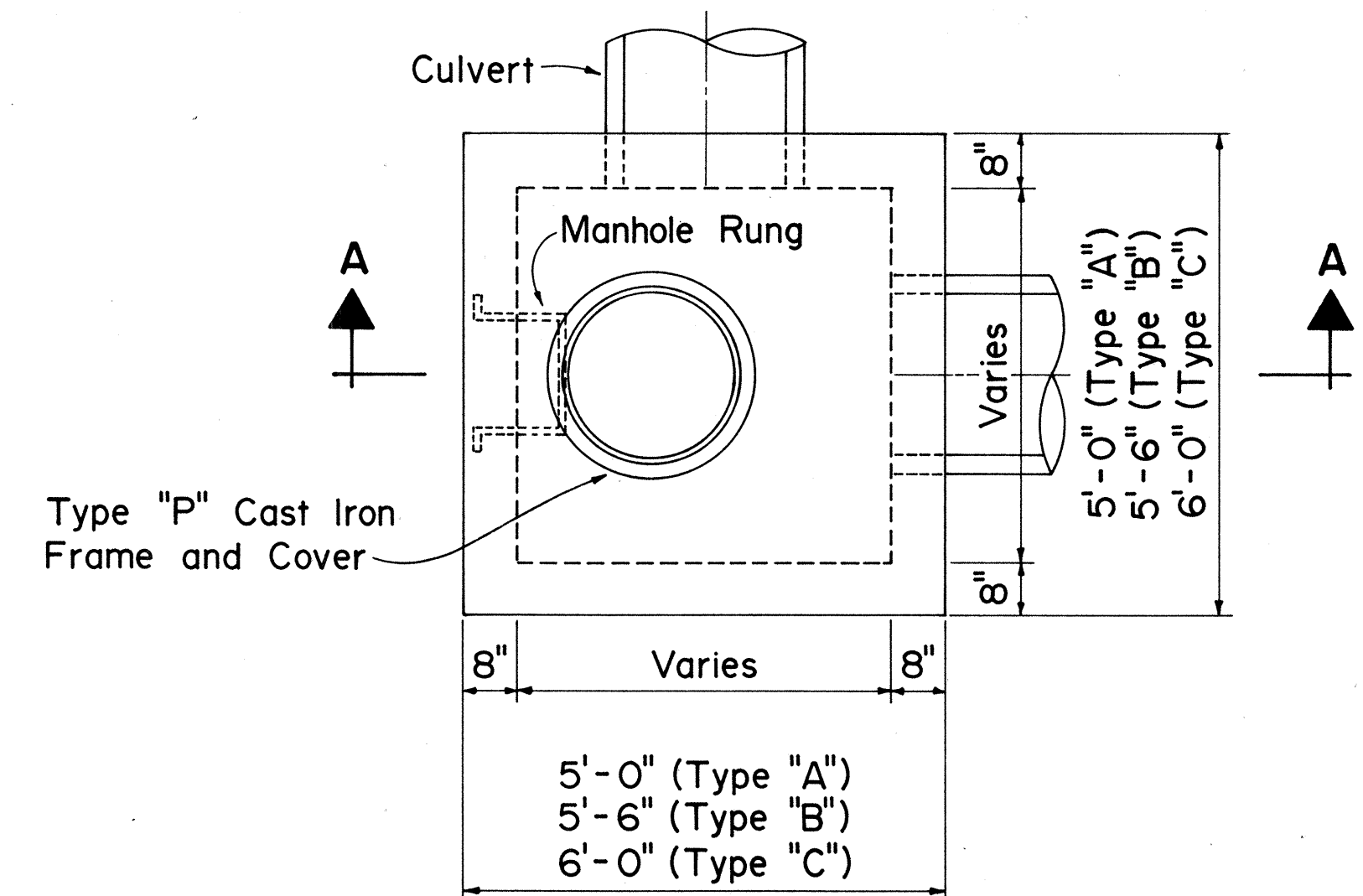
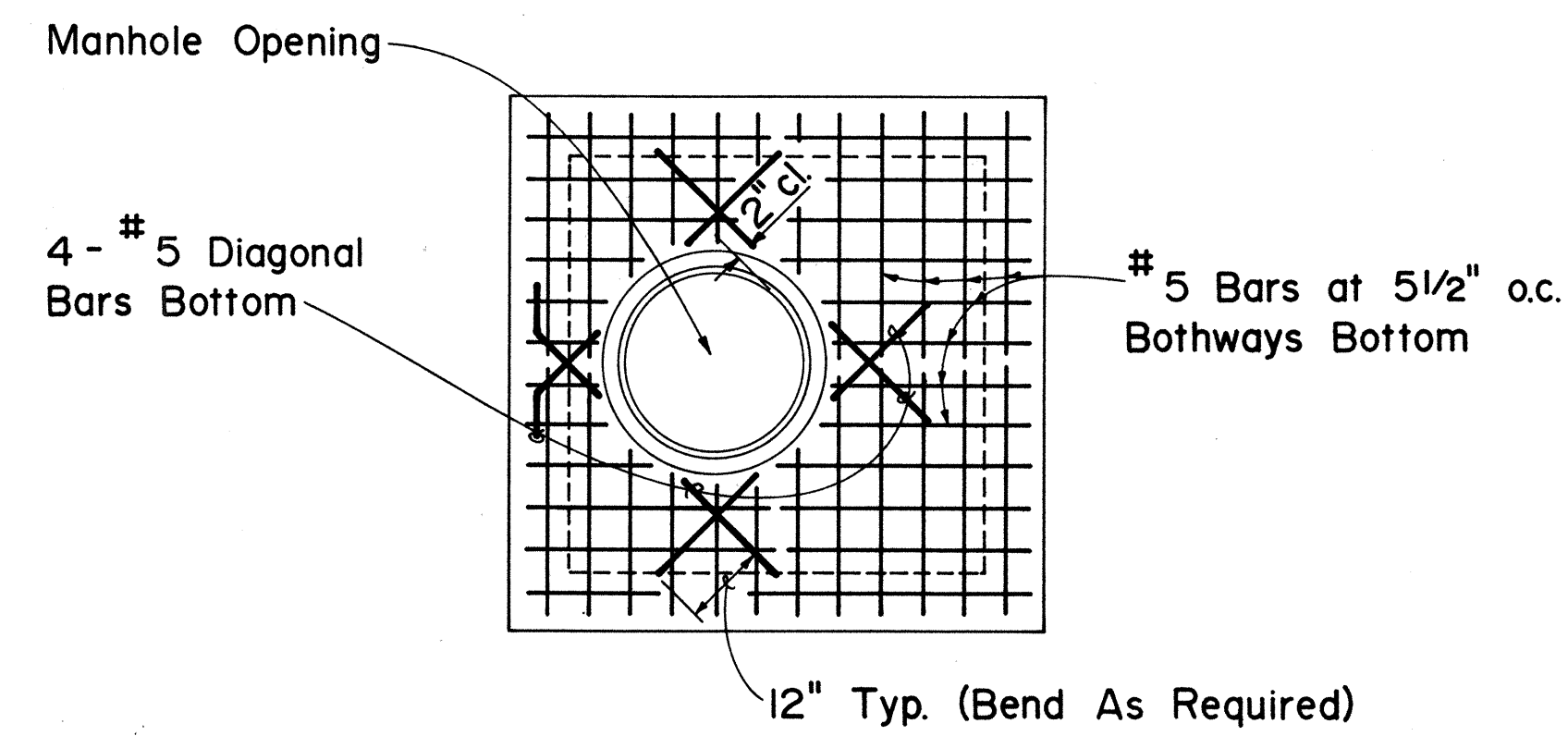


