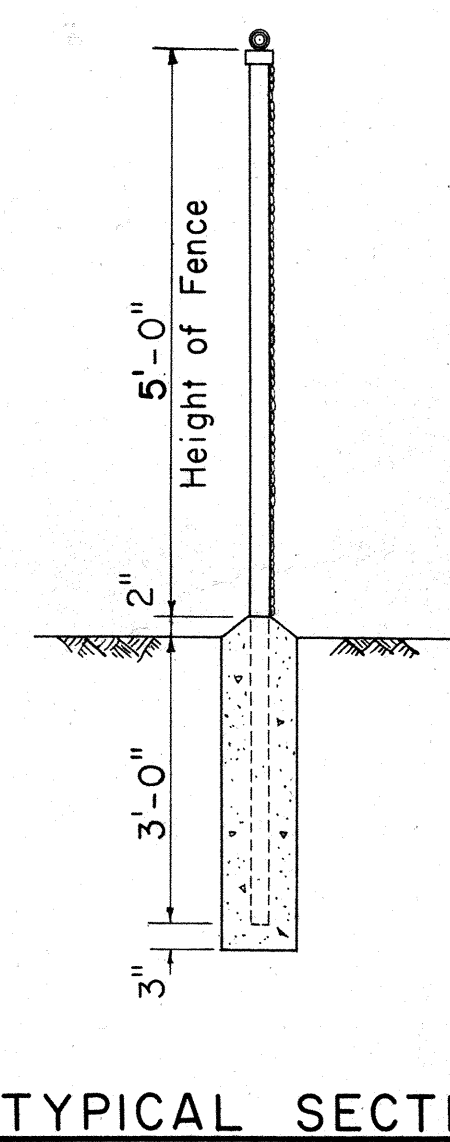
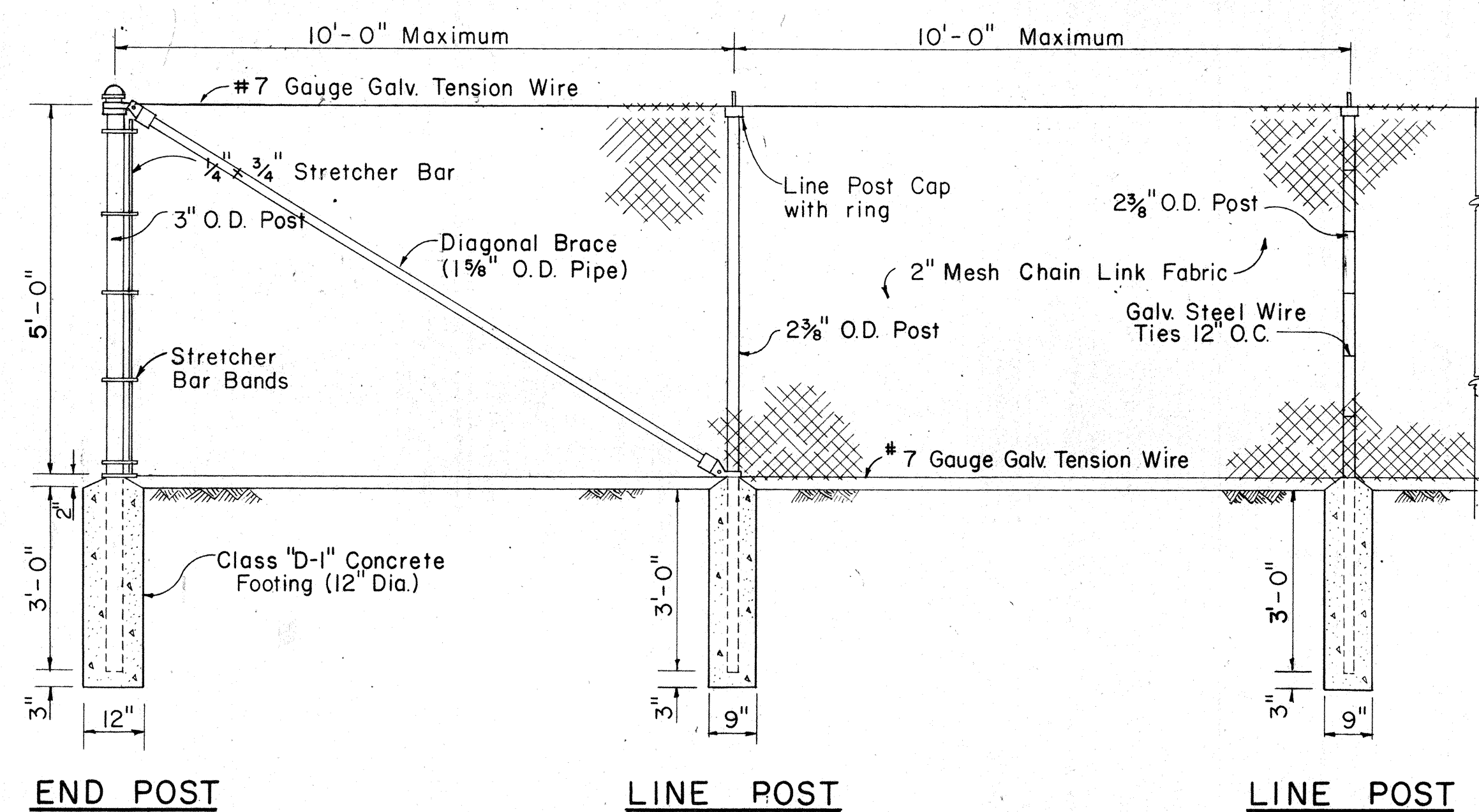
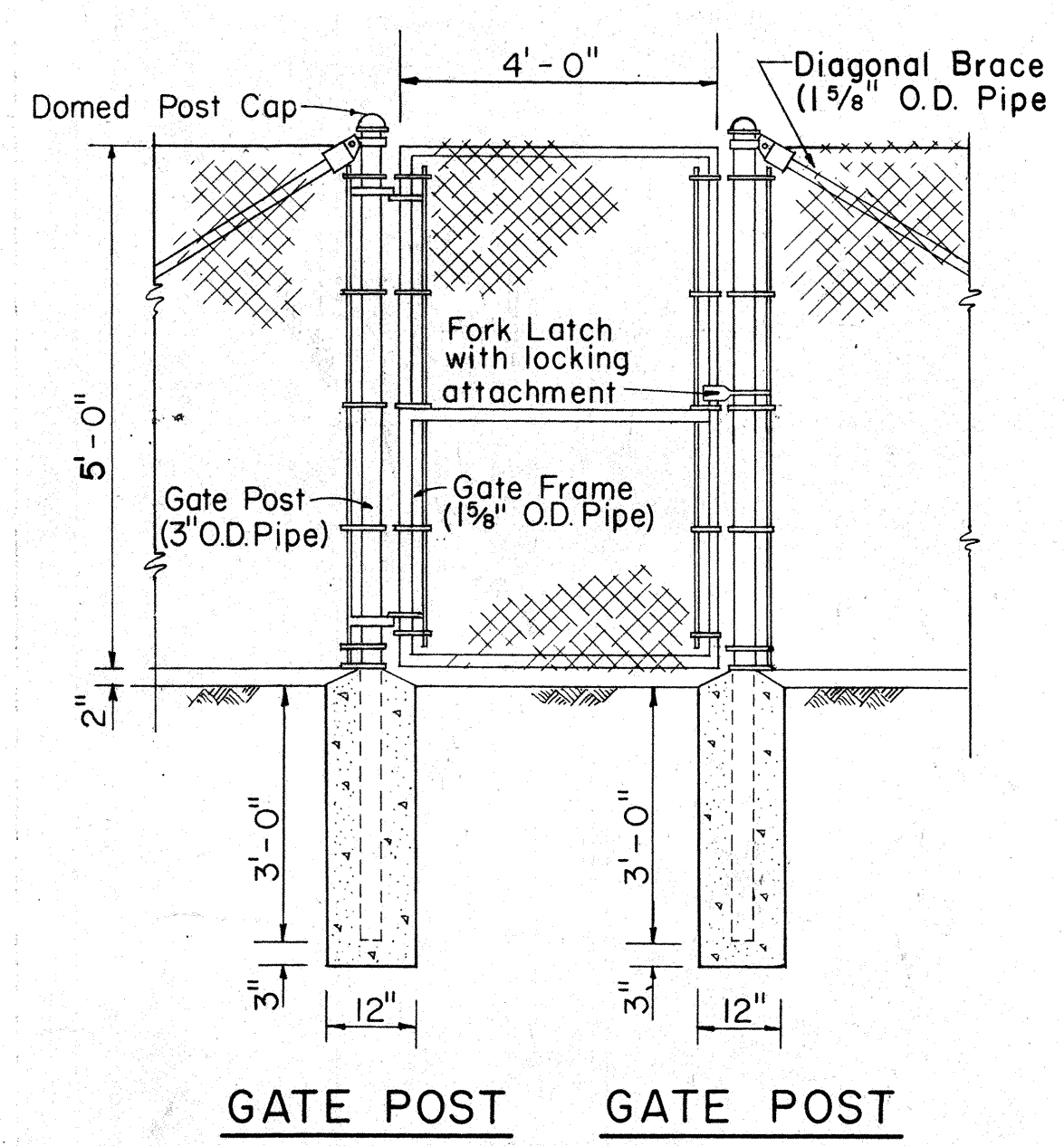
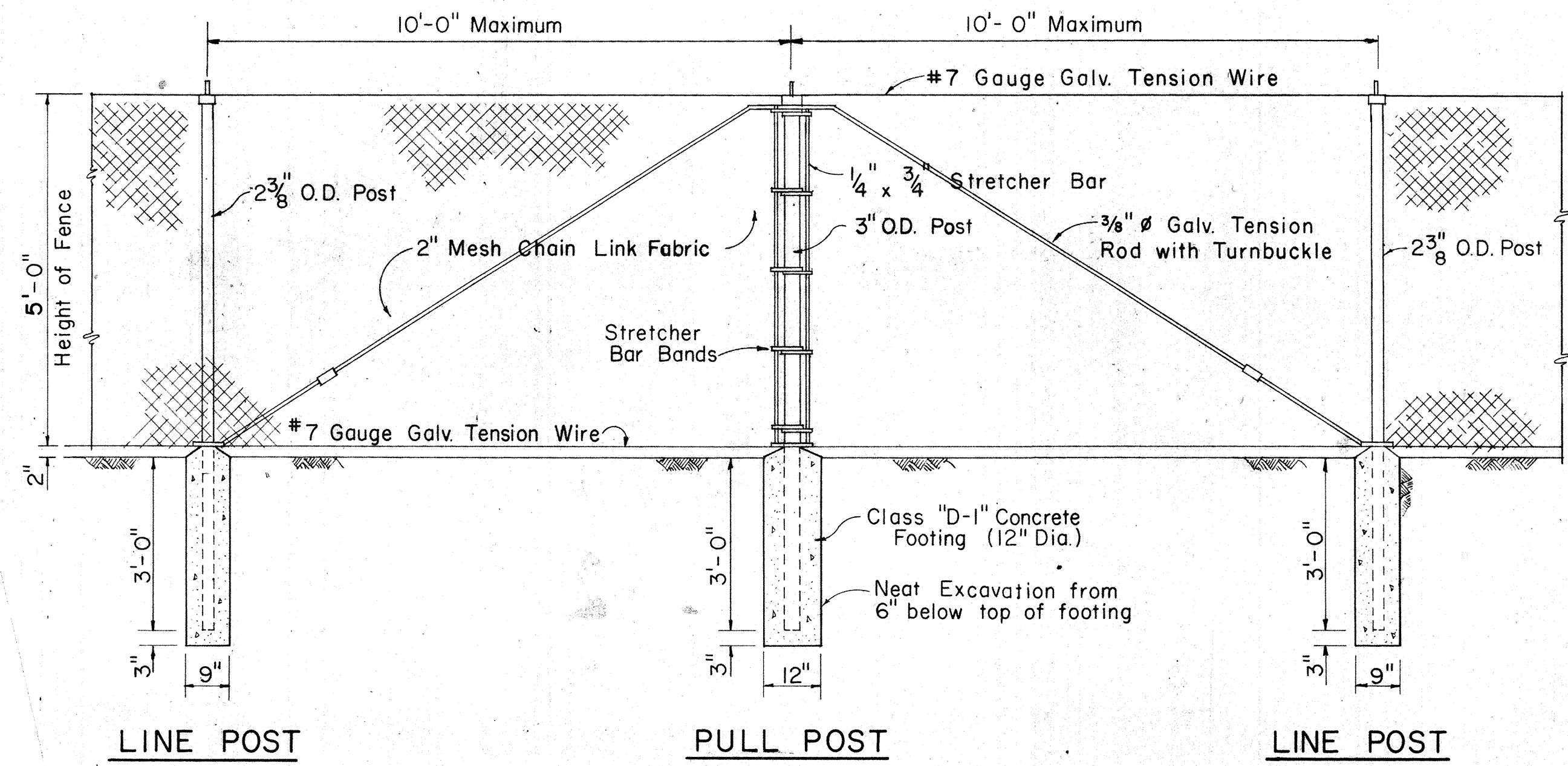


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56A-02-67 Unit 2	1968	8	18



NOTE: O.D. refers to outside diameter.

