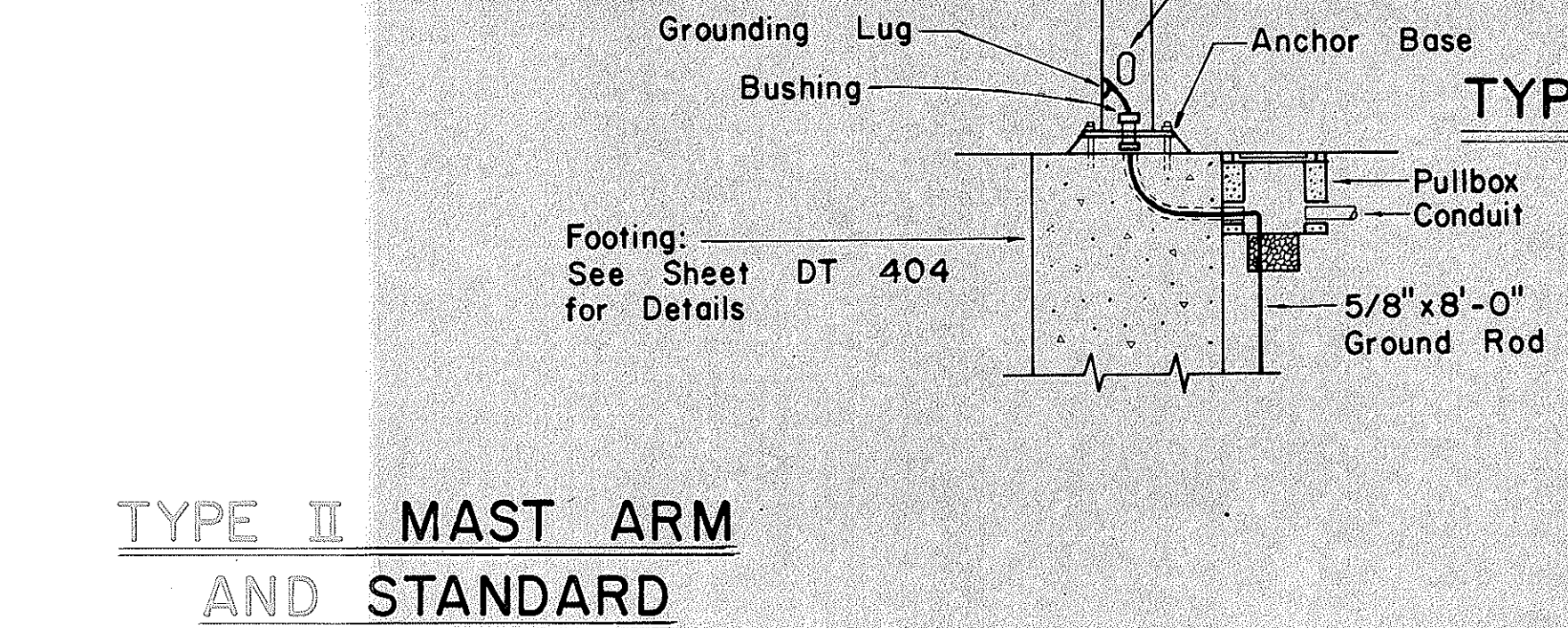
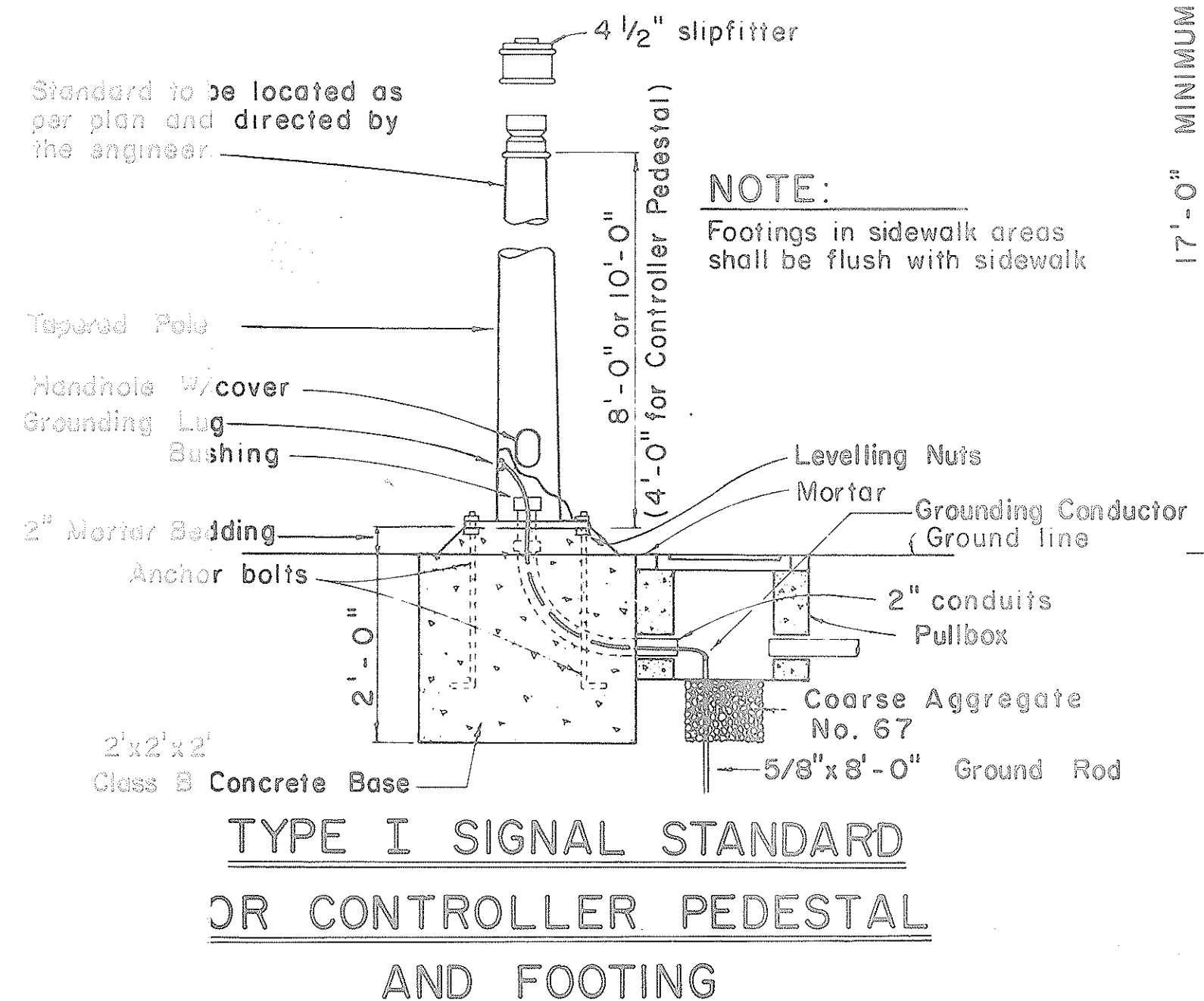
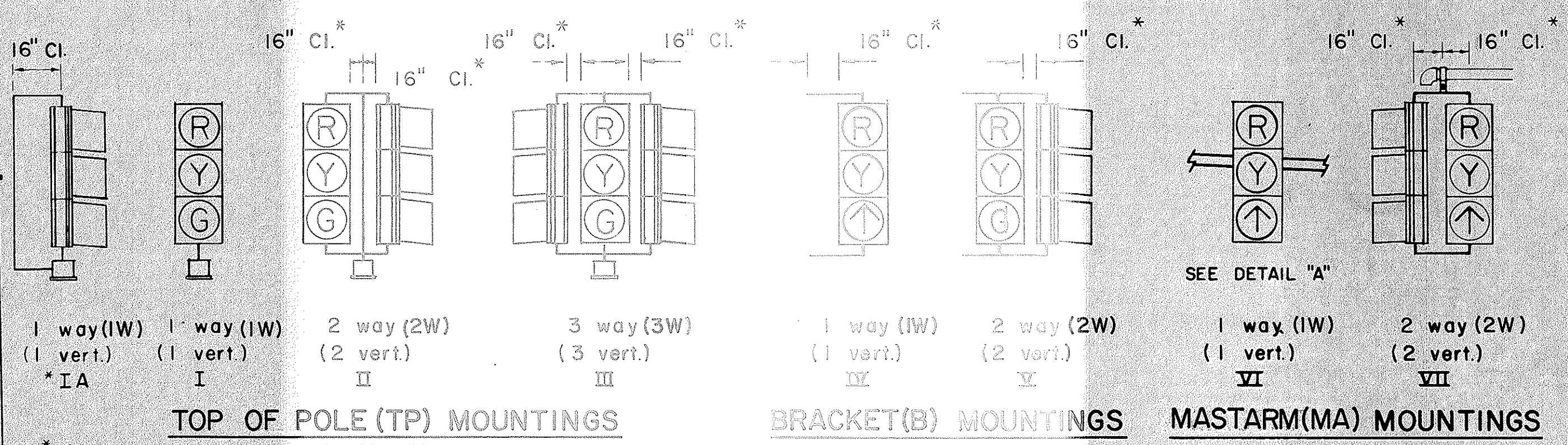
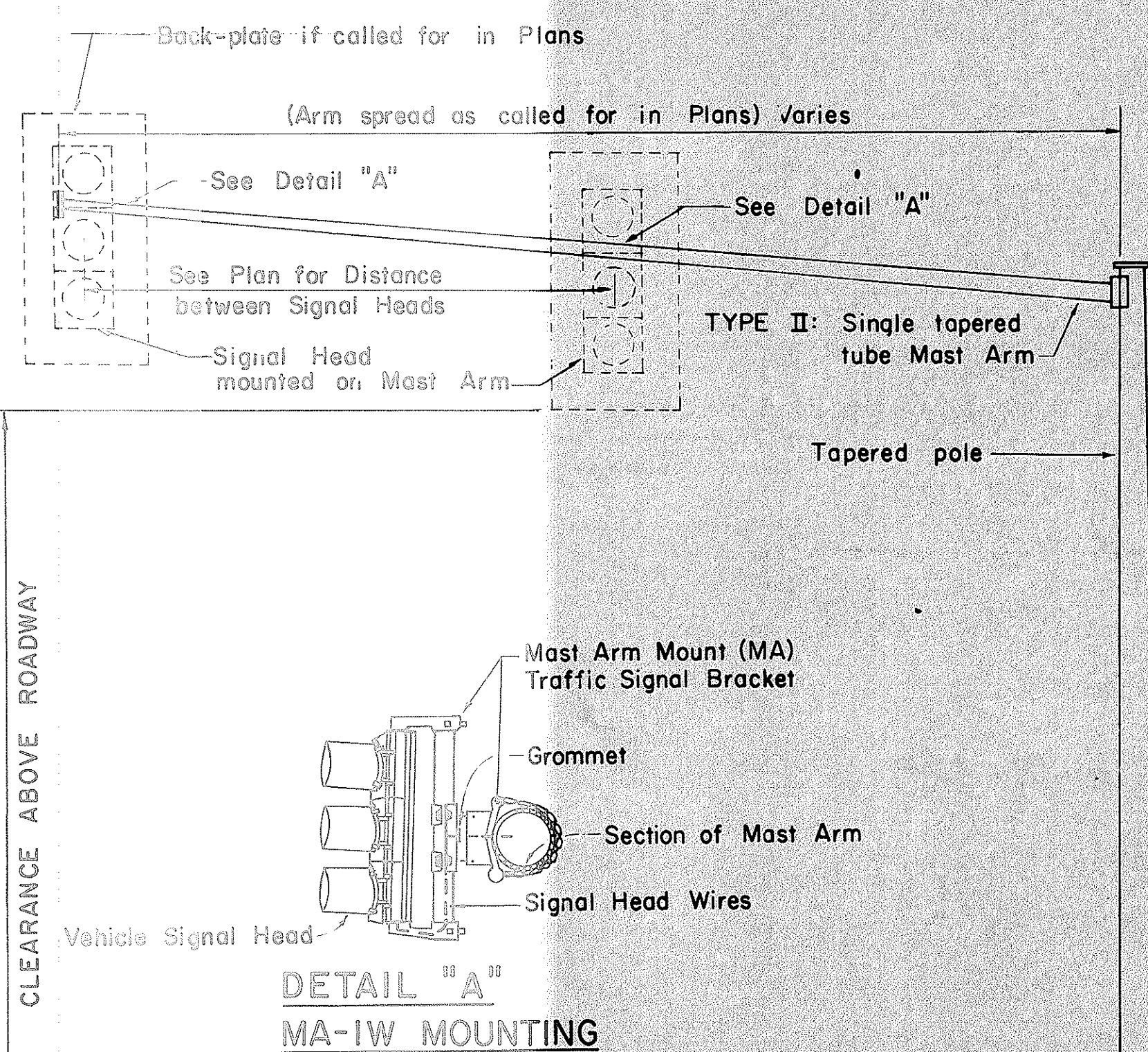
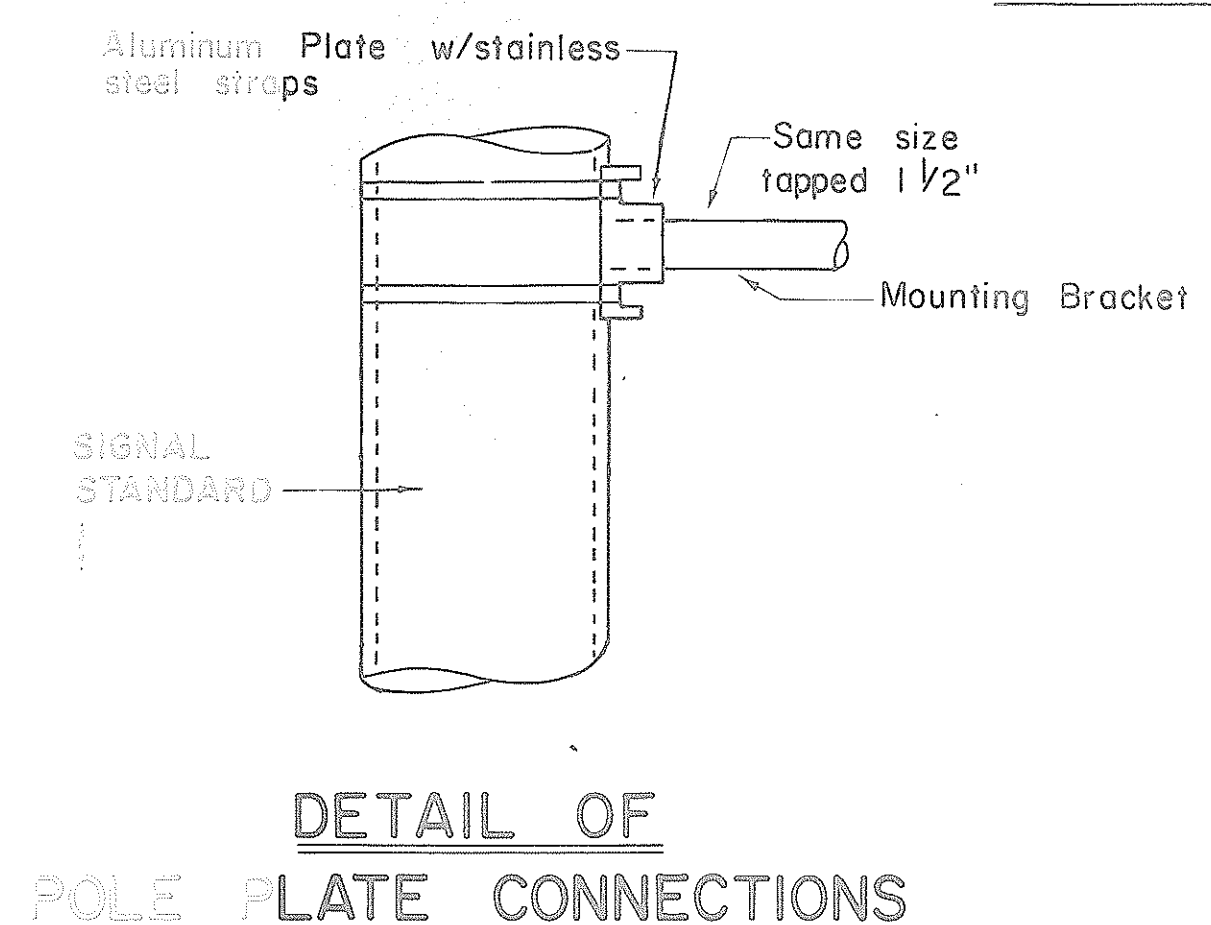
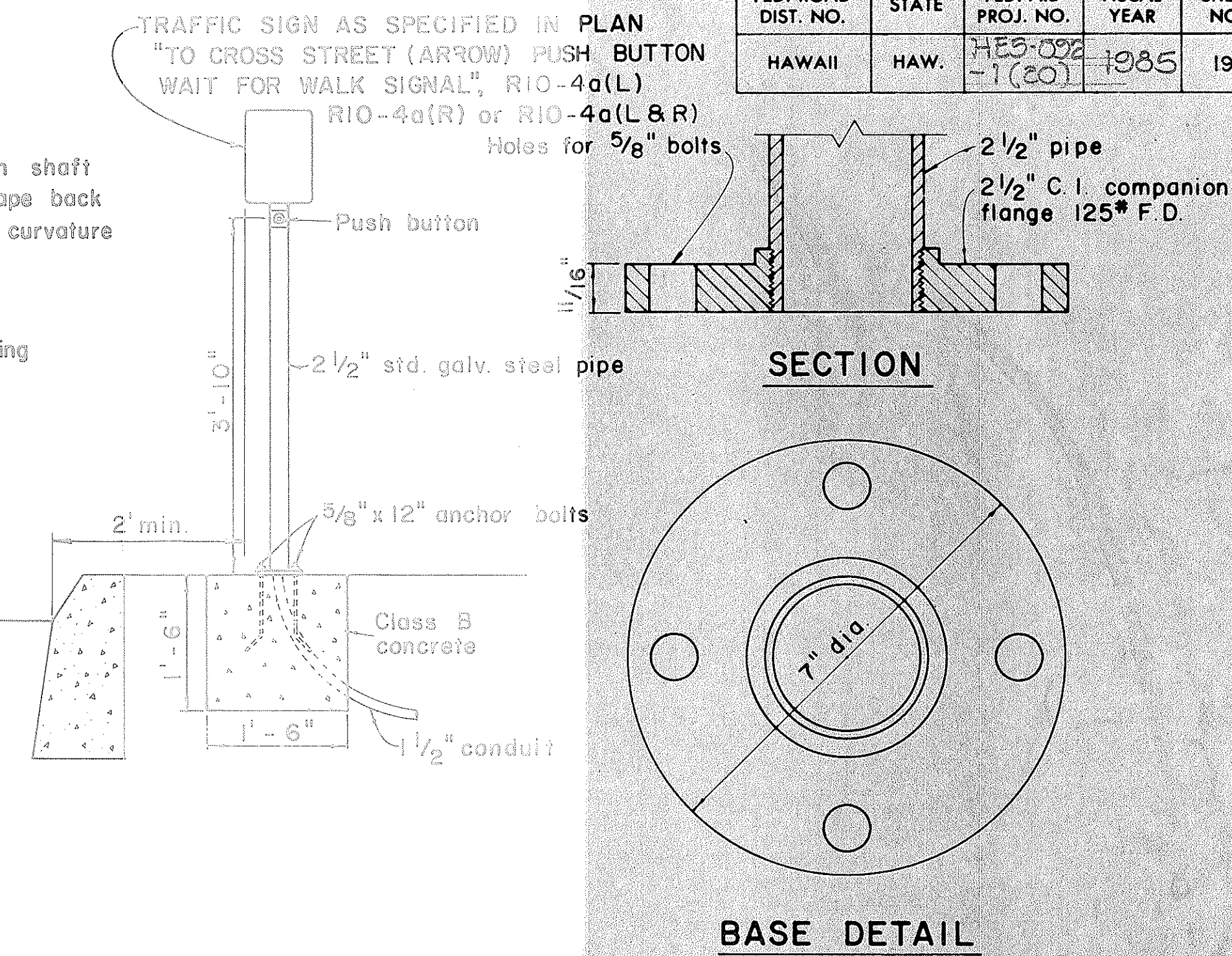
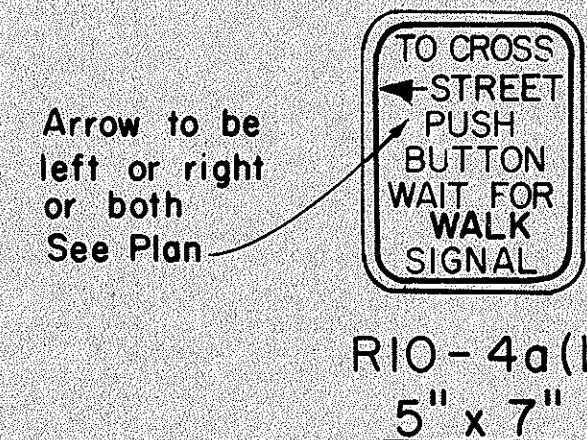
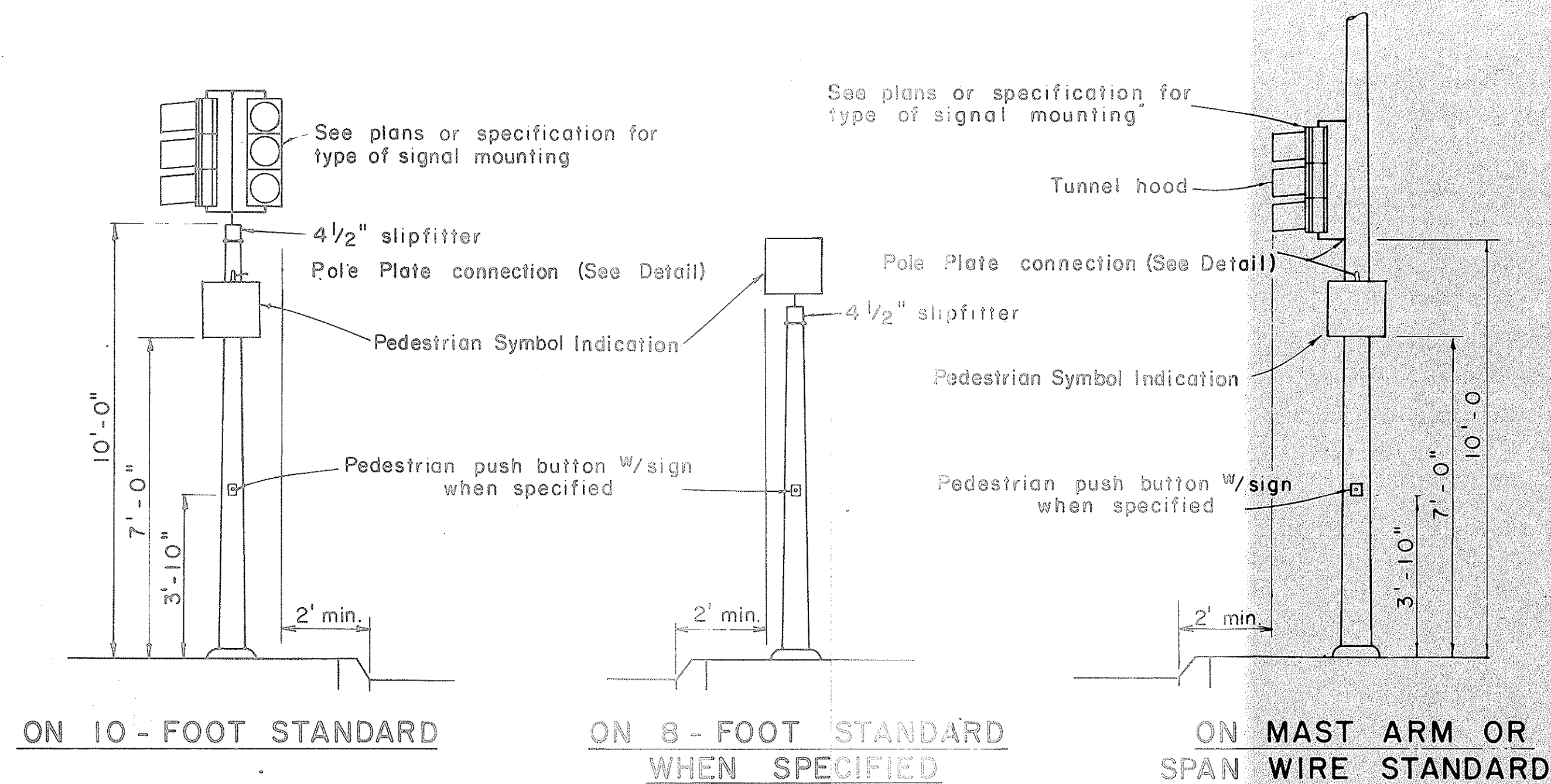


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HE3-002-1(20)	1985	19	33



APPROVAL RECOMMENDED

Erich Tanaka 12/29/69
TRAFFIC ENGINEER DATE

John J. [Signature] 12/30/69
ASSISTANT CHIEF, ENGINEERING DATE

SYMBOL (Hand) Portland Orange BACKGROUND Opaque

SYMBOL (Man) Lunar White BACKGROUND Opaque

1 - Vertical 3 - Section

1 - Vertical 3 - Section

1 - Section

1 - Vertical 2 - Section

Yellow

Green

NO REVISION APPROVED BY DATE

1	Revise code nos. for Pedestrian Push Button signs.	H.T.	3/23/72
2	Revise Details of Traffic and Pedestrian Signals, Standards and Pedestrian Push Button and Signs.	H.T.	3/5/72
3	Revise signal indications.	H.T.	9/22/76
4	Remove Note No. 3 & Revise clearance and dimension.	H.T.	9/19/77
5	Revise Ped. Signal Indication	H.T.	8/6/80
6	Added Mounting Abbreviations.		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

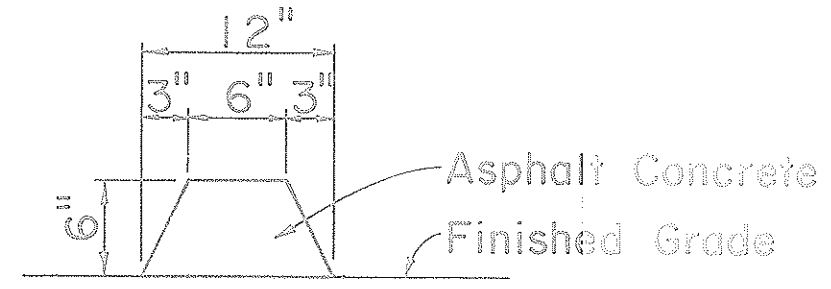
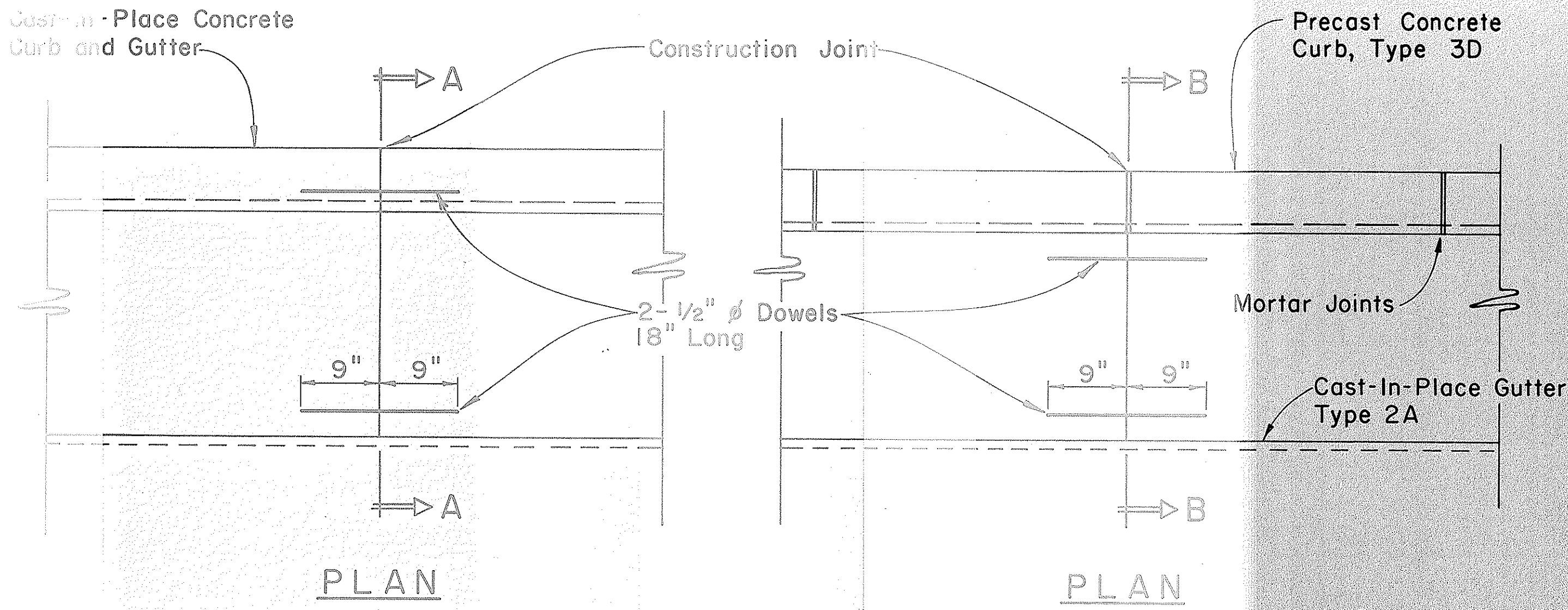
TRAFFIC SIGNAL SYSTEM
MISCELLANEOUS DETAILS

Not to Scale

SHEET No. 1 OF 15 SHEETS DT 400

DESIGNED BY
CHECKED BY
DATE LOCAL
DATE LOCAL
DATE LOCAL

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-092-1(20)	1985	20	33

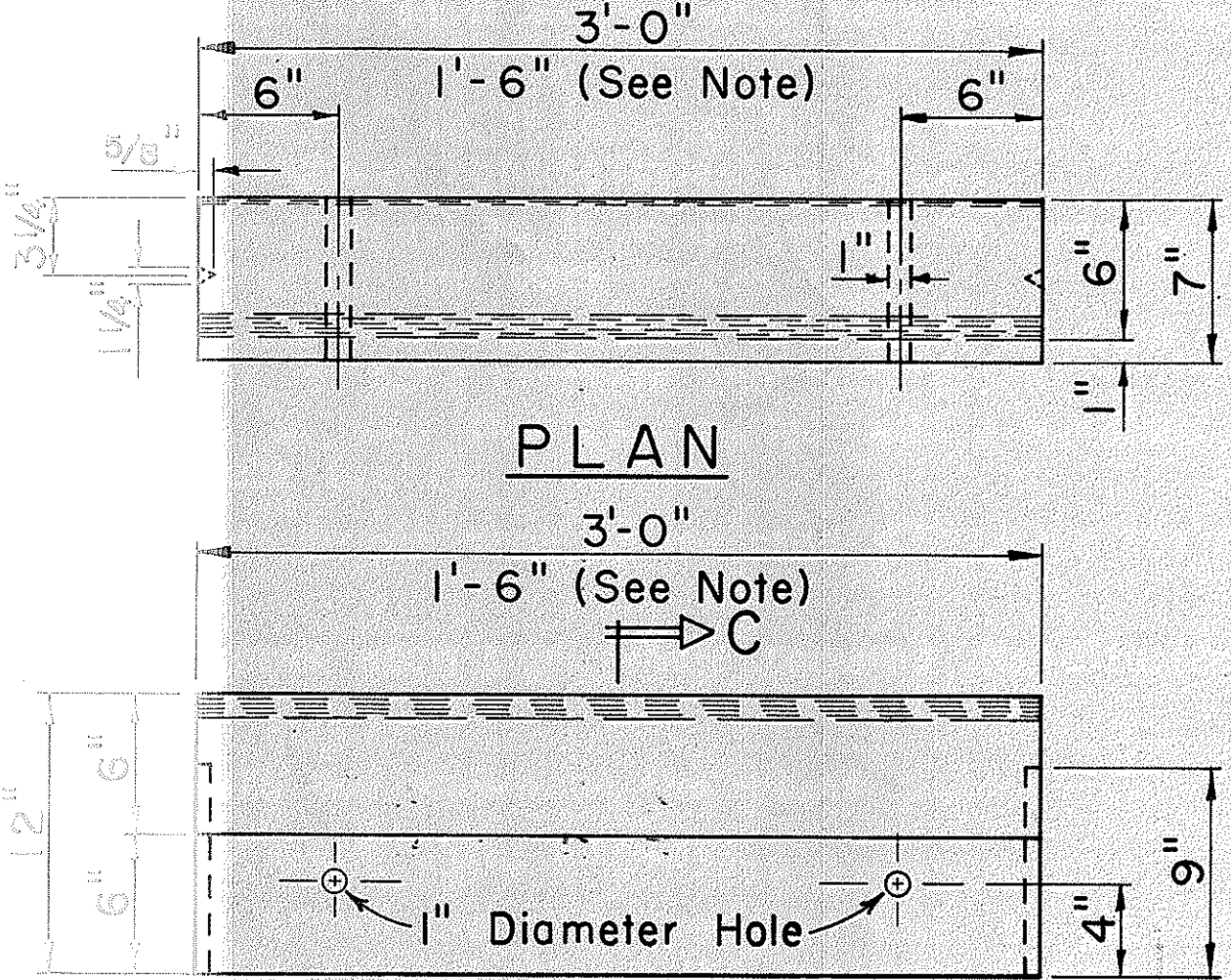


CURB, TYPE 6

BITUMINOUS CURB

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

- NOTES**
1. Cast-In-Place P.C.C. Gutters shall be longitudinally broom finished.
 2. Curb, Type 2A, Curb & Gutter, Type 2AG, and Curb & Gutter, Type 2AGM are to be used only for reconstructing short segments of existing curbs and/or gutters of the same type.
 3. The top of all types of concrete curbs, including driveway curbs shall be longitudinally broom finished.