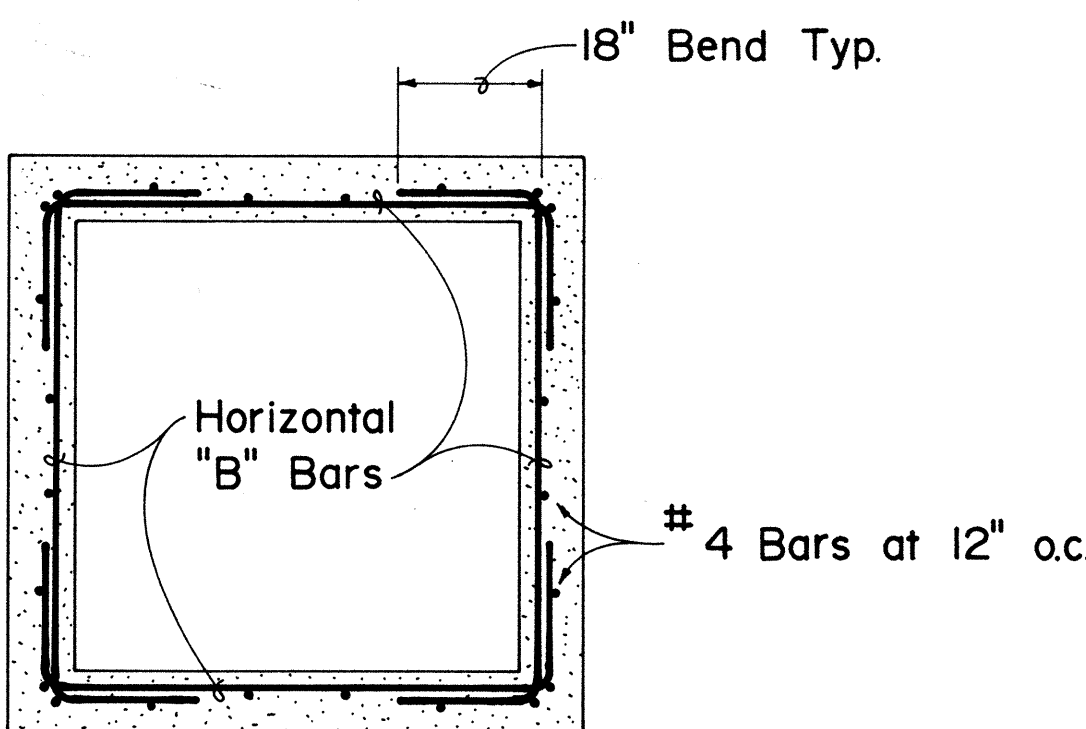
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-3400(1)	1984	4	8



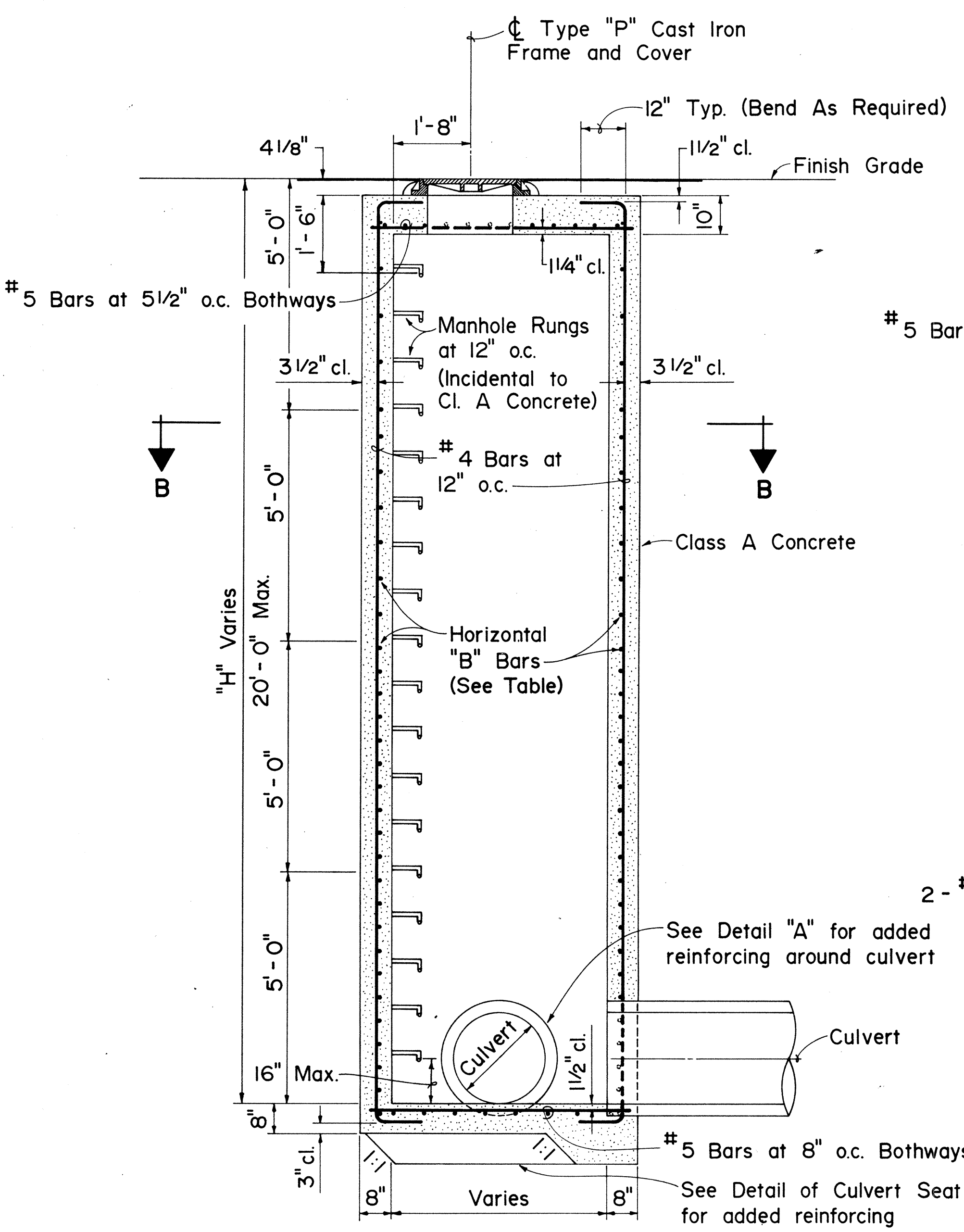
PLAN



PLAN
(Top Slab Reinforcing)



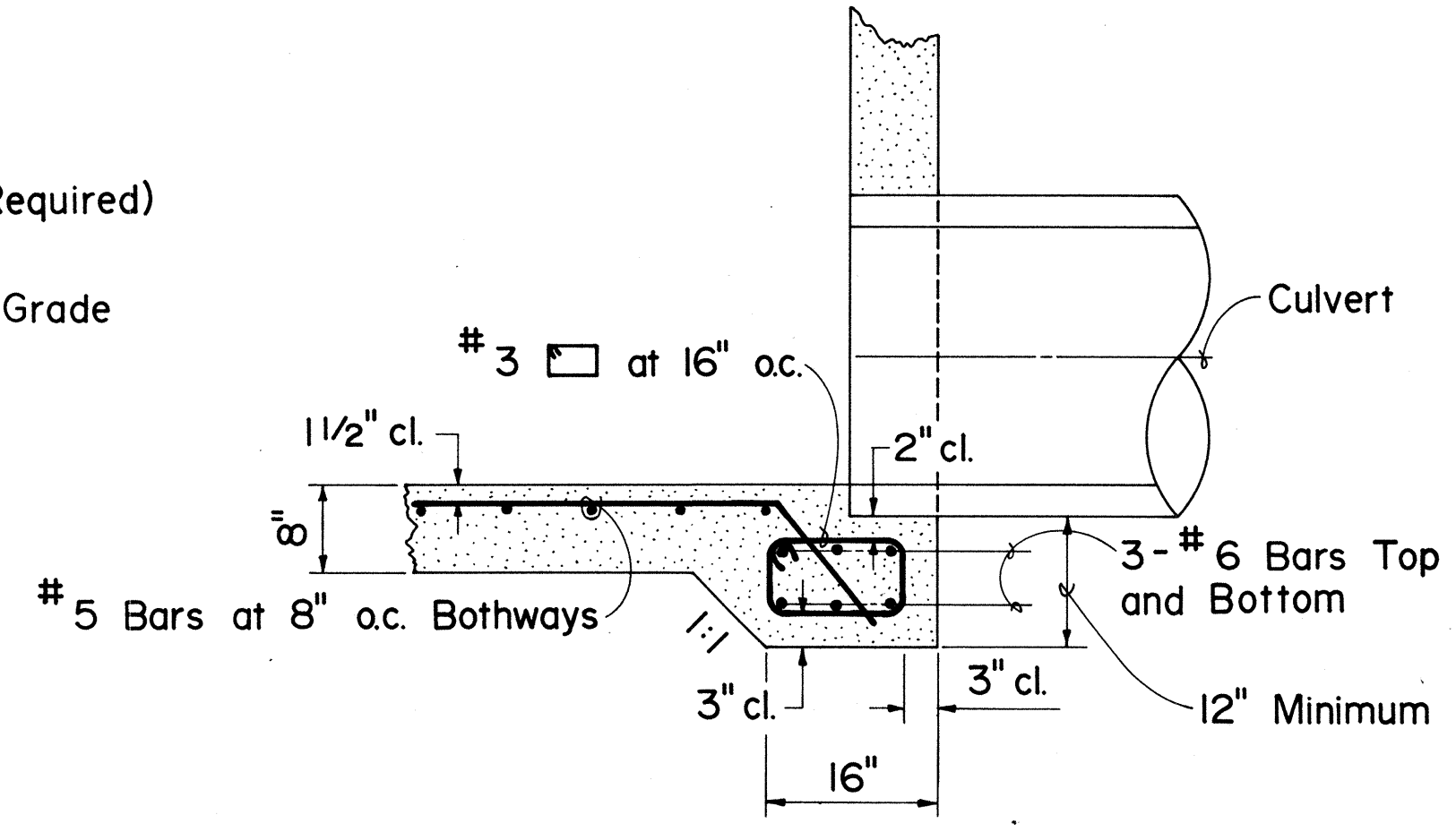
SECTION "B-B"