CHAIN LINK FENCE DETAILS

NOT TO SCALE

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

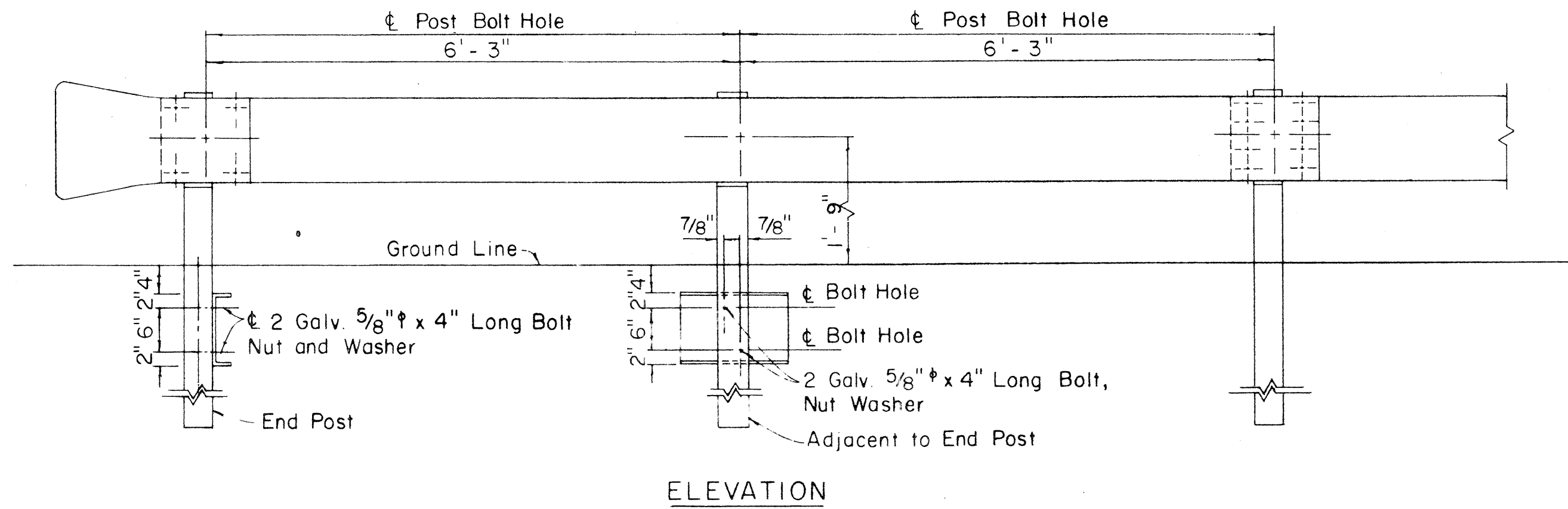
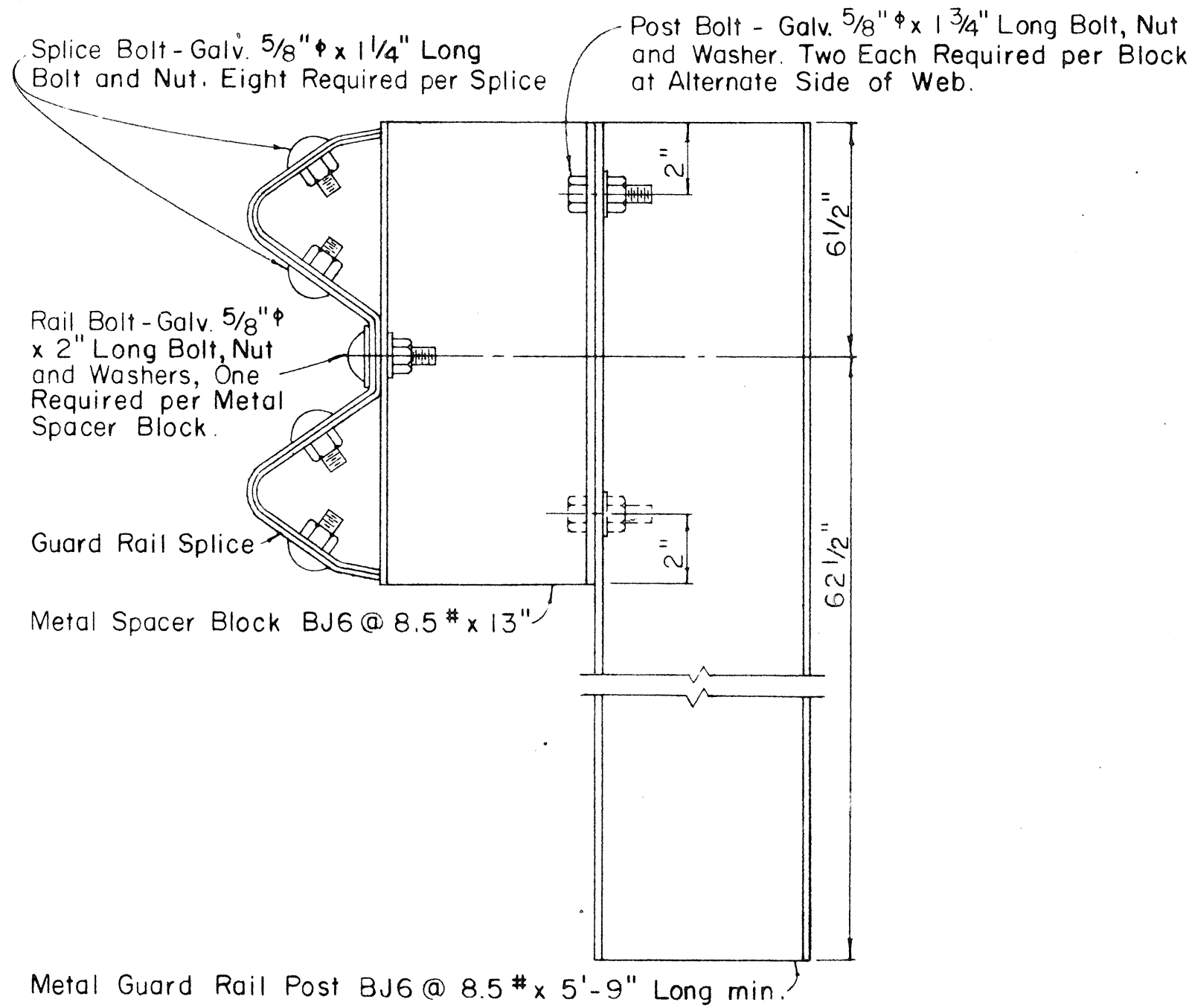
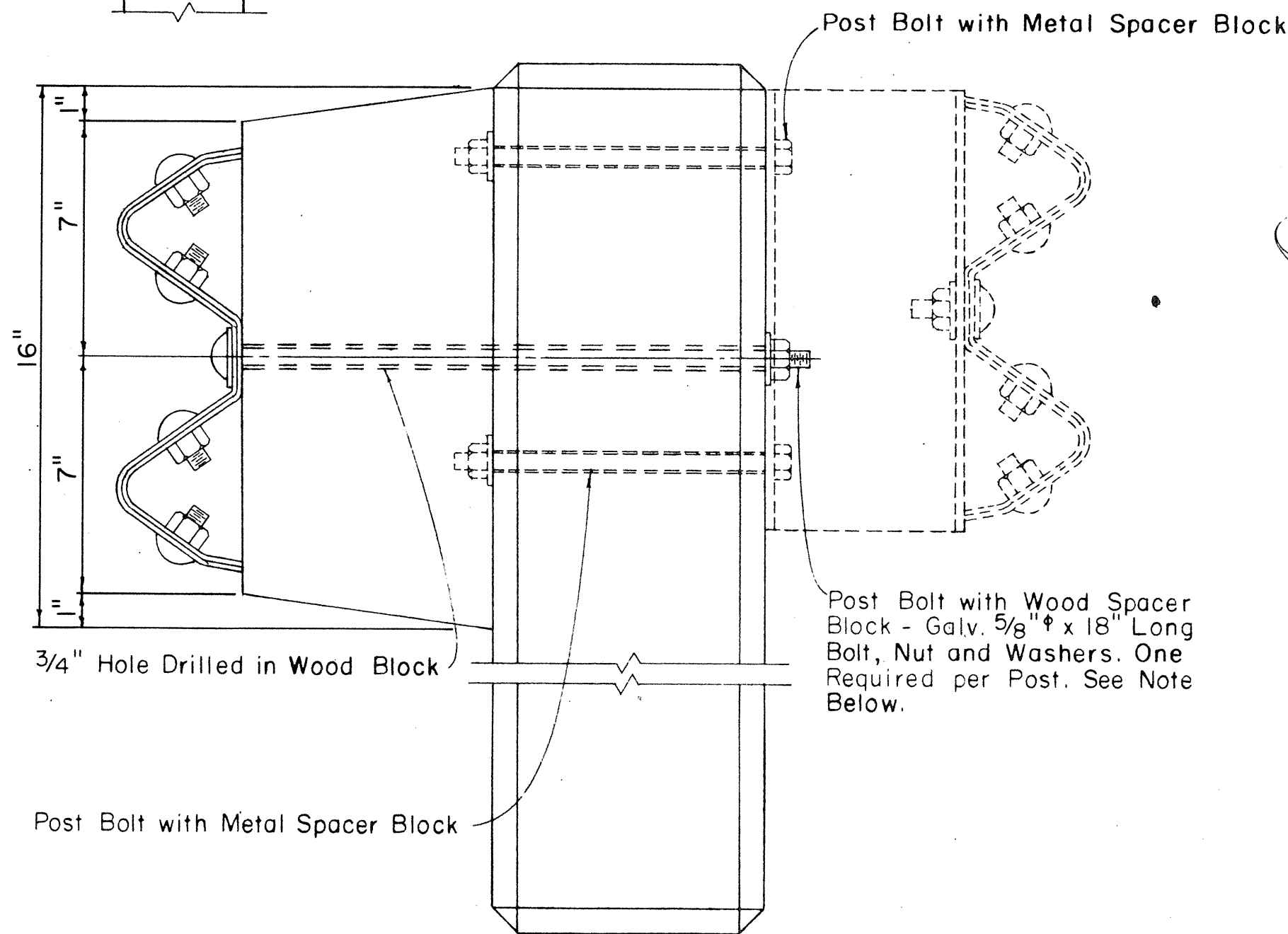
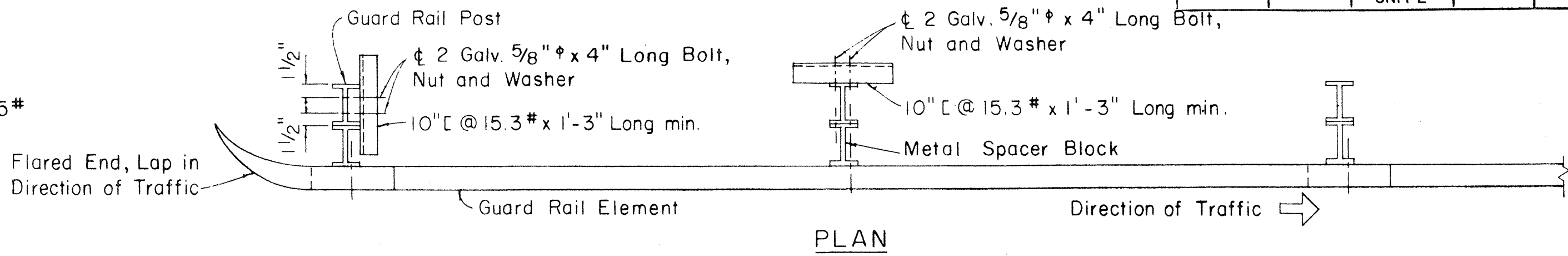
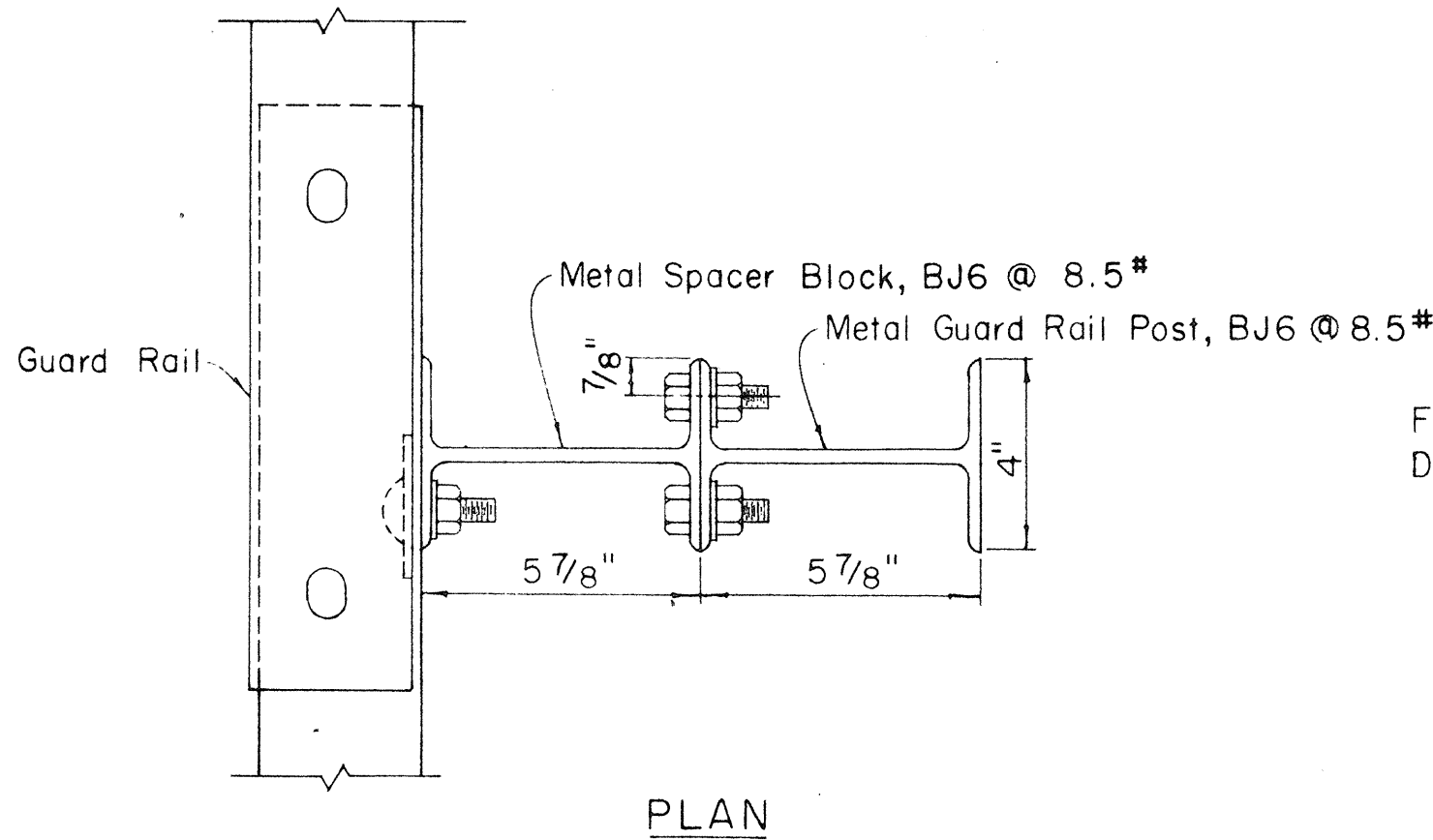
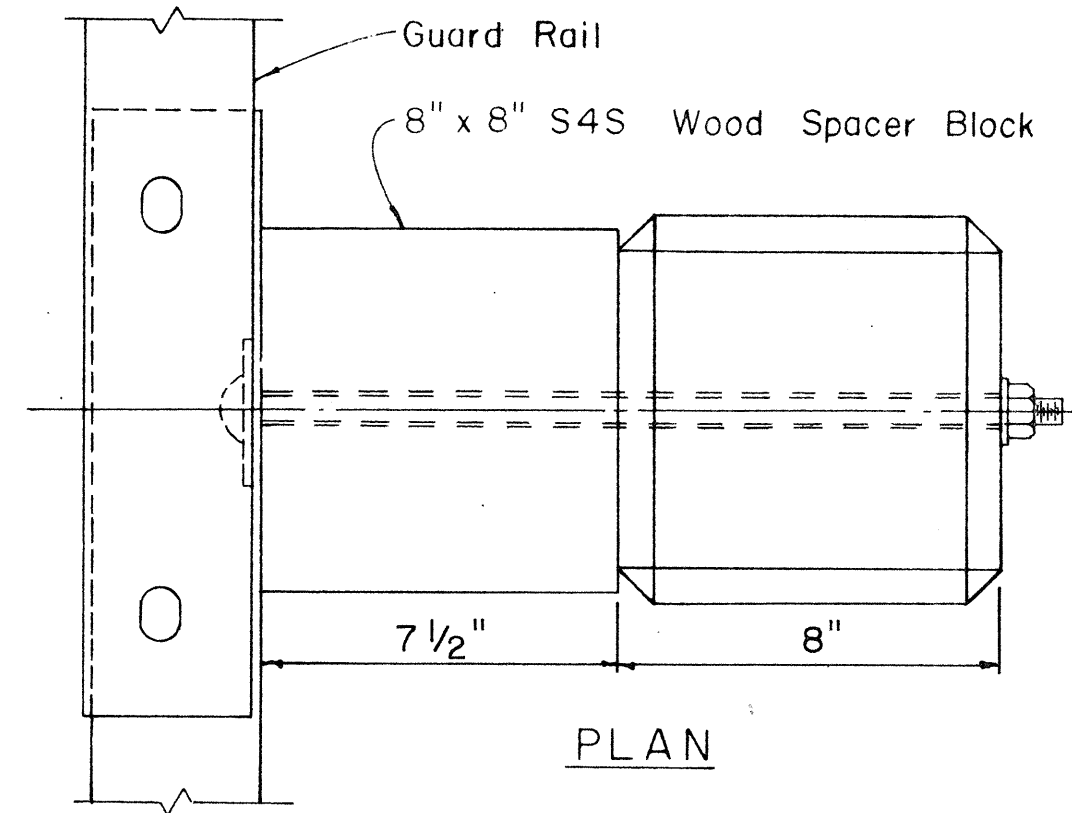
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
KAUAI BELT ROAD
PROJ. NO. 56A-02-67 Unit 2

Scales: As Noted
Date: AUGUST, 1967

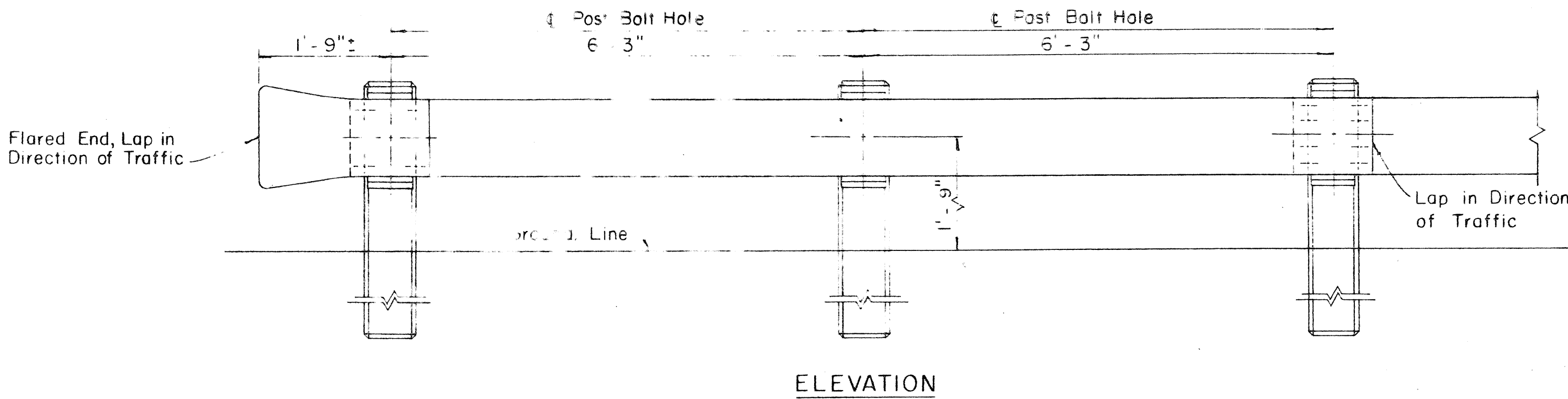
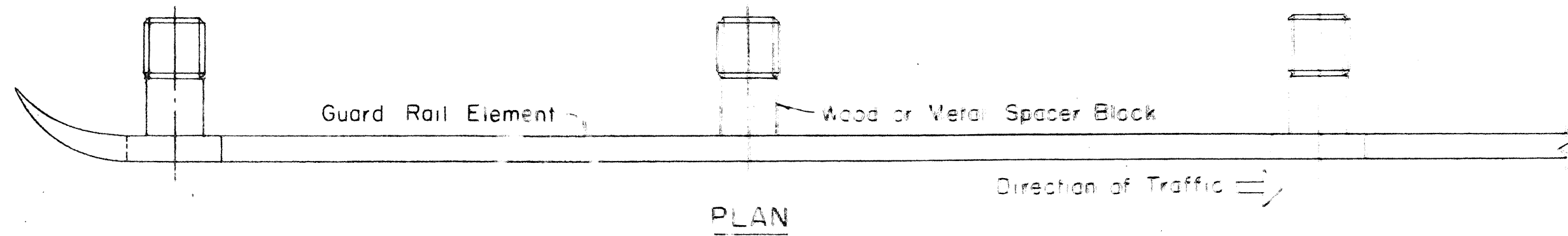
SHEET No. 1 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56A-02-67 UNIT 2	1968	7	18



METAL GUARD RAIL ON METAL POST WITH METAL SPACER BLOCK

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



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

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

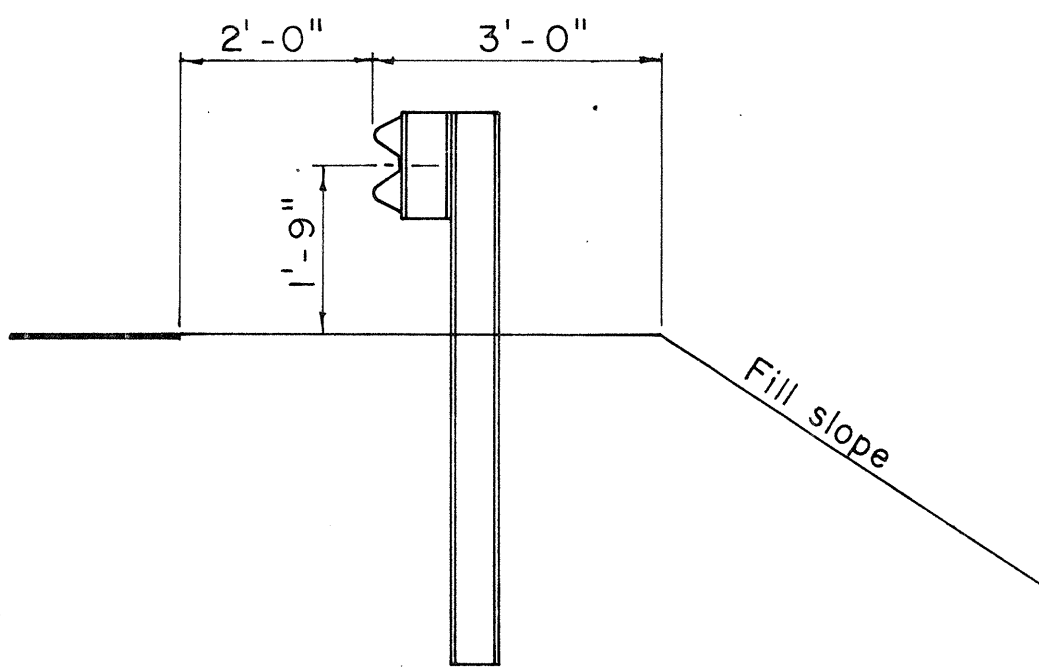
SINGLE METAL GUARD RAIL ON PRECAST CONCRETE POST WITH WOOD OR METAL SPACER BLOCK

Scale: 3" = 1' - 0"

NOTE: Single Guard Rails Shown. For Double Guard Rails Additional Spacer Blocks and Rail Elements Required on Opposite Side of Posts. See Bolt Schedule for Required Bolt Lengths.

SINGLE METAL GUARD RAIL ON METAL POST WITH METAL SPACER BLOCK

Scale: 3" = 1' - 0"



TYPICAL GUARD RAIL DETAIL

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

REVISED: October 27, 1967
REVISED: August 10, 1967

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

METAL GUARD RAIL

PROJ. NO. 56A-02-67 Unit 2

Scale: as noted

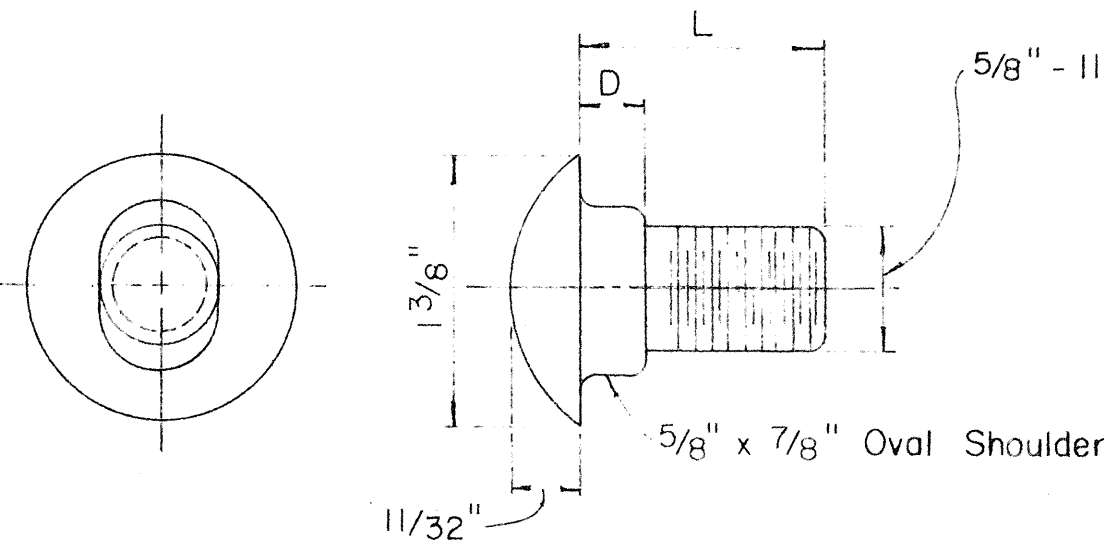
SHEET No. 7 OF 8 SHEETS

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

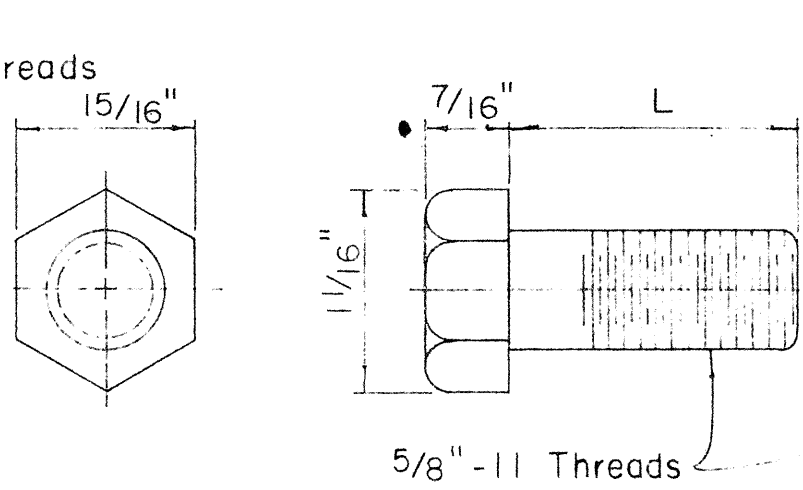
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	PROJ. NO. 56A-02-67 UNIT 2	1968	10	18

BOLT DIMENSIONS		
TYPE A BOLT		
Splice Bolt	D 5/16"	L 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"

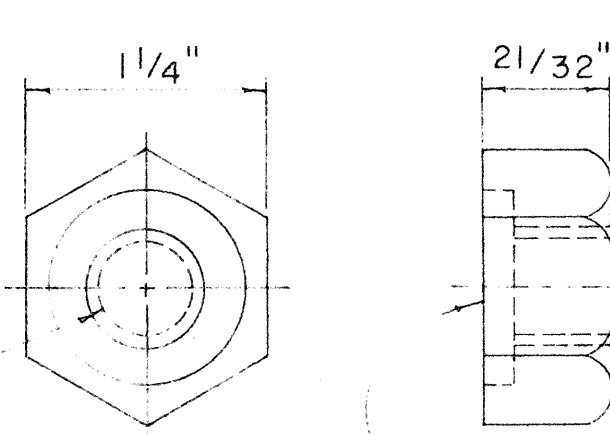
BOLT DIMENSIONS		
TYPE B BOLT		
Post Bolt for Conc. Post w/ Metal Blocks		L 9 1/2"
Post Bolt for Metal Post w/ Metal Block		1 3/4"



TYPE A BOLT



TYPE B BOLT



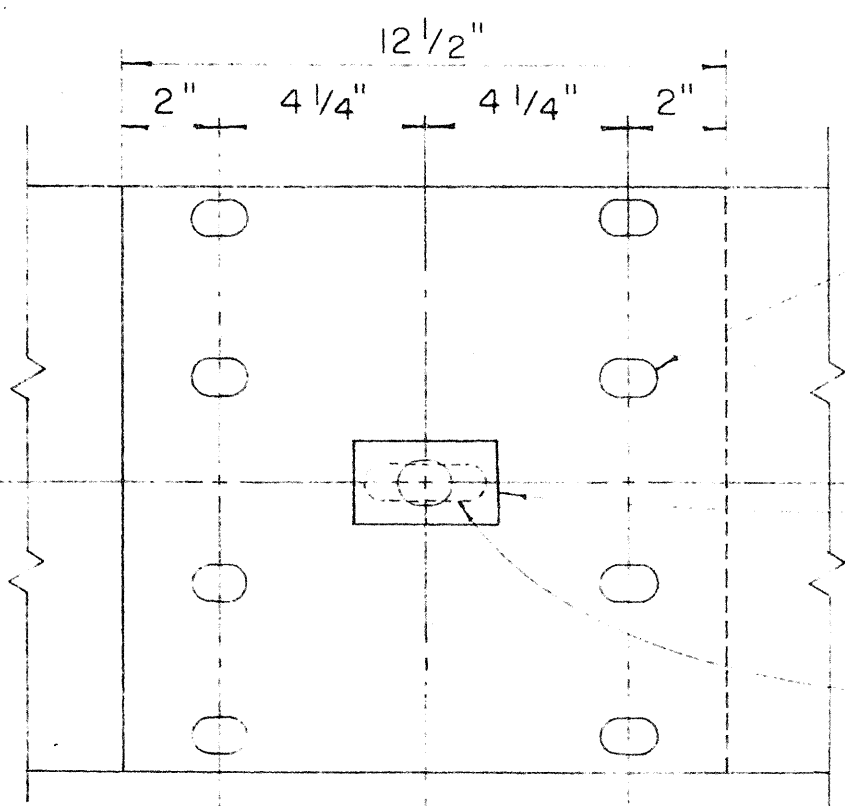
HEXAGON NUT

5/32" Deep x 15/16" Dia.
C' Bore for Type A Bolt only.
Plain nut for Type B Bolt.