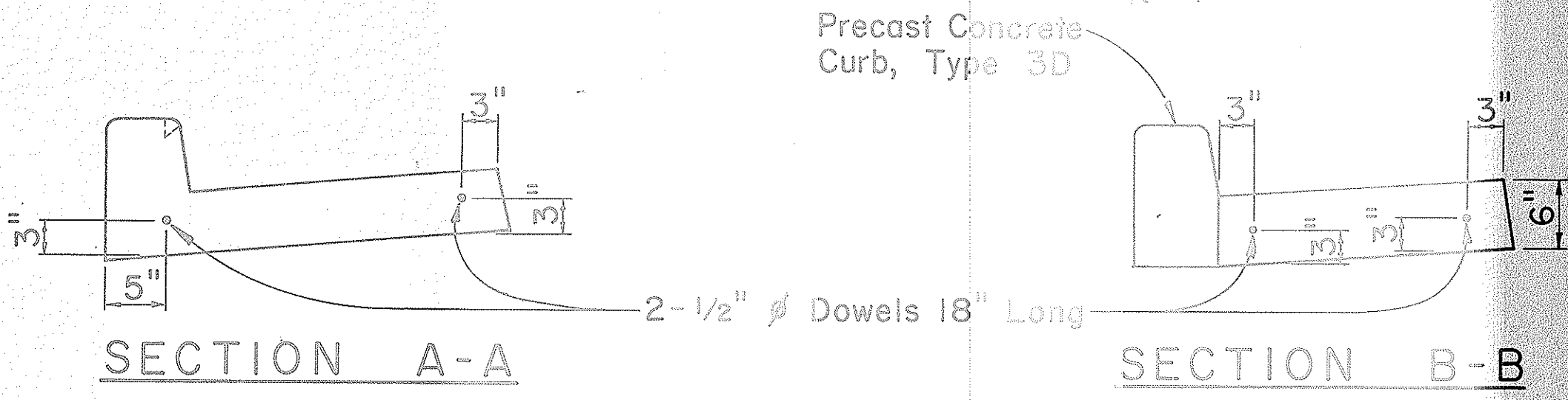
SECTION C-C

CURB, TYPE 3D

NOTE:
For curb returns use 1'-6" pre-cast concrete curbs.

PRE-CAST CONC. CURB

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

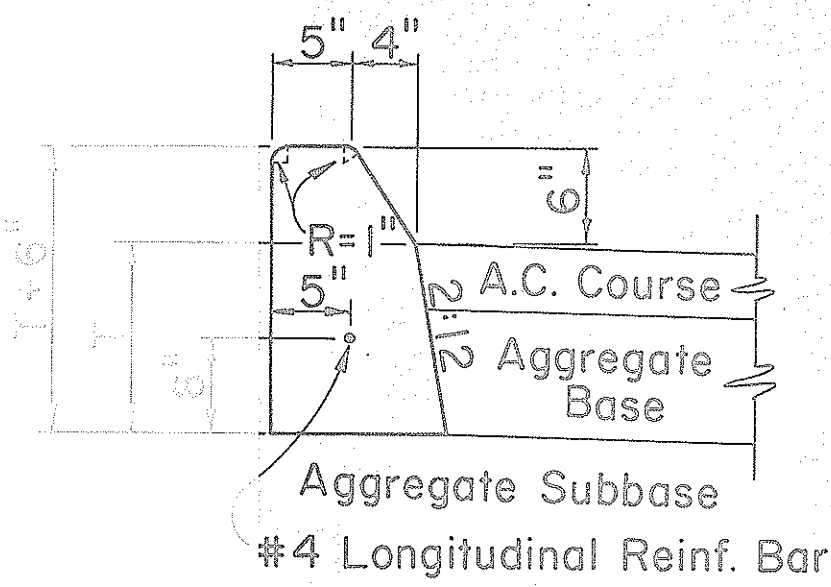


CAST-IN-PLACE CURB & GUTTER

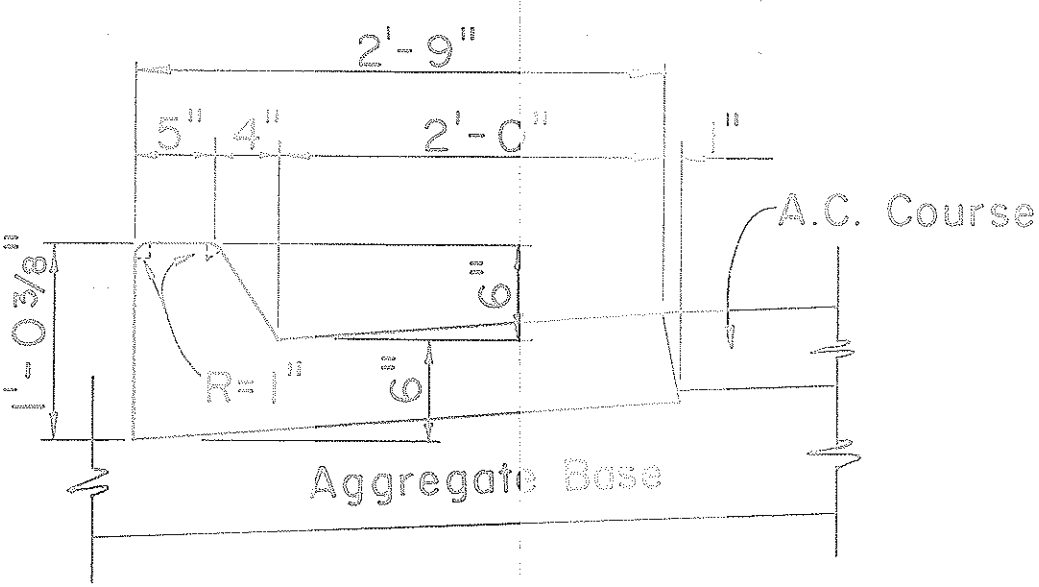
CAST-IN-PLACE GUTTER

CONSTRUCTION JOINT DETAIL

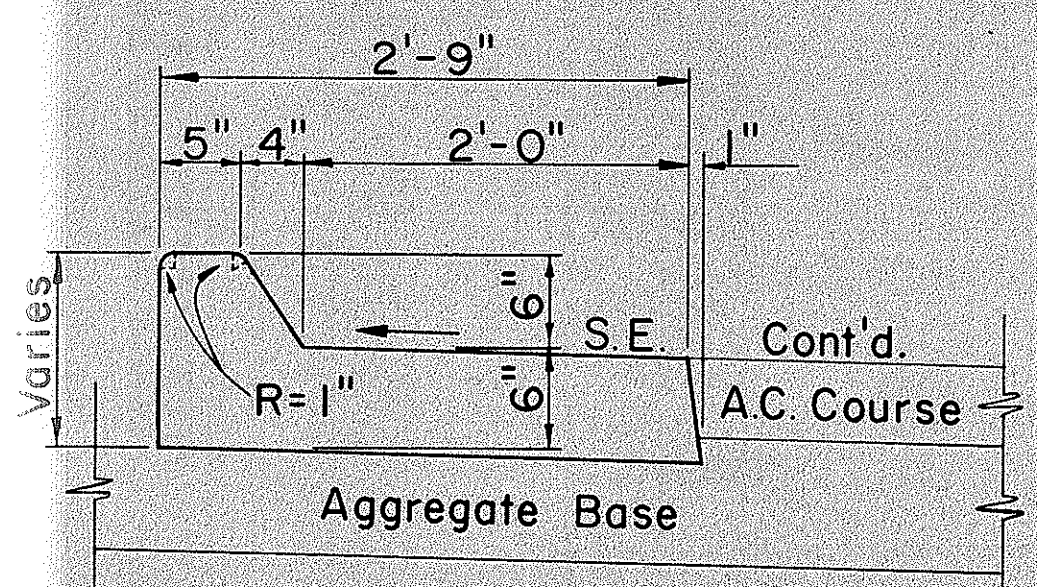
Scale: 1" = 1'-0"



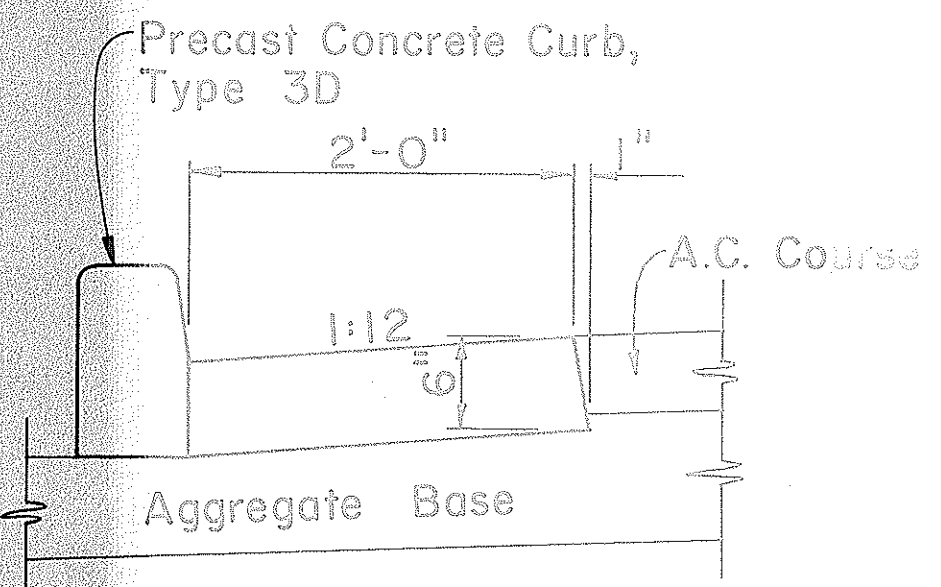
CURB, TYPE 2A



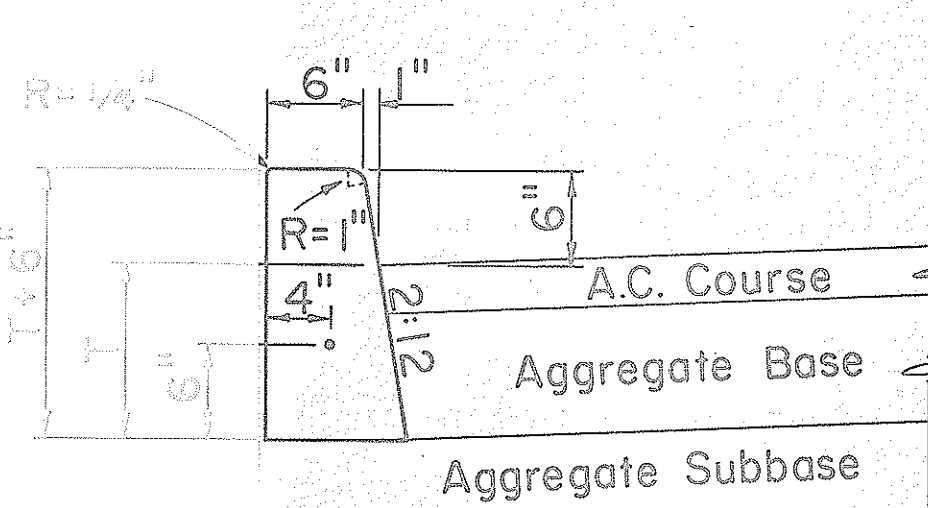
CURB & GUTTER, TYPE 2AG



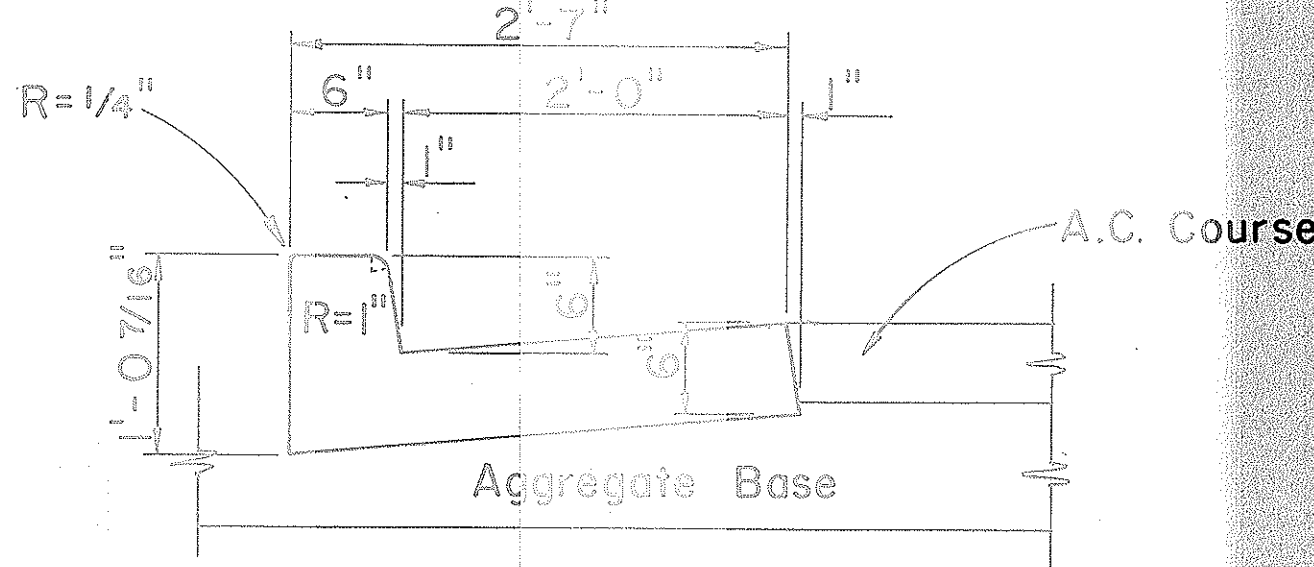
CURB & GUTTER, TYPE 2AGM



GUTTER, TYPE 2A



CURB, TYPE 2D



CURB & GUTTER, TYPE 2DG

CAST-IN-PLACE CONCRETE CURBS AND/OR GUTTERS

Scale: 1" = 1'-0"

APPROVAL RECOMMENDED:
HIGHWAY DESIGN ENGINEER 12-4-69
DATE

APPROVED:
ASSISTANT CHIEF, ENGINEERING 12-10-59
DATE

NO.	REVISION	APPROVED BY	DATE
1	Add Notes, Deleted Gutter, Type 2G	[Signature]	1-26-84

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

TYPICAL DETAILS OF CURB AND/OR GUTTERS

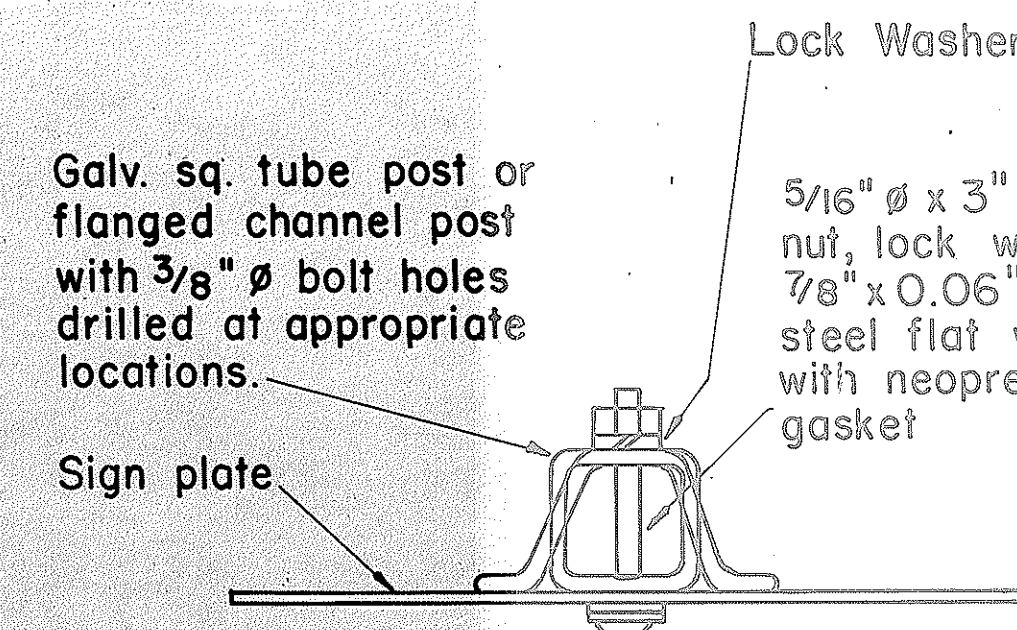
Scale: As Shown

SHEET No. OF SHEETS DD 609.1

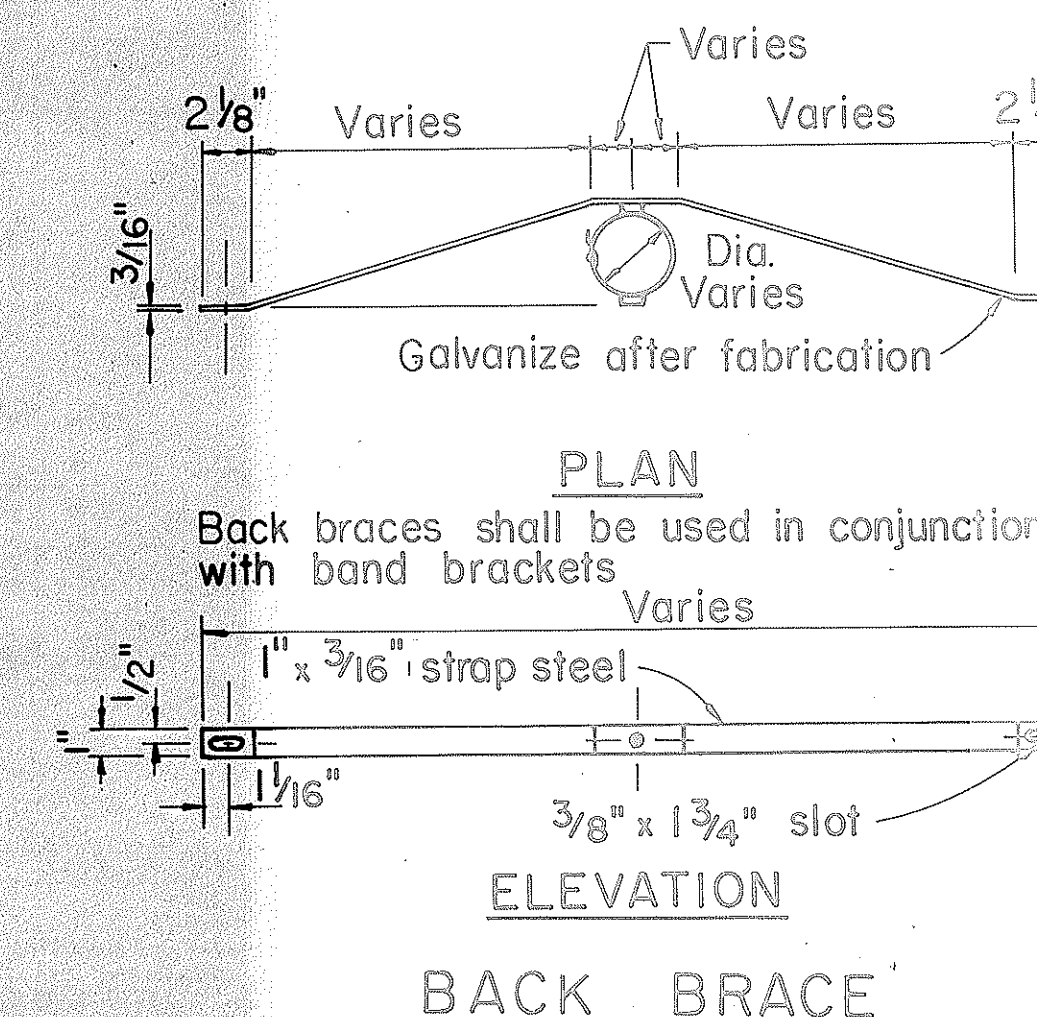
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-002-1(20)	1985	21	33

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-21, 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.



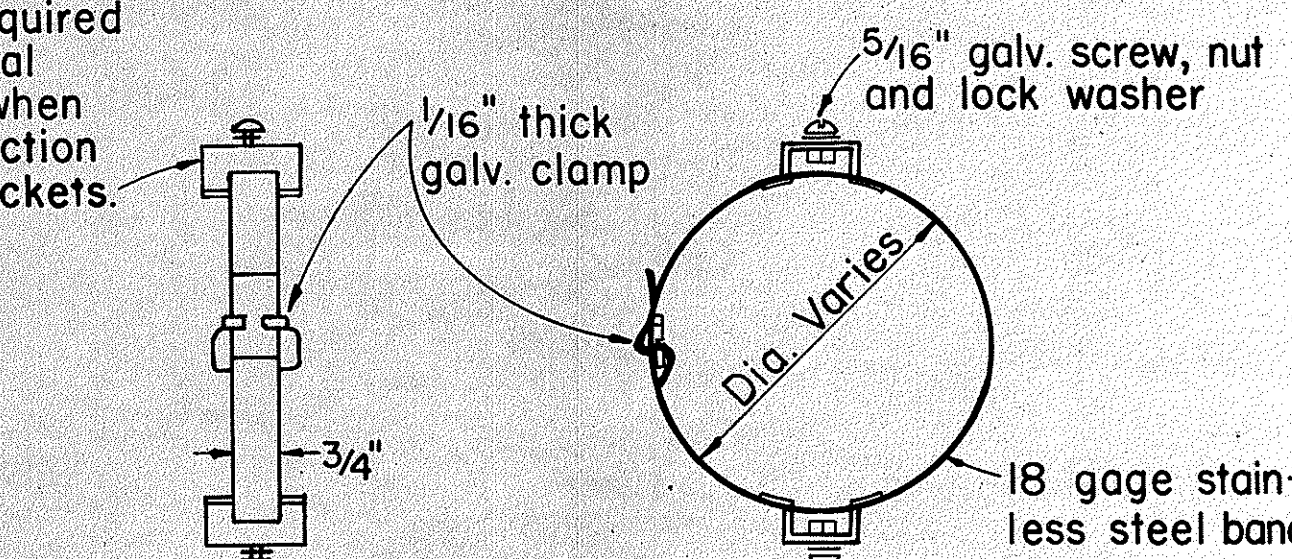
GALVANIZED SQUARE TUBE OR FLANGED CHANNEL POST



TYPICAL MOUNTING DETAILS

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 100 approved 11/15/77	<i>[Signature]</i>	10-18-83

Additional. Required for bidirectional mounting or when used in conjunction with band brackets.



LEFT SIDE VIEW BAND BRACKET

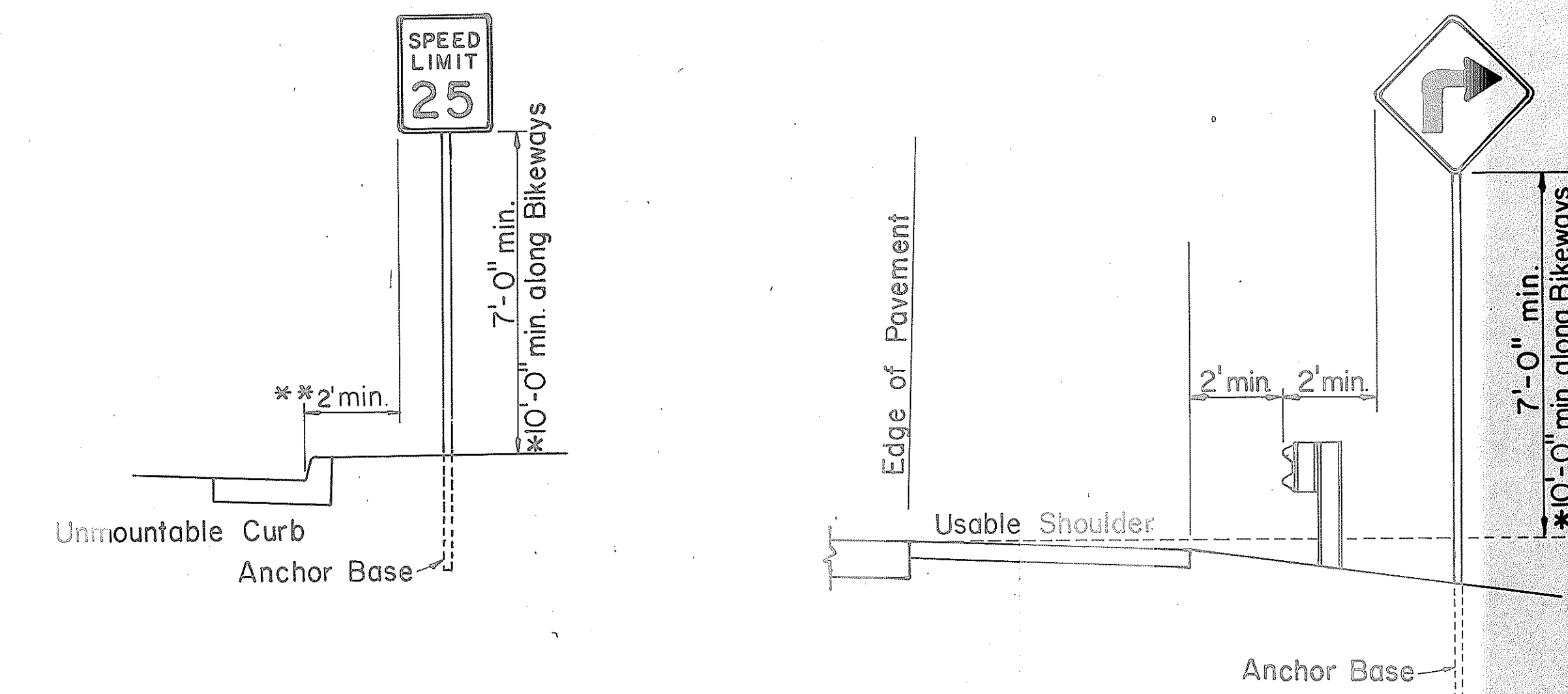
APPROVAL RECOMMENDED:
Erich Tanaka 10/14/83
TRAFFIC ENGINEER DATE

