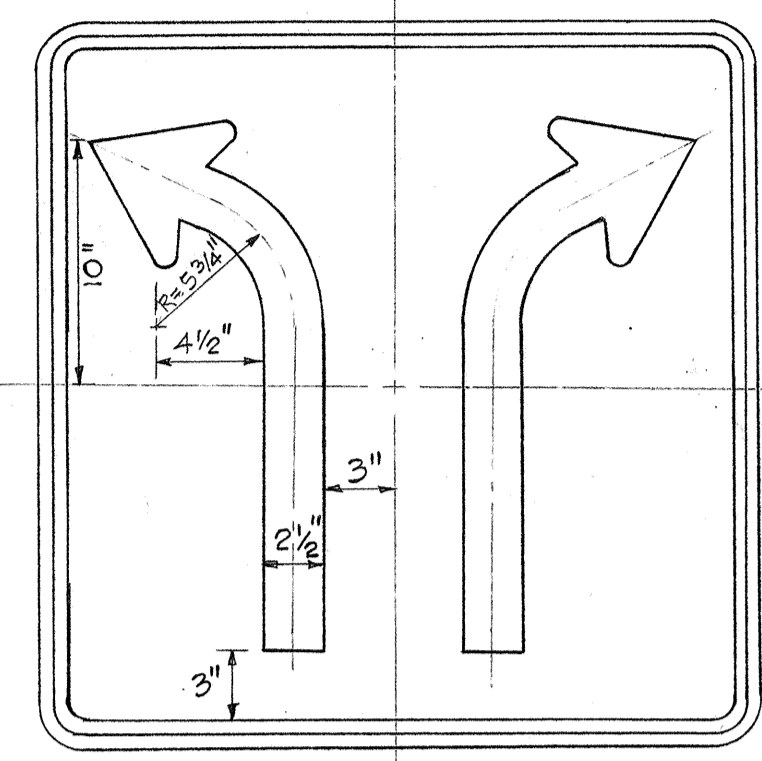
Scale: As Shown
SHEET No. OF 27 SHEETS

DATE _____
 CHECKED BY _____
 DESIGNED BY _____
 DRAWN BY _____
 PLANNED BY _____
 ORIGINAL PLAN NO. _____

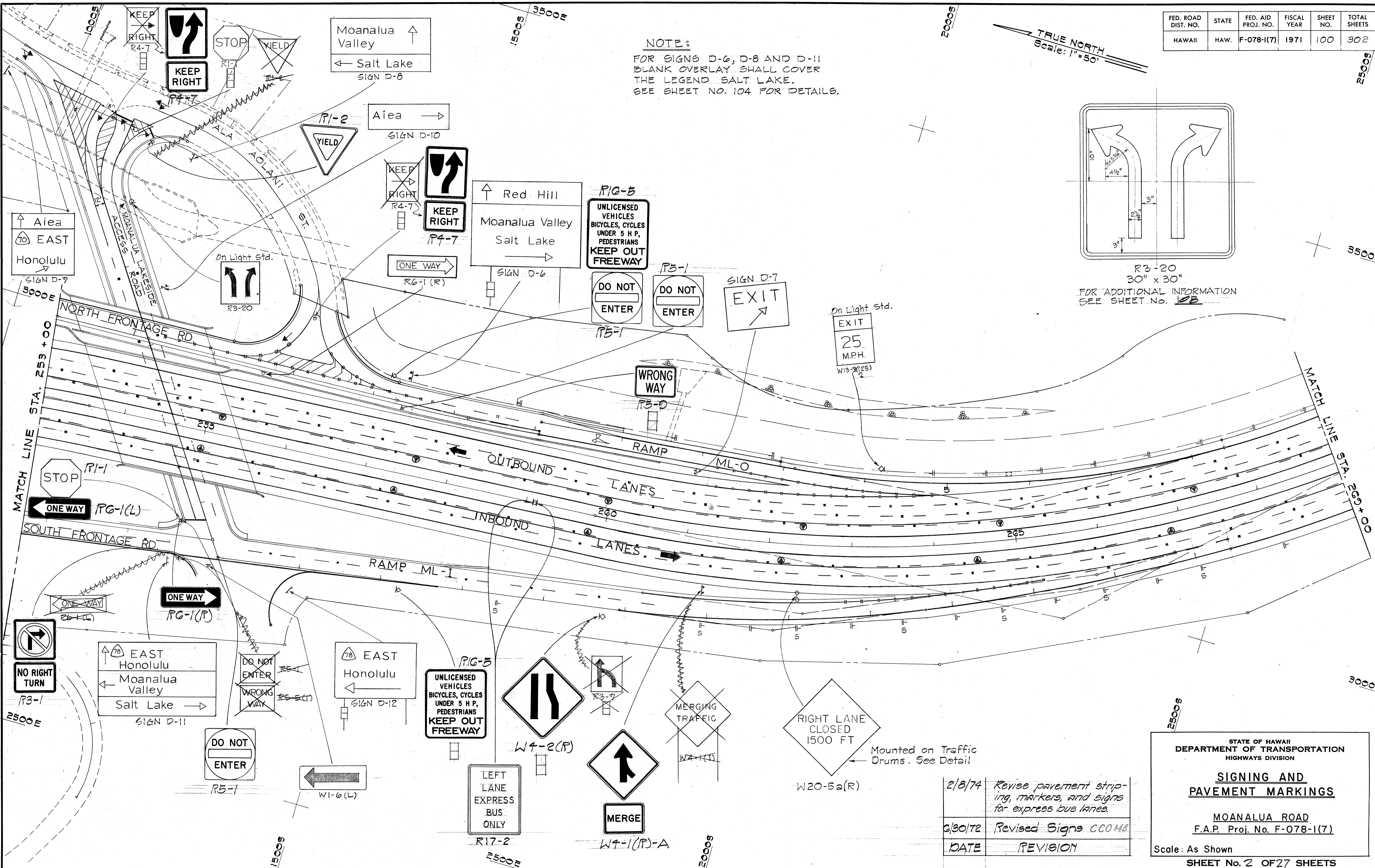
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	100	302

TRUE NORTH
Scale: 1"=50'

NOTE:
FOR SIGNS D-6, D-8 AND D-11
BLANK OVERLAY SHALL COVER
THE LEGEND SALT LAKE.
SEE SHEET NO. 104 FOR DETAILS.



R3-20
30" x 30"
FOR ADDITIONAL INFORMATION
SEE SHEET NO. 103



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

2/8/74	Revise pavement striping, markers, and signs for express bus lanes.
2/30/72	Revised Signs CCO#48
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGNING AND PAVEMENT MARKINGS

MOANALUA ROAD
F.A.P. Proj. No. F-078-1(7)

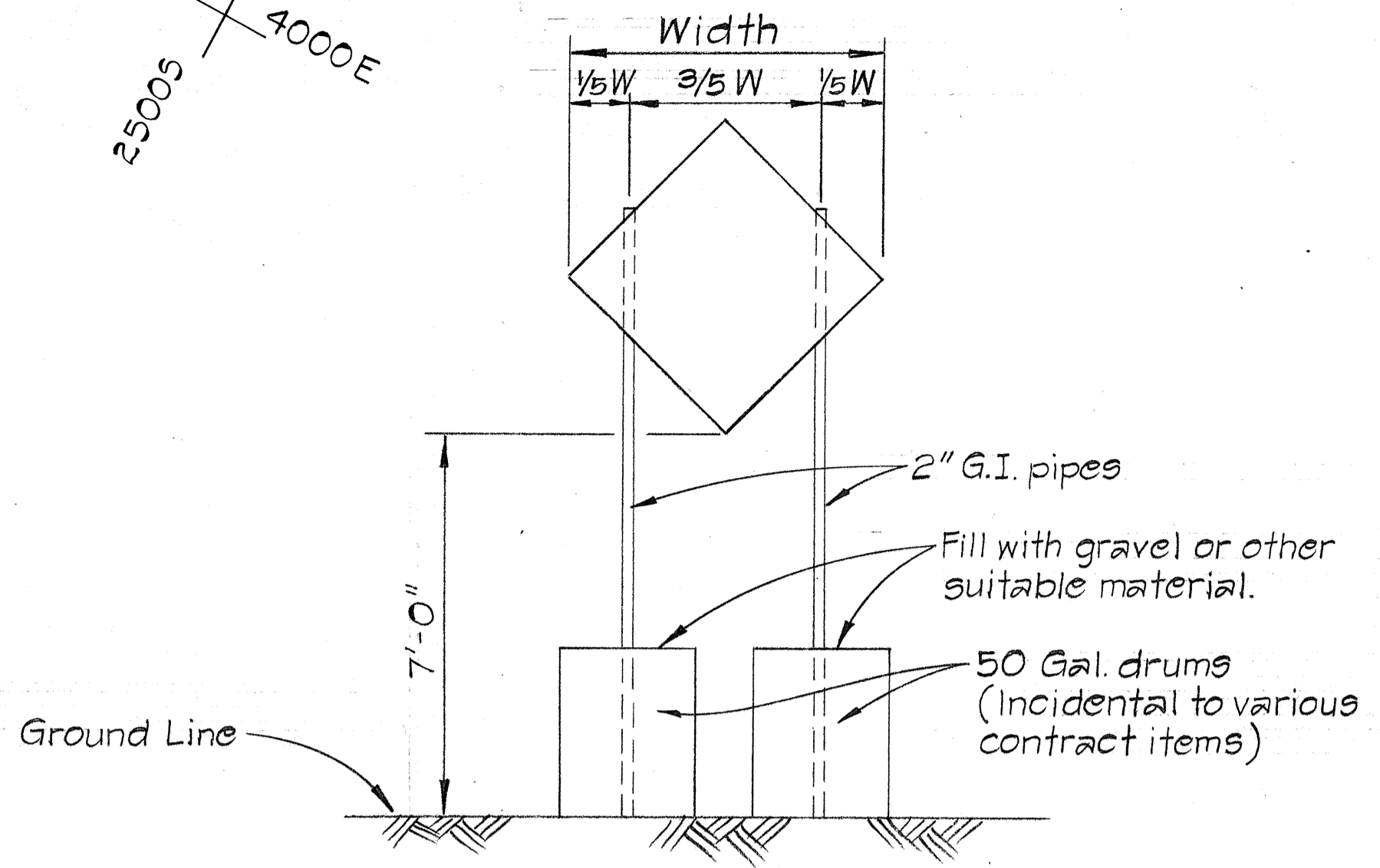
Scale: As Shown
SHEET No. 2 OF 27 SHEETS

C.O. 100

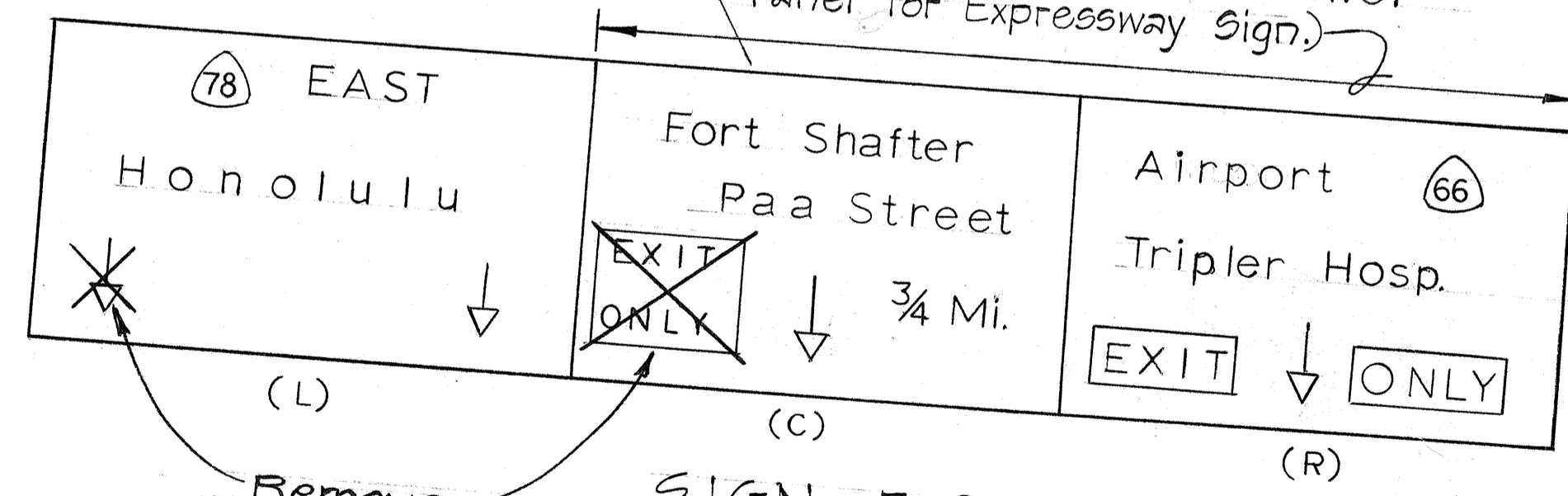
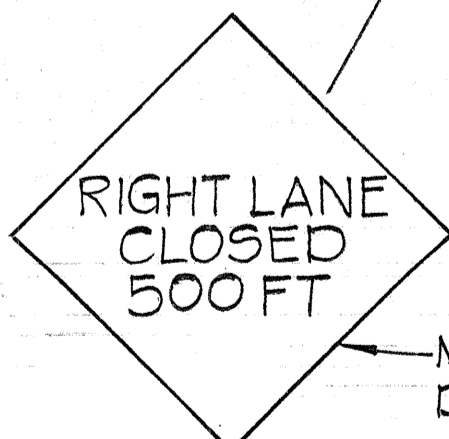
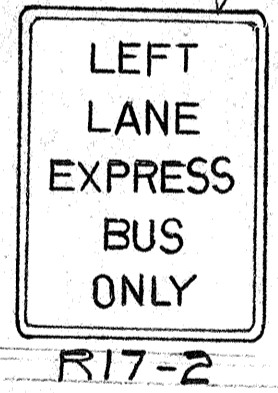
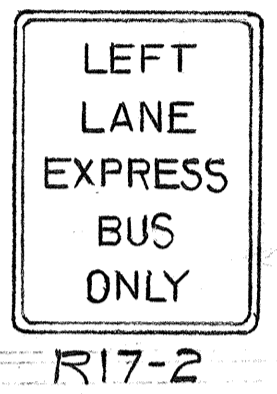
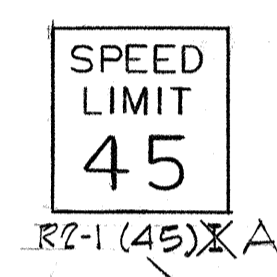
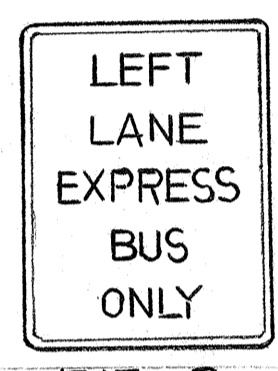
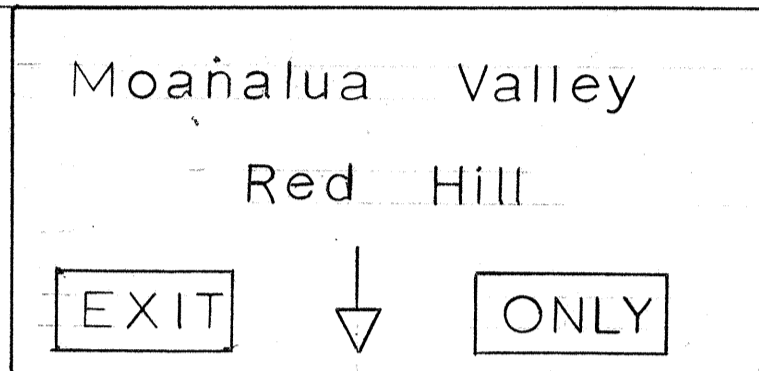
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	101	302

TRUE NORTH
Scale: 1" = 50'

Width
1/5 W 3/5 W 1/5 W



SIGN MOUNTED ON TRAFFIC DRUMS
Not to Scale



MATCH LINE STA. 269+00

END OF PROJ. No. F-078-1(7)
PT. Sta. 283+78.43
End Pavt. Markers except
for striping

Traffic Drums in accordance with the Manual on Uniform Traffic Control Devices.

Mounted on Traffic Drums. See Detail.

Cover with Black Polyethylene (Payment incidental to Item No. 621.01 Panel for Expressway Sign)

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

DATE	REVISION
2/8/74	Revised pavement striping, markers & signs for express bus lanes
6/30/72	Revised sign code numbers. C.C.O. #48

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

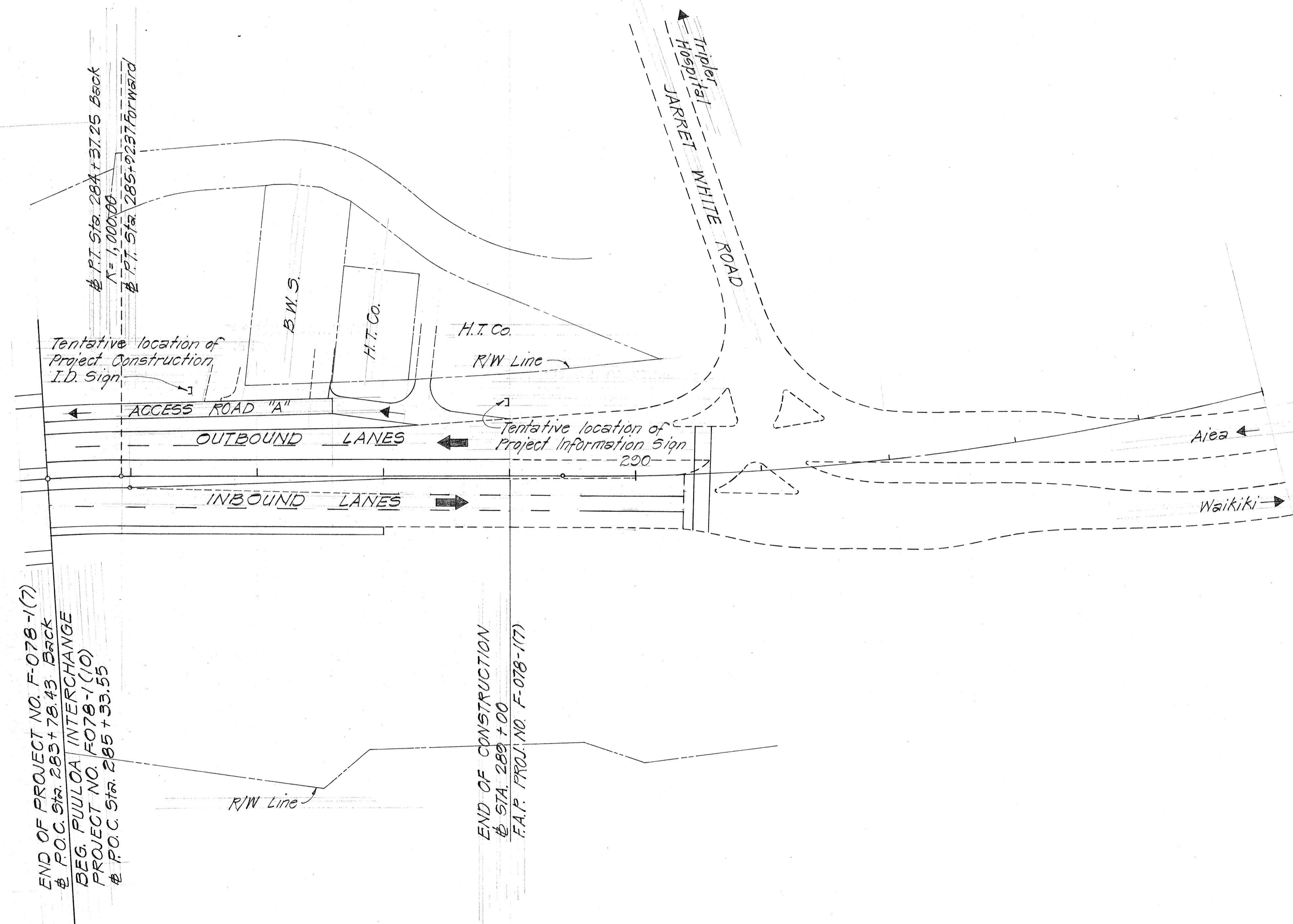
SIGNING AND PAVEMENT MARKINGS

MOANALUA ROAD
F.A.P. Proj. No. F-078-1(7)

Scale: As Shown
SHEET No. 3 OF 27 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	102	302

TRUE NORTH
Scale: 1"=50'



SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

END OF PROJECT NO. F-078-1(7)
@ P.O.C. Sta. 283+78.43 Back
BEG. PUULOA INTERCHANGE
PROJECT NO. F-078-1(10)
@ P.O.C. Sta. 285+33.55

END OF CONSTRUCTION
@ STA. 289+00
F.A.P. PROJ. NO. F-078-1(7)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

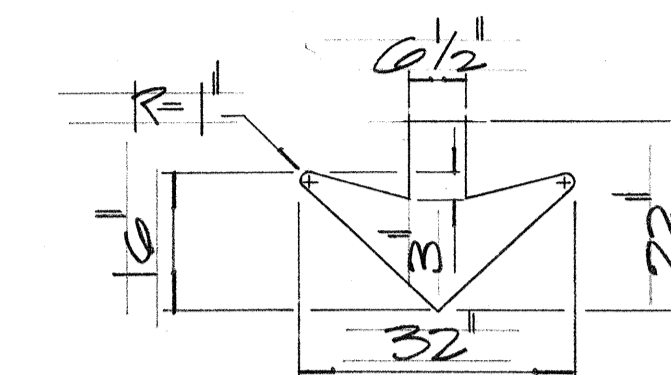
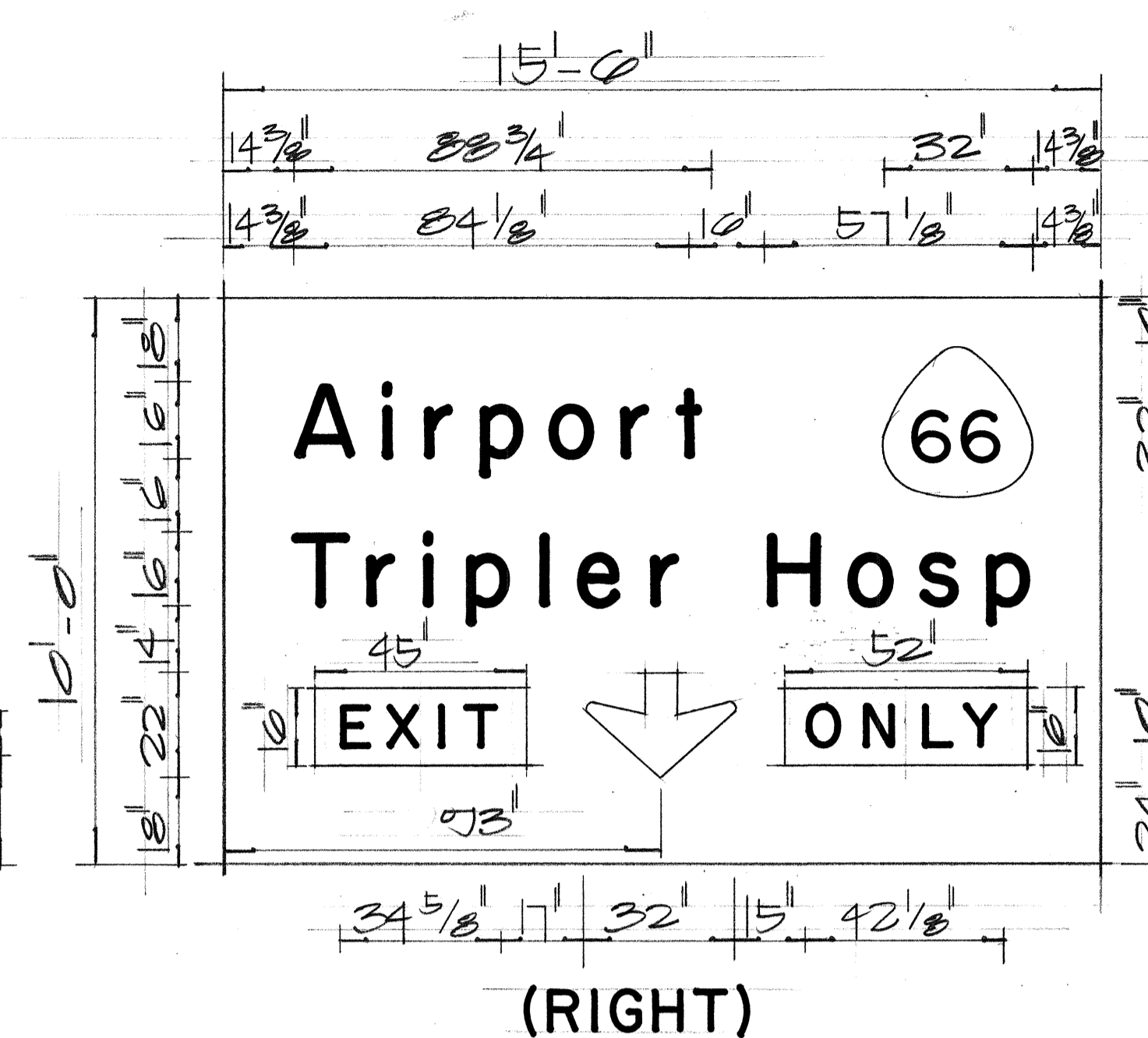
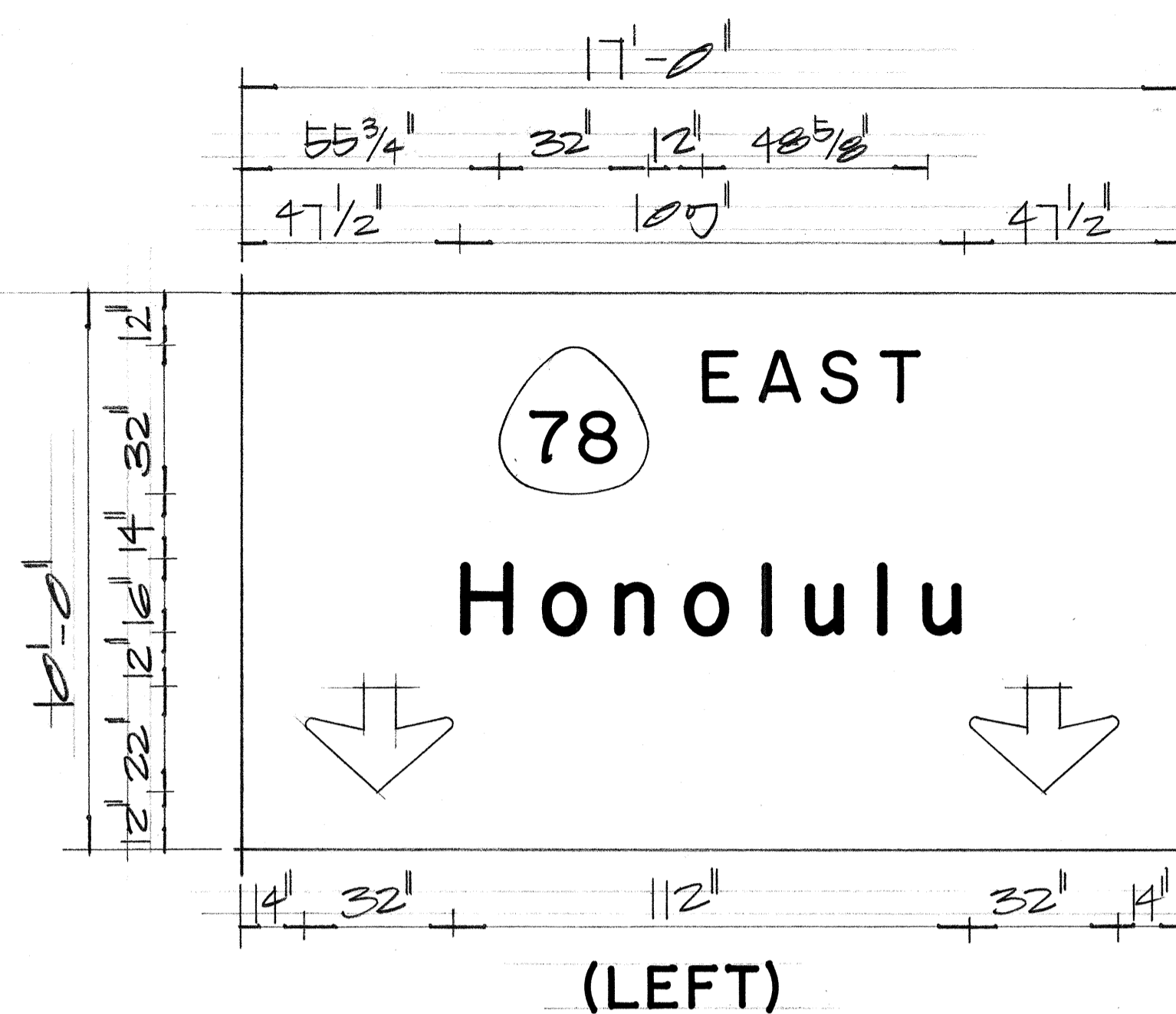
**SIGNING AND
PAVEMENT MARKINGS**

MOANALUA ROAD
F.A.P. Proj. No. F-078-1(7)

Scale: As Shown

SHEET No. 4 OF 27 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	103	302

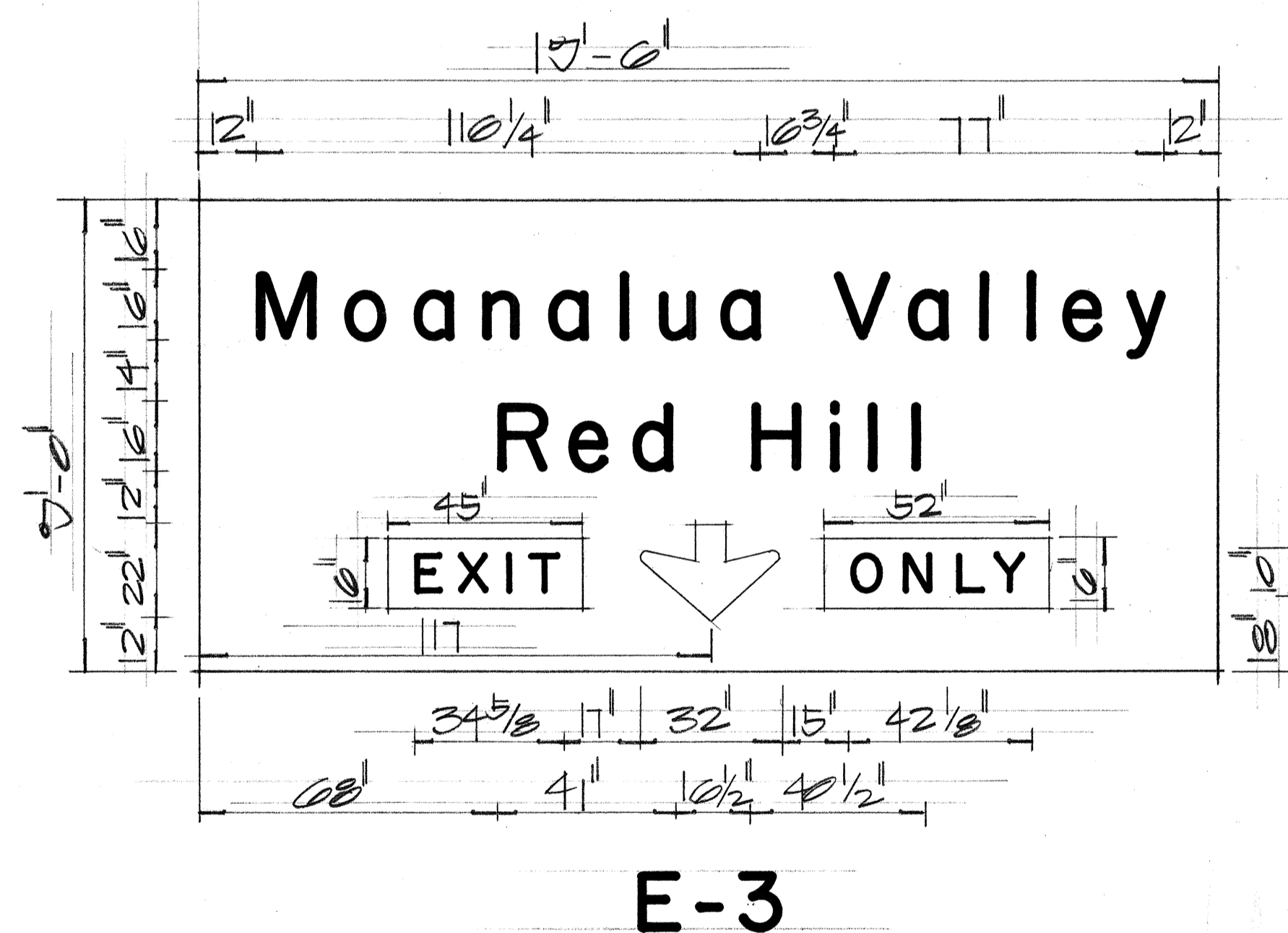


E-2

NOTES:

- Letters, numerals, borders and arrows shall be demountable aluminum cut-outs with white reflective sheeting or clear reflex reflectors set in white porcelain enameled aluminum cut-outs.
- Background shall be green porcelain enamel.
- Sign message shall conform to the modified Series "E" upper and lower case letters as shown in the "Standard Alphabets for Highway Signs", Bureau of Public Roads, 1966.
- Route markers and borders shall conform with details as show on the plans.
- "EXIT ONLY" panels shall be demountable aluminum cut-outs with black legend on reflectorized yellow background.
- Cut-outs shall be fastened to sign panel with aluminum blind rivets.

EXPRESSWAY SIGN SUMMARY		
SIGN No.	DESCRIPTION	Sq. Ft.
E-2(L)	Honolulu	170.00
(C)	Fort Shafter Paa Street	155.00
(R)	Airport Tripler Hosp	155.00
E-3	Moanalua Valley Red Hill	175.50
TOTAL		655.50



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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

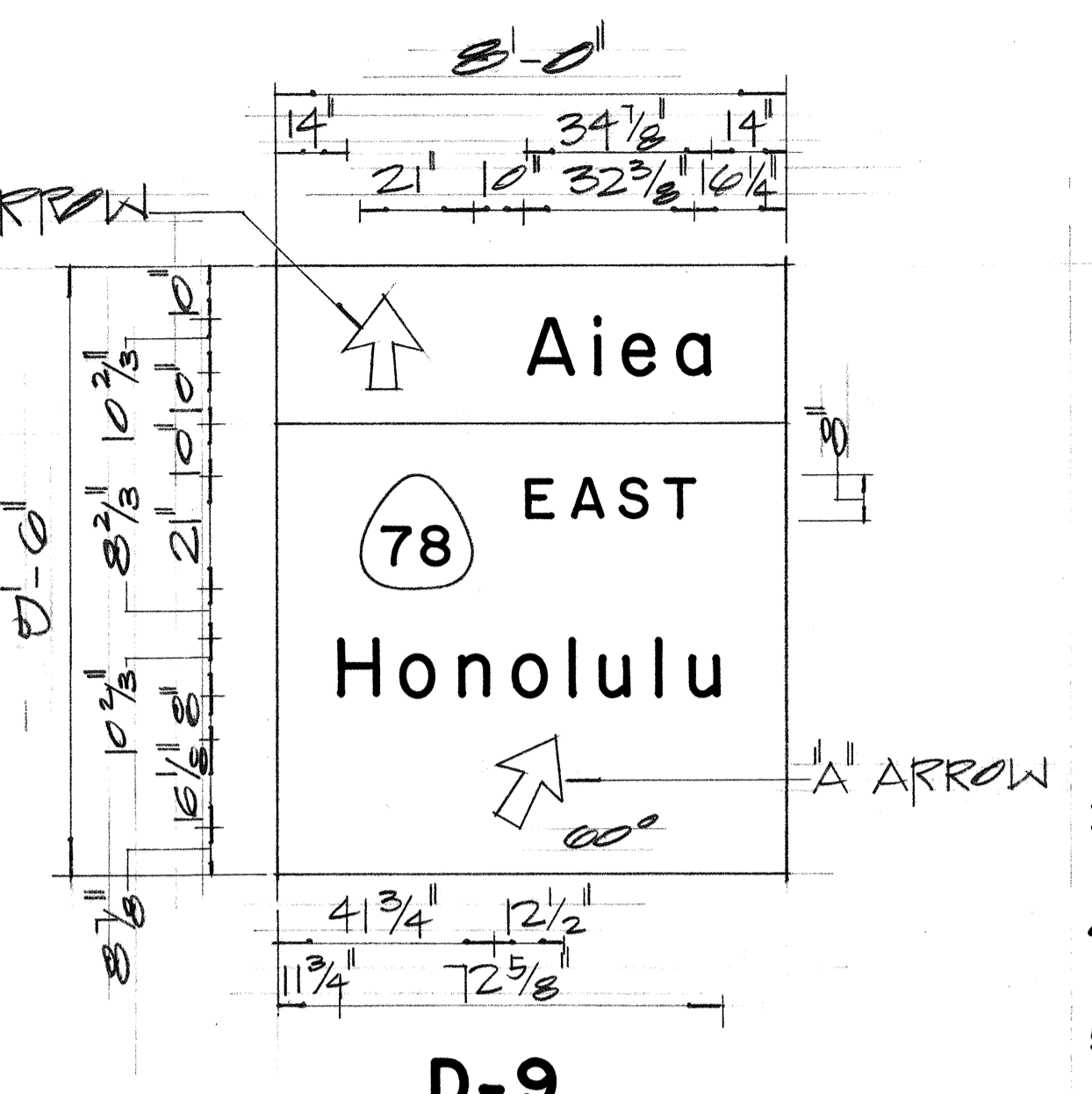
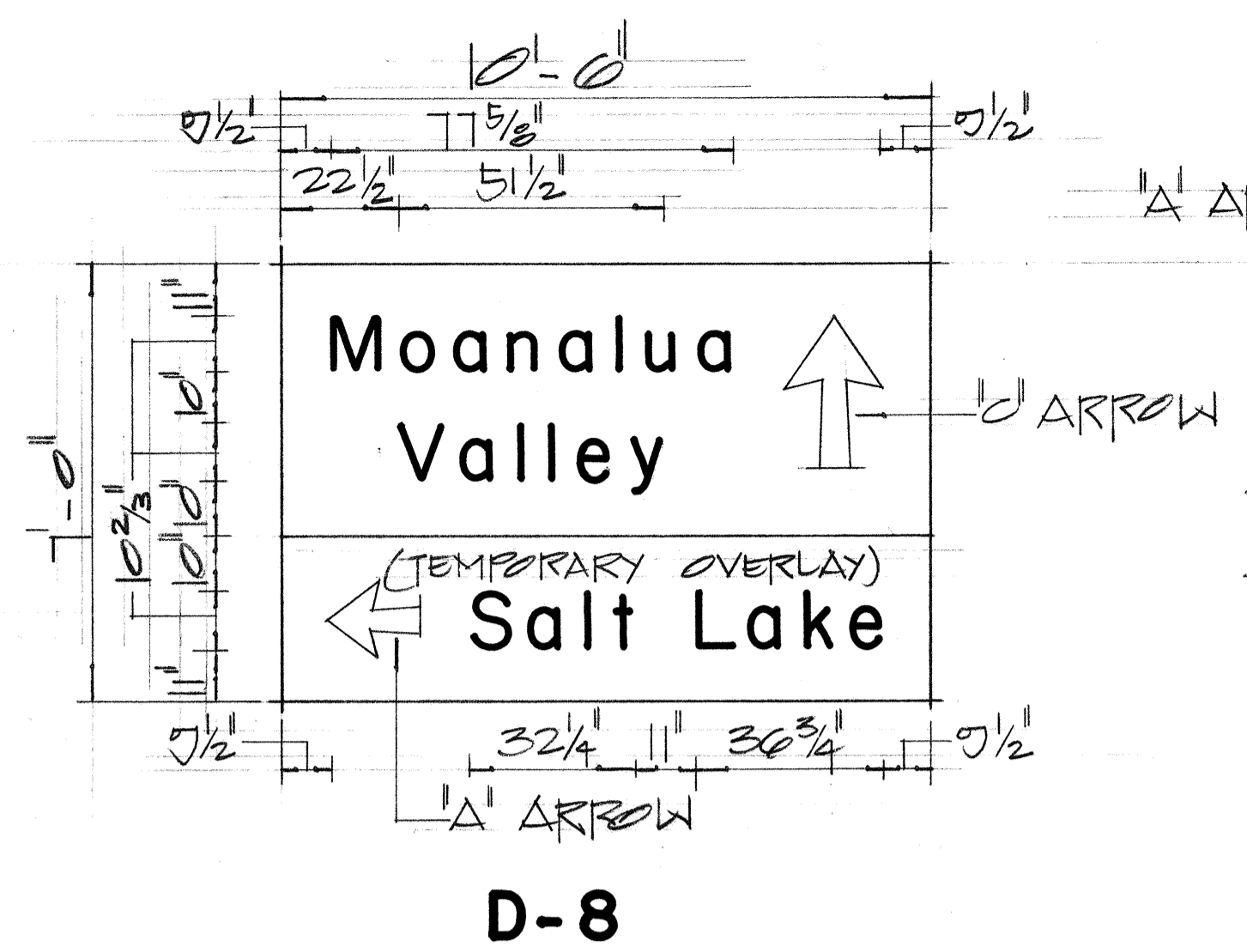
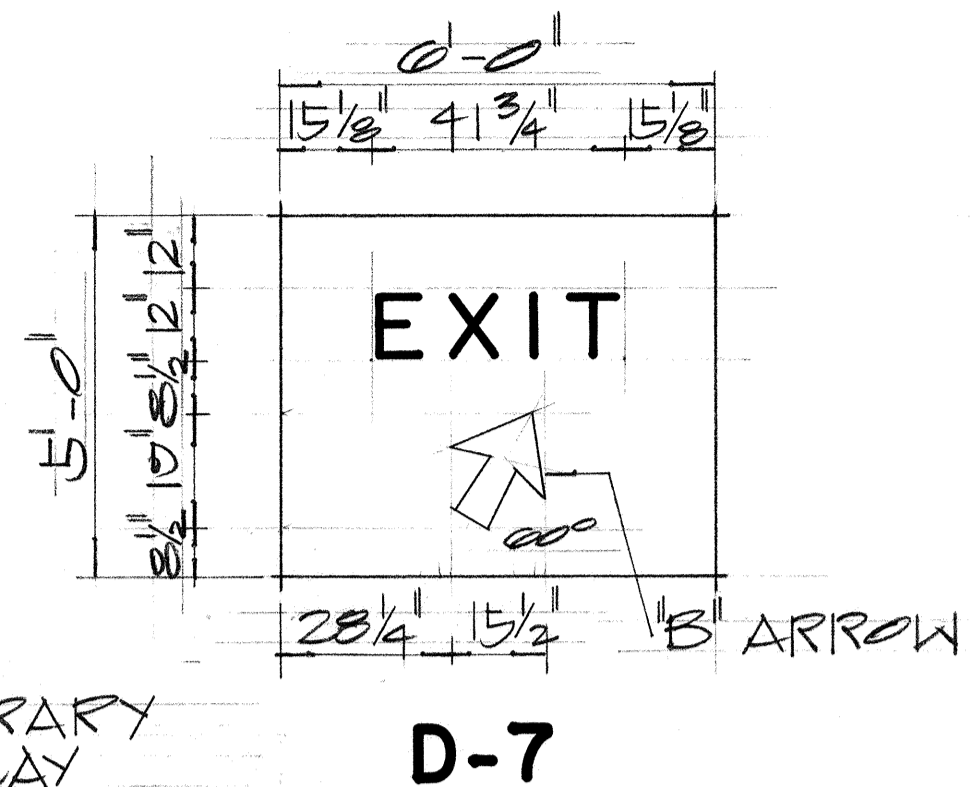
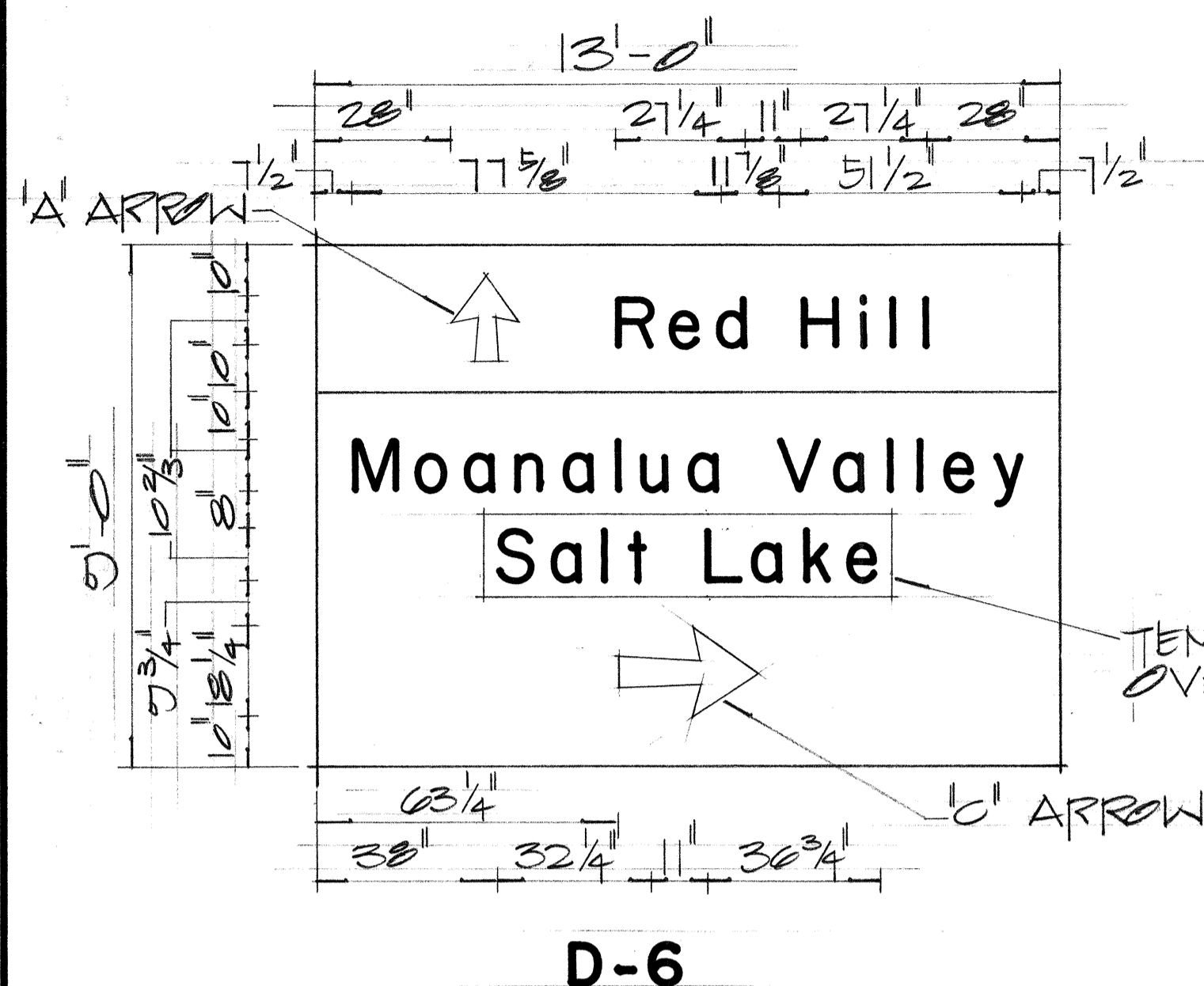
PANEL LAYOUT

MOANALUA ROAD
F.A.P. Proj. No. F-078-1(7)

Scale: As Shown

SHEET No. 5 OF 27 SHEETS

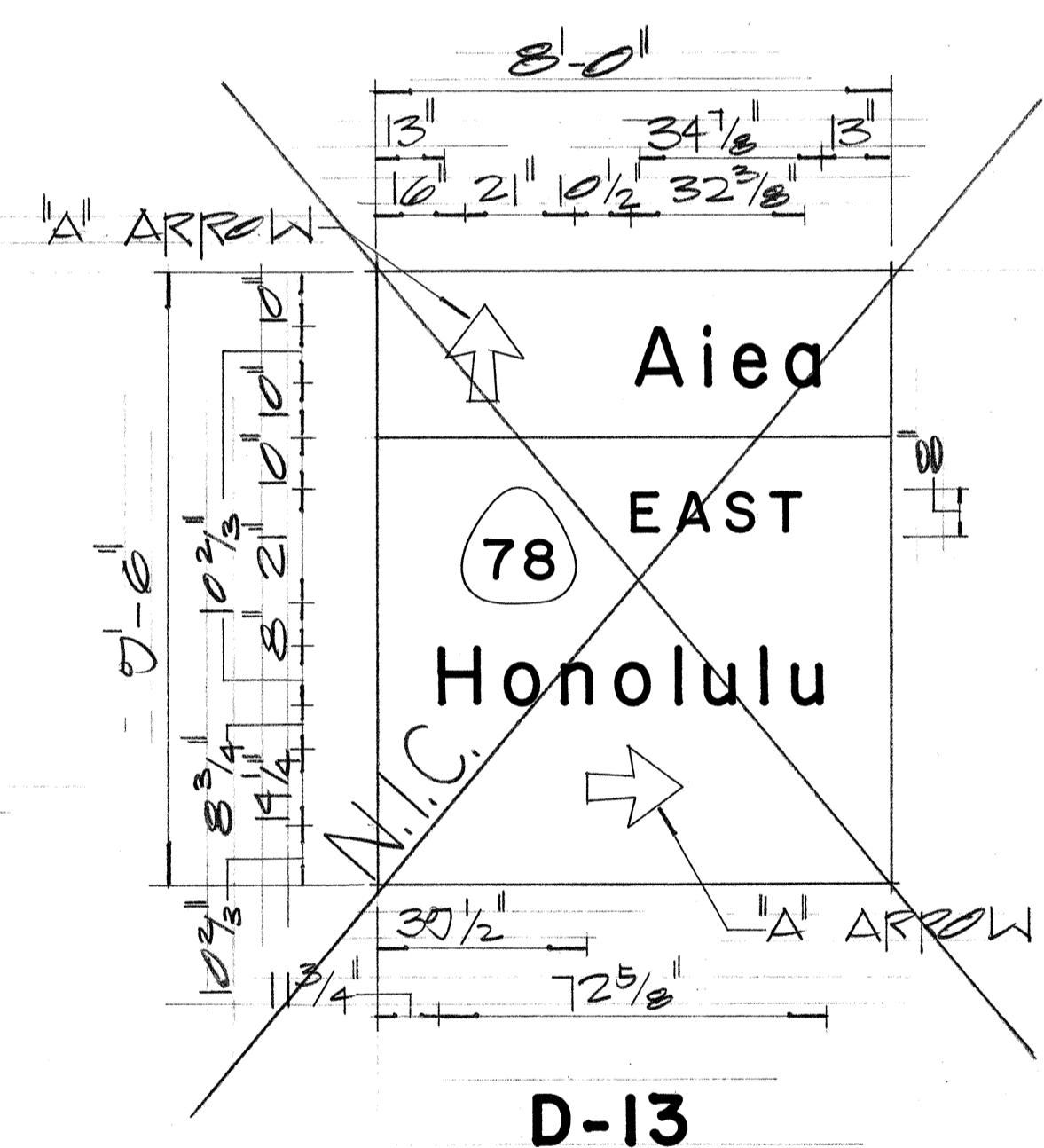
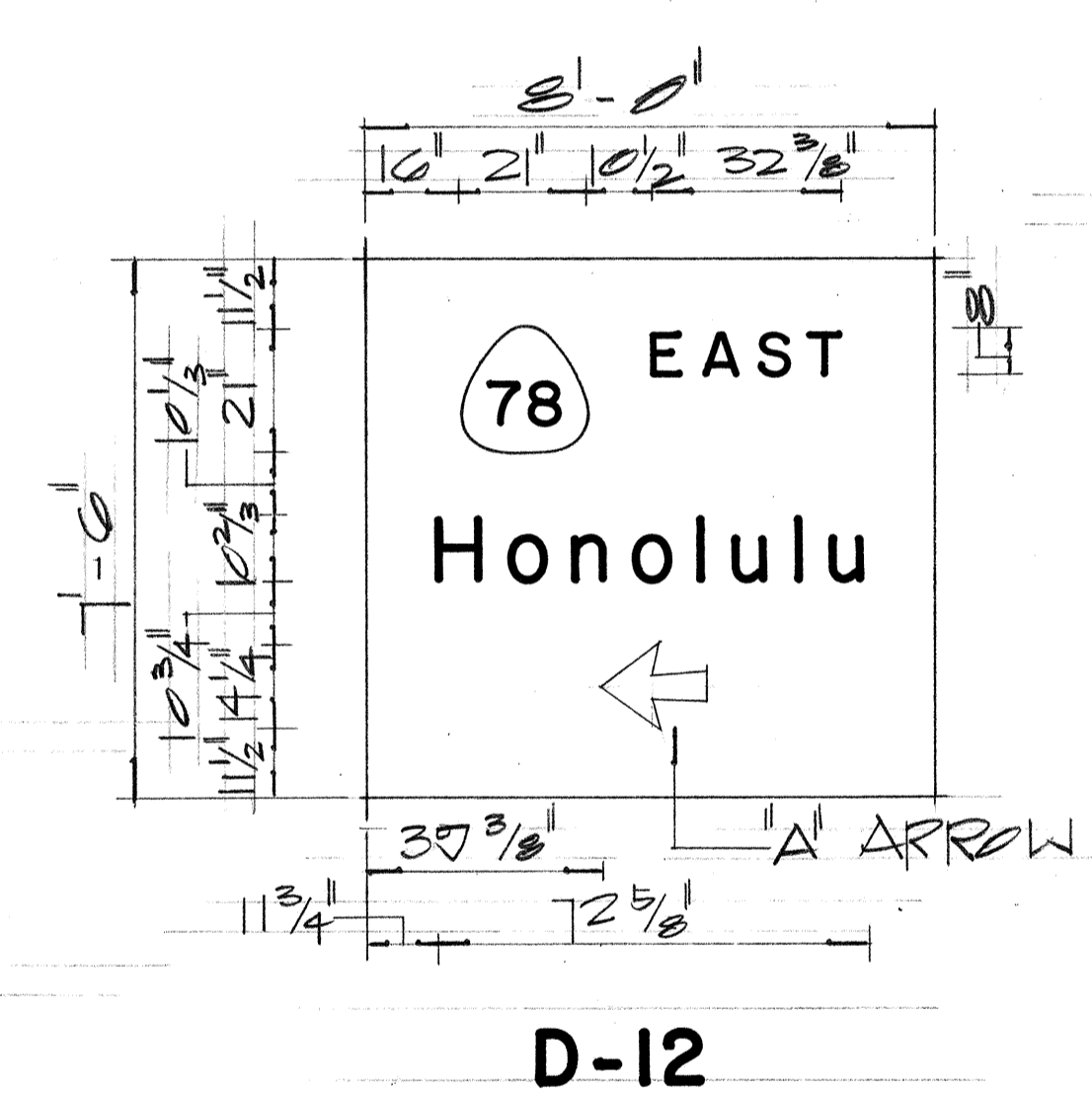
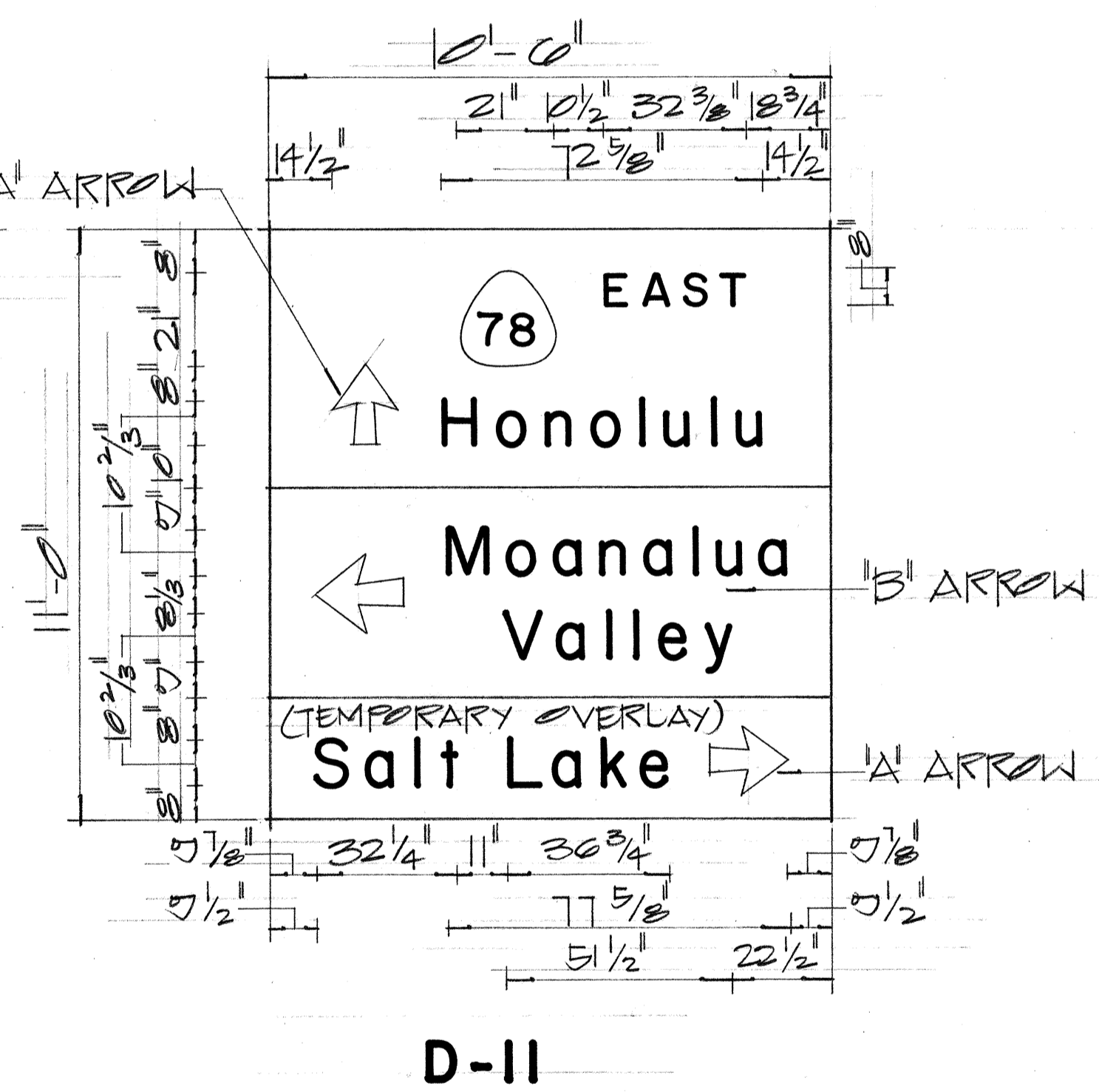
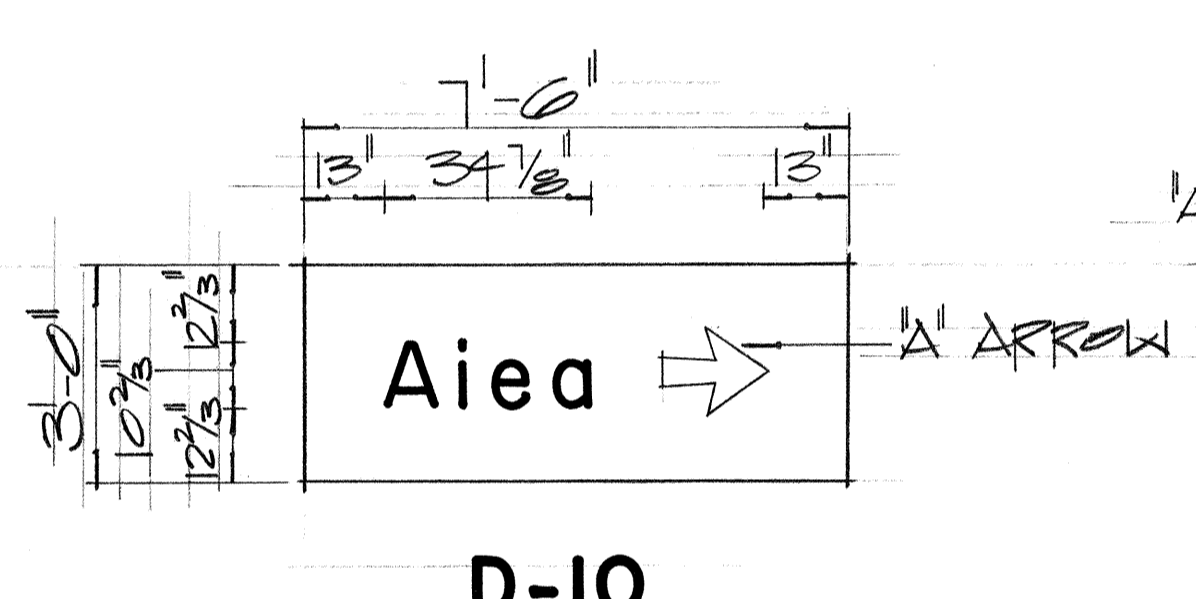
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	104	302



NOTE: TEMPORARY OVERLAY SIZES

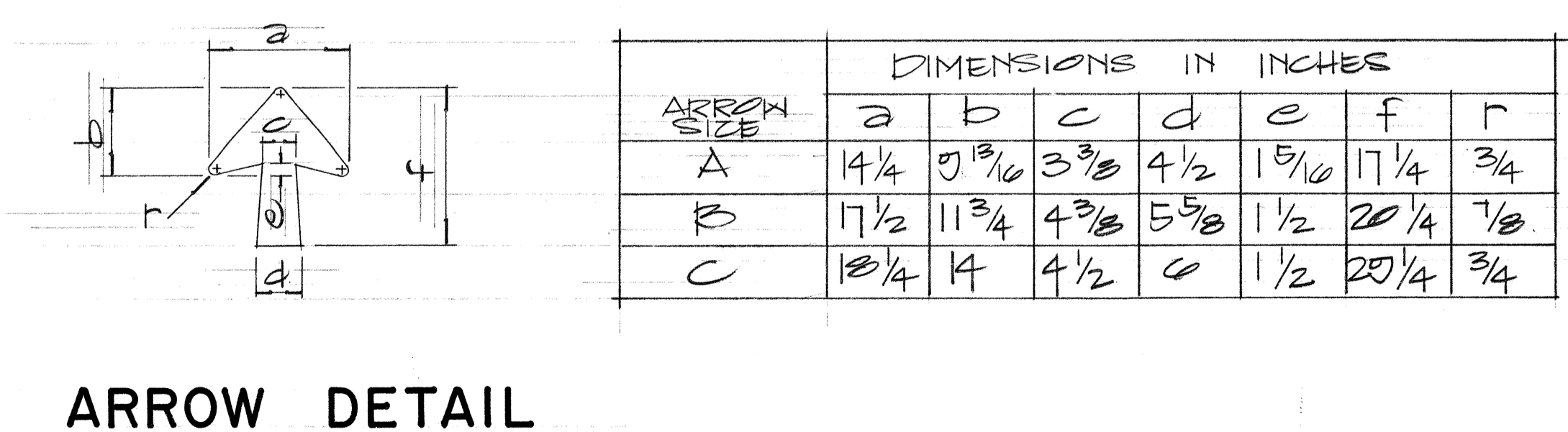
1	D-6	1-5	x	1-2
2	D-8	2-8	x	1-0
3	D-11	2-3	x	1-0

- NOTES:**
- Letters, numerals, borders and arrows shall have white reflective sheeting on aluminum cut-outs on green reflective sheeting background.
 - Sign message shall conform to the modified Series "E" upper and lower case letters as shown in the "Standard Alphabets for Highway Signs", Bureau of Public Roads, 1966.
 - Route markers and borders shall conform with details as shown on the plans.
 - Cut-outs shall be fastened to sign panel with aluminum blind rivets.
 - Temporary overlay panels for signs D-6, D-8 and D-11 shall be 0.025" thick aluminum Alloy 6061 with green reflective sheeting and shall be fastened to sign panel with aluminum blind rivets. The cost for the temporary overlay panels shall be incidental to Item 621.02 "Panel for Destination Sign."



