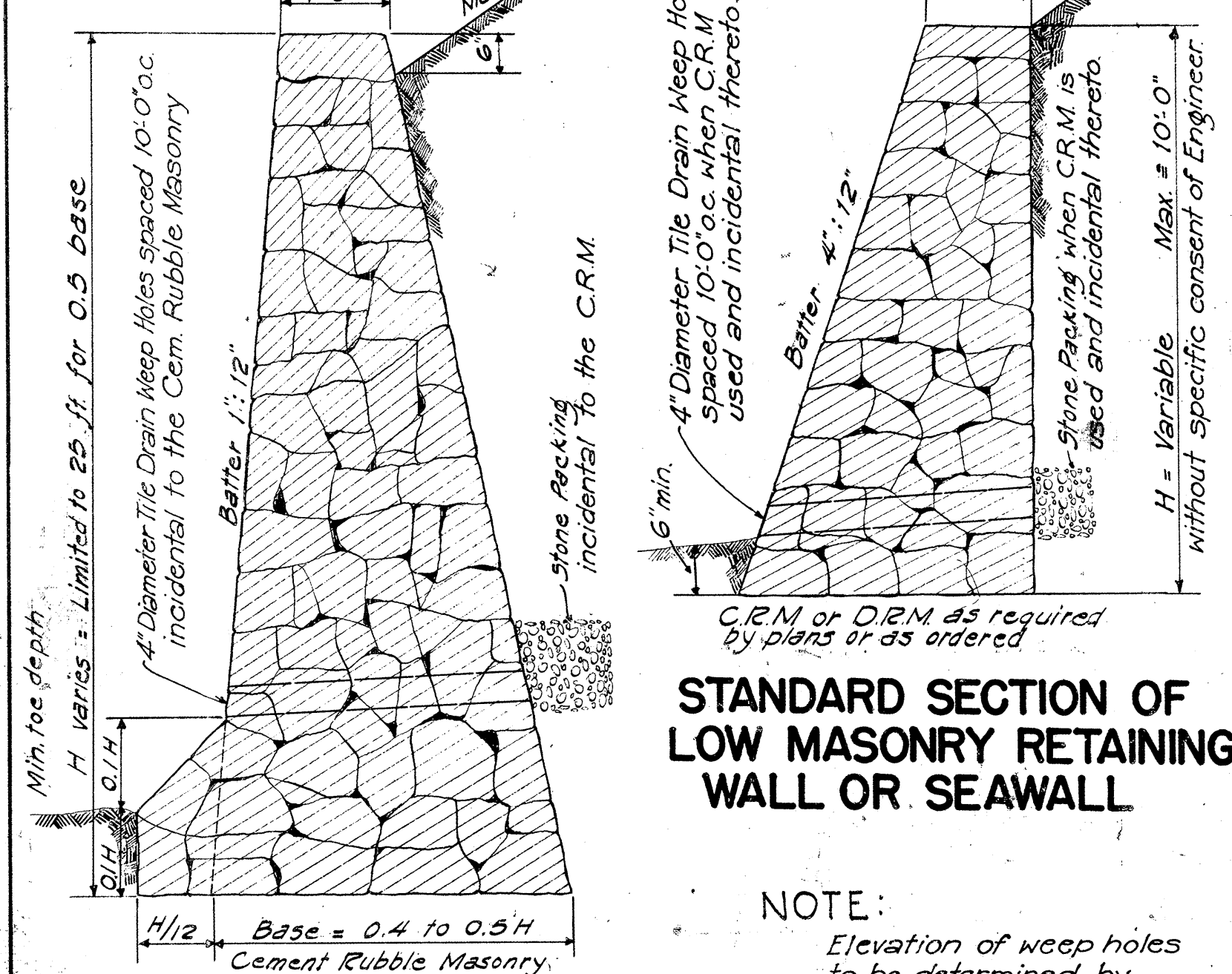
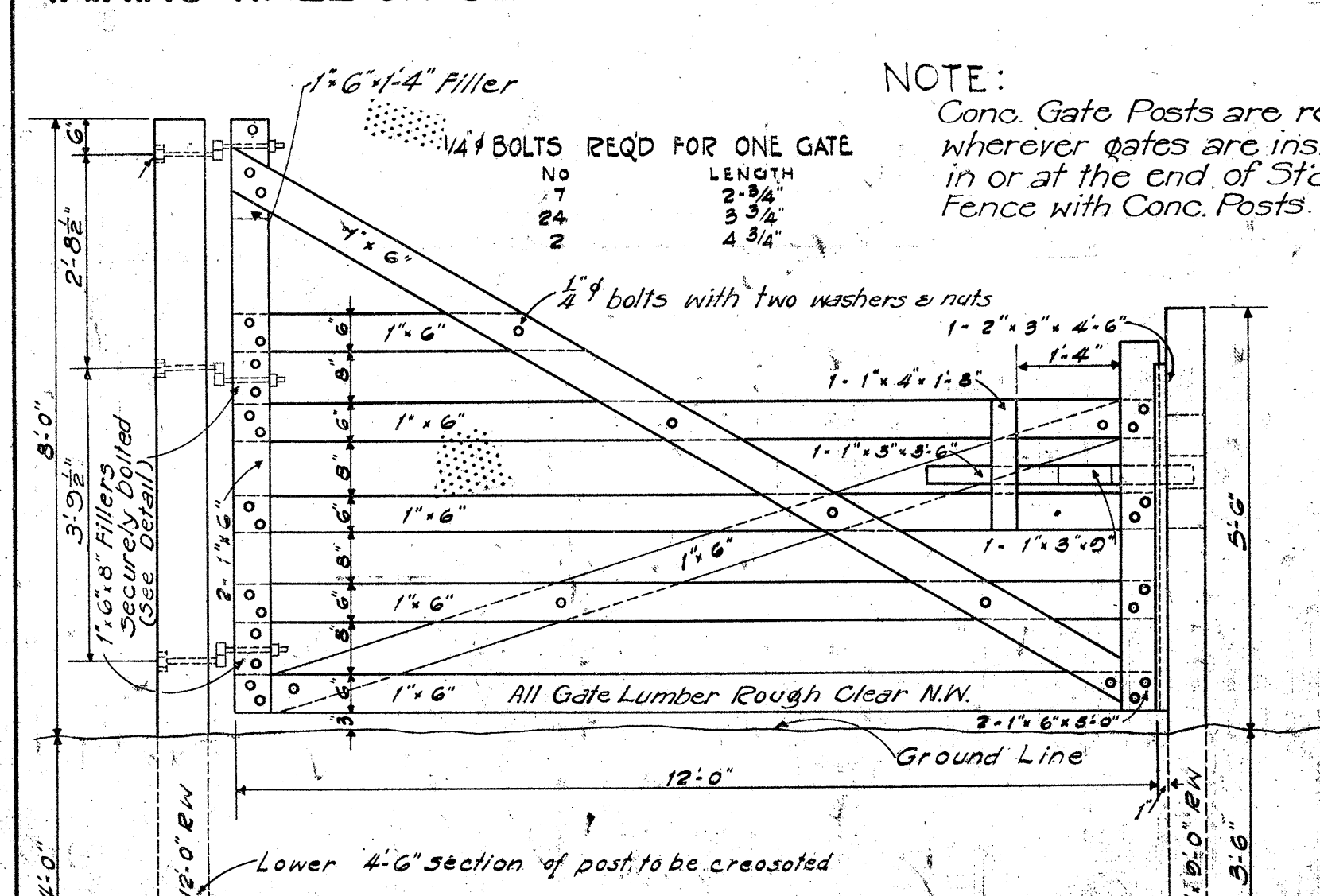


Notes: TO RESIDENT ENGINEER
Consider economy of reinf. conc. for high retaining walls which do not originate on plan layout.

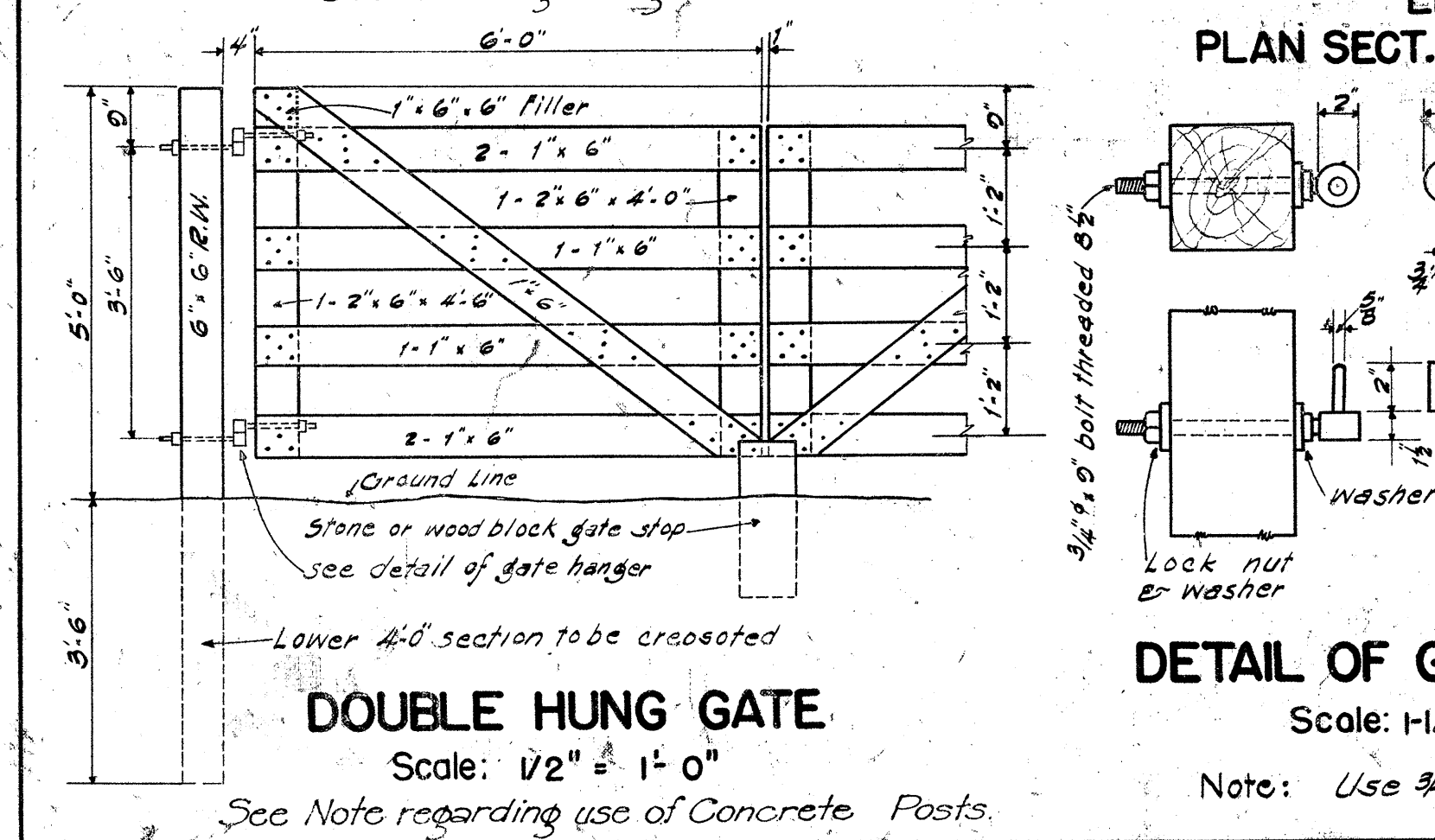


STANDARD SECTION OF LOW MASONRY RETAINING WALL OR SEAWALL

STANDARD SECTION OF HIGH CEMENT RUBBLE MASONRY RETAINING WALL OR SEAWALL



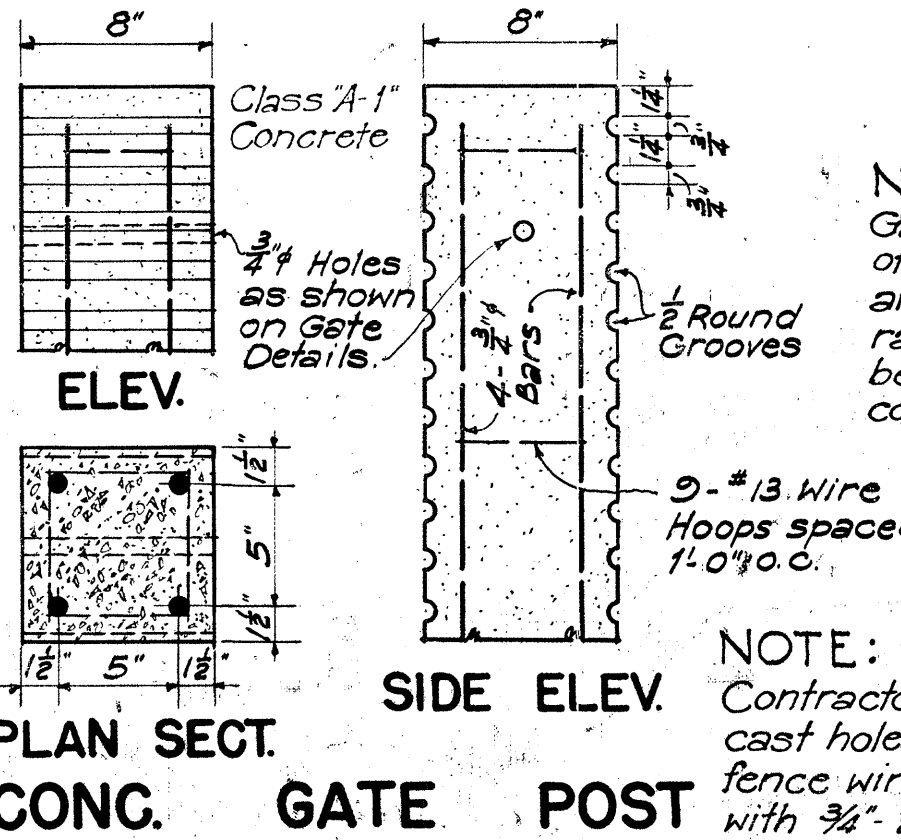
DETAIL OF STANDARD CATTLE GATE



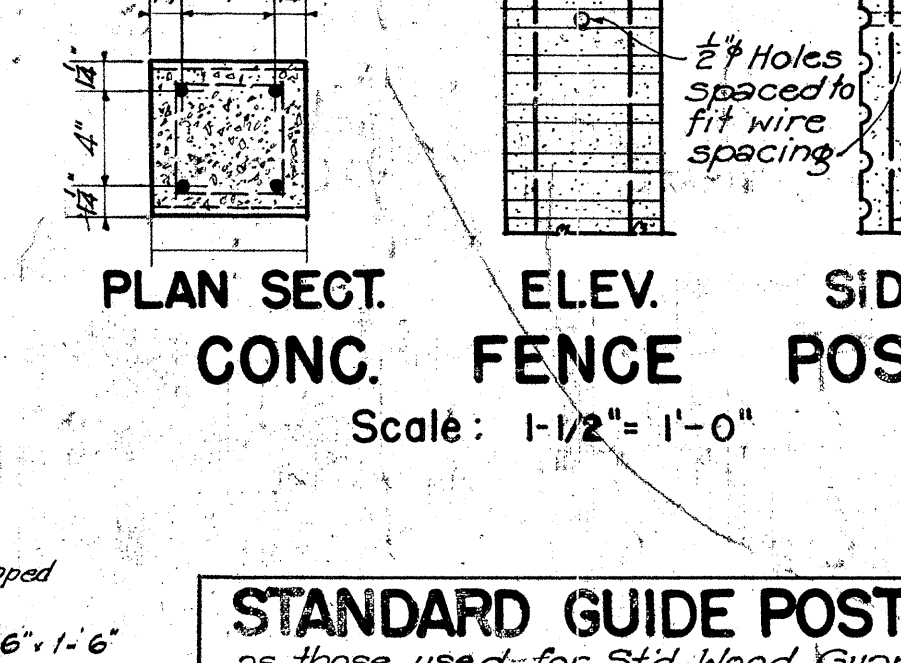
DOUBLE HUNG GATE

Data	Standard	Masonry	Drop	Intake	Where Variable Equals
0'	0	L = D + 6"	Cu. Yds		
22 1/2"	18"	2'-0"	2.41	4'-6"	
29"	24"	2'-6"	2.89	5'-0"	
35 1/2"	30"	3'-0"	3.38	5'-6"	
42"	36"	3'-6"	3.92	6'-0"	

