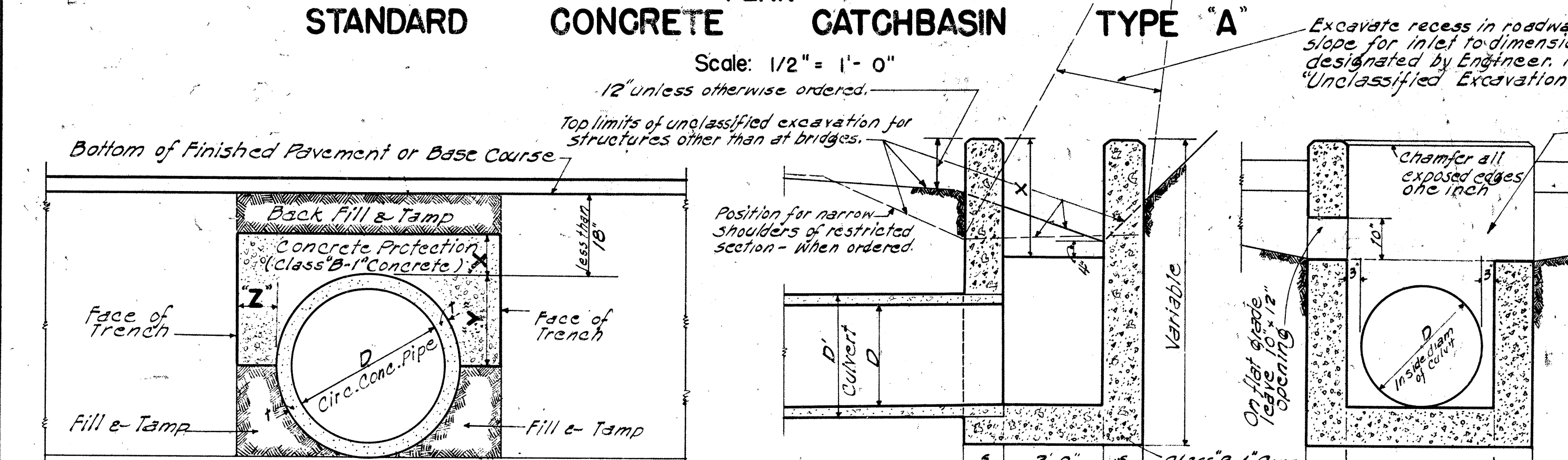
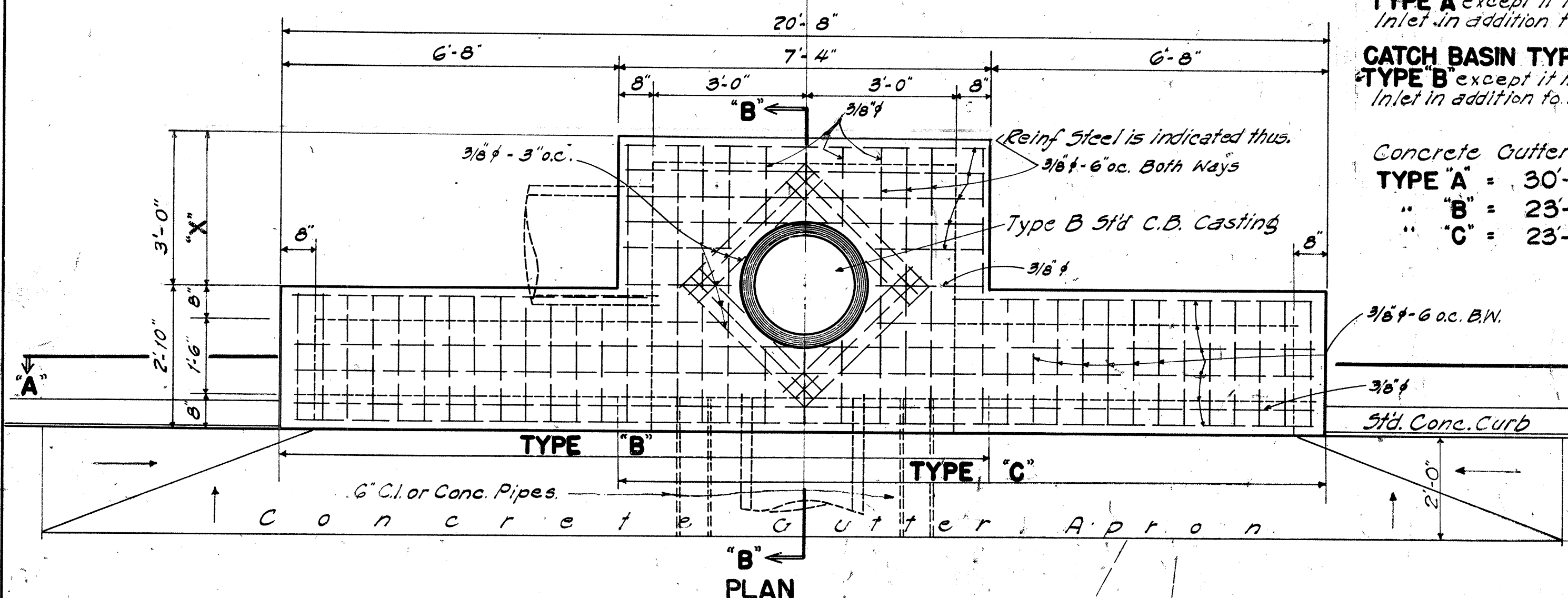
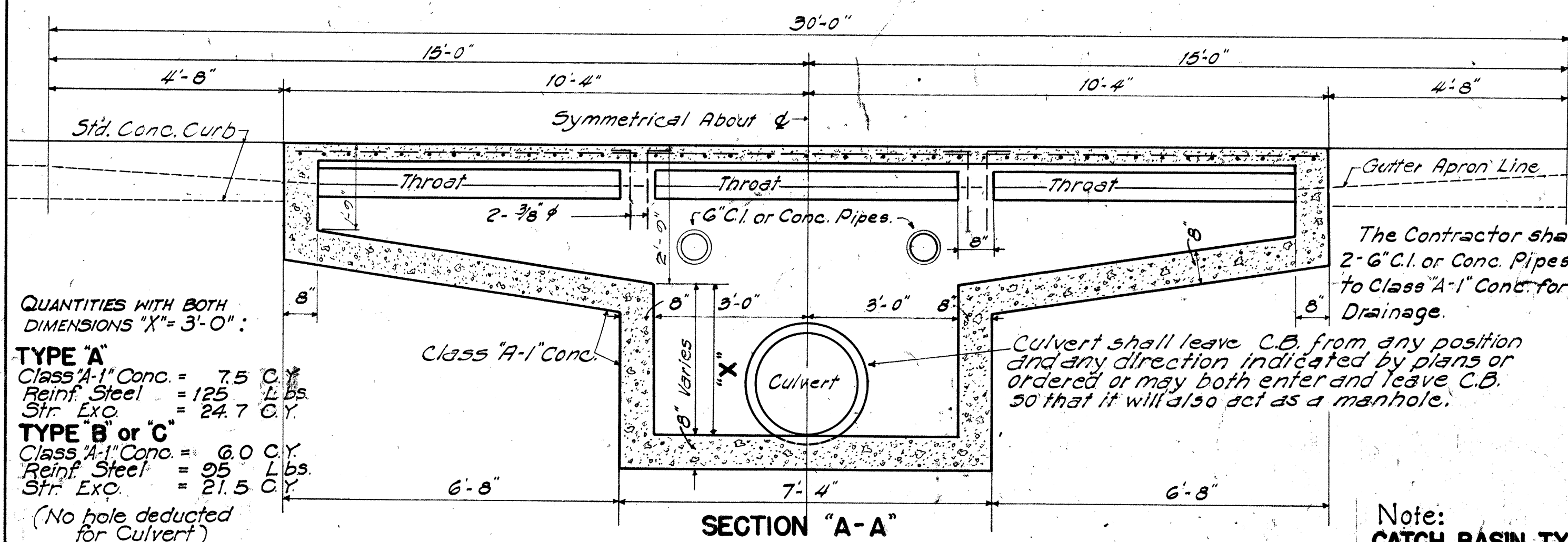




DATA: CONCRETE PROTECTION OVER CULVERTS			
X	Y	Z	
6" for 18" D			
7" " 24" D			
8" " 30" D			
9" " 36" D			
10" " 42" D			
11" " 48" D			
12" " 54" D			