APPROVED:
[Signature] 10-18-83
ASSISTANT CHIEF, ENGINEERING DATE

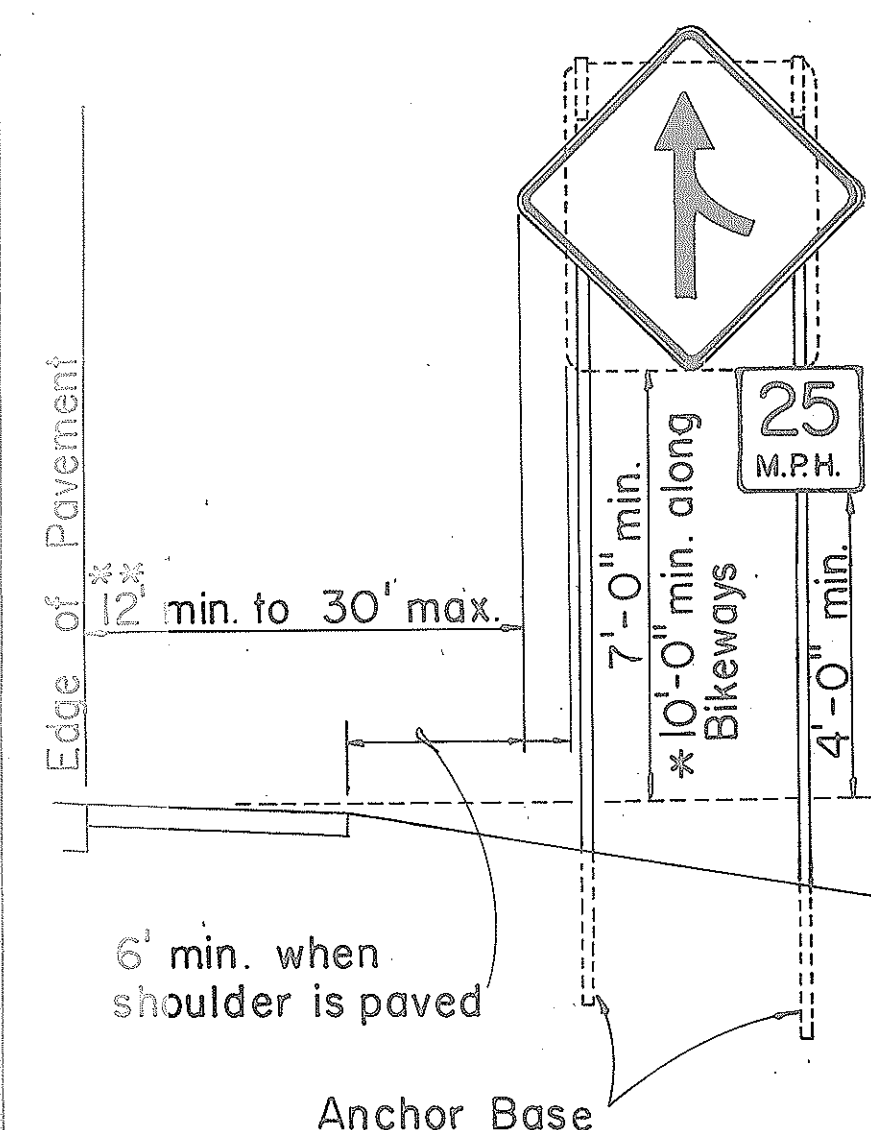
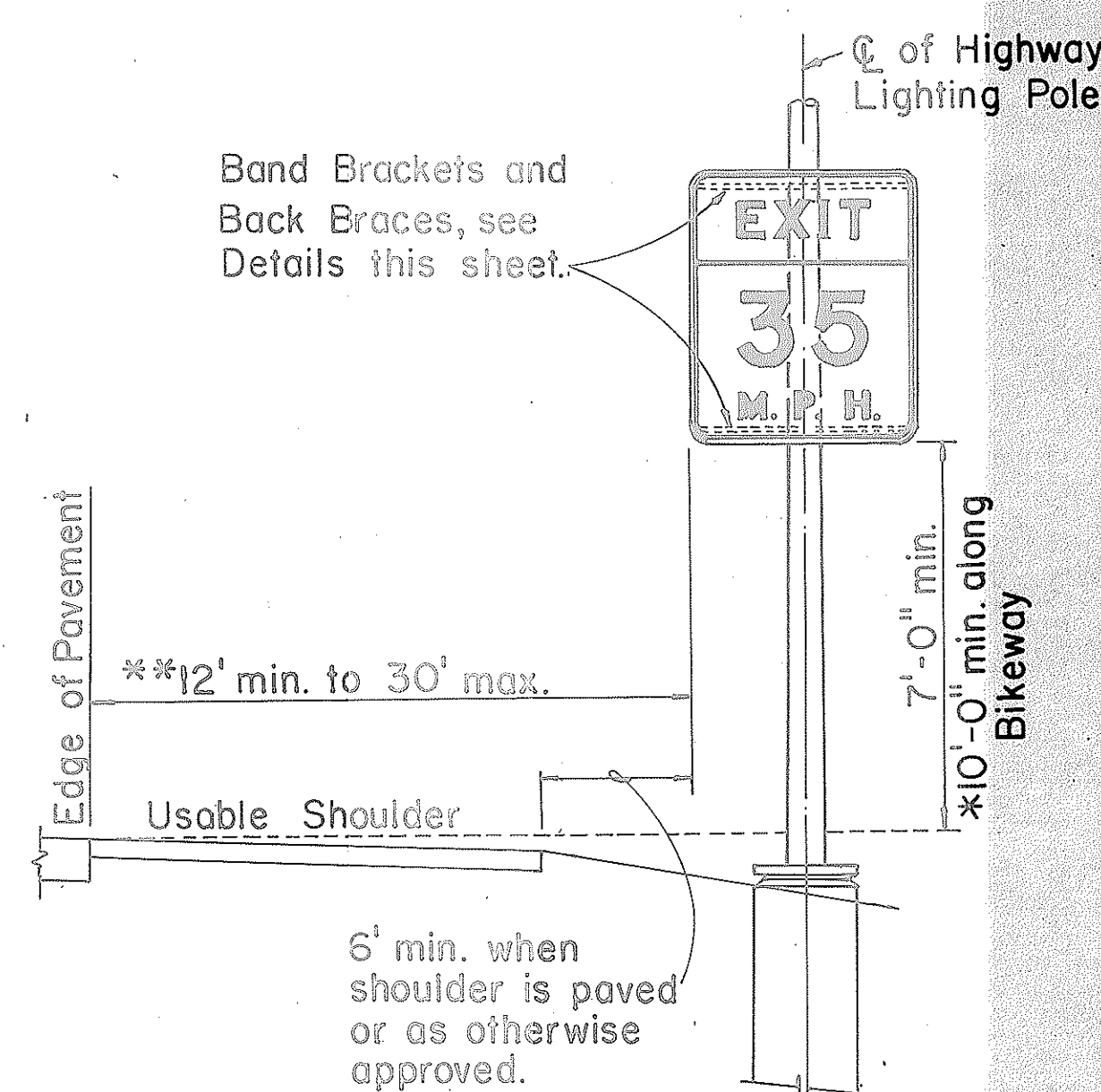
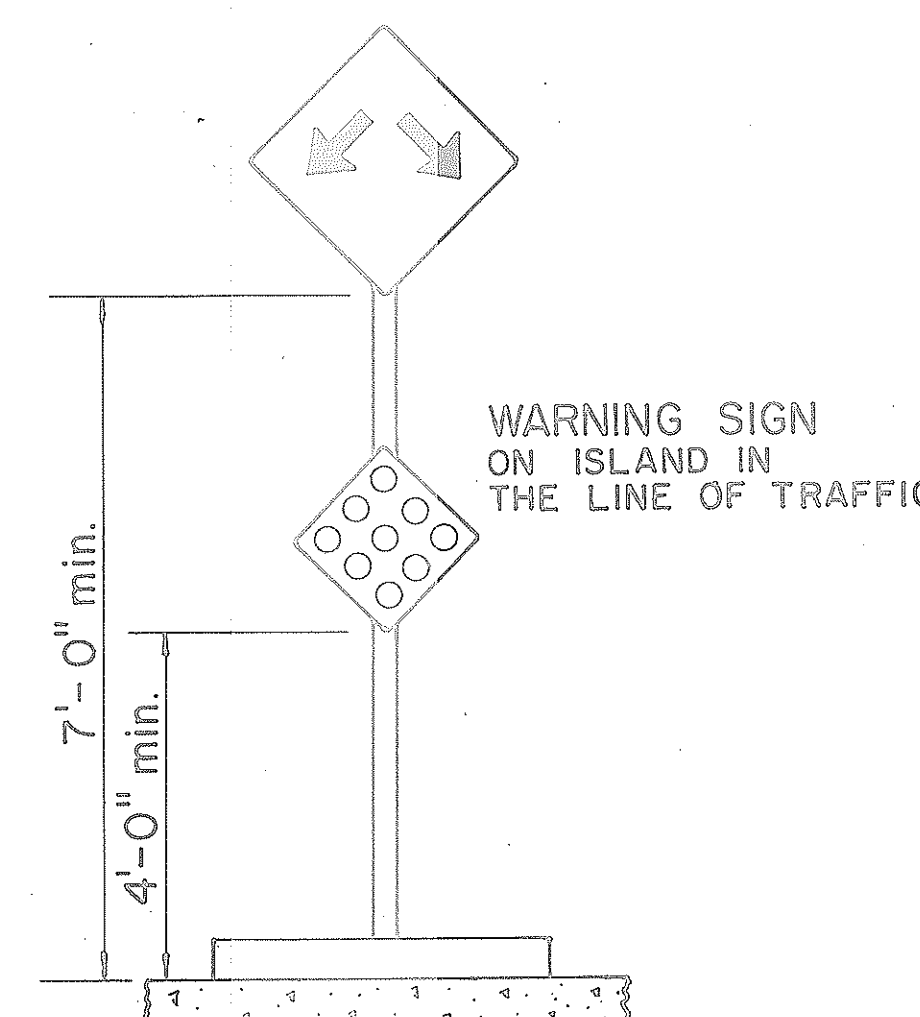
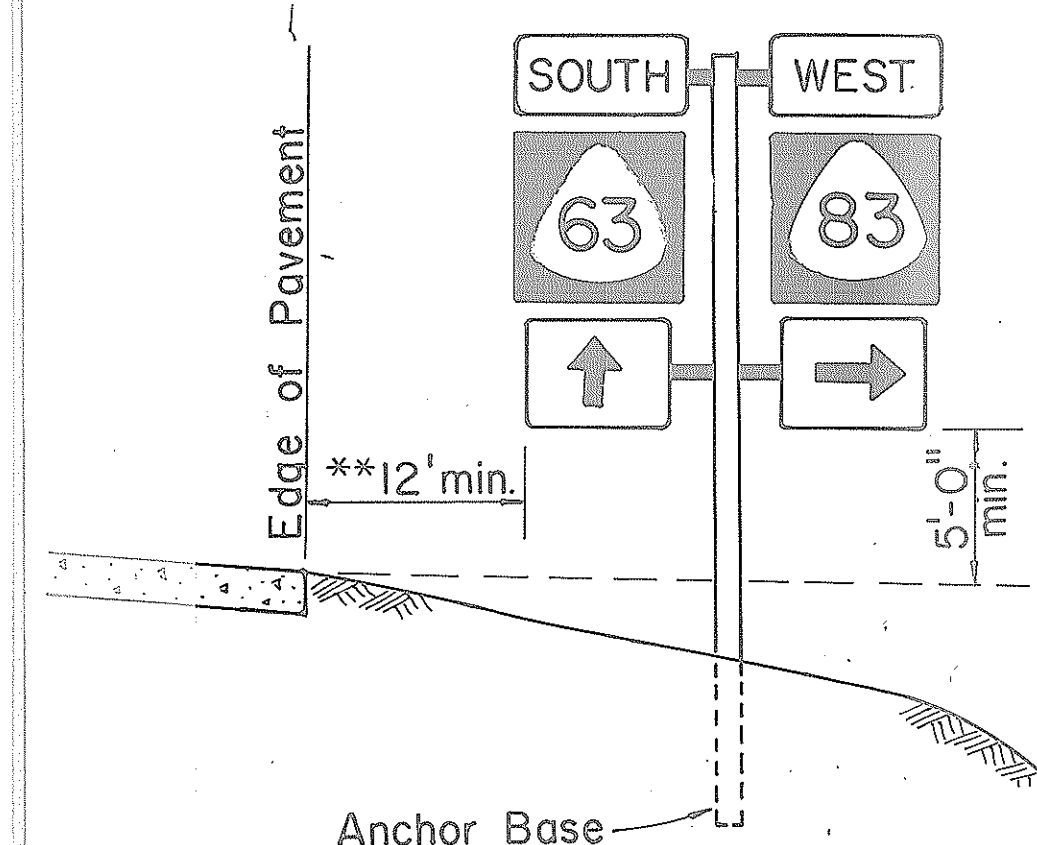
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
MISCELLANEOUS SIGN DETAILS

Not to Scale: Oct. 1983
SHEET No. OF SHEETS DT 100C



ROADSIDE ASSEMBLY RURAL DISTRICT



HEIGHT AND LATERAL LOCATION OF SIGNS TYPICAL INSTALLATION

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HE5-002-1(20)	1985	22	33

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 ($A \times B$) is known,
Maximum $H = \frac{\text{Factor}}{\text{sign area } (A \times B)}$
and if H is known,
Maximum sign area ($A \times B$) = $\frac{\text{Factor}}{H}$

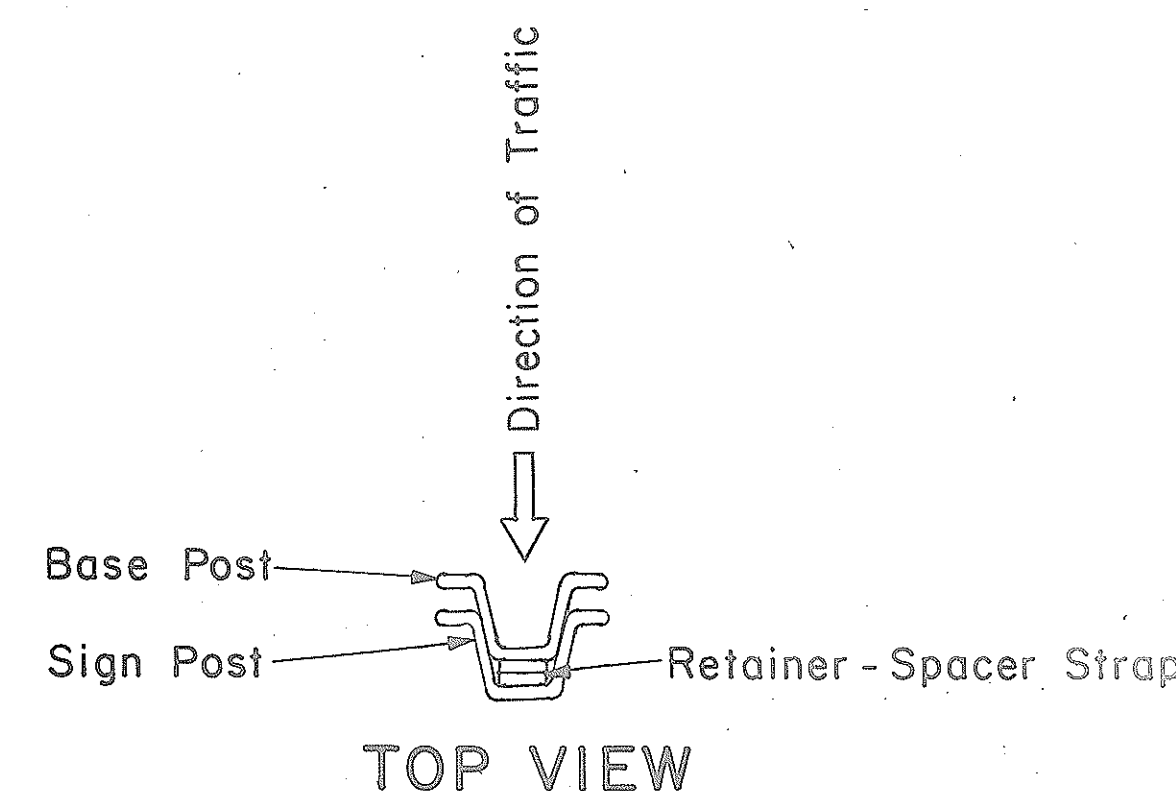
APPROVAL RECOMMENDED:

Erich Tanaka 9/21/82
TRAFFIC ENGINEER DATE

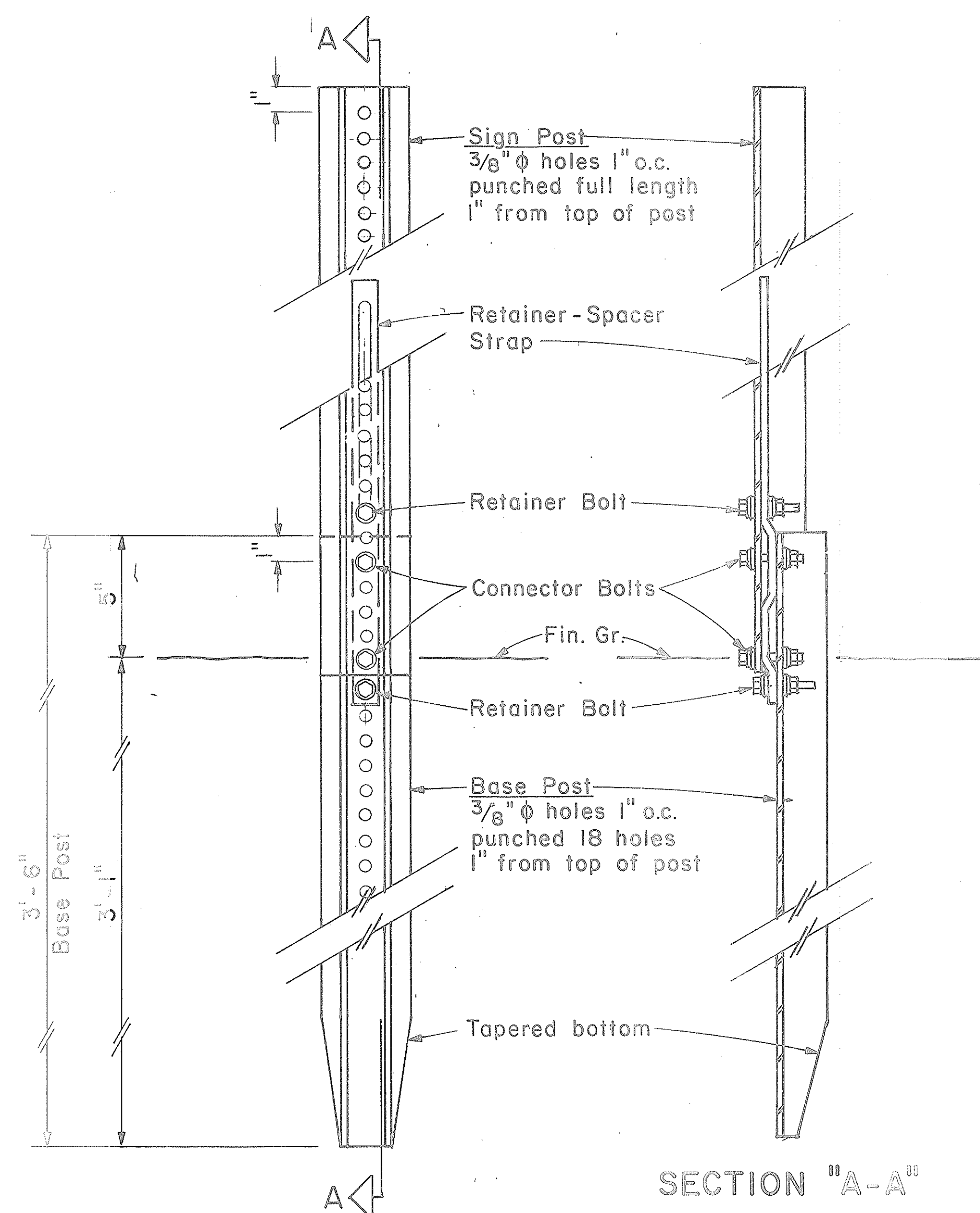
APPROVED:

Richard J. [Signature] 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.		OF SHEETS DT100A	



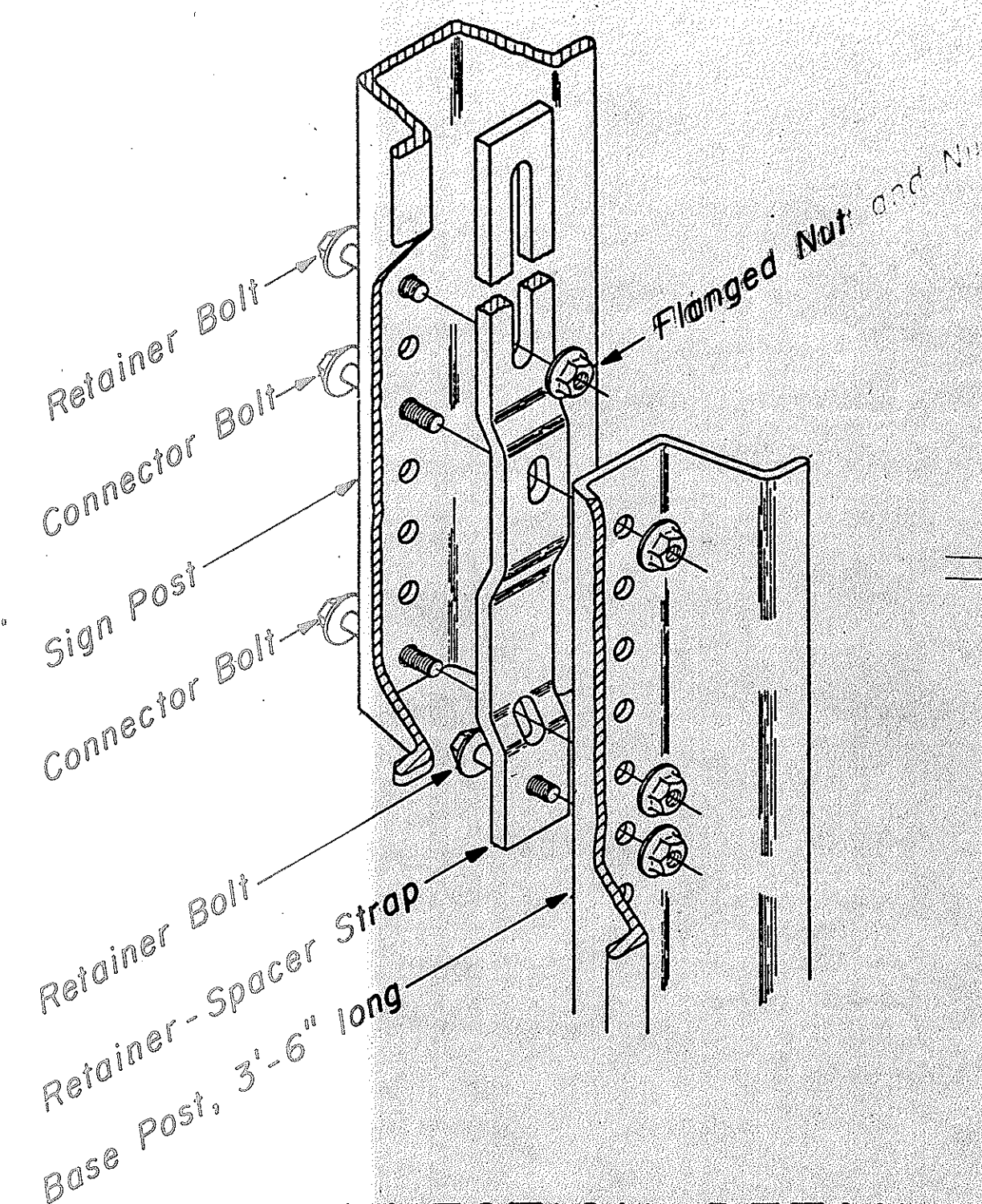
TOP VIEW



BACK VIEW

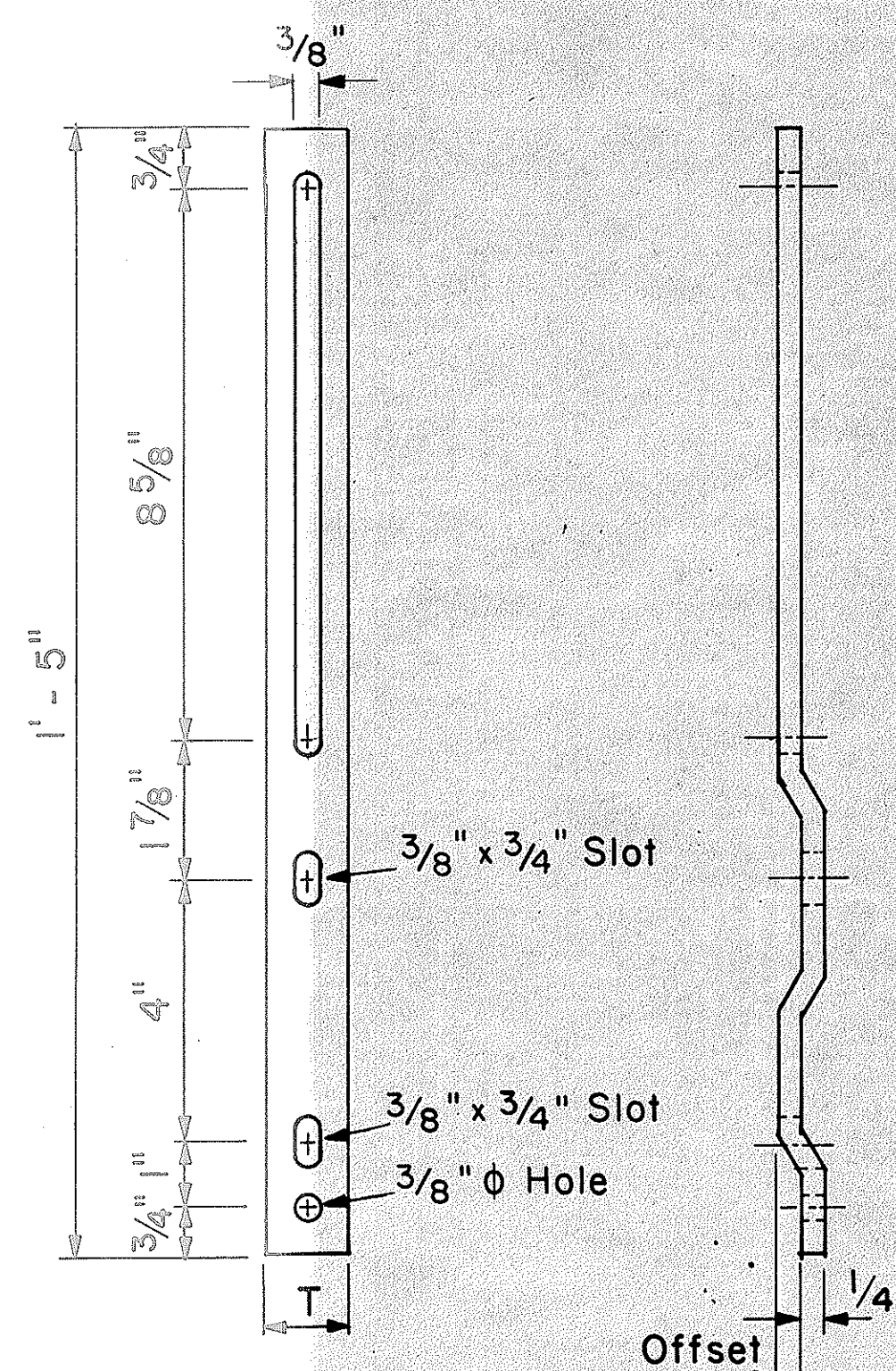
ANCHOR BASE DETAIL

Scale: 3" = 1'-0"



CONNECTION DETAIL

Not to Scale

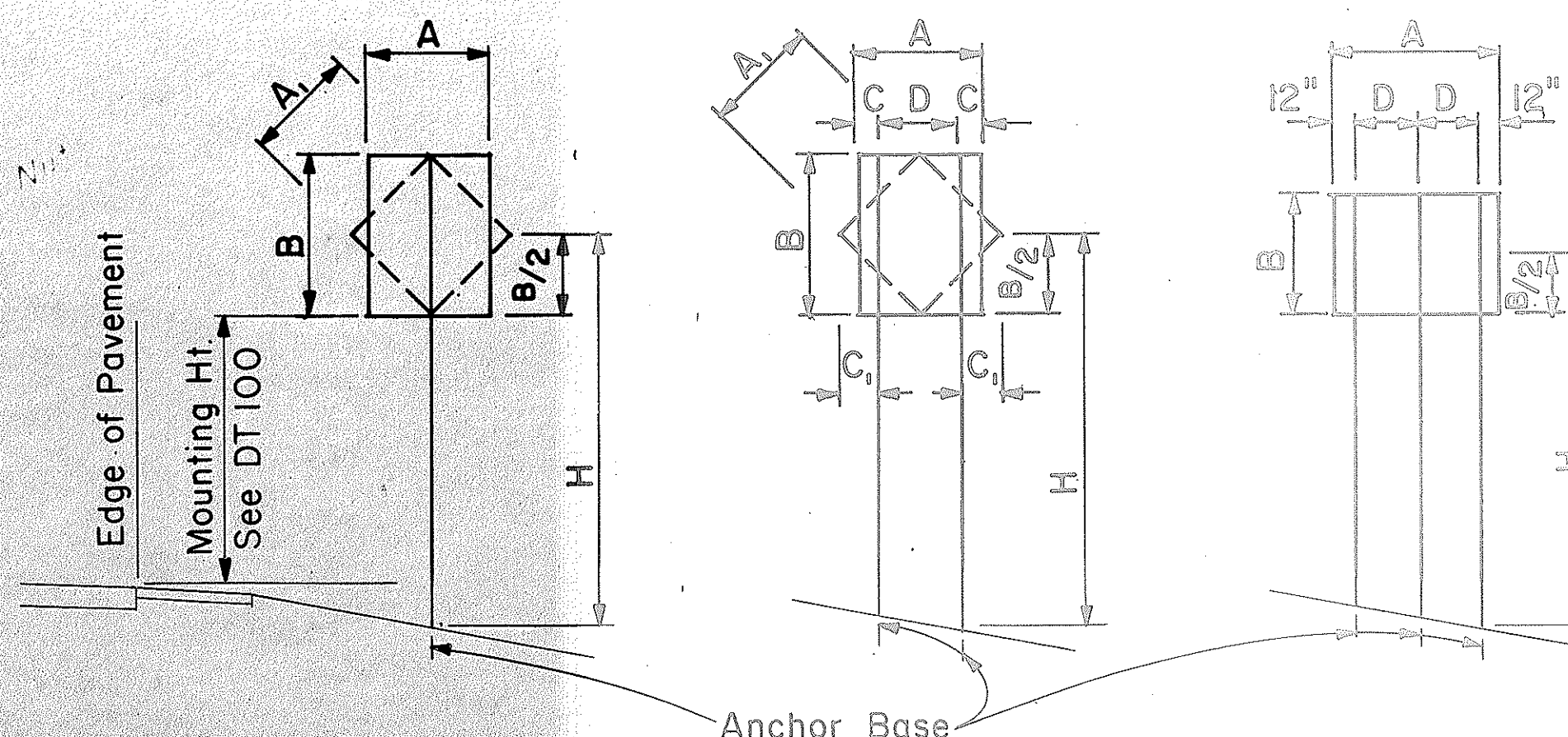


RETAINER-SPACER STRAP

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"



1-POST
Sign area 10 sq. ft. and less

2-POST
Sign area greater than 10 sq. ft. or A = 48" - 60"

3-POST
A = greater than 60"

TYPICAL INSTALLATION

Not to Scale

FLANGED CHANNEL: 1-POST INSTALLATION

Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)						A x B (Area, sq. 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	

FLANGED CHANNEL: 2-POST INSTALLATION

Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)						A x B (Area, sq. 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	

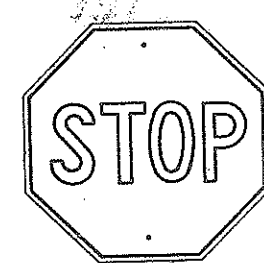
FLANGED CHANNEL: 3-POST INSTALLATION

Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)						A x B (Area, sq. 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	

WINDLOAD CHARTS

NO.	REVISION	APPROVED BY	DATE

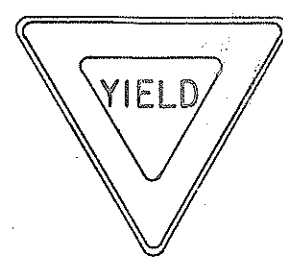
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-092 1(20)	1985	23	33



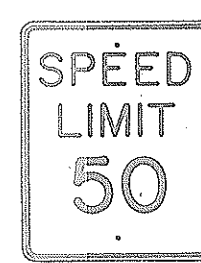
R1-1 30"x30"
R1-1-A 36"x36"

4-WAY

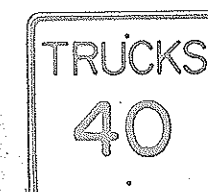
R1-3 12"x6"
R1-3-A 18"x9"



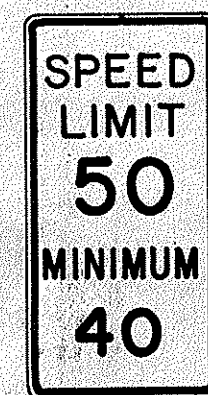
R1-2 36"x36"x36"
R1-2-A 48"x48"x48"



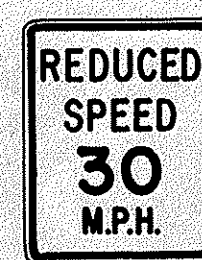
R2-1(50) 24"x30"
R2-1(50)-A 48"x60"



R2-2(40) 24"x24"
R2-2(40)-A 48"x48"



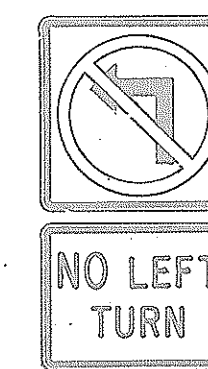
R2-4a(50/40) 24"x48"
R2-4a(50/40)-A 48"x96"



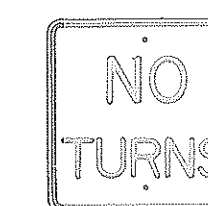
R2-5b(30) 24"x30"
R2-5b(30)-A 48"x60"



