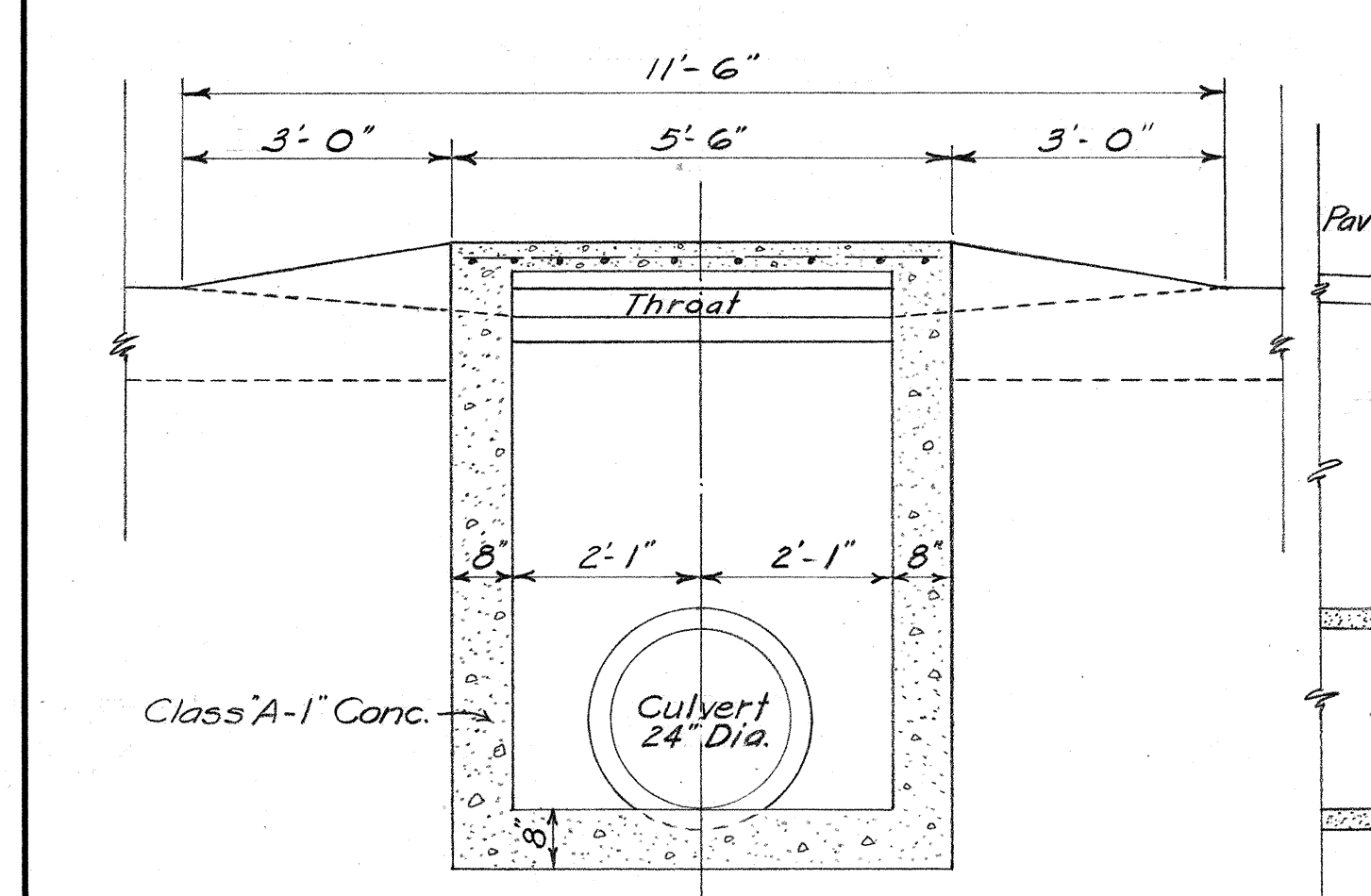