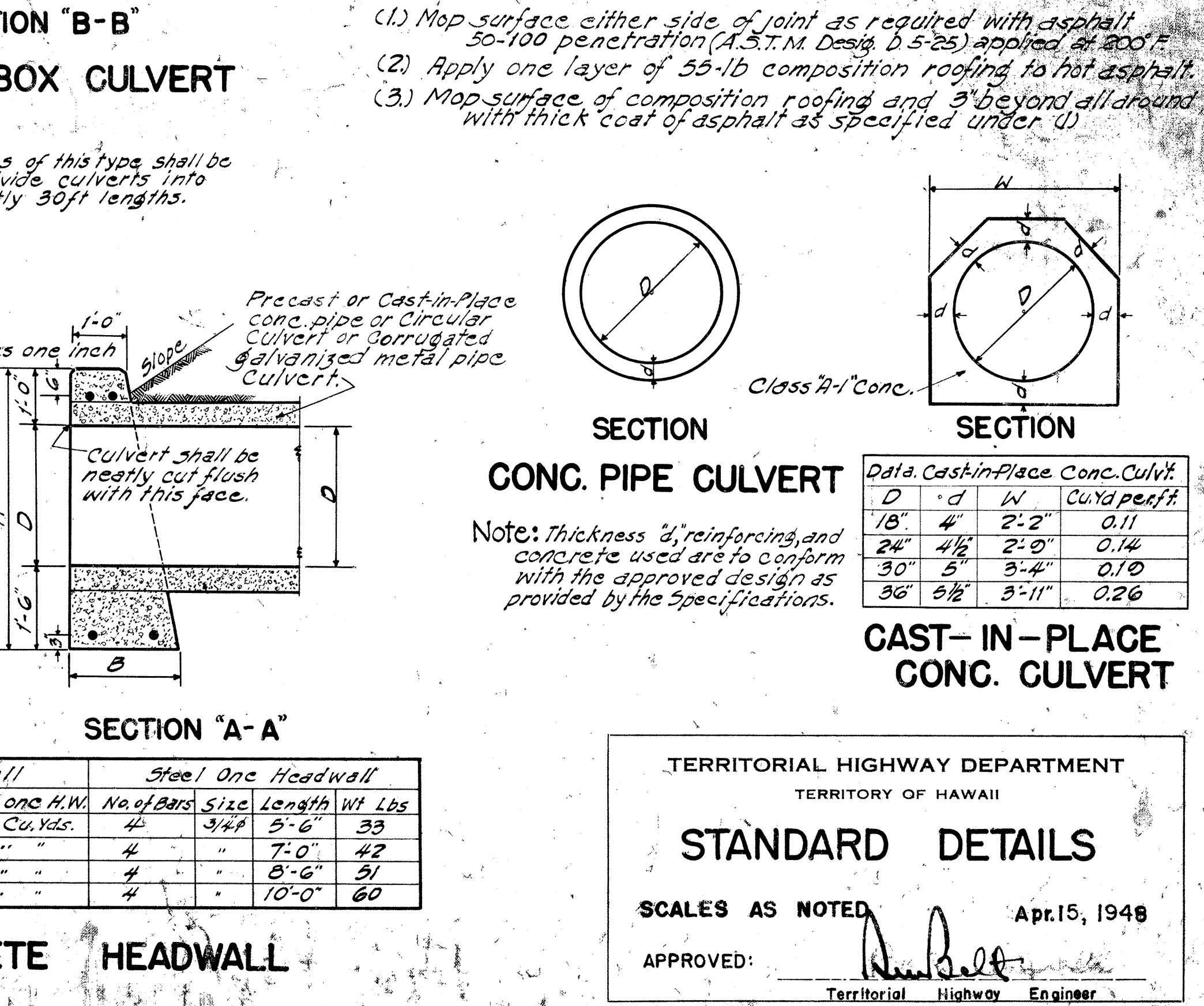
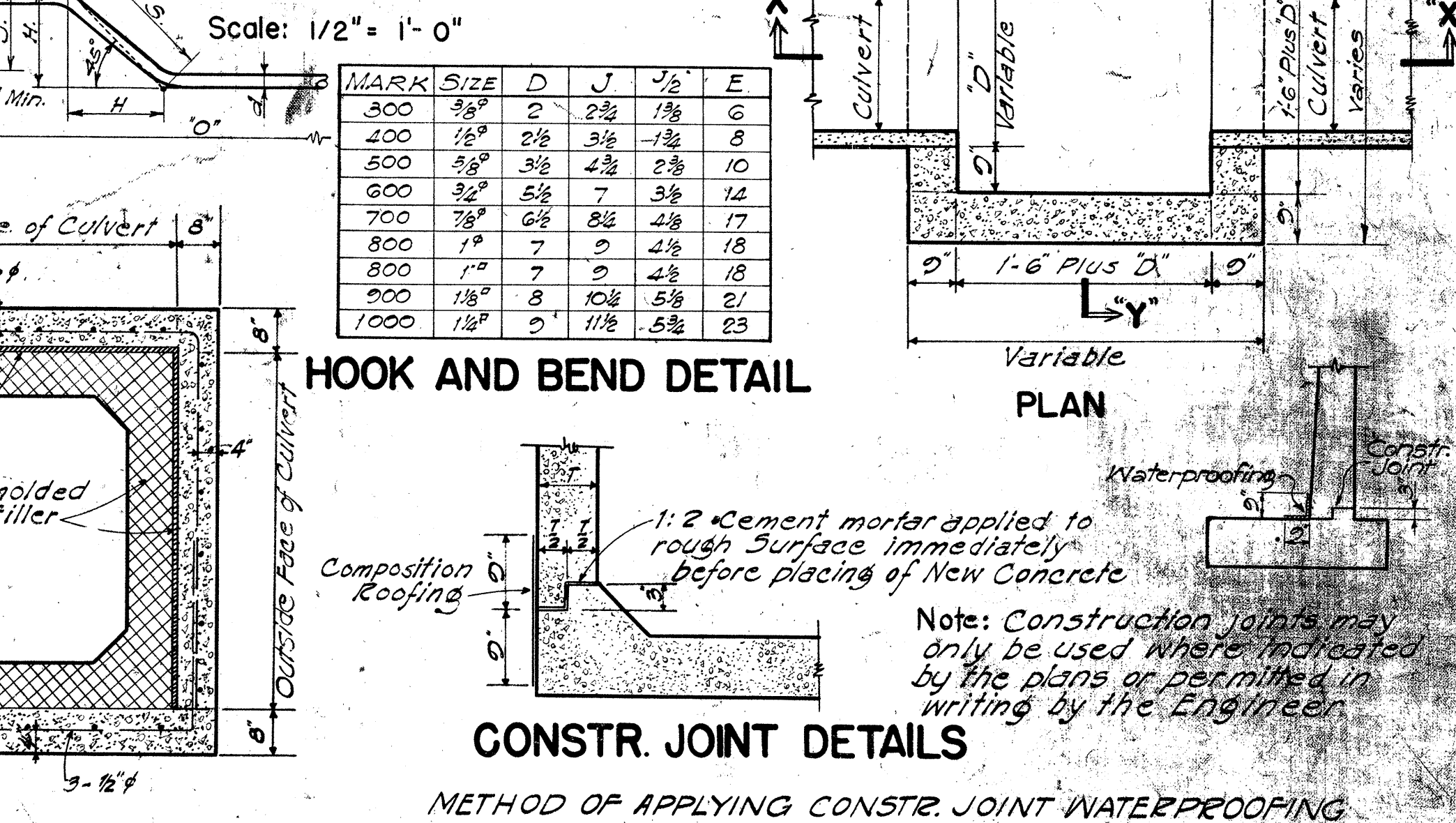
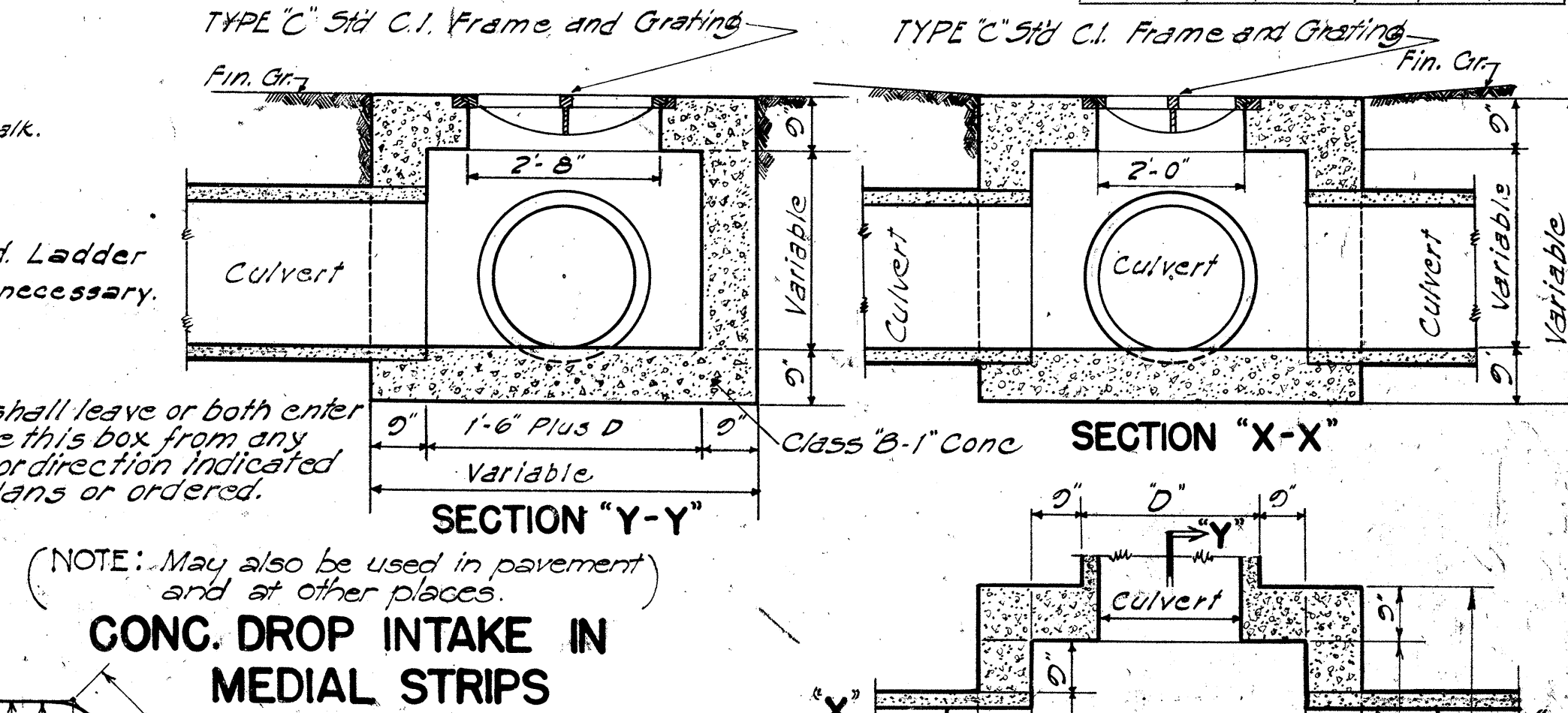
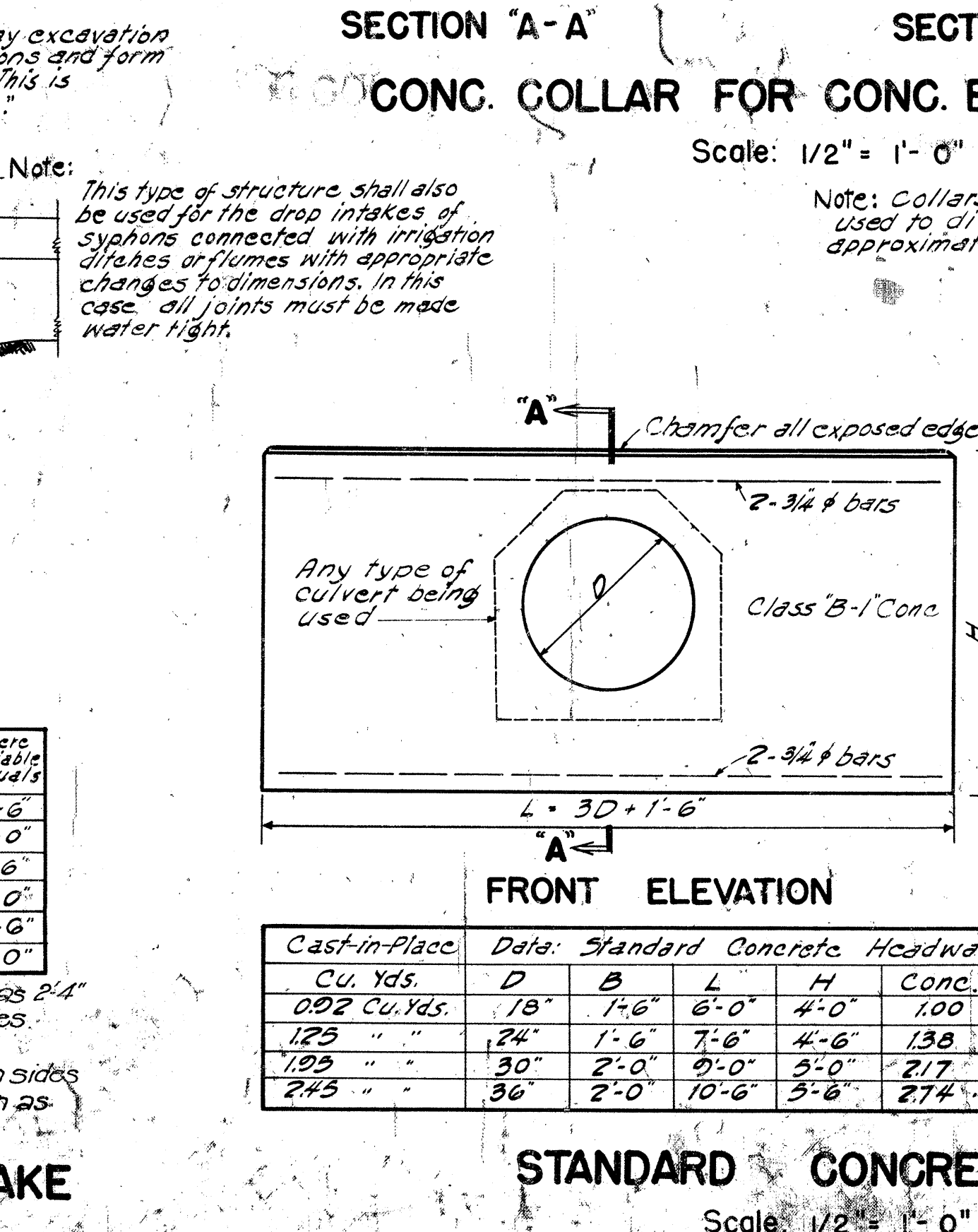
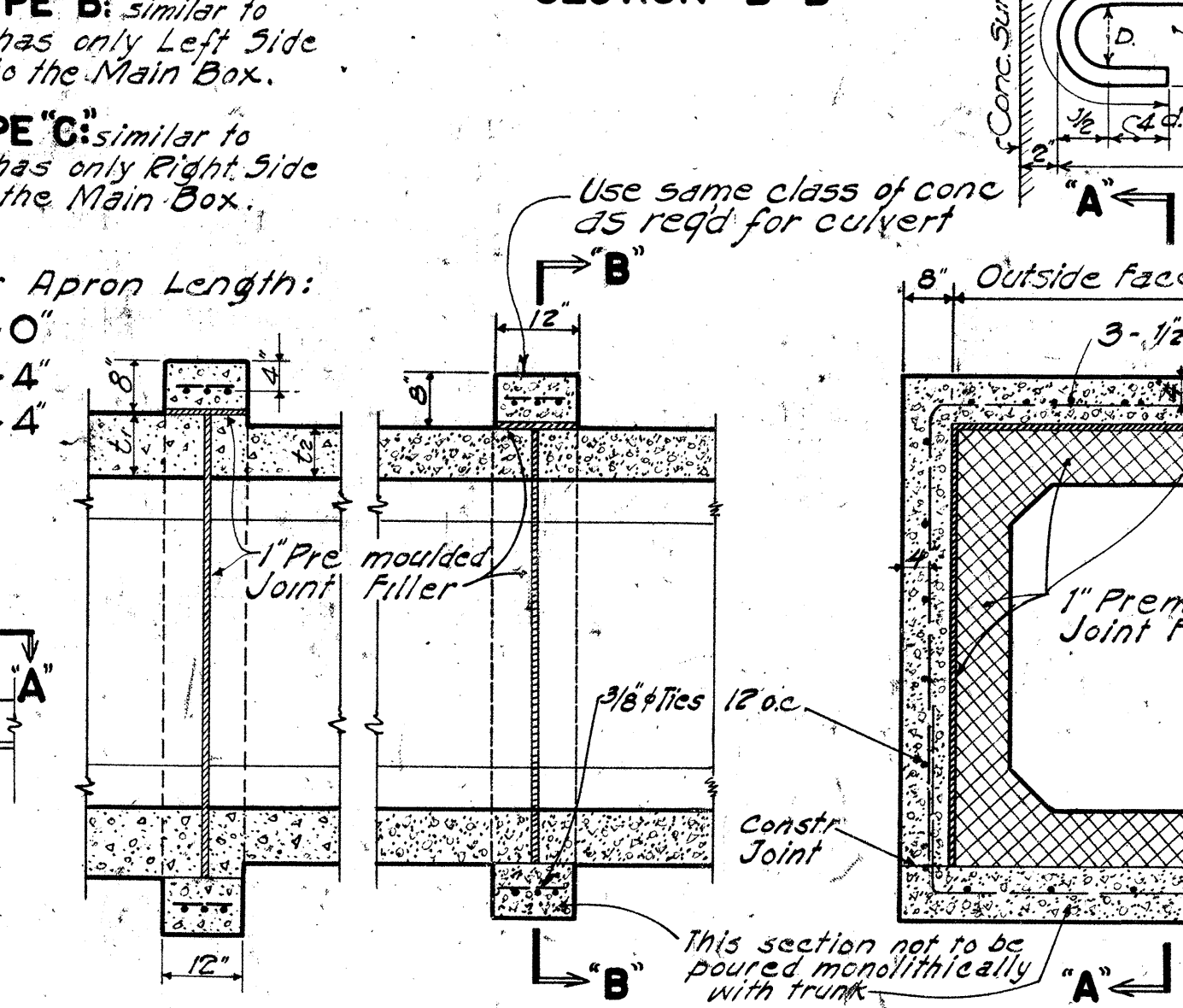
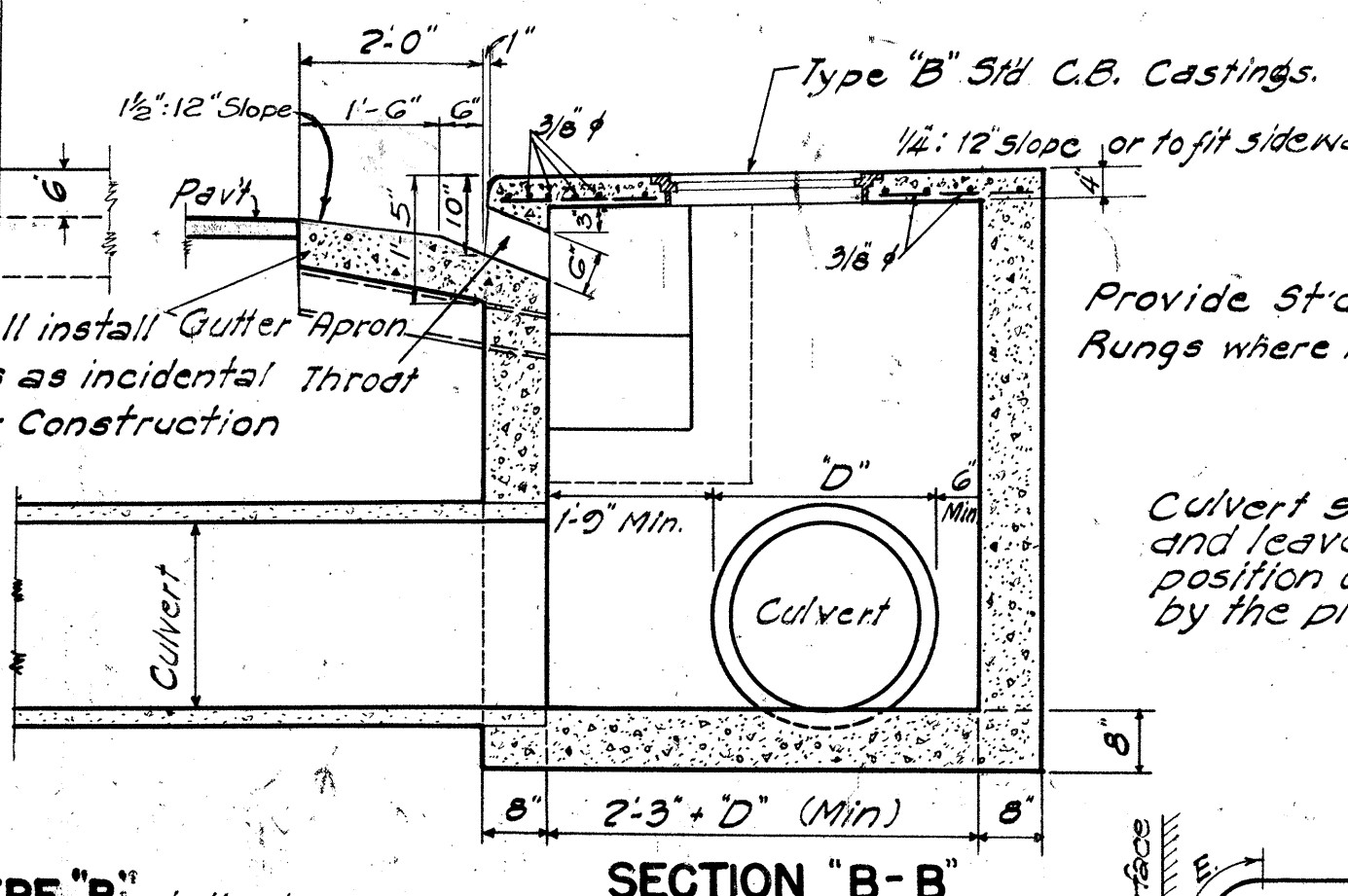
DATA: Standard Drop Intake