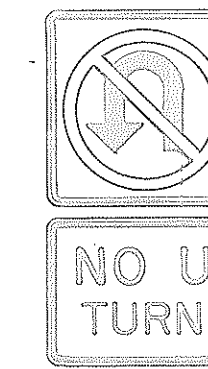
R3-1 24"x24"
24"x18"
R3-1-A 48"x48"
48"x36"



R3-2 24"x24"
24"x18"
R3-2-A 48"x48"
48"x36"



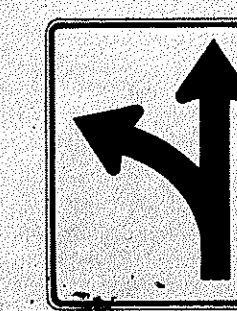
R3-3 24"x24"
R3-3-A 48"x48"



R3-4 24"x24"
24"x18"
R3-4-A 48"x48"
48"x36"



R3-5(L) 30"x36"
R3-5(L)-A 48"x60"



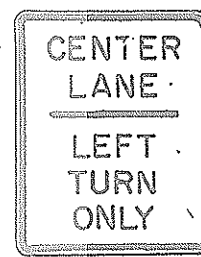
R3-6(L) 30"x36"
R3-6(L)-A 48"x60"



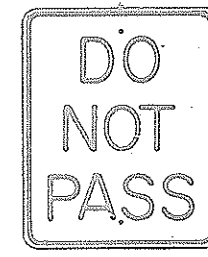
R3-7(R) 30"x30"
R3-7(R)-A 48"x48"



R3-8(L) 30"x30"
R3-8(L)-A 36"x36"
R3-8(L)-B 48"x48"



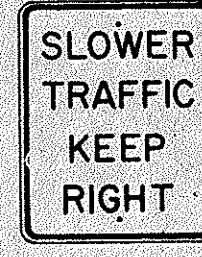
R3-9 24"x30"



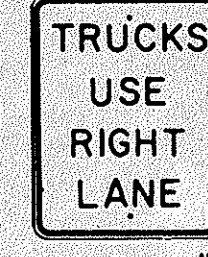
R4-1 24"x30"



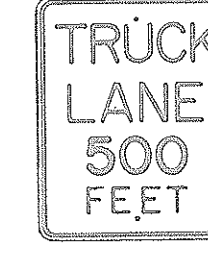
R4-2 24"x30"



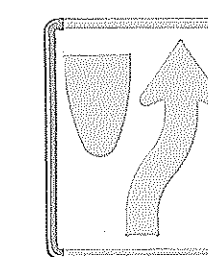
R4-3 24"x30"
R4-3-A 48"x60"



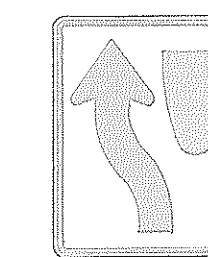
R4-5 24"x30"



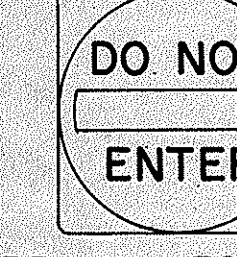
R4-6(500) 24"x30"



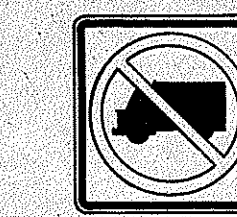
R4-7 24"x30"
24"x18"



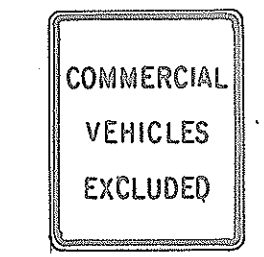
R4-8 24"x30"
24"x18"



R5-1 30"x30"
R5-1-A 48"x48"



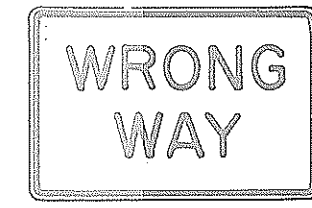
R5-2 24"x24"
24"x18"



R5-4 24"x30"



R5-6 24"x24"
24"x18"



R5-9 36"x24"



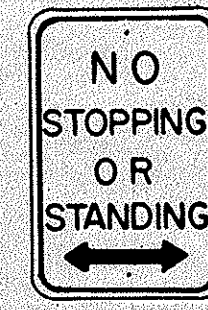
R6-1 (R) 36"x12"



R6-2(R) 18"x24"



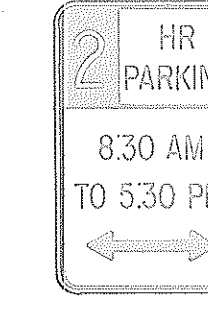
R7-1 12"x18"
R7-1-A 24"x30"



R7-4 12"x18"
R7-4-A 24"x30"



R7-1,7(R) 12"x18"



R7-108 12"x18"



R7-201 12"x6"
R7-201-A 24"x12"



R8-1 24"x30"



R8-2 24"x30"



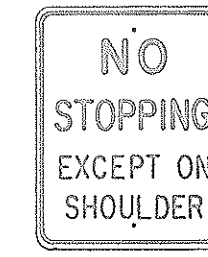
R8-3 24"x30"



R8-4 30"x24"
R8-4-A 48"x36"



R8-5 24"x30"



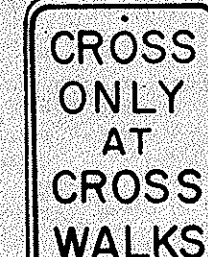
R8-6 24"x30"



R8-7 30"x24"
R8-7-A 48"x36"



R9-1 18"x24"



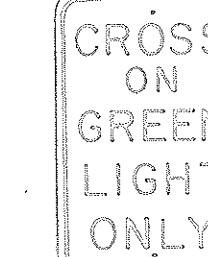
R9-2 12"x18"



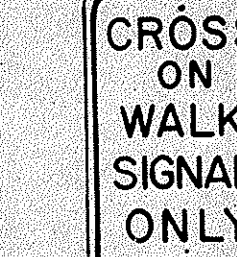
R9-3 12"x18"



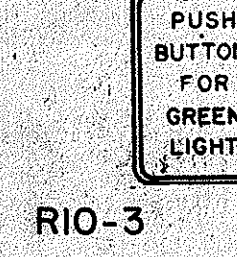
R9-4 18"x24"



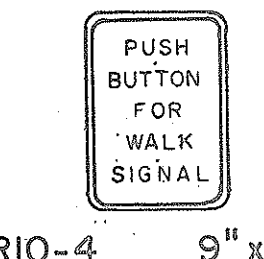
R10-1 12"x18"



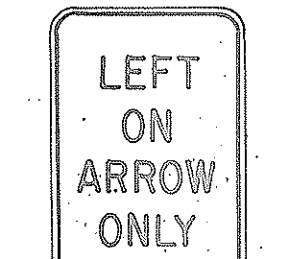
R10-2 12"x18"



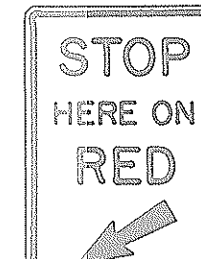
R10-3 9"x12"



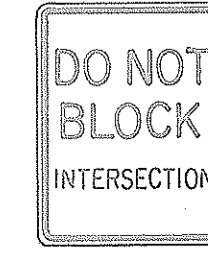
R10-4 9"x12"



R10-5 24"x30"



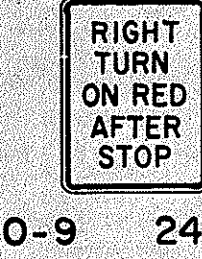
R10-6 24"x36"



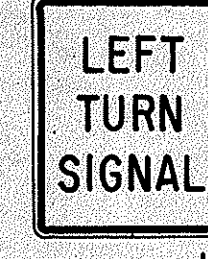
R10-7 24"x30"



R10-8 24"x30"



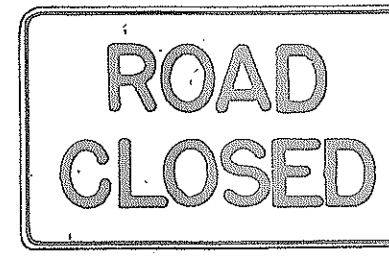
R10-9 24"x30"



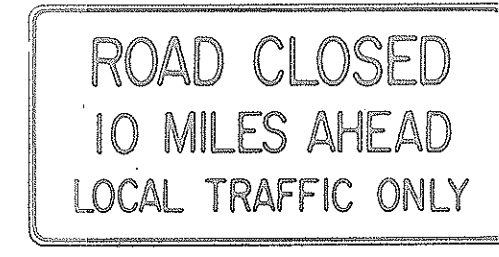
R10-10 24"x30"



R11-1 24"x30"



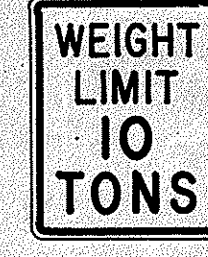
R11-2 48"x30"



R11-3(10) 60"x30"



R11-4 60"x30"



R12-1(10) 24"x30"

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," 1972, and as amended.

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.

5. All signs shall be erected without educational plaques unless called for in the plans.

APPROVAL RECOMMENDED:

Etsuki Tanaka
TRAFFIC ENGINEER

3/17/72
DATE

APPROVED:

Robert D. Baker
ASSISTANT CHIEF, ENGINEERING

3-20-72
DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 101 Approved 12-30-69	H-1	3/20/72
2	Revised General Note 1.	H-1	10/12/74
3	Added General Note 5	H-1	6/9/79

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

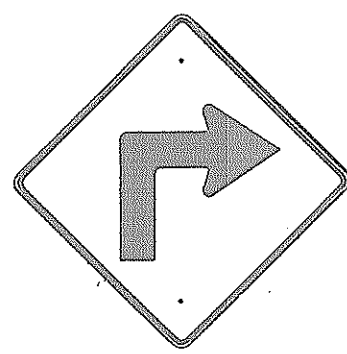
STANDARD DETAILS REGULATORY SIGNS

NOT TO SCALE

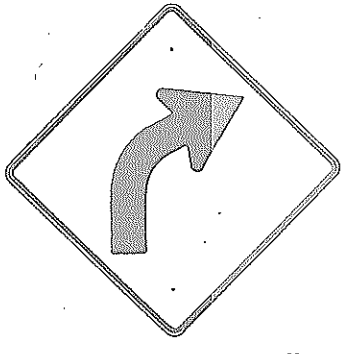
SHEET No. OF SHEETS DT 101

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

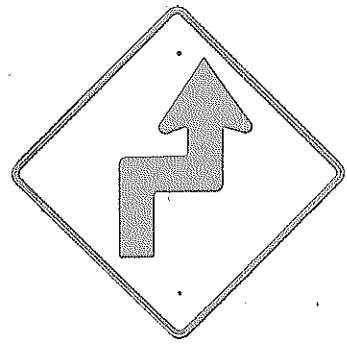
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII *	HAW.	HE-092-1(20)	1985	24	33



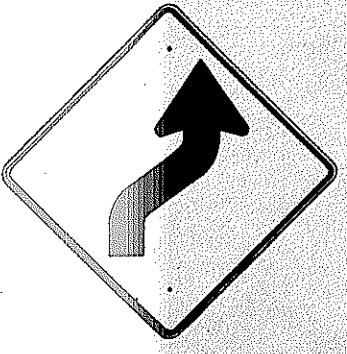
W1-1(R) 30"x30"
W1-1(R)-A 48"x48"



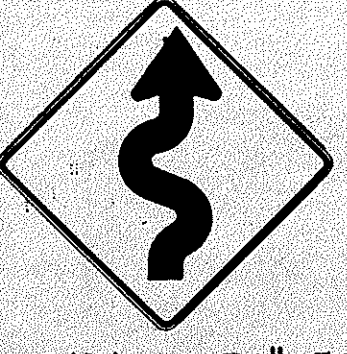
W1-2(R) 30"x30"
W1-2(R)-A 48"x48"



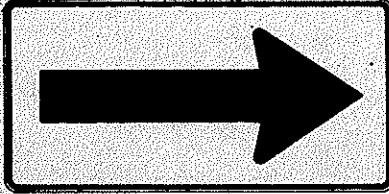
W1-3(R) 30"x30"
W1-3(R)-A 48"x48"



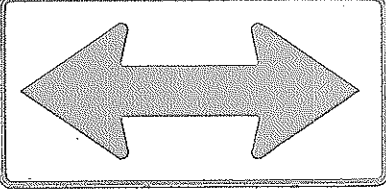
W1-4(R) 30"x30"
W1-4(R)-A 48"x48"



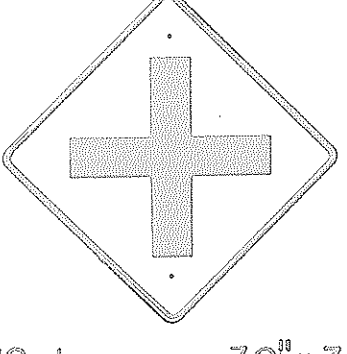
W1-5(R) 30"x30"
W1-5(R)-A 48"x48"



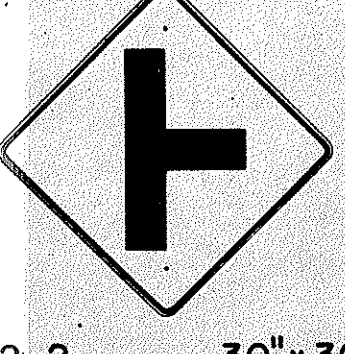
W1-6 48"x24"



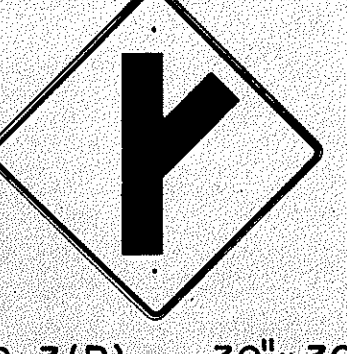
W1-7 48"x24"



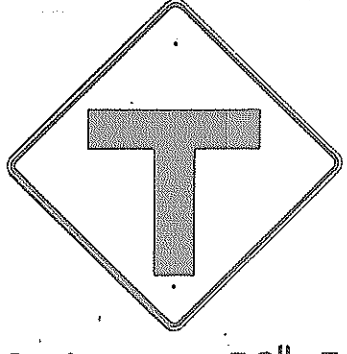
W2-1 30"x30"
W2-1-A 48"x48"



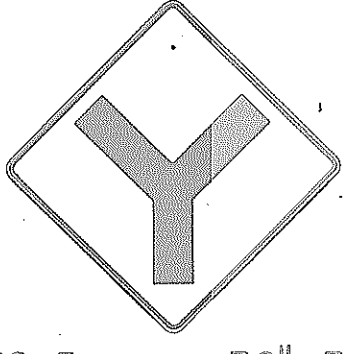
W2-2 30"x30"
W2-2-A 48"x48"



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



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



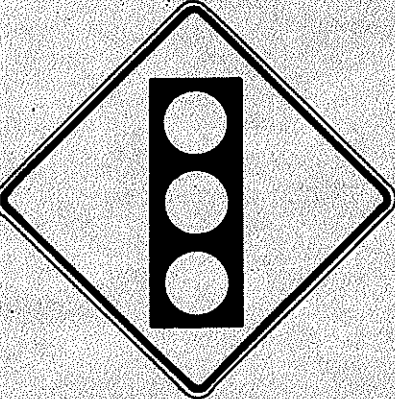
W2-5 30"x30"
W2-5-A 48"x48"



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

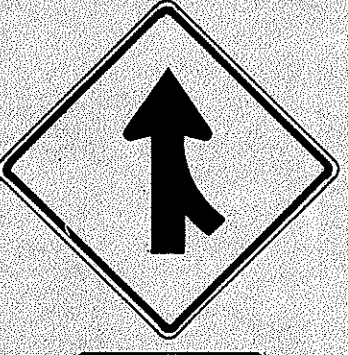


W3-2 30"x30"
W3-2-A 36"x36"



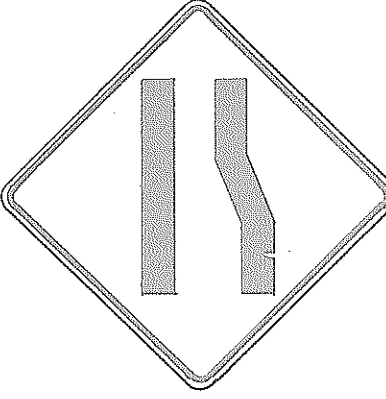
SIGNAL
AHEAD

W3-3 36"x36"
24"x18"



MERGE

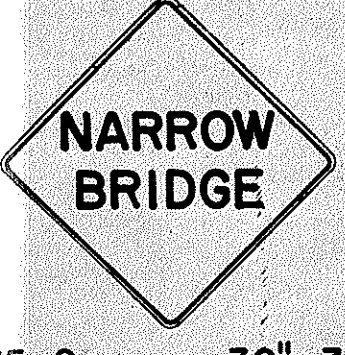
W4-1(R) 30"x30"
24"x18"
W4-1(R)-A 48"x48"
24"x18"



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



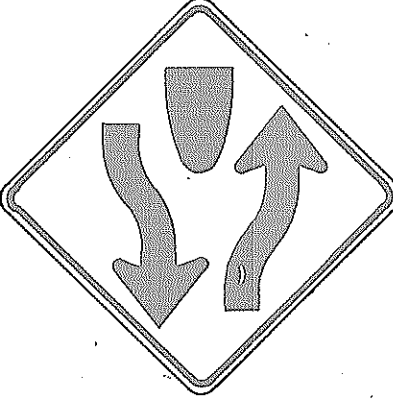
W5-1 36"x36"



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

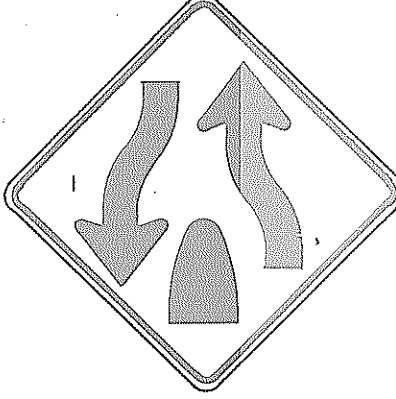


W5-3 36"x36"



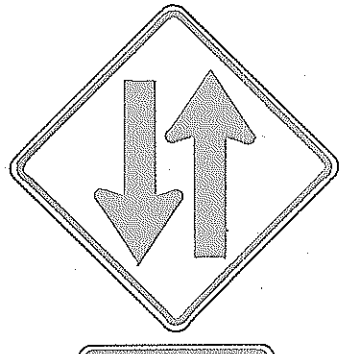
DIVIDED
HIGHWAY

W6-1 36"x36"
24"x18"



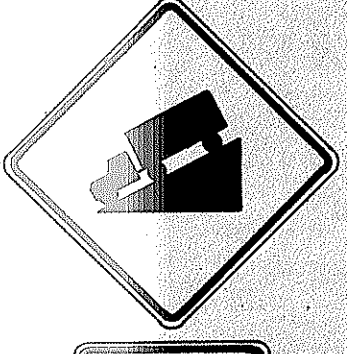
DIVIDED
HIGHWAY
ENDS

W6-2 36"x36"
24"x18"



TWO WAY
TRAFFIC

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

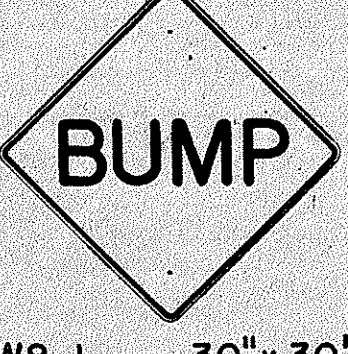


HILL

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

USE LOW
GEAR

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"



SLIPPERY
WHEN WET

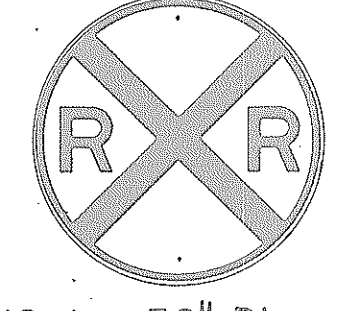
W8-5 30"x30"
24"x18"
W8-5-A 36"x36"
24"x18"



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



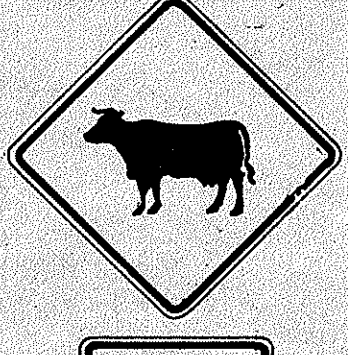
BIKE
XING

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



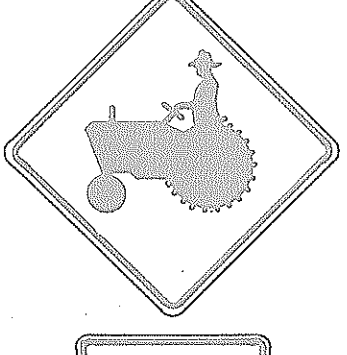
PED
XING

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



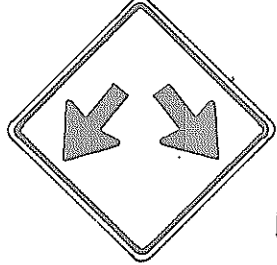
CATTLE
XING

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



FARM
MACHINERY

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

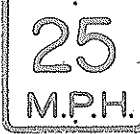


W12-1 24"x24"
W12-1-A 36"x36"
W12-1-B 48"x48"

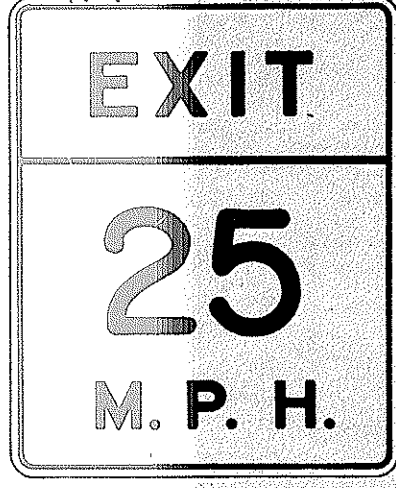


LOW
CLEARANCE

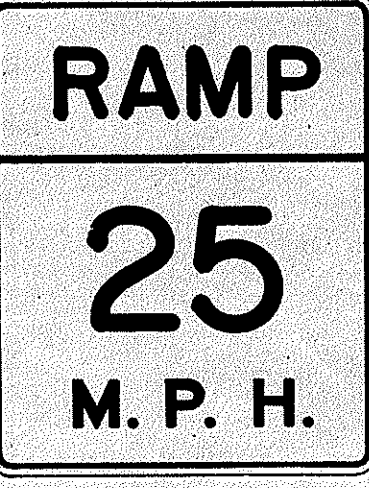
W12-2(12'-6") 36"x36"
24"x18"



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



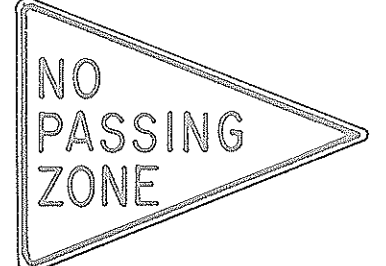
W13-2(25) 48"x60"



W13-3(25) 48"x60"



W14-1 30"x30"



W14-3 36"x48"x48"

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," 1972, and as amended.
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, and shall be reflectorized.

APPROVAL RECOMMENDED:
Eishi Tanaka
TRAFFIC ENGINEER

3/17/12
DATE

APPROVED:
Walter Dalside
ASSISTANT CHIEF, ENGINEERING

3-20-12
DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sh. DT 102 Approved 12-30-69	H.T.	3/20/12
2	Revised General Note 1	H.T.	10/16/14
3	Revised General Note 5	MT	9-16-75
4	Revised General Note 5	H.T.	9-14-76
5	Added Note 1	H.T.	11-9-79

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
STANDARD DETAILS	
WARNING SIGNS	
NOT TO SCALE	
SHEET No. OF SHEETS DT 102	

ORIGINAL PLAN	DATE
DRAWN 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(20)	1985	25	33

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.

APPROVAL RECOMMENDED:
Eishi Tanaka
 TRAFFIC ENGINEER
 DATE 5/2/78

APPROVED:
Robert S. Sakai
 ASSISTANT CHIEF, ENGINEERING
 DATE 5/3/78

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 103 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. OF	SHEETS DT 103

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
R10-11a 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"

S1-1 36" x 36"

S2-1 36" x 36"

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

6:00 AM TO 3:30 PM
S4-1 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"

ORIGINAL PLAN	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

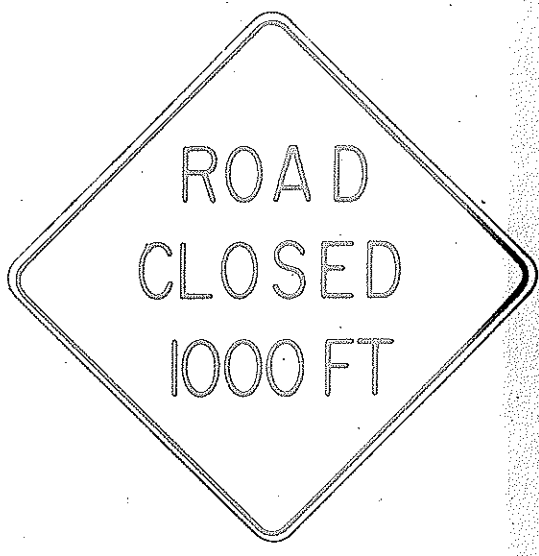
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HE5-002-1(20)	1985	26	33



CW20-1a 48"x48"



CW20-2d 48"x48"



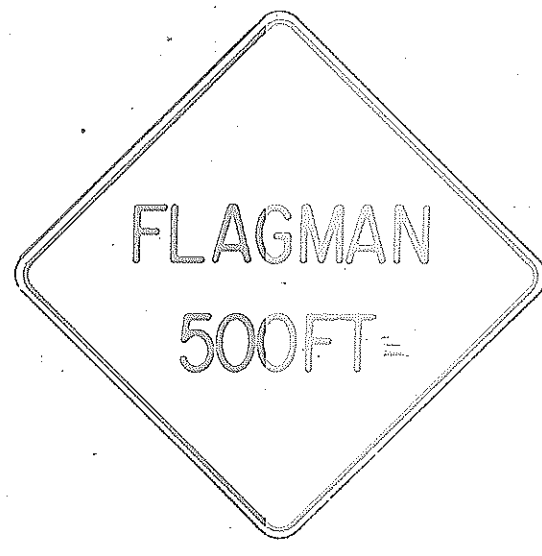
CW20-3b 48"x48"



CW20-4d 48"x48"



CW20-5d(L) 48"x48"



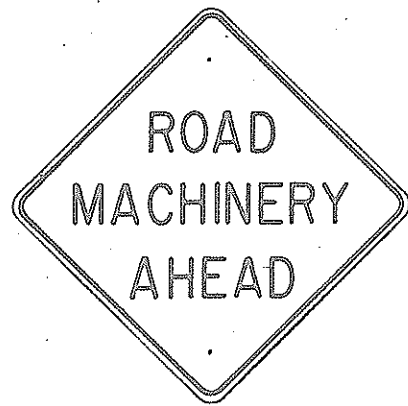
CW20-7c 48"x48"



CW21-1 30"x30"



CW21-2 30"x30"



CW21-3 36"x36"



CW21-4 36"x36"



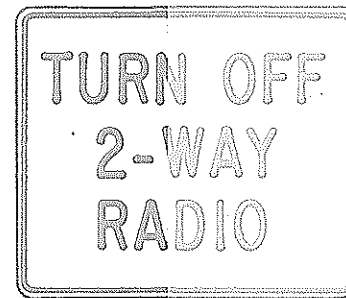
CW21-5 30"x30"



CW21-6 30"x30"



CW22-1b 48"x48"



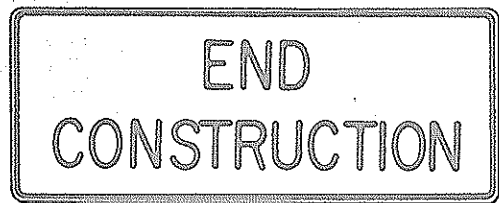
CW22-2 42"x36"



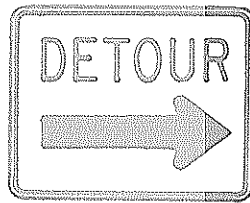
CW22-3 42"x36"



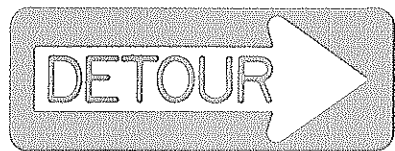
CG20-1(5) 60"x36"



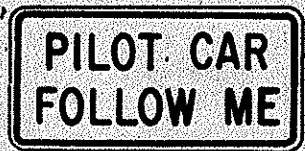
CG20-2 60"x24"



CM4-9(R) 30"x24"



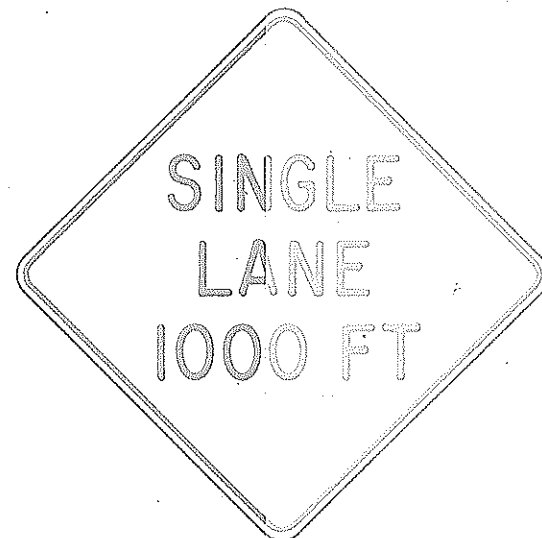
CM4-10(R) 48"x18"



CG20-4 36"x18"



CW23-1 36"x36"



CW23-2b 48"x48"



CW23-3(R) 48"x48"

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.	10/16/74
3	Revised General Note 2	H.T.	1-16-75
4	Revised General Note 2 and sign CG20-1(5)	H.T.	7-14-76