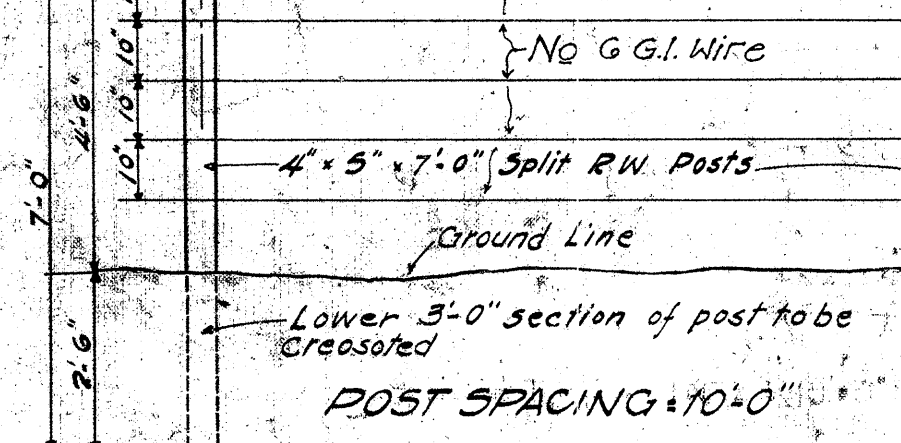
NOTE: Dimension "X" is assumed as 2'-4" in figuring the above quantities.



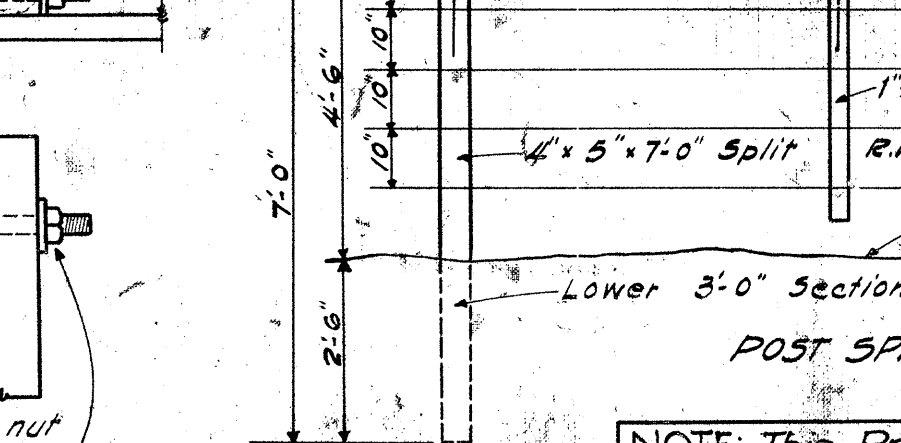
STANDARD MASONRY DROP INTAKE



CONC. GATE POST

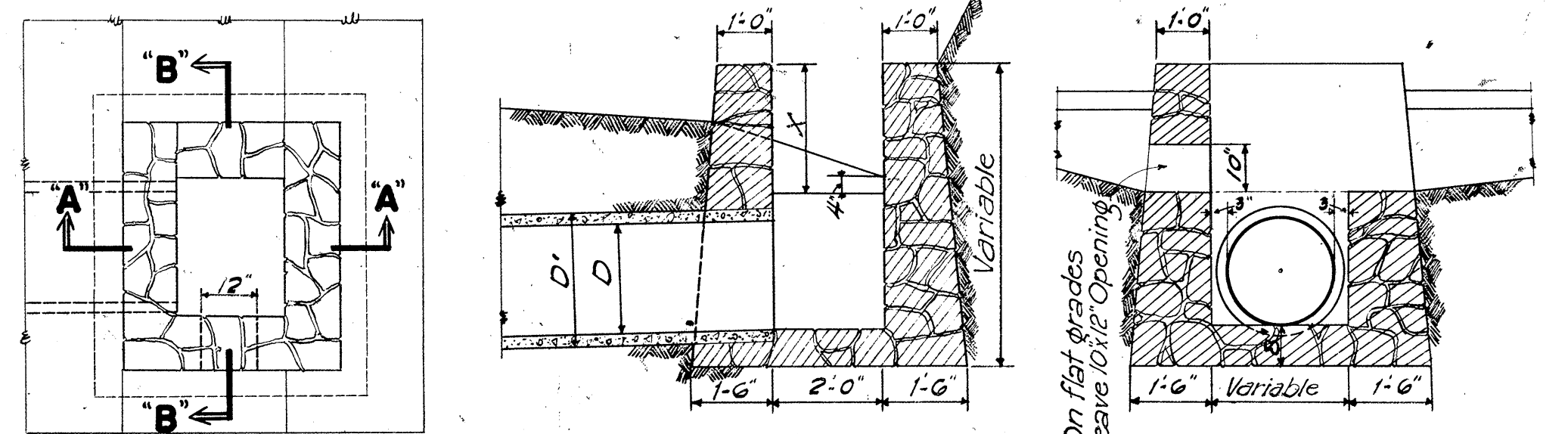


CONC. FENCE POST

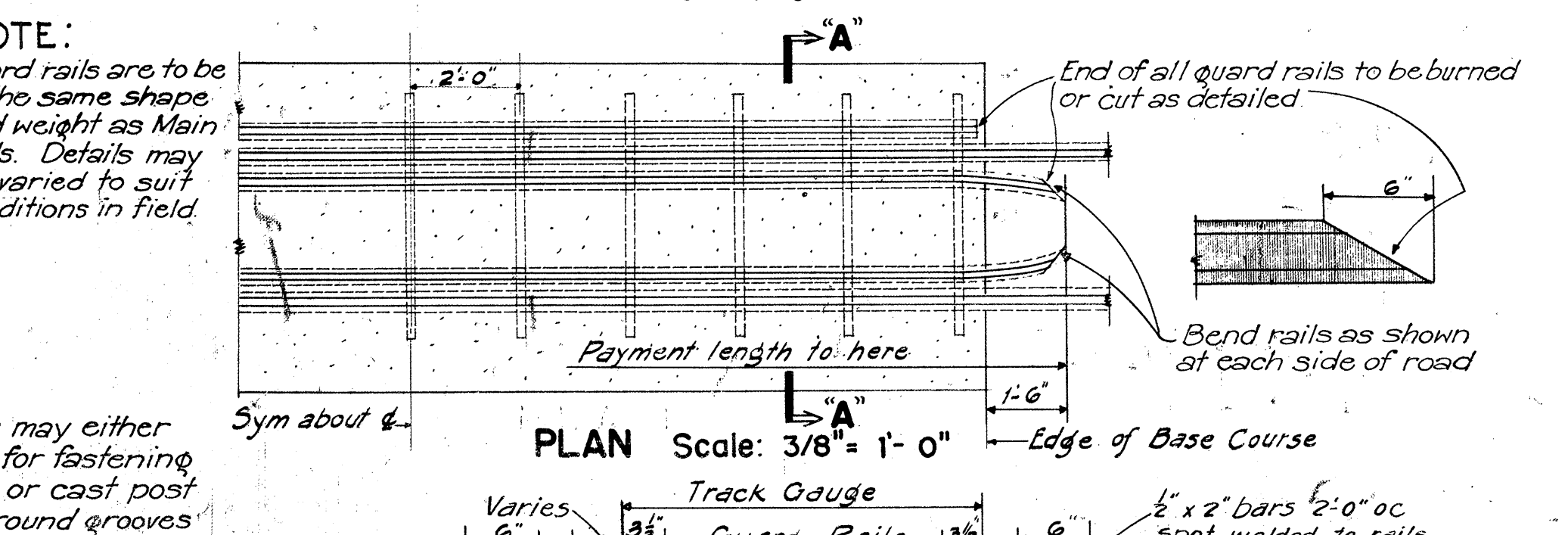


STANDARD GUIDE POSTS

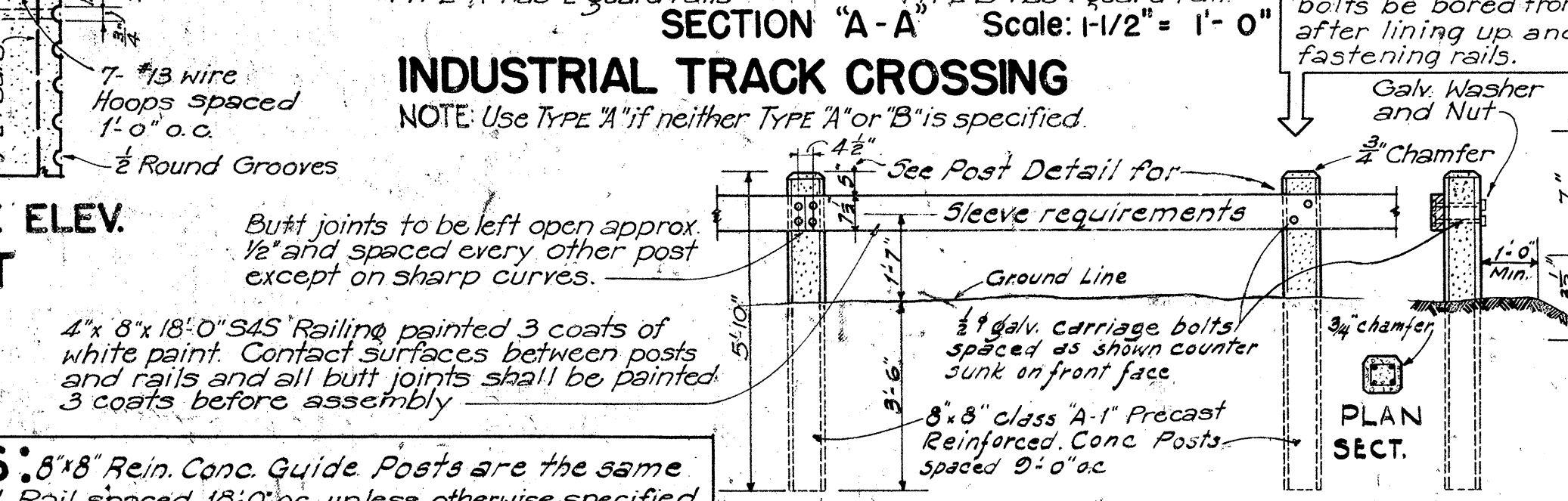
DETAILS OF STANDARD WIRE FENCE WITH WOODEN POSTS



