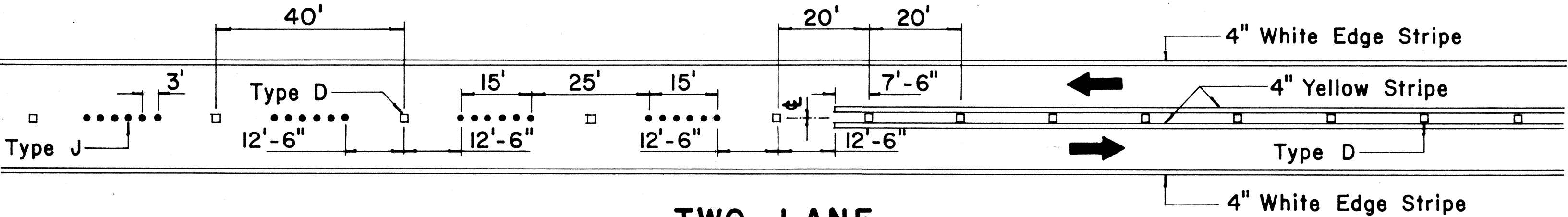
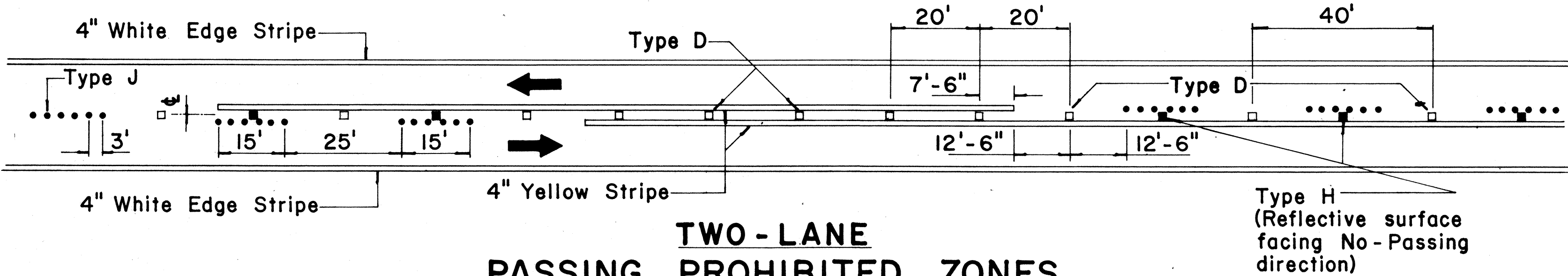


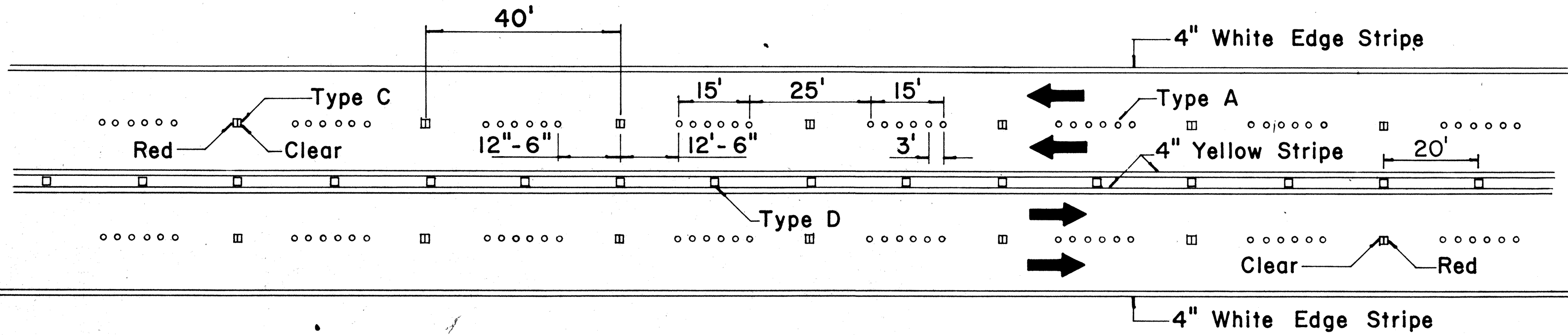
FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93A-01-75	1975	4	17



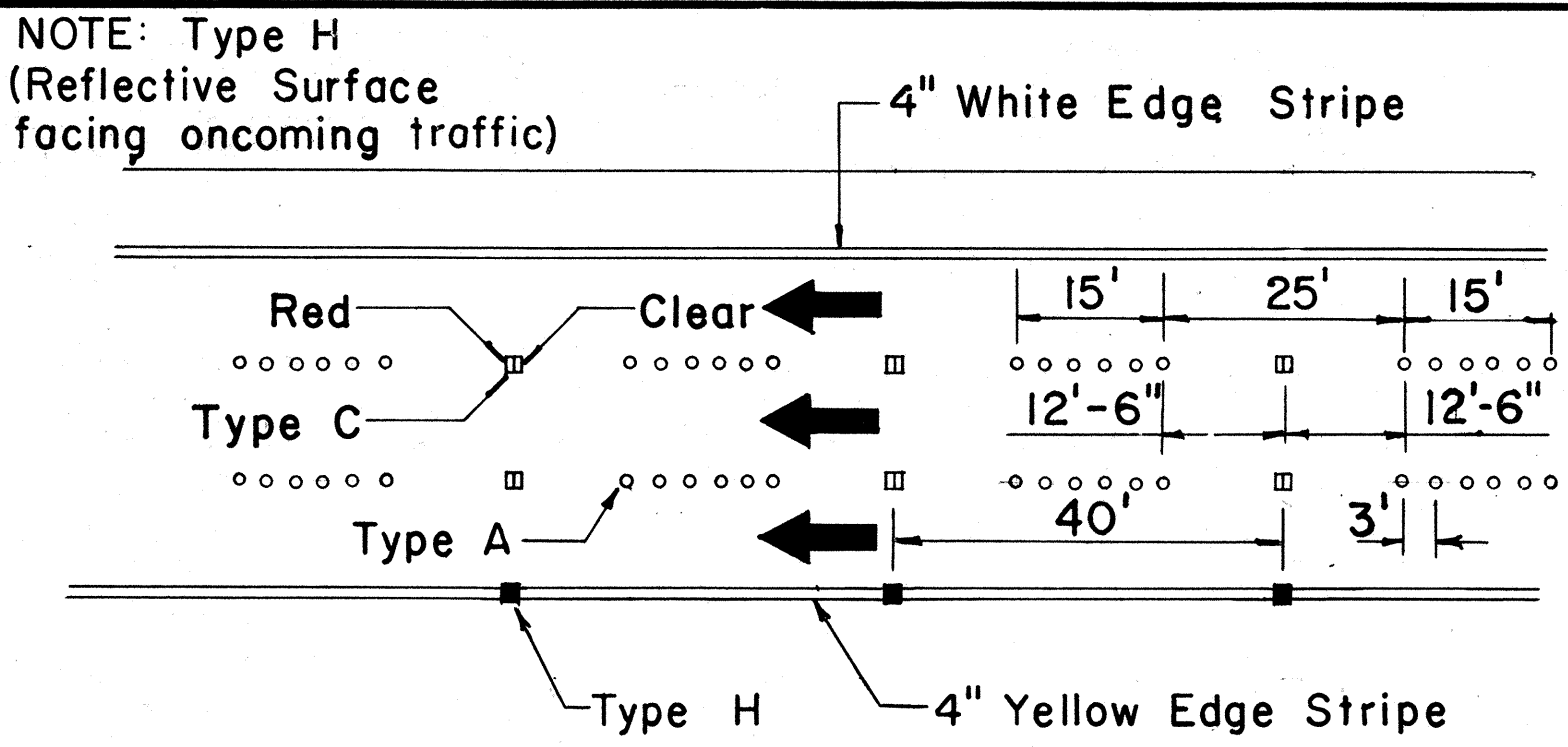
TWO - LANE
PASSING PERMITTED AND PASSING PROHIBITED



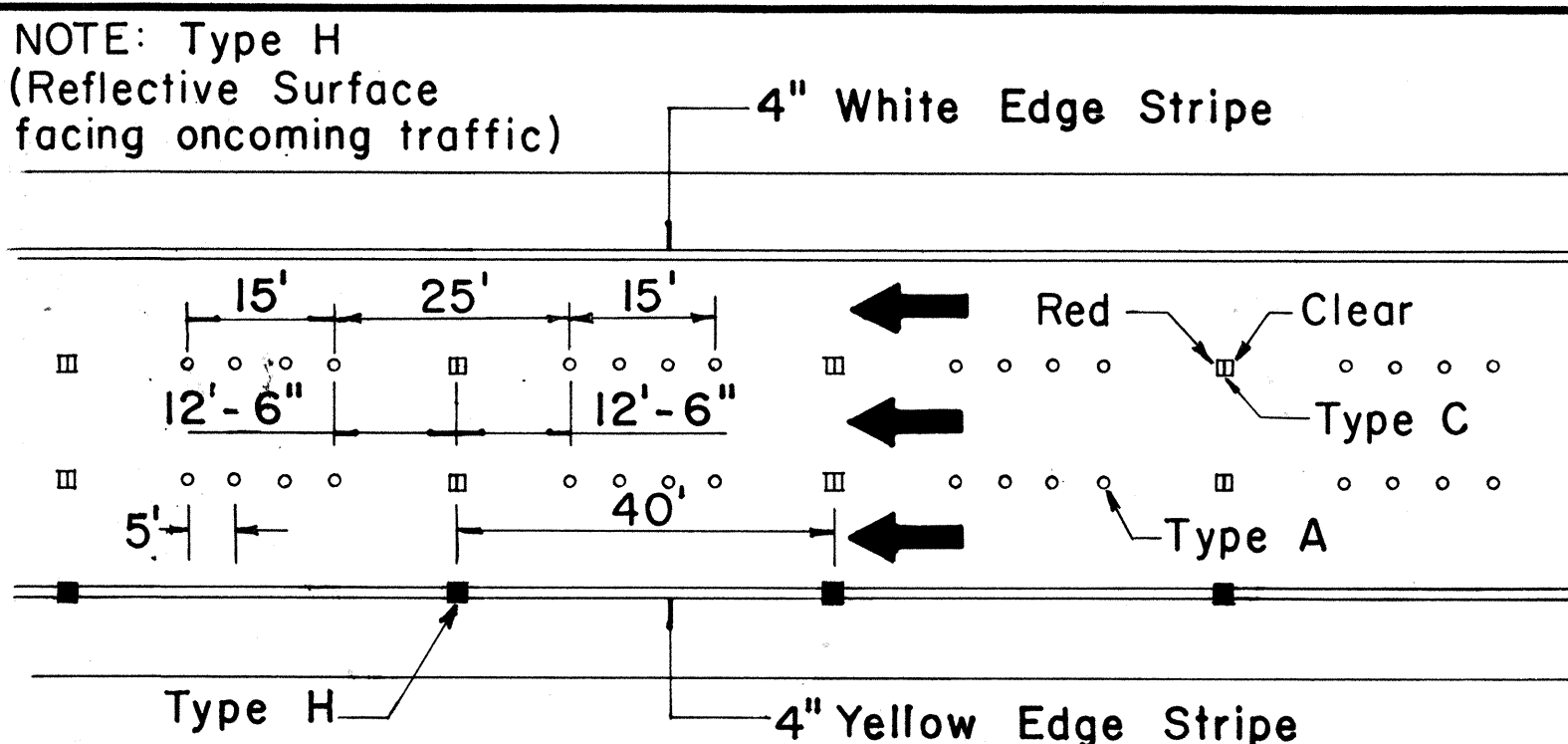
TWO - LANE
PASSING PROHIBITED ZONES



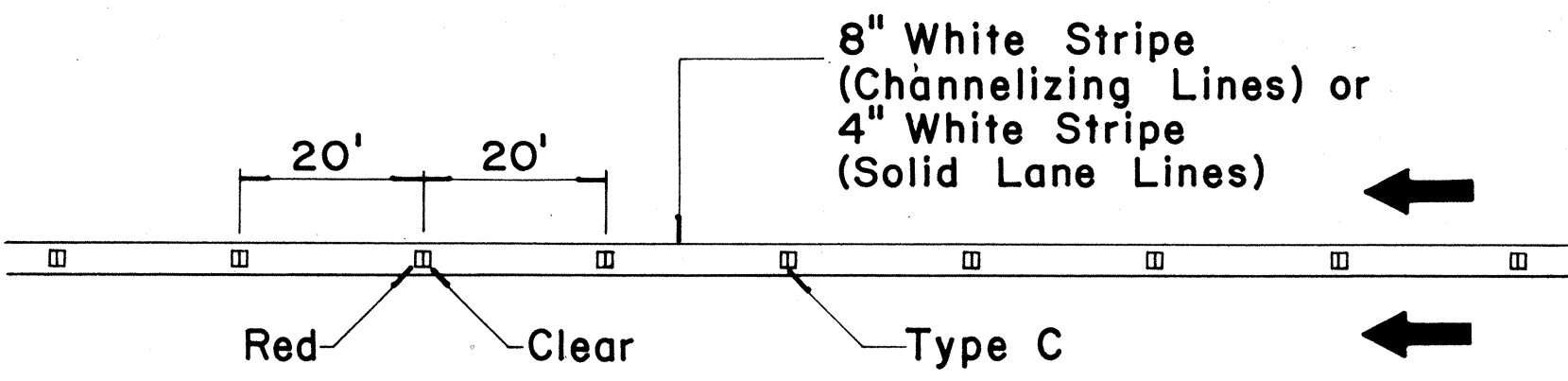
MULTI - LANE
LANE LINES AND CENTER LINE



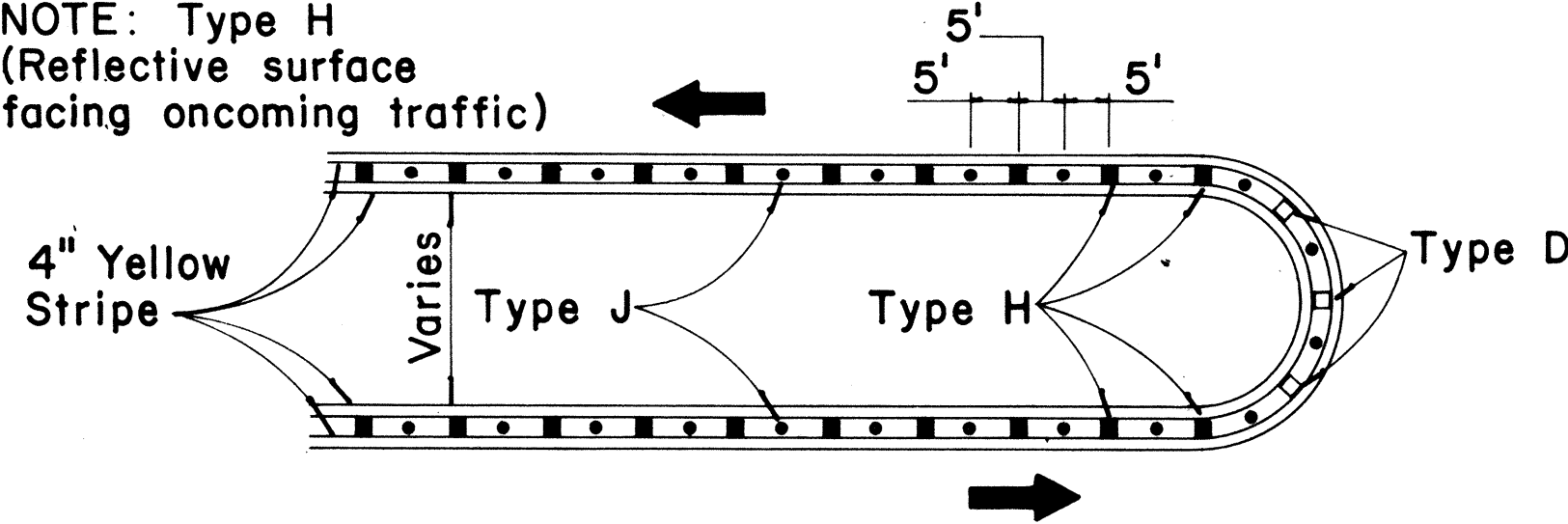
DIVIDED HIGHWAY LANE LINES



FREEWAY LANE LINES



CHANNELIZING LINES
OR SOLID LANE LINES



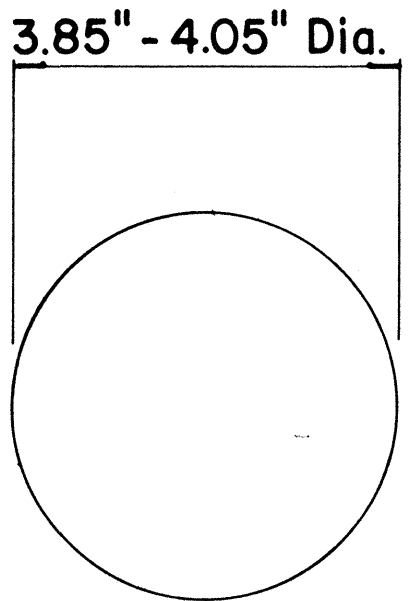
MEDIAN NOSE DELINEATION

TWO - LANE

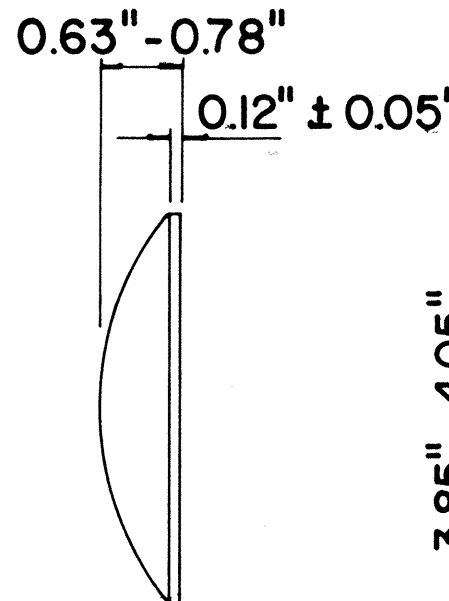
MULTI - LANE

DIVIDED HIGHWAY AND FREEWAY

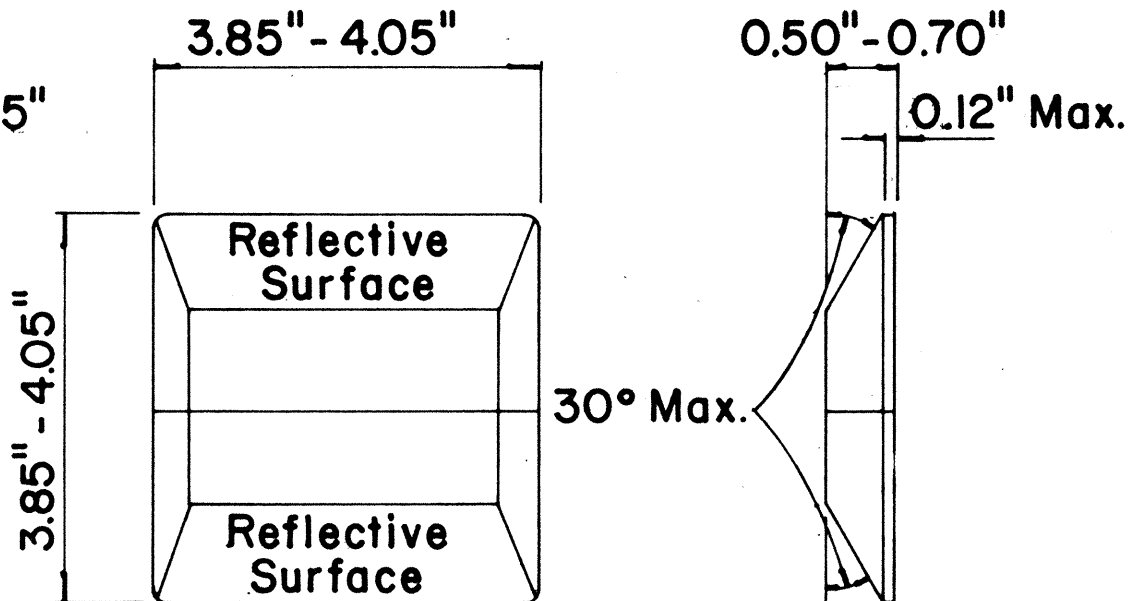
MISCELLANEOUS



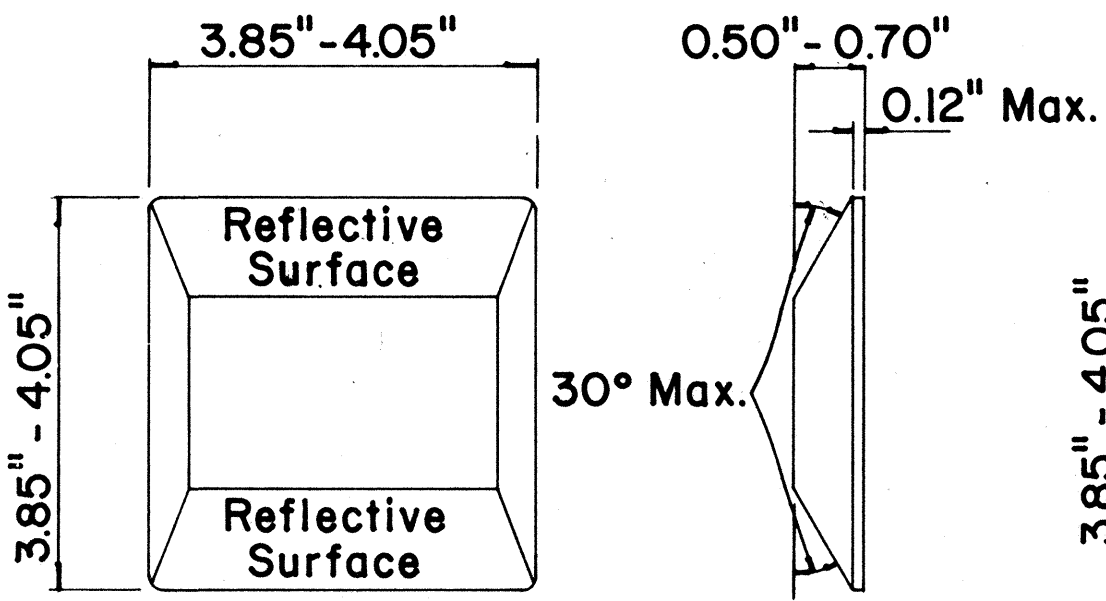
TYPE A
NON - REFLECTIVE WHITE MARKER



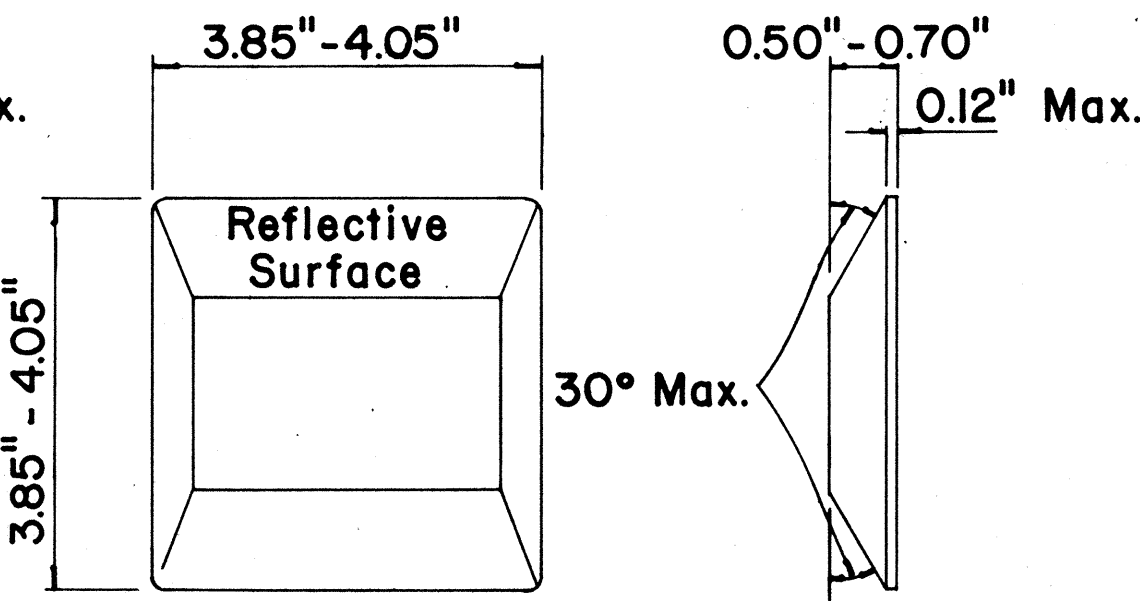
TYPE J
NON - REFLECTIVE YELLOW MARKER



TYPE C
RED - CLEAR REFLECTIVE MARKER



TYPE D
TWO-WAY YELLOW REFLECTIVE MARKER



TYPE H
ONE-WAY YELLOW REFLECTIVE MARKER

GENERAL NOTES

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

LEGEND

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

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

APPROVED:
Shirley Zaleski 11/18/71
ASSISTANT CHIEF, ENGINEERING DATE

No.	REVISION	APPROVED BY	DATE
1	Add reflector marker in each line gap.	H.C.	10-27-72
2	Revised General Notes.	H.C.	10-27-72
3	Change 4" white edge stripe to 4" solid yellow edge stripe to left edge of a travel path and Add. Type H Reflector Marker	H.C.	5-22-74