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

APPROVED:
Walter J. Smith 3/23/72
 ASSISTANT CHIEF, ENGINEERING DATE

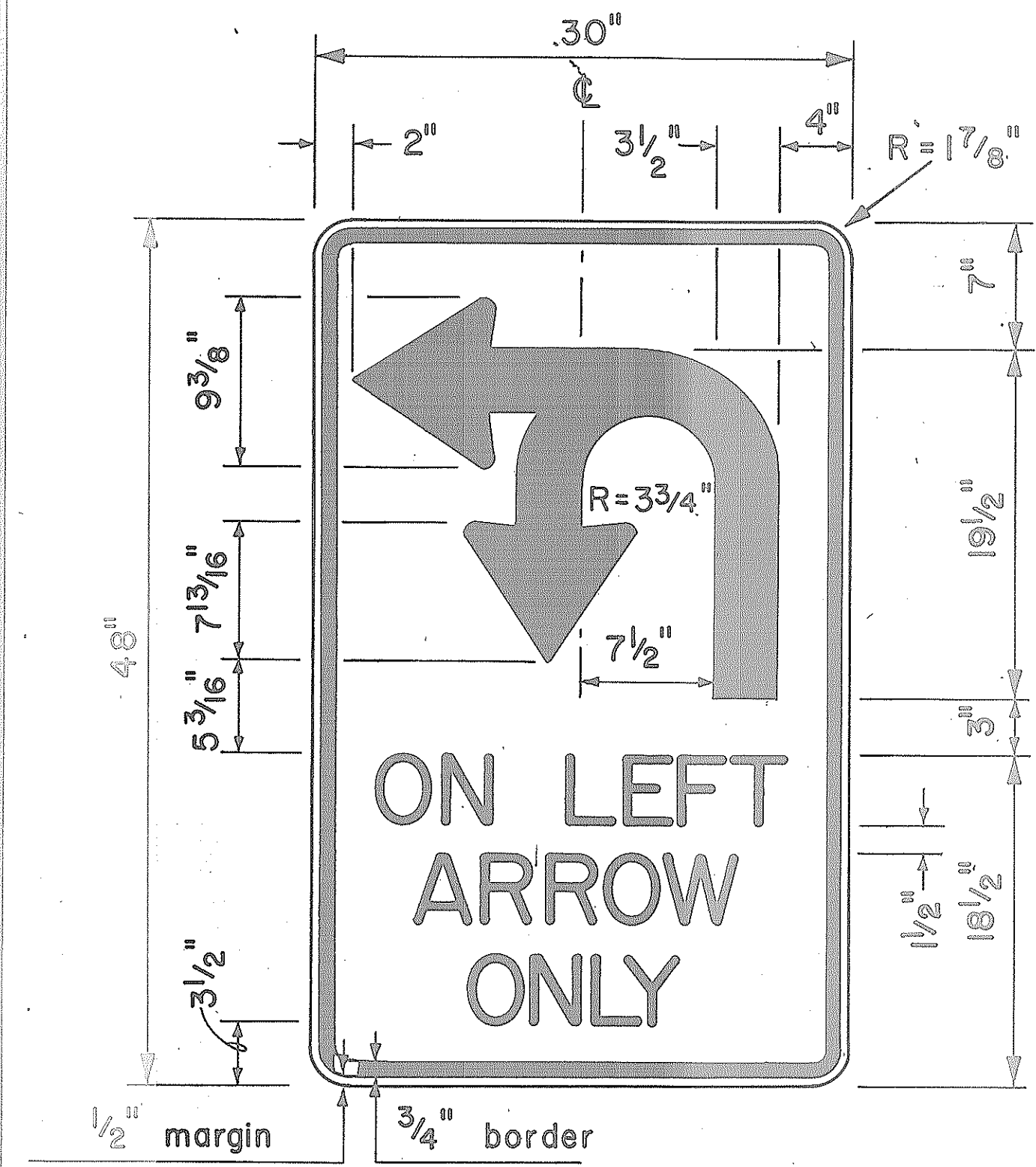
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
STANDARD DETAILS CONSTRUCTION SIGNS	
NOT TO SCALE	
SHEET No.	OF SHEETS DT 104

DESIGNED BY	DATE
DRAWN BY	" "
CHECKED BY	" "
IN CHARGE	" "
APPROVED BY	" "
DATE	" "

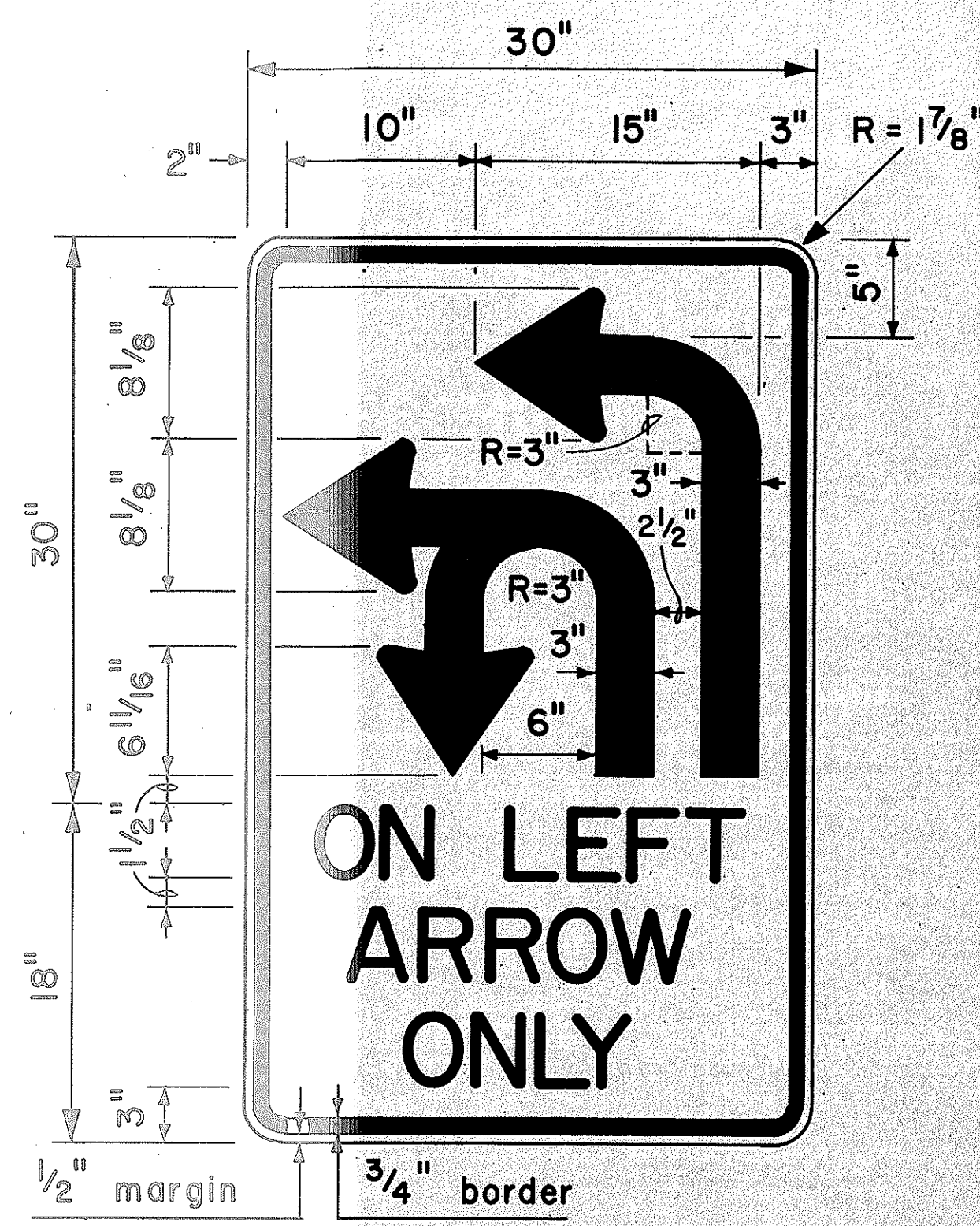
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-002-1(20)	1985	27	33

GENERAL NOTES

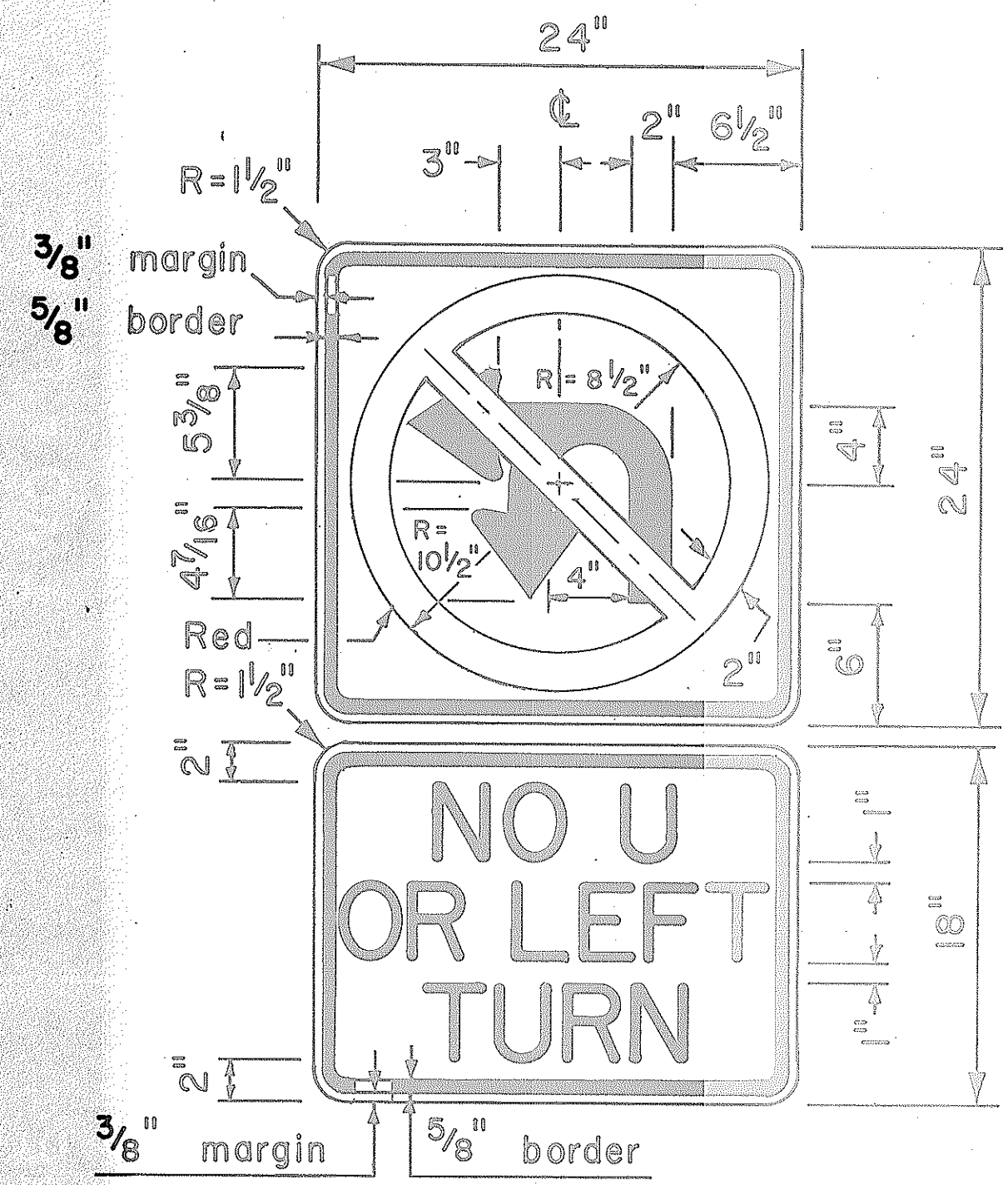
1. Sign details shall conform to the latest editions of the following FHWA publications: "Manual on Uniform Traffic Control Devices for Streets and Highways," and "Standard Highway Signs," and as amended.
2. All regulatory signs shall be reflectorized unless otherwise specified.
3. All regulatory signs shall have 3/8" bolt holes drilled at appropriate locations.



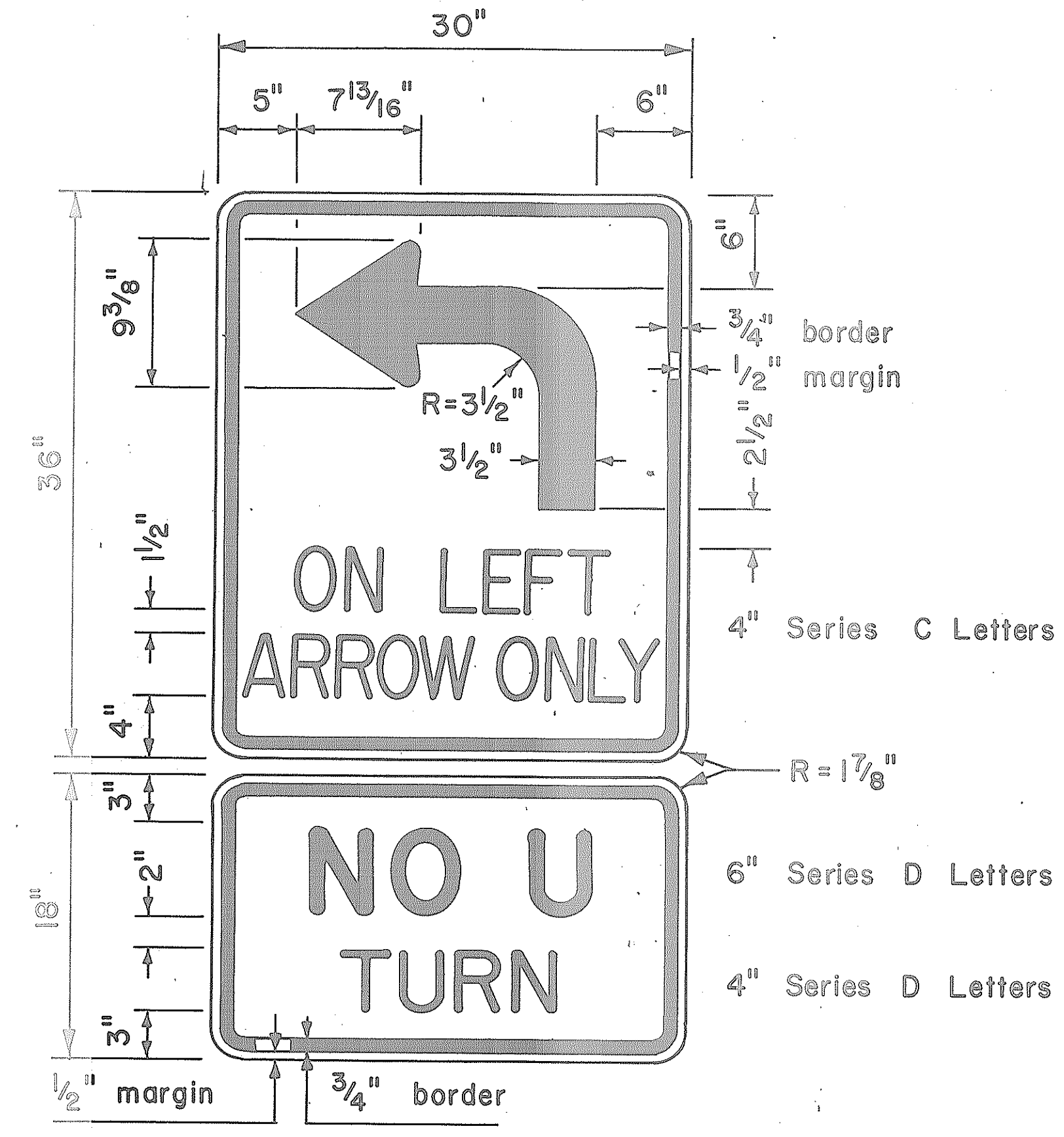
4" Series D Letters
R17-1



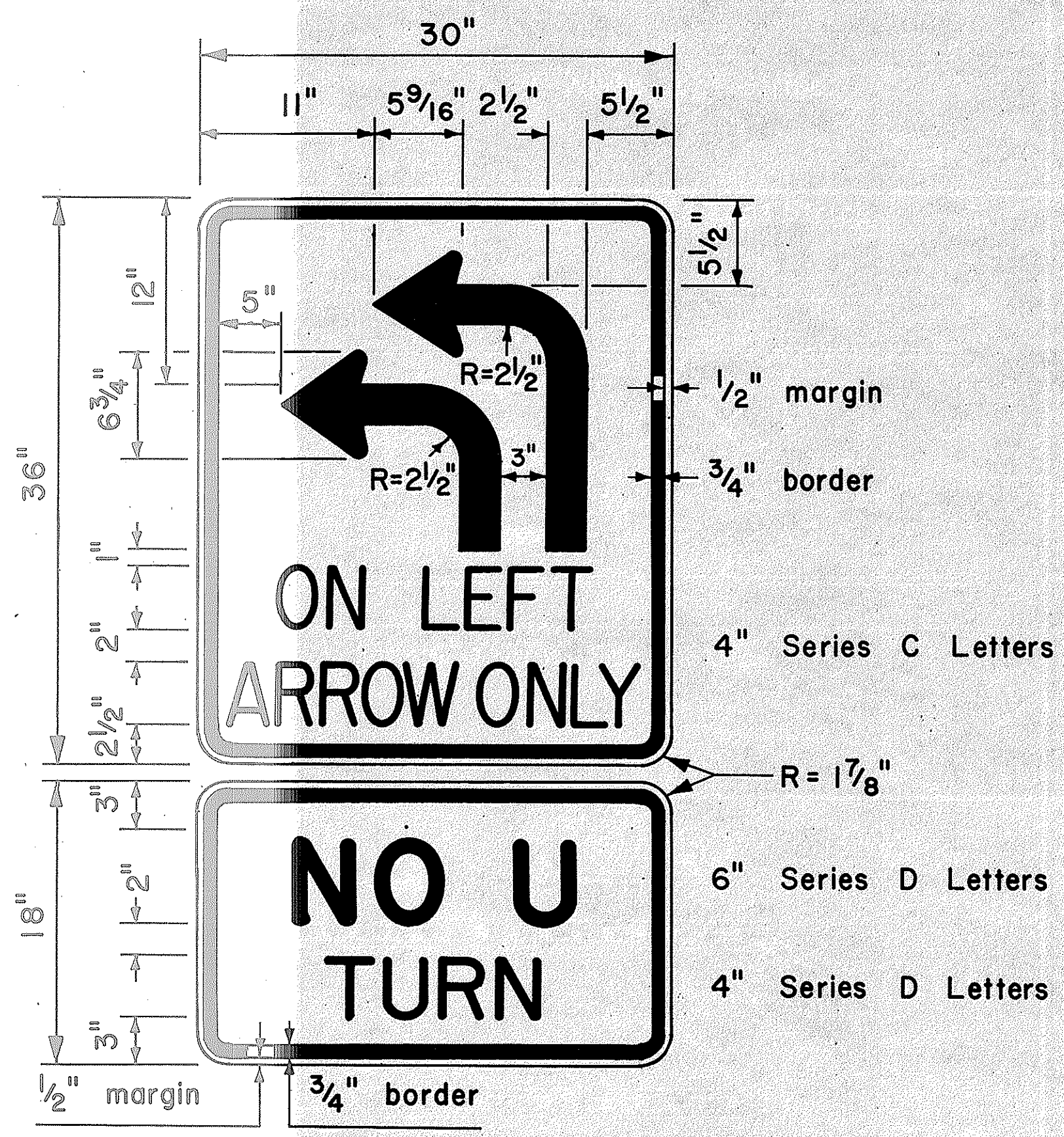
4" Series D Letters
R17-2



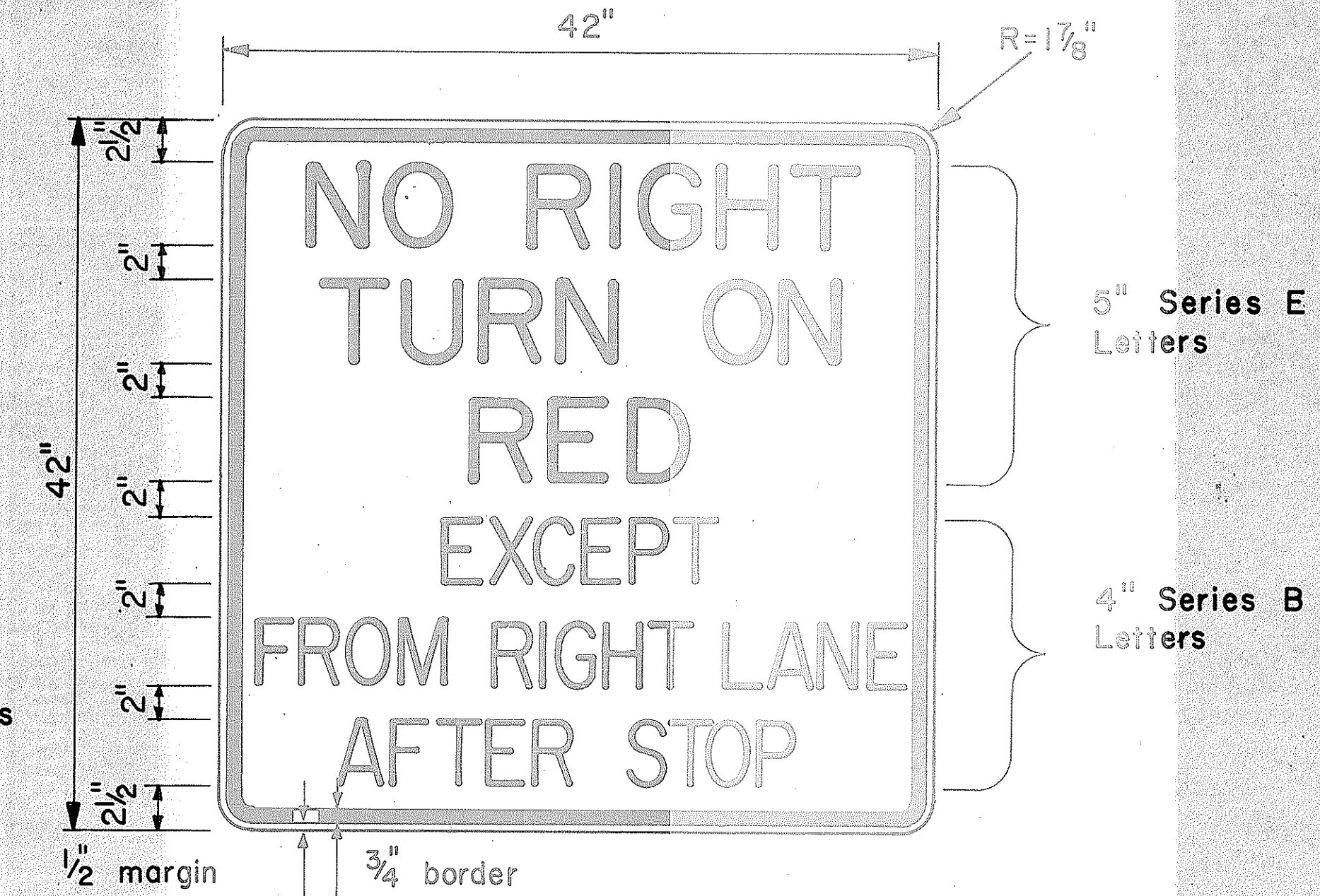
4" Series D Letters
R3-4b



R17-3



R17-4



R10-11d

NO.	REVISION	APPROVED BY	DATE

APPROVAL RECOMMENDED:
Eiichi Tanaka 8/1/77
TRAFFIC ENGINEER DATE

APPROVED:
Harbor P. K. K. 8/1/77
ASSISTANT CHIEF, ENGINEERING DATE

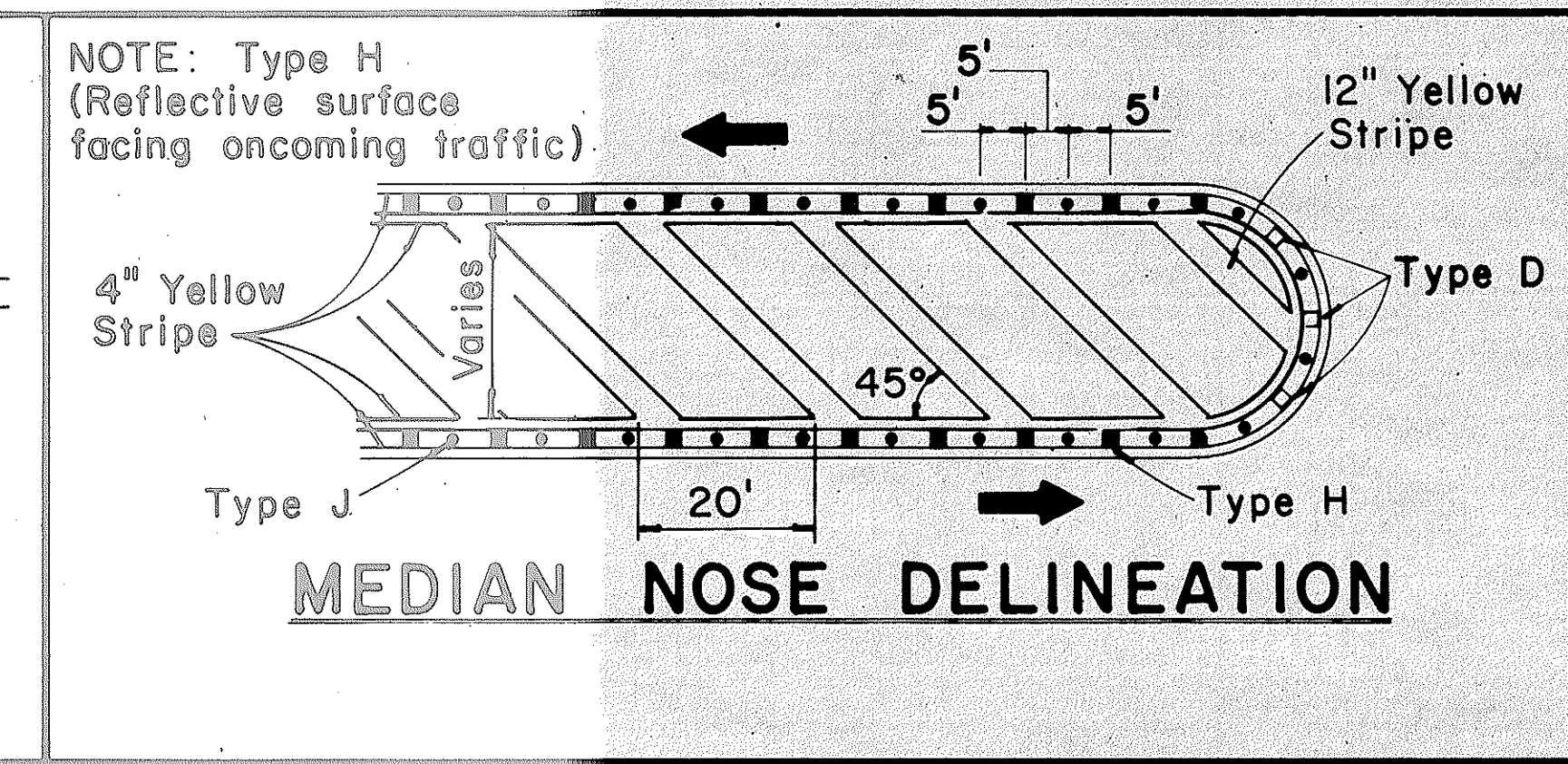
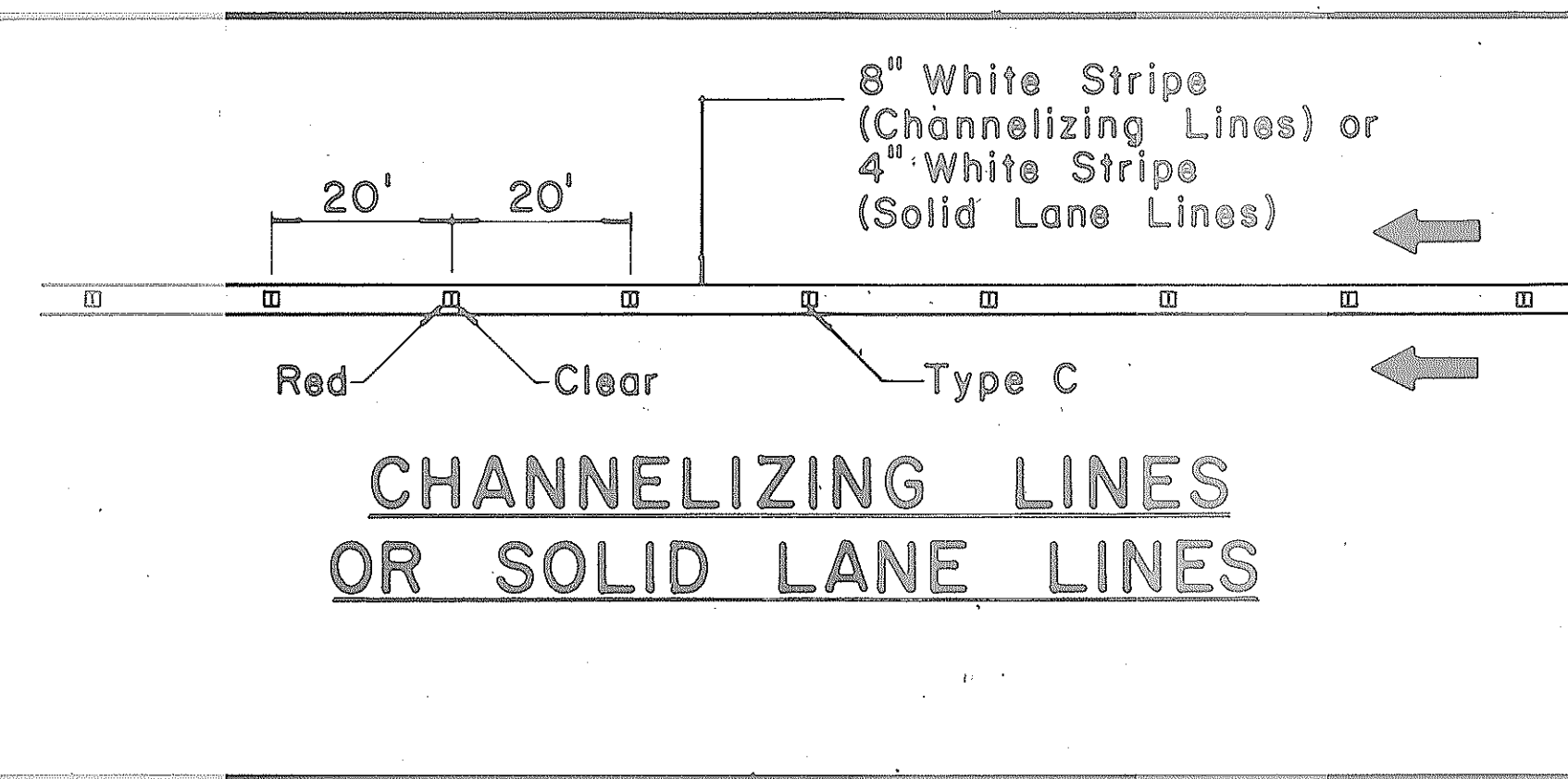
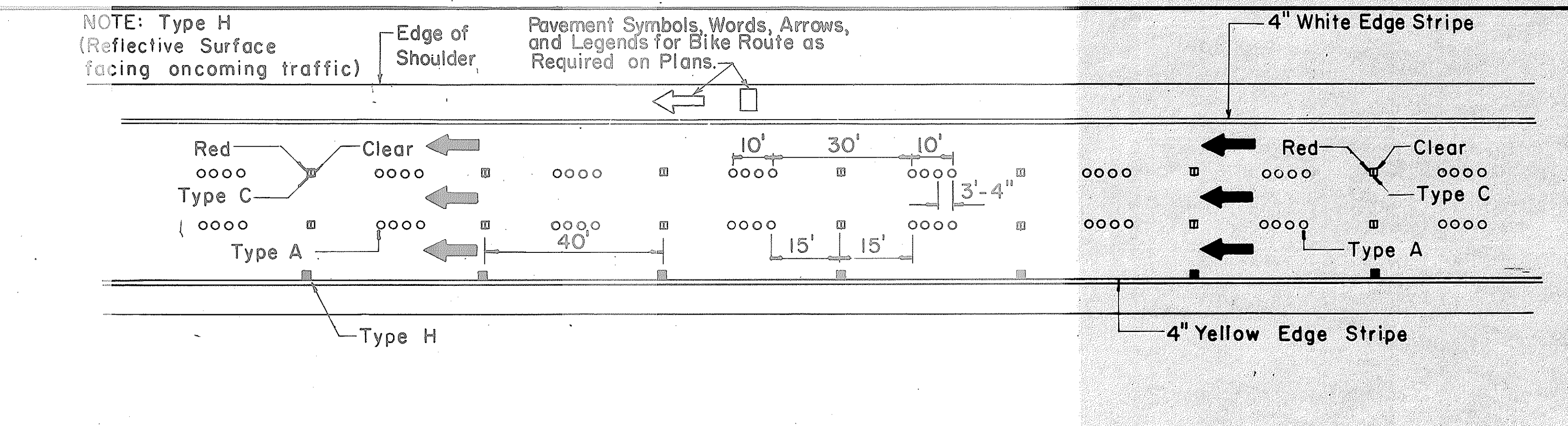
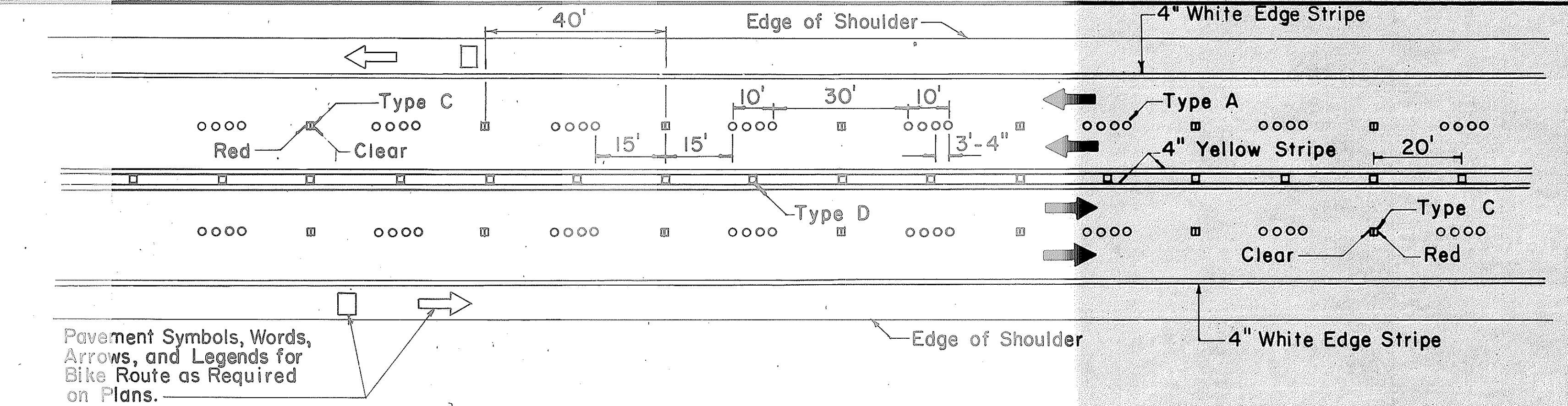
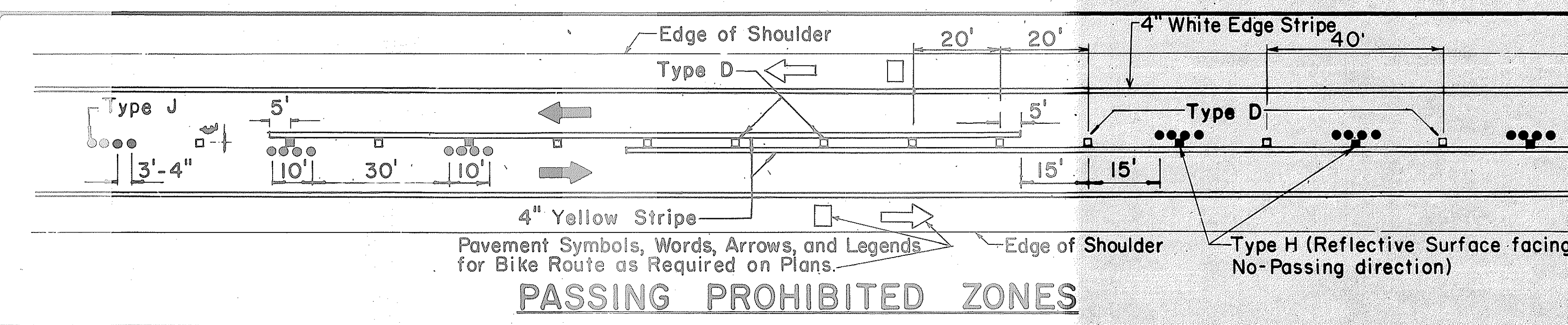
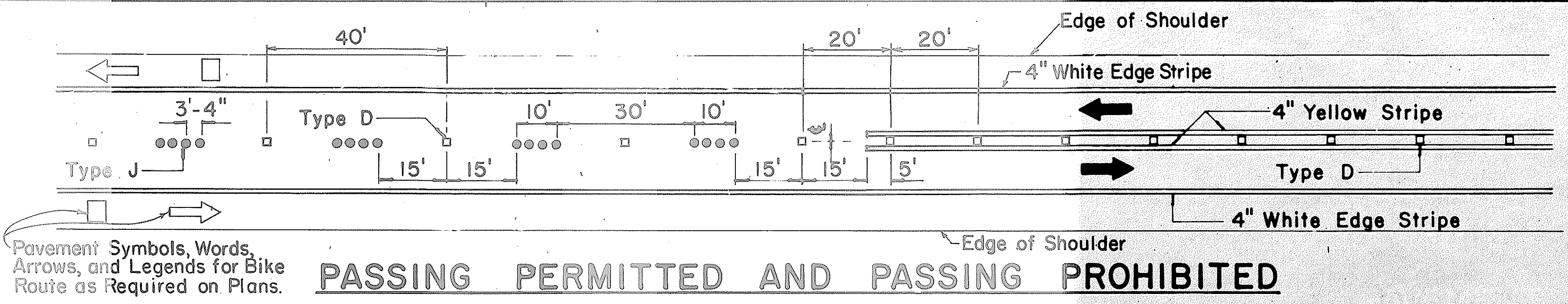
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