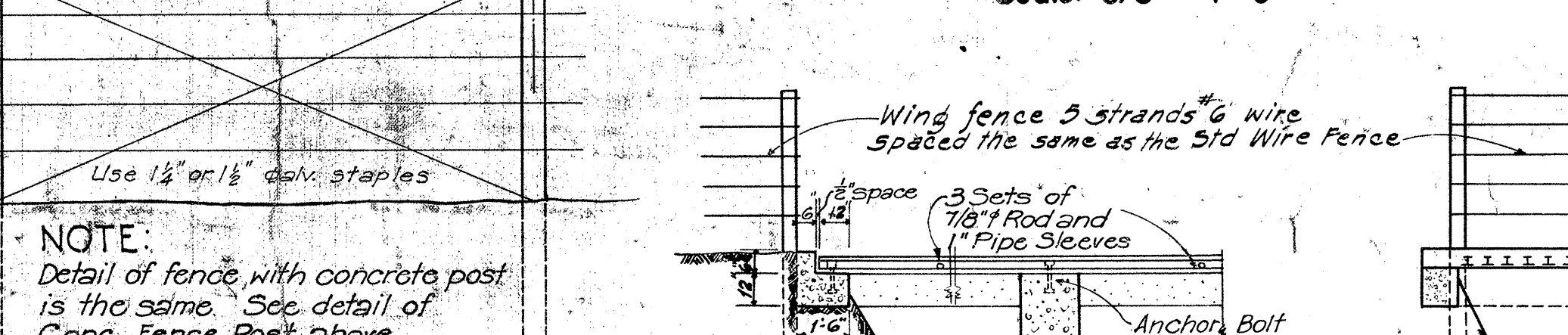
STANDARD MASONRY DROP INTAKE



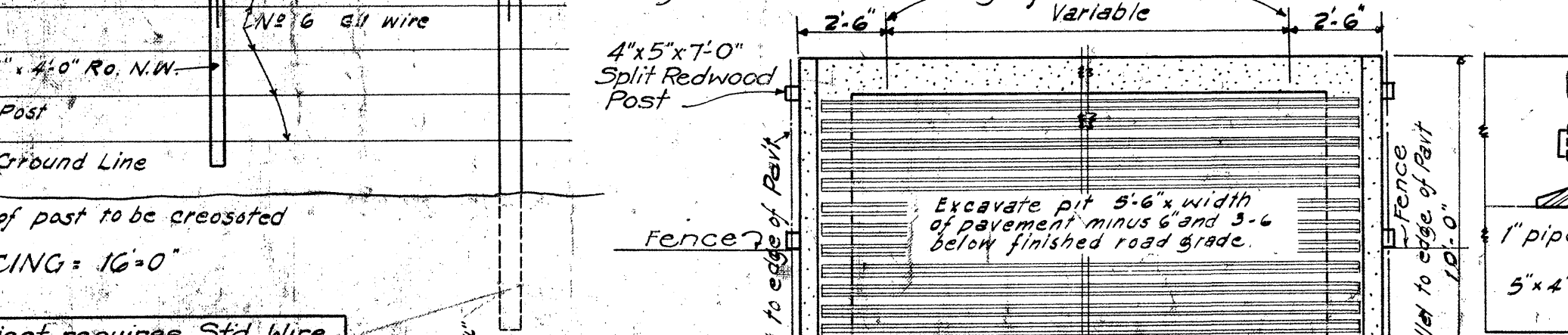
INDUSTRIAL TRACK CROSSING



STANDARD WOOD GUARD RAIL

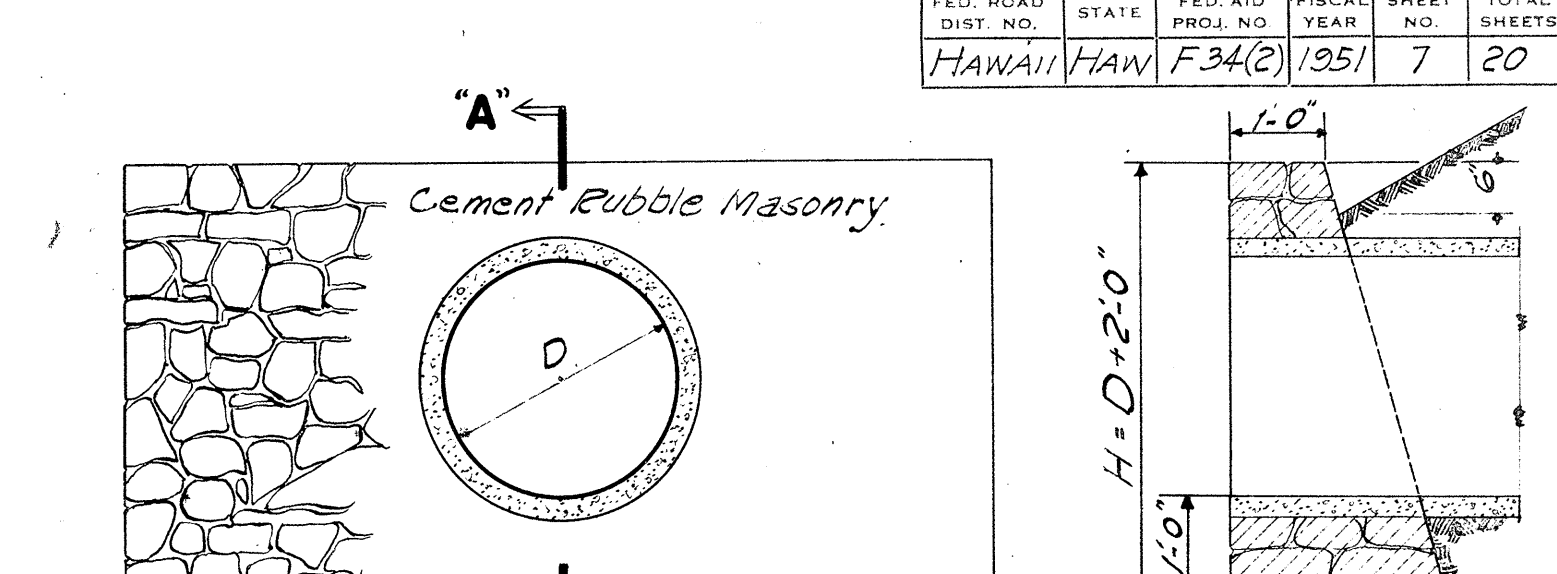


DETAILS OF CATTLE GUARD

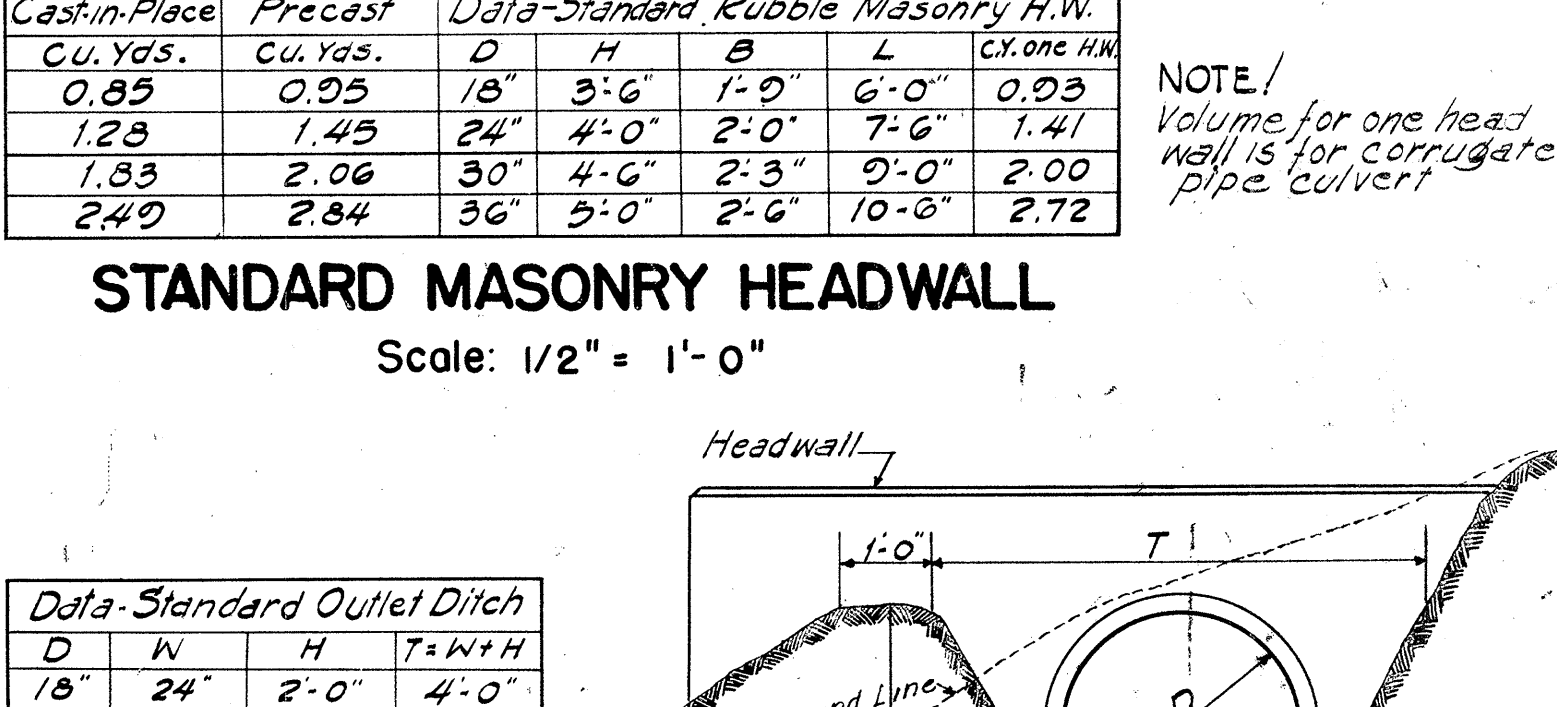


DETAILS OF CATTLE GUARD

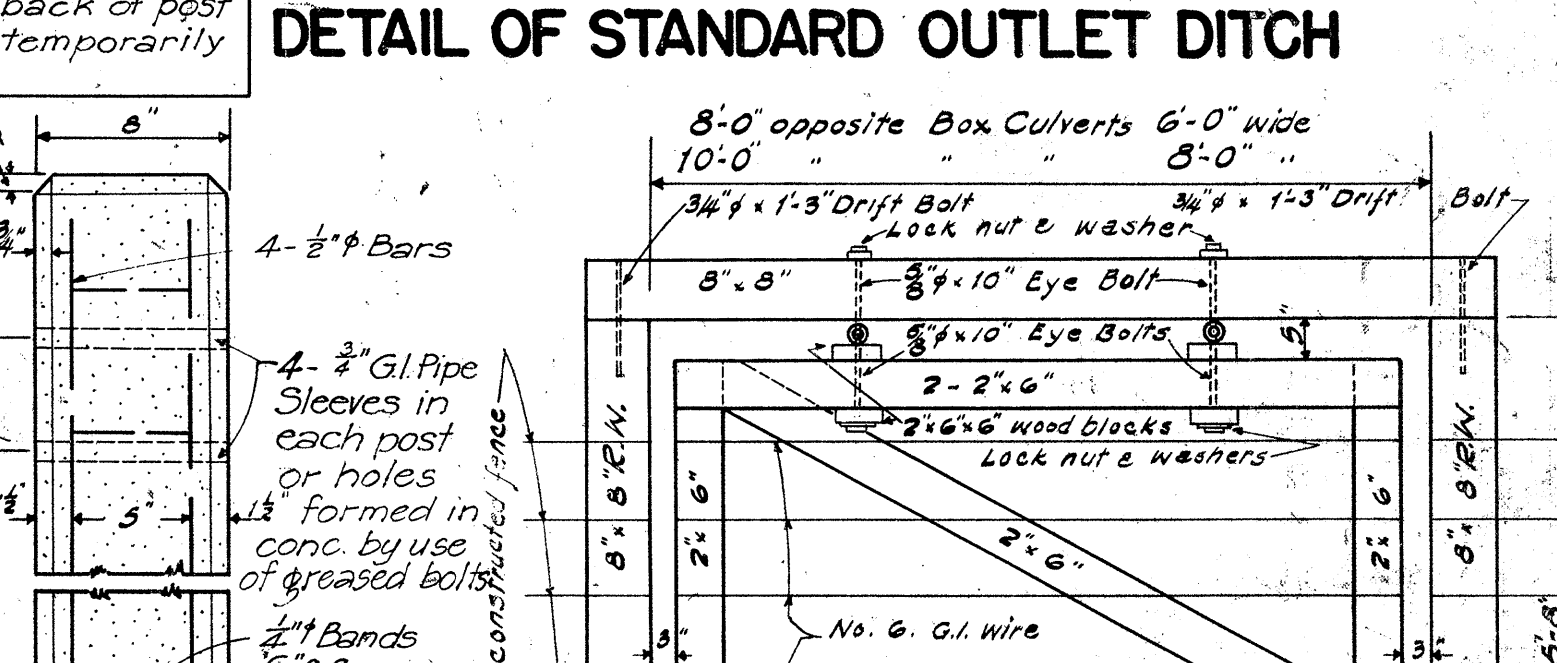
DETAILS OF CATTLE GUARD



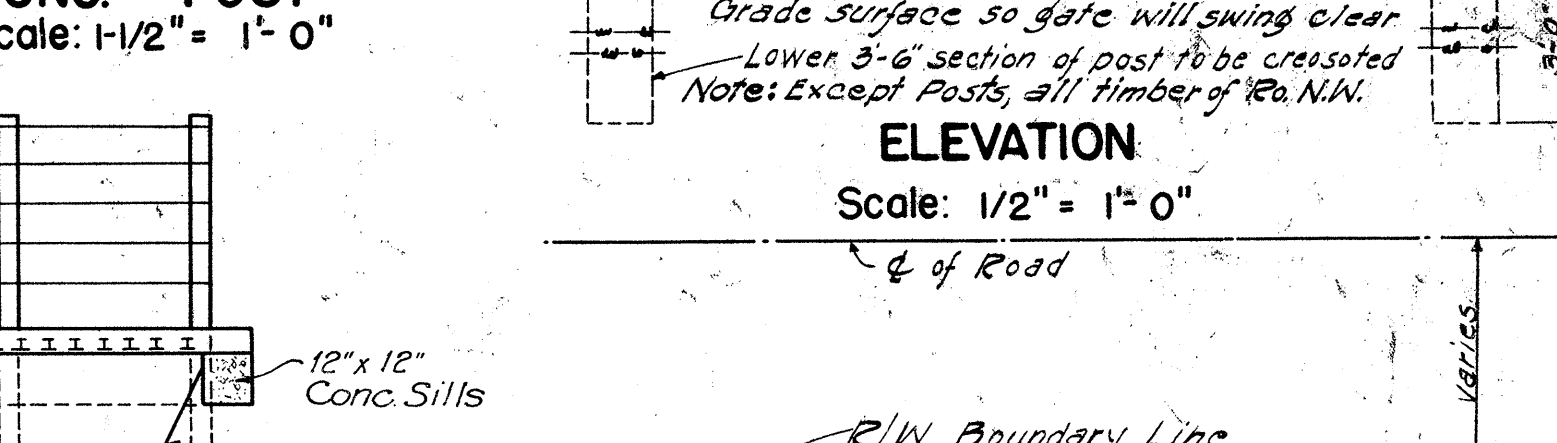
STANDARD MASONRY HEADWALL



DETAIL OF STANDARD OUTLET DITCH



DETAIL OF STANDARD OUTLET DITCH



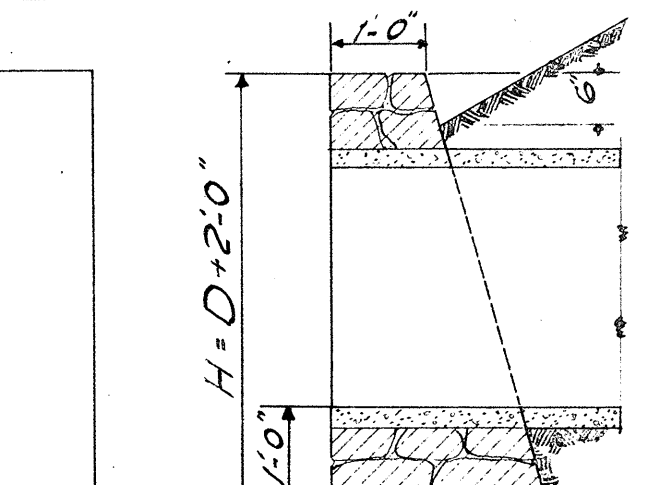
LAYOUT SHOWING HURDLE PLACED BELOW CULVERT IN A POSITION WHICH WILL BE CATTLE TIGHT

