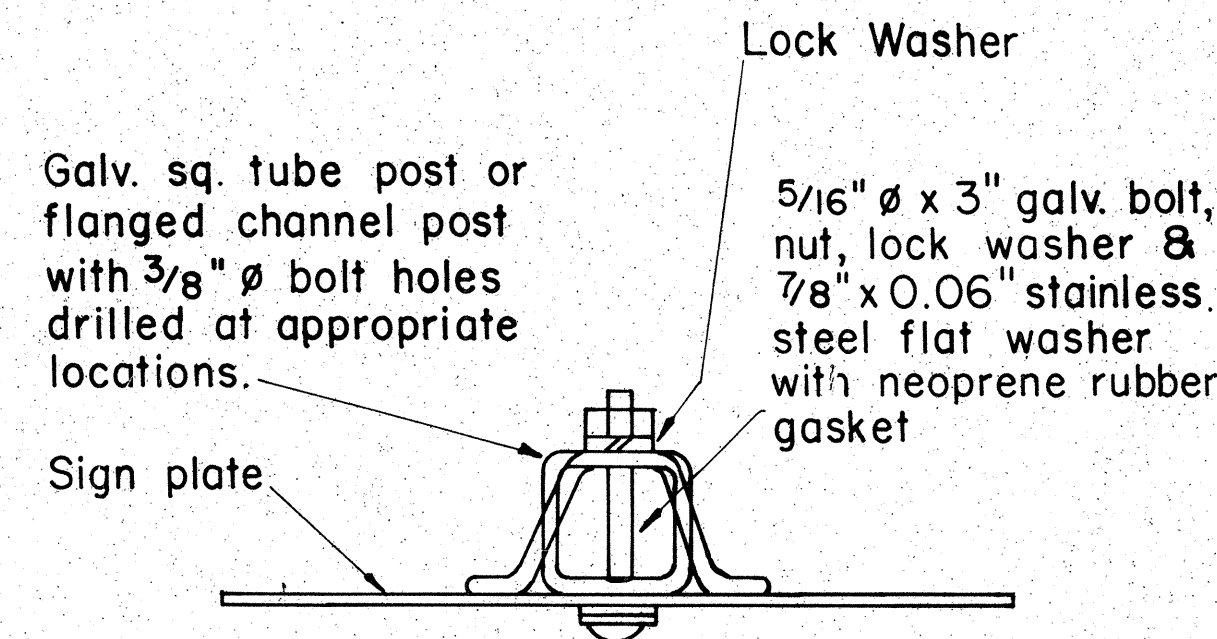


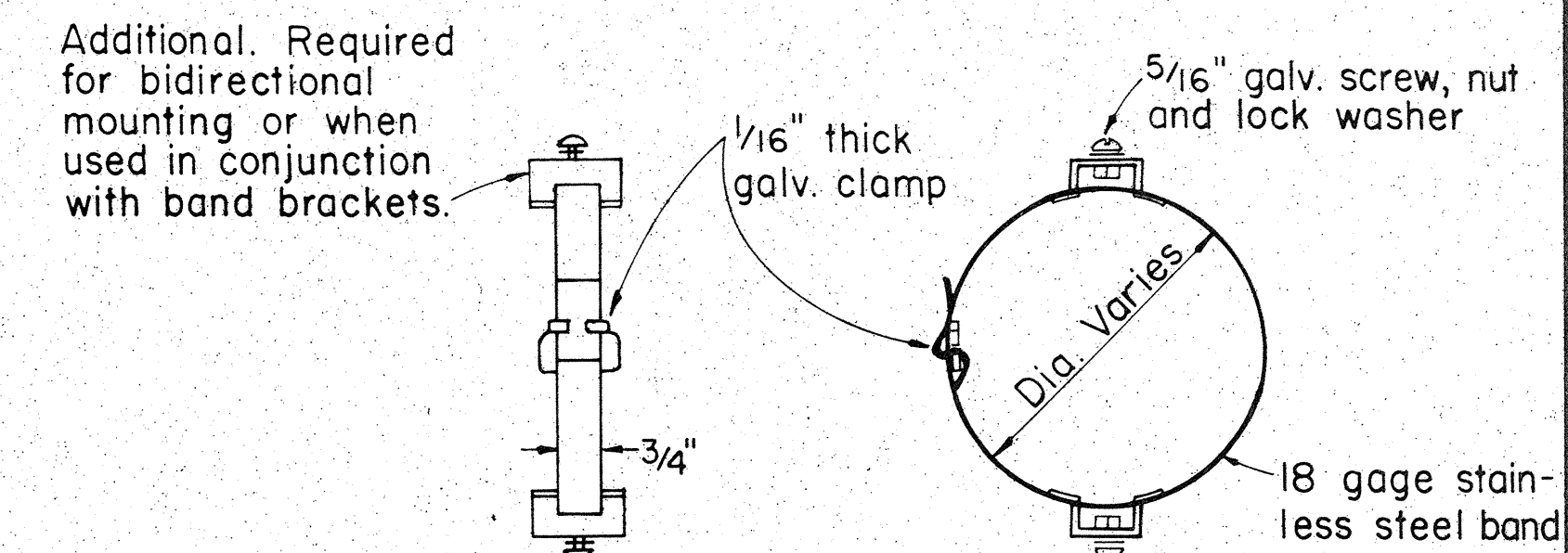
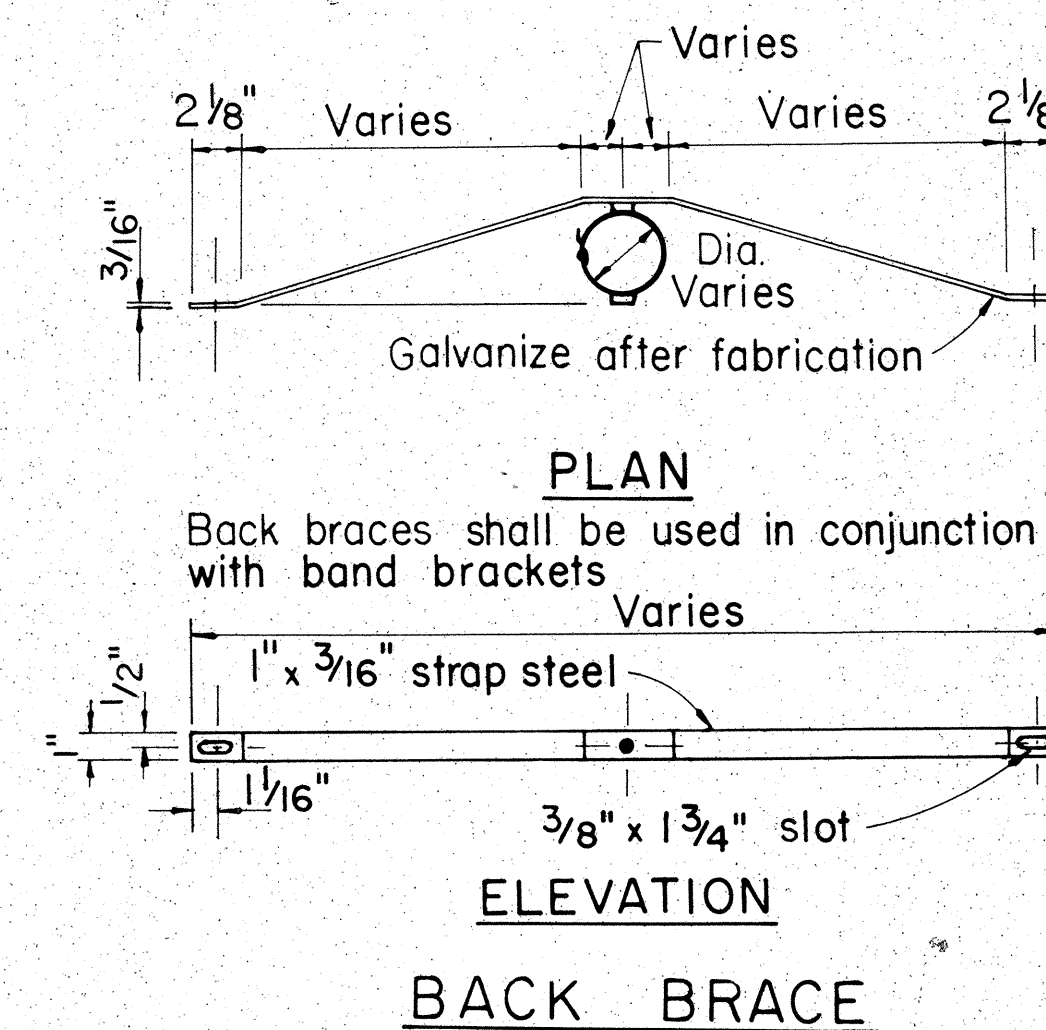
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-092-1(10)	1984	11	22

GENERAL NOTES

- Signs shall be placed in conformance with positions shown and described in the "Manual on Uniform Traffic Control Devices for Streets and Highways", 1978, Part II, Section 2A-2I, as amended, and as supplemented herein.
- Sign 48" and wider or larger than 10 sq. ft. in area shall be mounted on two or more sign posts except as noted below.
- Signs 48" and wider or larger than 10 sq. ft. in area may be mounted on objects other than sign posts (i.e. on highway lighting poles) as follows:
 - Signs 48" and wider but less than 10 sq. ft. in area shall be mounted with a minimum of two sets of band bracket and back braces.
 - Signs larger than 10 sq. ft. and less than 28 sq. ft. in area shall be mounted with a minimum of two sets of band brackets and back braces.
 - Signs larger than 28 sq. ft. in area shall be mounted with a minimum of three sets of band bracket and back braces.
- All parking restriction signs with arrows shall be mounted 45° to the line of traffic flow.
- Sign posts shall extend 3 1/2" above each sign, where required, for attachment of City and County street name signs.
- (R) or (L) indicates right or left and shown on the plans.
- See plans for special details of signs along bikeways.
- The minimum lateral distances shown are guidelines and shall be exceeded whenever possible. The Contractor shall place signs at the maximum practical lateral distance from the edge of the traveled way up to 30 feet and shall utilize protected locations whenever possible. Final locations of all signs shall be approved by the Engineer.
- Signs in medians shall be placed at midpoint of median up to a maximum distance of 30 feet from the edge of traveled way. When appropriate, signs for opposing directions shall be placed back to back.
- Anchor bases shall be installed for all signpost installations, unless otherwise shown or directed. See sheets DT 100A and DT 100B.



GALVANIZED SQUARE TUBE OR FLANGED CHANNEL POST



BAND BRACKET

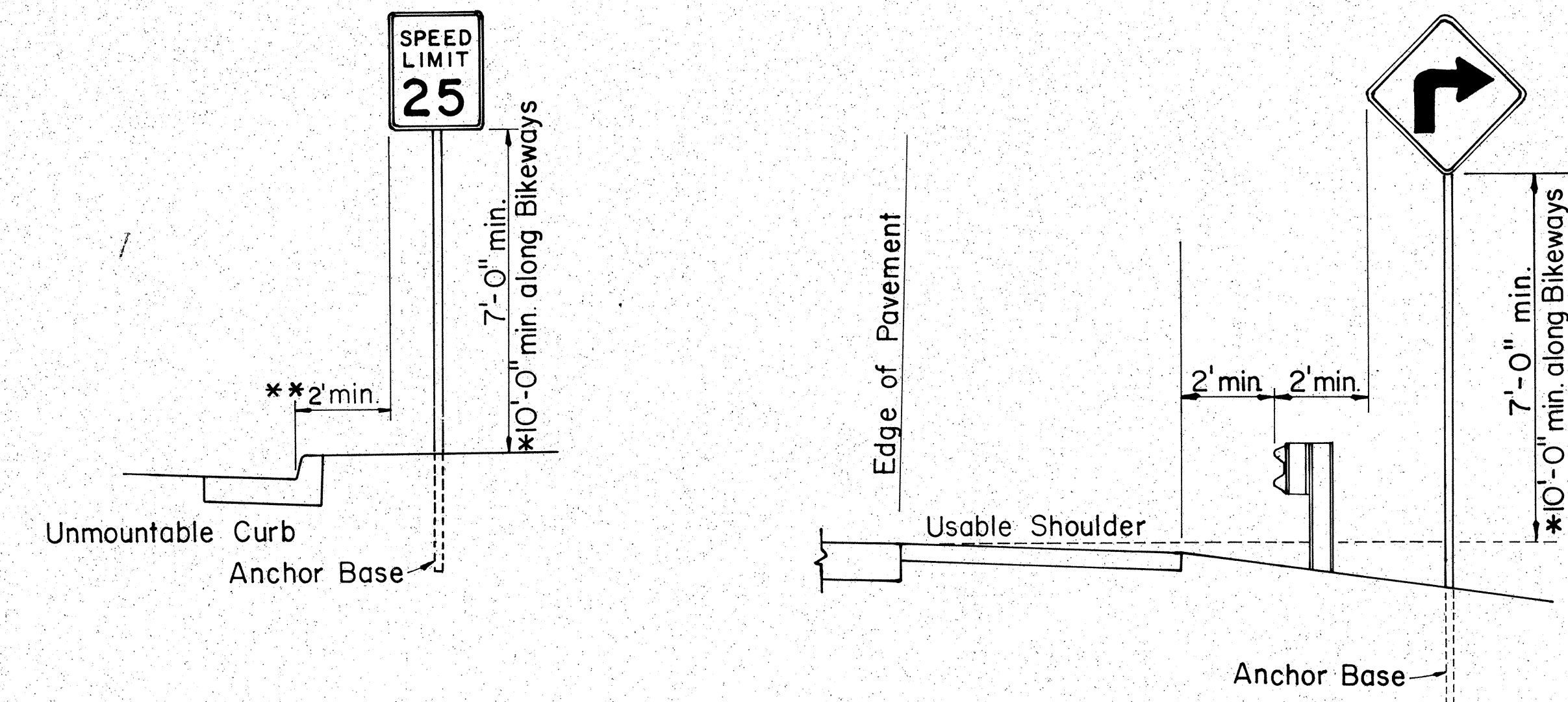
APPROVAL RECOMMENDED:
Erich Tanaka 10/14/83
 TRAFFIC ENGINEER DATE

APPROVED:
D. Fujiyama 10-18-83
 ASSISTANT CHIEF, ENGINEERING DATE

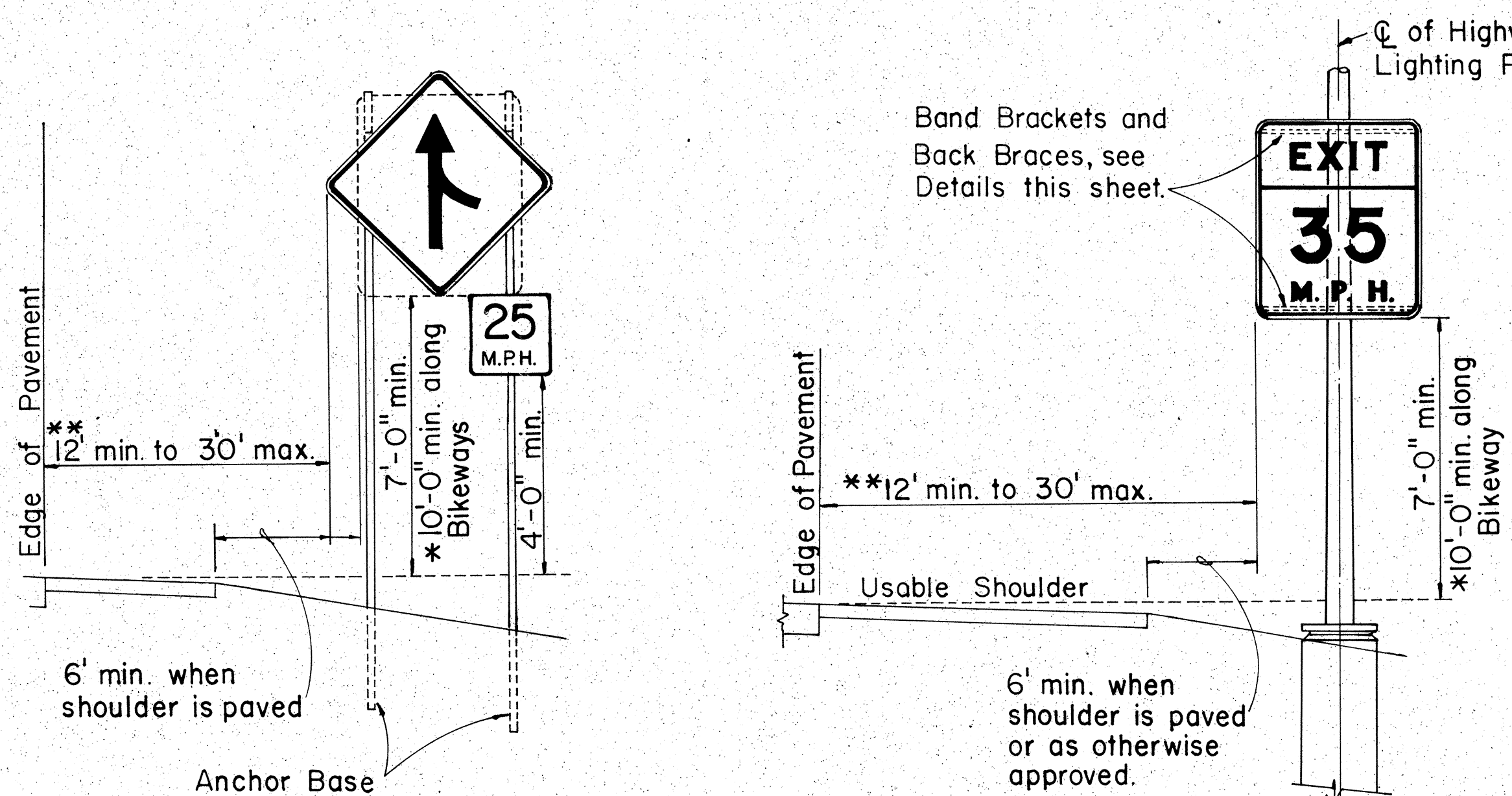
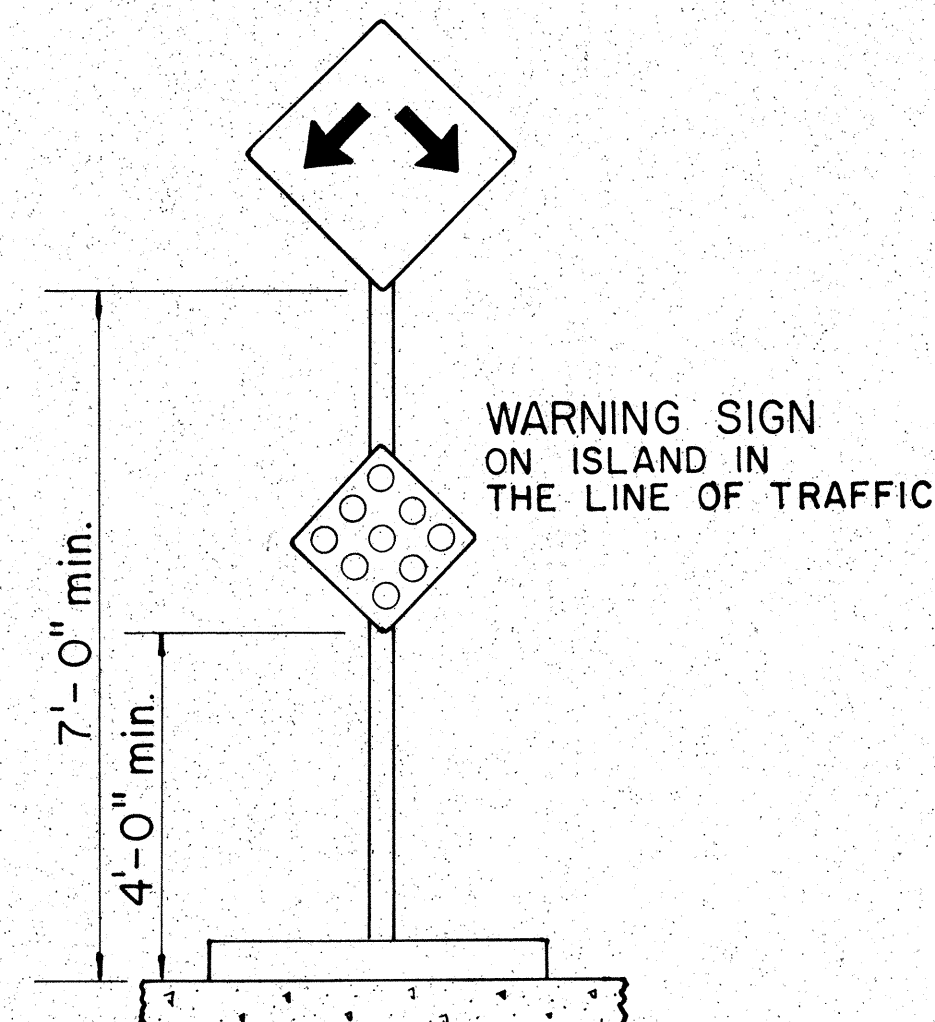
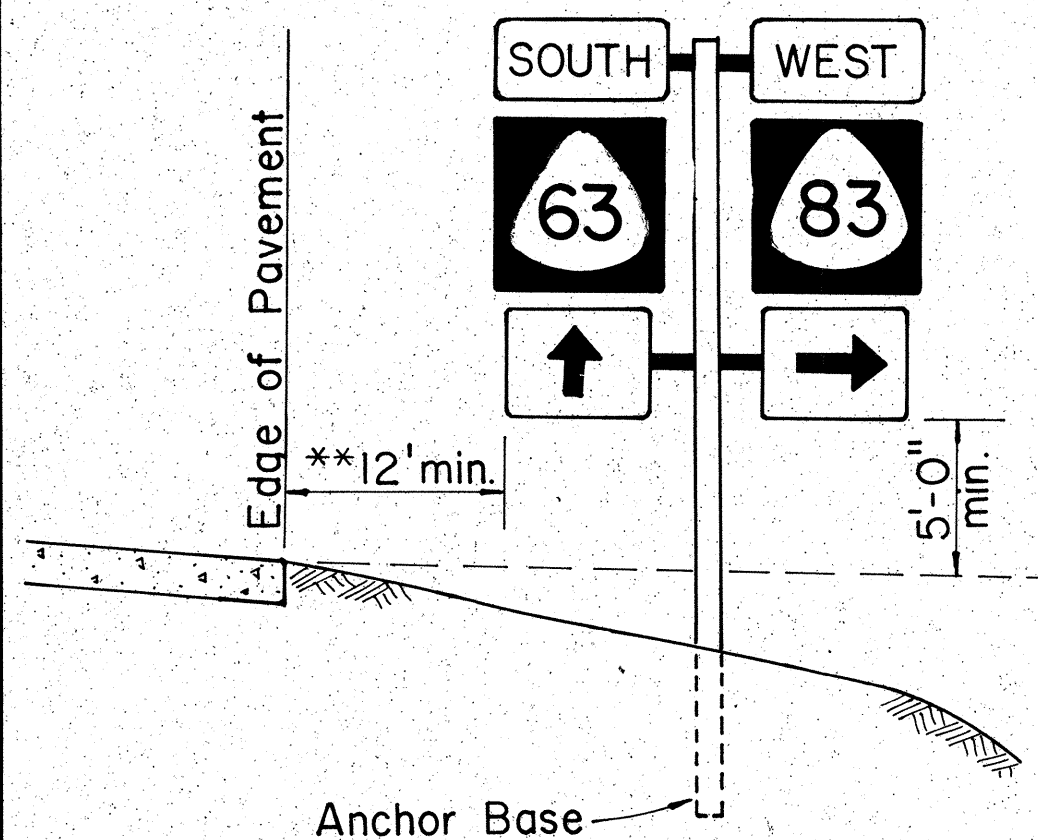
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
 MISCELLANEOUS SIGN DETAILS

