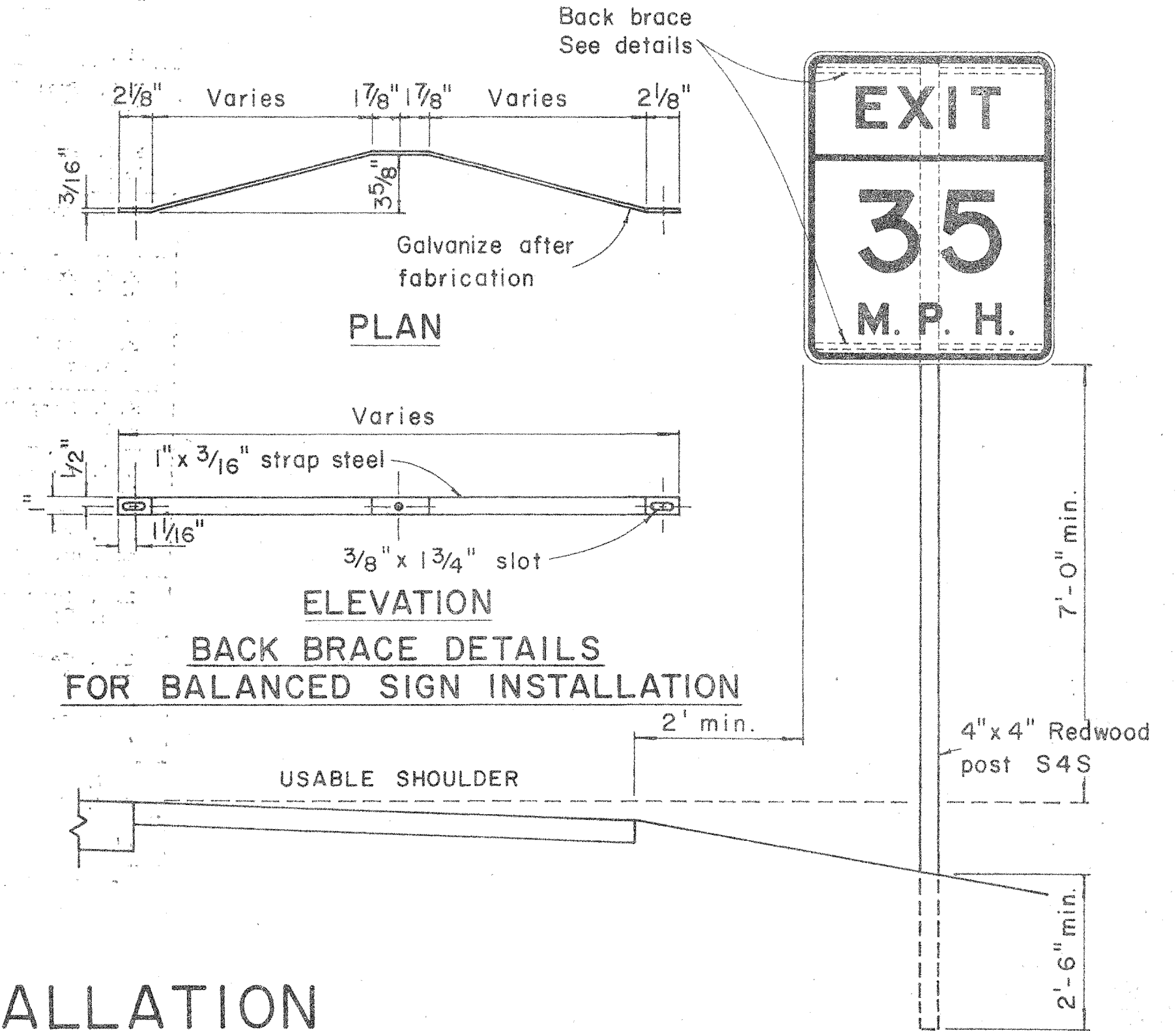
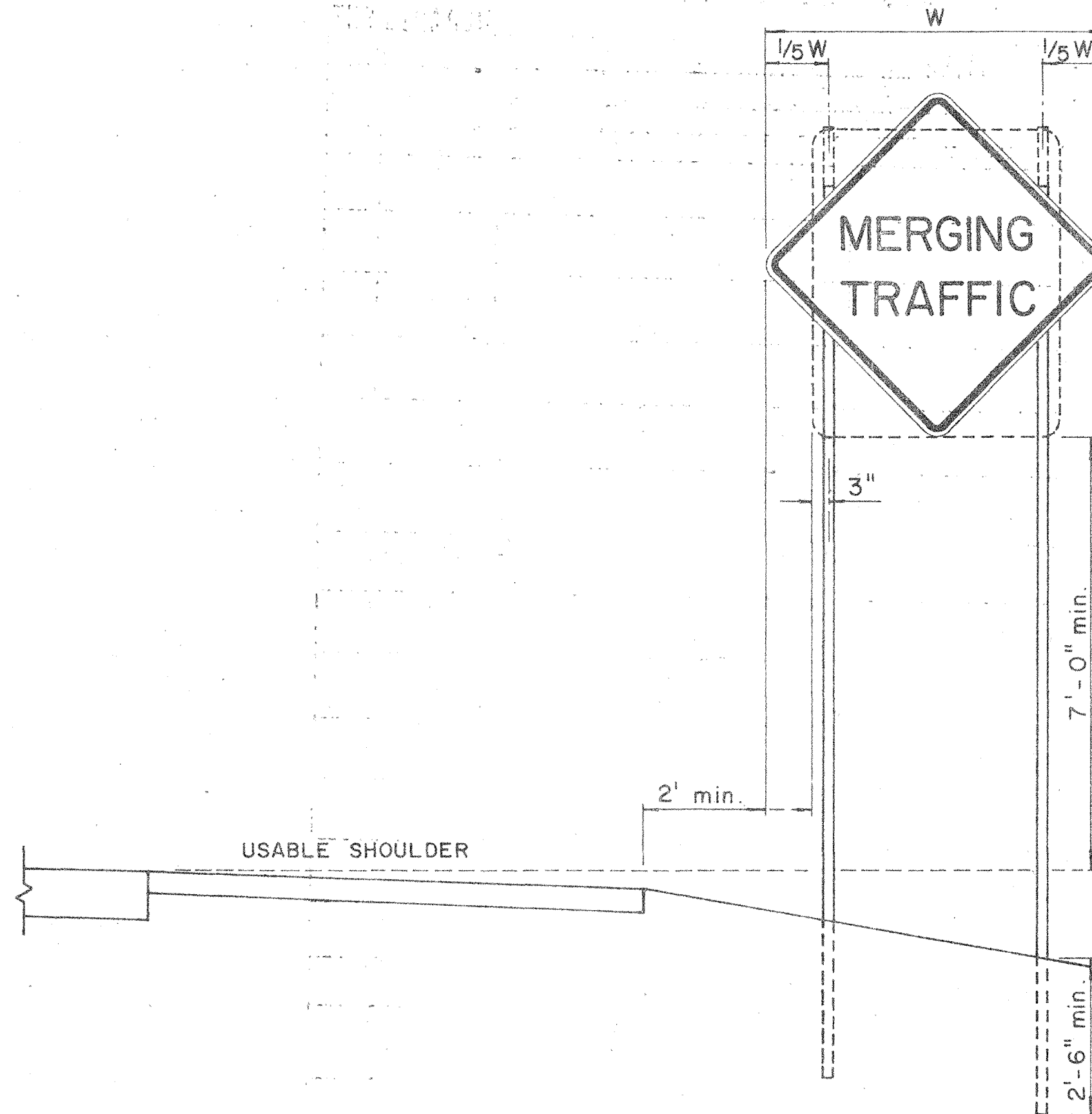
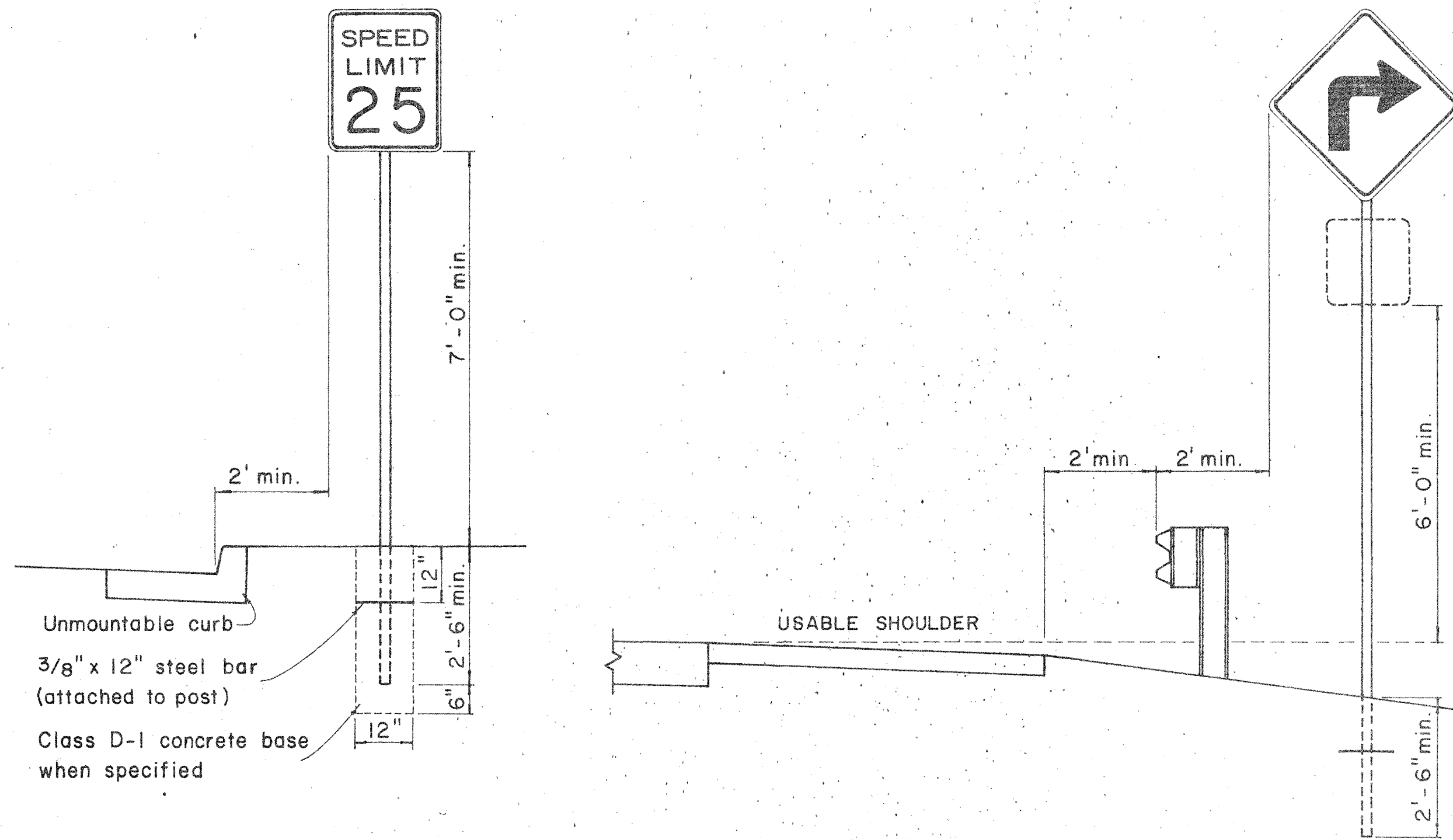
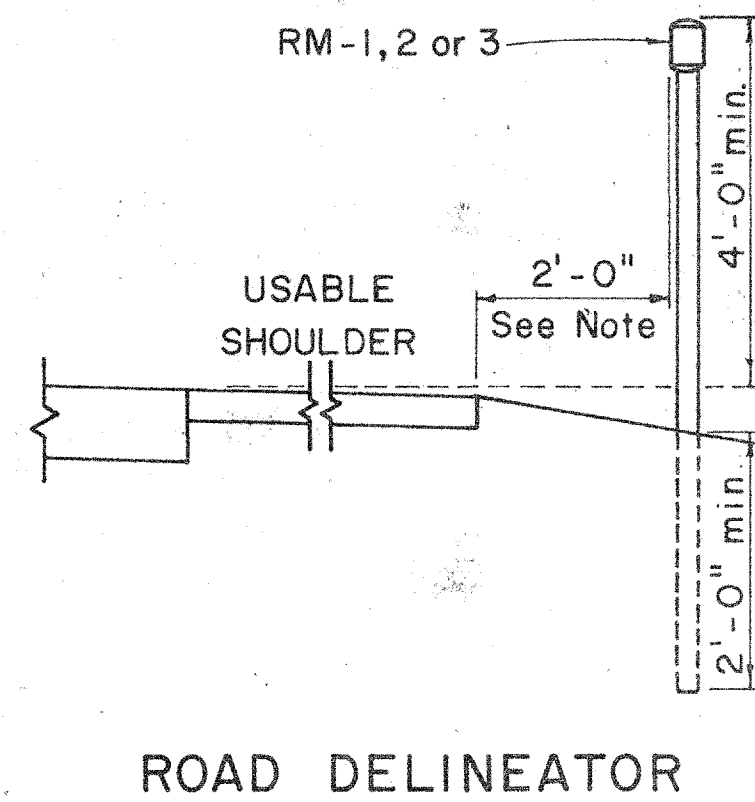


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.		1969	39	104

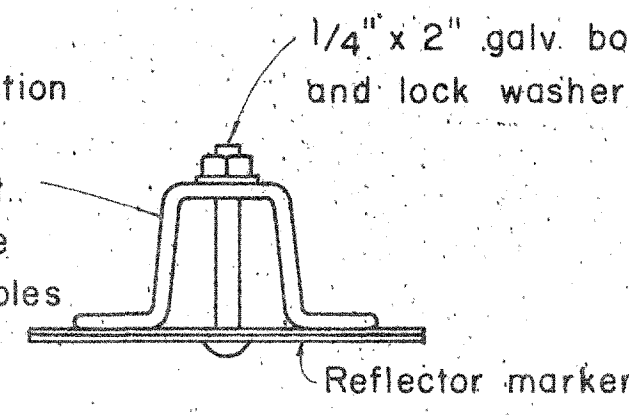
PROJECT NO. 900B-02-68 UNIT 2



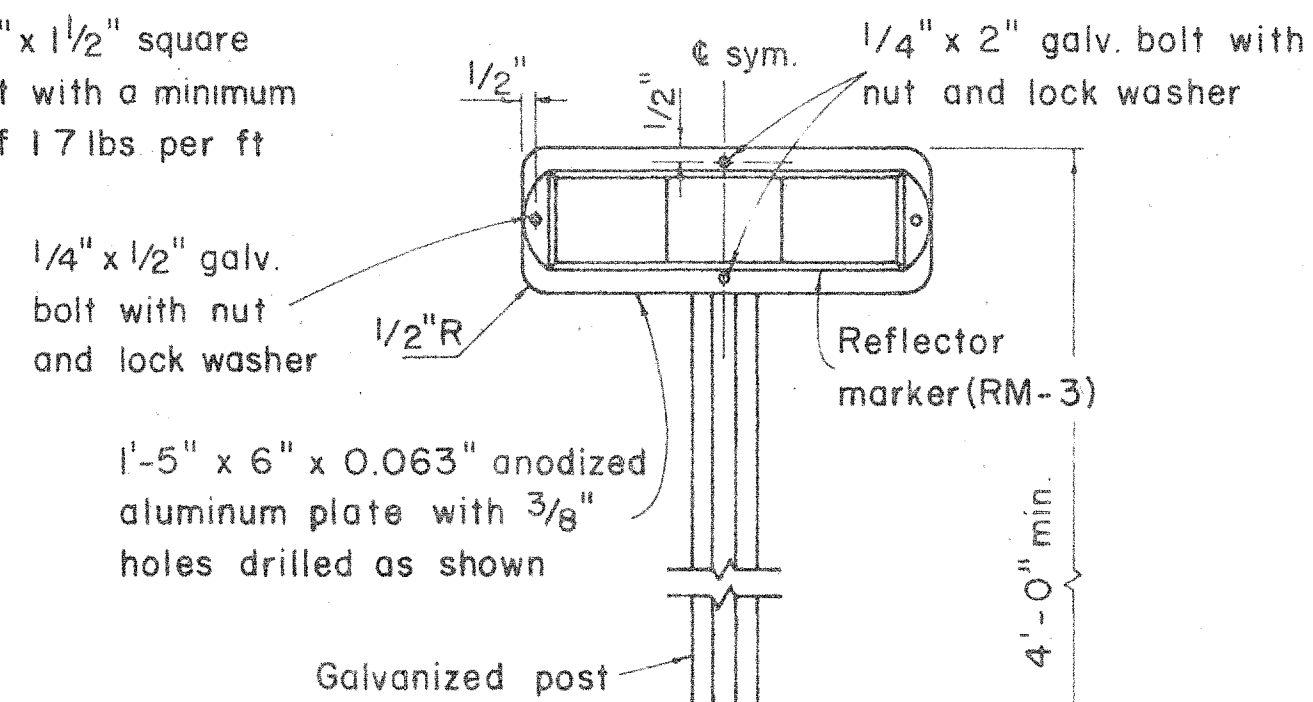
HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATION



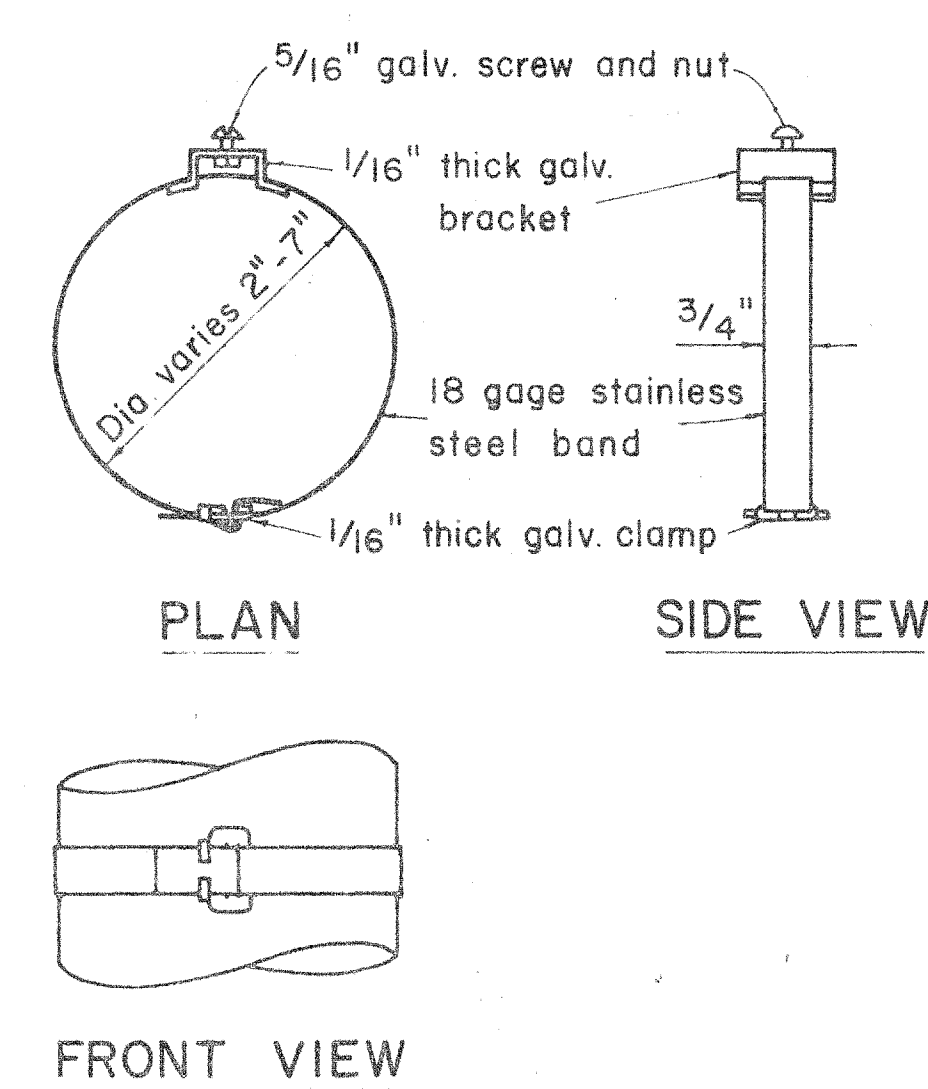
Galv. flanged channel, 1/8" x 3/16" rolled section post with a minimum weight of 2 lbs. per ft. Upper 2 ft. shall have a single row of 3/8" holes centered in the web at 1" o.c.



TYPICAL SECTION OF ROAD DELINEATOR



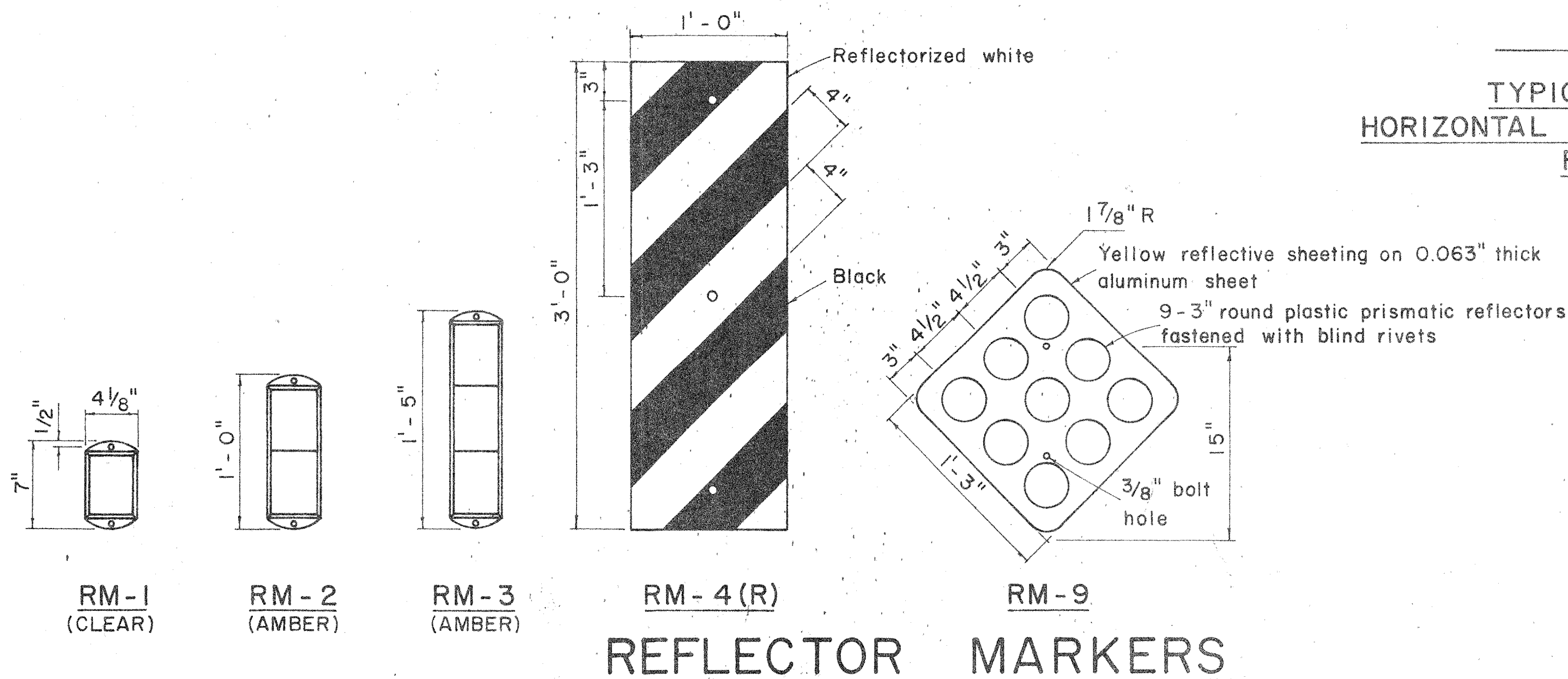
TYPICAL DETAIL
HORIZONTAL REFLECTOR MARKER
RM-3H



TYPICAL BAND BRACKET FOR
MOUNTING TRAFFIC SIGNS

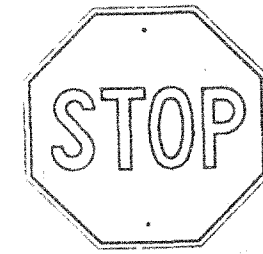
GENERAL NOTES:

- 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.

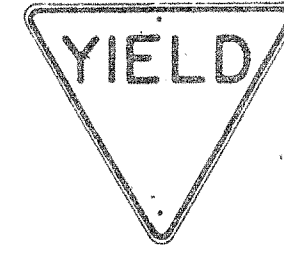
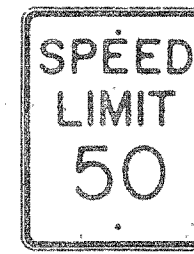
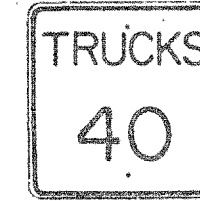
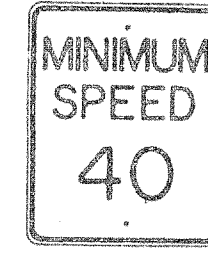
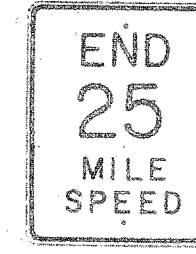
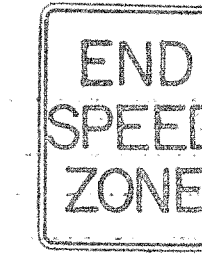
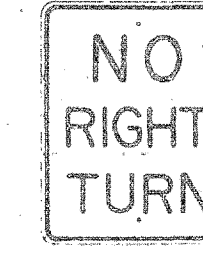
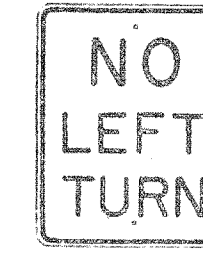


REFLECTOR MARKERS

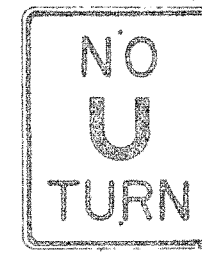
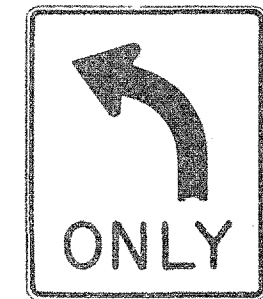
DATE	DESIGNED BY	CHECKED BY



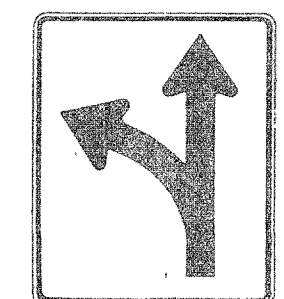
R1-1 30"x 30"

R1-2 36"x 36"x 36"
R1-2-E 48"x 48"x 48"
R1-2-I 60"x 60"x 60"R2-1(50) 24"x 30"
R2-1(50)-E 36"x 48"
R2-1(50)-I 48"x 60"R2-2(40) 24"x 24"
R2-2(40)-E 36"x 36"
R2-2(40)-I 48"x 48"R2-4(40) 24"x 30"
R2-4(40)-E 36"x 48"
R2-4(40)-I 48"x 60"R2-5 24"x 30"
R2-5-E 36"x 48"
R2-5-I 48"x 60"R2-6(25) 24"x 30"
R2-6(25)-E 36"x 48"
R2-6(25)-I 48"x 60"R2-7 24"x 30"
R2-7-E 36"x 48"
R2-7-I 48"x 60"R3-1 24"x 30"
R3-1-E 36"x 48"R3-2 24"x 30"
R3-2-E 36"x 48"

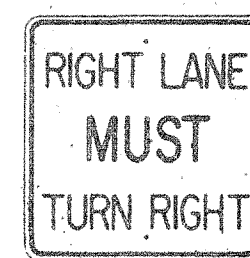
R3-3 24"x 24"

R3-4 24"x 30"
R3-4-E 36"x 48"
R3-4-I 48"x 60"

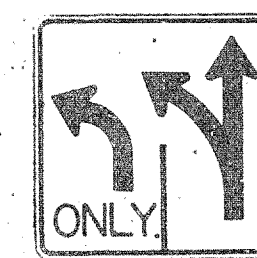
R3-5(L) 30"x 36"



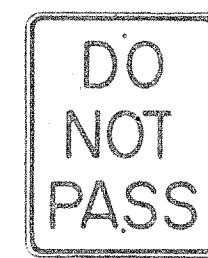
R3-6(L) 30"x 36"



R3-7(R) 30"x 30"