STANDARD DETAILS
MISCELLANEOUS
INTERSECTION SIGNS

Scale: 1 1/2" = 1'-0" Date: Aug., 1977
SHEET NO. OF SHEETS DT 112

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HE-092-1(20)	1985	28	33

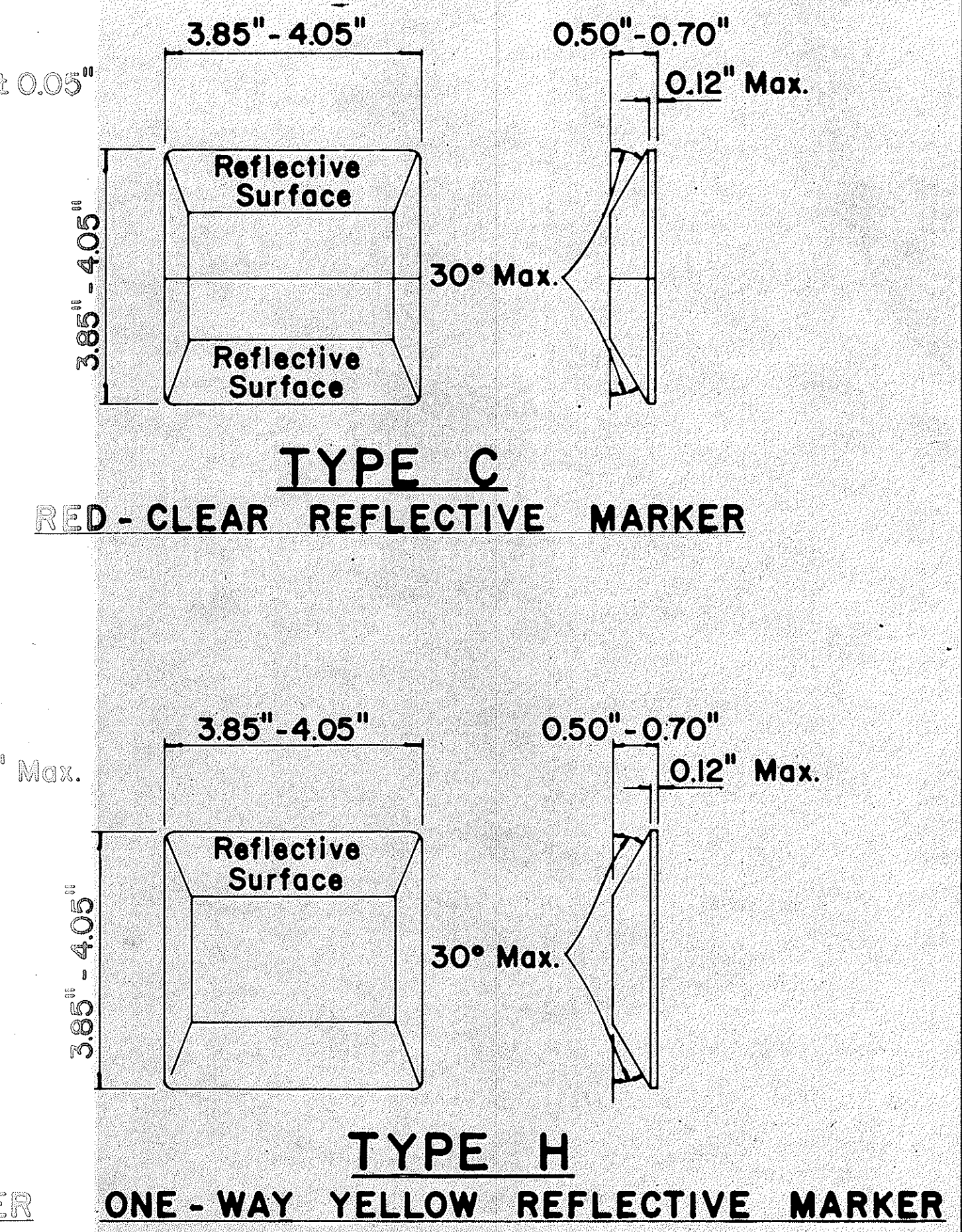
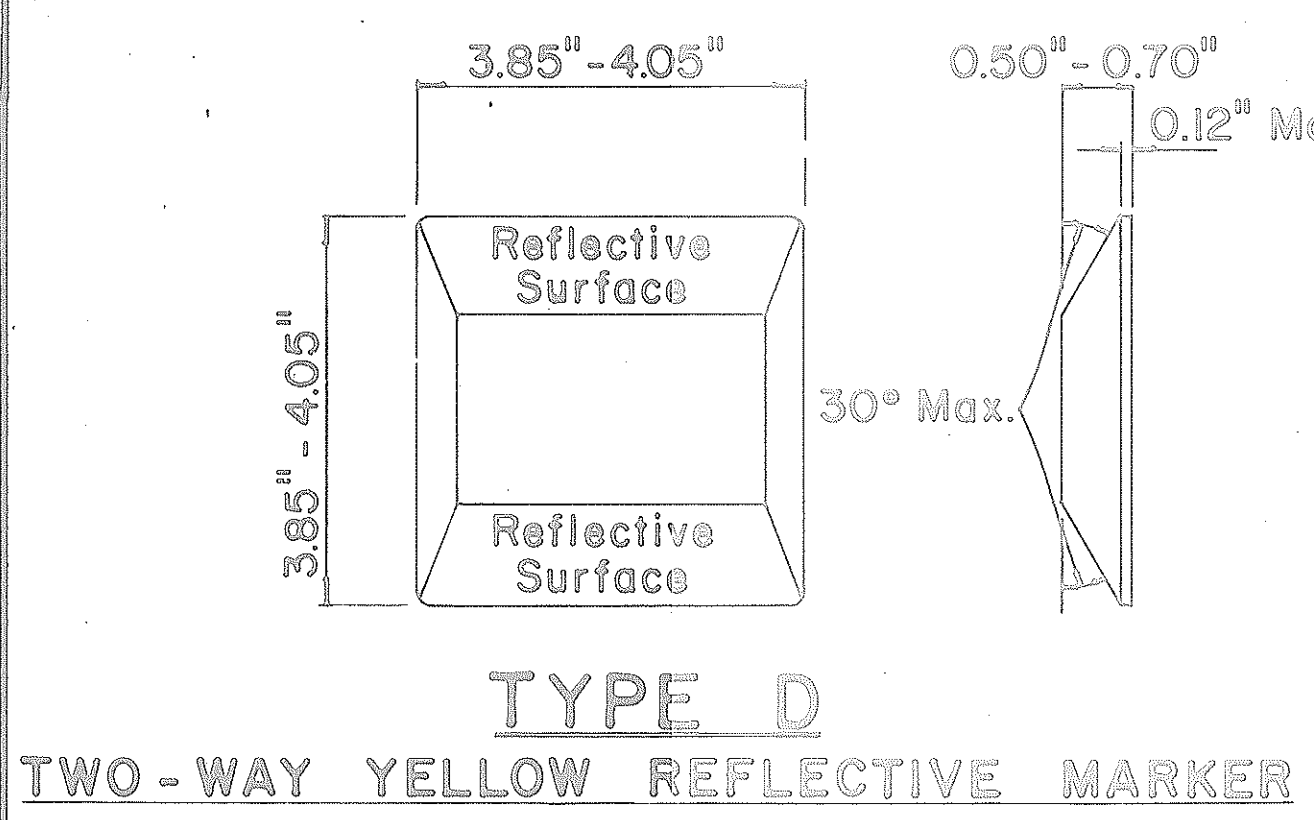
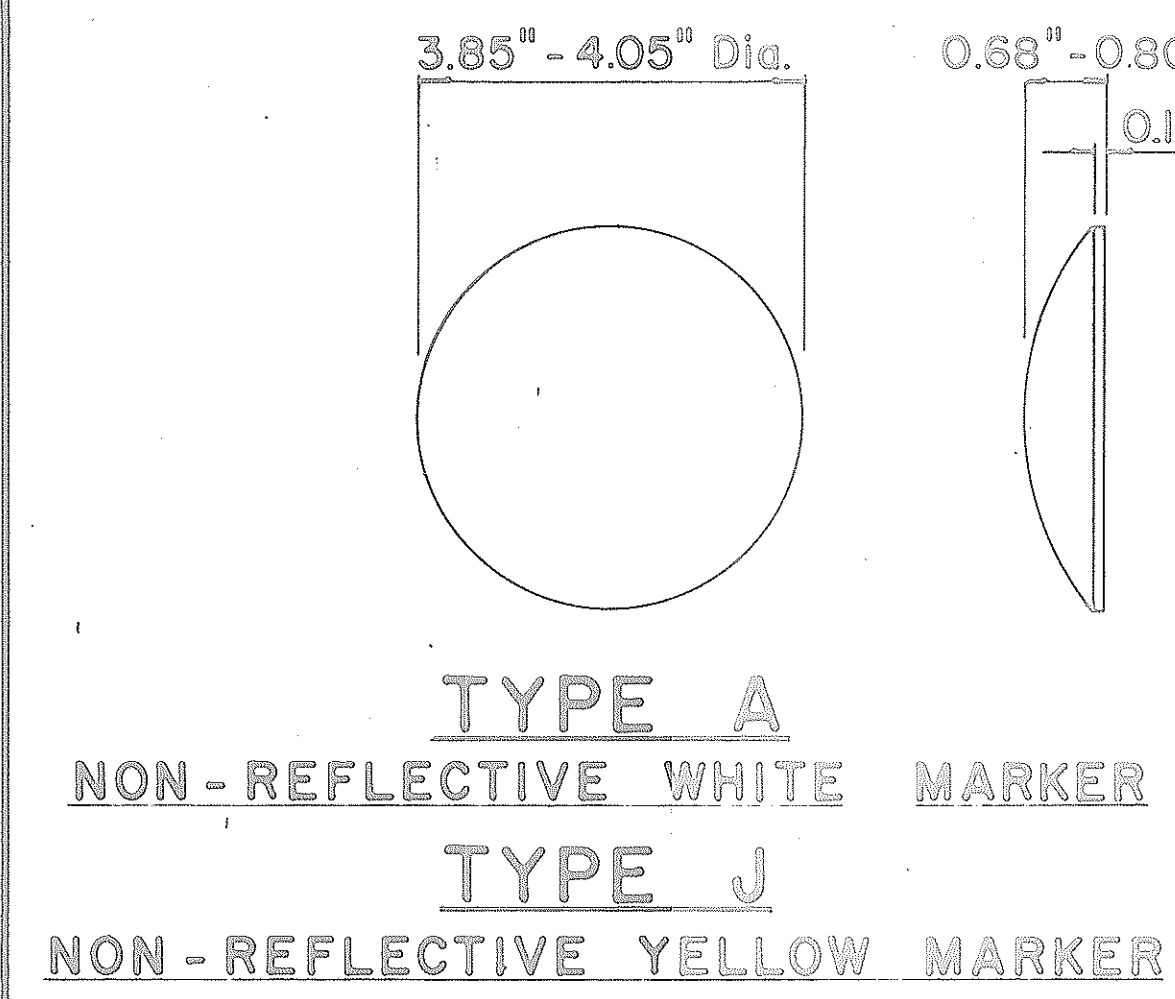


TWO - LANE

MULTI - LANE

DIVIDED HIGHWAY AND FREEWAY

MISCELLANEOUS



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:
Erick Tanaka 7/21/78
 TRAFFIC ENGINEER DATE

APPROVED:
Harold J. Zaleski 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.	H.T.	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. OF SHEETS DT 300

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-092-1(20)	1985	29	33

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. A. Tanaka 5/2/78
 TRAFFIC ENGINEER DATE

APPROVED:
Robert L. Zafra 5/3/78
 ASSISTANT CHIEF, ENGINEERING DATE

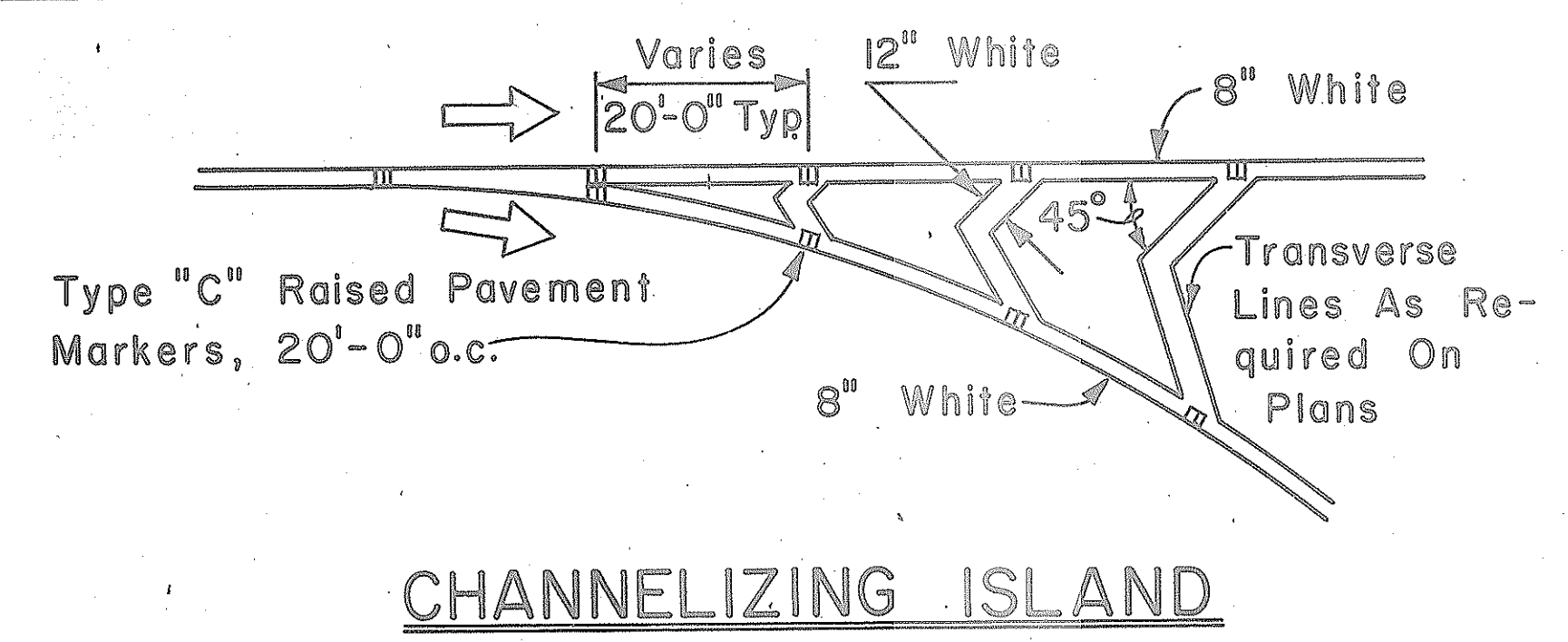
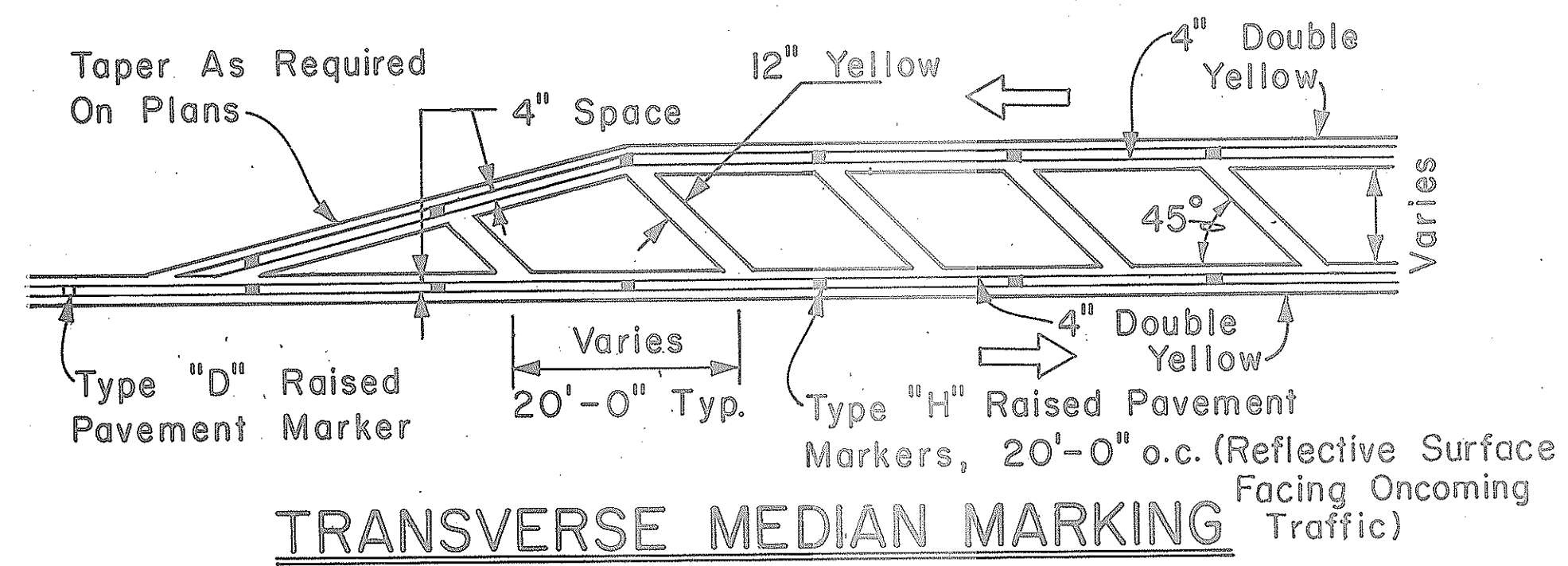
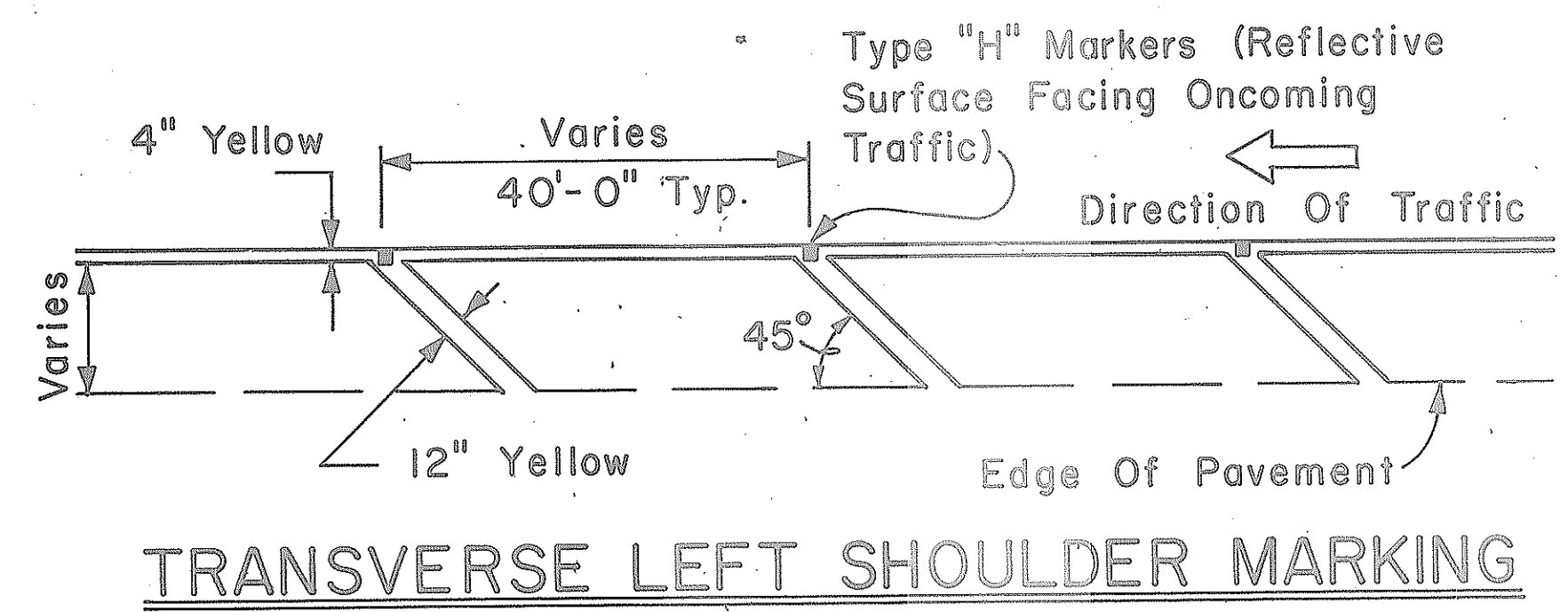
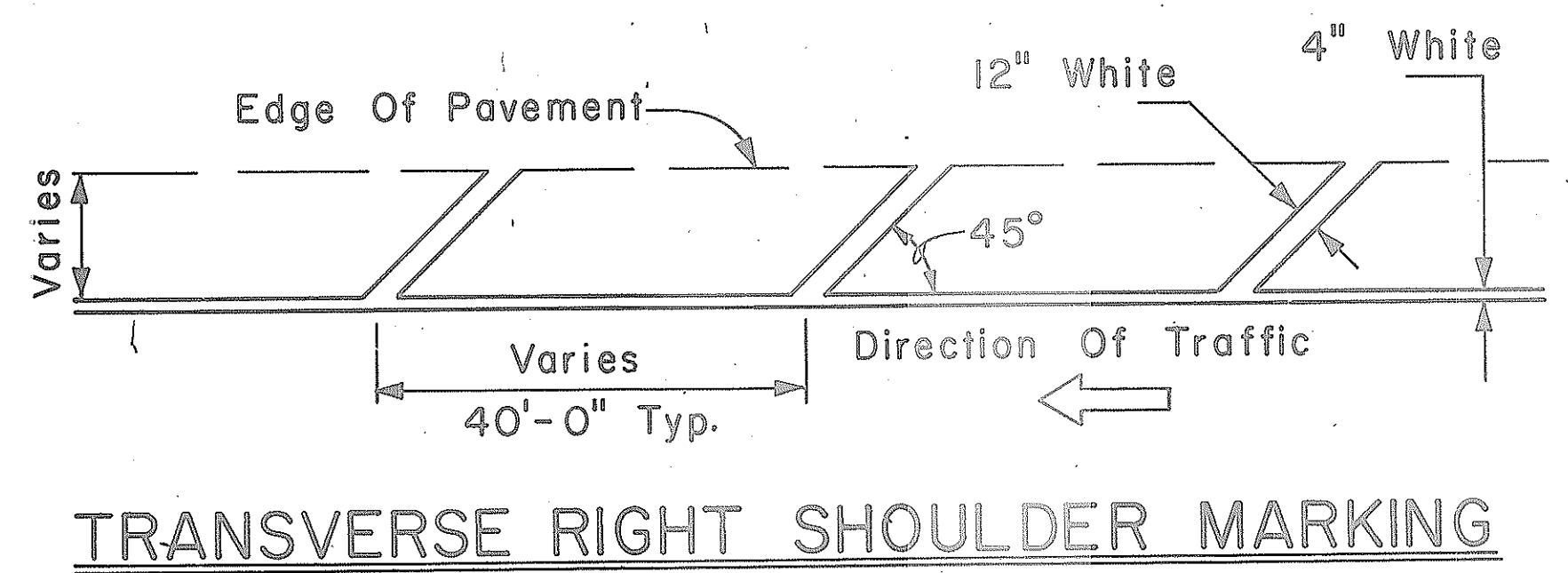
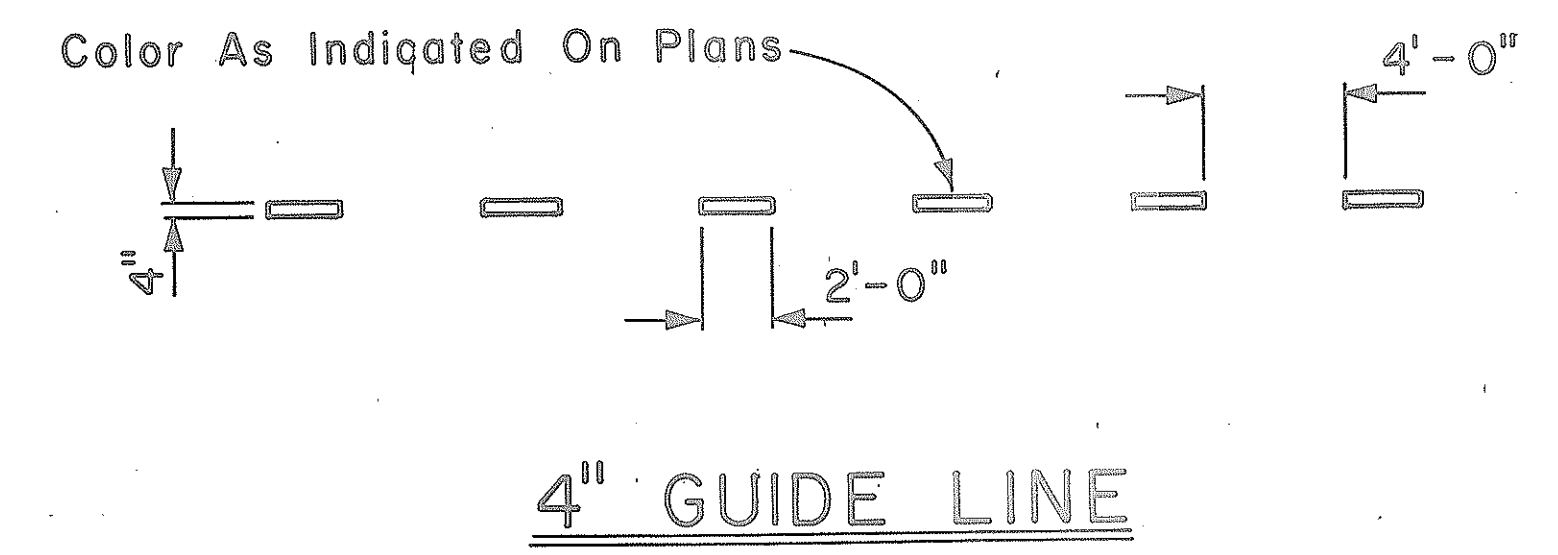
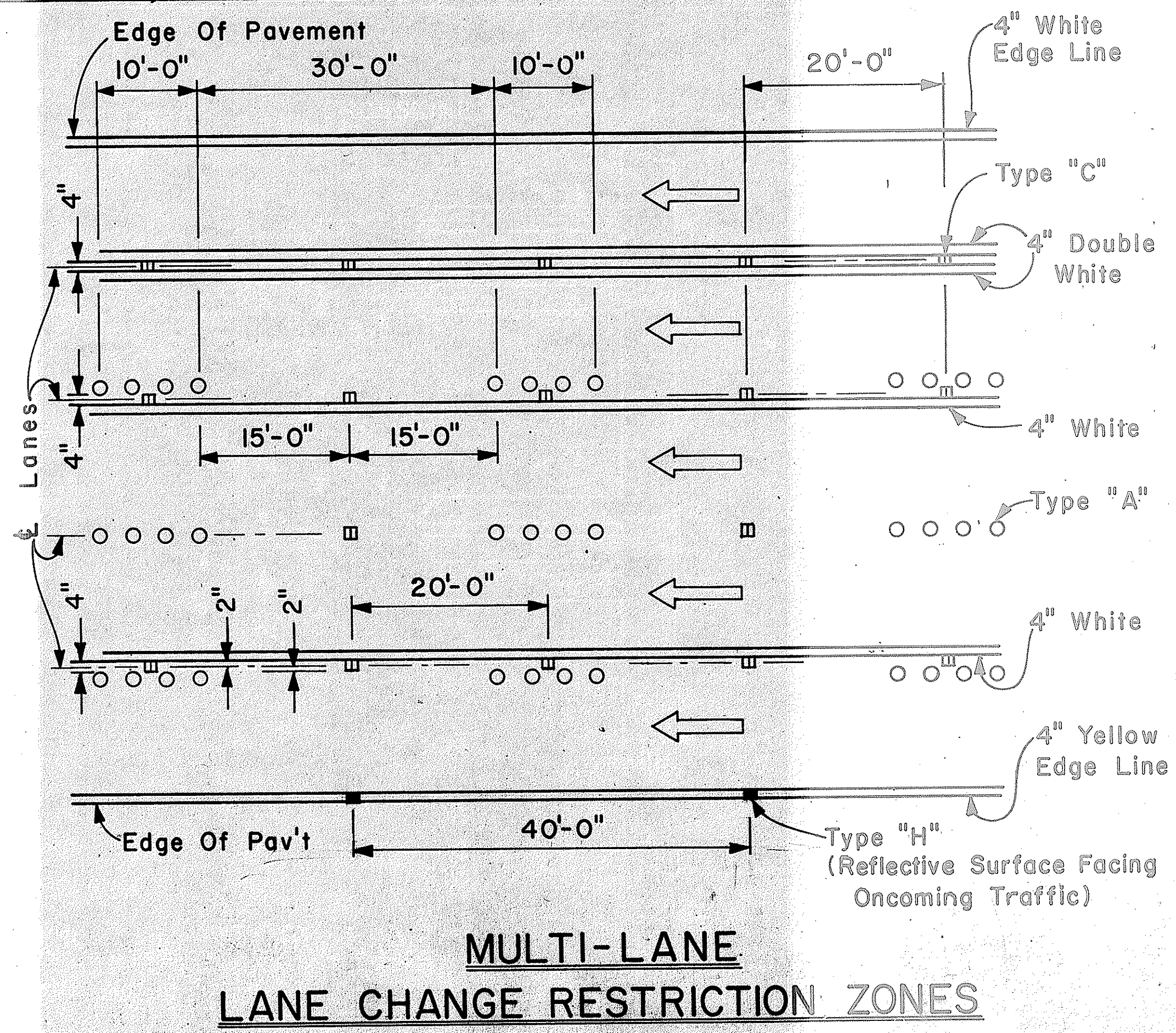
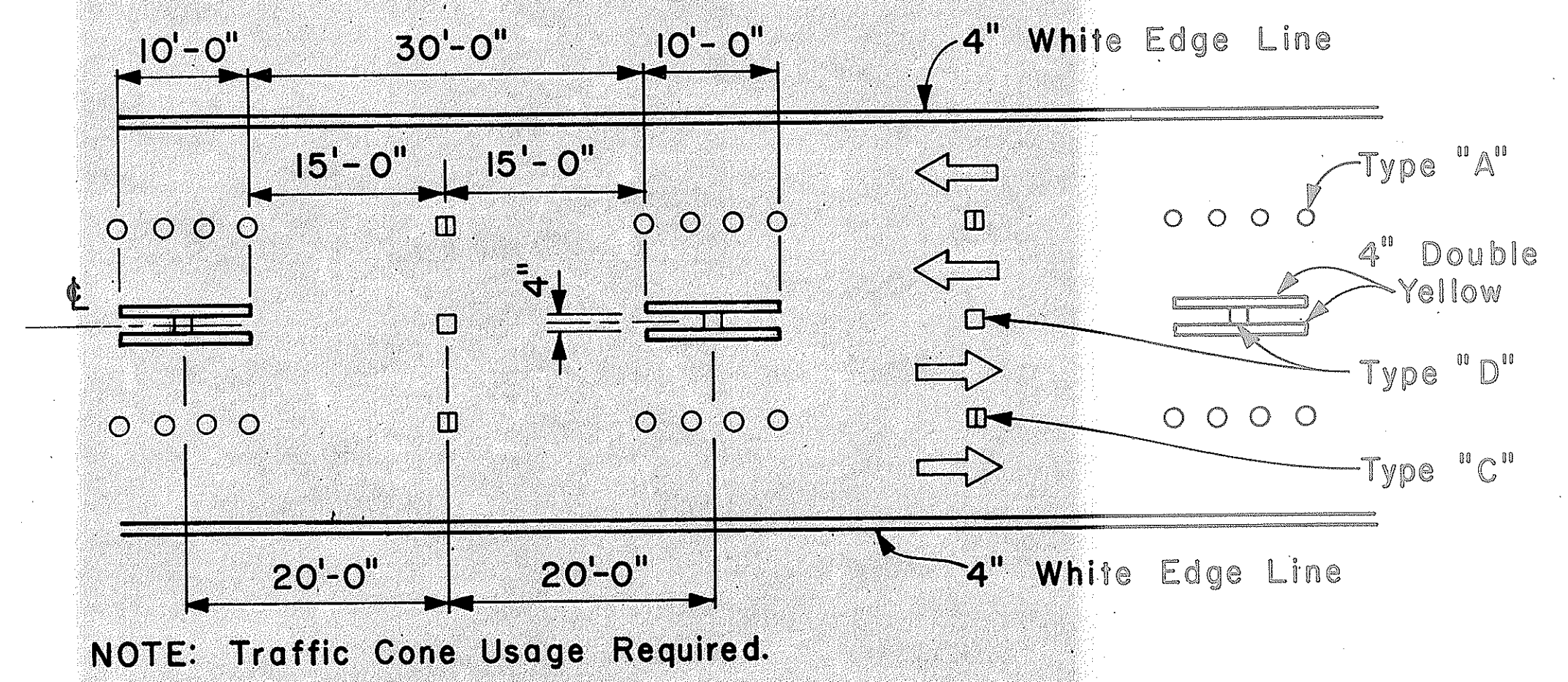
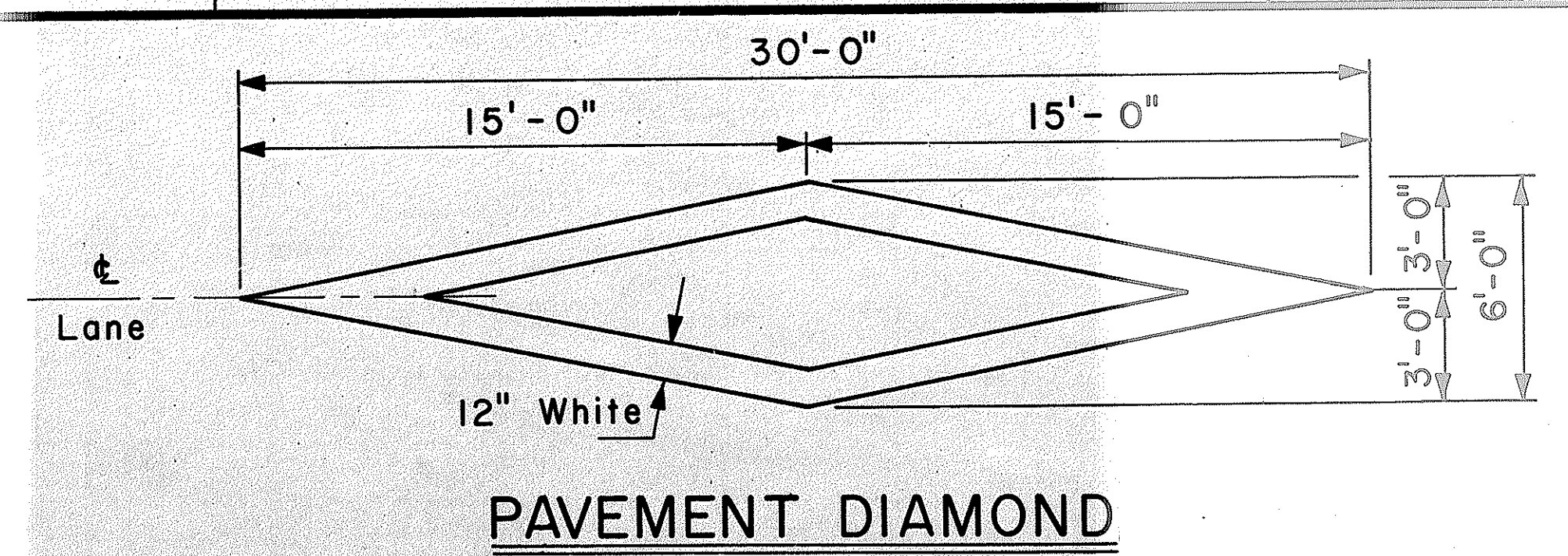
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION FACILITIES DIVISION