Not to Scale: Oct. 1983
 SHEET NO. 2 OF 13 SHEETS DT 100



ROADSIDE ASSEMBLY RURAL DISTRICT



HEIGHT AND LATERAL LOCATION OF SIGNS TYPICAL INSTALLATION

DATE	
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HE-092-109	1984	12	22

A or A,	C	C,
36"	6"	-
48"	9"	19"
60"	12"	24"

NOTE: Frame stiffeners are required when D is greater than 24". See Gen. Note 4.

GENERAL NOTES

- Sign posts and base posts shall be flanged channel type structural steel conforming to ASTM A 499 and galvanized in accordance with ASTM A 123.
NOMINAL DIMENSIONS:
2.50 lbs./ft. - 3.125" x 1.562"
4.00 lbs./ft. - 3.500" x 1.750"
- Retainer - Spacer Strap shall be AISI 1020 steel and galvanized in accordance with ASTM A 123.
- Retainer and Connector Bolts shall be 5/16 - 18 UNC x 1.75" long hex. head, integral flange conforming to ASTM A 354 Grade BC. Nuts shall be 5/16 - 18 UNC hex. head, integral flange conforming to ASTM A 563 Grade D. All bolts and nuts shall be cadmium plated per Federal spec. QQP 416 B, Class 2, Type 2.
- All accessories, fittings and stiffener details (as required) shall be submitted to Engineer for approval 20 days prior to installation.
- For additional details see sht. DT 100.
- Basic formulas for use with the windload charts:
Factor = $A \times B \times H$
Therefore, if sign area (A x B) is known,
Maximum H = $\frac{\text{Factor}}{\text{sign area}(A \times B)}$
and if H is known,
Maximum sign area (A x B) = $\frac{\text{Factor}}{H}$

APPROVAL RECOMMENDED:

Eishi Tanaka 9/21/82
TRAFFIC ENGINEER DATE

APPROVED:

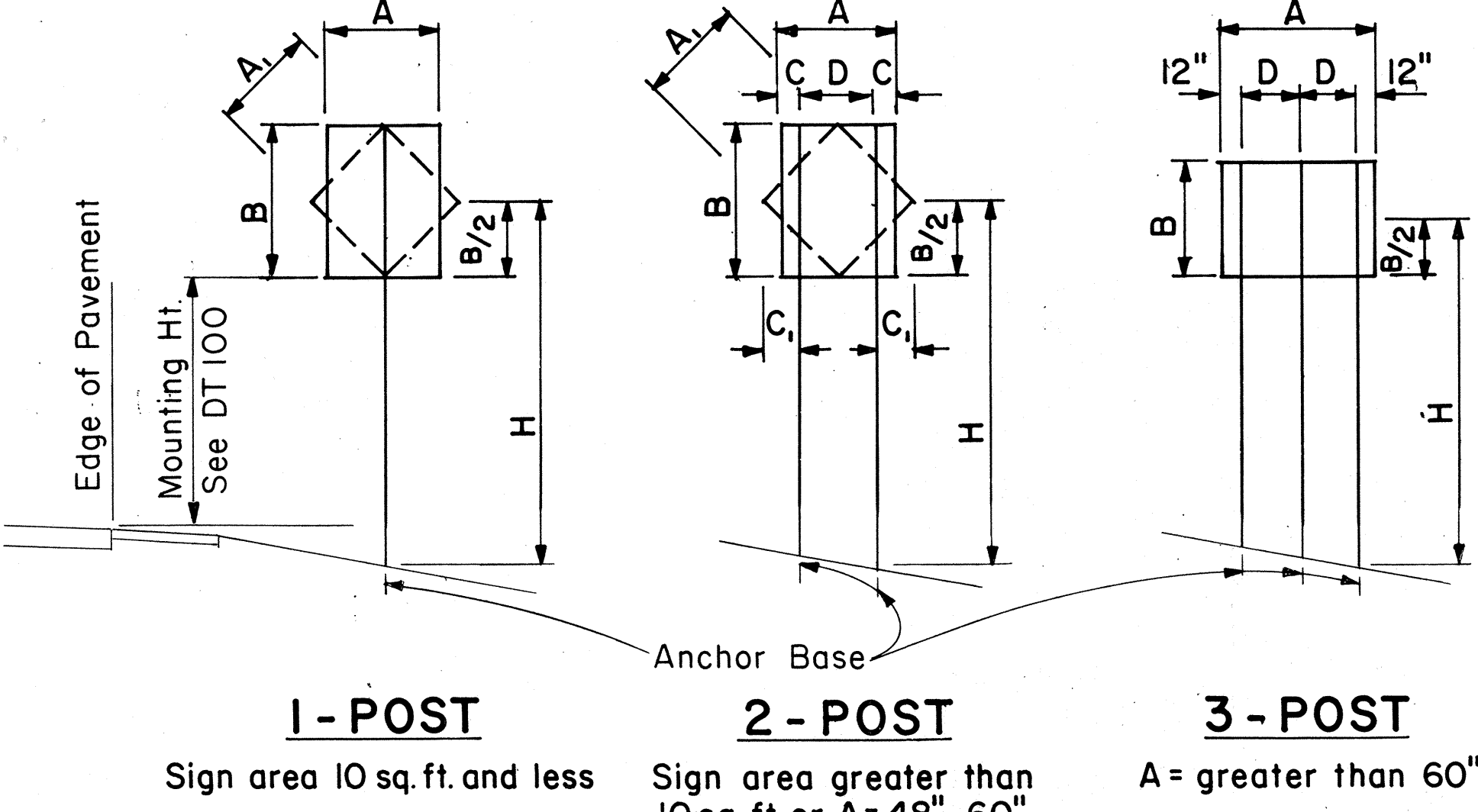
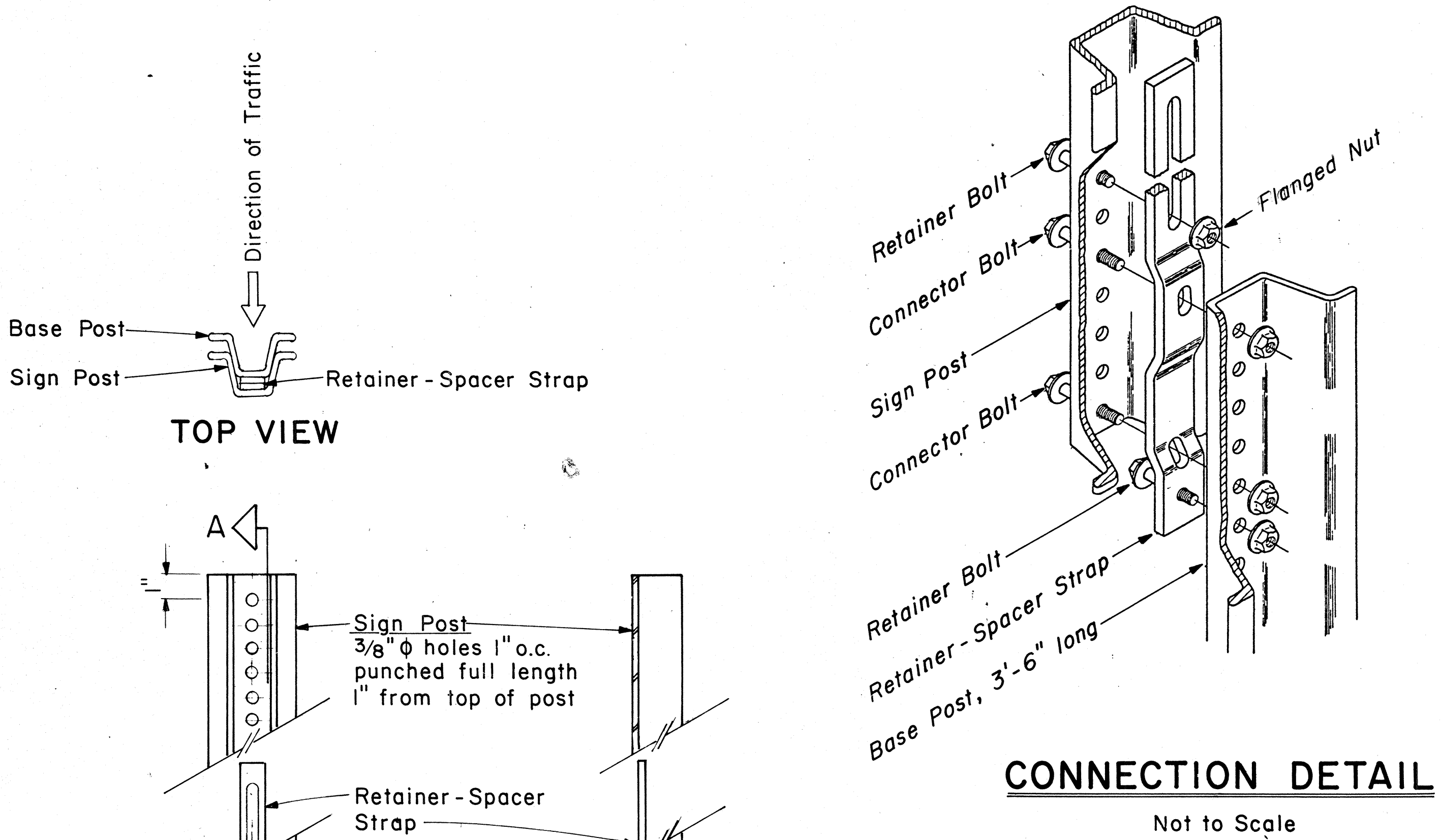
Richard J. Delaney 9/21/82
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
GALVANIZED FLANGED CHANNEL
SIGN POST MOUNTING

Scale: As Shown
Date: Sept. 1982

SHEET NO. 3 OF 13 SHEETS
DT 100A



TYPICAL INSTALLATION

Not to Scale

FLANGED CHANNEL: 1-POST INSTALLATION							
Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)					
		7	8	9	10	11	12
2.50 lbs./ft.	57	8.14	7.13	6.33	5.70	5.18	4.75
4.00 lbs./ft.	112	-	-	-	-	-	9.33

A x B
(Area, sq. ft.)

FLANGED CHANNEL: 2-POST INSTALLATION							
Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)					
		7	8	9	10	11	12
2.50 lbs./ft.	124	17.71	15.50	13.77	12.40	11.27	10.33
4.00 lbs./ft.	241	34.43	30.13	26.78	24.10	21.91	20.08

A x B
(Area, sq. ft.)

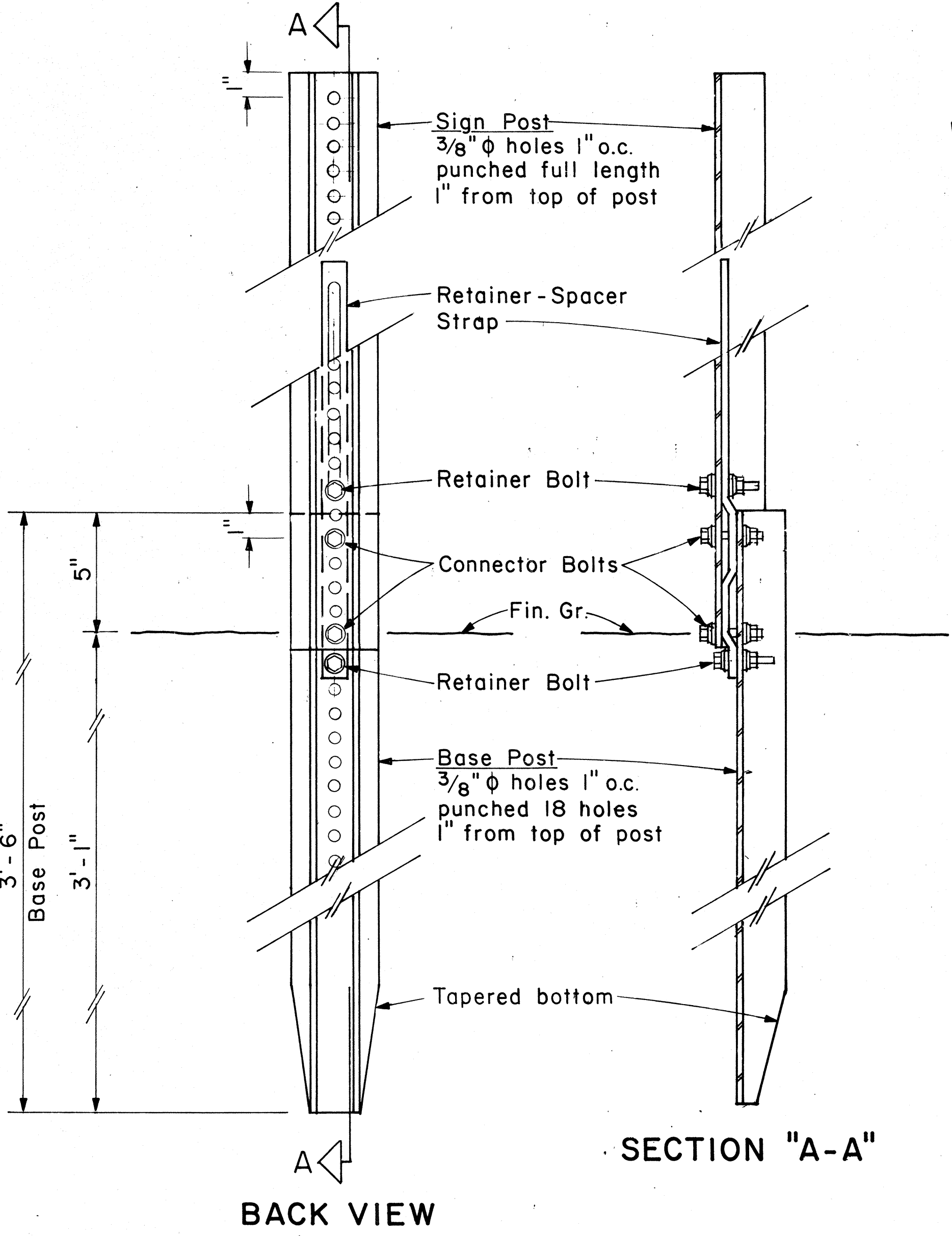
FLANGED CHANNEL: 3-POST INSTALLATION							
Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)					
		7	8	9	10	11	12
2.50 lbs./ft.	187	26.71	23.38	20.78	18.70	17.00	15.58
4.00 lbs./ft.	362	51.71	45.25	40.22	36.20	32.91	30.17

A x B
(Area, sq. ft.)