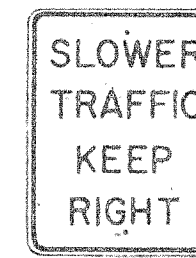
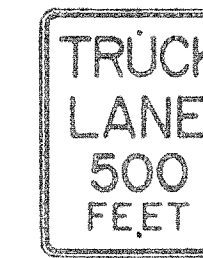
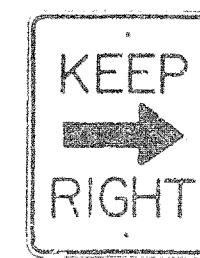
R3-8(L) 30"x 30"



R4-1 24"x 30"



R4-2 24"x 30"

R4-3 24"x 30"
R4-3-E 36"x 48"
R4-3-I 48"x 60"R4-4 24"x 30"
R4-4-E 36"x 48"
R4-4-I 48"x 60"R4-5 24"x 30"
R4-5-E 36"x 48"R4-6 24"x 30"
R4-6-E 36"x 48"R4-7(R) 24"x 30"
R4-7(R)-E 36"x 48"

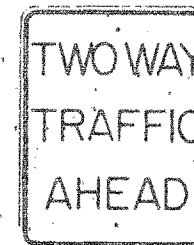
R5-1 24"x 24"



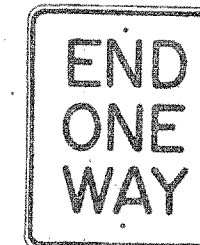
R6-1(R) 36"x 12"



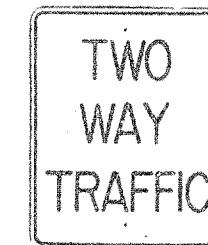
R6-2(R) 18"x 24"



R6-3 24"x 30"



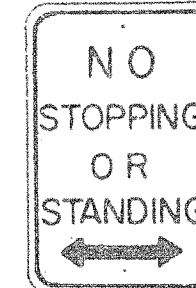
R6-4 24"x 30"



R6-5 24"x 30"



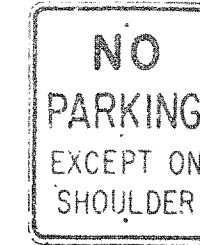
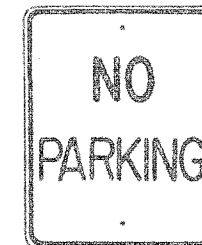
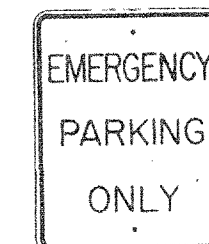
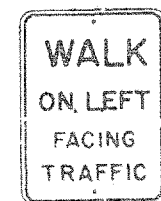
R7-1 12"x 18"

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

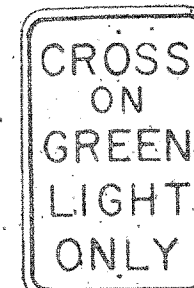
R7-107(R) 12"x 18"



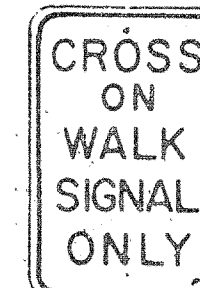
R7-201 12"x 6"

R8-1 24"x 30"
R8-1-E 36"x 48"
R8-1-I 48"x 60"R8-2 24"x 30"
R8-2-E 36"x 48"R8-3 24"x 30"
R8-3-E 36"x 48"R8-4 24"x 30"
R8-4-E 36"x 48"
R8-4-I 48"x 36"

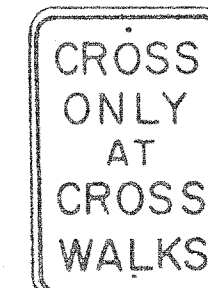
R9-1 18"x 24"



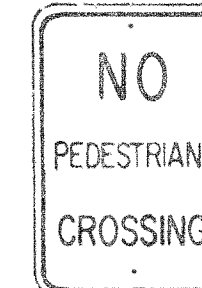
R9-2 12"x 18"



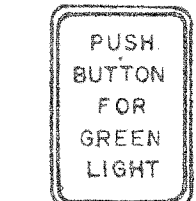
R9-3 12"x 18"



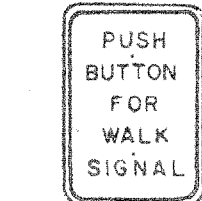
R9-4 12"x 18"



R9-5 12"x 18"



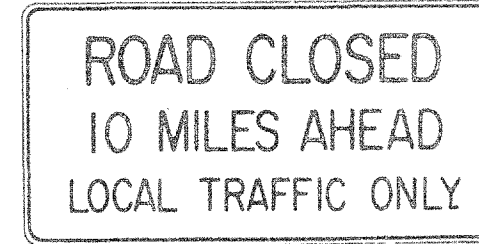
R9-6 9"x 12"



R9-7 9"x 12"

RIO-1 24"x 30"
RIO-1-E 36"x 48"
RIO-1-I 48"x 60"

RIO-2 48"x 30"



RIO-3(10) 60"x 30"



RIO-4(10) 18"x 24"

NOTE:

1. The shape, color, dimensions, symbols, wording, lettering and reflectorization of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
2. All regulatory signs shall be reflectorized unless otherwise specified.
3. All regulatory signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations unless otherwise noted.
4. The suffix "E" denotes Expressway signs and "I" denotes Interstate signs.
5. For R2 signs, number in () indicates speed and shall be as shown on the plans.
6. (R) or (L) indicates right or left and shall be as shown on the plans.
7. For RIO-4 sign, number in () indicates weight and shall be as shown on the plan.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISIONSTANDARD DETAILS
REGULATORY SIGNS

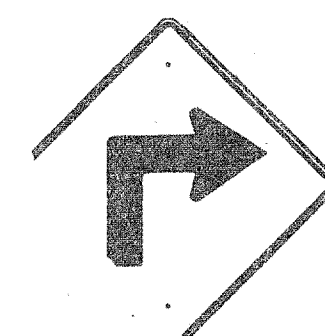
NOT TO SCALE

SHEET No. 2 OF 13 SHEETS DT 101

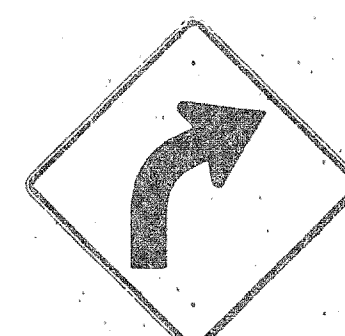
DATE	____
DESIGNED BY	____
CHECKED BY	____
NOTED BY	____
ORIGINAL PLAN	____

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.		1969	41	104

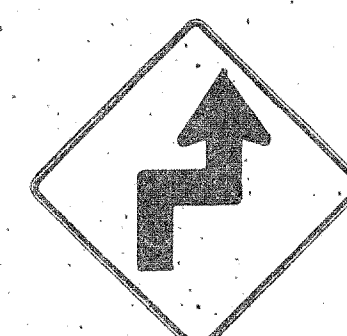
PROJECT NO. 900B-02-68 UNIT 2



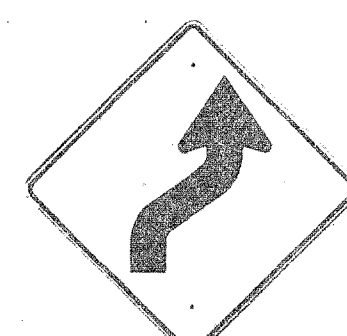
W1-1(R) 30" x 30"



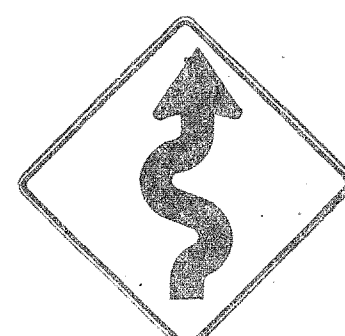
W1-2(R) 30" x 30"



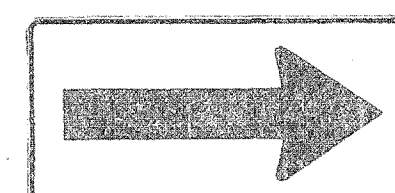
W1-3(R) 30" x 30"



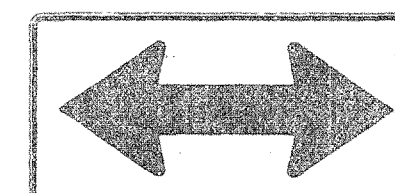
W1-4(R) 30" x 30"



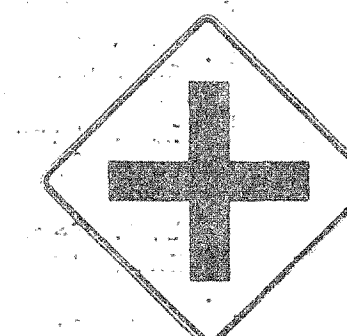
W1-5(R) 30" x 30"



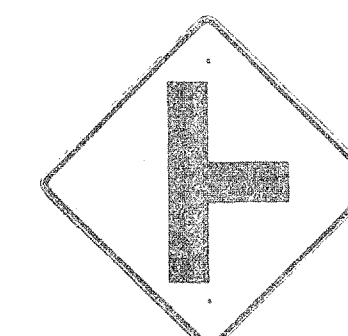
W1-6 48" x 24"



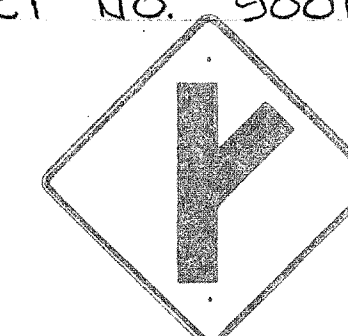
W1-7 48" x 24"



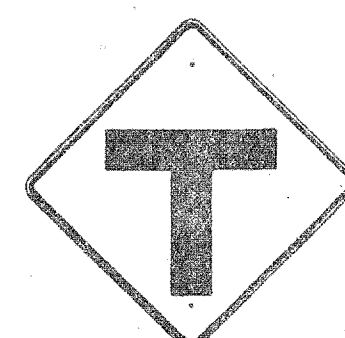
W2-1 30" x 30"



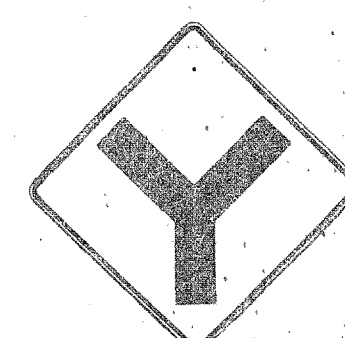
W2-2 30" x 30"



W2-3(R) 30" x 30"



W2-4 30" x 30"



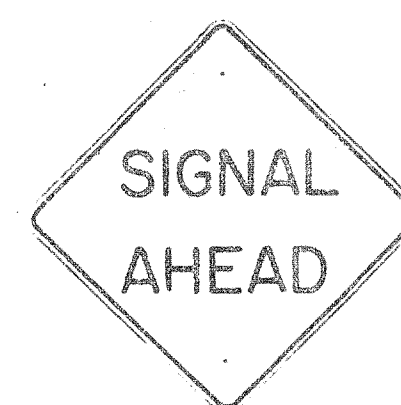
W2-5 30" x 30"



W3-1 30" x 30"



W3-2 30" x 30"



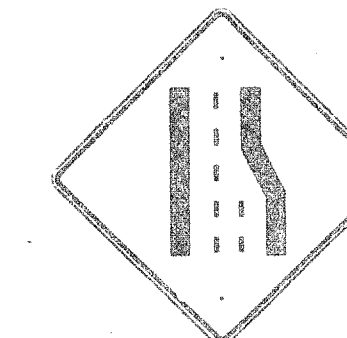
W3-3 36" x 36"



W4-1 30" x 30"

W4-1-E 36" x 36"

W4-1-I 48" x 48"



W4-2 30" x 30"

W4-2-E 36" x 36"



W5-1 30" x 30"

W5-1-E 36" x 36"



W5-2 30" x 30"



W5-3 30" x 30"



W6-1 36" x 36"



W6-2 36" x 36"



W7-1 30" x 30"



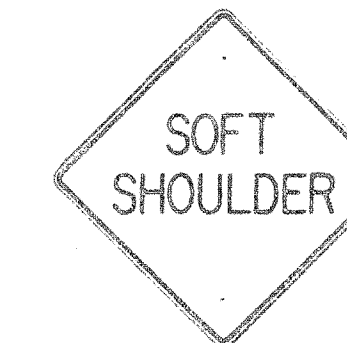
W8-1 30" x 30"



W8-2 30" x 30"



W8-3 30" x 30"



W8-4 30" x 30"



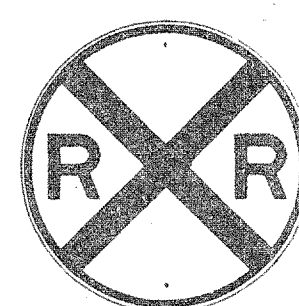
W8-5 30" x 30"



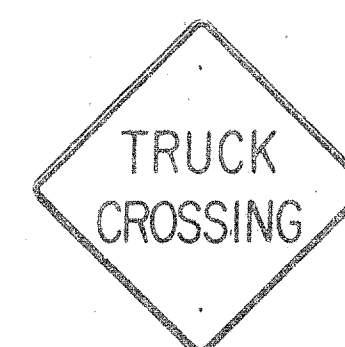
W9-1 30" x 30"



W9-2 30" x 30"



W10-1 36" DIAMETER



W11-1 30" x 30"



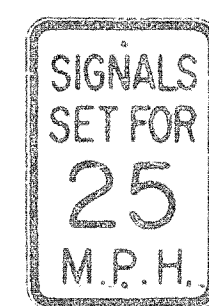
W11-5 30" x 30"



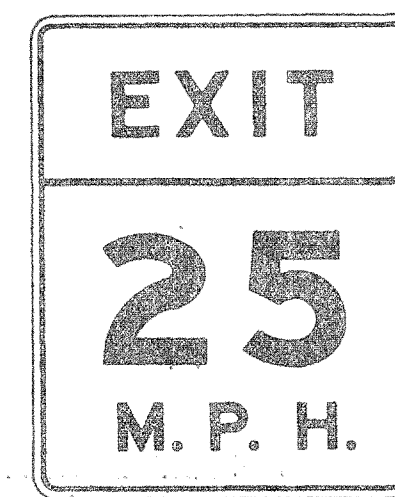
W12-2 36" x 36"



W13-1(35) 18" x 18"
W13-1(35)-E 24" x 24"



W13-2(25) 12" x 18"



W13-3(25) 48" x 60"

NOTE:

1. The shape, color, dimensions, symbols, wording, lettering and reflectorization of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
2. All warning signs shall be reflectorized unless otherwise specified.
3. All warning signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations unless otherwise noted.
4. (R) or (L) indicates right or left and shall be as shown on the plan.
5. The suffix "E" denotes Expressway signs and "I" denotes Interstate signs.
6. For W13 sign, number in () indicates speed and shall be as shown on the plans.

REVISED: September 26, 1967

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

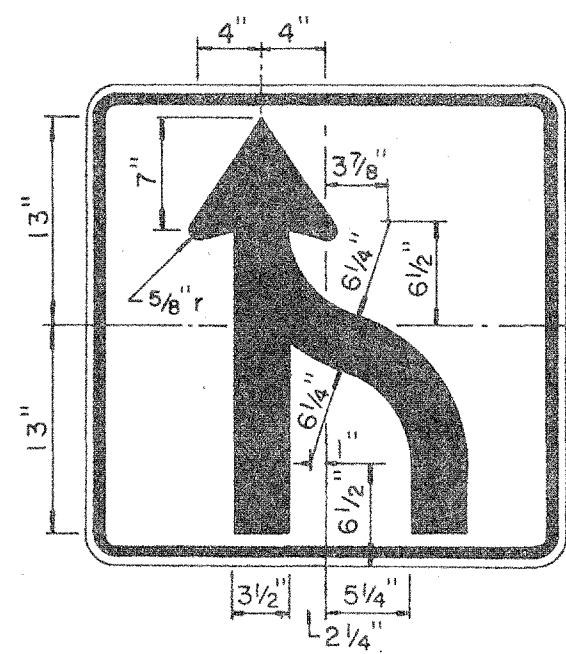
STANDARD DETAILS WARNING SIGNS

NOT TO SCALE

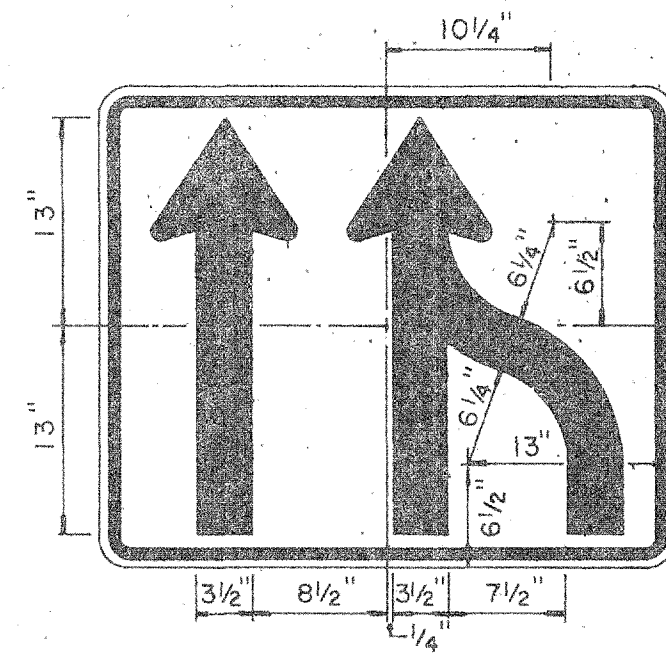
SHEET No. 3 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.		1969	42	104

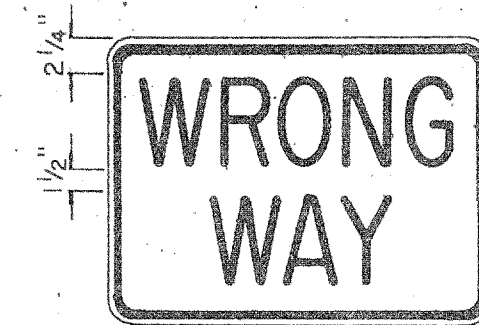
PROJECT NO. 200B-02-68 UNIT 2



R3-9 30"x 30"



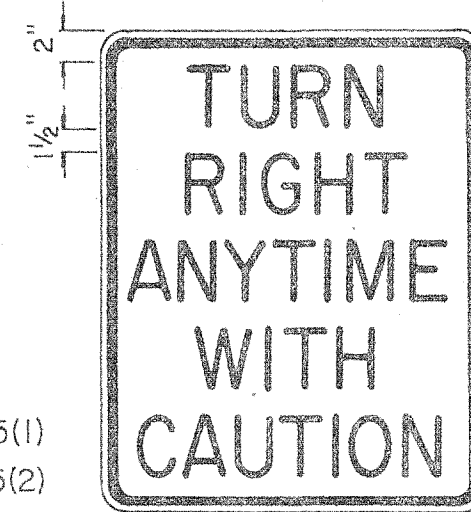
R3-10 36"x 30"



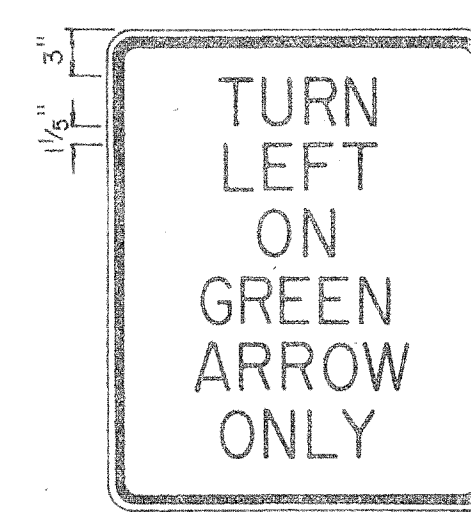
R5-5(1) 24"x 18"

R5-5(2) 36"x 24"

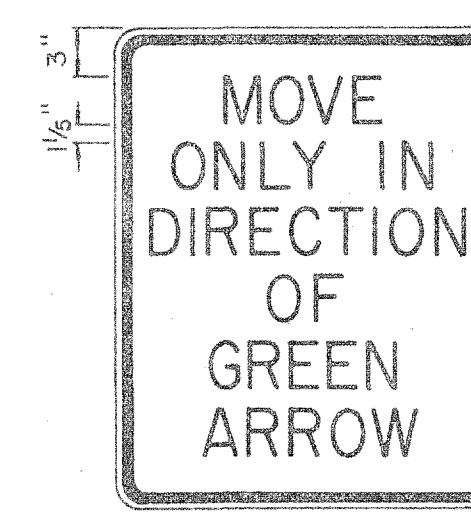
NOTE:
White legend and border
on Red background



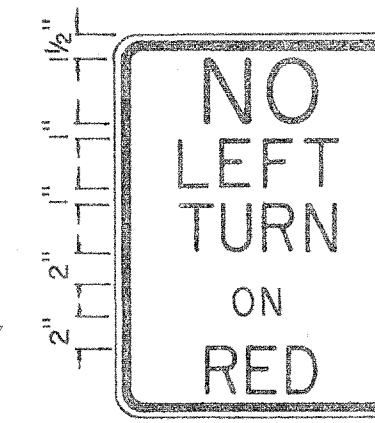
R15-1 24"x 30"



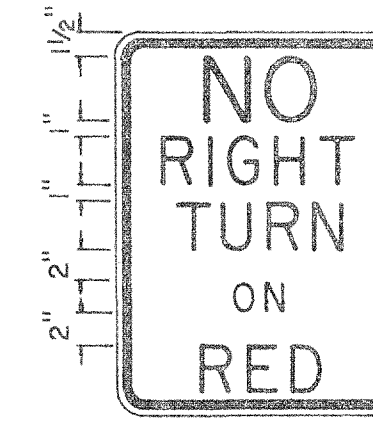
R16-1 24"x 30"



R16-2 24"x 30"



R17-1 18"x 24"

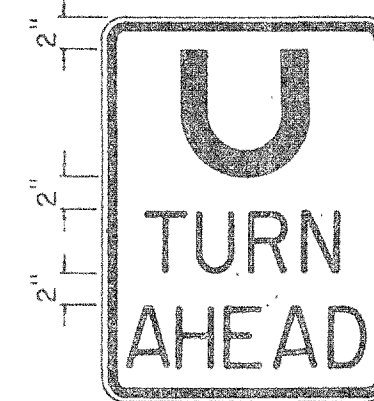


R17-2 18"x 24"

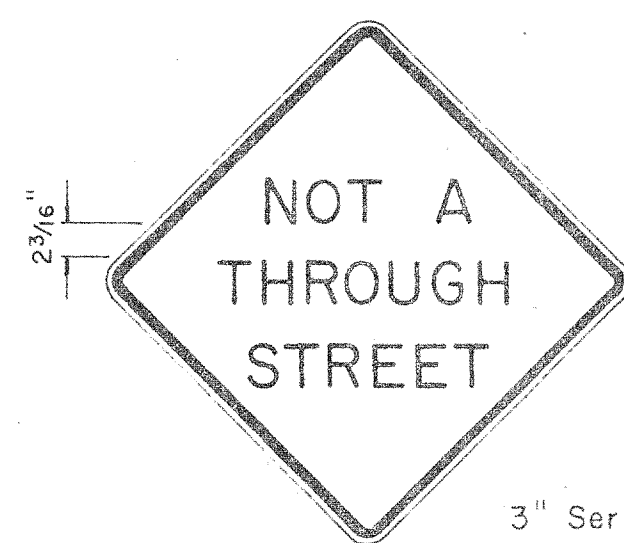
- NOTE:
- The shape, color, plate details, lettering and reflectorization of Regulatory signs (Prefix R) and Warning signs (Prefix W) shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
 - All regulatory and warning signs shall be reflectorized unless otherwise specified.
 - All regulatory and warning signs shall have 3/8" bolt holes drilled at appropriate locations unless otherwise specified.



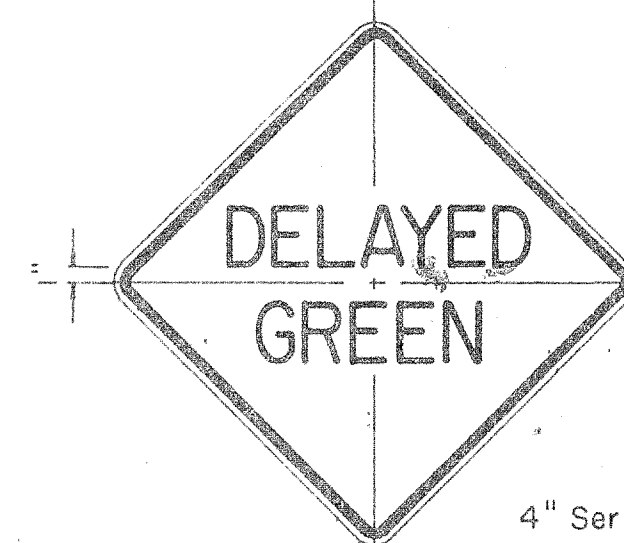
R18-1 36"x 30"



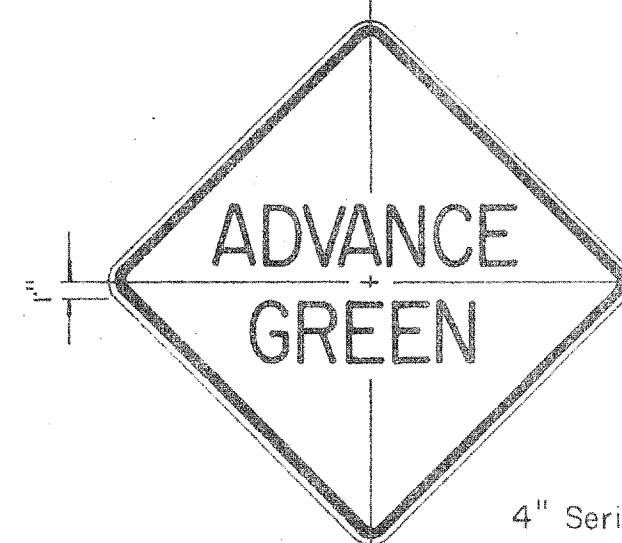
R19-1 18"x 24"



W13-4 24"x 24"



W15-1 24"x 24"



W15-2 24"x 24"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

MISCELLANEOUS
REGULATORY & WARNING SIGNS

Scale: 1" = 1' - 0"

SHEET No. 4 OF 13 SHEETS

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



W7-2 48"x48"



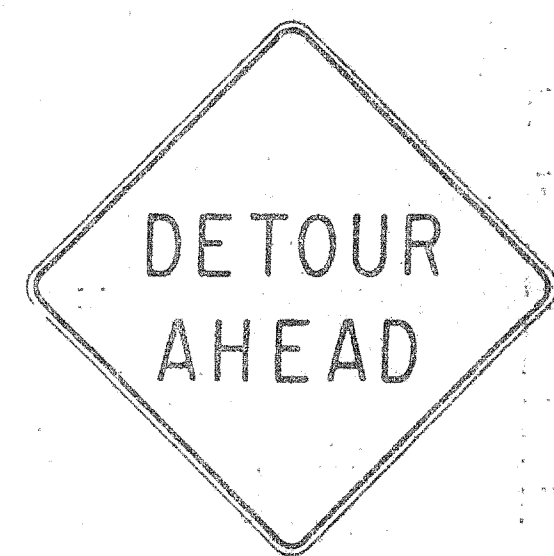
W8-7 30"x30"



W14-1 30"x30"



W20-1a 48"x48"



W20-2d 48"x48"



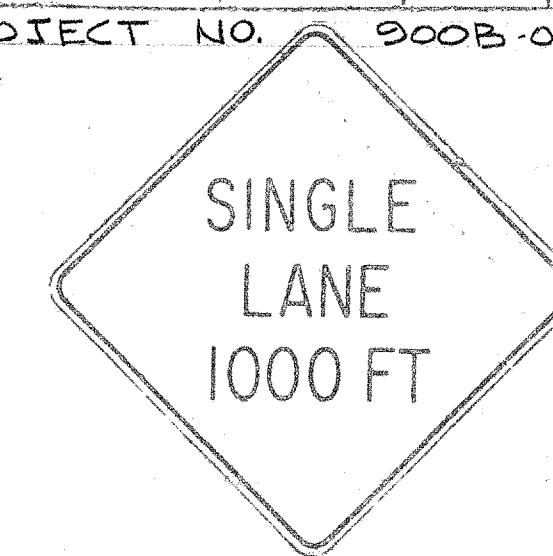
W20-3b 48"x48"