STANDARD DETAILS

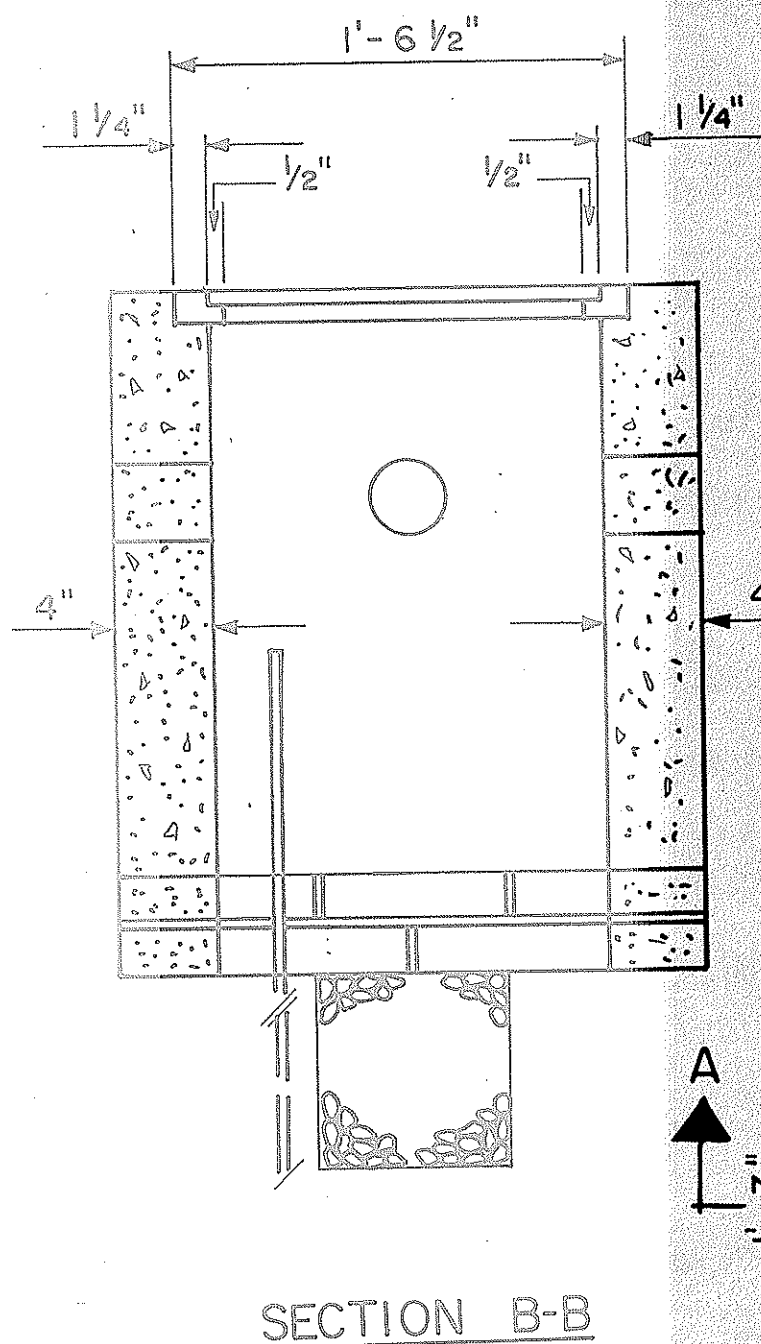
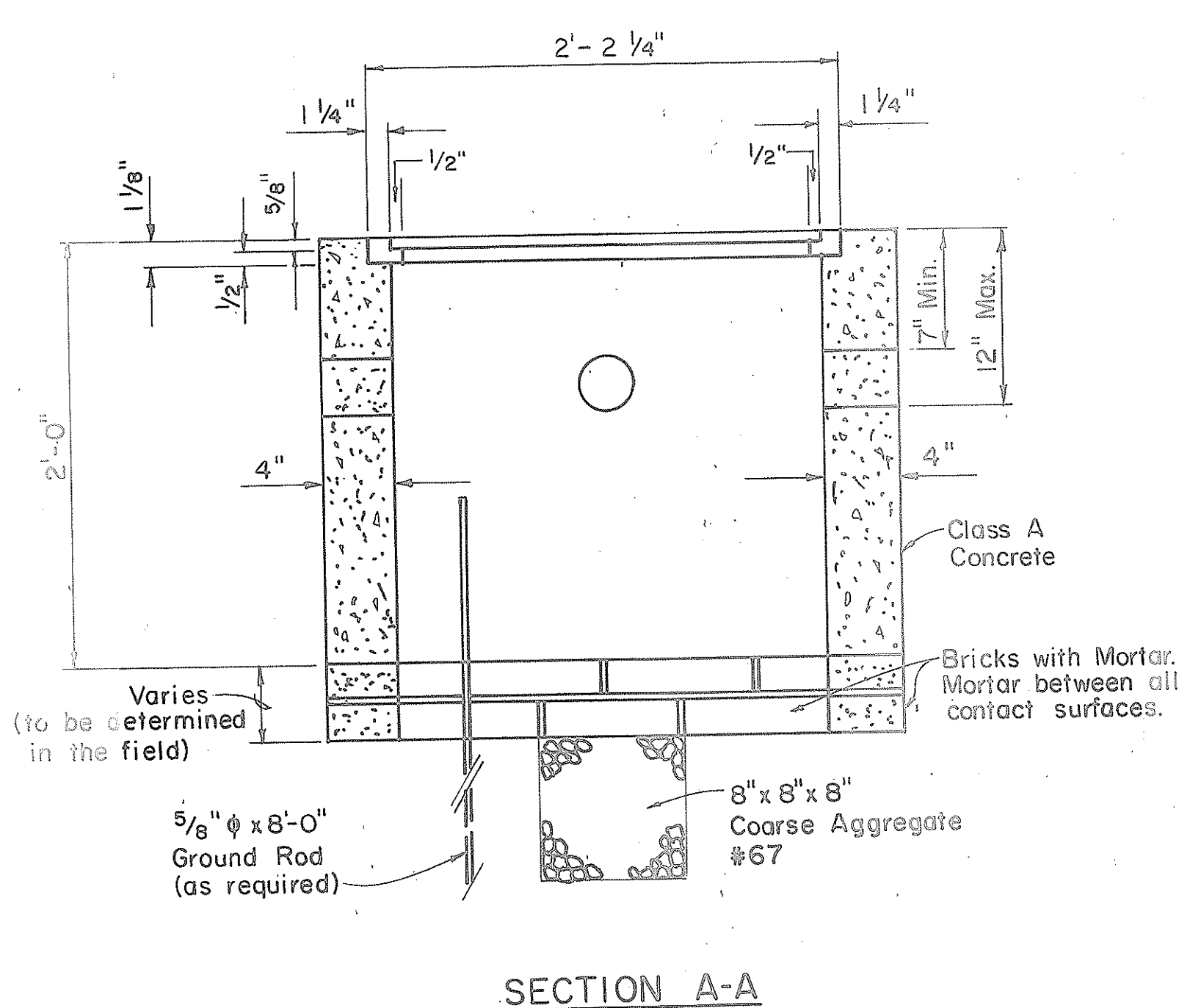
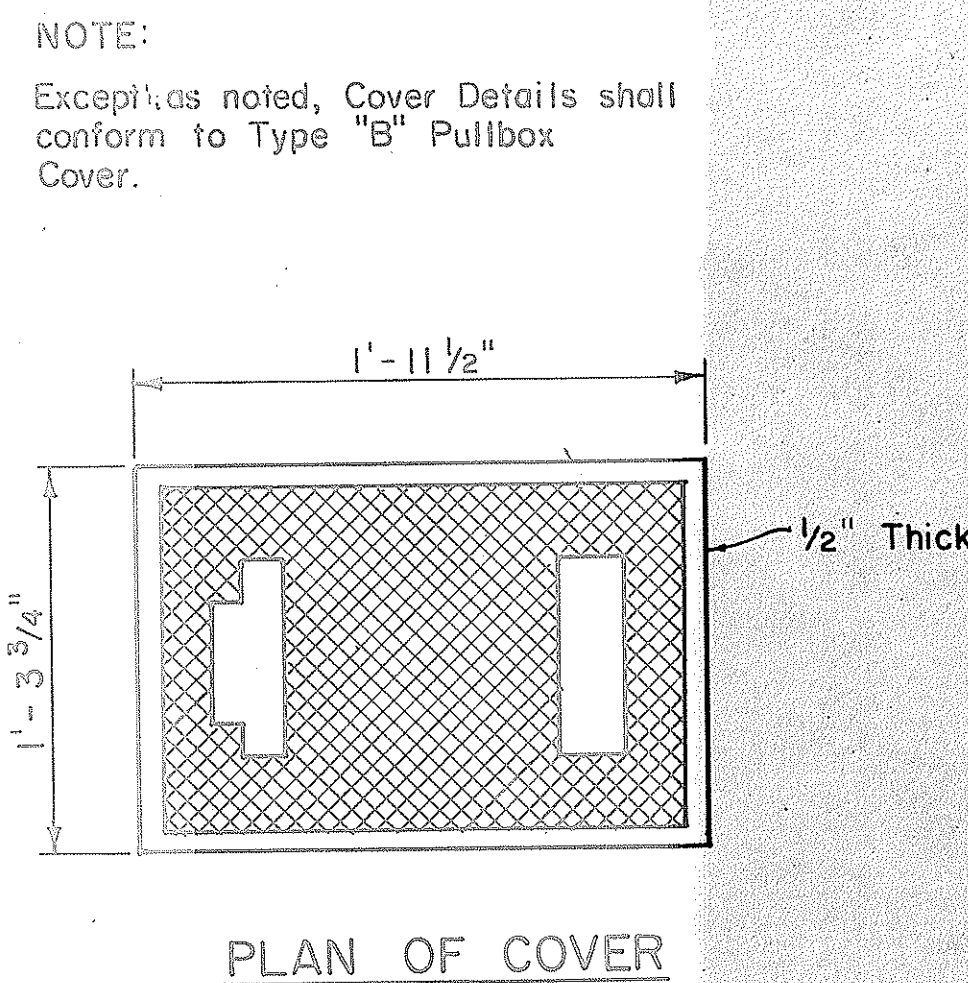
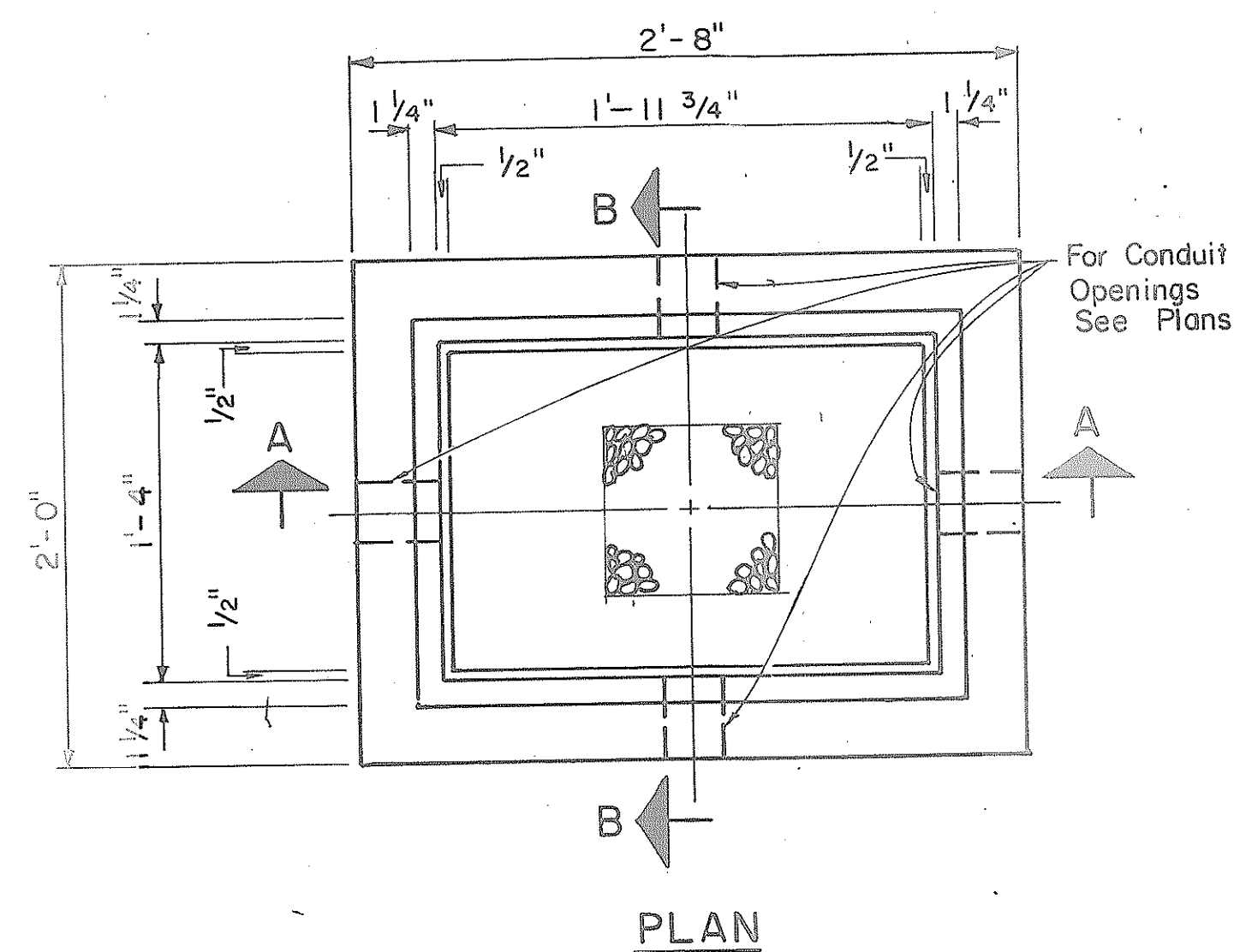
 MISCELLANEOUS
 PAVEMENT MARKINGS

Scale: Not to Scale Date: April, 1978
 SHEET NO. OF SHEETS DT 302

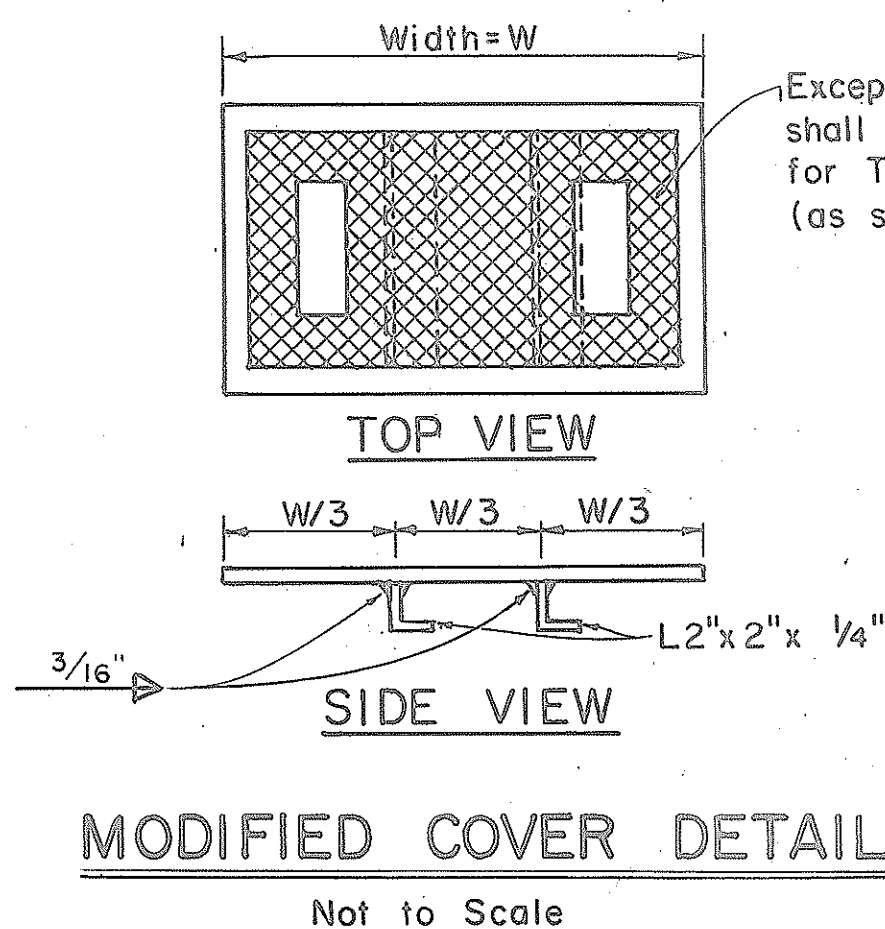


DATE	
ORIGINAL	
PLAN	
DESIGNED BY	
NOTED BY	
CHECKED BY	
NO.	