WINDLOAD CHARTS

NO.	REVISION	APPROVED BY	DATE

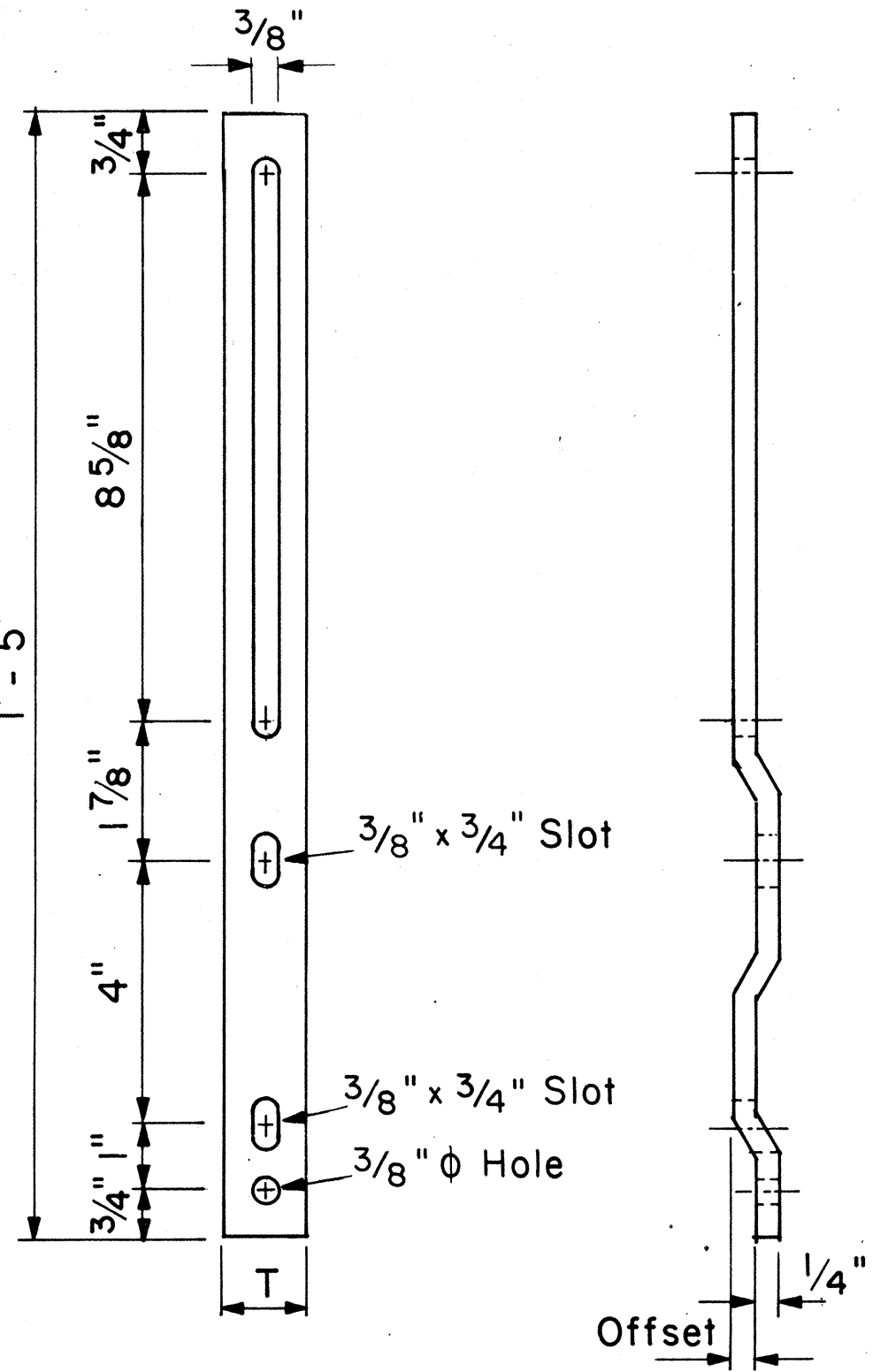
ORIGINAL PLAN	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	



BACK VIEW

ANCHOR BASE DETAIL

Scale: 3" = 1'-0"

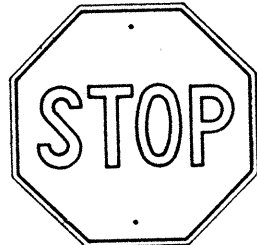


RETAINER-SPACER STRAP

Not to Scale

RETAINER-SPACER STRAP		
Post Size	T	Offset
2.50 lbs./ft.	1.00"	0.145"
4.00 lbs./ft.	1.12"	0.280"

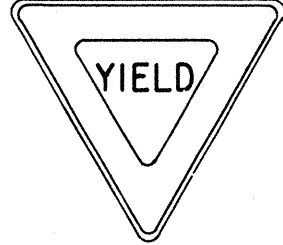
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-092 1019	1984	14	22



R1-1 30"x 30"
R1-1-A 36"x 36"

4-WAY

R1-3 12"x 6"
R1-3-A 18"x 9"



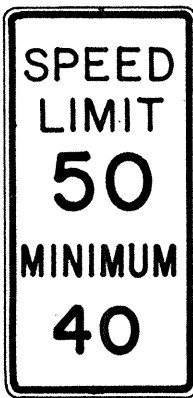
R1-2 36"x 36"x 36"
R1-2-A 48"x 48"x 48"



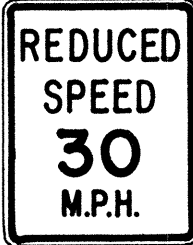
R2-1(50) 24"x 30"
R2-1(50)-A 48"x 60"



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"



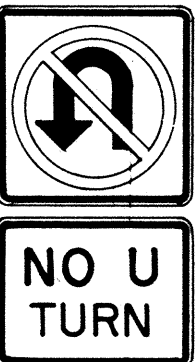
R3-1 24"x 24"
24"x 18"
R3-1-A 48"x 48"
48"x 36"



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



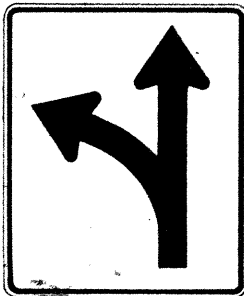
R3-3 24"x 24"
R3-3-A 48"x 48"



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



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



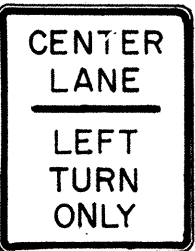
R3-6(L) 30"x 36"
R3-6(L)-A 48"x 60"



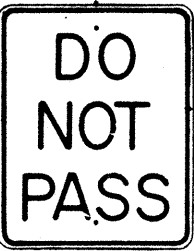
R3-7(R) 30"x 30"
R3-7(R)-A 48"x 48"



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



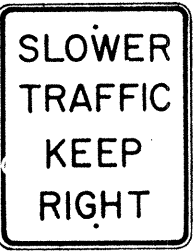
R3-9 24"x 30"



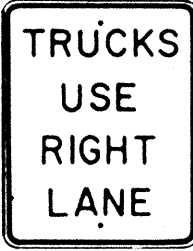
R4-1 24"x 30"



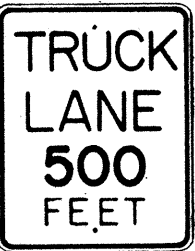
R4-2 24"x 30"



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



R4-5 24"x 30"



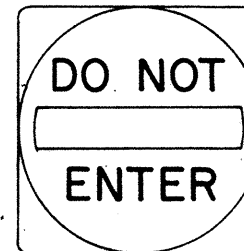
R4-6(500) 24"x 30"



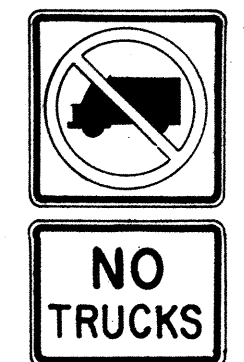
R4-7 24"x 30"
24"x 18"



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"



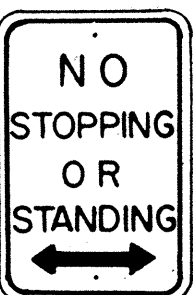
R6-1 (R) 36"x 12"



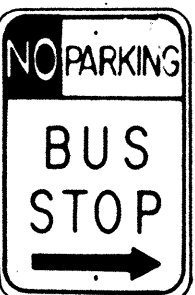
R6-2(R) 18"x 24"



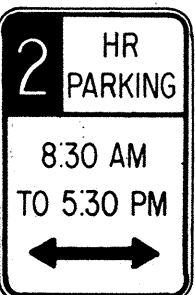
R7-1 12"x 18"
R7-1-A 24"x 30"



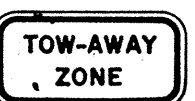
R7-4 12"x 18"
R7-4-A 24"x 30"



R7-1,7(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"



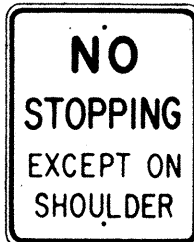
R8-3 24"x 30"



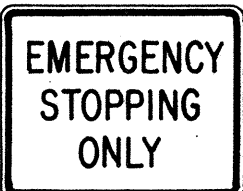
R8-4 30"x 24"
R8-4-A 48"x 36"



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"



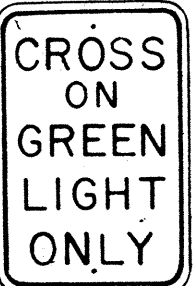
R9-2 12"x 18"



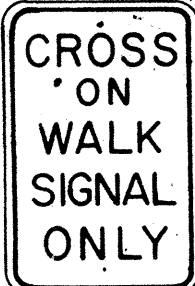
R9-3 12"x 18"



R9-4 18"x 24"



R10-1 12"x 18"



R10-2 12"x 18"



R10-3 9"x 12"



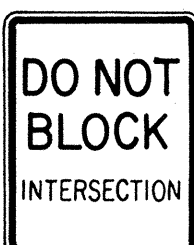
R10-4 9"x 12"



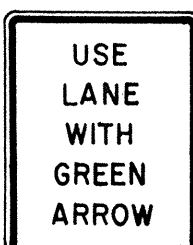
R10-5 24"x 30"



R10-6 24"x 36"



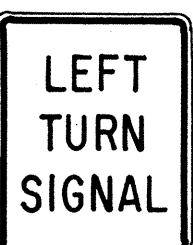
R10-7 24"x 30"



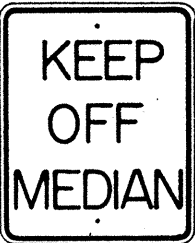
R10-8 24"x 30"



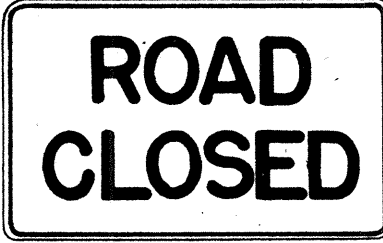
R10-9 24"x 30"



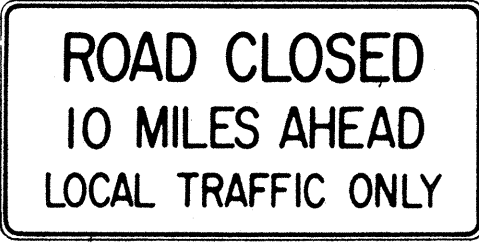
R10-10 24"x 30"



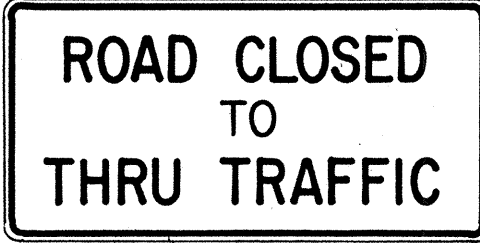
R11-1 24"x 30"



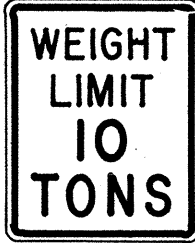
R11-2 48"x 30"



R11-3(10) 60"x 30"



R11-4 60"x 30"



R12-1(10) 24"x 30"

GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs," 1972, and as amended.
- All regulatory signs shall be reflectorized unless otherwise specified.
- All regulatory 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.
- All signs shall be erected without educational plaques unless called for in the plans.

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

APPROVED:
Robert J. Davis 3-20-72
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 101 Approved 12-30-69	H.T.	3/20/72
2	Revised General Note 1.	H.T.	10/12/74
3	Added General Note 5	H.T.	8/9/75

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

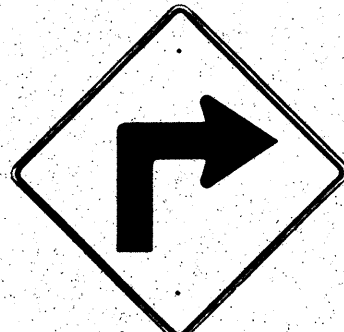
STANDARD DETAILS
REGULATORY SIGNS

NOT TO SCALE

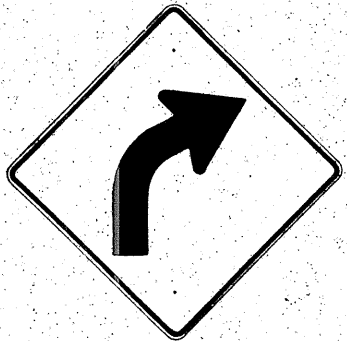
SHEET No. 5 OF 13 SHEETS DT 101

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

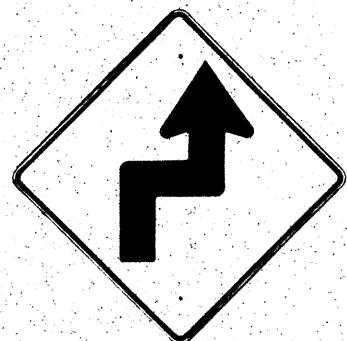
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII *	HAW.	HES-092- (HES-109)	1984	15	22



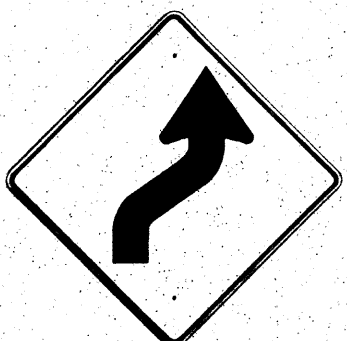
W1-1(R) 30"x30"
W1-1(R)-A 48"x48"



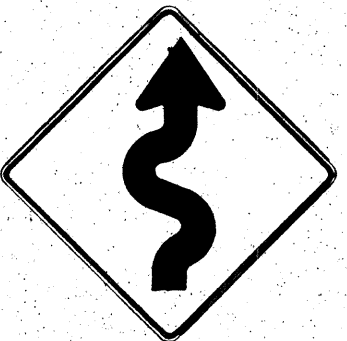
W1-2(R) 30"x30"
W1-2(R)-A 48"x48"



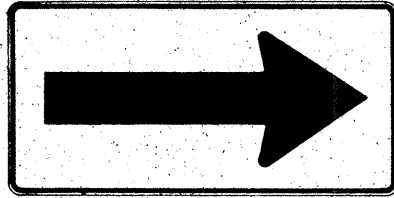
W1-3(R) 30"x30"
W1-3(R)-A 48"x48"



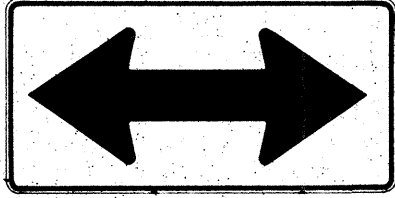
W1-4(R) 30"x30"
W1-4(R)-A 48"x48"



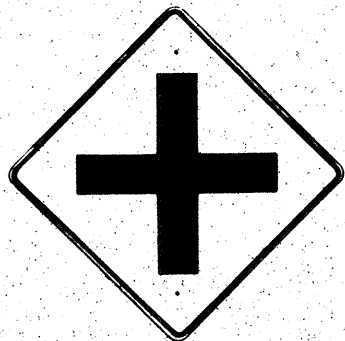
W1-5(R) 30"x30"
W1-5(R)-A 48"x48"



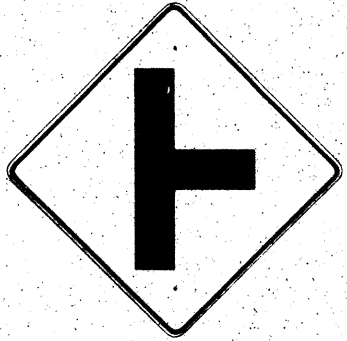
W1-6 48"x24"



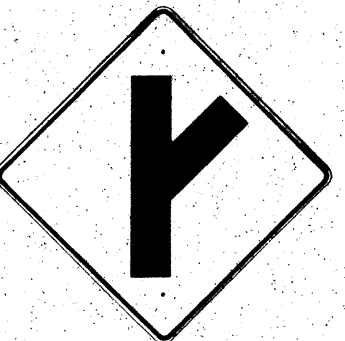
W1-7 48"x24"



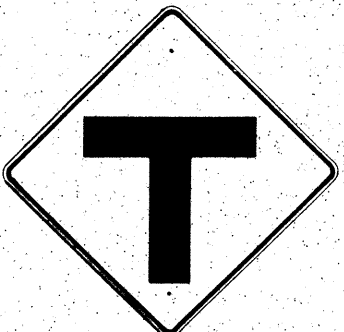
W2-1 30"x30"
W2-1-A 48"x48"



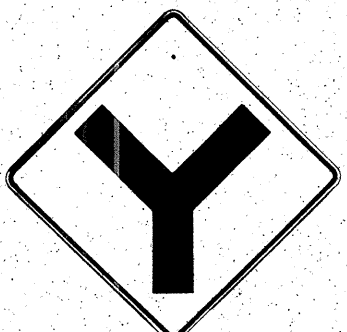
W2-2 30"x30"
W2-2-A 48"x48"



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



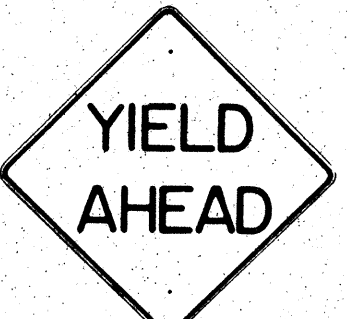
W2-4 30"x30"
W2-4-A 48"x48"



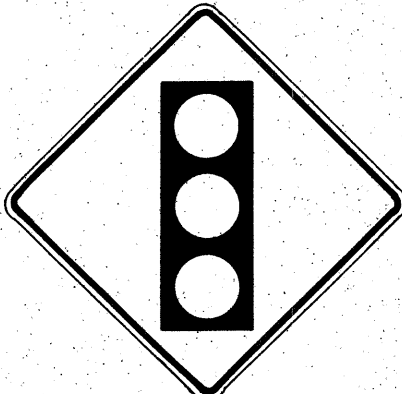
W2-5 30"x30"
W2-5-A 48"x48"



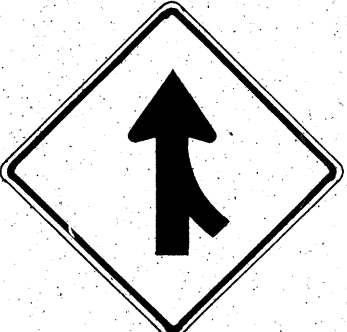
W3-1 30"x30"
W3-1-A 36"x36"



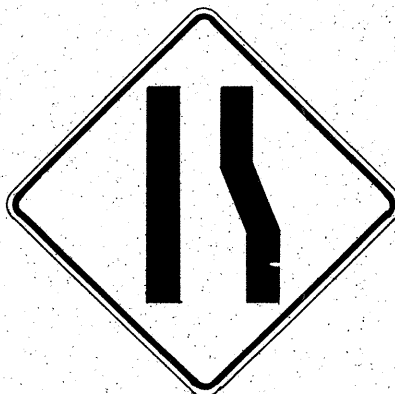
W3-2 30"x30"
W3-2-A 36"x36"



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"



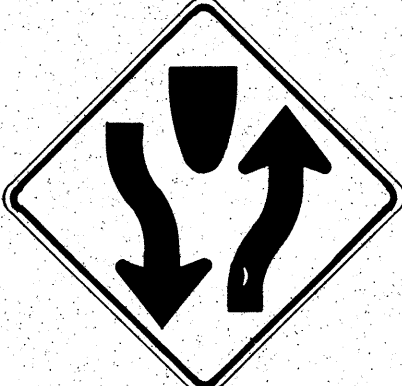
W5-1 36"x36"



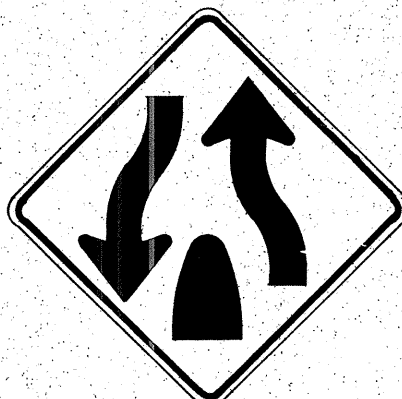
W5-2 30"x30"
W5-2-A 36"x36"



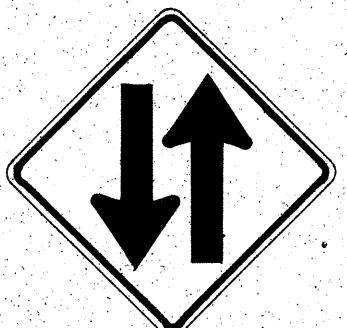
W5-3 36"x36"



W6-1 36"x36"
24"x18"



W6-2 36"x36"
24"x18"



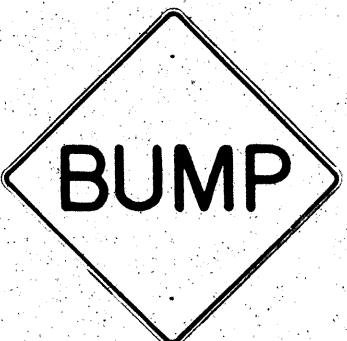
W6-3 30"x30"
24"x18"
W6-3-A 36"x36"
24"x18"
W6-3-B 48"x48"
24"x18"



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"



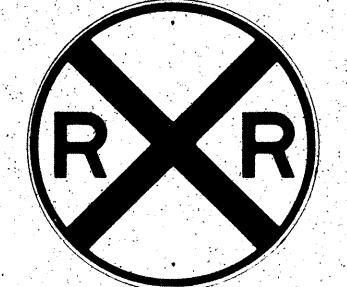
W8-5 30"x30"
24"x18"
W8-5-A 36"x36"
24"x18"



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"



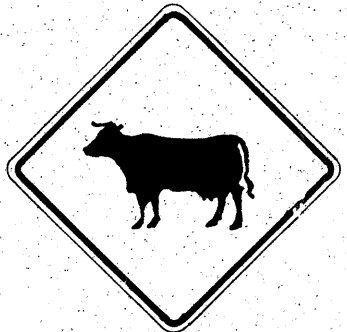
W10-1 36" Diameter



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



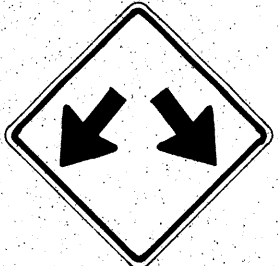
W11-2 30"x30"
24"x18"
W11-2-A 36"x36"
24"x18"



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"



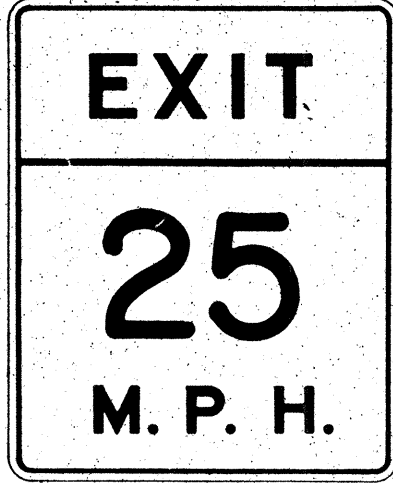
W12-1 24"x24"
W12-1-A 36"x36"
W12-1-B 48"x48"



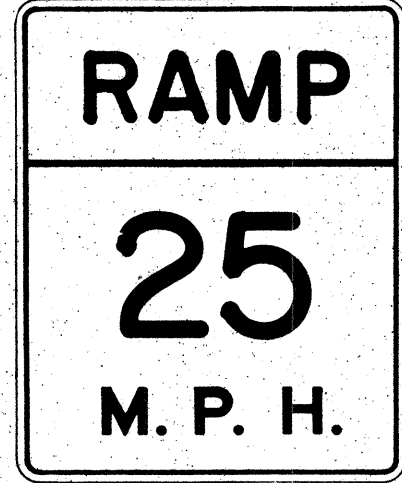
W12-2 (12'-6") 36"x36"
24"x18"



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"



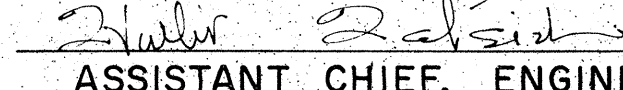
W14-3 36"x48" x 48"

GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs," 1972, and as amended.
- All warning signs shall be reflectorized unless otherwise specified.
- All 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.
- Signs prefixed with "CW" on the plans shall indicate orange and black construction signs, and shall be reflectorized.