DETAILS OF HURDLE

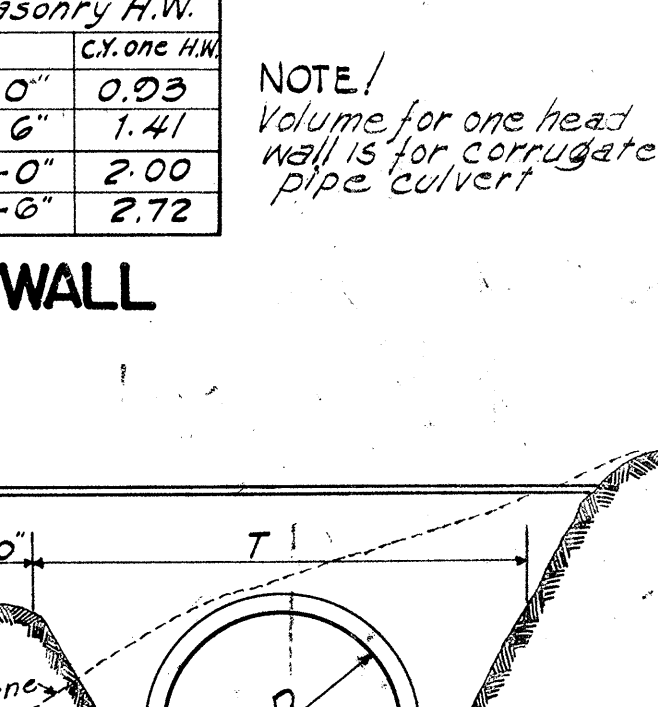
STANDARD DETAILS

STANDARD DETAILS

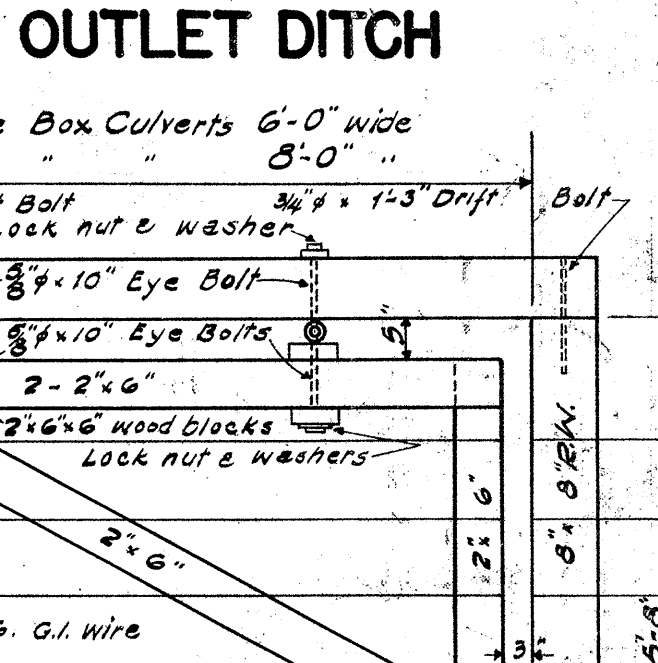
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F34(2)	1951	7	20



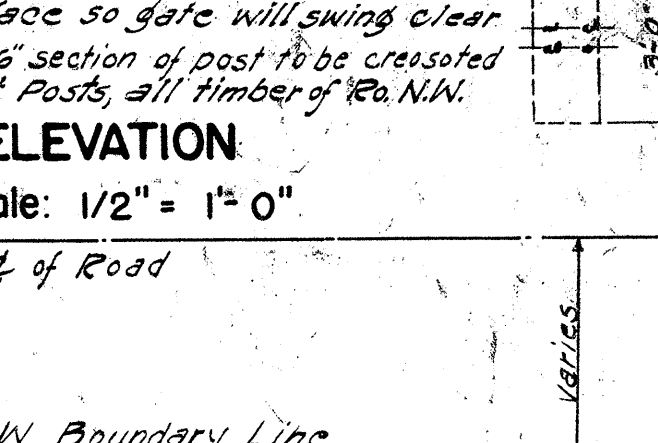
SECTION "A-A"



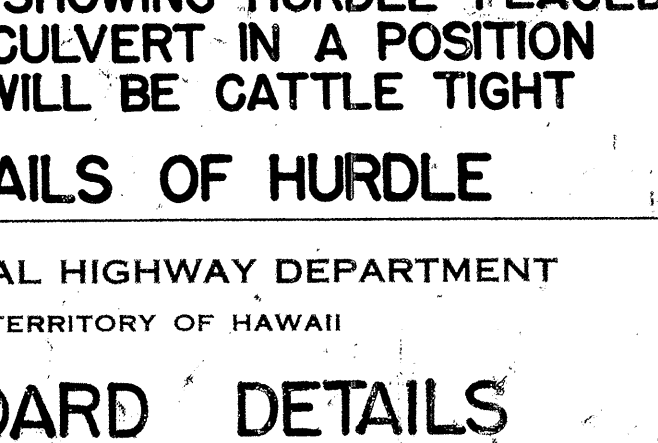
SECTION "A-A"



SECTION "A-A"



SECTION "A-A"



SECTION "A-A"

SECTION "A-A"

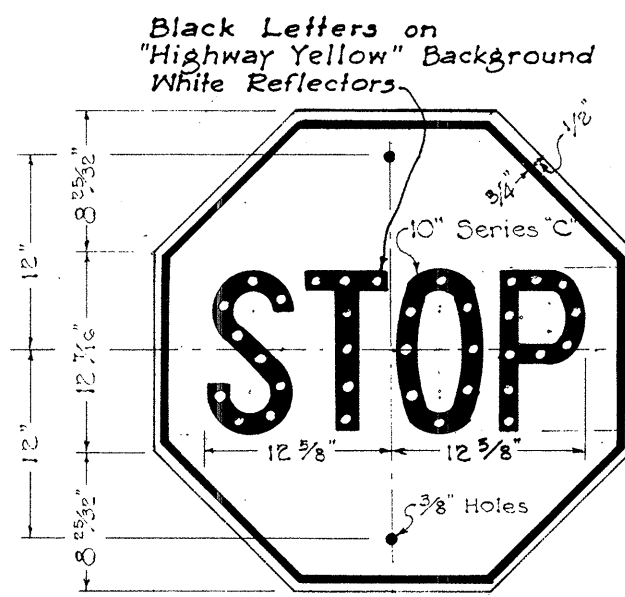


1. **THE** 2. **THE** 3. **THE** 4. **THE**

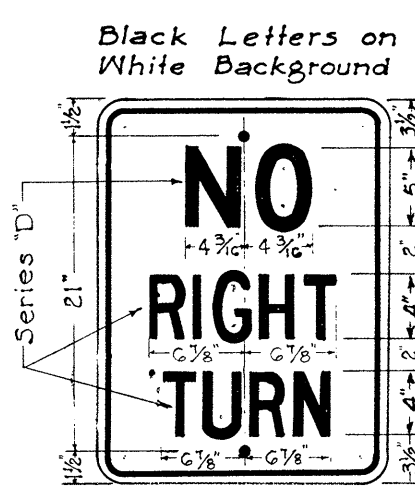
Scale. $1/2" = 1' - 0"$

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

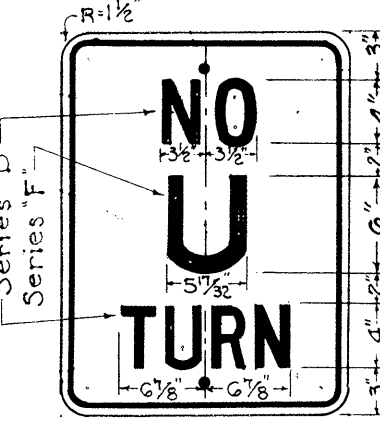
Cast-in-Place	Date: Standard Concrete Headwall					Steel One Headwall			
Cu. Yds.	D	B	L	H	Conc. one H.W.	No. of Bars	Size	Length	Wt. Lb.
002 Cu. Yds.	13	1'-6"	6'-0"	4'-0"	100 Cu. Yds.	4	3/4"	5'-6"	33
125 " "	24	1'-6"	7'-6"	4'-6"	138 " "	4	"	7'-0"	42
105 " "	30	2'-0"	9'-0"	5'-0"	217 " "	4	"	8'-6"	51
245 " "	36	2'-0"	10'-6"	5'-6"	274 " "	4	"	10'-0"	60



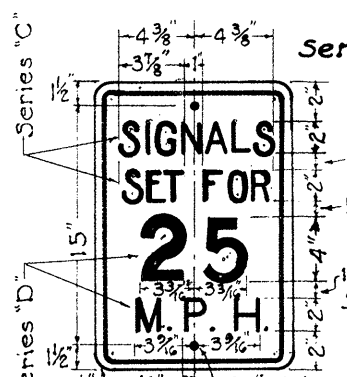
R-1
30" x 30"



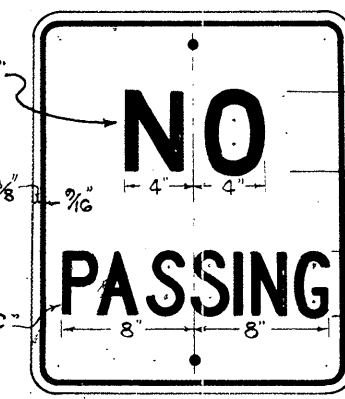
R-6
18" x 24"



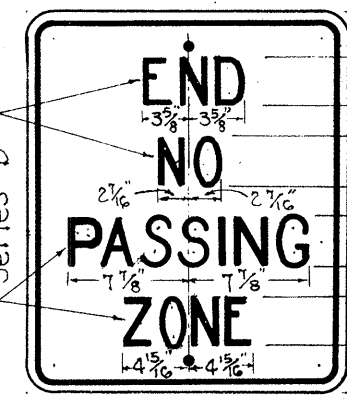
R-8
18" x 24"



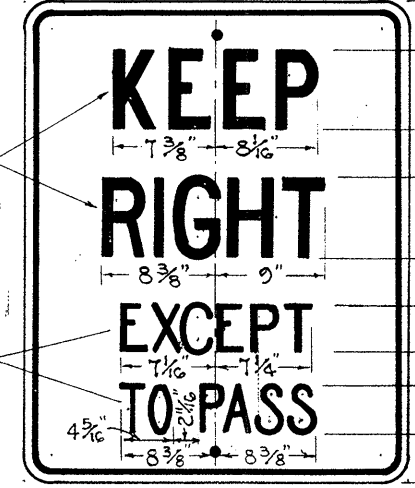
R-10
12" x 18"



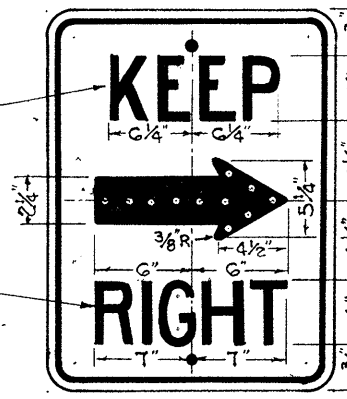
R-11
20" x 24"



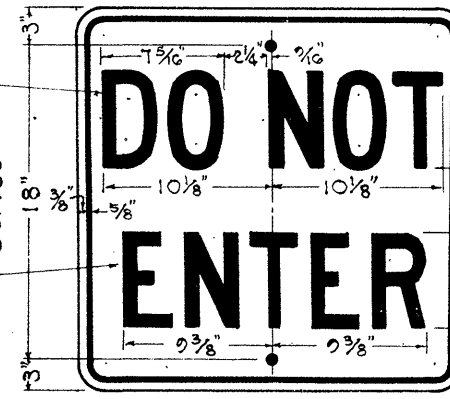
R-12
20" x 24"



R-13
24" x 30"



R-14
18" x 24"



R-15
24" x 24"



R-16-R
*R-16-L
36" x 12"



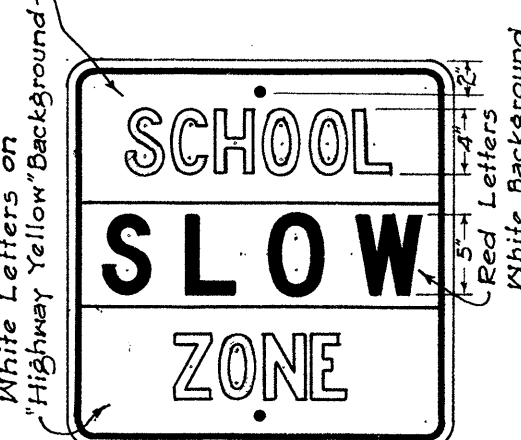
R-18
12" x 18"



R-26
12" x 18"



R-29
24" x 30"



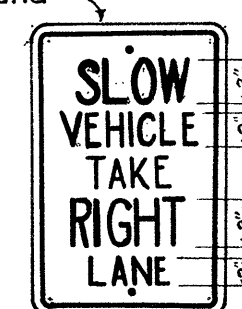
R-41-S
24" x 24"



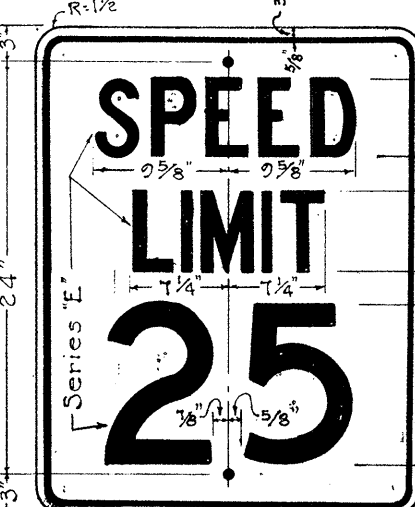
R-42-S
12" x 18"