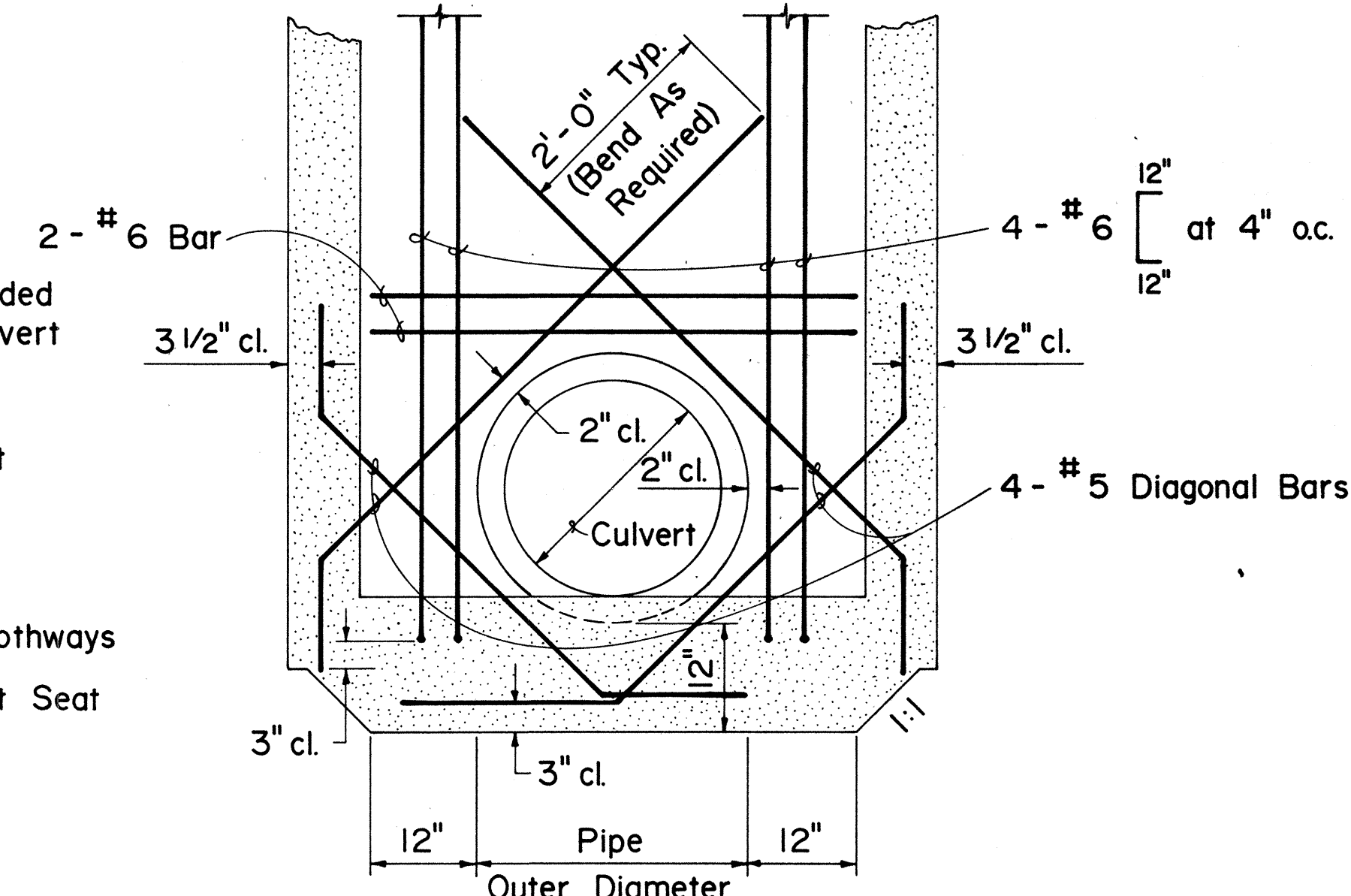
SECTION "A-A"

"H" MAX. (FT.)	HORIZONTAL "B" BARS
0'-0" to 5'-0"	# 4 at 12" o.c.
5'-1" to 10'-0"	# 4 at 9" o.c.
10'-1" to 15'-0"	# 4 at 6" o.c.
15'-1" to 20'-0"	# 5 at 6" o.c.

TYPE "A", "B", & "C" STORM DRAIN MANHOLE



TYPICAL DETAIL OF CULVERT SEAT



DETAIL "A"

APPROVAL RECOMMENDED:
P. J. J. J.
 HYDRAULIC DESIGN ENGINEER 8-20-80 DATE
 APPROVED:
Robert J. J. J.
 ASSISTANT CHIEF, ENGINEERING 8-20-80 DATE

NO.	REVISION	APPROVED BY	DATE
1.	Supersedes Sht. DH 5 approved 12-17-69	H.F.	8/20/80
2.	Revise horizontal bar table and detail notes.	H.F.	4/21/82

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
 TYPE A, B, AND C
 STORM DRAIN MANHOLE

Not To Scale
 Date: August 1980

[illegible]

1" Dia. Hole

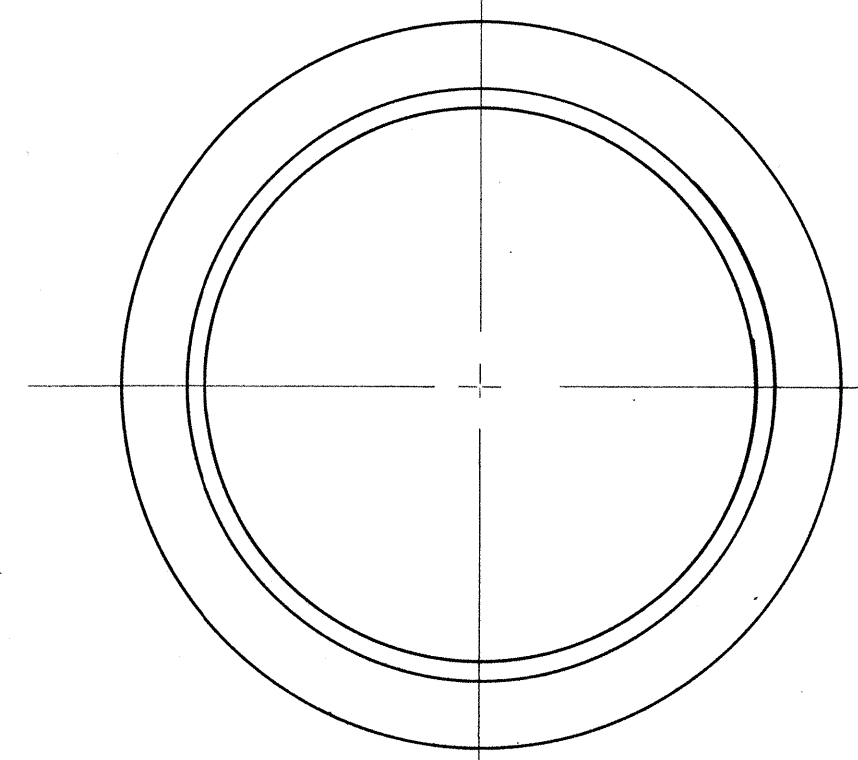
STORM DRAIN

This technical drawing shows a top-down view of a circular storm drain cover. The cover features concentric circular ridges. The words "STORM" and "DRAIN" are embossed in a semi-circular arc across the top and bottom, respectively. A leader line points from the text "1" Dia. Hole" to a small circular hole located in the second ring from the center.