APPROVAL RECOMMENDED:

TRAFFIC ENGINEER

APPROVED:

ASSISTANT CHIEF, ENGINEERING

3/17/12

DATE

3-20-12

DATE

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

STANDARD DETAILS

WARNING SIGNS

NOT TO SCALE

SHEET No. 6 OF 13 SHEETS DT 102

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-092-1(19)	1984	16	22

General Notes

- Sign details shall conform to the latest editions of the following FHWA publications:
 - "Standard Alphabets for Highway Signs," and as amended.
 - "Standard Highway Signs," and as amended.
 - "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
- All signs shall be reflectorized with reflective sheeting, unless otherwise specified.
- All signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations.
- Numerals in () indicate numerals to be inserted for sign message. (R) or (L) indicates right or left.
- Signs prefixed with "CW" on the plans shall indicate orange and black construction signs, and shall be reflectorized with reflective sheeting.
- All signs shall be erected without educational plaques unless called for in the plans.

ALL WAY
R1-4 18"x 6"

REDUCED SPEED
35
AHEAD
R2-5d(35) 24"x 30"
R2-5d (35)-A 48"x 60"

SPEED LIMIT ENFORCED BY VASCAR
4" Series D
- 4" Series C
- 3" Series D
- 5" Series C
R2-10 24"x 30"

CENTER LANE ONLY
R3-9b 24"x 36"

BUS STOP
R7-107(R) 12"x 24"

RESERVED PARKING
R7-8 12"x 18"
R7-8-A 24"x 30"

ANY TIME
- 4" Series C
- 1 1/2"
R8-3a 24"x 24"
24"x 18"
R8-3a-A 48"x 48"

NO PED XING
R9-3a 18"x 18"
18"x 12"
R9-3a-A 24"x 24"
24"x 18"

USE CROSSWALK
R9-3b(R) 18"x 12"

USE CROSSWALK
R9-3b(L) 18"x 12"

NO TURN ON RED
RIO-11a 24"x 30"

TURN RIGHT ANY TIME WITH CAUTION
4" Series C
R16-1 24"x 30"

NO LEFT TURN ON RED
- 4" Series D -
- 3" Series D -
- 2" Series D -
- 3" Series D -
R16-3 18"x 24"

NO RIGHT TURN ON RED
R16-4 18"x 24"

UNLICENSED VEHICLES BICYCLES, CYCLES UNDER 5 H P, PEDESTRIANS KEEP OUT FREEWAY
3" Series C
4" Series E
R16-5 36"x 42"

TURN AHEAD
- 8" Series F
- 5" Series D
R16-6 24"x 30"

U TURN OK
8" Series F
5" Series D
R16-7 24"x 30"

MOTOR-DRIVEN CYCLES PROHIBITED
4" Series B
R5-8 30"x 24"

W17-1(L) 60"x 60"

STOP AHEAD
W3-1a 36"x 36"
24"x 18"
W3-1a-A 48"x 48"
24"x 18"

YIELD AHEAD
W3-2a 36"x 36"
24"x 18"
W3-2a-A 48"x 48"
24"x 18"

STOP AHEAD WHEN FLASHING
6" Series C
W3-4 48"x 48"

TRUCK CROSSING
W8-6 30"x 30"
W8-6-A 36"x 36"

THRU TRAFFIC MERGE LEFT
6" Series E
W9-3(L) 48"x 48"

EQUESTRIAN XING
W11-7 36"x 36"
24"x 18"
W11-7-A 48"x 48"
24"x 18"

FIRE STATION
W11-8 36"x 36"
24"x 18"
W11-8-A 48"x 48"
24"x 18"

W11-9 36"x 36"
W11-9-A 48"x 48"

LIMITED SIGHT DISTANCE
W14-4 36"x 36"
W14-4-A 48"x 48"

DELAYED GREEN
- 4" Series C -
W15-1 24"x 24"

ADVANCE GREEN
W15-2 24"x 24"

END FREEWAY 1/2 MI
8" Series E
CW16-1(1/2) 60"x 60"

RIGHT LANE EXIT ONLY
8" Series E
W18-1 48"x 60"

SI-1 36"x 36"

S2-1 36"x 36"

SCHOOL BUS STOP AHEAD
S3-1 30"x 30"

8:00 AM TO 3:30 PM
S4-1 24"x 10"

WHEN CHILDREN ARE PRESENT

S4-2 24"x 10"

SCHOOL
S4-3 24"x 8"

WHEN FLASHING

S4-4 24"x 10"

SIDEWALK CLOSED
7" Series D
CW23-4 48"x 48"

USE SIDEWALK
4" Series C
R18-1 24"x 18"

APPROVAL RECOMMENDED:
Eushi Tanaka 5/3/78
TRAFFIC ENGINEER DATE

APPROVED:
Andrew J. Dakeishi 5/3/78
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT103 approved 3/20/72	H.T.	5/3/78
2	Added General Note 6	H.T.	11/9/78

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
MISCELLANEOUS SIGNS
NOT TO SCALE
DATE: MAY, 1978
SHEET No. 7 OF 13 SHEETS DT 103

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
TRACED BY		
DESIGNED BY		
CHECKED BY		
No.		

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-092-1(19)	1984	17	22



CW20-1a 48" x 48"



CW20-2d 48" x 48"



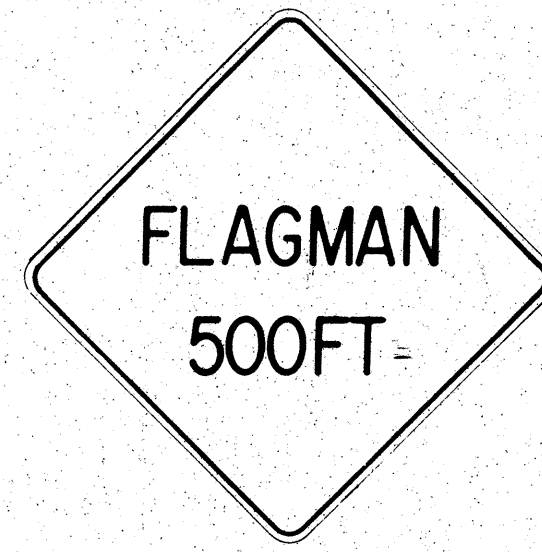
CW20-3b 48" x 48"



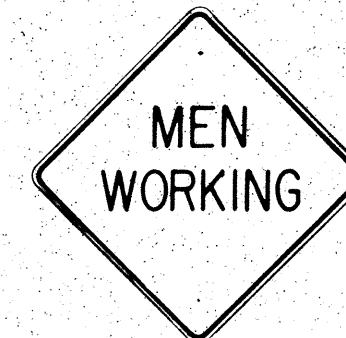
CW20-4d 48" x 48"



CW20-5d(L) 48" x 48"



CW20-7c 48" x 48"



CW21-1 30" x 30"



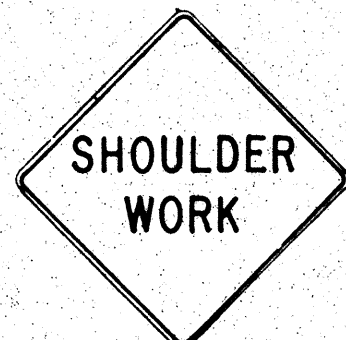
CW21-2 30" x 30"



CW21-3 36" x 36"



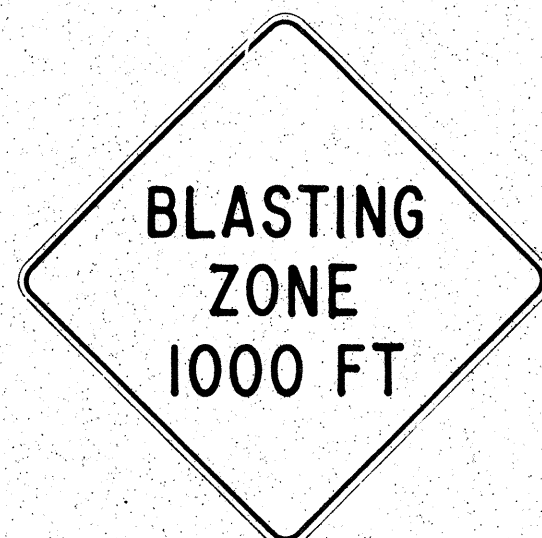
CW21-4 36" x 36"



CW21-5 30" x 30"



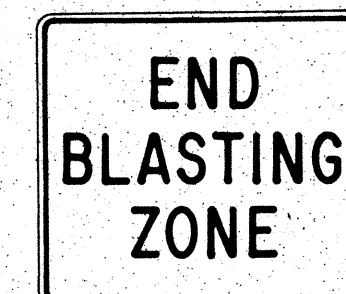
CW21-6 30" x 30"



CW22-1b 48" x 48"



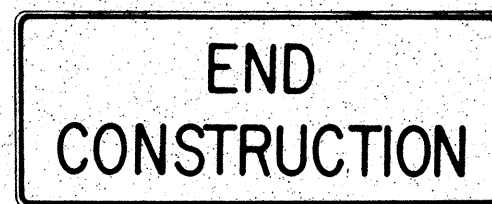
CW22-2 42" x 36"



CW22-3 42" x 36"



CG20-1(5) 60" x 36"



CG20-2 60" x 24"



CM4-9(R) 30" x 24"



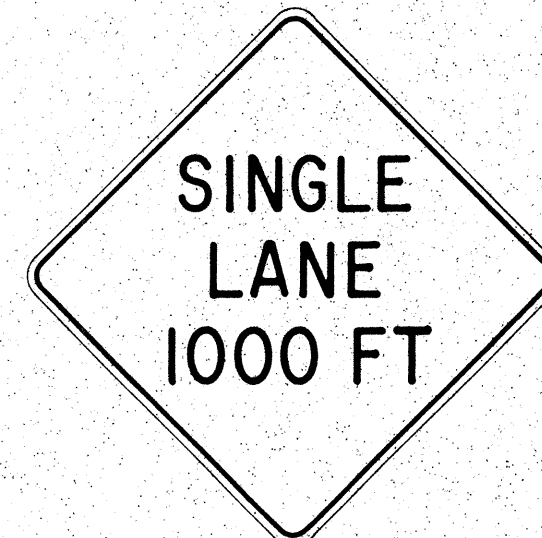
CM4-10(R) 48" x 18"



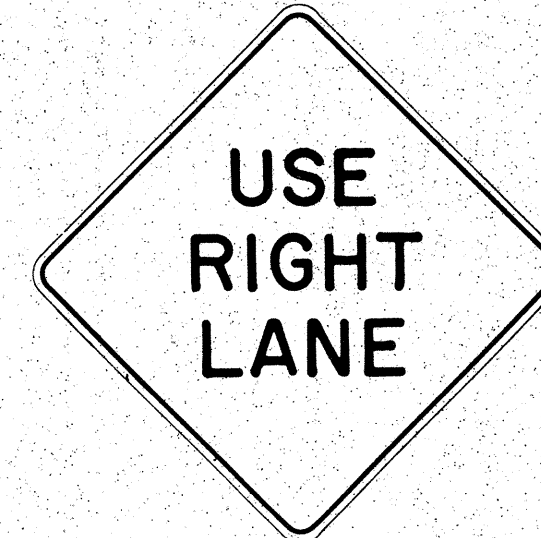
CG20-4 36" x 18"



CW23-1 36" x 36"



CW23-2b 48" x 48"



CW23-3(R) 48" x 48"

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," 1972, and as amended.
- All construction signs shall be reflectorized.
- All construction 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.
- For "CW" series signs, suffixes a, b, c and d are as follows:
a-1500 FT, b-1000 FT, c-500 FT and d-AHEAD.

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 104 Approved 12-30-69	H.T.	3/23/72
2	Revised General Note 1	H.T.	10/10/74
3	Revised General Note 2	H.T.	9-16-75
4	Revised General Note 2 and sign CG20-1(5)	H.T.	9-14-76

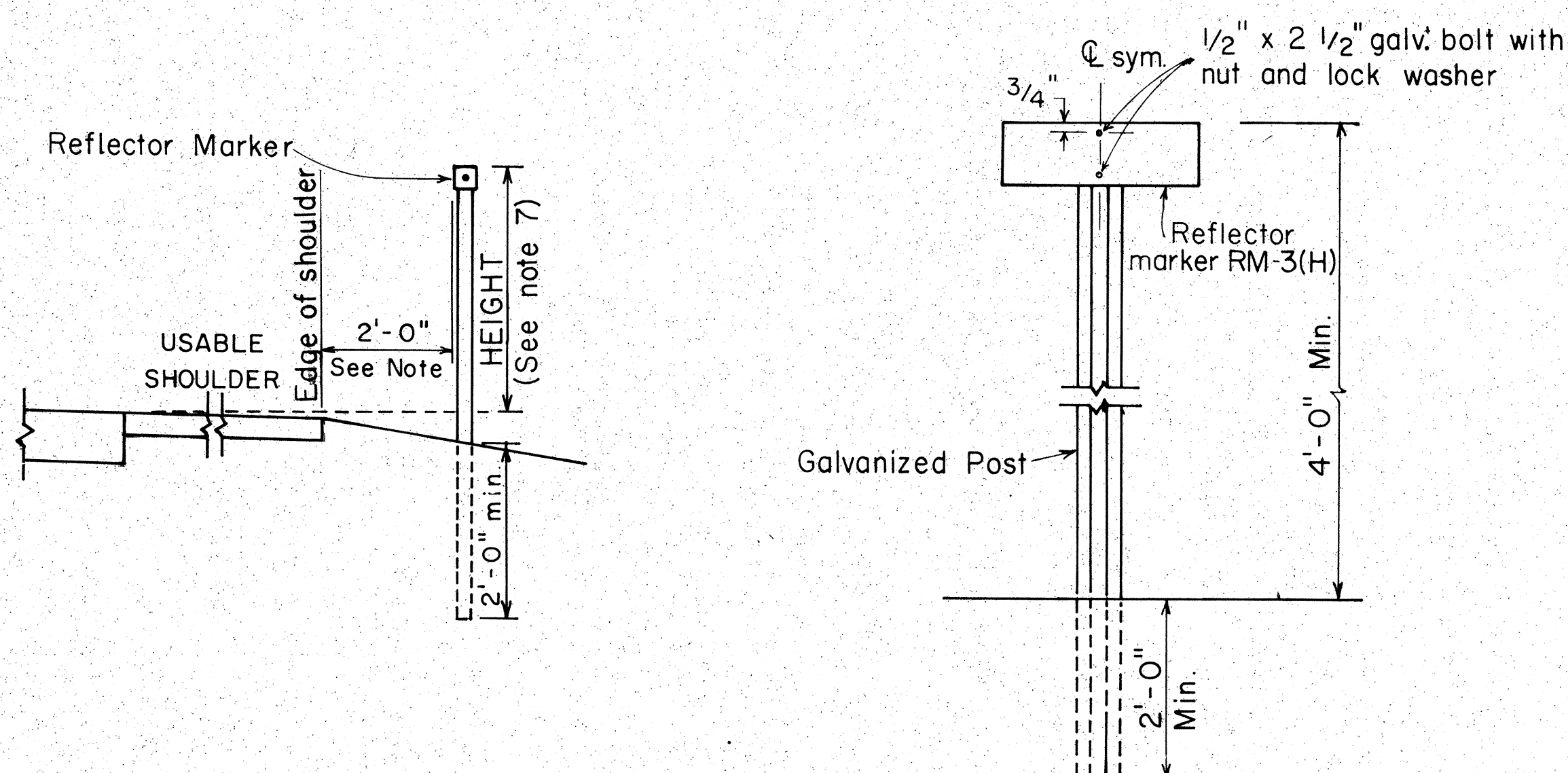
APPROVAL RECOMMENDED:
Erich Tanaka
TRAFFIC ENGINEER
3/21/72
DATE

APPROVED:
William S. Salsich
ASSISTANT CHIEF, ENGINEERING
3/23/72
DATE

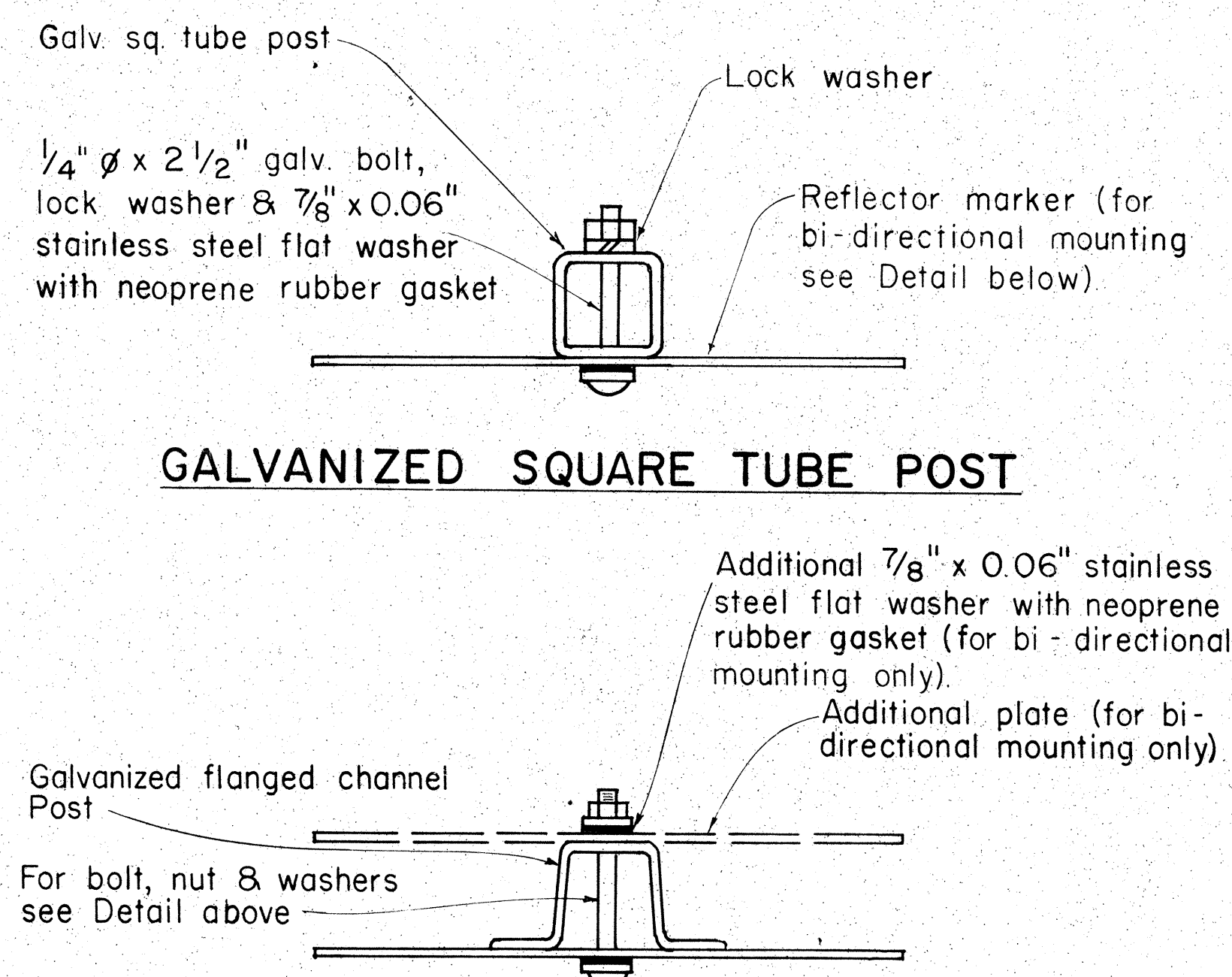
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION STANDARD DETAILS CONSTRUCTION SIGNS NOT TO SCALE SHEET No. 8 OF 13 SHEETS DT 104