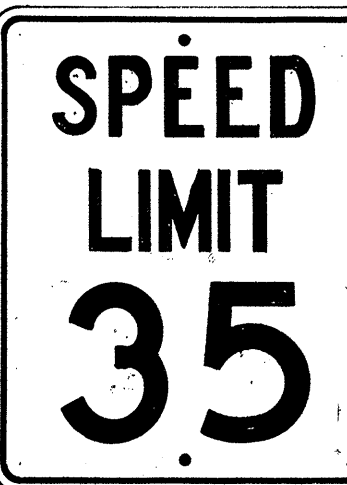
R-43-S
12" x 18"



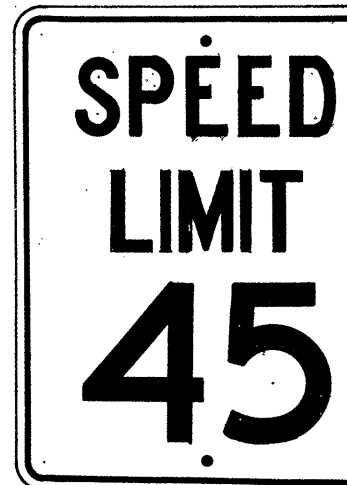
R-44-S
12" x 18"



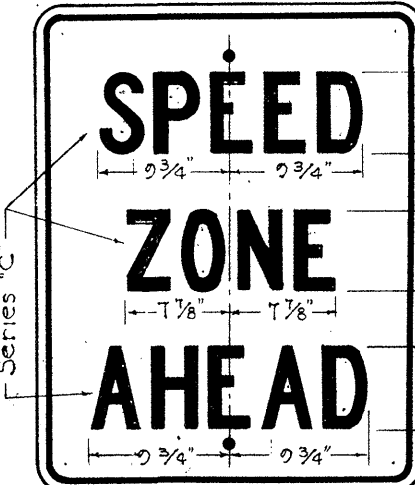
R-102-A
24" x 30"



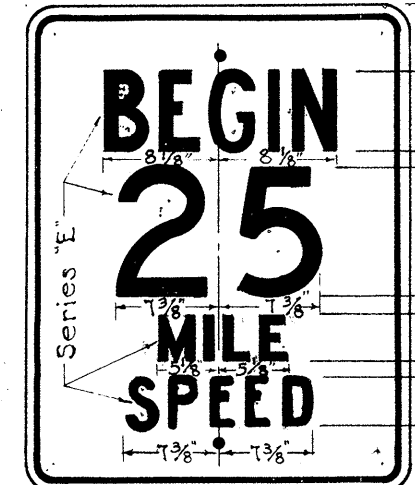
R-102-B
24" x 30"



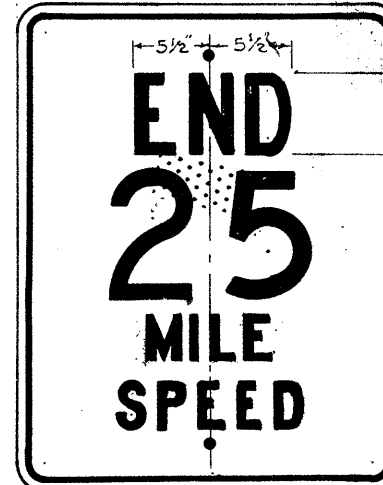
R-102-C
24" x 30"



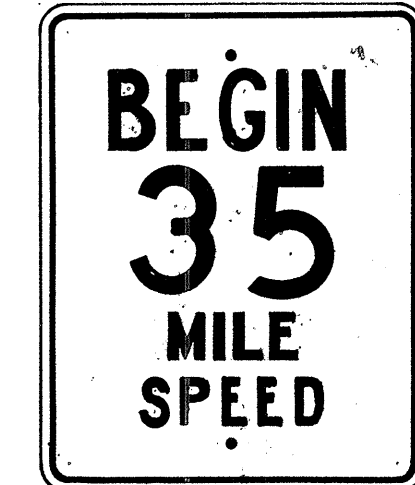
R-104
24" x 30"



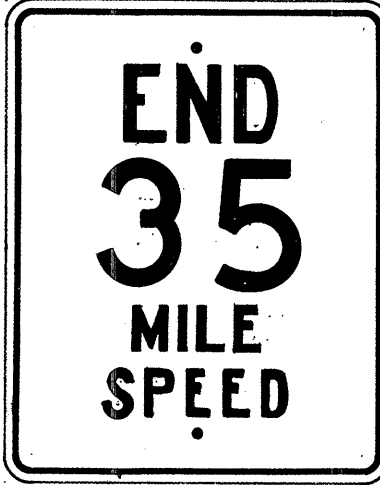
R-105-A
24" x 30"



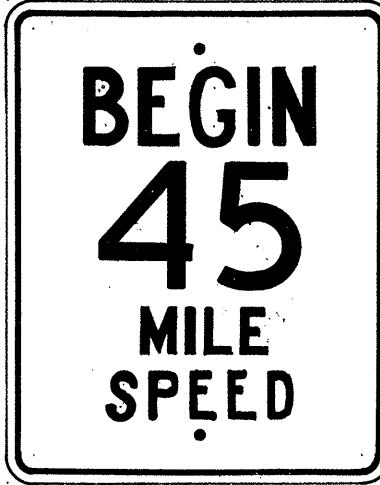
R-105-B
24" x 30"



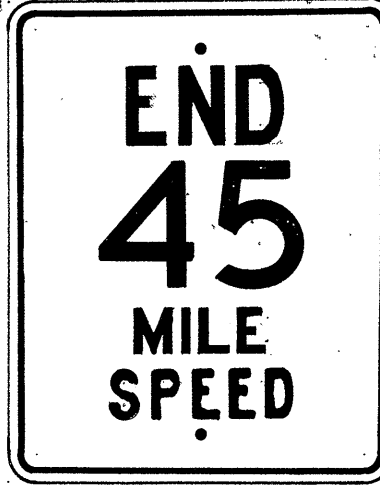
R-105-C
24" x 30"



R-105-D
24" x 30"



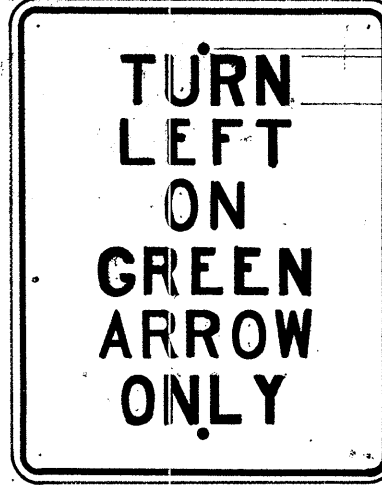
R-105-E
24" x 30"



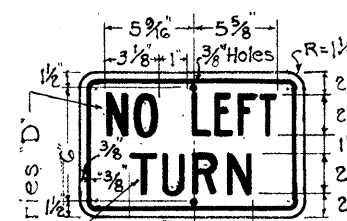
R-105-F
24" x 30"



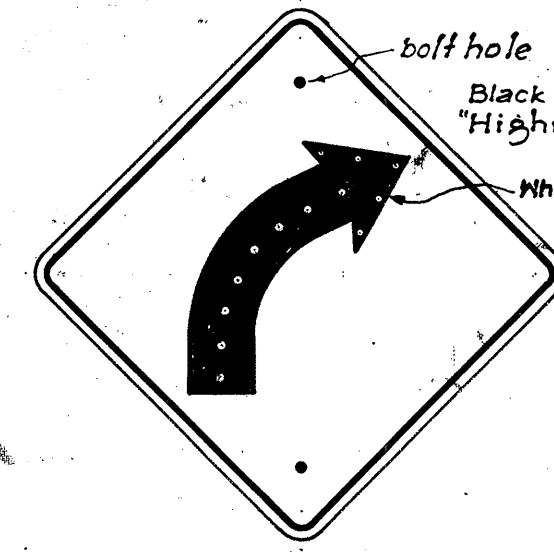
R-106
24" x 30"



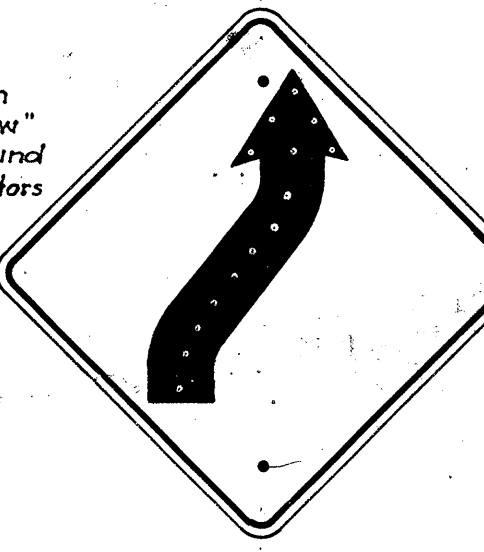
R-107-A
24" x 30"



R-107
14" x 9"



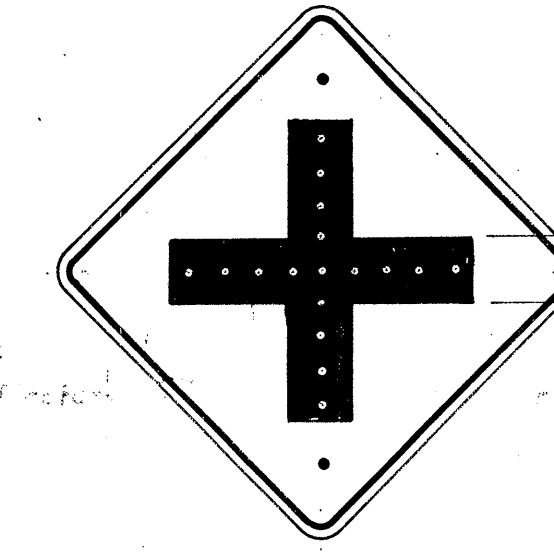
W-2-R
*W-2-L
24" x 24"



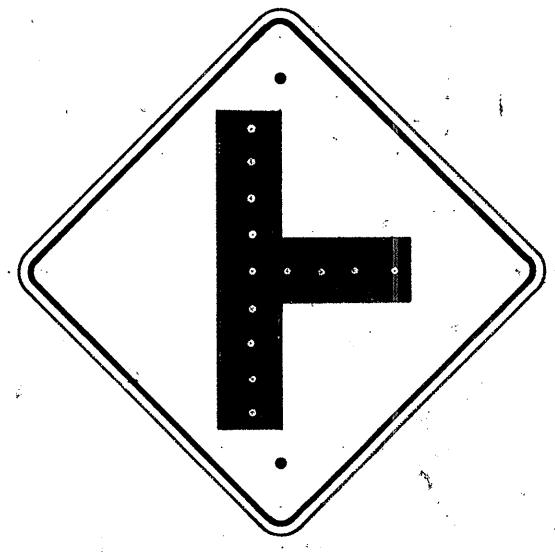
W-4-R
*W-4-L
24" x 24"



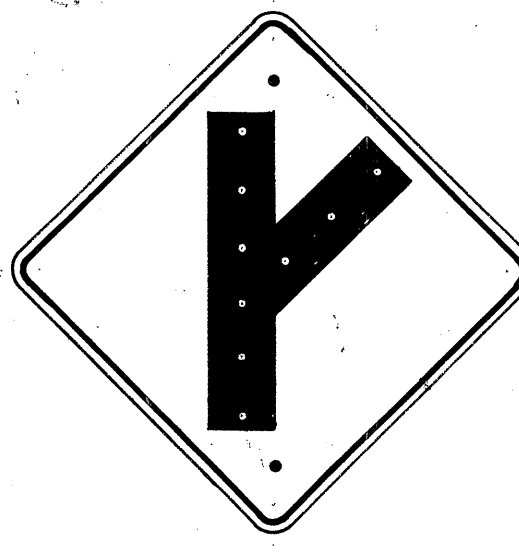
W-5-R
*W-5-L
24" x 24"



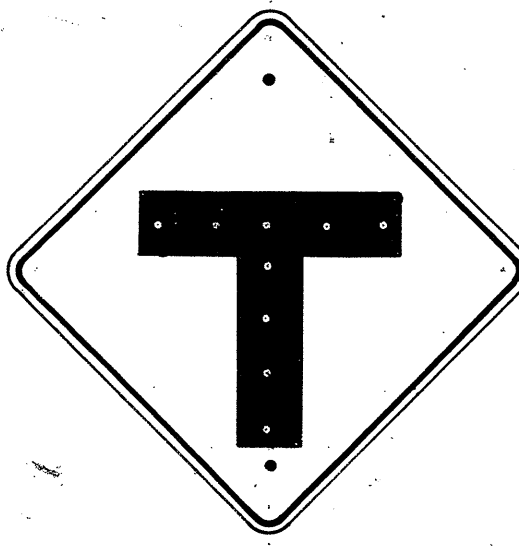
W-6
24" x 24"



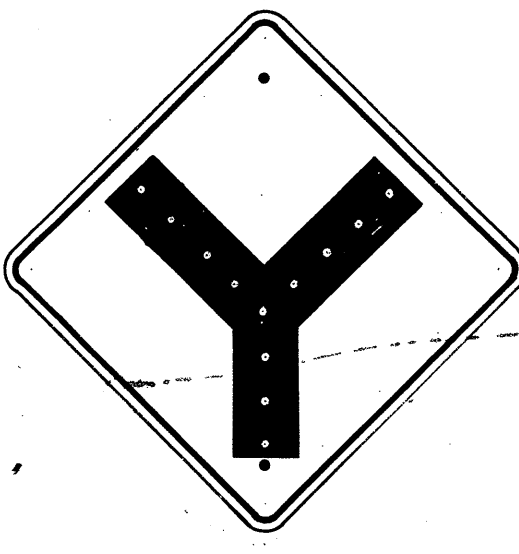
W-7
24" x 24"



W-8-R
*W-8-L
24" x 24"



W-9
24" x 24"



W-10
24" x 24"



W-13
24" x 24"



W-14
24" x 24"



W-14-A
24" x 24"



W-19
30" x 30"