Technical drawing of a wheel with the following dimensions:

- Overall diameter: $65\frac{1}{8}"$
- Hub diameter: $1\frac{1}{8}"$
- Spoke width at hub: $1\frac{1}{8}"$
- Spoke width at rim: $3\frac{3}{4}"$

TYPE "P" CAST IRON
FRAME AND COVER

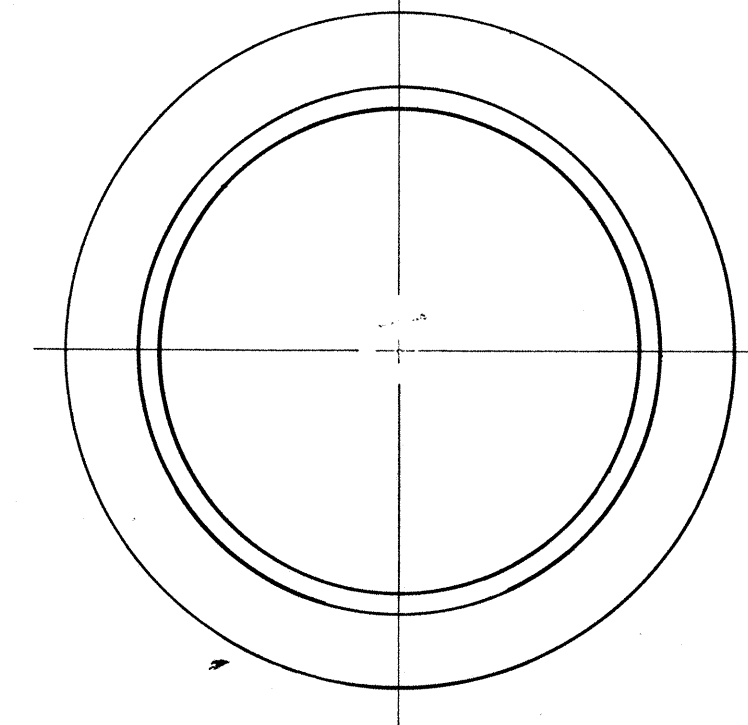


Technical drawing of a beam-to-column connection. The beam has a total length of 30" and a depth of 4". The column has a width of 24 1/2". The beam is supported by the column. Dimensions for the beam include: 30" total length, 24 1/2" clear span, 23" distance from the left end to the center of the column, 3/4" distance from the left end to the center of the column, 2 3/4" distance from the left end to the center of the column, 3/4" distance from the left end to the center of the column, 1/2" distance from the left end to the center of the column, 1/2" distance from the left end to the center of the column, 2" distance from the left end to the center of the column, and 1/2" distance from the left end to the center of the column. The column has a width of 24 1/2". The beam is supported by the column. Dimensions for the column include: 24 1/2" width, 2" distance from the left end to the center of the column, and 1/2" distance from the left end to the center of the column.

A circular logo with a grid pattern. The word "STORM" is written in a stylized, blocky font across the top half of the circle. The grid consists of small squares, some of which are filled with a cross-hatch pattern. The logo is black and white.

Technical drawing of a circular plate. The plate has a central cross-shaped slot. The width of the vertical slot is labeled as $3/4"$. The width of the horizontal slot is labeled as $1"$. There are four small circles, each labeled "4 Holes 1" Dia.", representing holes in the plate.

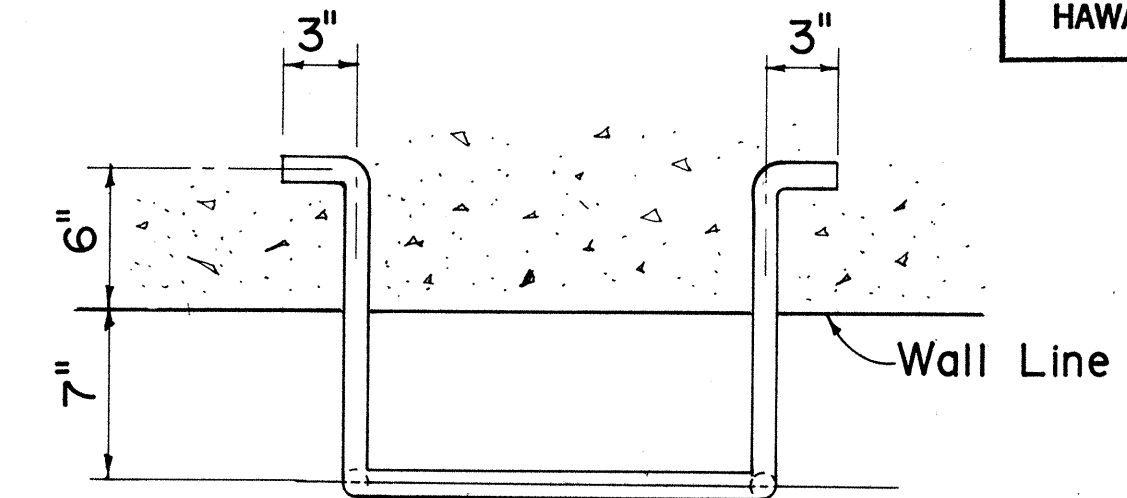
TYPE "B" CAST IRON
FRAME AND COVER



Technical drawing of a circular plate with six segments. The dimensions are as follows:

- Segment width: $2\frac{1}{4}"$
- Segment width: $1\frac{3}{4}"$
- Outer radius: $R\ 15\frac{1}{16}"$
- Inner radius: $R\ 3\frac{3}{4}"$
- Segment thickness: $\frac{1}{2}"$
- Segment thickness: $\frac{1}{2}"$
- Segment thickness: $\frac{1}{8}"$
- Segment thickness: $\frac{1}{4}"$
- Segment thickness: $3\frac{11}{16}"$
- Segment thickness: $\frac{1}{2}"$

TYPE "A" CAST IRON
FRAME AND COVER



A diagram of a U-shaped pipe. The total width of the pipe is 16 inches. The width of the end flanges is 3 inches. The distance between the inner vertical sections is 2 inches. The pipe has a 90-degree bend at the bottom.

MANHOLE RUNG

APPROVED: Herbert Zaleishi 6-22-79
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

CATCH BASIN AND
MANHOLE CASTINGS

Not To Scale Date: Dec. 1977

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-3400(1)	1984	6	8



CW 20-1a 48" x 48"



CW 20-2d 48" x 48"



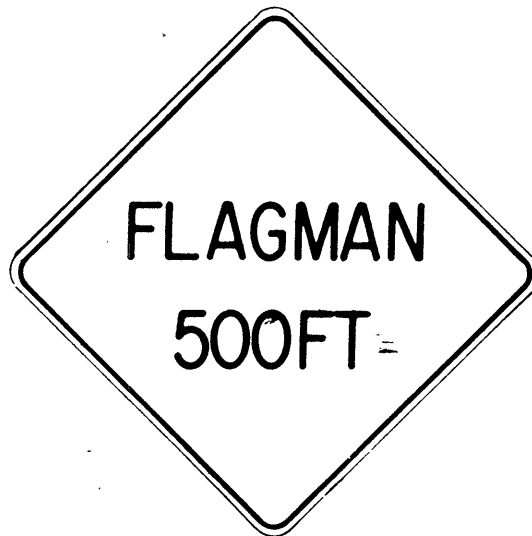
CW 20-3b 48" x 48"



CW 20-4d 48" x 48"



CW 20-5d(L) 48" x 48"



CW 20-7c 48" x 48"



CW 21-1 30" x 30"



CW 21-2 30" x 30"



CW 21-3 36" x 36"



CW 21-4 36" x 36"



CW 21-5 30" x 30"



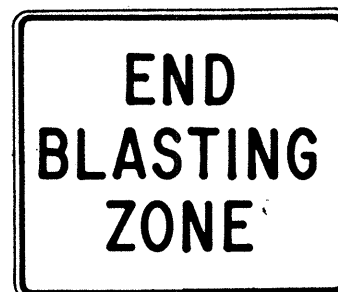
CW 21-6 30" x 30"



CW 22-1b 48" x 48"



CW 22-2 42" x 36"



CW 22-3 42" x 36"



CG 20-1(5) 60" x 36"



CG 20-2 60" x 24"



CM 4-9(R) 30" x 24"



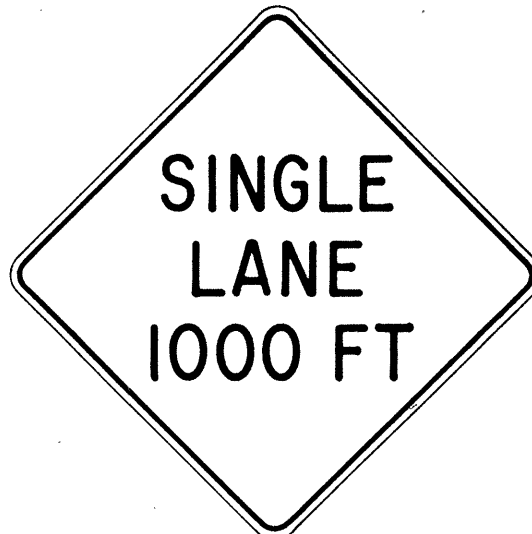
CM 4-10(R) 48" x 18"



CG 20-4 36" x 18"



CW 23-1 36" x 36"



CW 23-2b 48" x 48"



CW 23-3(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.