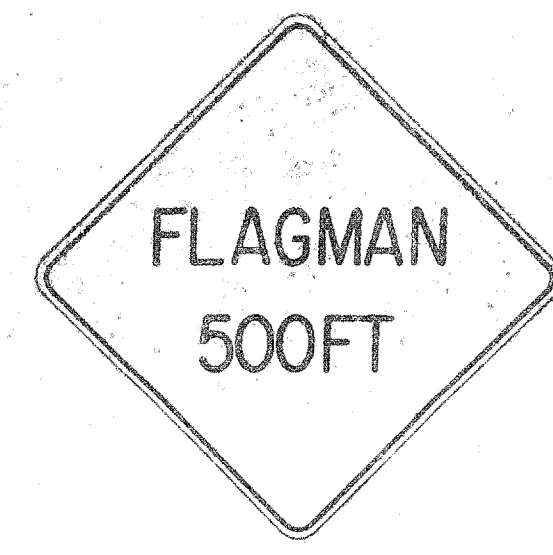
W20-4d 48"x48"



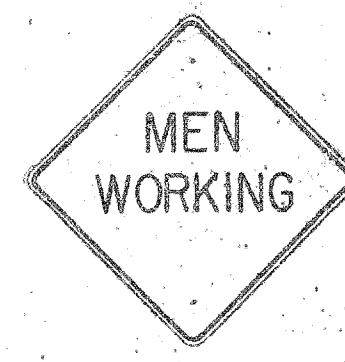
W20-5d(L) 48"x48"



W20-6b 48"x48"



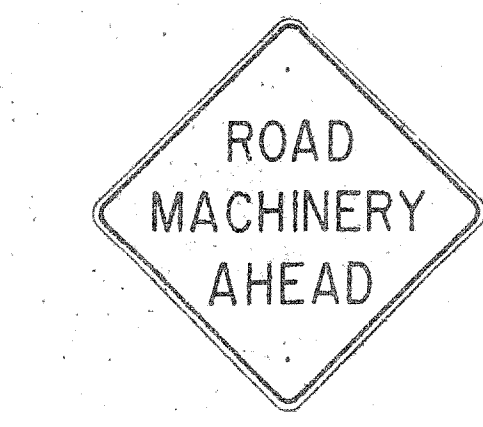
W20-7c 48"x48"



W21-1 30"x30"



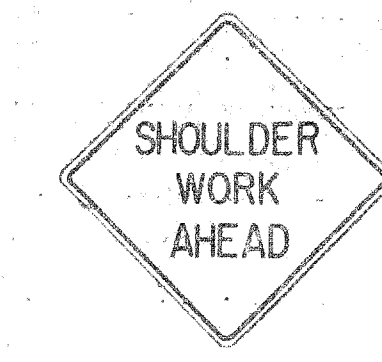
W21-2 24"x24"



W21-3 36"x36"



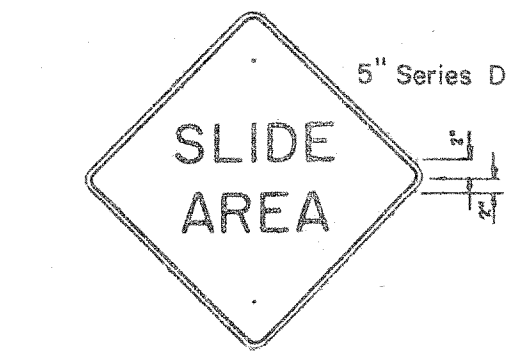
W21-4 30"x30"



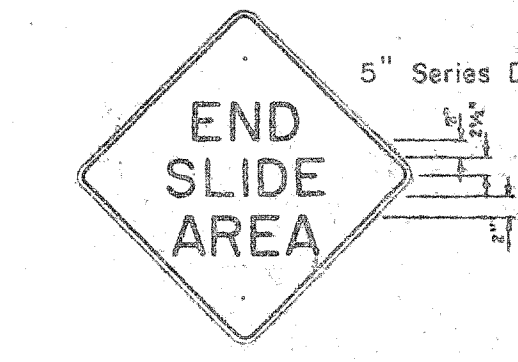
W21-5 30"x30"



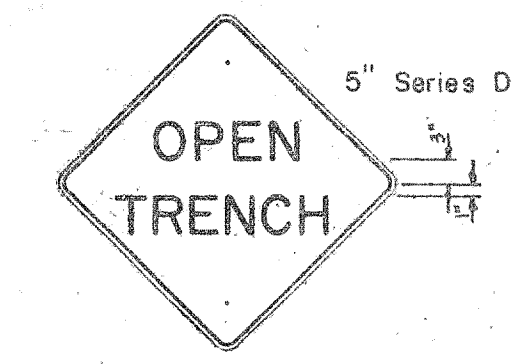
W21-6 30"x30"



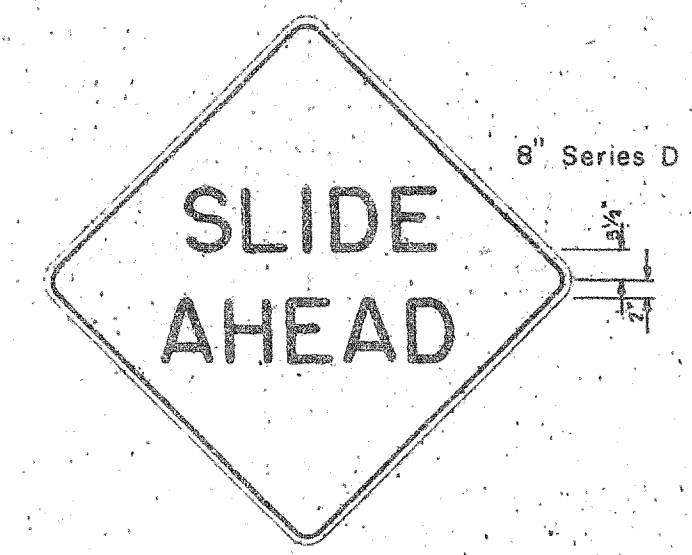
W22-1 30"x30"



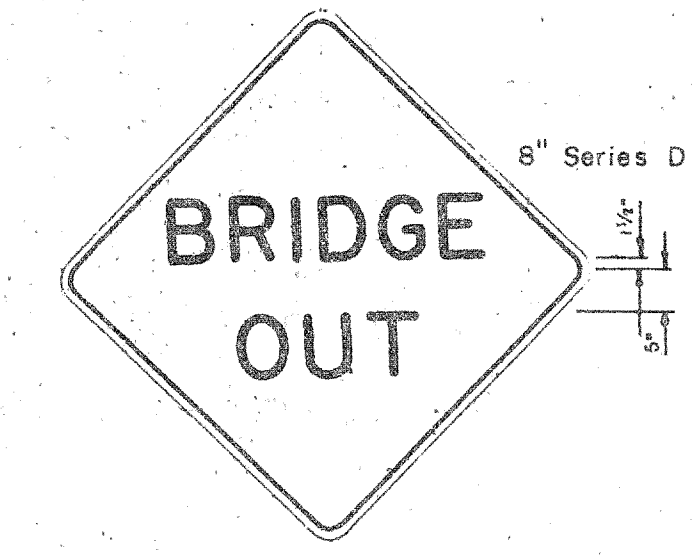
W22-2 30"x30"



W22-3 30"x30"



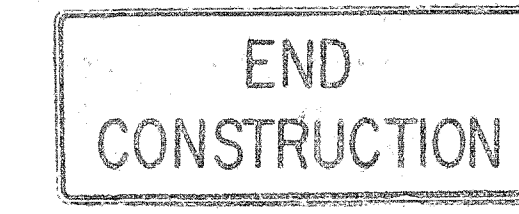
W22-4 48"x48"



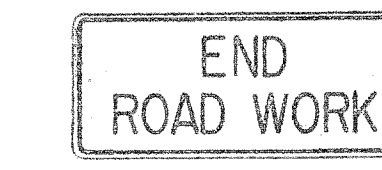
W22-5 48"x48"



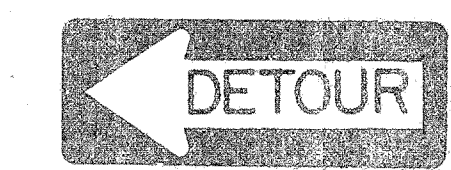
G20-1(5) 60"x36"



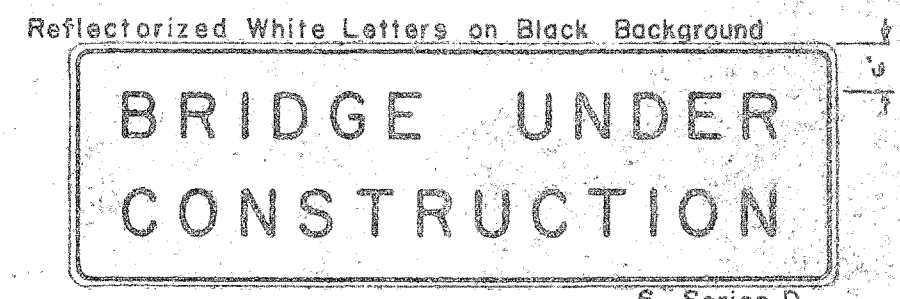
G20-2 60"x24"



G20-3 42"x18"



M5-7(L) 48"x18"



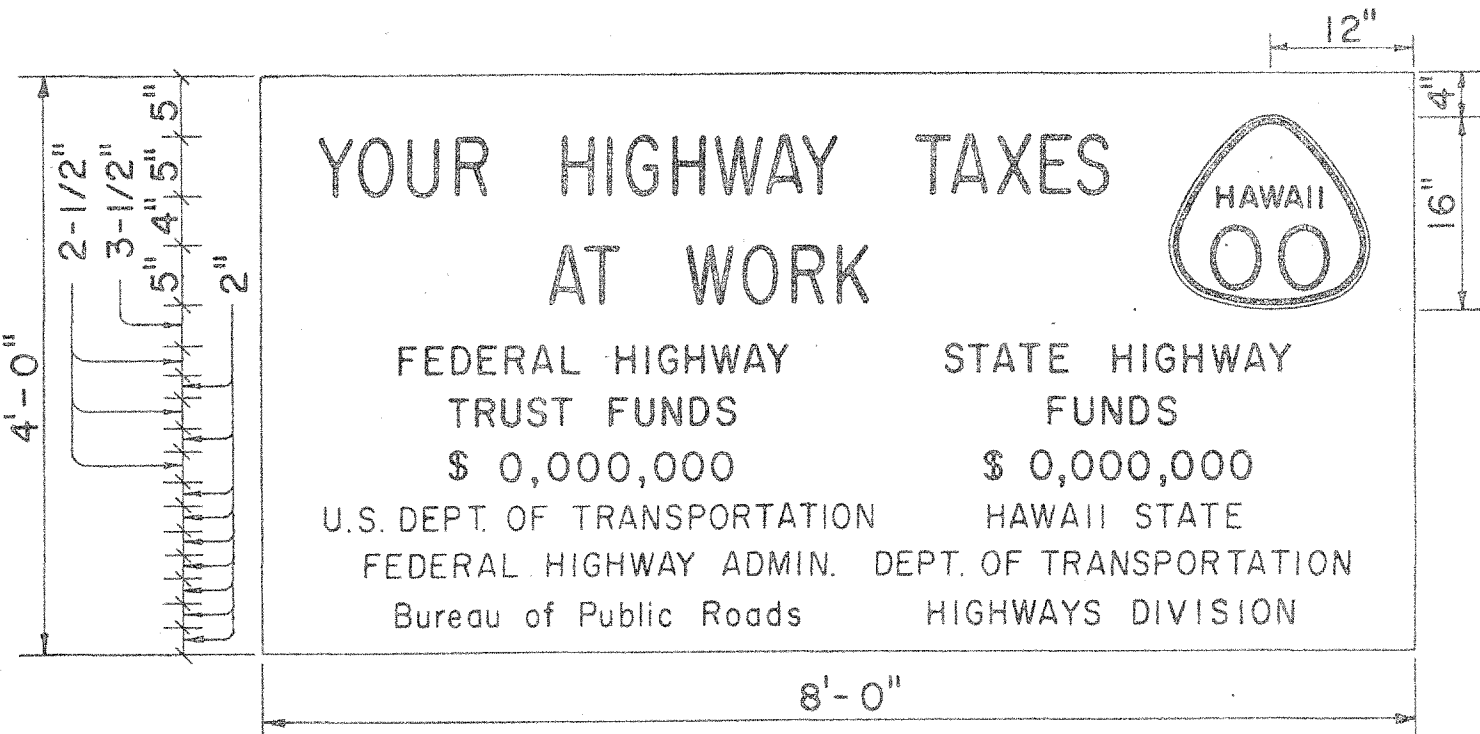
CW-1 96"x30"

- NOTE:
- The shape, color, dimensions, symbols, wording, lettering and reflectorization of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
 - All signs shall be reflectorized unless otherwise specified.
 - All signs shall have 3/8" bolt holes drilled at appropriate locations unless otherwise noted.
 - For W20 series signs, suffixes a,b,c and d are as follows: a 1500 FT, b 1000 FT, c 500 FT and d AHEAD.
 - (R) or (L) indicates right or left and shall be as shown on the plans.
 - Number in () indicates miles and shall be as shown on the plans.

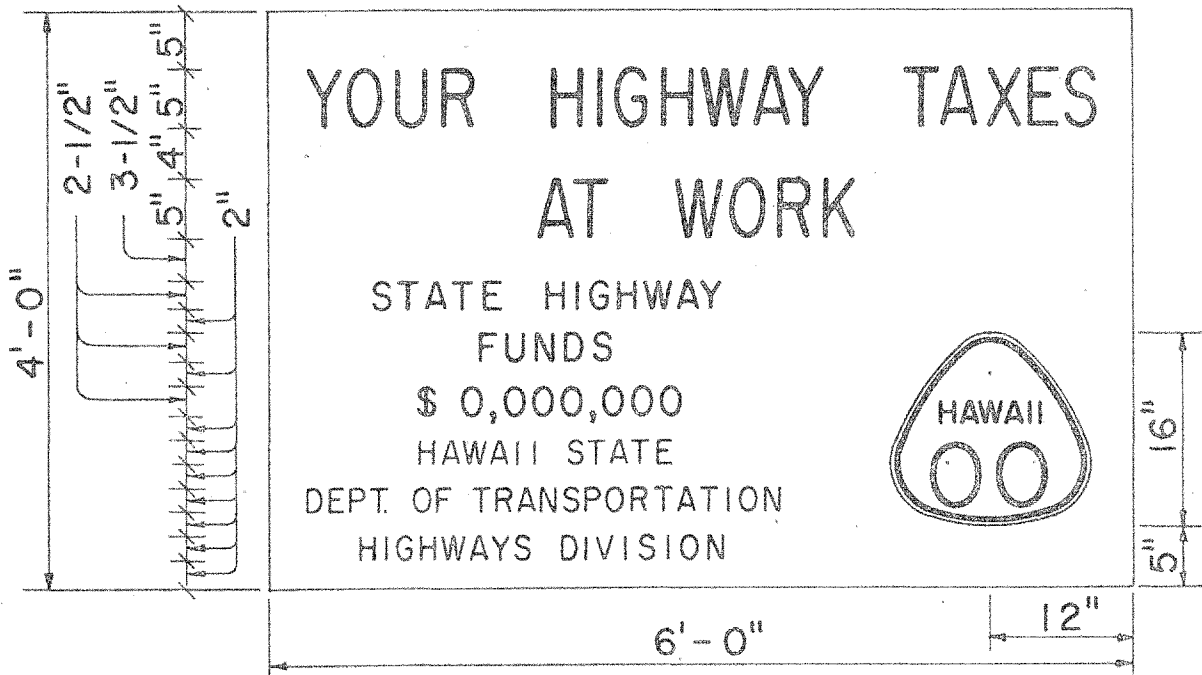
SURVEY PLOTTED BY	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.		1969	44	104

PROJECT NO. 900B-02-68 UNIT 2



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



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

GENERAL NOTES

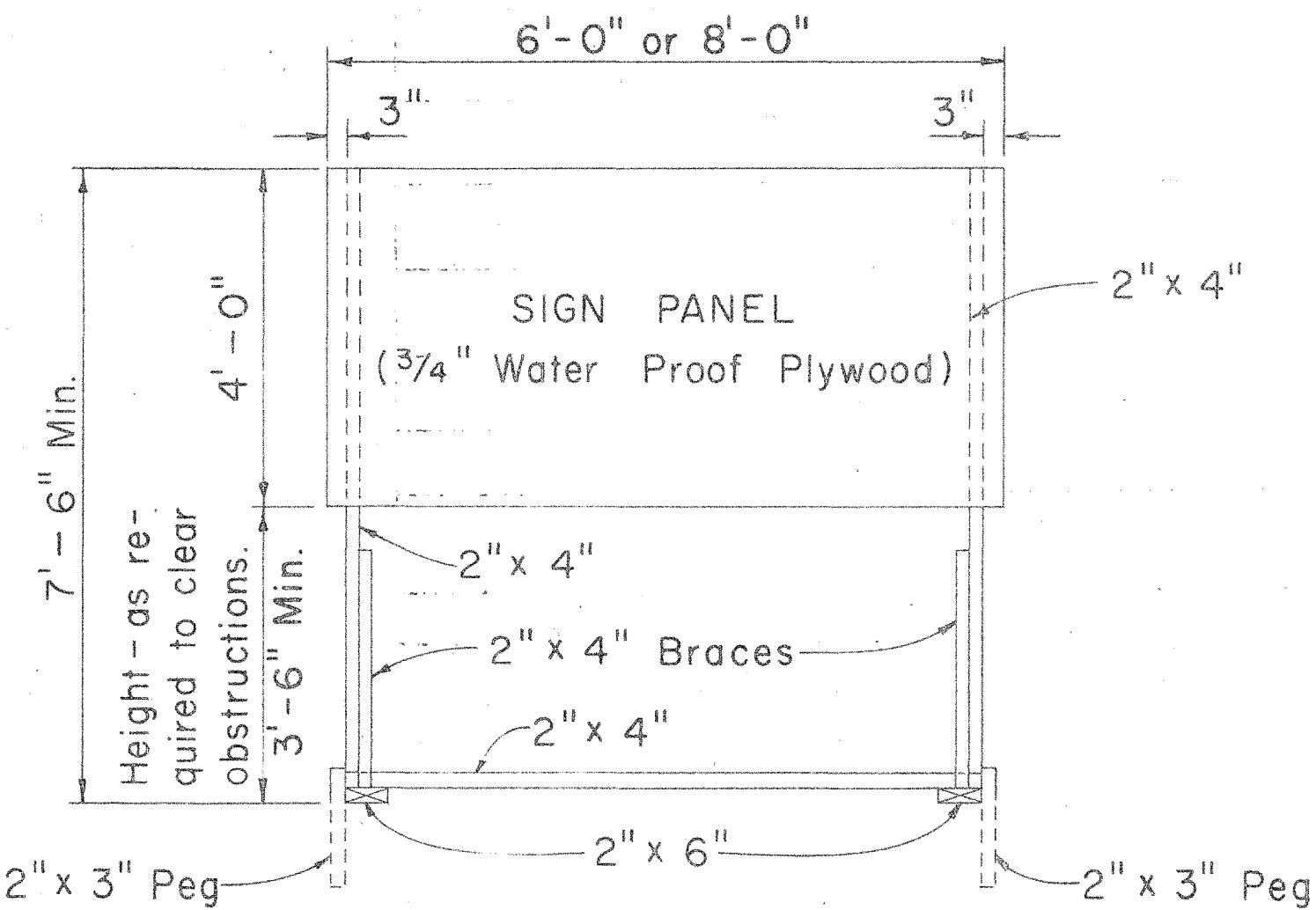
- The sign legend shall be black on white background.
- The Contractor shall construct, install and maintain the project signs at the locations shown on the plans and as ordered by the Engineer.
- Letters shall be Series "C" of the sizes shown on the plan and shall conform with the "Standard Alphabet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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

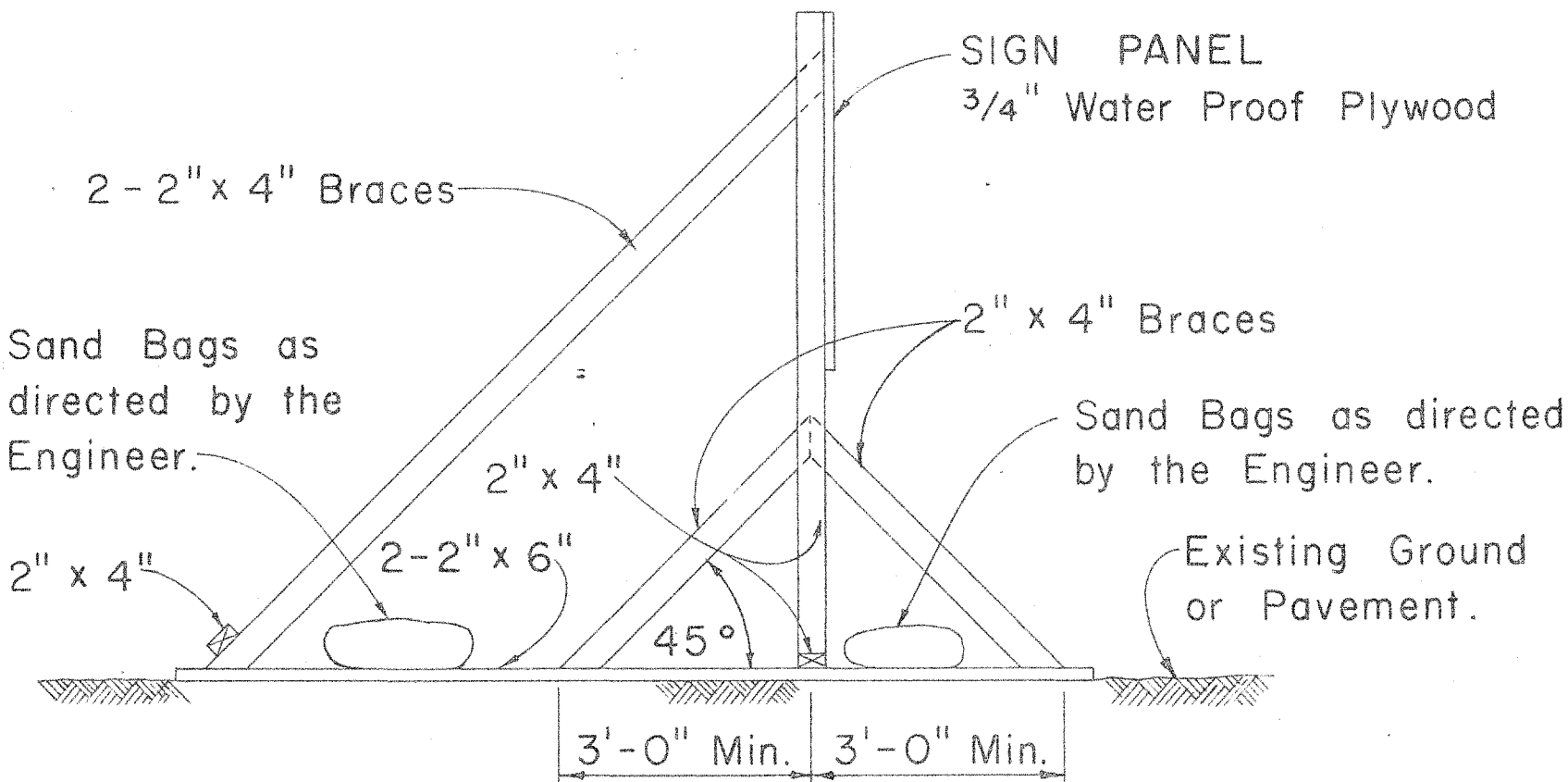
TYPICAL DETAILS
CONSTRUCTION IDENTIFICATION SIGN
AND
WOOD BARRICADES

Scale: As Shown
Date:

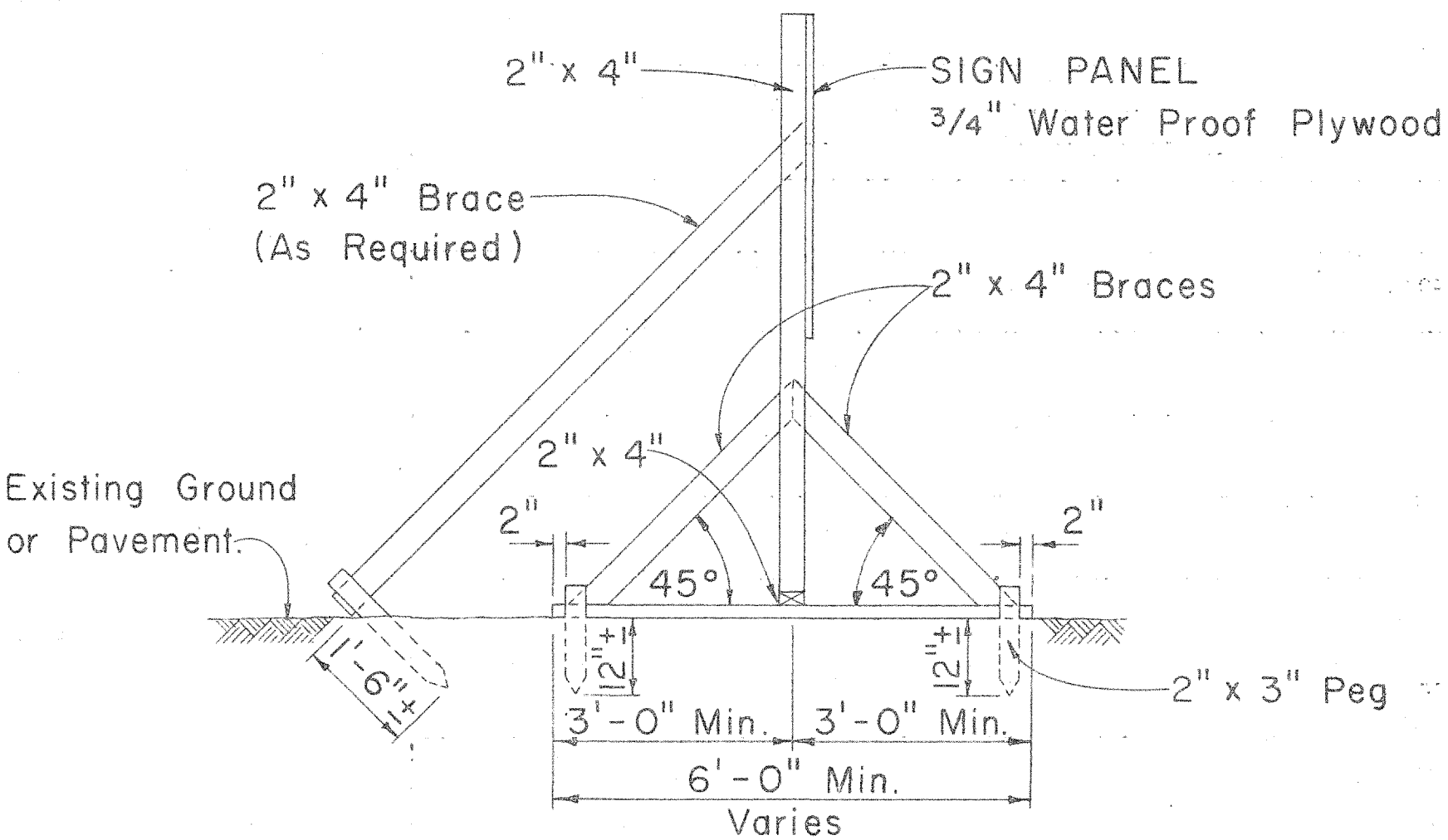
SHEET No. 6 OF 13 SHEETS



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



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

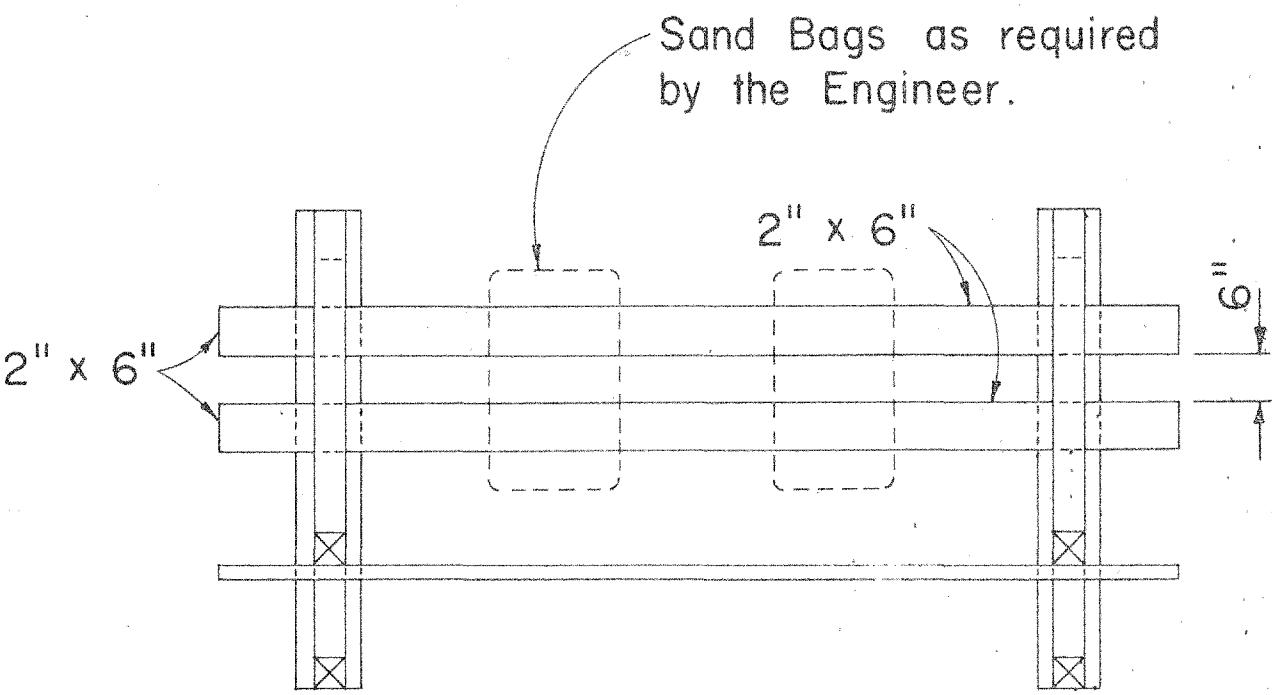


SIDE VIEW
(SIGN FRAME ANCHORED IN GROUND)
Scale: 1/2" = 1'-0"