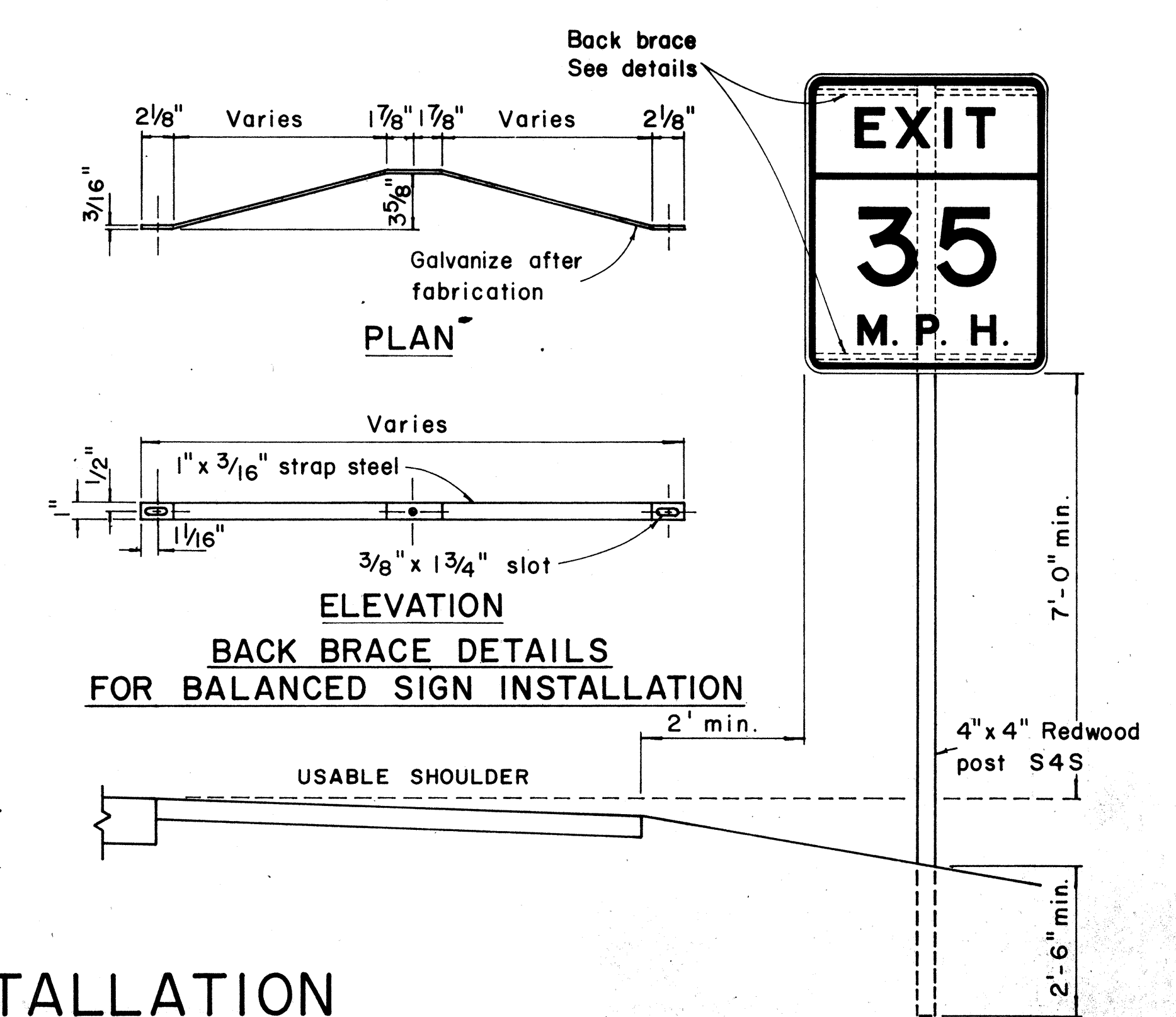
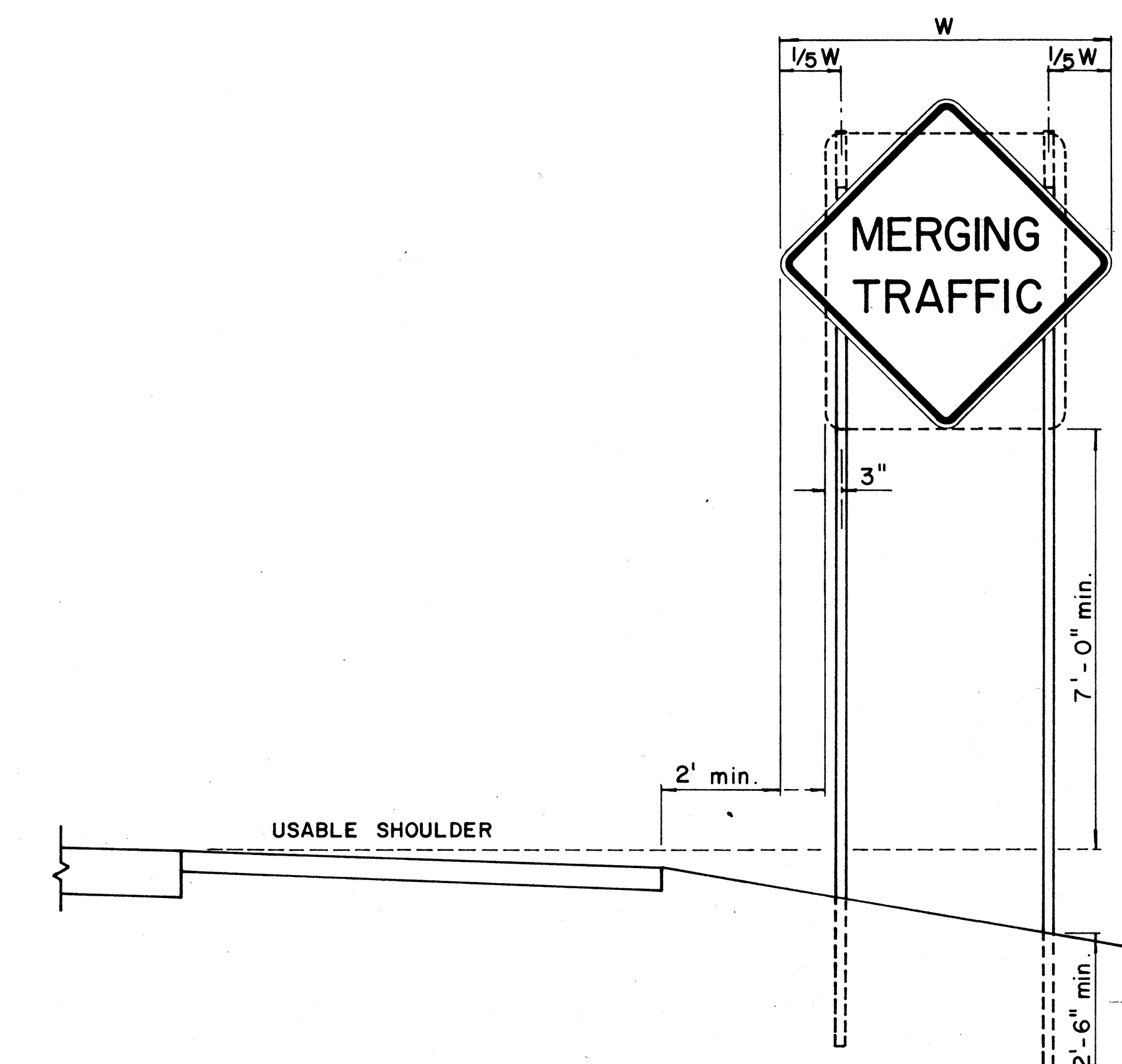
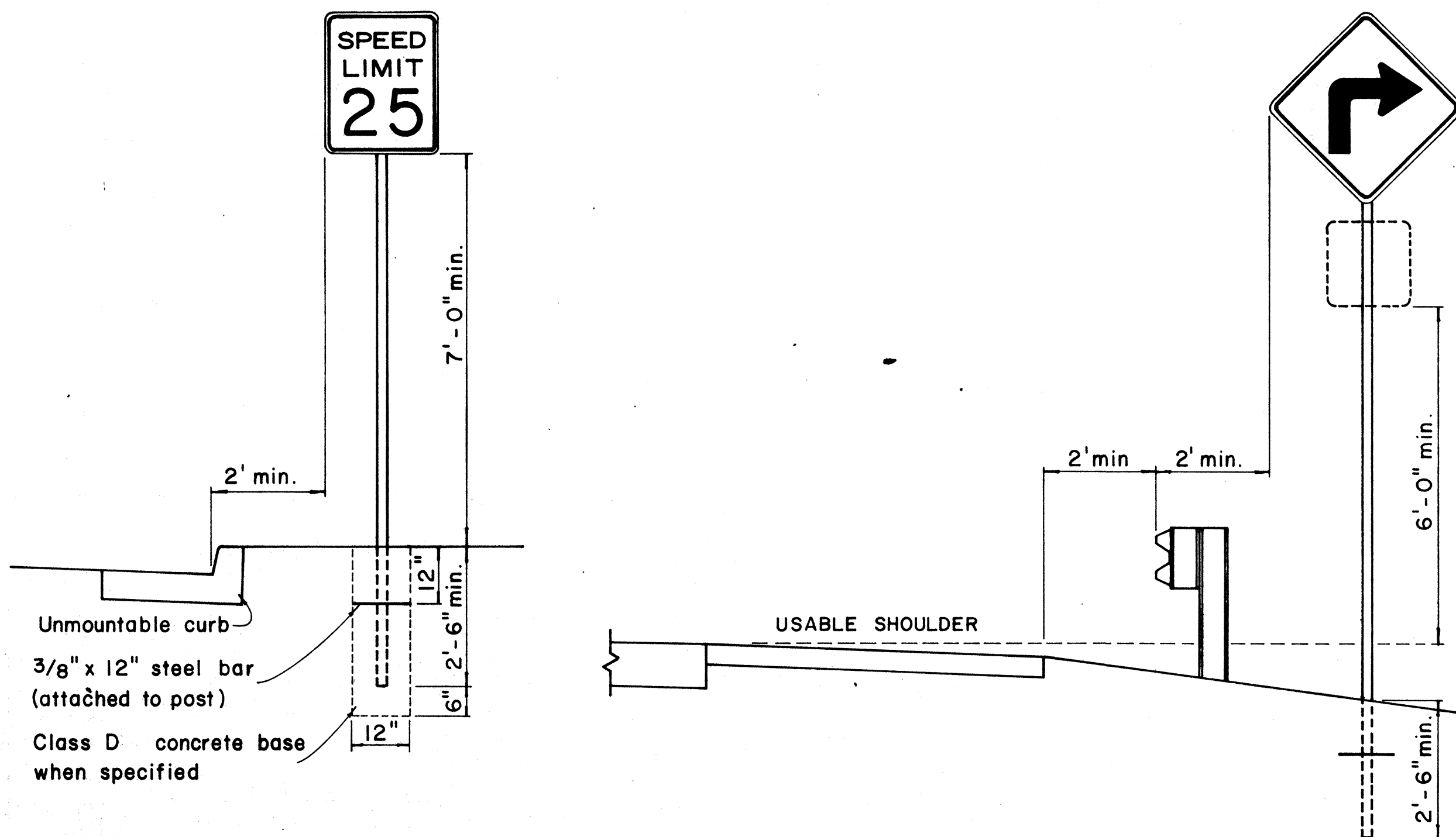
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
RAISED PAVEMENT MARKERS

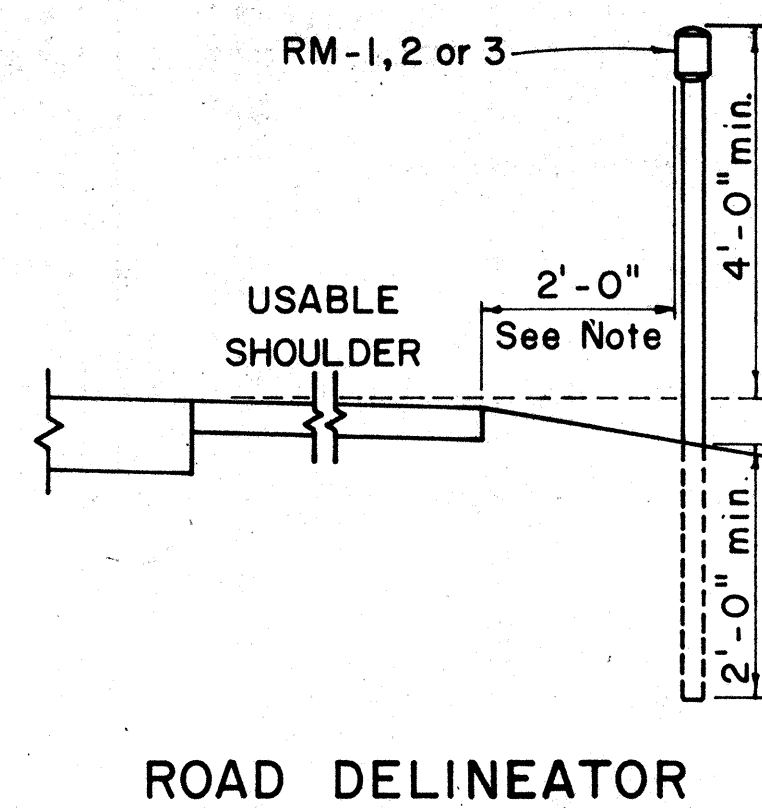
Not to Scale October 1971
SHEET No. 1 OF 3 SHEETS DT 300

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

FED. ROAD DIST. NO.	STATE	FED. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93A-01-75	1975	5	17

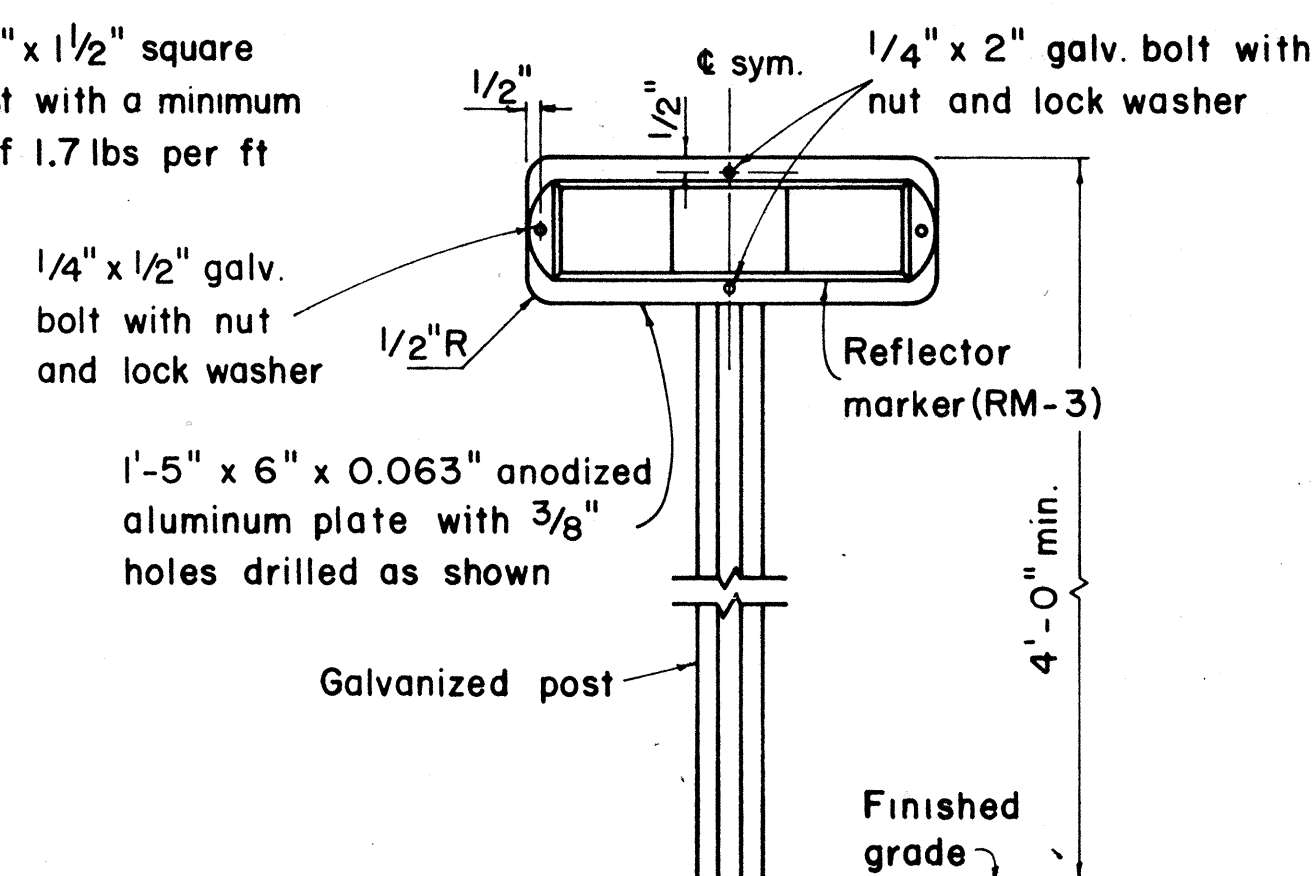


HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATION

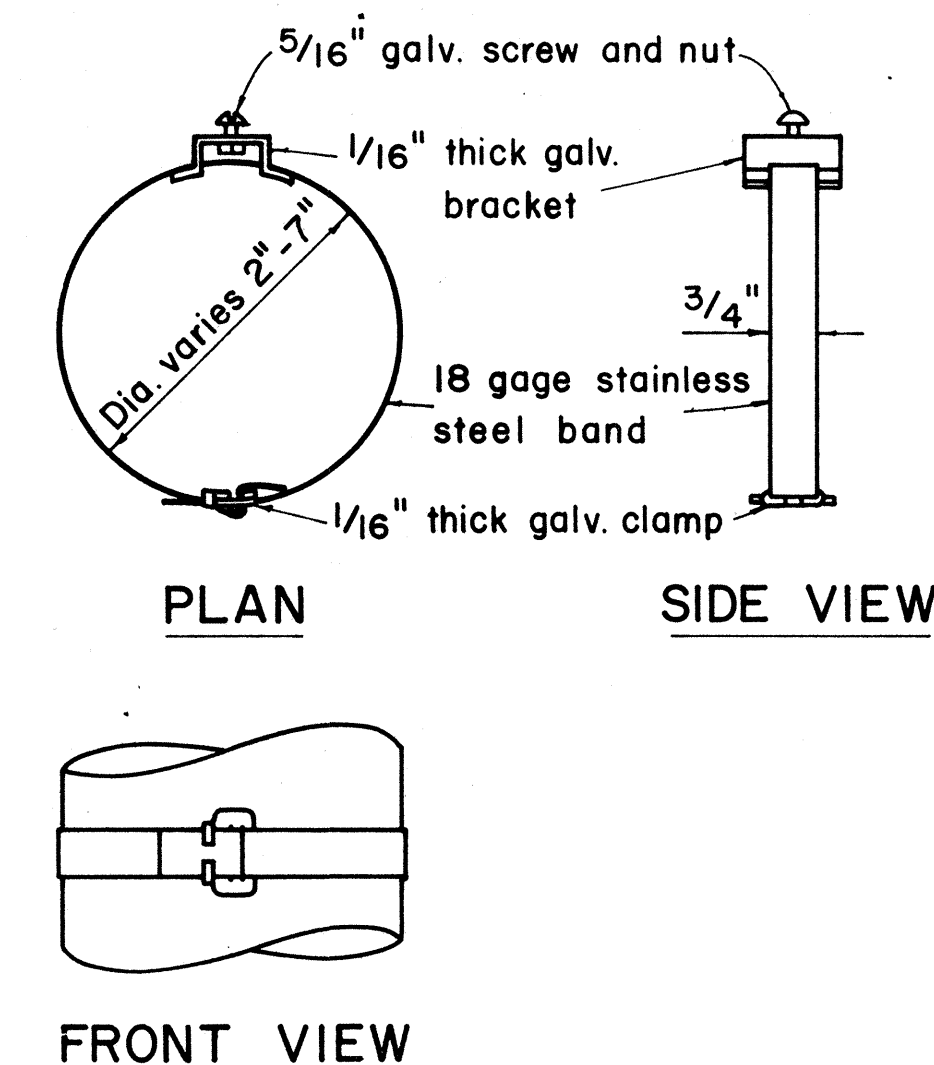


Galv. flanged channel 1/8" x 3/16" rolled section post with a minimum weight of 2 lbs. per ft. Upper 2 ft. shall have a single row of 3/8" holes centered in the web at 1" o.c.

TYPICAL SECTION OF ROAD DELINEATOR



TYPICAL DETAIL HORIZONTAL REFLECTOR MARKER RM-3H



TYPICAL BAND BRACKET FOR MOUNTING TRAFFIC SIGNS

GENERAL NOTES:

- Sign posts shall be 2" galv. standard pipe or 2" x 2" galv. sq. tube post.
- Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two 2" galv. standard pipe or two 2" x 2" galv. sq. tube post or 4" x 4" redwood post S4S.
- Signs shall be attached to post with 5/16" galv. bolts with nuts and 7/8" x 0.06 stainless steel washers with neoprene rubber gasket.
- Sign posts shall extend 3 1/2" above sign where required for City and County street name signs.
- Reflector markers RM-1, 2, 3 shall be glass sphere reflector markers with 4" x 5" reflector units (as shown) or plastic prismatic reflector markers with 3" diameter reflector units.
- Clearance markers (RM-3, RM-4) shall be installed with the edge of the marker in line with the inner edge of the obstruction.
- (R) or (L) indicates right or left and shall be as shown on the plans.