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

APPROVED:
Walter Salsich 2/23/72
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 104 Approved 12-30-69	H.T.	2/23/72
2	Revised General Note 1	H.T.	10/16/74
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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

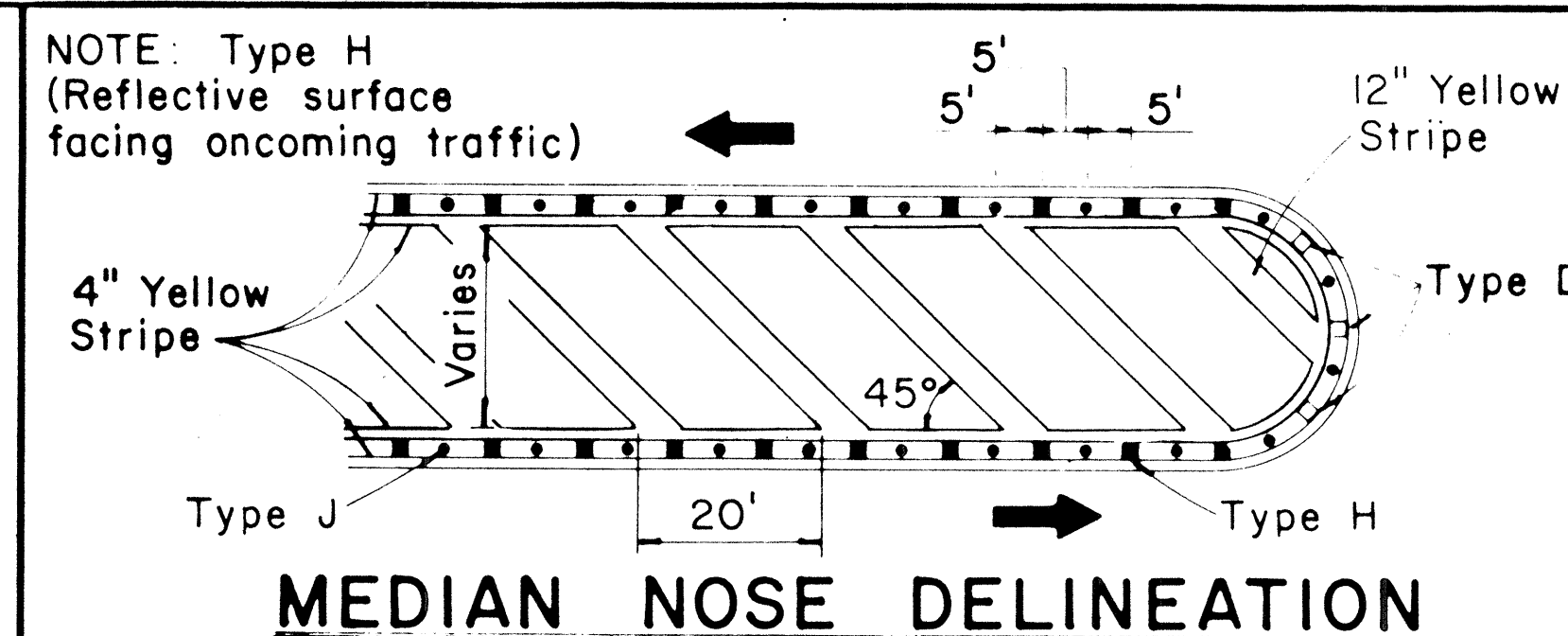
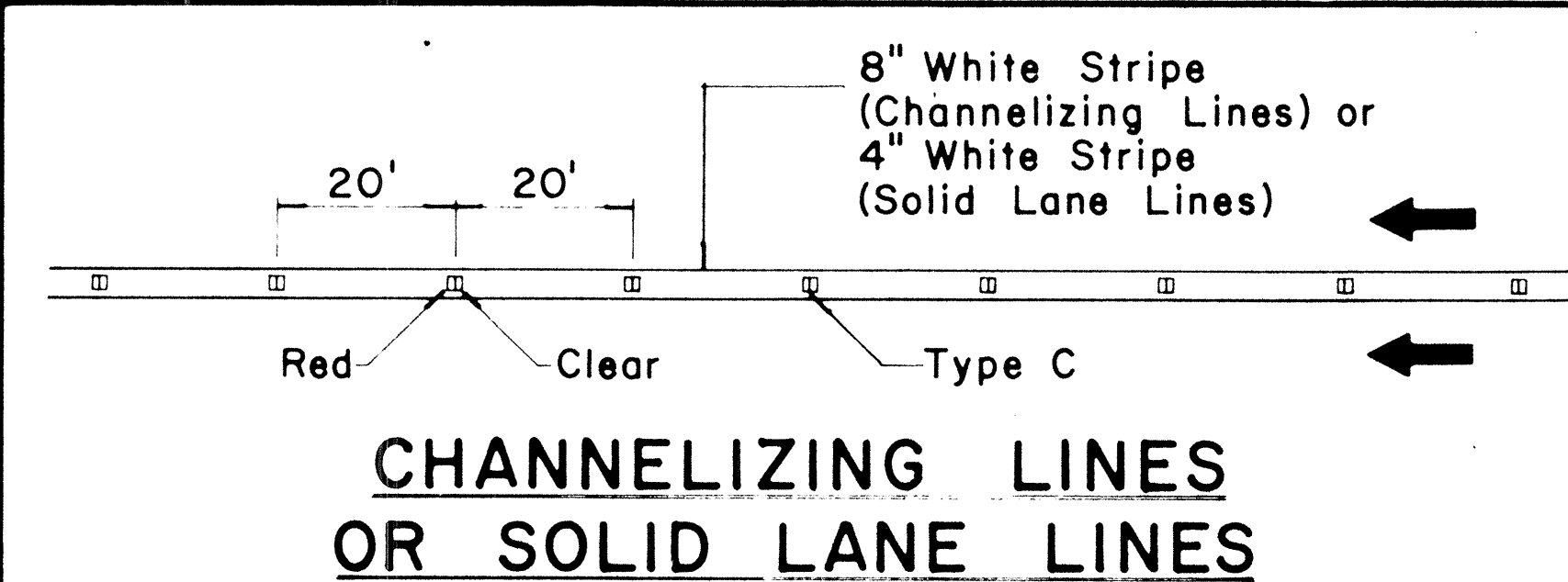
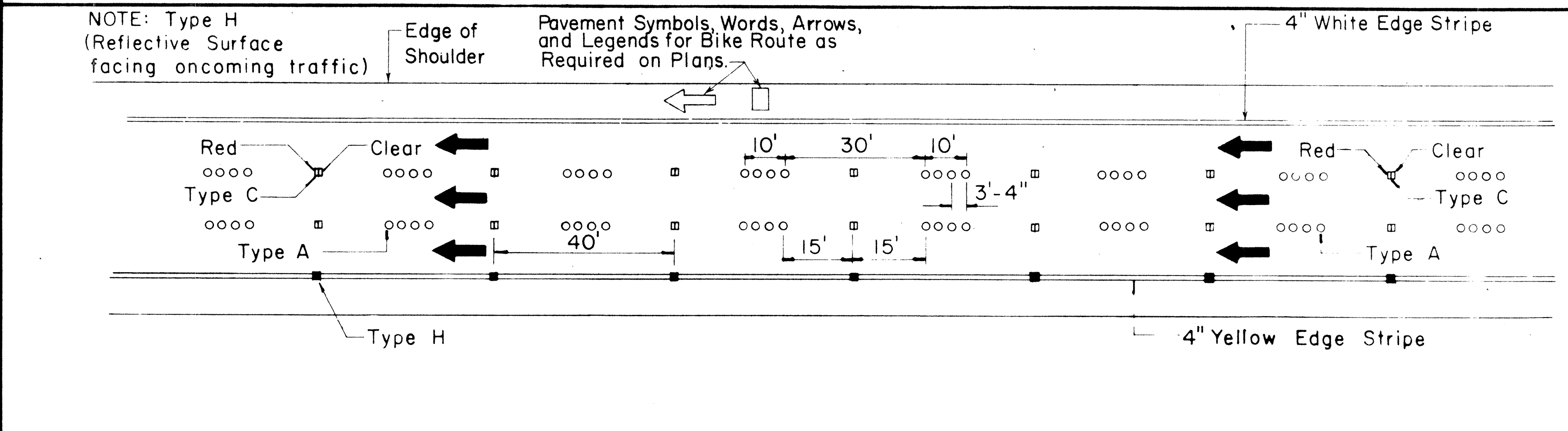
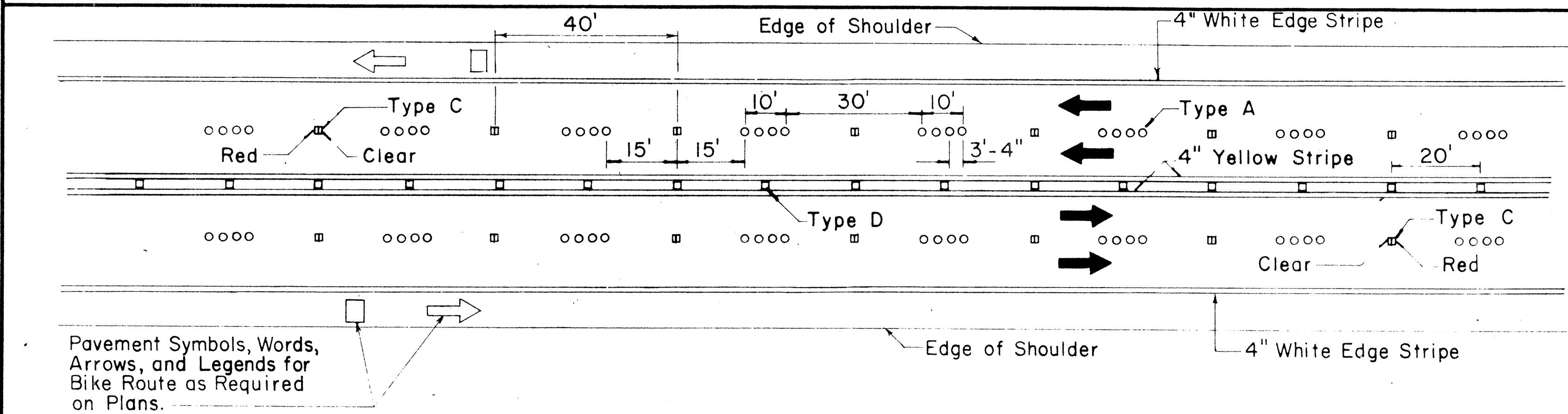
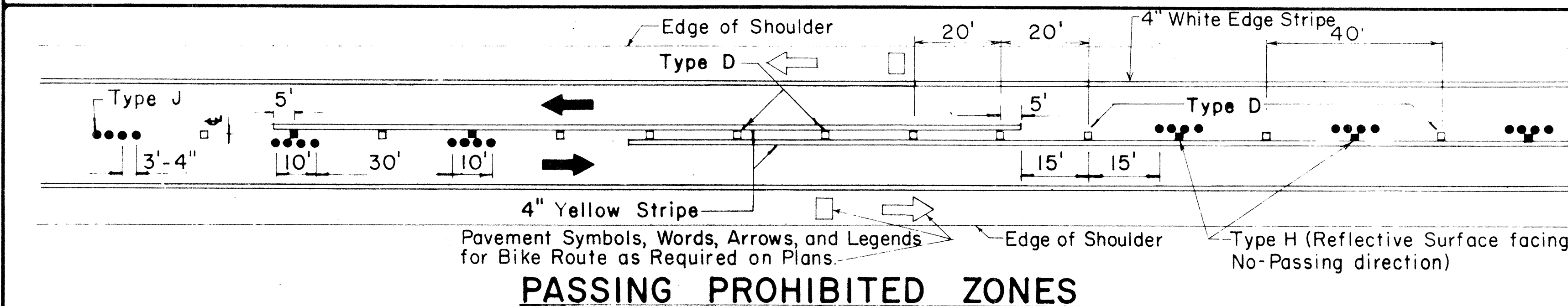
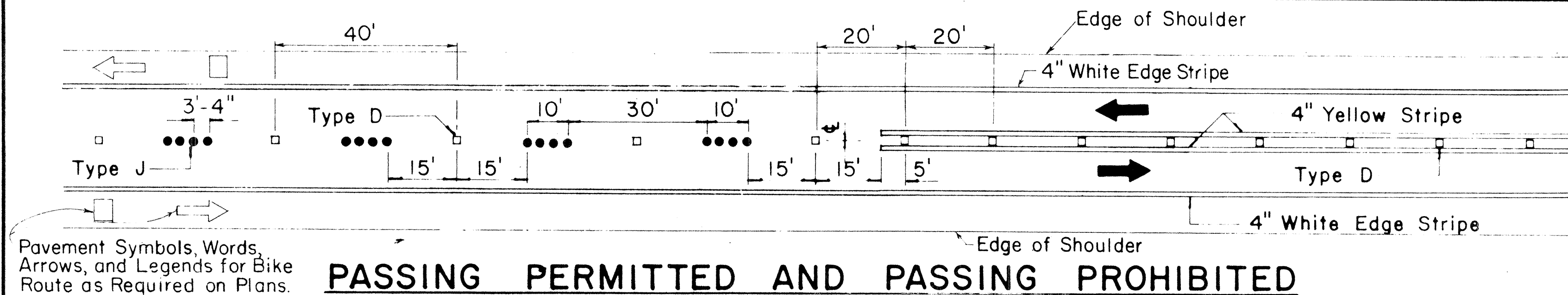
STANDARD DETAILS
CONSTRUCTION SIGNS