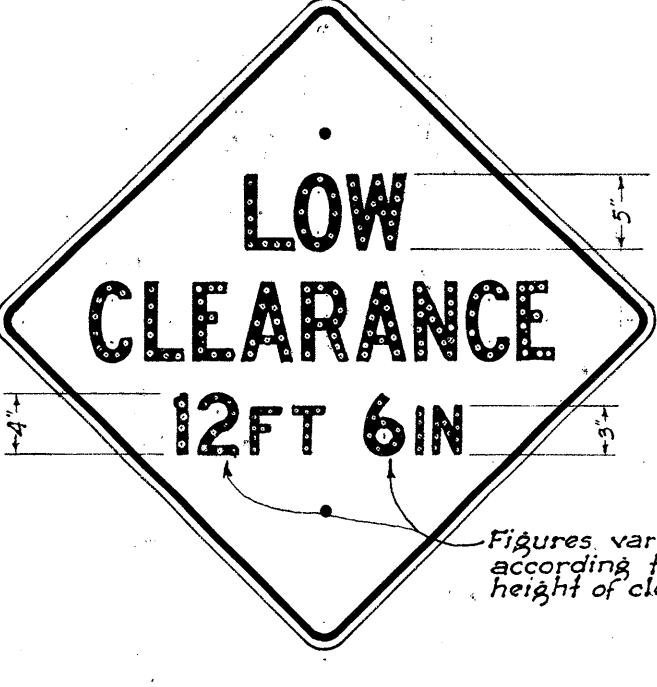
W-20
30" x 30"



W-21
30" x 30"



W-22
24" x 24"



W-24
30" x 30"



W-25
24" x 24"



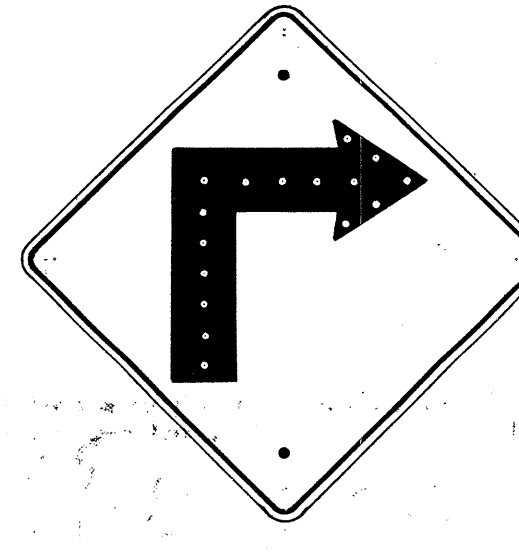
W-29
24" x 24"



W-38
24" x 24"



W-39
24" x 24"



W-1-R
*W-1-L
24" x 24"

All letters and figures shall be of size and design shown and shall conform with "Standard Alphabets for Highway Signs" as set forth by the Public Roads Administration, Federal Works Agency. Series "C" letters and Series "D" numerals shall be used except where noted.

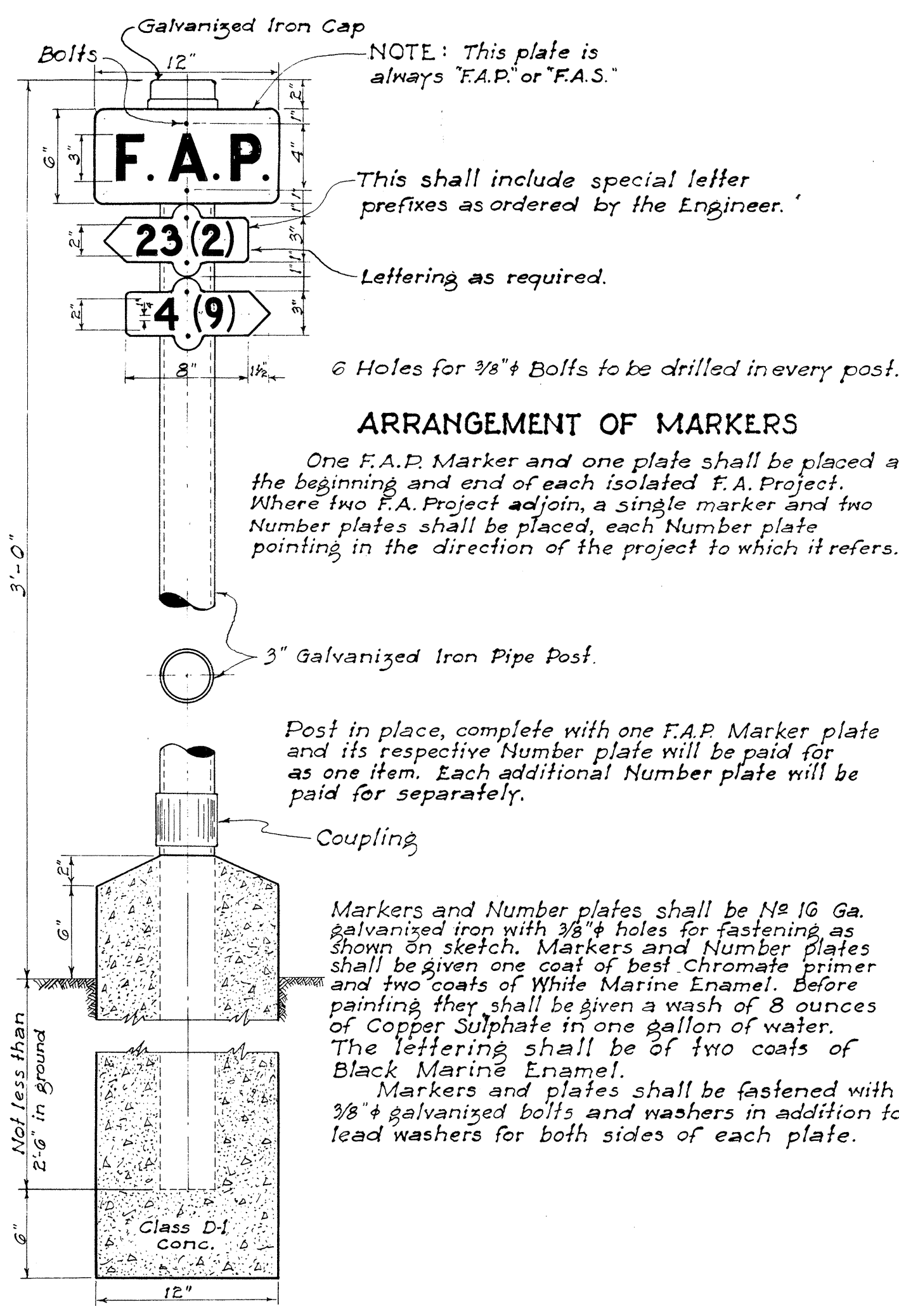
Note: All Regulatory (R) signs shall have black letters on a white background except where noted. All Warning (W) signs shall have black letters or figures on a "Highway Yellow" background. *Signs shall be similar but opposite in direction. See Specifications for Materials and Finish.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
REGULATORY & WARNING SIGNS
Scale: 1" = 1'
APPROVED: *[Signature]* May 31, 1949
TERRITORIAL HIGHWAY ENGINEER

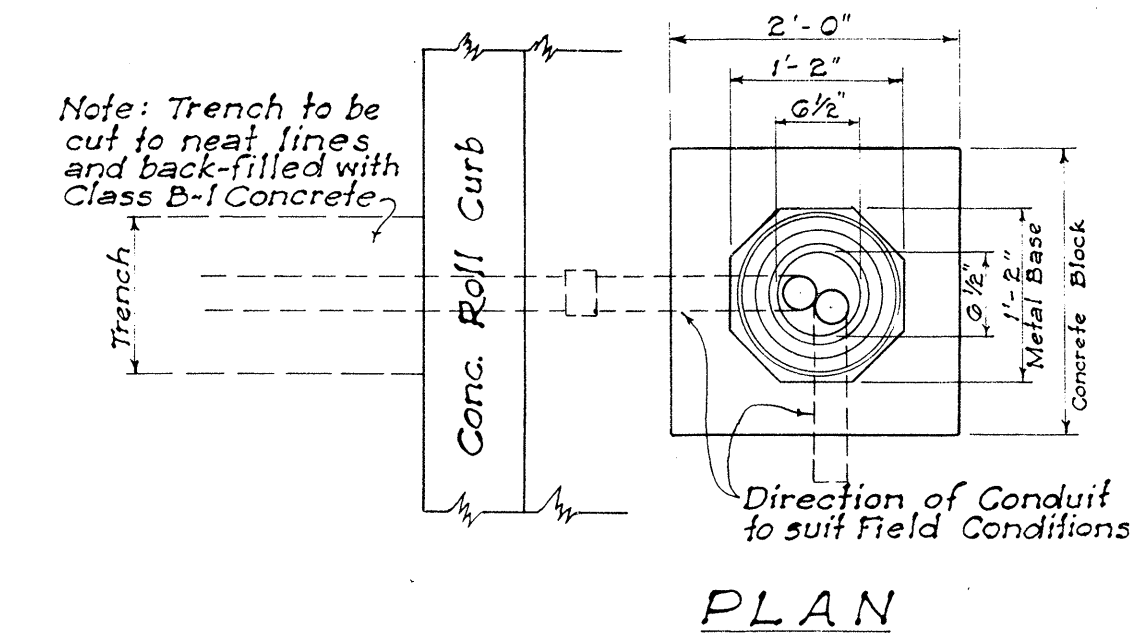
SHEET NO. OF SHEETS

5549.9

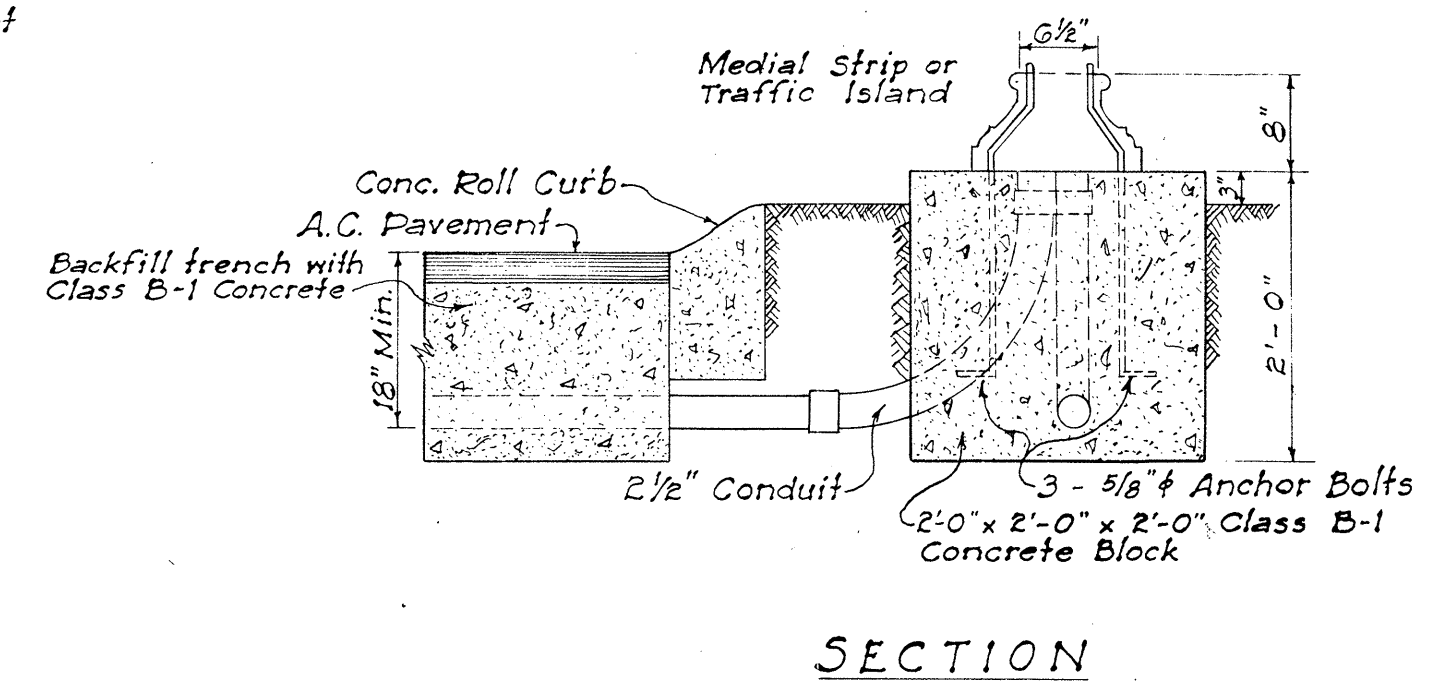
SURVEY PLOTTED BY: DATE: _____
DRAWN BY: T. Tokunaga
CHECKED BY: _____
NOTE BOOK: _____
QUANTITIES CHECKED BY: _____
No. _____



FEDERAL AID MARKER
Scale: 1 1/2" = 1'-0"

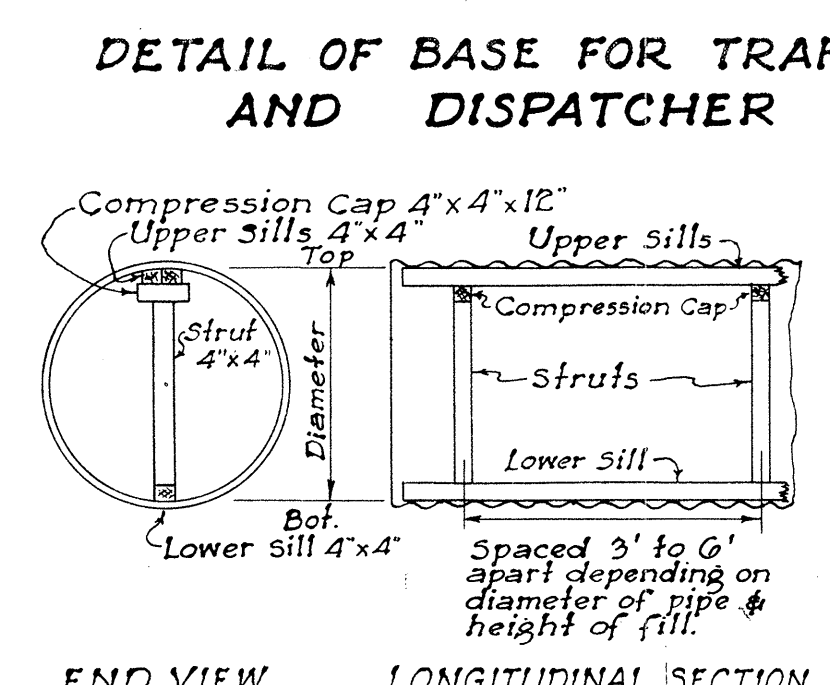


PLAN



SECTION

NOTE: Unless otherwise specified, all concrete for base for Traffic Standards, Pull Boxes, Concrete Jackets for Transite Ducts shall be Class B-1 Concrete.