APPROVAL RECOMMENDED:
Erich Tanaka 12/22/69
TRAFFIC ENGINEER DATE

APPROVED:
[Signature] 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

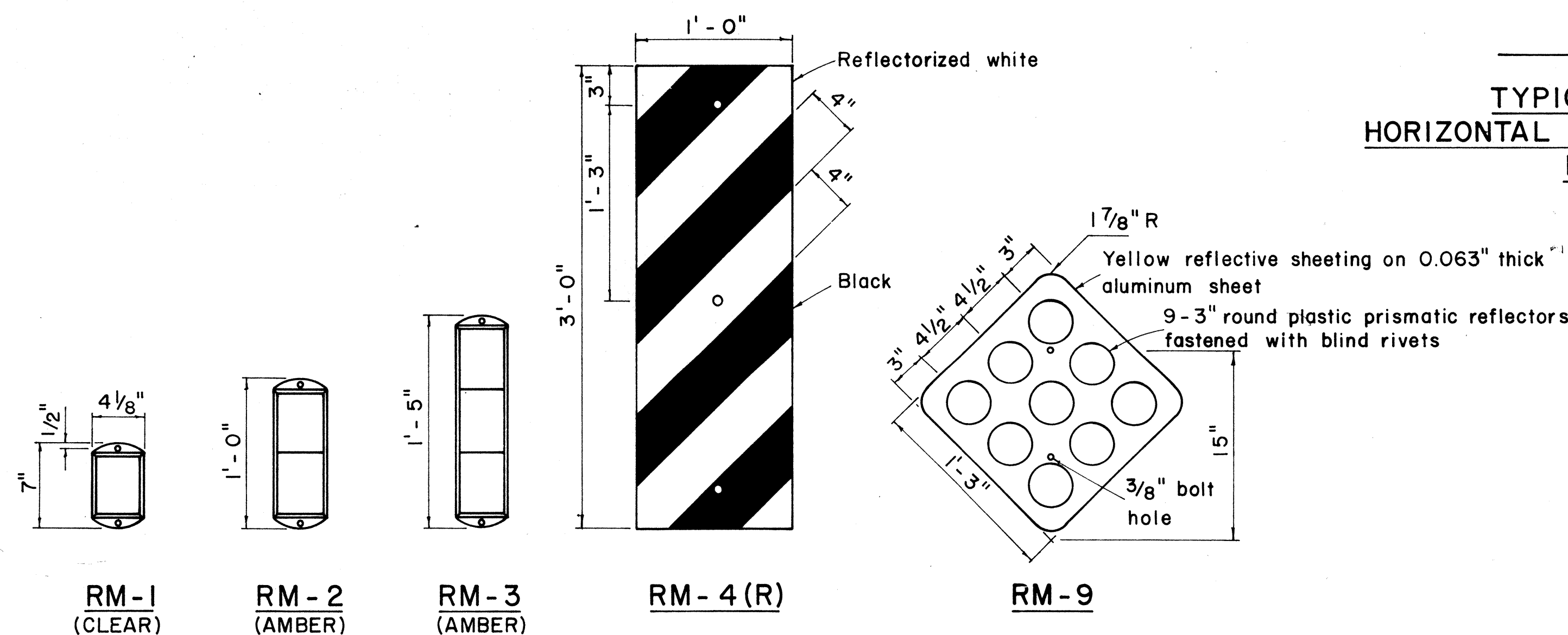
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS MISCELLANEOUS SIGN DETAILS

Not to scale March, 1968

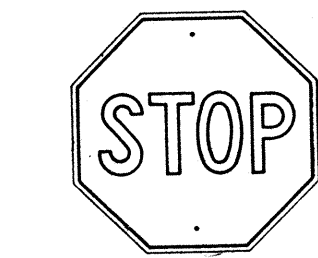
SHEET No. 2 OF 3 SHEETS DT 100



REFLECTOR MARKERS

DATE	
DESIGNED BY	
CHECKED BY	
NO.	

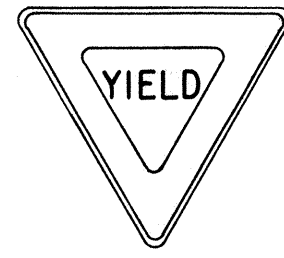
FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93A-01-75	1975	6	17



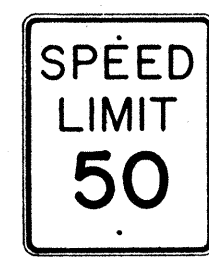
R1-1 30" x 30"
R1-1-A 36" x 36"

4-WAY

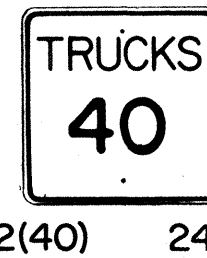
R1-3 12" x 6"
R1-3-A 18" x 9"



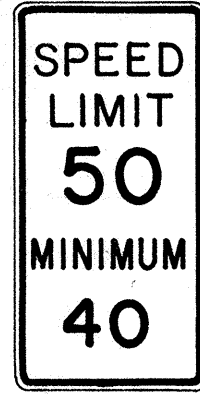
R1-2 36" x 36" x 36"
R1-2-A 48" x 48" x 48"



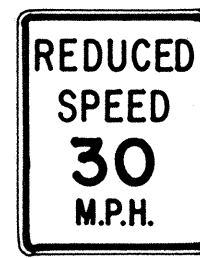
R2-1(50) 24" x 30"
R2-1(50)-A 48" x 60"



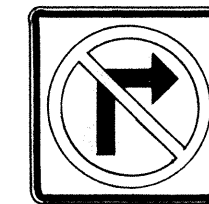
R2-2(40) 24" x 24"
R2-2(40)-A 48" x 48"



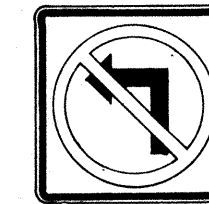
R2-4a(50/40) 24" x 48"
R2-4a(50/40)-A 48" x 96"



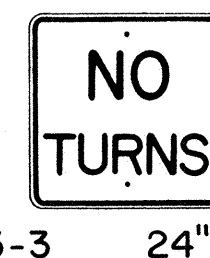
R2-5b(30) 24" x 30"
R2-5b(30)-A 48" x 60"



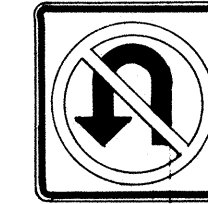
R3-1 24" x 24"
24" x 18"
R3-1-A 48" x 48"
48" x 36"



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



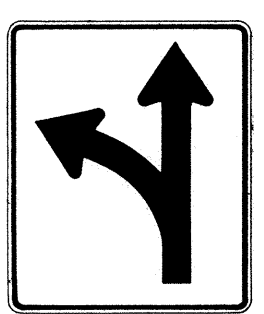
R3-3 24" x 24"
R3-3-A 48" x 48"



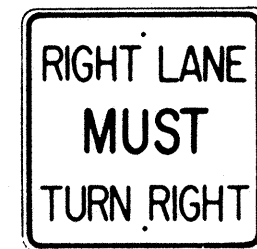
R3-4 24" x 24"
24" x 18"
R3-4-A 48" x 48"
48" x 36"



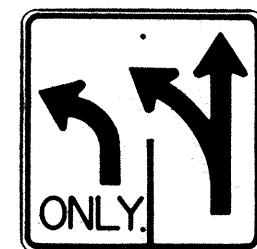
R3-5(L) 30" x 36"
R3-5(L)-A 48" x 60"



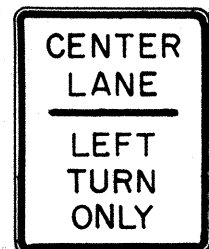
R3-6(L) 30" x 36"
R3-6(L)-A 48" x 60"



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



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



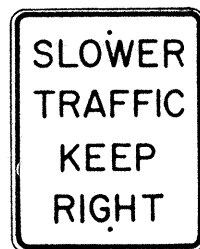
R3-9 24" x 30"



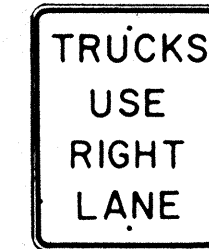
R4-1 24" x 30"



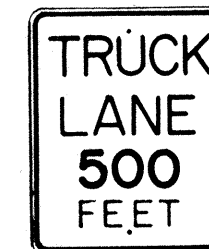
R4-2 24" x 30"



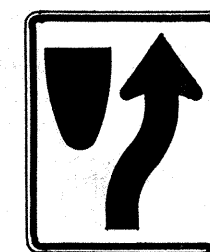
R4-3 24" x 30"
R4-3-A 48" x 60"



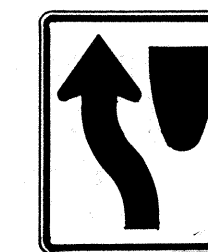
R4-5 24" x 30"



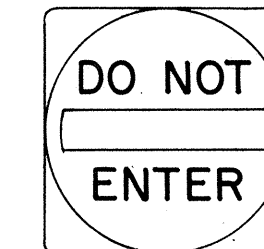
R4-6(500) 24" x 30"



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



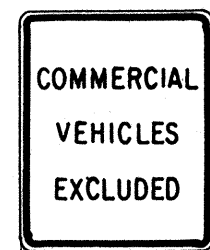
R4-8 24" x 30"
24" x 18"



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



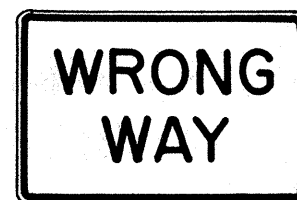
R5-2 24" x 24"
24" x 18"



R5-4 24" x 30"



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



R5-9 36" x 24"



R6-1(R) 36" x 12"



R6-2(R) 18" x 24"



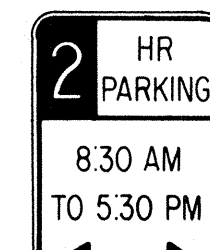
R7-1 12" x 18"
R7-1-A 24" x 30"



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



R7-107(R) 12" x 18"



R7-108 12" x 18"



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



R8-1 24" x 30"



R8-2 24" x 30"



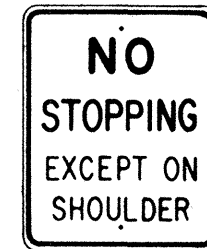
R8-3 24" x 30"



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



R8-5 24" x 30"



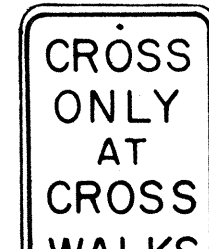
R8-6 24" x 30"



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



R9-1 18" x 24"



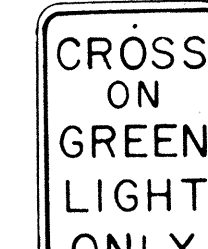
R9-2 12" x 18"



R9-3 12" x 18"



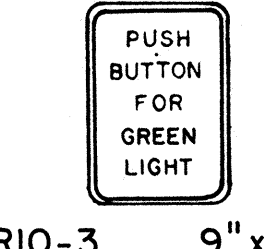
R9-4 18" x 24"



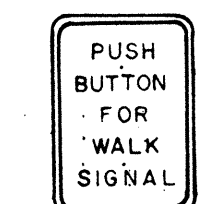
R10-1 12" x 18"



R10-2 12" x 18"



R10-3 9" x 12"



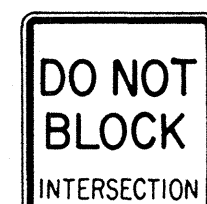
R10-4 9" x 12"



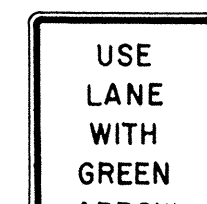
R10-5 24" x 30"



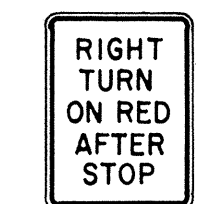
R10-6 24" x 36"



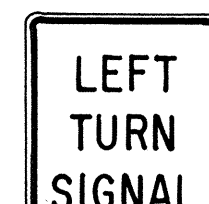
R10-7 24" x 30"



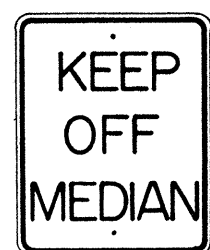
R10-8 24" x 30"



R10-9 24" x 30"



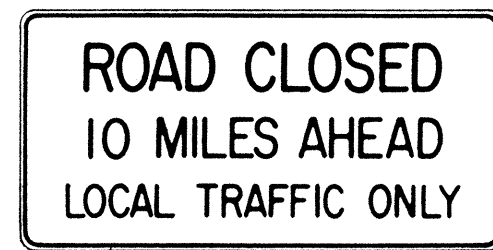
R10-10 24" x 30"



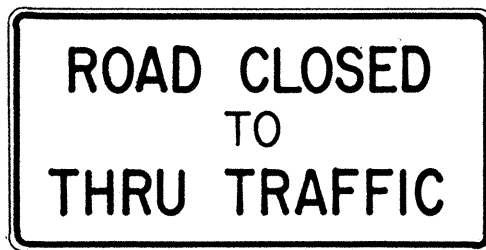
R11-1 24" x 30"



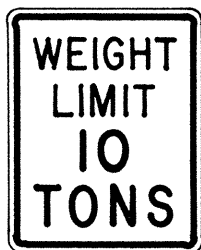
R11-2 48" x 30"



R11-3(10) 60" x 30"



R11-4 60" x 30"



R12-1(10) 24" x 30"

GENERAL NOTES

- 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.

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

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

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 101 Approved 12-30-69	H.C.	3/20/72
2	Revised General Note 1.	H.C.	10/14/74

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS REGULATORY SIGNS

NOT TO SCALE

SHEET No. 3 OF 9 SHEETS DT 101

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

FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	73A-01-75	1975	7	17



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"



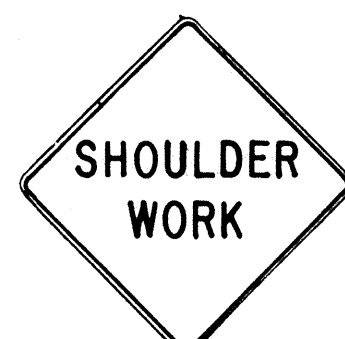
CW21-2 30" x 30"



CW21-3 36" x 36"



CW21-4 36" x 36"



CW21-5 30" x 30"



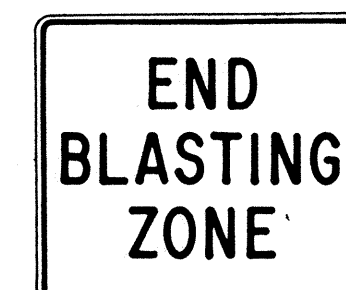
CW21-6 30" x 30"



CW22-1b 48" x 48"



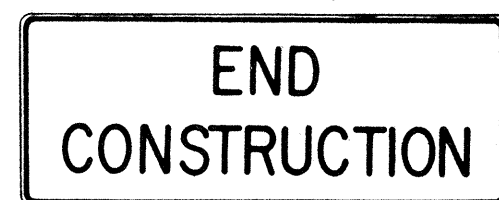
CW22-2 42" x 36"



CW22-3 42" x 36"



CG20-1(5) 60" x 36"



CG20-2 60" x 24"



CM4-9(R) 30" x 24"



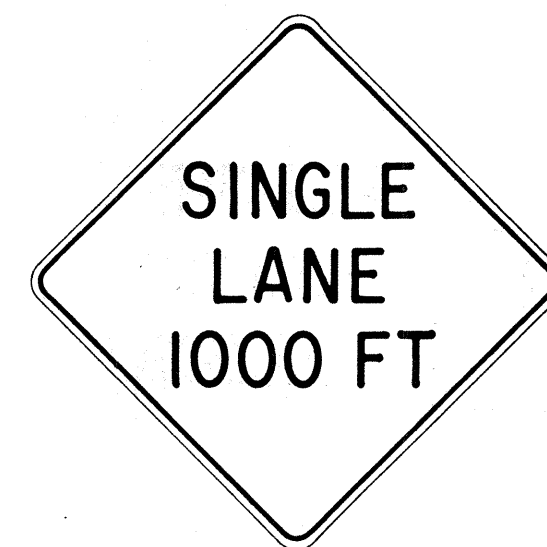
CM4-10(R) 48" x 18"



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 unless otherwise specified.
- All construction signs shall have $\frac{3}{8}$ " 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
TRAFFIC ENGINEER

3/21/72
DATE

APPROVED:

Hubert Ralsch
ASSISTANT CHIEF, ENGINEERING

3/23/72
DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 104 Approved 12-30-69	HT.	3/23/72
2	Revised General Note 1	HT.	10/16/74

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

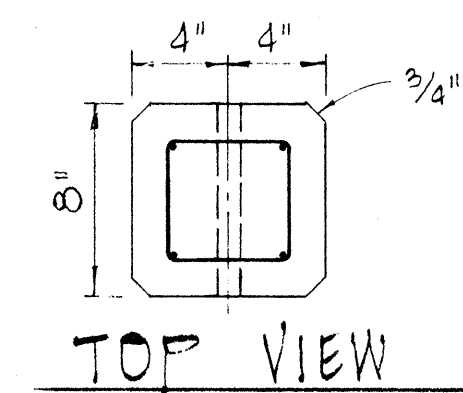
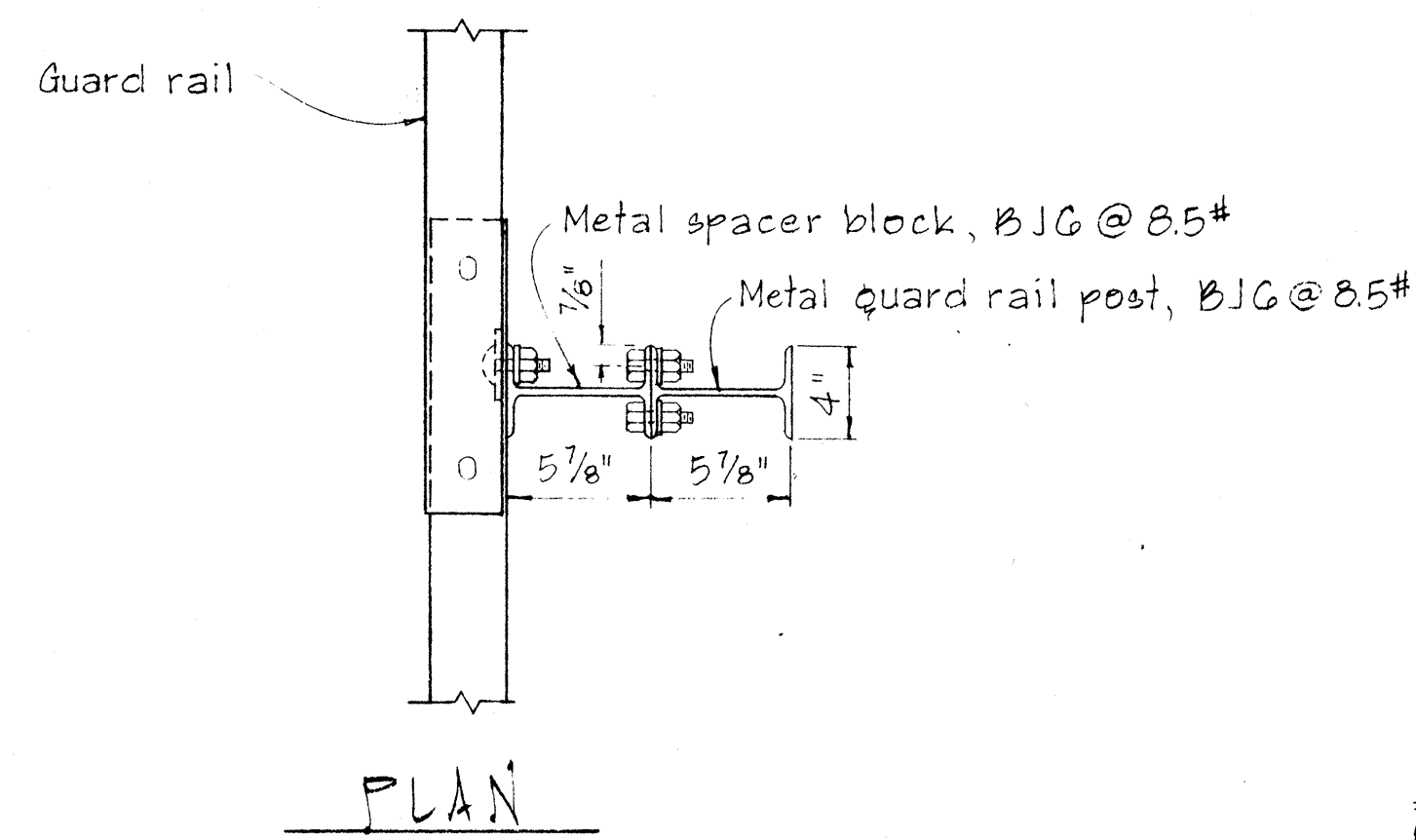
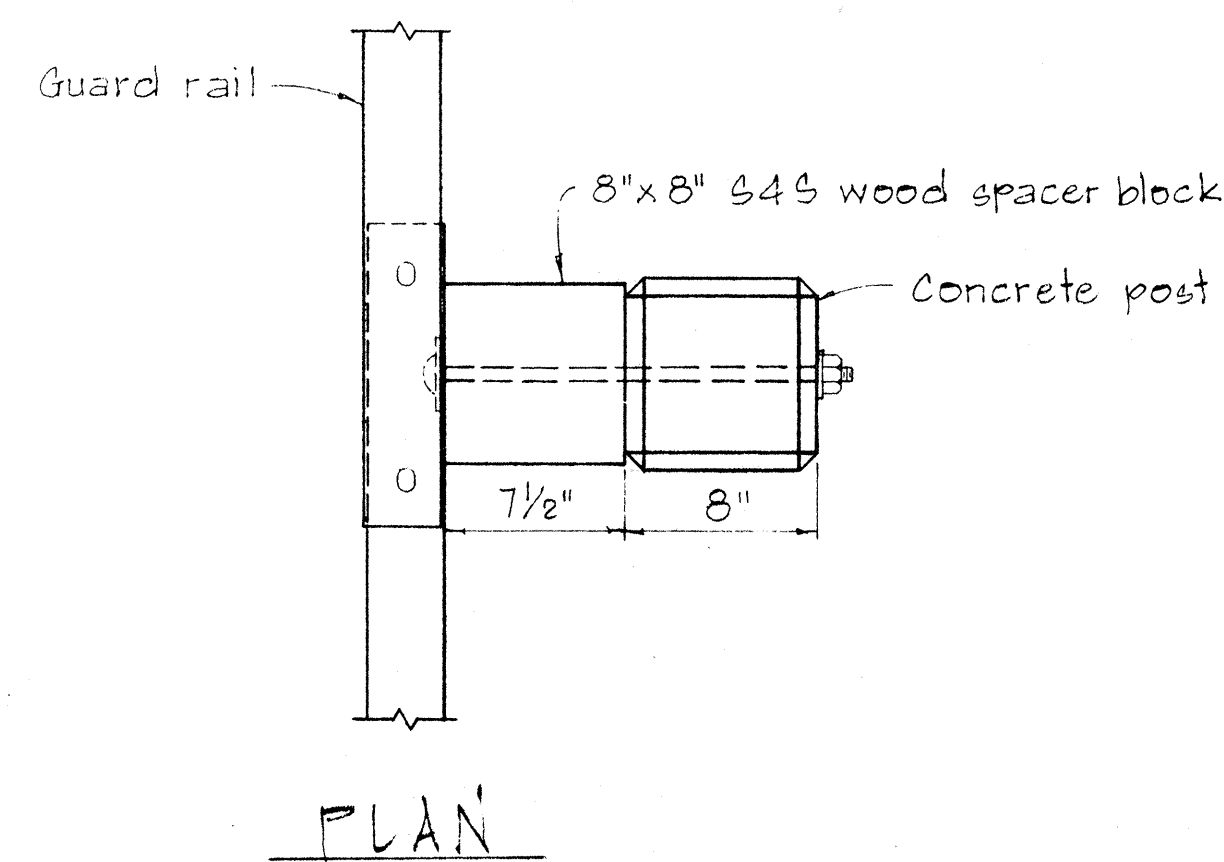
STANDARD DETAILS CONSTRUCTION SIGNS