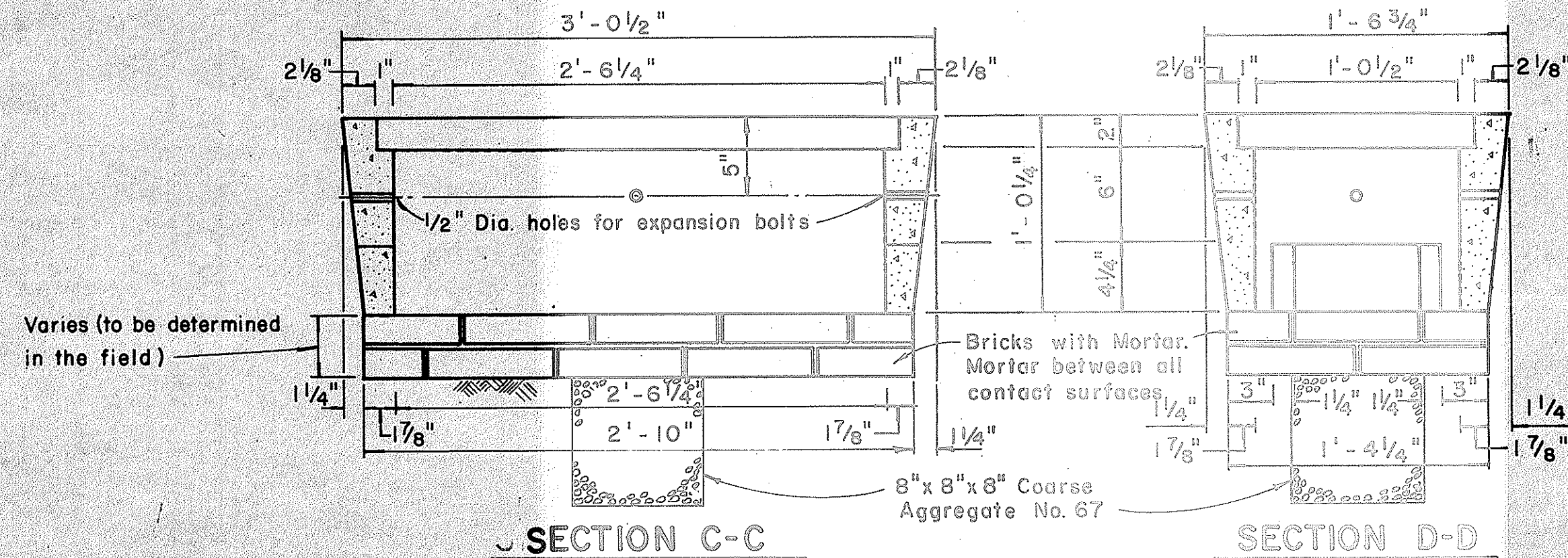
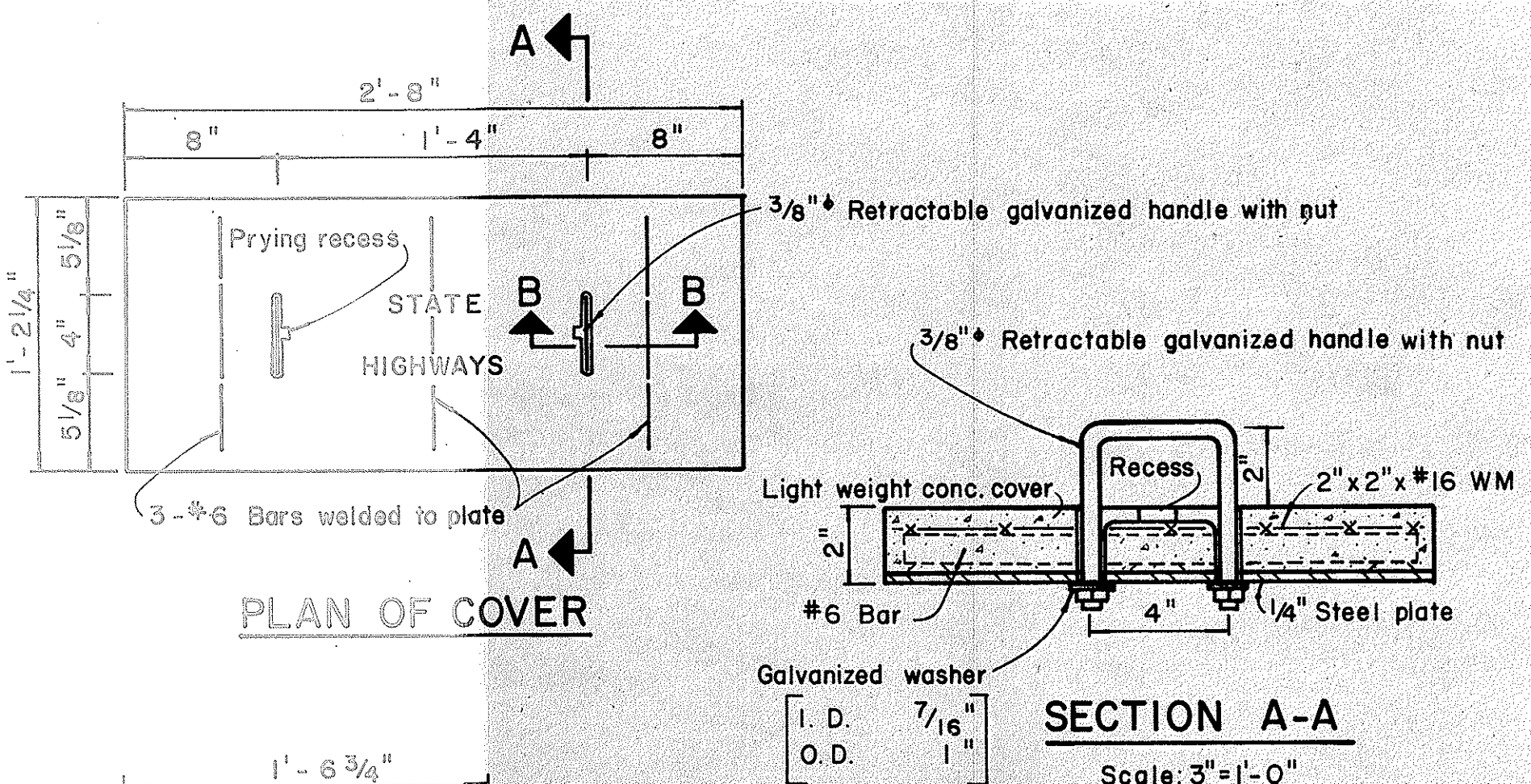
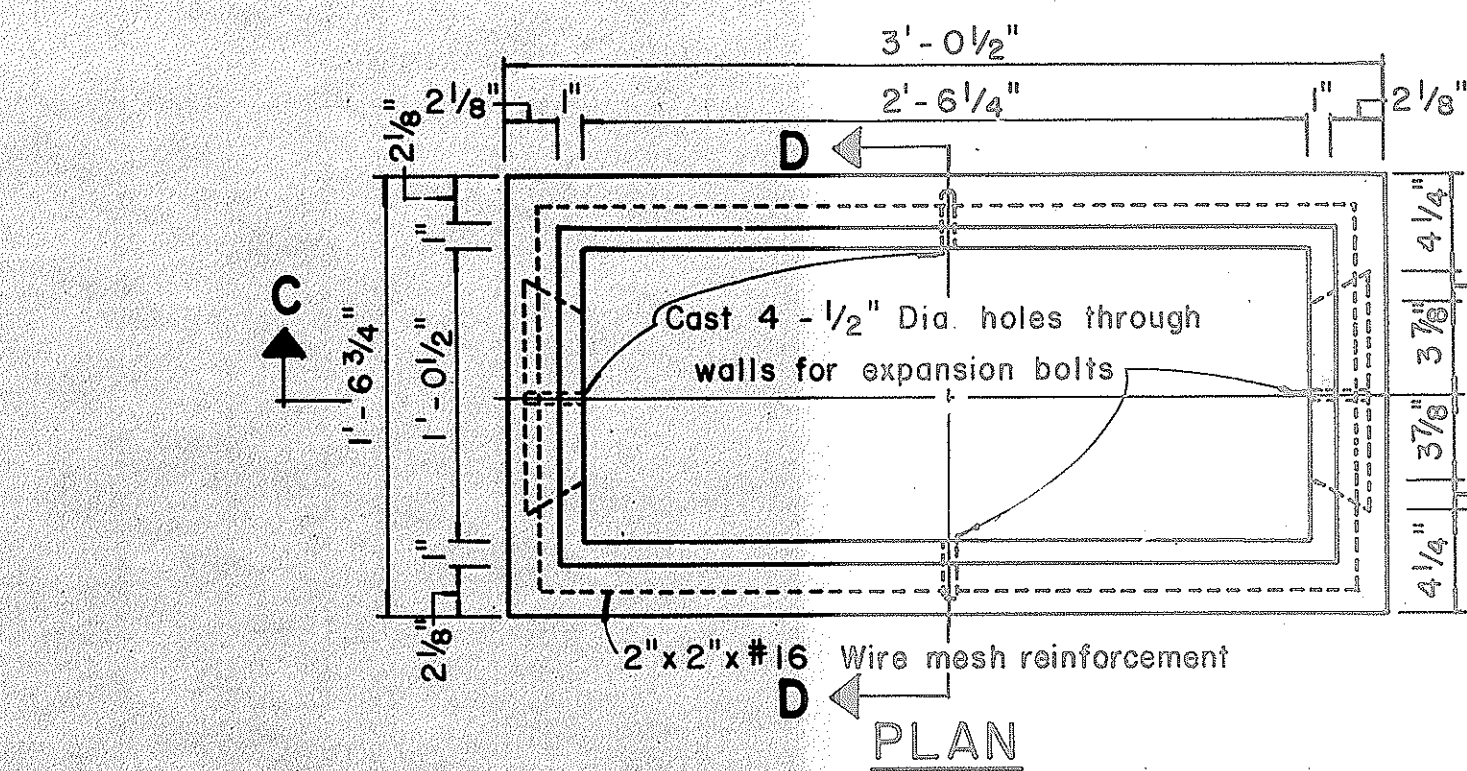
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-002-1(20)	1985	31	33



TYPE "A" PULLBOX
Scale: 1 1/2" = 1'-0"

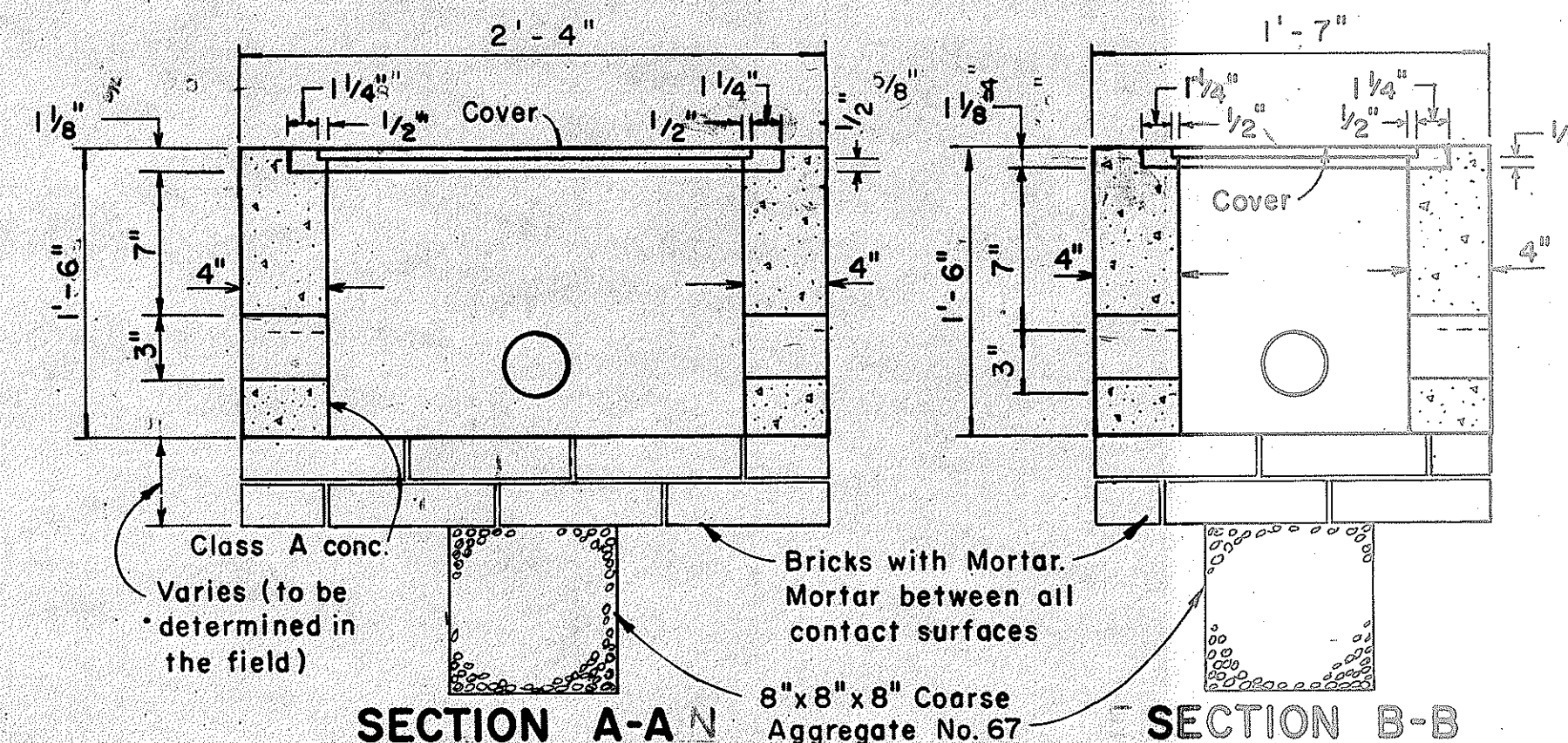
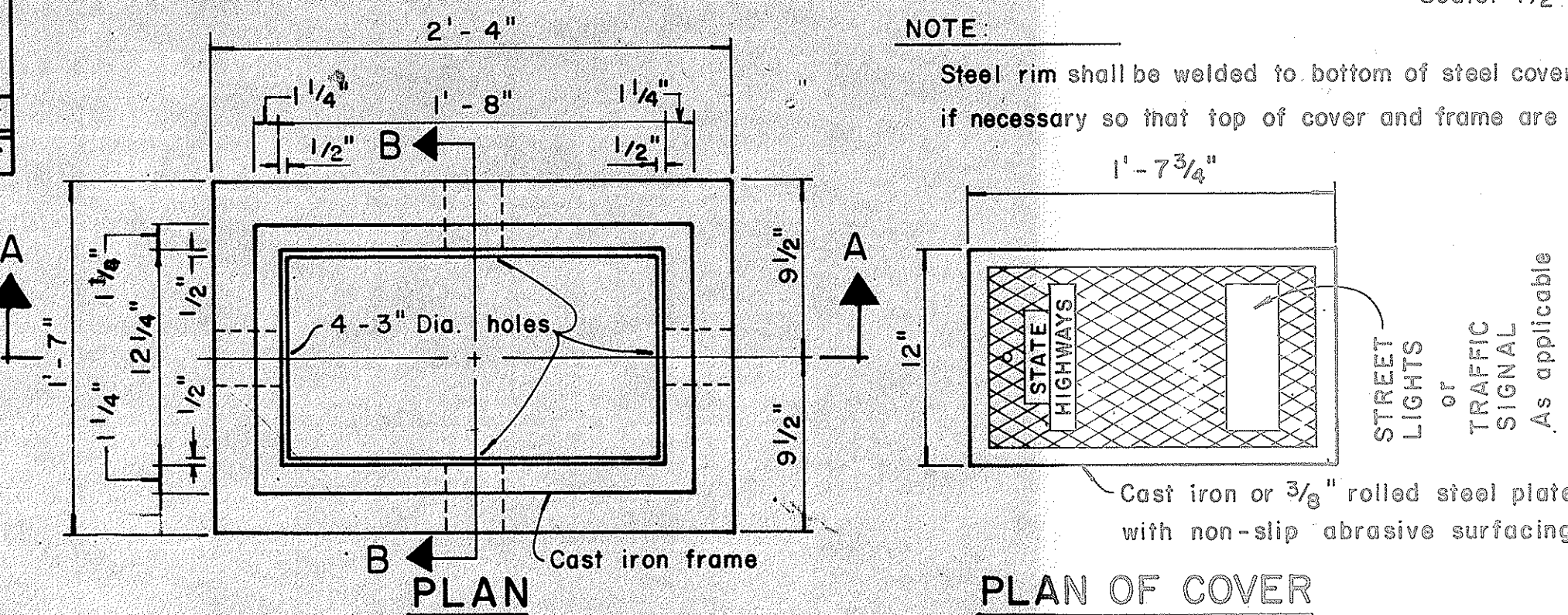


NOTE:
Hot dip galvanize after fabrication.
Modified cover shall be furnished when called for on plans.

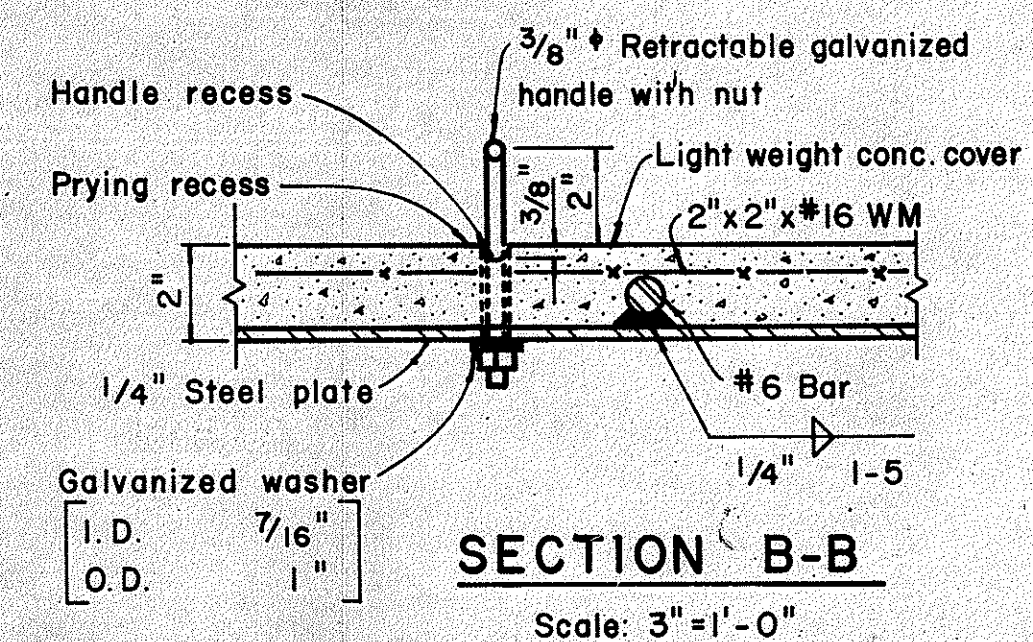


TYPE "C" PULLBOX
Scale: 1 1/2" = 1'-0"

NOTE:
Steel rim shall be welded to bottom of steel cover if necessary so that top of cover and frame are flush.



TYPE "B" PULLBOX
Scale: 1 1/2" = 1'-0"



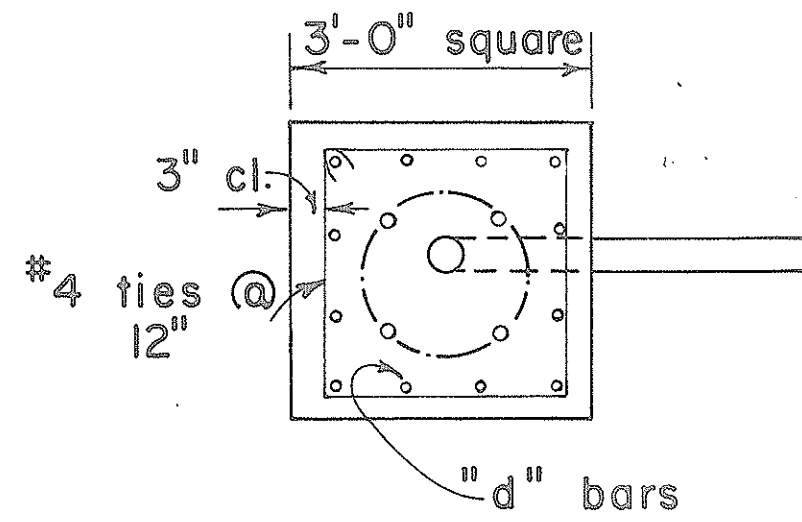
APPROVAL RECOMMENDED:
TRAFFIC ENGINEER
12/23/62
DATE

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

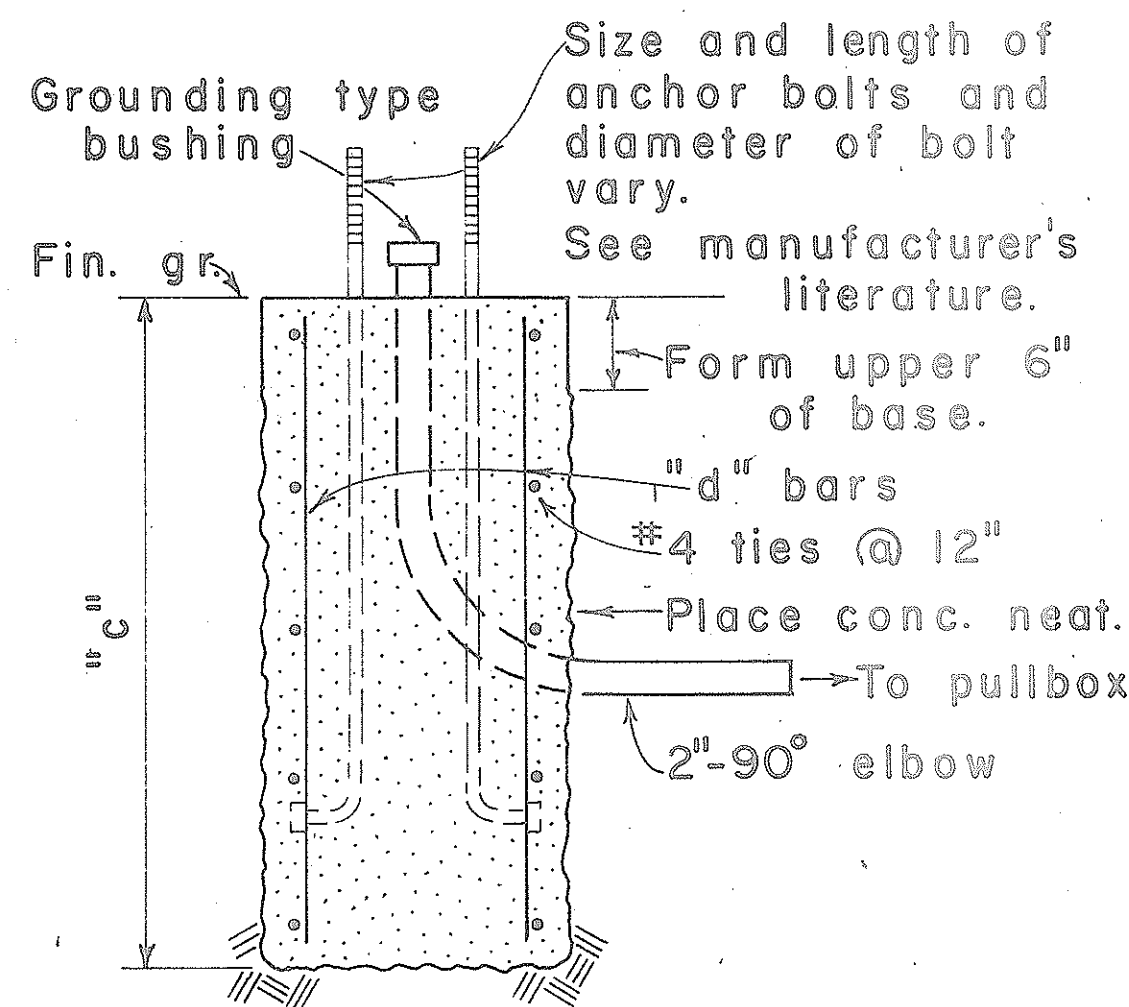
NO.	REVISION	APPROVED BY	DATE
1	Revised Type B & C Pullbox details	H.T.	3-5-70
2	Revised Type "A" Pullbox & Added Modified Cover.	H.T.	1-31-80
3	Revised Type B & C Pullbox details.	H.T.	2-1-83

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
PULLBOXES
Scale as noted Date

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HE-5-092-1(20)	1985	32	33



PLAN - SECTION

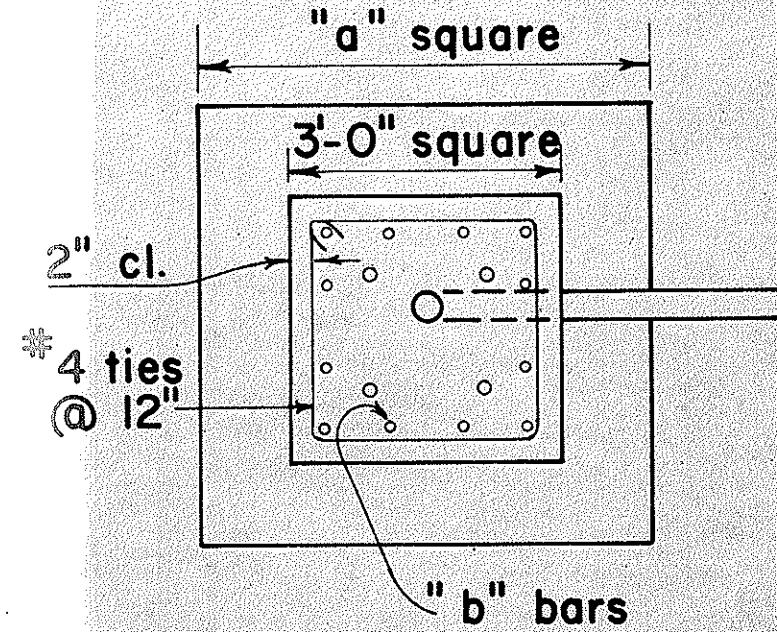


NOTE:
Concrete shall be Class B.

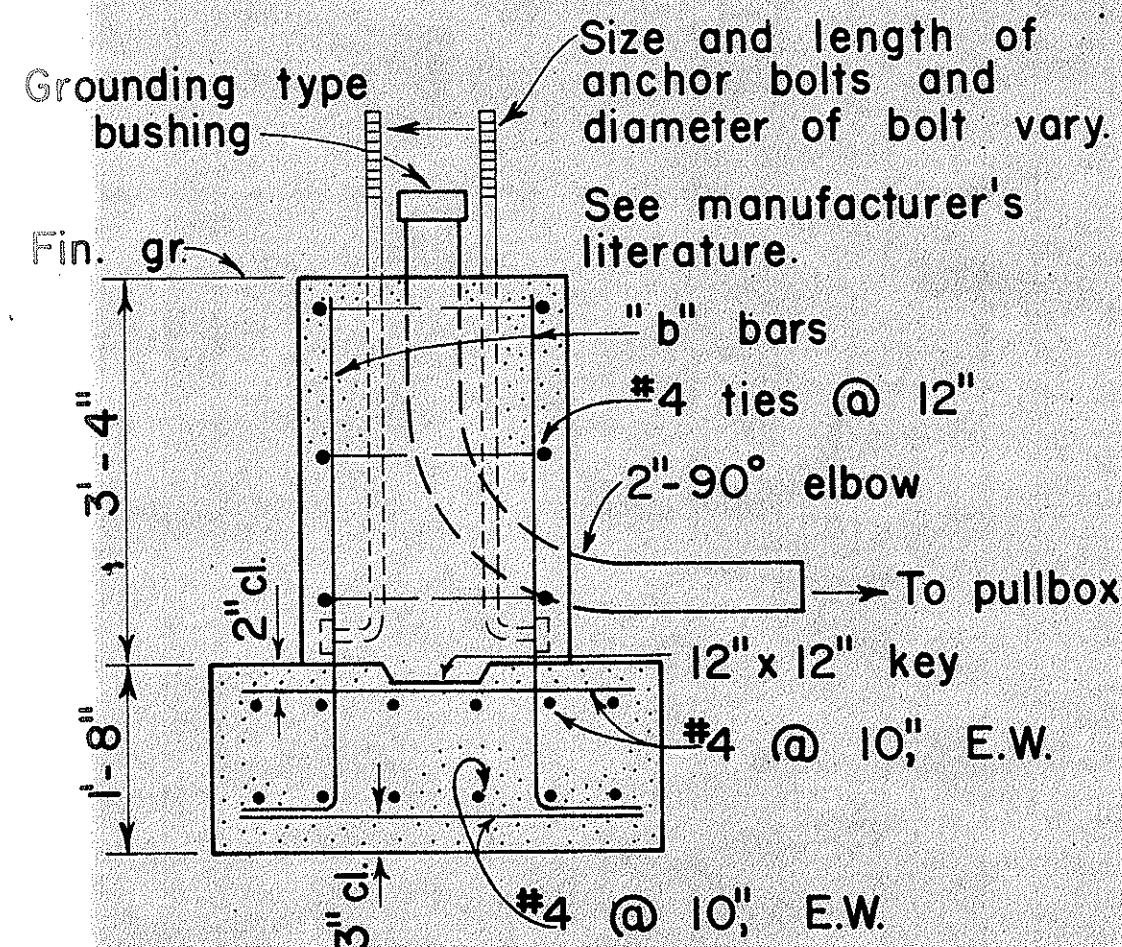
SECTION

MAST ARM LENGTH	"c"	"d" BARS
16' - 18'	5' - 0"	12 - #6
20'	5' - 6"	12 - #6
25'	6' - 0"	12 - #6
30'	6' - 6"	12 - #6
35'	7' - 0"	12 - #8
40'	8' - 0"	12 - #8

TYPE II



PLAN - SECTION



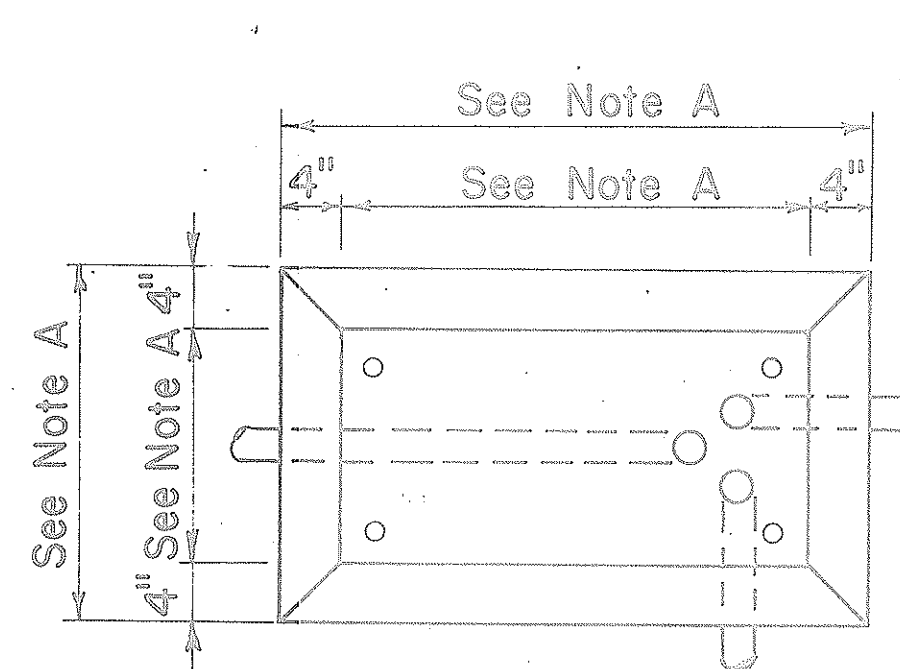
NOTE:
Concrete shall be Class B.

SECTION

MAST ARM LENGTH	"a"	"b" BARS
16' - 18'	5' - 0"	12 - #6
20'	5' - 6"	12 - #6
25'	6' - 0"	12 - #6
30'	6' - 6"	12 - #8
35'	6' - 6"	12 - #8
40'	7' - 0"	12 - #8

TYPE IIA

FOOTING FOR MAST ARM STANDARD

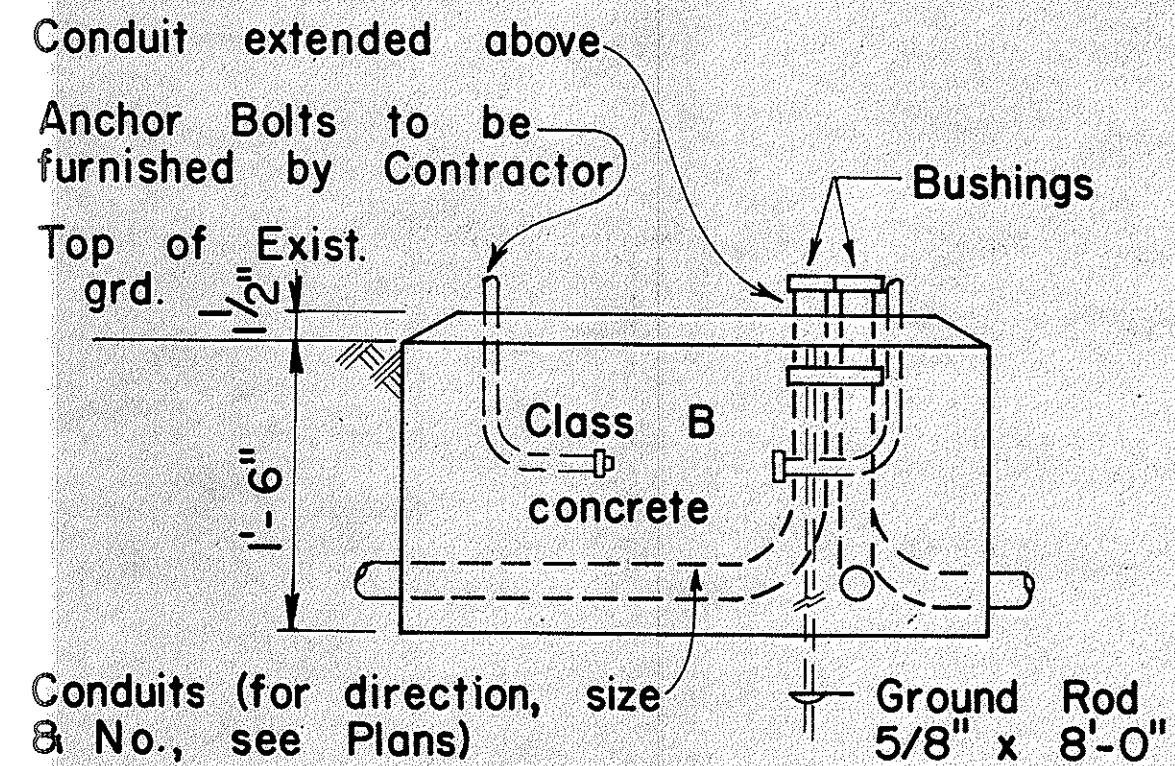


PLAN

CONCRETE BASE FOR CONTROLLER CABINET

NOTES:

- Dimensions to be determined by the size of the Controller Cabinet to be furnished under this Contract.
- Details of Conduits, Anchor Bolts, etc., are approximate only. Exact details shall be secured by the Contractor from Manufacturer.



ELEVATION

APPROVAL RECOMMENDED:

Erich Tanaka 3/4/76
TRAFFIC ENGINEER DATE

APPROVED:

Robert Z. Zaluski 2-5-76
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION LAND TRANSPORTATION FACILITIES DIVISION
TRAFFIC SIGNAL SYSTEM MISCELLANEOUS DETAILS
Not to Scale

SHEET NO. OF SHEETS DT404