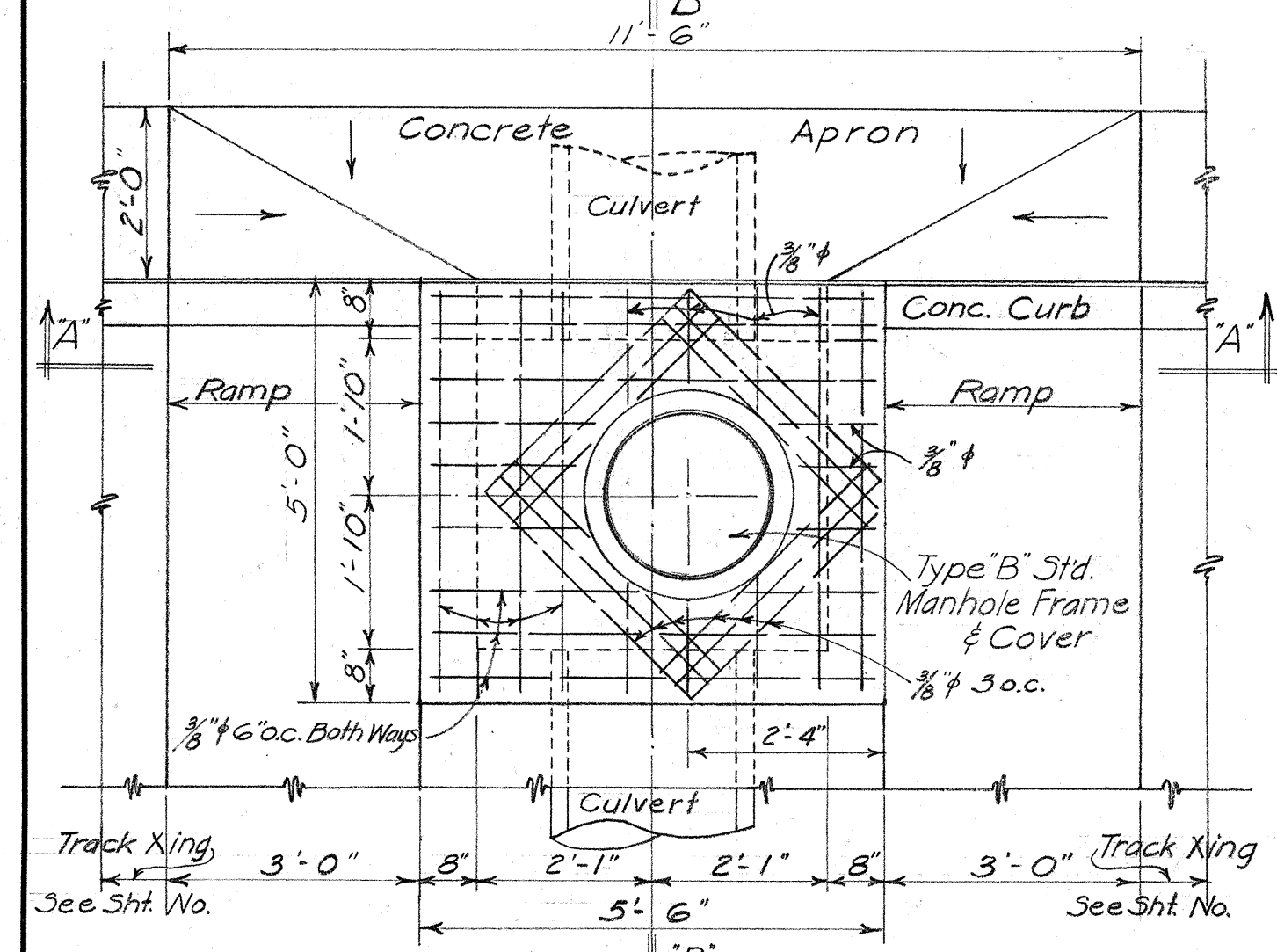