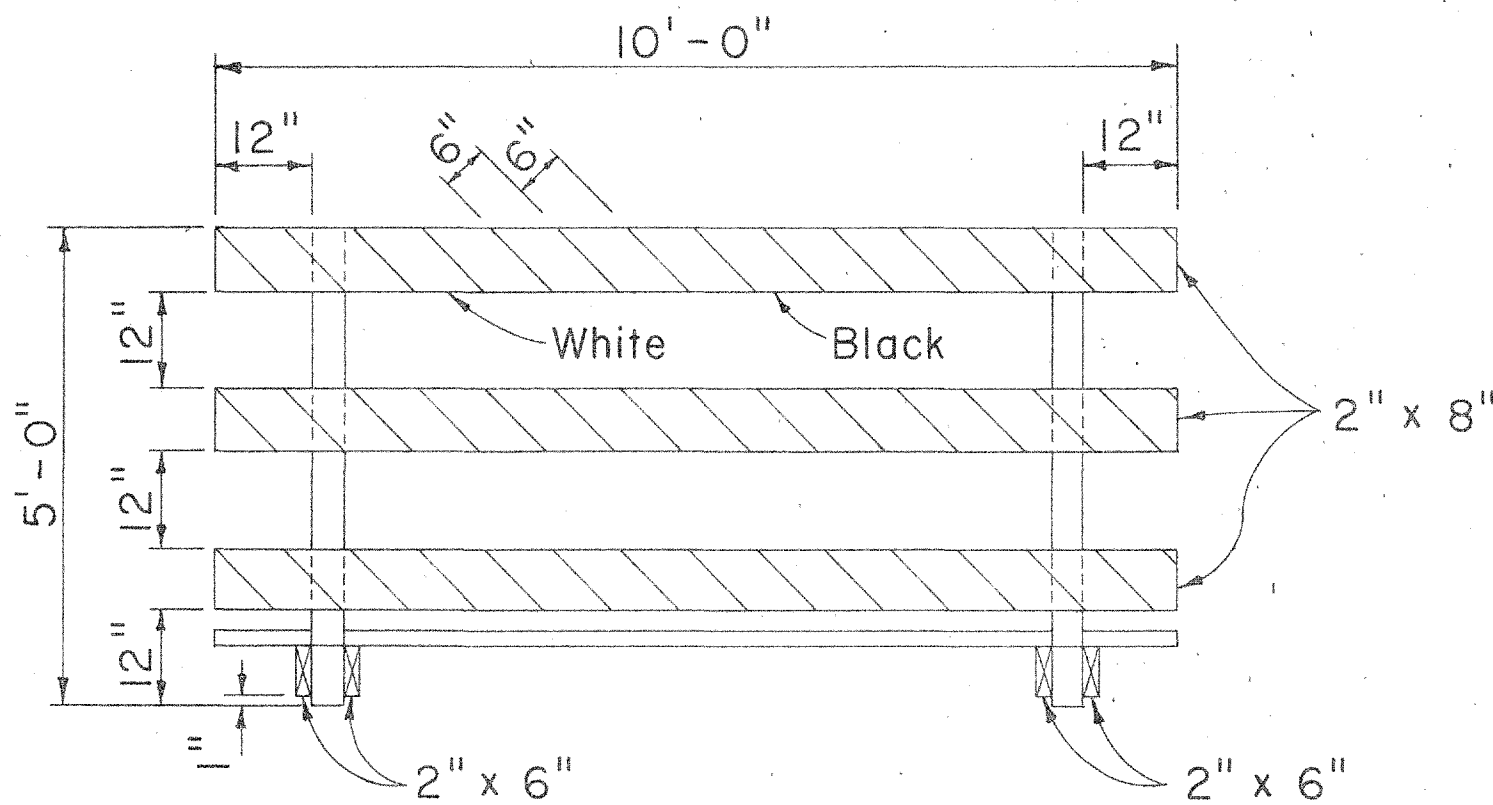
CONSTRUCTION IDENTIFICATION SIGN
Scale: As Shown

GENERAL NOTES

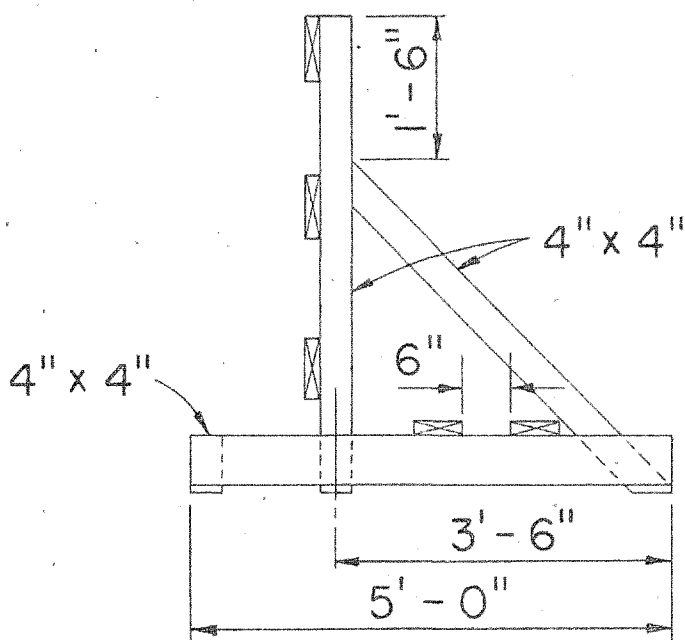
- The Contractor shall construct, install and maintain the wood barricades at the locations shown on the Plans.
- The permanent wood barricades shall be left in place or relocated upon completion of the project as ordered by the Engineer and are to become State property.



PLAN VIEW

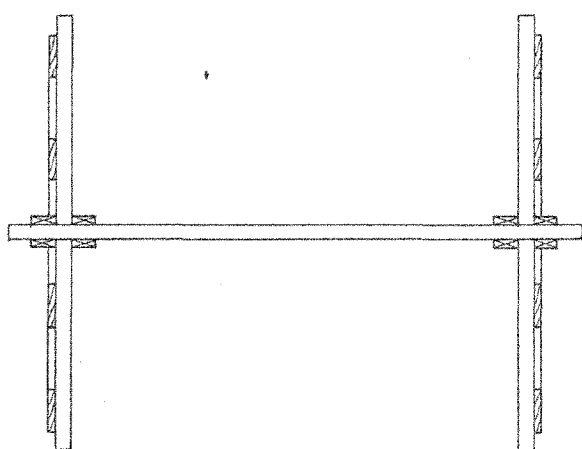


FRONT VIEW

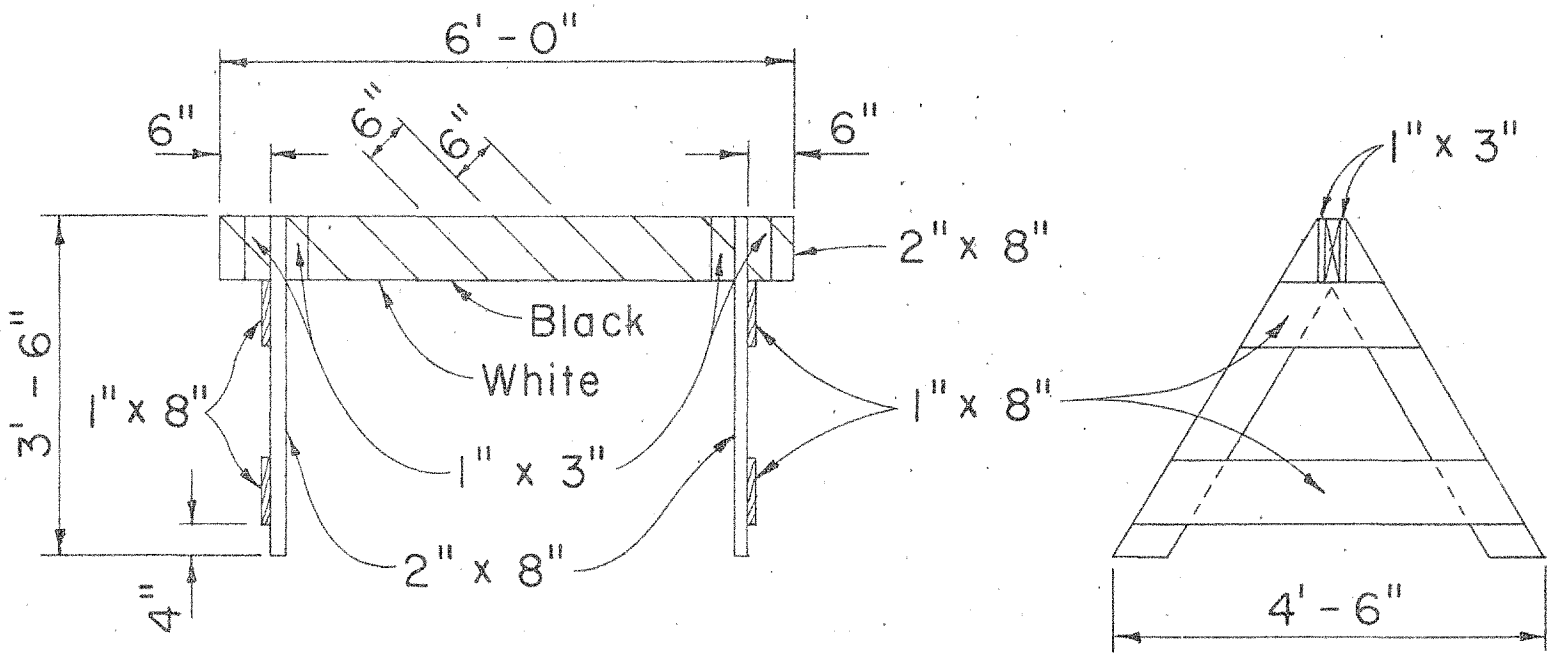


END VIEW

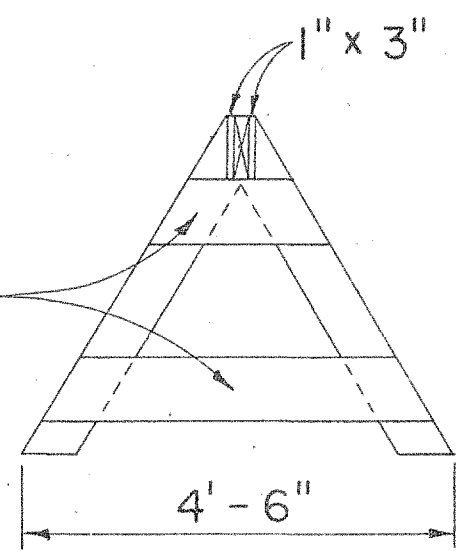
CLASS I BARRICADE
Scale: 1/2" = 1'-0"



PLAN VIEW



FRONT VIEW



END VIEW

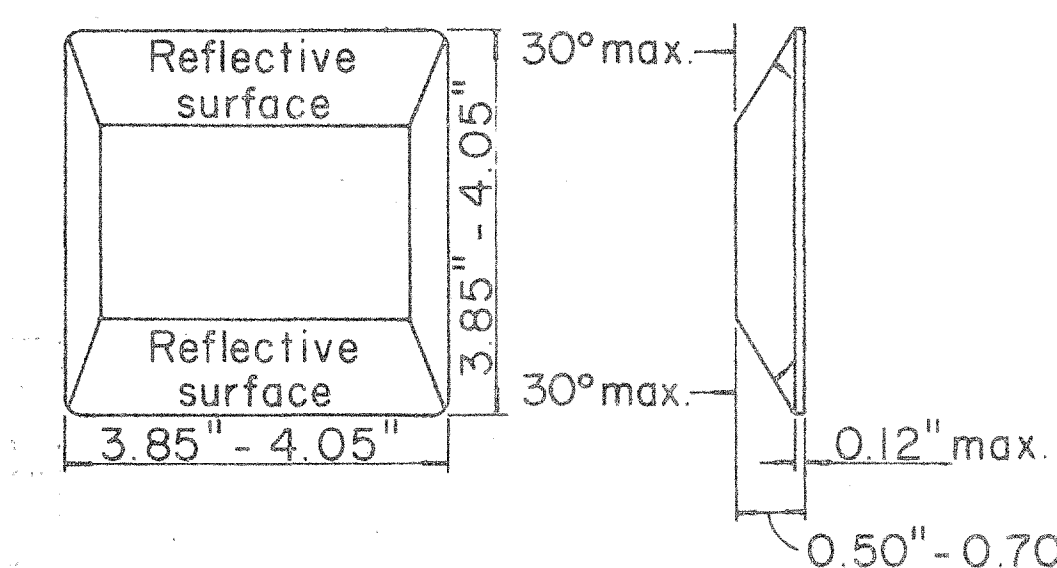
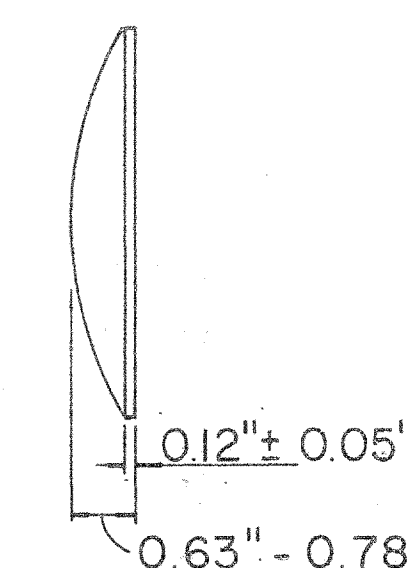
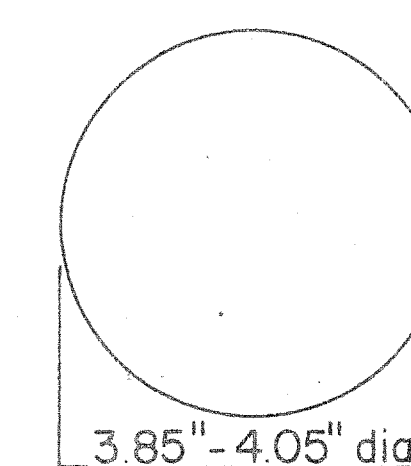
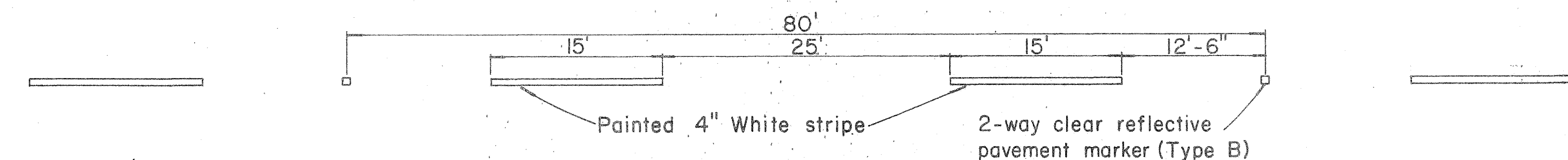
CLASS II BARRICADE
Scale: 1/2" = 1'-0"

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

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.		1969	45	104

PROJECT NO. 900B-02-68 UNIT 2

① CENTER LINES ON TWO - LANE RURAL ROADS AND CITY STREETS



TYPE A

Non-reflective white marker

TYPE B

2-way clear reflective surface

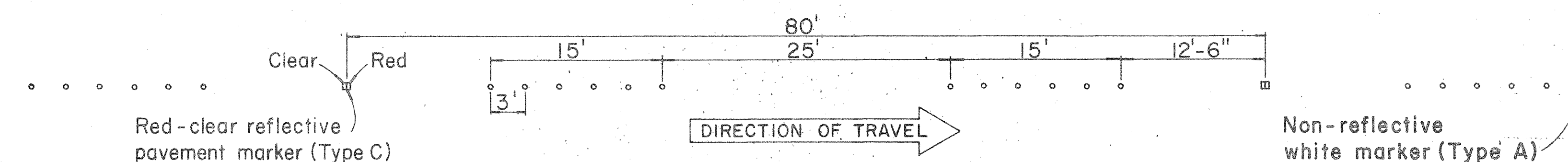
TYPE J

Non-reflective yellow marker

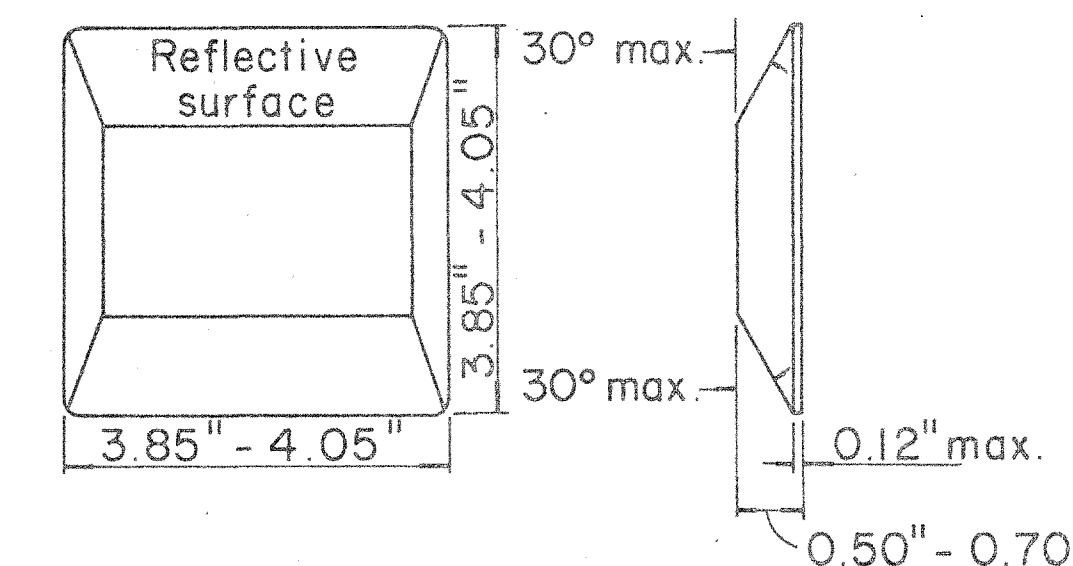
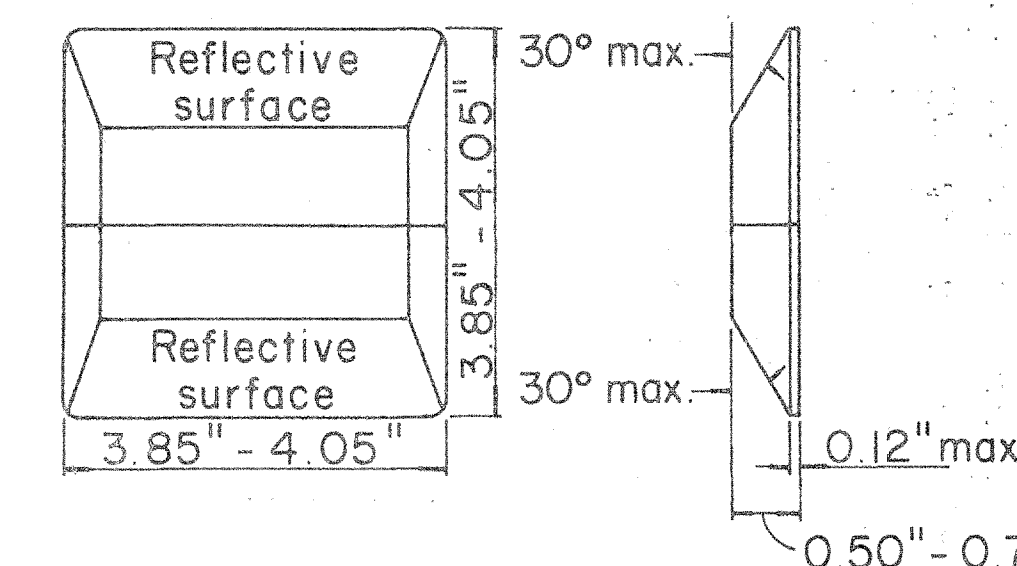
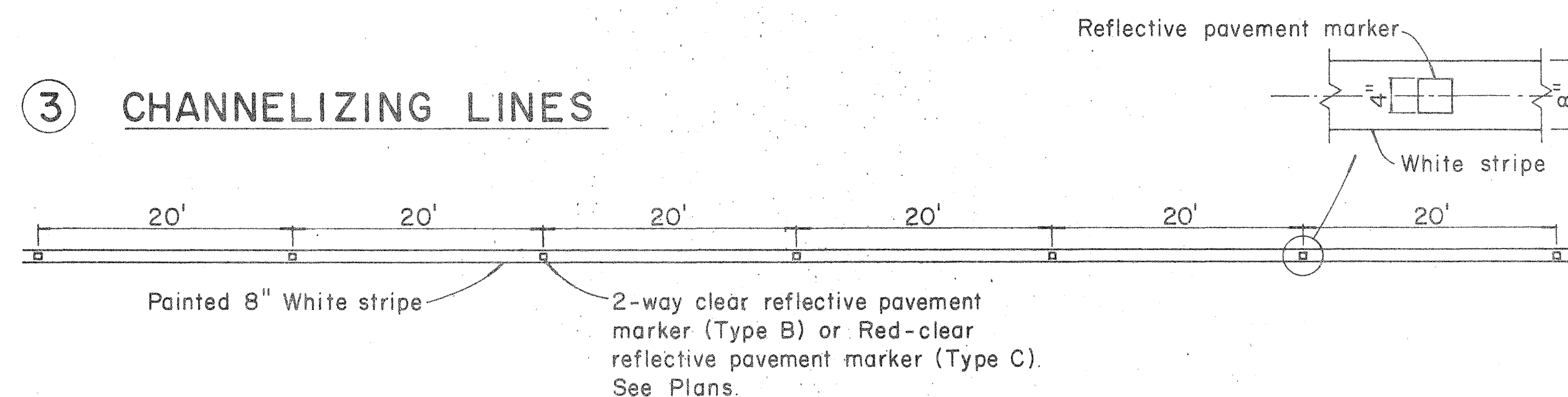
TYPE D

2-way yellow reflective surface

② LANE LINES



③ CHANNELIZING LINES



TYPE C

Red - clear reflective surface

TYPE H

One - way yellow reflective surface

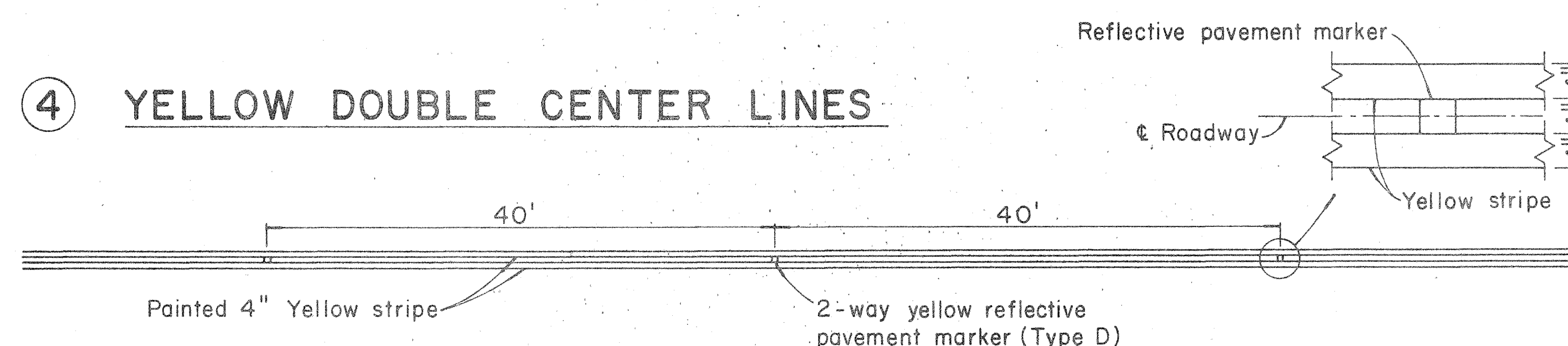
TYPE E

Yellow - clear reflective surface

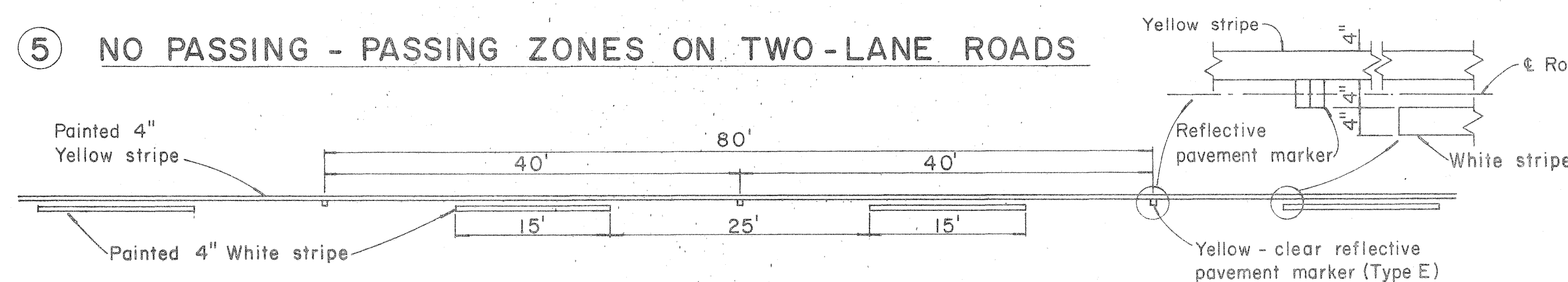
TYPE G

One - way clear reflective surface

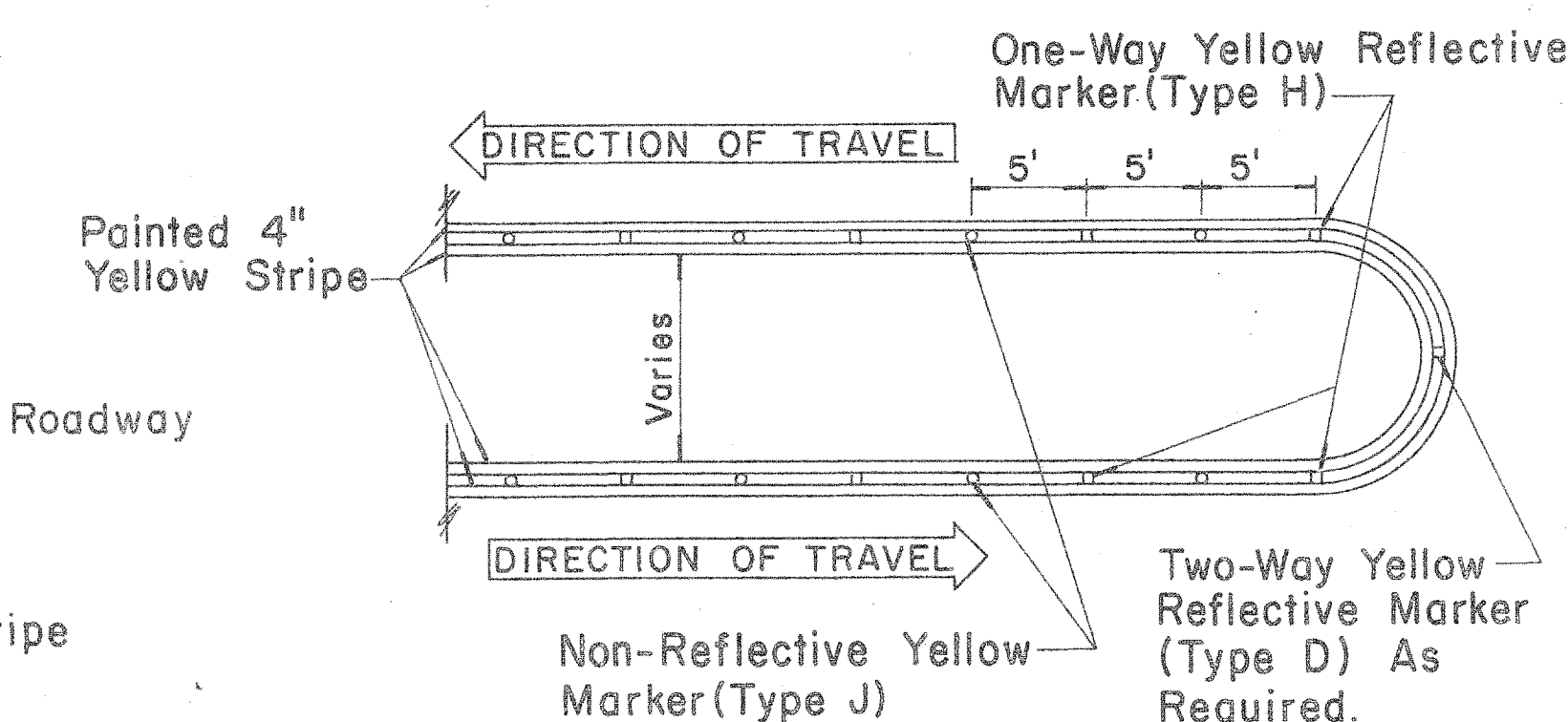
④ YELLOW DOUBLE CENTER LINES



⑤ NO PASSING - PASSING ZONES ON TWO - LANE ROADS



⑥ MEDIAN NOSE DELINEATION



NOTE

Painted stripes to be done by State forces.