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED BY	DRAWN BY	
CHECKED BY	DESIGNED BY	
	CHECKED BY	

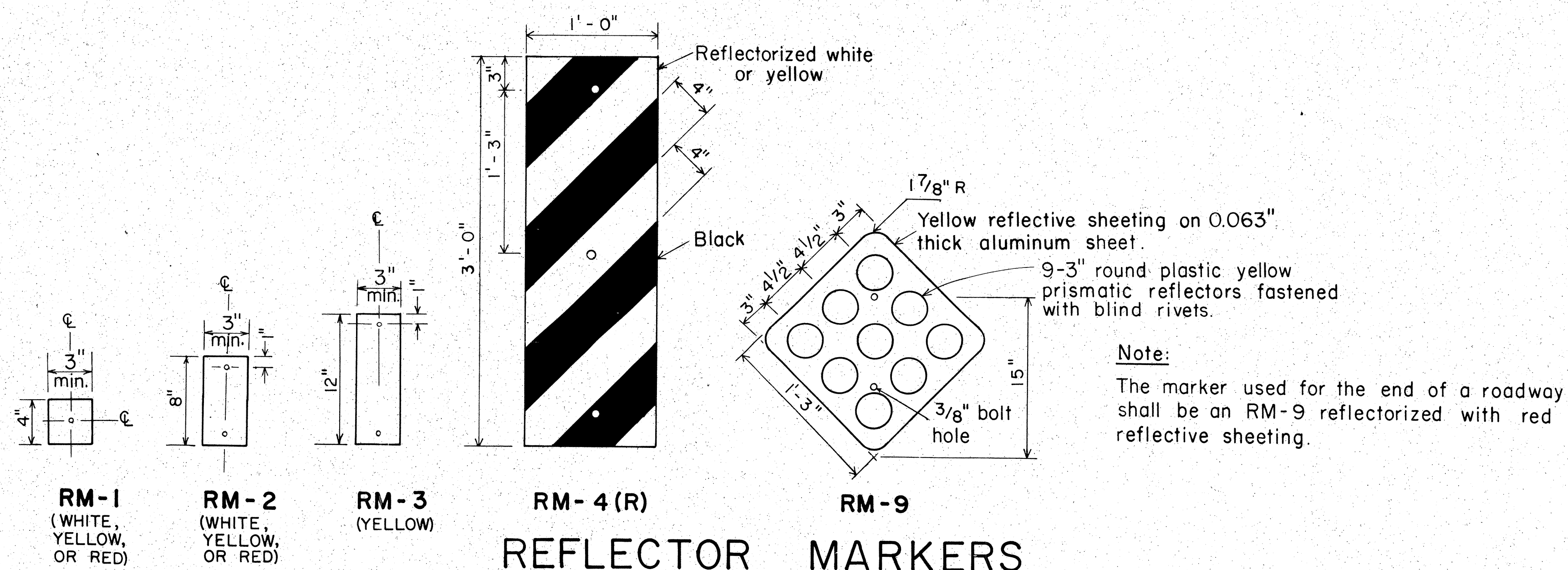
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEET
HAWAII	HAW.	HES-092- 1(19)	1984	18	22



<u>REFLECTOR</u>	MARKER	MOUNTING	DETAIL
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100



GALVANIZED FLANGED CHANNEL POST
TYPICAL MOUNTING DETAILS



GENERAL NOTES:

1. Clearance markers (RM-3, RM-4) shall be installed with the edge of the marker in line with the inner edge of the obstruction.
2. (R) or (L) indicates right or left and shall be as shown on the plans.
3. Reflector markers RM-1 and RM-2 shall be:
 - a) Yellow if placed along the left edge of divided roadways, one-way roadways, and ramps in the direction of travel.
 - b) White if placed along the right edge of divided roadways, one-way roadways, and ramps in the direction of travel.
4. For RM-4, the stripes shall slope downward at an angle of 45° toward the side of the obstruction that traffic is to pass.
5. For reflector marker RM-9, reflective sheeting material may be used as an alternate.
6. (H) indicates horizontal mounting of reflector marker.
7. Height = 4'-0" min. for RM-1, RM-2 and RM-3.
Height = 5'-6" min. for RM-4 and RM-9.
8. Final locations of reflector markers shall be approved by the Engineer.

NO.	REVISION	APPROVED BY	DATE
1	Revised Mounting Details	H-1	4/23
2	Revised General Notes, Mounting Details and Reflector Markers.	p40	9-28

APPROVAL RECOMMENDED:
Euski Tanaka 11/17/79
TRAFFIC ENGINEER DATE

APPROVED:
Herbert Z. Zakorovich 11/15/79
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

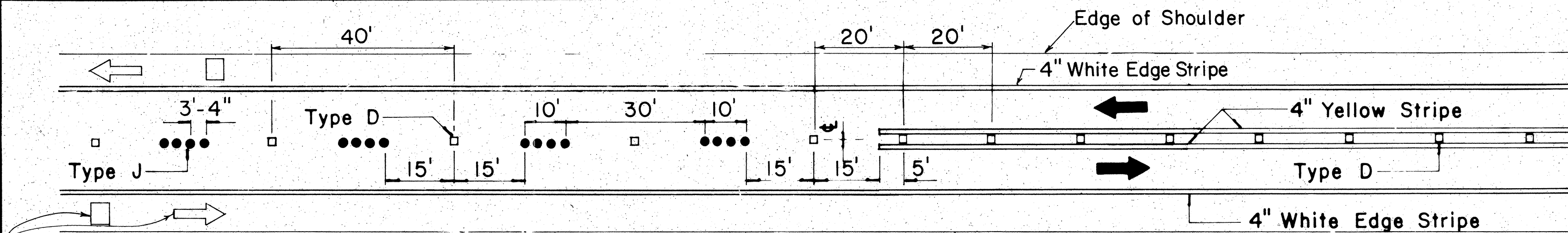
MISCELLANEOUS REFLECTOR MARKERS

Not to scale

June, 1977

SHEET NO. 9 OF 13 SHEETS DT 1

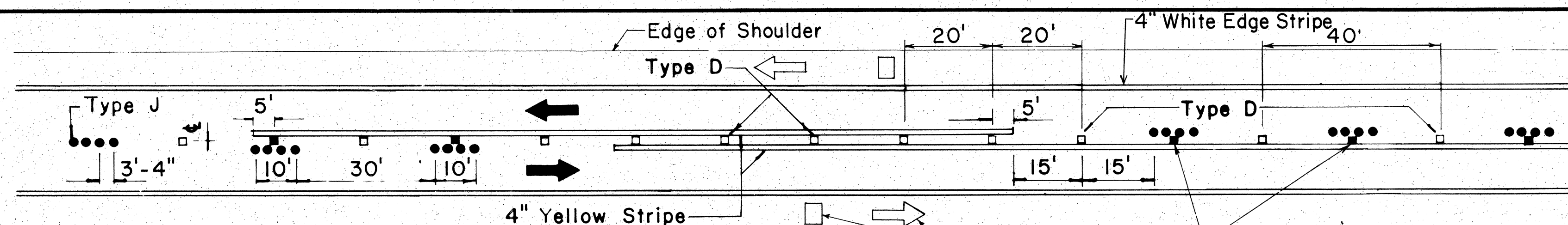
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-032-1(19)	1984	10	22



Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

PASSING PERMITTED AND PASSING PROHIBITED

TWO - LANE



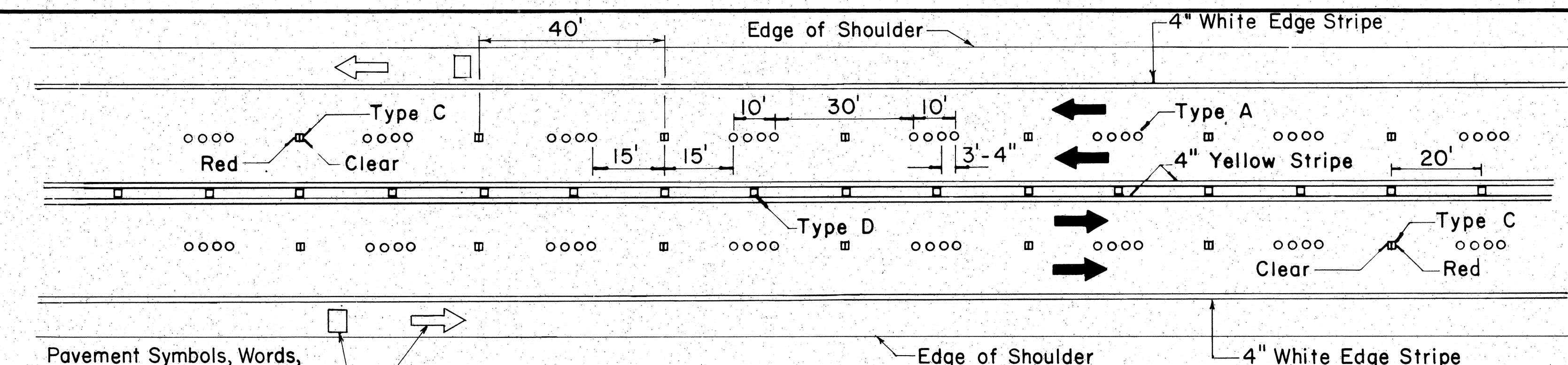
Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

PASSING PROHIBITED ZONES

TYPE A
NON-REFLECTIVE WHITE MARKER

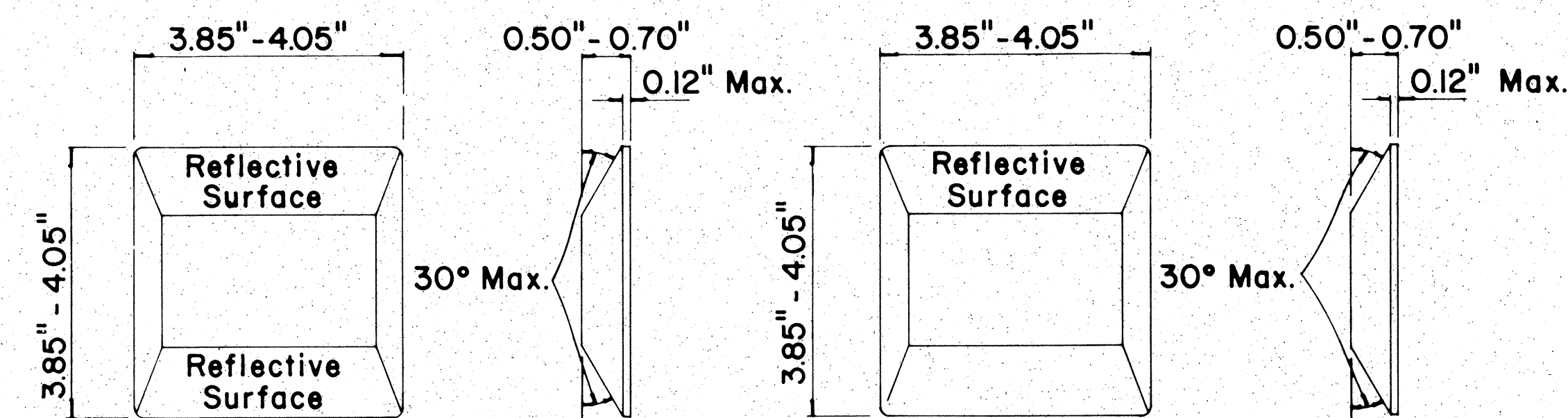
TYPE C
RED-CLEAR REFLECTIVE MARKER

TYPE J
NON-REFLECTIVE YELLOW MARKER



Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

MULTI - LANE



TYPE D
TWO-WAY YELLOW REFLECTIVE MARKER

TYPE H
ONE-WAY YELLOW REFLECTIVE MARKER

GENERAL NOTES

- Pavement marking and striping shall conform to the latest "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
- Layout and installation of pavement marking and striping shall be done by the Contractor. The Contractor shall check the layouts with the Engineer prior to performing work.
- Edge lines shall not be continued through intersections and shall not be broken for driveways unless otherwise shown or directed.

LEGEND

- Type A
- Type C
- Type D
- Type H
- Type J

APPROVAL RECOMMENDED:

Erich Tanaka 7/21/78
TRAFFIC ENGINEER DATE

APPROVED:

Robert J. Zalewski 1/24/78
ASSISTANT CHIEF, ENGINEERING DATE

No.	REVISION	APPROVED BY	DATE
1	Supersedes DT 300 approved 11/18/71.	H.T.	1/24/78
2	Delete Type A Markers from Bike Route Delineation.	H.T.	10/15/79
3	Added General Note 3. Revised left edge stripe.	J.D.	9-28-83

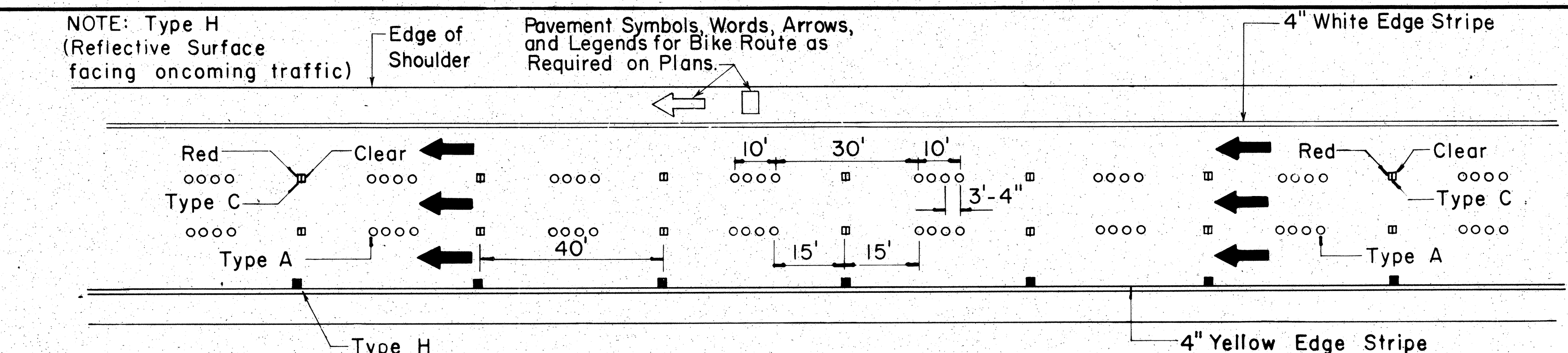
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
RAISED PAVEMENT MARKERS
AND STRIPING

Not to Scale July 1978
SHEET No. 10 OF 13 SHEETS DT 300

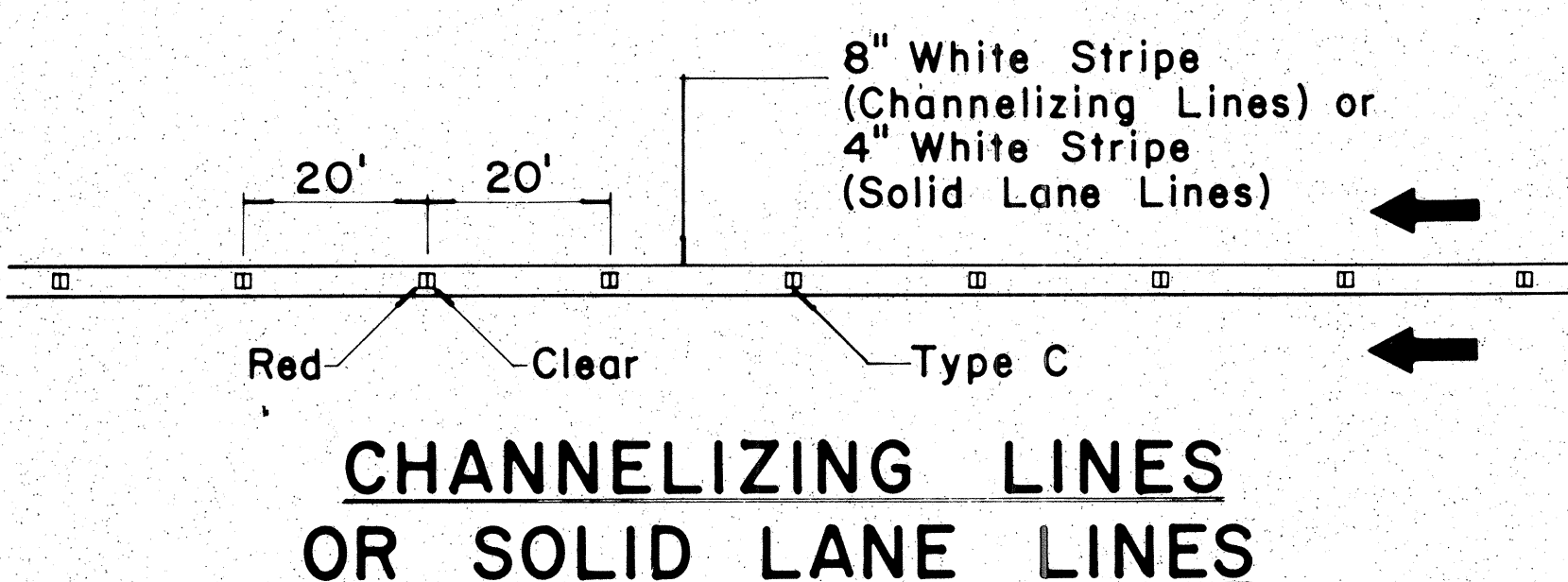
DIVIDED HIGHWAY
AND
FREEWAY

MISCELLANEOUS

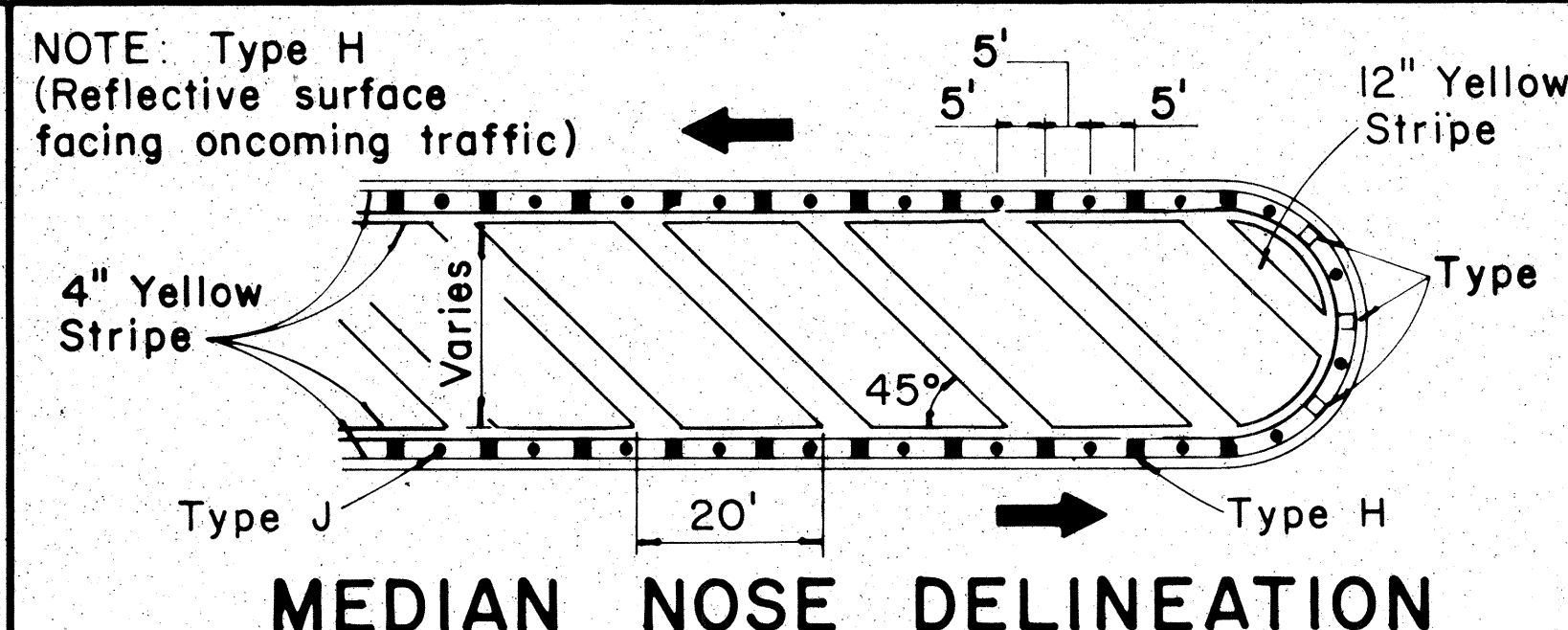


NOTE: Type H (Reflective Surface facing oncoming traffic)

Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.