NOT TO SCALE

SHEET No. 3 OF 5 SHEETS DT 104

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-3400(1)	1984	7	8

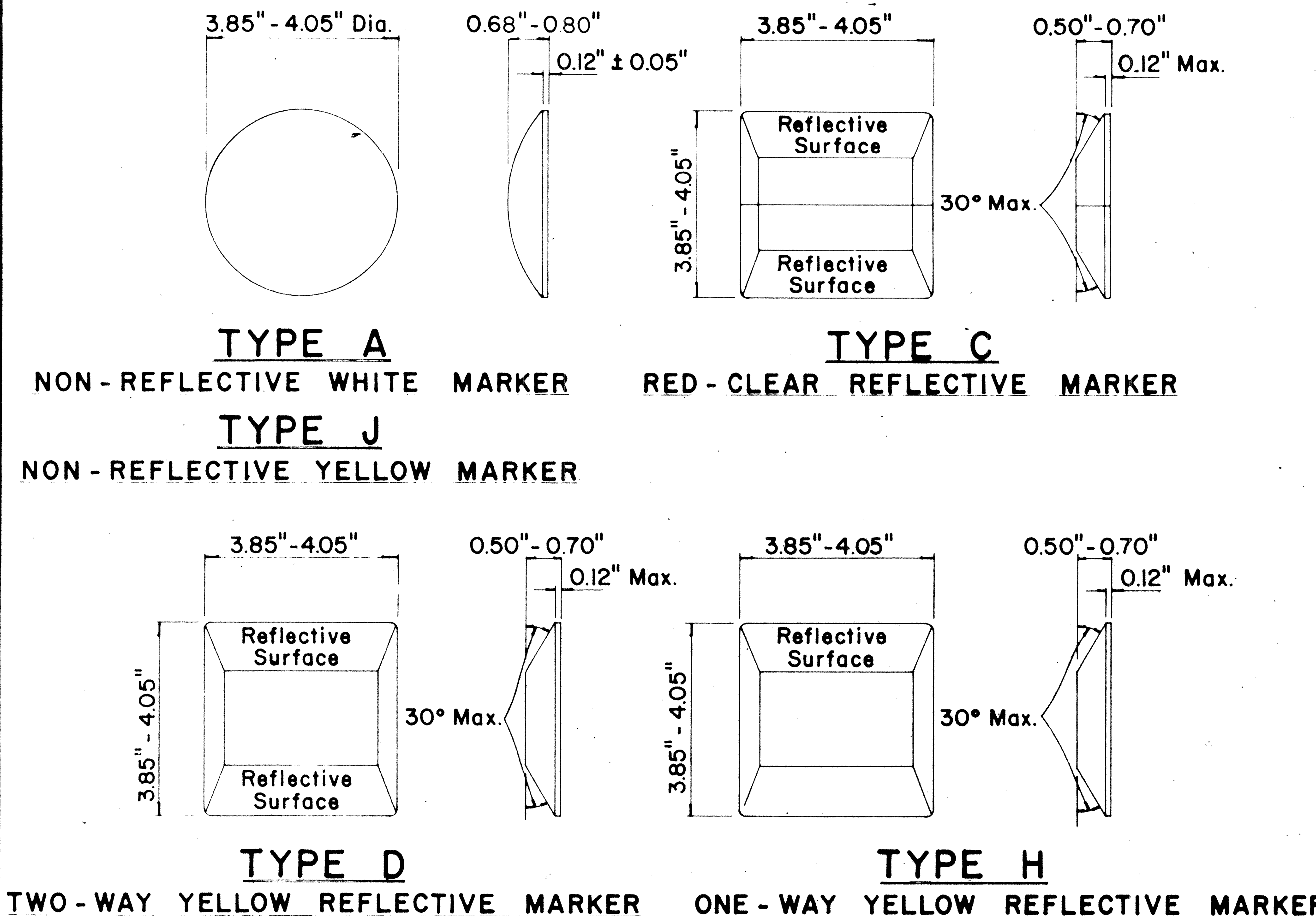


TWO - LANE

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.