June 23, 1969
REVISED: Aug. 26, 1968

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
RAISED PAVEMENT MARKERS

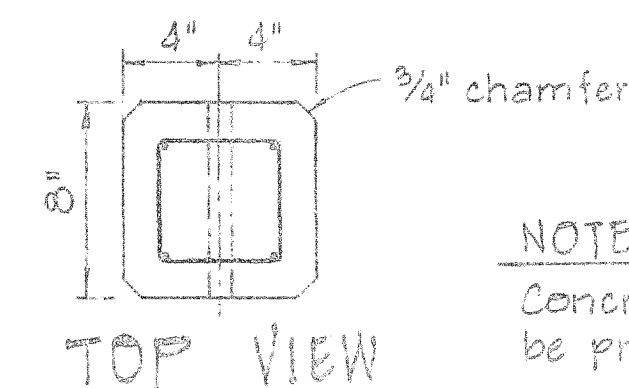
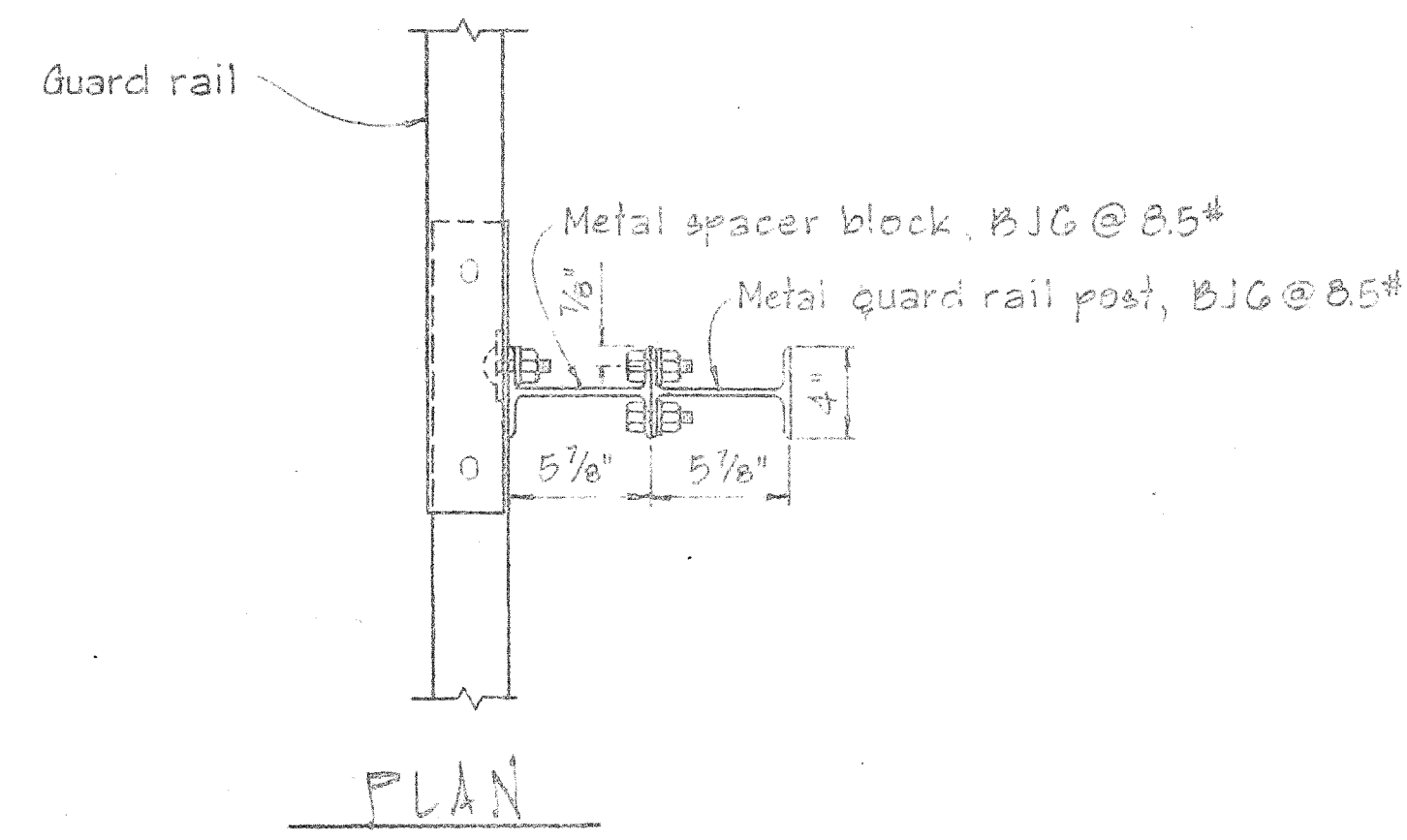
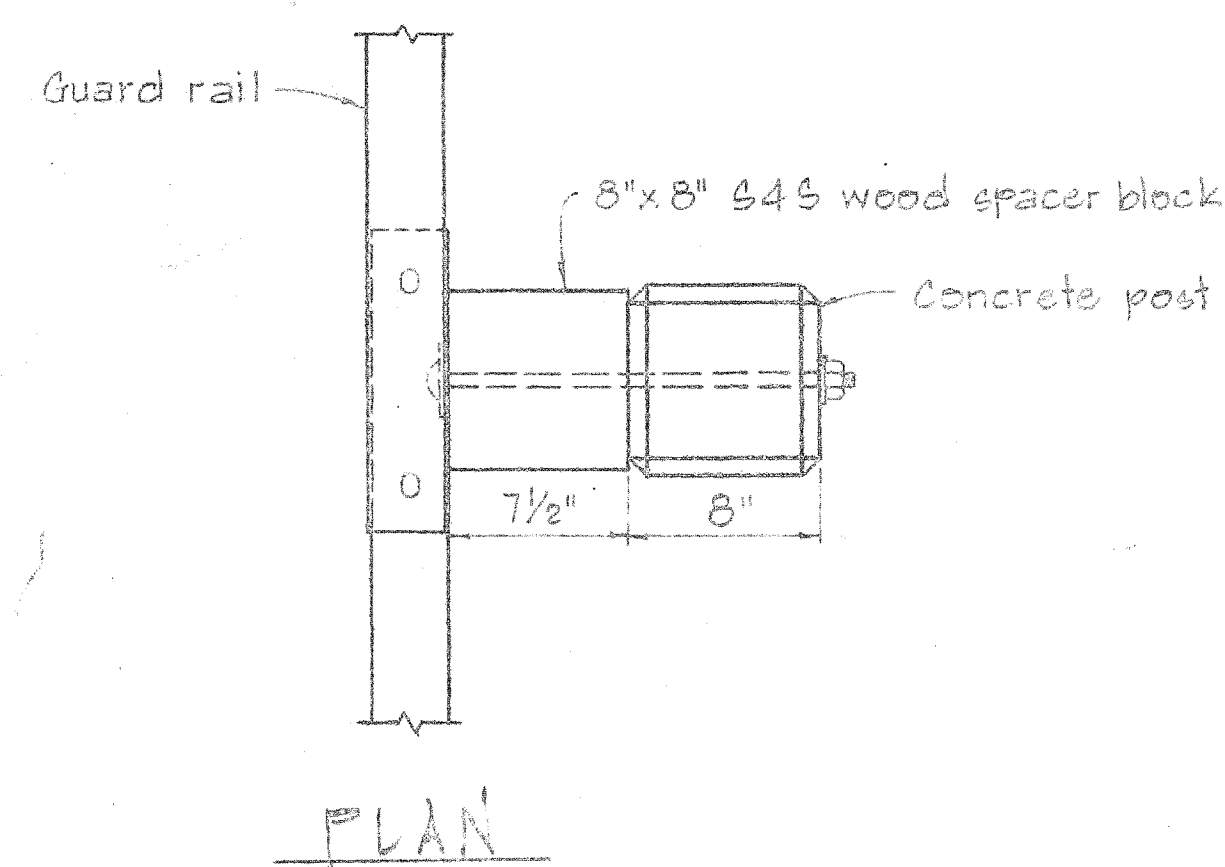
Not to Scale

Sept., 1967

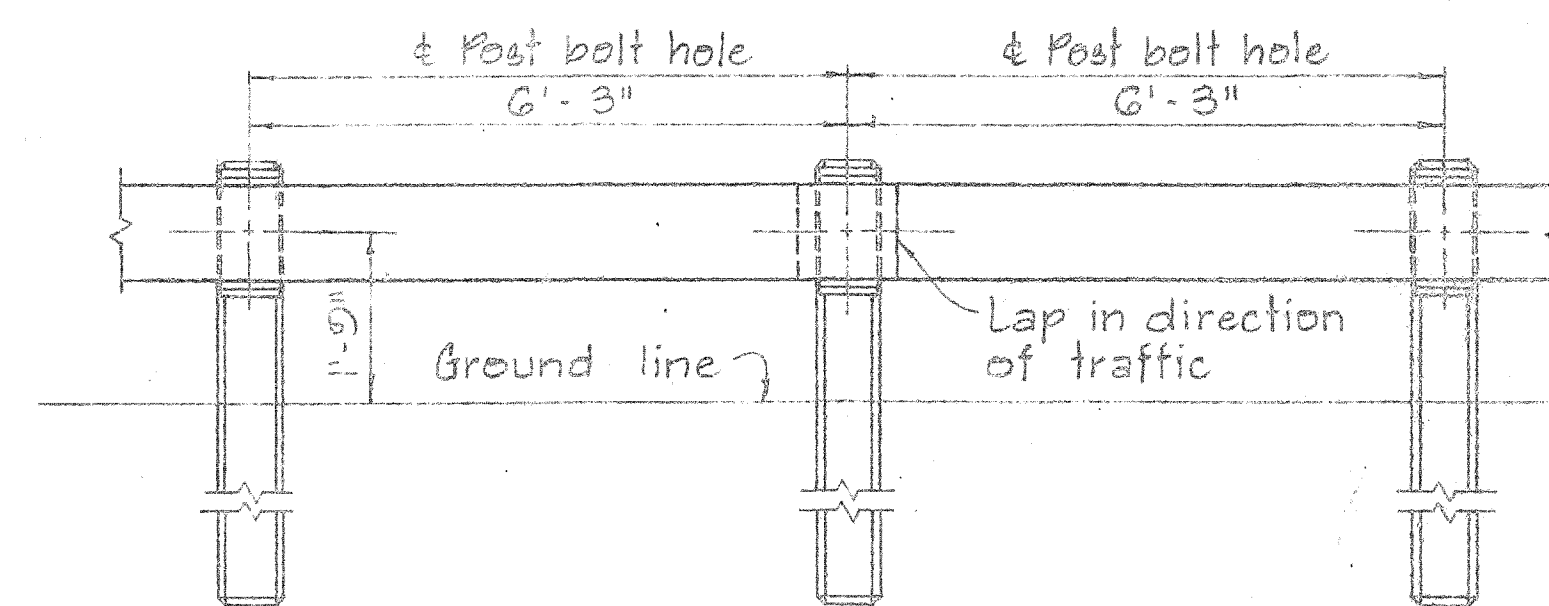
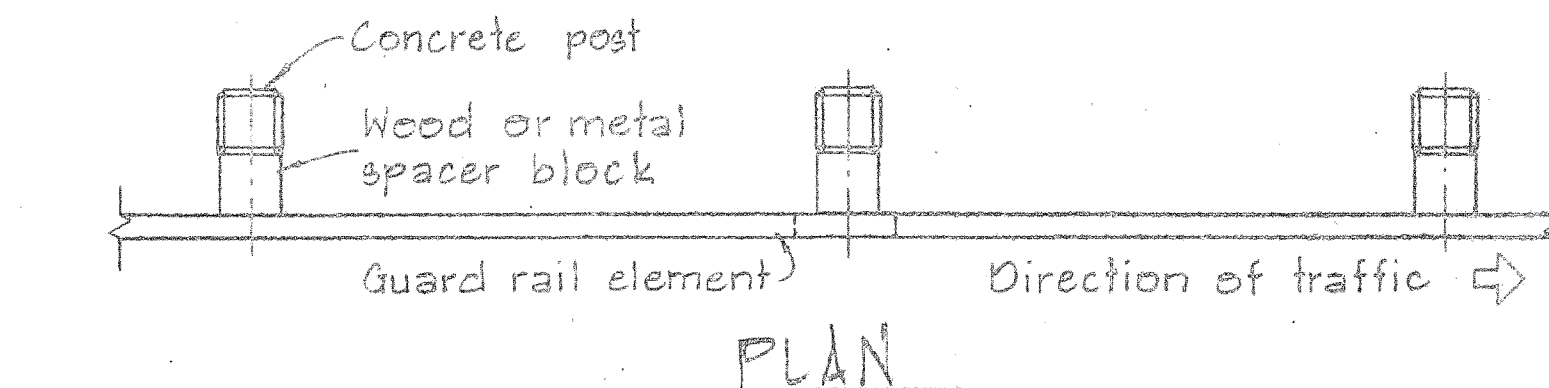
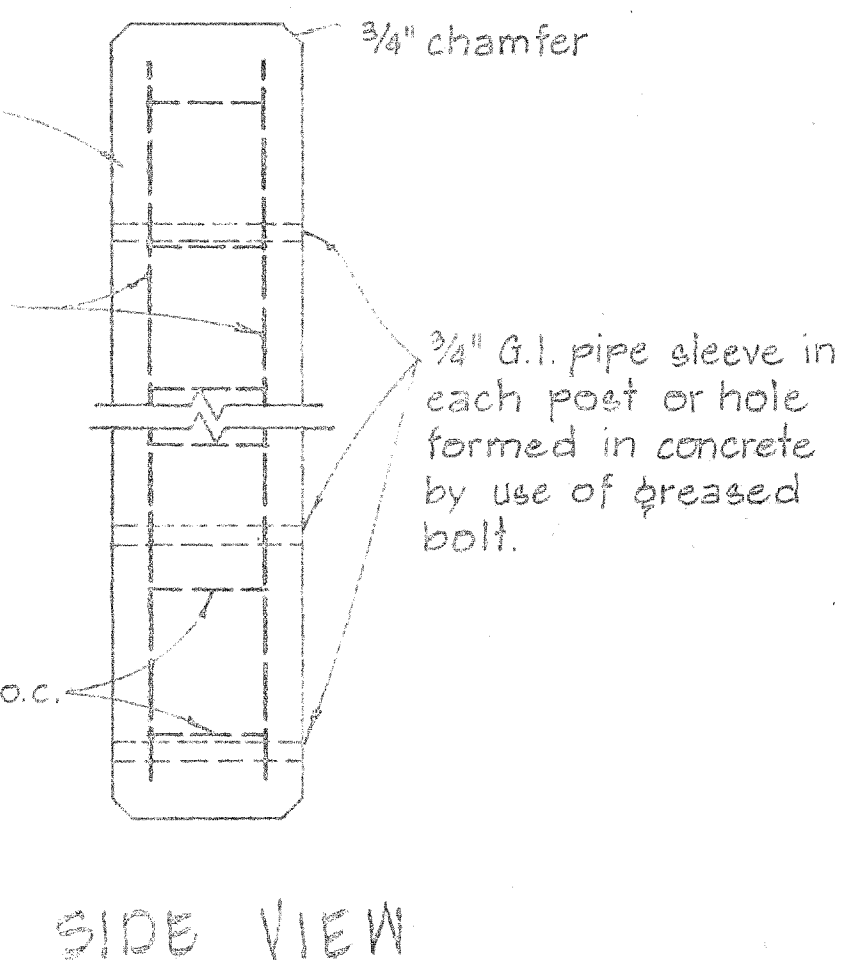
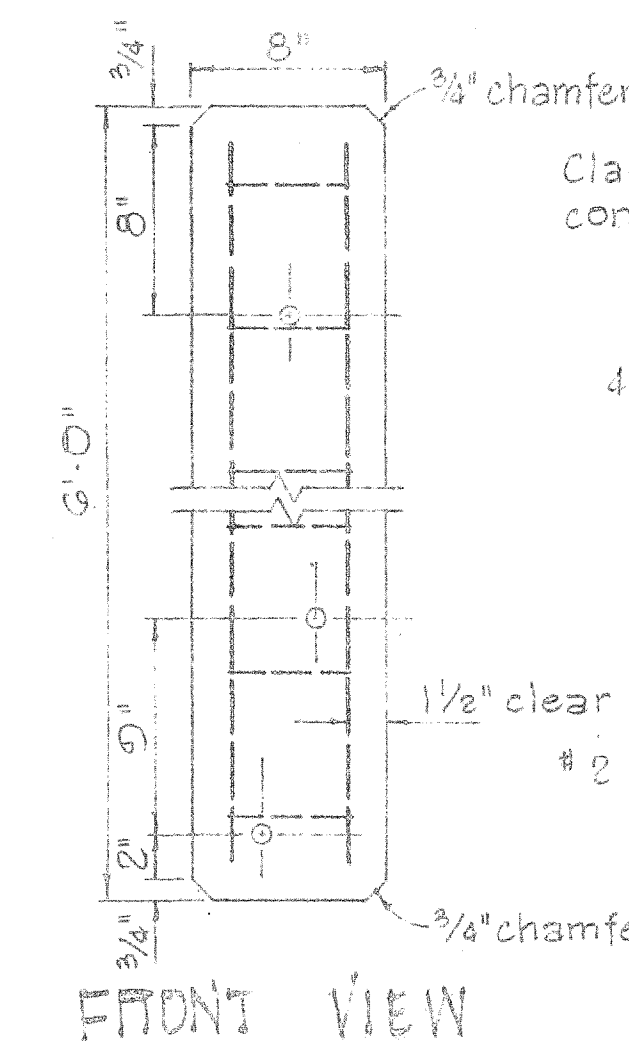
SHEET No. 7 OF 13 SHEETS DT 300

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.		1963	46	104

PROJECT NO. 9008-02-48 UNIT 2
REVISED: 12-11-68
REVISED: 2-26-69

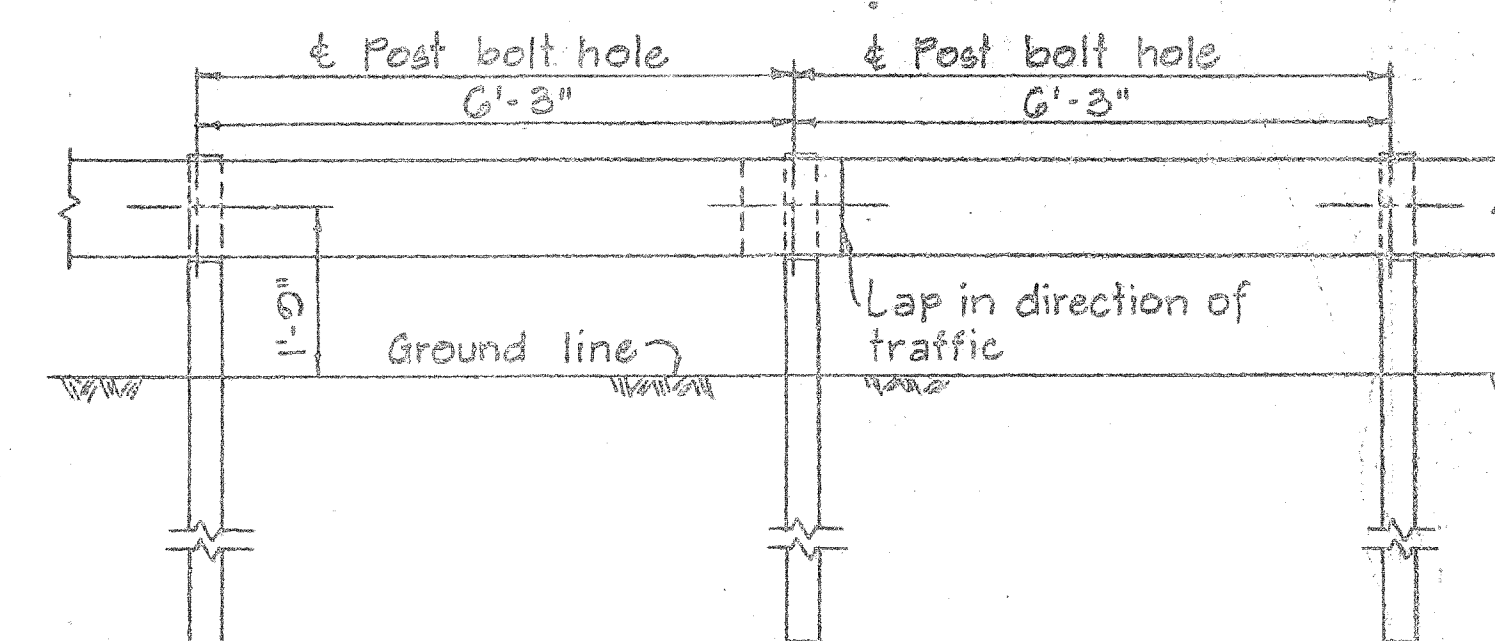
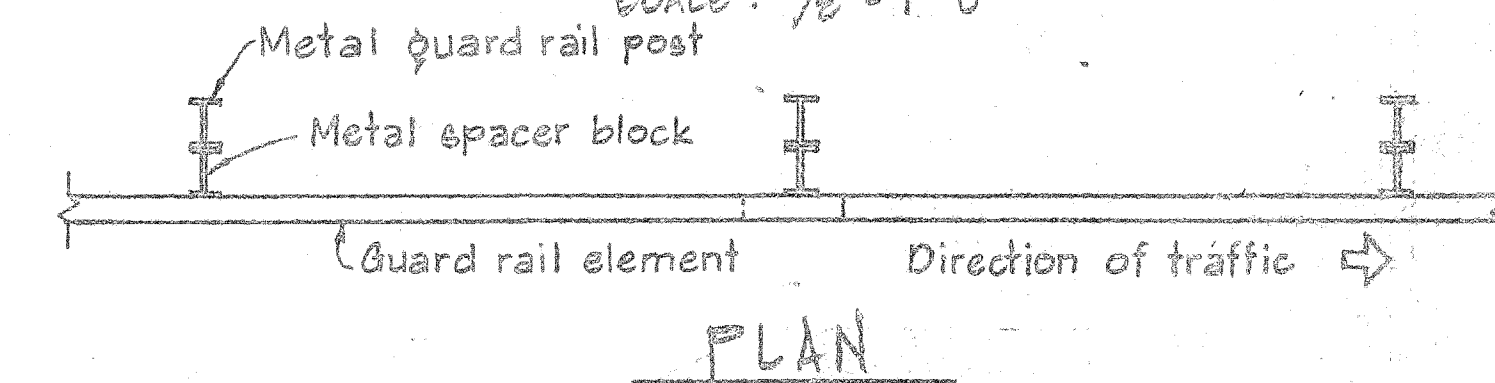