D	L	S	Cu. Yds.	Where Variable Equals
18"	2'-0"	8"	1.10	4'-6"
24"	2'-6"	8"	1.33	5'-0"
30"	3'-0"	8"	1.70	5'-6"
36"	3'-6"	8"	2.07	6'-0"
42"	4'-0"	10"	2.90	6'-6"
48"	4'-6"	10"	3.27	7'-0"

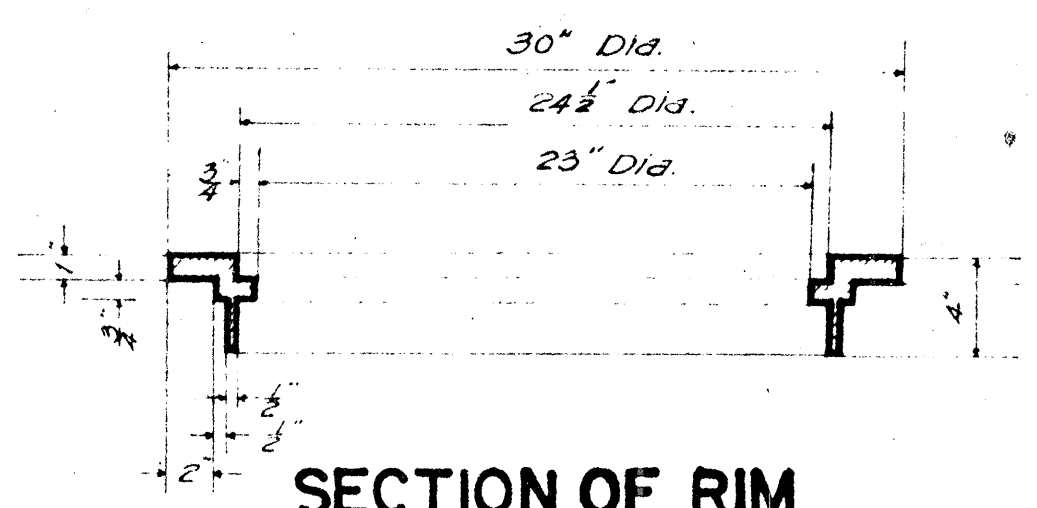
Note: Dimensions "X" is assumed as 2'-4" in figuring the above quantities.

Where drainage comes from both sides lower this wall to same elevation as shown for opposite wall.

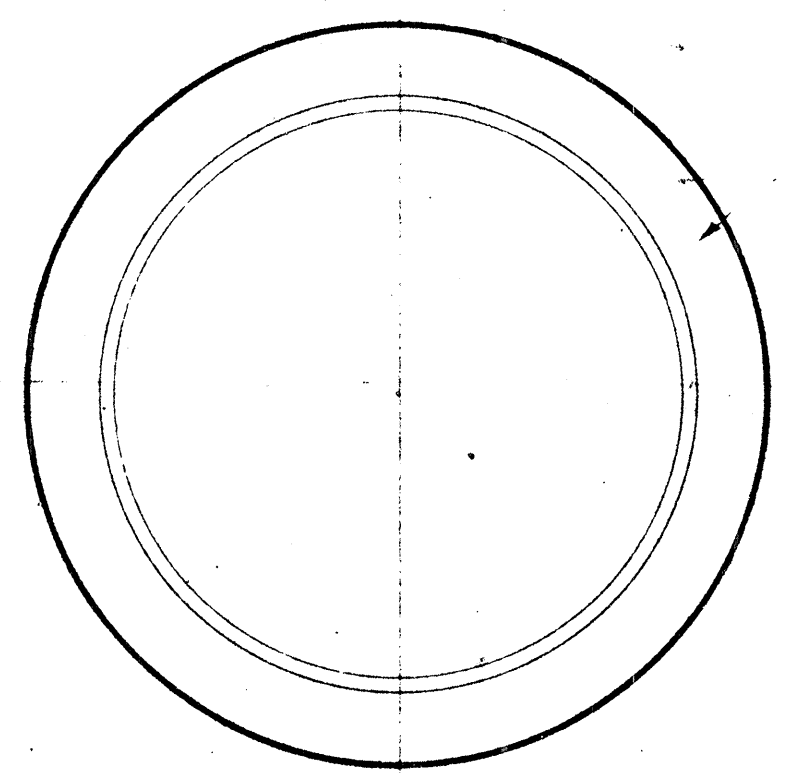
ST'D. CONG. DROP INTAKE
Scale: 1/2" = 1'-0"