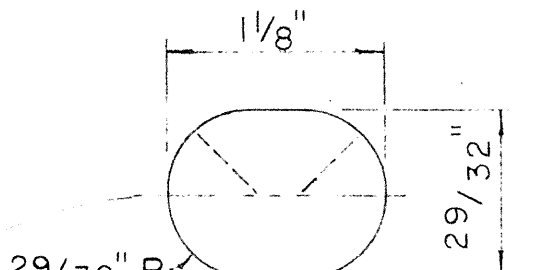
Scale: Full Size

SPLICE RAIL AND POST BOLTS

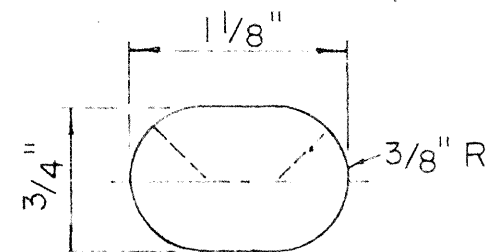
Scale Full Size



RAIL SPLICE
Scale: 3" = 1'-0"

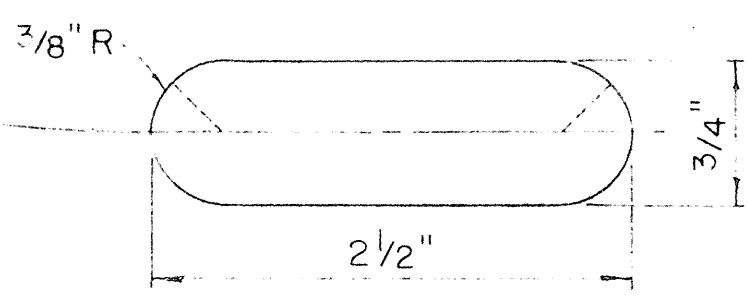


SPLICE BOLT SLOT

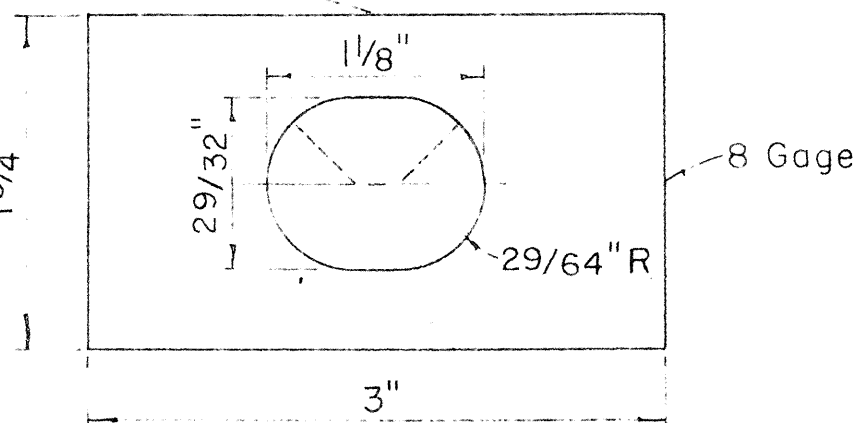


SPLICE BOLT SLOT
FOR ALL ENDS

Scale: Full Size



POST BOLT SLOT

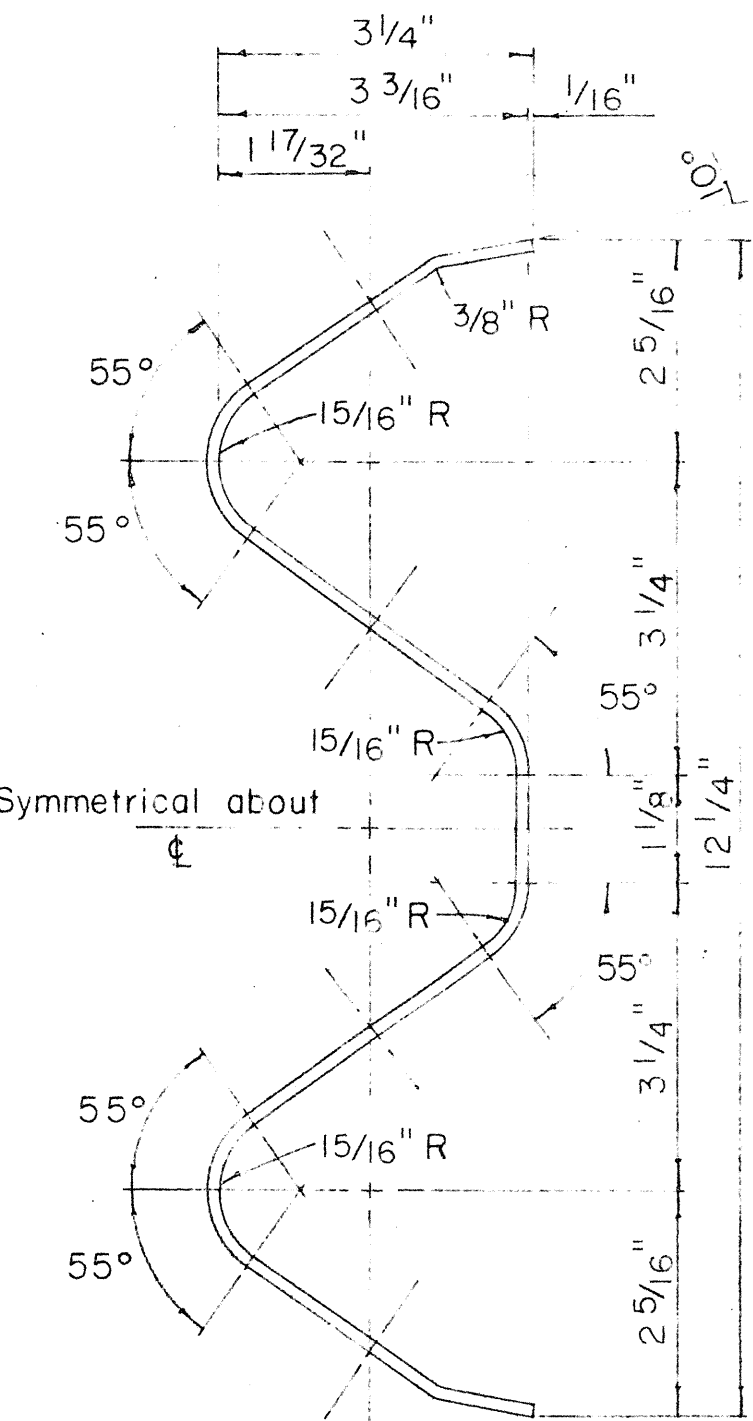


RAIL WASHER

MEDIAN END

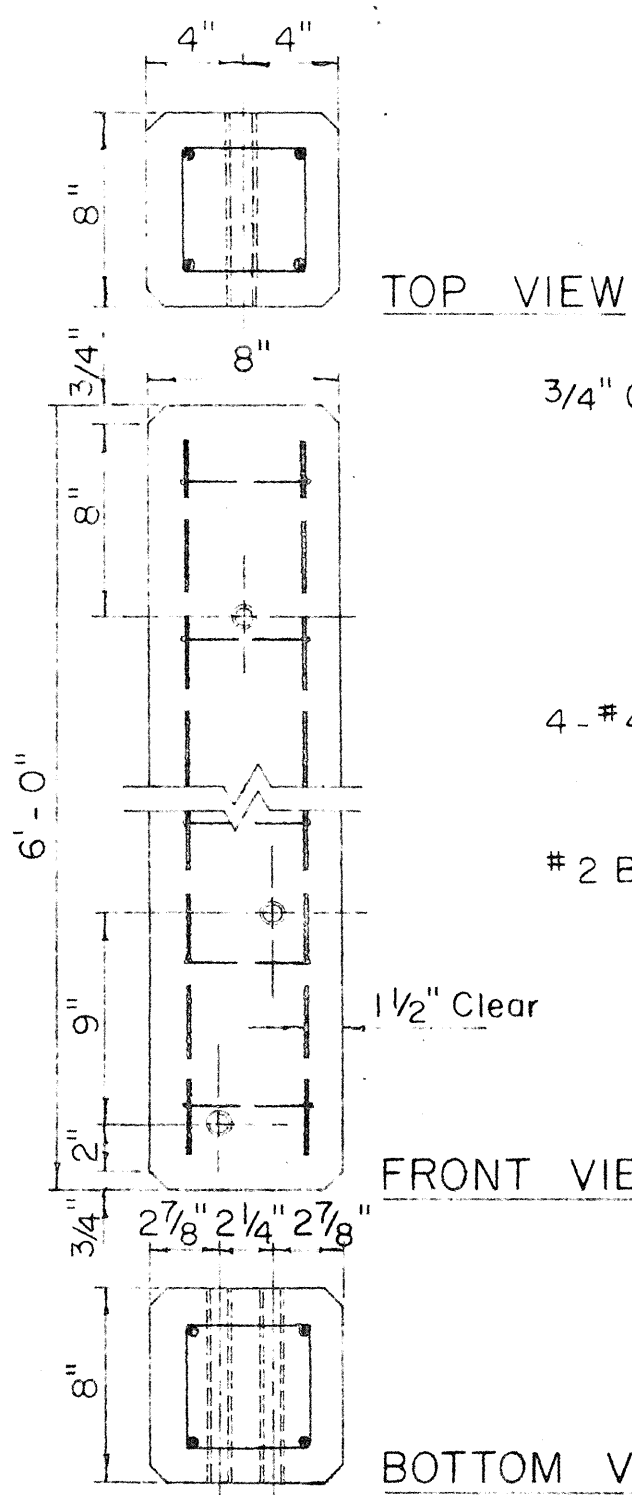
Scale: 1 1/2" = 1'-0"

MEDIAN END DIMENSIONS		
TYPE OF POST AND BLOCK	W	R
Double Metal Guard Rail on Concrete Post with Wood Blocks	29 3/4"	14 7/8"
Double Metal Guard Rail on Concrete Post with Metal Blocks (BJ6)	26 1/2"	13 1/4"
Double Metal Guard Rail on Metal Post with Metal Blocks (BJ6)	24 3/8"	12 3/16"



RAIL ELEMENT SECTION

Scale: 6" = 1'-0"