NOTE:
Concrete post shall be precast



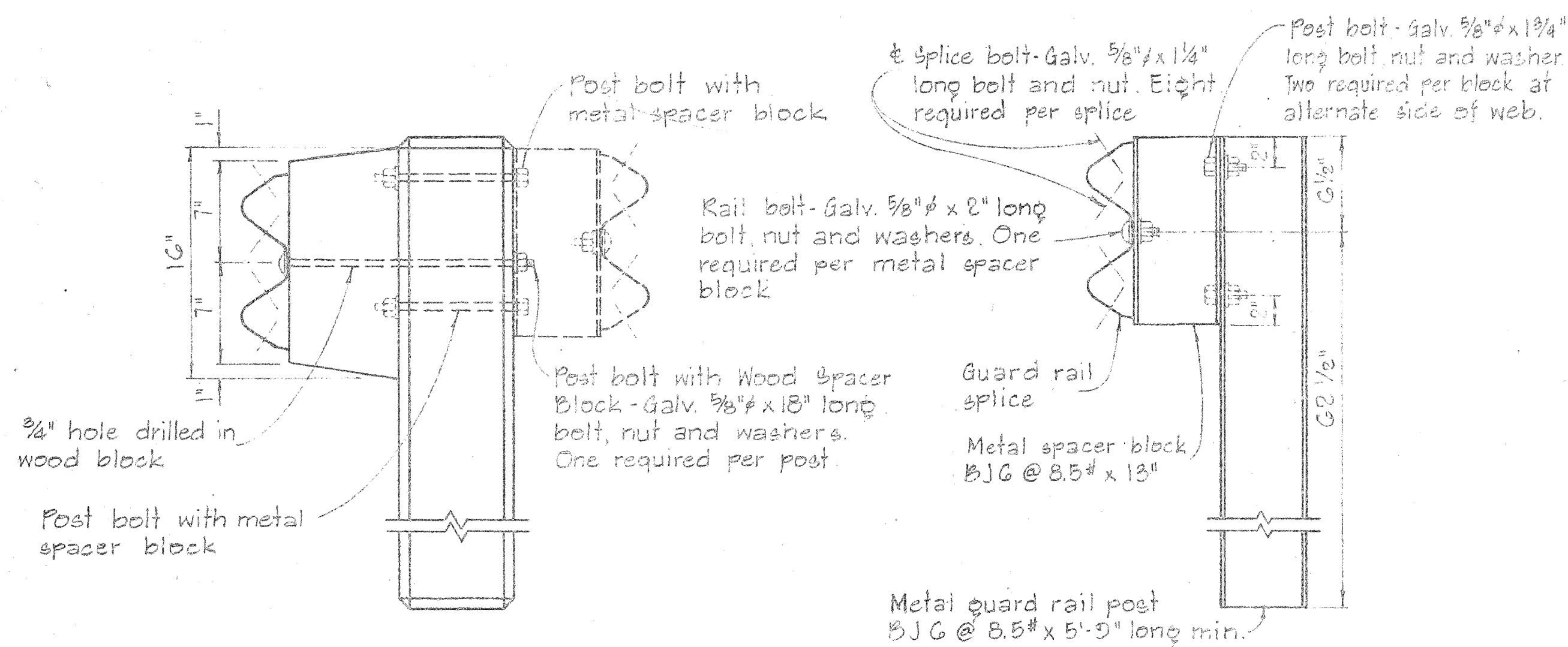
METAL GUARD RAIL ON CONCRETE POST WITH WOOD OR METAL SPACER BLOCK

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



METAL GUARD RAIL ON METAL POST WITH METAL SPACER BLOCK

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

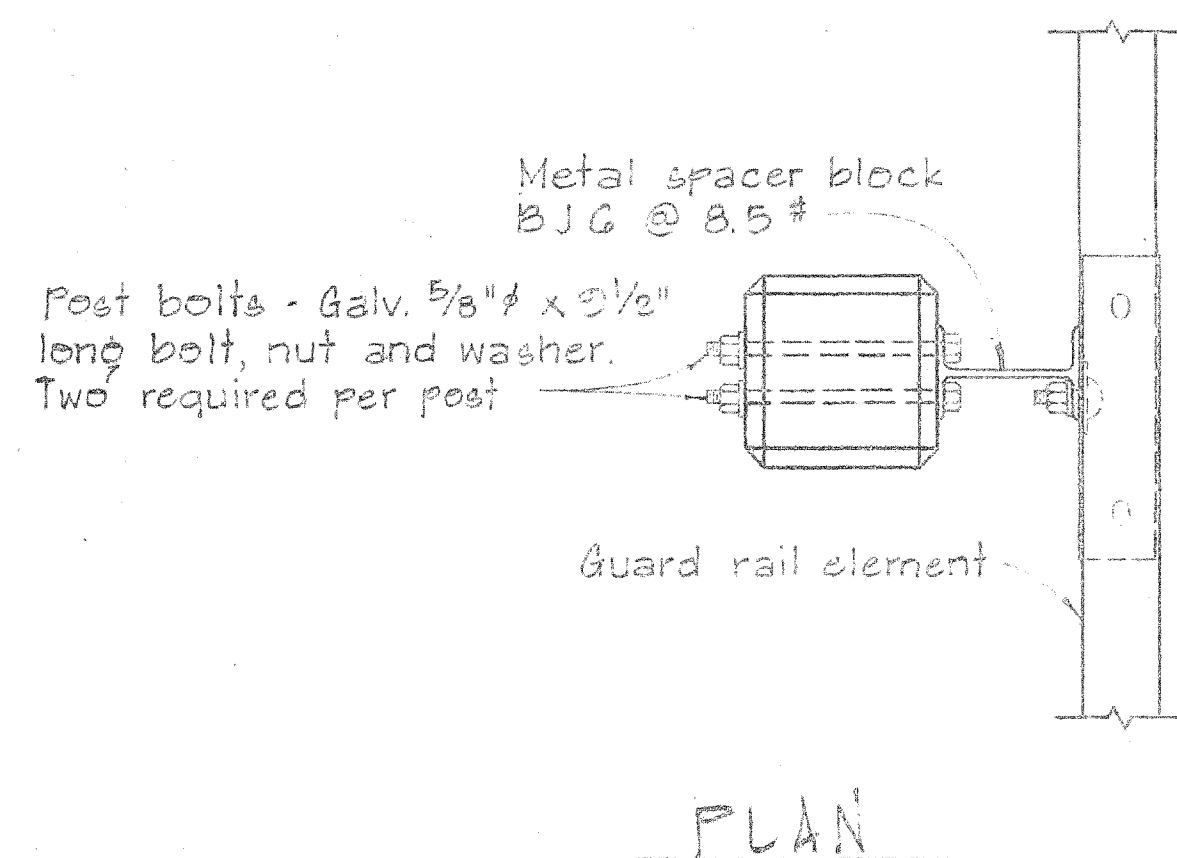


SINGLE METAL GUARD RAIL ON METAL POST WITH METAL SPACER BLOCK

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

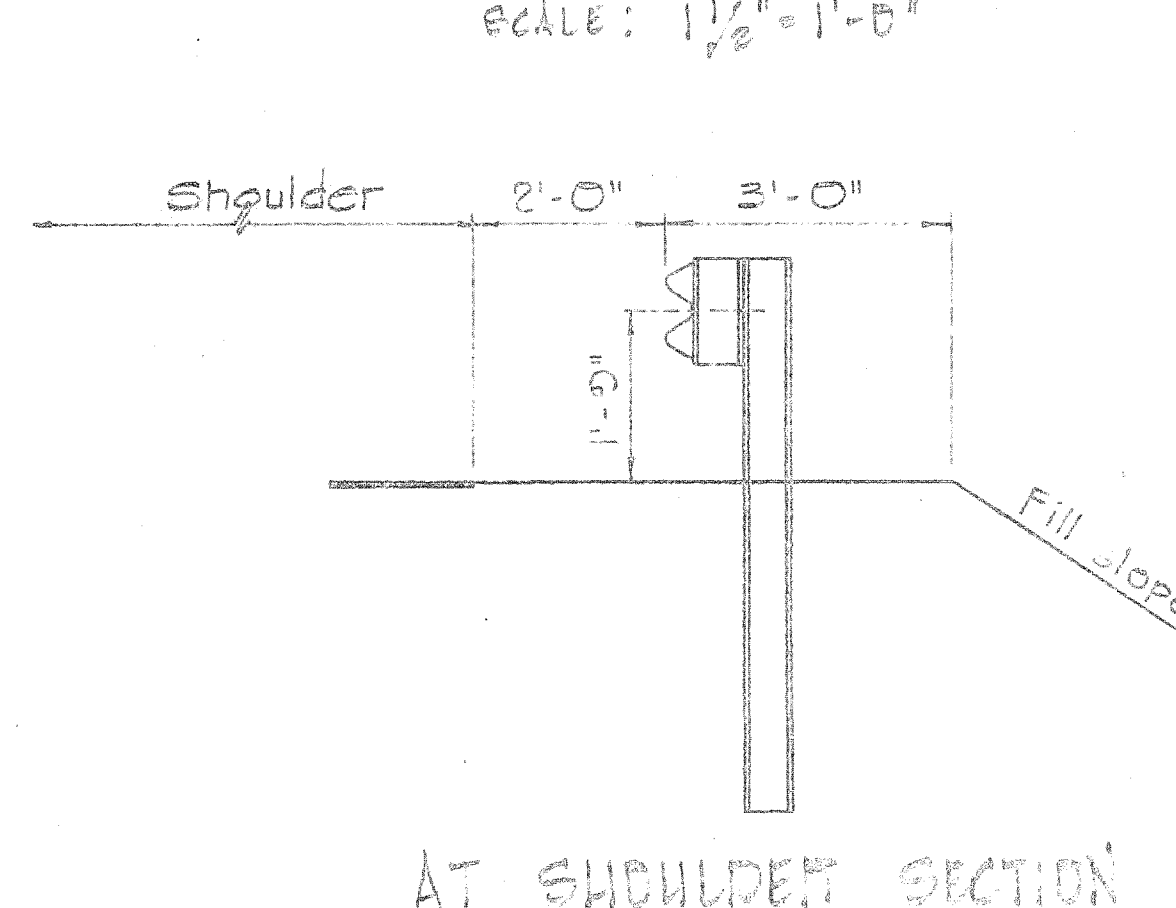
DETAIL OF CONCRETE POST

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



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

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



TYPICAL METAL GUARD RAIL DETAIL

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
METAL GUARD RAIL

SCALE: AS SHOWN NOV. 1968

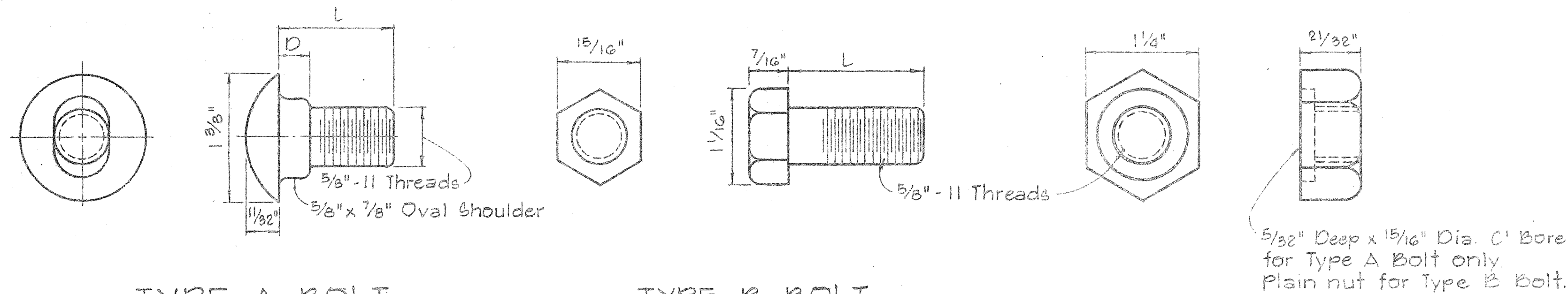
SHEET No. 8 OF 13 SHEETS DT 500

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.		1968	47	104

PROJECT NO. 900B-02-68 UNIT 2
Revised: Dec. 11, 1968

BOLT DIMENSIONS		
TYPE A BOLT		
	D	L
Splice Bolt	5/16"	1 1/4"
Post Bolt for Conc. Post w/ Double Wood Blocks	3/32"	24"
Post Bolt for Conc. Post w/ Single Wood Block	3/32"	18"
Rail Bolt for Metal Block	3/32"	2"

BOLT DIMENSIONS		
TYPE B BOLT		
		L
Post Bolt for Conc. Post w/ Metal Blocks		2 1/2"
Post Bolt for Metal Post w/ Metal Block		1 3/4"



TYPE A BOLT

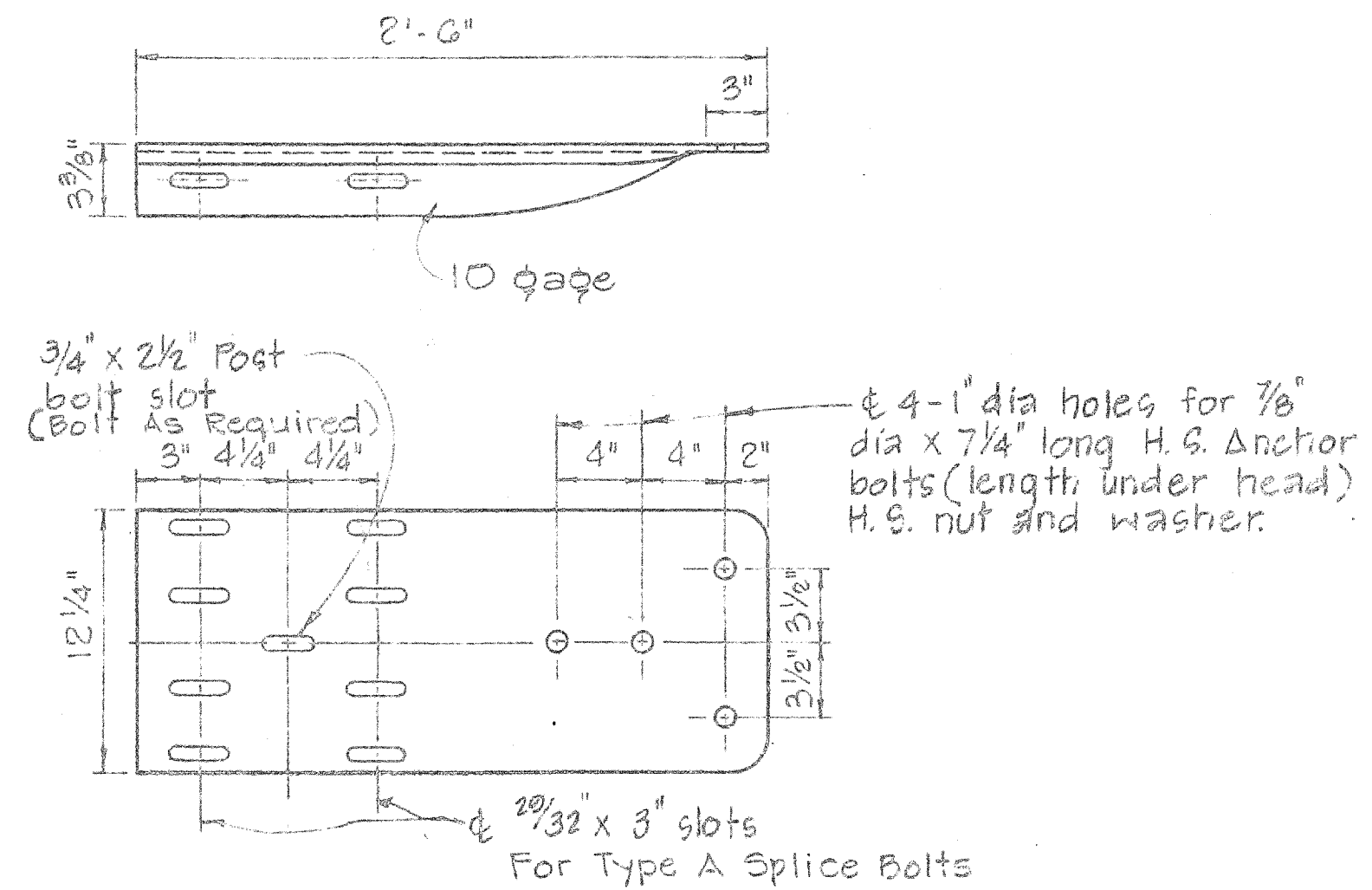
TYPE B BOLT

SPUCE RAIL AND POST BOLTS

Scale: Full Size

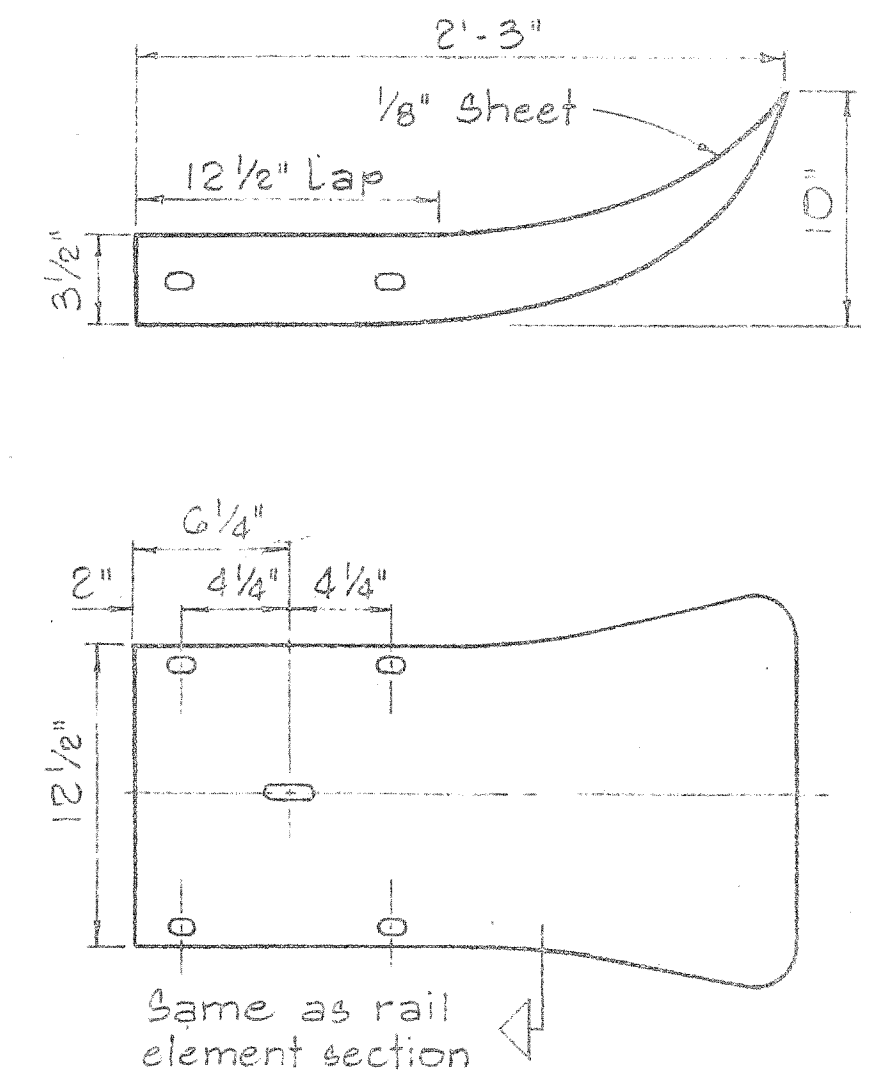
HEXAGON NUT

Scale: Full Size



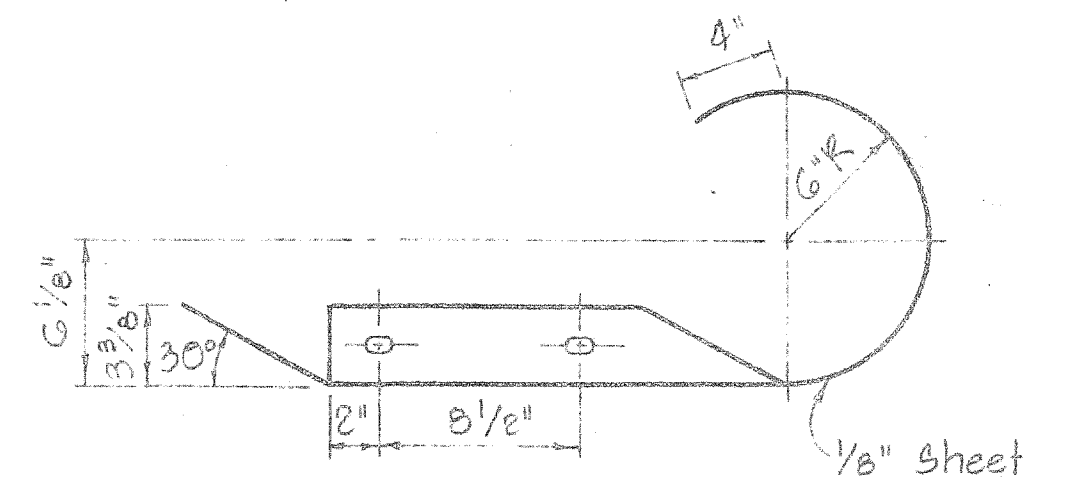
SPECIAL END SHOE

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



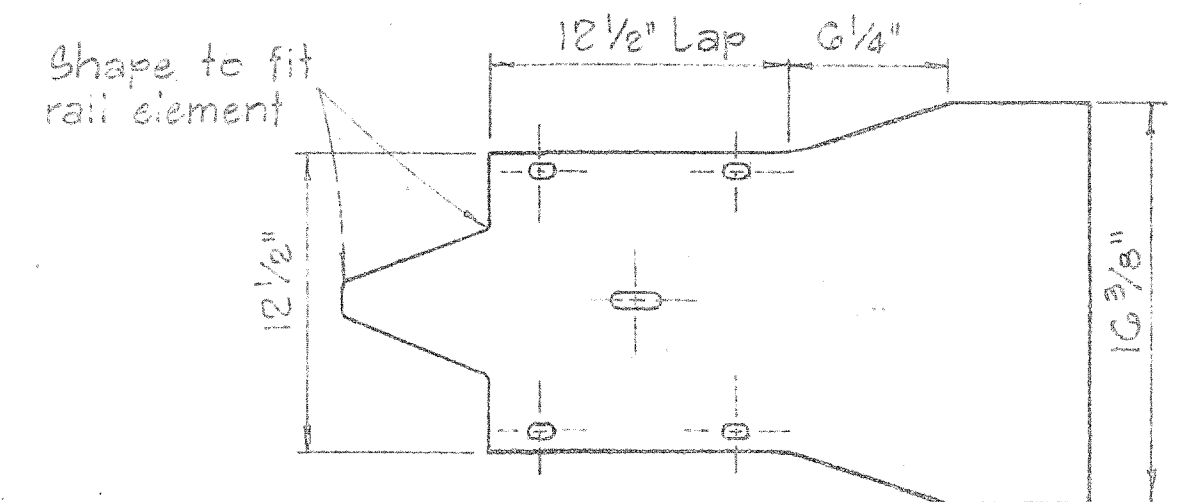
FLARED END

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



CURVED END

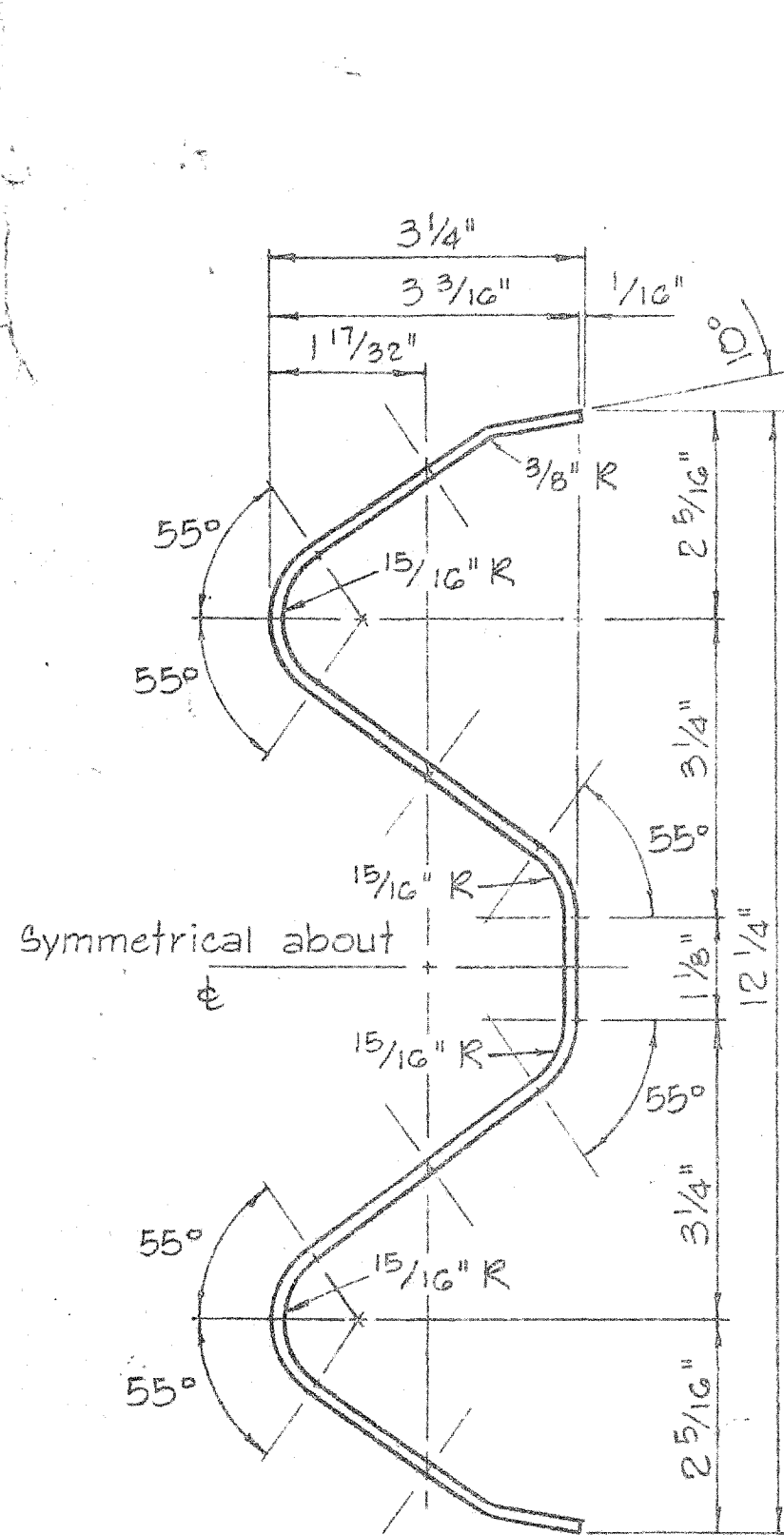
Scale: 1 1/2\"= 1'-0"



MEDIAN END

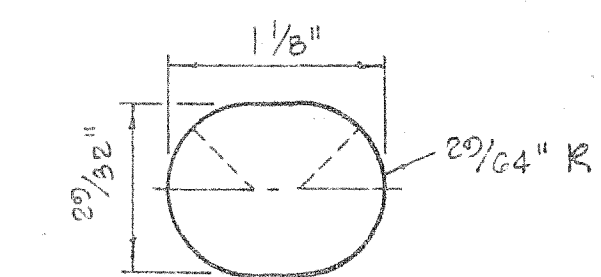
Scale: 1 1/2\"= 1'-0"

MEDIAN END DIMENSIONS		
TYPE OF POST AND BLOCK	W	R
Double Metal Guard Rail on Concrete Post with Wood Blocks	25 3/8"	14 7/8"
Double Metal Guard Rail on Concrete Post with Metal Blocks (BJG)	26 1/2"	13 1/4"
Double Metal Guard Rail on Metal Post with Metal Blocks (BJG)	24 3/8"	12 3/16"



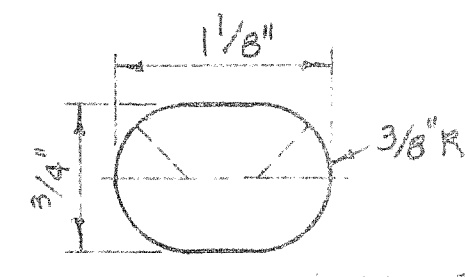
RAIL ELEMENT SECTION

Scale: 6\"= 1'-0"

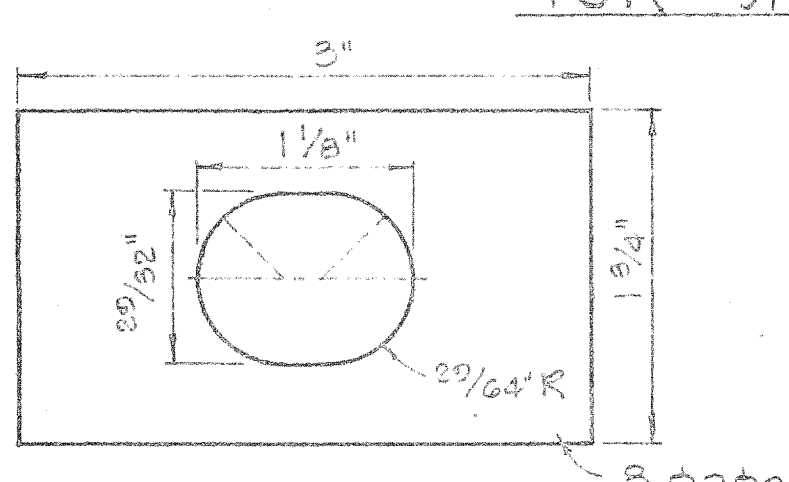
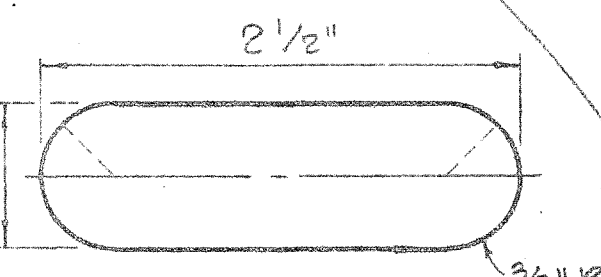
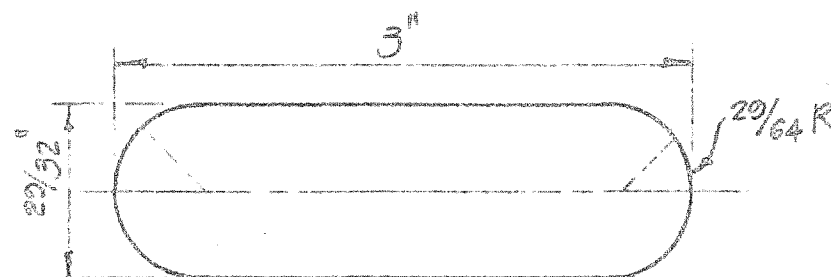


SPUCE BOLT SLOT

Scale: Full Size

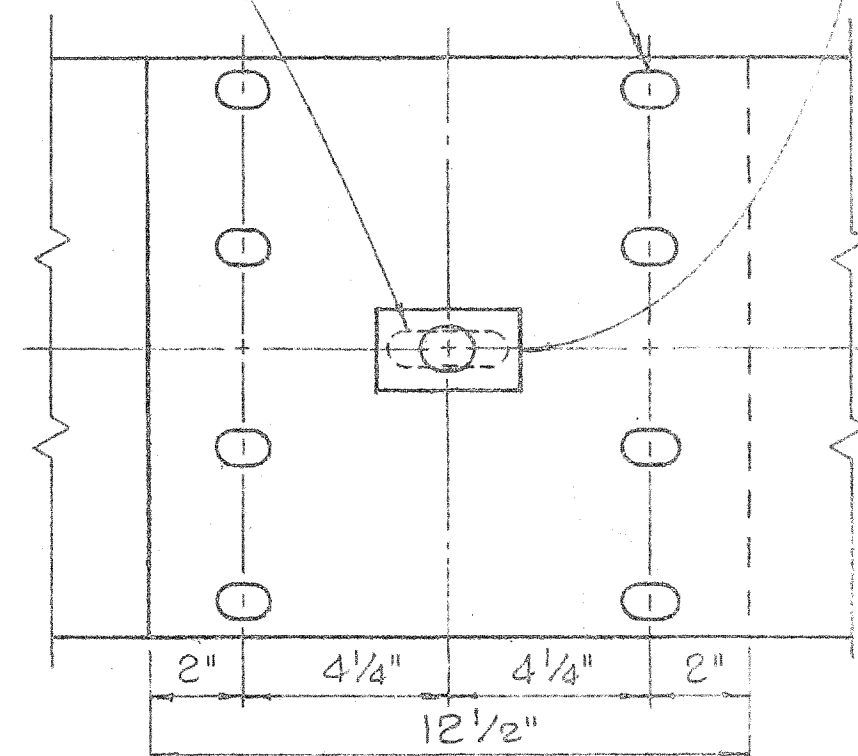


SPUCE BOLT SLOT FOR SPECIAL END SHOE



RAIL WASHER

POST BOLT SLOT



RAIL SPLICE

Scale: 3\"= 1'-0"

NOTES:

1. H.S. Bolts shall conform to the requirements of ASTM A-325.
2. Special End Shoe shall be fabricated from 10 Gage steel conforming to the requirements of AASHTO 180.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

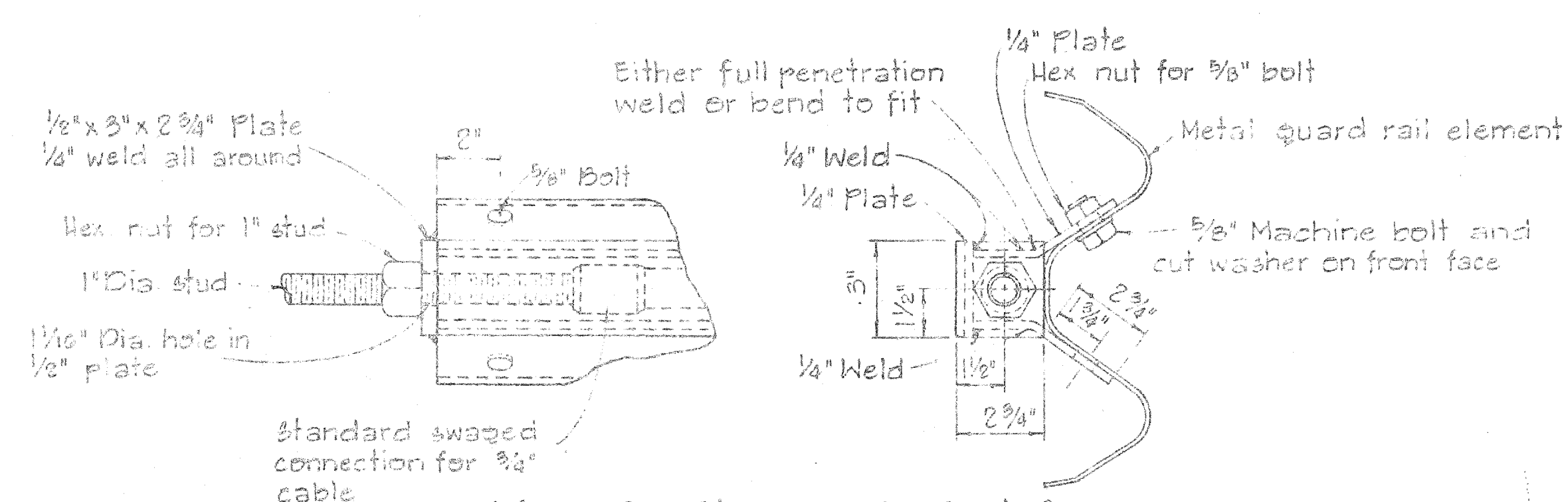
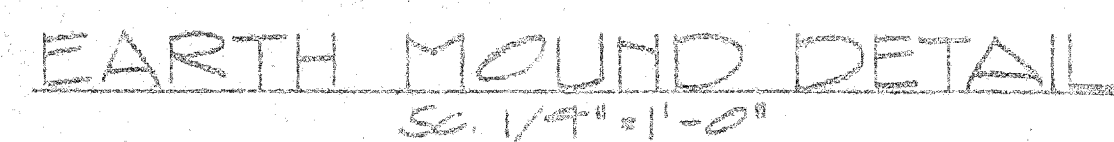
METAL GUARD RAIL

Scale: As Noted August, 1968

SHEET No. 9 OF 13 SHEETS PT 501

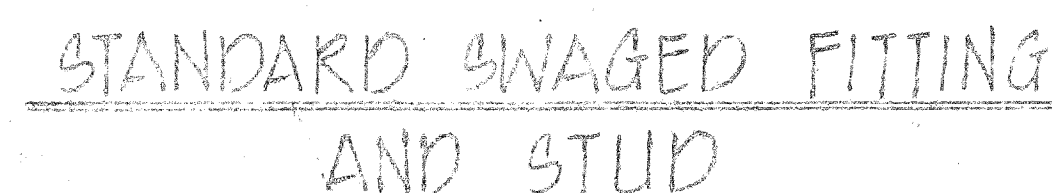
PROJECT NO. 900 B-02-68 UNIT 2

REVISED: 12-11-68
REVISED: 1-25-69



ANCHOR PLATE DETAILS

SCALE: 1" = 3'



Scale: 1" = 3'



NOTE:

1. Galvanized Anchor Rod, Metal Guard Rail and Post buried in ground shall be covered with coat of coal tar enamel
2. Concrete, GPR, Excavation, Earth Mound, Anchor Rods, and Miscellaneous Appurtenances necessary to anchor the Guard Rail Ends, shall be incidental to the Metal Guard Rail.