NOT TO SCALE

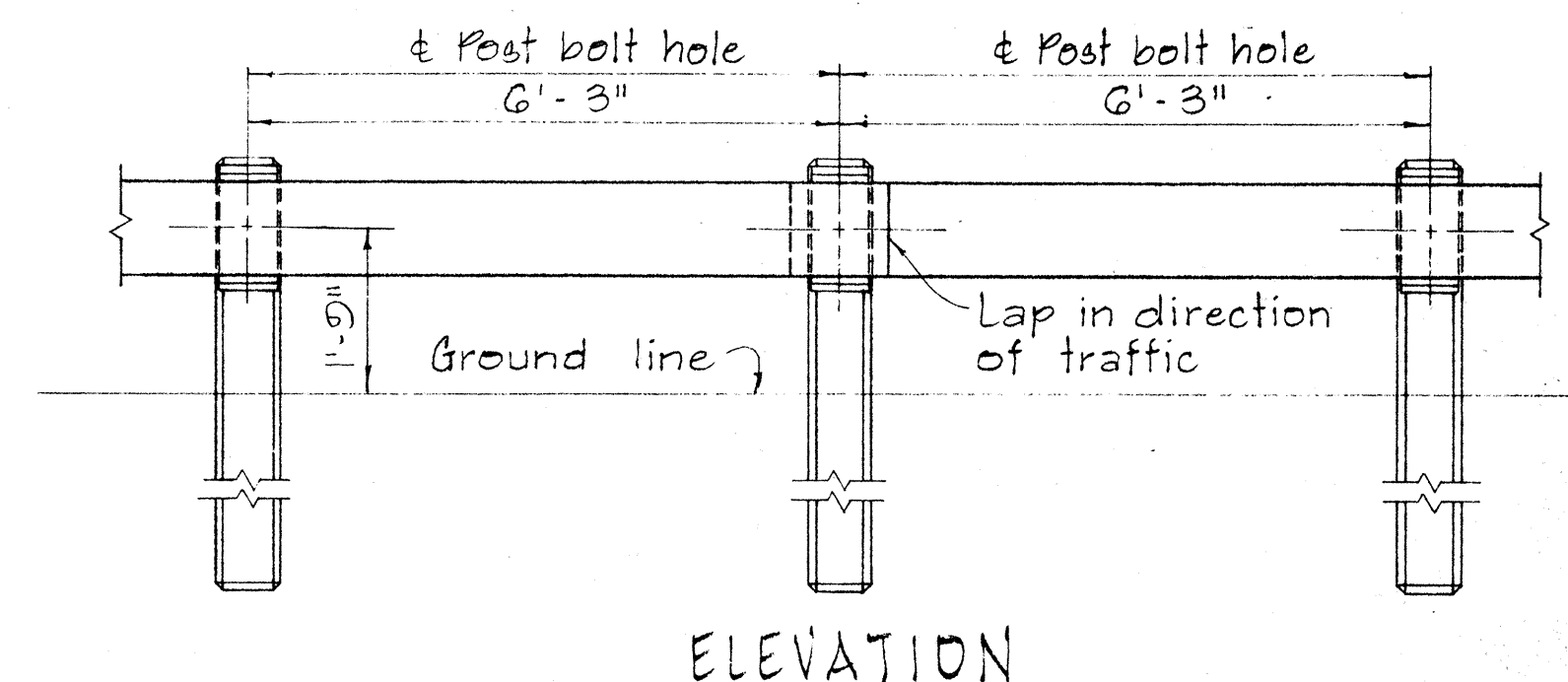
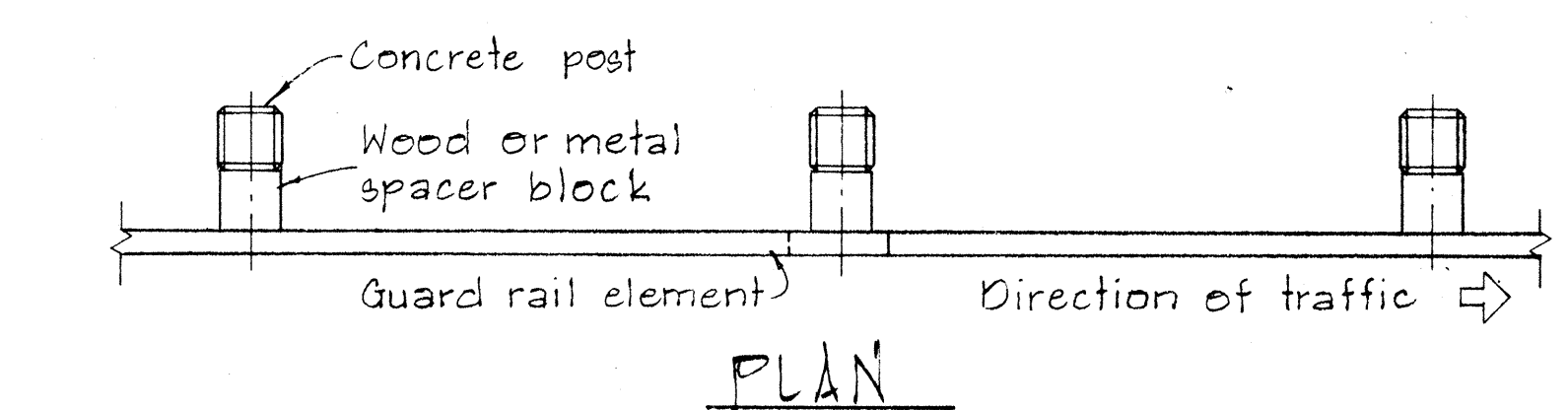
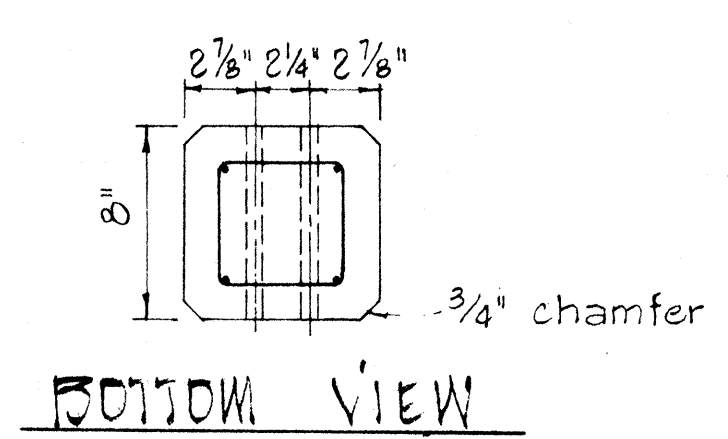
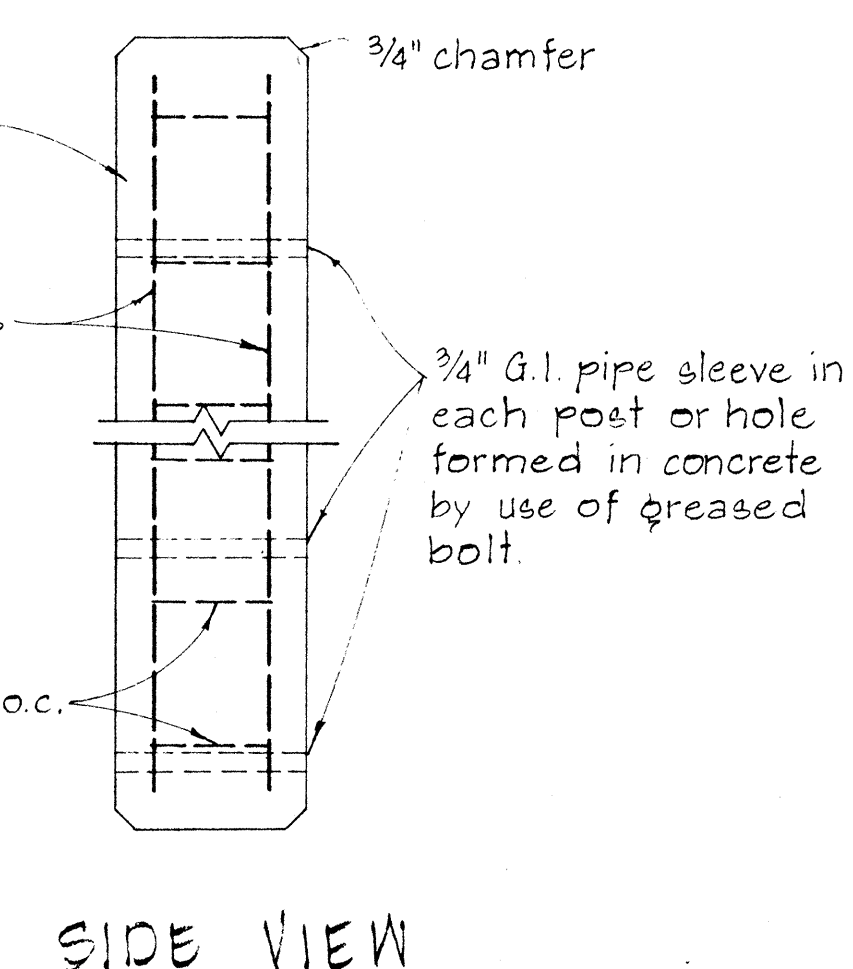
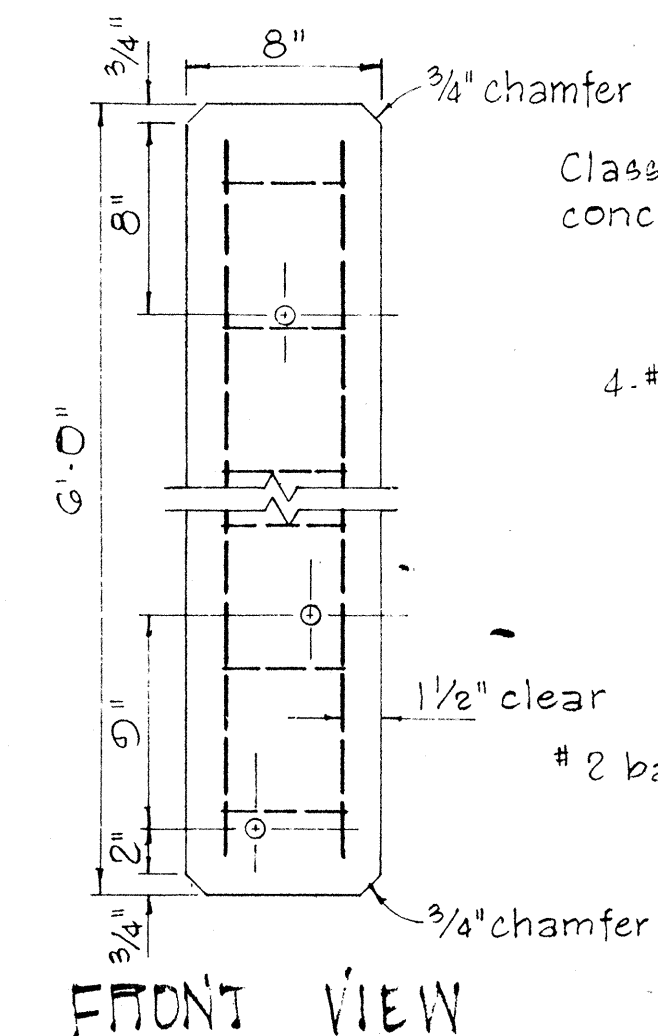
SHEET No. 4 OF 9 SHEETS DT 104

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

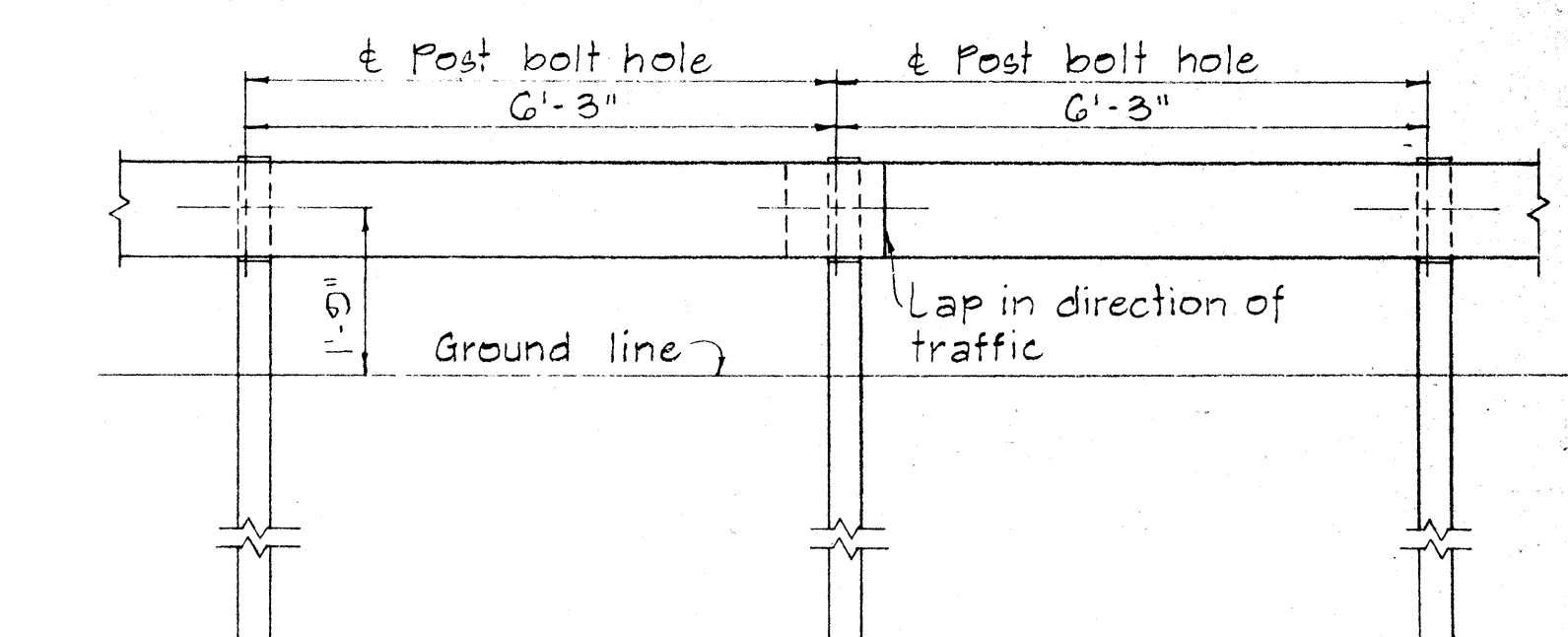
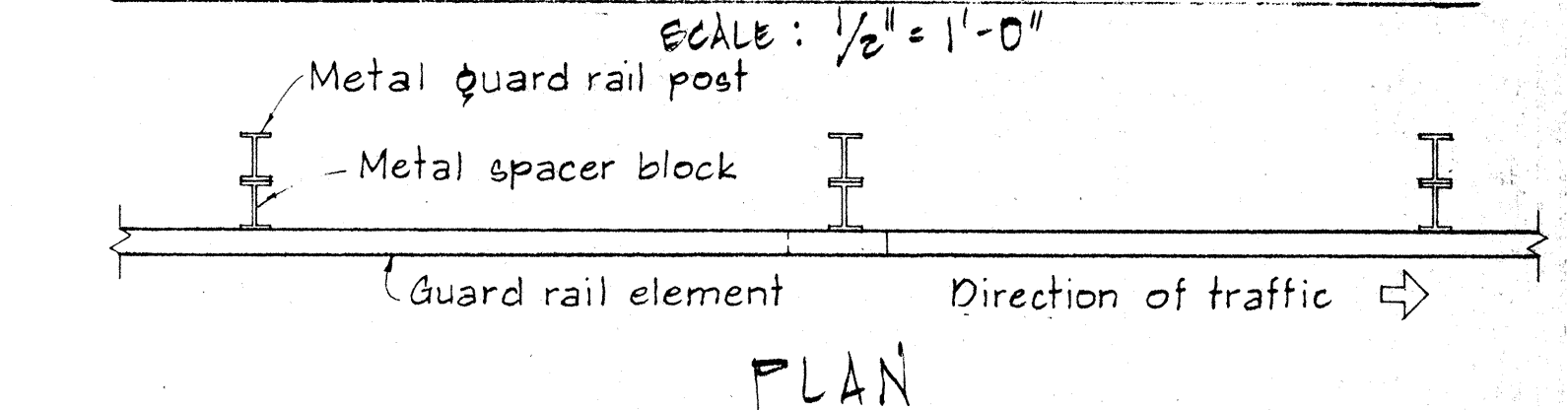
FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93A-01-75	1975	8	17



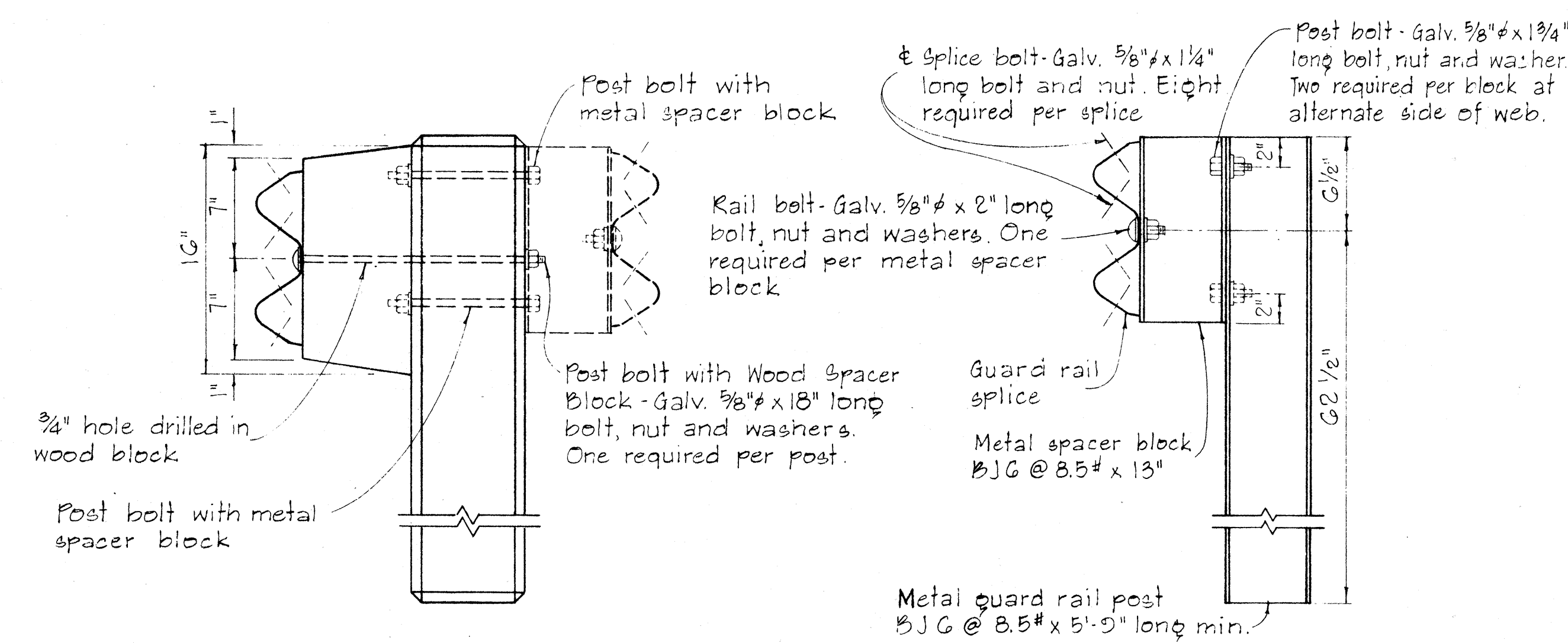
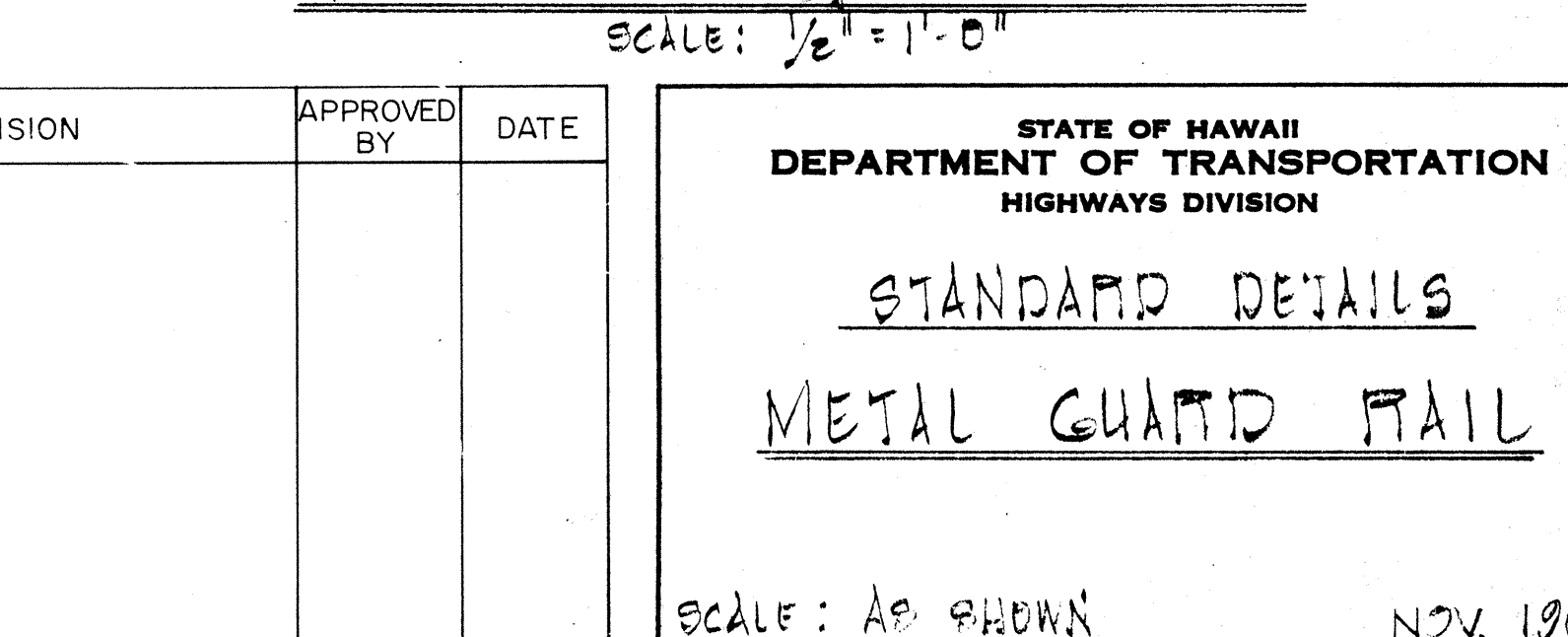
NOTE:
Concrete post shall be precast