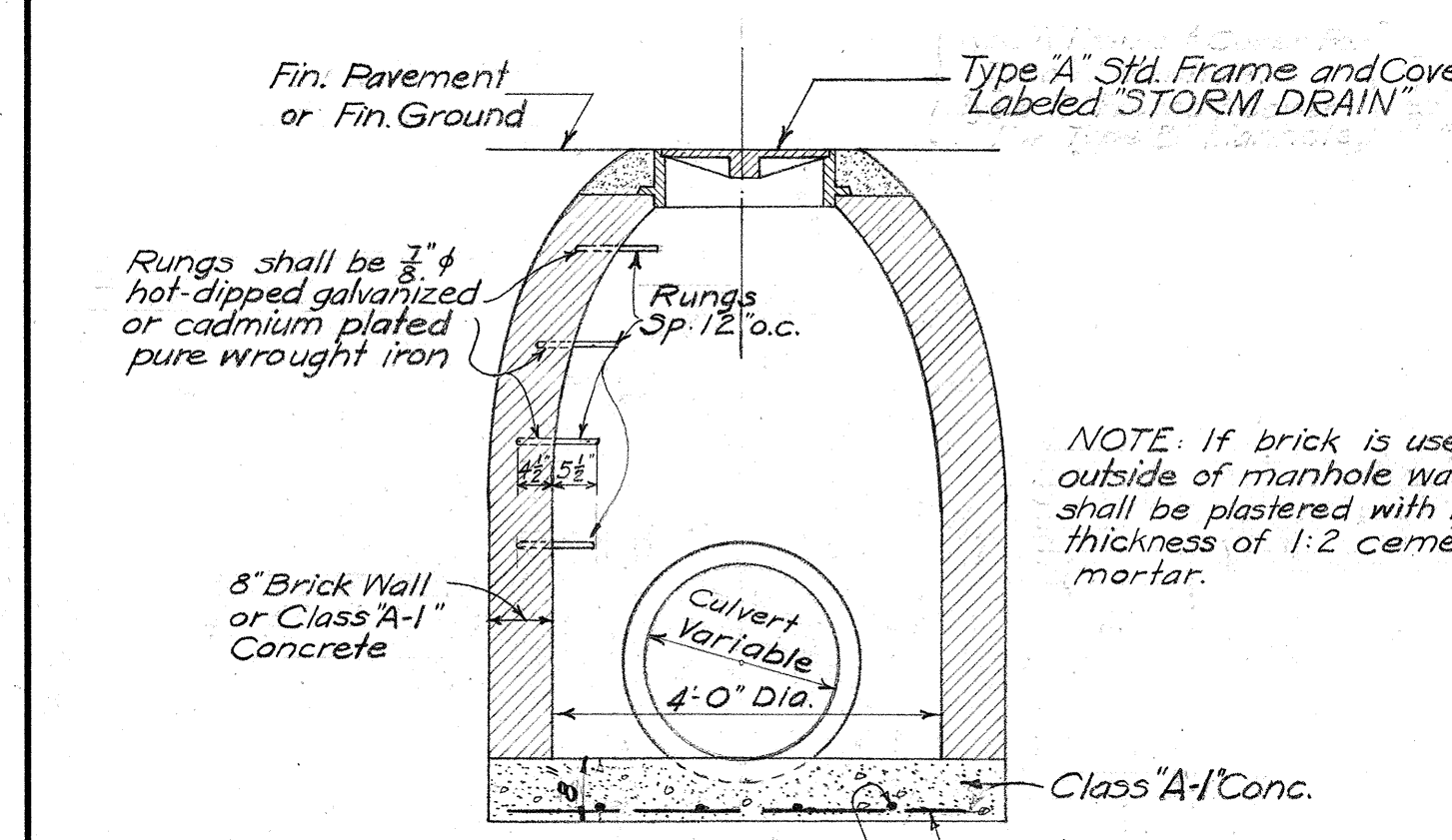


SECTION "A-A"



PLAN

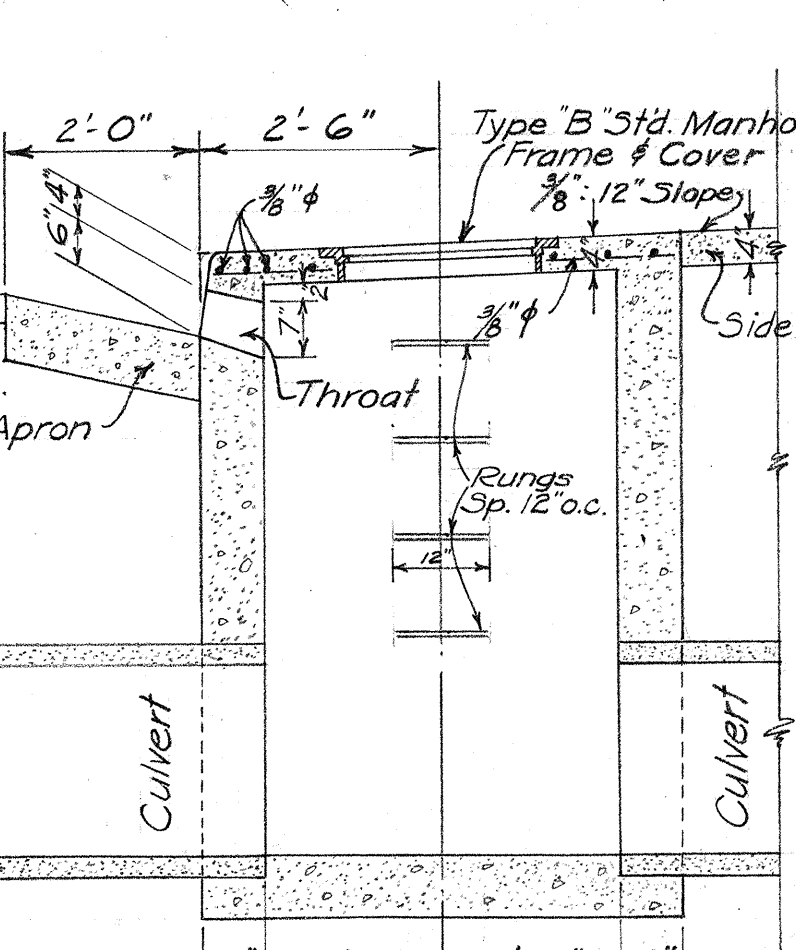
DETAIL OF CONCRETE CATCHBASIN
SPECIAL TYPE "D"
Scale: 1/2" = 1'-0"