DESTINATION SIGN SUMMARY		
SIGN No.	DESCRIPTION	Sq. Ft.
D-6	Red Hill Moanalua Valley Salt Lake	117.00
D-7	EXIT	30.00
D-8	Moanalua Valley Salt Lake	73.50
D-9	Aiea, Honolulu	76.00
D-10	Aiea	22.50
D-11	Honolulu Moanalua Valley Salt Lake	115.50
D-12	Honolulu	60.00
D-13	Aiea, Honolulu	76.00
TOTAL		494.50

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



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

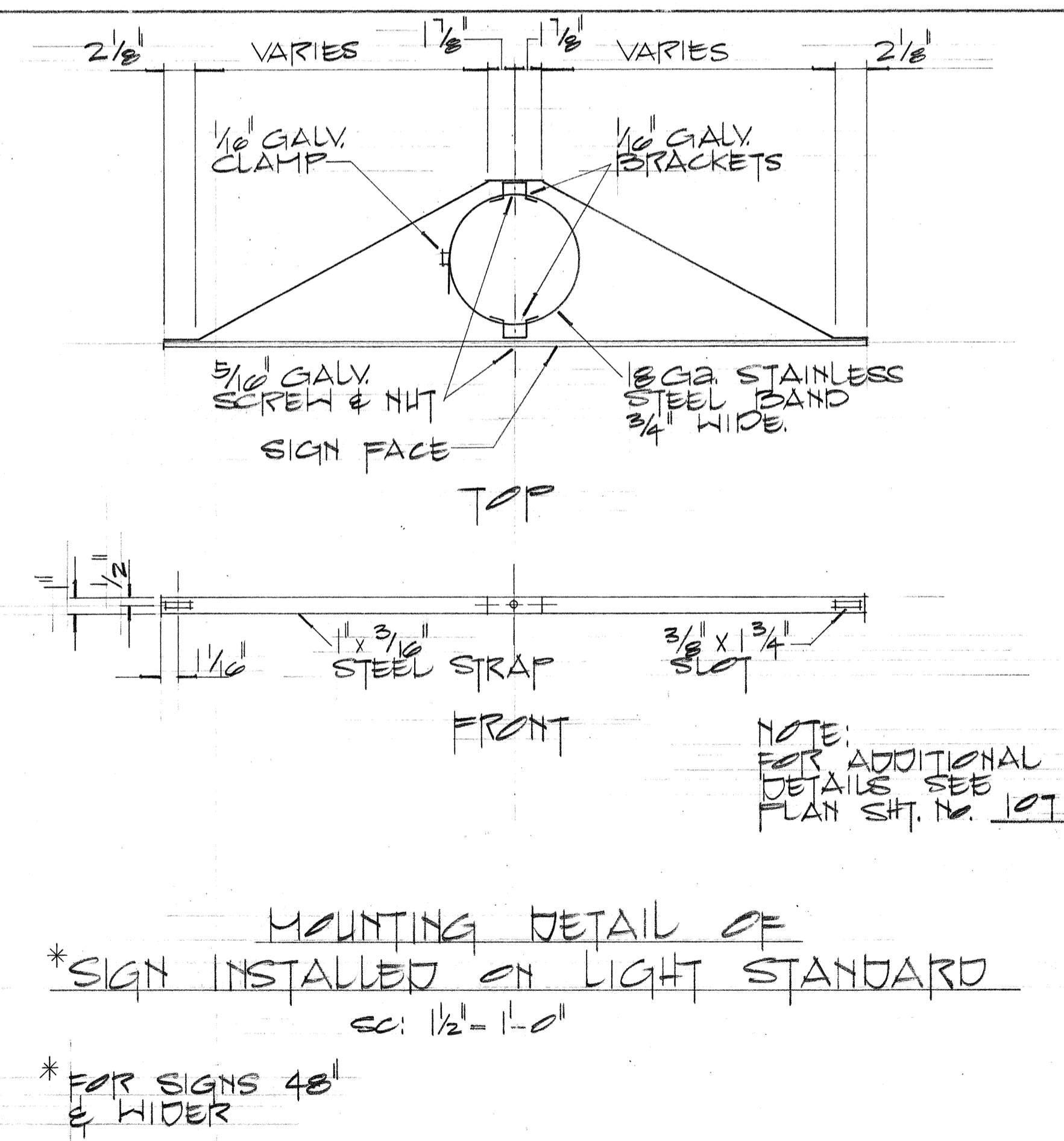
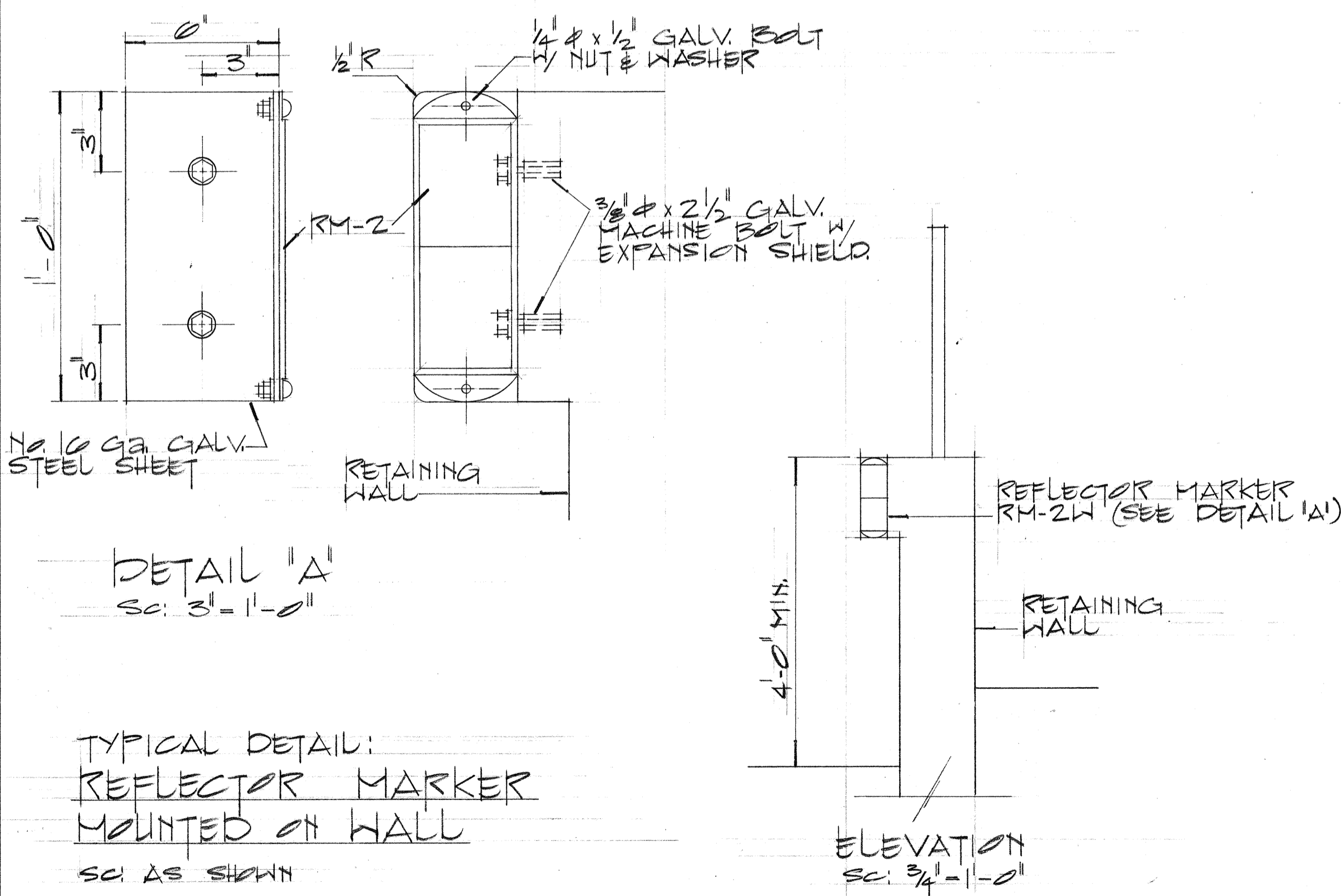
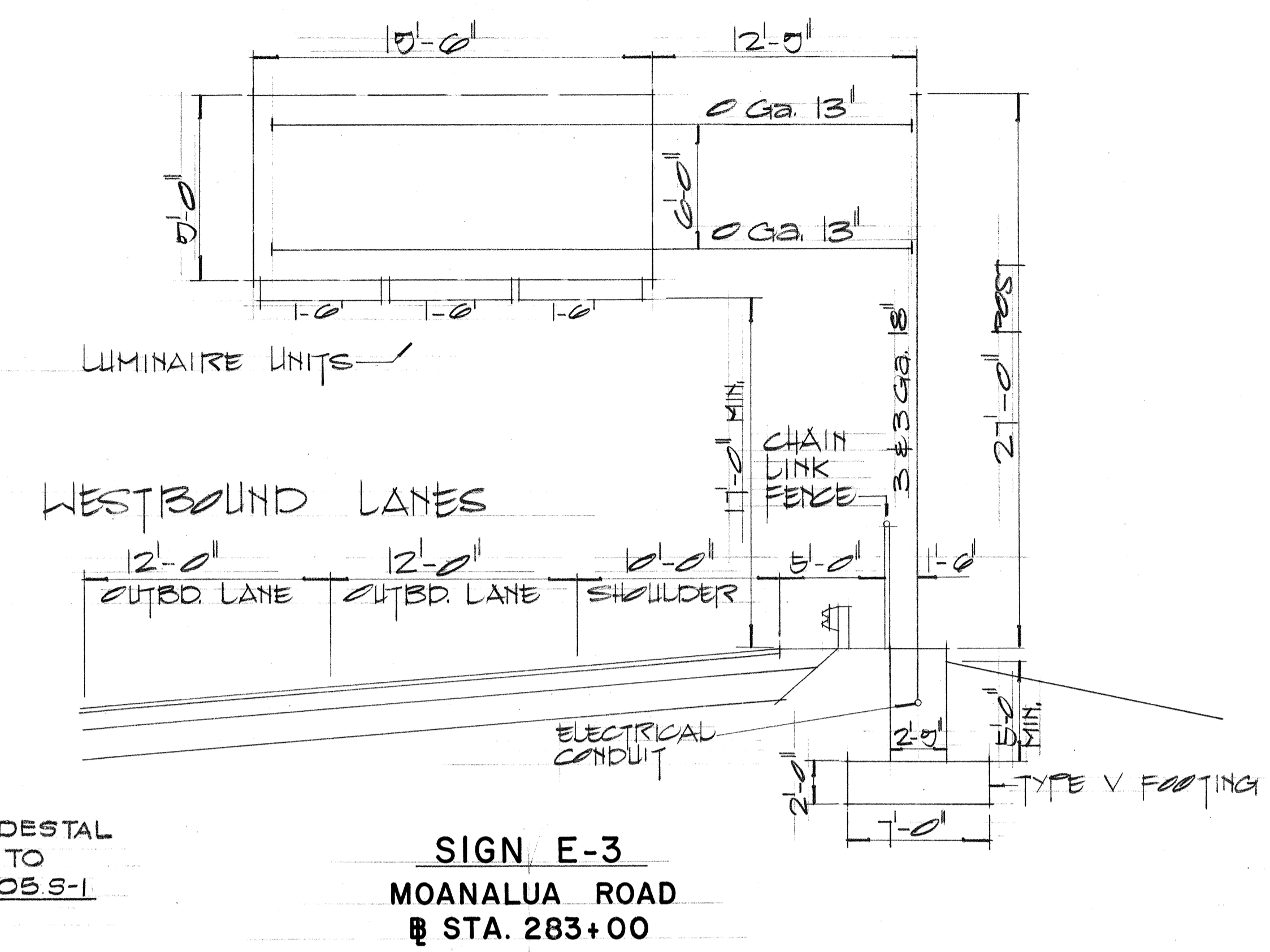
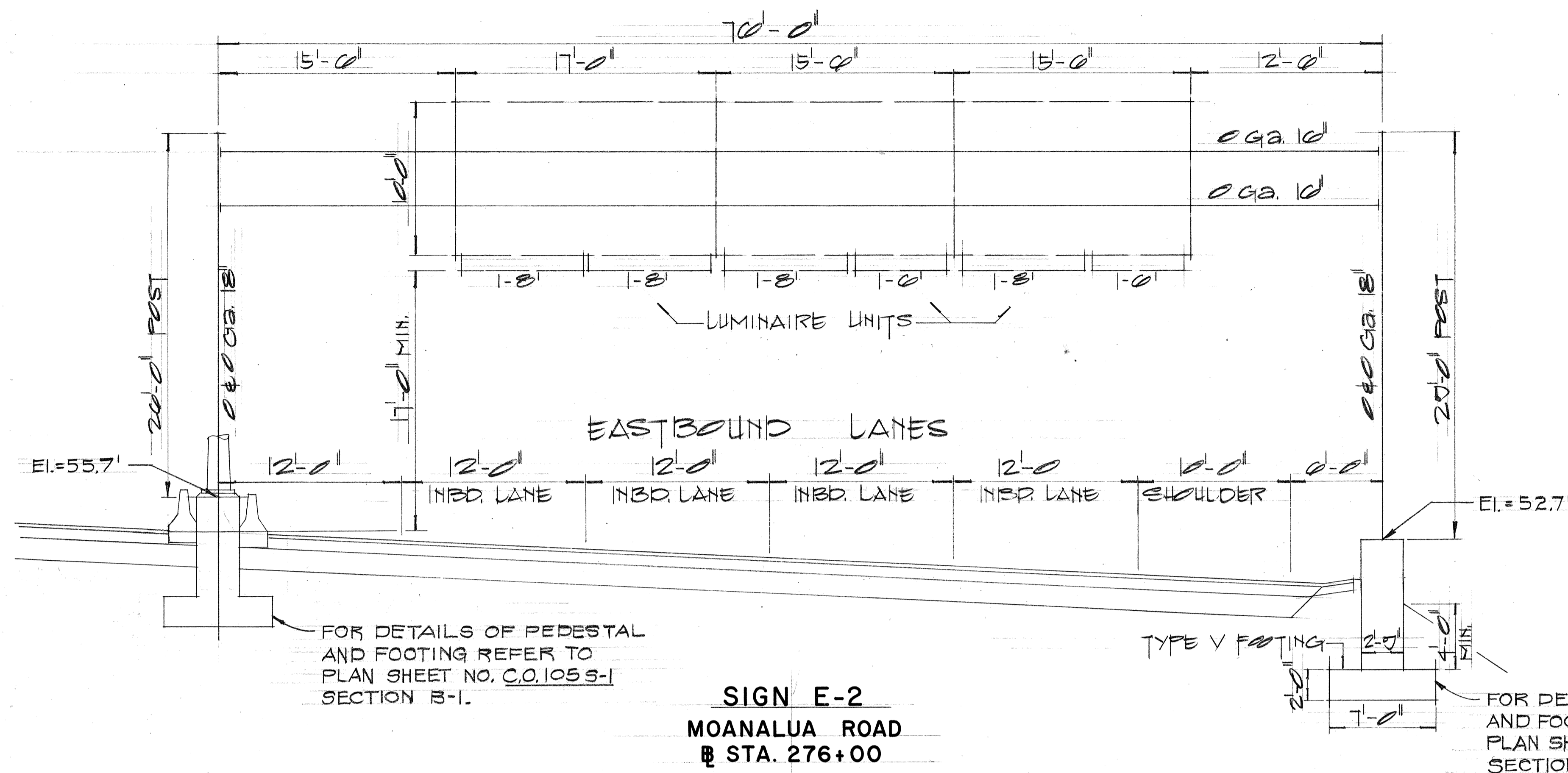
PANEL LAYOUT

MOANALUA ROAD
F.A.P. Proj. No. F-078-1(7)

Scale: As Shown

SHEET No. 6 OF 27 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	105	302



BASE PLATE SCHEDULE

Ga. No.	BASE SIZE	B	C	F	H	P	R	S	T	BOLT DIA.
3-3	18	25 1/2	33	18	3 3/8	8	5 1/2	26 1/2	3	3
20	18	25 1/2	33	18	3 3/8	8	5 1/2	26 1/2	3	3

SEE PLAN SH. NO. 115 FOR BASE PLATE DETAILS

7/19/73 Sign E-2 Footing C.O.#53
DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

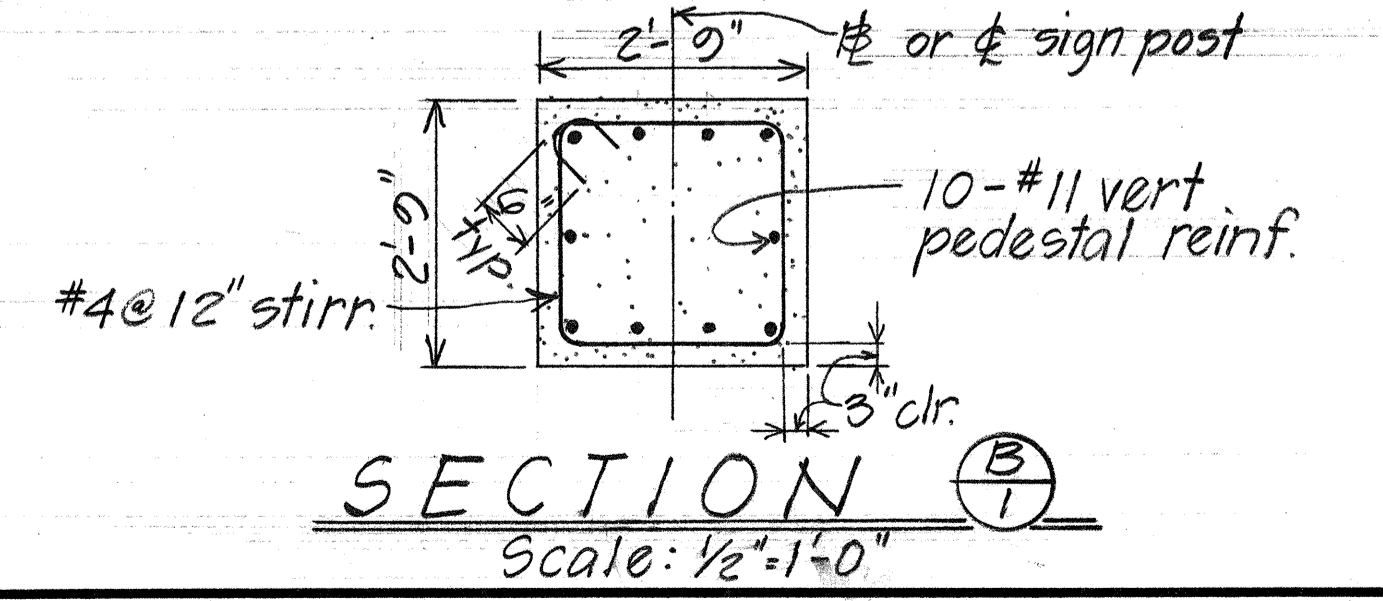
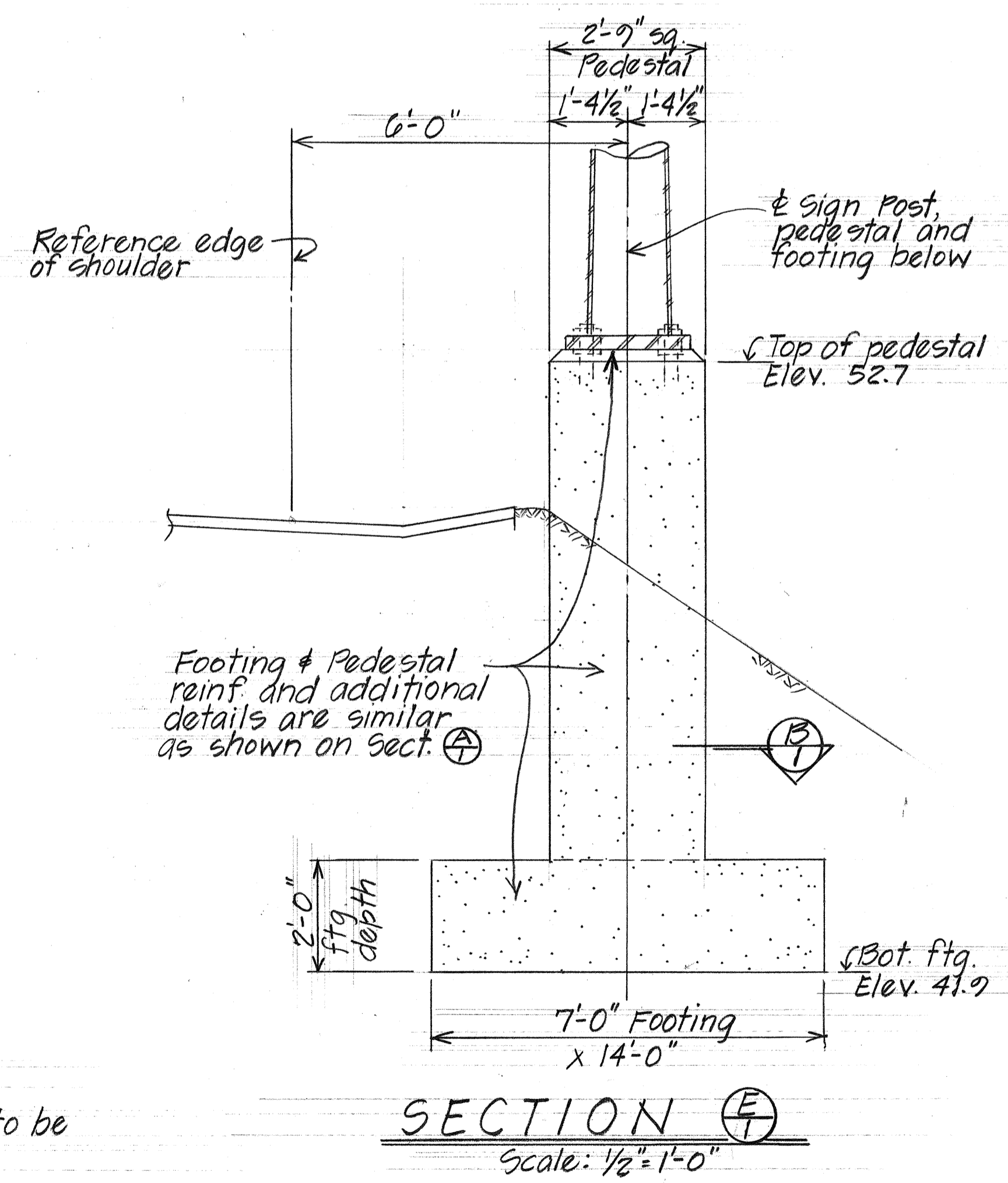
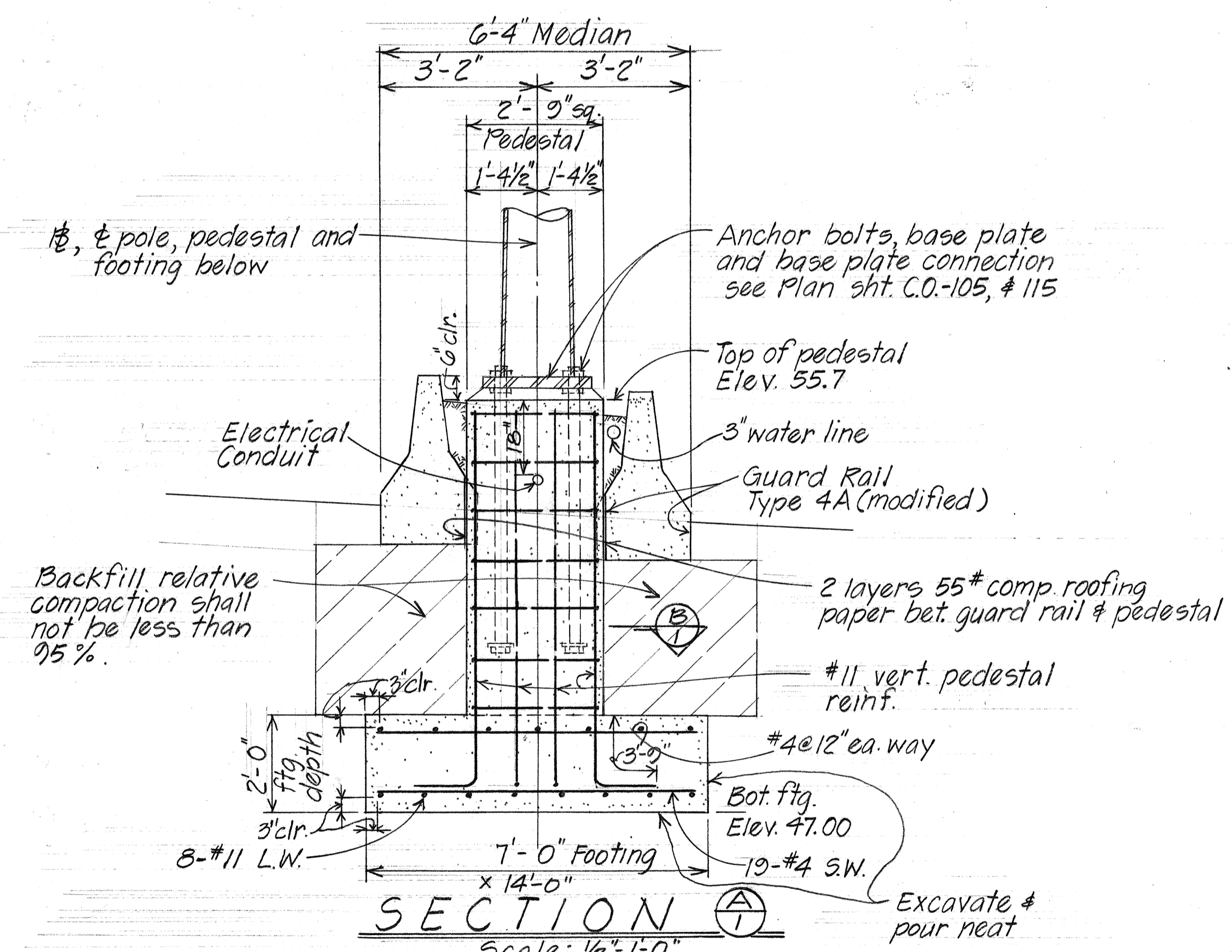
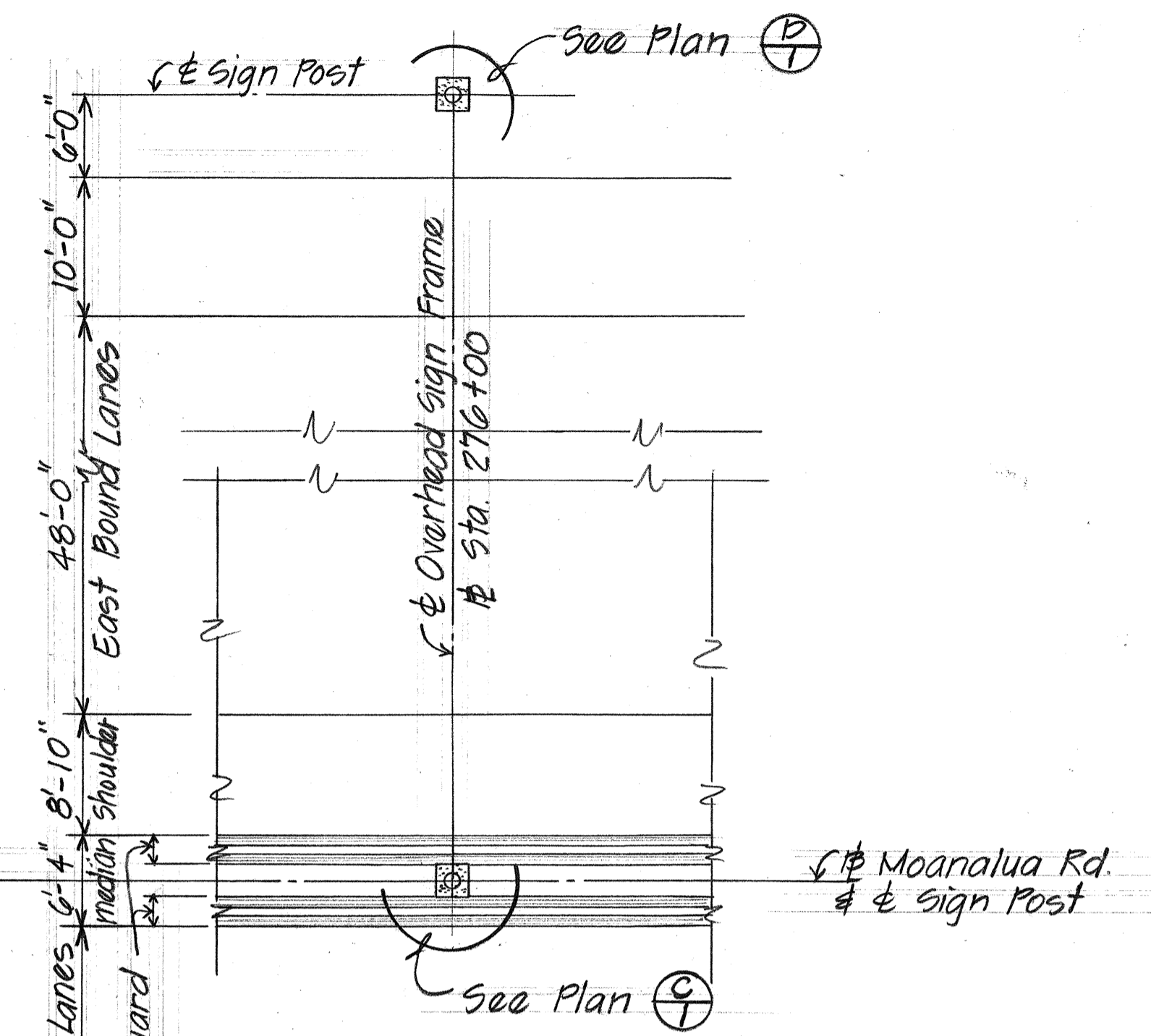
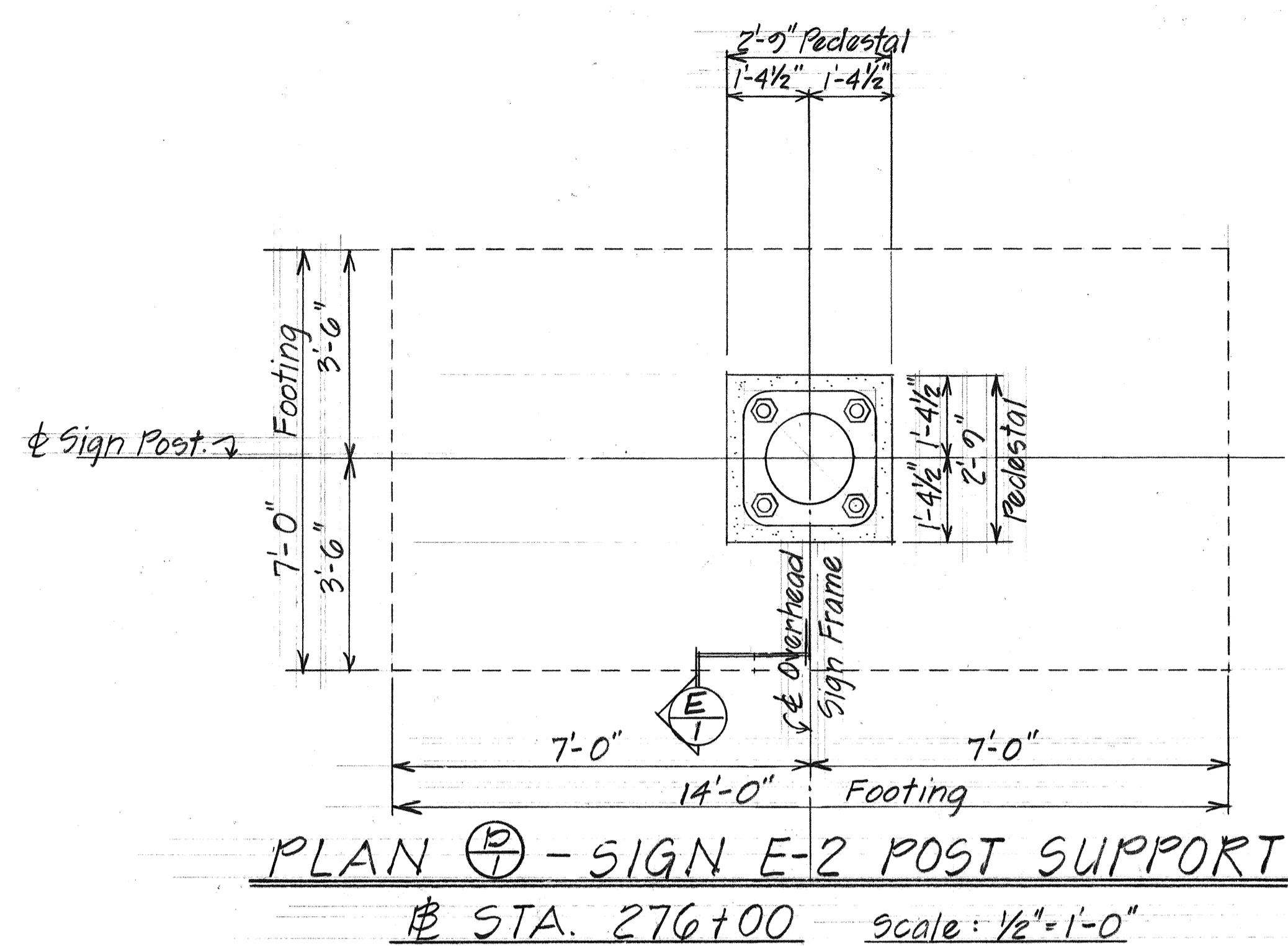
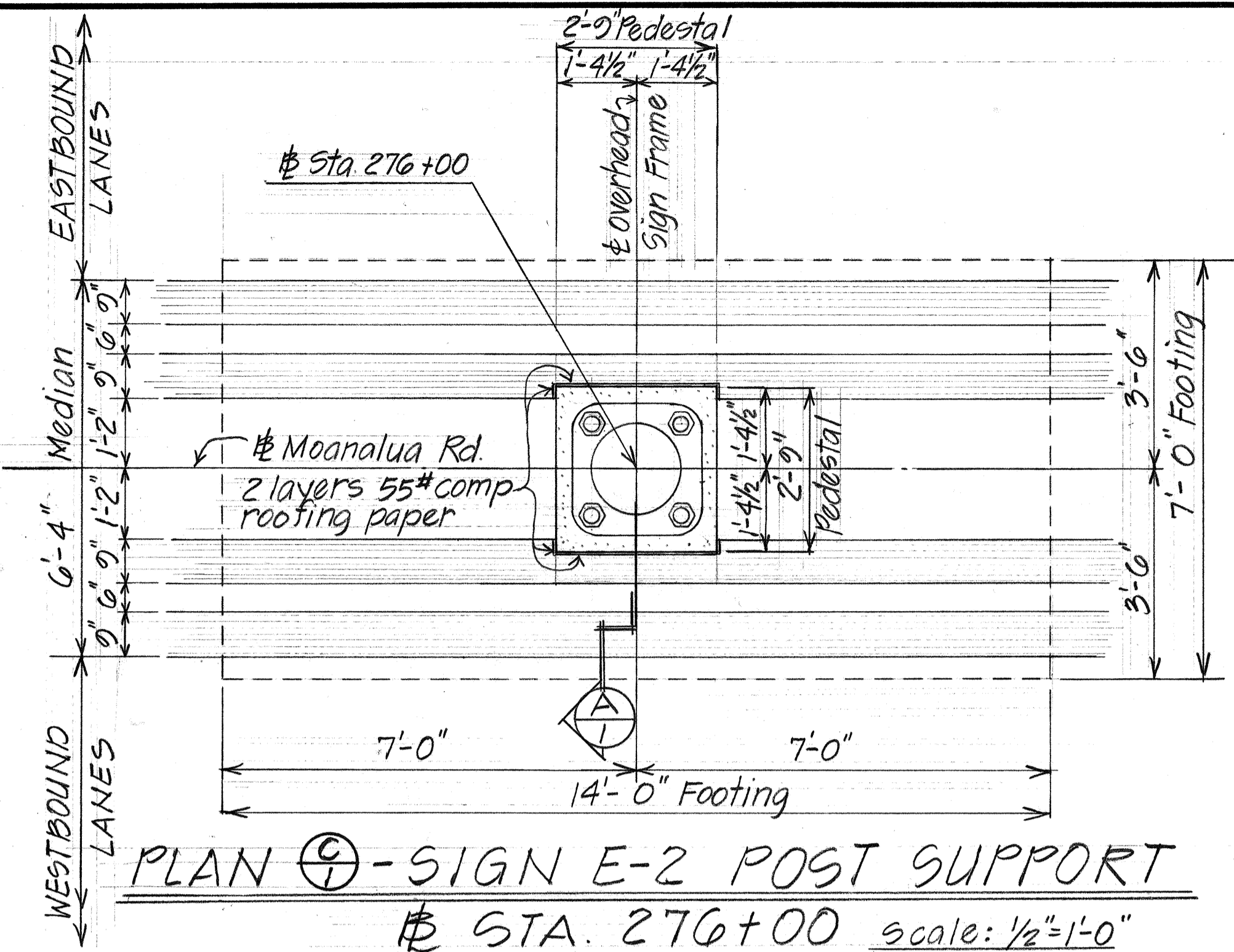
**FRAME LAYOUT
AND MISCELLANEOUS DETAIL**

MOANALUA ROAD
F.A.P. Proj. No. F-078-1(7)

Scale: As Shown

SHEET No. 7 OF 27 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1973	C01055-1	302



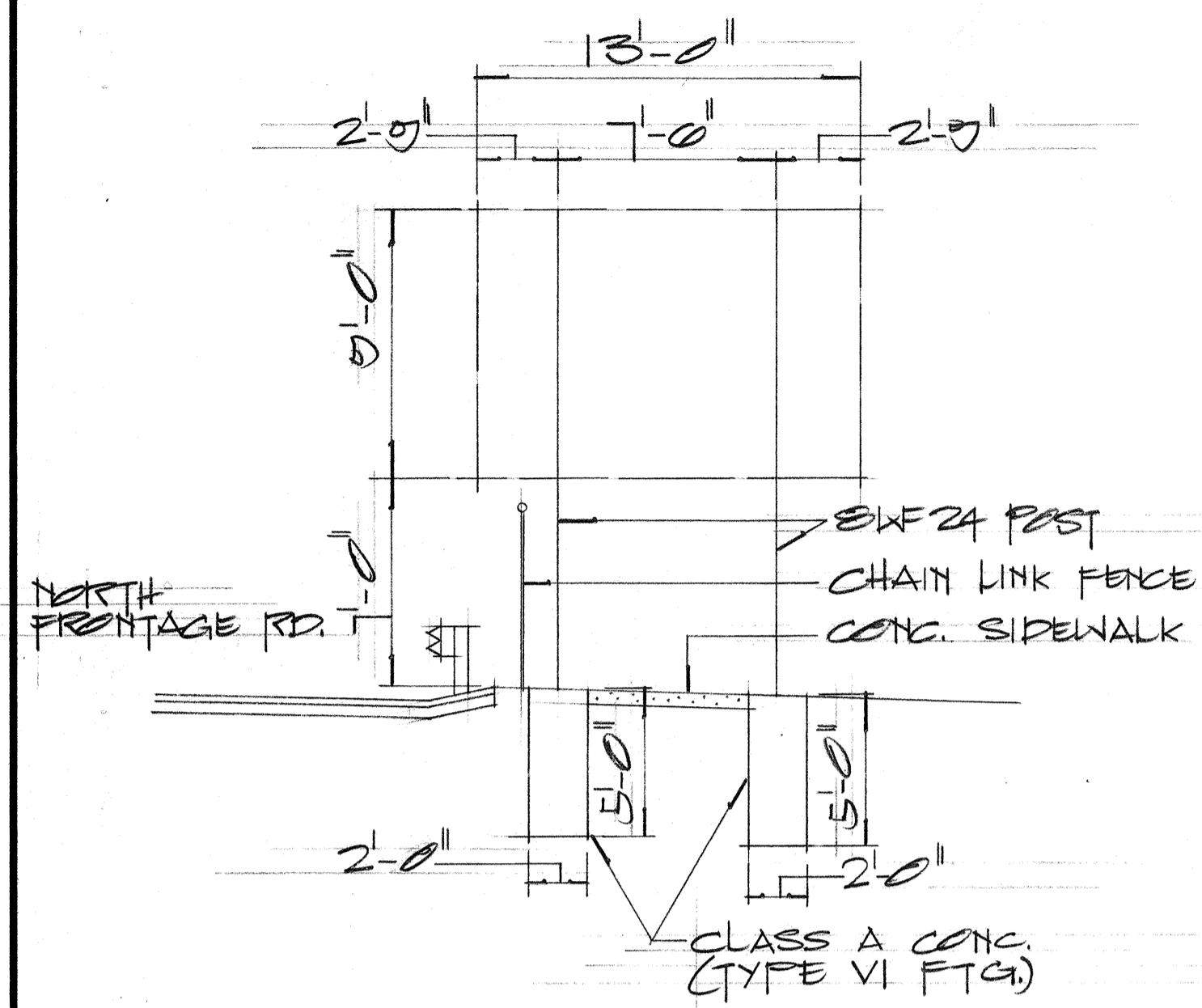
NOTE:
All concrete to be Class A

7/10/73	Supplement sheet for Sign E-2 C.C.O. #53
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
PART FOUNDATION PLAN AND DETAILS - SIGN E-2 MOANALUA ROAD F.A.P. Proj. No. F-078-1(7) Scale: As Shown Date: April 1973	
SHEET No. 1 OF 1 SHEETS	

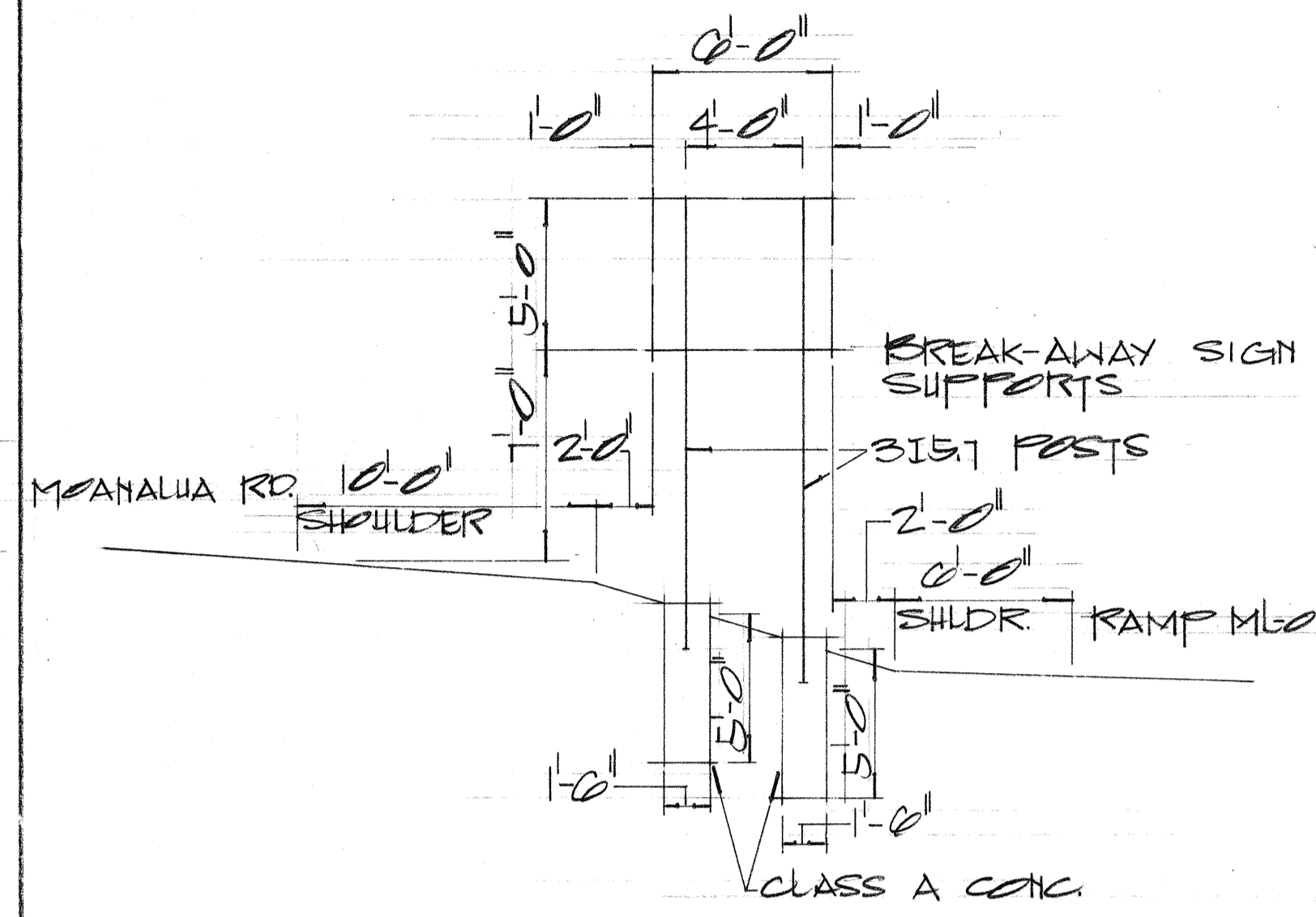
C.O. 105 S-1

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

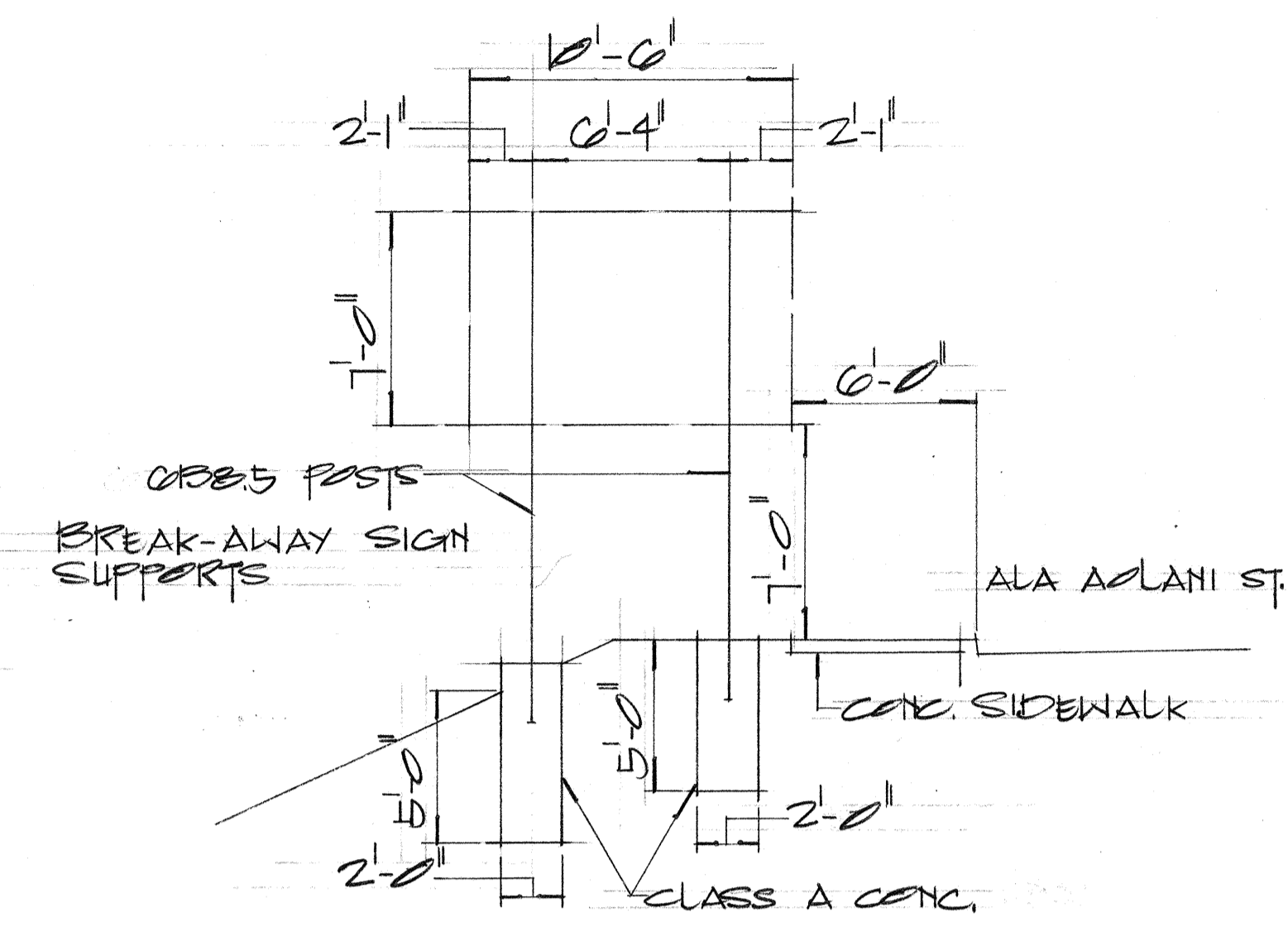
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	106	302