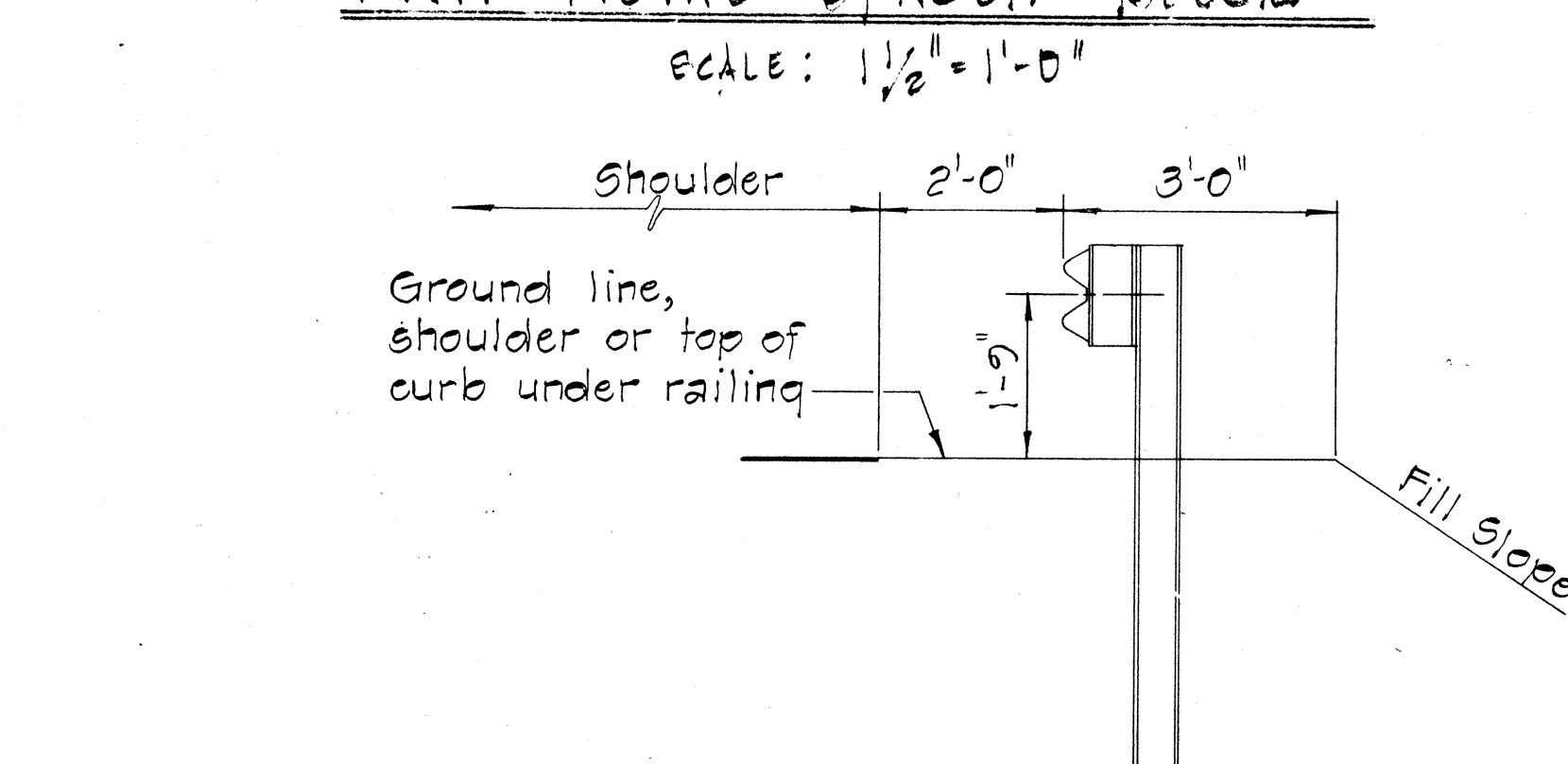
METAL GUARD RAIL ON CONCRETE POST WITH WOOD OR METAL SPACER BLOCK



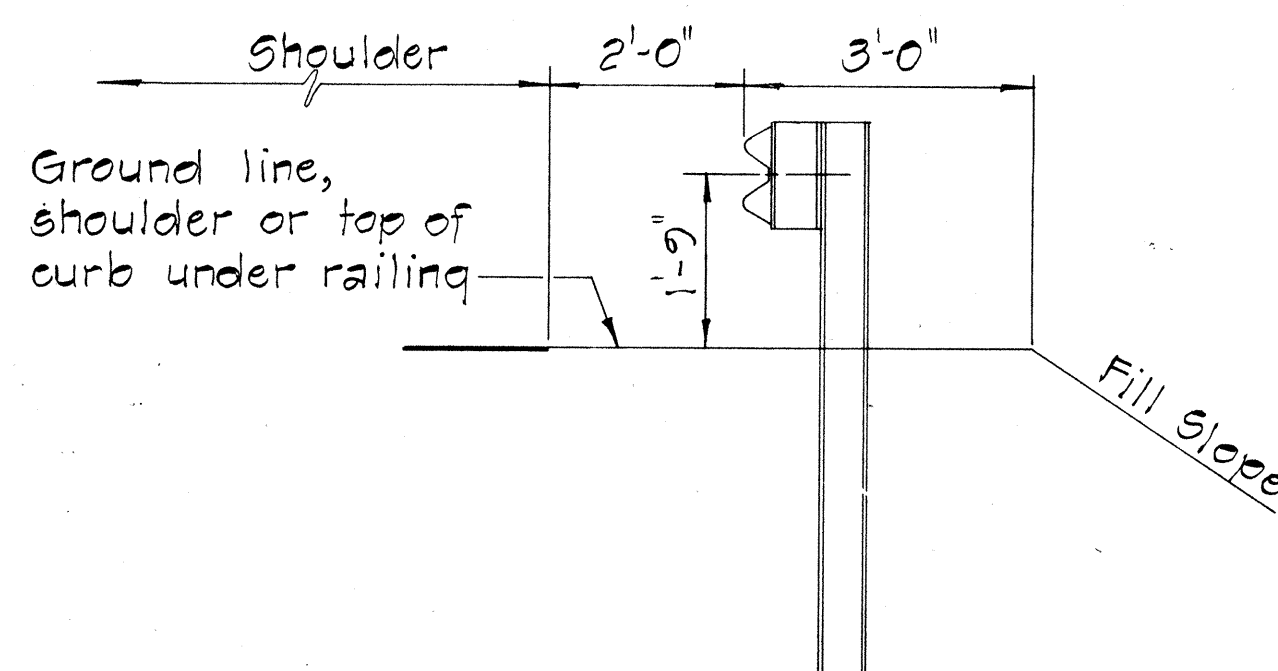
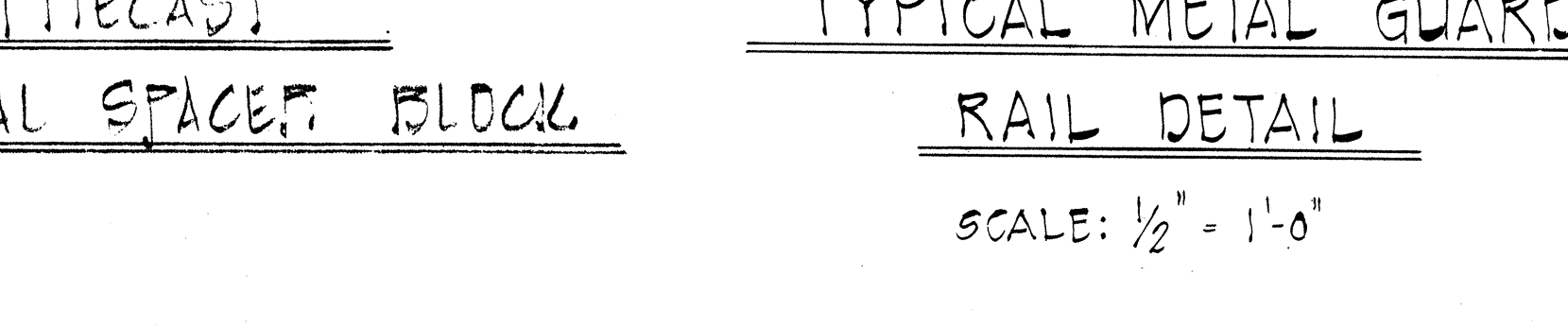
METAL GUARD RAIL ON METAL POST WITH METAL SPACER BLOCK



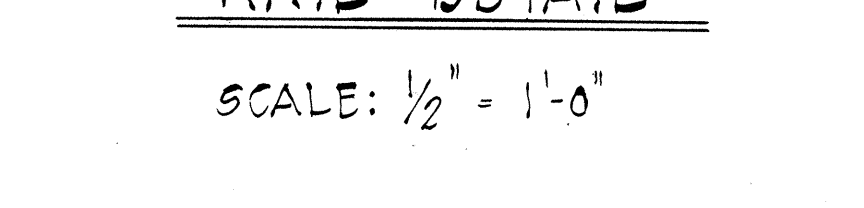
SINGLE METAL GUARD RAIL ON METAL POST WITH METAL SPACER BLOCK



SINGLE METAL GUARD RAIL ON PRECAST CONCRETE POST WITH WOOD OR METAL SPACER BLOCK



TYPICAL METAL GUARD RAIL DETAIL



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

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

NO.	REVISION	APPROVED BY	DATE

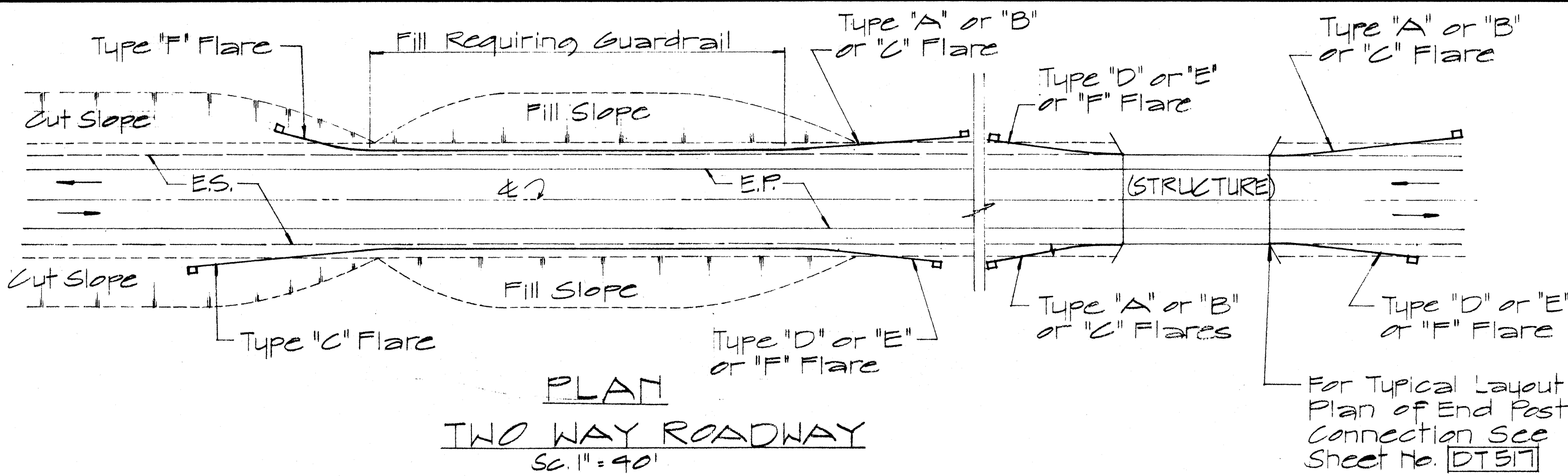
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
METAL GUARD RAIL

SCALE: AS SHOWN
NOV 1968

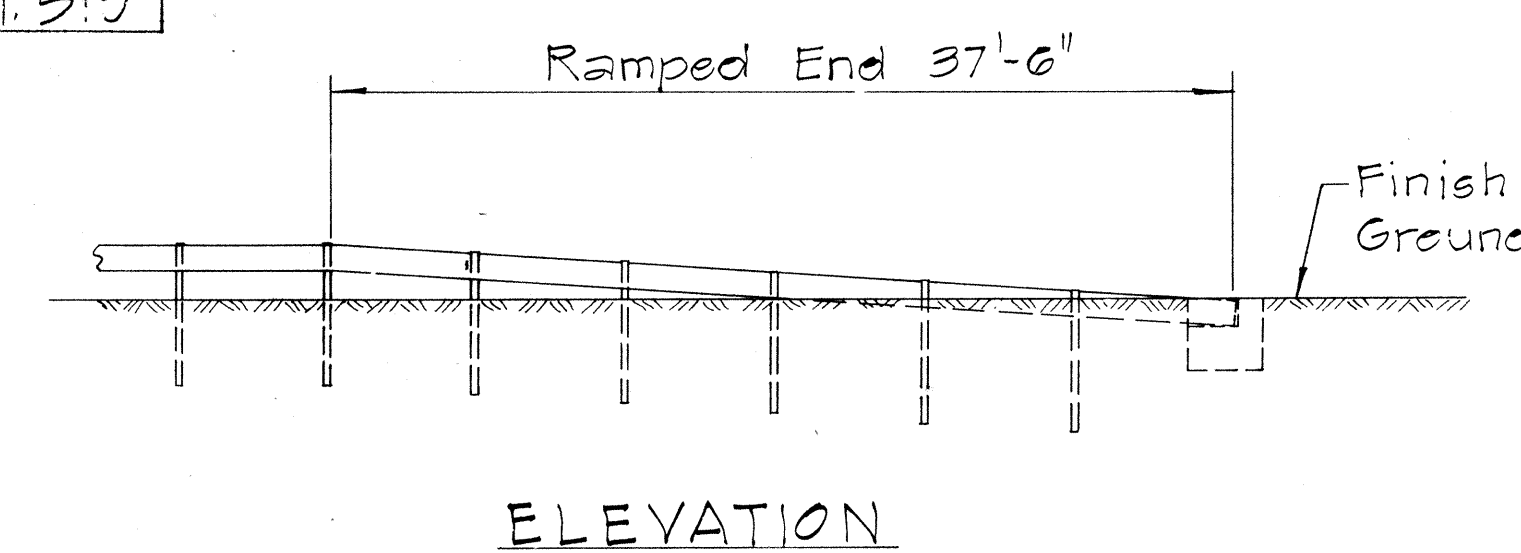
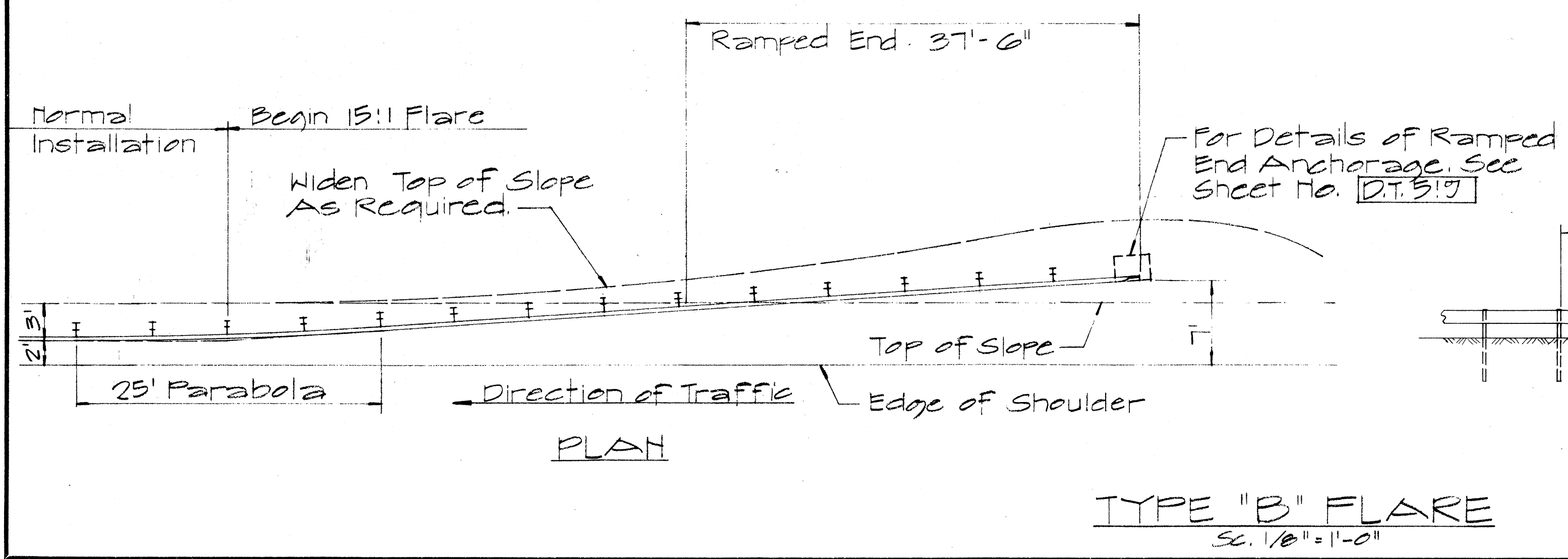
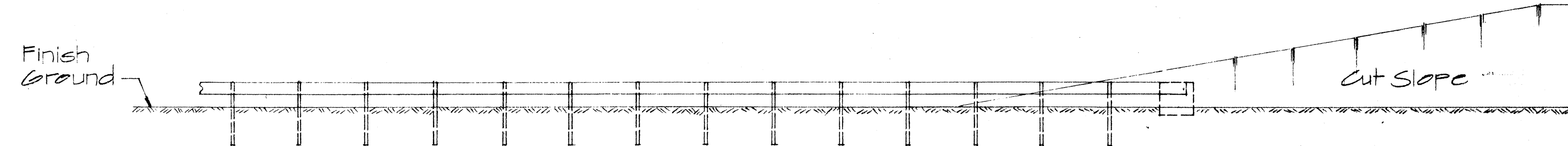
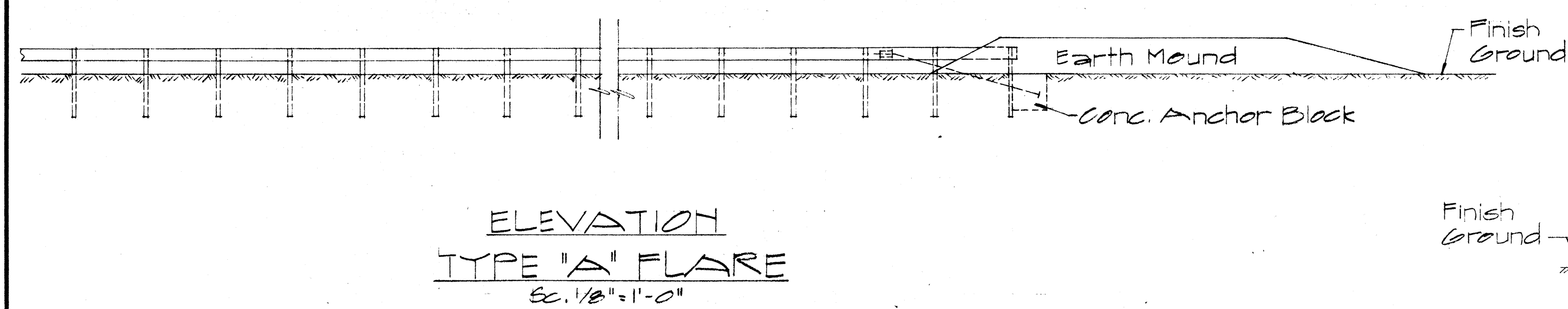
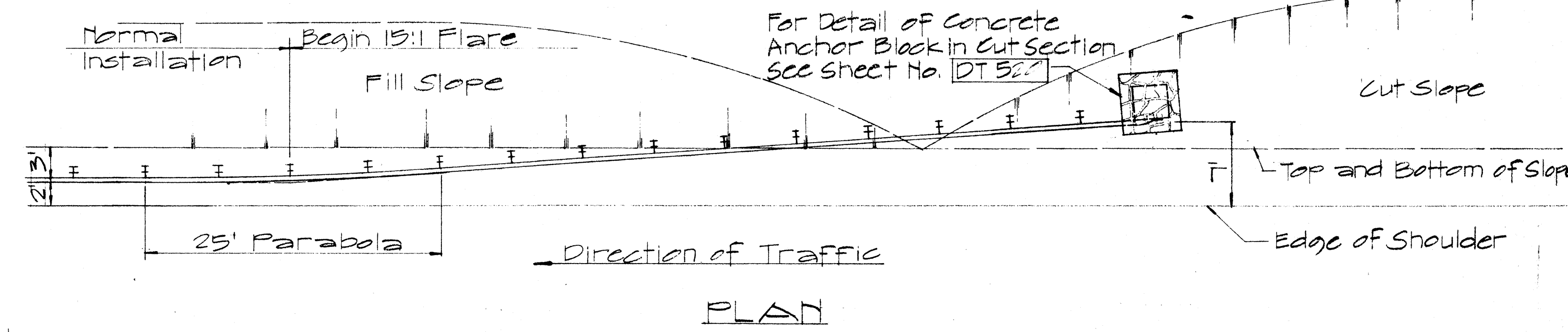
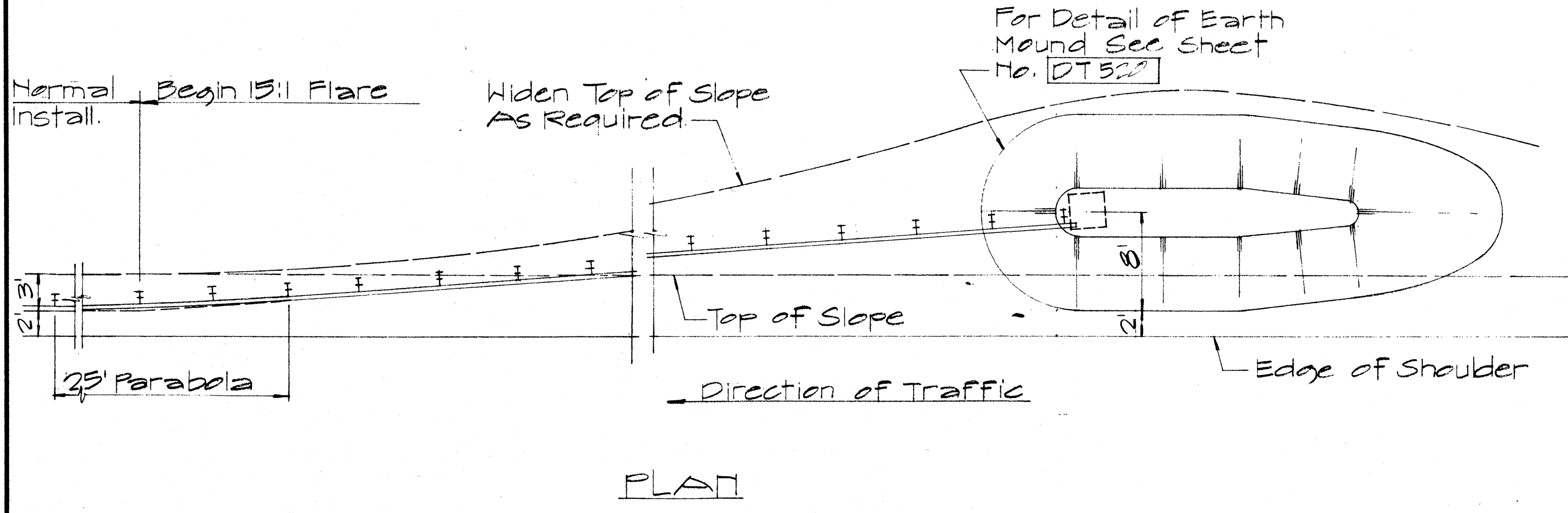
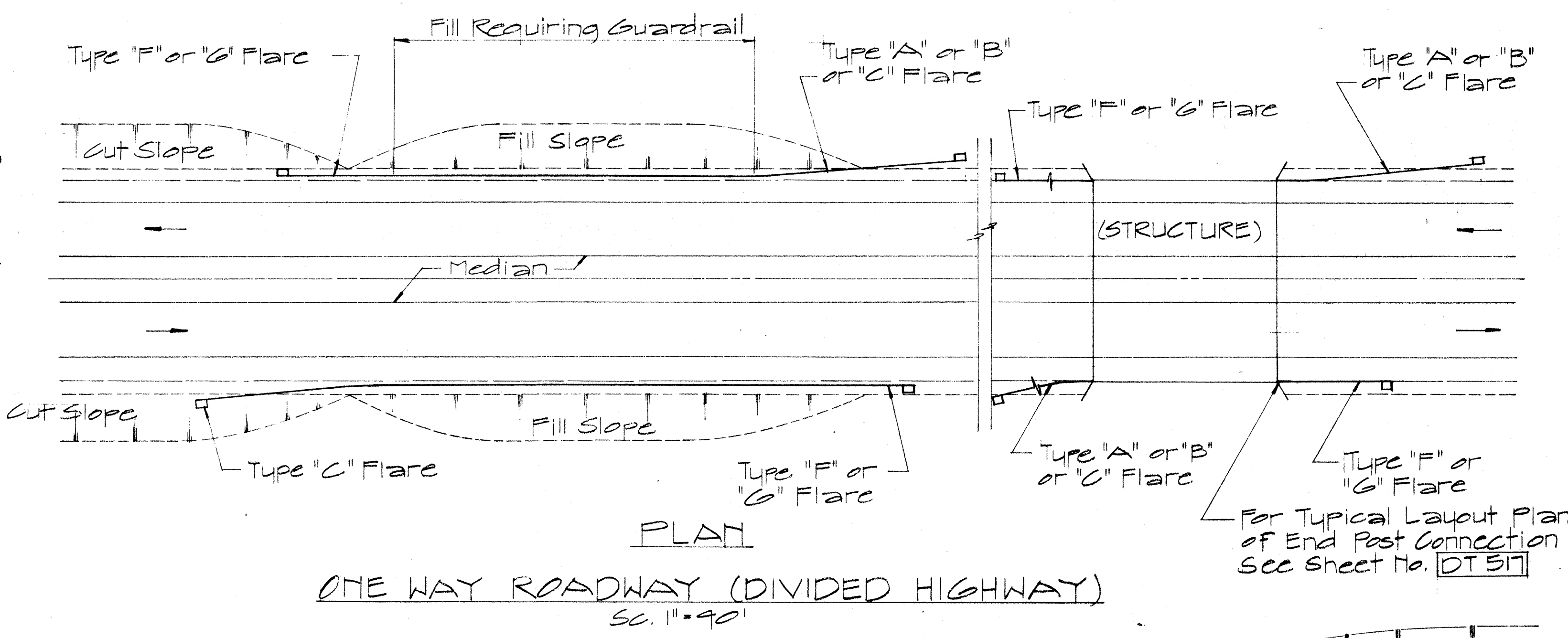
SHEET No. 5 OF 9 SHEETS DT 500

DATE	
SURVEY PLOTTED BY	
DRAWN BY	
CHECKED BY	
NOTED BY	



NOTE:
Metal guard rail connection to structures requires End Post Connection. See structure plans.

FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93A-01-75	1975	10	17



ELEVATION
TYPE "C" FLARE
SC. 1/8" = 1'-0"

NO.	REVISION	APPROVED BY	DATE

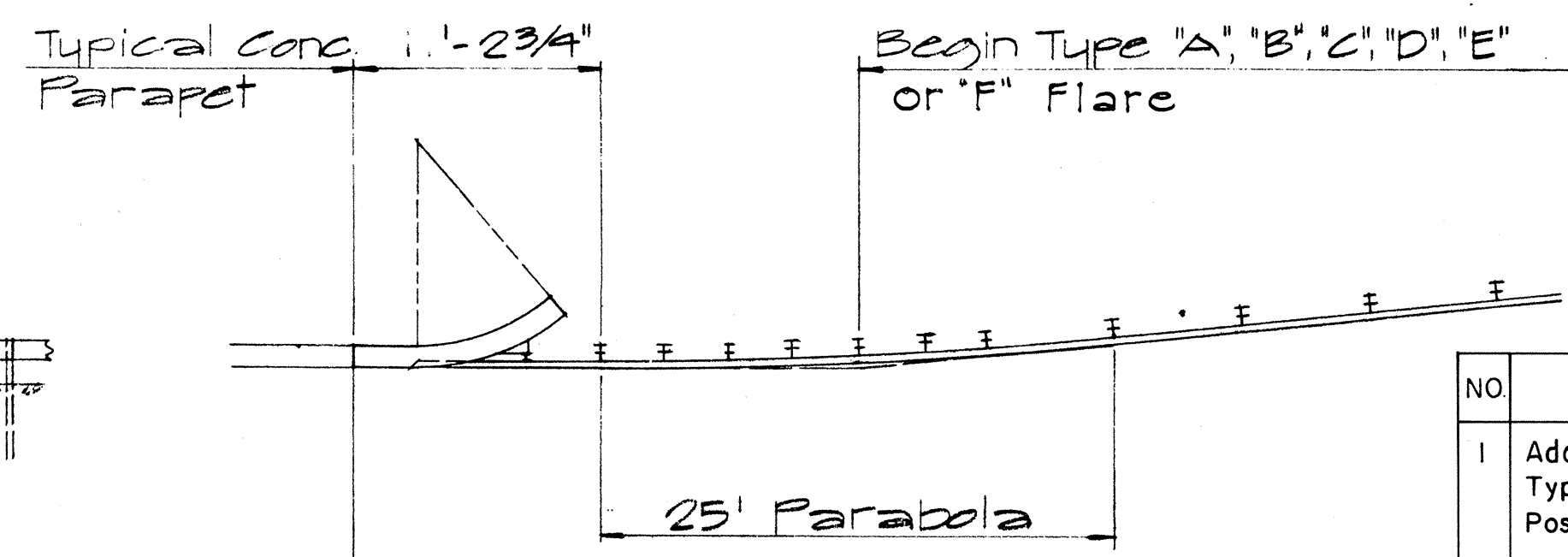
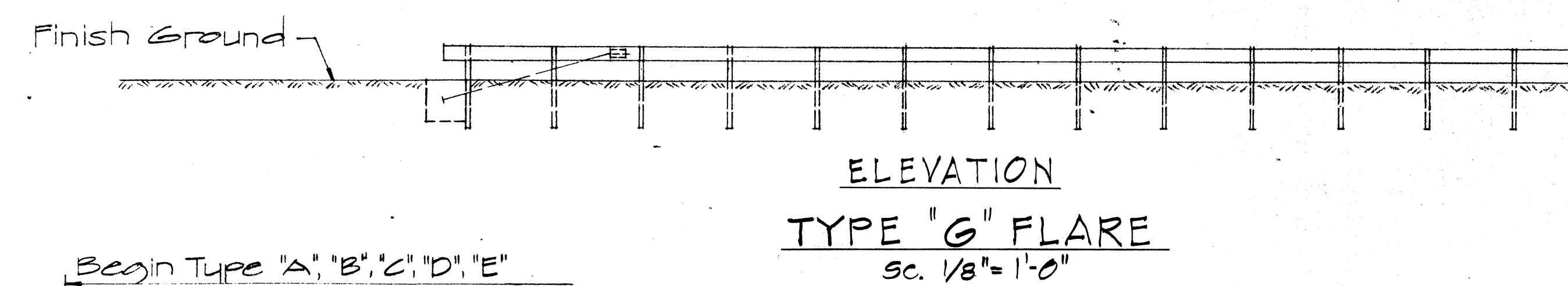
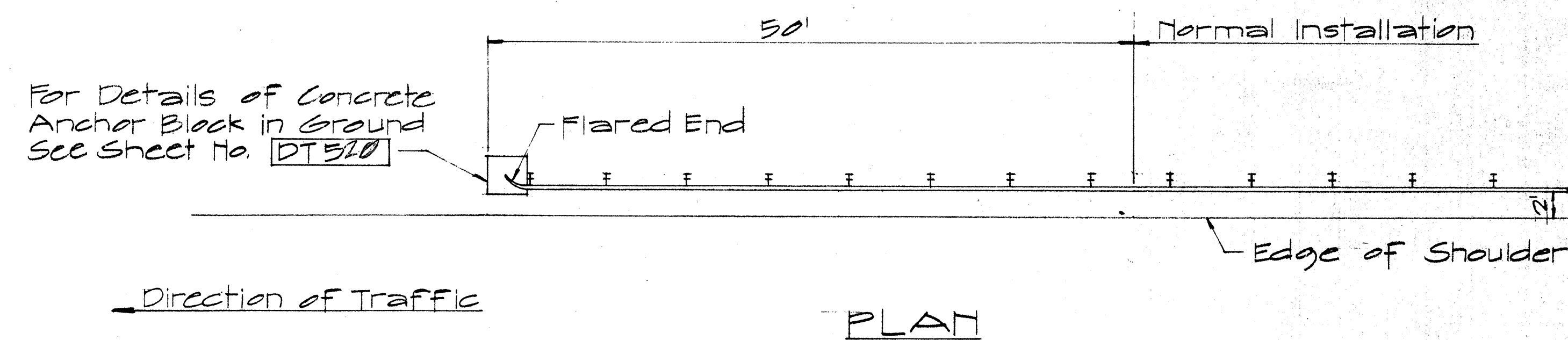
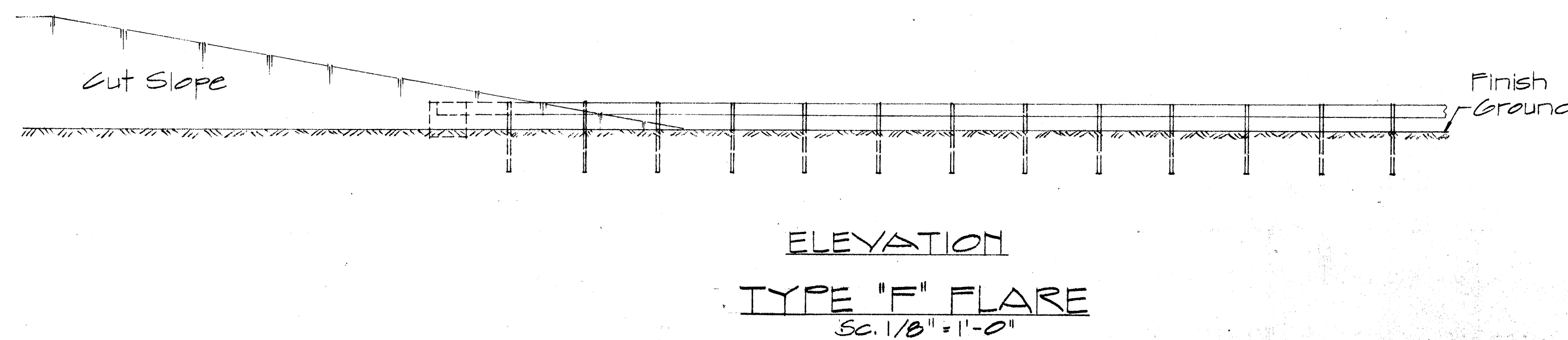
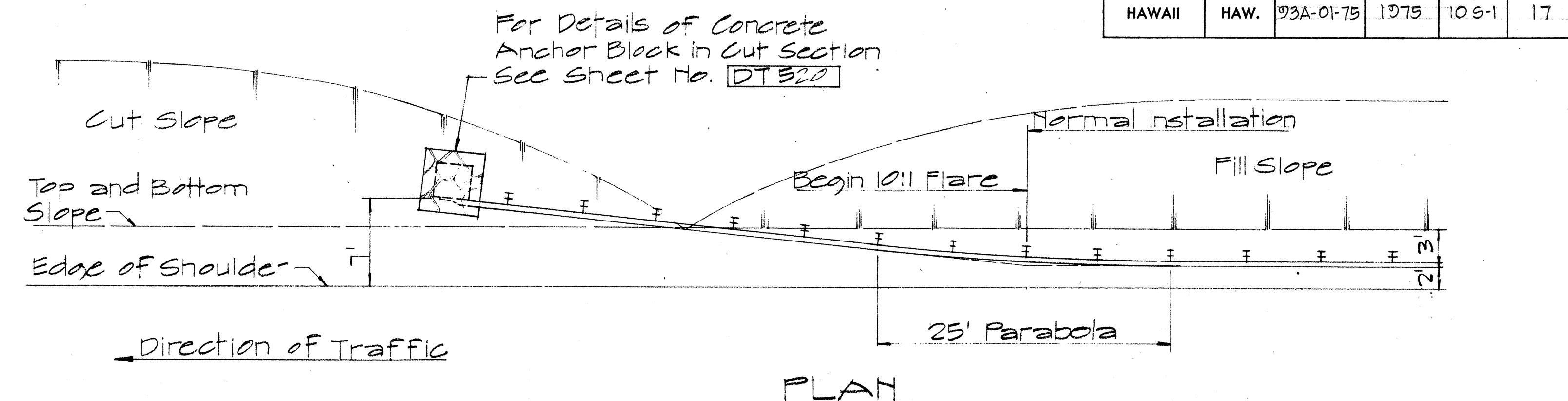
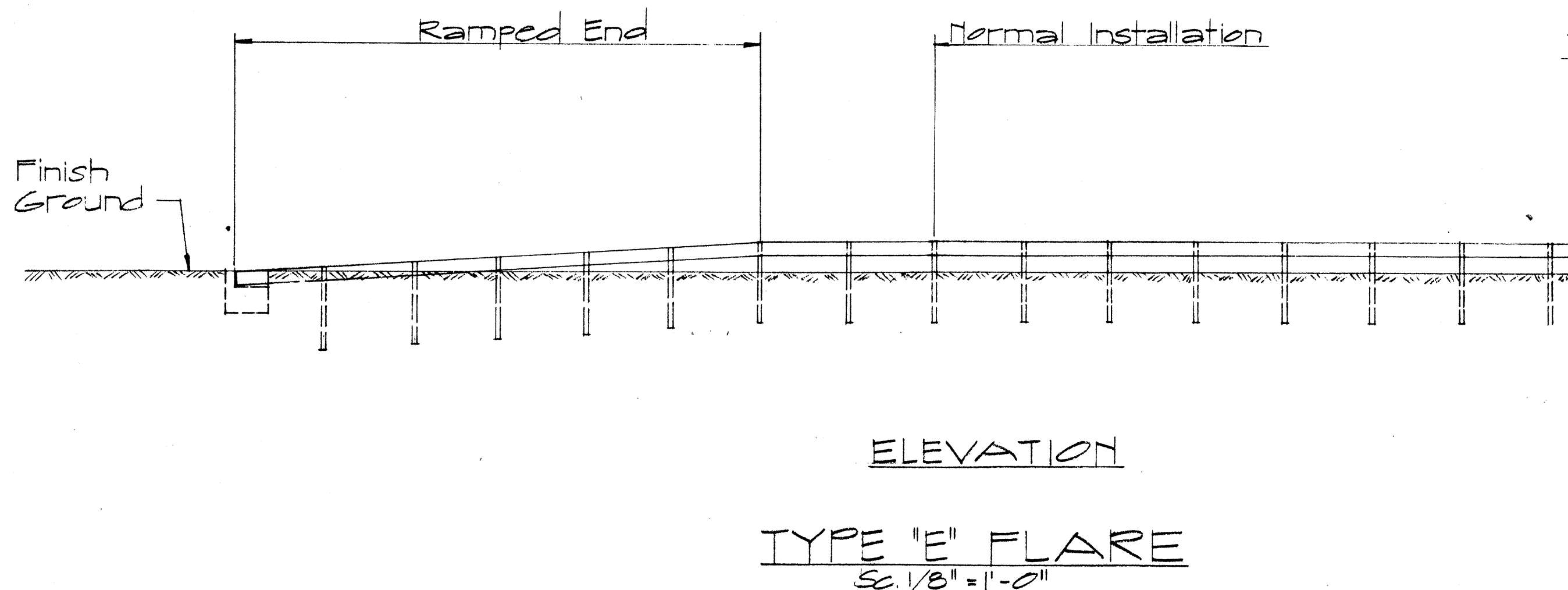
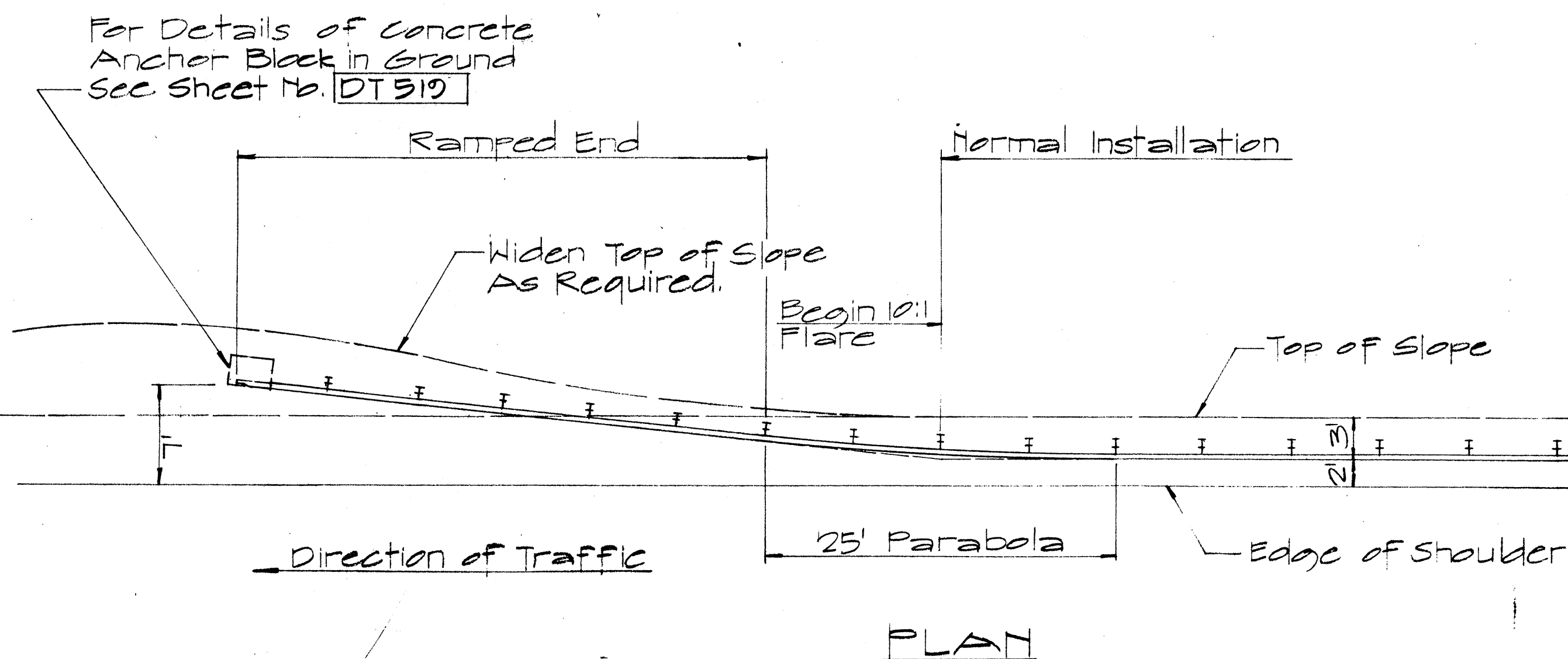
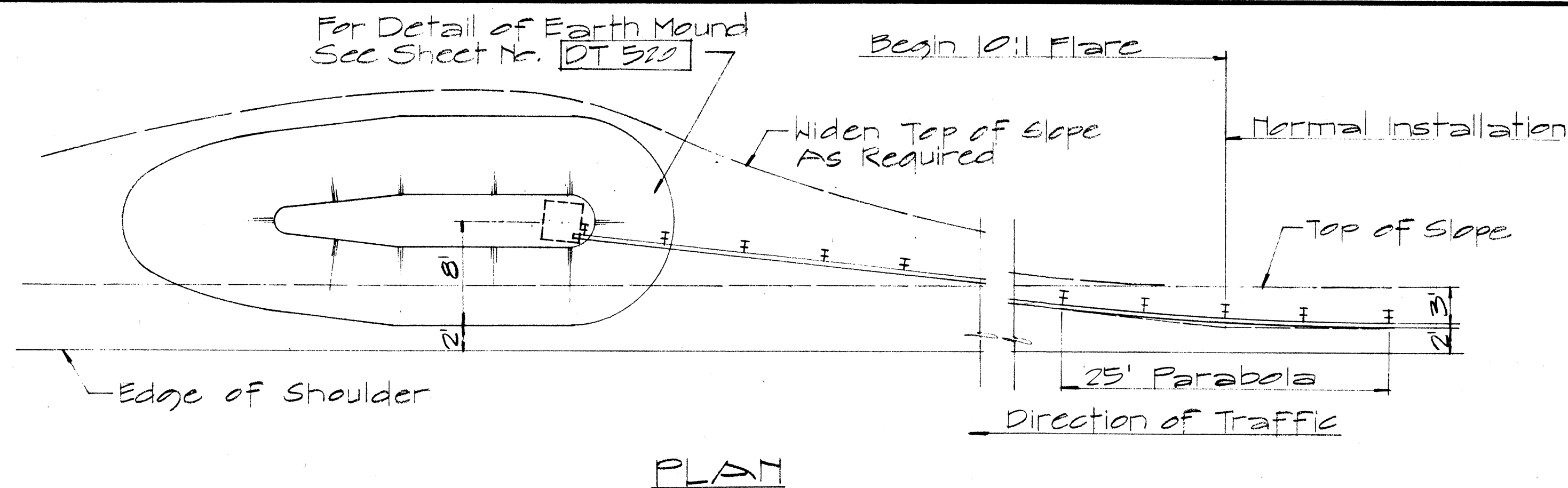
APPROVAL RECOMMENDED:
Erick Tanaka
TRAFFIC ENGINEER
12/23/69
DATE

APPROVED:
W. B. ...
ASSISTANT CHIEF, ENGINEERING
12-30-69
DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
OF APPROACH END
FLARE - ONE & TWO
WAY ROADWAY
SC. As Noted
April 1969
SHEET No. 7 OF 9 SHEETS DT 516

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93A-01-75	1975	105-1	17



NO.	REVISION	APPROVED BY	DATE
1	Additional Posts Added to Typical Layout Plan Of End Post Connection	H.T.	4-12-72

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

APPROVED:
W. S. Kal 12-29-69
 ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
 TRAILING END
 FLARE - ONE & TWO
 WAY ROADWAY