SECTION

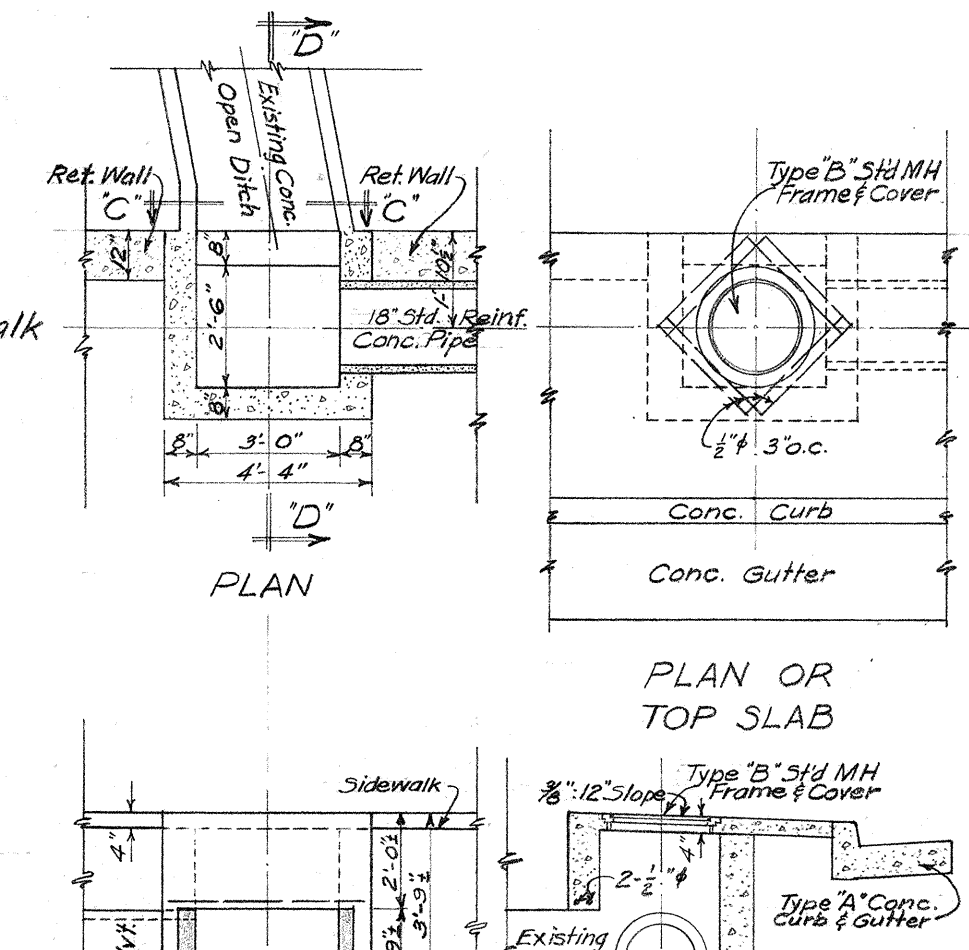
DETAIL OF TYPE "D" MANHOLE
STORM DRAIN MANHOLES
#1 TO #4 INCLUSIVE
Scale: 1/2" = 1'-0"

NOTE: Class "B-1" Concrete and Reinforced Steel in bottom slab to be paid for separately under the appropriate items.



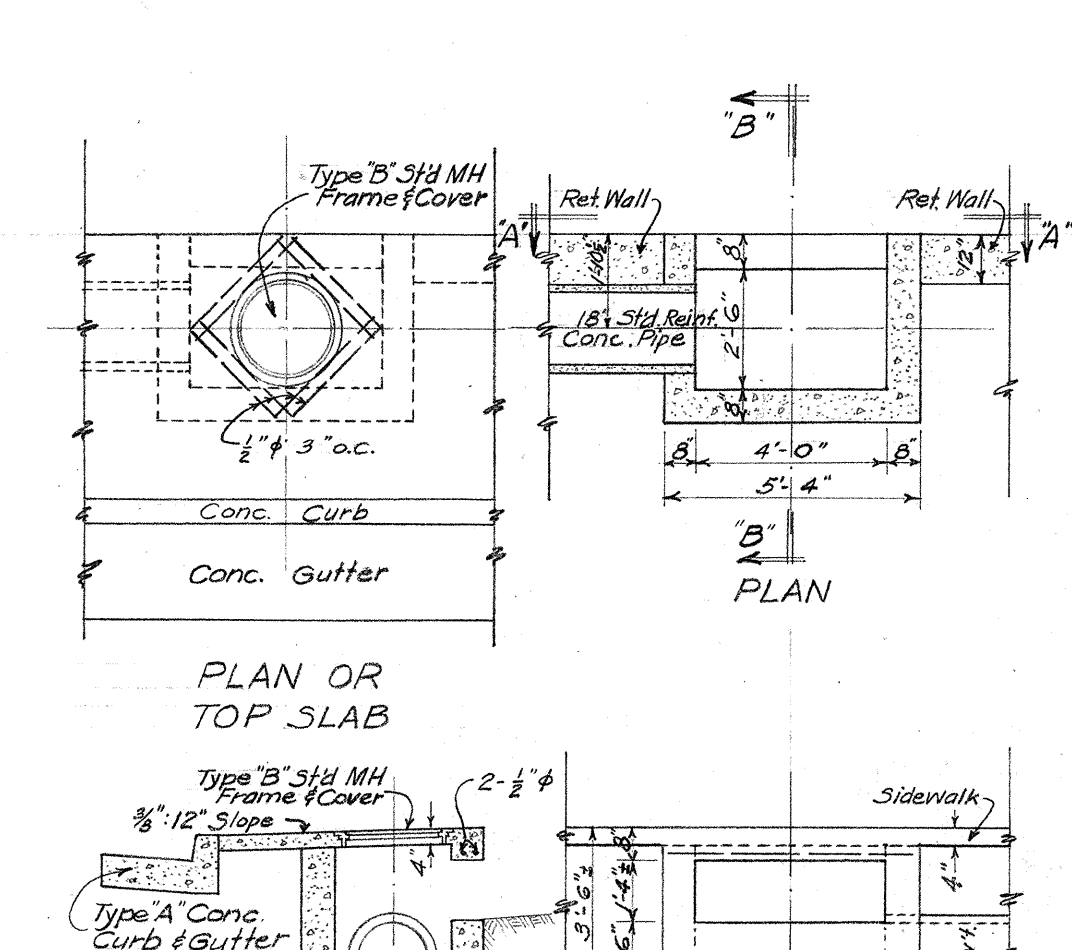
SECTION "B-B"