UNIT NO.	STATE	PROJ. NO.	YEAR	NO.	TOTAL SHEETS
HAWAII	HAW.	U44(G)	1951	27	44

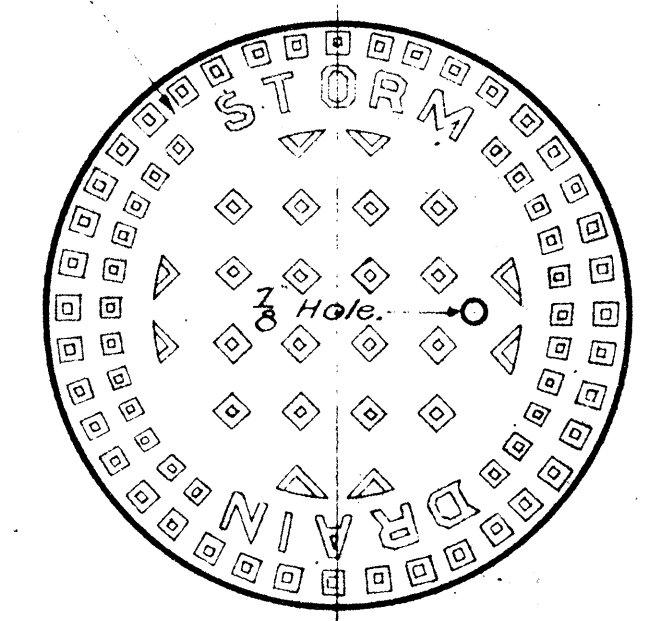


SECTION OF RIM

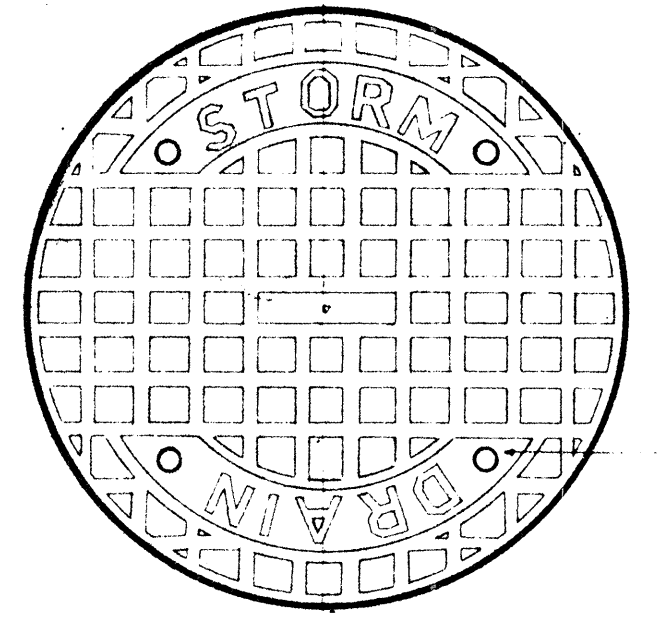


PLAN OF RIM

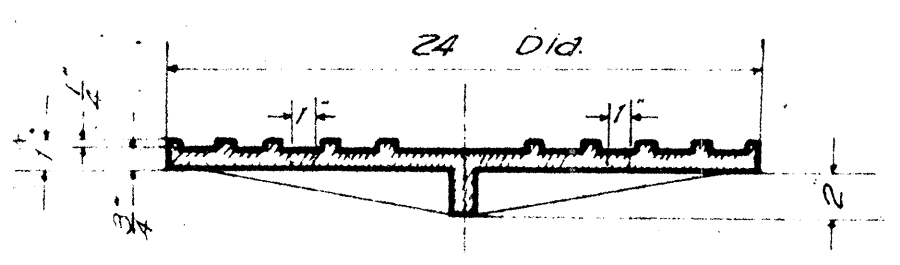
Cast Iron



PATTERN FOR STORM DRAIN MANHOLE COVER

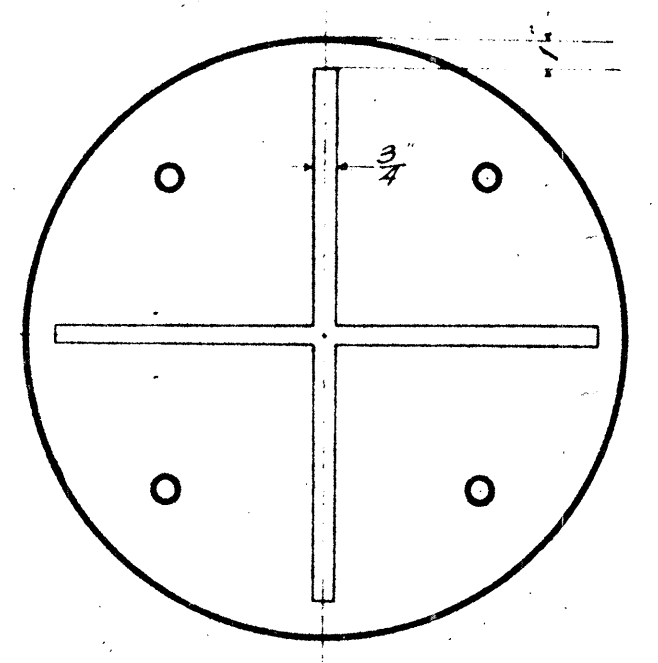


PLAN OF COVER TOP



SECTION OF COVER

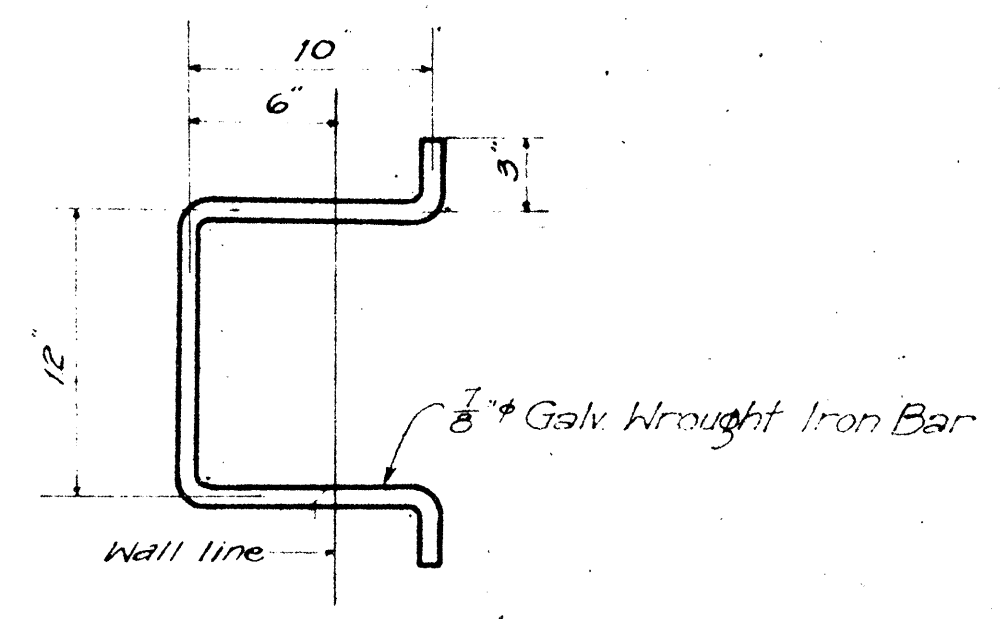
NOTE: A unit includes both Rim and Cover



BOTTOM VIEW OF COVER TYPE "B"

STANDARD CATCH BASIN CASTINGS

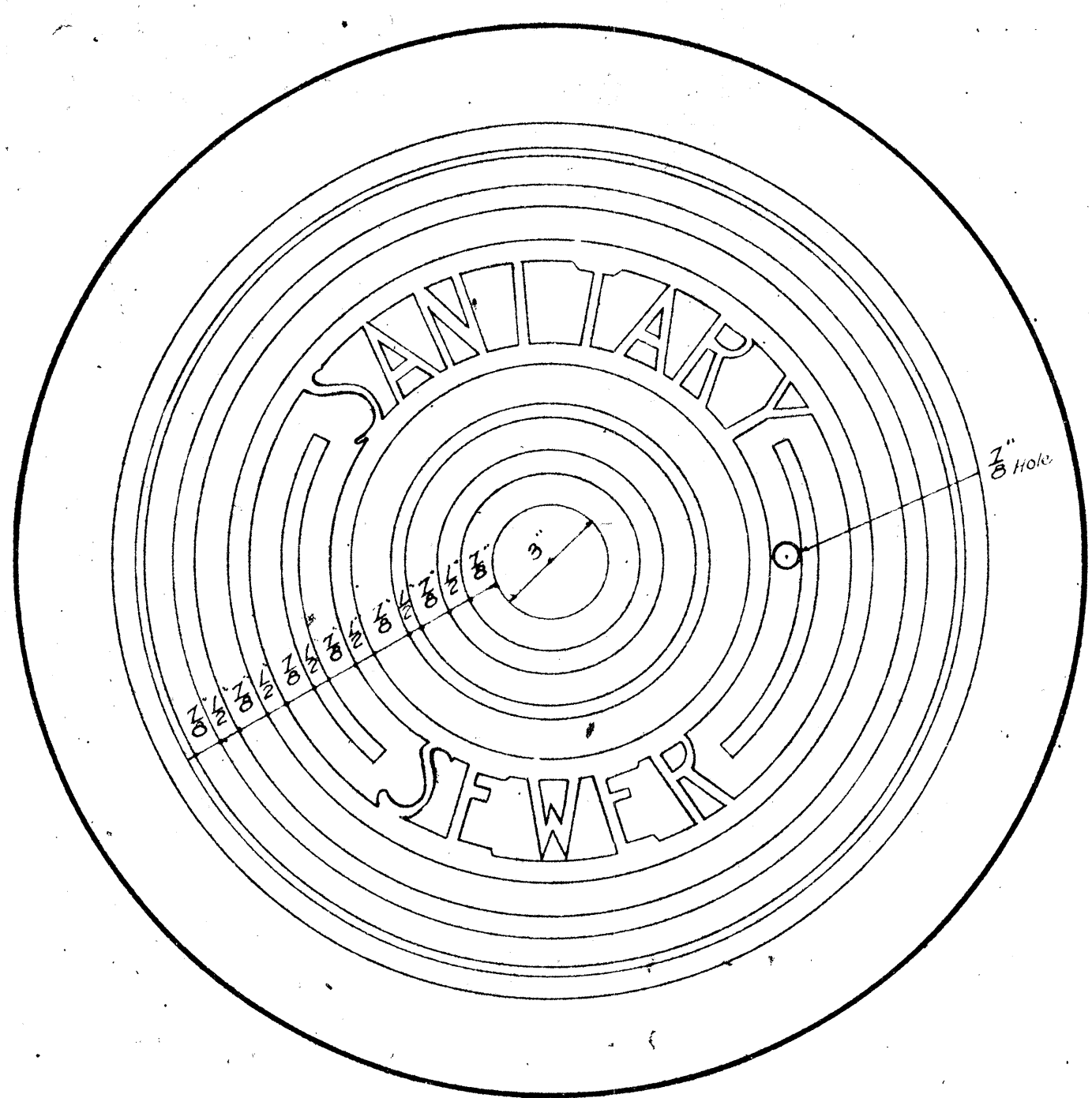
Scale: 1-1/2" = 1'-0"



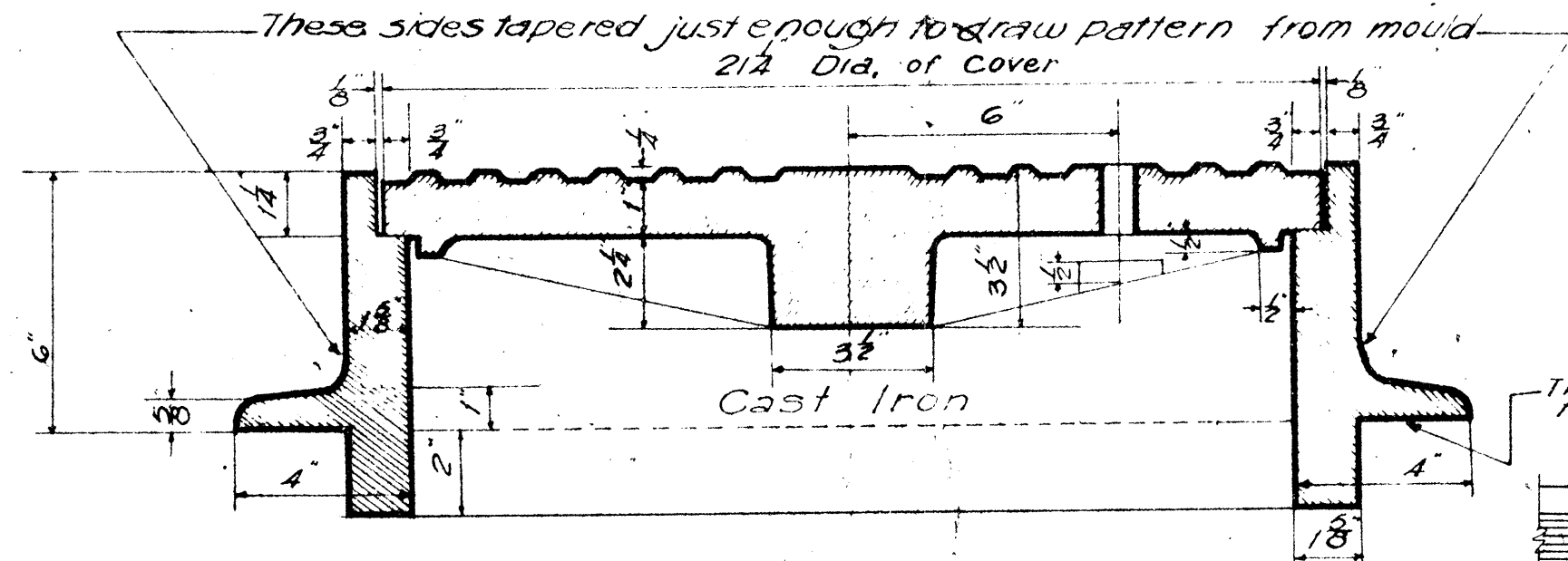
DETAIL OF MANHOLE RUNG

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

NOTE: The pattern for water manhole cover shall be the same as for sanitary sewer except that the word "water" shall be substituted for "sanitary sewer".