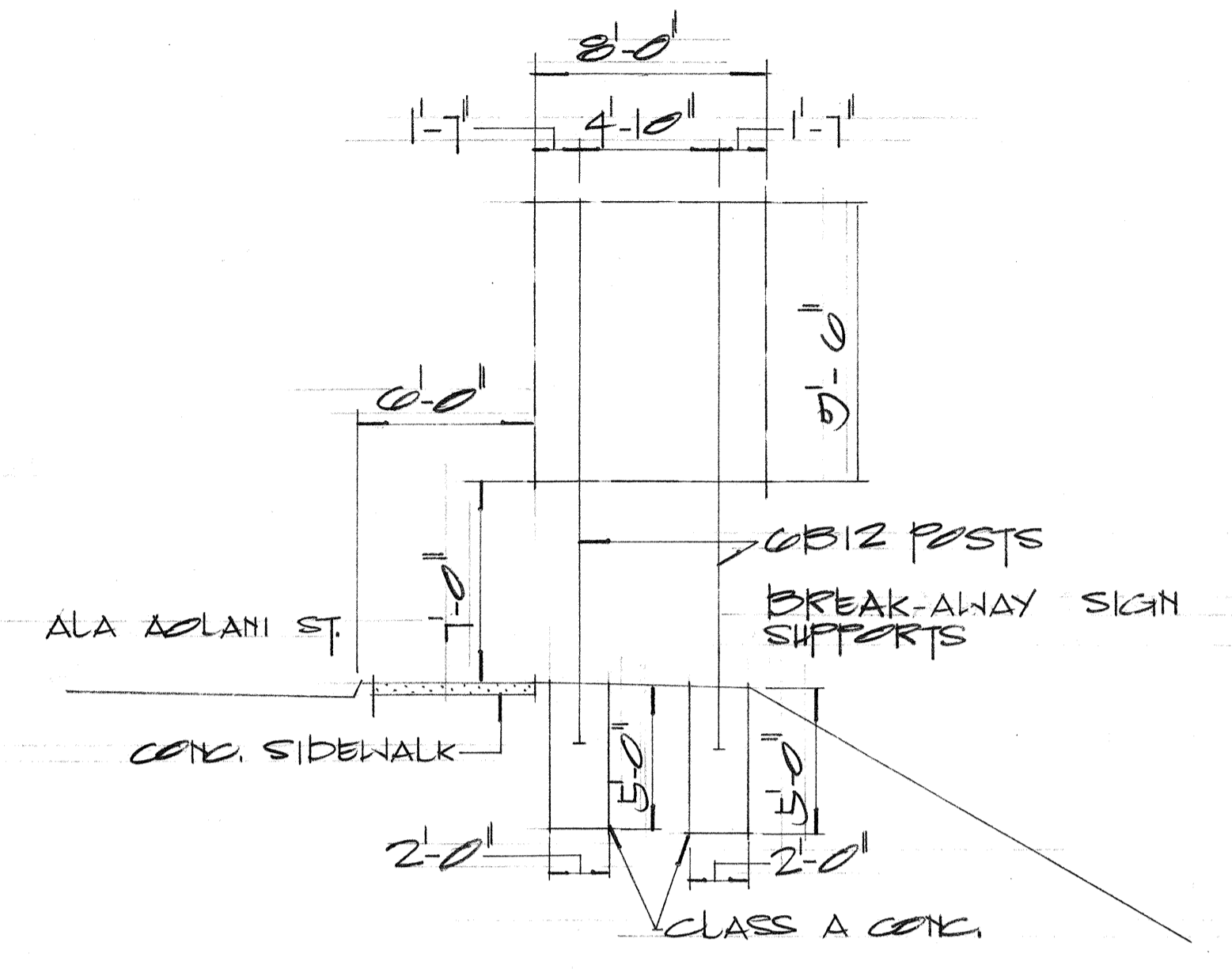
SIGN D-6
NORTH FRONTAGE RD.
STA. 32+30



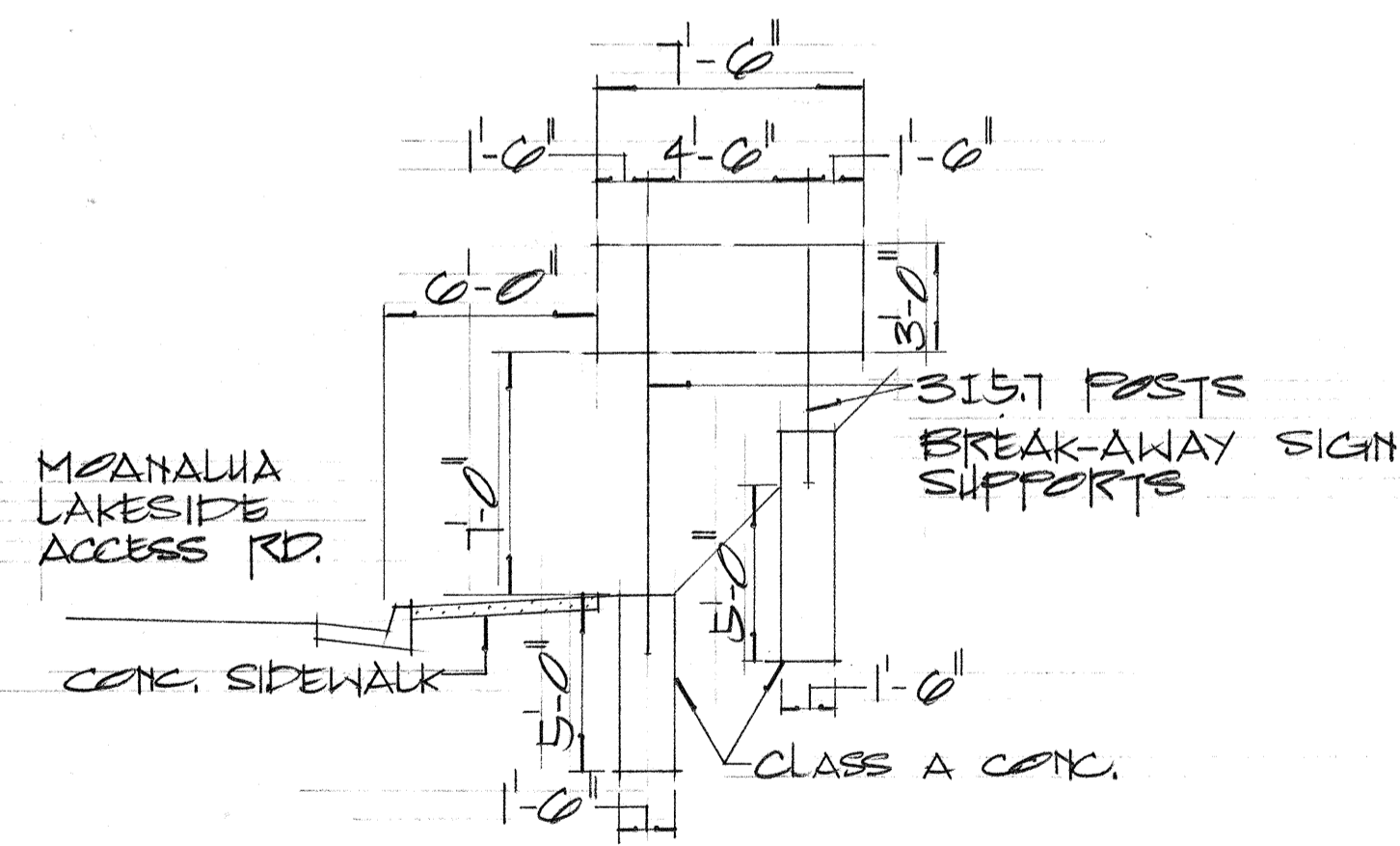
SIGN D-7
MOANALUA RD.
STA. 261+00



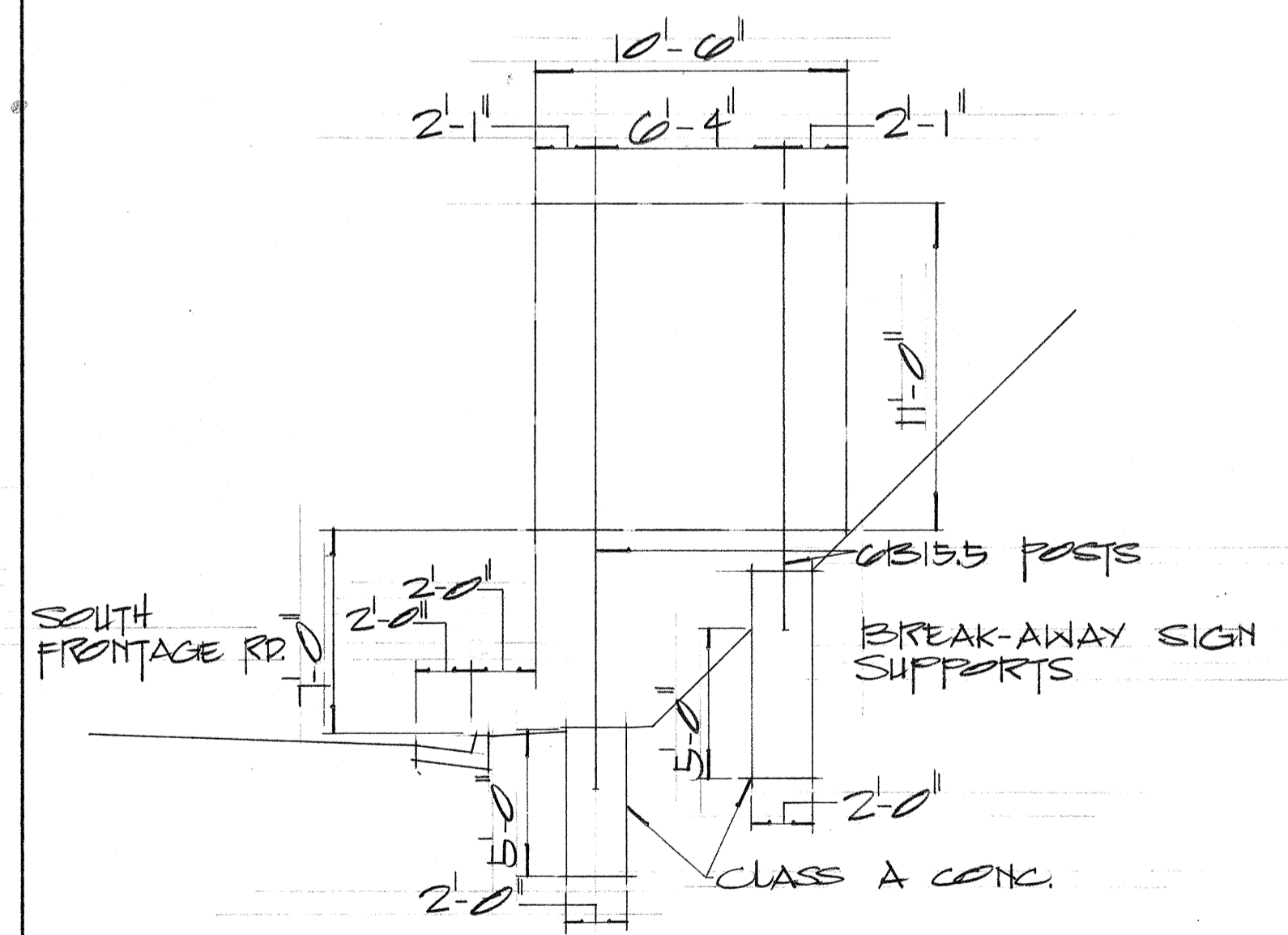
SIGN D-8
ALA AOLANI ST.
STA. 4+00



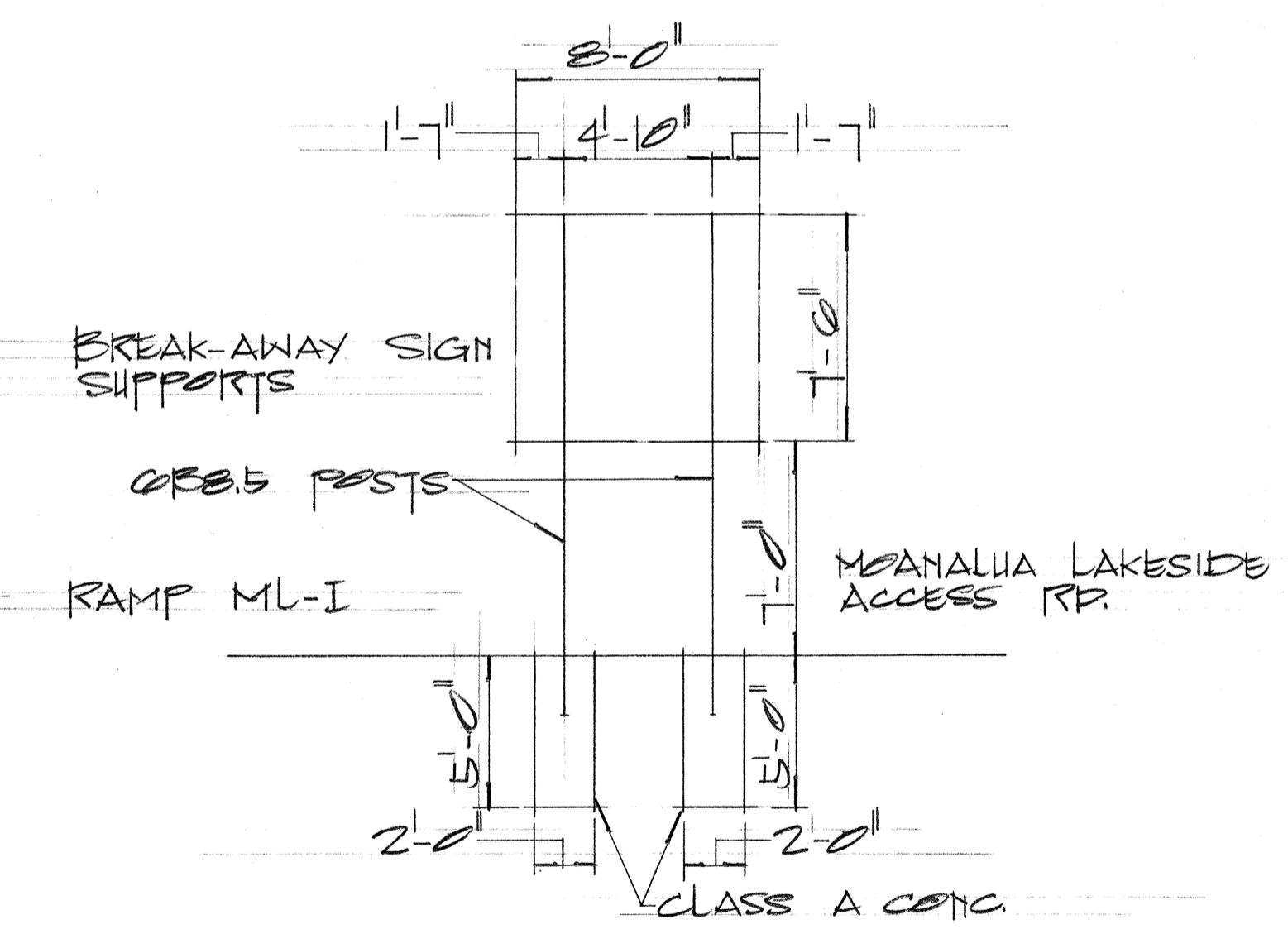
SIGN D-9
MOANALUA LAKESIDE ACCESS RD.
STA. 1+00



SIGN D-10
MOANALUA LAKESIDE ACCESS RD.
STA. 4+40



SIGN D-11
SOUTH FRONTAGE RD.
STA. 28+00



SIGN D-12
RAMP ML-I
STA. 1+00

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
APPROVED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
No.	_____

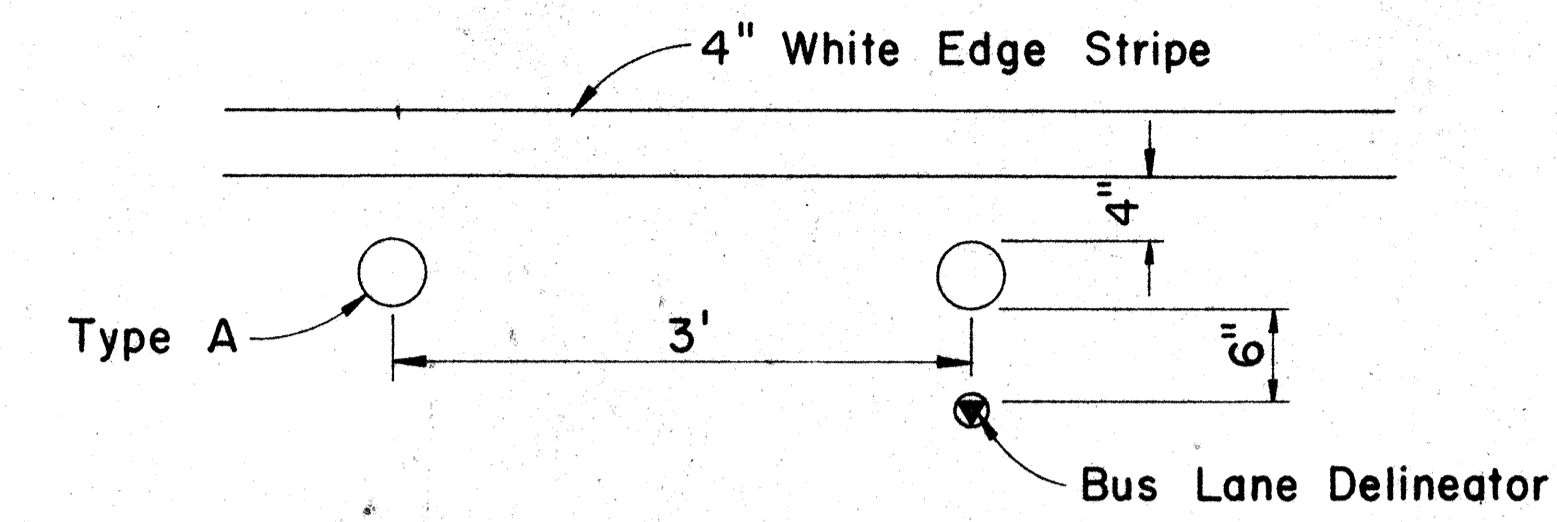
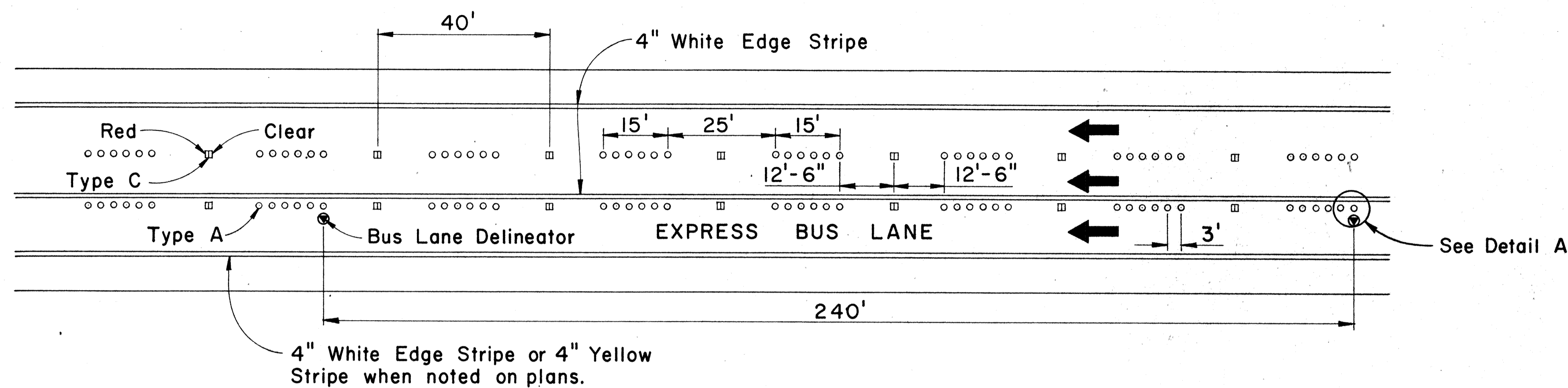
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FRAME LAYOUT

MOANALUA ROAD
F.A.P. Proj. No. F-078-1(7)

Scale: As Shown
SHEET No. 8 OF 27 SHEETS

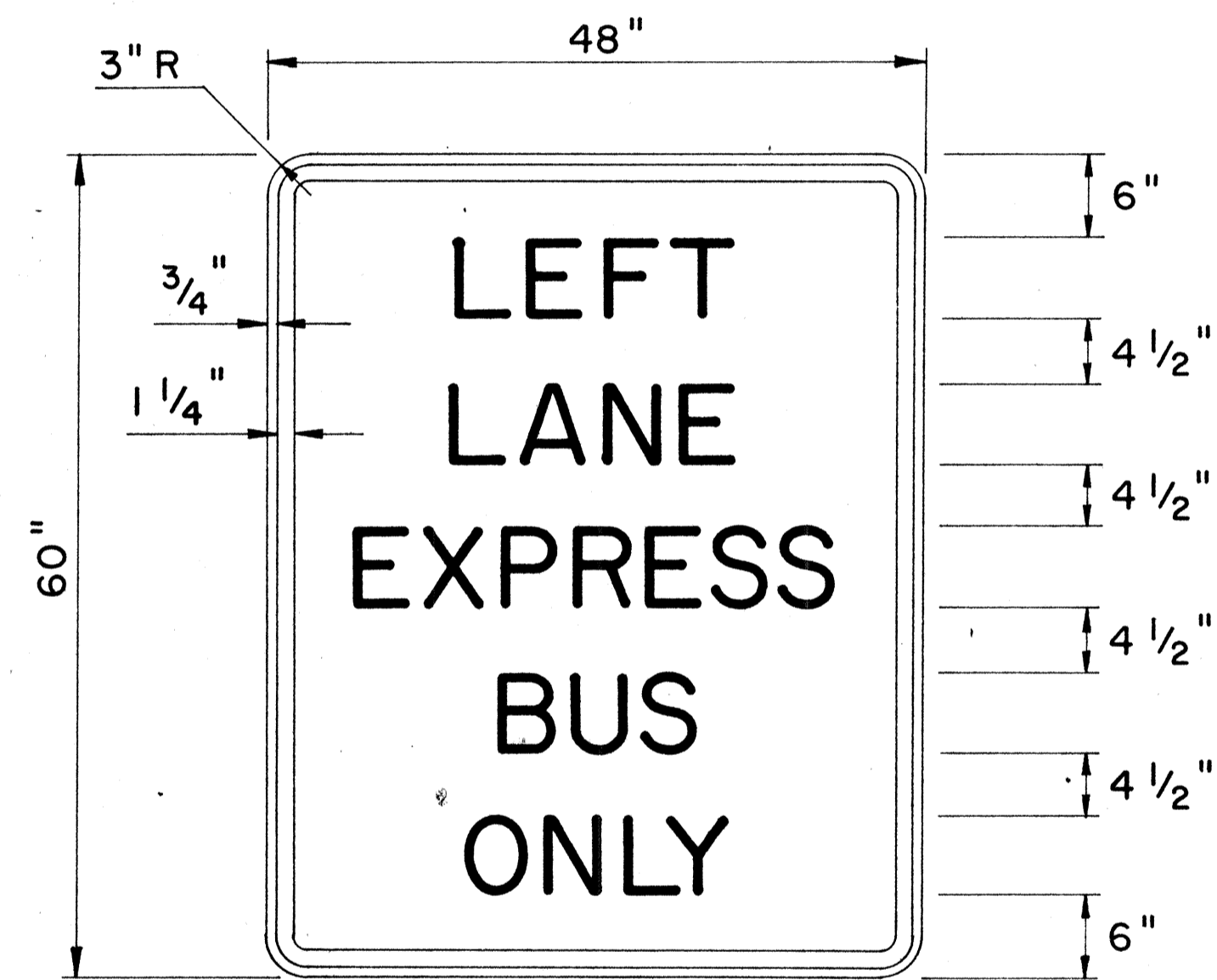
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	C010651	302



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

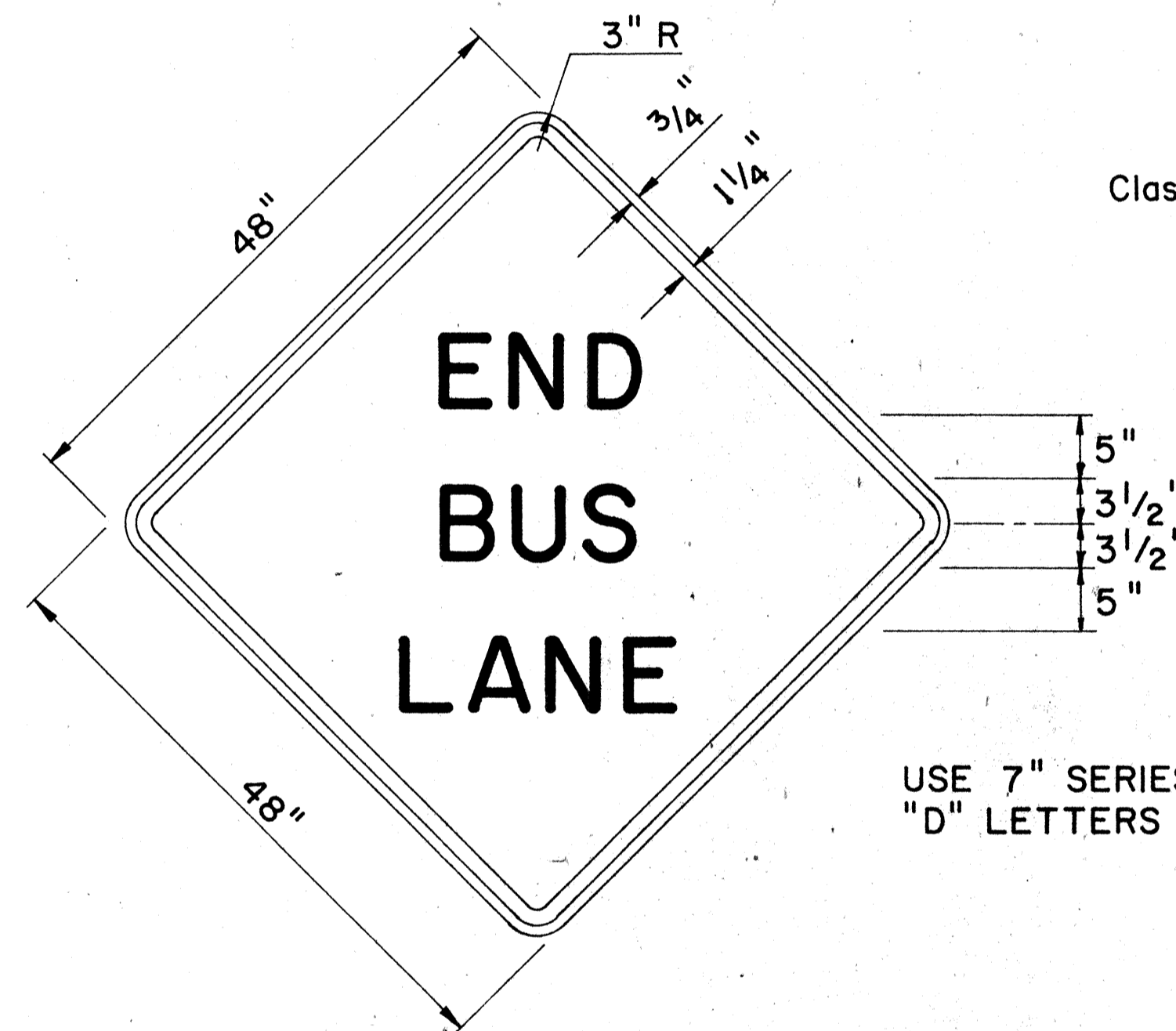
FREWAY LANE LINES WITH EXPRESS BUS LANE

Not To Scale



R17-2

USE 6" SERIES "D" LETTERS



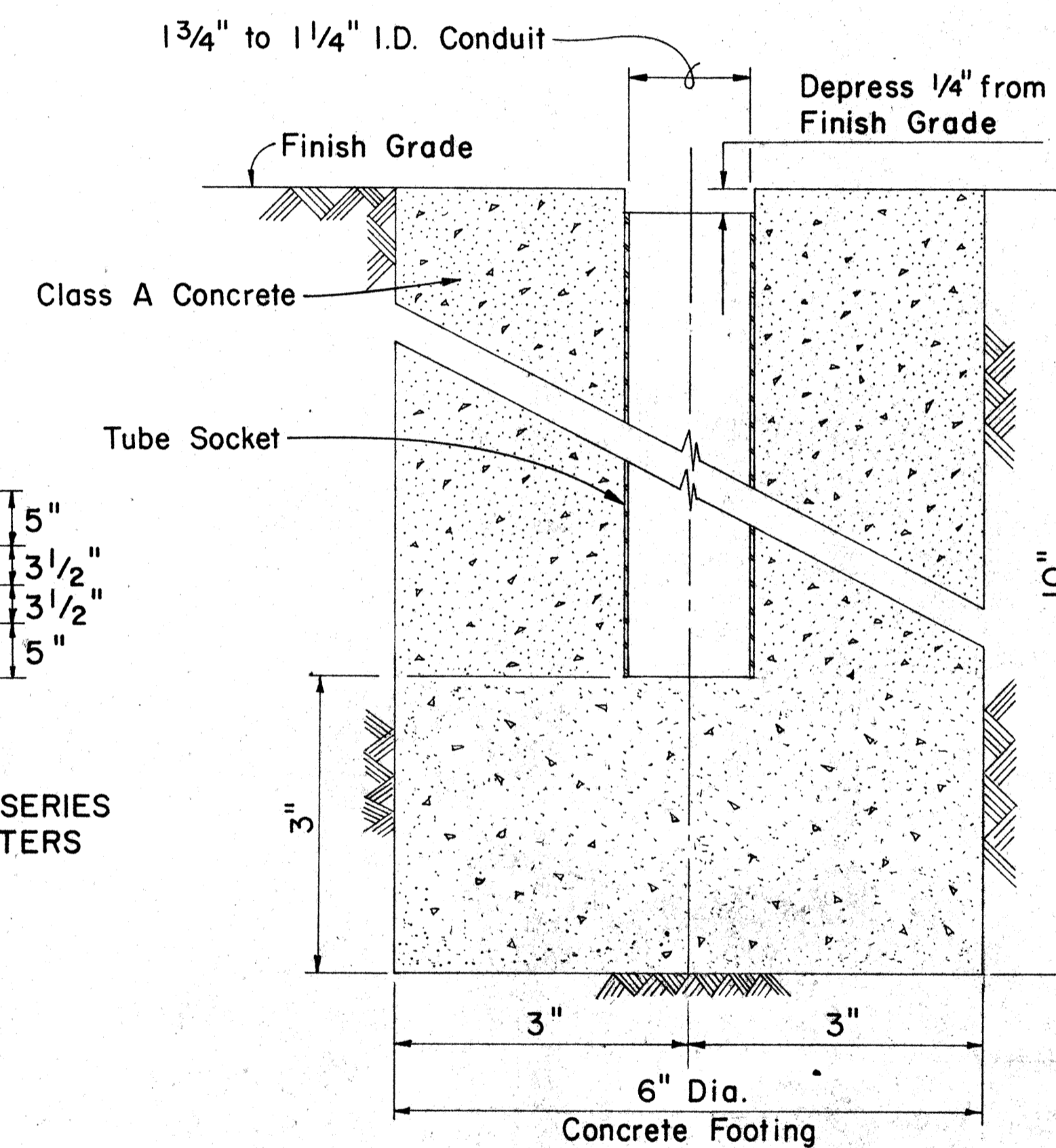
W15-3

USE 7" SERIES "D" LETTERS

MISCELLANEOUS REGULATORY & WARNING SIGNS

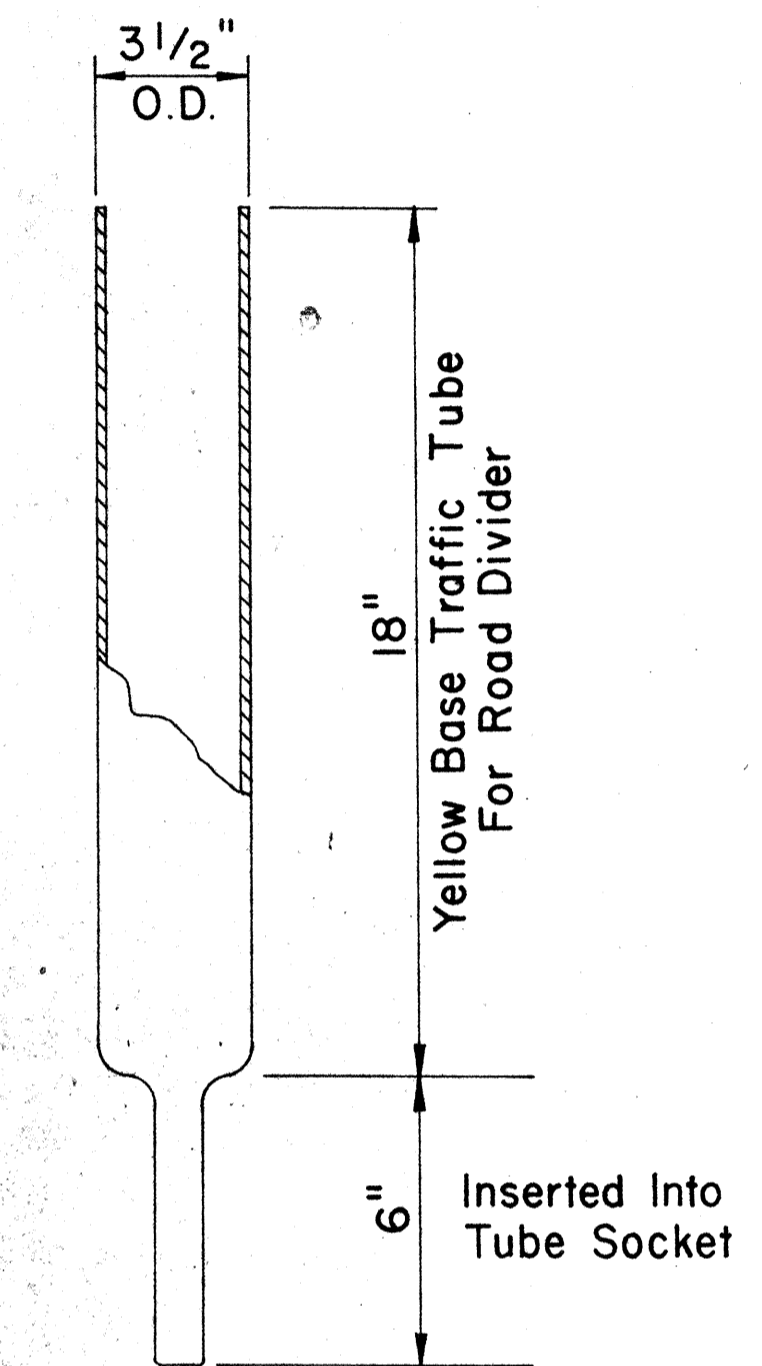
GENERAL NOTES:

1. Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs."
2. Regulatory Sign (R17-2) and Warning Sign (W15-3) shall be reflectorized unless otherwise specified and shall have 3/8" bolt holes drilled at appropriate locations.
3. For Mounting Details see Standard Detail Sheet (DT-100) and Detail on sheet no. C.O. 106 S-2
4. Contractor to check for snug fit of Bus Lane Delineator in Tube Socket prior to installation.



TUBE SOCKET

Scale: 3/4" = 1"



DETACHABLE BUS LANE DELINEATOR

Scale: 1/4" = 1"

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

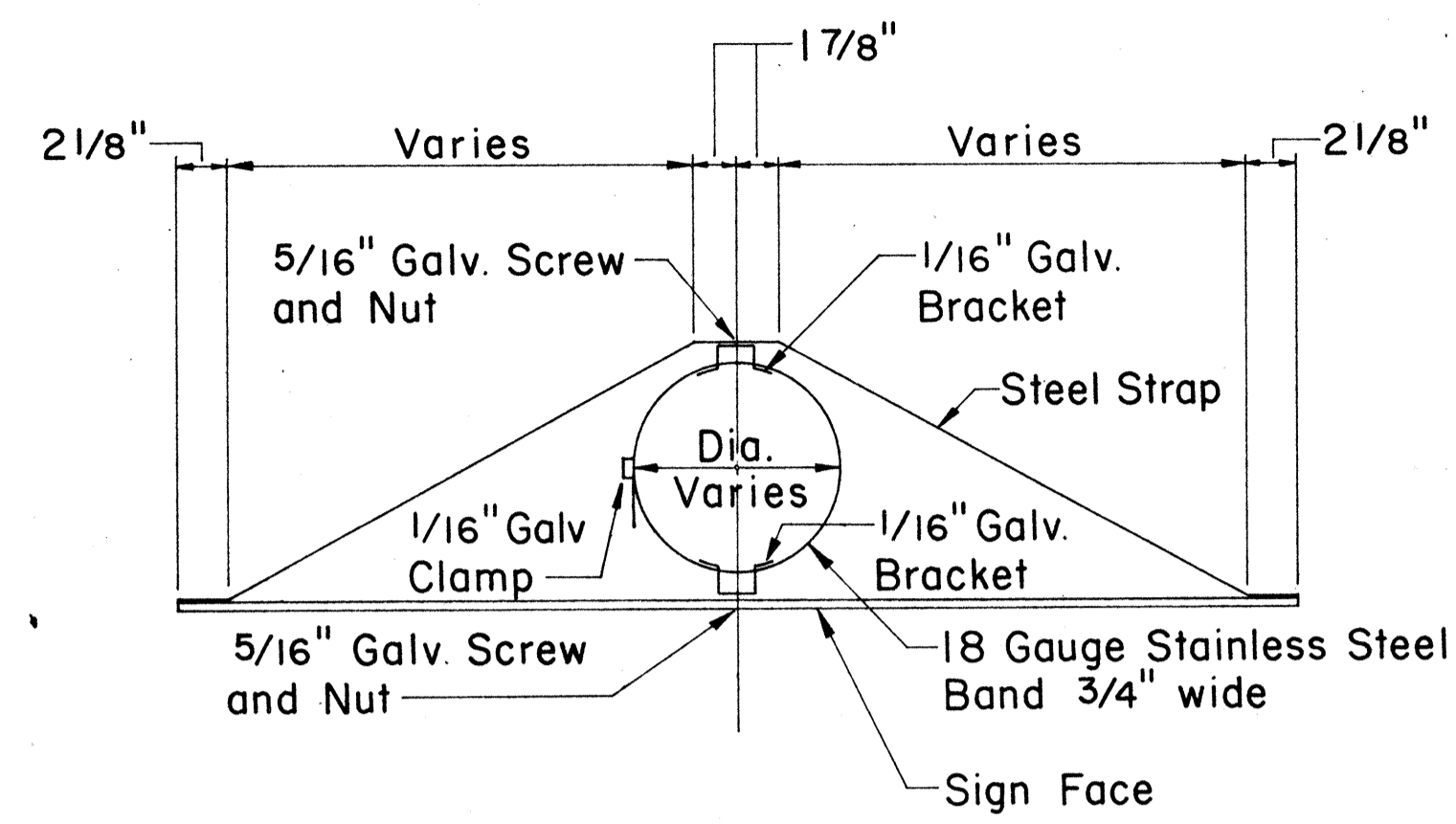
MISC. PAVEMENT MARKING AND SIGNING DETAILS

MOAHALUA ROAD
FAP PROJ. No. F-078-1(7)

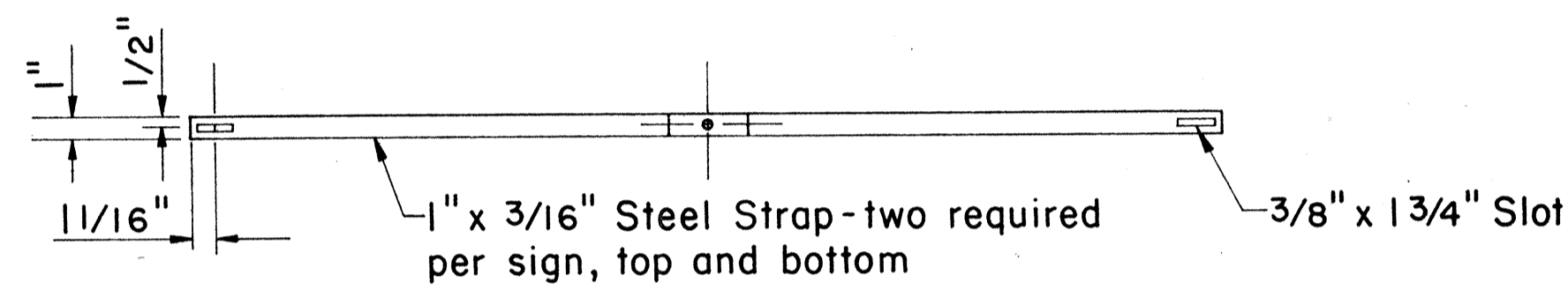
Scale: As Noted

SHEET No. 8A OF 27 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	C0106S-2	302



TOP



FRONT

MOUNTING DETAIL FOR SIGNS R17-2 AND W15-3

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS
SIGNING DETAIL

MOANALUA ROAD
FAP PROJ. No. F-078-1(7)

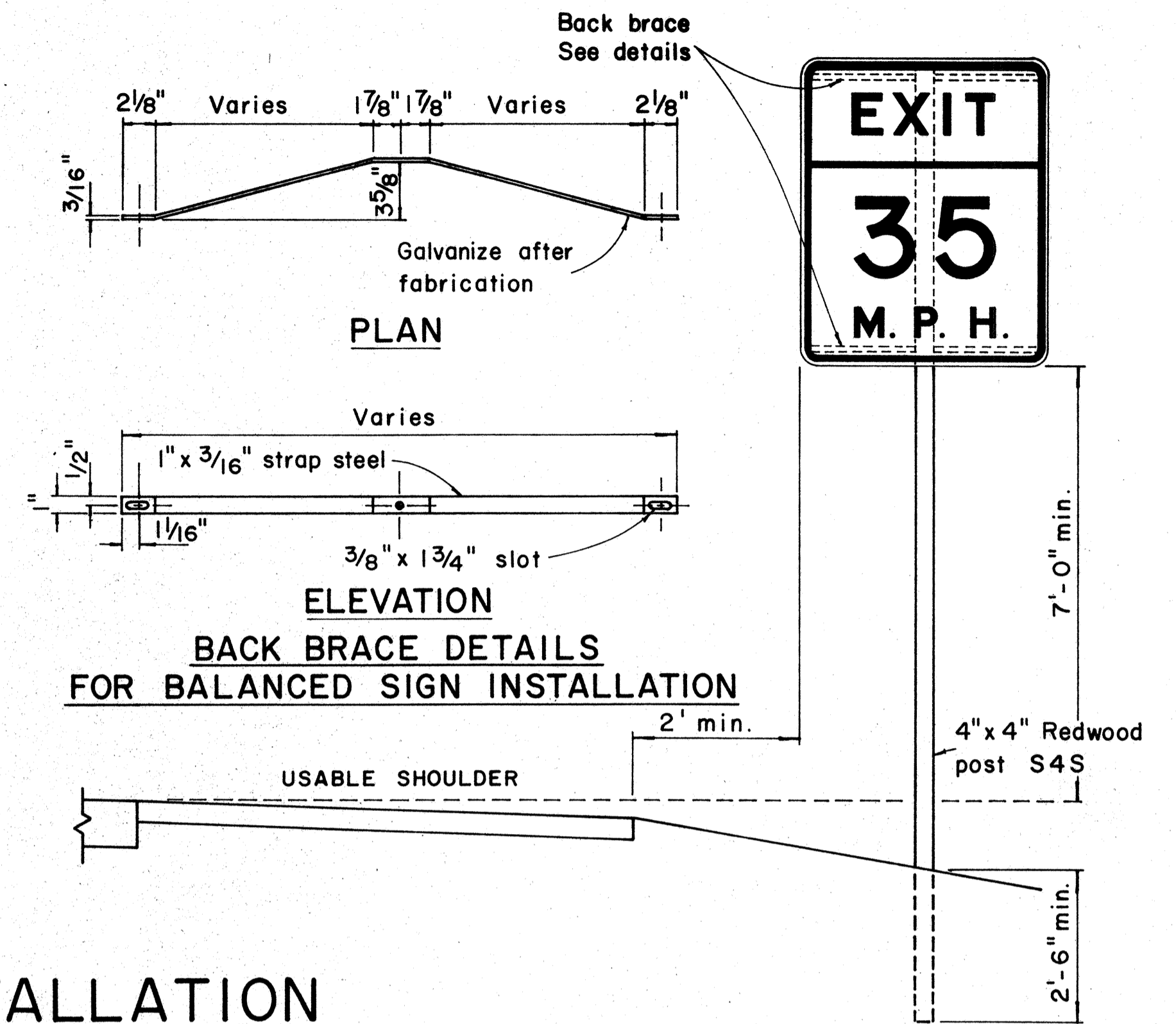
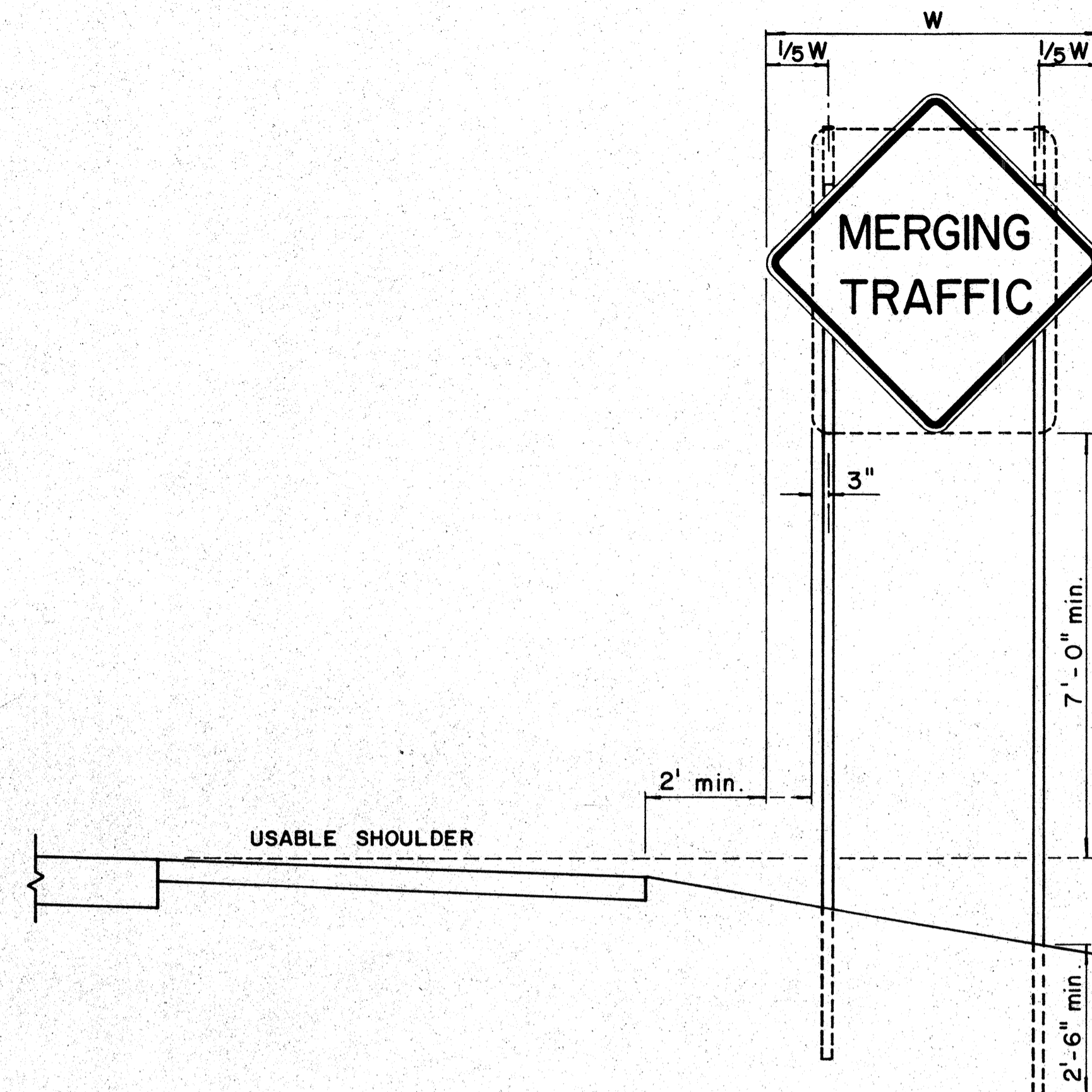
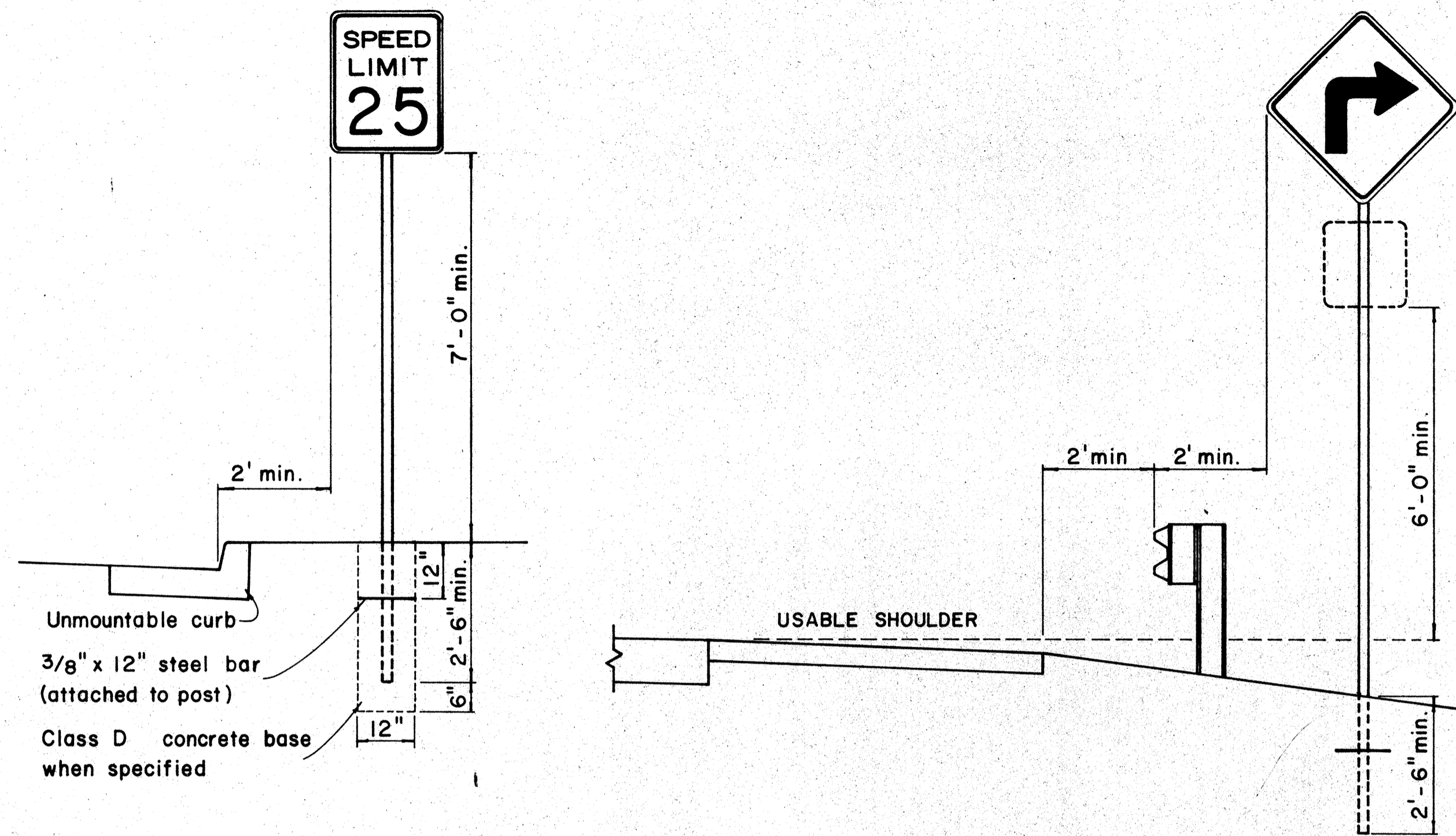
SCALE: AS NOTED

SHEET No. 88 OF 27 SHEETS

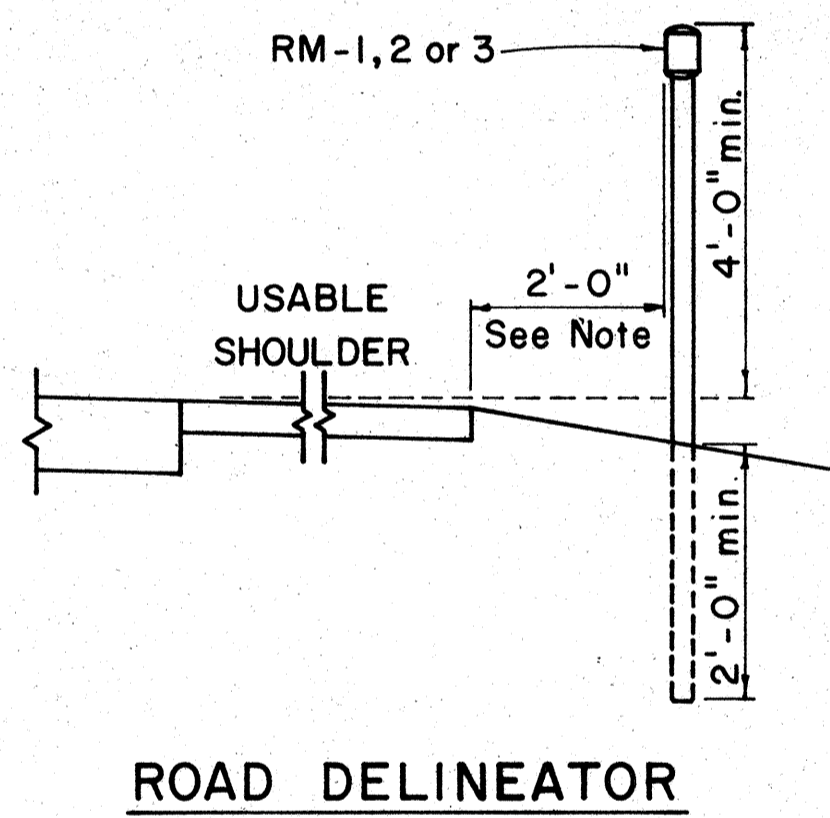
C.O.106 S-2

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	107	302

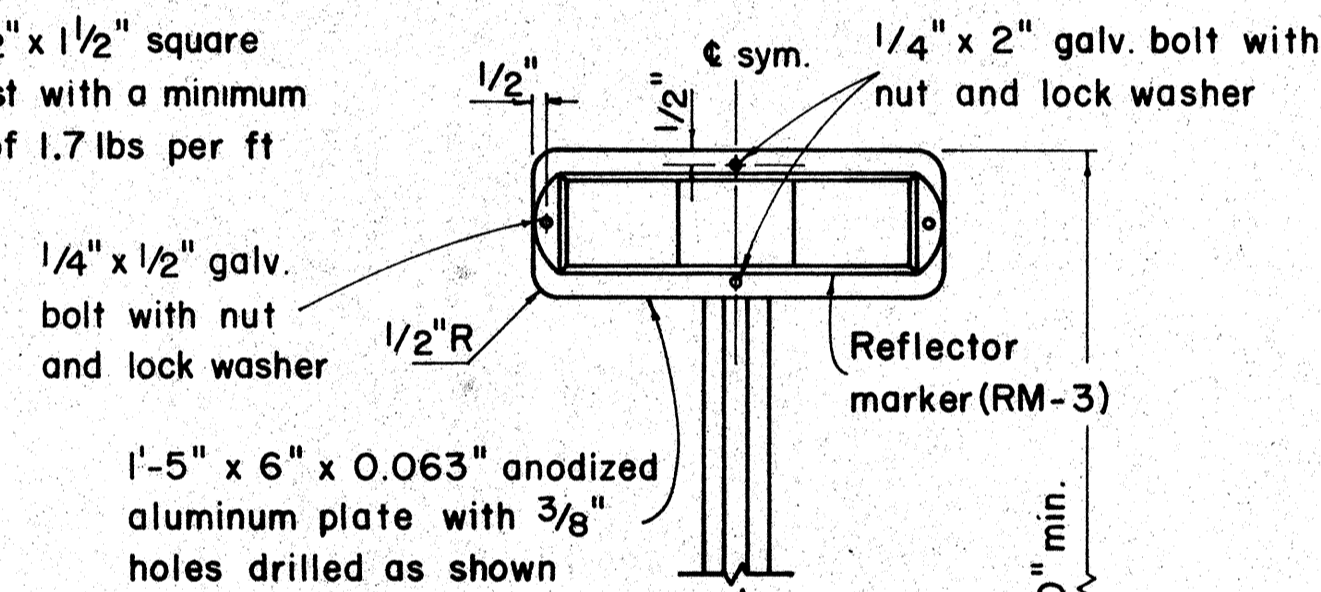
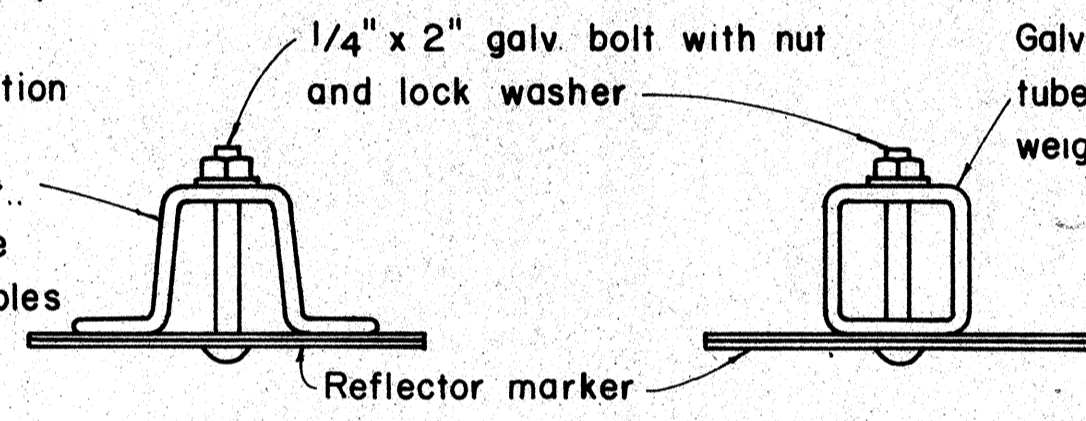


HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATION

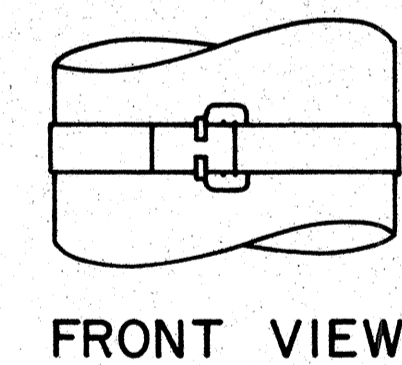
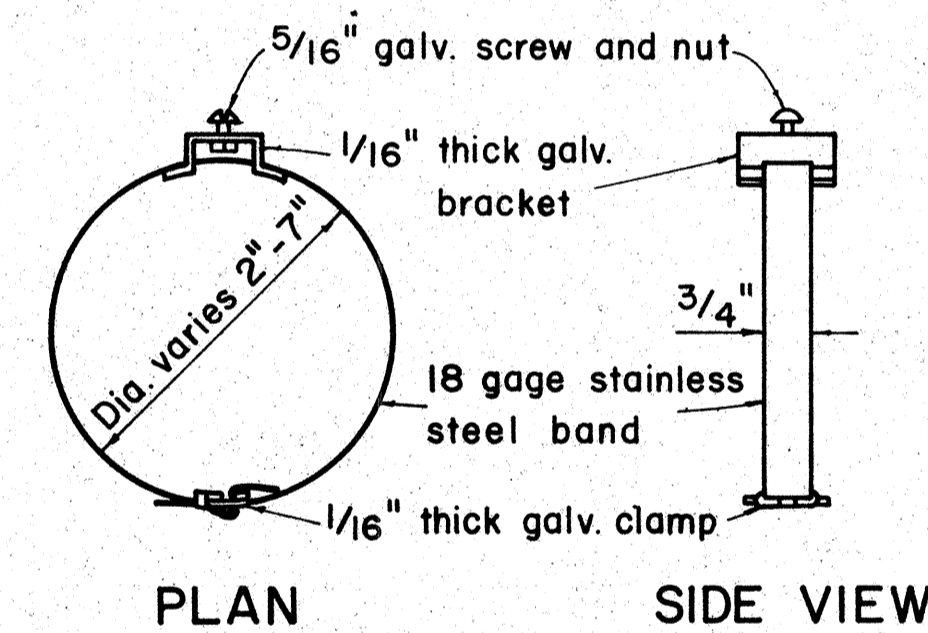


Galv. flanged channel 1/8" x 3 1/16" rolled section post with a minimum weight of 2 lbs. per ft. Upper 2 ft. shall have a single row of 3/8" holes centered in the web at 1" o.c.