Note: Provide Rungs similar to those shown for Type "A" Manhole.



PLAN

CONC. OUTLET BOX # 1
STA. 90+35 ±
Scale: 1/4" = 1'-0"

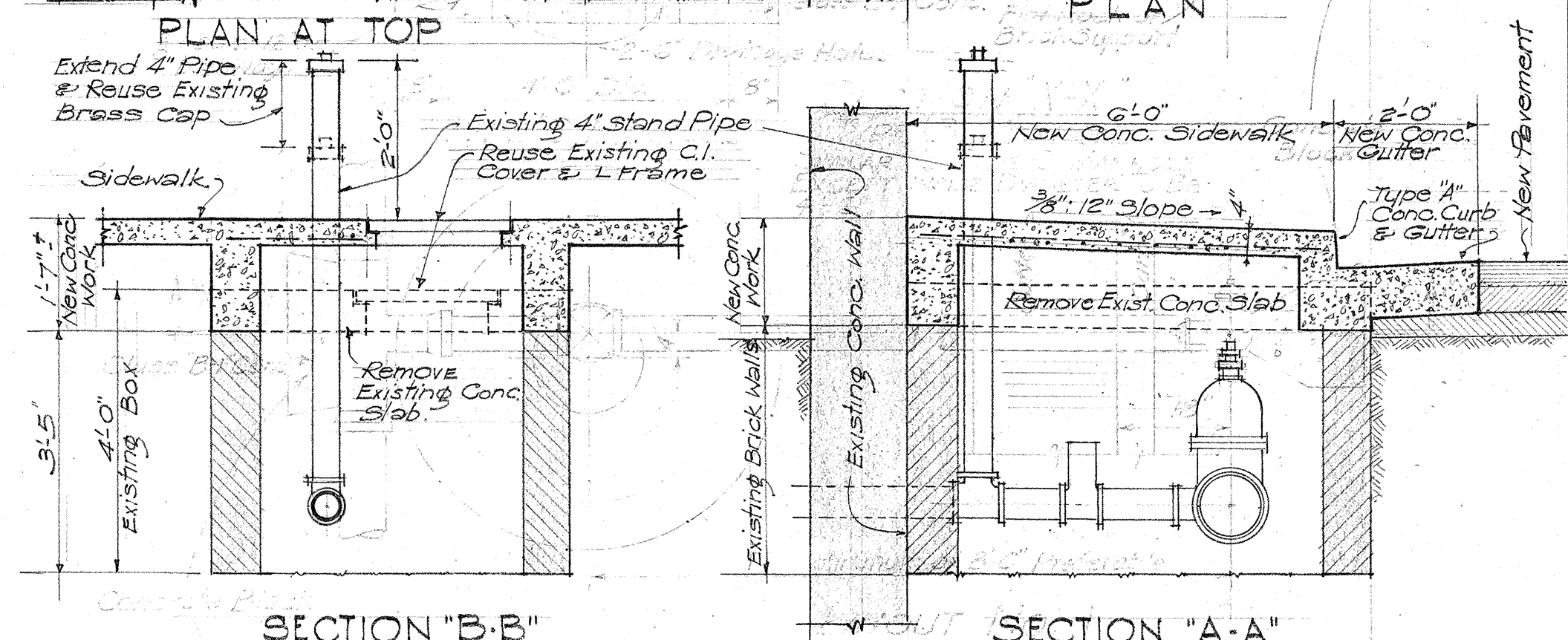
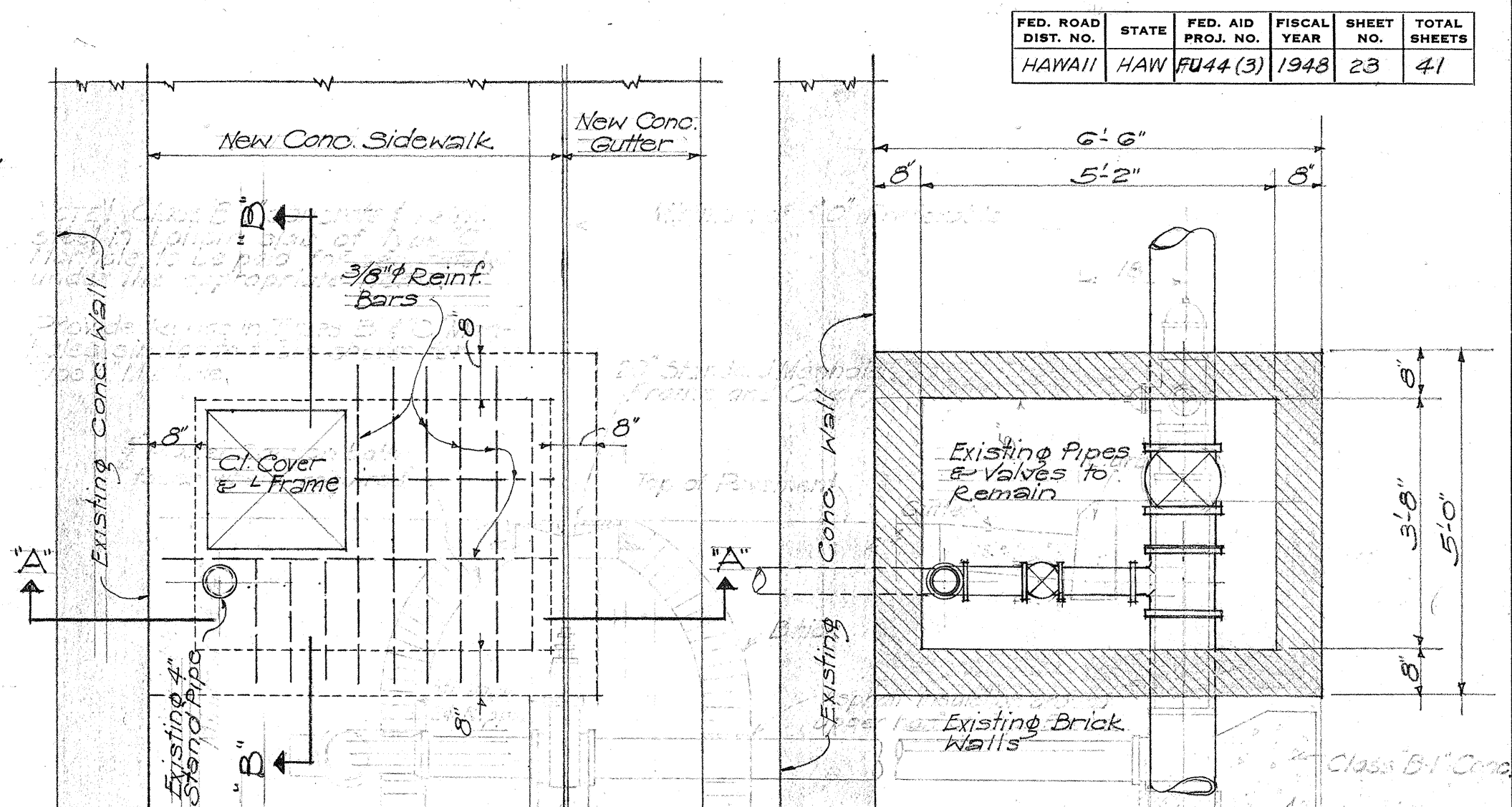