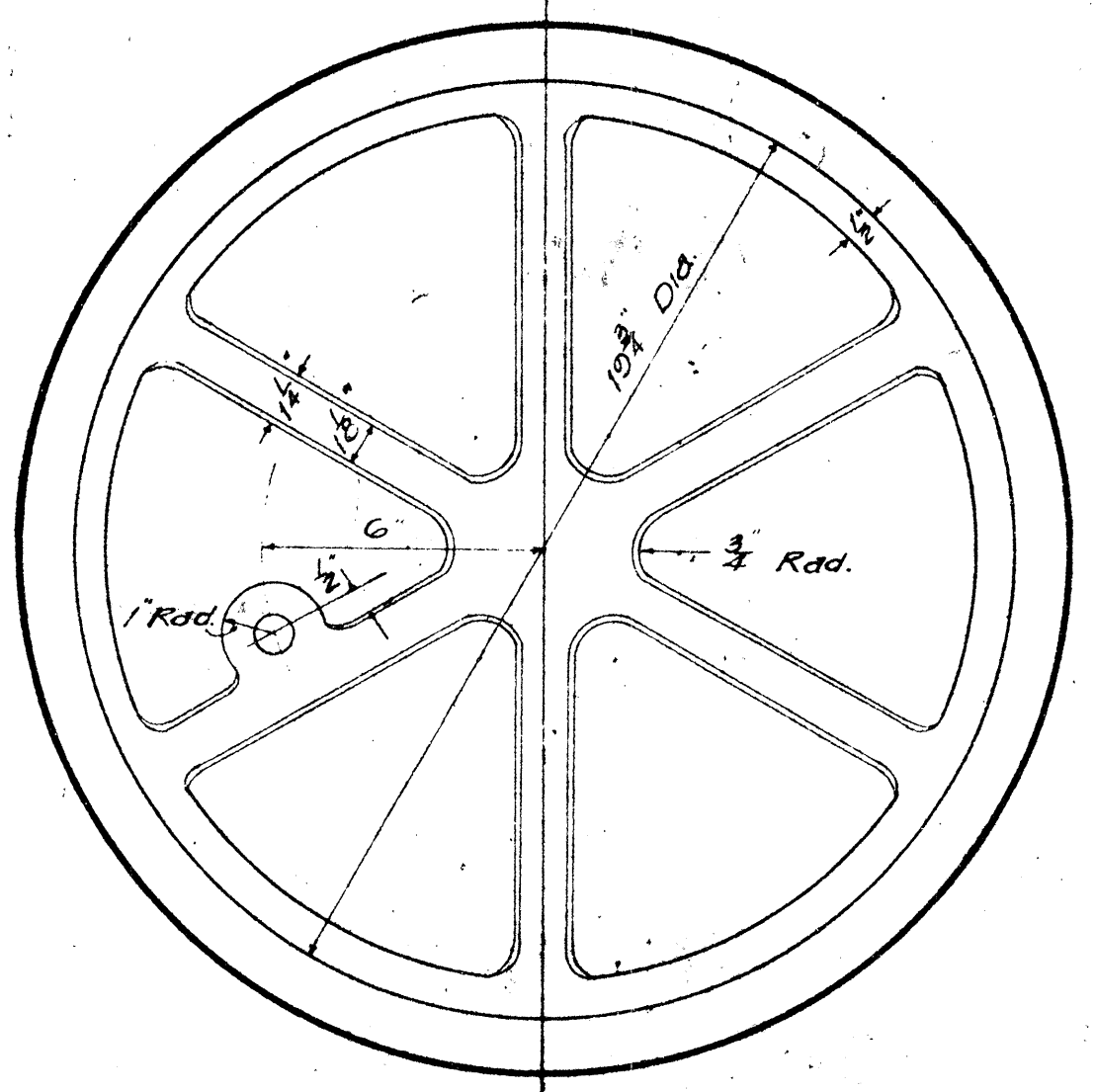


PATTERN FOR SEWER MANHOLE COVER



SECTION

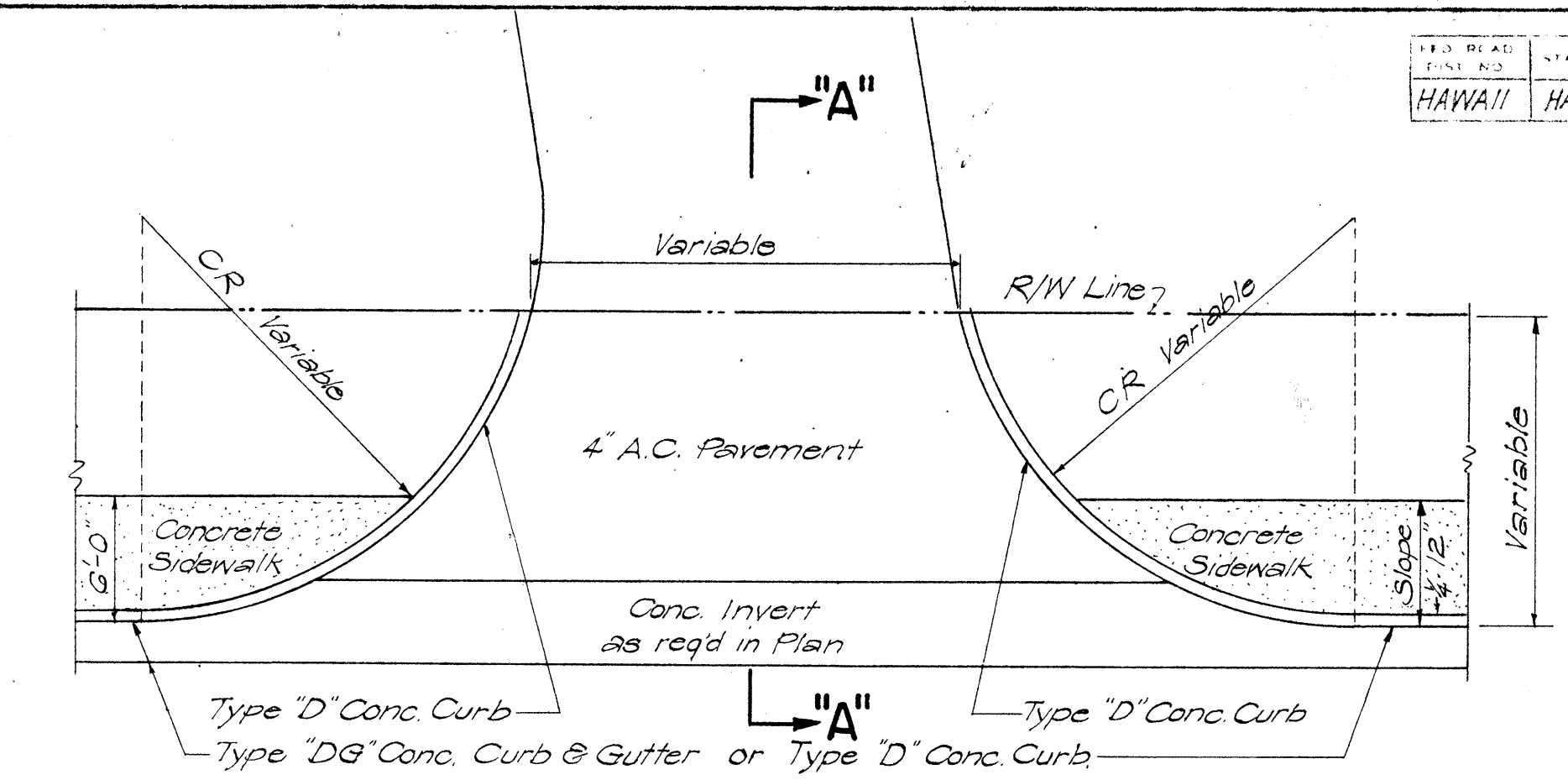
NOTE: A unit includes both Frame and Cover



BOTTOM VIEW OF COVER TYPE "A"

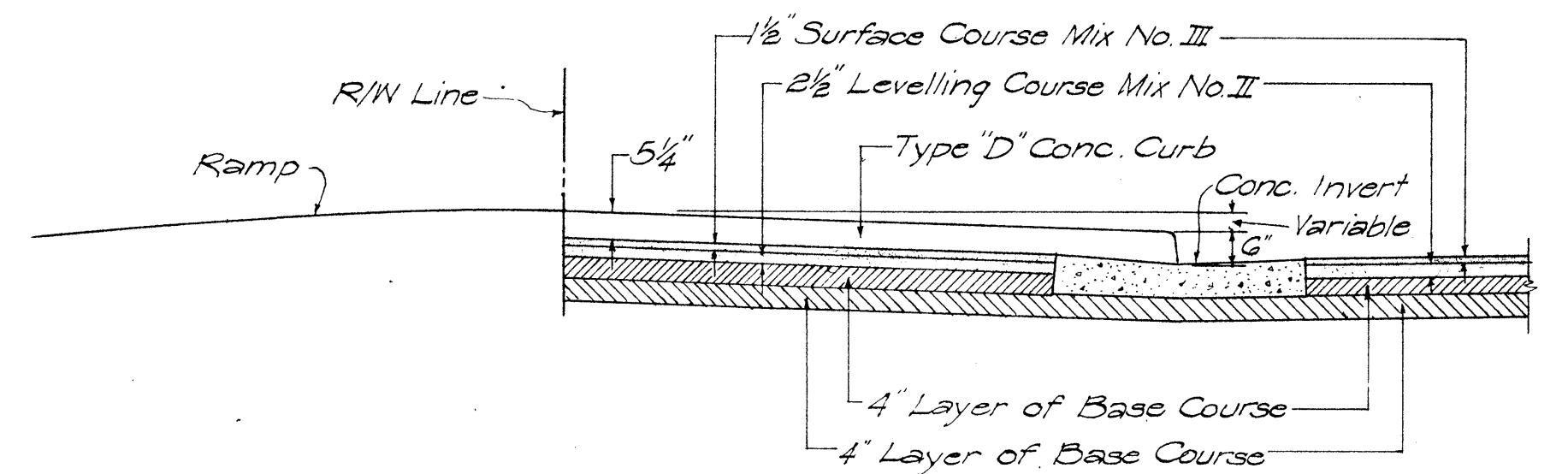
STANDARD MANHOLE CASTINGS

Scale: 3" = 1'-0"



PLAN

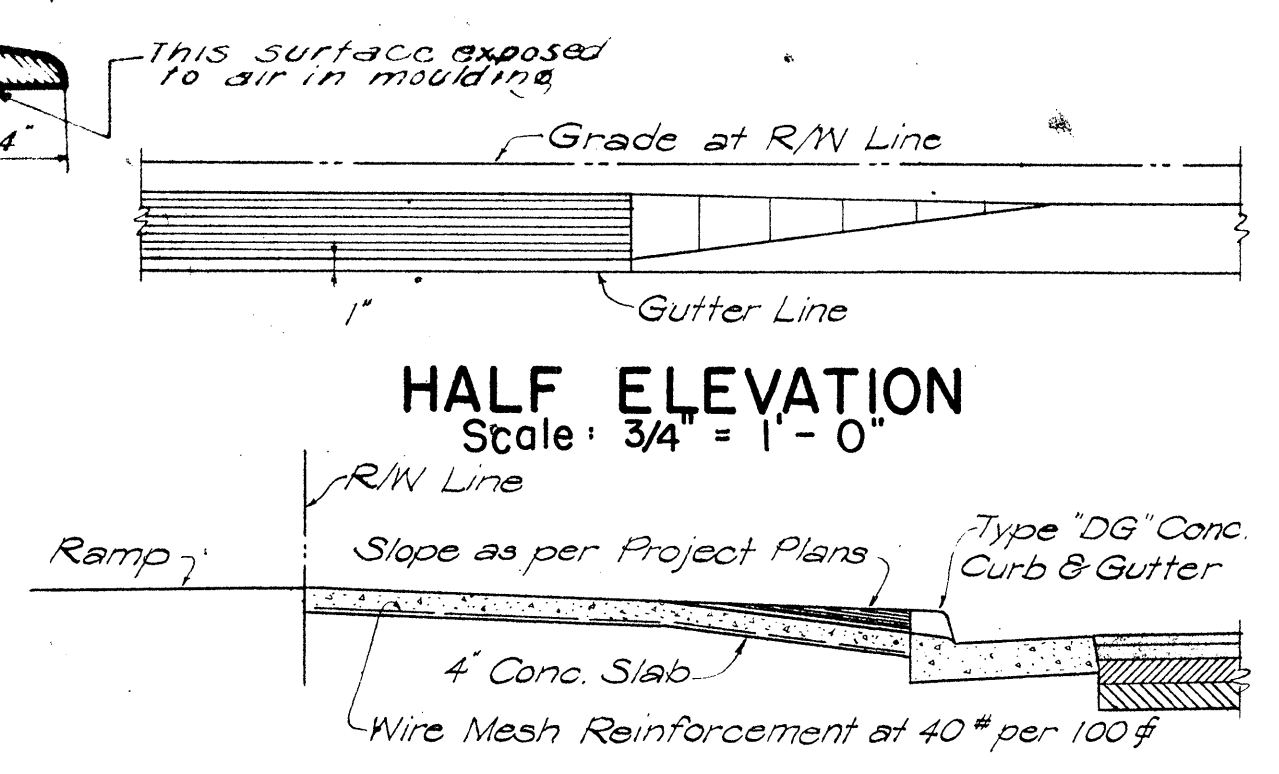
Scale: 3/8" = 1'-0"



SECTION "A-A"

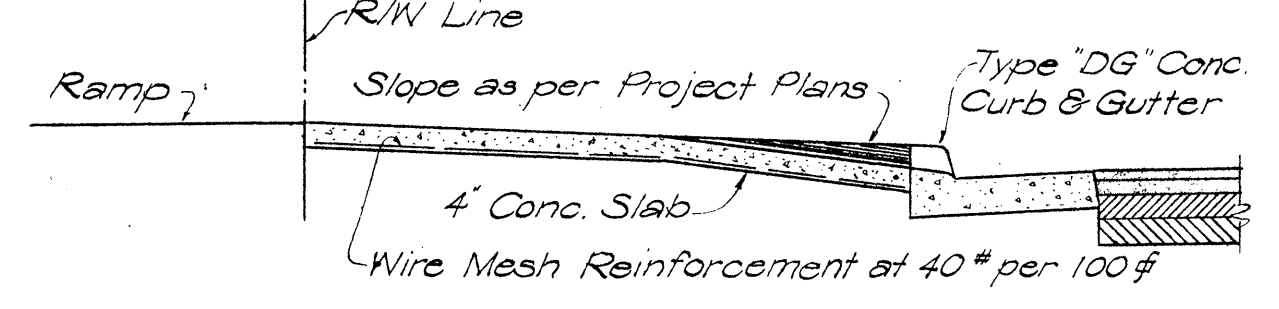
TYPICAL DETAIL OF ACCESS DRIVEWAY

Scale: 3/8" = 1'-0"



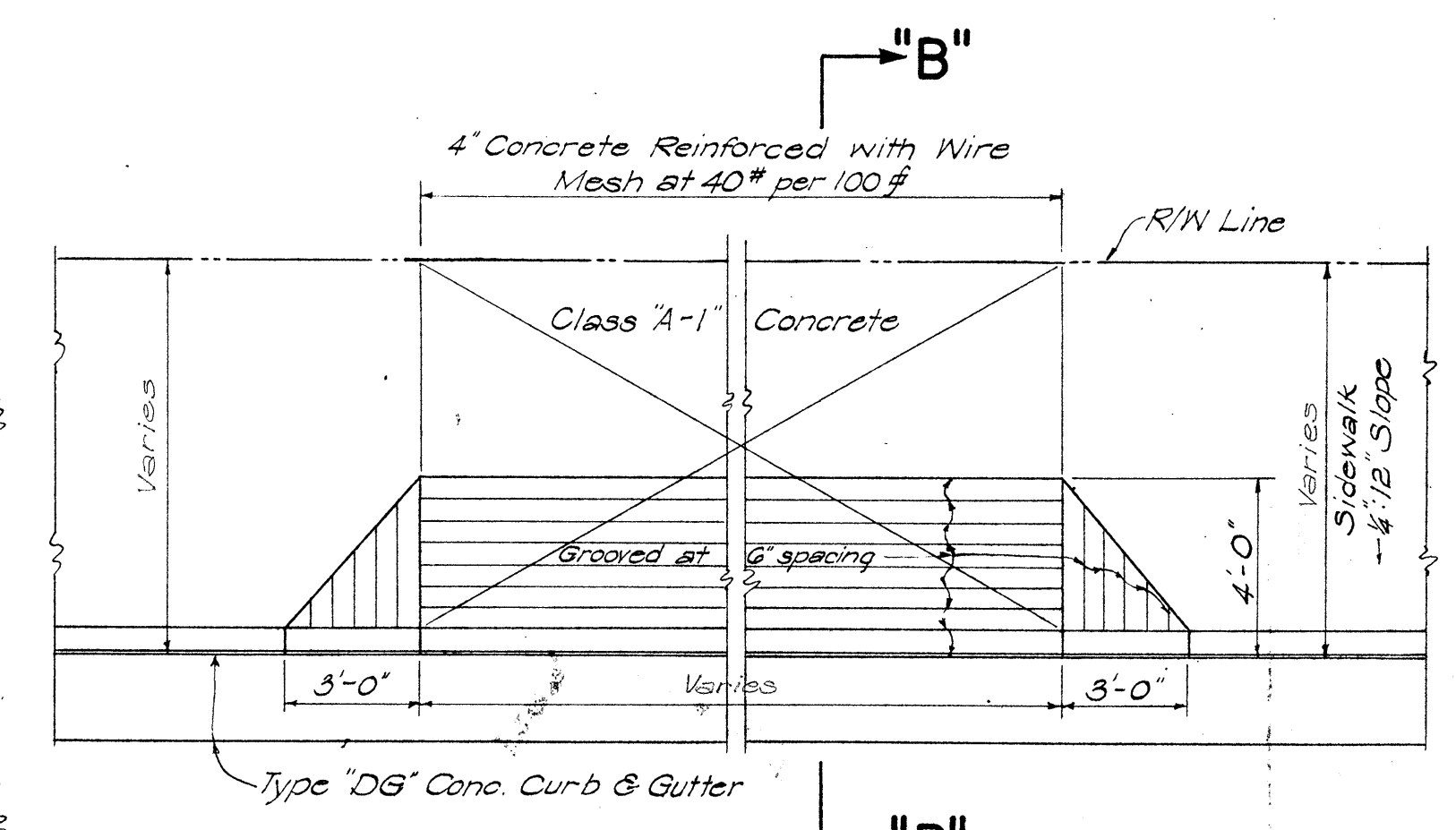
HALF ELEVATION

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



SECTION "B-B"