TYPICAL SECTION OF ROAD DELINEATOR



TYPICAL DETAIL HORIZONTAL REFLECTOR MARKER RM-3H



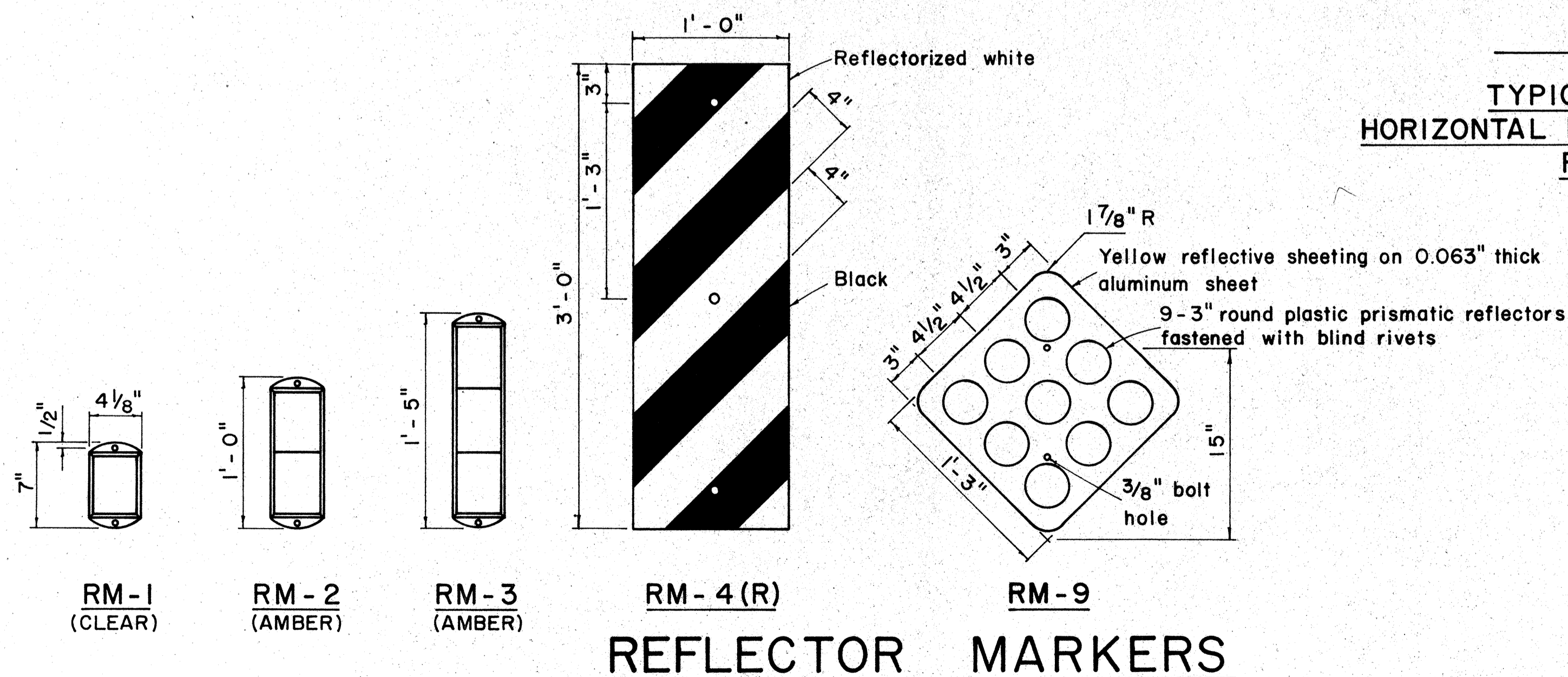
TYPICAL BAND BRACKET FOR MOUNTING TRAFFIC SIGNS

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:
Etsuki Tanaka 12/22/69
 TRAFFIC ENGINEER DATE

APPROVED:
[Signature] 12-20-69
 ASSISTANT CHIEF, ENGINEERING DATE



REFLECTOR MARKERS

NO.	REVISION	APPROVED BY	DATE

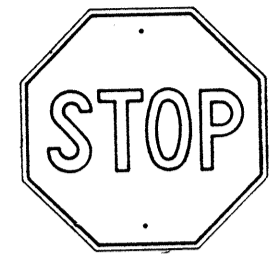
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
 MISCELLANEOUS SIGN DETAILS

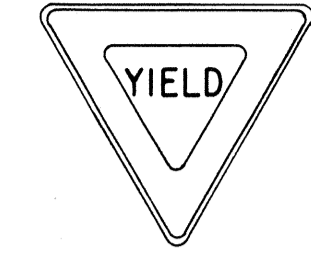
Not to scale March, 1968

SHEET No. 9 OF 27 SHEETS DT 100

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1972	C.O.108	302



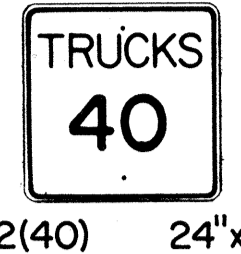
R1-1 30" x 30"
R1-1-A 36" x 36"
4-WAY
R1-3 12" x 6"
R1-3-A 18" x 9"



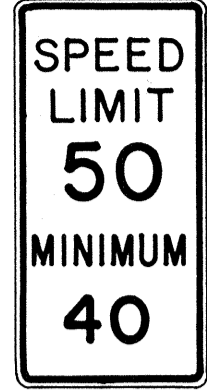
R1-2 36" x 36" x 36"
R1-2-A 48" x 48" x 48"



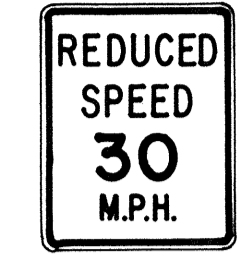
R2-1(50) 24" x 30"
R2-1(50)-A 48" x 60"



R2-2(40) 24" x 24"
R2-2(40)-A 48" x 48"



R2-4a(50/40) 24" x 48"
R2-4a(50/40)-A 48" x 96"



R2-5b(30) 24" x 30"
R2-5b(30)-A 48" x 60"



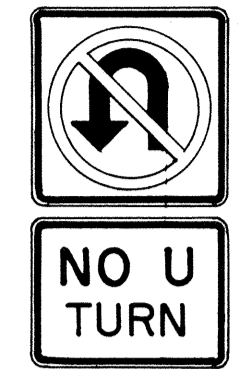
R3-1 24" x 24"
24" x 18"
R3-1-A 48" x 48"
48" x 36"



R3-2 24" x 24"
24" x 18"
R3-2-A 48" x 48"
48" x 36"



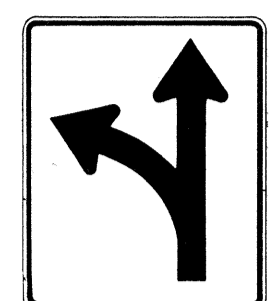
R3-3 24" x 24"
R3-3-A 48" x 48"



R3-4 24" x 24"
24" x 18"
R3-4-A 48" x 48"
48" x 36"



R3-5(L) 30" x 36"
R3-5(L)-A 48" x 60"



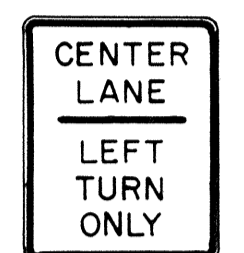
R3-6(L) 30" x 36"
R3-6(L)-A 48" x 60"



R3-7(R) 30" x 30"
R3-7(R)-A 48" x 48"



R3-8(L) 30" x 30"
R3-8(L)-A 36" x 36"
R3-8(L)-B 48" x 48"



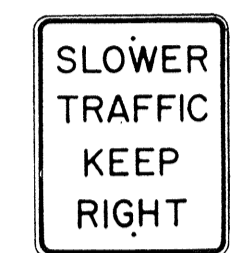
R3-9 24" x 30"



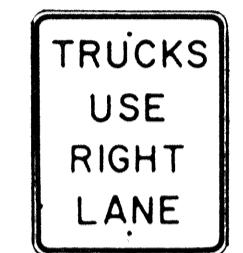
R4-1 24" x 30"



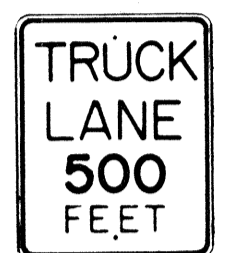
R4-2 24" x 30"



R4-3 24" x 30"
R4-3-A 48" x 60"



R4-5 24" x 30"



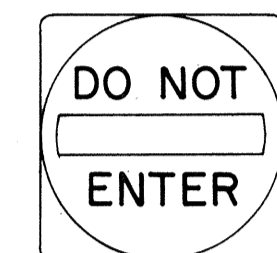
R4-6(500) 24" x 30"



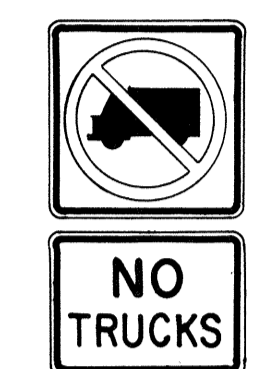
R4-7 24" x 30"
24" x 18"



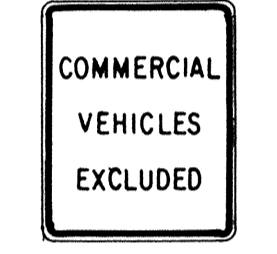
R4-8 24" x 30"
24" x 18"



R5-1 30" x 30"
R5-1-A 48" x 48"



R5-2 24" x 24"
24" x 18"



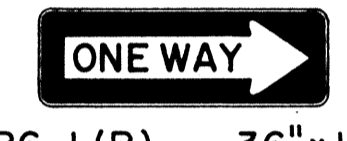
R5-4 24" x 30"



R5-6 24" x 24"
24" x 18"



R5-9 36" x 24"



R6-1 (R) 36" x 12"



R6-2(R) 18" x 24"



R7-1 12" x 18"
R7-1-A 24" x 30"



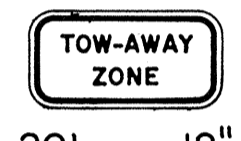
R7-4 12" x 18"
R7-4-A 24" x 30"



R7-107(R) 12" x 18"



R7-108 12" x 18"



R7-201 12" x 6"
R7-201-A 24" x 12"



R8-1 24" x 30"



R8-2 24" x 30"



R8-3 24" x 30"



R8-4 30" x 24"
R8-4-A 48" x 36"



R8-5 24" x 30"



R8-6 24" x 30"



R8-7 30" x 24"
R8-7-A 48" x 36"



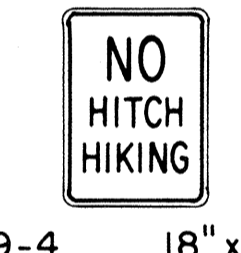
R9-1 18" x 24"



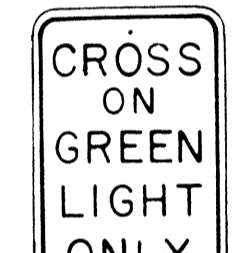
R9-2 12" x 18"



R9-3 12" x 18"



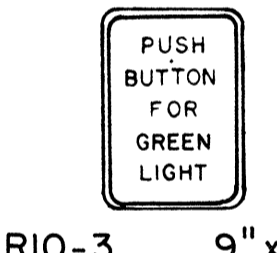
R9-4 18" x 24"



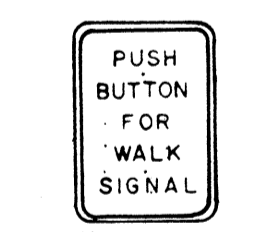
R10-1 12" x 18"



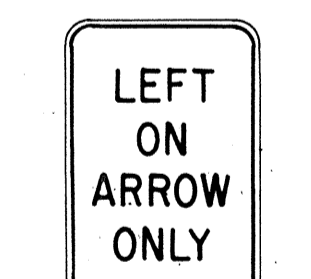
R10-2 12" x 18"



R10-3 9" x 12"



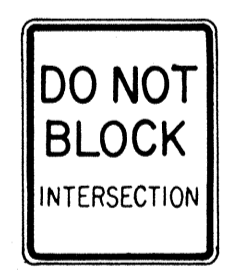
R10-4 9" x 12"



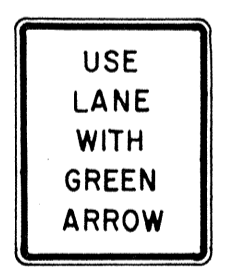
R10-5 24" x 30"



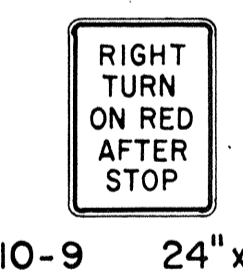
R10-6 24" x 36"



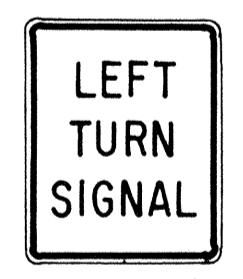
R10-7 24" x 30"



R10-8 24" x 30"



R10-9 24" x 30"



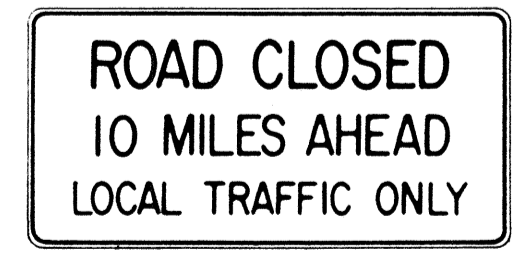
R10-10 24" x 30"



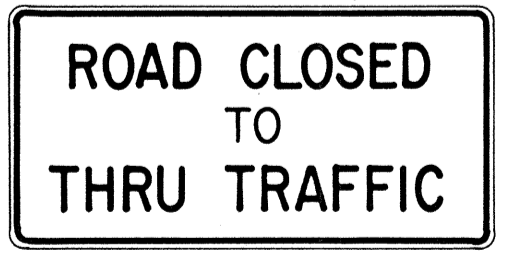
R11-1 24" x 30"



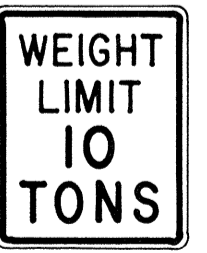
R11-2 48" x 30"



R11-3(10) 60" x 30"



R11-4 60" x 30"



R12-1(10) 24" x 30"

GENERAL NOTES

1. Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs."
2. All regulatory signs shall be reflectorized unless otherwise specified.
3. All regulatory signs shall have 3/8" bolt holes drilled at appropriate locations.
4. Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.

APPROVAL RECOMMENDED:
Eishi Tanaka 3/17/72
TRAFFIC ENGINEER DATE

APPROVED:
Robert Zabe 3-20-72
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 101 Approved 12-30-69 C.C.O. #48	H.C.	3/20/72

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
REGULATORY SIGNS

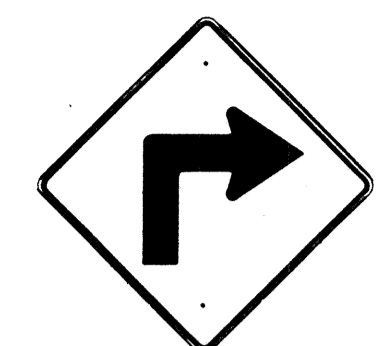
NOT TO SCALE

SHEET No. OF SHEETS DT 101

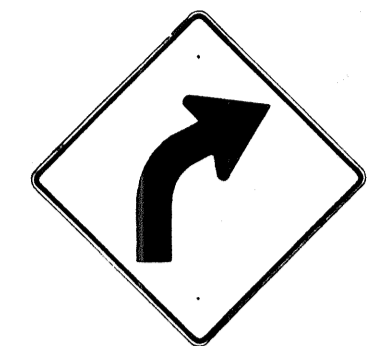
THIS SHEET SUPERSEDES SHEET NO. 108

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

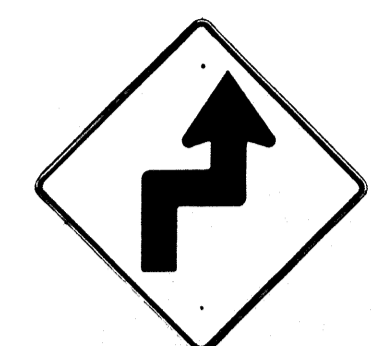
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-I(7)	1972	C.O.109	302



W1-1(R) 30"x30"
W1-1(R)-A 48"x48"



W1-2(R) 30"x30"
W1-2(R)-A 48"x48"



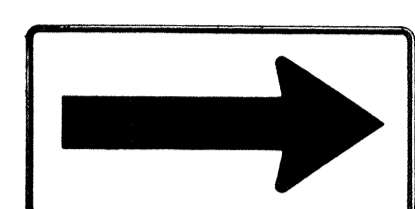
W1-3(R) 30"x30"
W1-3(R)-A 48"x48"



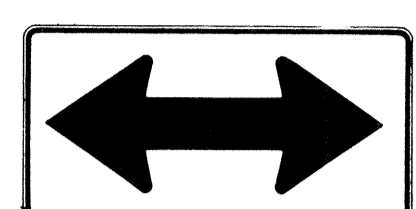
W1-4(R) 30"x30"
W1-4(R)-A 48"x48"



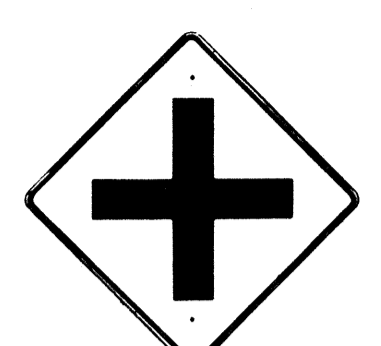
W1-5(R) 30"x30"
W1-5(R)-A 48"x48"



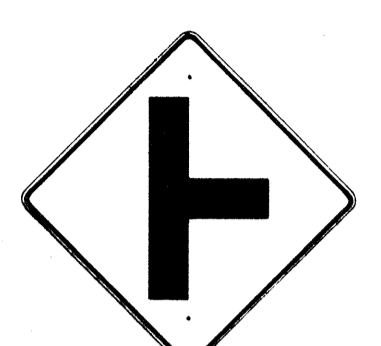
W1-6 48"x24"



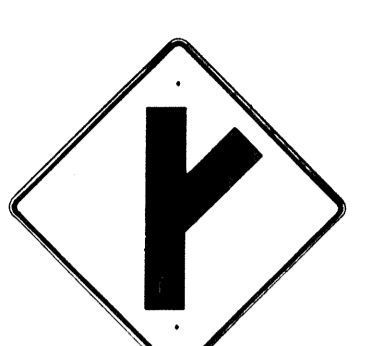
W1-7 48"x24"



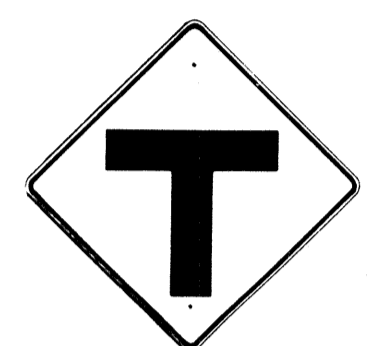
W2-1 30"x30"
W2-1-A 48"x48"



W2-2 30"x30"
W2-2-A 48"x48"



W2-3(R) 30"x30"
W2-3(R)-A 48"x48"



W2-4 30"x30"
W2-4-A 48"x48"



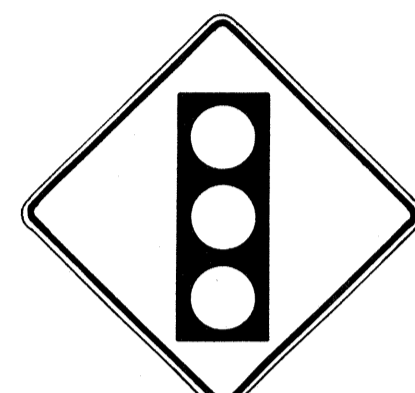
W2-5 30"x30"
W2-5-A 48"x48"



W3-1 30"x30"
W3-1-A 36"x36"



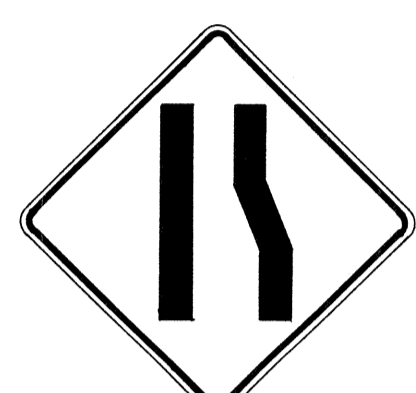
W3-2 30"x30"
W3-2-A 36"x36"



W3-3 36"x36"
24"x18"



W4-1(R) 30"x30"
24"x18"
W4-1(R)-A 48"x48"
24"x18"



W4-2(R) 36"x36"
W4-2(R)-A 48"x48"



W5-1 36"x36"



W5-2 30"x30"
W5-2-A 36"x36"



W5-3 36"x36"



W6-1 36"x36"
24"x18"



W6-2 36"x36"
24"x18"



W6-3 30"x30"
24"x18"
W6-3-A 36"x36"
24"x18"
W6-3-B 48"x48"
24"x18"



W7-1 30"x30"
24"x18"
W7-1-A 36"x36"
24"x18"



W7-2 24"x18"



W8-1 30"x30"
W8-1-A 36"x36"



W8-2 30"x30"
W8-2-A 36"x36"



W8-3 30"x30"
W8-3-A 36"x36"



W8-4 30"x30"
W8-4-A 36"x36"



W8-5 30"x30"
24"x18"
W8-5-A 36"x36"
24"x18"



W9-1(R) 30"x30"
W9-1(R)-A 36"x36"
W9-1(R)-B 48"x48"



W9-2(L) 36"x36"
W9-2(L)-A 48"x48"



W10-1 36" Diameter



W11-1 30"x30"
24"x18"
W11-1-A 36"x36"
24"x18"



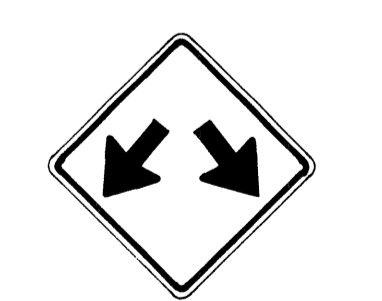
W11-2 30"x30"
24"x18"
W11-2-A 36"x36"
24"x18"



W11-4 30"x30"
24"x18"
W11-4-A 36"x36"
24"x18"



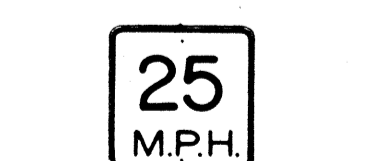
W11-5 30"x30"
24"x18"
W11-5-A 36"x36"
24"x18"



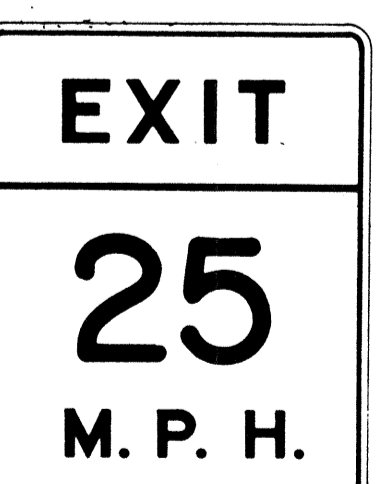
W12-1 24"x24"
W12-1-A 36"x36"
W12-1-B 48"x48"



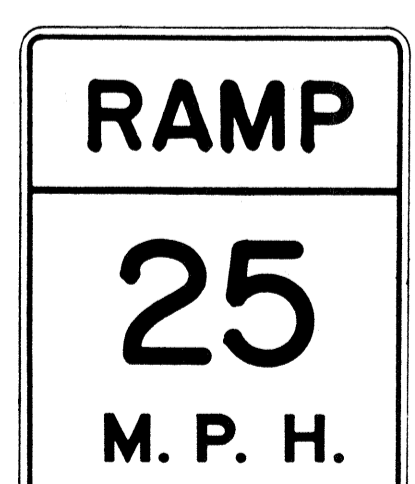
W12-2(12'-6") 36"x36"
24"x18"



W13-1(25) 18"x18"
W13-1(25)-A 24"x24"



W13-2(25) 48"x60"



W13-3(25) 48"x60"



W14-1 30"x30"



W14-3 36"x48" x 48"

GENERAL NOTES

1. Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs."
2. All warning signs shall be reflectorized unless otherwise specified.
3. All warning signs shall have 3/8" bolt holes drilled at appropriate locations.
4. Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.
5. Signs prefixed with "CW" on the plans shall indicate orange and black construction signs.

APPROVAL RECOMMENDED:
Ernie Tanaka 3/17/12
TRAFFIC ENGINEER DATE

APPROVED:
John Rabin 3-20-12
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 102 Approved 12-30-69 D.C.O.#48	H.C.	3/20/12

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
WARNING SIGNS

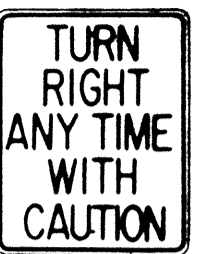
NOT TO SCALE

SHEET No. OF SHEETS DT 102

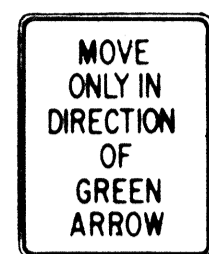
THIS SHEET SUPERSEDES SHEET NO. 109

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

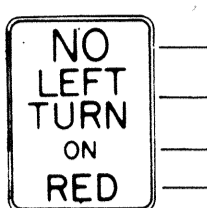
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1972	C.O.110	302



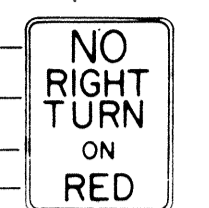
R16-1 24" x 30"




R16-2 24" x 30"



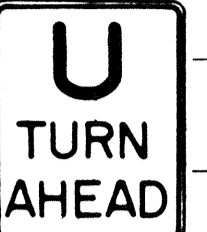
R16-3 18" x 24"



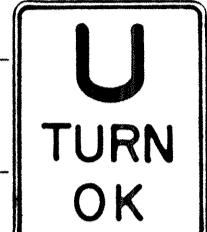
R16-4 18" x 24"



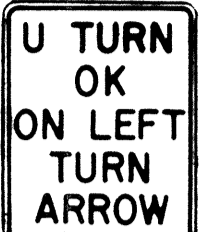
R16-5 36" x 42"




R16-6 24" x 30"




R16-7 24" x 30"




R16-8 24" x 30"




W15-1 24" x 24"




W15-2 24" x 24"




S1-1 36" x 36"




S2-1 36" x 36"



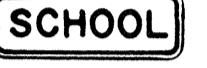
S3-1 30" x 30"




S4-1 24" x 10"



S4-2 24" x 10"



S4-3 24" x 8"



S4-4 24" x 10"

GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs."
- 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.
- Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.

DATE

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
QUANTITIES BY
CHECKED BY
NOTE BOOK
No.

APPROVAL RECOMMENDED:
Eisaku Tanaka 3/17/72
 TRAFFIC ENGINEER DATE

APPROVED:
Shirley Salside 3-20-72
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 103 Approved 12-30-69 C.C.D. #48	H.T.	3/20/72

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

**STANDARD DETAILS
 MISCELLANEOUS
 REGULATORY & WARNING SIGNS**

NOT TO SCALE

THIS SHEET SUPERSEDES SHEET NO. 110

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-(7)	1971	111	302



W7-2 48"x48"



W8-7 30"x30"



W14-1 30"x30"



W20-1a 48"x48"



W20-2d 48"x48"



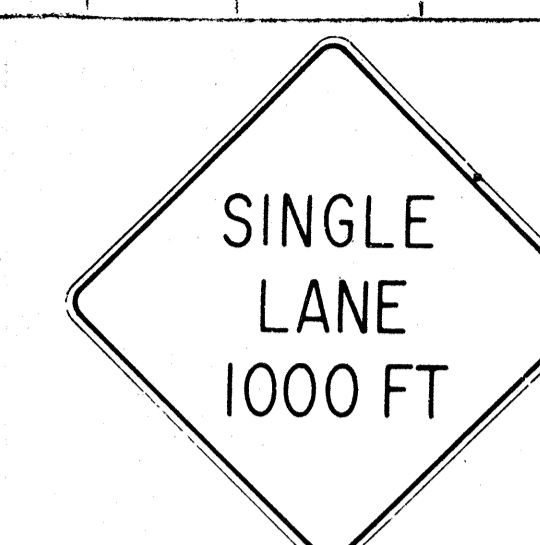
W20-3b 48"x48"



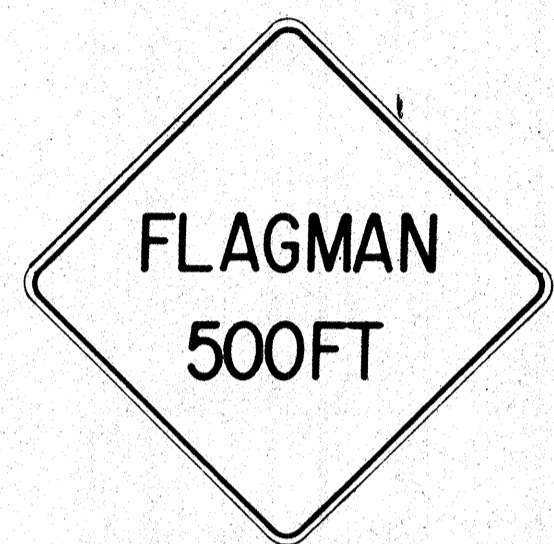
W20-4d 48"x48"



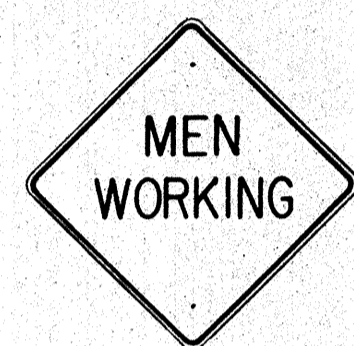
W20-5d(L) 48"x48"



W20-6b 48"x48"



W20-7c 48"x48"



W21-1 30"x30"



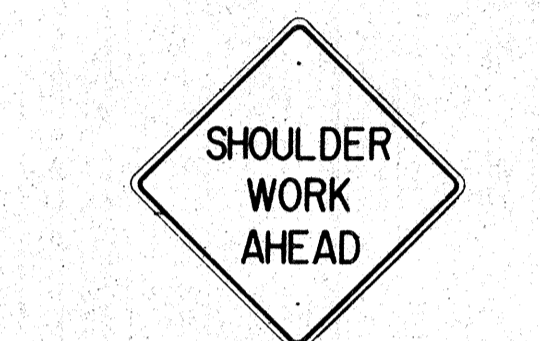
W21-2 24"x24"



W21-3 36"x36"



W21-4 30"x30"



W21-5 30"x30"



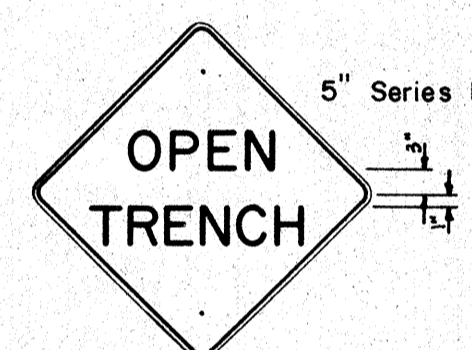
W21-6 30"x30"



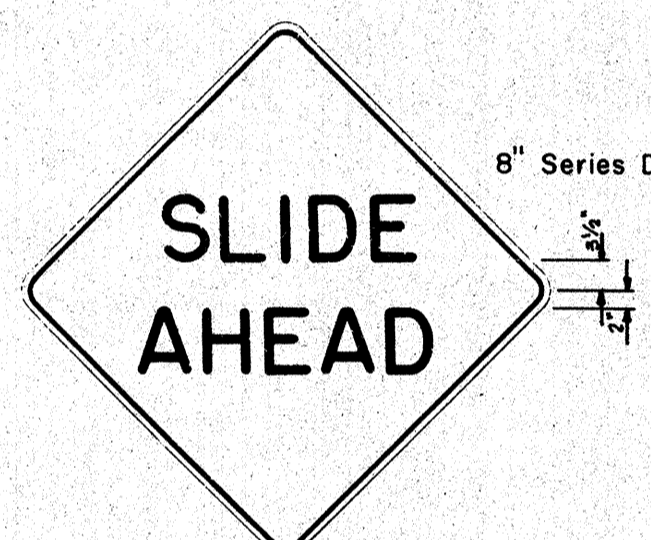
W22-1 30"x30"



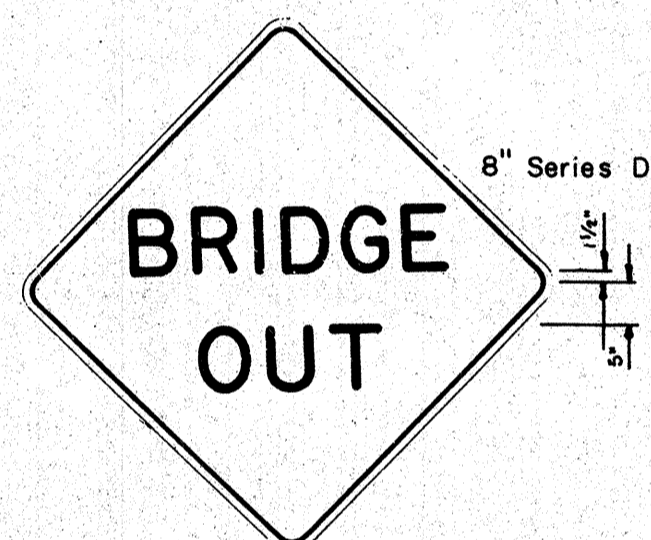
W22-2 30"x30"



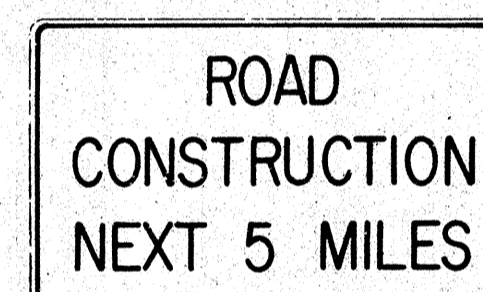
W22-3 30"x30"



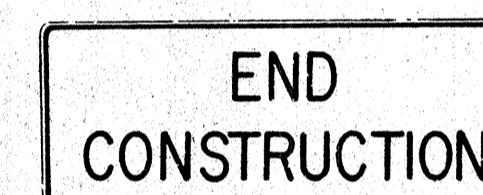
W22-4 48"x48"



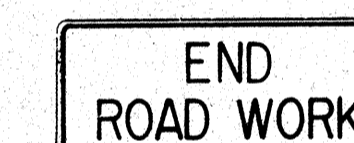
W22-5 48"x48"



G20-1(5) 60"x36"



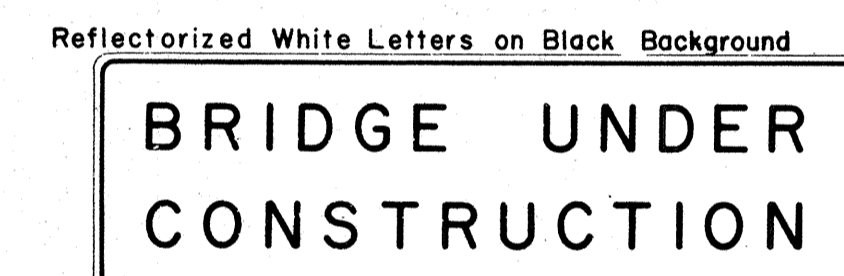
G20-2 60"x24"



G20-3 42"x18"



M5-7(L) 48"x18"



CW-1 96"x30"

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 3/8" bolt holes drilled at appropriate locations unless otherwise noted.
- For W20 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.

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

APPROVAL RECOMMENDED:

Eiichi Tanaka 12/29/69
TRAFFIC ENGINEER DATE

APPROVED:

Shunji Saito 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

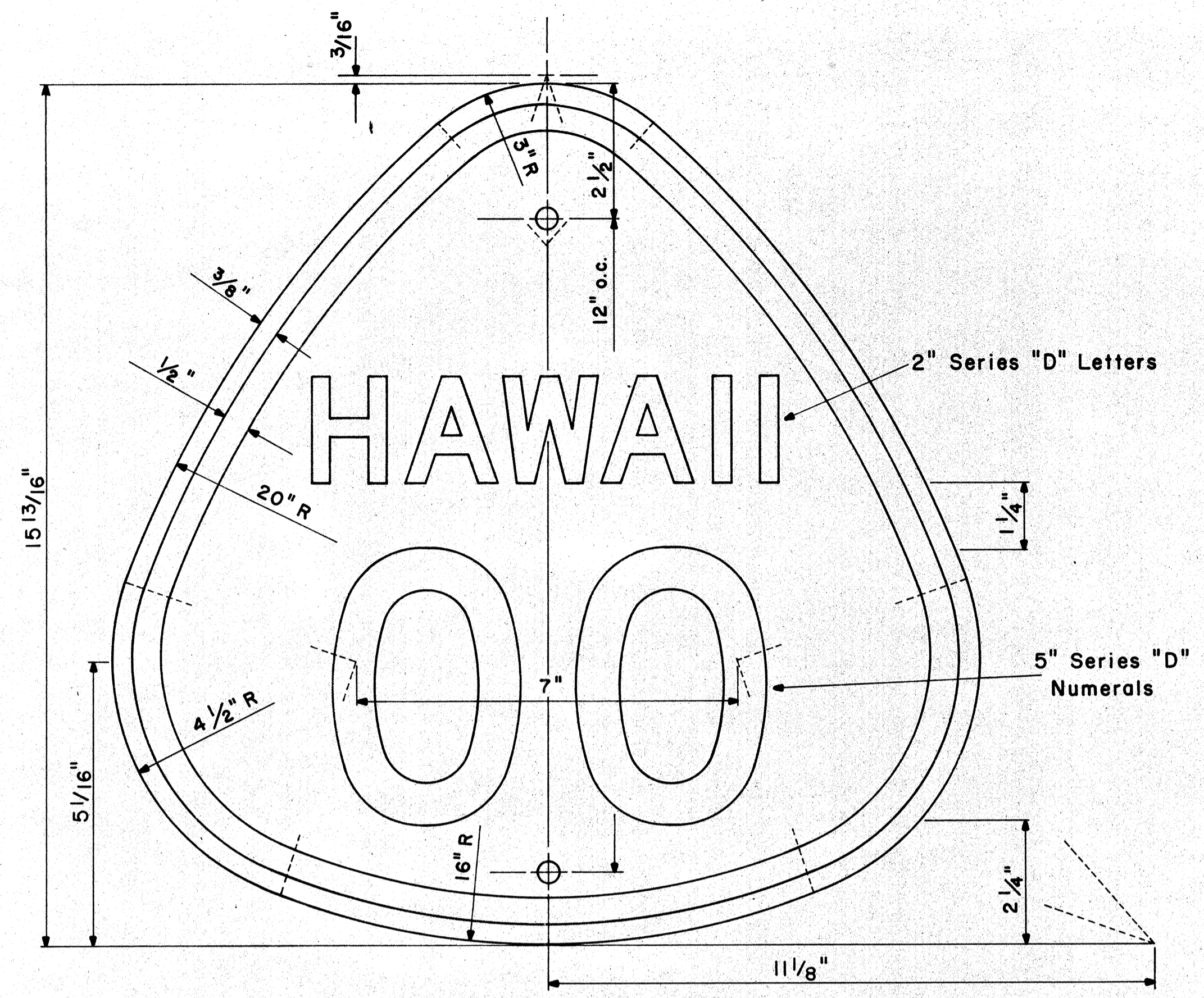
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

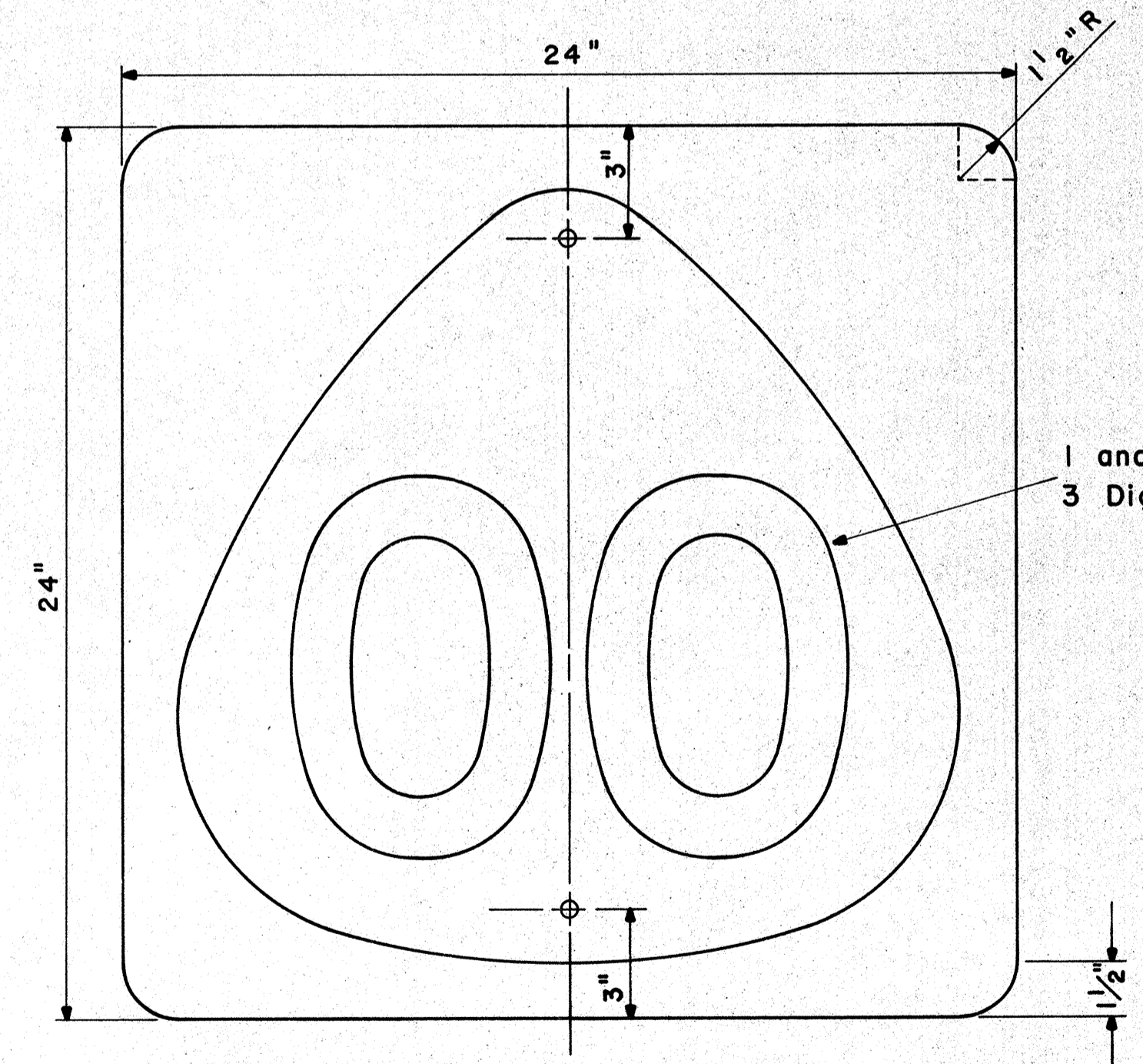
STANDARD DETAILS

CONSTRUCTION SIGNS

NOT TO SCALE

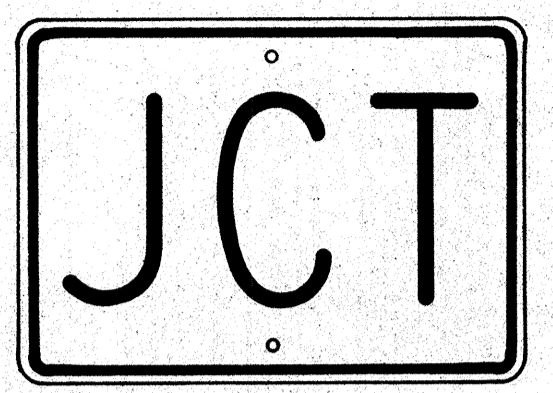


**STATE ROUTE MARKER
M1-3(OO)**
Scale: 1/2" = 1"

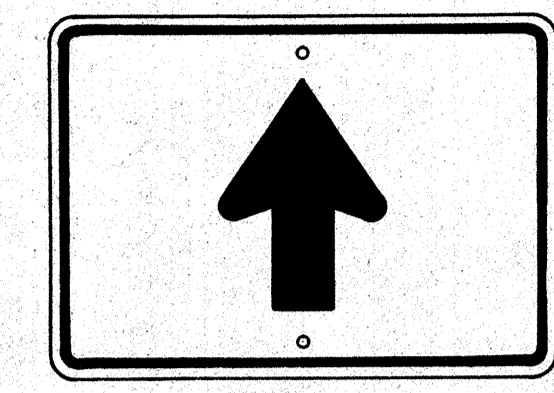


**STATE ROUTE MARKER
M1-4(OO)**
Scale: 1/4" = 1"

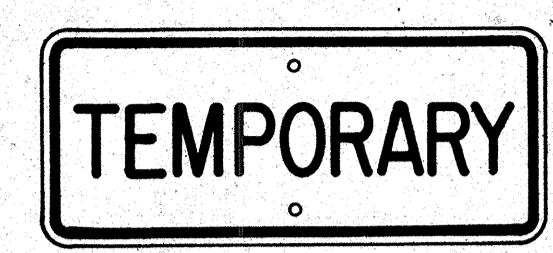
NOTE:
Multiply all dimensions of State Route Marker M1-3 by 1.3 for the dimensions of the shield for M1-4.



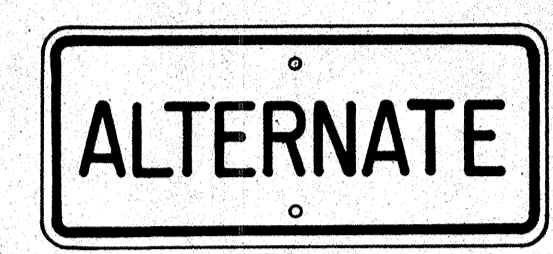
M2-1
21" x 15"



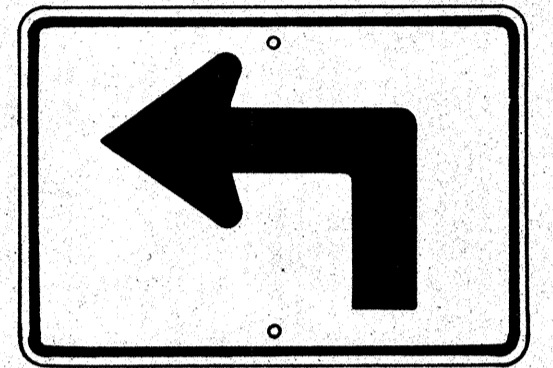
M4-3
21" x 15"



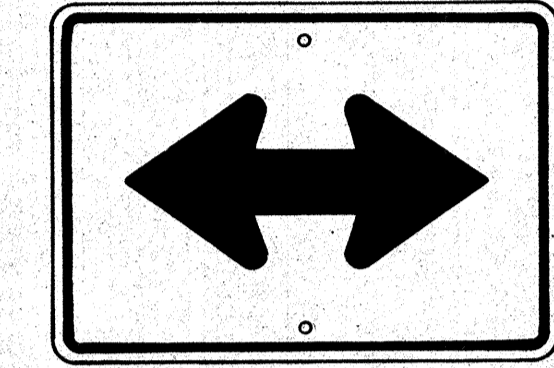
M5-1
21" x 9"



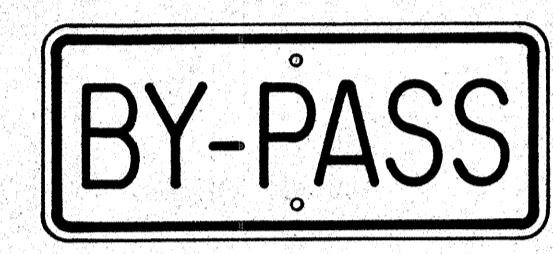
M5-2
21" x 9"



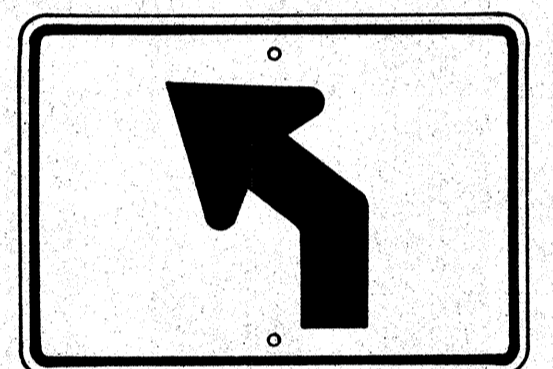
M3-1-L
* M3-1-R
21" x 15"



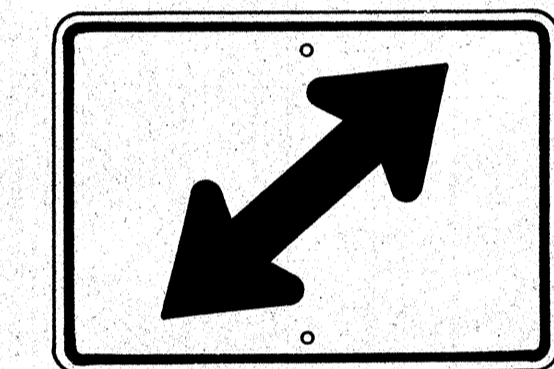
M4-4
21" x 15"



M5-3
21" x 9"



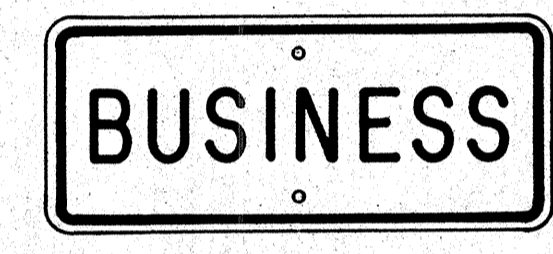
M3-2-L
* M3-2-R
21" x 15"



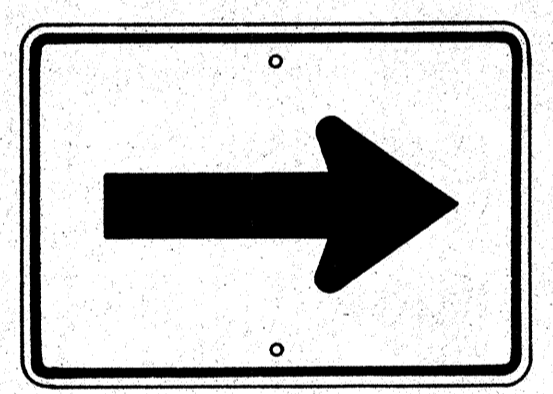
M4-5-R
* M4-5-L
21" x 15"



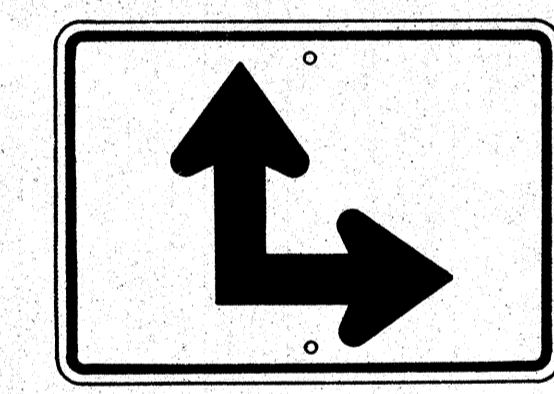
M5-4
21" x 9"



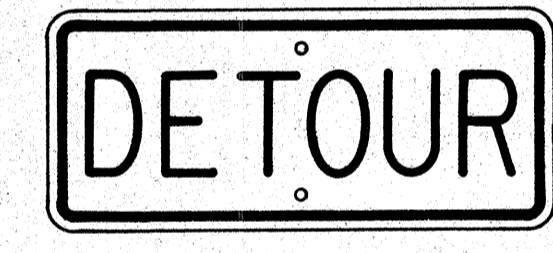
M5-5
21" x 9"



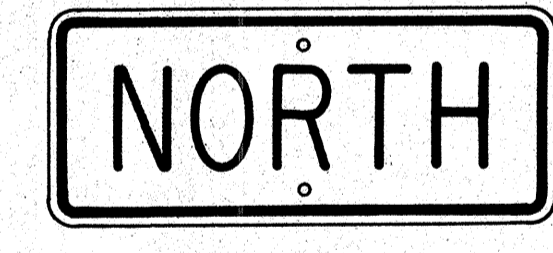
M4-1
21" x 15"



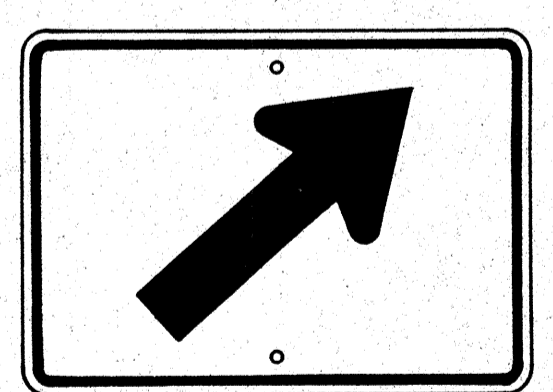
M4-6-R
* M4-6-L
21" x 15"



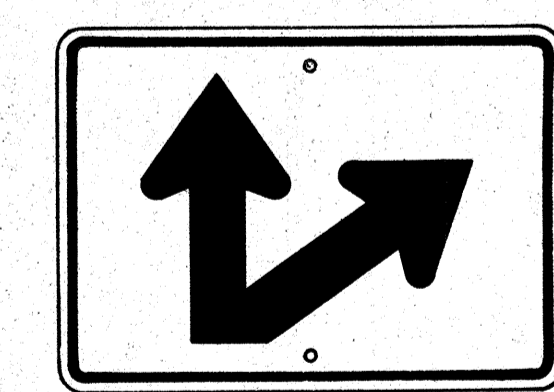
M5-6
21" x 9"



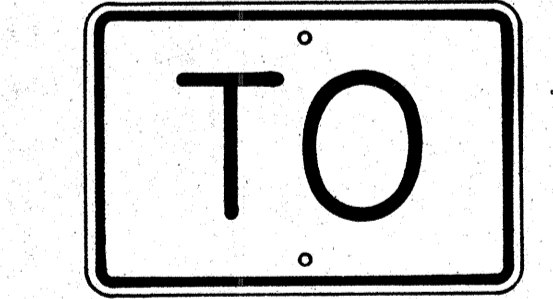
M6-1-N
21" x 9"
(See Note 6)



M4-2-R
* M4-2-L
21" x 15"



M4-7-R
* M4-7-L
21" x 15"



M7-1
18" x 12"

AUXILIARY MARKERS

Scale: 1/8" = 1"

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

GENERAL NOTES

- The shape, color, dimensions, symbols, wording, lettering and reflectorizing of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961, unless otherwise specified.
- All letters and figures shall conform to the manual "Standard Alphabets for Highway Signs," Dept. of Commerce, Bureau of Public Roads, 1966
- All markers shall be reflectorized unless otherwise specified.
- All markers shall have 3/8" bolt holes drilled at appropriate locations unless otherwise specified.
- All markers shall have a black legend on a white background unless otherwise specified.
- Sign message of Cardinal Direction Marker (M6-1) shall be denoted by the following suffixes:
M6-1-N : NORTH
M6-1-E : EAST
M6-1-S : SOUTH
M6-1-W : WEST
- Auxiliary markers denoted with the suffix "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 M1-3 and M1-4 signs, number in () indicates route number and shall be as shown on the plan.

APPROVAL RECOMMENDED:
Eishi Tanaka 12/29/62
TRAFFIC ENGINEER DATE

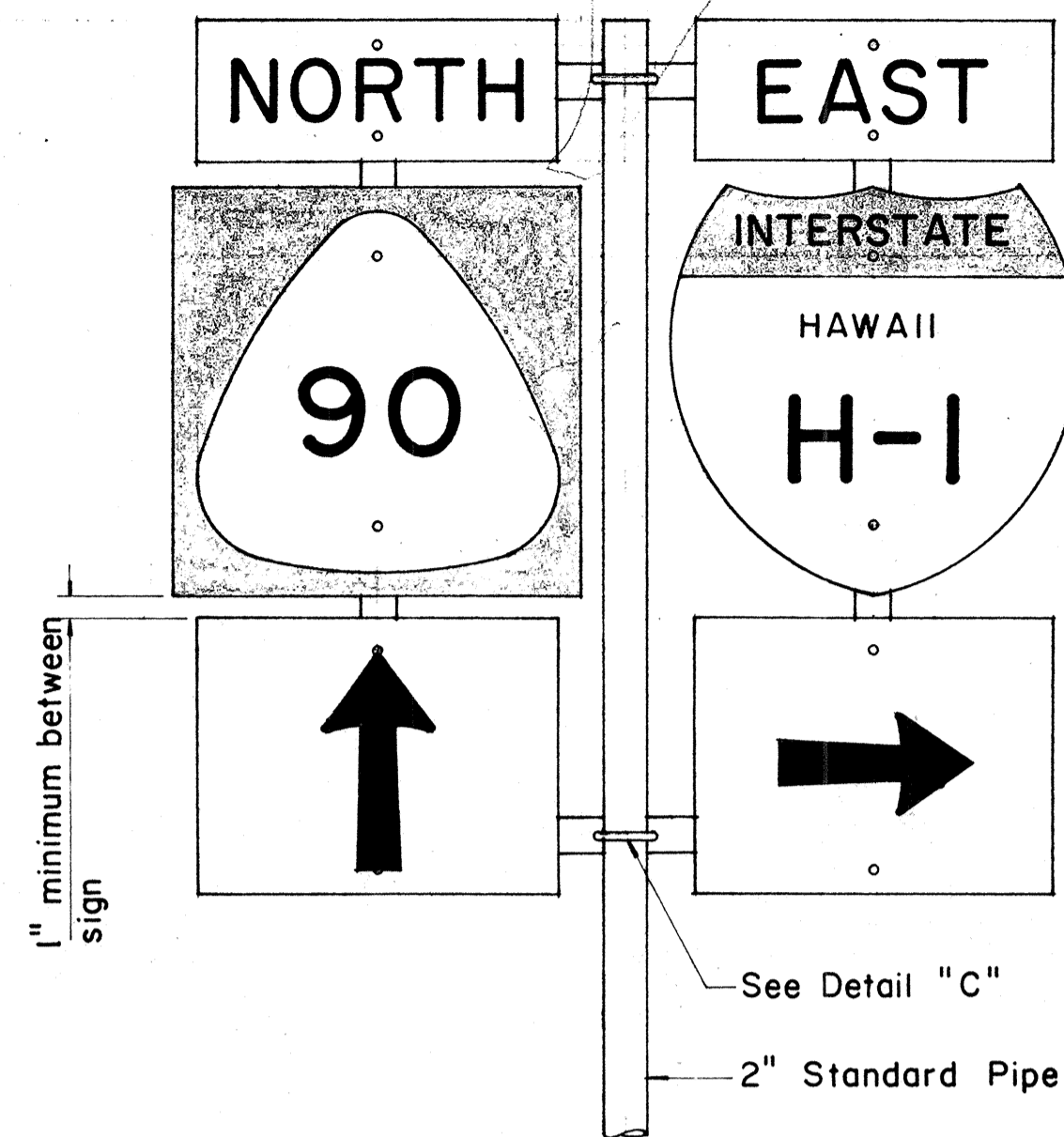
APPROVED:
John S. Sakai 12-29-62
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

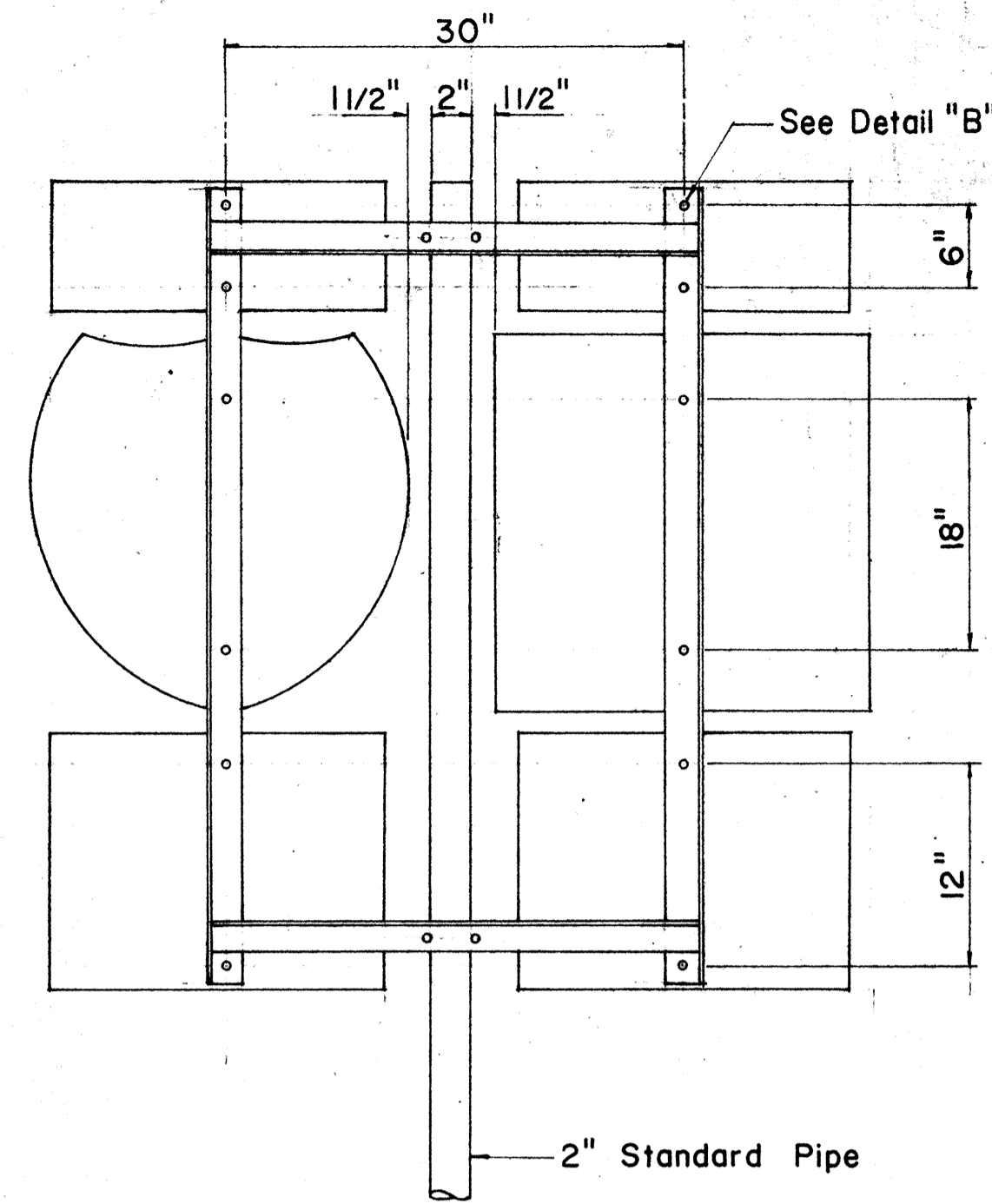
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
STATE ROUTE MARKERS
AND
AUXILIARY MARKERS
Scale: As Noted
SHEET NO. 14 OF 27 SHEETS DT 105

DATE: _____
SURVEY PLOTTED BY: _____
DRAWN BY: _____
TRACED BY: _____
NOTE BOOK NO. _____
QUANTITIES BY: _____
CHECKED BY: _____