LEGEND

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

APPROVAL RECOMMENDED
Eichi Tanaka 7/21/78
TRAFFIC ENGINEER DATE

APPROVED:
Herbert J. DeKish 1/24/78
ASSISTANT CHIEF, ENGINEERING DATE

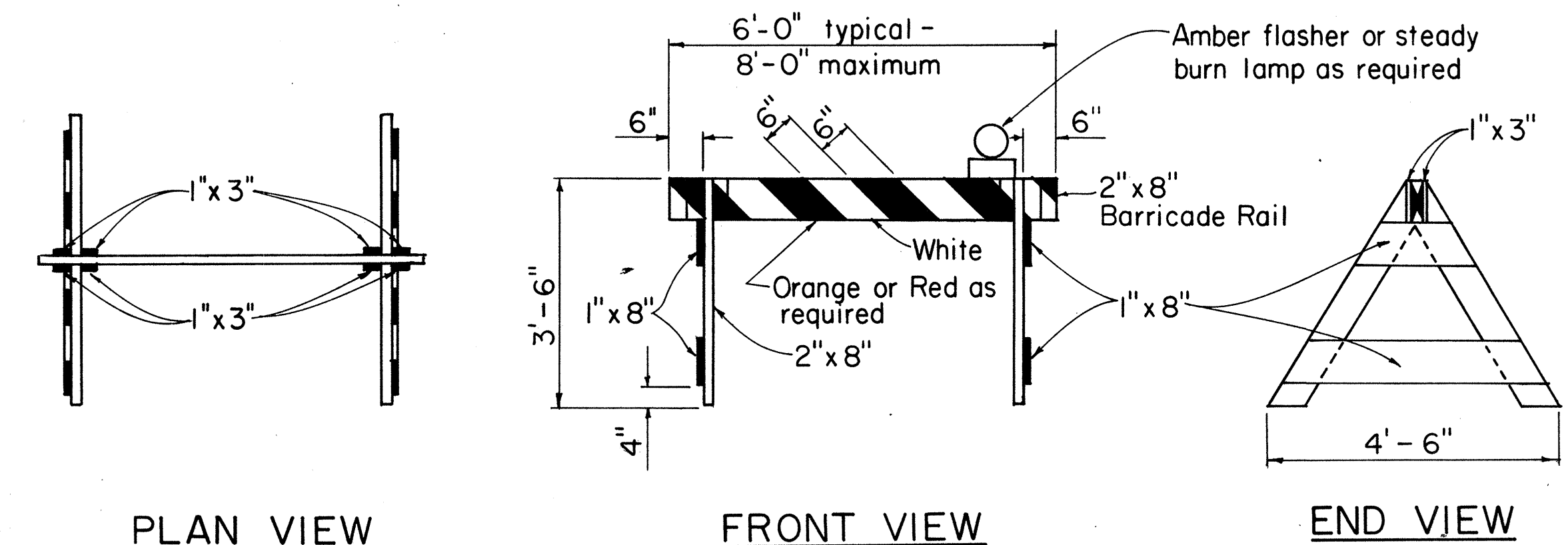
No.	REVISION	APPROVED BY	DATE
1	Supersedes DT 300 approved 11/18/71.	H.f.	1/24/78
2	Delete Type A Markers from Bike Route Delineation.	H.f.	10/15/79

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

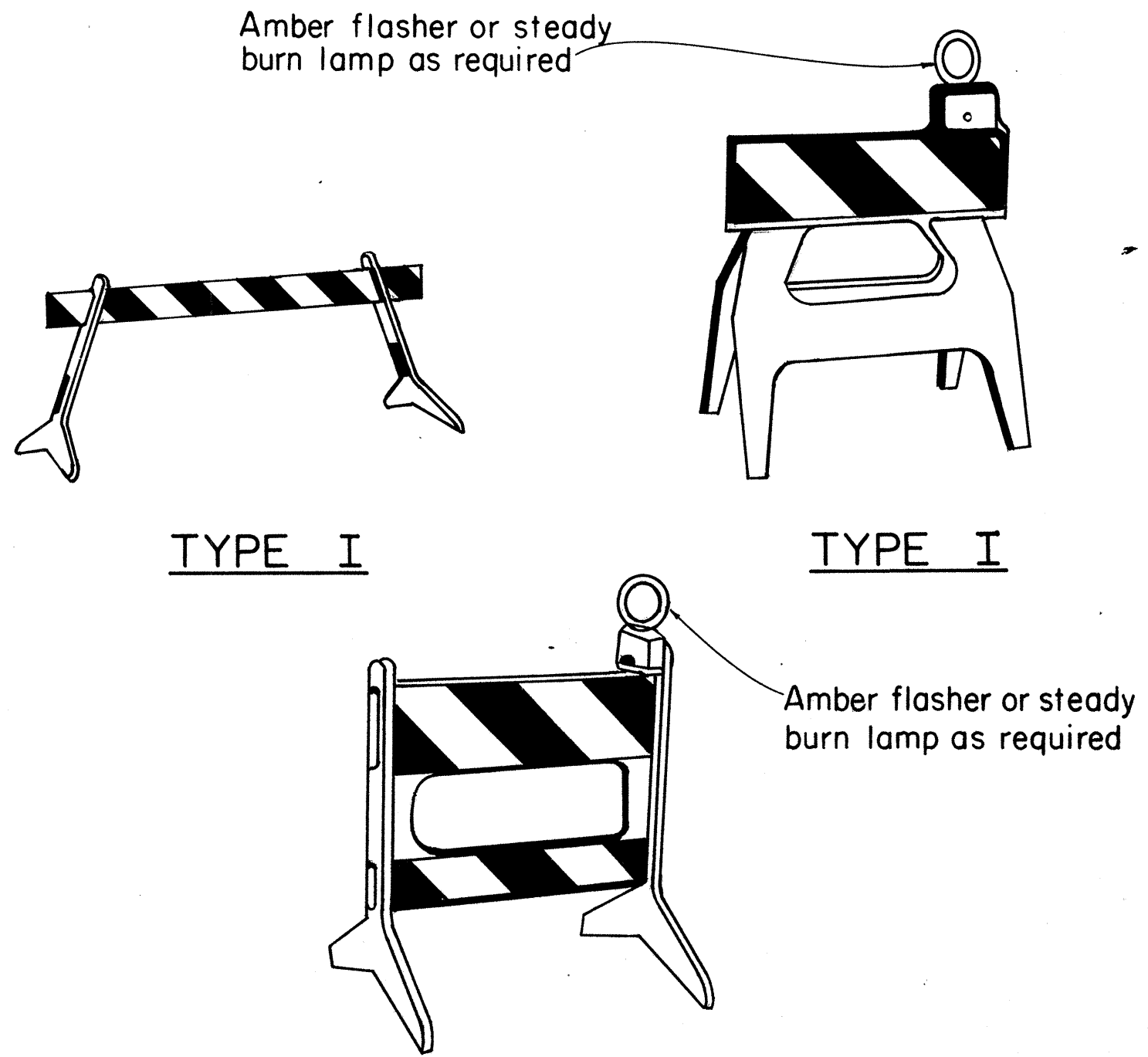
STANDARD DETAILS
RAISED PAVEMENT MARKERS
AND STRIPING