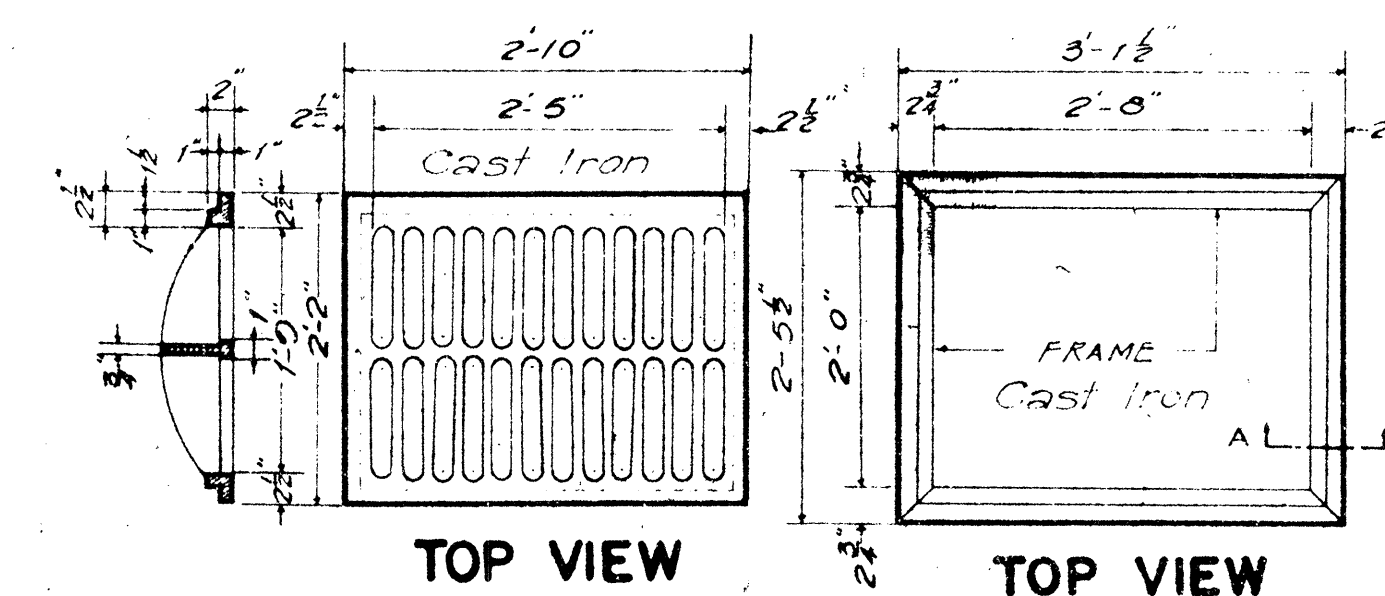
Scale: 3/8" = 1'-0"



PLAN

DETAILS OF REINF. CONC. DRIVEWAY

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



TOP VIEW

TOP VIEW

STANDARD C. I. FRAME AND GRATE TYPE "C"

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

NOTE: Stock Pattern from Novelty Foundry-Honolulu

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

STANDARD DETAILS

SCALES AS NOTED

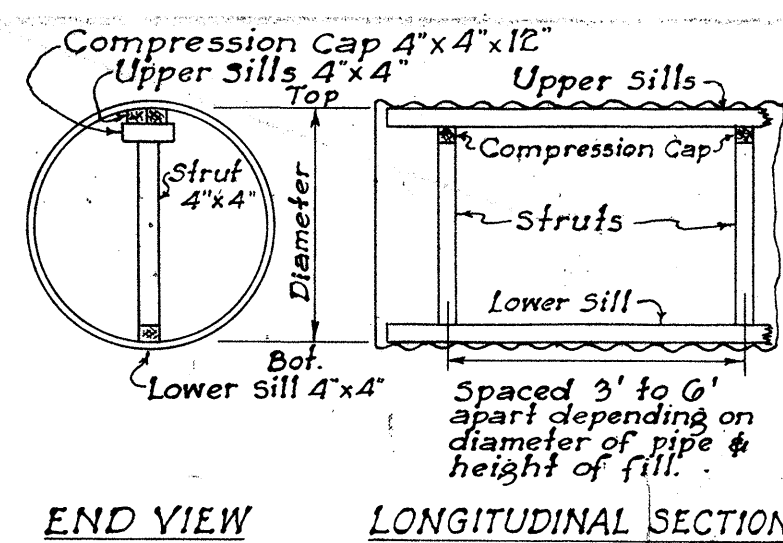
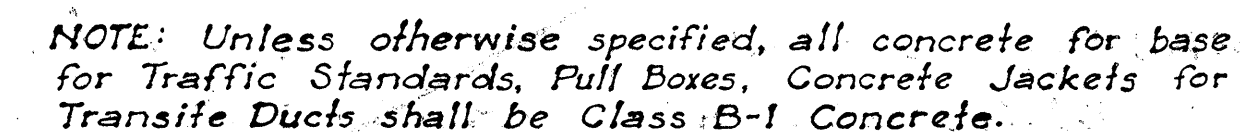
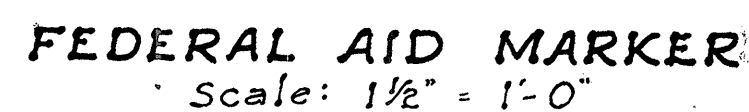
APPROVED: *[Signature]*

Territorial Highway Engineer

SHEET NO 2 OF 4 SHEETS

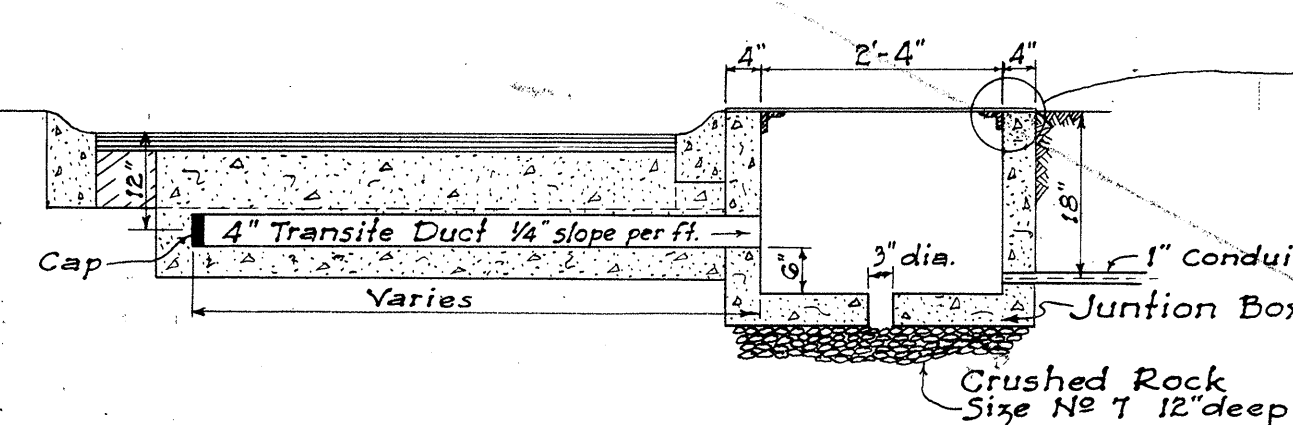
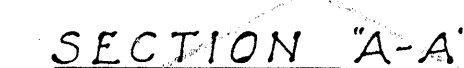
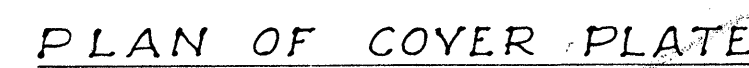
Apr. 15, 1948

5505.37

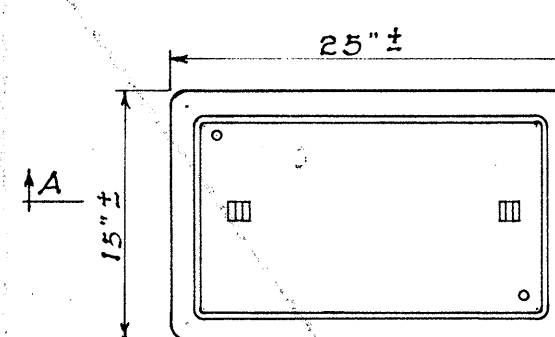


Diameter of Pipes in inches	Length of Struts in feet	Spacing of Struts in ft. for			Various Heights	
		FILL 1' to 5'	FILL 5' to 10'	FILL 10 to 20'	FILL 20 to 30'	Over 30'
48	3 8 3/8	—	—	—	6	4
54	4 4 3/4	—	—	—	6	4
60	5 1	—	—	—	6	4
66	5 7 1/4	—	—	—	6	4
72	6 3 3/8	—	—	—	5	3 5
78	6 9 3/8	—	—	—	4 5	3 5
84	7 6 1/4	—	—	—	4	3

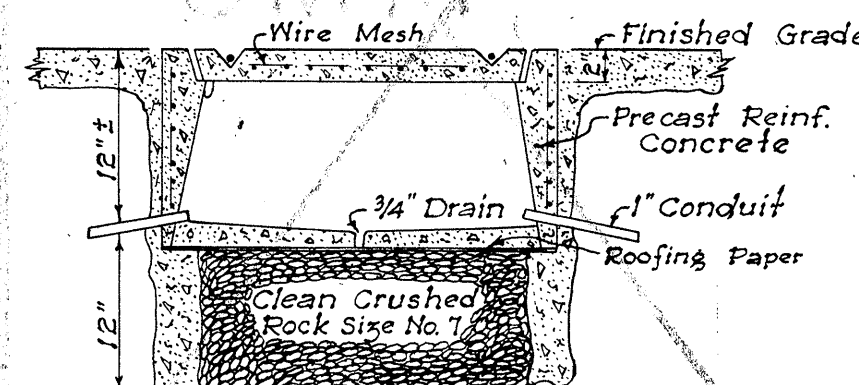
NOTE: Length of Struts are based on 4"x4" timbers which is the minimum size recommended. If larger sills or compression caps are used, length of struts should be changed accordingly.