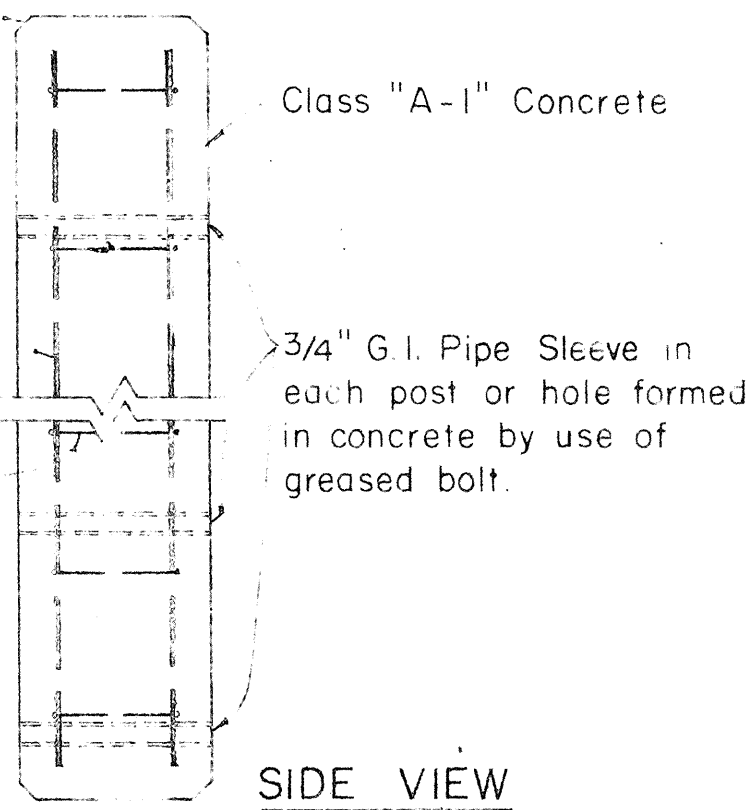


TOP VIEW

FRONT VIEW

BOTTOM VIEW

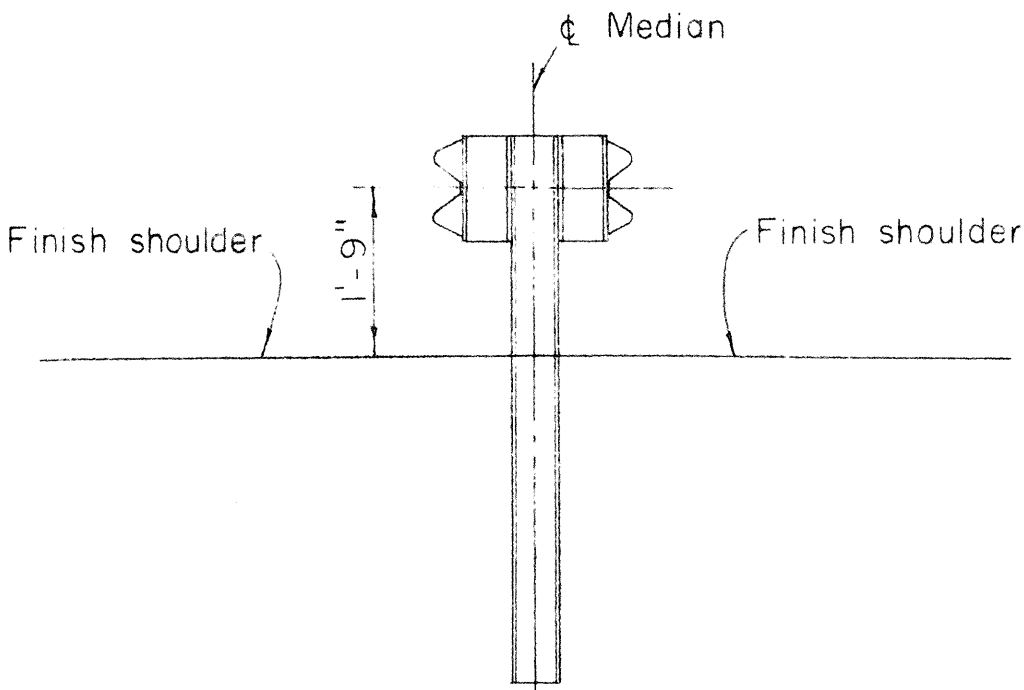
NOTE:
Concrete post shall be precast



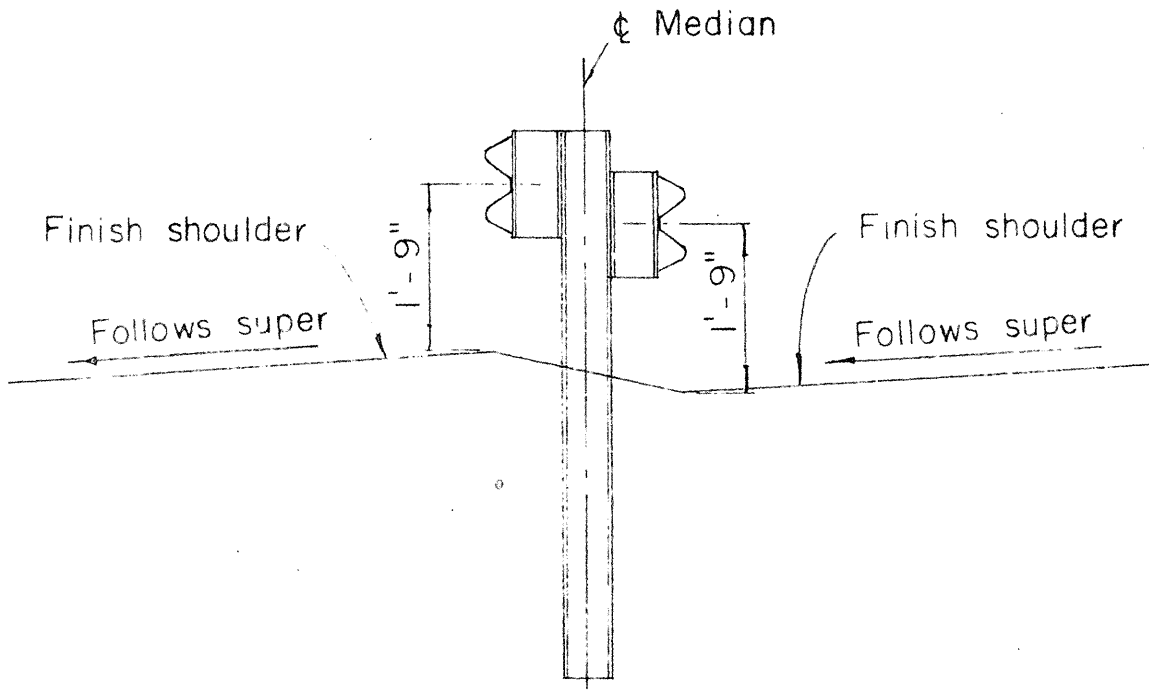
SIDE VIEW

DETAIL OF CONCRETE POST

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



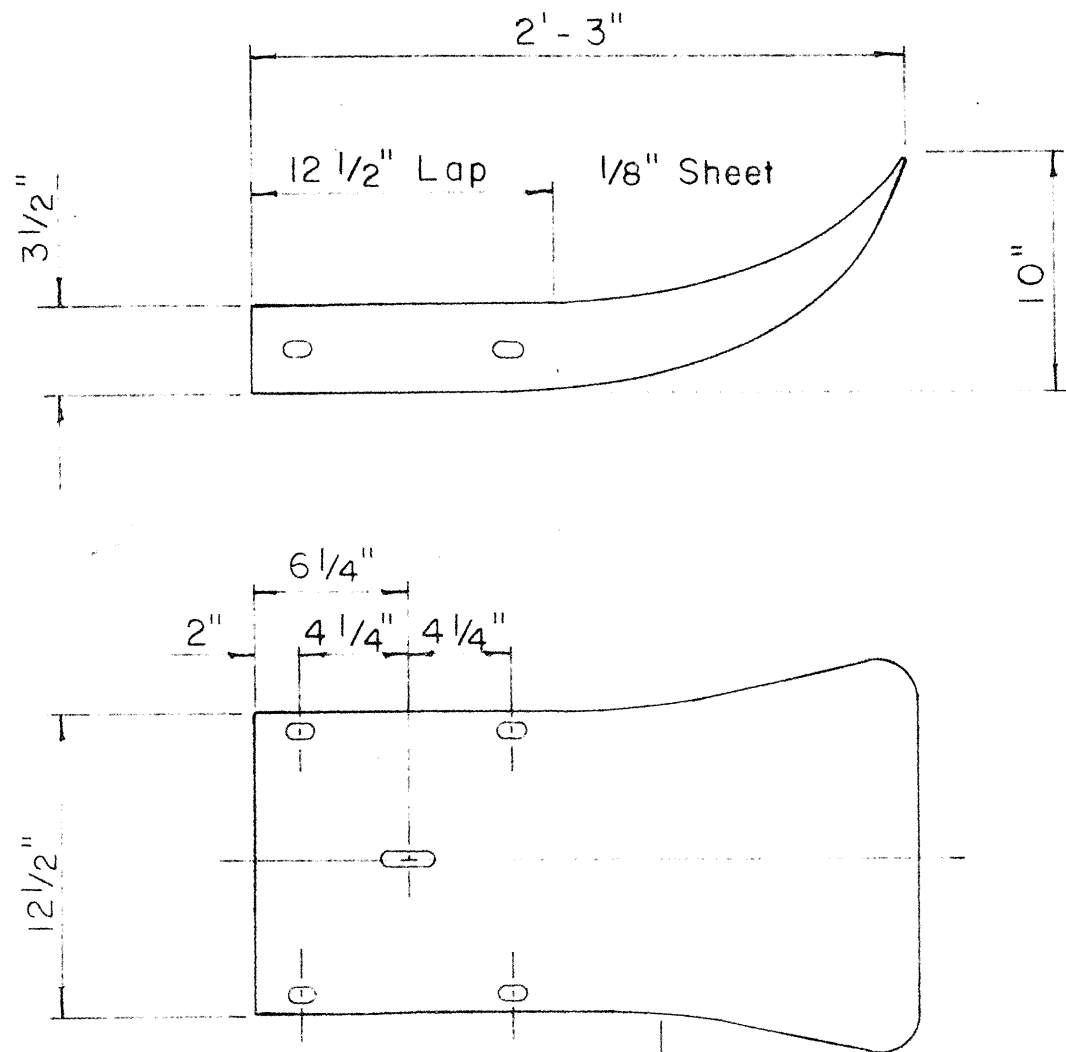
AT TANGENT SECTION



AT SUPER SECTION

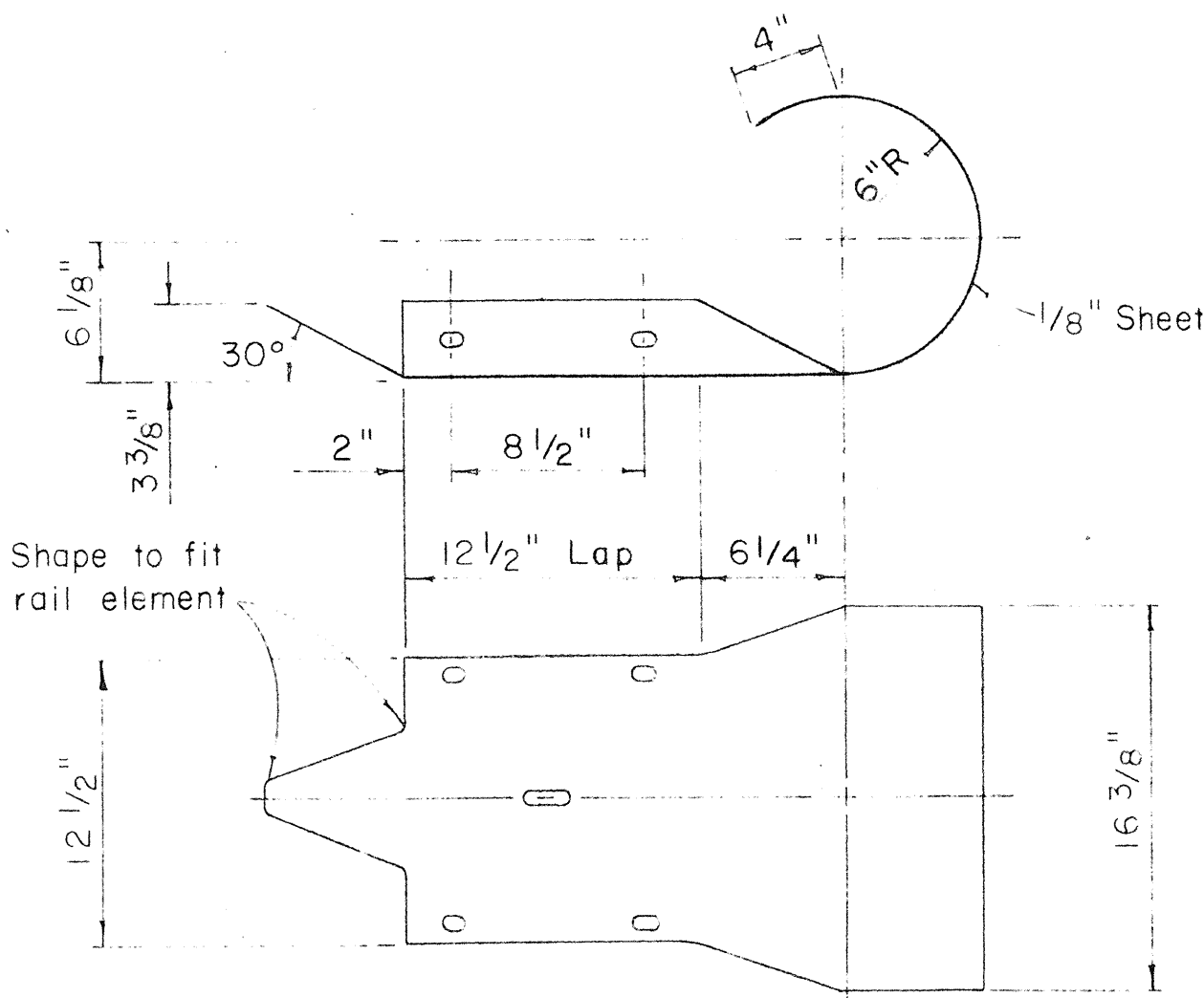
TYPICAL MEDIAN GUARD RAIL DETAIL

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



FLARED END

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



CURVED END

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

REVISED: Oct. 27, 1967
REVISED: Sept. 1, 1967
REVISED: June 2, 1967

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

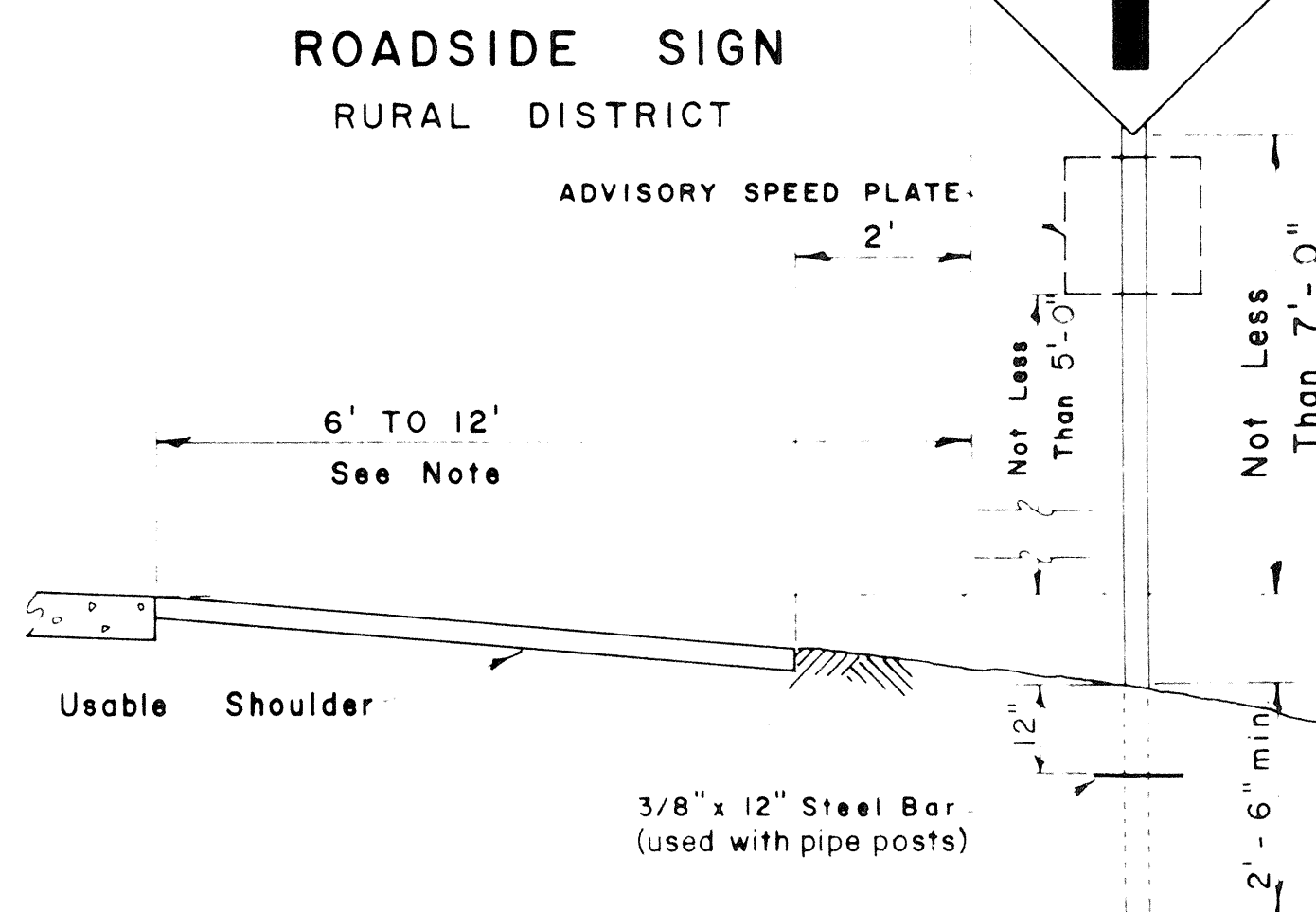
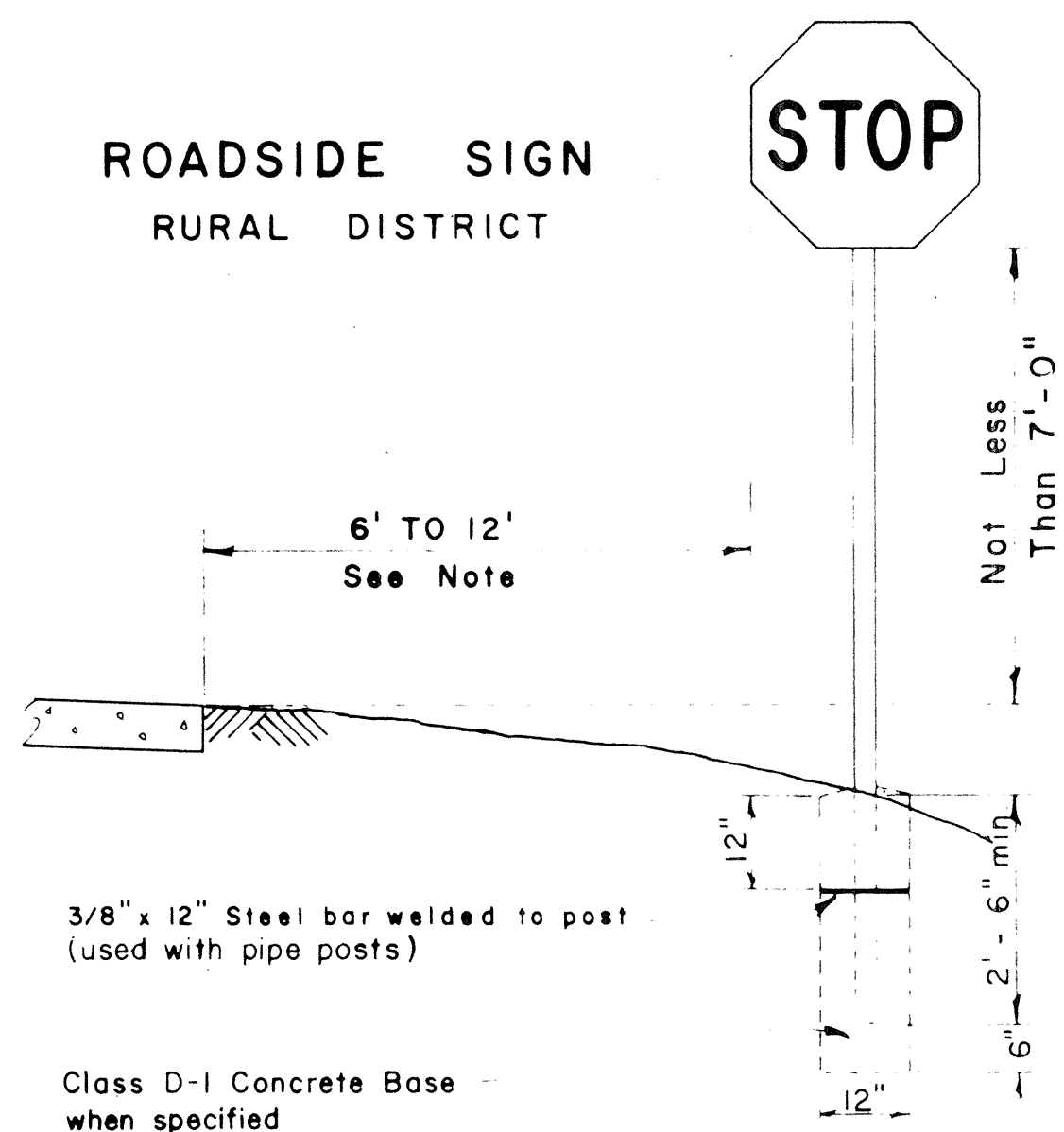
METAL GUARD RAIL

PROJ. NO. 56A-02-67 Unit 2

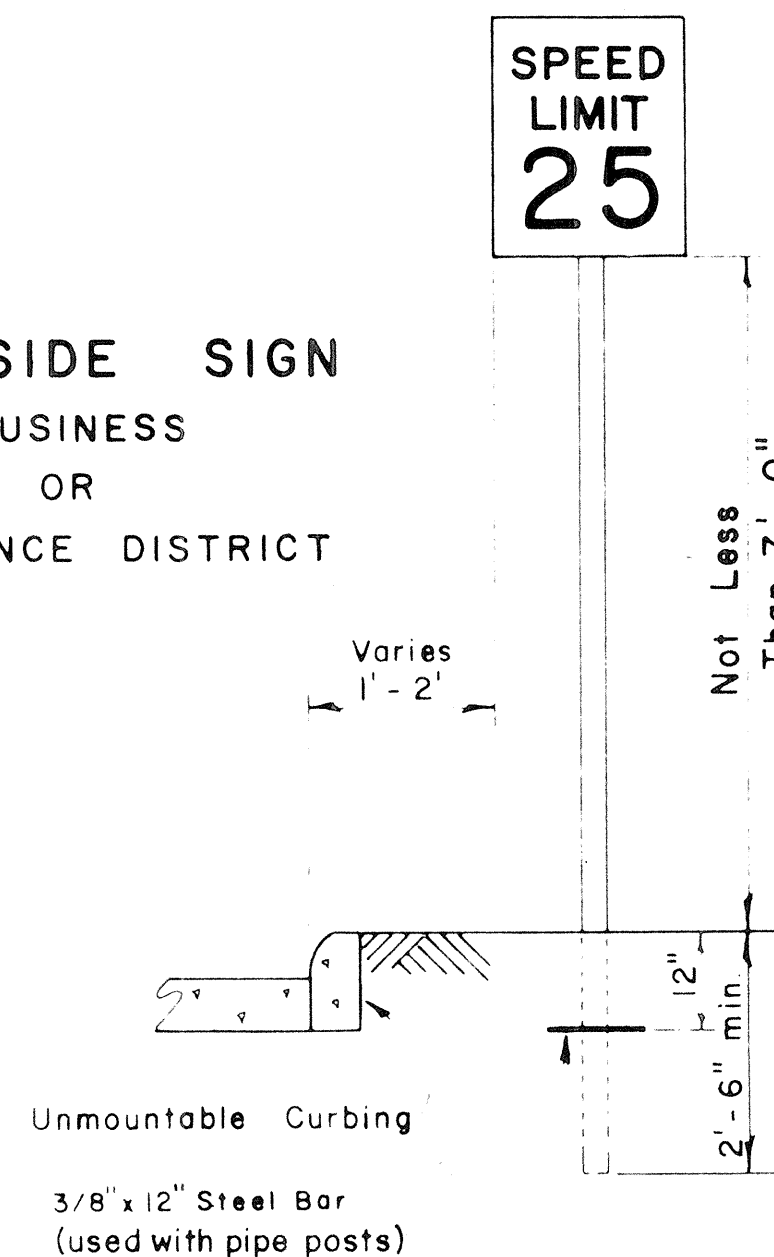
Scale: as noted

SHEET No. 3 OF 8 SHEETS

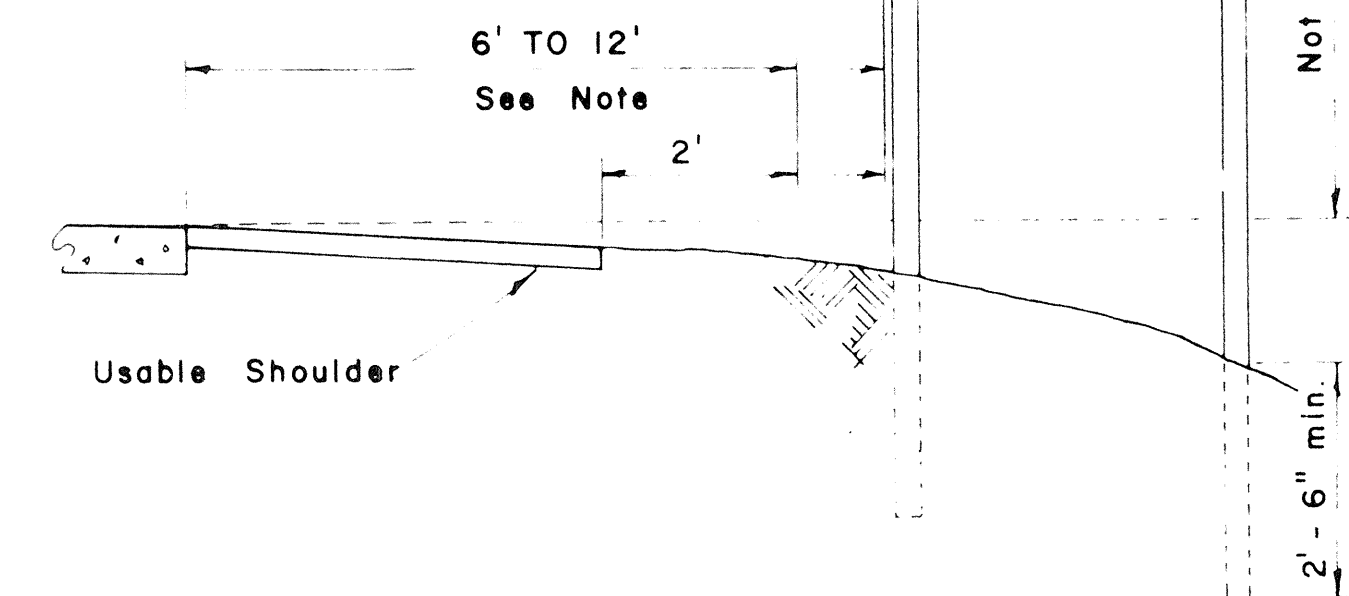
- NOTE
1. All signs and road delineators shall be placed 2' outside the usable roadway shoulder or 1' outside unmountable curbing present and within the limits shown below.
 2. Except as noted below, sign posts shall be either 3" galv. std. pipe or 2 1/2" x 2 1/2" galv. square tube posts for signs larger than 24" in any dimension; 2" galv. std. pipe or 2" x 2" galv. square tube posts for signs 24" or less in any dimension.
 3. Sign shall be attached to post with 5/16" galvanized bolts with nuts and 7/8" x 7/8" x 120" stainless-steel washers with neoprene rubber gasket.
 4. Clearance Markers (RM-3, RM-4) shall be installed with the inside edge of the marker in line with the inner edge of the obstruction.
 5. Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two 3" galv. std. pipe or two 2 1/2" x 2 1/2" galv. square tube posts.