Not to Scale July 1978
SHEET No. 4 OF 5 SHEETS DT 300

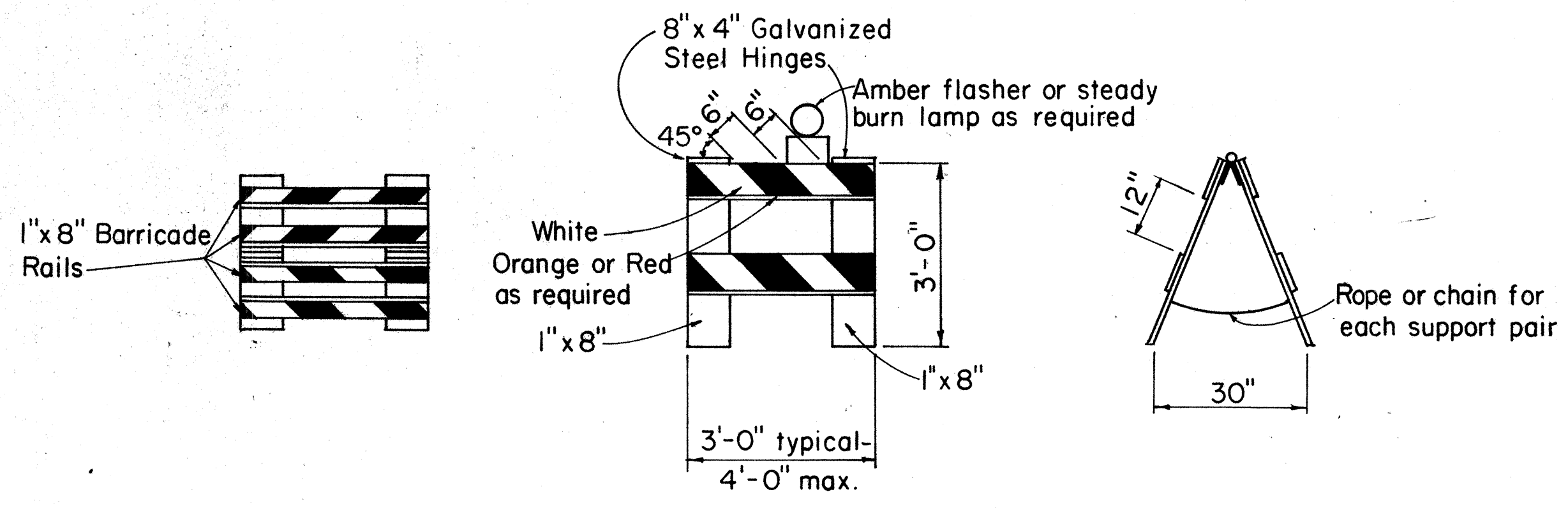
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-3400(1)	1984	8	8



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

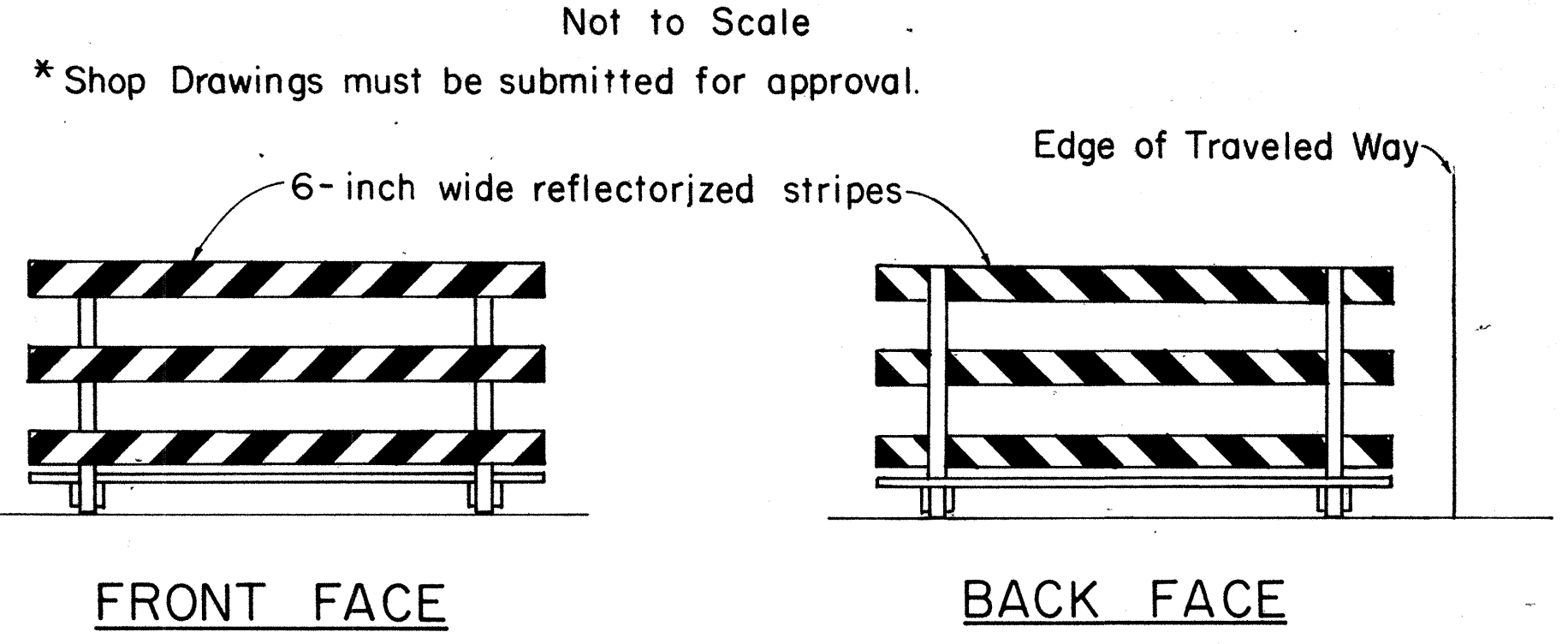


TYPE I



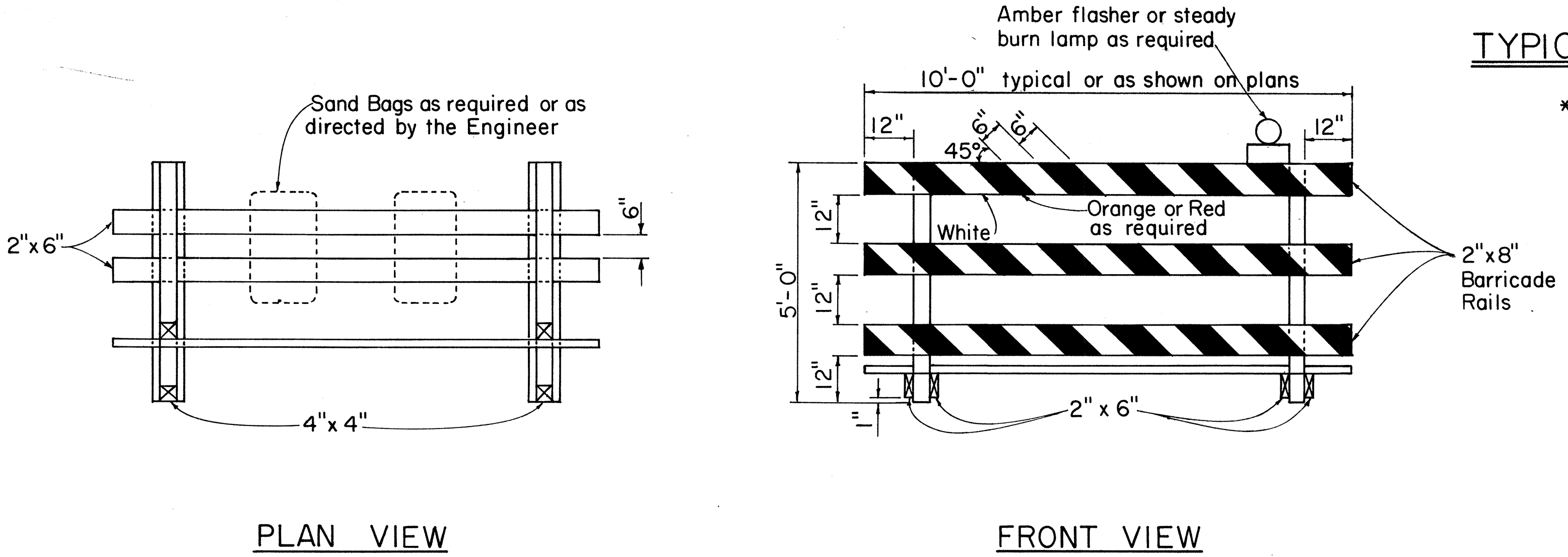
TYPE II BARRICADE
Scale: 1/2" = 1'-0"

PLASTIC MOLDED BARRICADE OPTIONS*



TYPICAL BARRICADE STRIPING DETAILS**

Not to Scale
** Similar for Types I & II



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

GENERAL NOTES

- The front and back faces of each barricade rail shall be reflectorized with stripes sloping downward toward the same side (traveled way) of each barricade.
- Contractor may submit alternate barricade designs for approval.
- Sandbags or other approved weights shall not be placed on top of any striped rail.
- The Contractor is directed to Section 626.

APPROVAL RECOMMENDED:
Eishi Tanaka 10/21/81
TRAFFIC ENGINEER DATE

APPROVED:
Robert S. Salsch 10/23/81
ASSISTANT CHIEF, ENGINEERING DATE

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

BARRICADES

SCALE: As Shown

SHEET No. 5 OF 5 SHEETS DT 800