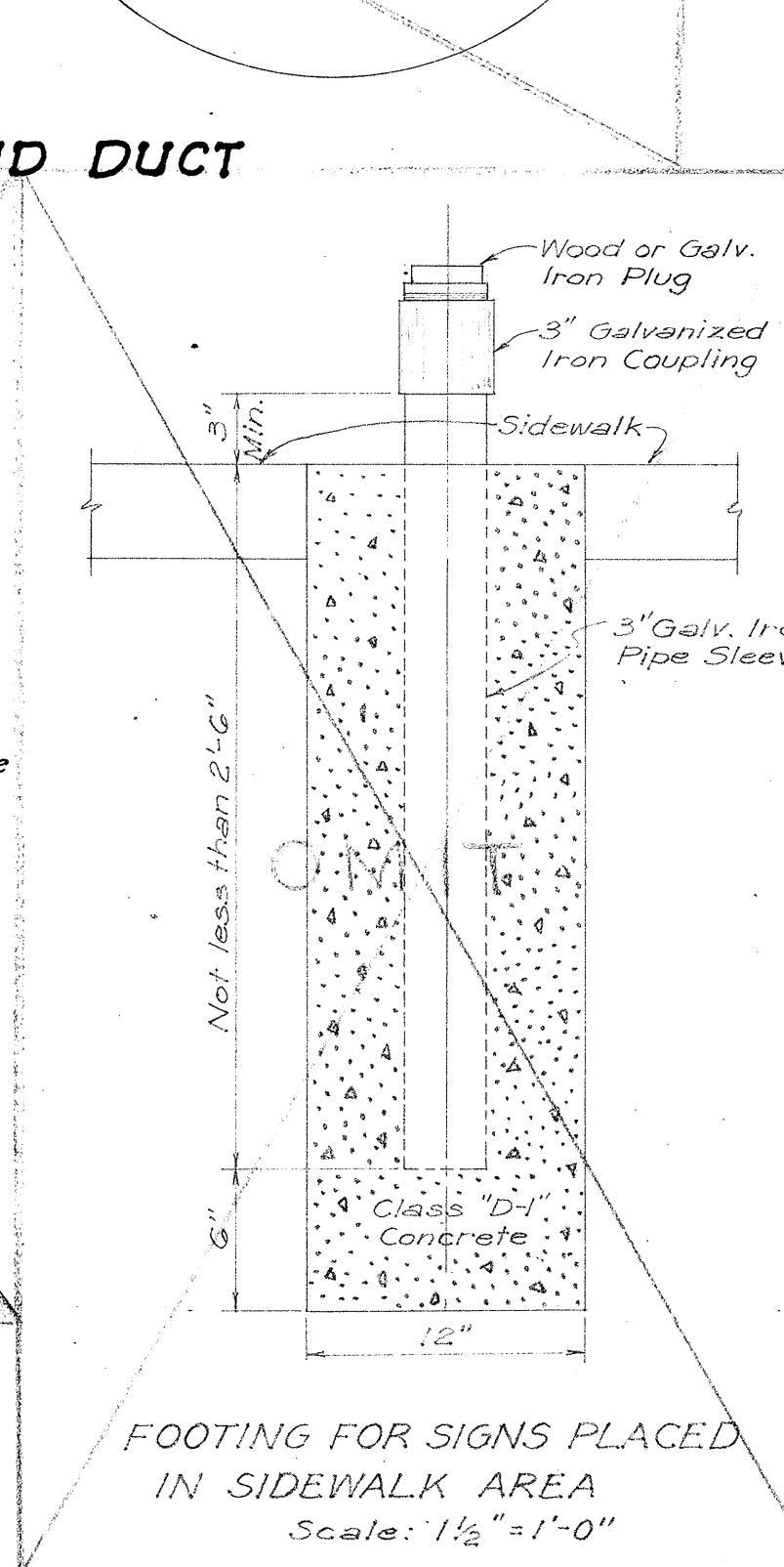
TYPICAL ROAD SECTION
SHOWING
TRAFFIC DETECTOR JUNCTION BOX AND DUCT



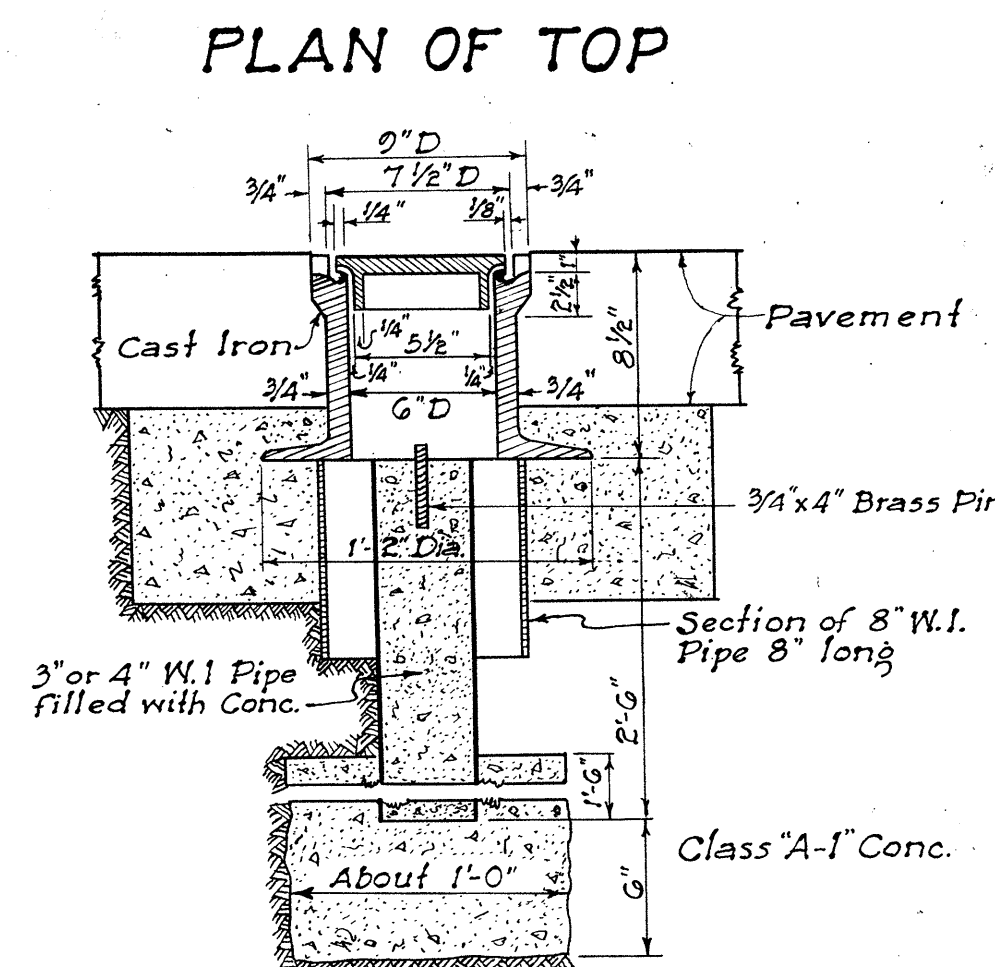
PLAN



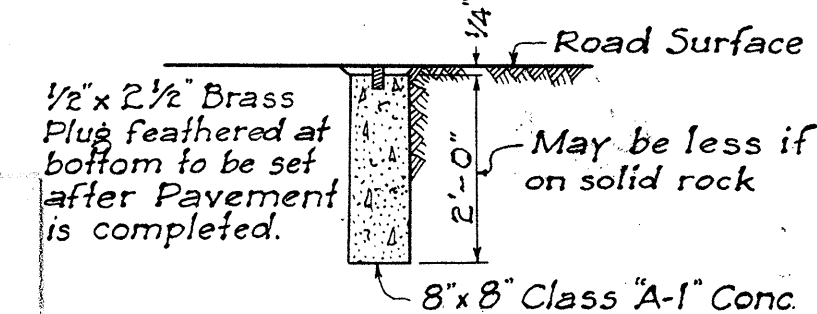
SECTION A-A
DETAIL OF PULL BOX
Scale: 1" = 1'-0"



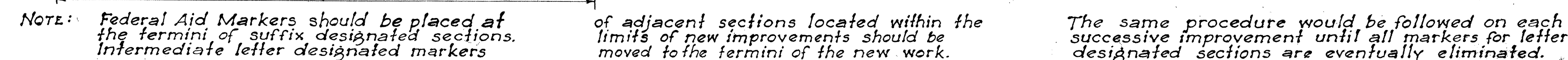
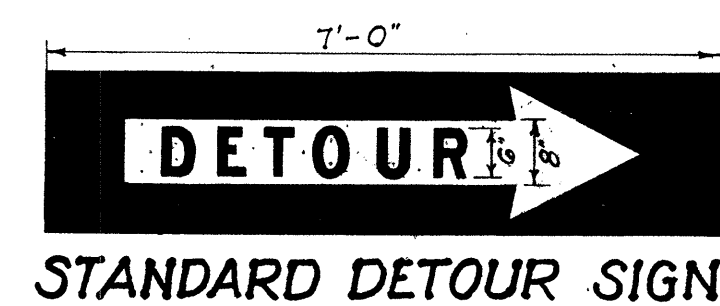
FOOTING FOR SIGNS PLACED
IN SIDEWALK AREA
Scale: $1\frac{1}{2}" = 1'-0"$



STANDARD C&C STREET
SURVEY MONUMENT



CENTER LINE MONUMENT
Scale: $\frac{1}{2}" = 1'-0"$



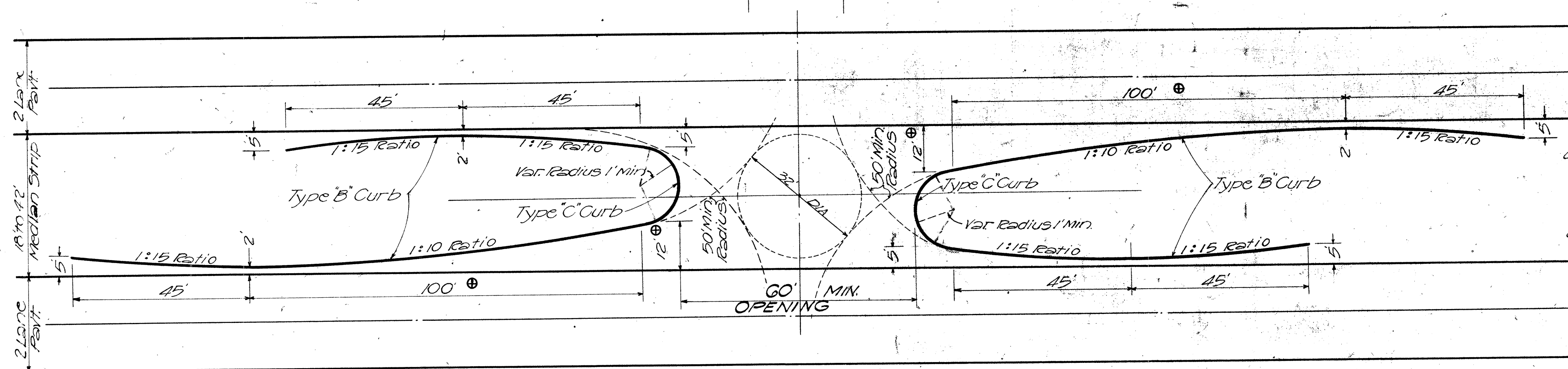
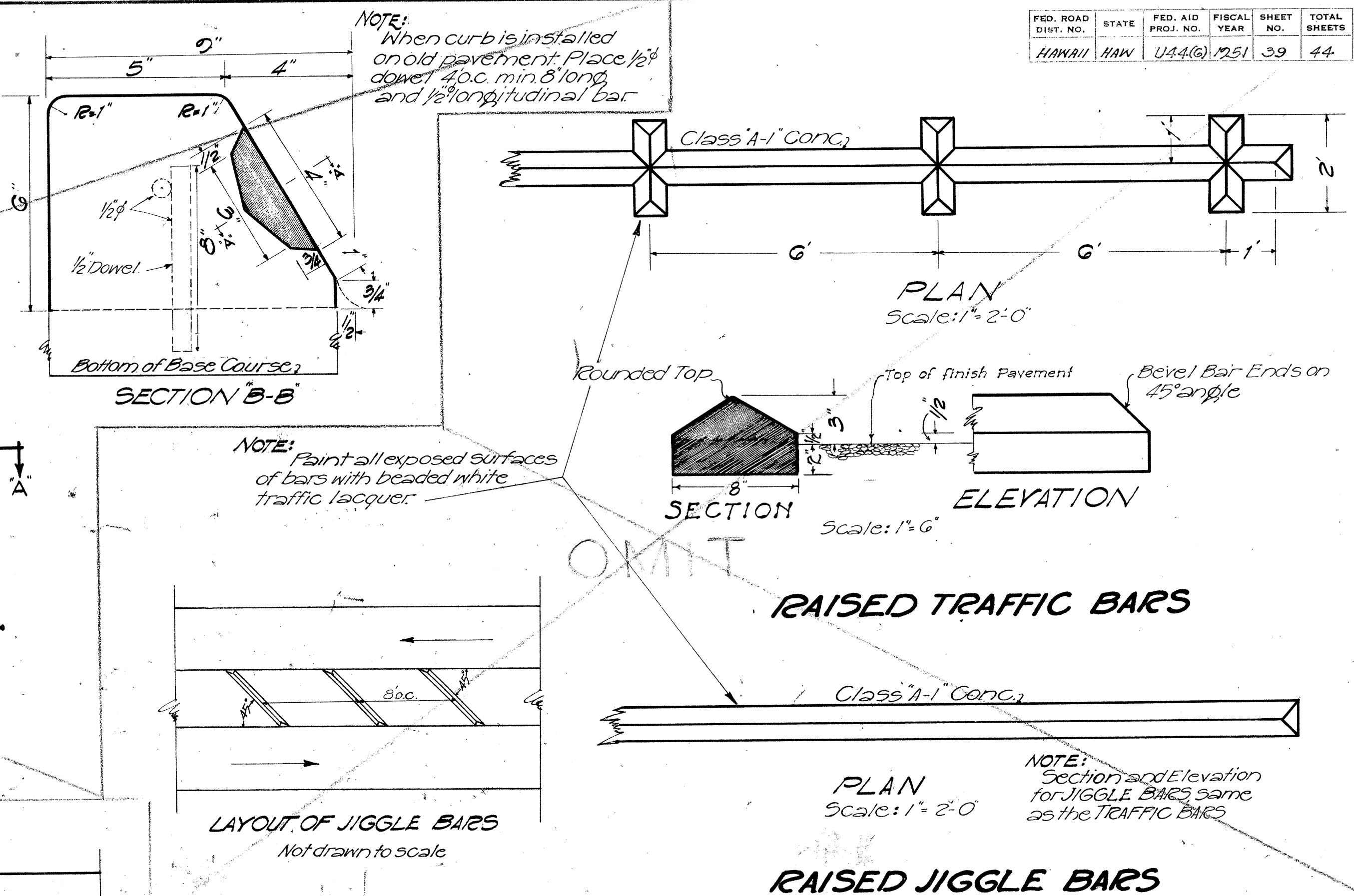
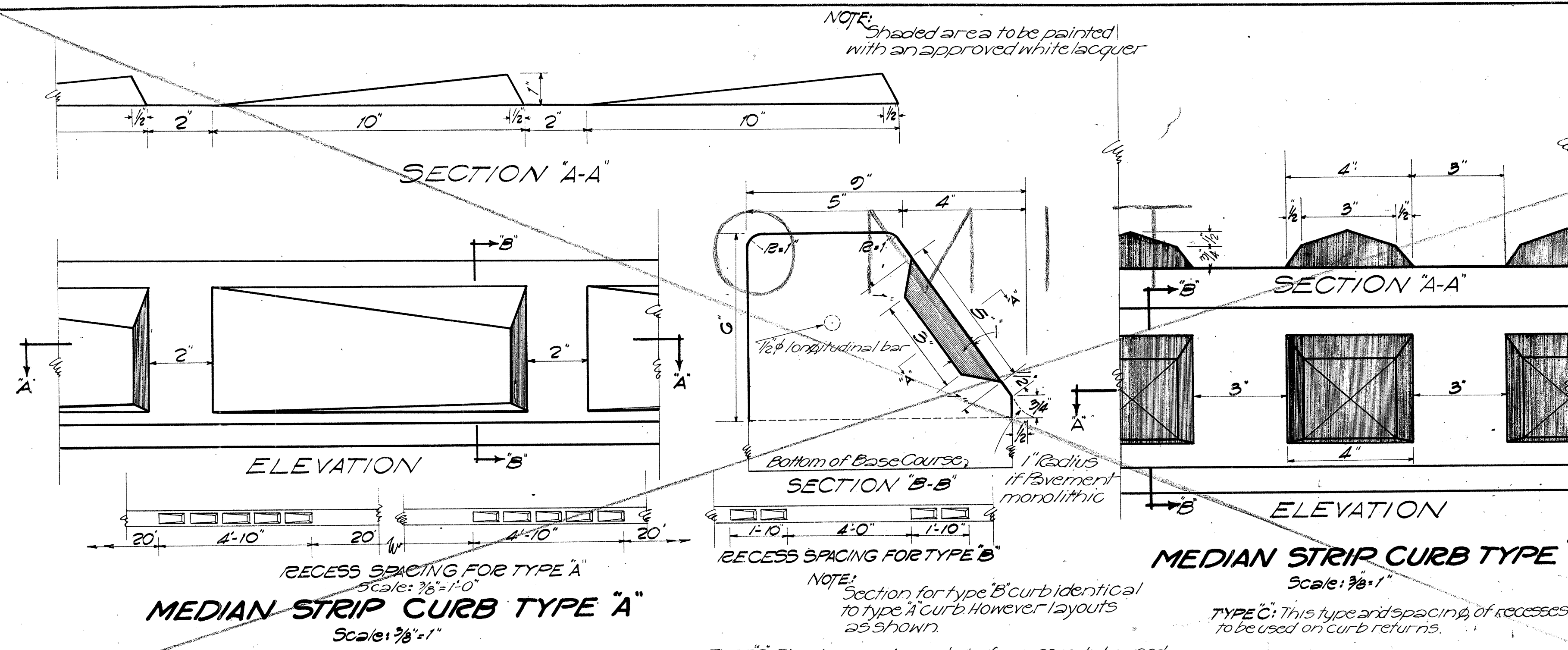
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