ROADSIDE SIGN
BUSINESS
OR
RESIDENCE DISTRICT

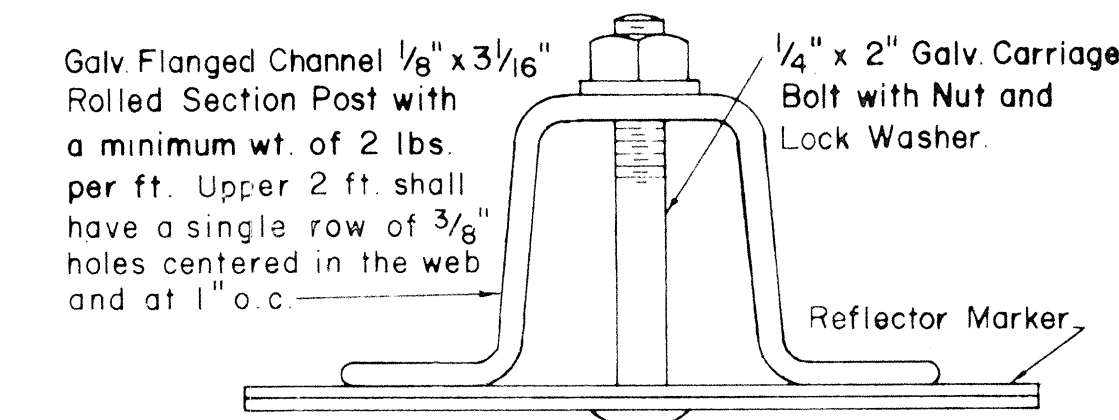


ROADSIDE SIGN
(DOUBLE POSTS)

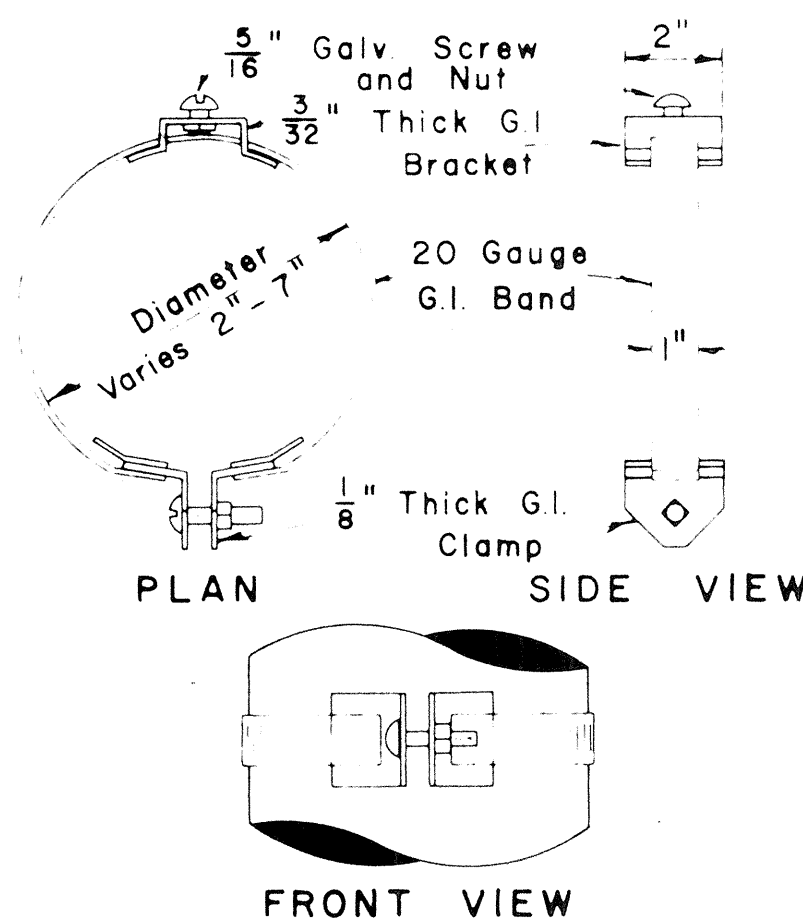
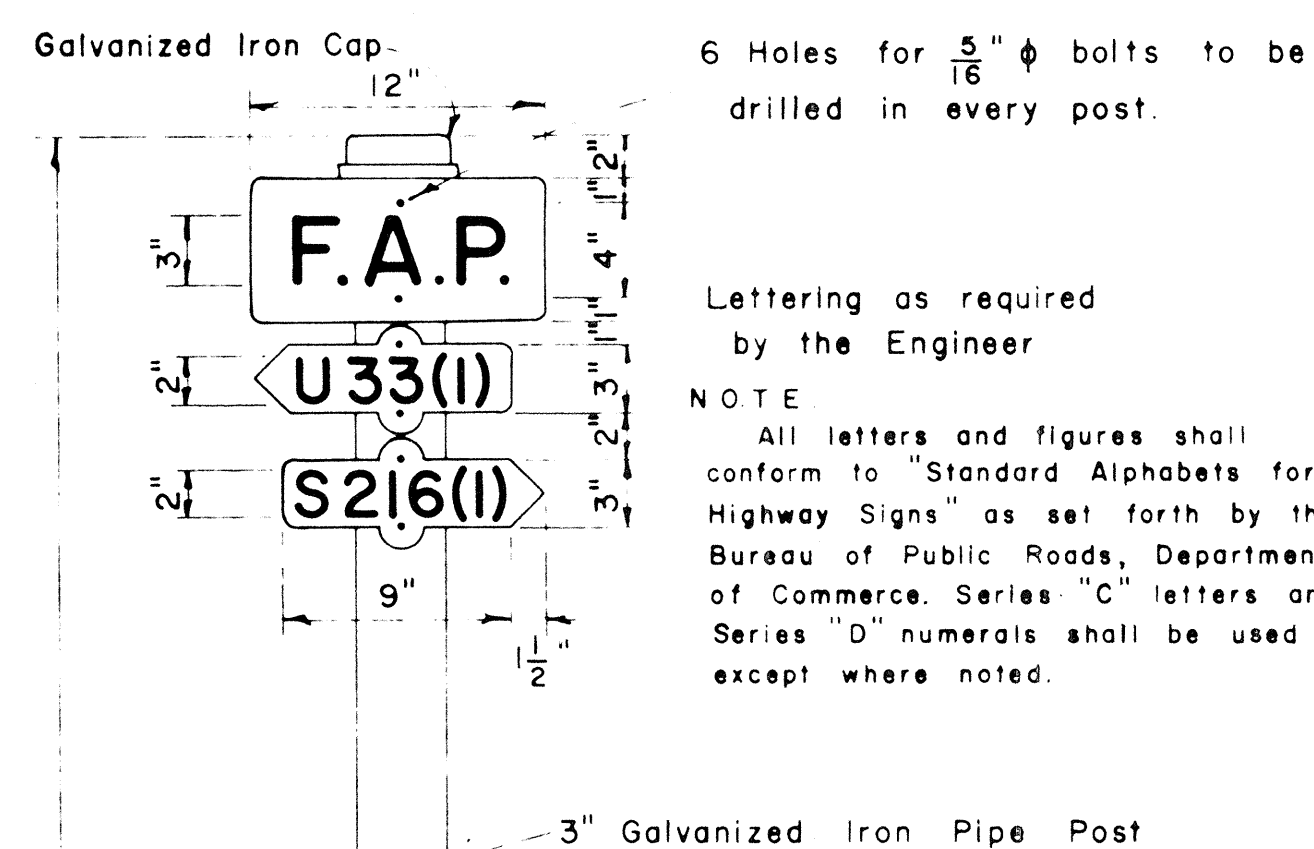


ROAD DELINEATOR

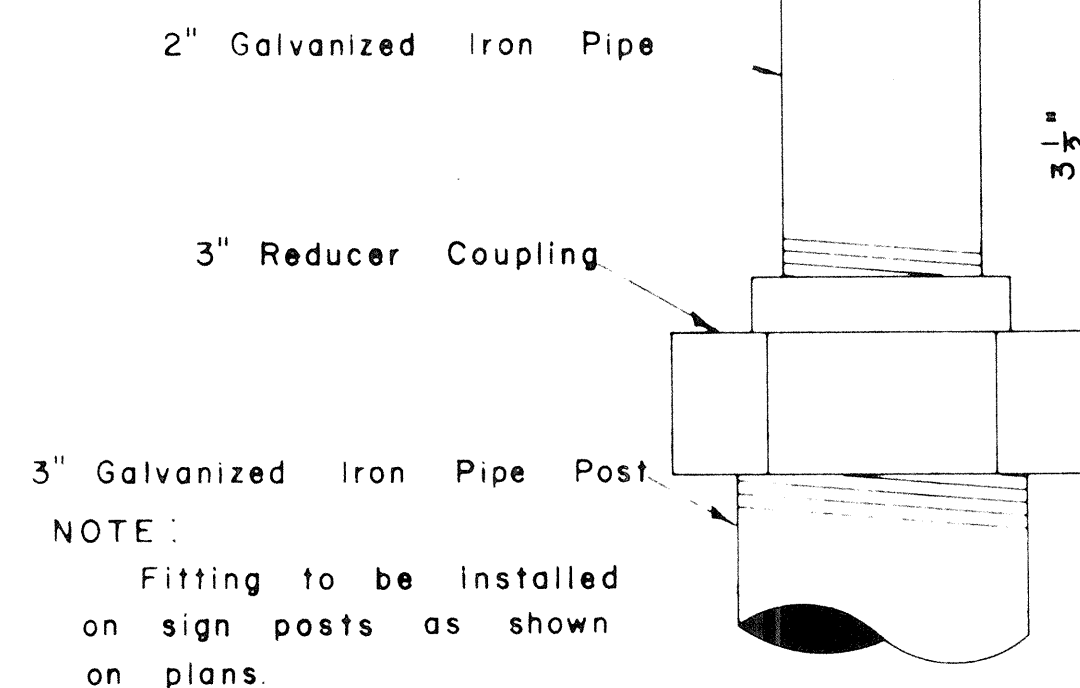
Scale: 1/2" = 1'-0"



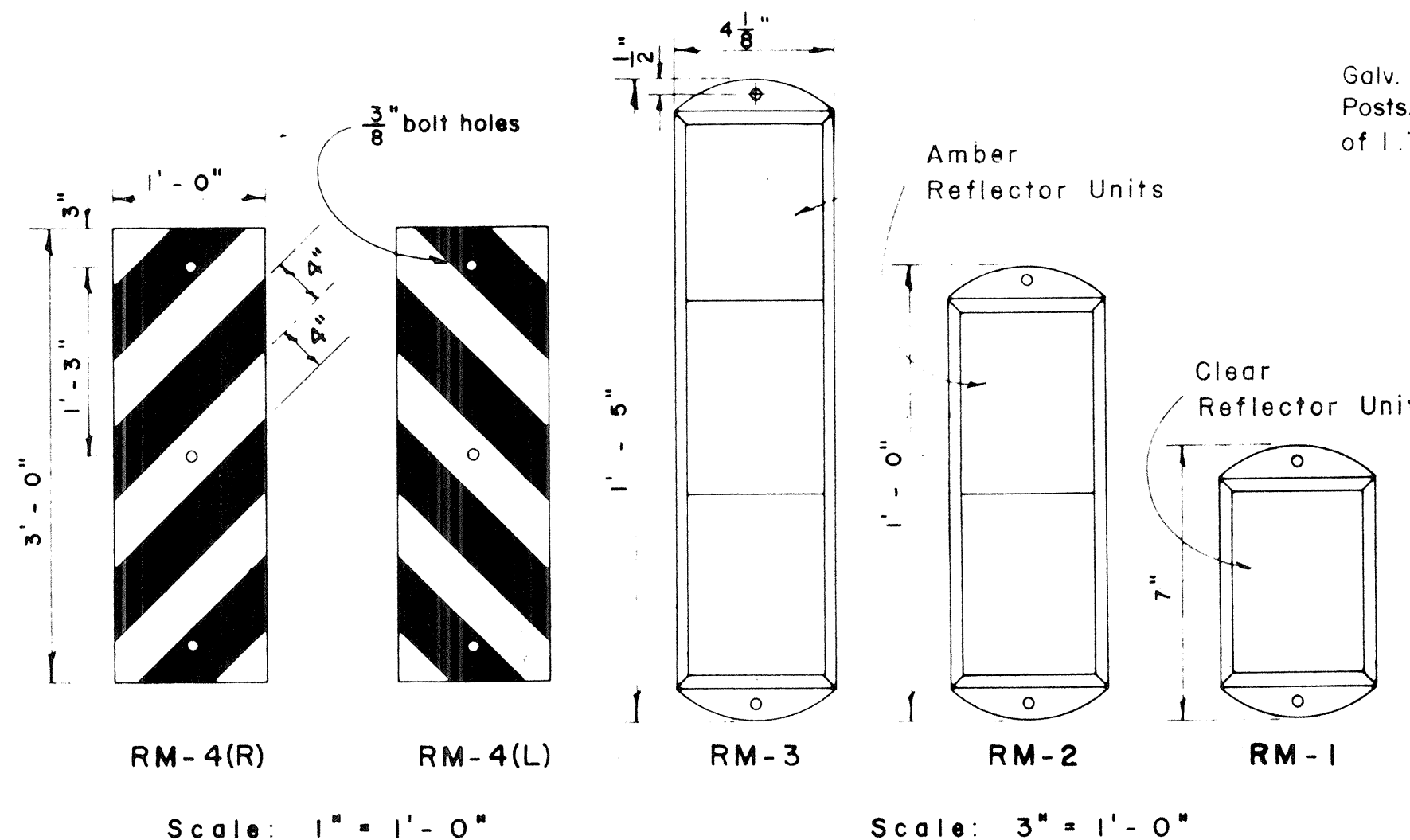
HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS



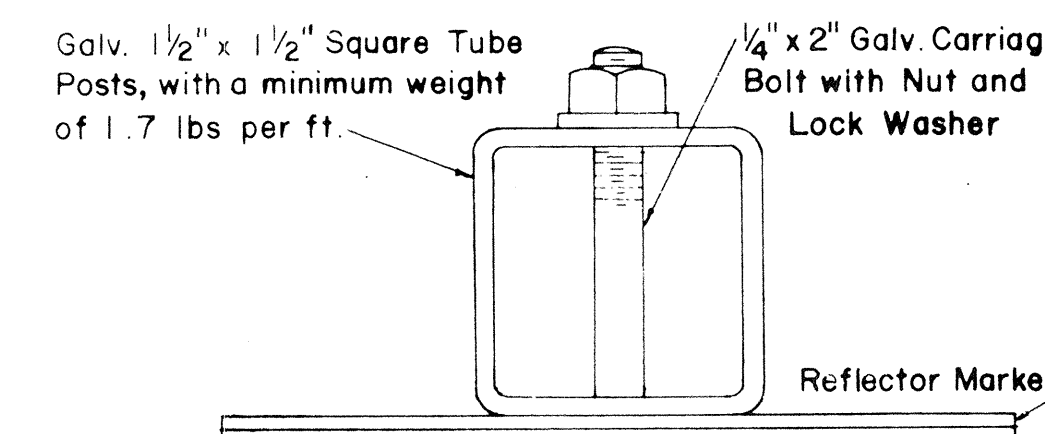
TYPICAL BAND BRACKET FOR MOUNTING TRAFFIC SIGNS
Scale: 3" = 1'-0"



DETAIL OF SIGN POST FITTING FOR CITY & COUNTY STREET NAME SIGNS
Scale: 1/2" = 1'-0"

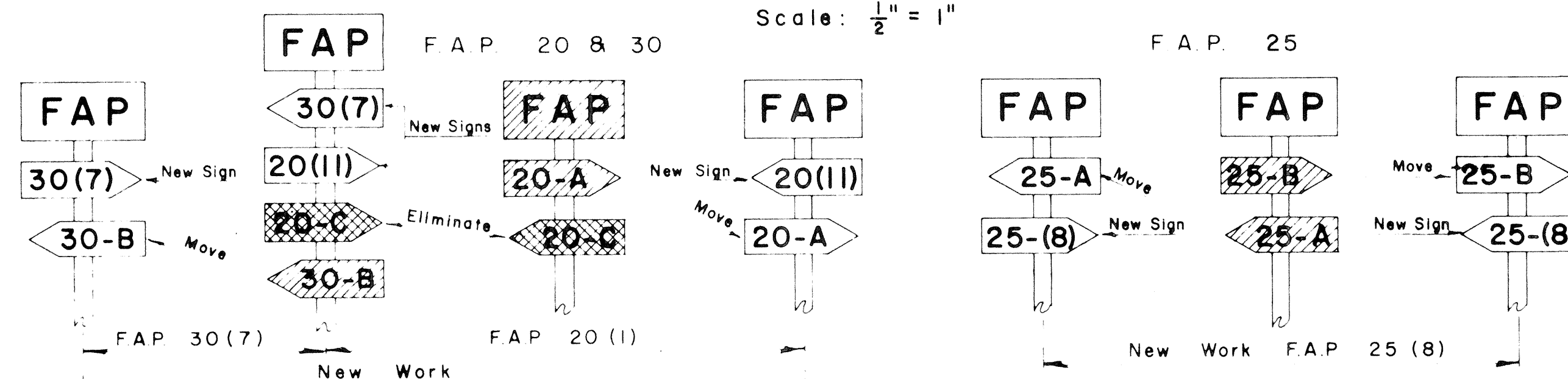
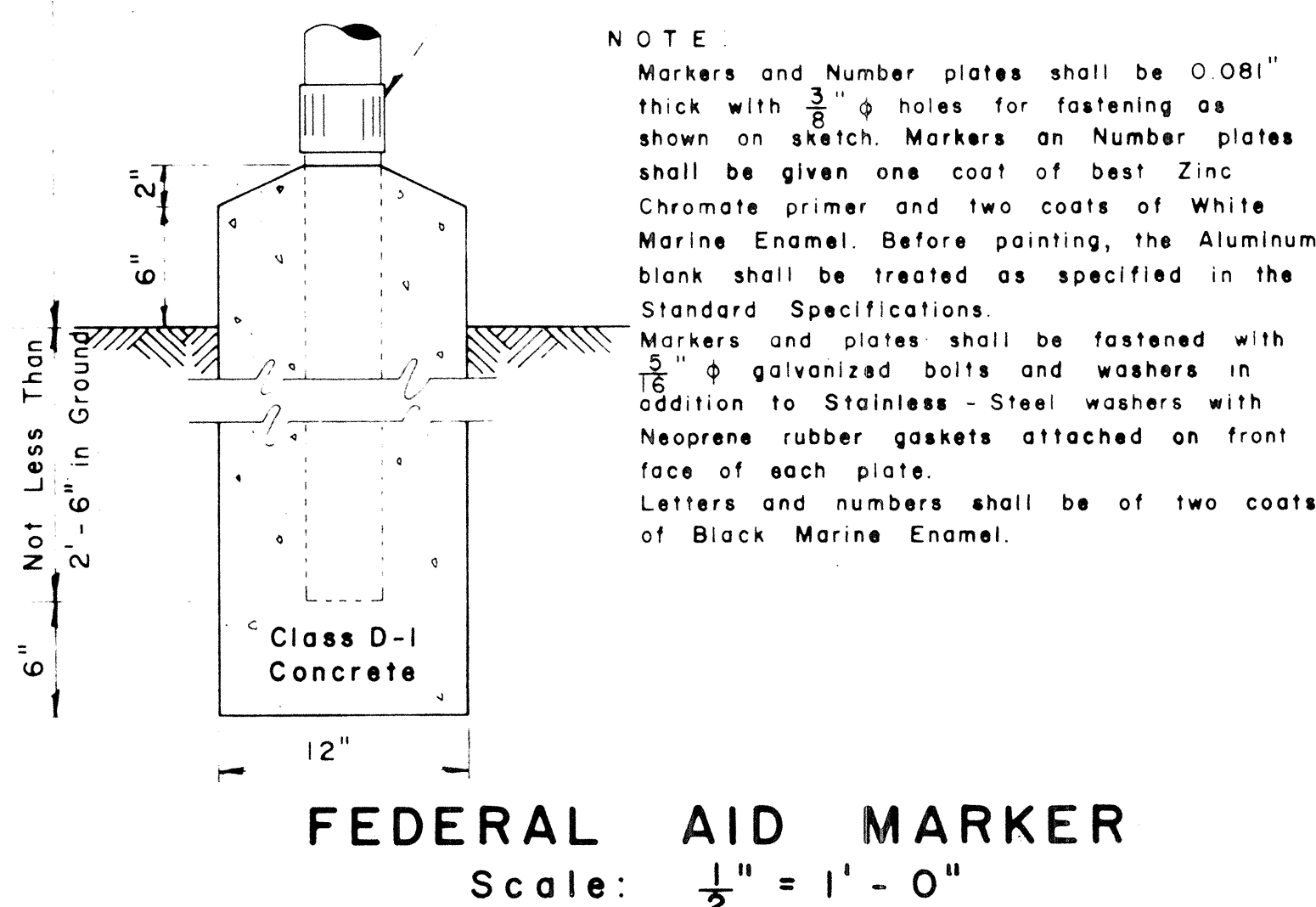


REFLECTOR MARKERS
Scale: As Shown

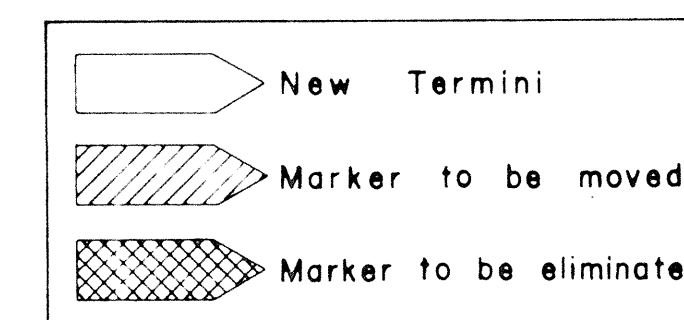


TYPICAL SECTION OF ROAD DELINEATOR
Full Size

NOTE: 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.