END VIEW

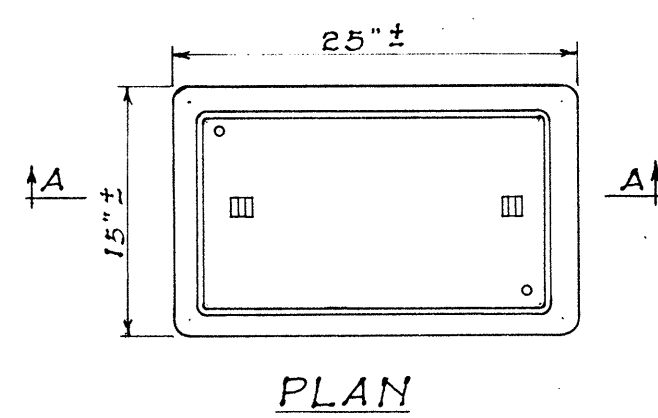
LONGITUDINAL SECTION

STRUTTING DIAGRAM & TABLE FOR CORRUGATED METAL PIPE CULVERT

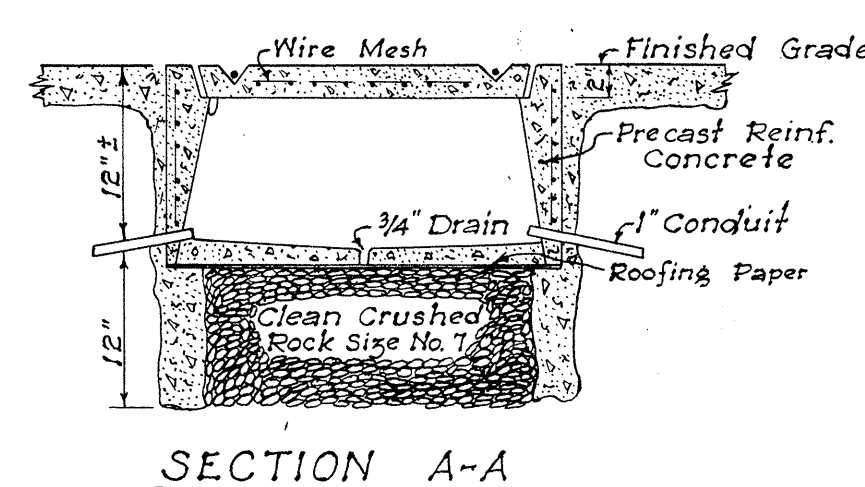
Diameter of Pipe in inches	Length of Struts in inches	Spacing of Struts in ft. for Various Heights					
		FILL 1' to 5'	FILL 5' to 10'	FILL 10' to 20'	FILL 20 to 30'	FILL Over 30'	
48	38 3/8	—	—	—	6	4	
54	44 3/4	6	6	6	6	4	
60	51	6	6	6	6	4	
66	57 1/4	6	6	6	6	4	
72	63 3/8	6	6	6	5	3.5	
78	69 1/8	6	6	6	4.5	3.5	
84	76 1/4	6	6	6	4	3	

NOTE: Length of Struts are based on 4"x4" timbers which is the minimum size recommended. If larger sills or compression caps are used, length of struts should be changed accordingly.

TYPICAL ROAD SECTION SHOWING TRAFFIC DETECTOR JUNCTION BOX AND DUCT

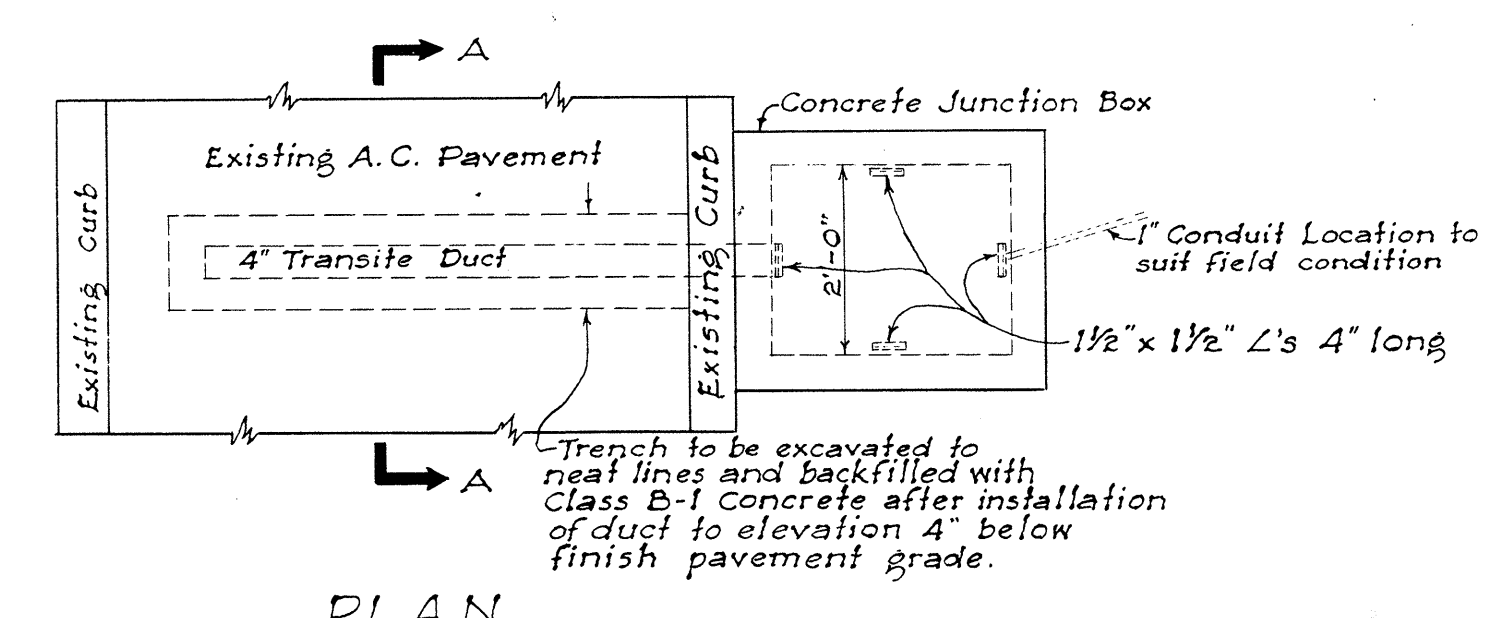


PLAN

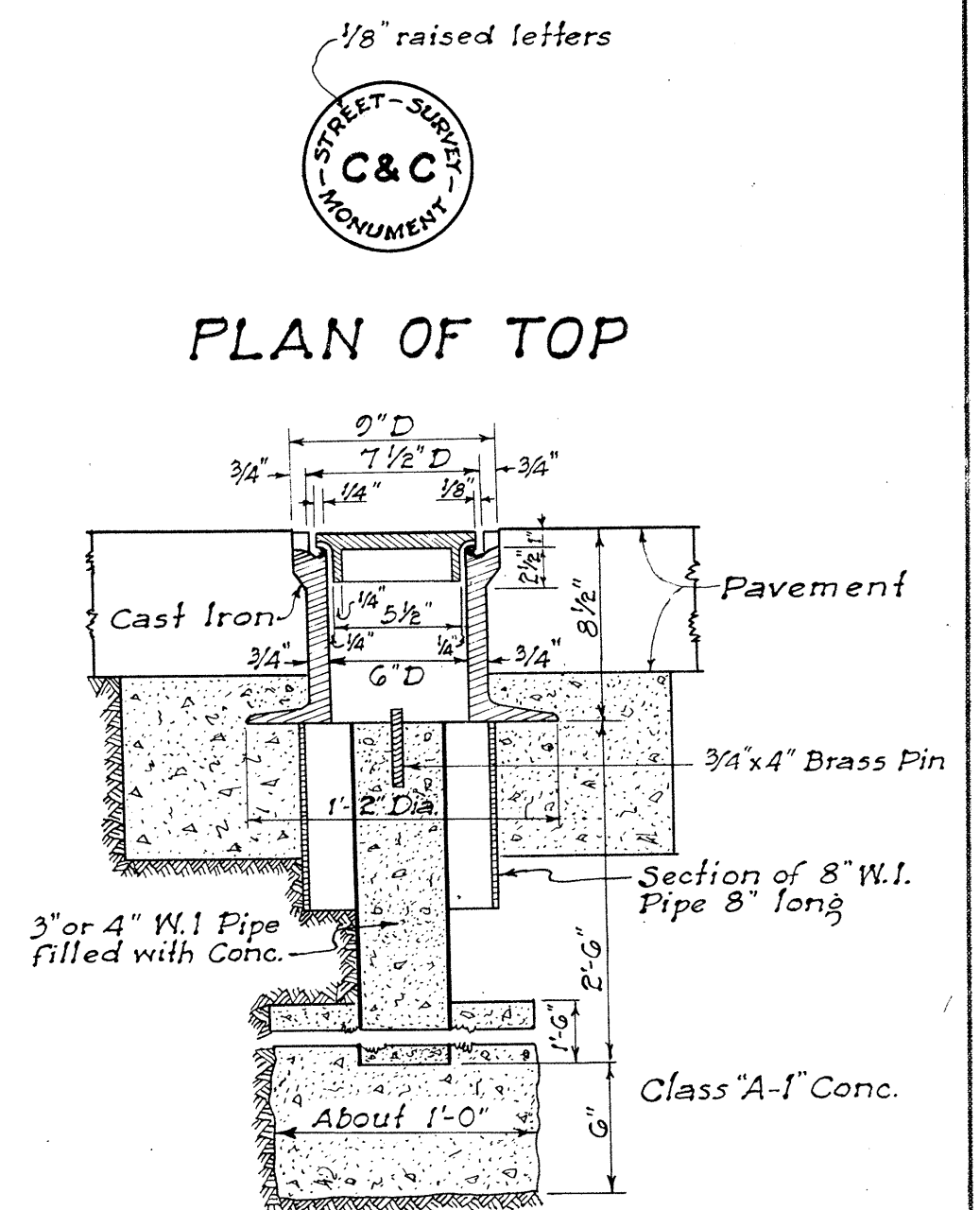


DETAIL OF PULL BOX
Scale: 1" = 1'-0"