STANDARD DETAILS

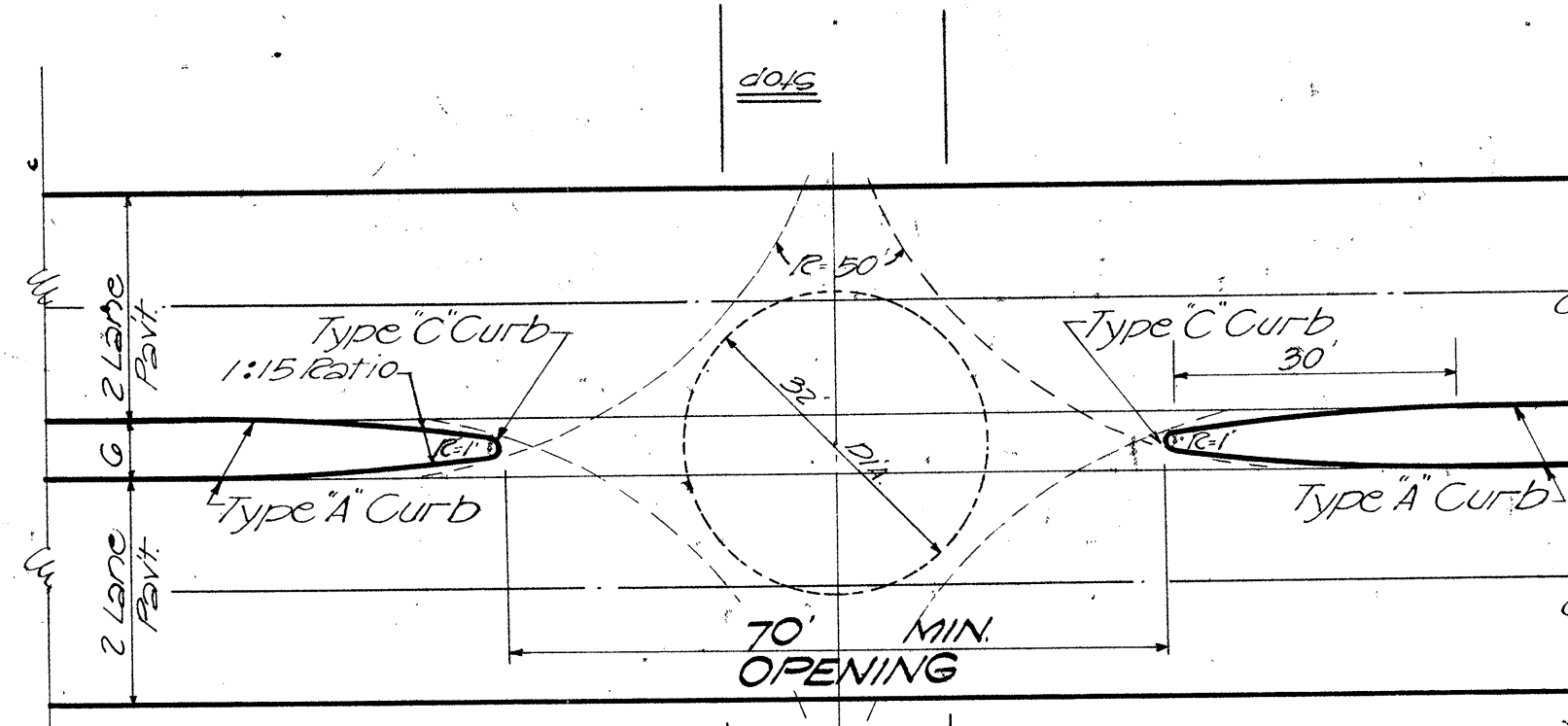
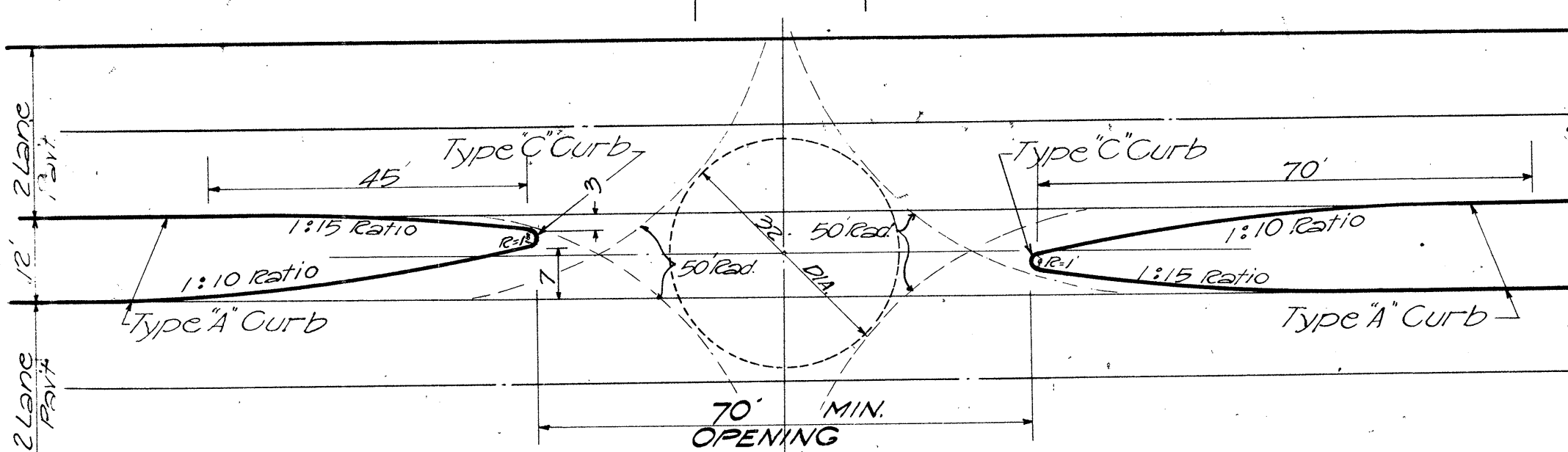
SCALES AS NOTED A A May 31, 1949

APPROVED: _____
Territorial Highway Engineer

SHEET No 3 OF 4 SHEETS

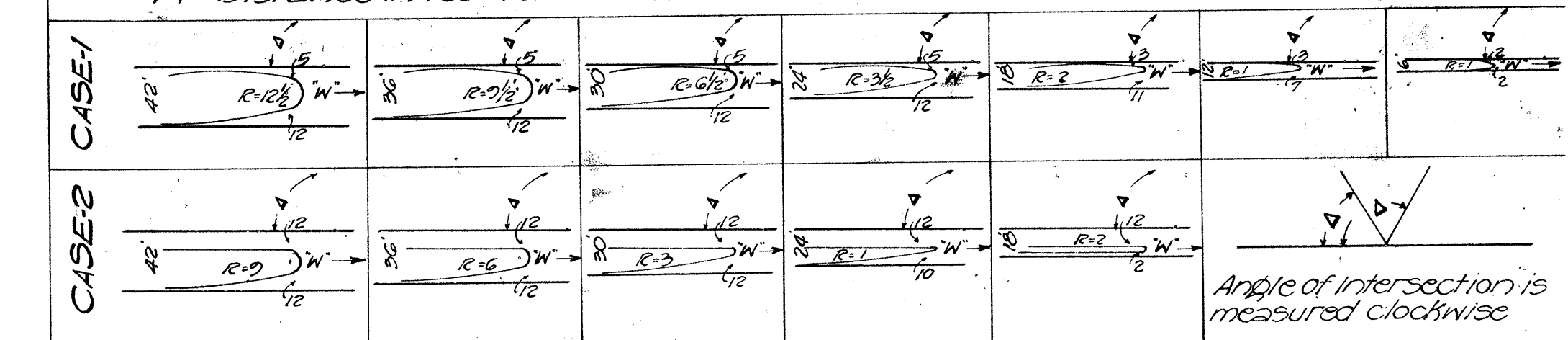


NOTE:
⊕ With an 18' Median Strip, the 12' Offset must be reduced to 11'; Which in turn reduces the 1:10 flare to 90'



4 Angle of Inter.	WIDTH OF MEDIAN STRIP													
	42'		36'		30'		24'		18'		12'		6'	
	CASE 1 "N"	CASE 2 "N"	CASE 1 "N"	CASE 2 "N"	CASE 1 "N"	CASE 2 "N"	CASE 1 "N"	CASE 2 "N"	CASE 1 "N"	CASE 2 "N"	CASE 1 "N"	CASE 2 "N"	CASE 1 "N"	CASE 2 "N"
30°	54	58	58	62	64	66	68	70	70	66	64	62	62	68
65°	48	52	52	56	56	60	60	62	62	58	58	58	62	62
70°	42	46	46	50	50	54	54	56	54	52	52	52	56	56
75°	36	40	40	44	44	48	48	50	48	46	46	46	50	50
80°	32	36	36	38	38	42	42	44	42	42	40	40	44	44
85°	30	32	32	34	34	36	36	38	38	38	36	36	38	38
90°	30	30	30	30	30	34	30	30	30	30	36	35	35	35
95°	30	32	30	34	30	36	30	36	32	36	36	36	36	36
100°	30	36	30	38	30	42	36	44	36	44	40	44	44	44
105°	30	40	32	44	34	48	38	50	40	50	46	46	50	50
110°	32	46	36	50	38	54	42	56	46	56	52	52	56	56
115°	38	52	42	56	44	60	48	62	52	62	58	58	62	62
120°	44	58	48	62	52	66	56	70	60	70	64	64	68	68

"W" = Distance in feet from Island Nose to Centerline of Intersection.



NOTE: Sketches are not to scale

STANDARD MEDIAN STRIP OPENING
Scale: 1"=20'

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

STANDARD DETAILS

Scale as shown

APPROVED

Date 9-2-42
Paul Belt
TERRITORIAL HIGHWAY ENGINEER

SHEET No 4 OF 4 SHEETS

5505.39