PLAN OR TOP SLAB

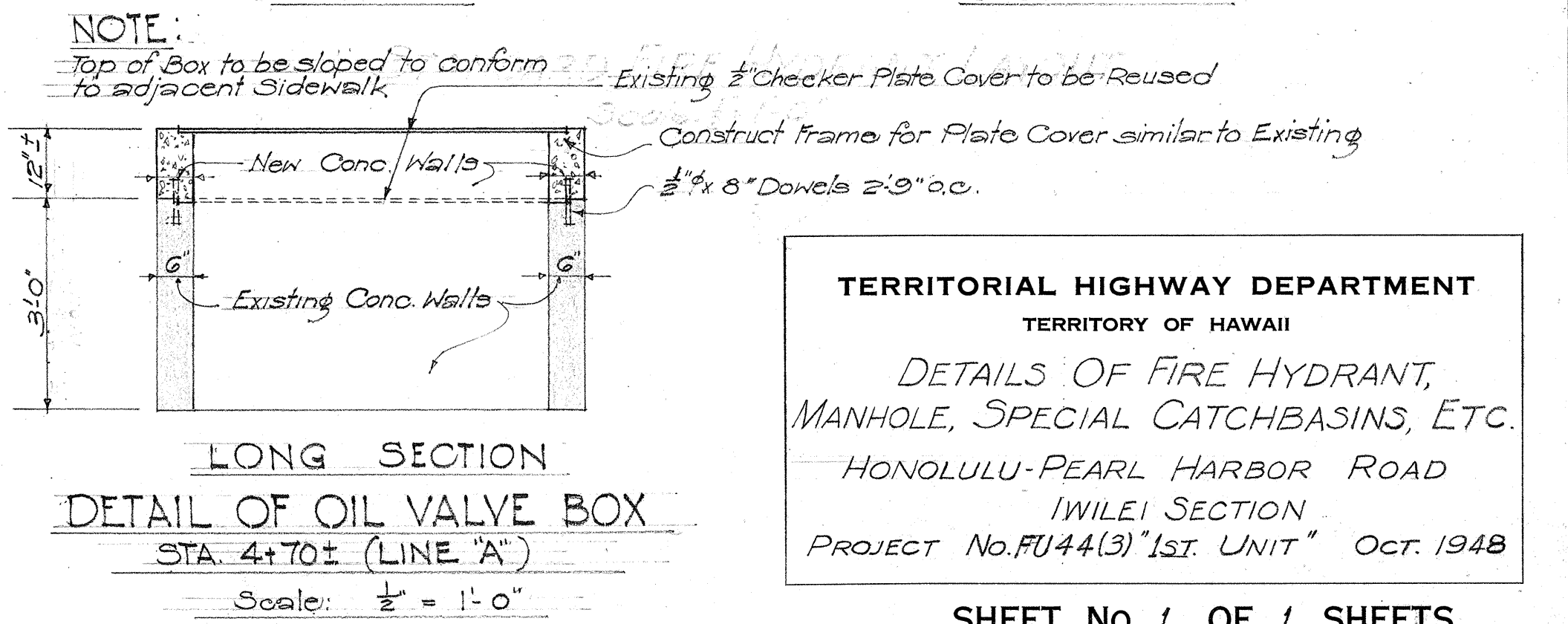
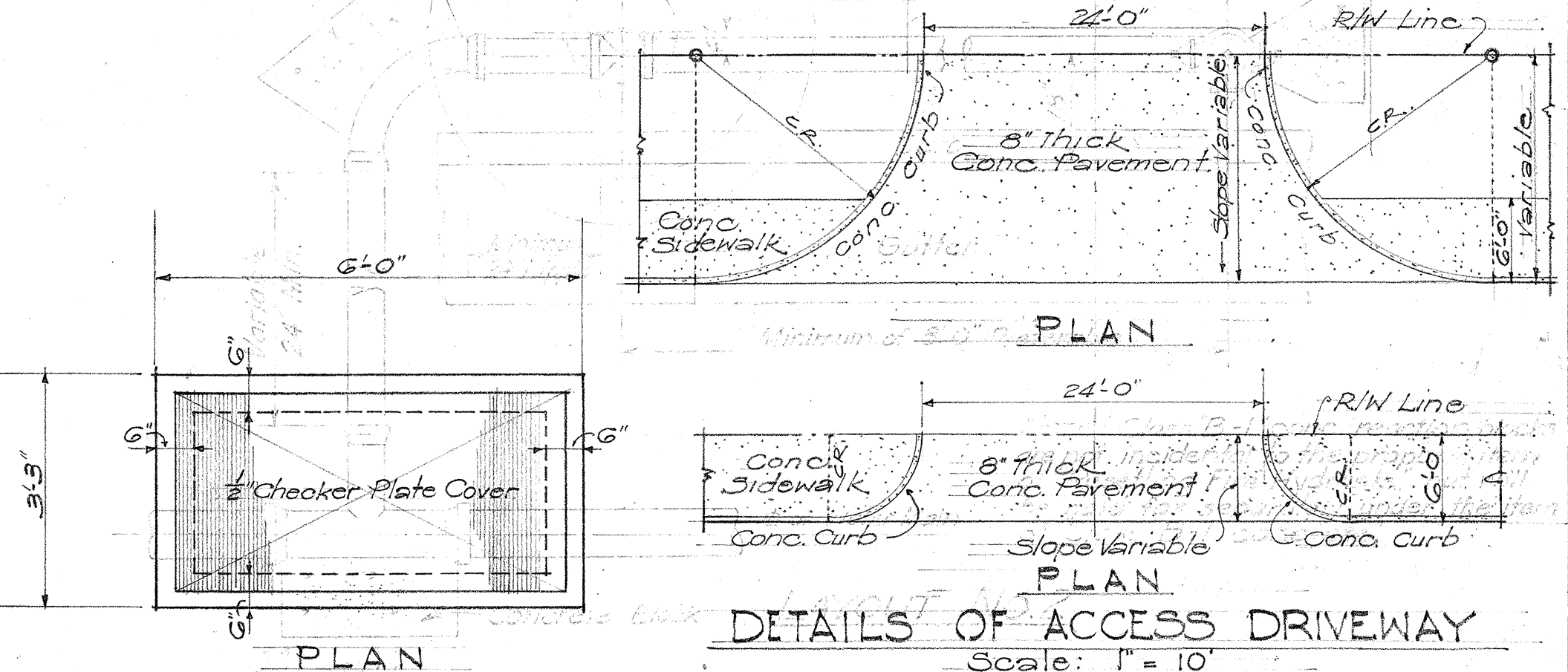
CONC. CATCHBASIN # 11
STA. 91+50 ±
Scale: 1/4" = 1'-0"