METHOD OF MARKING F.A. PROJECTS AT OVERLAPS
(USING NUMBER SUFFIX ON NEW WORK)

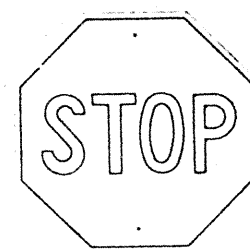


APPROVED: _____ DATE: _____
DIRECTOR OF TRANSPORTATION

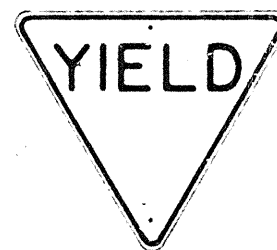
JANUARY 27, 1967
DECEMBER 8, 1964
REVISED: FEBRUARY 25, 1964

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
F.A. MARKER
AND
MISCELLANEOUS SIGN
DETAILS
Scale: As Shown

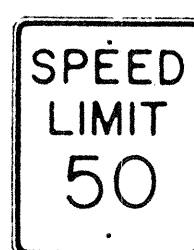
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	PROJ. NO. 56A-02-67 UNIT 2	1968	12	18



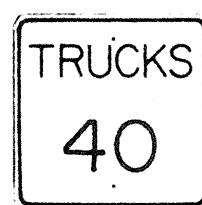
R1-1 30"x 30"



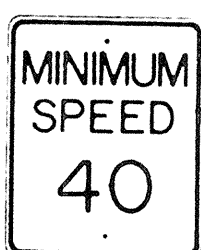
R1-2 36"x36"x36"
R1-2-E 48"x48"x48"
R1-2-I 60"x60"x60"



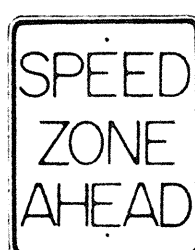
R2-1(50) 24"x30"
R2-1(50)-E 36"x48"
R2-1(50)-I 48"x60"



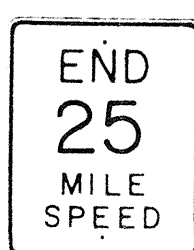
R2-2(40) 24"x24"
R2-2(40)-E 36"x36"
R2-2(40)-I 48"x48"



R2-4(40) 24"x30"
R2-4(40)-E 36"x48"
R2-4(40)-I 48"x60"



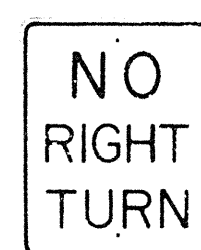
R2-5 24"x30"
R2-5-E 36"x48"
R2-5-I 48"x60"



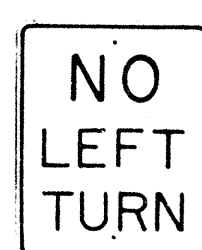
R2-6(25) 24"x30"
R2-6(25)-E 36"x48"
R2-6(25)-I 48"x60"



R2-7 24"x30"
R2-7-E 36"x48"
R2-7-I 48"x60"



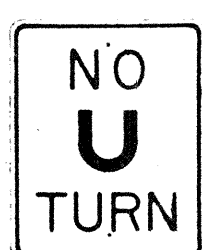
R3-1 24"x30"
R3-1-E 36"x48"



R3-2 24"x30"
R3-2-E 36"x48"



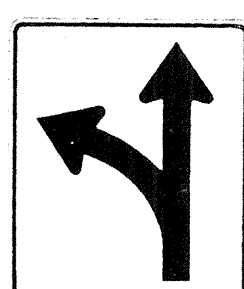
R3-3 24"x24"



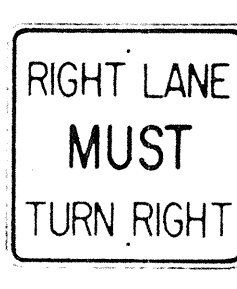
R3-4 24"x30"
R3-4-E 36"x48"
R3-4-I 48"x60"



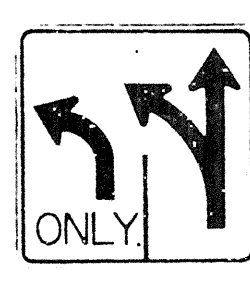
R3-5(L) 30"x 36"



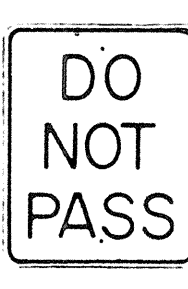
R3-6(L) 30"x 36"



R3-7(R) 30"x 30"



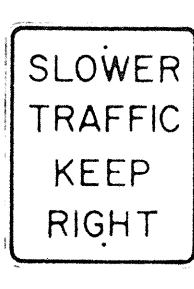
R3-8(L) 30"x 30"



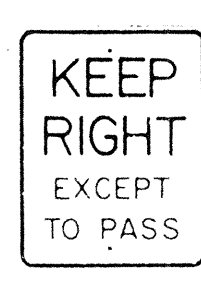
R4-1 24"x 30"



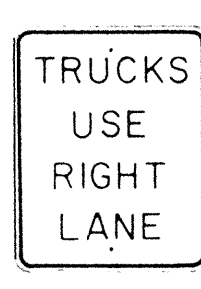
R4-2 24"x 30"



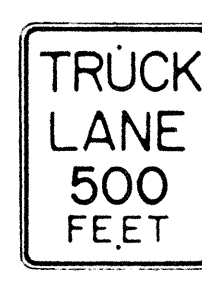
R4-3 24"x 30"
R4-3-E 36"x 48"
R4-3-I 48"x 60"



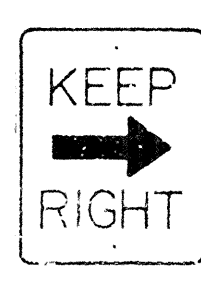
R4-4 24"x 30"
R4-4-E 36"x 48"
R4-4-I 48"x 60"



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"



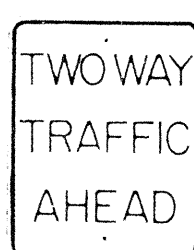
R5-1 24"x 24"



R6-1(R) 36"x 12"



R6-2(R) 18"x 24"



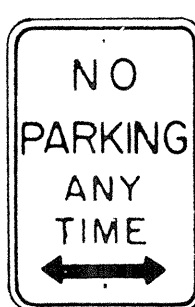
R6-3 24"x 30"



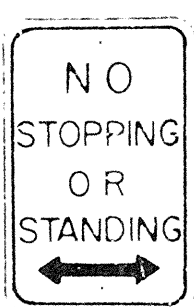
R6-4 24"x 30"



R6-5 24"x 30"



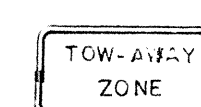
R7-1 12"x 18"



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



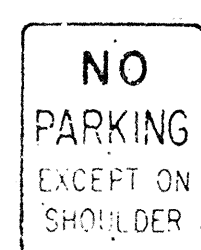
R7-107(R) 12"x 18"



R7-201 12"x 6"



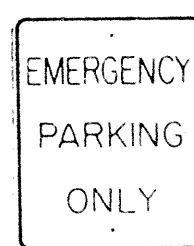
R8-1 24"x30"
R8-1-E 36"x48"
R8-1-I 48"x60"



R8-2 24"x30"
R8-2-E 36"x48"



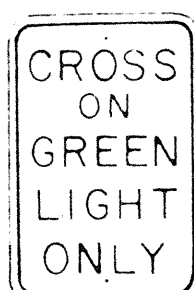
R8-3 24"x30"
R8-3-E 36"x48"



R8-4 24"x30"
R8-4-E 36"x48"
R8-4-I 48"x36"



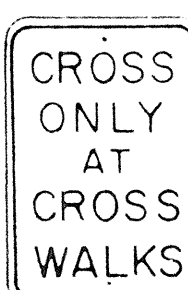
R9-1 18"x24"



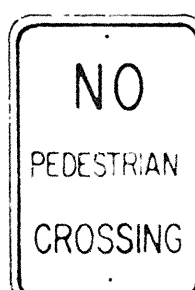
R9-2 12"x 18"



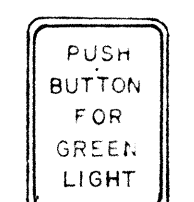
R9-3 12"x 18"



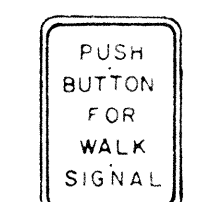
R9-4 12"x 18"



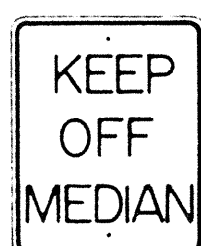
R9-5 12"x 18"



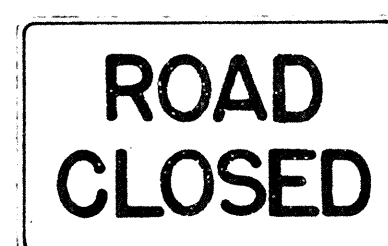
R9-6 9"x 12"



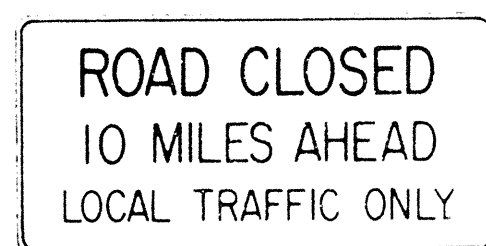
R9-7 9"x 12"



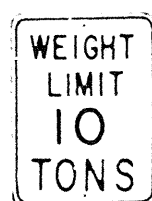
R10-1 24"x30"
R10-1-E 36"x48"
R10-1-I 48"x60"



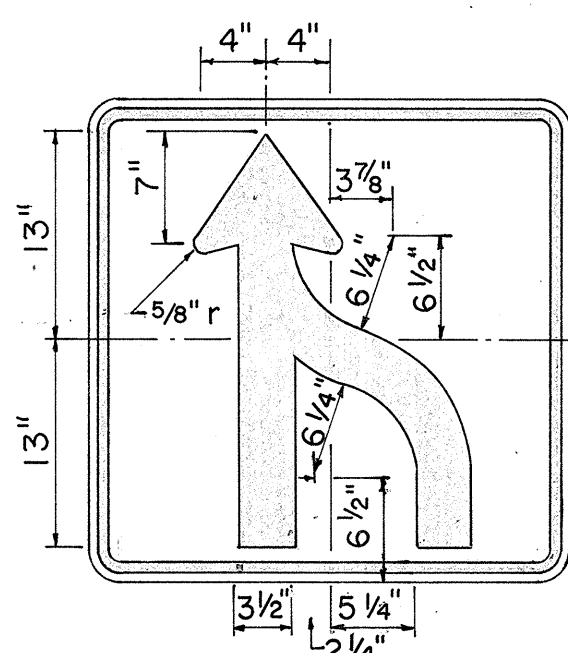
R10-2 48"x30"



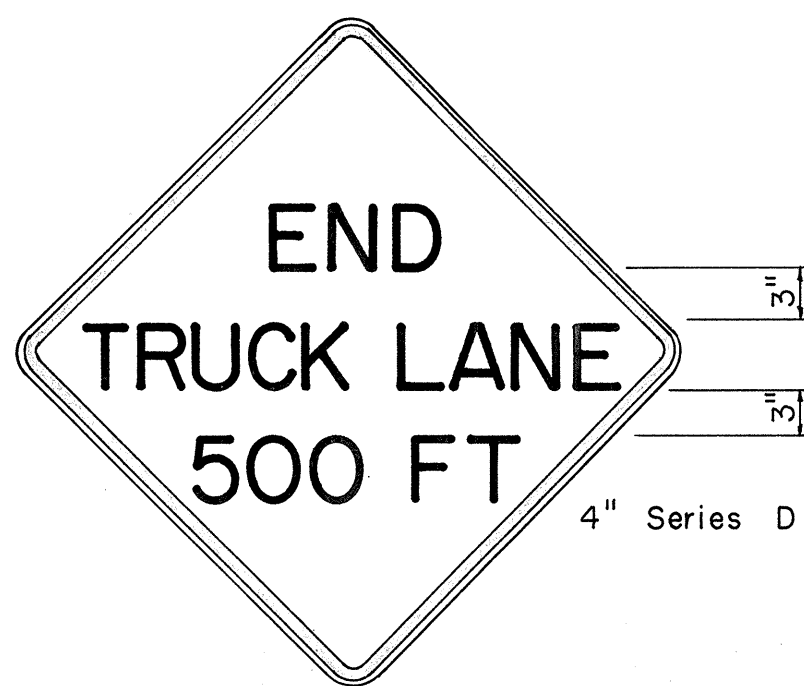
R10-3(10) 60"x 30"



R10-4(10) 18"x 24"



R 3-9 30" x 30"



W 6-3 30" x 30"

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 R10-4 sign, number in () indicates weight and shall be as shown on the plan.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

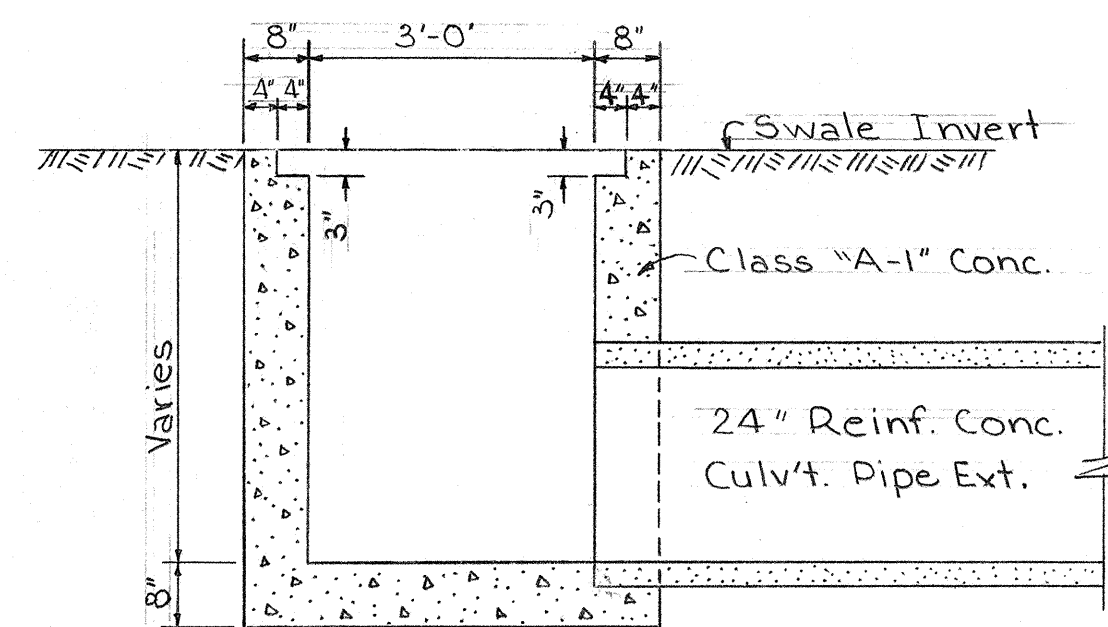
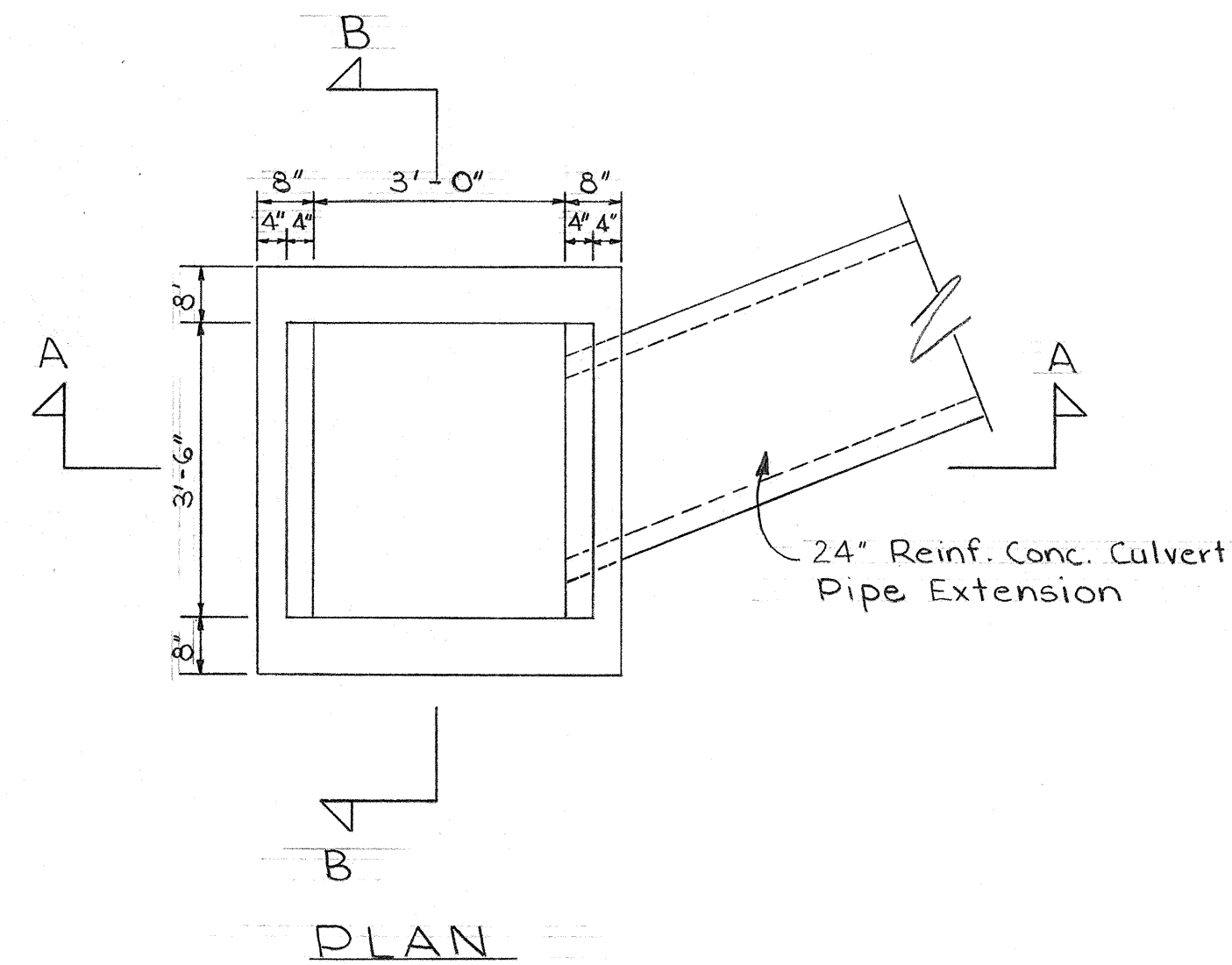
REGULATORY SIGNS
PROJ. NO. 56A-02-67 Unit 2