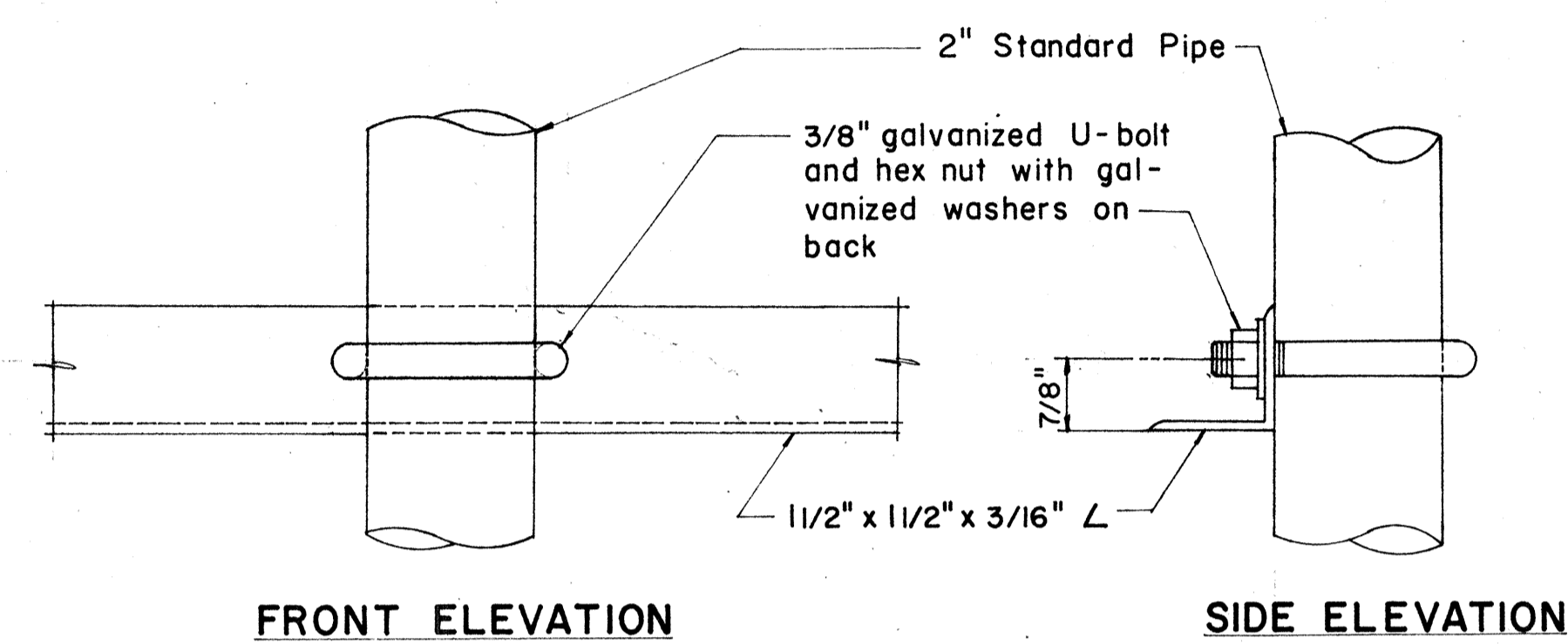
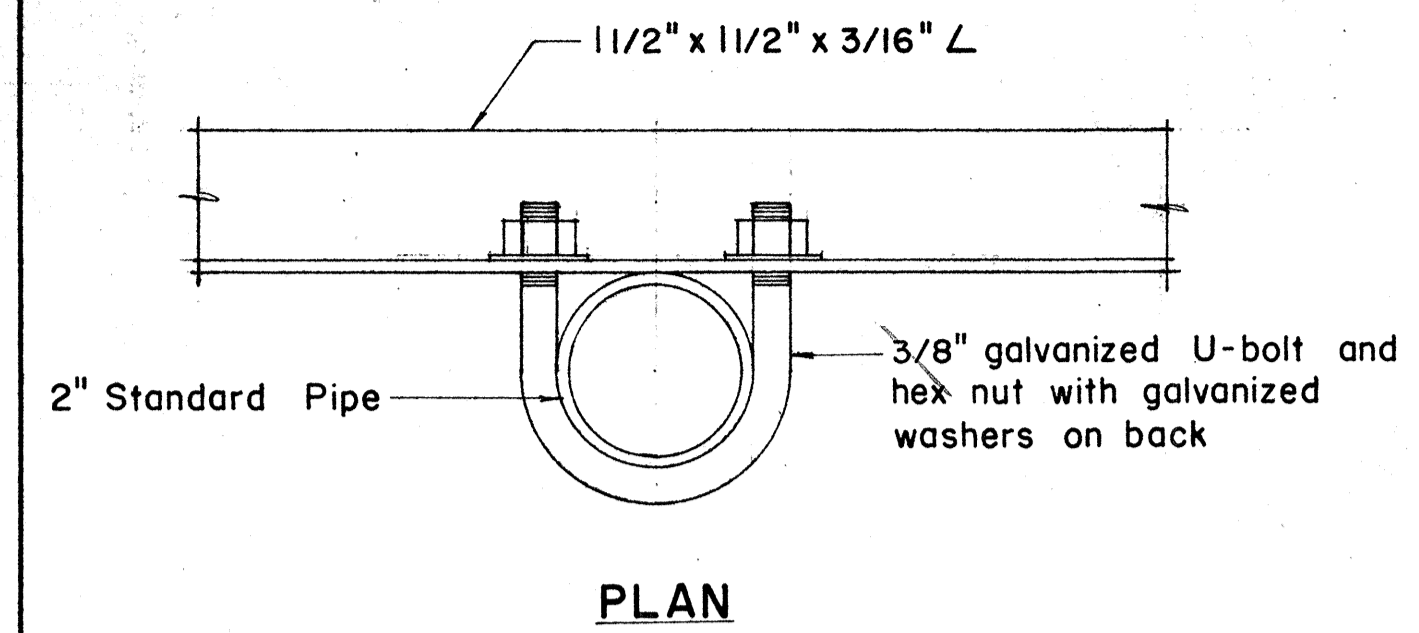
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	113	302



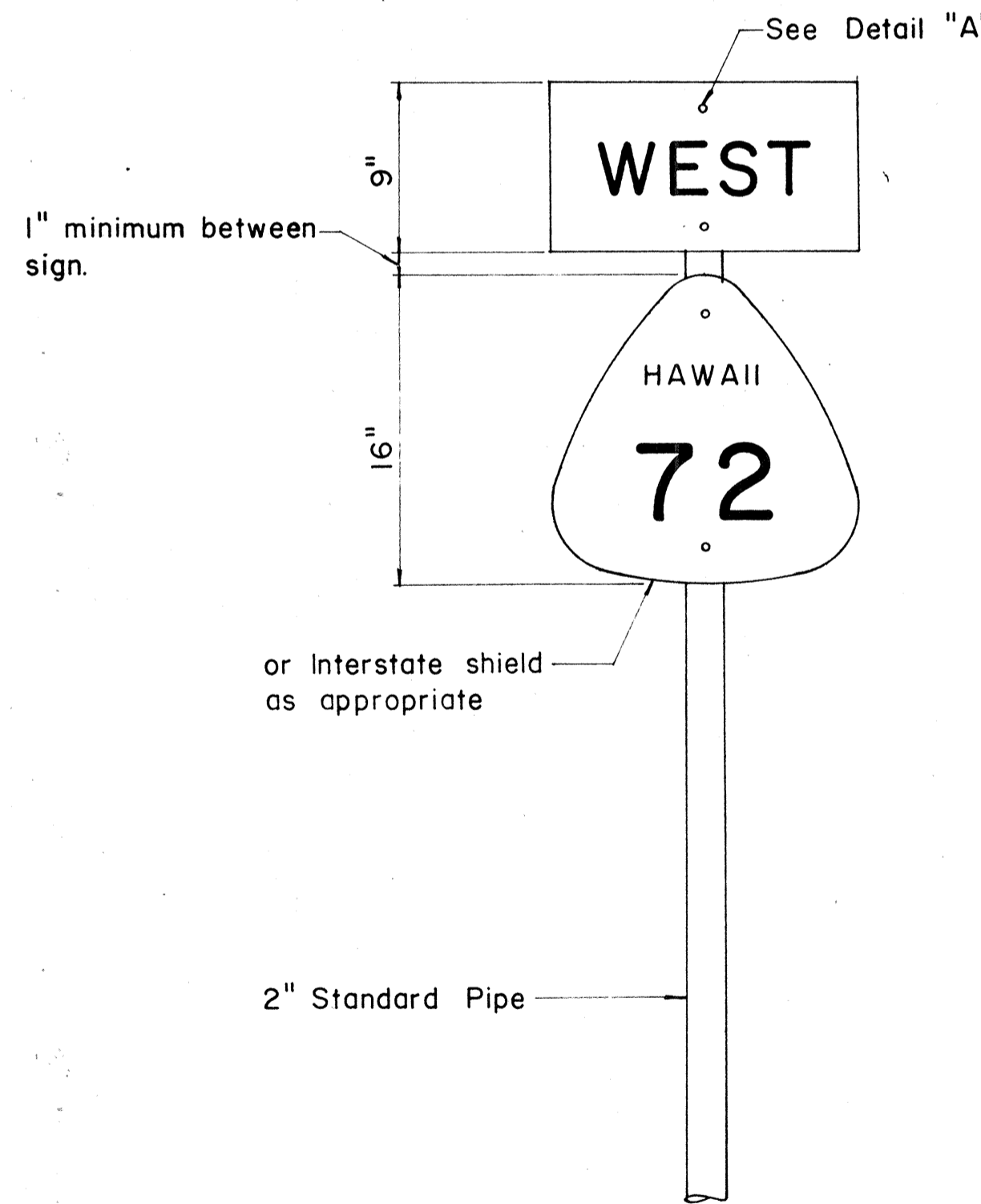
TYPE "B" ASSEMBLY



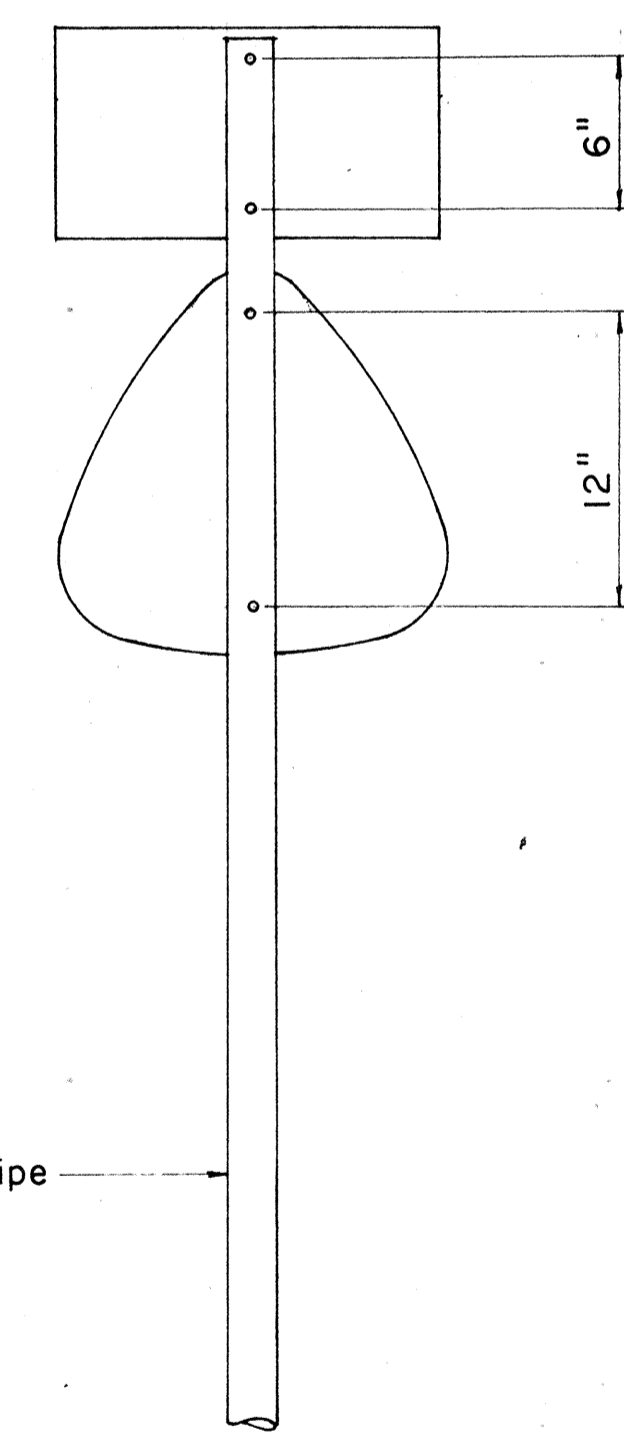
NOTE:
 1. Minimum clearance between signs shall be one inch. (Larger clearances shall be in multiples of one inch.)
 2. Pipe post for Type "A" & Type "B" Assembly shall be 2" Standard Pipe.



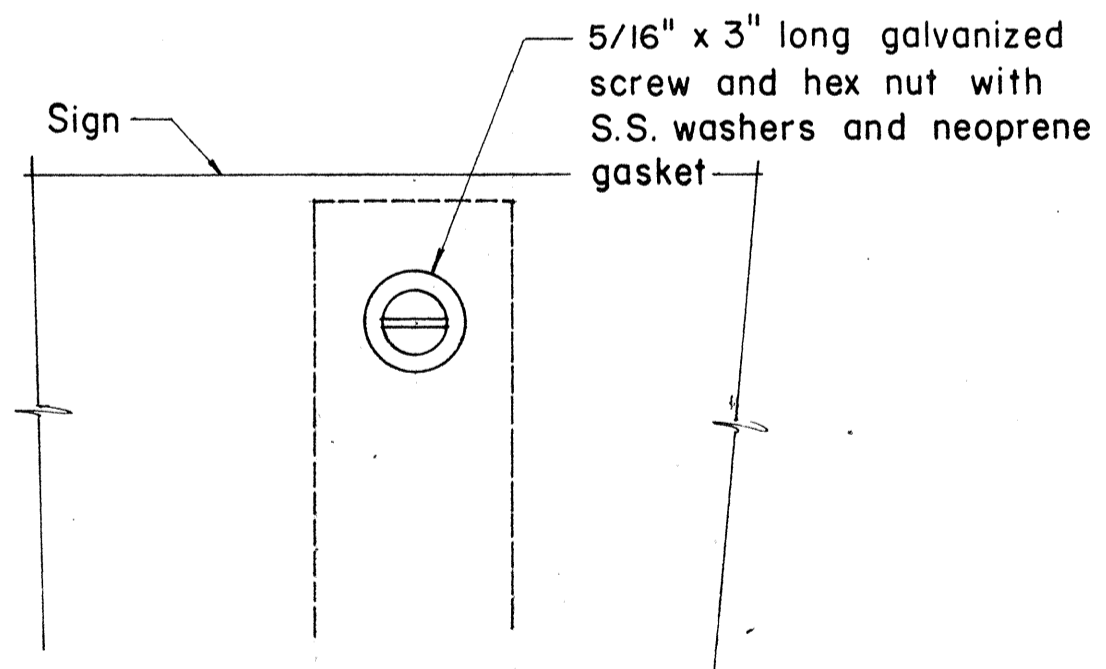
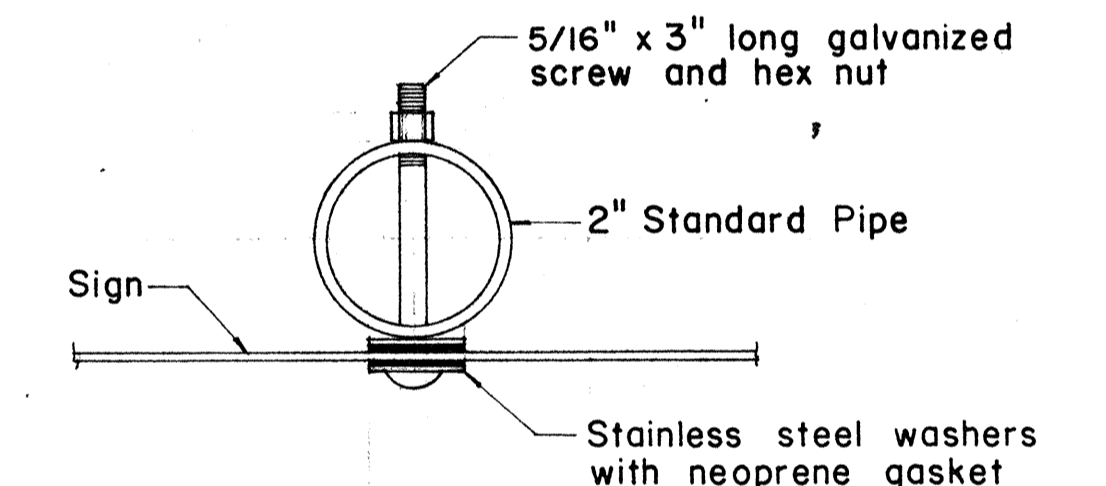
DETAIL "C"



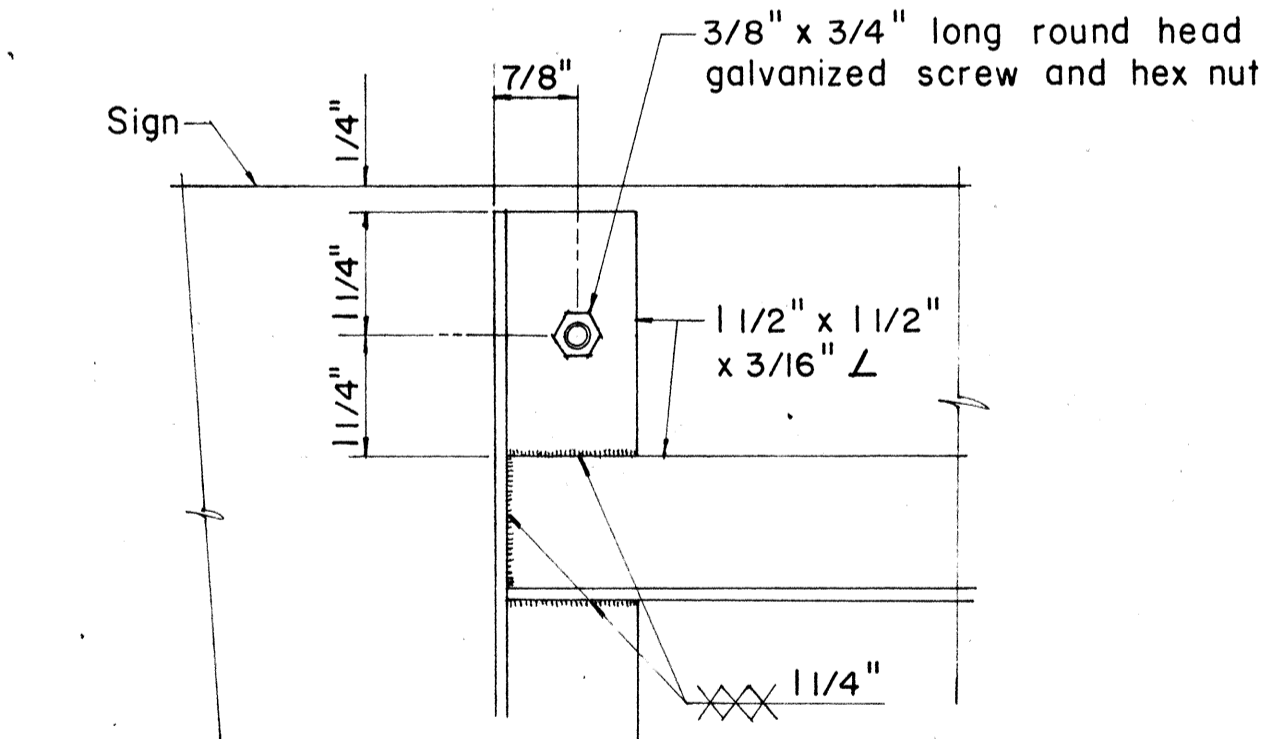
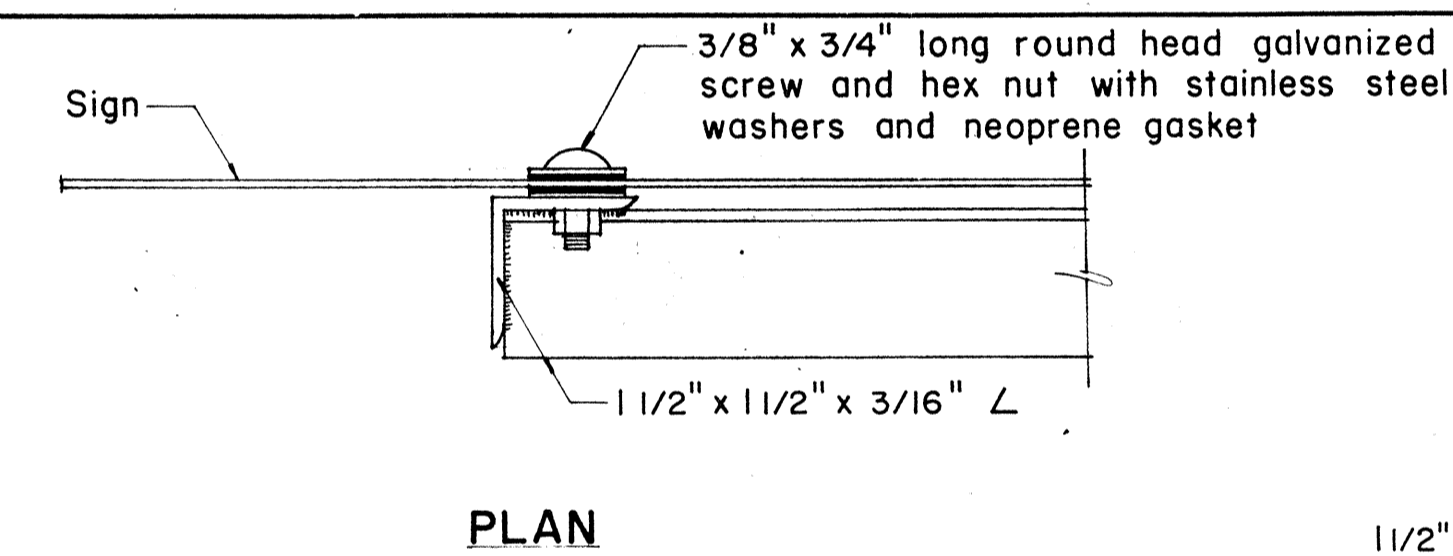
TYPE "A" ASSEMBLY



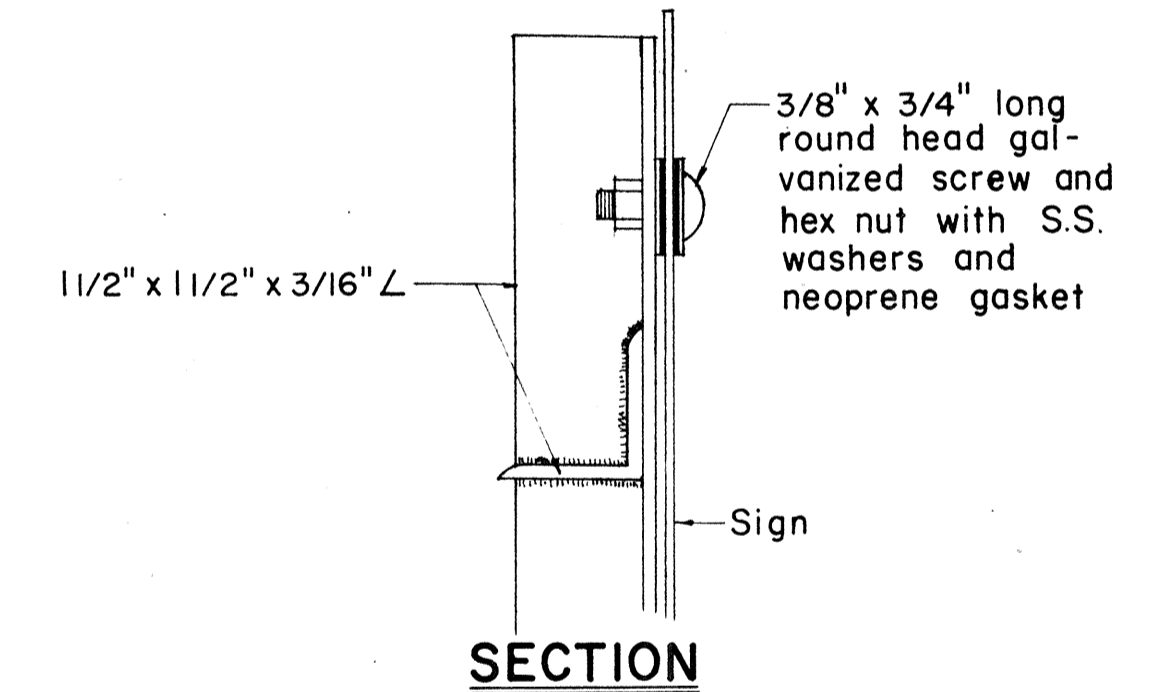
NOTE:
 For height and lateral location of Route Marker Assembly, see plan sheet DT 100.



DETAIL "A"



DETAIL "B"



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

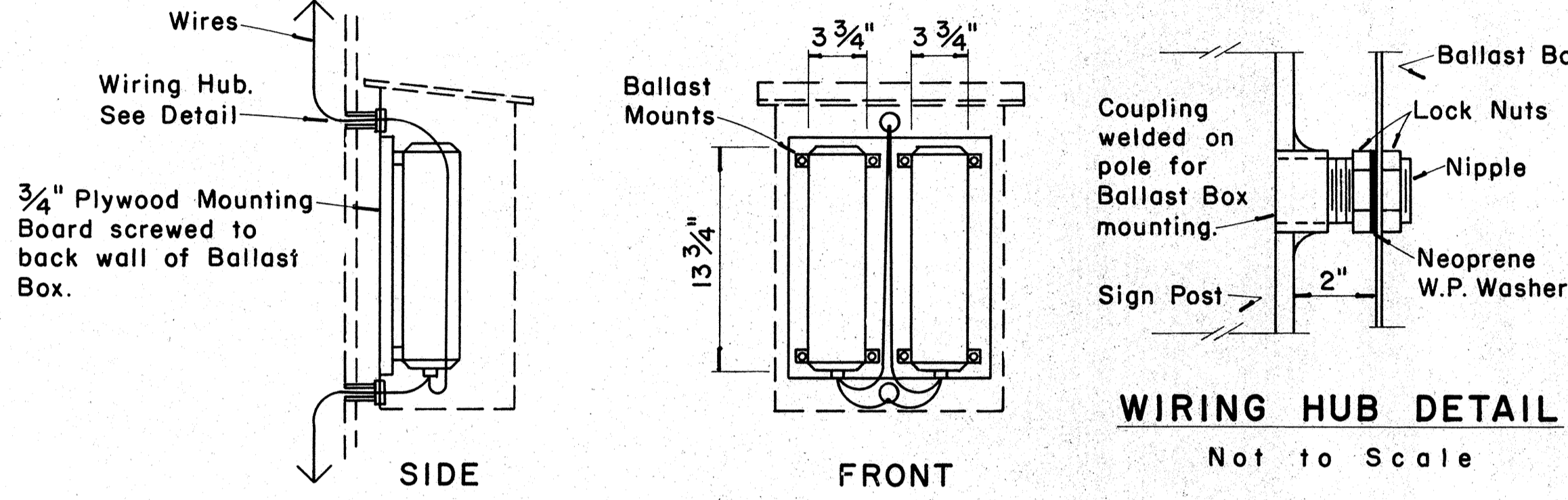
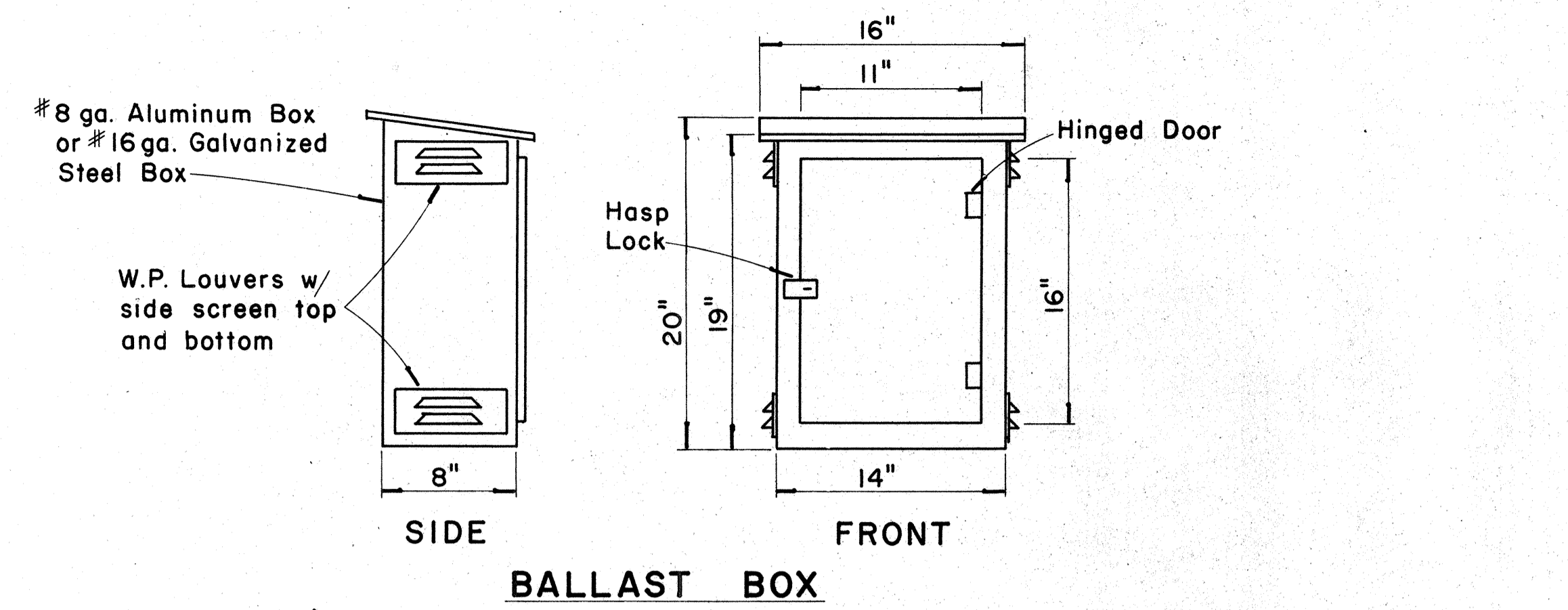
APPROVED:
Shunji Sato 12-30-69
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

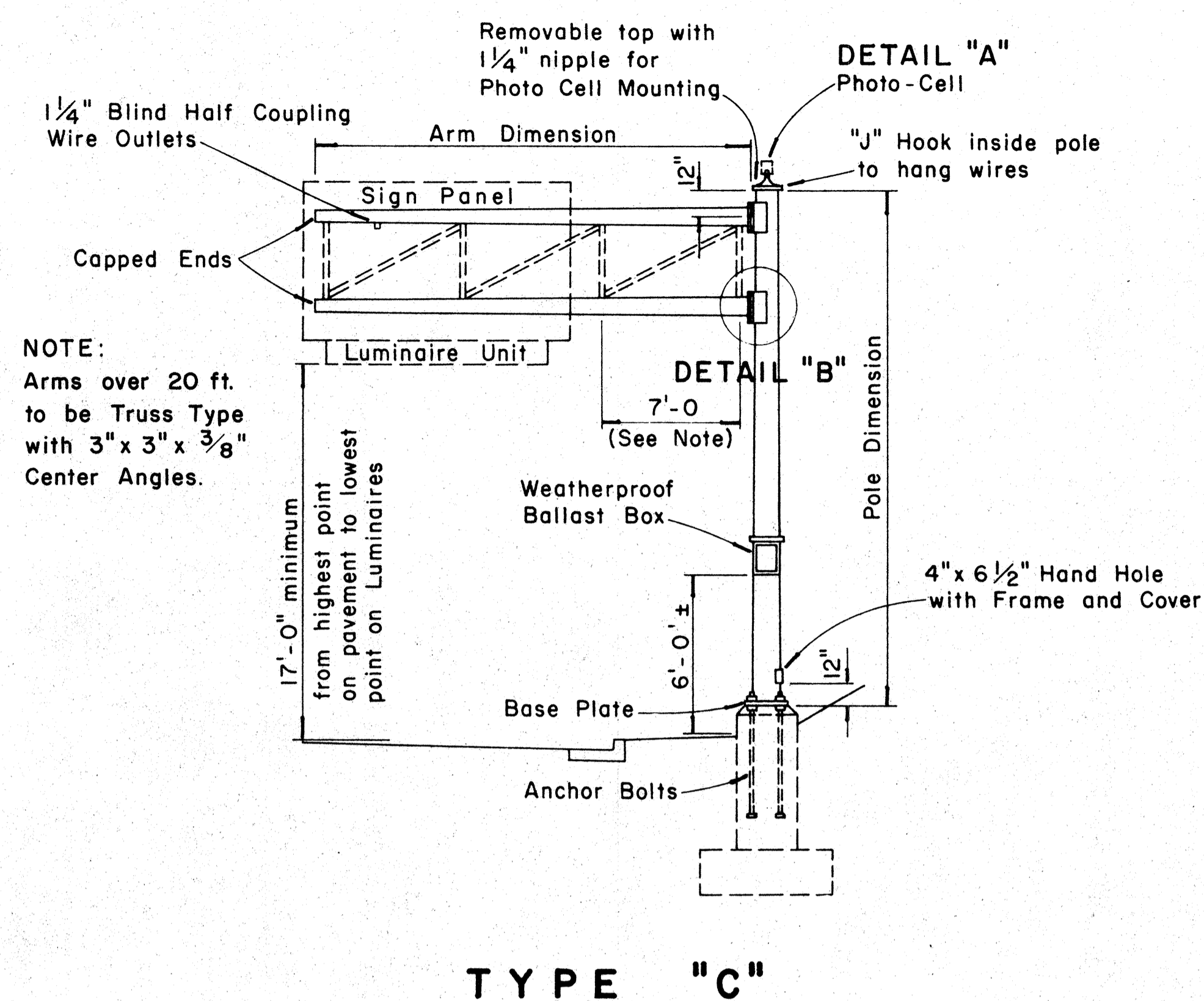
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

DETAILS
 OF
 ROUTE MARKER ASSEMBLY

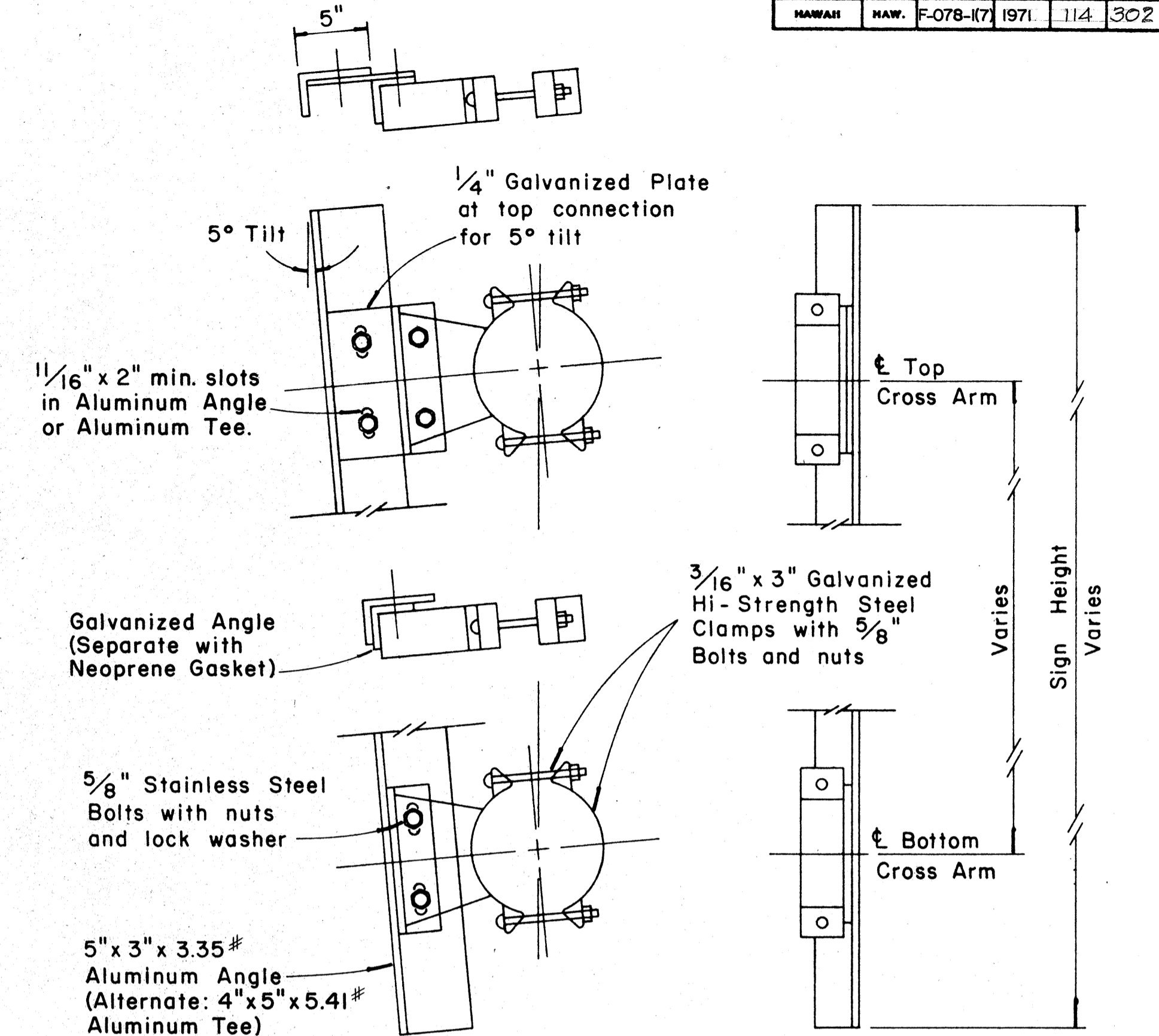
DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 ORIGINAL PLAN _____
 NOTE BOOK _____
 No. _____



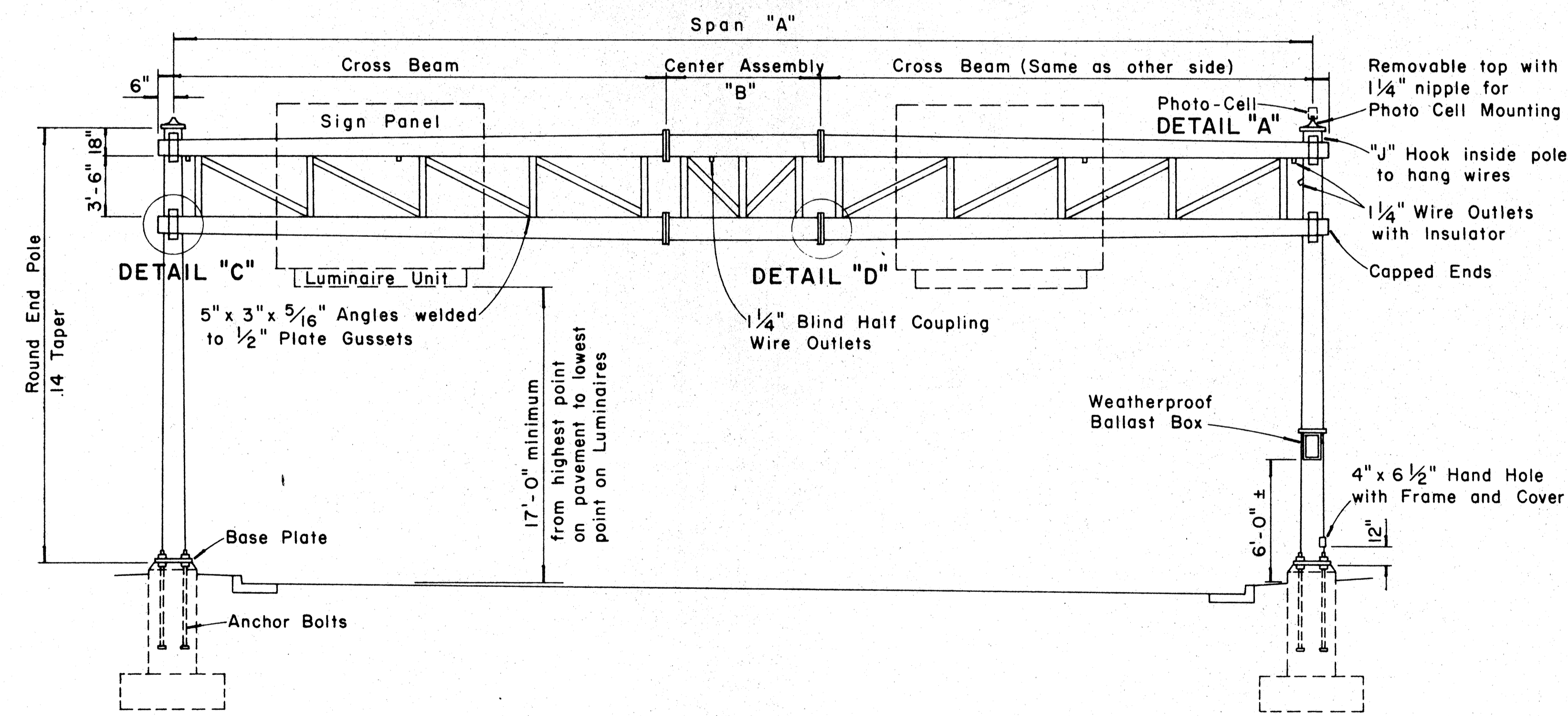
WEATHERPROOF BALLAST BOX
Scale: 1/2" = 1'-0"



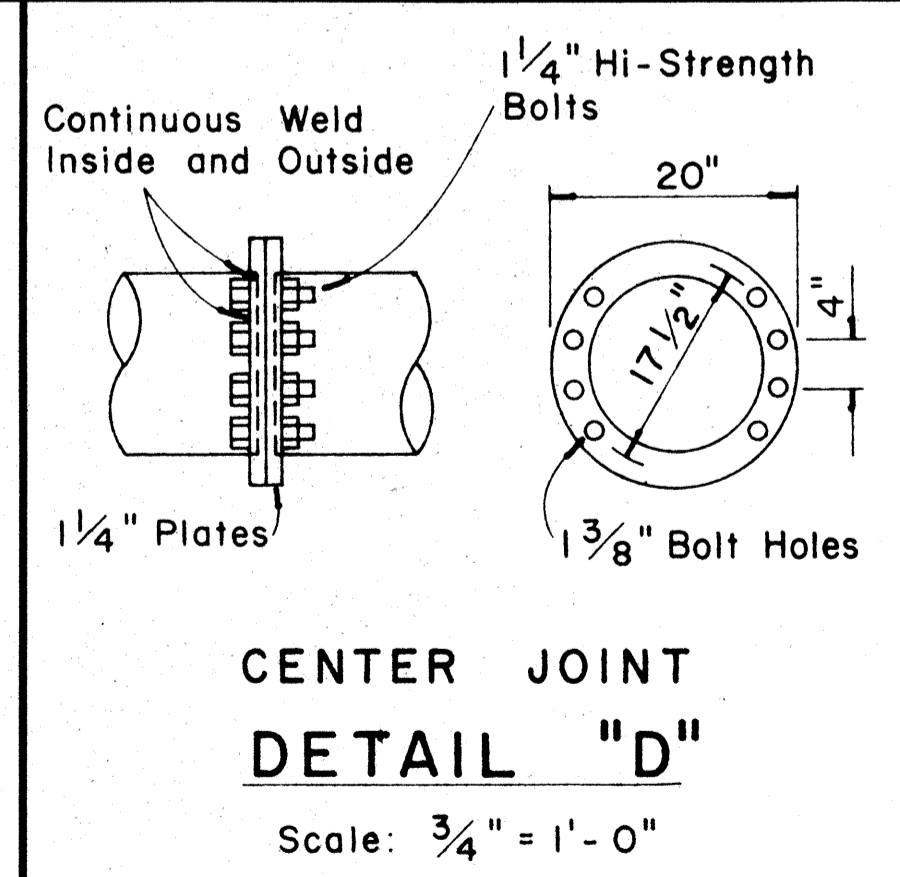
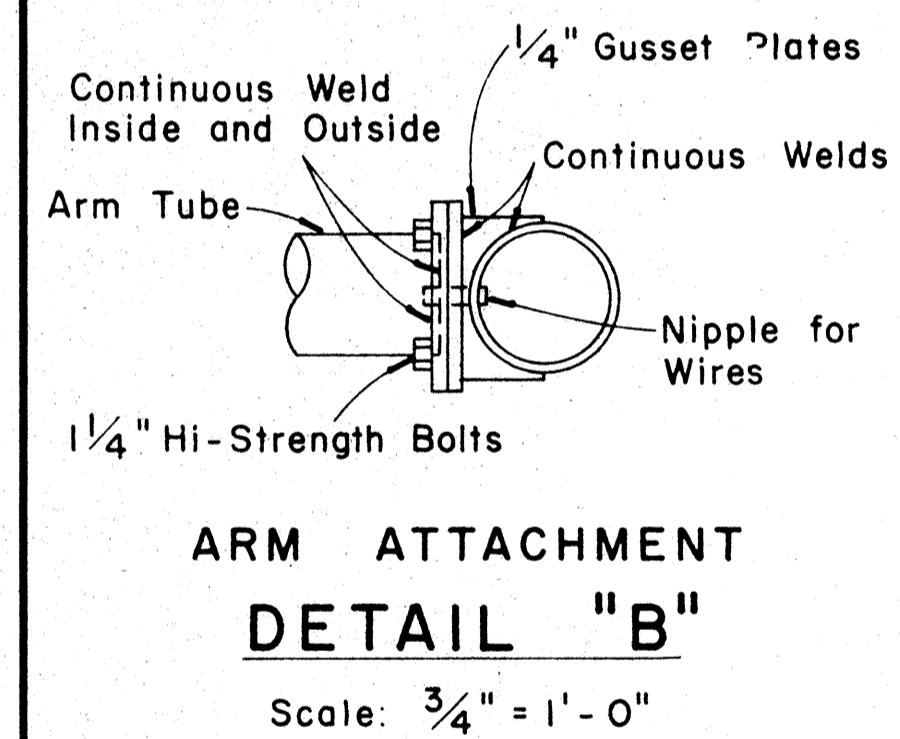
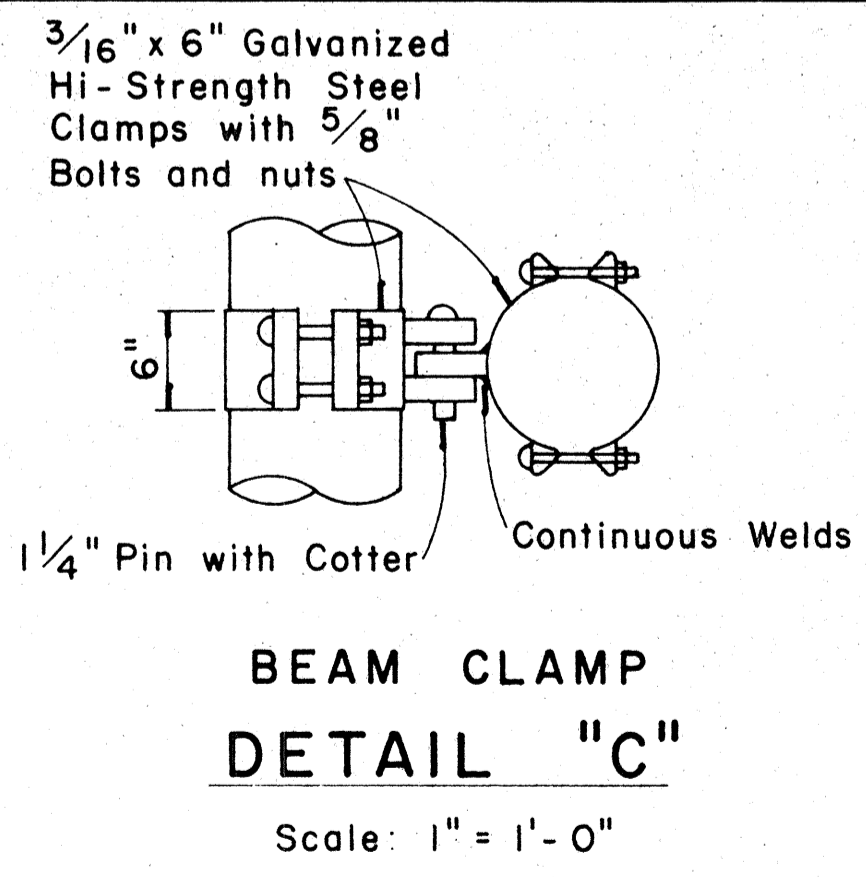
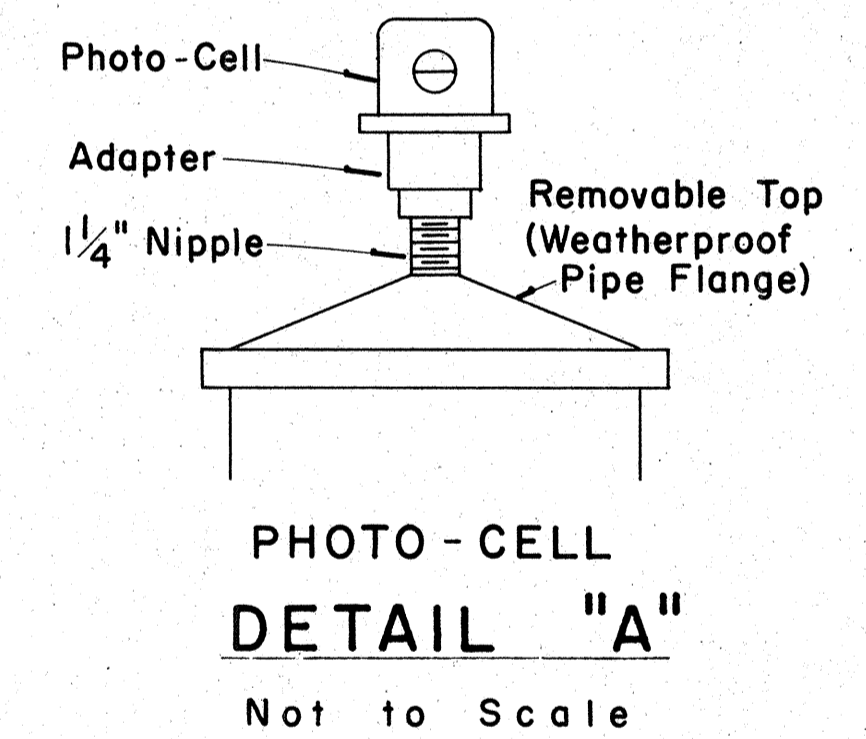
TYPE "C"
SINGLE SIGN POST — CANTILEVER TYPE
DOUBLE MAST ARM
Scale: 3/16" = 1'-0"



SIGN BRACKET ASSEMBLY
Scale: 1/2" = 1'-0"



TYPE "D"
TWO-TUBE TRUSS — SPAN TYPE
Scale: 3/16" = 1'-0"



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

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

NO.	REVISION	APPROVED BY	DATE

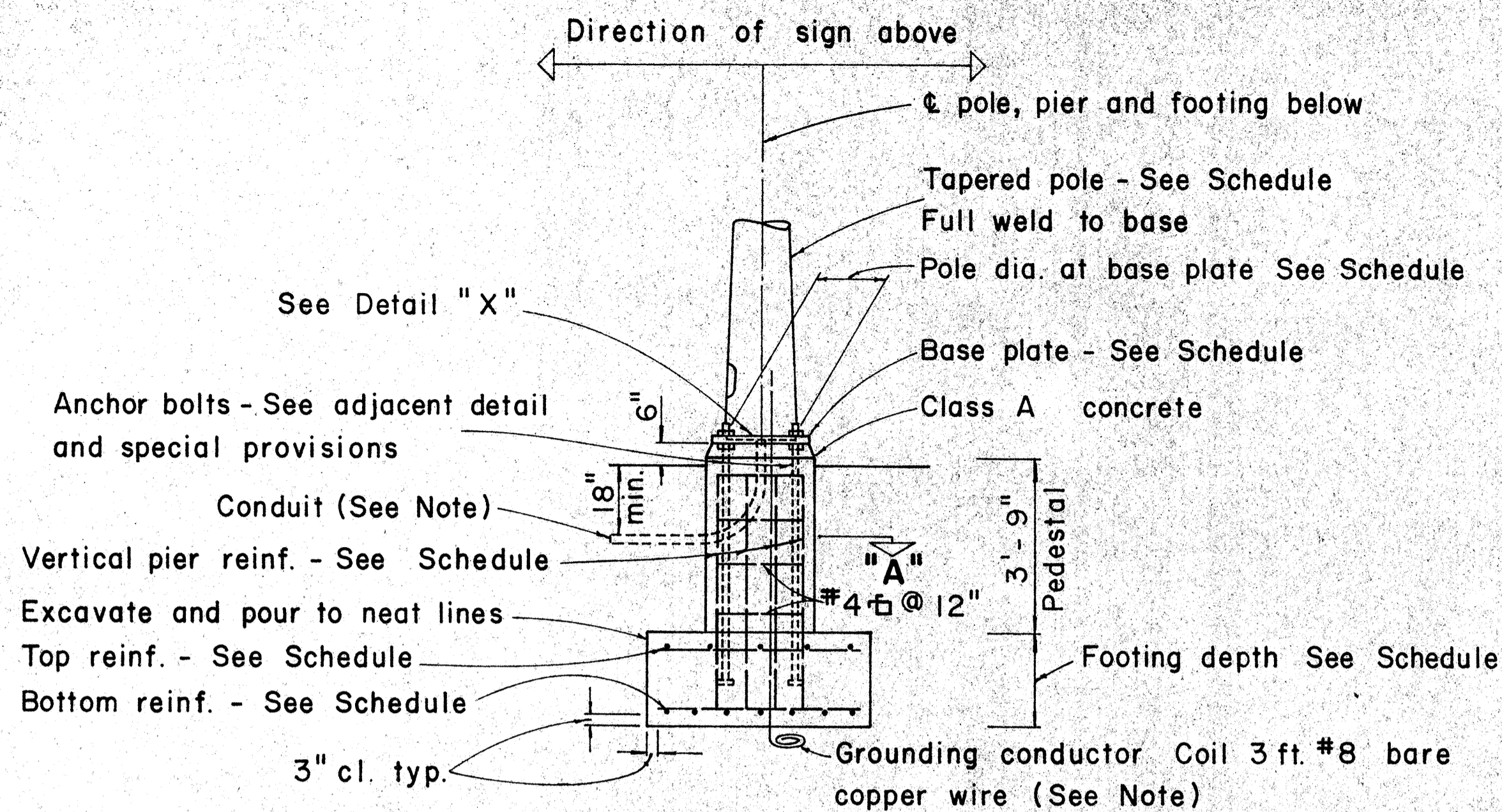
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
OVERHEAD SIGN SUPPORTS

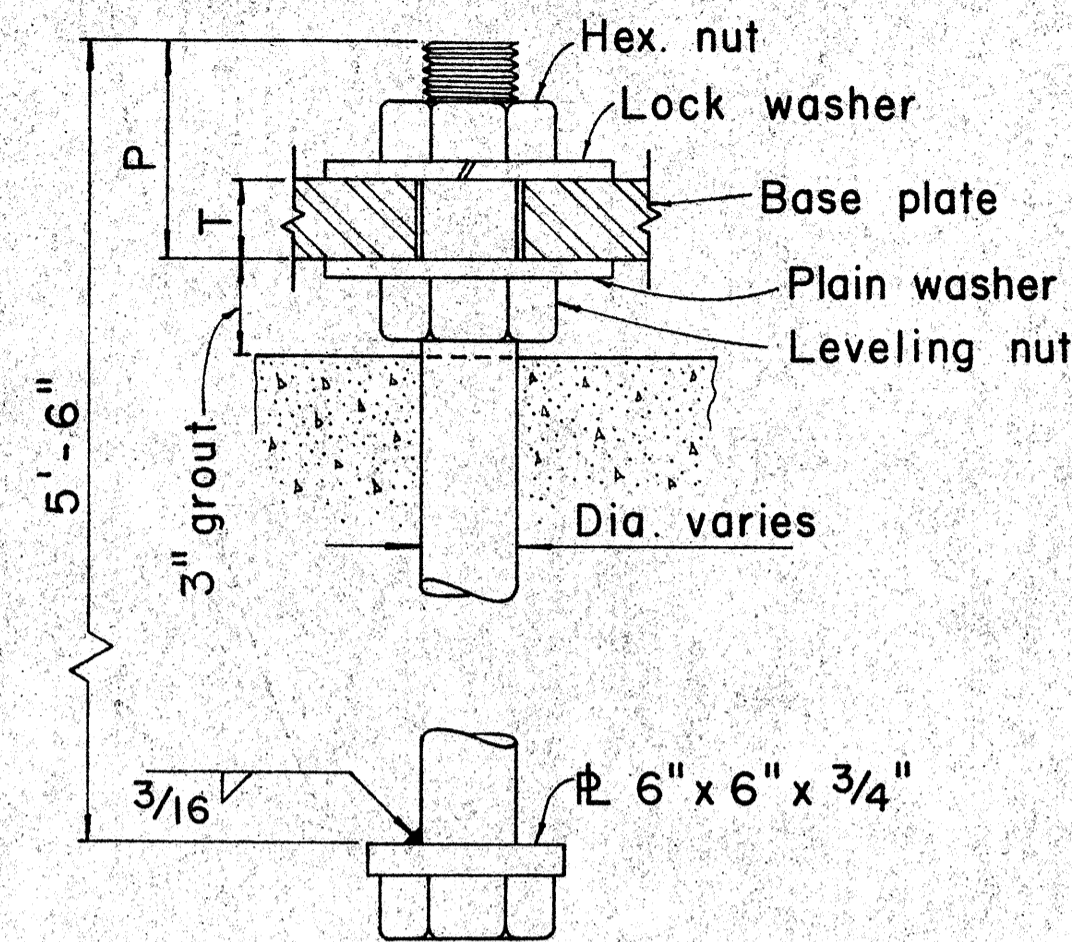
Scale: As Shown
SHEET No. 16 OF 27 SHEETS DT 200

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

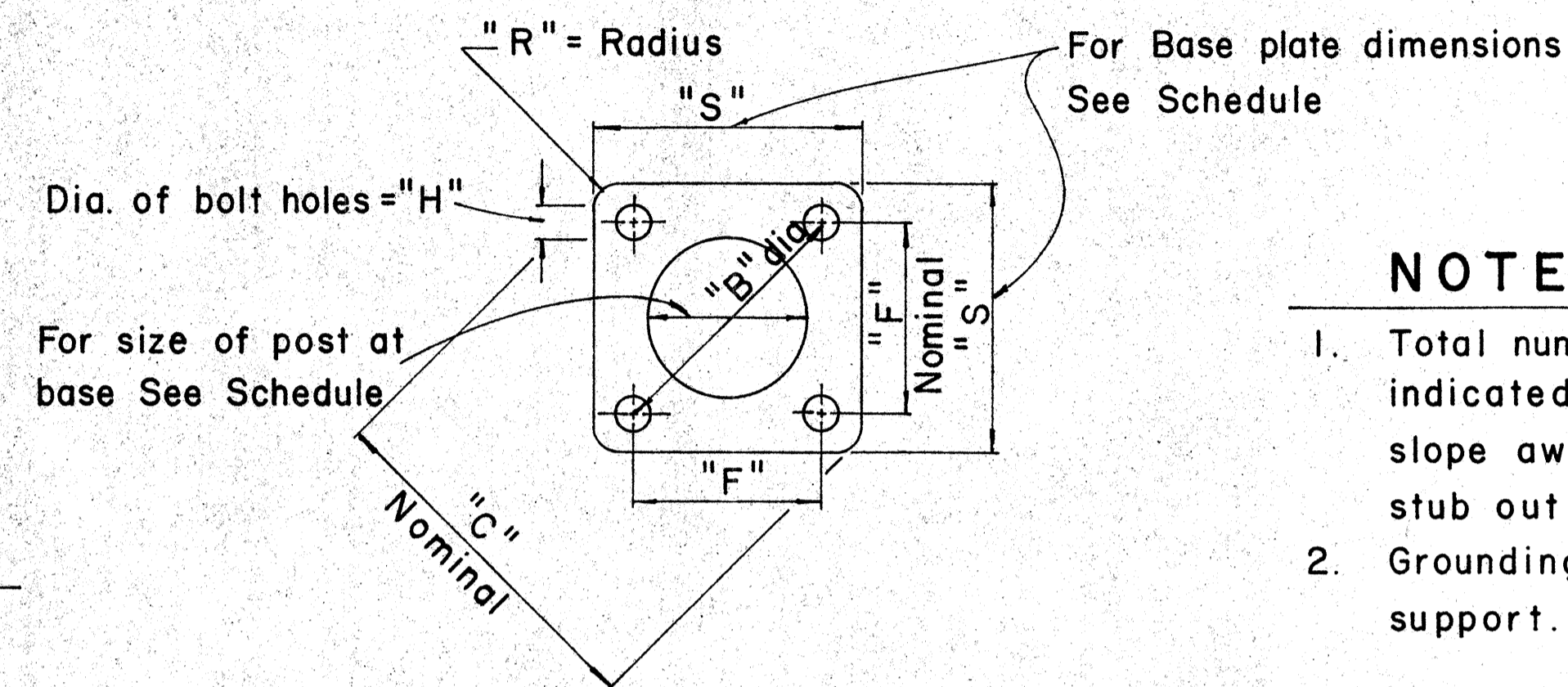
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	115	302



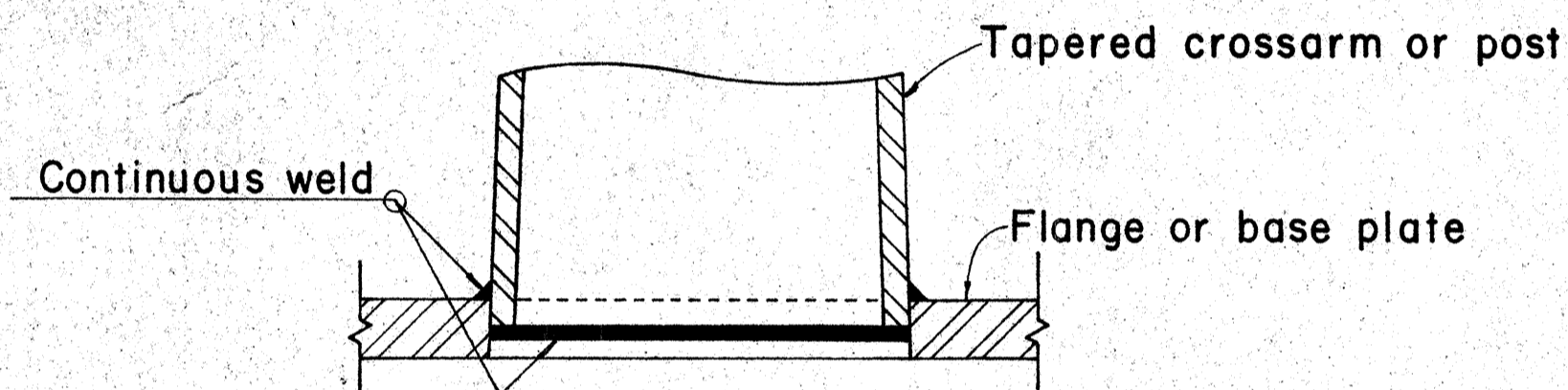
TYPICAL POLE FOUNDATION DETAIL



TYPICAL ANCHOR BOLT 4 REQ'D



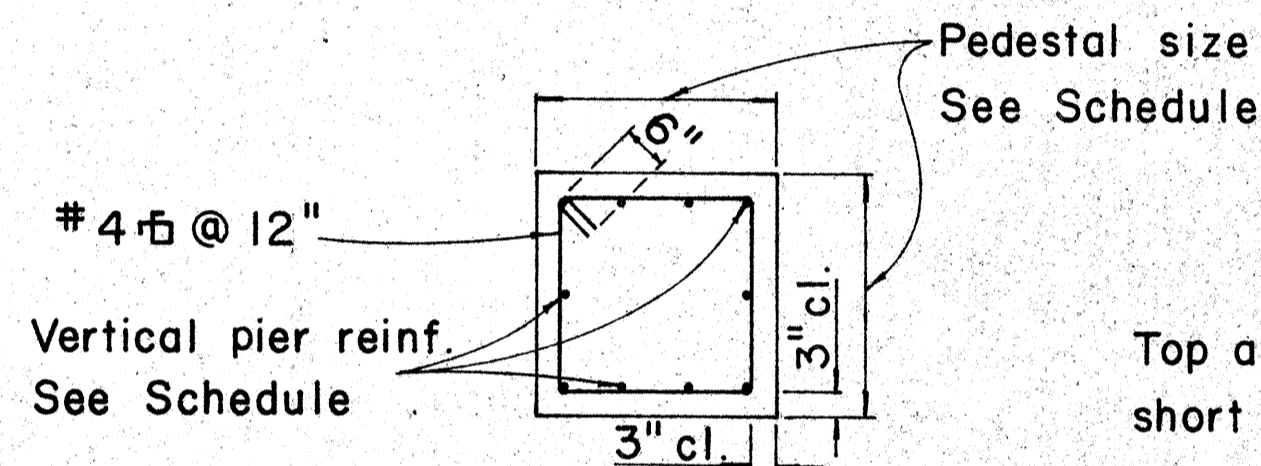
TYPICAL BASE PLATE



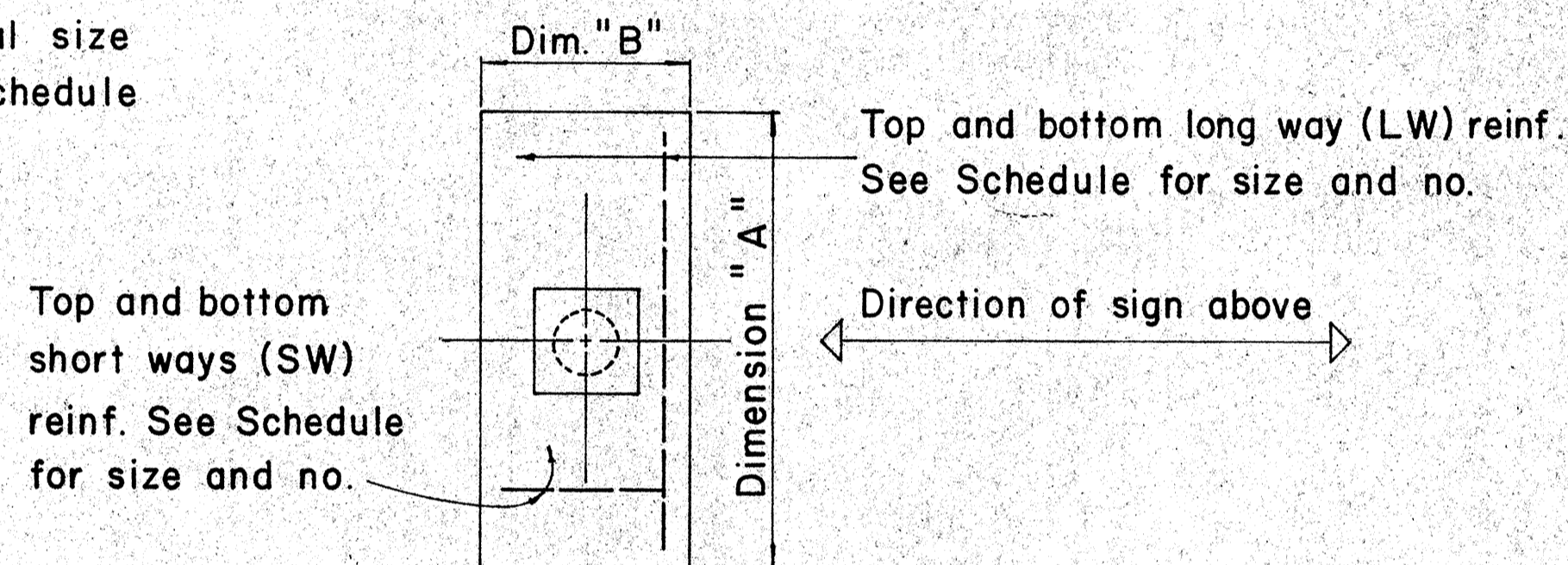
DETAIL "X"

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.