CHANNELIZING LINES OR SOLID LANE LINES



NOTE: Type H (Reflective surface facing oncoming traffic)

MEDIAN NOSE DELINEATION

DATE	1/24/78
DESIGNED BY	H.T.
CHECKED BY	J.D.
NOTED BY	
ORIGINAL PLAN	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-092-1(9)	1984	20	22

GENERAL NOTES:

1. Pavement marking and striping shall conform to the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," by the FHWA, and as amended.
2. Layout of pavement markings and striping shall be done by the Contractor. The Contractor shall check layout of markings and striping with the Engineer prior to performing work.
3. For additional pavement marking details, see sheet DT 300.

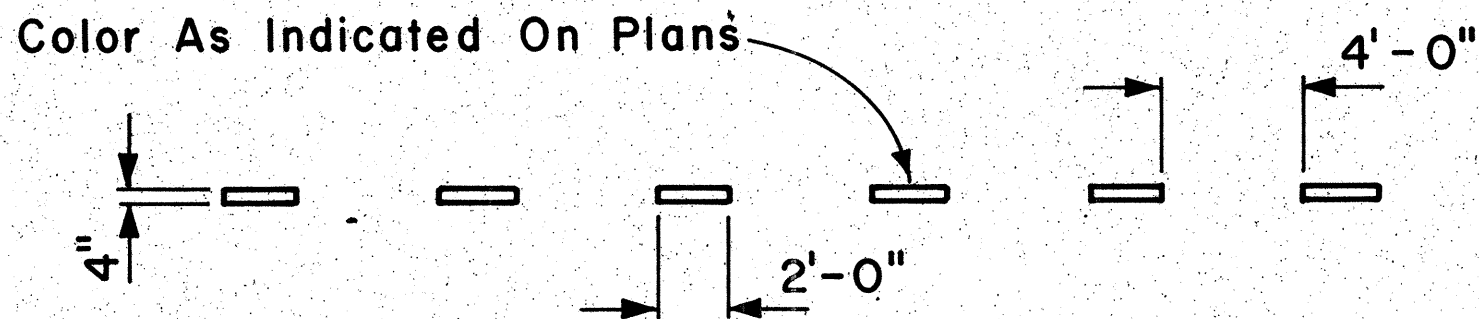
APPROVAL RECOMMENDED: *E. Tanaka* 5/2/78
TRAFFIC ENGINEER DATE

APPROVED: *Arthur J. Zafra* 5/3/78
ASSISTANT CHIEF, ENGINEERING DATE

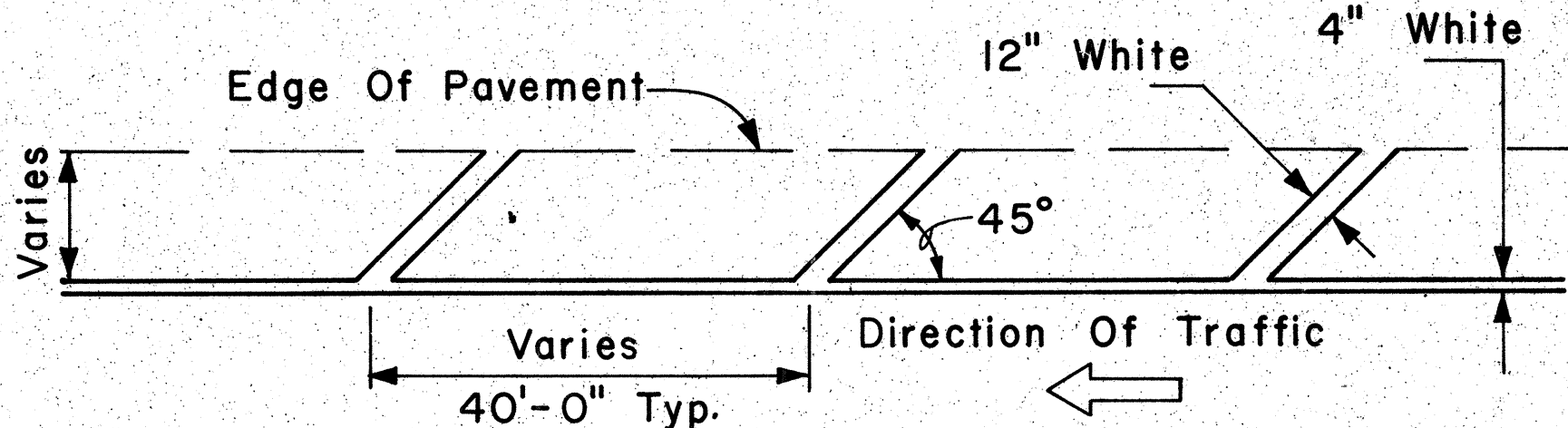
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
STANDARD DETAILS
MISCELLANEOUS
PAVEMENT MARKINGS

Scale: Not to Scale Date: April, 1978

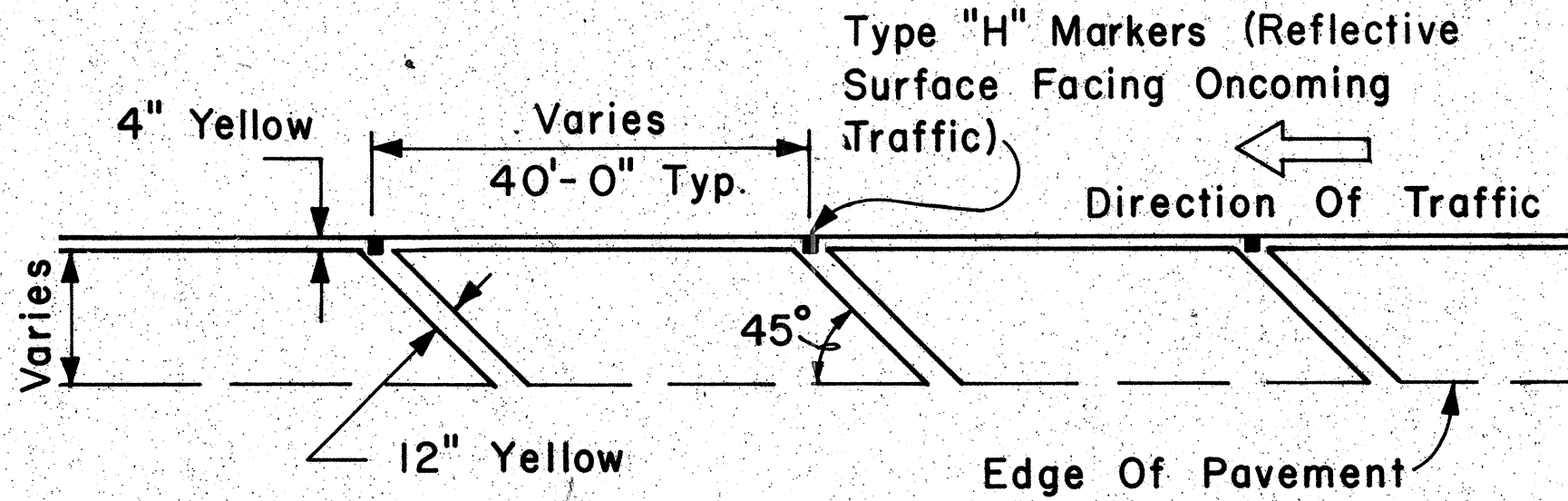
SHEET NO. 11 OF 13 SHEETS DT 302



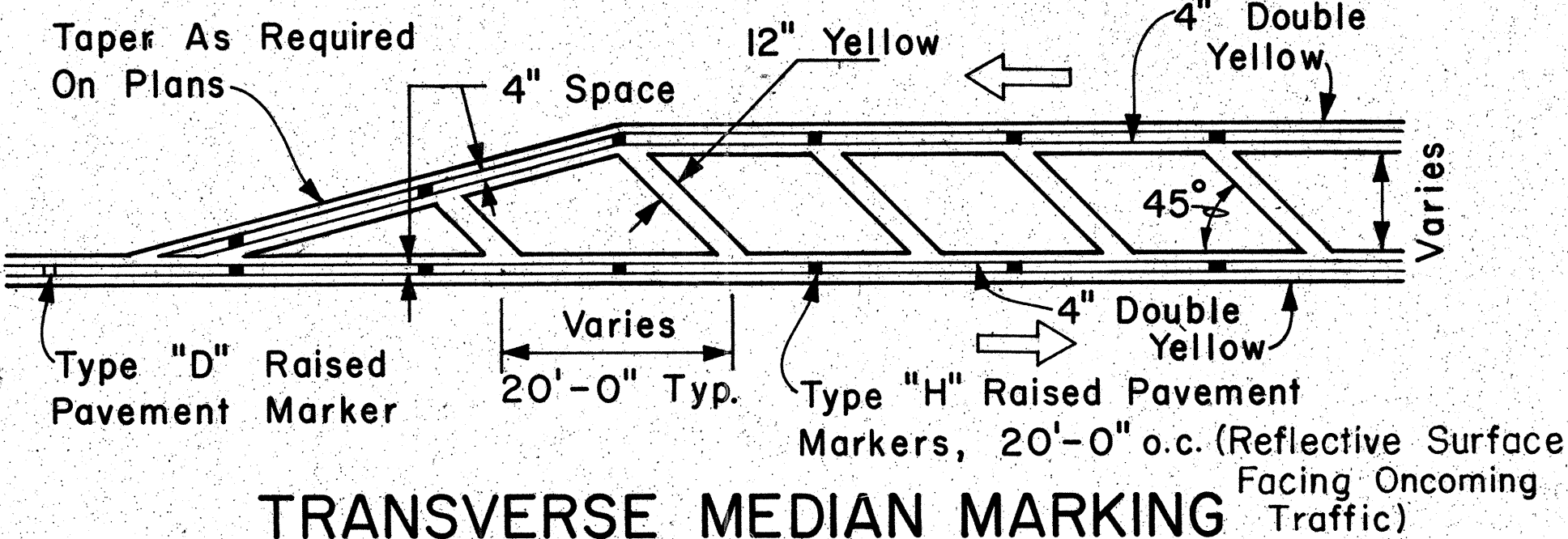
4" GUIDE LINE



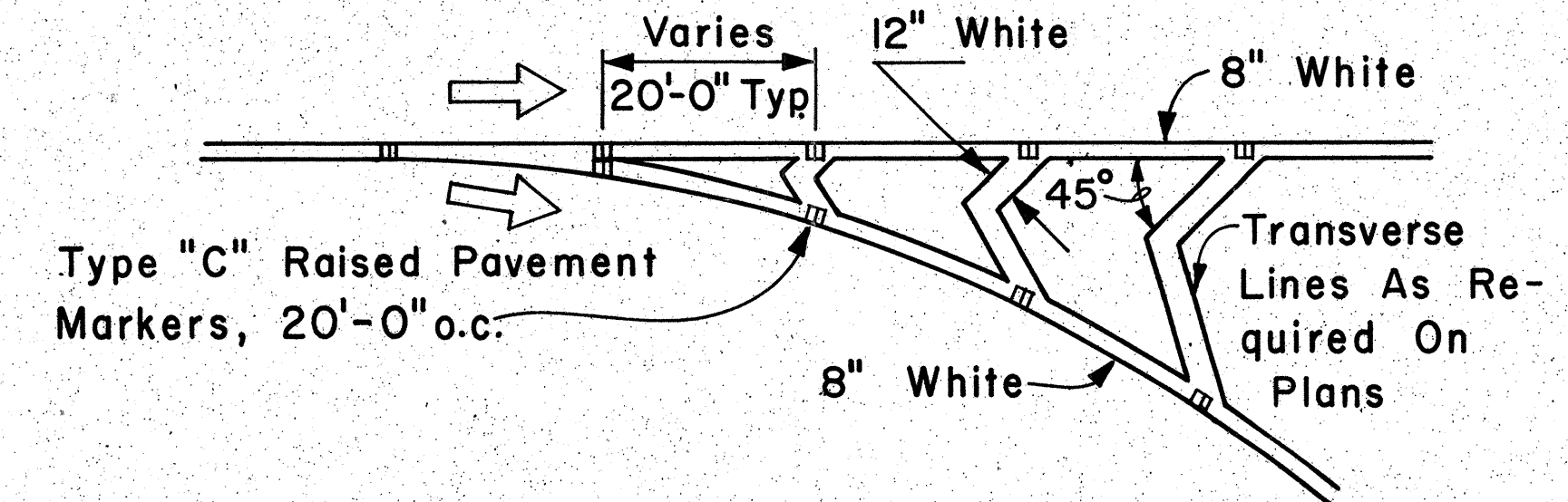
TRANSVERSE RIGHT SHOULDER MARKING



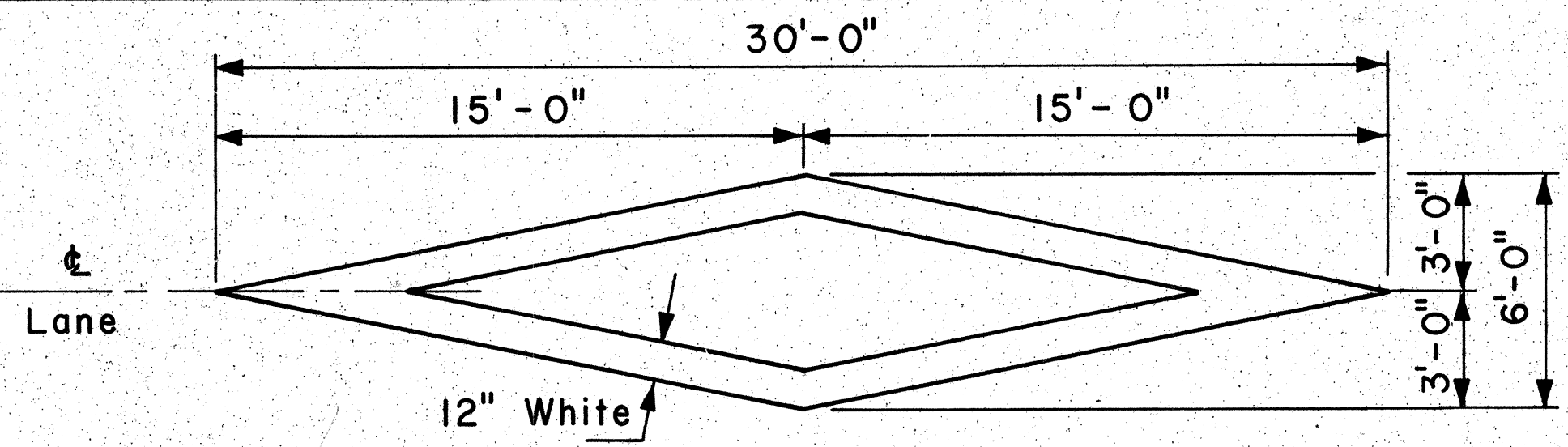
TRANSVERSE LEFT SHOULDER MARKING



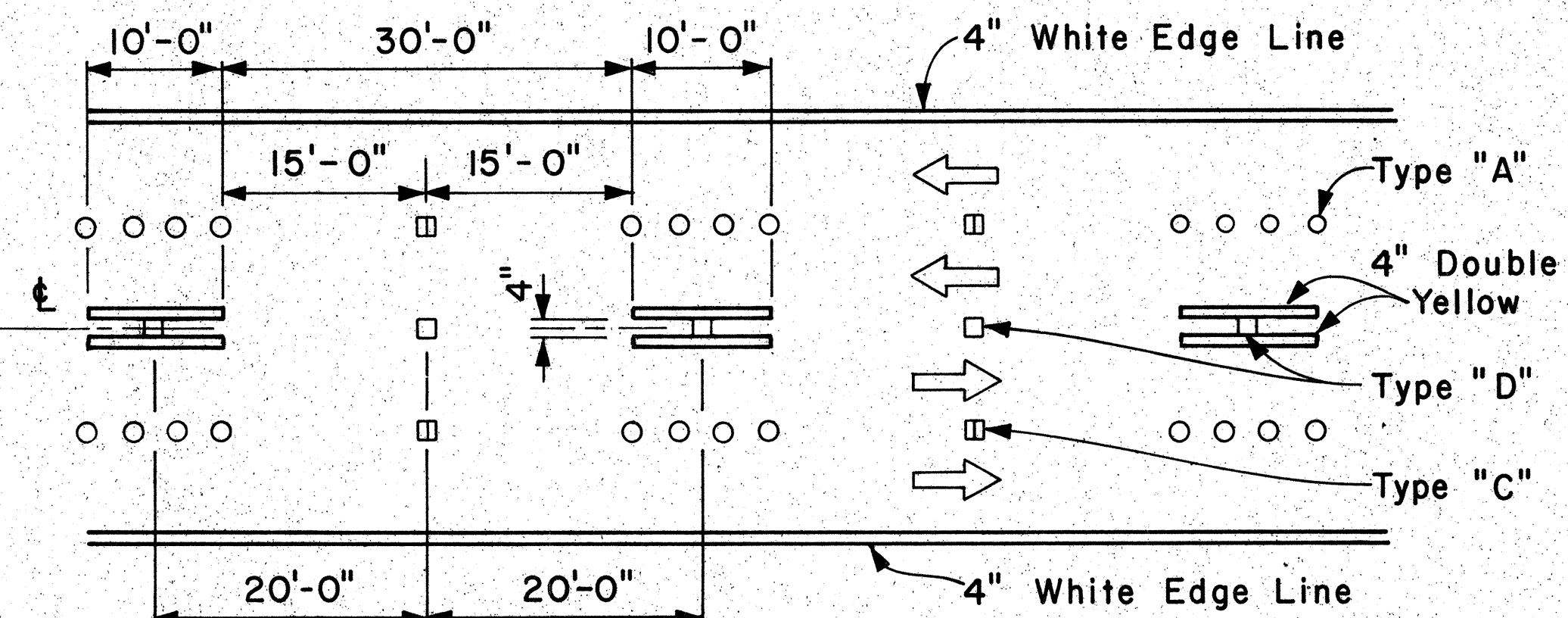
TRANSVERSE MEDIAN MARKING



CHANNELIZING ISLAND

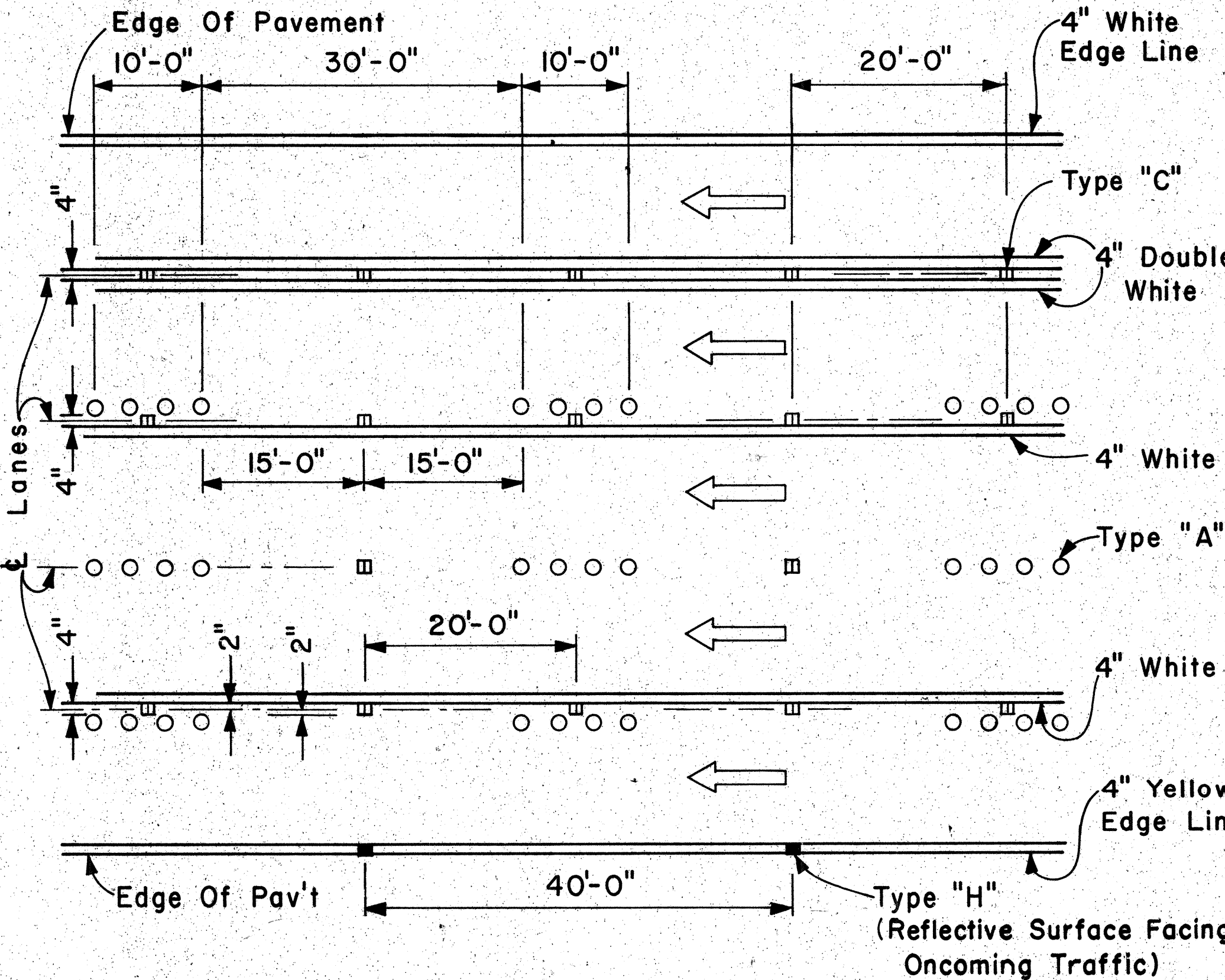


PAVEMENT DIAMOND



NOTE: Traffic Cone Usage Required.