NOT TO SCALE

SHEET No. 5 OF 8 SHEETS

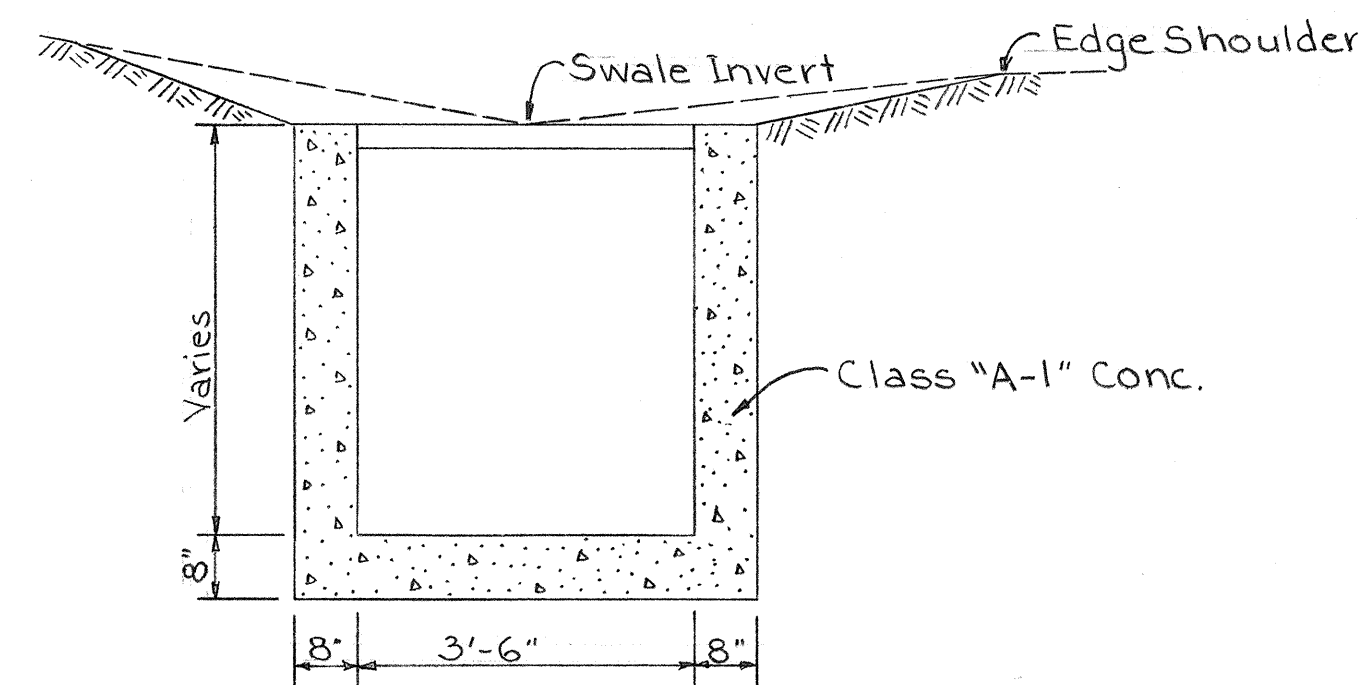
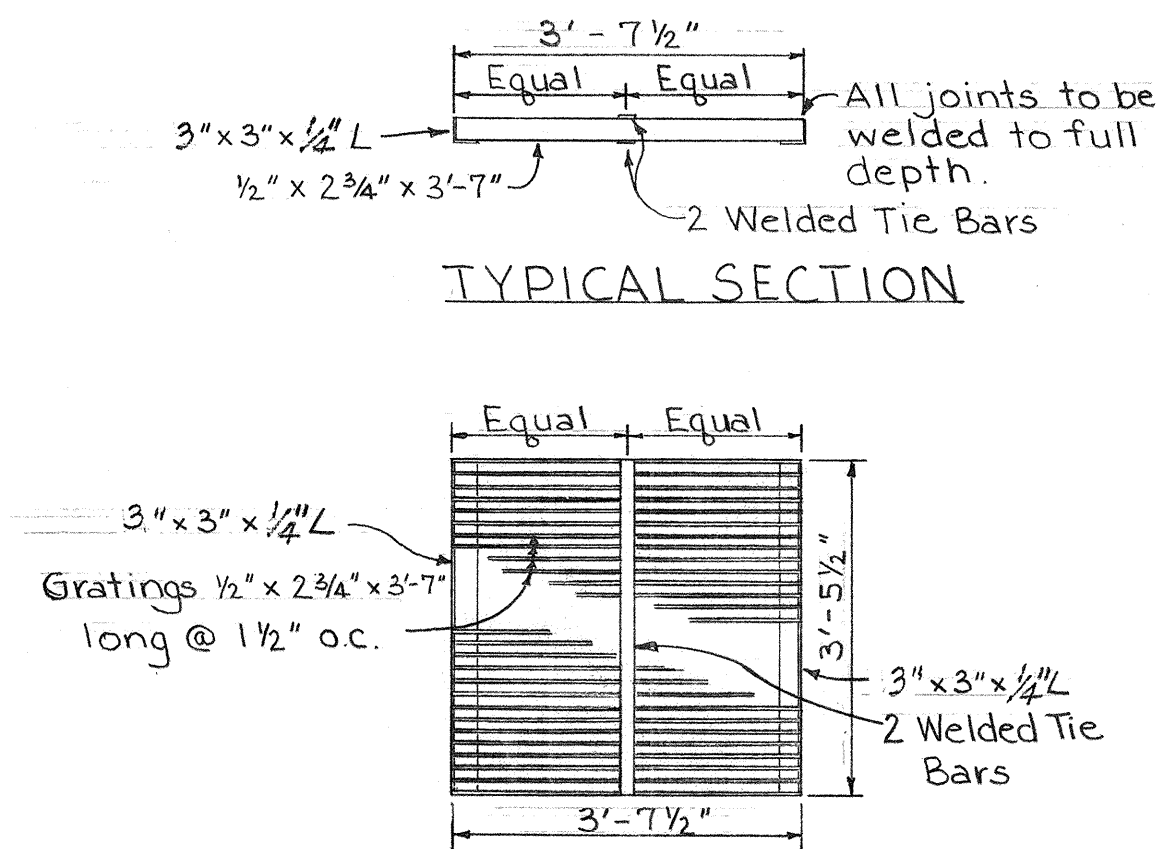
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56A-02-67 Unit 2	1968	13	18

Note:
Vertical dimensions to be determined in the field to match culvert extension.



DETAILS FOR CONCRETE DROP INTAKE AT STA 132+45
Scale: 1/2" = 1'-0"

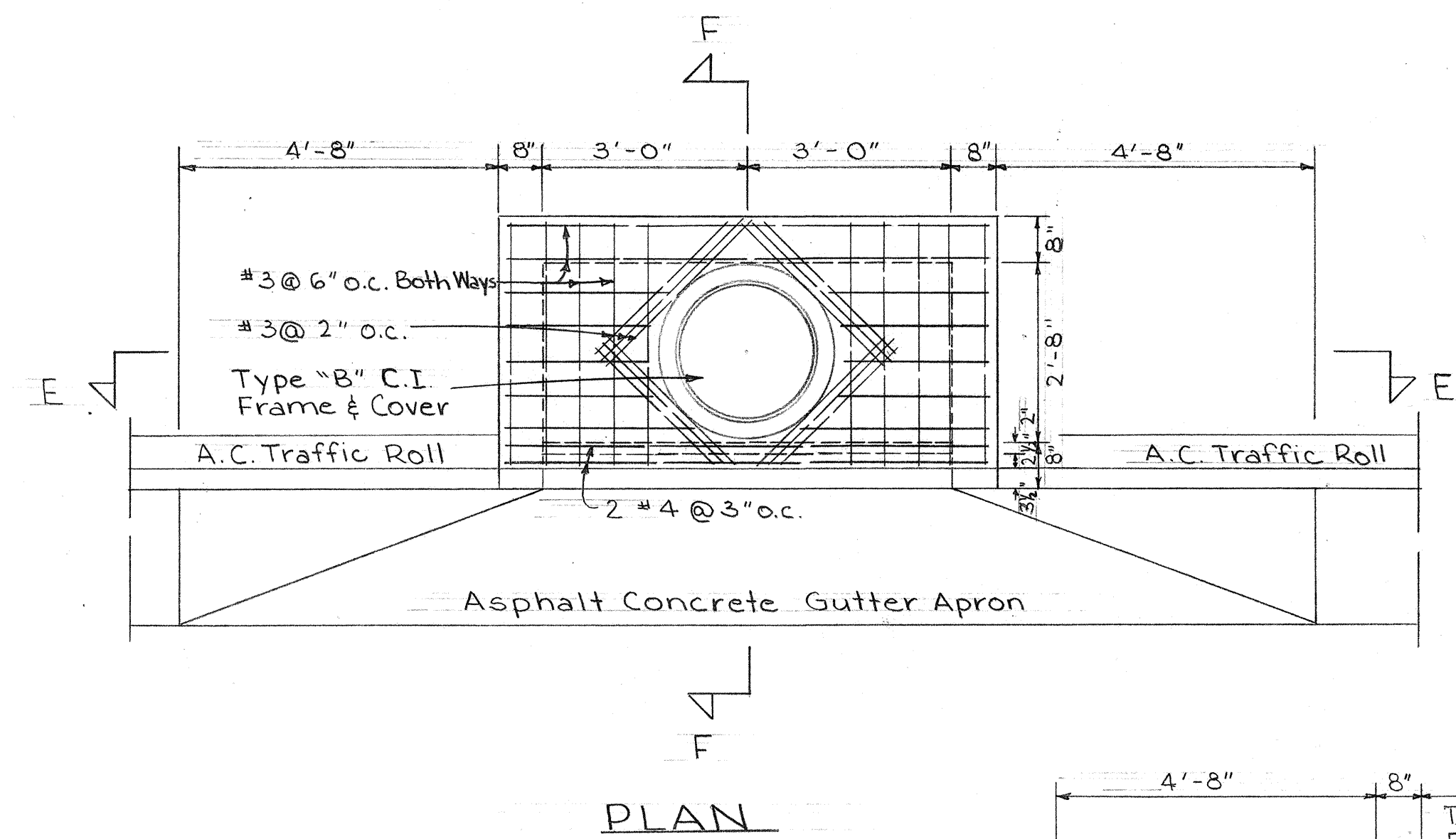
Note:
1. All steel shall be structural grade.
2. Grates shall be hot dip galvanized after fabrication in accordance with Section 44(H) of the Standard Specifications.



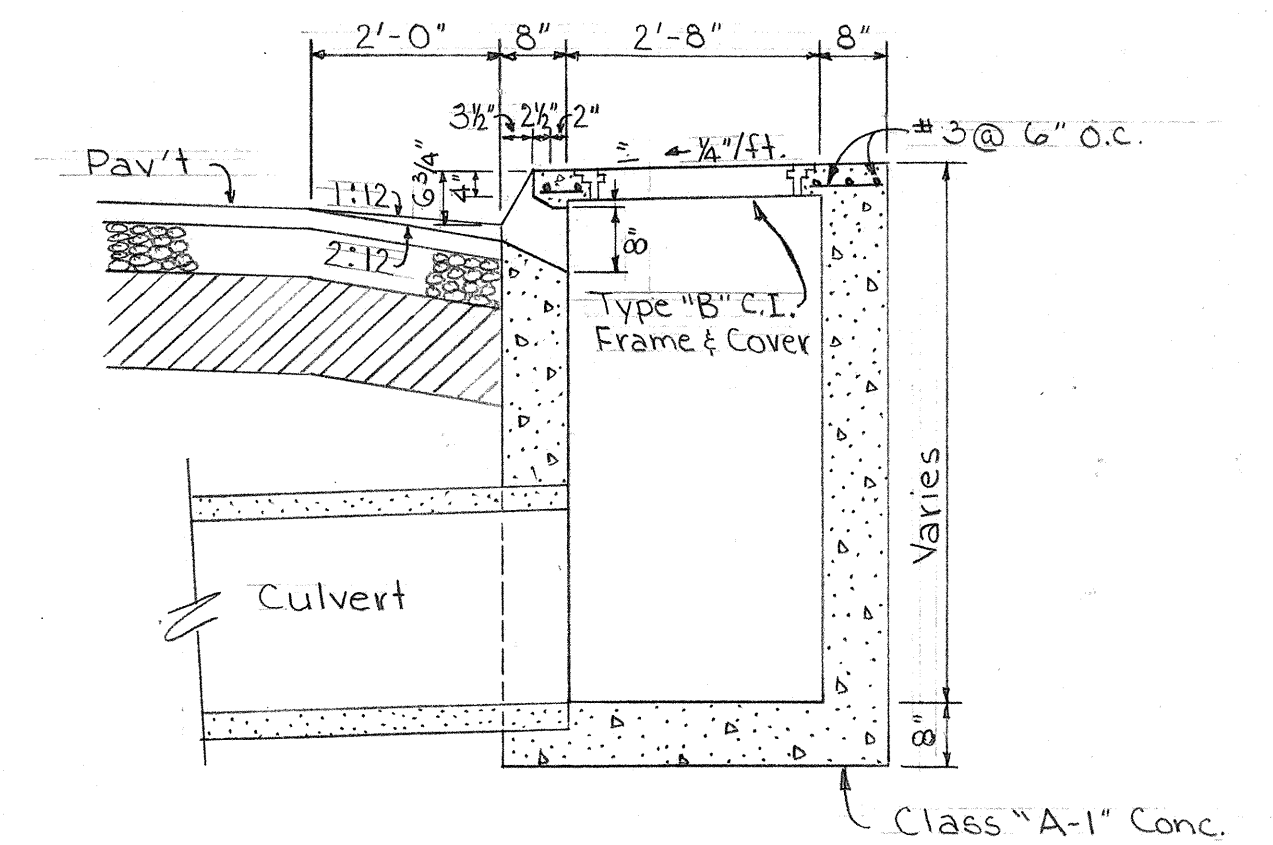
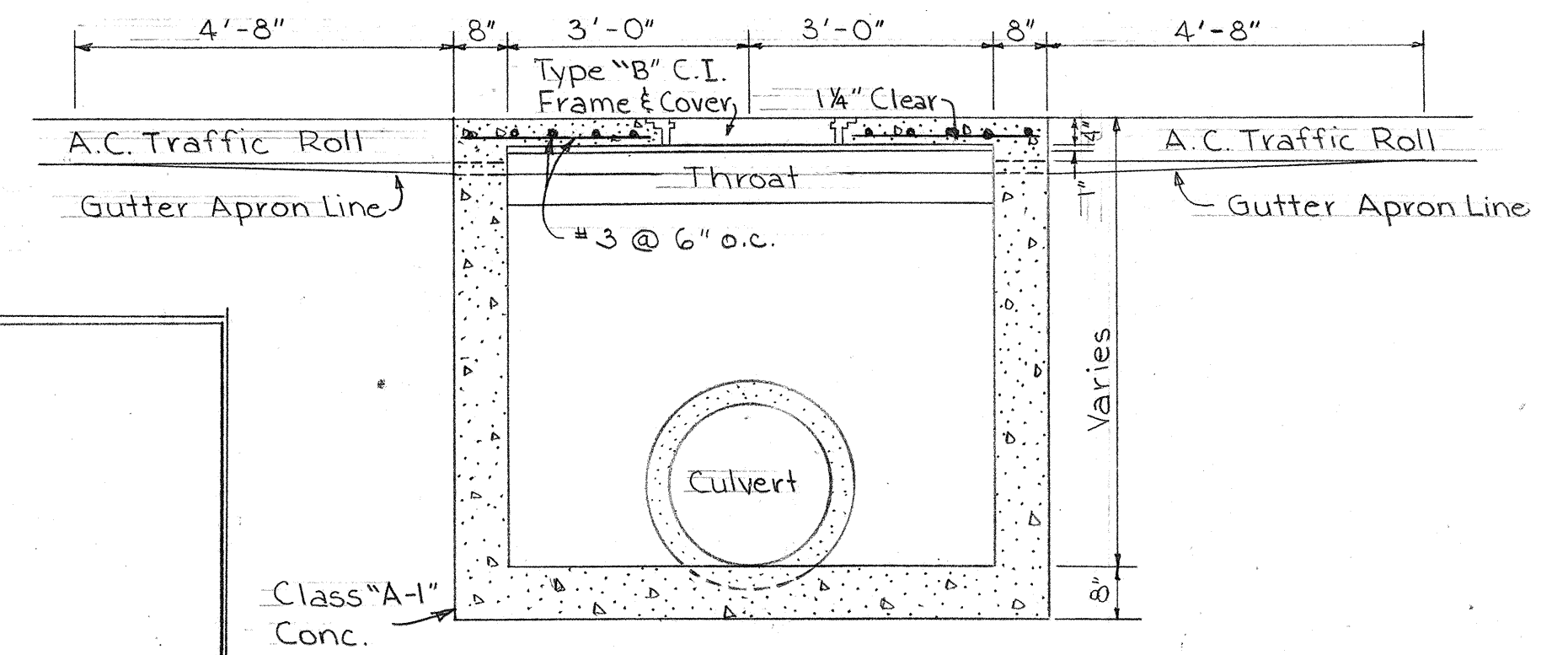
SECTION B-B

DETAILS FOR RECONSTRUCTED CATCH BASIN AT STA 133+41

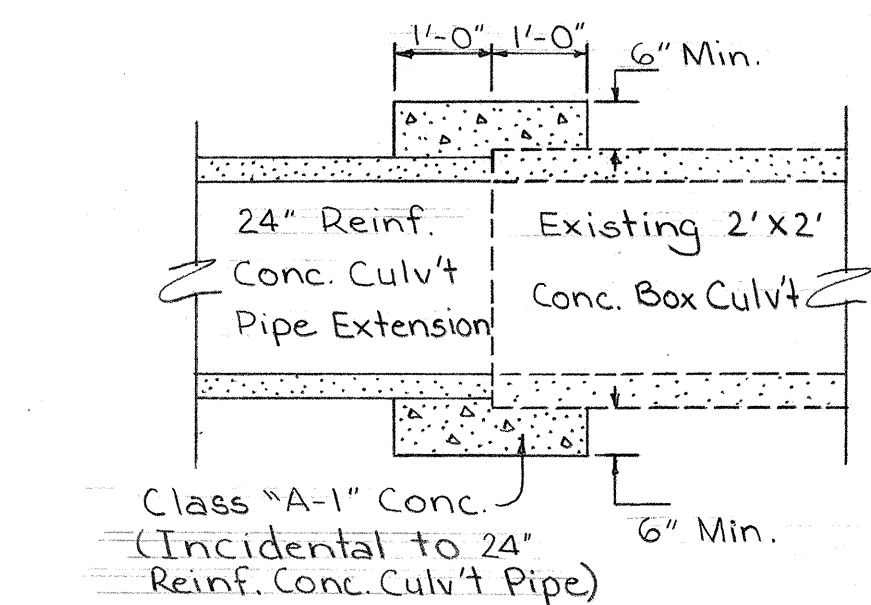
Scale: 1/2" = 1'-0"



CATCH BASIN DETAILS
Scale: 1/2" = 1'-0"



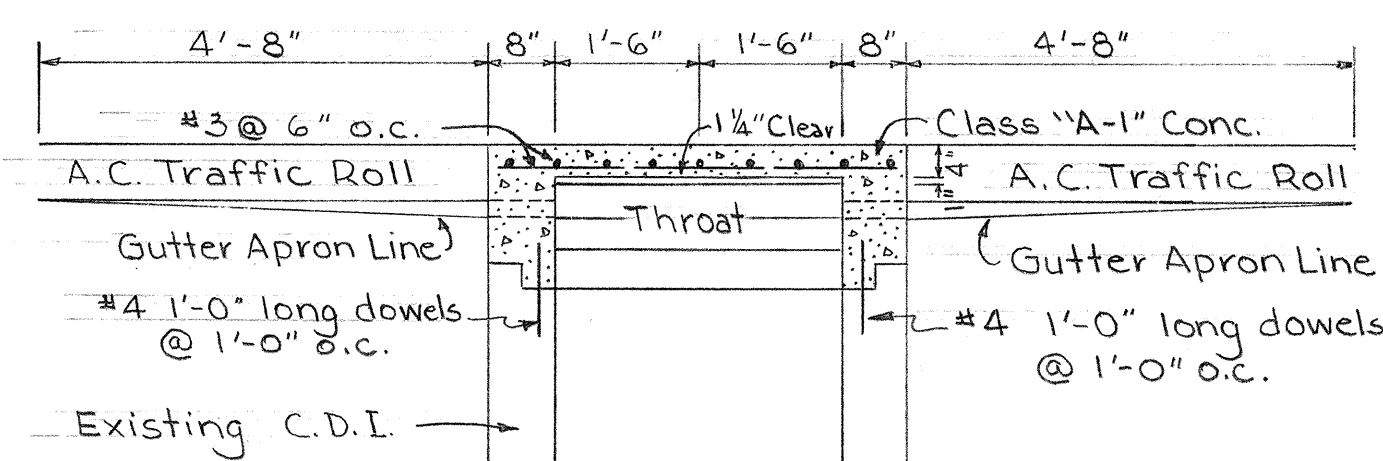
SECTION F-F



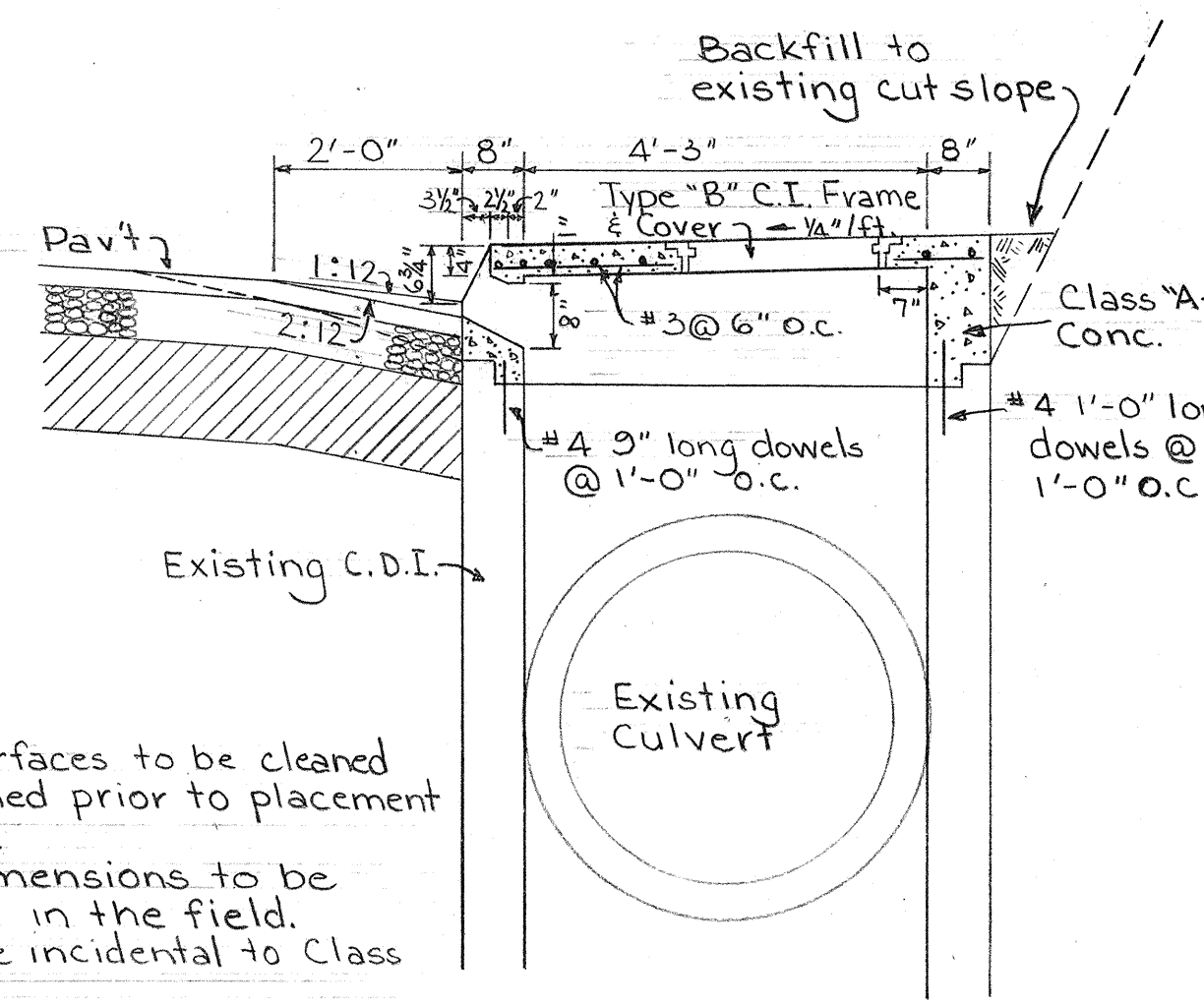
Scale: 1/2" = 1'-0"