ELEVATION

ANCHOR BLOCK DETAIL

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

PRINTED ON NO. 1000H CLASPING

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
EARTH MOUND AND
ANCHOR BLOCK DET.

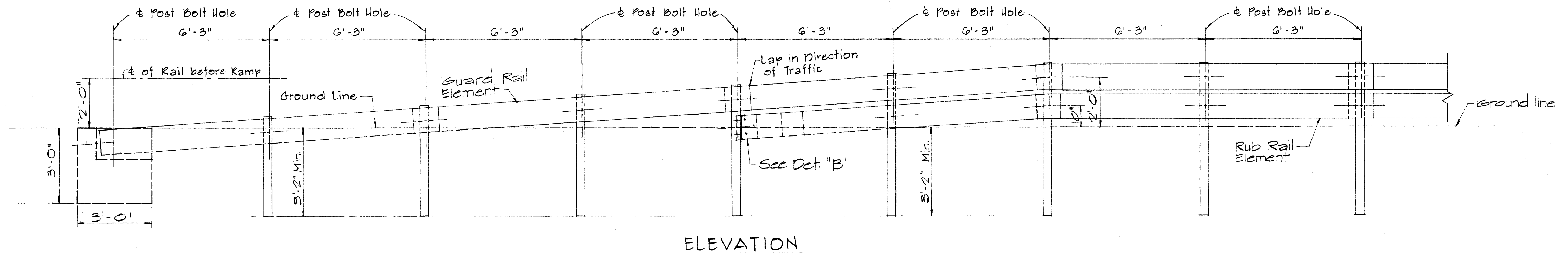
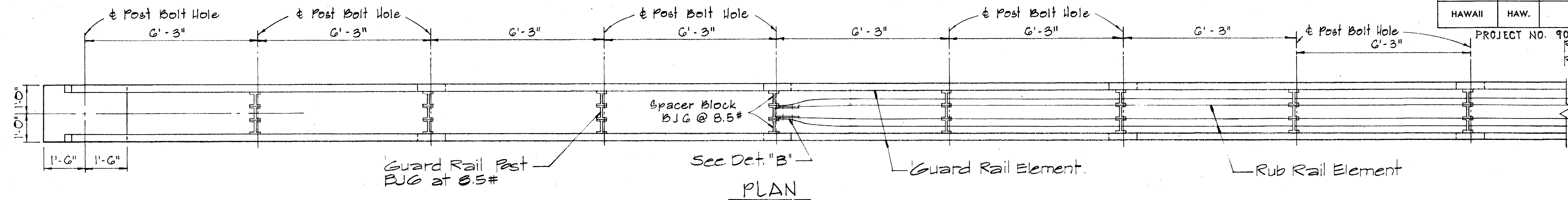
Scale: As shown

NOV 1968

SHEET No. 10 OF 13 SHEETS PT 503

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.		1969	49	104

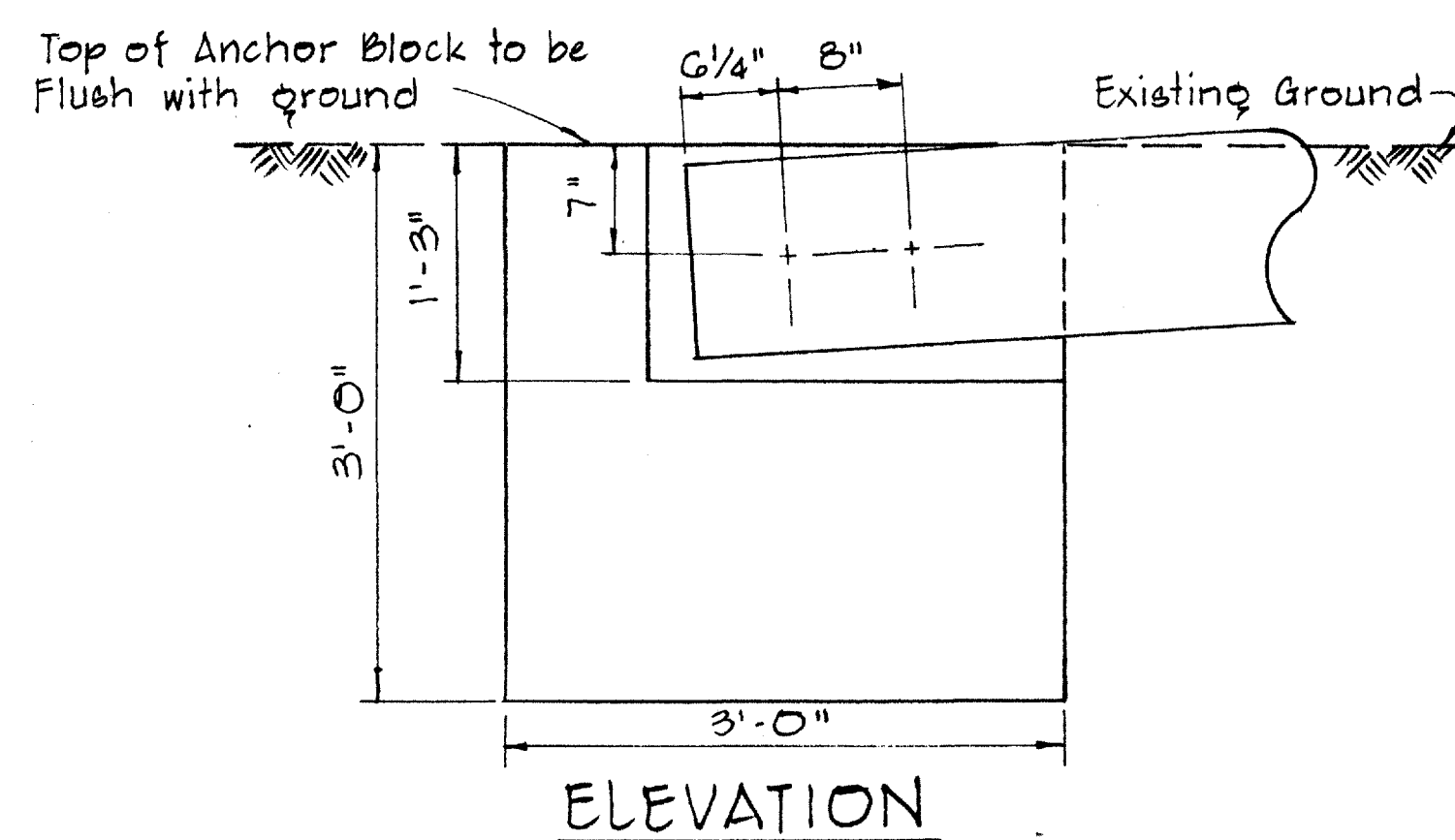
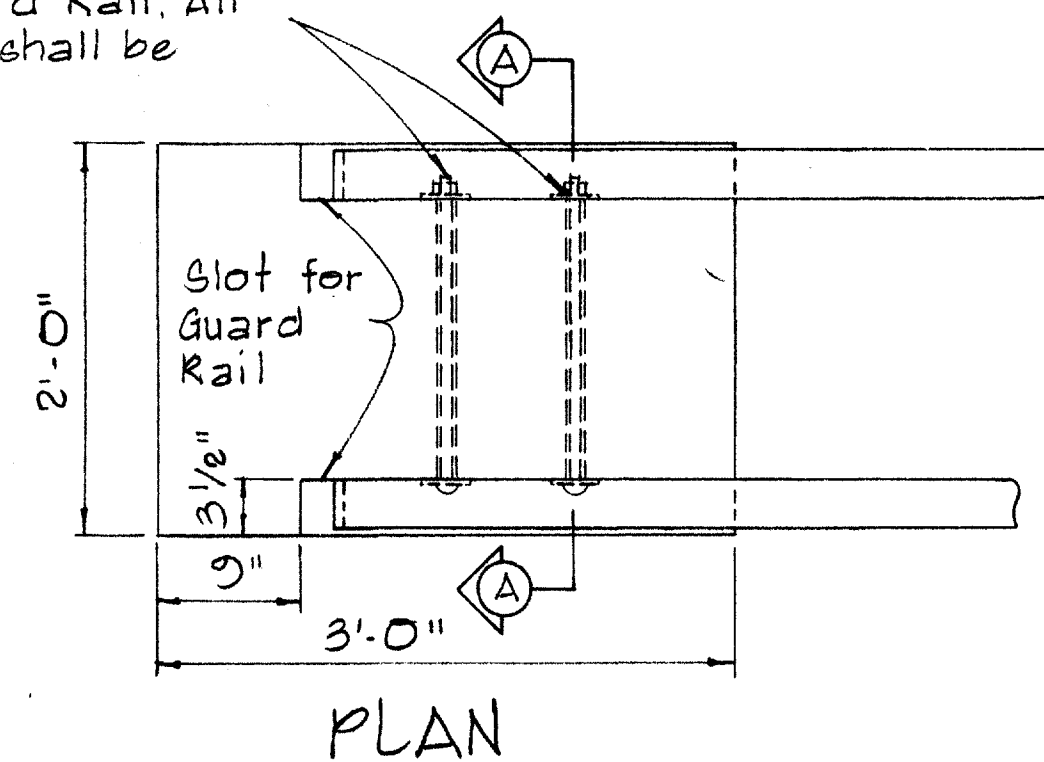
PROJECT NO. 900 B-02-68 UNIT 2
REVISED: 12-11-68
REVISED: 2-24-69



STRAIGHT APPROACH - RAMP END ANCHORAGE (MEDIAN)

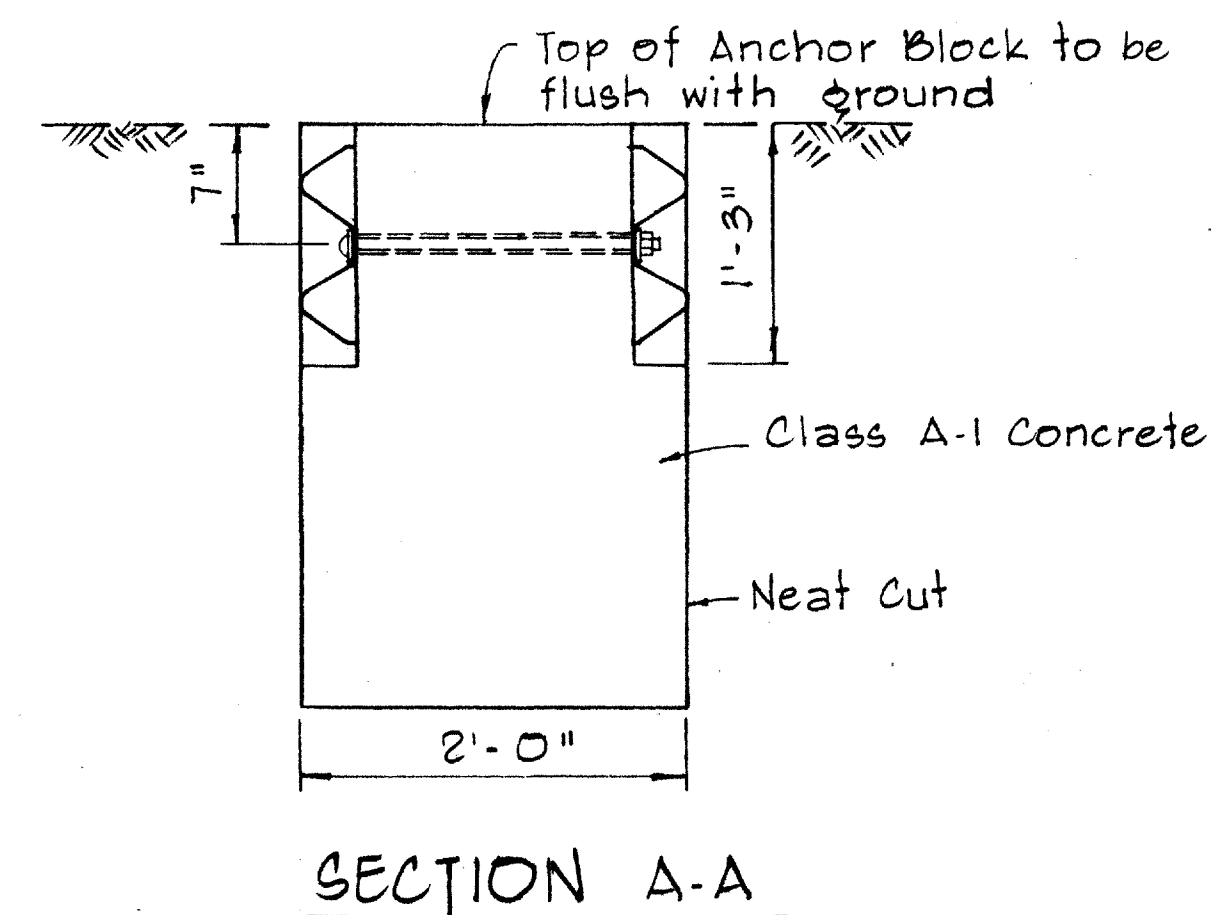
Scale: 1/2" = 1'-0"

5/8" Bolts with 3/4" G.I. Pipe Sleeve in each hole. Incidental to Metal Guard Rail. All Metal Pieces shall be Galvanized.

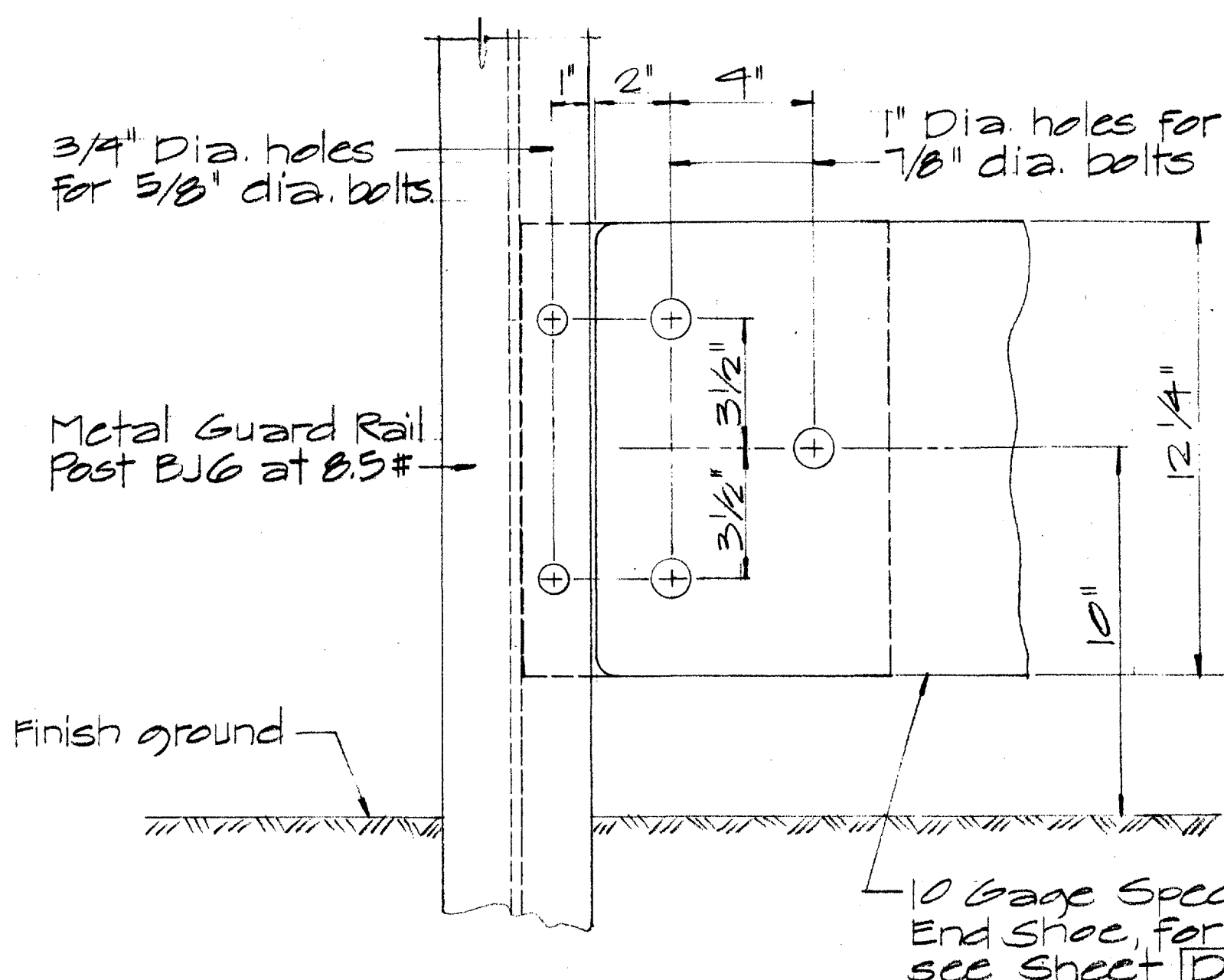


CONCRETE ANCHOR BLOCK FOR RAMP END

Scale: 1" = 1'-0"

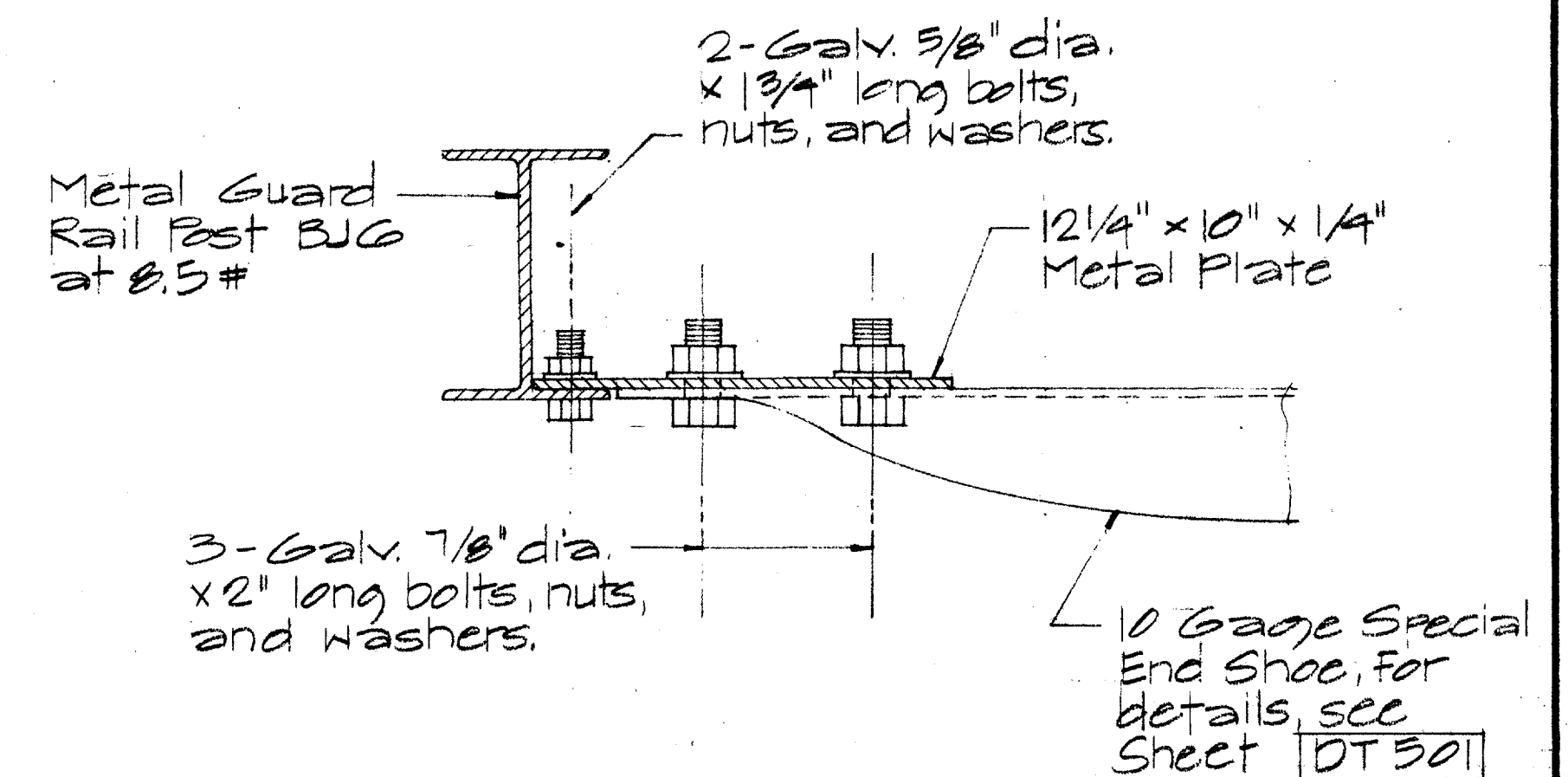


NOTE: Concrete, Excavation, and Miscellaneous Appurtenances necessary to anchor the Guard Rail Ends, shall be incidental to the Metal Guard Rail.