SECTION "A"



TYPICAL FOOTING DETAIL

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-#6	8-#4	#4 @ 12 each way	1'-11"
II	9'-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	13-#4	Do.	2'-9"	10-#10	
V	14'-0"	7'-0"	2'-0"	8-#11	19-#4	Do.	2'-9"	10-#11	

FOUNDATION SCHEDULE

APPROVAL RECOMMENDED:

Eiichi Tanaka 12/29/69
TRAFFIC ENGINEER DATE

APPROVED:

John P. Selzer 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Foundation Schedule	H.C.	8/14/70

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

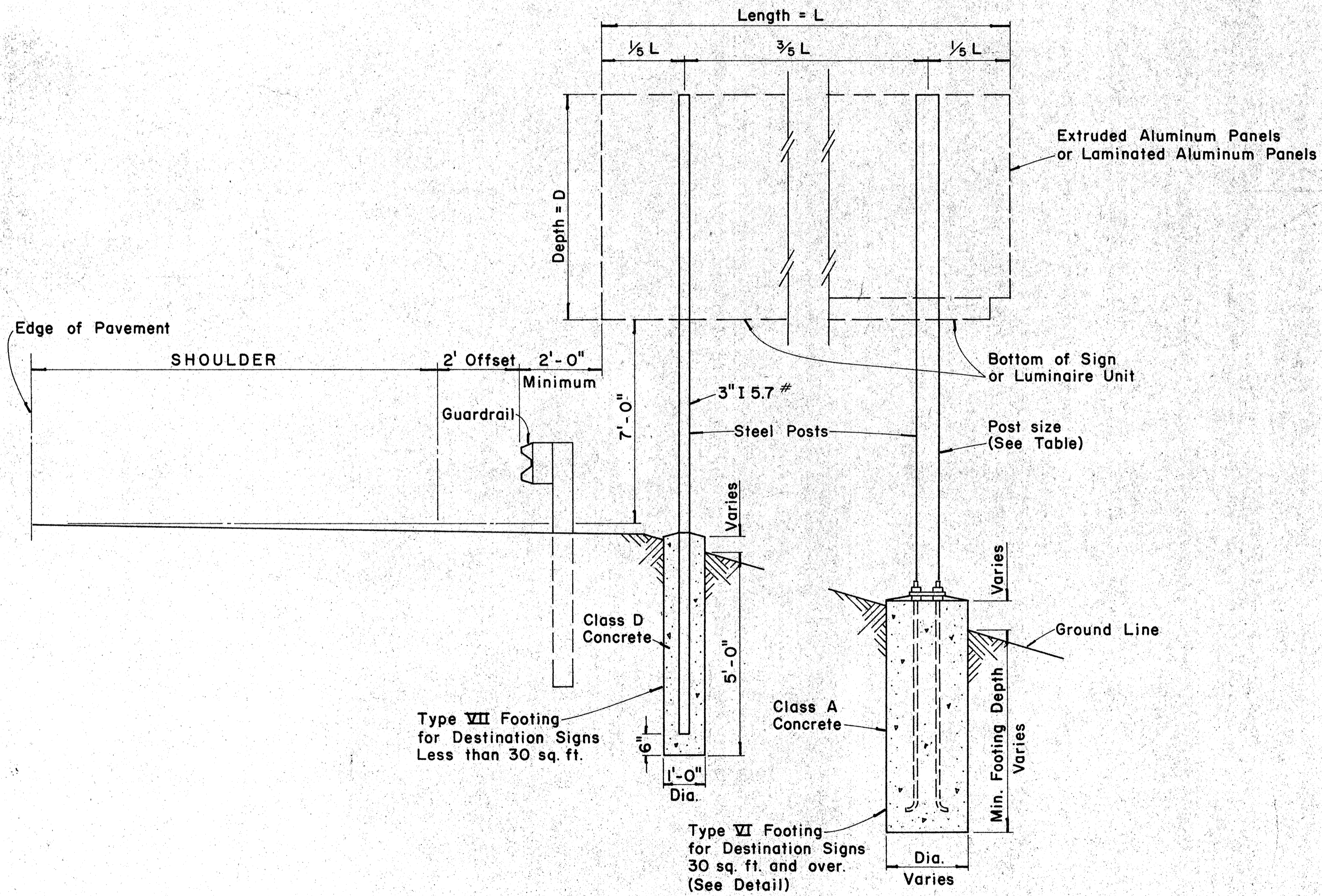
DETAILS & SCHEDULES

NOT TO SCALE

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

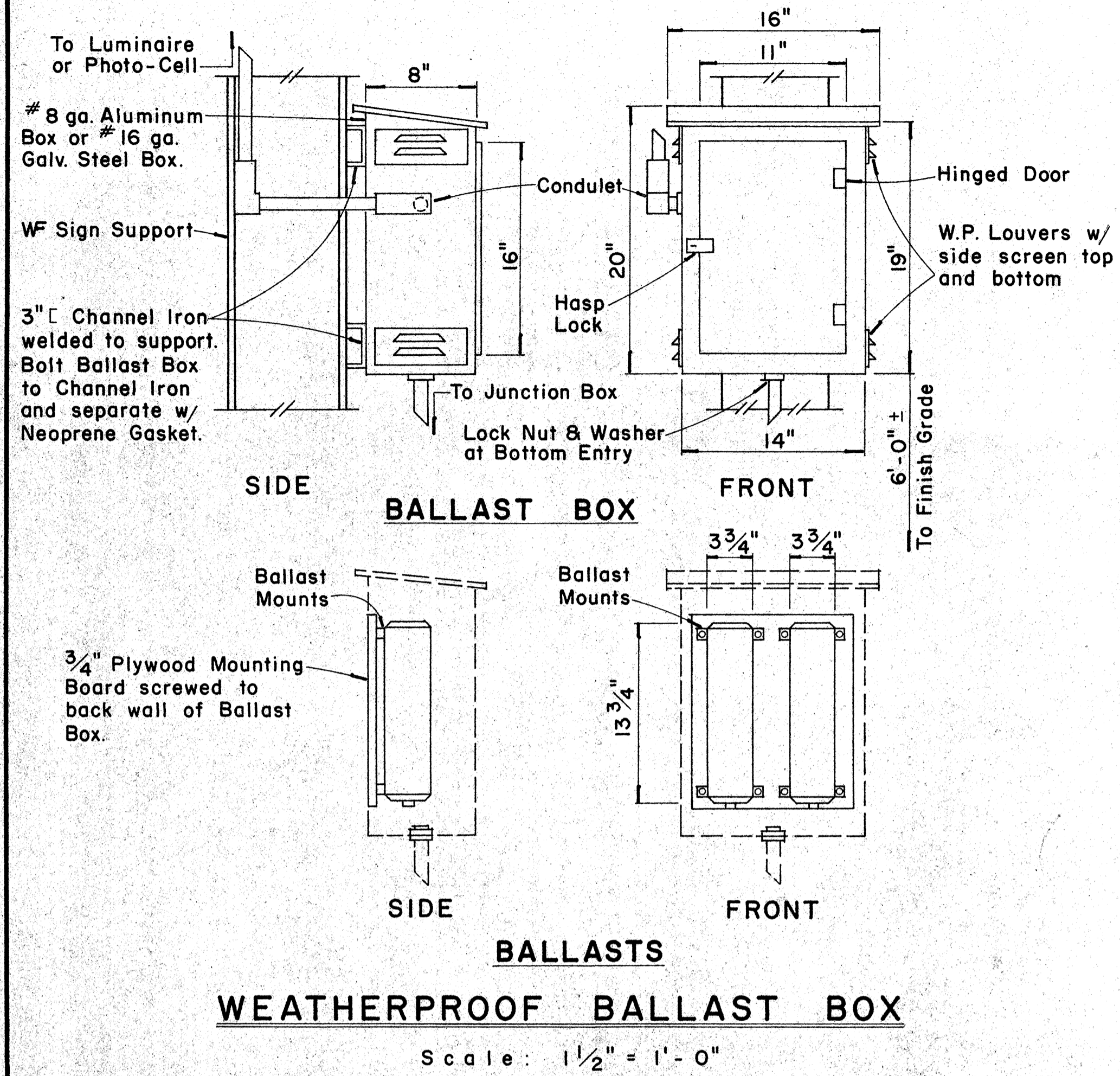
* For moment calculations only. Post shall be from top of foundation to top of sign.
 ** For fills with side slopes flatter than 4:1, Minimum Footing Depth shall be 4 1/2 feet.

DATA TABLE FOR TYPE VI FOOTING																	
POST SIZE	MAXIMUM SIGN AREA	POST HEIGHT TOP OF FOUNDATION TO CENTER OF SIGN *	DIMENSIONS											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"	17 1/4"	1 5/8"	6"	1 1/4"	9"	6"	10"	2"	1"	1 1/8" Ø	4 1/2'	4 1/2'
8 WF 24	90 sq. ft.	21'															5'
8 WF 35	190 sq. ft.	15'	16 1/2"	6 3/4"	30"	20"	1 3/4"	6"	1 3/8"	11 3/4"	6 1/2"	10"	1 3/4"	1"	1 1/4" Ø	6'	7'
10 WF 45	190 sq. ft.	25'															
10 WF 45	200 sq. ft.	25'															
12 WF 50	230 sq. ft.	25'															
12 WF 50	250 sq. ft.	23'															



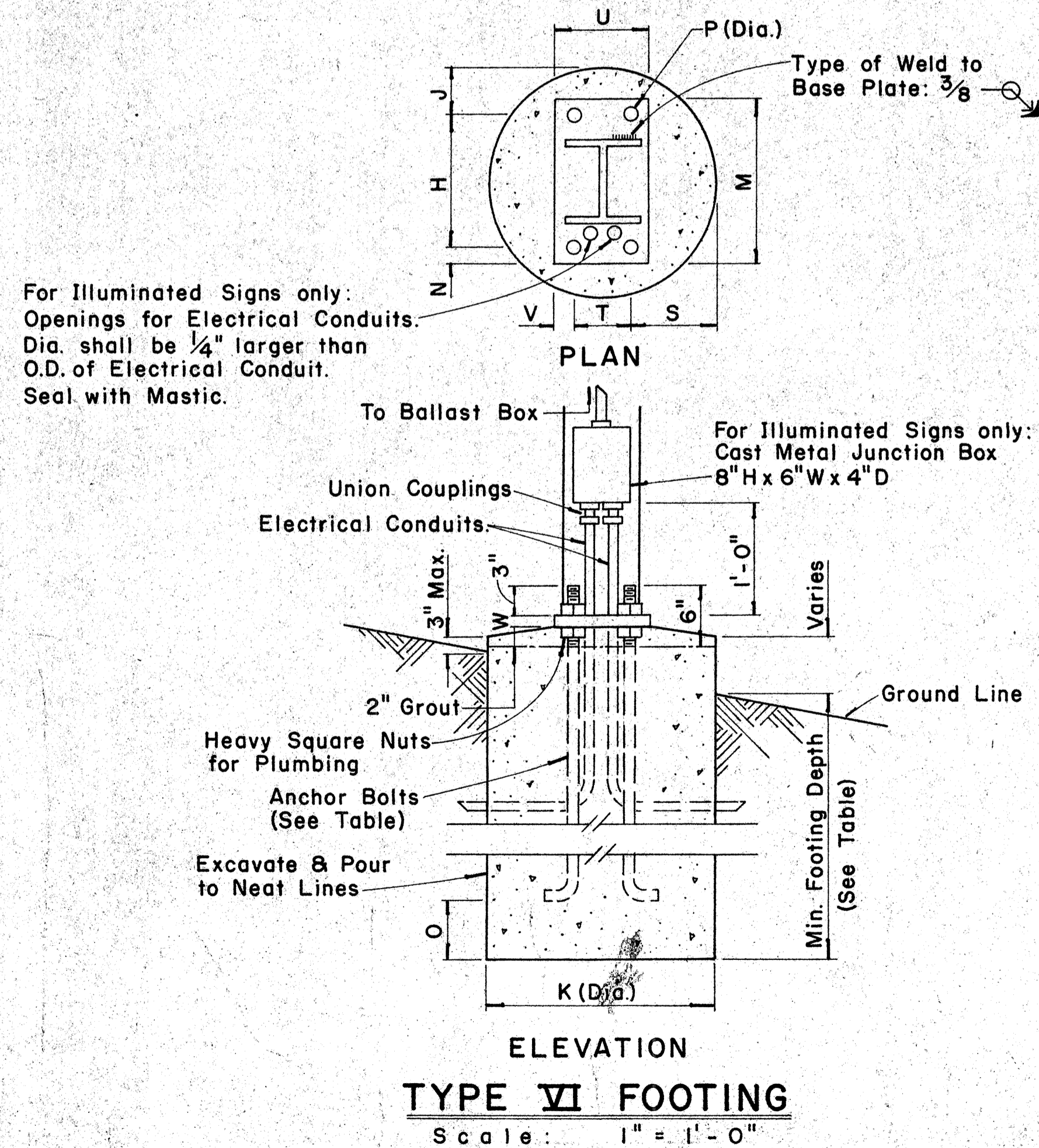
TYPICAL DESTINATION & GROUND MOUNTED EXPRESSWAY SIGN

Not to Scale



WEATHERPROOF BALLAST BOX

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



TYPE VI FOOTING

Scale: 1" = 1'-0"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	116	302

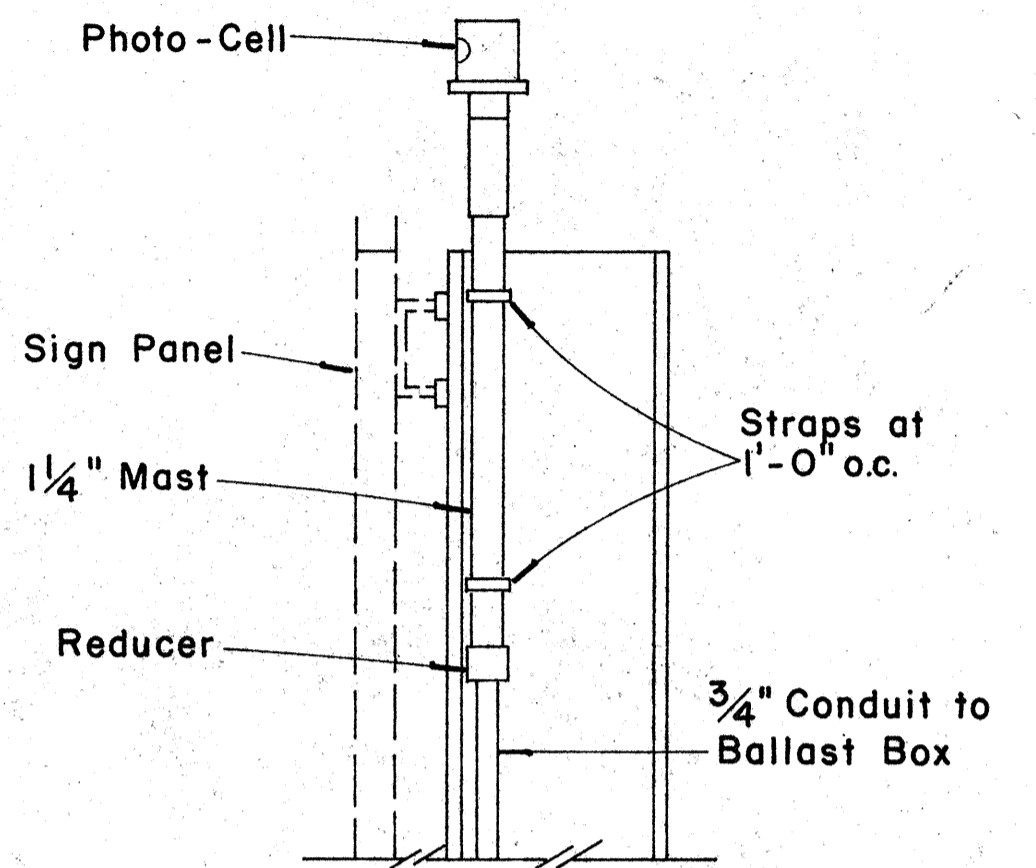


PHOTO-CELL DETAIL

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

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

APPROVED:
Andy S. Selzer 12-29-69
 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. 18 OF 27 SHEETS DT 203

(OVERHEAD SIGNS)
SUPPORT SPACING TABLE

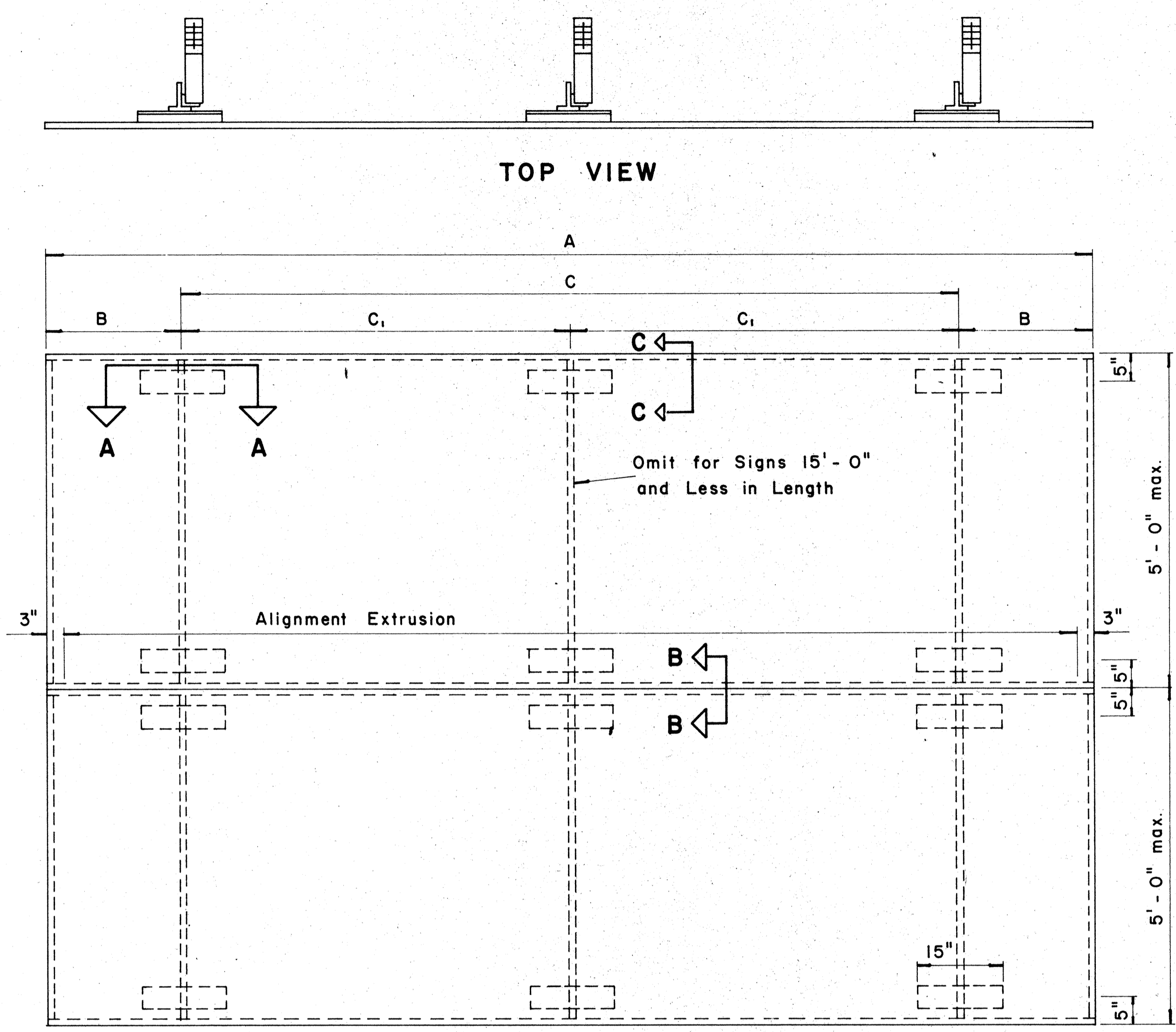
PANEL THICK.	LENGTH OF SIGN A	NO. OF SUPPORTS	OVERHANG B	SUPPORT SPACING C or C ₁
1"	6'-0"	2	12"	48"
1"	6'-6"	2	15"	48"
1"	7'-0"	2	15"	54"
1"	7'-6"	2	18"	54"
1"	8'-0"	2	18"	60"
1"	8'-6"	2	20"	62"
1"	9'-0"	2	22"	64"
1"	9'-6"	2	23"	68"
1"	10'-0"	2	24"	72"
1"	10'-6"	2	24"	78"
1"	11'-0"	2	24"	84"
1"	11'-6"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

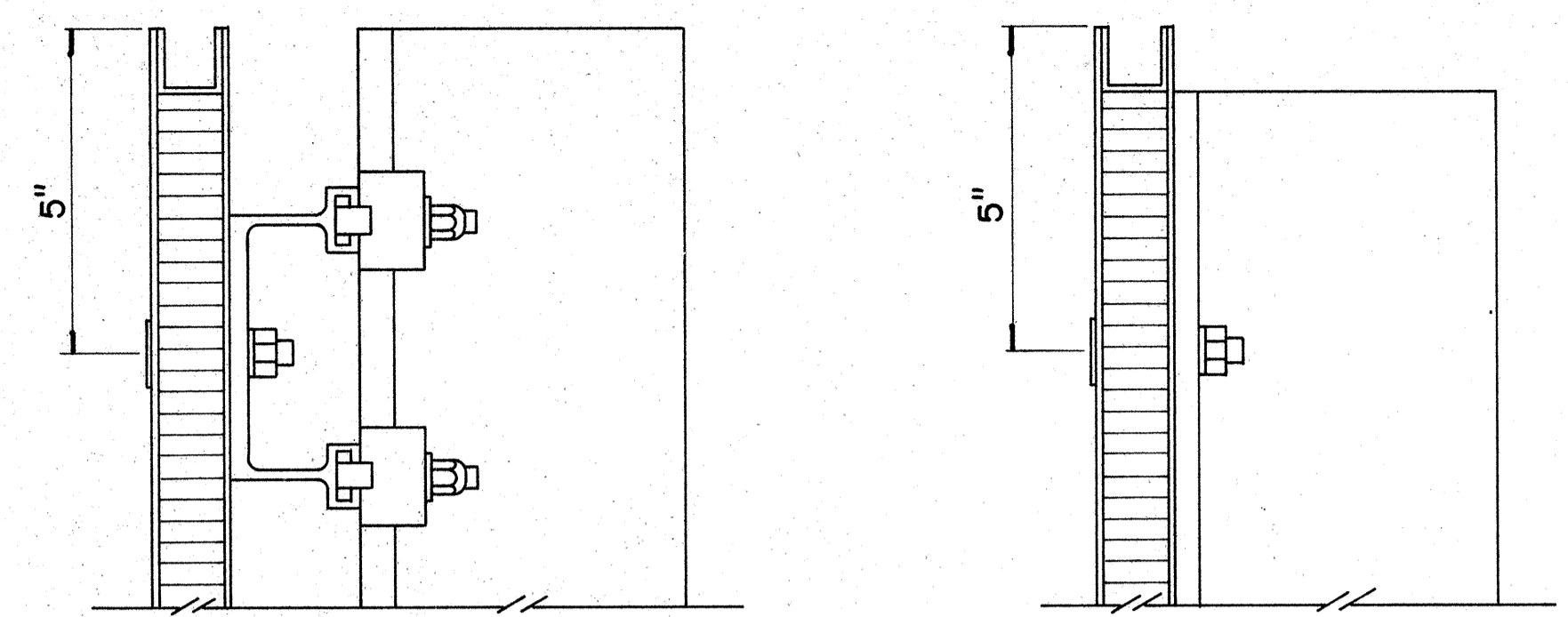
APPROVED:
John J. ... 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

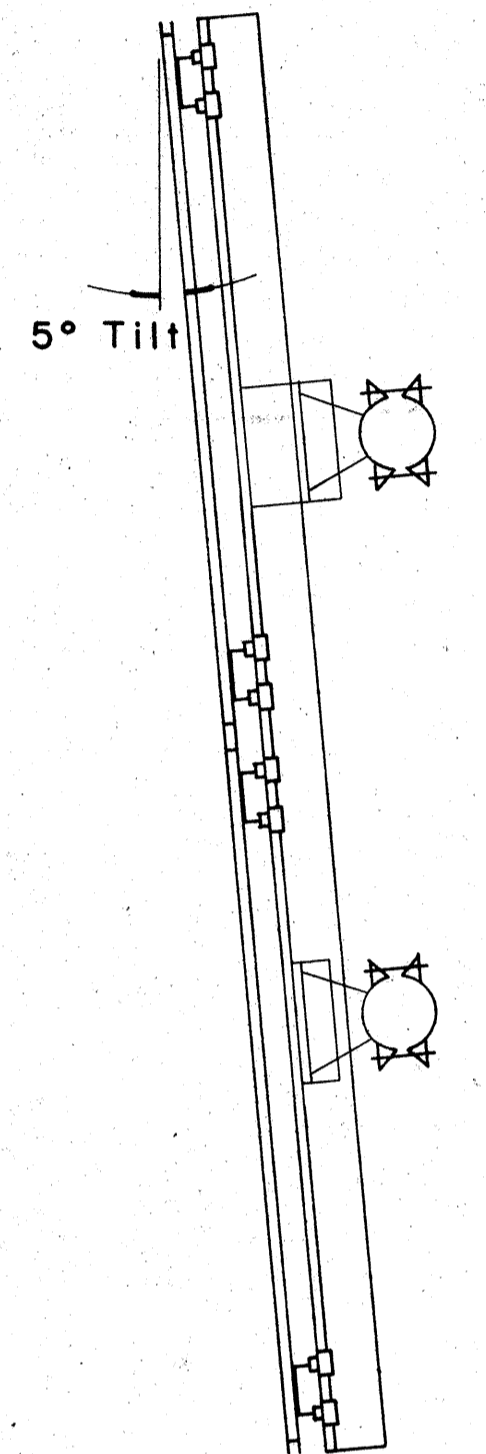
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
LAMINATED ALUMINUM
SIGN PANELS
(OVERHEAD)
Scale: As Shown
SHEET No. 20 OF 27 SHEETS DT 205



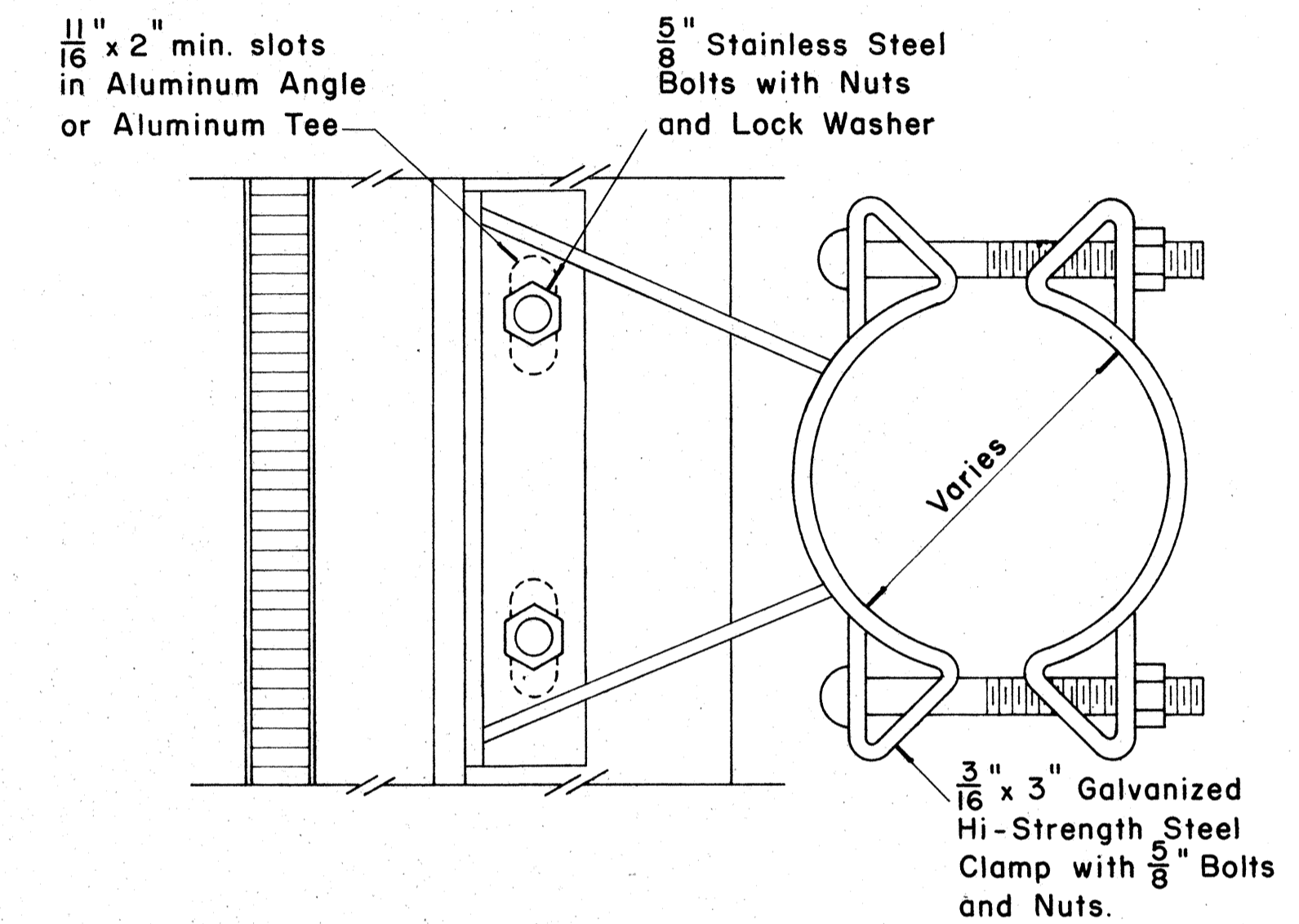
TYPICAL SIGN ASSEMBLY
Scale: $\frac{3}{4}$ " = 1'-0"



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

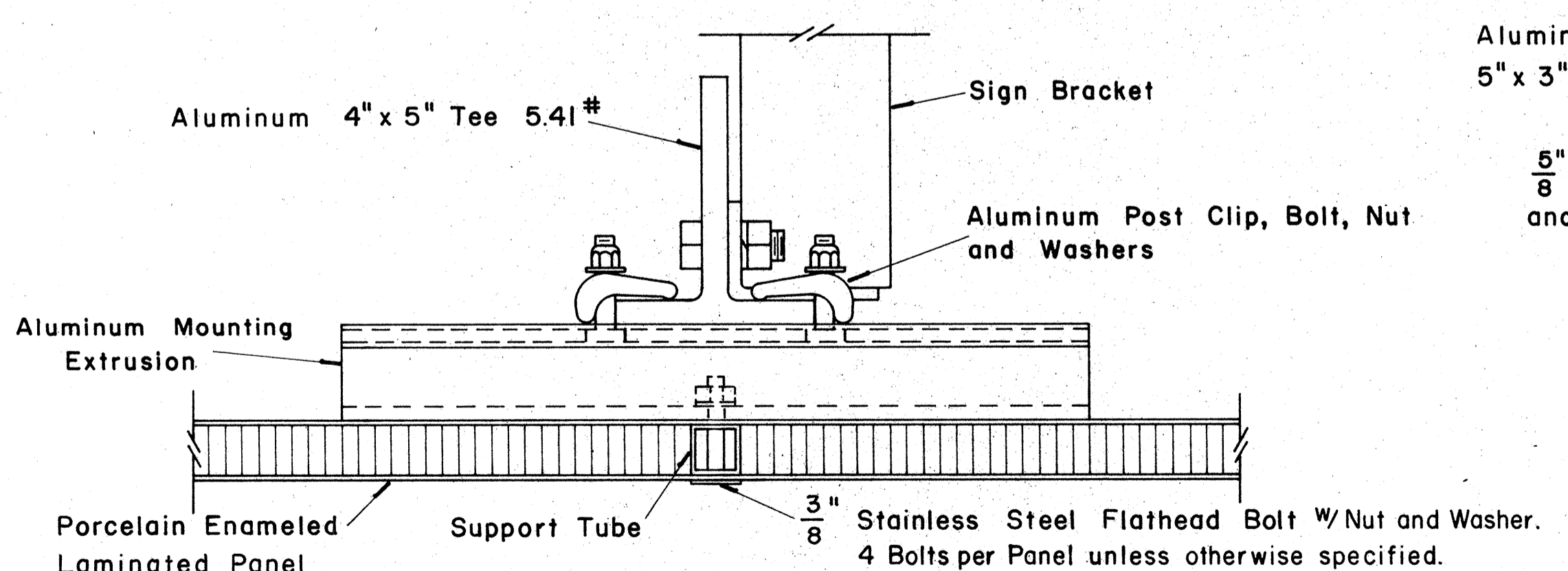


SIDE VIEW

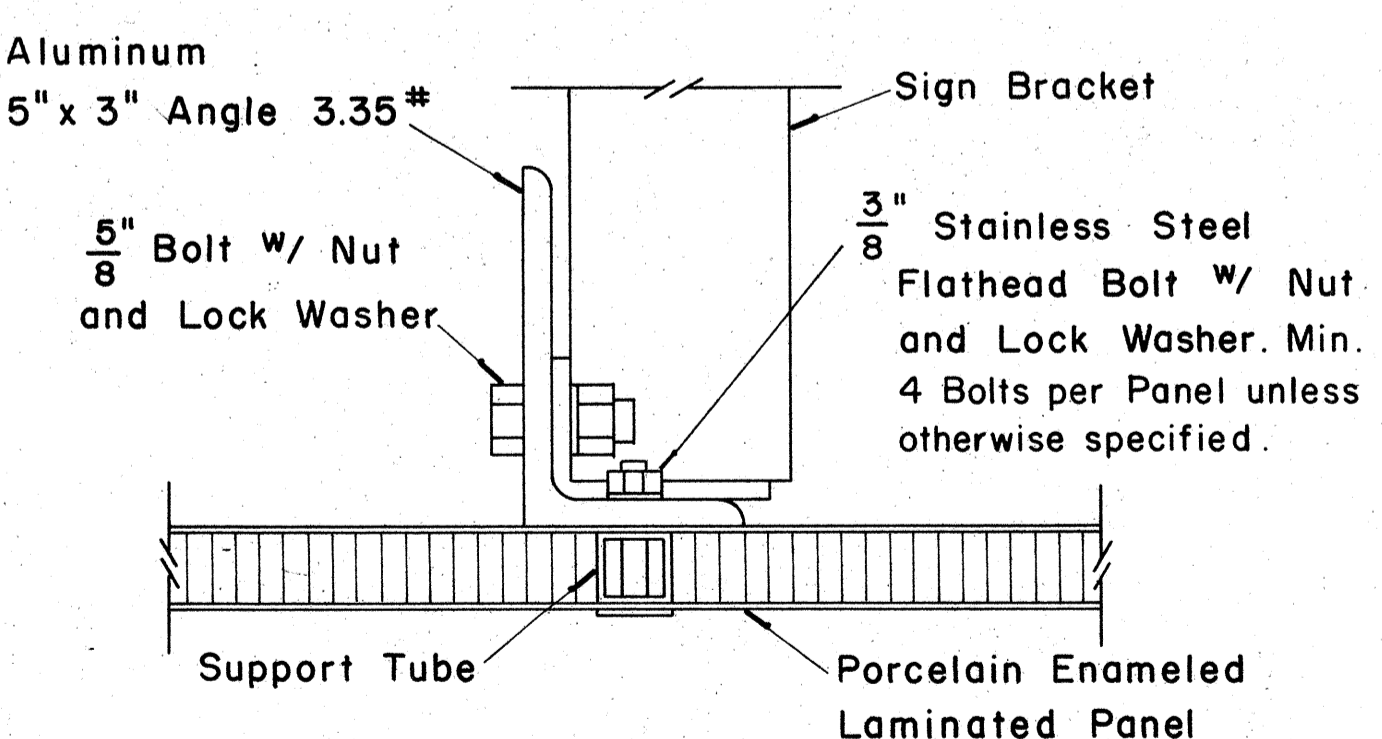


SIGN BRACKET ASSEMBLY

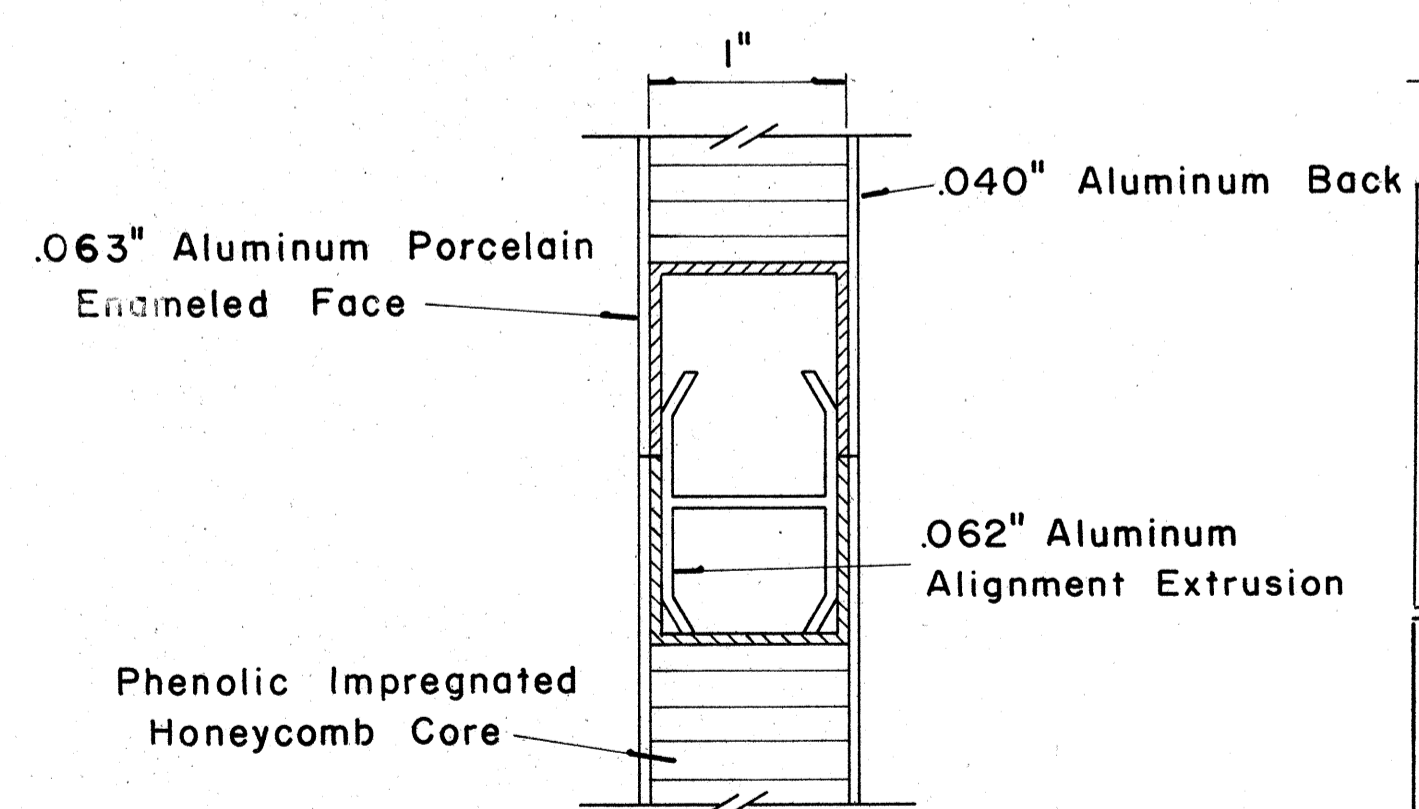
Scale: $\frac{3}{8}$ " = 1"
NOTE: For additional details of Sign Bracket Assembly, see Standard Detail Sheet "Overhead Sign Supports."



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



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

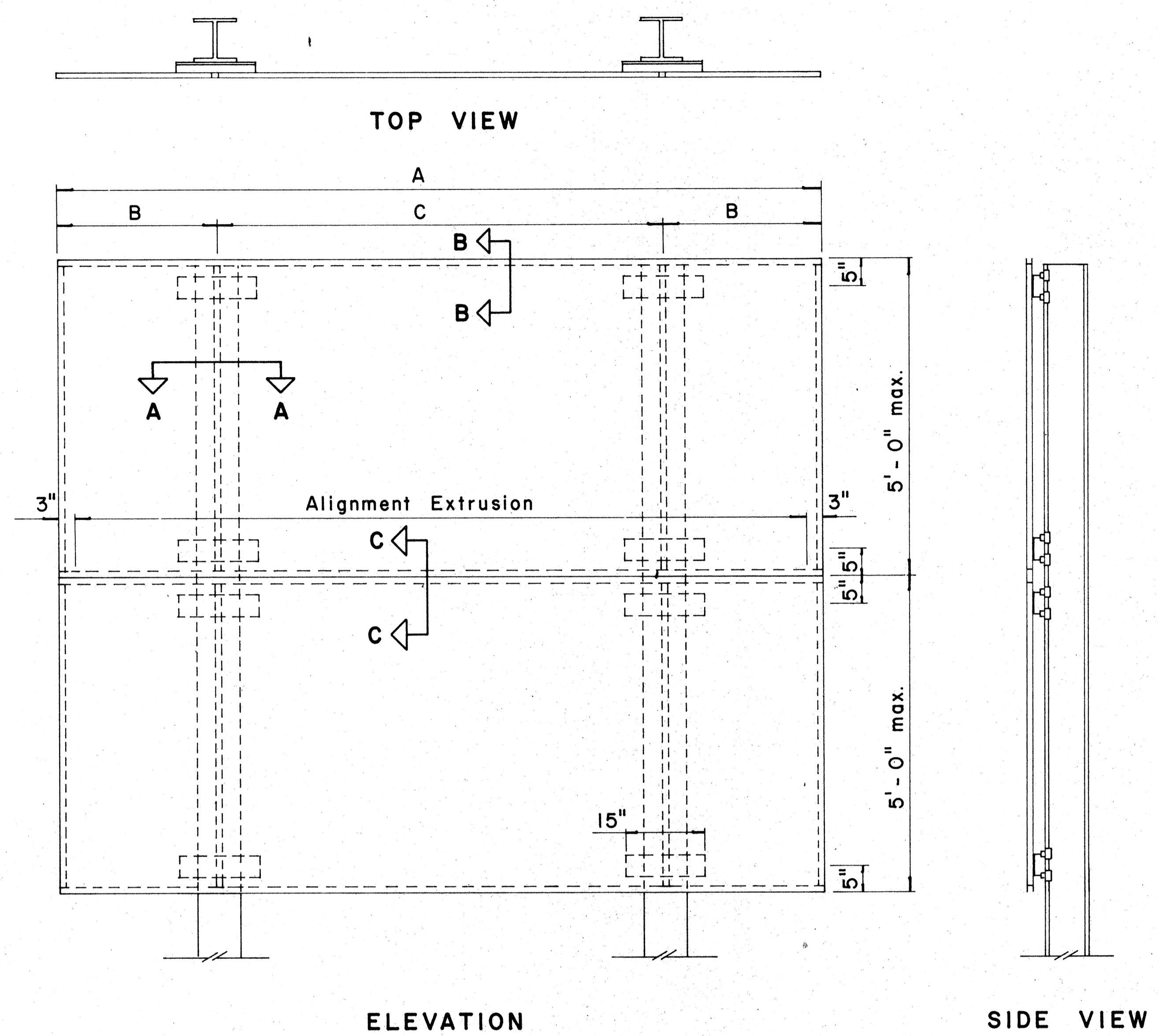


CLOSURE DETAIL SECTION "B-B"
FULL SCALE

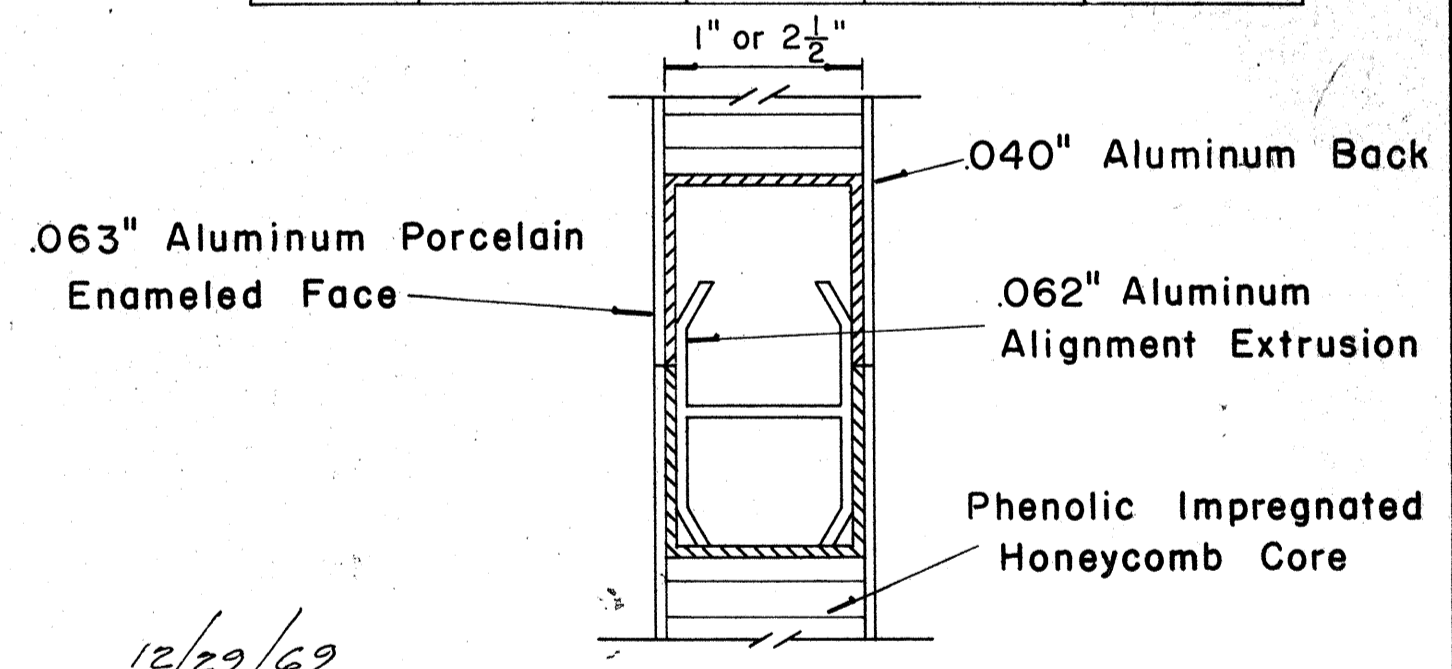
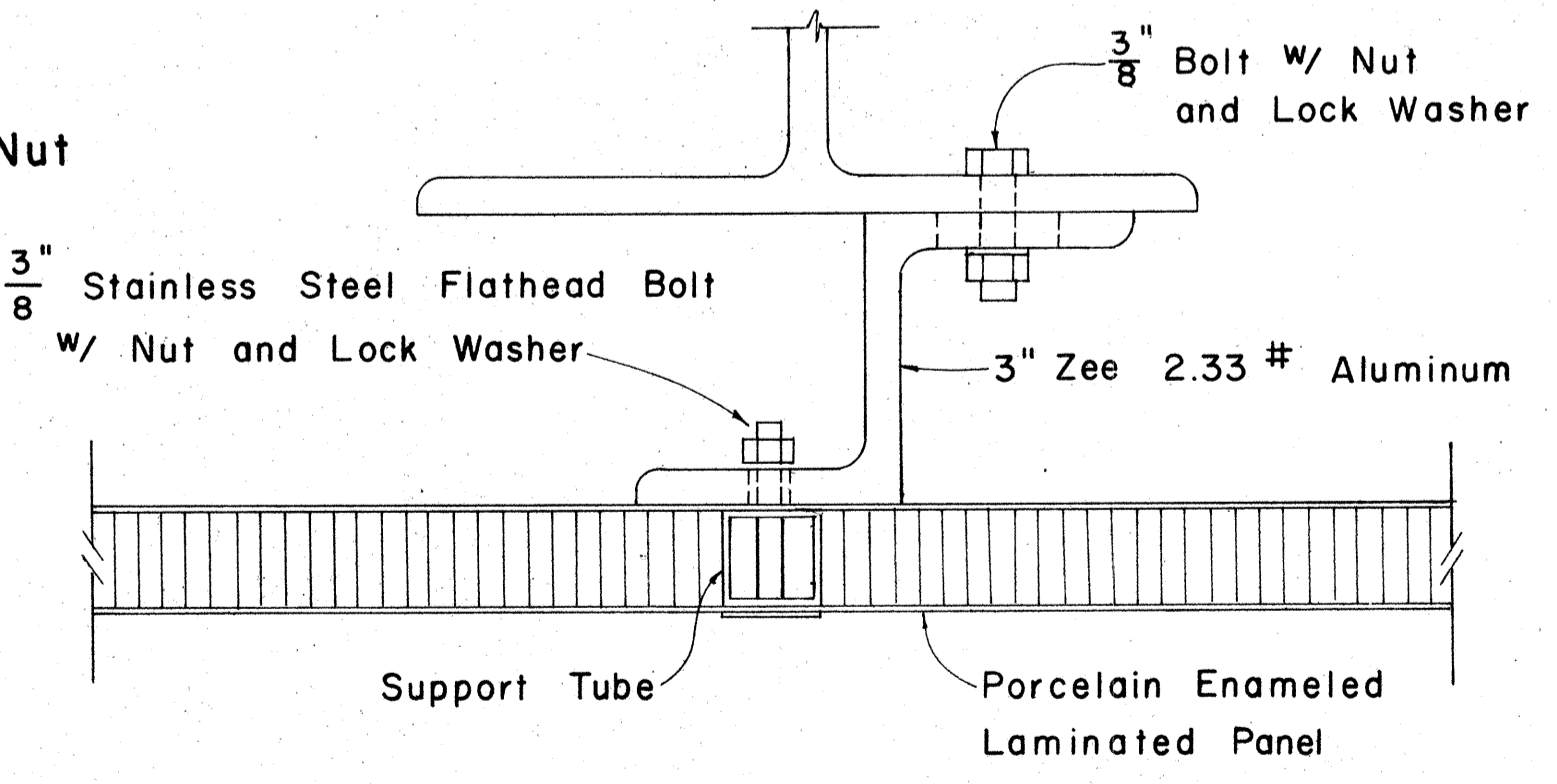
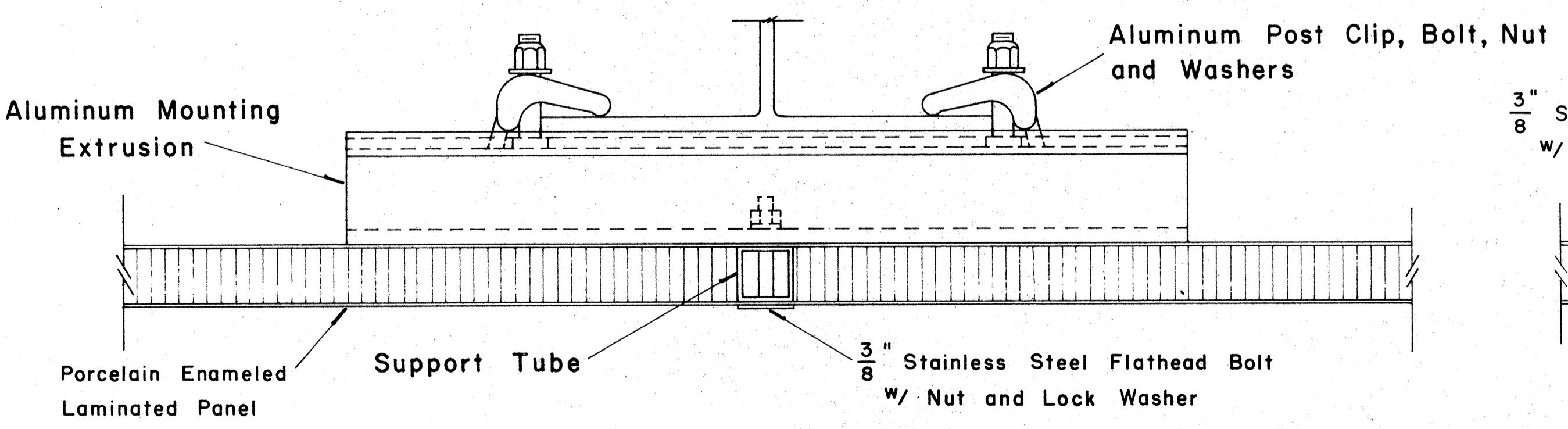
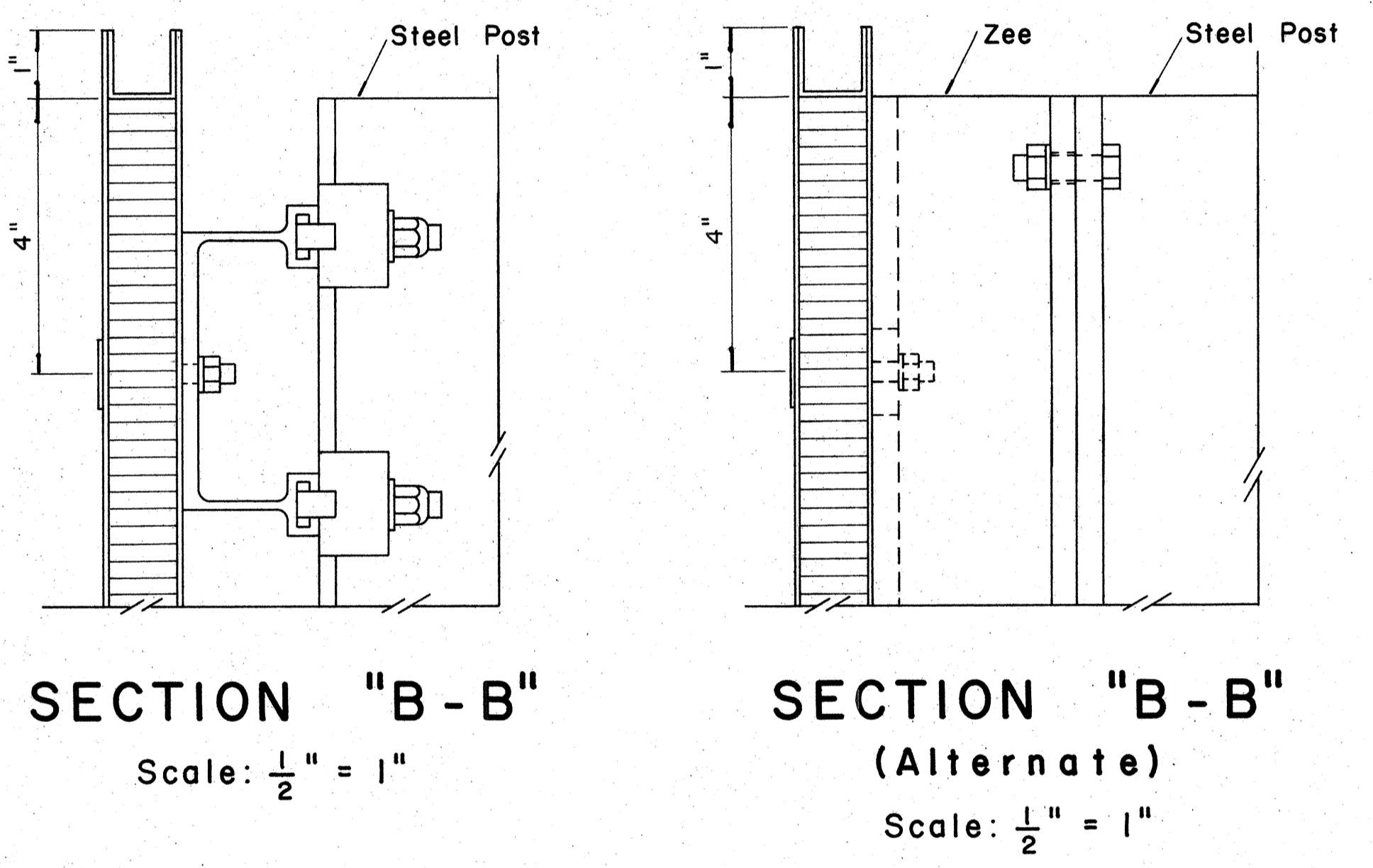
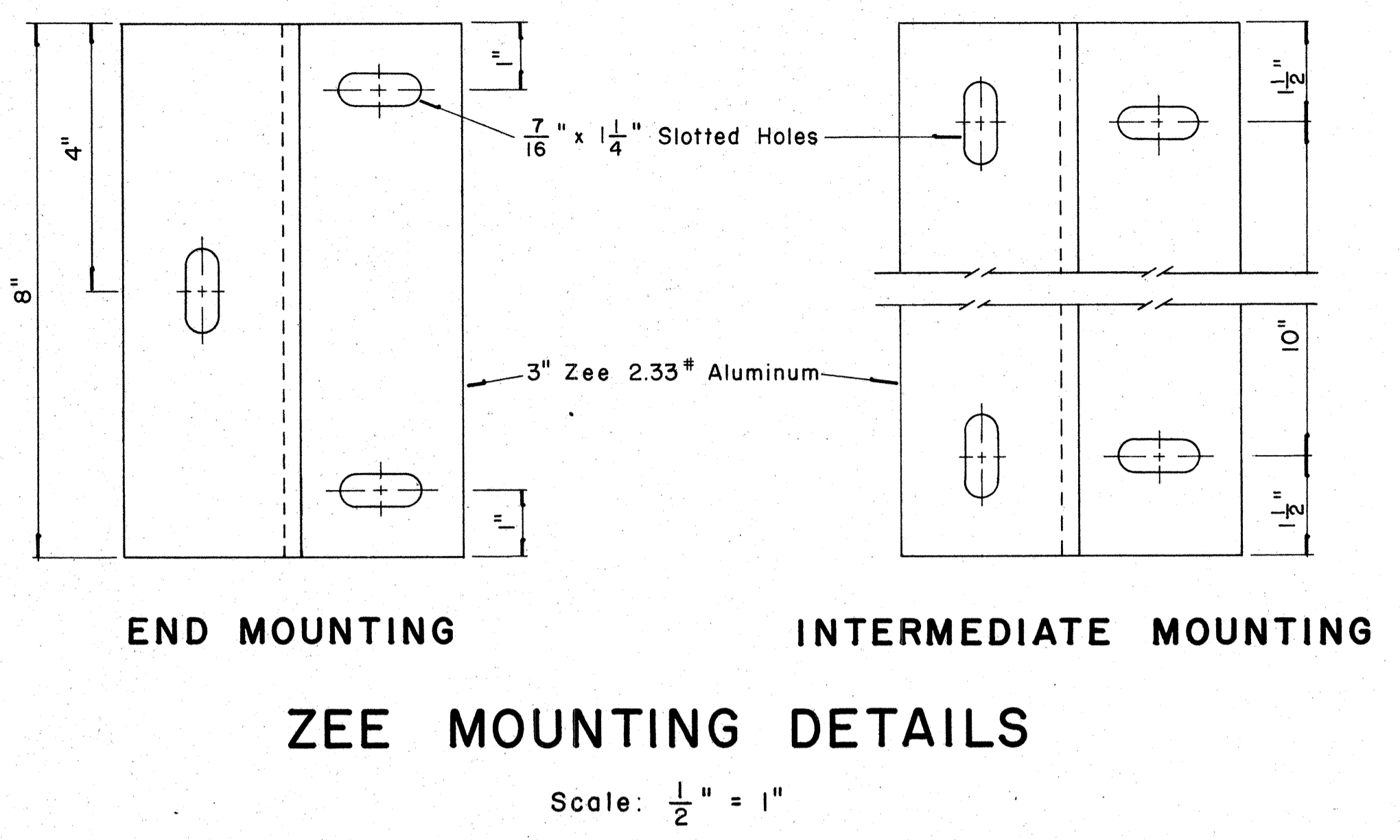
DATE: _____
SURVEY PLOTTED BY: _____
DRAWN BY: _____
CHECKED BY: _____
NOTE BOOK NO. _____