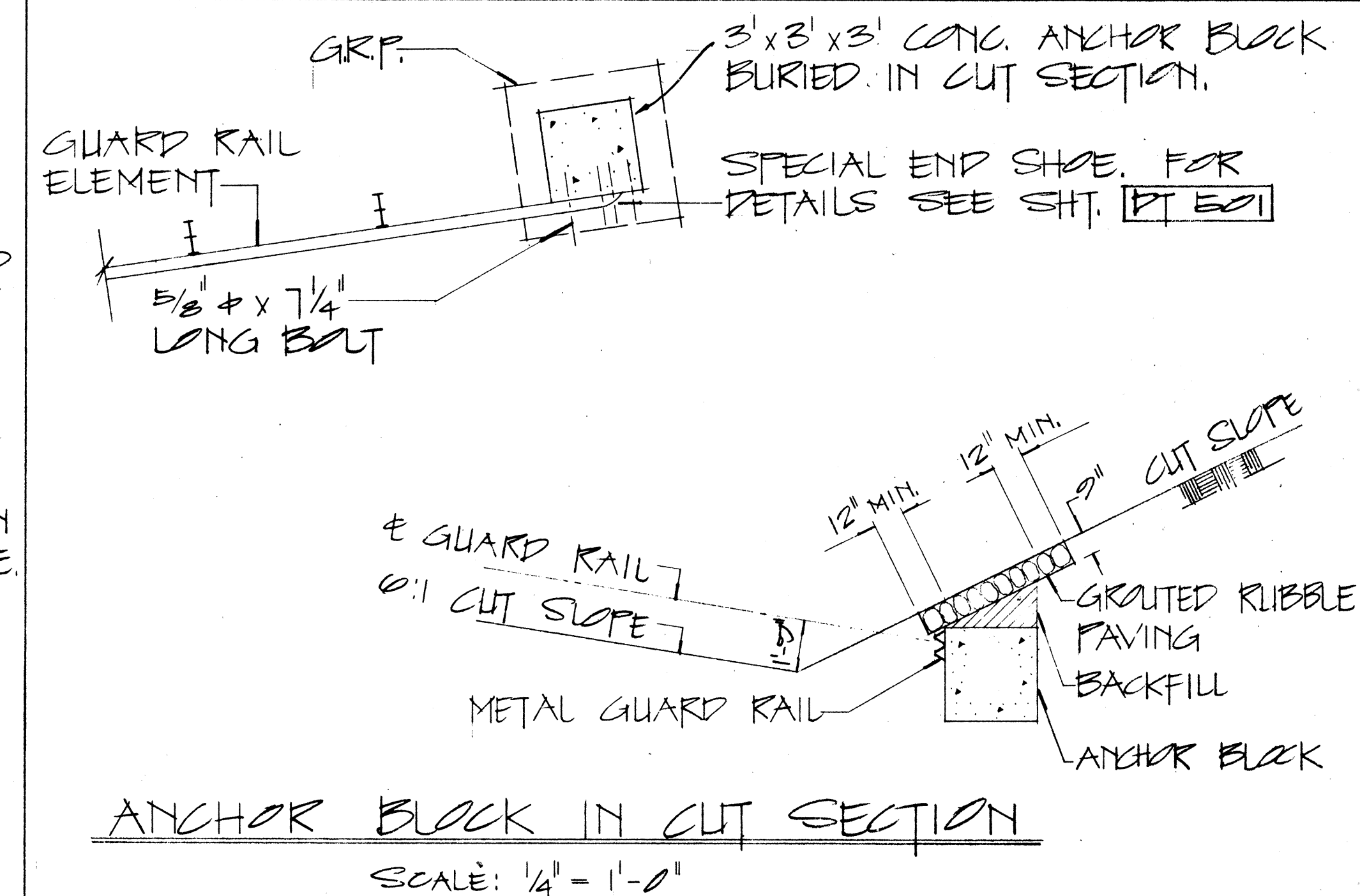
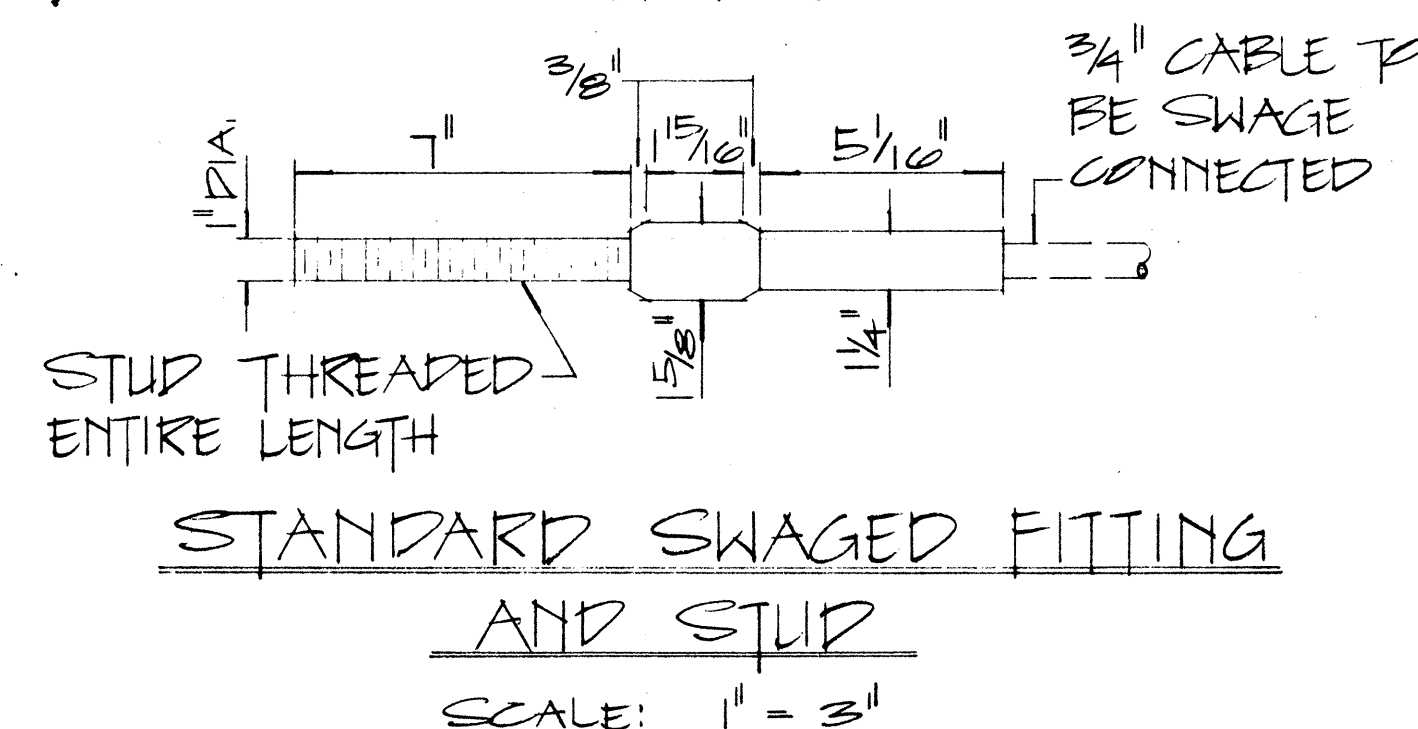
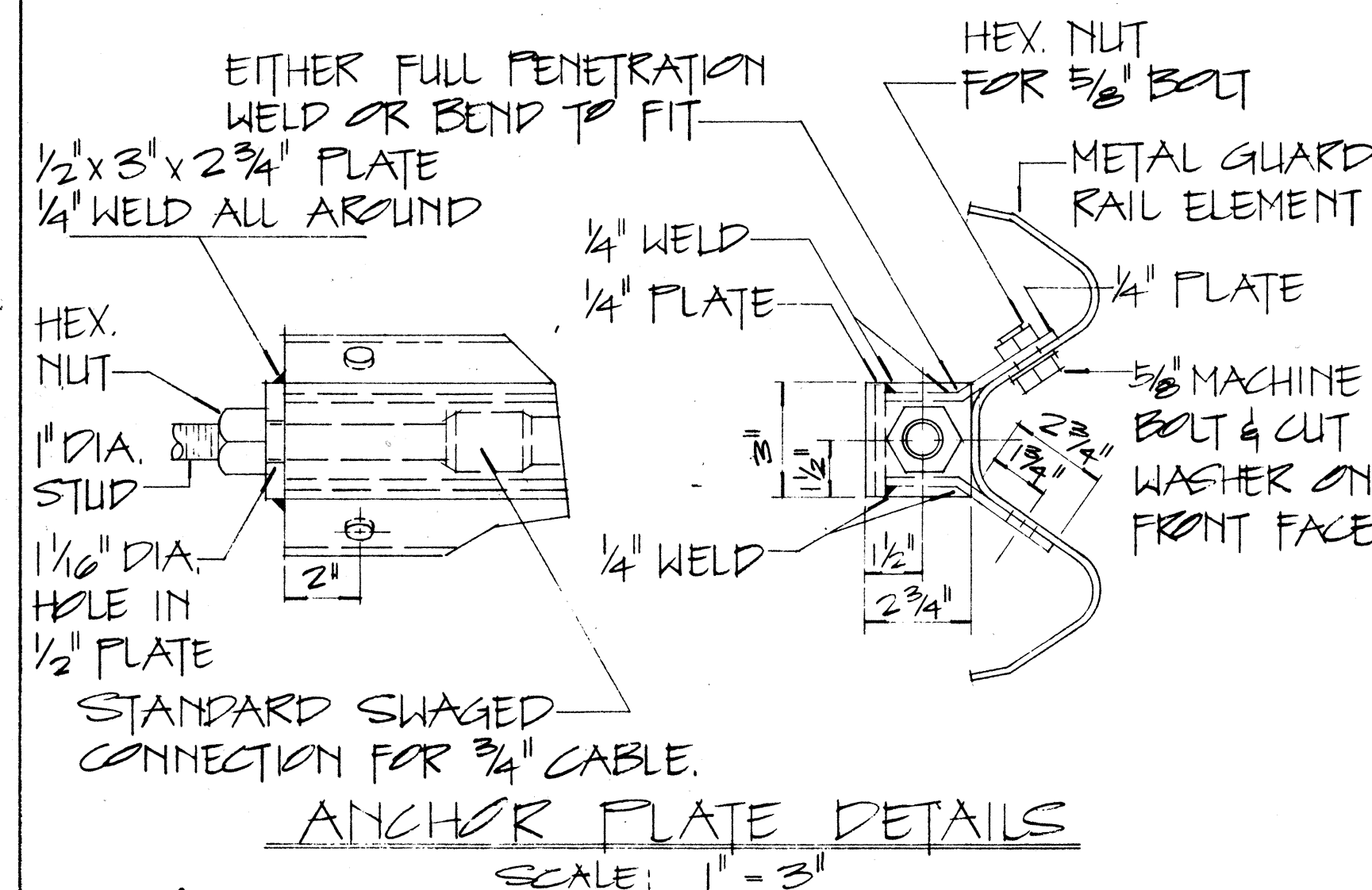
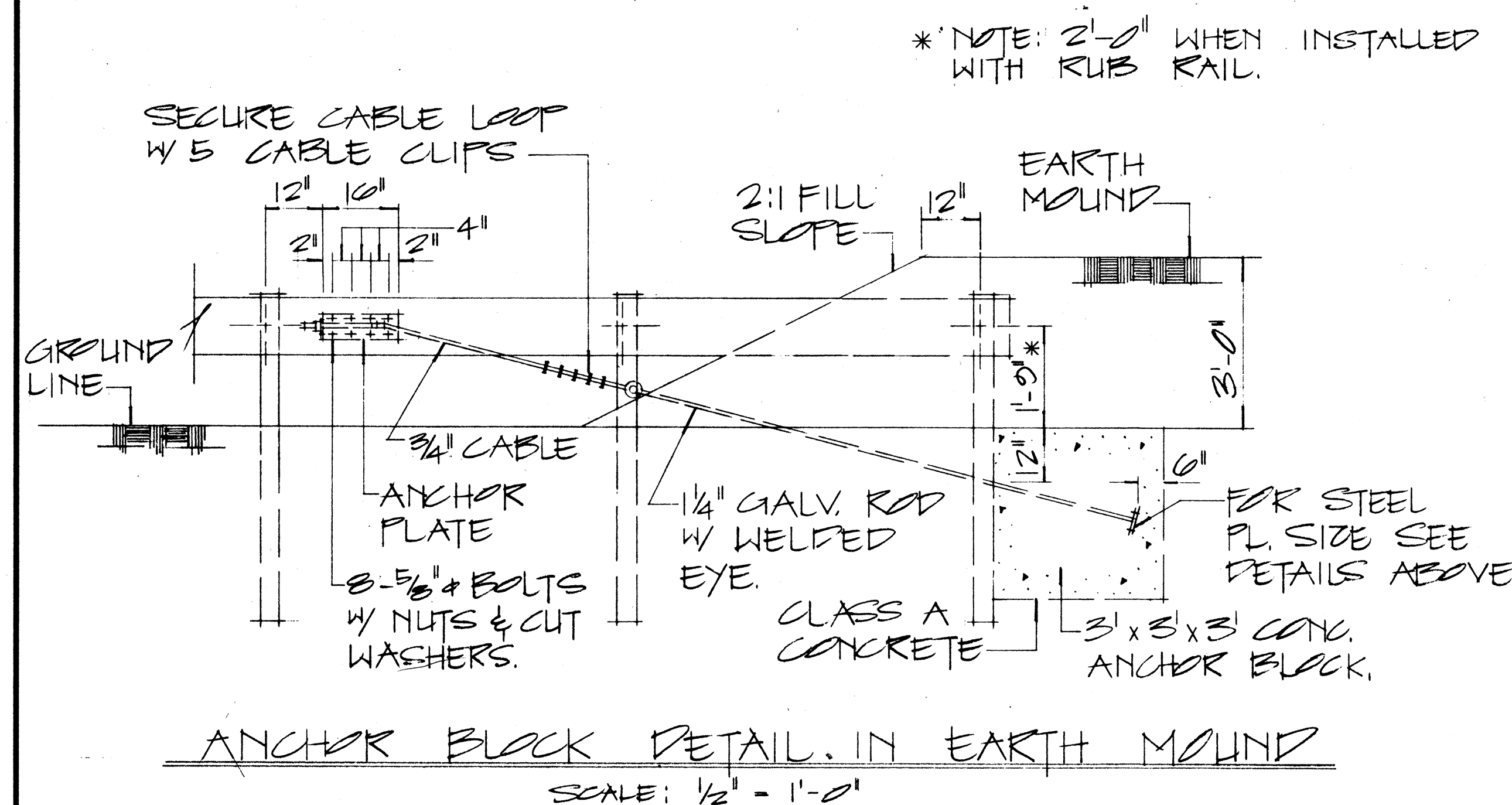
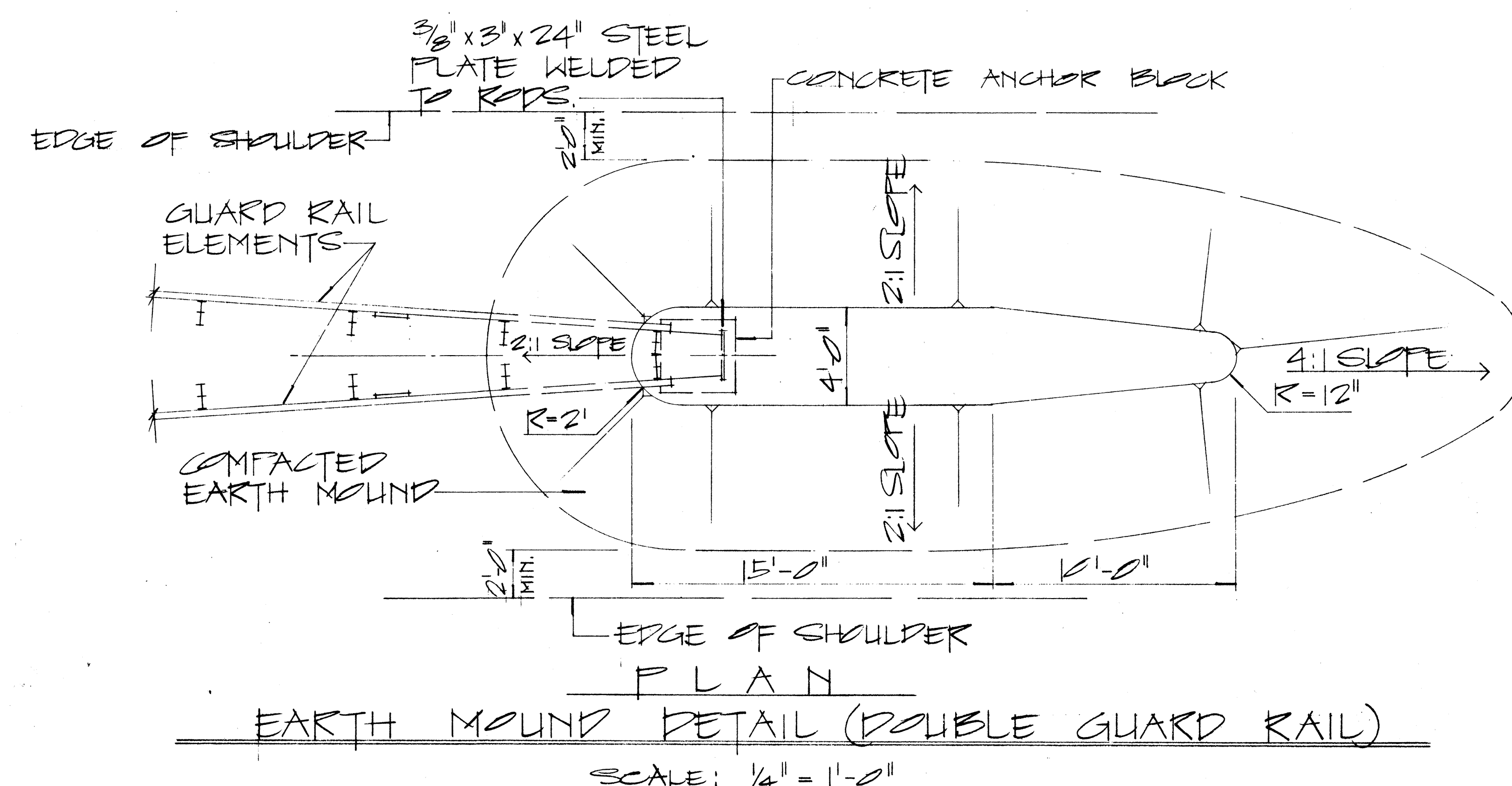
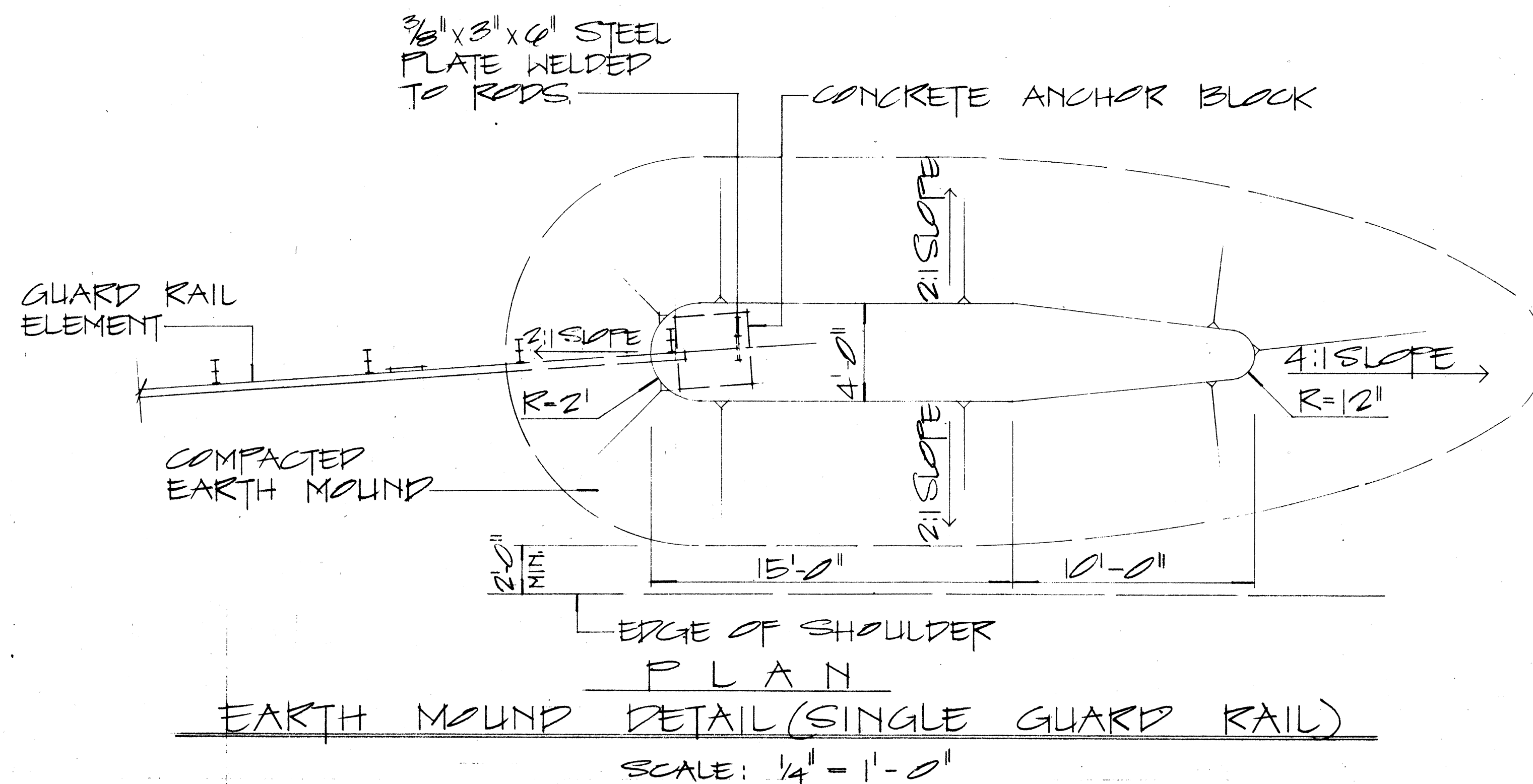
Scale: As Noted APRIL 1969

SHEET No. OF SHEETS DT 517

C.O. 105-1

DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
NOTED BY	DATE
ORIGINAL PLAN	DATE
NOTE BOOK	DATE
NO.	DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93A-01-75	1975	10 S-2	17



- NOTE:
1. GALVANIZED ANCHOR ROD, METAL GUARD RAIL AND FAST BURIED IN GROUND SHALL BE COVERED WITH A MIN. 20-MIL THICKNESS OF COAL TAR ENAMEL, CONFORMING TO AWWA STANDARD: C 203
 2. CONCRETE, GRP, EXCAVATION, EARTH MOUND, ANCHOR RODS AND MISCELLANEOUS APPURTENANCES NECESSARY TO ANCHOR THE GUARD RAIL ENDS SHALL BE INCIDENTAL TO THE METAL GUARD RAIL.

APPROVAL RECOMMENDED:

Euske Tanaka 12/29/62
TRAFFIC ENGINEER DATE

APPROVED:

W. J. J. J. 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
EARTH MOUND AND
ANCHOR BLOCK DETAILS

SCALE: AS SHOWN OCT 1969
SHEET No. OF SHEETS 17520

C.O. 105-2

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



2'-0"

3'-1/2"

9"

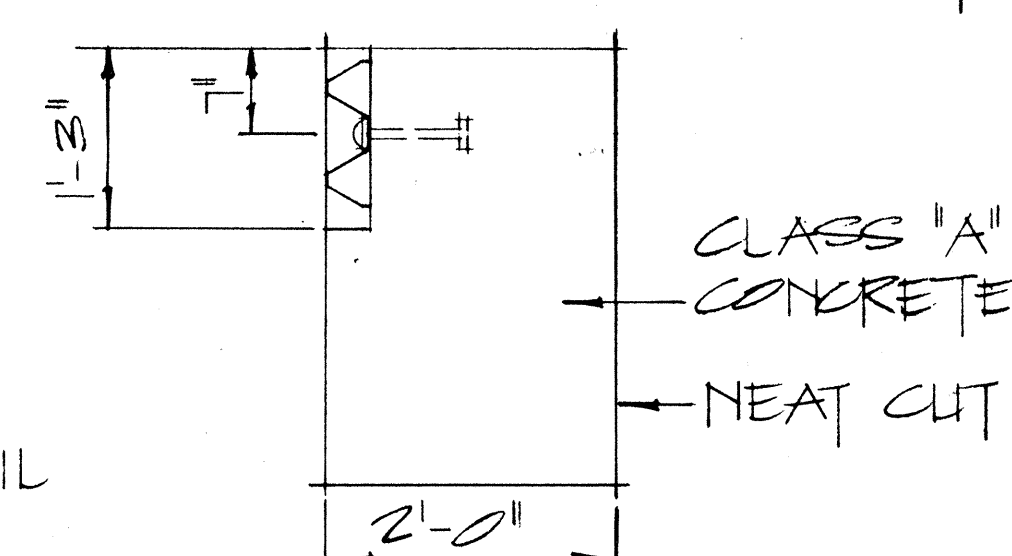
3'-0"

A

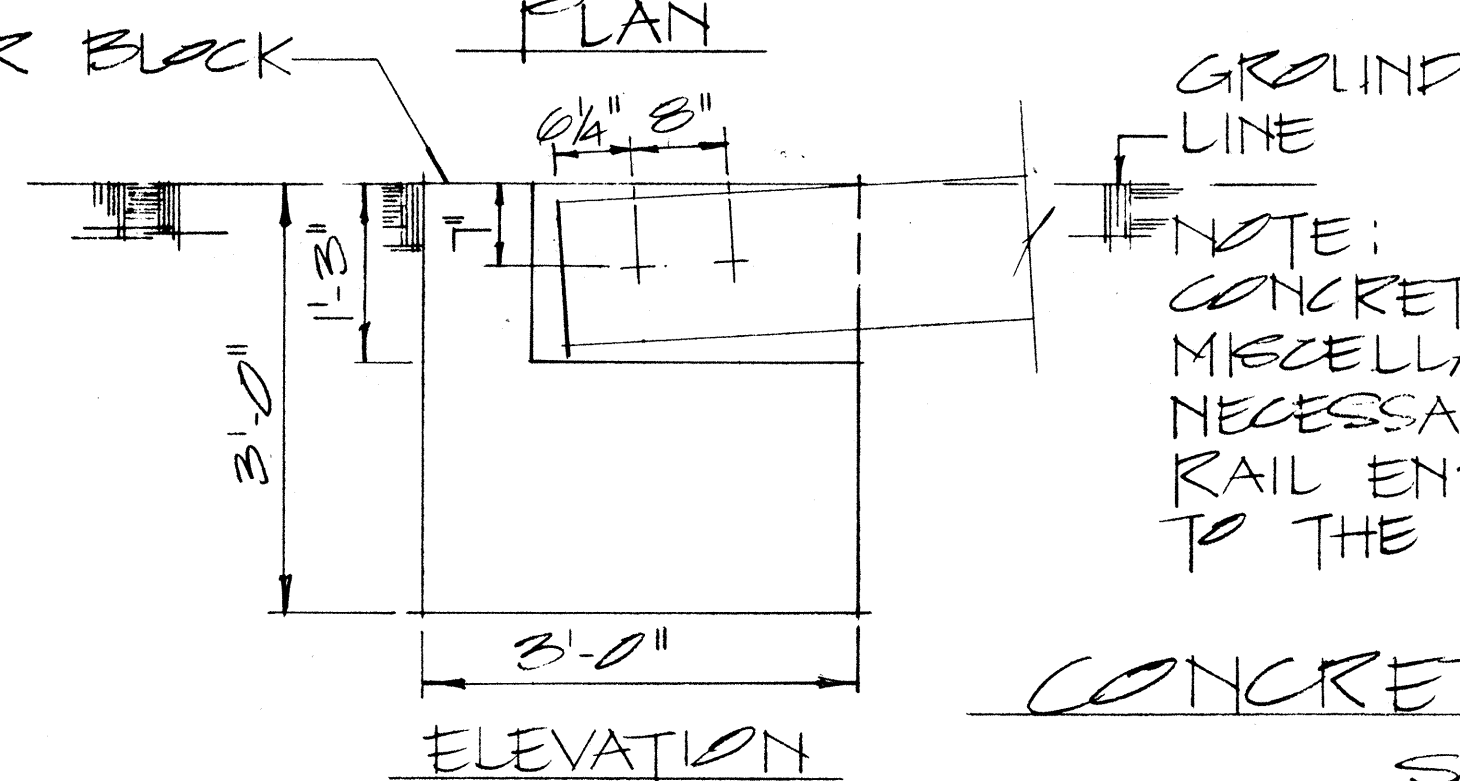
A

SLOT FOR GUARD RAIL

PLAN



TOP OF ANCHOR BLOCK
TO BE FLUSH
W/ GROUND.