DETAILS FOR RECONSTRUCTED CATCH BASIN AT STA 133+41

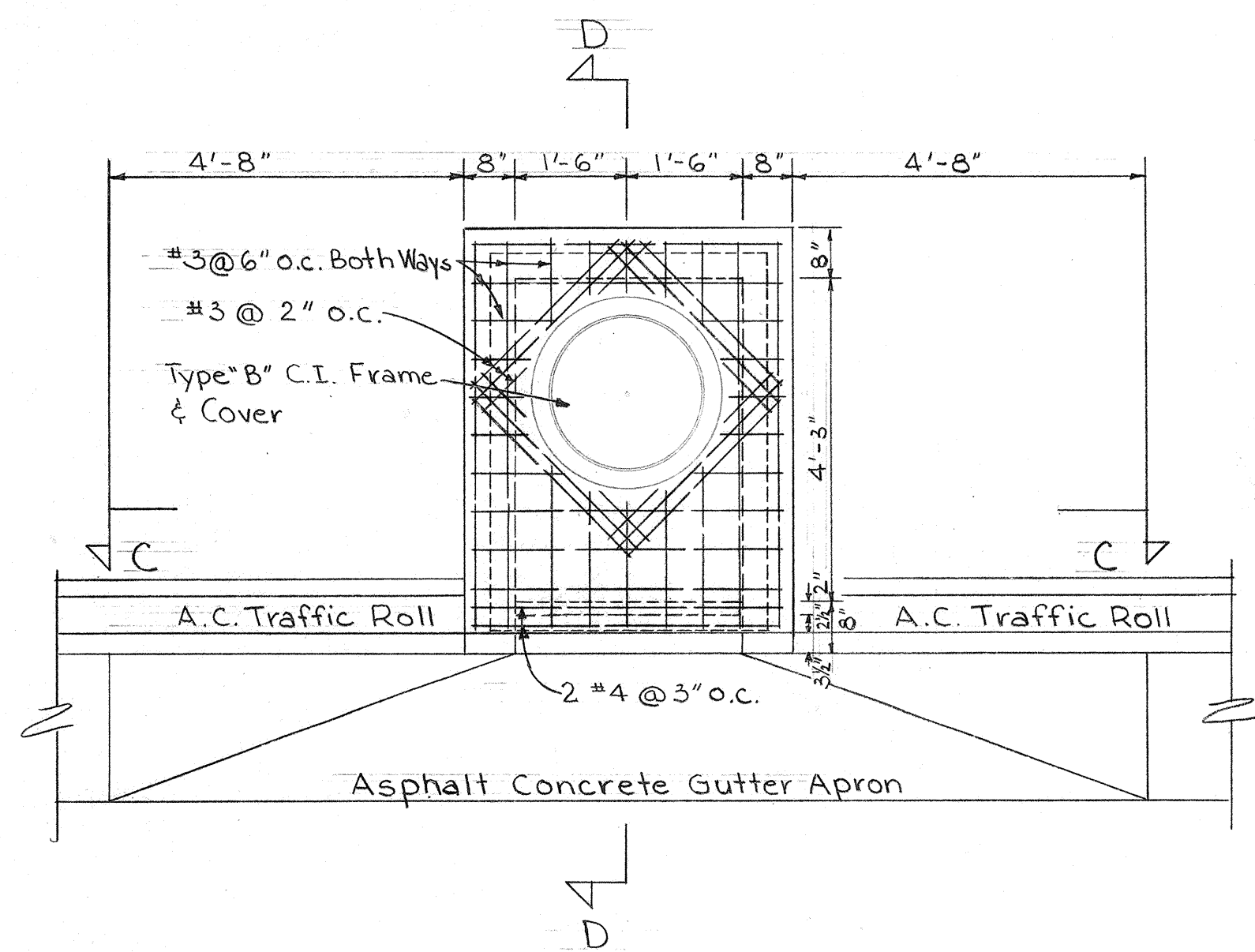
Note:
1. Existing surfaces to be cleaned and roughened prior to placement of concrete.
2. Vertical dimensions to be determined in the field.
3. Dowels to be incidental to Class "A-1" Conc.



SECTION C-C



SECTION D-D



PLAN

DETAILS FOR RECONSTRUCTED CATCH BASIN AT STA 133+41
Scale: 1/2" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

KAUAI BELT ROAD

PROJ. NO. 56A-02-67

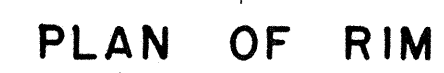
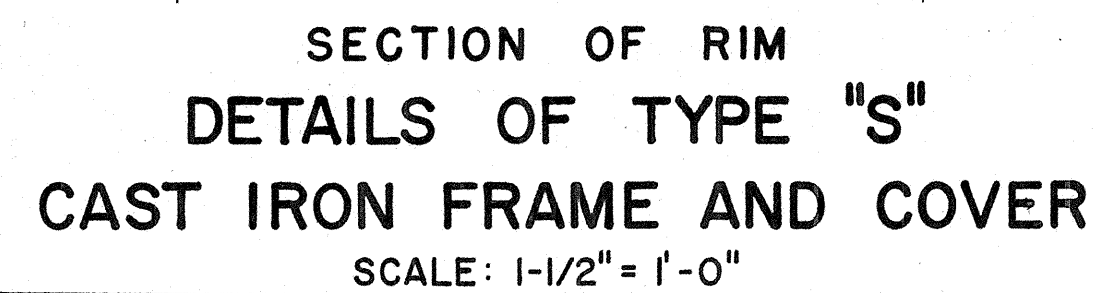
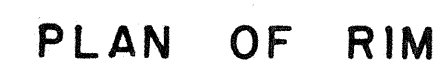
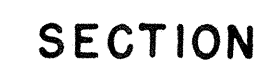
UNIT 2

Scale: As Shown

Date: Sept., 1967

SHEET No. 6 OF 8 SHEETS

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

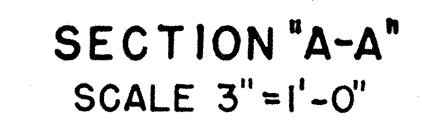


SCALE : 1-1/2" = 1'-0"



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

SECTION TOP VIEW TOP VIEW
TYPE C C.I. FRAME AND GRATING
SCALE: 3/4" = 1'-0"



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

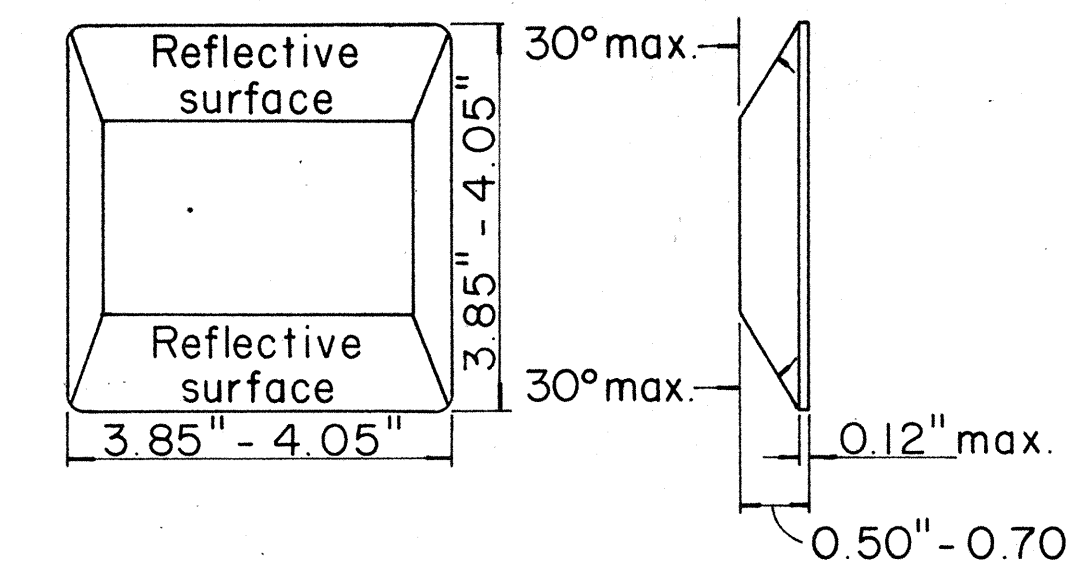
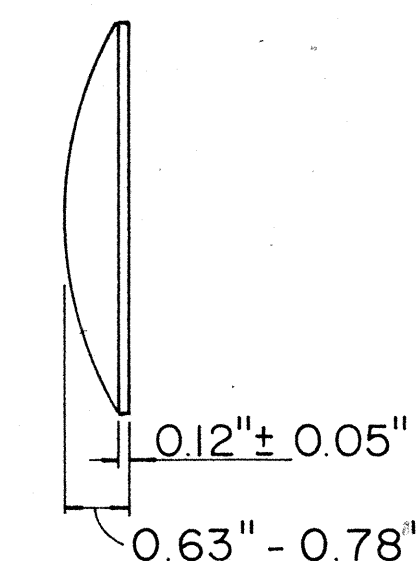
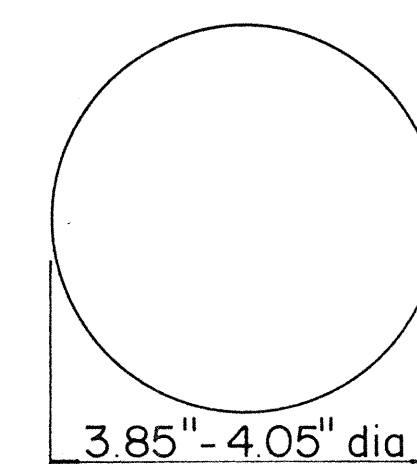
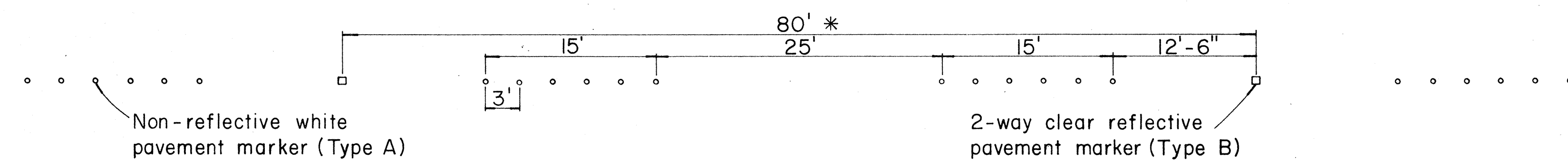
SCALES AS NOTED

SHEET N^o 7 OF 8 SHEETS

11 41

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	PROJ. NO. 56A-02-67 UNIT 2	1968	15	18

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



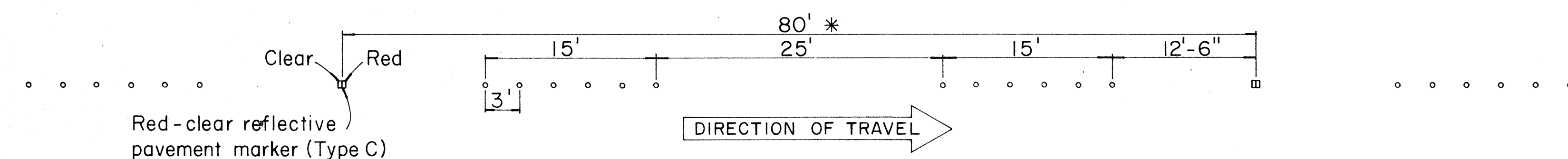
TYPE A

Non - reflective white marker

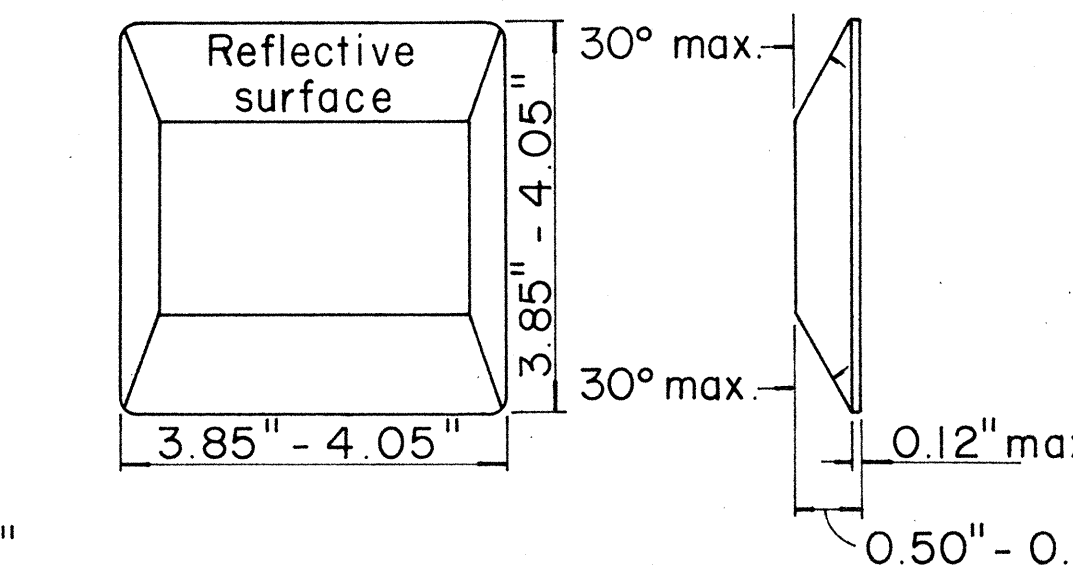
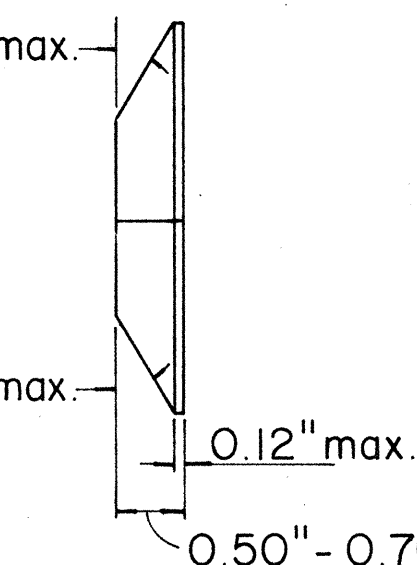
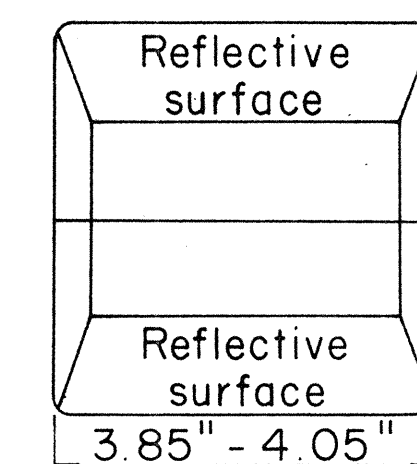
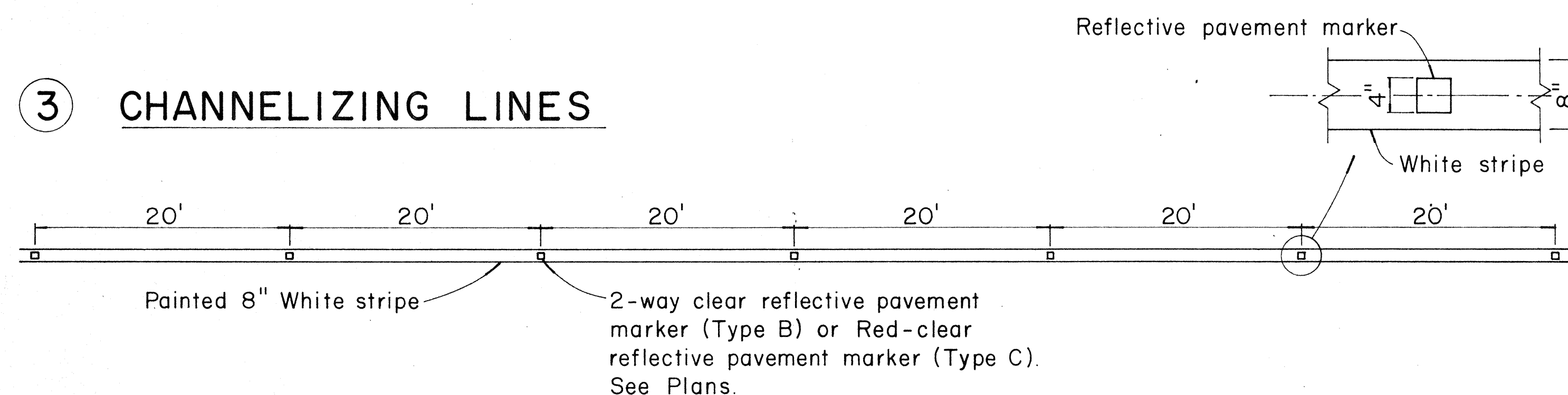
TYPE B

2-way clear reflective surface

2 LANE LINES



3 CHANNELIZING LINES



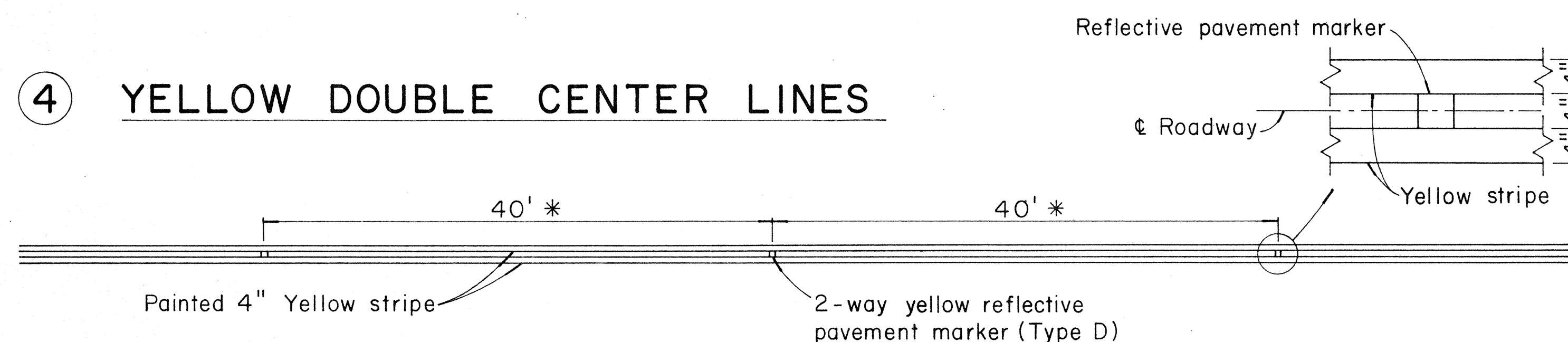
TYPE C

Red - clear reflective surface

TYPE H

One - way yellow reflective surface

4 YELLOW DOUBLE CENTER LINES



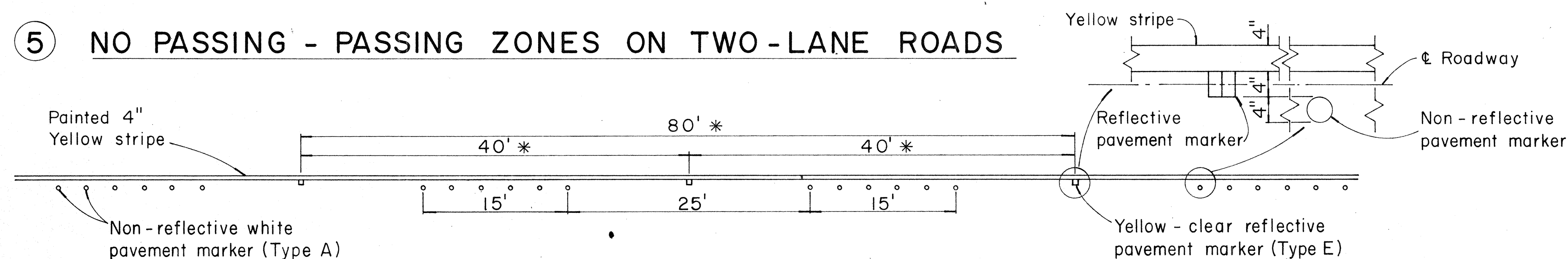
TYPE E

Yellow - clear reflective surface

TYPE G

One - way clear reflective surface

5 NO PASSING - PASSING ZONES ON TWO-LANE ROADS



NOTE:

Painted stripes to be done by State forces

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
RAISED PAVEMENT MARKERS
PROJ. NO. 56A-02-67 Unit 2
Not to Scale
SHEET No. 8 OF 8 SHEETS

Sept., 1967

* For curves less than 1000' radius use one-half spacing