(GROUND MOUNTED SIGNS)
SUPPORT SPACING TABLE

PANEL THICK.	LENGTH OF SIGN	NO. OF SUPPORTS	OVERHANG		SUPPORT SPACING
			A	B	
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"



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



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

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

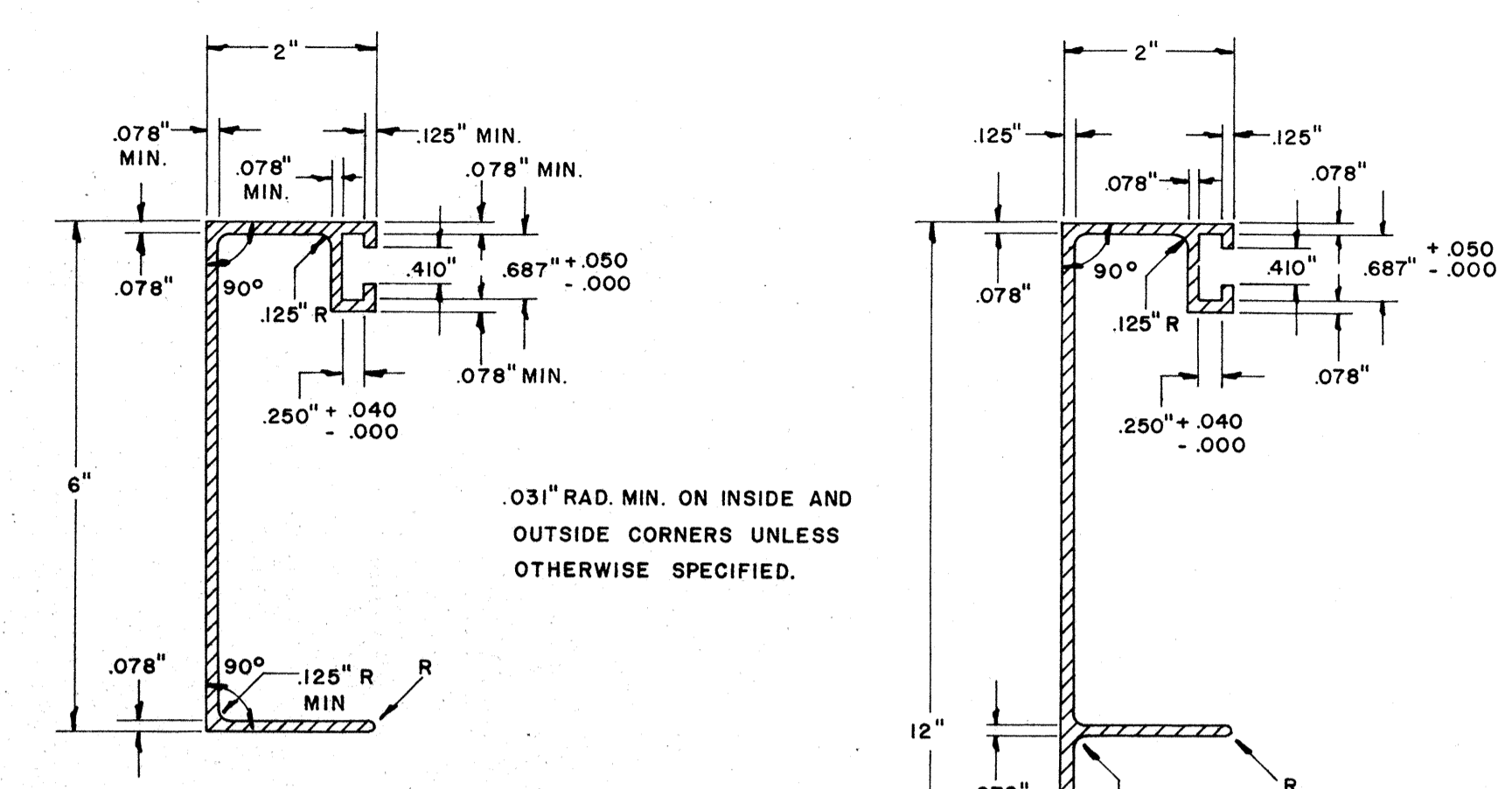
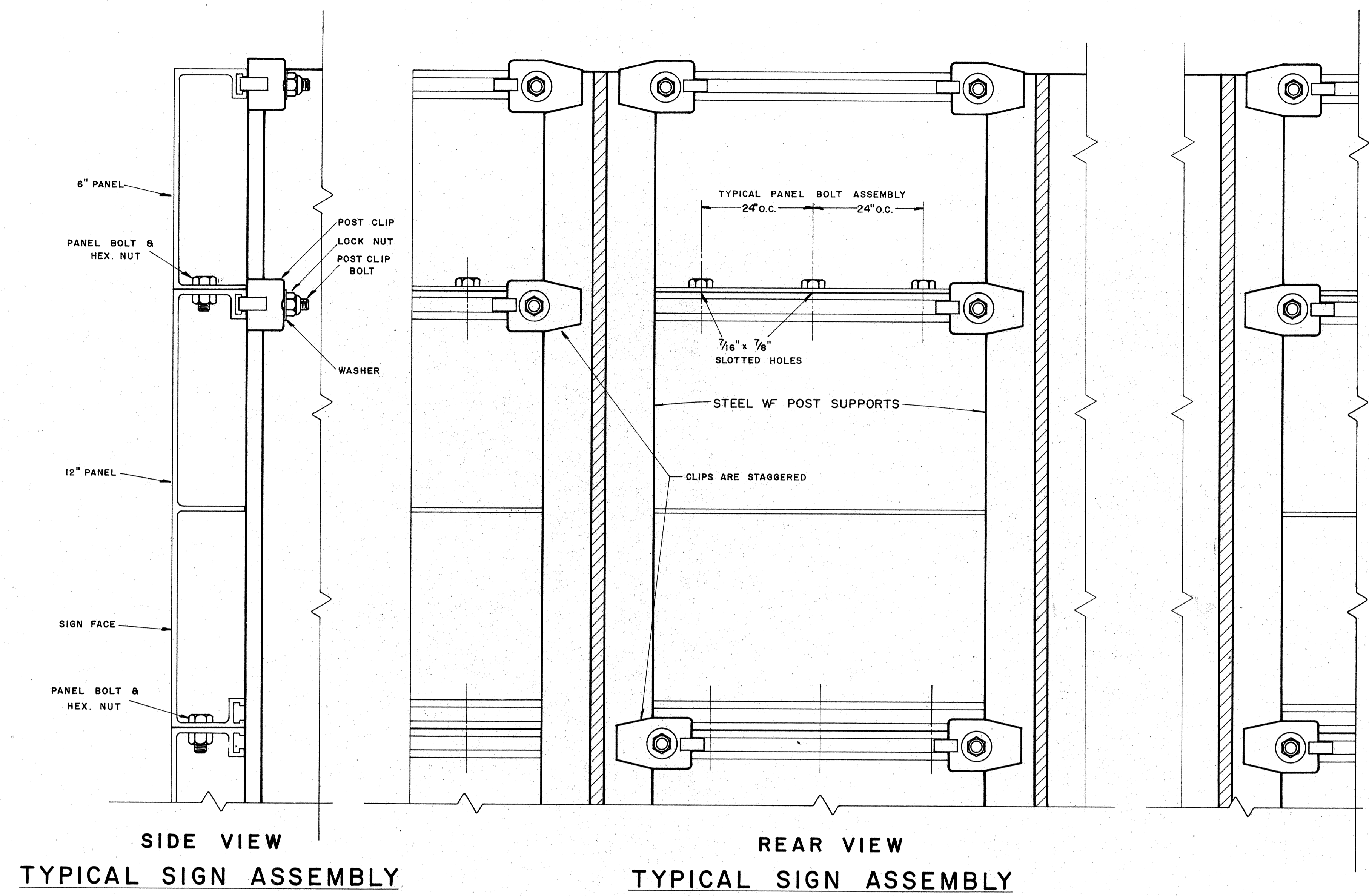
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
LAMINATED ALUMINUM
SIGN PANELS
(GROUND MOUNTED)

Scale: As Shown

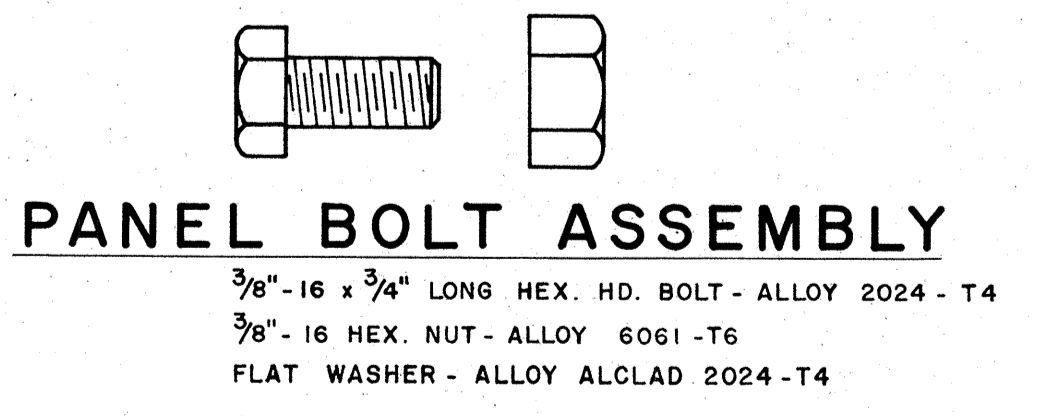
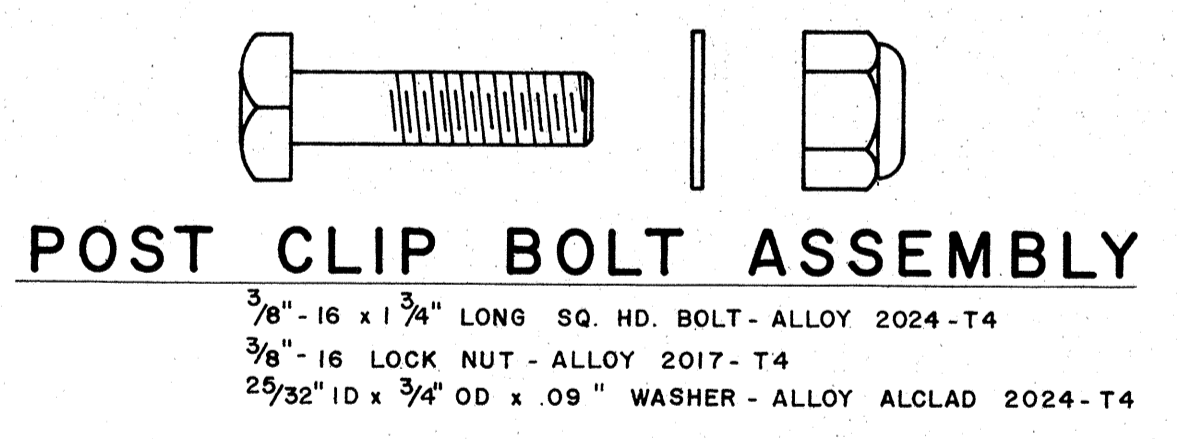
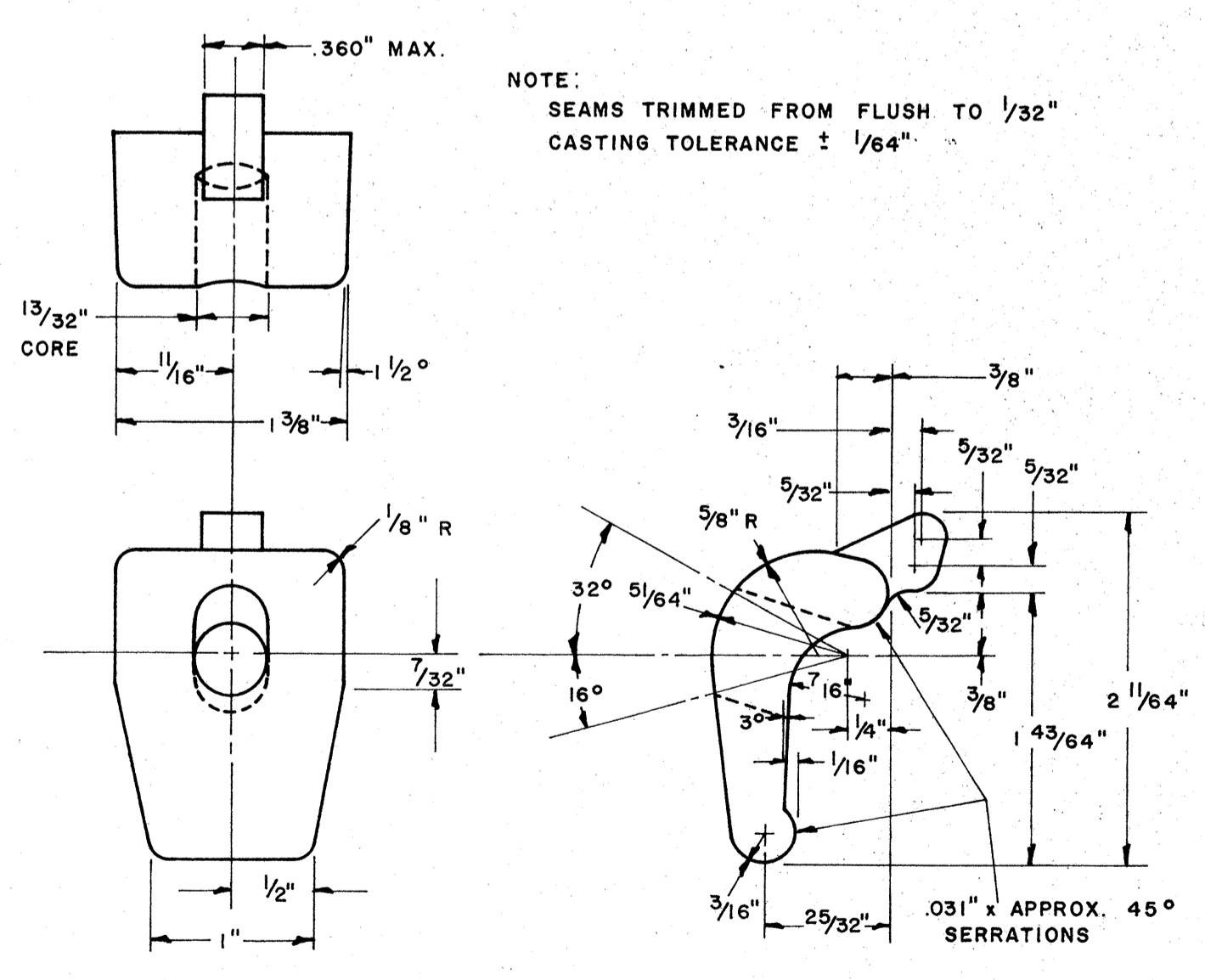
ORIGINAL SURVEY PLOTTED BY
PLAN DRAWN BY
DESIGNED BY
NOTE BOOK QUANTITIES BY
CHECKED BY



SOLID EXTRUDED SIGN PANEL DETAILS

SIDE VIEW
TYPICAL SIGN ASSEMBLY

REAR VIEW
TYPICAL SIGN ASSEMBLY



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

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

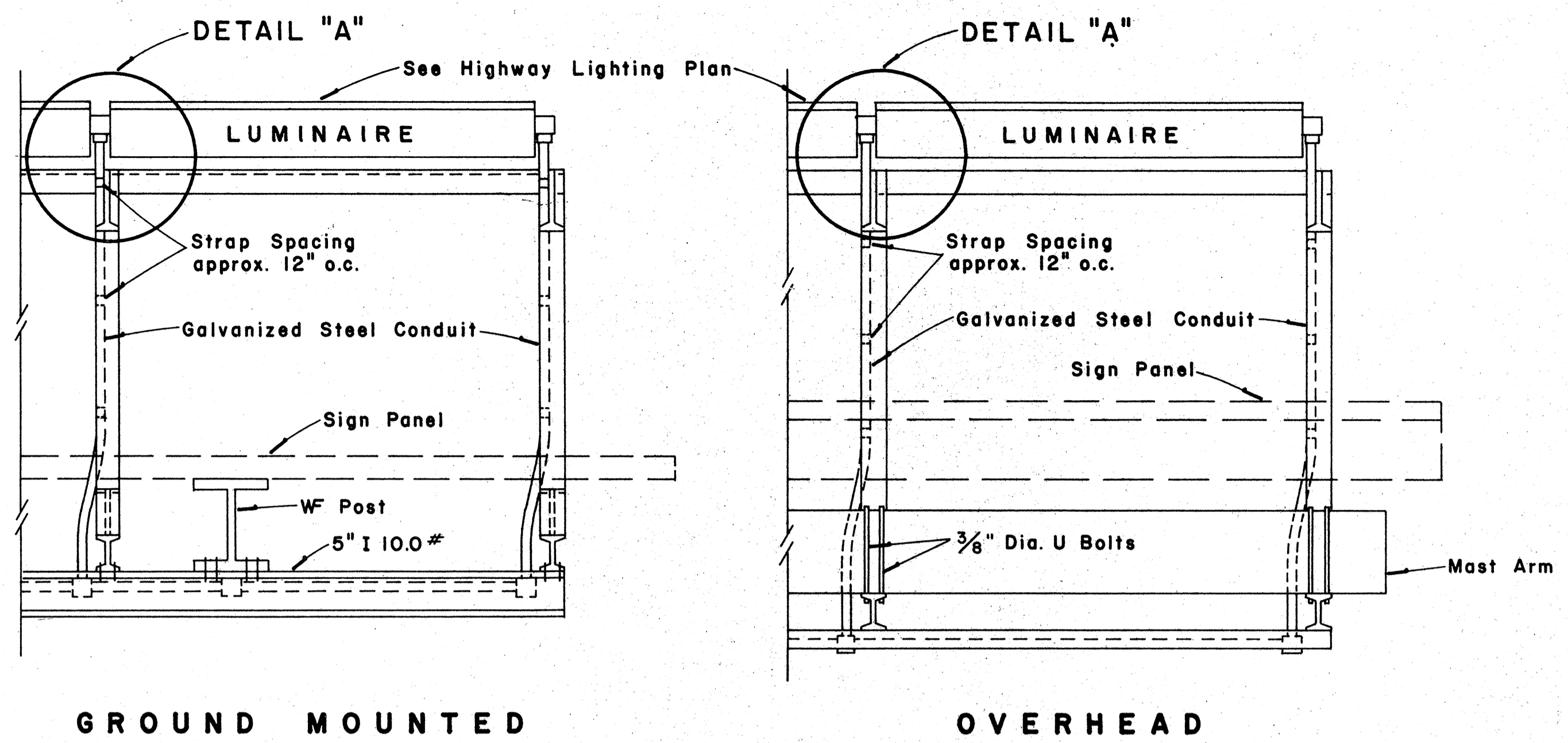
APPROVED:
[Signature] 12-29-69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

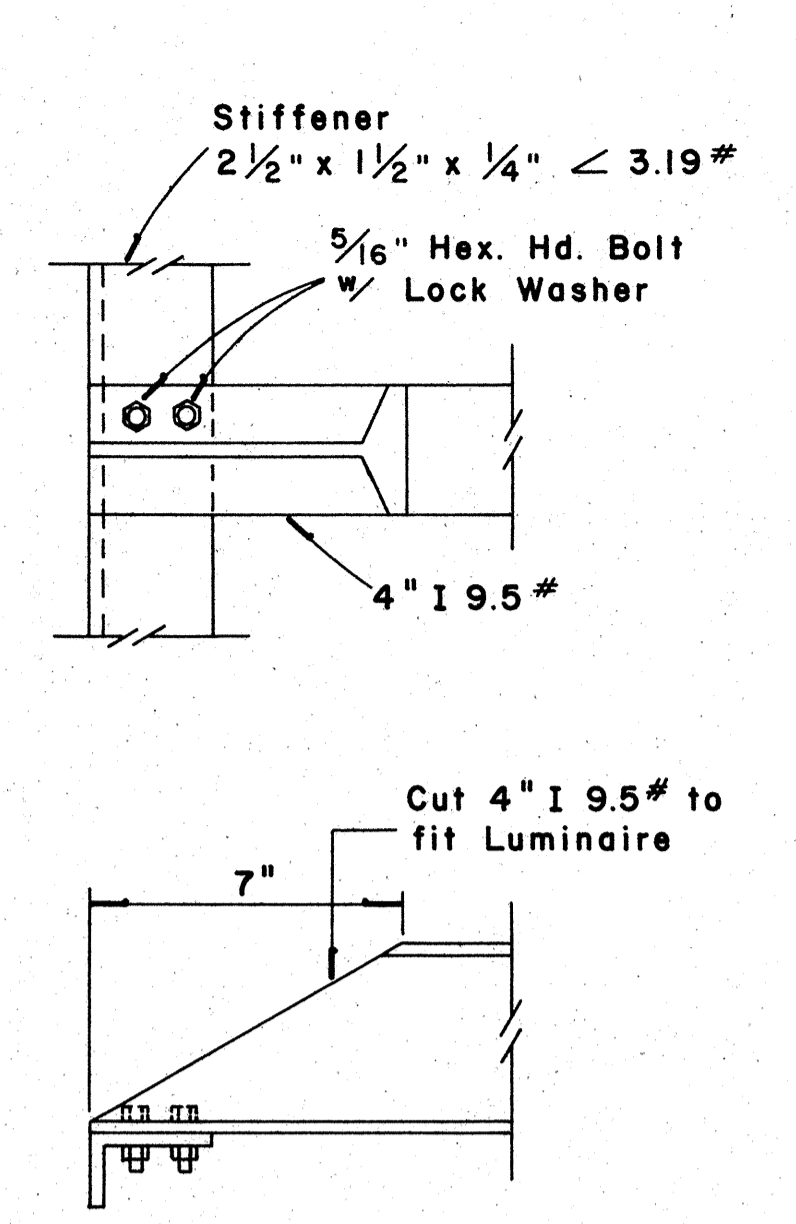
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
SOLID ALUMINUM
EXTRUDED SIGN PANEL
AND
ACCESSORY DETAILS
SCALE:

DATE: _____
SURVEY PLOTTED BY: _____
DRAWN BY: _____
TRACED BY: _____
QUANTITIES CHECKED BY: _____
NO. _____

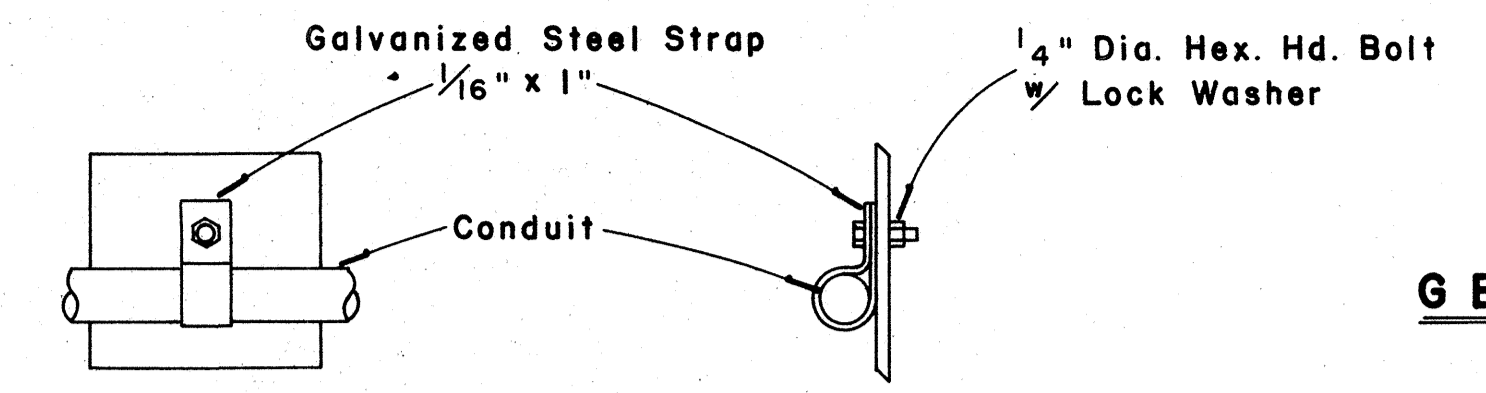
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	121	302



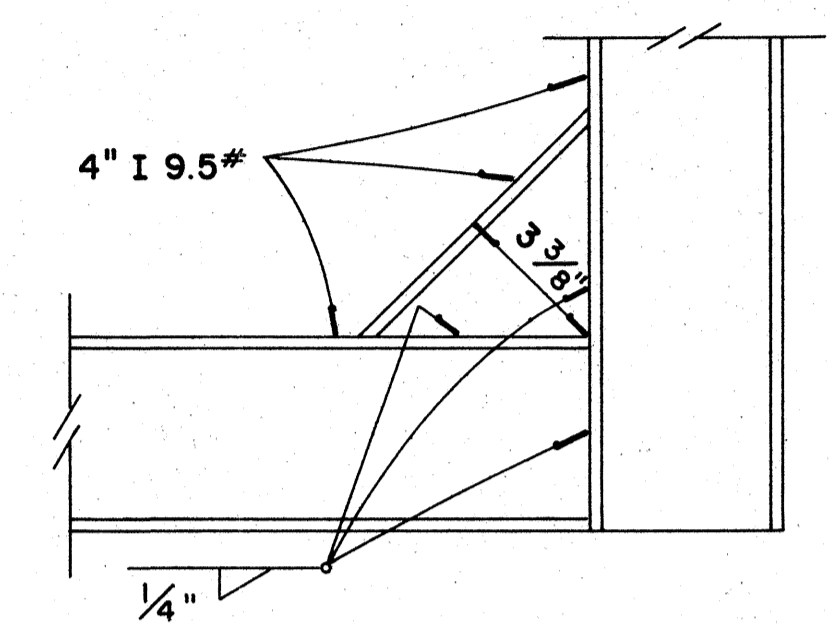
**TOP VIEW
LUMINAIRE MOUNTING**
Scale: 1" = 1'-0"



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



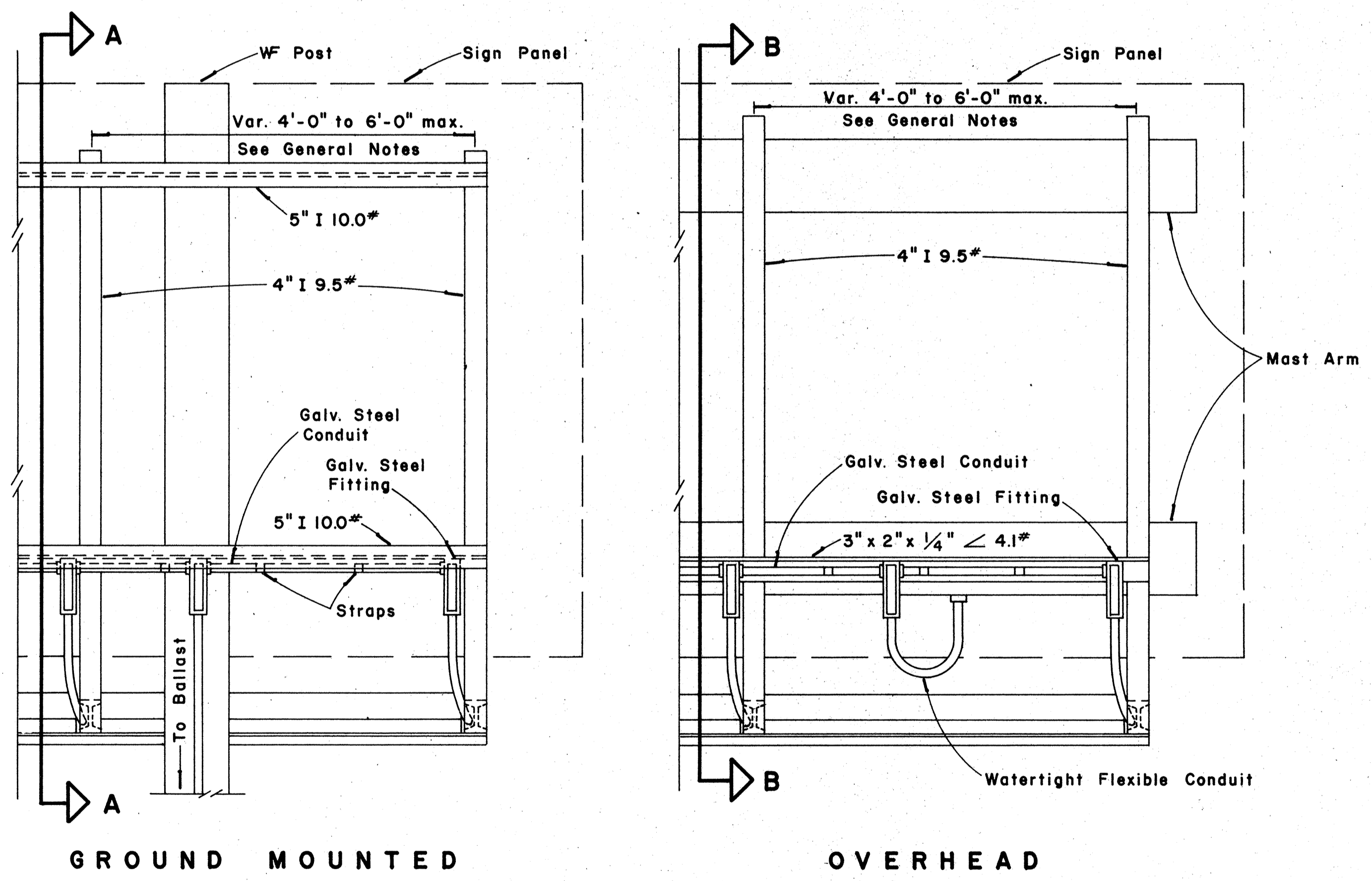
CONDUIT STRAP DETAIL
Scale: 3" = 1'-0"



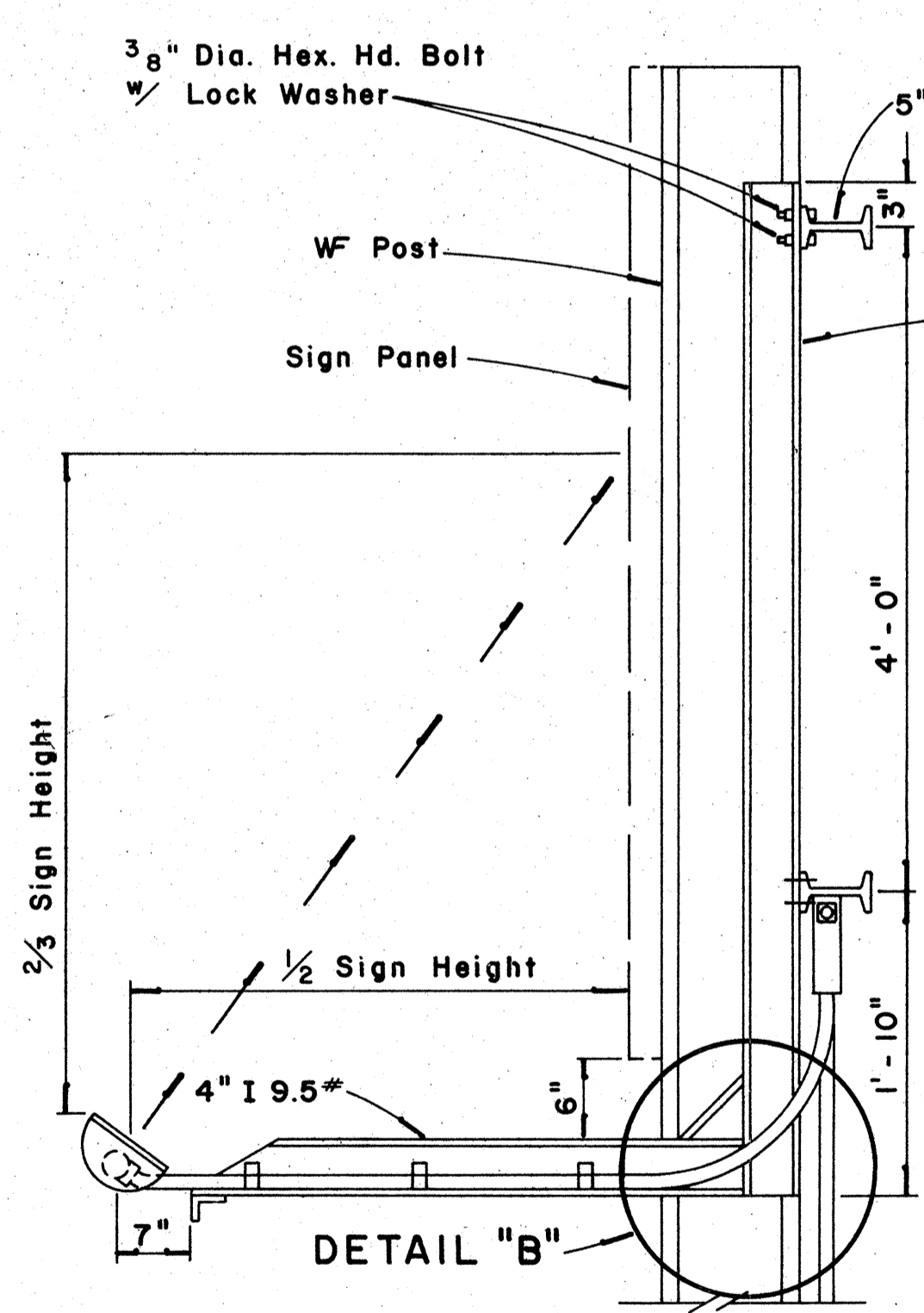
DETAIL "B"
Scale: 3" = 1'-0"

GENERAL NOTES

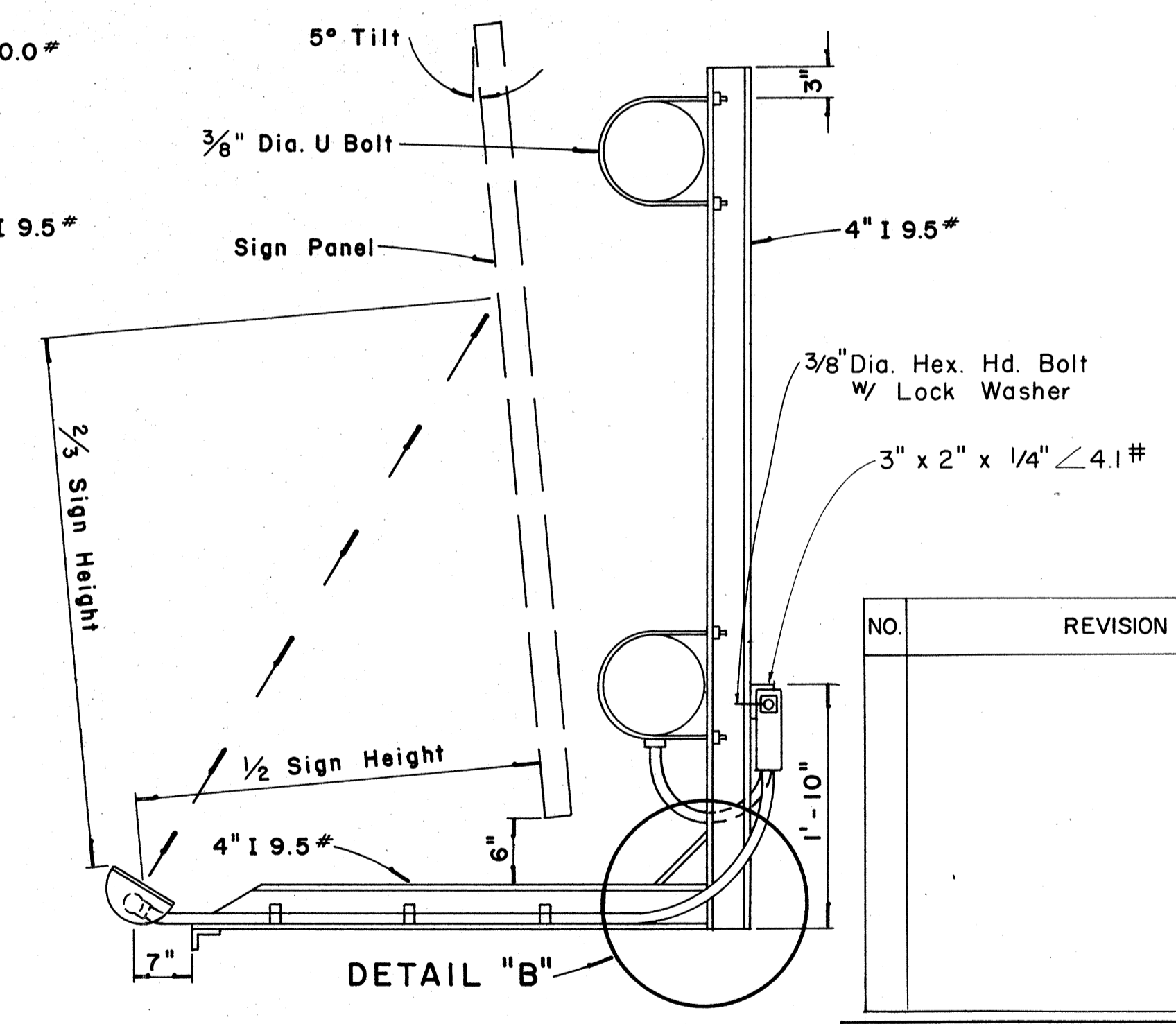
1. Conduit sizes: 3/4" diameter for one or two Luminaire Units, 1" diameter for three or more Luminaire Units.
2. Fluorescent Fixtures shall be installed as recommended by the manufacturer.
3. Luminaire brackets shall be spaced to fit 4'-0" to 6'-0" luminaires with fittings. Eight feet (8'-0") luminaires shall have an additional bracket at midpoint.
4. 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.



**REAR VIEW
LUMINAIRE MOUNTING**
Scale: 1" = 1'-0"



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



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

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

APPROVED:
John J. Zedel 12/30/69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

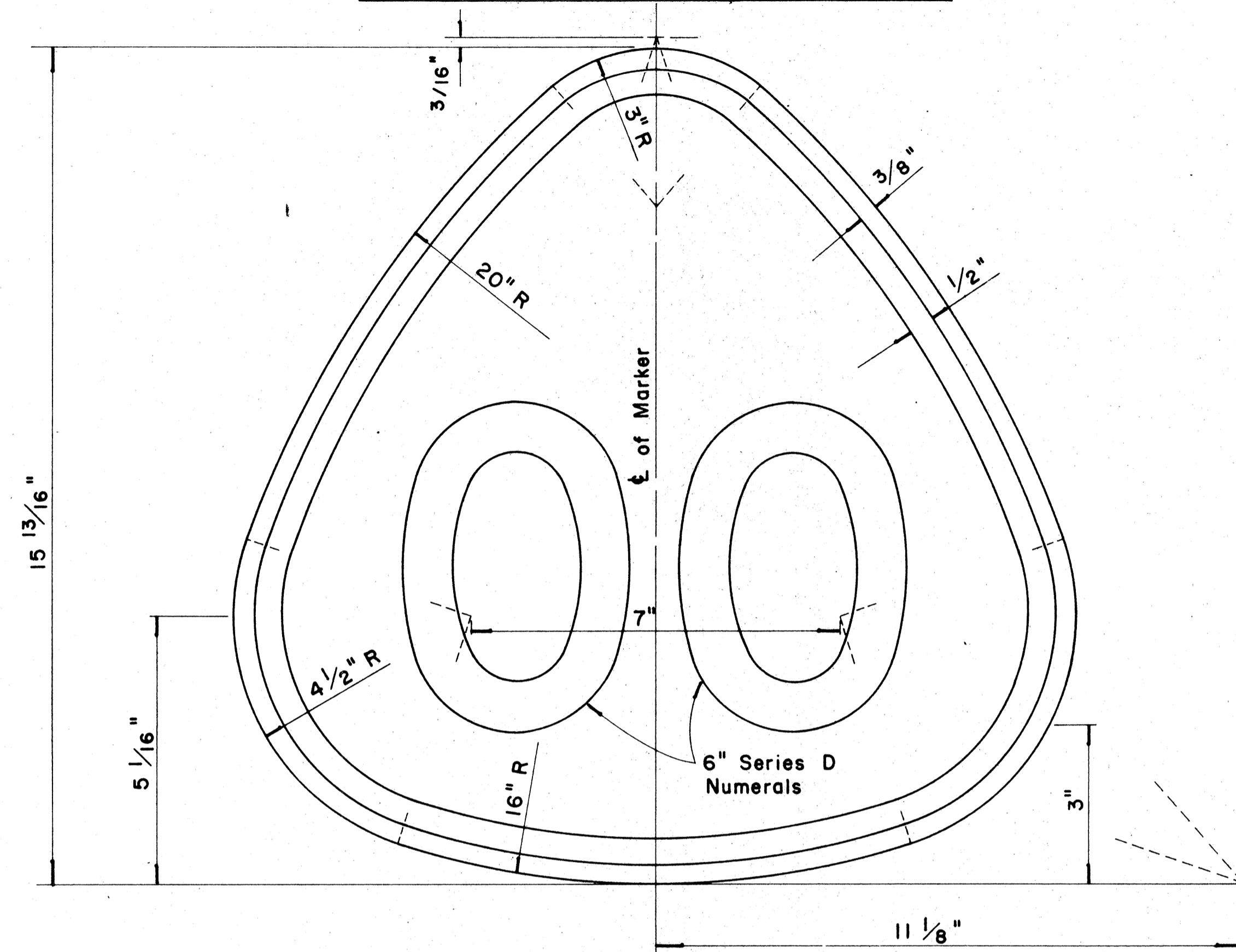
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**EXPRESSWAY SIGNS
LUMINAIRE MOUNTINGS**

Scale: As Shown

DATE: _____
SERIES PLOTTED BY: _____
DRAWN BY: _____
DESIGNED BY: _____
NOTE BOOK: _____
CHECKED BY: _____
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



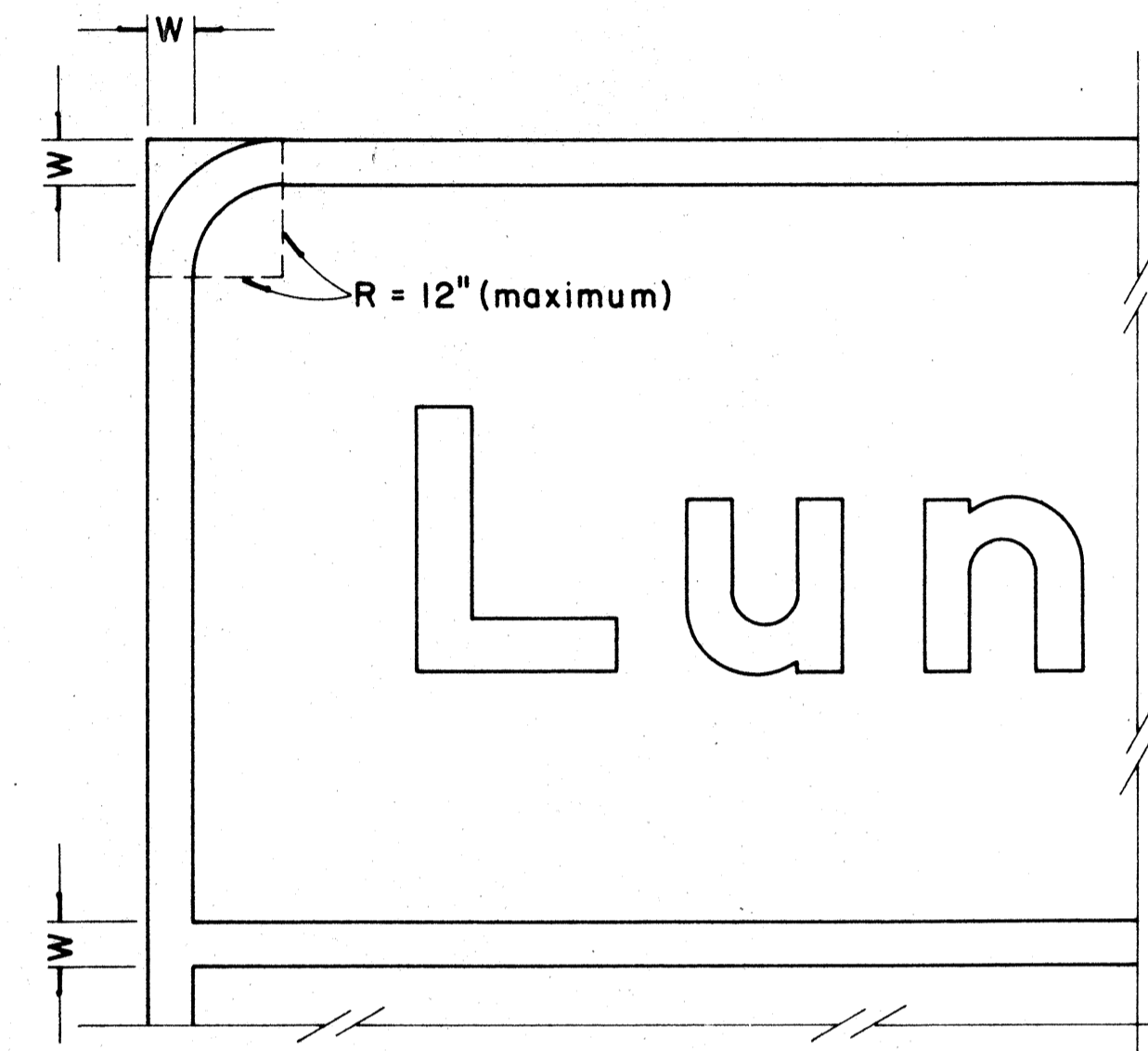
**STATE ROUTE MARKER
FOR
DESTINATION & EXPRESSWAY SIGNS**

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:

Eishi Tanaka 12/29/69
TRAFFIC ENGINEER DATE

APPROVED:

Adwin S. S. S. 12/30/69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DESTINATION & EXPRESSWAY SIGNS

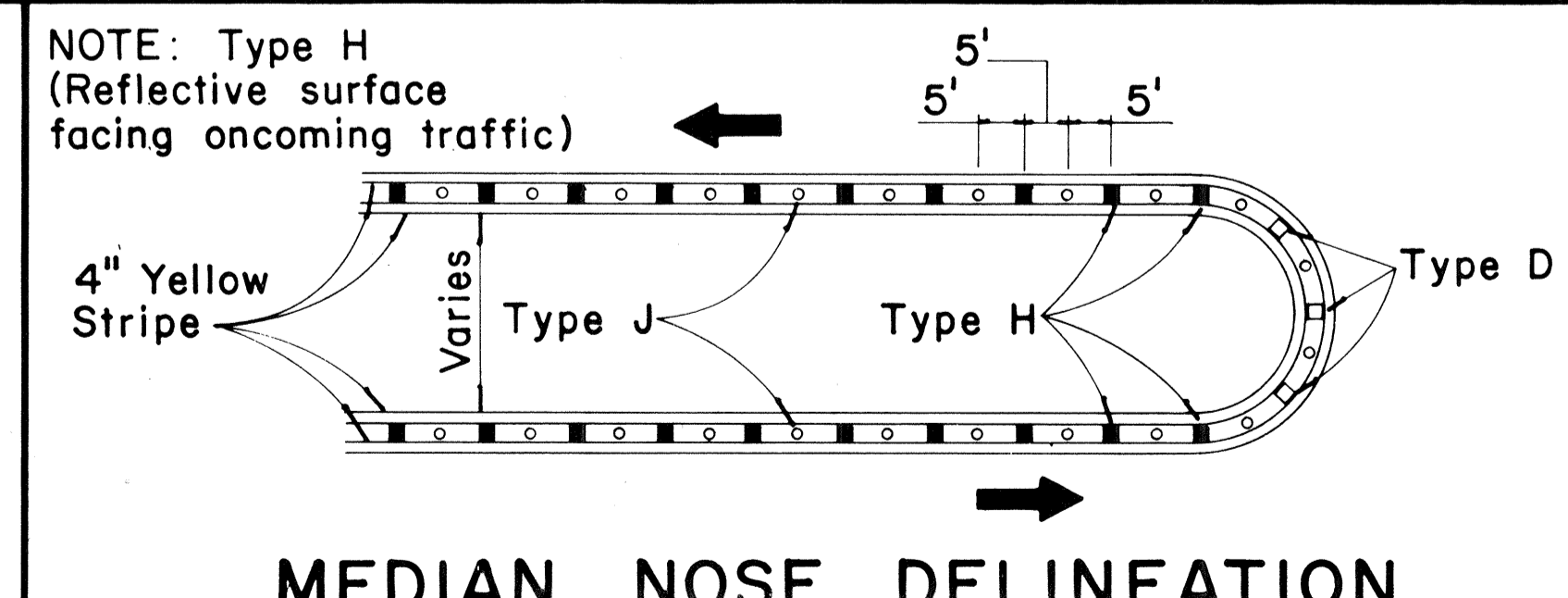
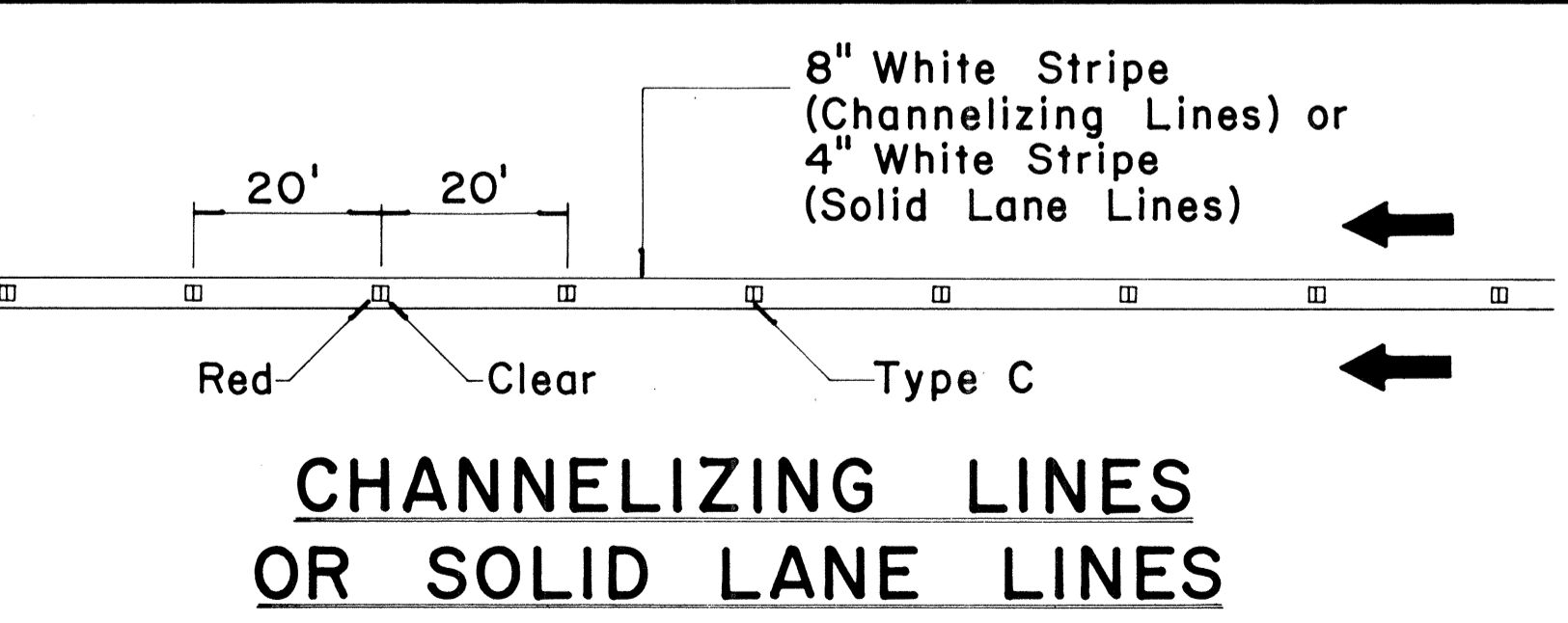
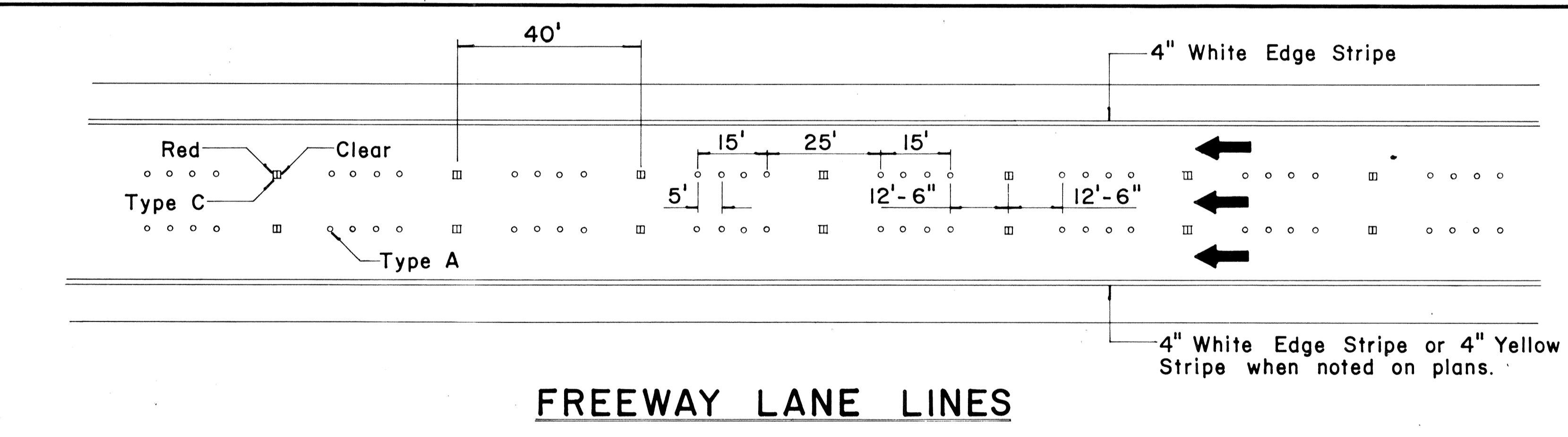
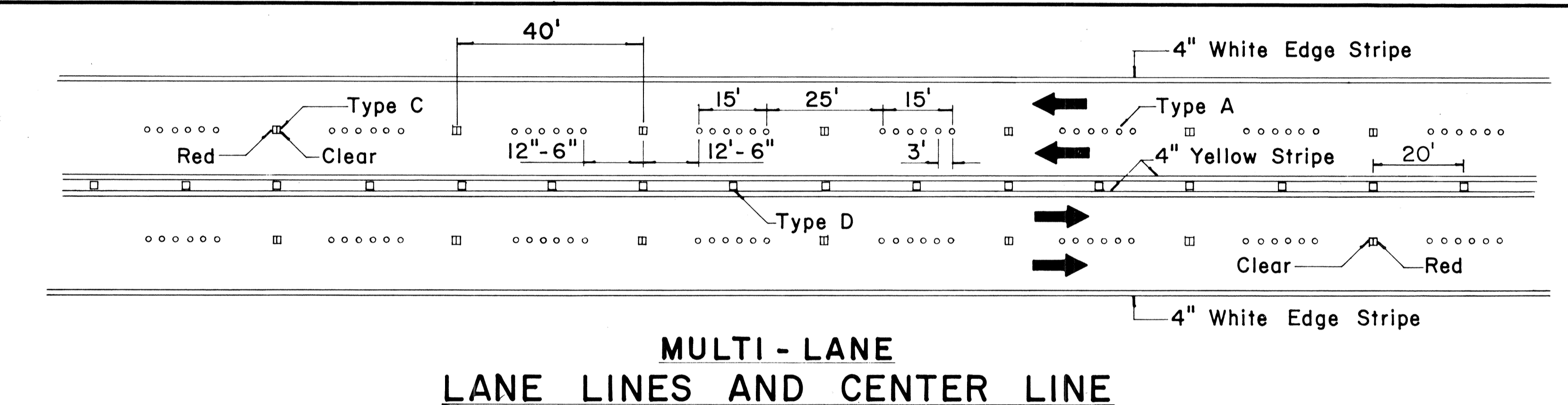
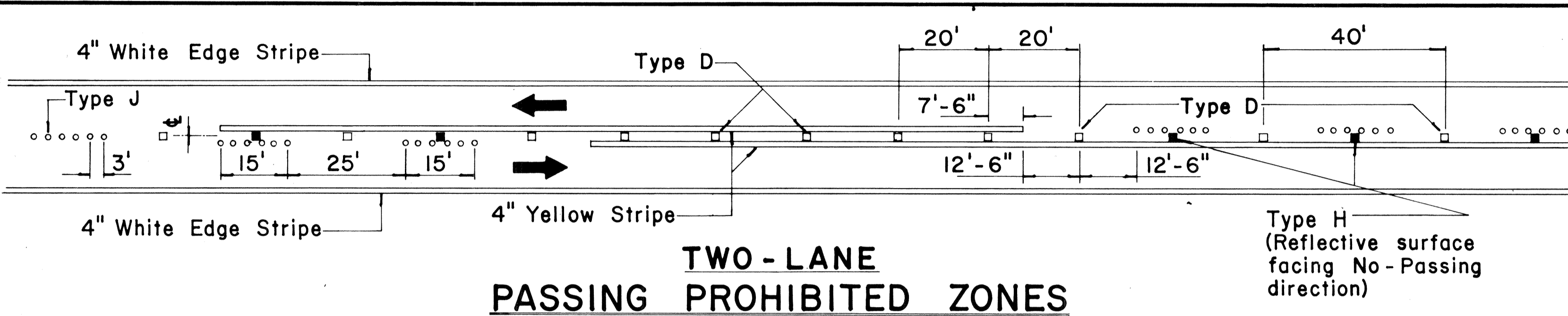
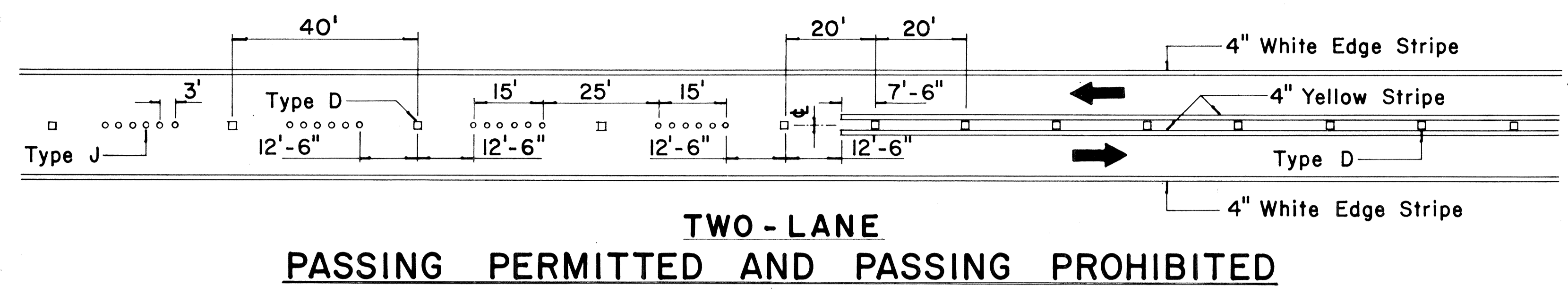
**STATE ROUTE MARKER
AND
BORDER DETAIL**