ESTIMATED QUANTITIES

ITEM	TYPE	LOCATION	TOP CURB ELEV.	MANHOLE COVER ELEV.	FLOOR ELEV.	STD. MANHOLE CASTING TYPE	CONC. PIPE CULVERT FT.	STD. REINF. CONC. PIPE FT.	STRUCT. EXC. CU. YDS.	CONCRETE CLASS	CULYDS.	REINF. STEEL LBS.	ROCK FILL C.Y.
Catch Basin #1	Std. "B"	Outbound 85+20	5.24	5.35	1.40	-	1	-	11	6.0	-	96	-
18" Pipe Culvert	-	CB #1 To 8'x4' Box Culvert	-	-	-	-	96	-	87	-	-	-	25
8'x4' Conc. Box Culvert	-	Outbound 86+00 ±	-	-	-	-	1	-	210	14.3	-	20,220	-
Catch Basin #2	Std. "C"	Outbound 87+00	4.61	4.72	1.23	-	1	-	16	5.7	-	96	-
18" Pipe Culvert	-	CB #2 To 8'x4' Box Culvert	-	-	-	-	-	48	24	-	-	-	-
Catch Basin #3	Std. "A"	Inbound 90+50	6.74	6.85	1.27	-	1	-	15	8.3	-	126	-
Drop Intake #1	-	Line "E" 1+65 ±	7.80	-	3.00	-	-	-	4	1.4	-	-	-
18" Pipe Culvert	-	CDI #1 To CB #3	-	-	-	-	-	32	21	-	-	-	-
Catch Basin #4	Std. "B"	Line "E" 1+60 ±	6.44	6.55	2.56	-	1	-	8	6.0	-	96	-
Manhole #1	"D"	Inbound 93+50	6.59	6.60	1.58	1	-	-	7	0.6	-	14	-
18" Pipe Culvert	-	CB #4 To MH #1	-	-	-	-	24	-	10	-	-	-	-
Catch Basin #5	Std. "A"	Inbound 93+50	5.68	5.79	2.00	-	1	-	20	7.4	-	126	-
24" Storm Drain	-	Inbound 86+03 To 5'x3'x4' Box Culvert	-	-	-	-	-	80	632	680	-	-	220
Manhole #2	"D"	Outbound 100+28 ±	-	6.5	3.62	1	-	-	6	0.6	-	14	-
Manhole #3	"D"	Outbound 100+28 ±	7.60	7.73	3.79	1	-	-	6	0.6	-	14	-
24" Pipe Culvert	-	M.H. #2 To M.H. #3	-	-	-	-	-	88	35	-	-	-	-
Catch Basin #6	Std. "A"	Outbound 100+92 ±	7.22	7.33	3.90	-	1	-	14	7.1	-	126	-
24" Pipe Culvert	-	M.H. #3 To CB #6	-	-	-	-	-	64	22	-	-	-	-
Manhole #4	"D"	Outbound 100+92 ±	-	7.15	4.11	1	-	-	3	0.6	-	14	-
18" Pipe Culvert	-	CB #6 To MH #4	-	-	-	-	24	-	8	3.0	-	-	-
Catch Basin #7	Std. "C"	Outbound 116+12 ±	7.82	7.93	1.00	-	1	-	19	7.9	-	96	-
Catch Basin #8	Special "D"	Outbound 116+25 ±	6.70	6.81	0.68	-	1	-	14	3.4	-	47	-
24" Pipe Culvert	-	CB #7 To CB #8	-	-	-	-	88	-	75	-	-	-	-
Catch Basin #9	Special "D"	Outbound 116+02 ±	6.70	6.75	0.48	-	1	-	14	3.4	-	47	-
24" Pipe Culvert	-	CB #8 To CB #9	-	-	-	-	56	-	44	-	-	-	-
Manhole #5	Reconstruct	Outbound 119+12 ±	-	6.5	0.19	1	-	-	6	-	-	-	-
24" Pipe Culvert	-	CB #9 To MH #5	-	-	-	-	56	-	50	-	-	-	-
Manhole #6	Reconstruct	Outbound 119+10 ±	-	4.55	0.50	1	-	-	2	-	-	-	-
Catch Basin #10	Std. "A"	Outbound 119+50	4.01	4.12	0.87	-	1	-	18	7.1	-	126	-
18" Pipe Culvert	-	M.H. #6 To CB #10	-	-	-	-	56	-	25	7.0	-	-	-
Catch Basin #11	Special	Outbound 119+50 ±	6.78 ±	6.90 ±	3.50	-	1	-	4	1.3	-	24	-
Outlet Box #1	-	Outbound 90+35 ±	6.07 ±	6.19 ±	2.50	-	1	-	5	1.9	-	22	-
18" Pipe Culvert	-	CB #11 To Outlet Box #1	-	-	-	-	-	112	29	-	-	-	-
F.H. Manhole	"C"	Outbound (2) Inbound (3)	4.5' Depth (AV.)	-	-	-	-	-	30	3.0	-	80	-



DETAIL OF WATER VALVE BOX
STA. 4+90 ± (LINE "A")
Scale: 1/2" = 1'-0"



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
DETAILS OF FIRE HYDRANT,
MANHOLE, SPECIAL CATCHBASINS, ETC.
HONOLULU-PEARL HARBOR ROAD
IWILEI SECTION
PROJECT No. FU44(3) 1ST. UNIT OCT. 1948