PLAN OF COVER PLATE

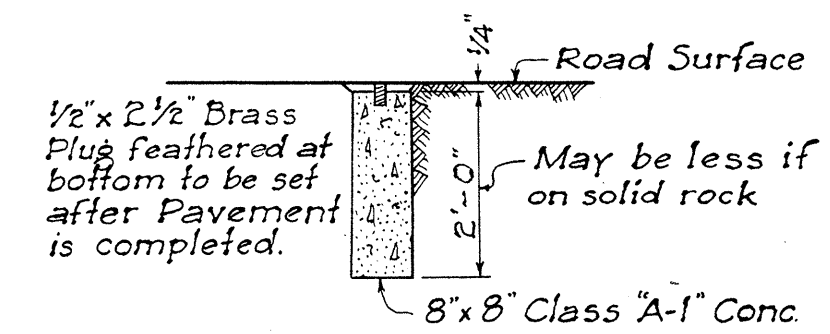


PLAN

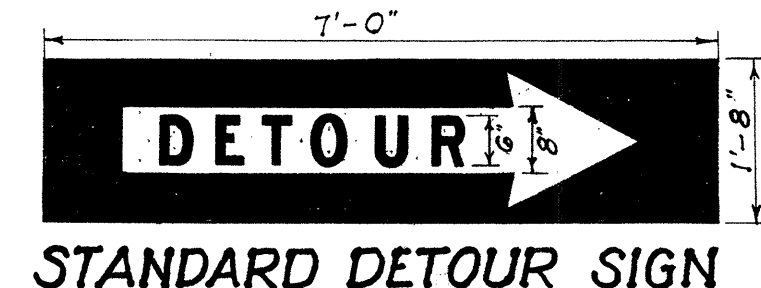


PLAN OF TOP

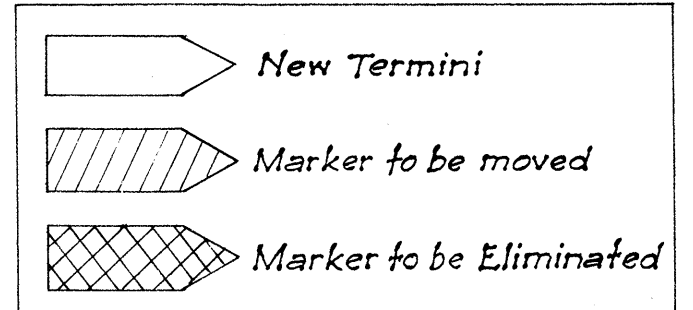
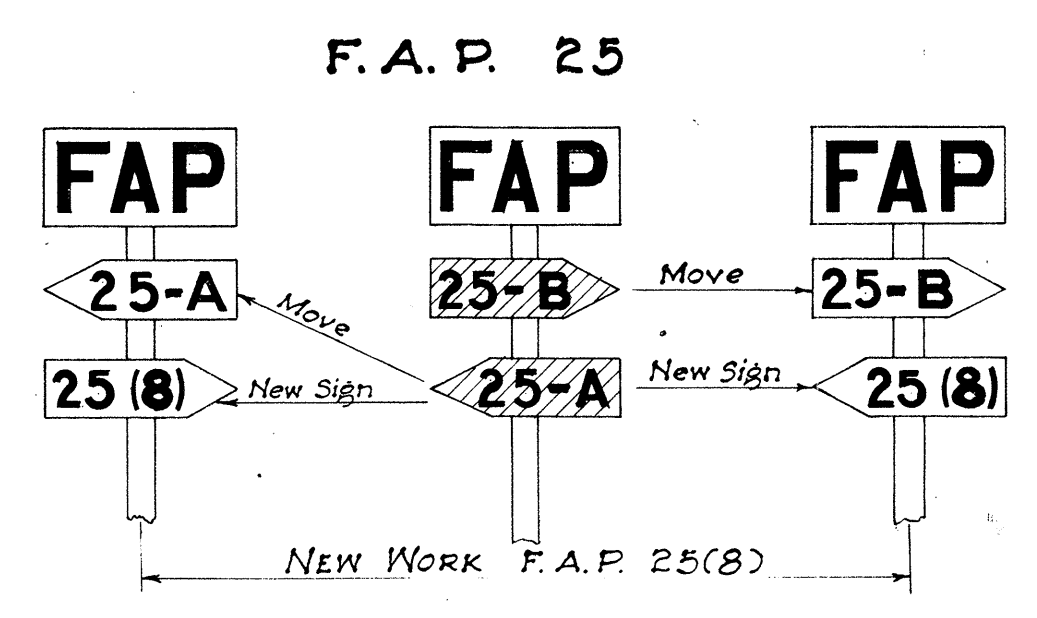
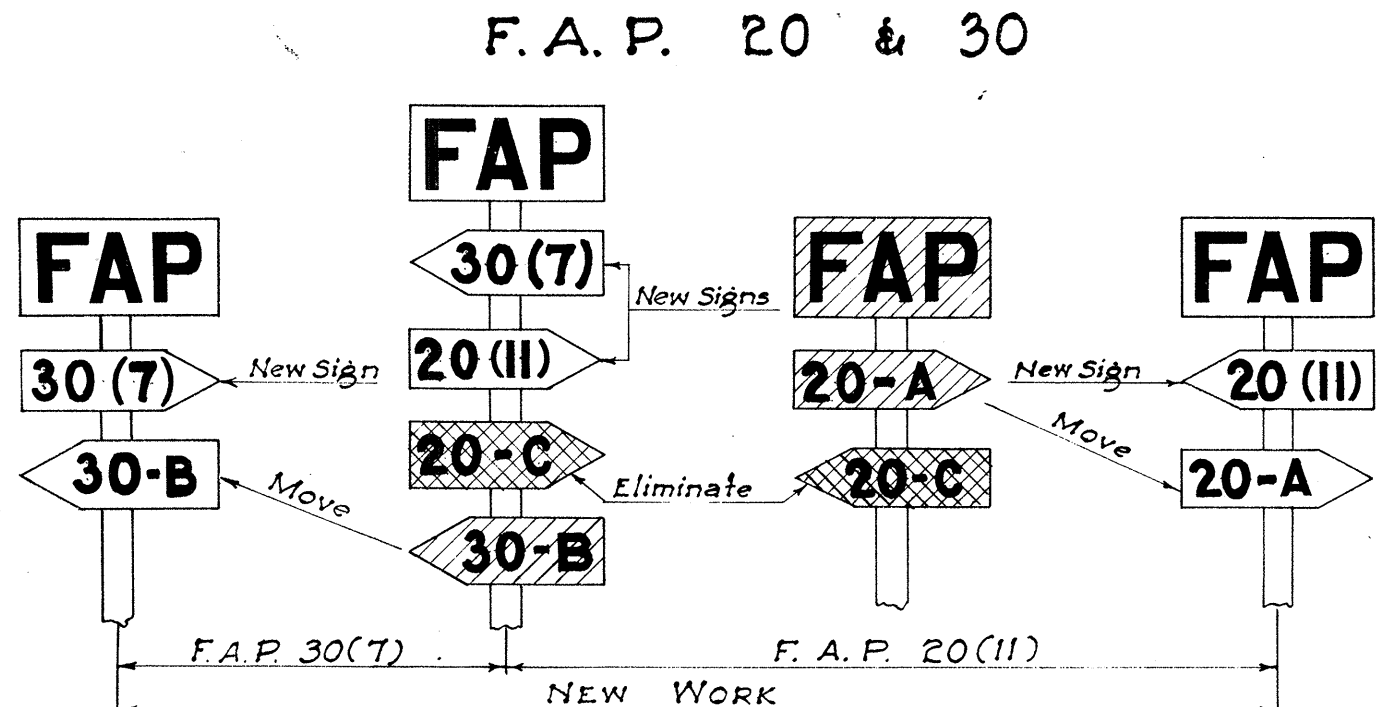
STANDARD C&C STREET SURVEY MONUMENT



CENTER LINE MONUMENT
Scale: 1/2" = 1'-0"



STANDARD DETOUR SIGN

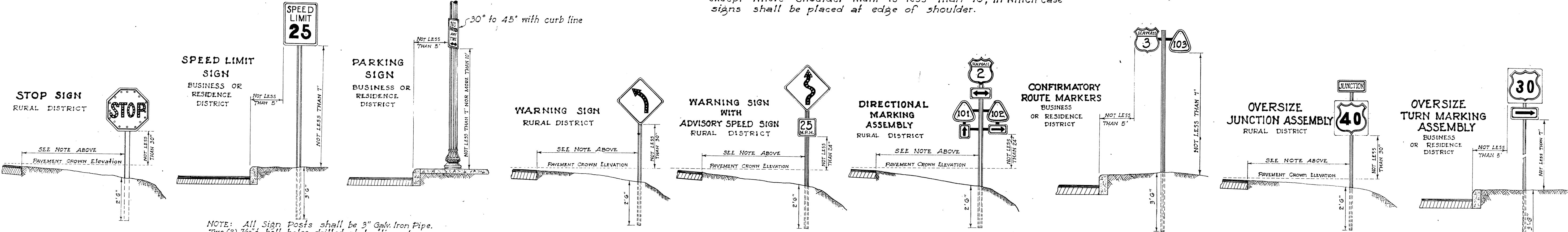


NOTE: Federal Aid Markers should be placed at the termini of suffix designated sections. Intermediate letter designated markers of adjacent sections located within the limits of new improvements should be moved to the termini of the new work. The same procedure would be followed on each successive improvement until all markers for letter designated sections are eventually eliminated.

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

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
STANDARD DETAILS
SCALES AS NOTED
APPROVED: *Handwritten Signature*
Territorial Highway Engineer
May 31, 1949

NOTE: All signs shall be placed 10' from edge of pavement except where shoulder width is less than 10'; in which case signs shall be placed at edge of shoulder.

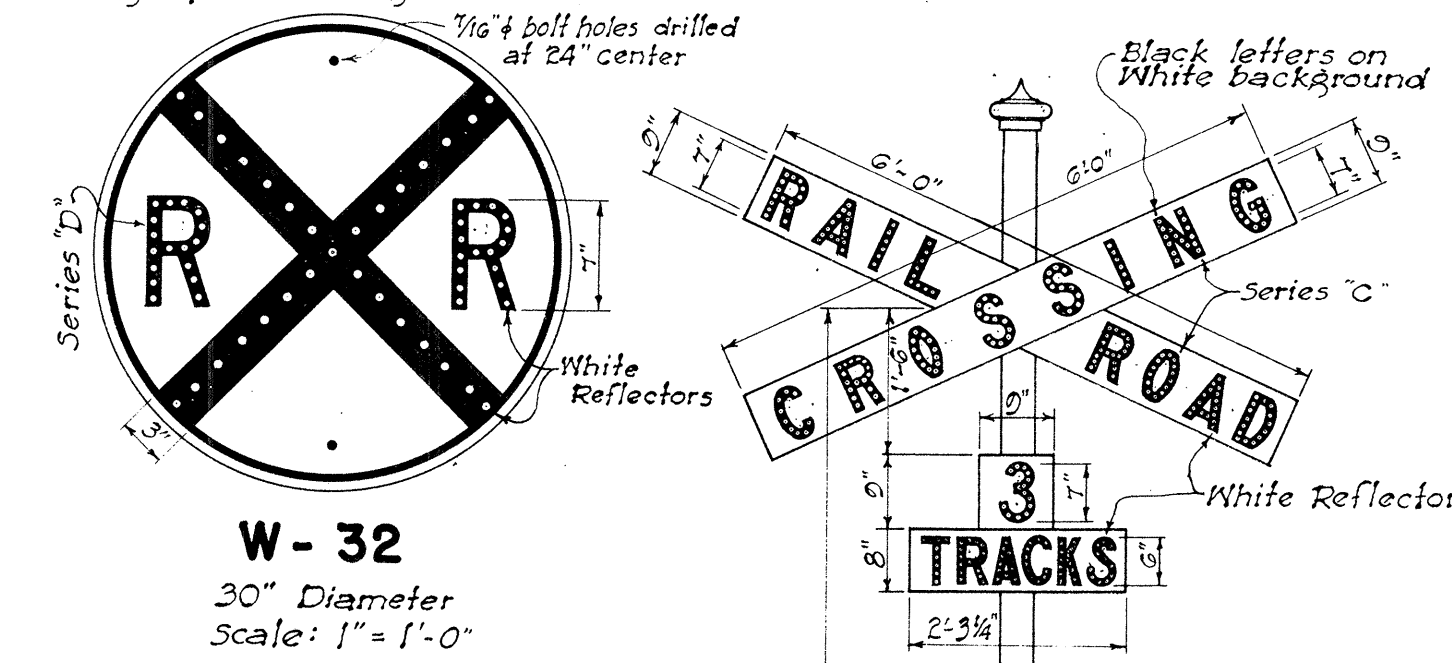


HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS

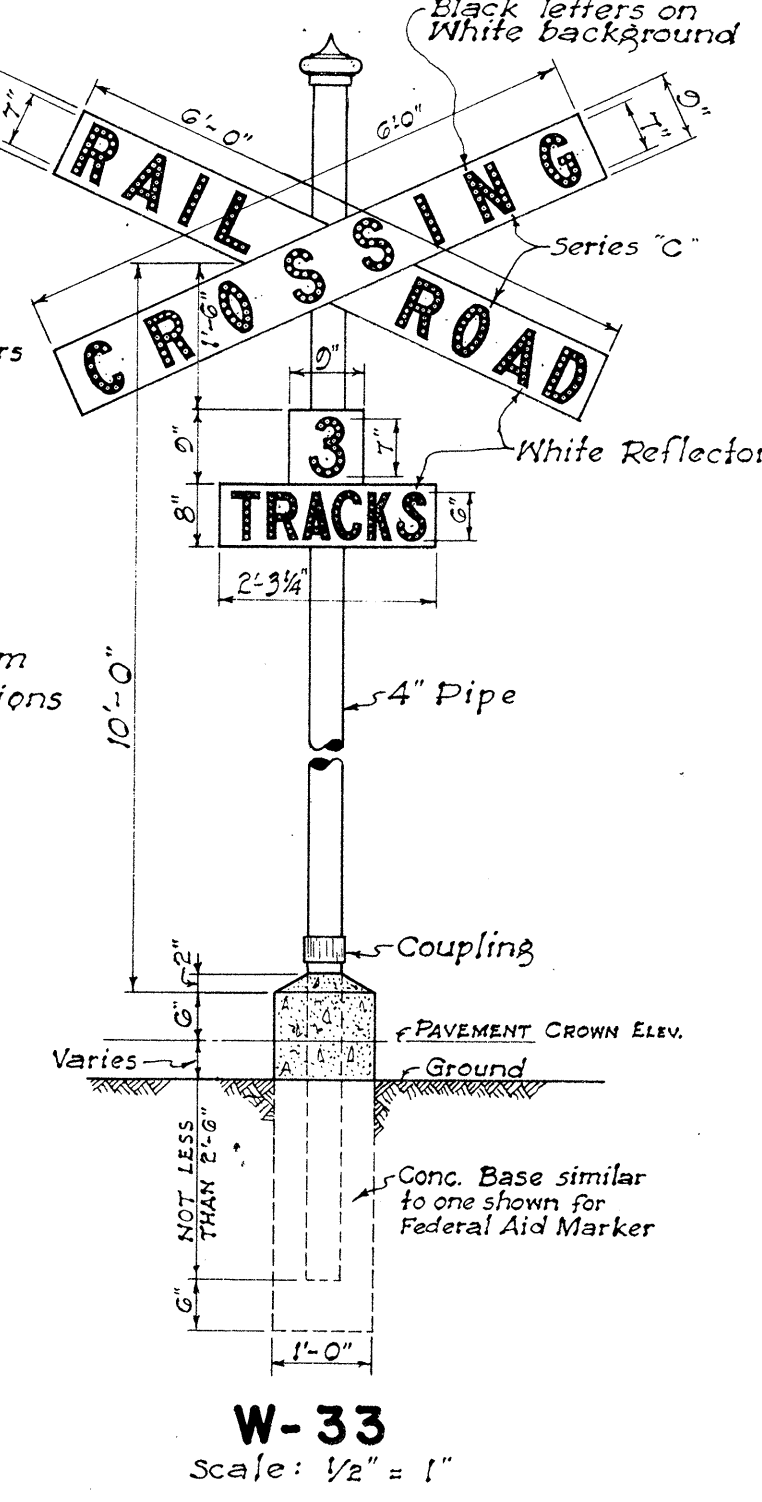
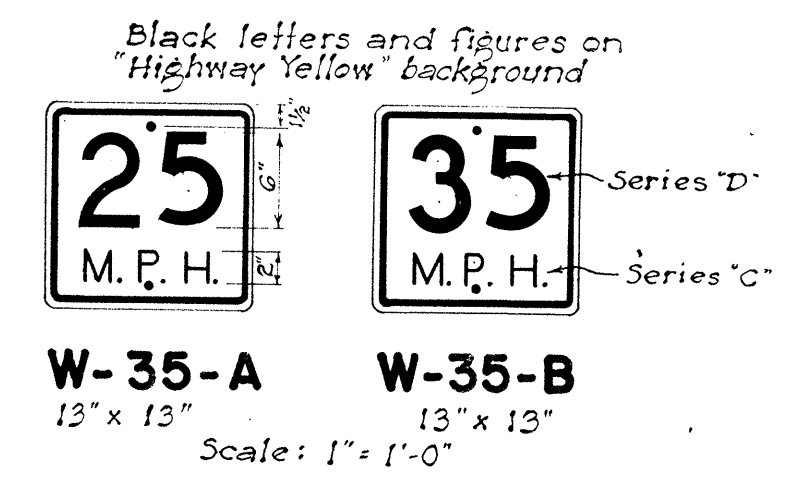
Scale: 1" = 3'-0"

NOTE: All Sign Posts shall be 3" Galv. Iron Pipe. Two (2) 1/2" bolt holes drilled at location shown. Two (2) 1/2" bolts with leather washers against face and back of metal sign.

Black letter and crossbuck on "Highway Yellow" background



NOTE: This sign shall be placed from 300 to 500 feet from R. R. intersections in rural areas and a minimum distance of 100 feet from R. R. intersections in Residence or Business districts.



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

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

REGULATORY & WARNING SIGNS

SCALE AS NOTED May 31, 1949

APPROVED: *Hubbell*
Territorial Highway Engineer