NOTE:
CONCRETE, EXCAVATION AND
MISCELLANEOUS APPURTENANCES
NECESSARY TO ANCHOR THE GUARD
RAIL ENDS, SHALL BE INCIDENTAL
TO THE METAL GUARD RAIL.

CONCRETE ANCHOR BLOCK

12/29/6
DATE

12-30-0
DATE

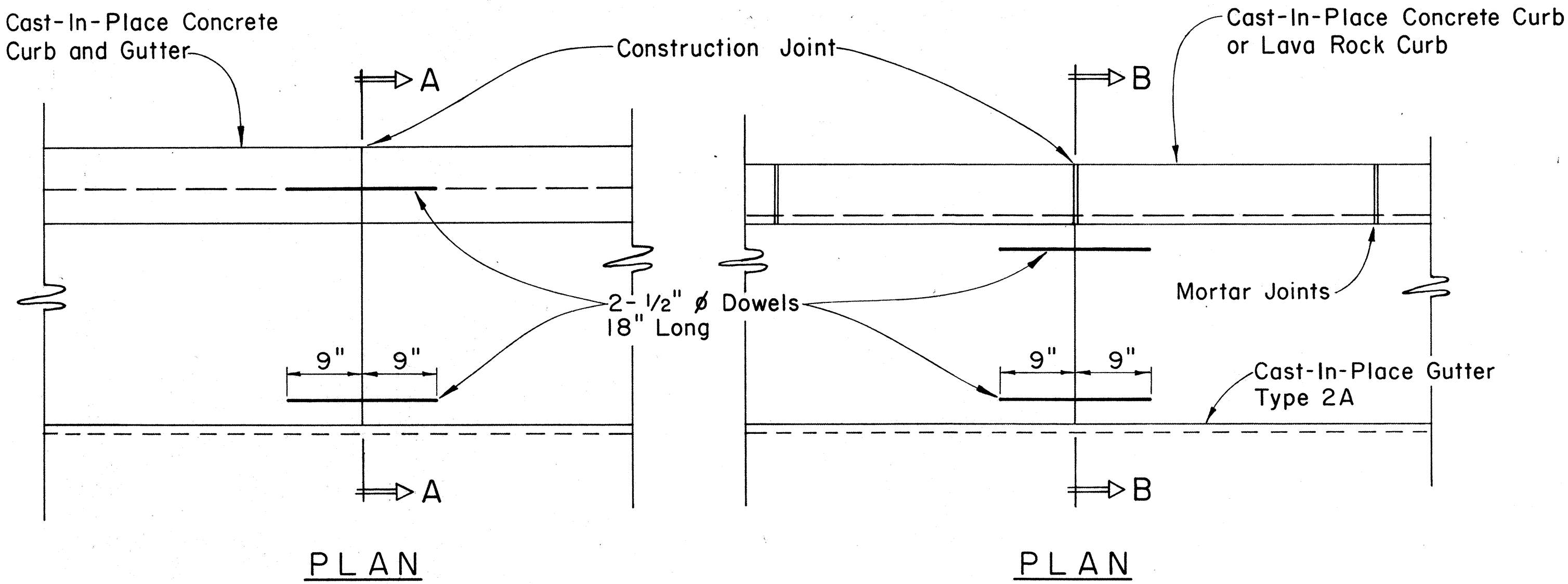
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
GUARD RAIL, TYPE 3
RAMP END ANCHORAGE

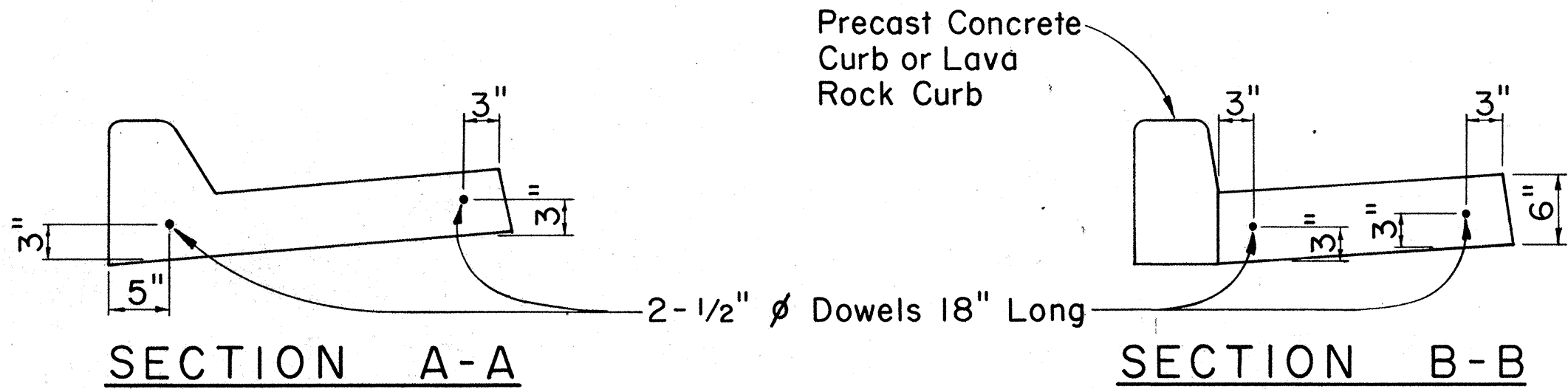
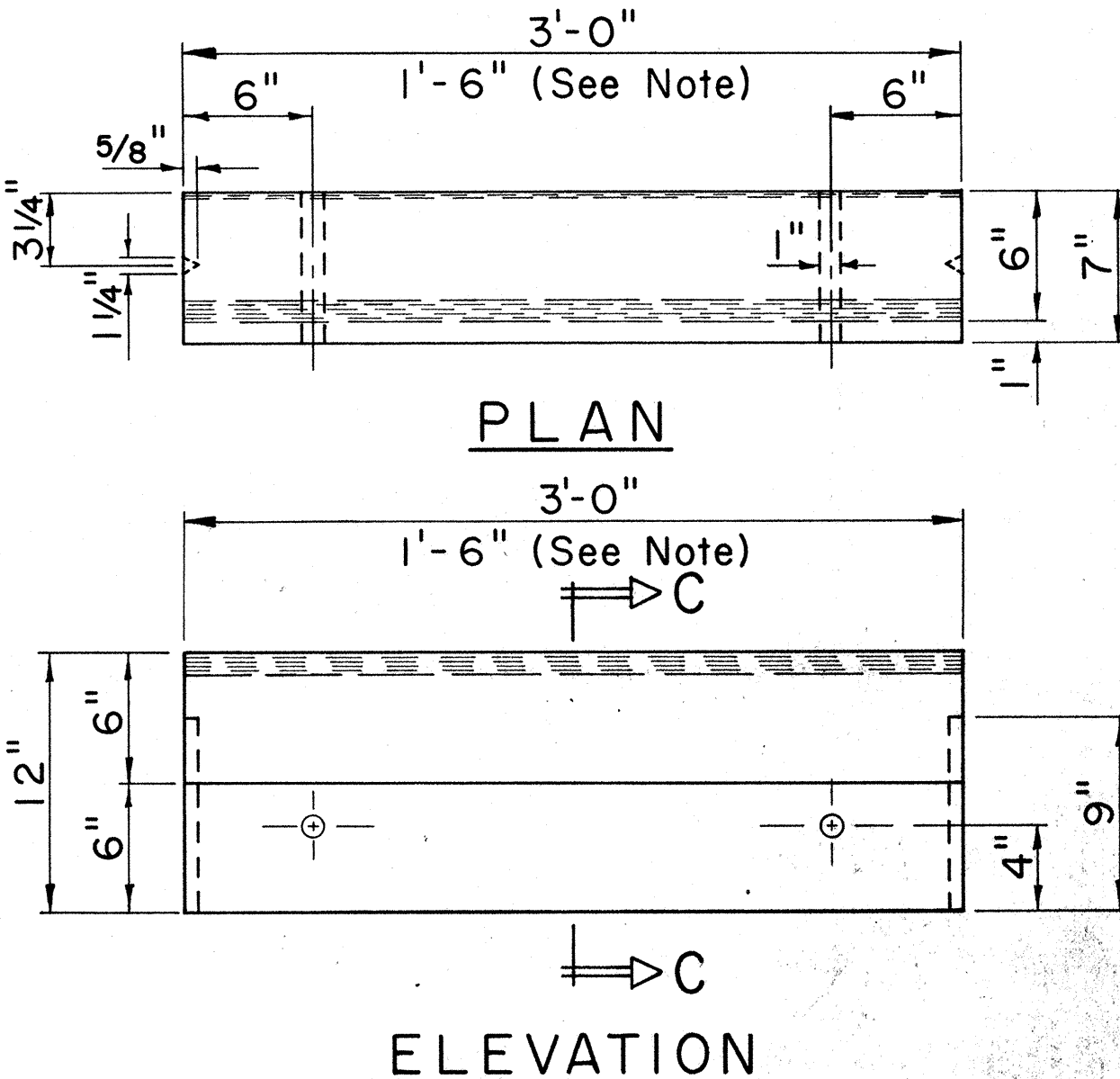
SCALE: AS SHOWN

SHEET No. 8 OF 9 SHEETS

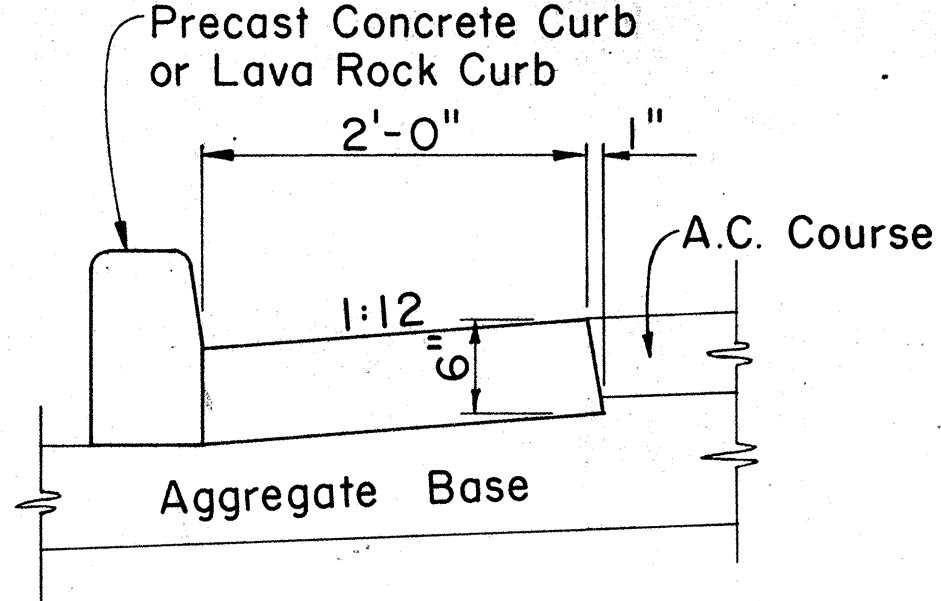
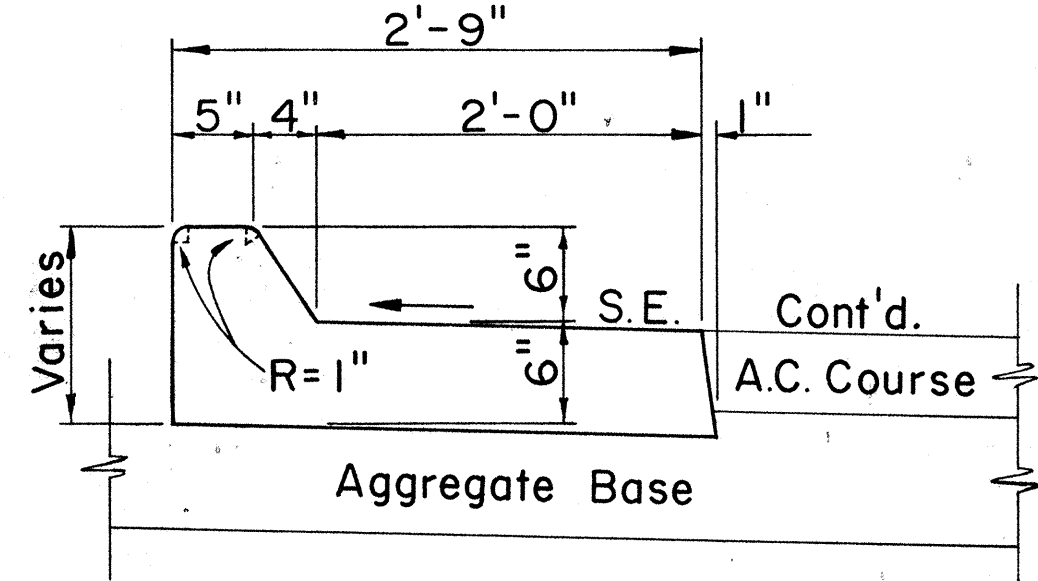
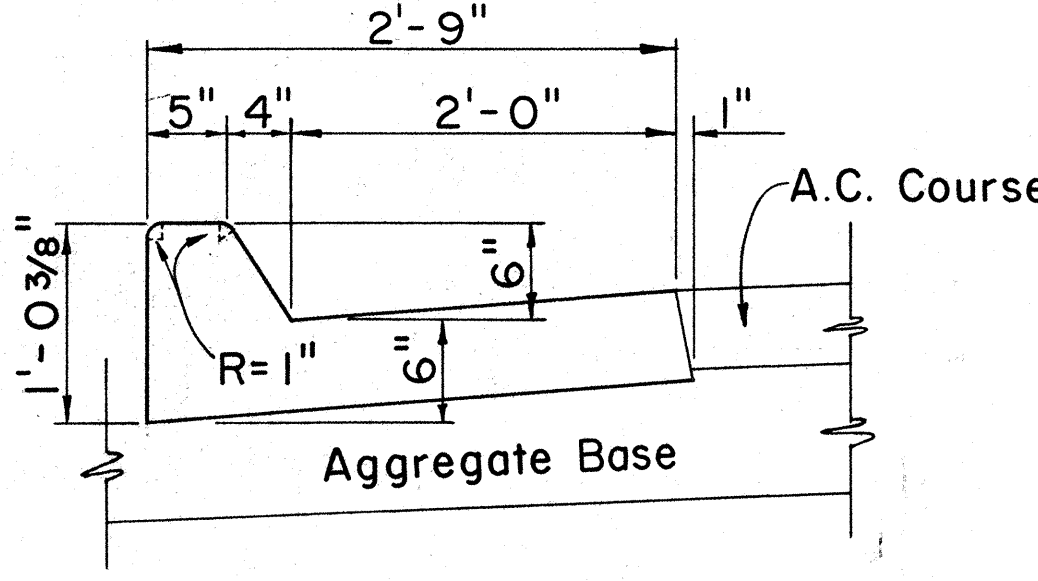
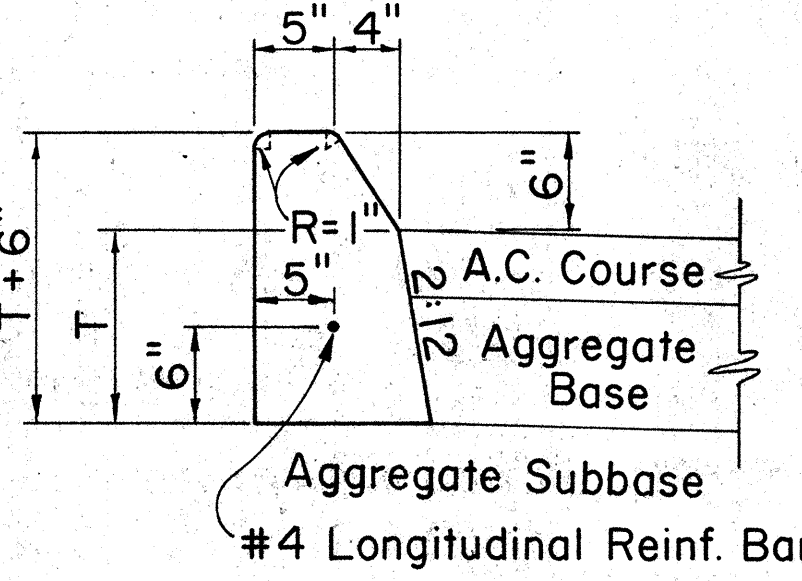
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	73A-01-75	1975	12	17



CURB, TYPE 6
BITUMINOUS CURB
 Scale: 1 1/2" = 1'-0"

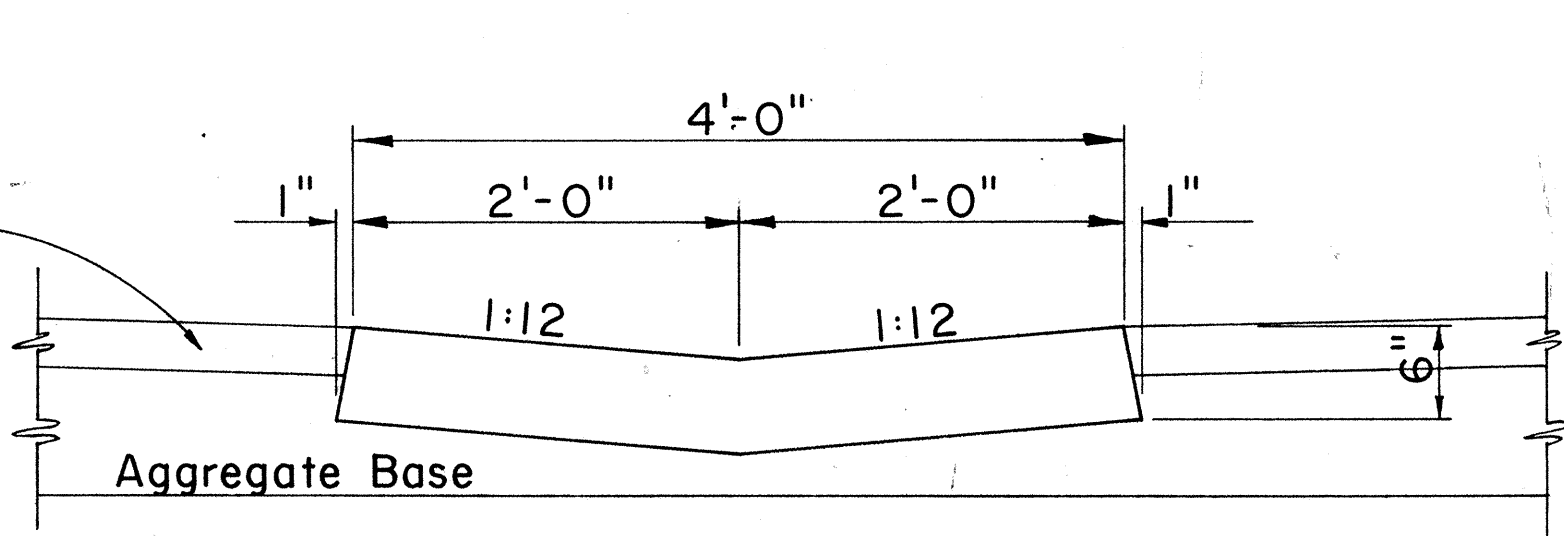
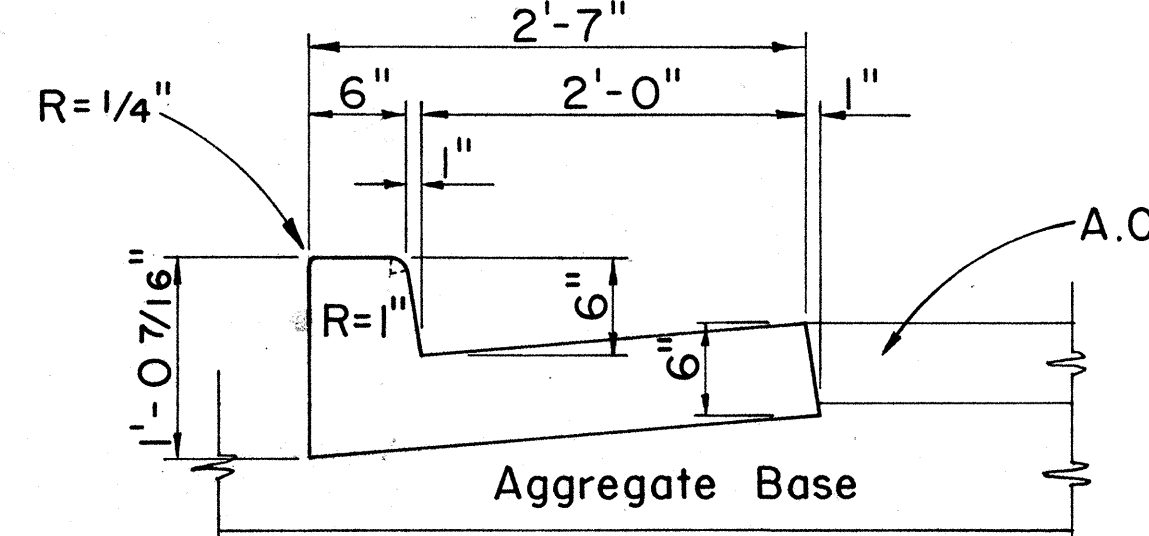
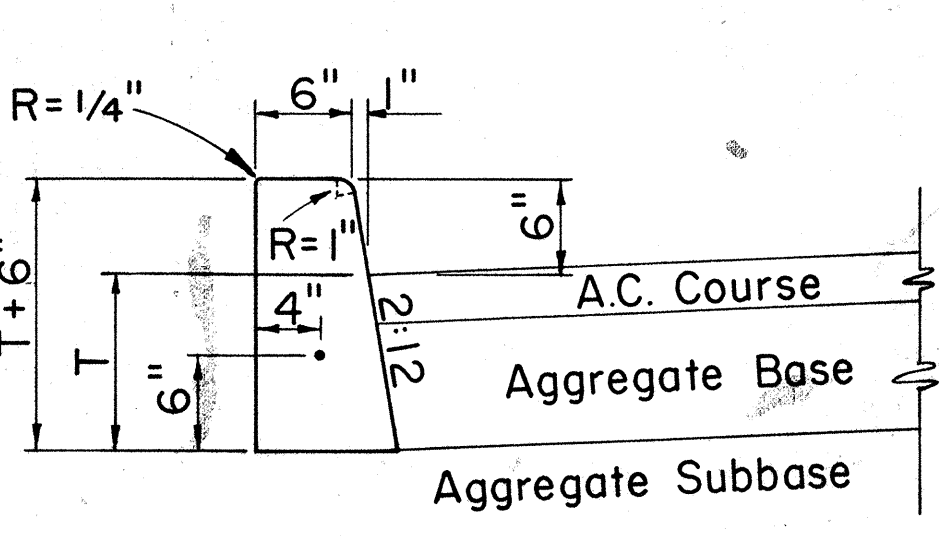


CAST-IN-PLACE CURB & GUTTER
CAST-IN-PLACE GUTTER
CONSTRUCTION JOINT DETAIL
 Scale: 1" = 1'-0"



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

SECTION C-C
CURB, TYPE 3D
PRE-CAST CONC. CURB
 Scale: 1 1/2" = 1'-0"



CAST-IN-PLACE CONCRETE CURBS AND/OR GUTTERS
 Scale: 1" = 1'-0"

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

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

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
STANDARD DETAILS
TYPICAL DETAILS OF CURB
AND/OR GUTTERS

Scale: As Shown
 SHEET No. 9 OF 9 SHEETS DD 609.1

ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	