MULTI-LANE REVERSIBLE LANES

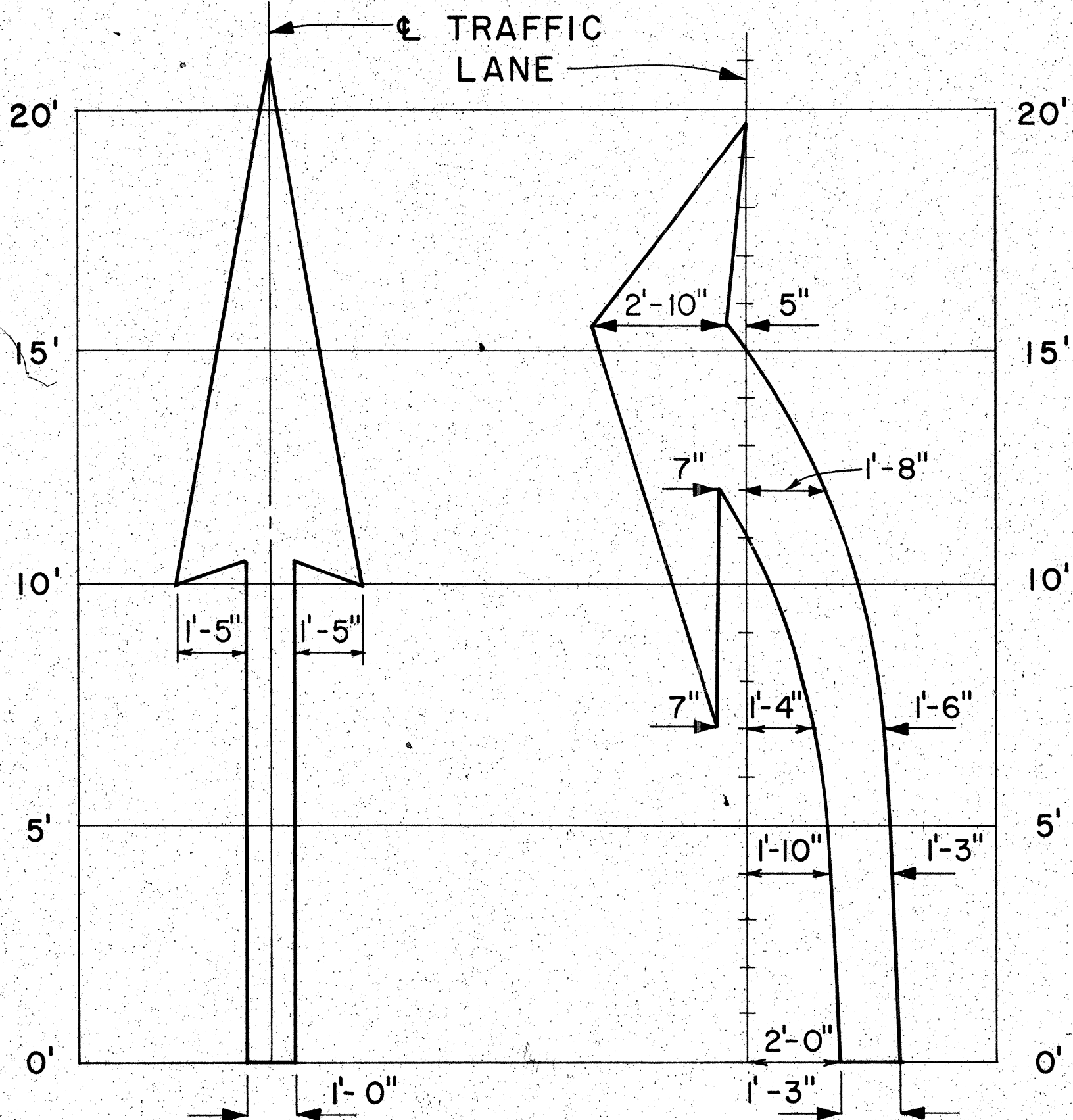


MULTI-LANE LANE CHANGE RESTRICTION ZONES

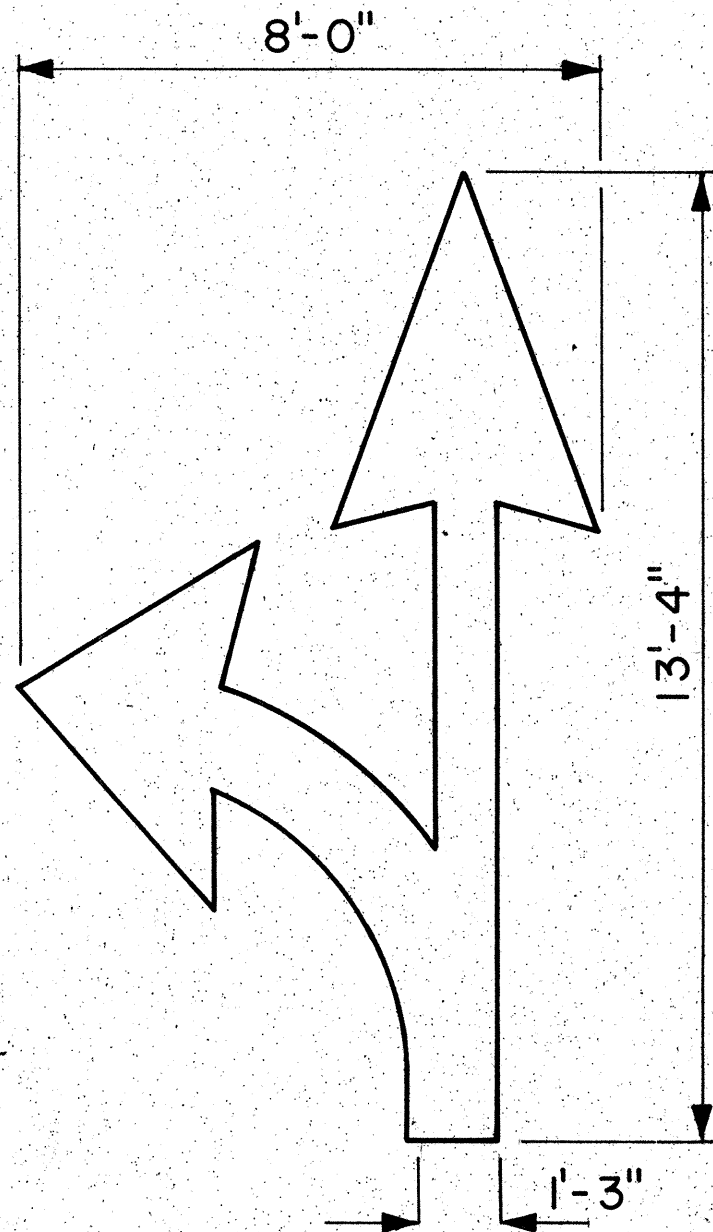
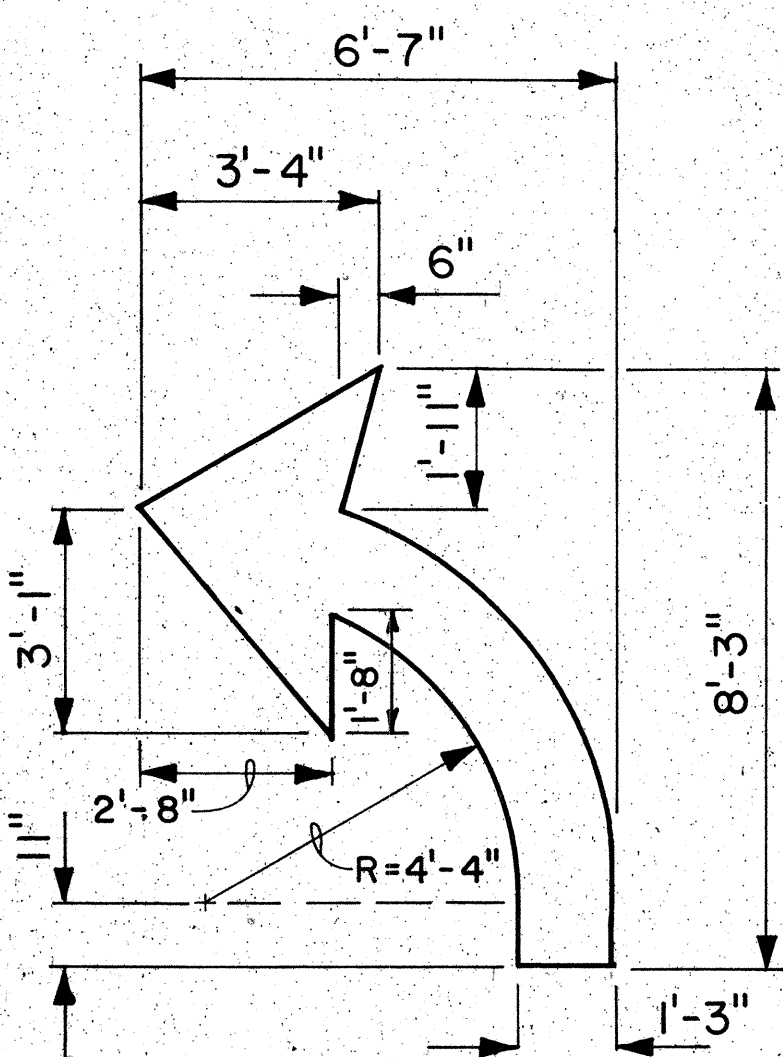
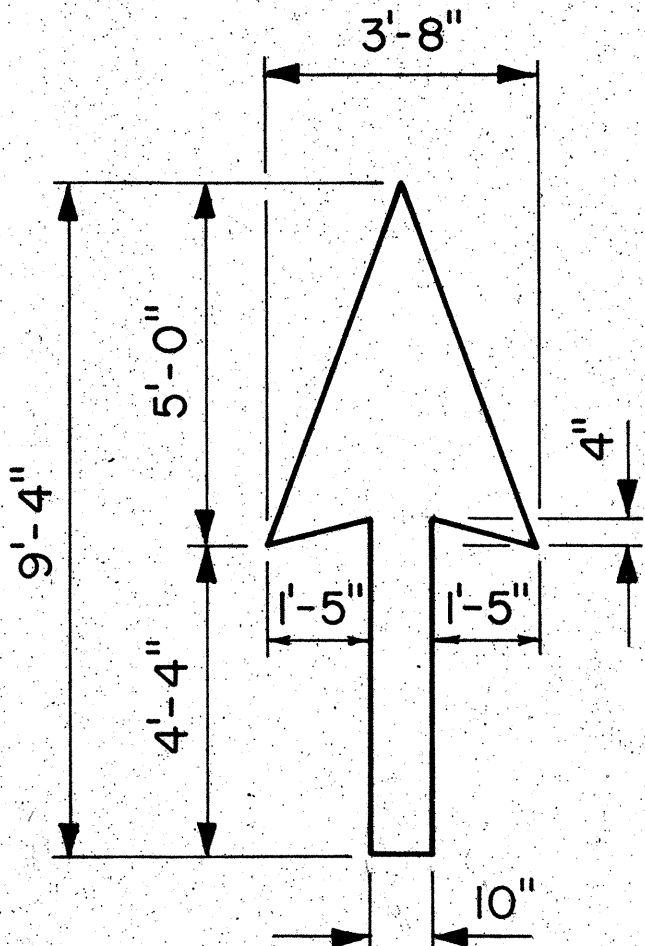
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-092-1(19)	1987	21	22

GENERAL NOTES:

- Pavement marking and striping shall conform to the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," by the FHWA, and as amended.
- Layout of pavement markings and striping shall be done by the Contractor. The Contractor shall check layout of markings and striping with the Engineer prior to performing work.
- For additional pavement marking details, see sheet DT 300.



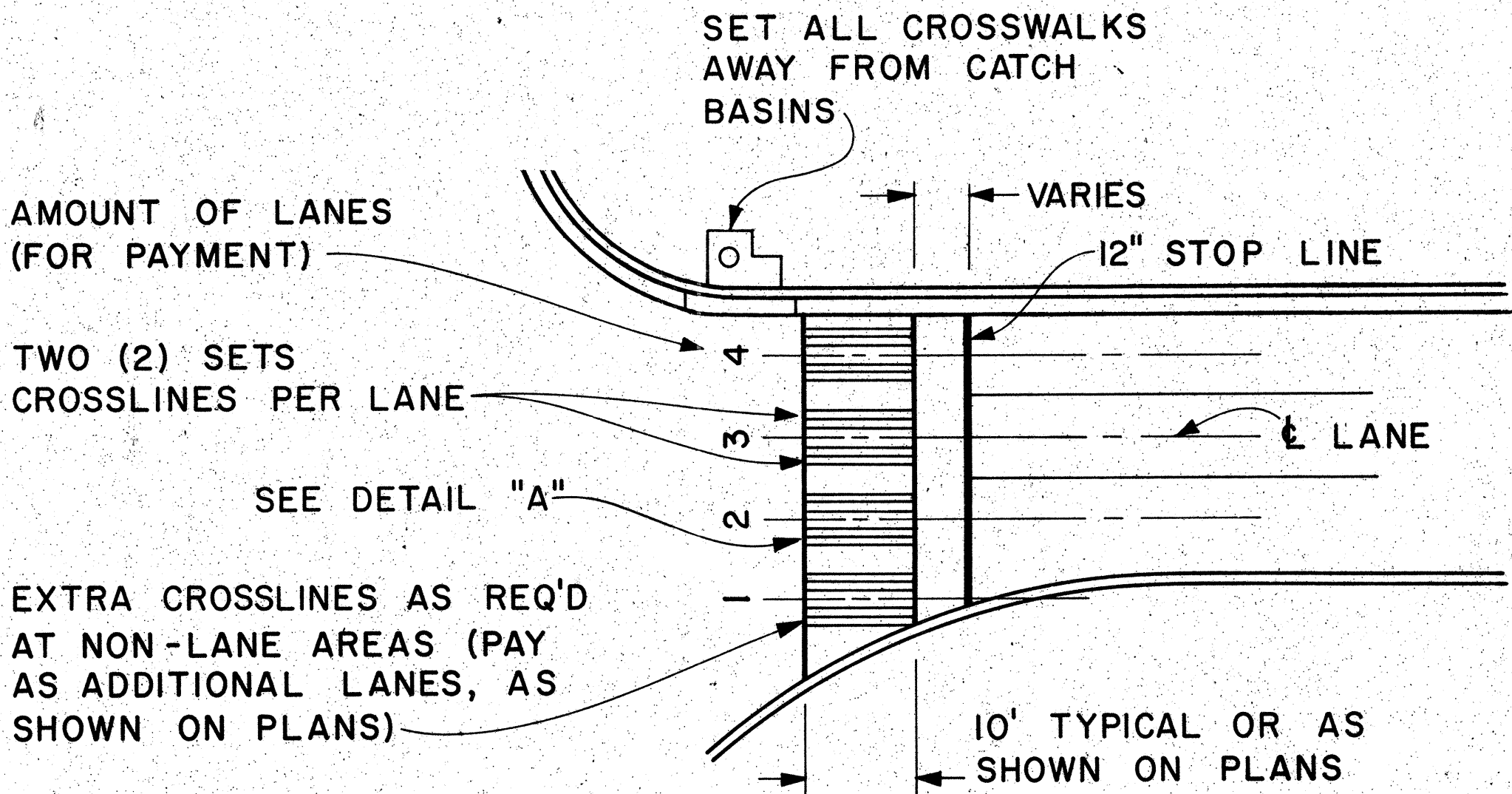
ELONGATED



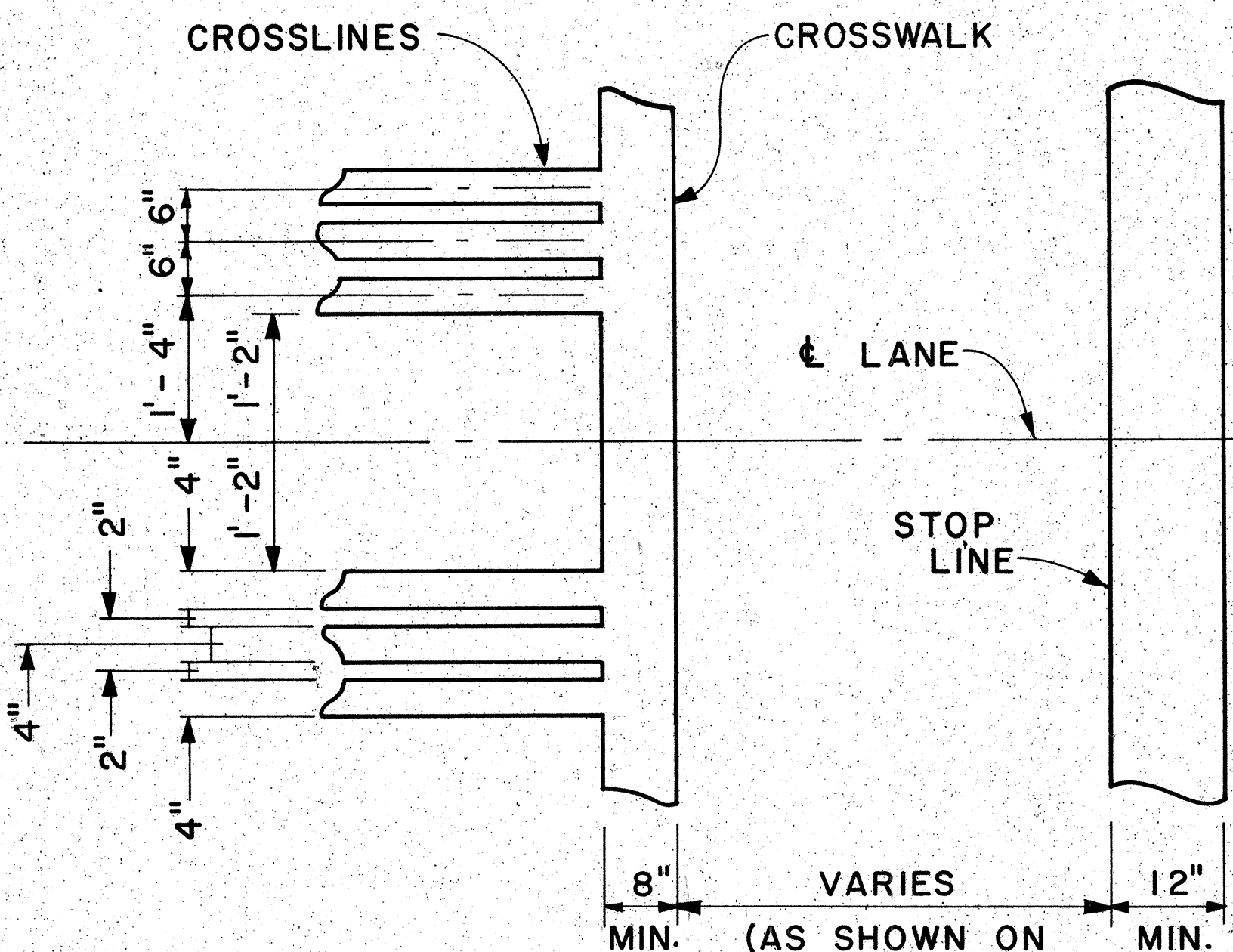
STANDARD

PAVEMENT ARROWS

Scale: 3/8" = 1'