Scale: As Shown

SHEET No. 24 OF 27 SHEETS DT 209

DATE: _____
SURVEY PLOTTED BY: _____
DRAWN BY: _____
CHECKED BY: _____
NOTE BOOK: _____
NO. _____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-(7)	1971	C.O.123	302

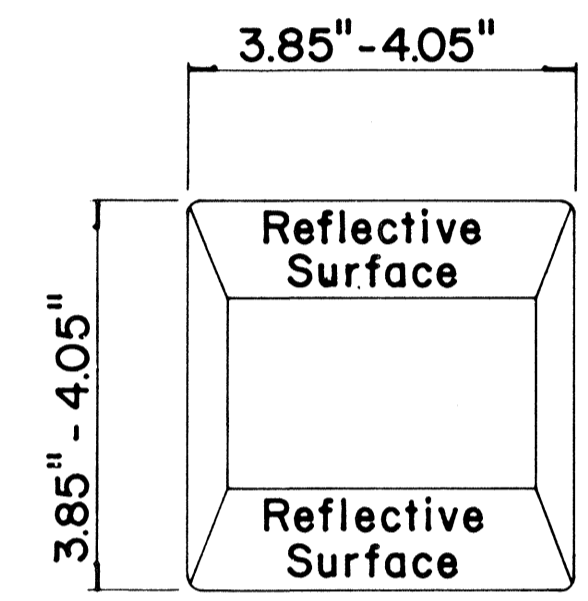
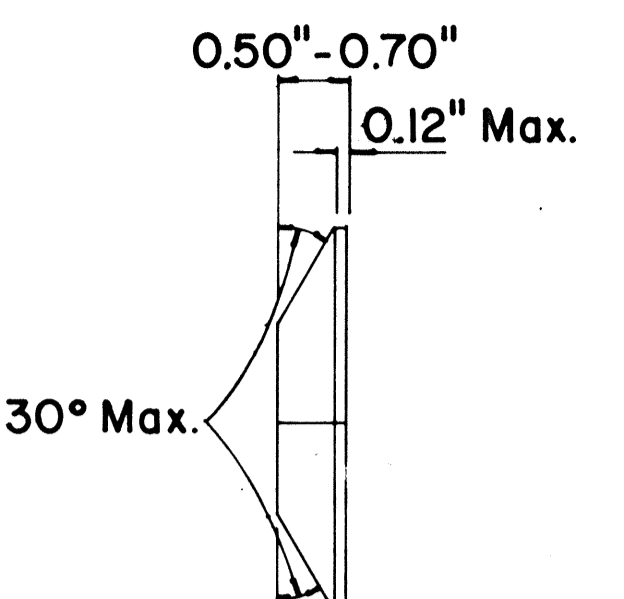
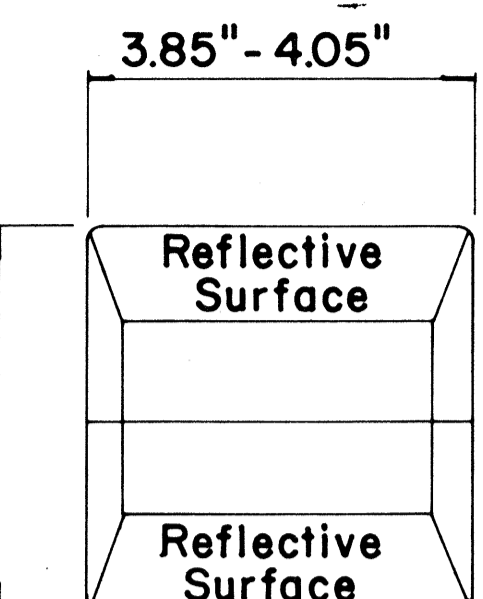
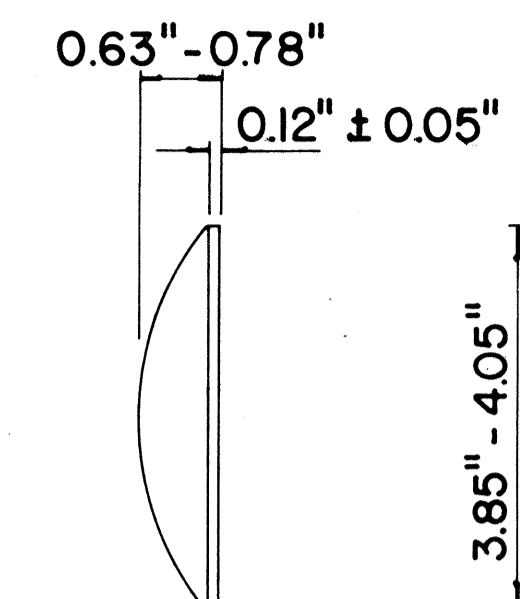
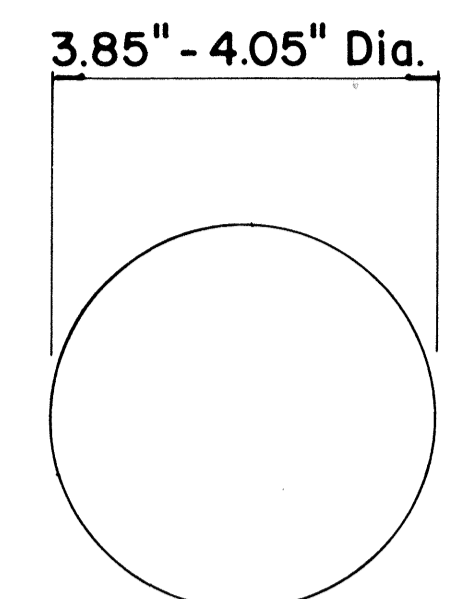


TWO - LANE

MULTI - LANE

FREEWAY

MISCELLANEOUS



GENERAL NOTES

1. Painted stripes to be done by State forces unless otherwise specified.

APPROVAL RECOMMENDED:
Eishi Tanaka 11/18/71
TRAFFIC ENGINEER DATE

APPROVED:
Shelton Sato 11/18/71
ASSISTANT CHIEF, ENGINEERING DATE

No.	REVISION	APPROVED BY	DATE
1	Add reflector marker in each line gap.	H.T.	10-21-72
2	Revised General Notes.	H.T.	10-21-72

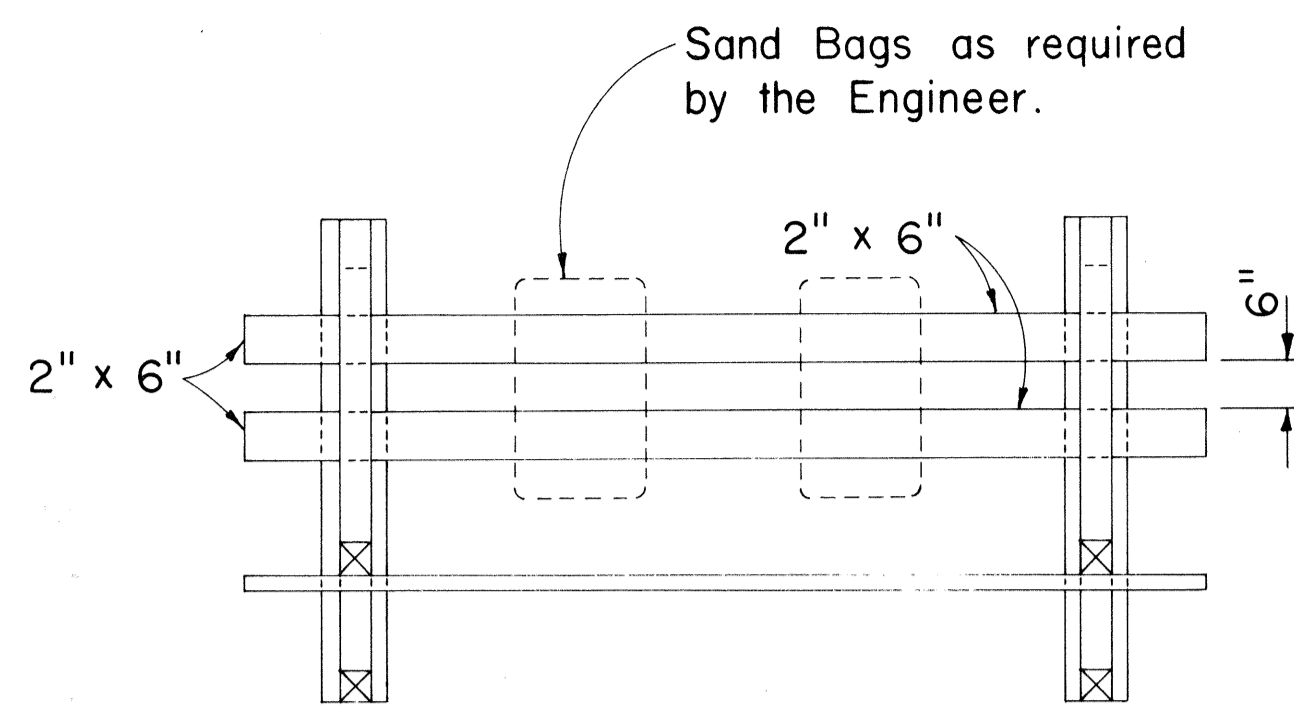
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**STANDARD DETAILS
RAISED PAVEMENT MARKERS**

Not to Scale October 1971
SHEET No. 25 OF 27 SHEETS DT 300

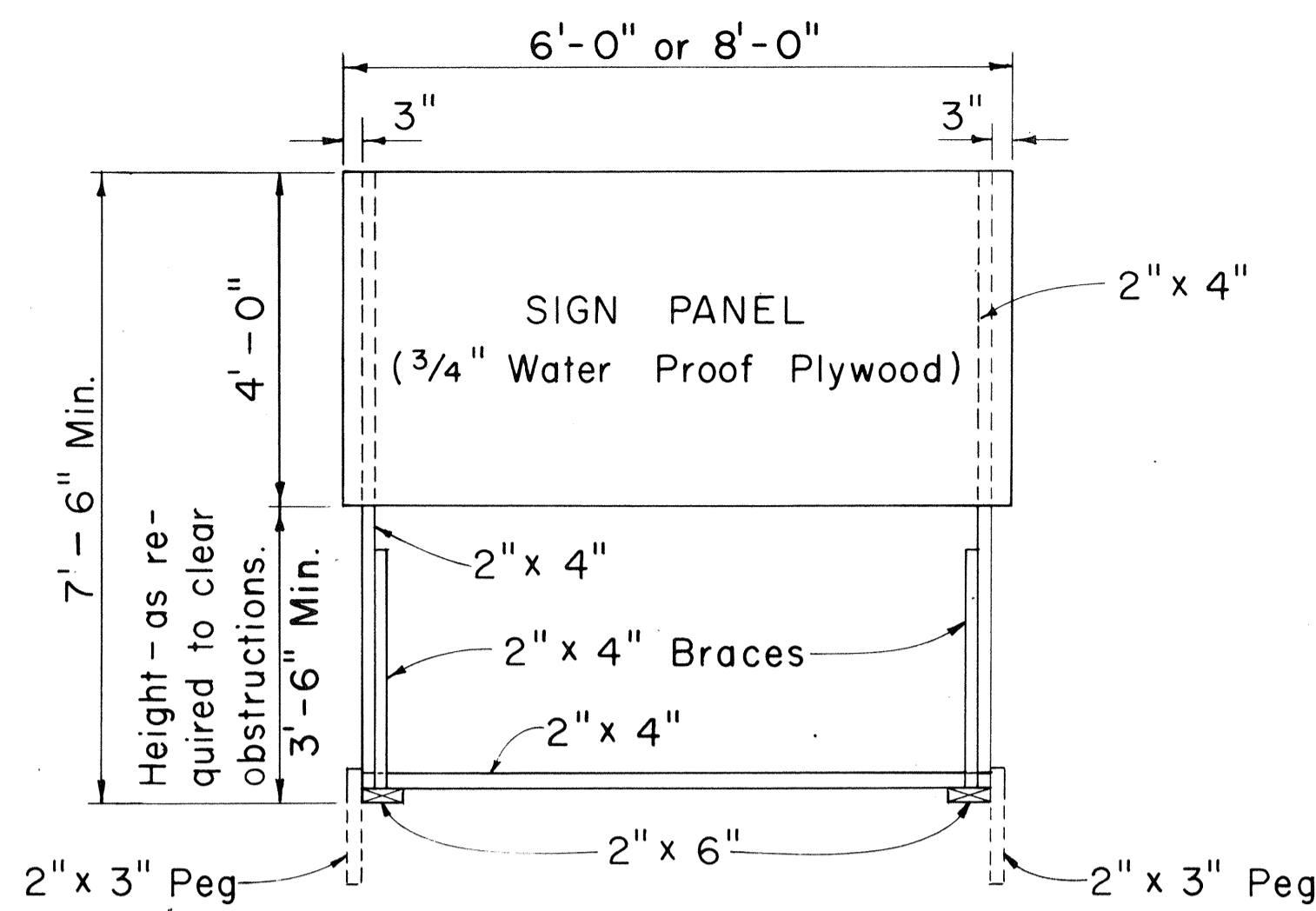
DATE
SURVEY PLOTTED BY
DRAWN BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	124	302

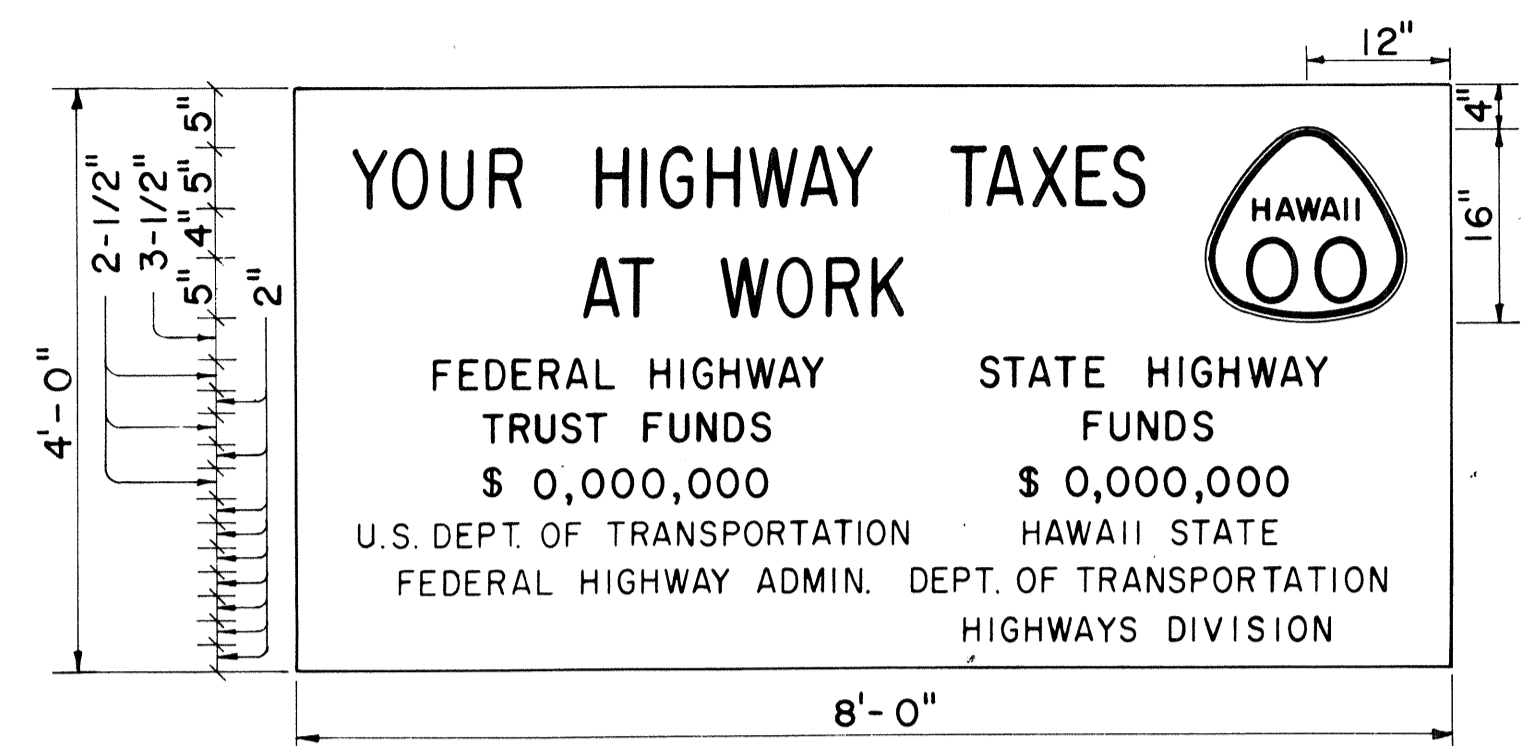


PLAN VIEW

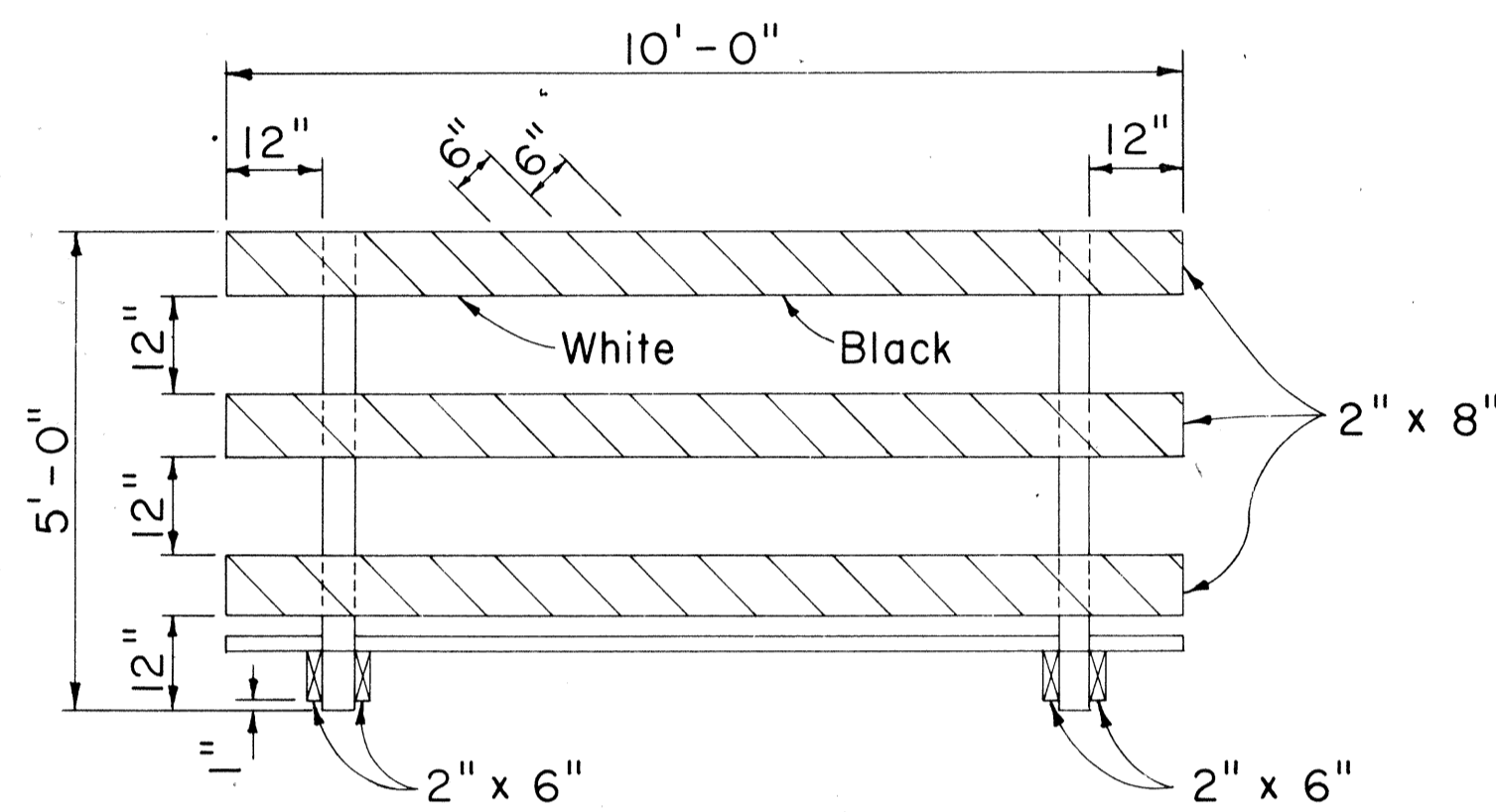
- GENERAL NOTES**
- The Contractor shall construct, install and maintain the wood barricades at the locations shown on the Plans.
 - The permanent wood barricades shall be left in place or relocated upon completion of the project as ordered by the Engineer and are to become State property.
 - The black and white stripes shall slant downward toward the side on which traffic is to pass.



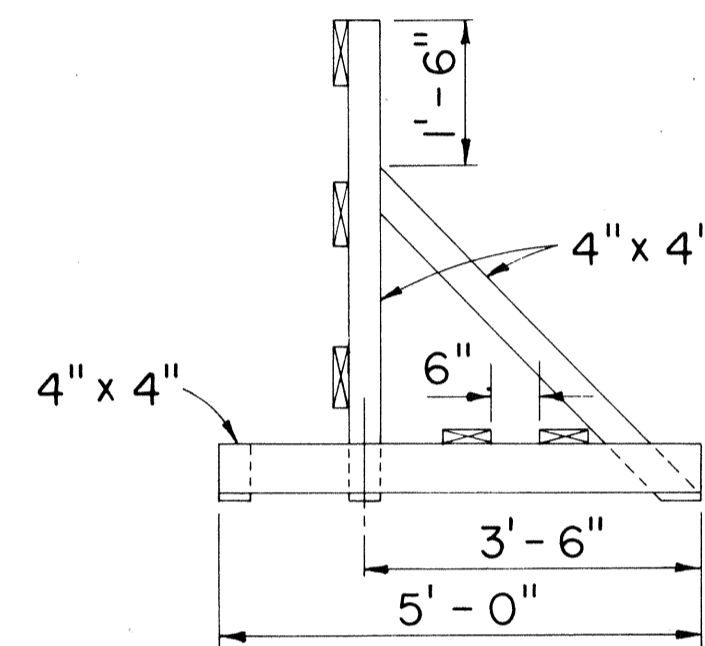
FRONT VIEW
Scale: 1/2" = 1'-0"



SIGN PANEL
PRIMARY AND SECONDARY SYSTEMS
Scale: 3/4" = 1'-0"

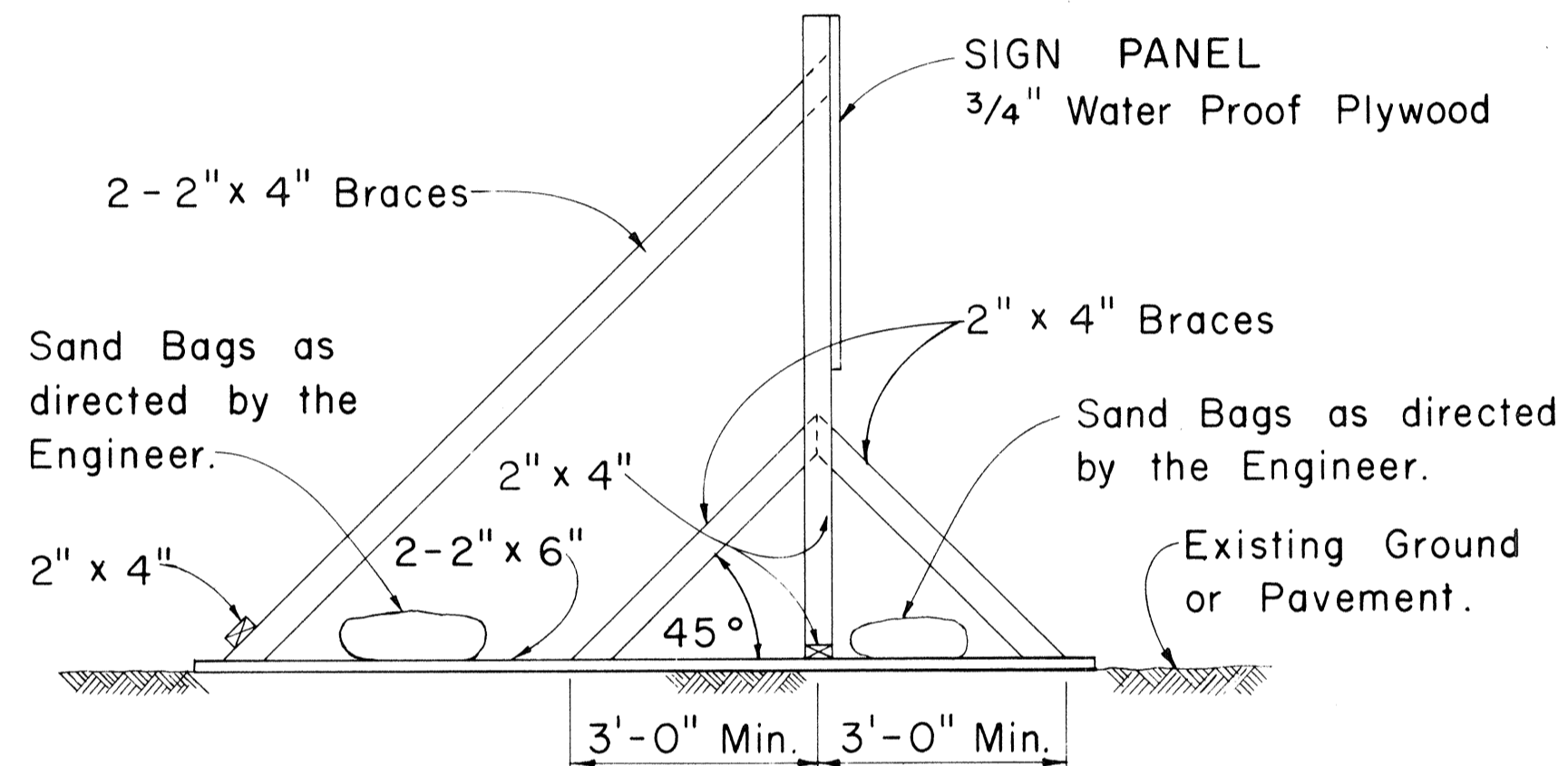


FRONT VIEW

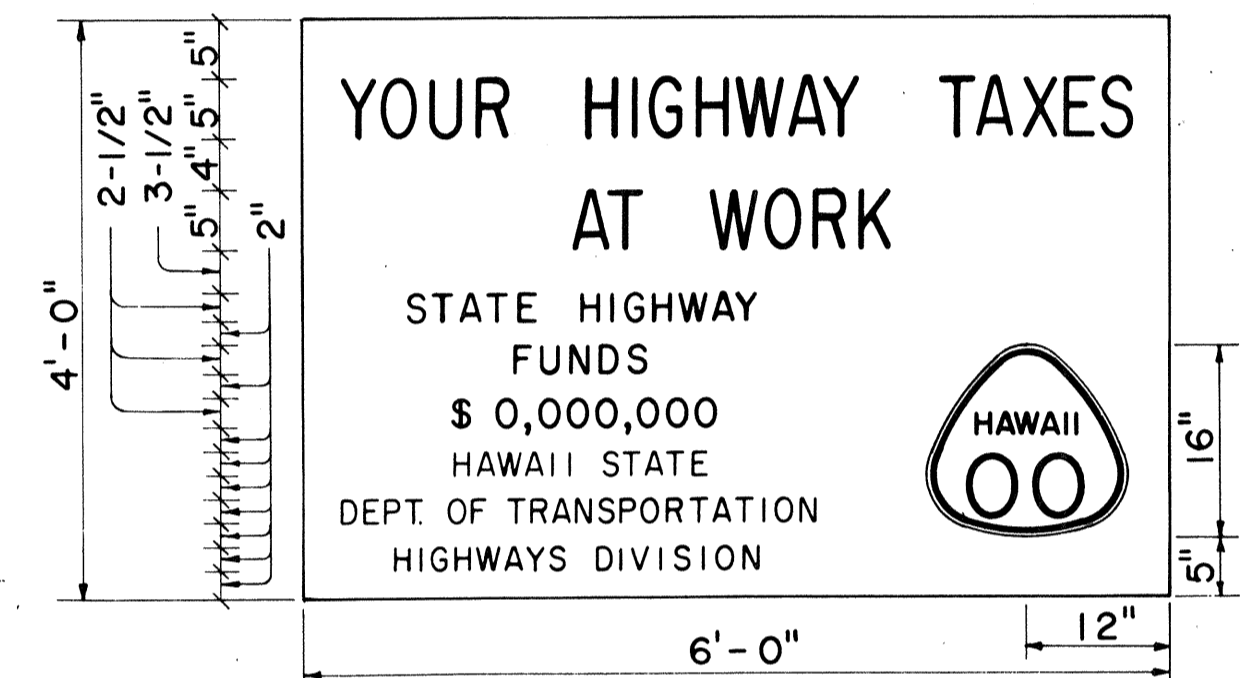


END VIEW

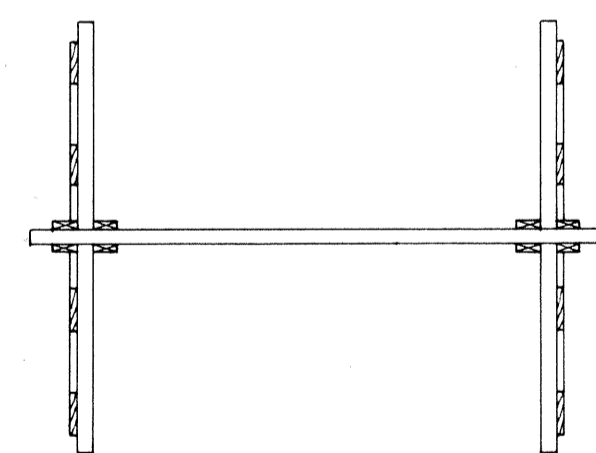
CLASS I BARRICADE
Scale: 1/2" = 1'-0"



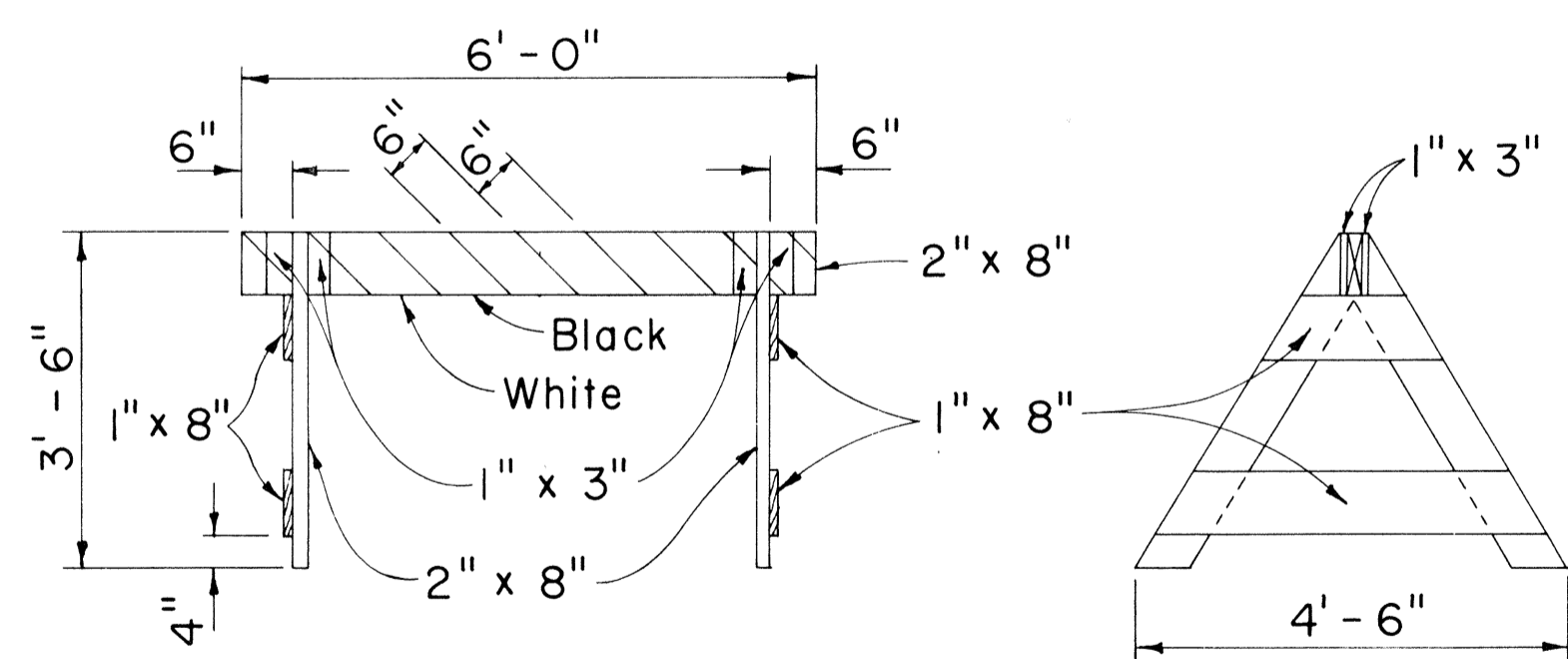
SIDE VIEW
(SIGN FRAME WEIGHTED DOWN)
Scale: 1/2" = 1'-0"



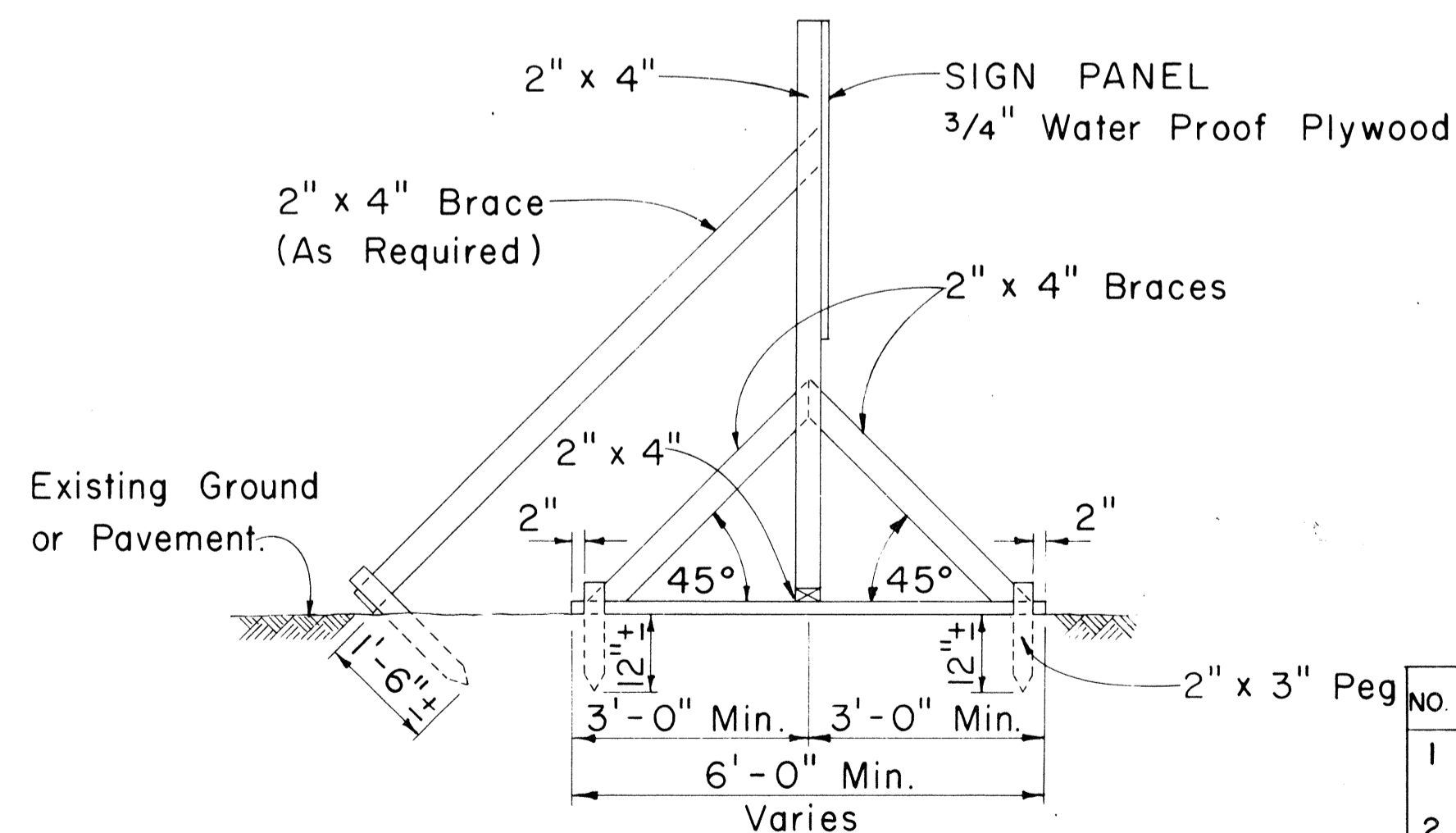
SIGN PANEL
NON-FEDERAL AID PROJECT
Scale: 3/4" = 1'-0"



PLAN VIEW



CLASS II BARRICADE
Scale: 1/2" = 1'-0"



SIDE VIEW
(SIGN FRAME ANCHORED IN GROUND)
Scale: As Shown
CONSTRUCTION IDENTIFICATION SIGN

- GENERAL NOTES**
- The sign legend shall be black on white background.
 - The Contractor shall construct, install and maintain the project signs at the locations shown on the plans and as ordered by the Engineer.
 - Letters shall be Series "C" of the sizes shown on the plan and shall conform with the "Standard Alphabet for Highway Signs", Bureau of Public Roads, 1966
 - The Contractor shall fill in the proper numerals in place of ciphers as ordered by the Engineer.

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

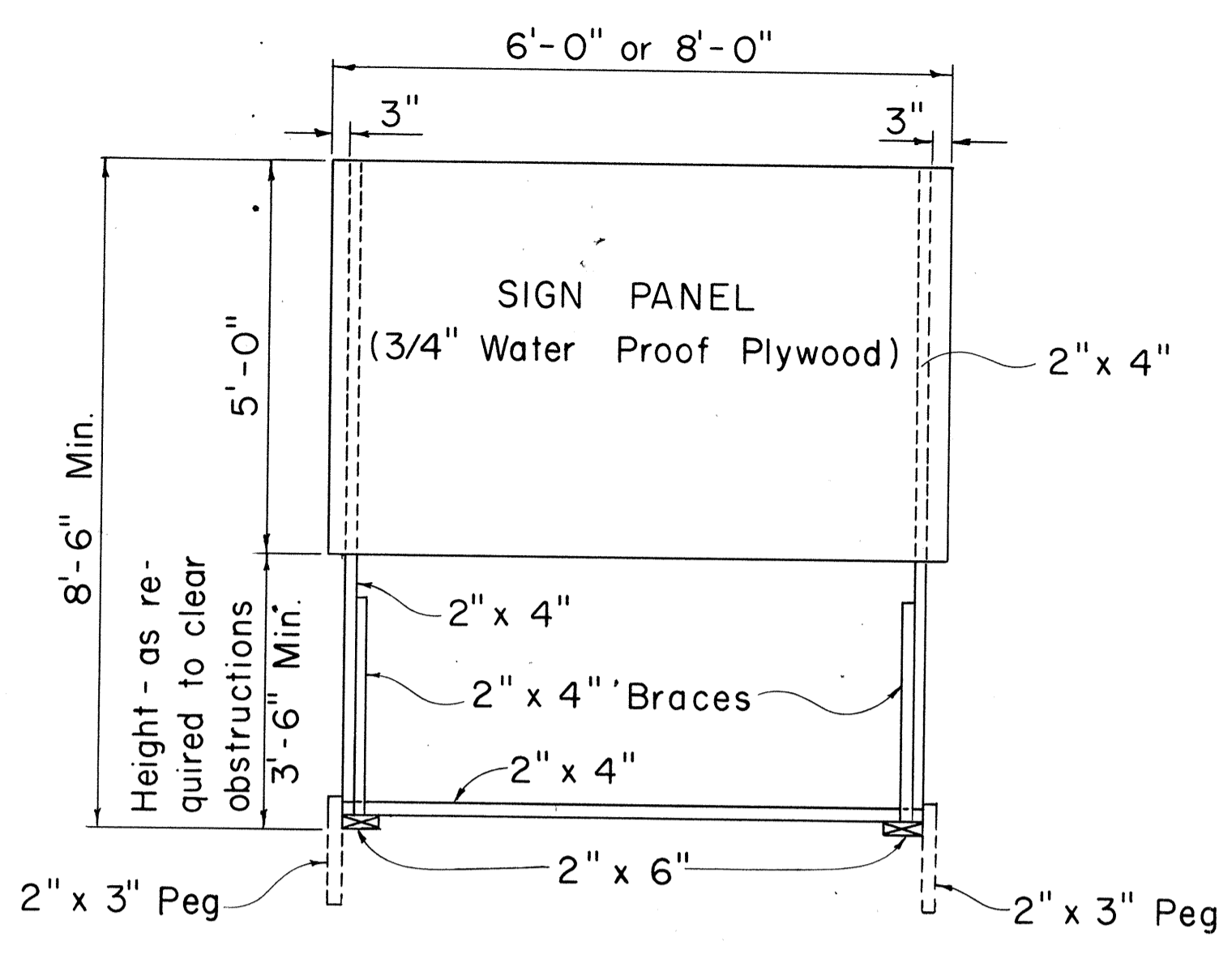
APPROVED:
Shunji Sadao 12/29/69
ASSISTANT CHIEF, ENGINEERING DATE

NO	REVISION	APPROVED BY	DATE
1	Delete "Bureau of Public Roads"	H.I.	9-29-70
2	Add Note No. 3 for Barricades	H.I.	5-4-71

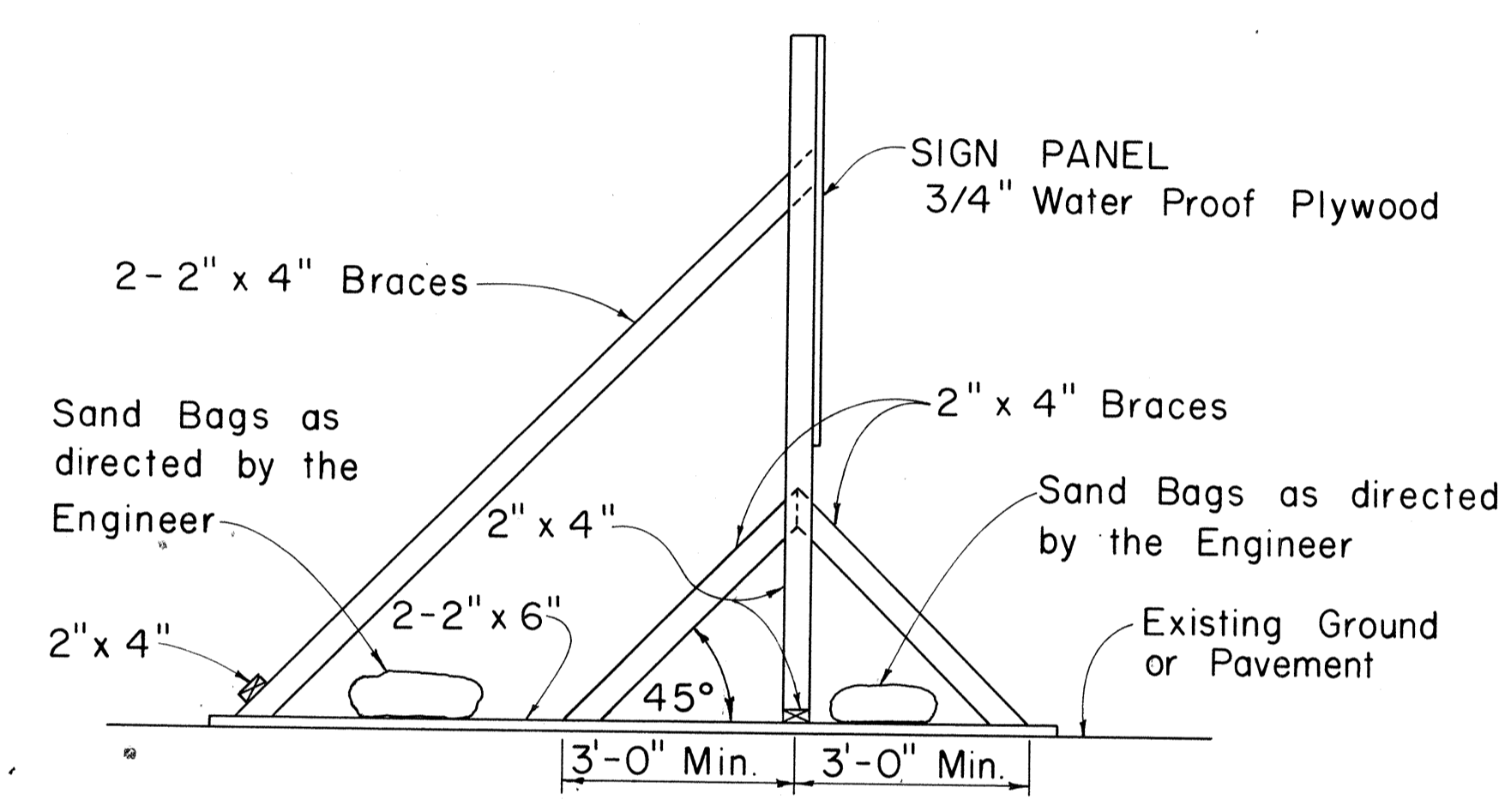
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL DETAILS
CONSTRUCTION IDENTIFICATION SIGN
AND
WOOD BARRICADES
Scale: As Shown Date:

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

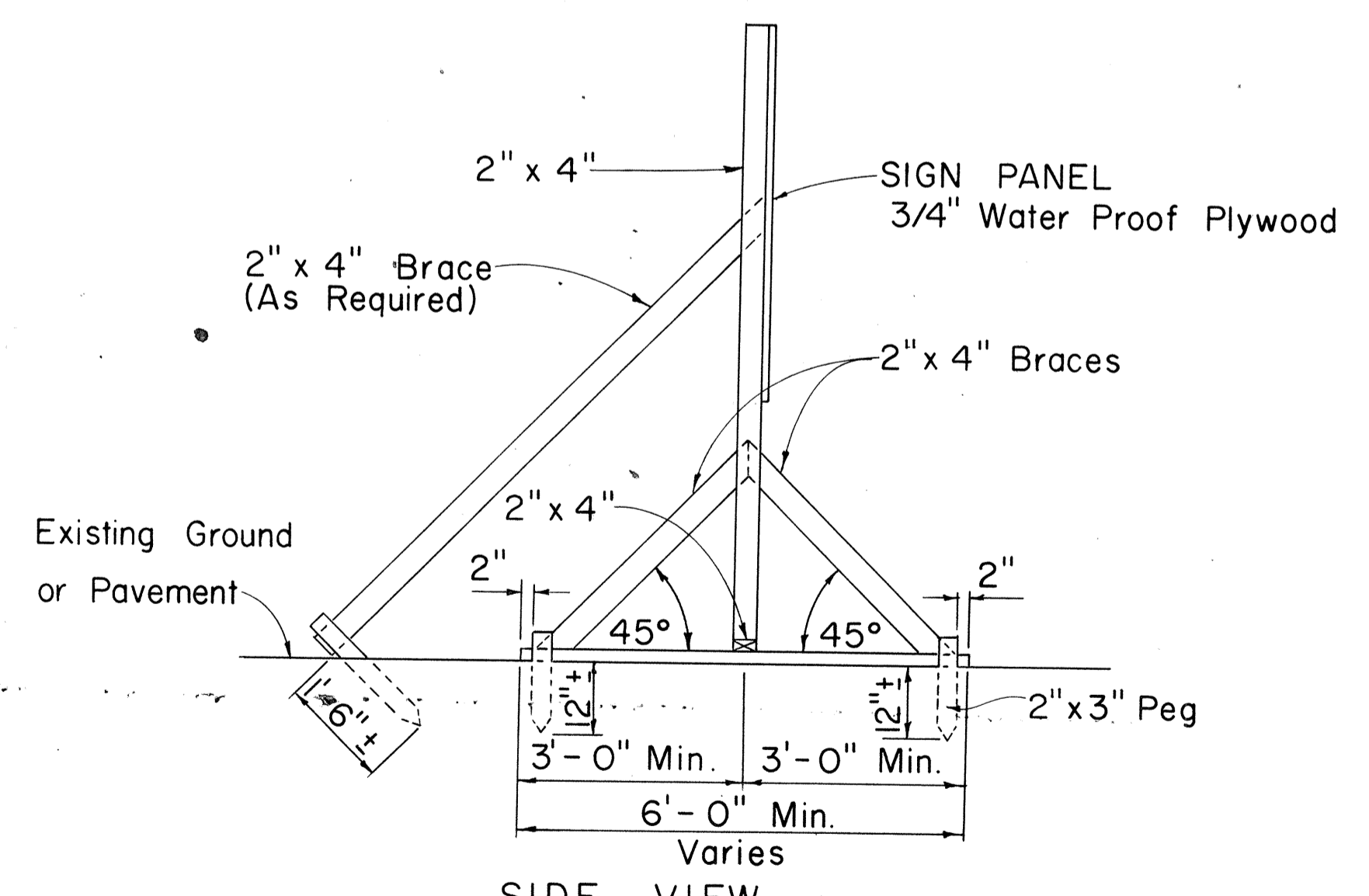
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(7)	1971	125	302



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

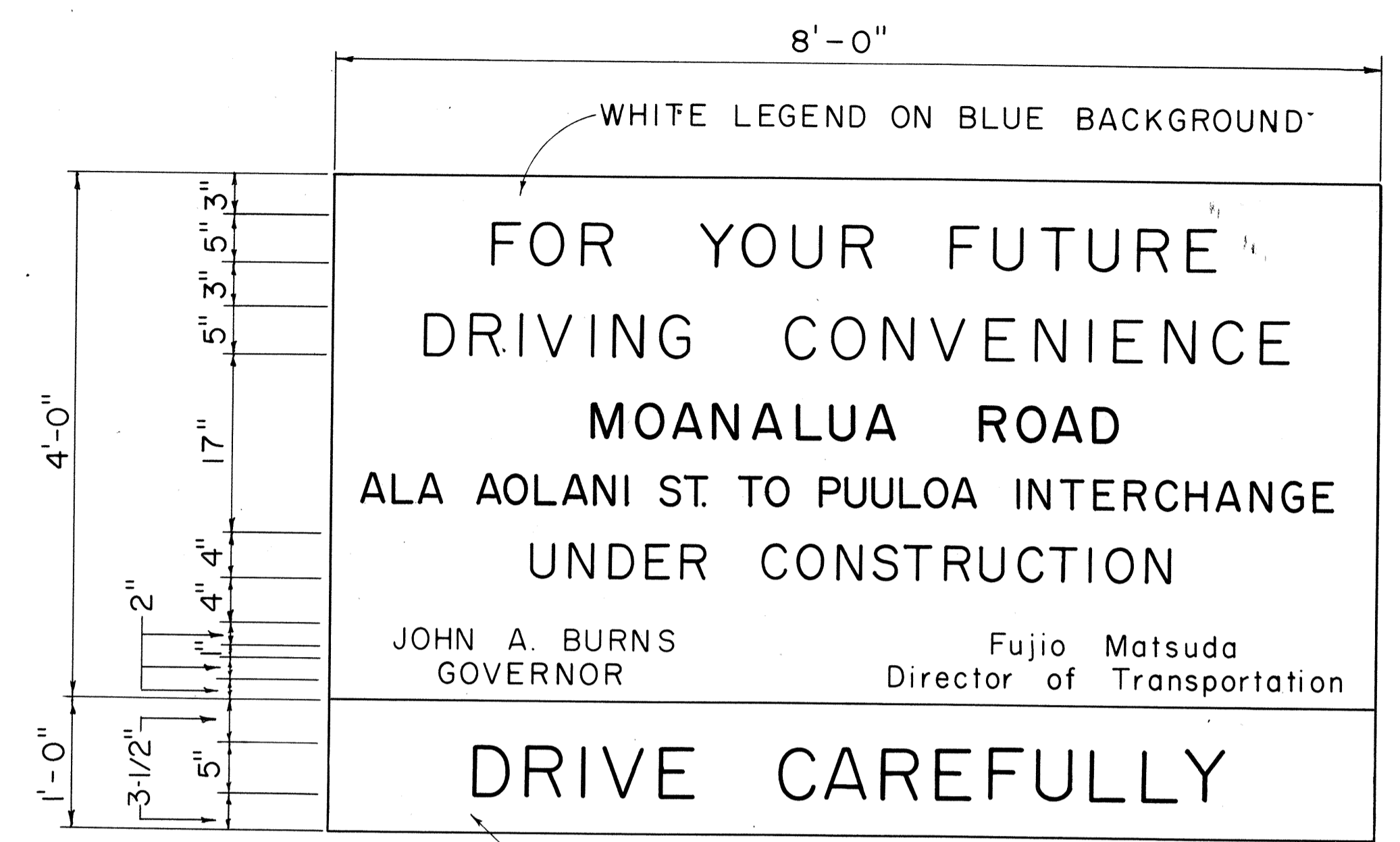


SIDE VIEW
(SIGN SUPPORT AND FRAME WEIGHTED DOWN)
Scale: 1/2" = 1'-0"



SIDE VIEW
(SIGN SUPPORT AND FRAME ANCHORED IN GROUND)
Scale: 1/2" = 1'-0"

SIGN SUPPORT AND FRAME
Scale: As Shown



BLACK LEGEND ON YELLOW BACKGROUND
USE SERIES "D" LETTERS

GENERAL NOTES

1. The sign panels will be constructed by the State and will be available for pick up by the Contractor from the State Highway Maintenance Yard.
2. The Contractor shall construct the sign supports and frames and install the sign panels at the locations shown on the plans and as ordered by the Engineer.
3. At the end of construction the Contractor shall remove the sign panels and return it to the State Highway Maintenance Yard. Sign supports and frames shall be removed and cleared from the project site.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL DETAILS

PROJECT INFORMATION SIGN

Scale: As Shown
SHEET No. 27 OF 27 SHEETS

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