DETAIL "B"

Scale: 3/4" = 1'-0"



PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAIL GUARD RAIL RAMP END ANCHORAGE

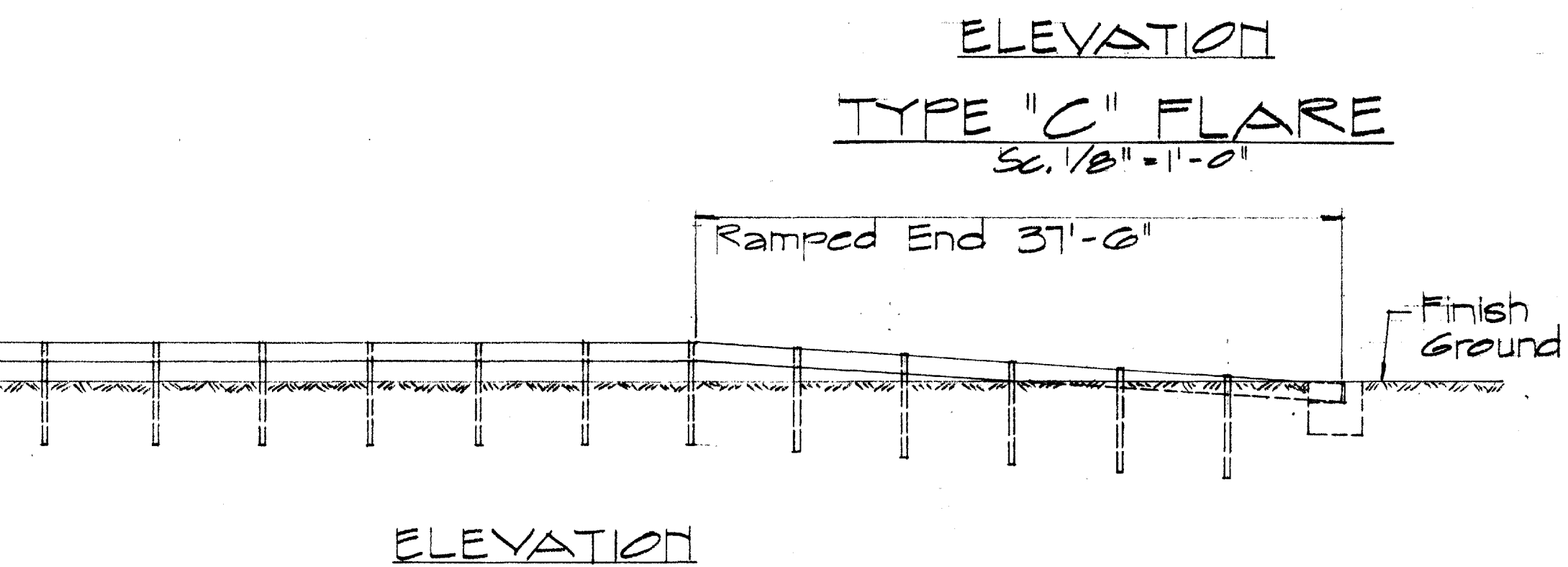
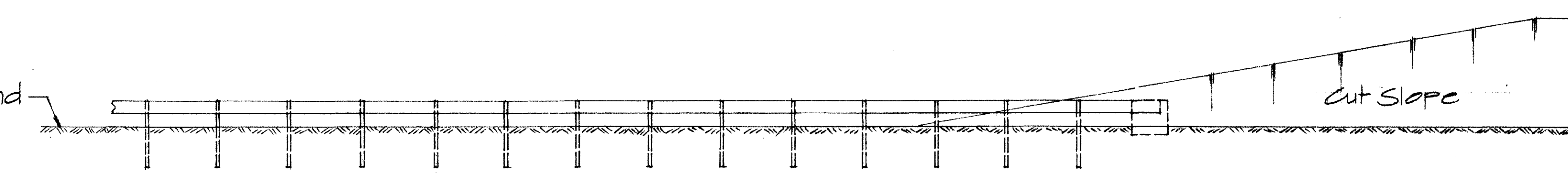
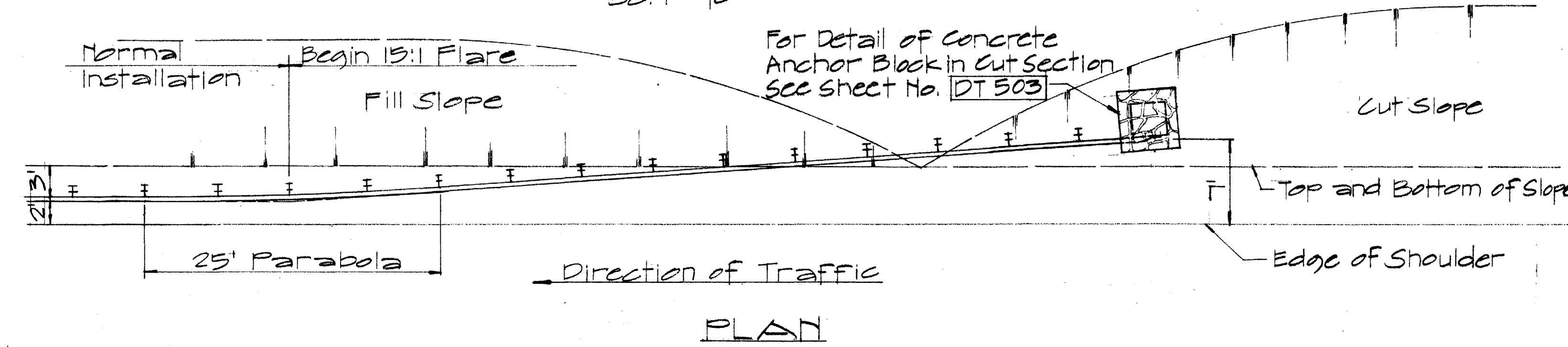
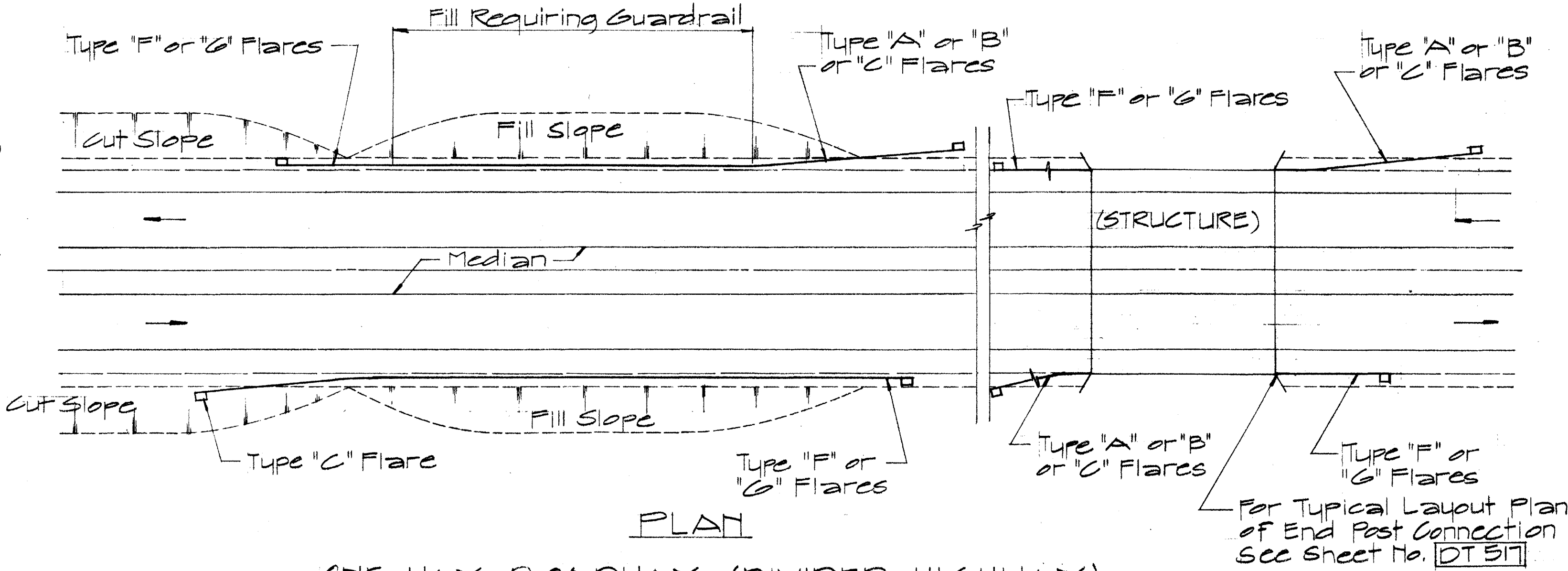
Scale: as Noted August, 1968
SHEET No. 11 OF 13 SHEETS DT 502

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.		1969	50	104

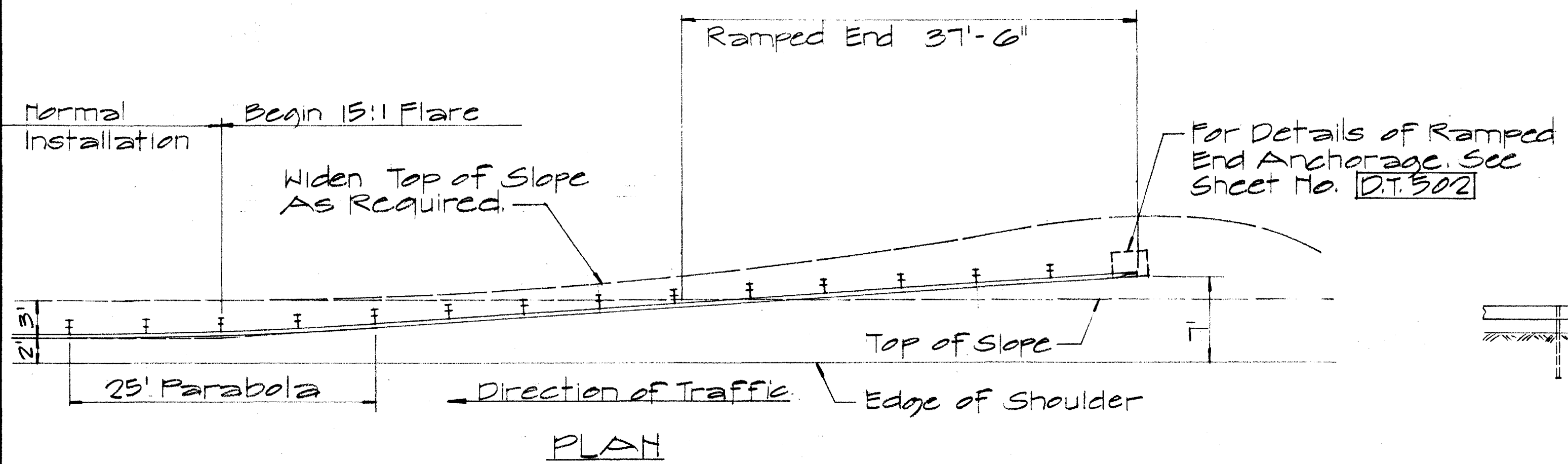
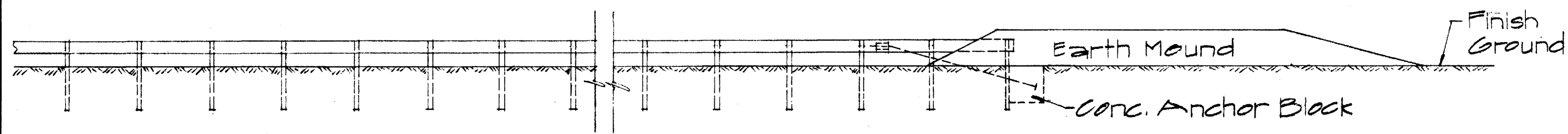
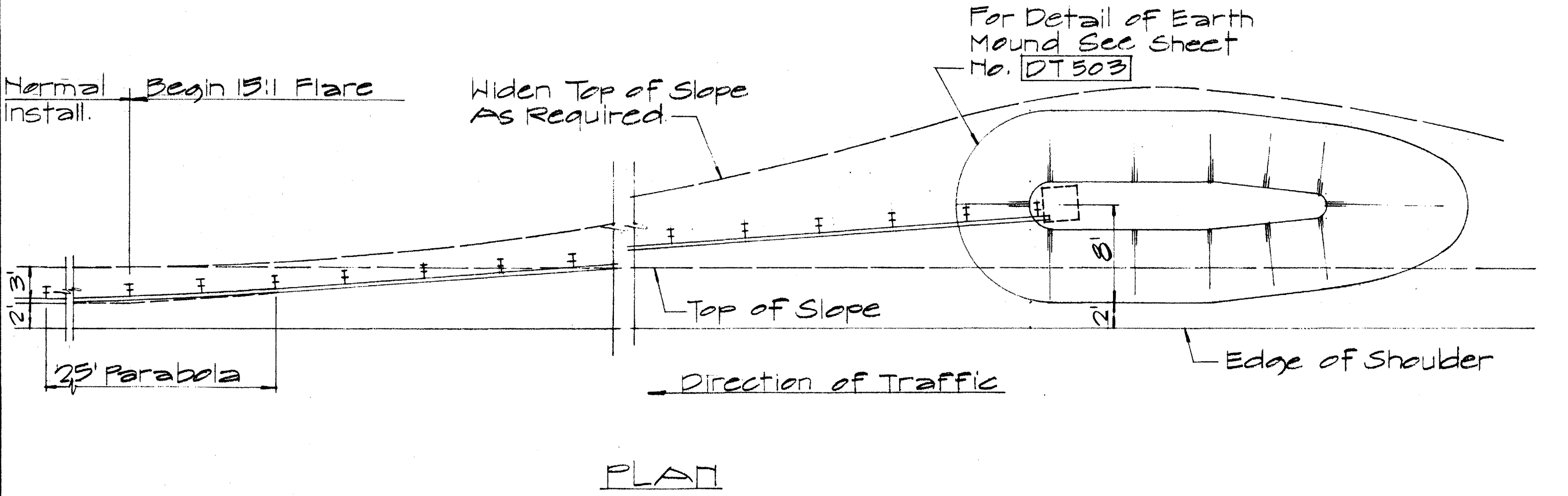
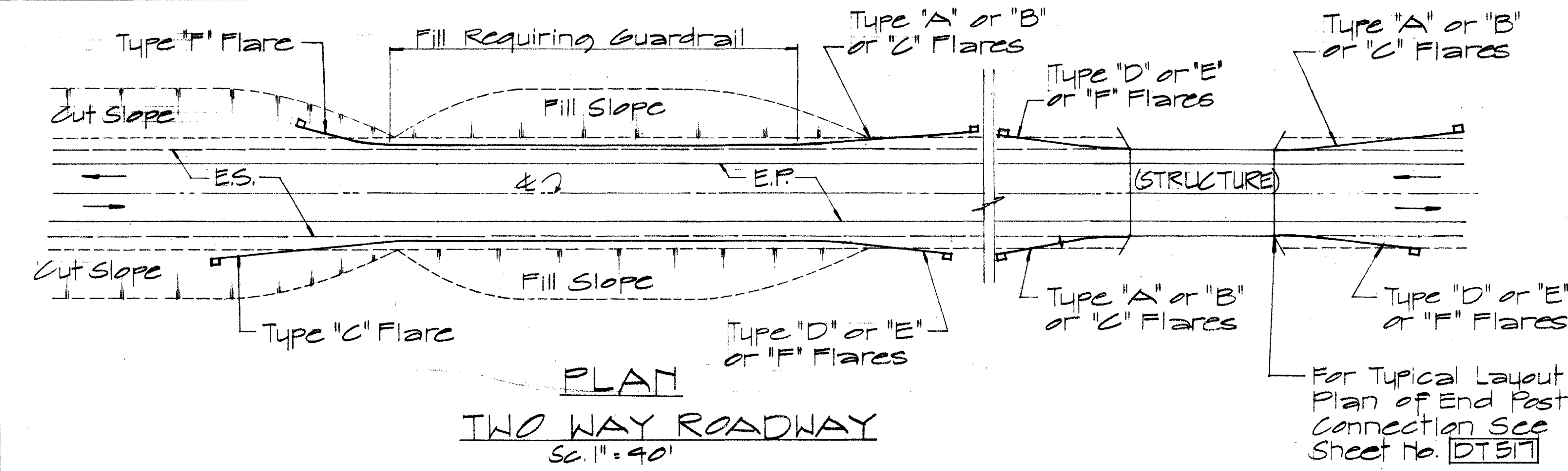
PROJECT NO. 900 B-02-G8 UNIT 2

NOTE:

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



ELEVATION



ELEVATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

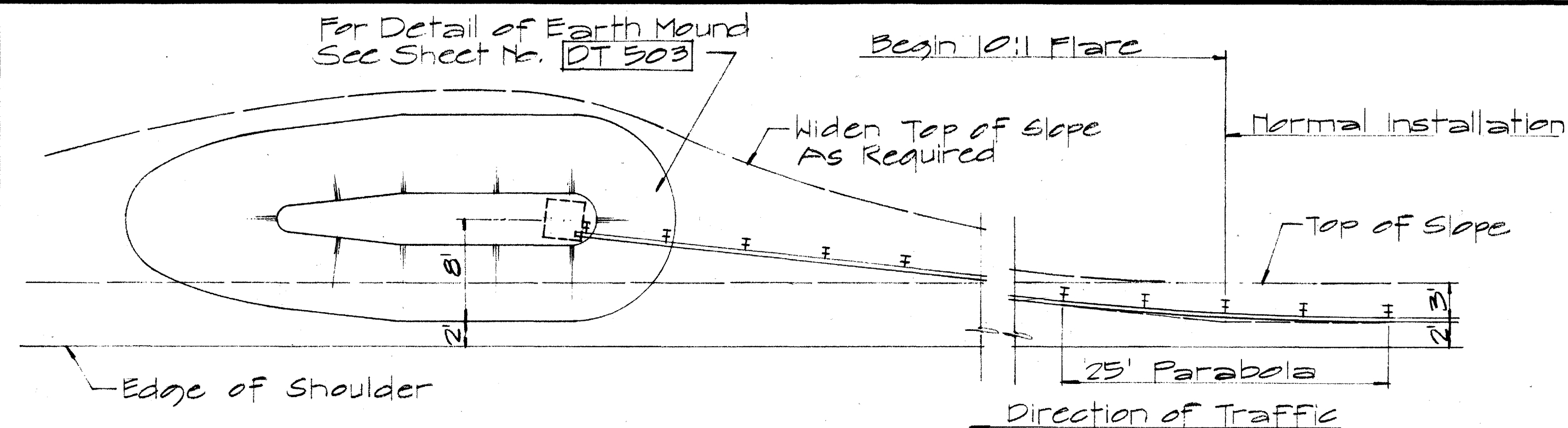
**STANDARD DETAILS
OF APPROACH END
FLARE - ONE & TWO
WAY ROADWAY**

SC. As Noted April 1969
SHEET No. 12 OF 13 SHEETS DT 516

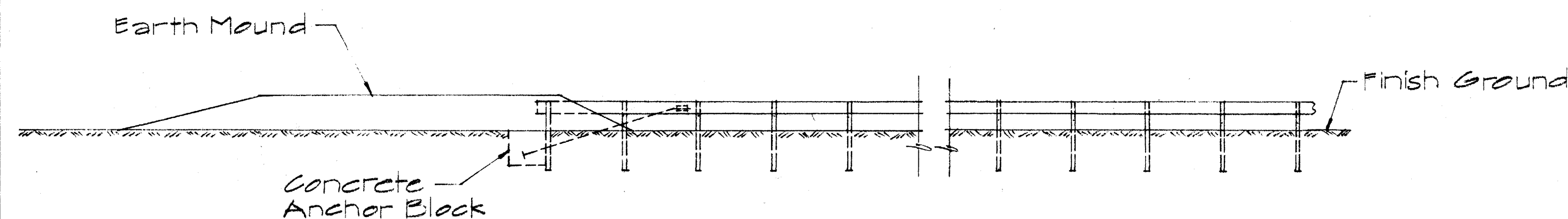
SURVEY PLANNED BY	DATE
DRAWN BY	
TRACED BY	
CHECKED BY	
NOTED BY	
NO.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.		1969	51	104

PROJECT NO. 900 B-02-68 UNIT 2



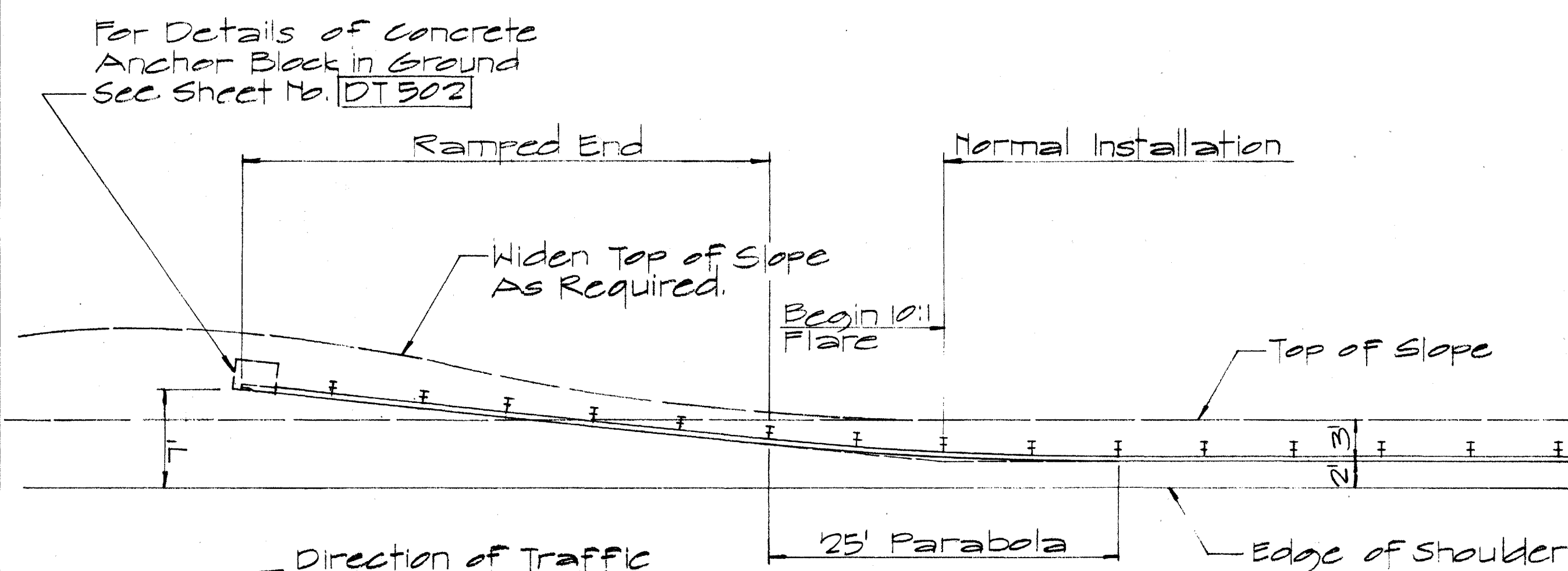
PLAN



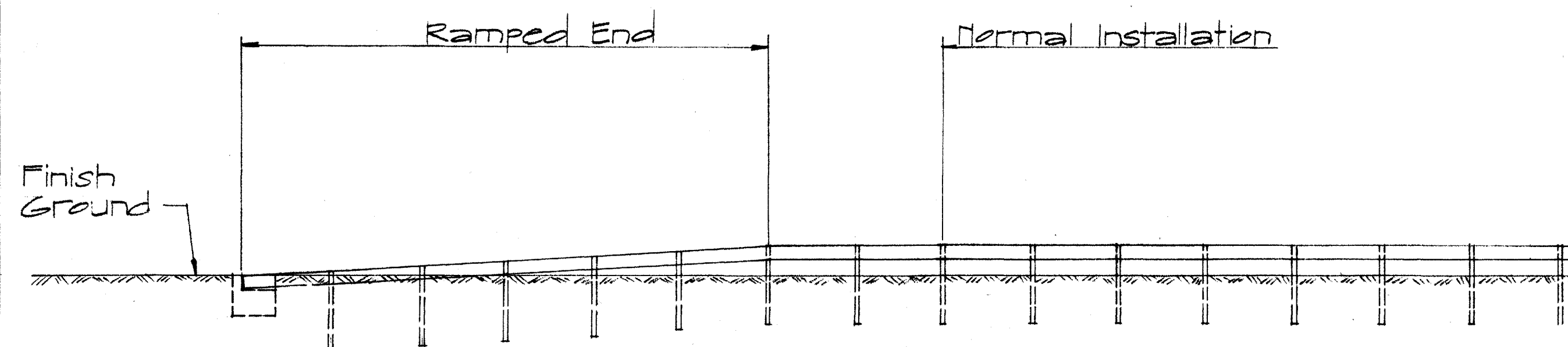
ELEVATION

TYPE "D" FLARE

Sc. 1/8" = 1'-0"



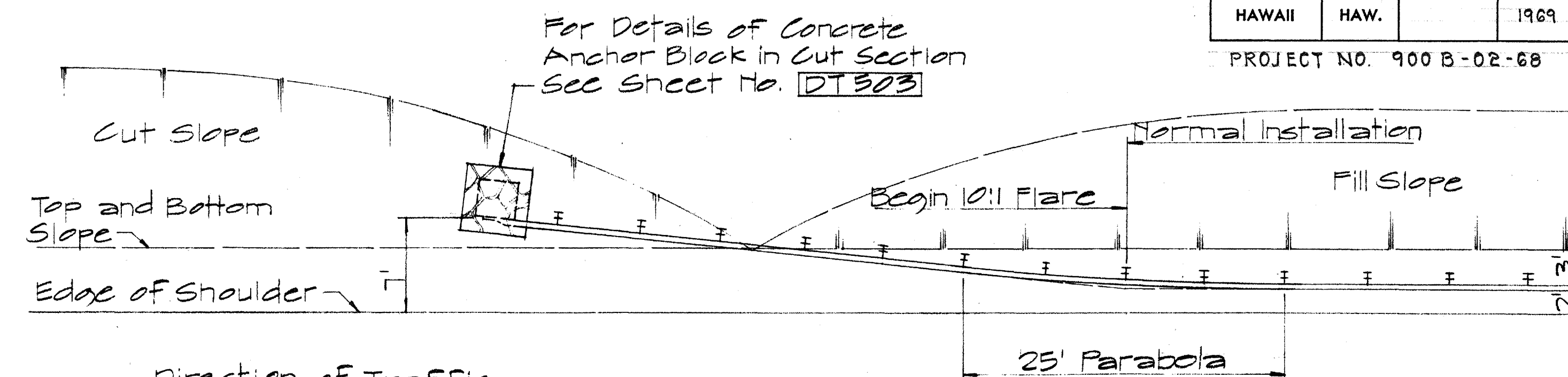
PLAN



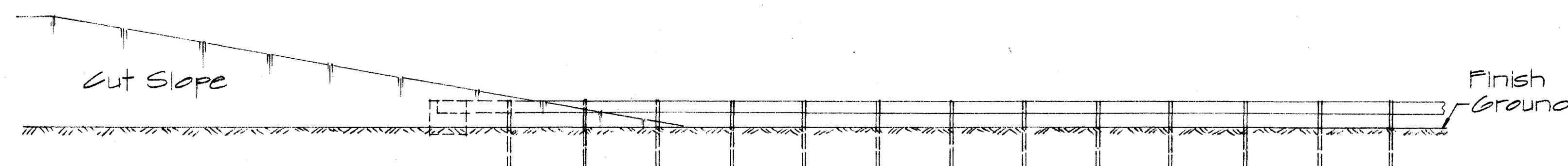
ELEVATION

TYPE "E" FLARE

Sc. 1/8" = 1'-0"



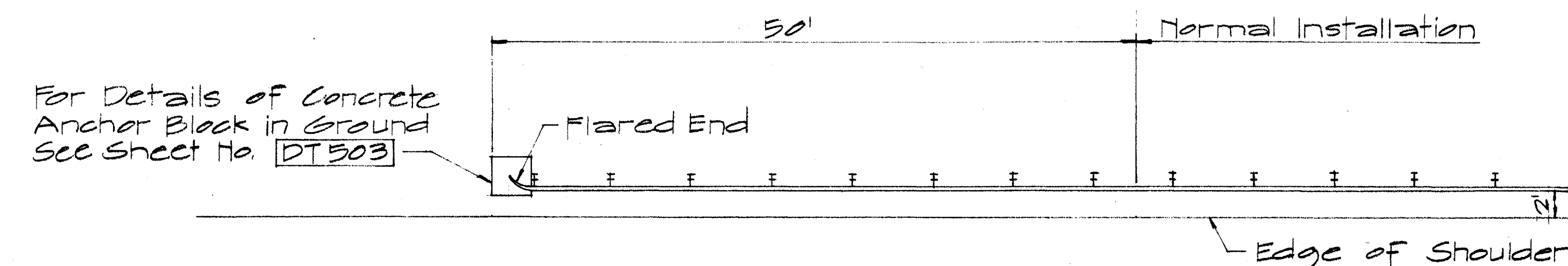
PLAN



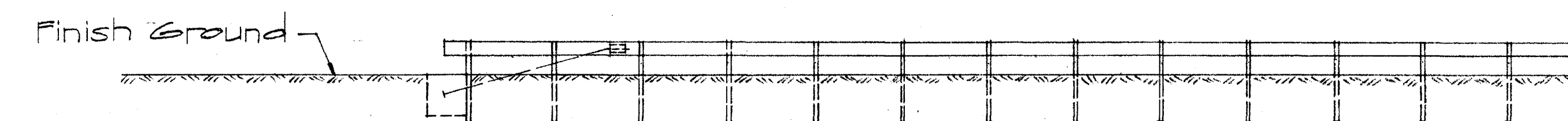
ELEVATION

TYPE "F" FLARE

Sc. 1/8" = 1'-0"



PLAN



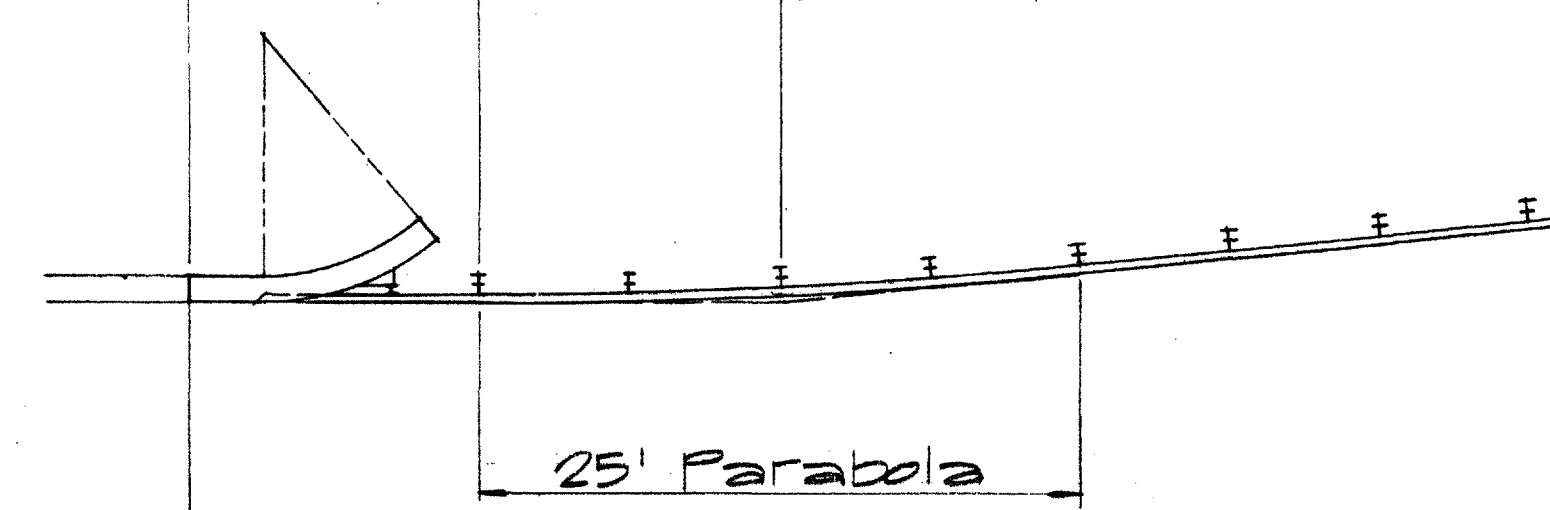
ELEVATION

TYPE "G" FLARE

Sc. 1/8" = 1'-0"

Typical Conc. 11'-23/4" Parapet

Begin Type "A", "B", "C", "D", "E", "F", or "G" Flare



TYPICAL LAYOUT PLAN OF END POST CONNECTION

Sc. 1/8" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
OF TRAILING END
FLARE - ONE & TWO
WAY ROADWAY

Sc. As Noted April 1969

SHEET No. 13 OF 13 SHEETS DT 517