PLAN



DETAIL "A"

CROSSWALK & STOP LINE

Scale: Not to Scale

APPROVAL RECOMMENDED:
E. J. Tanaka 5/2/78
 TRAFFIC ENGINEER DATE

APPROVED:
Robert W. Zaleski 5/2/78
 ASSISTANT CHIEF, ENGINEERING DATE

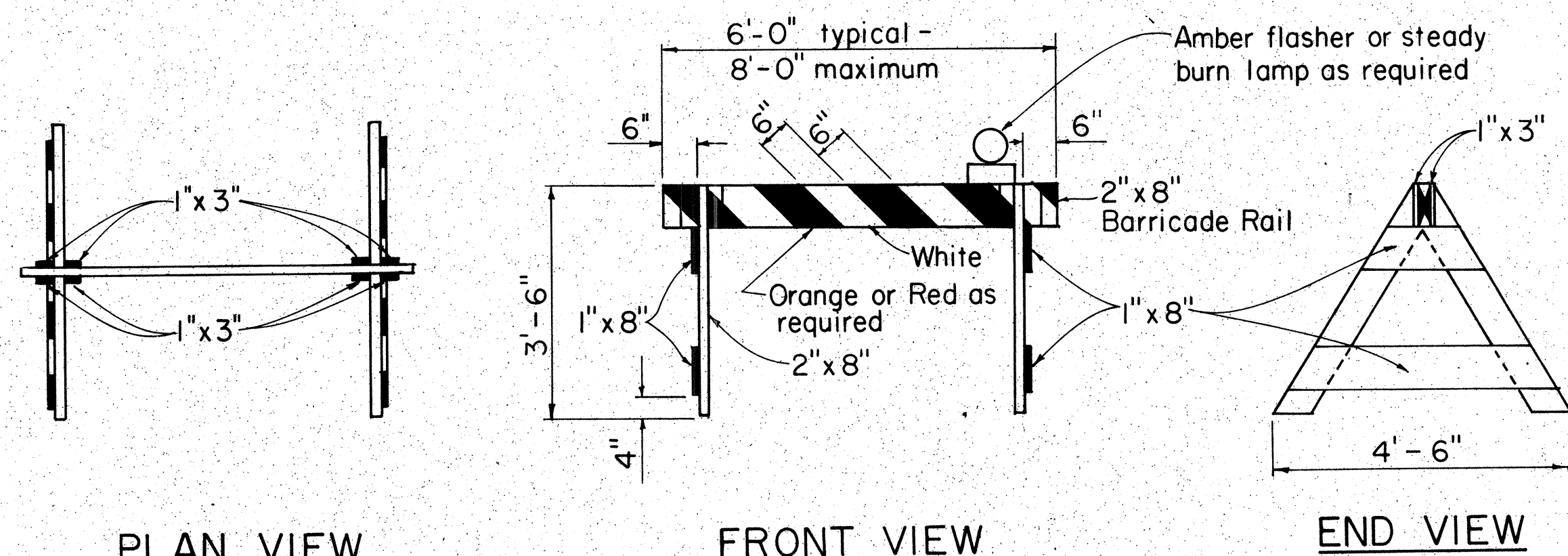
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION FACILITIES DIVISION
STANDARD DETAILS
 MISCELLANEOUS
 PAVEMENT MARKINGS

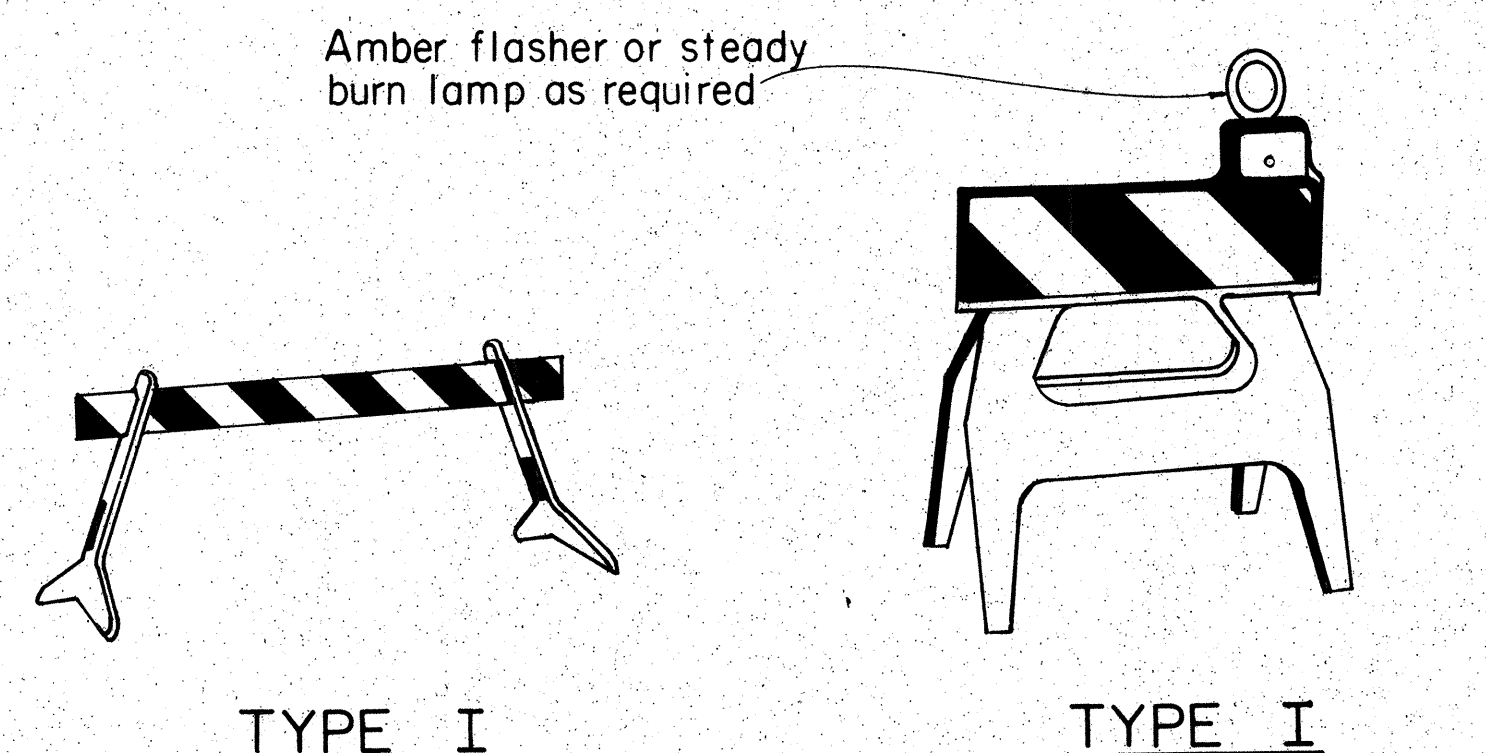
Scale: As Shown Date: March, 1978

SHEET No. 12 OF 3 SHEETS DT 306

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-092-1 (9)	1984	22	22

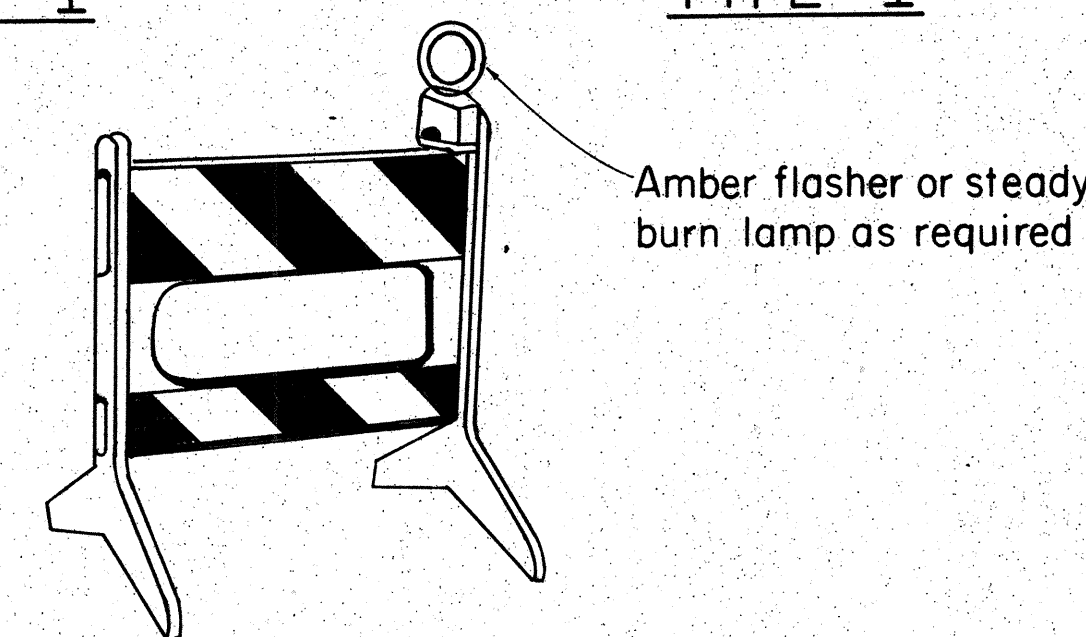


TYPE I BARRICADE
Scale: 1/2" = 1'-0"



TYPE I

TYPE I

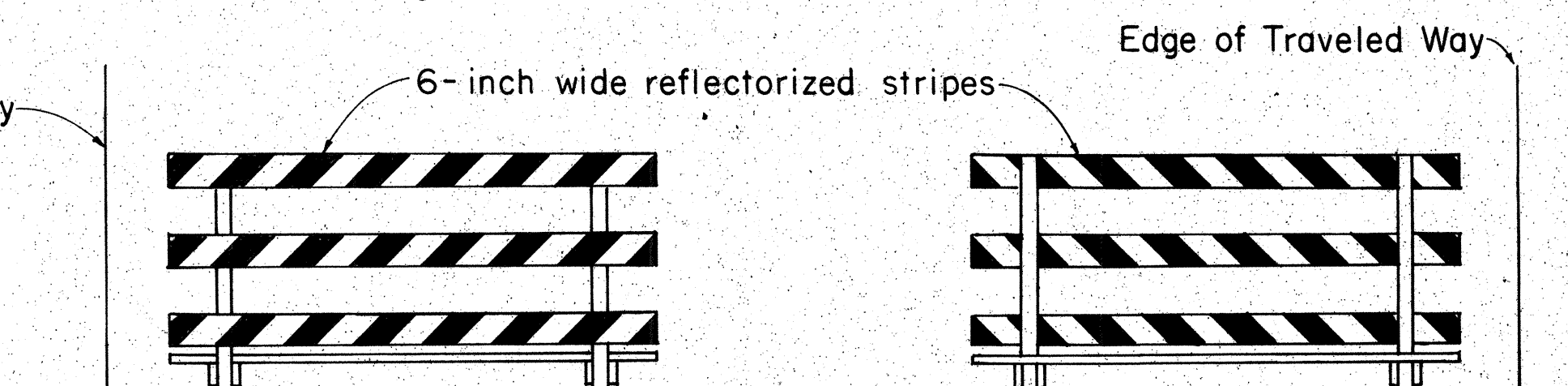


TYPE II

PLASTIC MOLDED BARRICADE OPTIONS*

Not to Scale

* Shop Drawings must be submitted for approval.



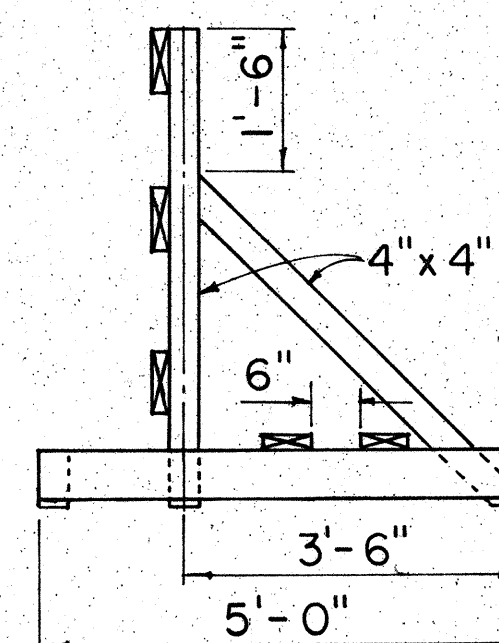
FRONT FACE

BACK FACE

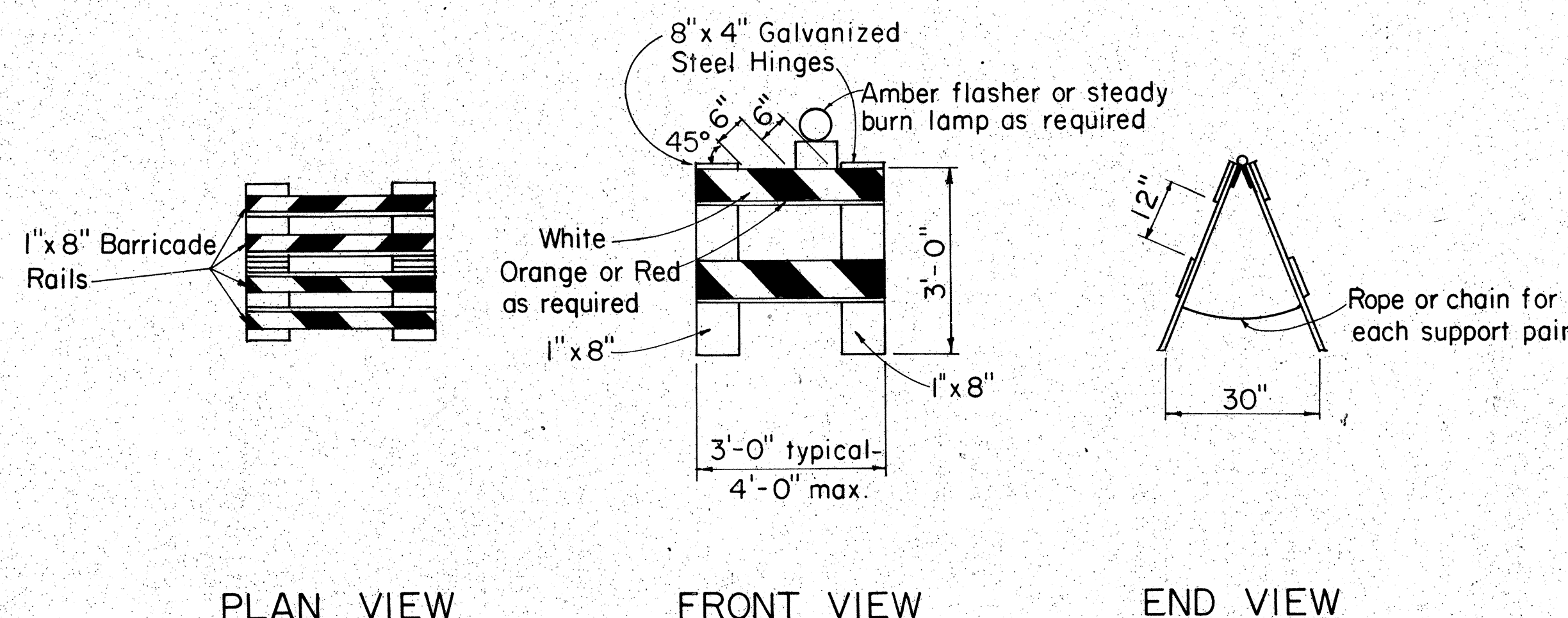
TYPICAL BARRICADE STRIPING DETAILS**

Not to Scale

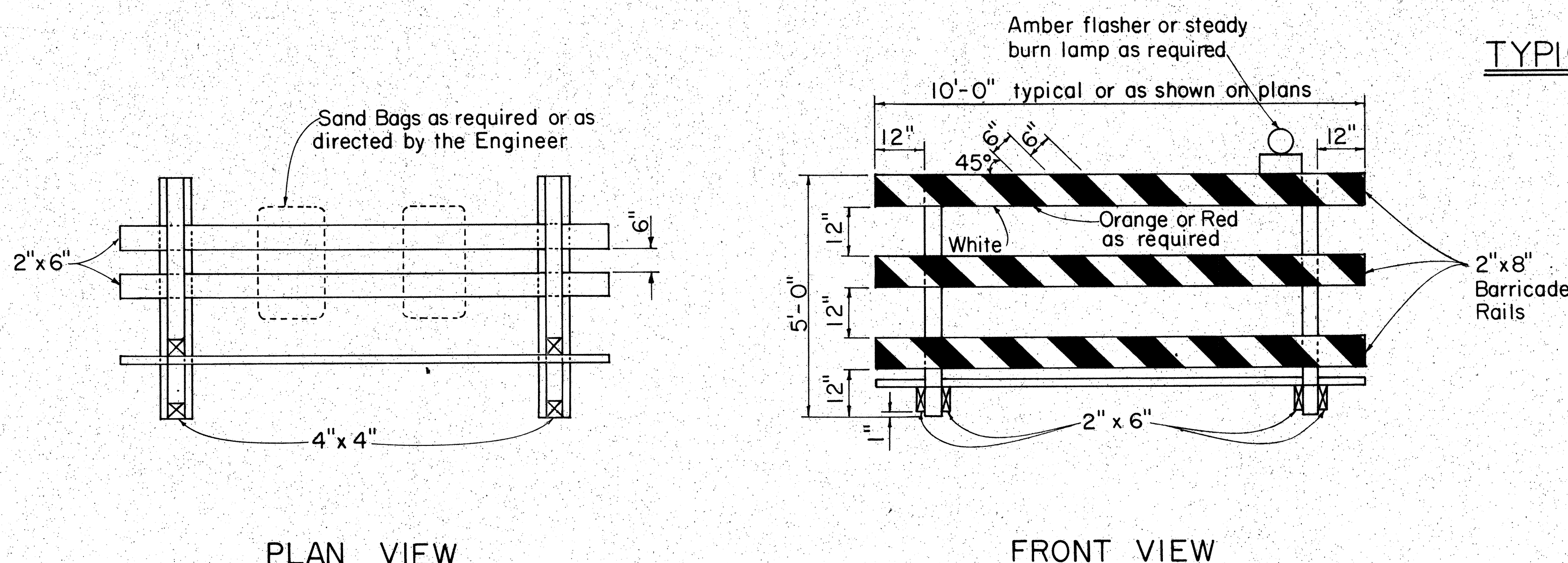
** Similar for Types I & II



END VIEW



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



TYPE III BARRICADE
Scale: 1/2" = 1'-0"

APPROVAL RECOMMENDED:

Erich Tanaka
TRAFFIC ENGINEER

10/21/81
DATE

APPROVED:

Robert S. S. S. S.
ASSISTANT CHIEF, ENGINEERING

10/23/81
DATE

NO.	REVISION	APPROVED BY	DATE
1	Supercedes DT 800 Approved 12/30/69	H.T.	10/23/81

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

BARRICADES

SCALE: As Shown

SHEET NO. 13 OF 13 SHEETS DT 800