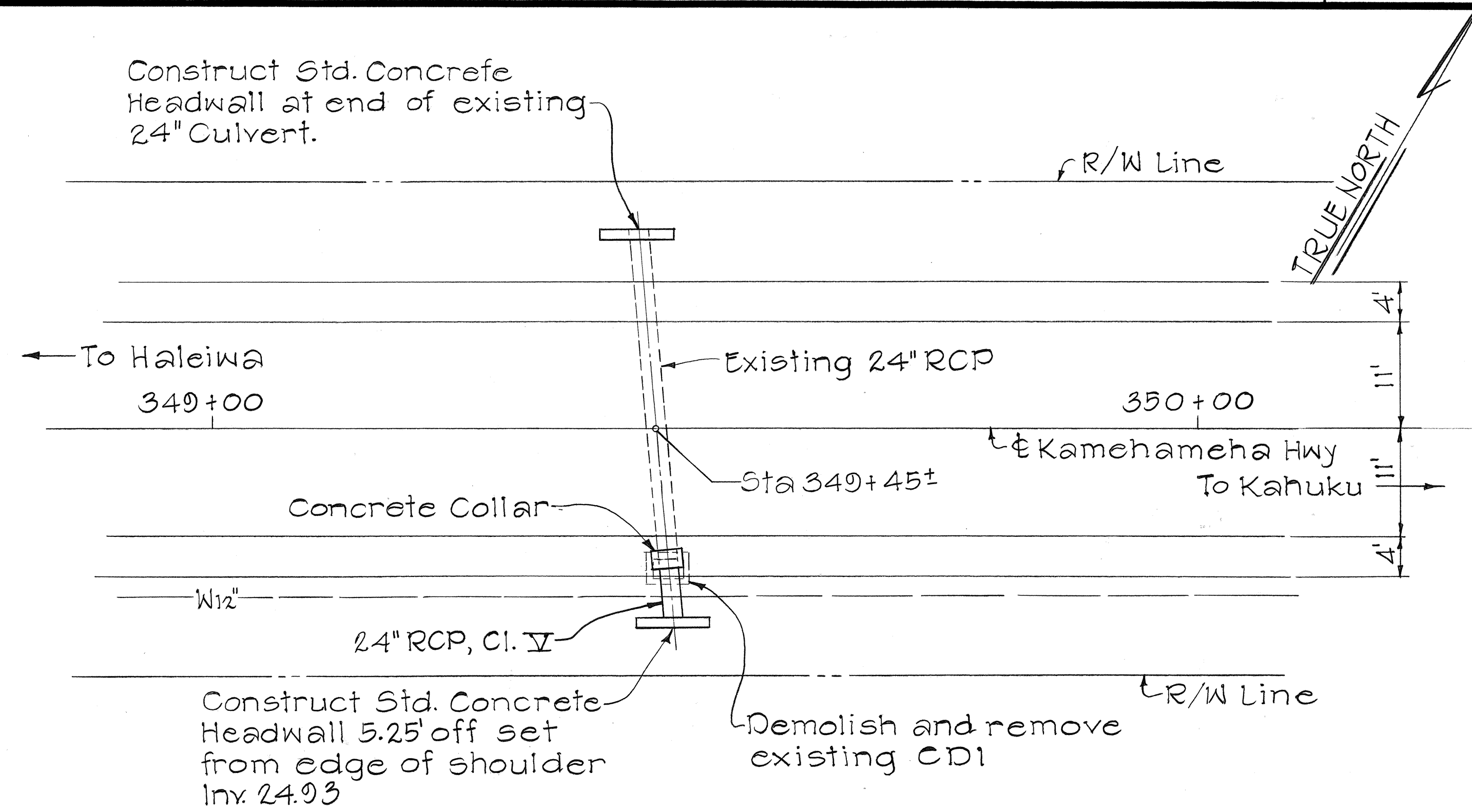
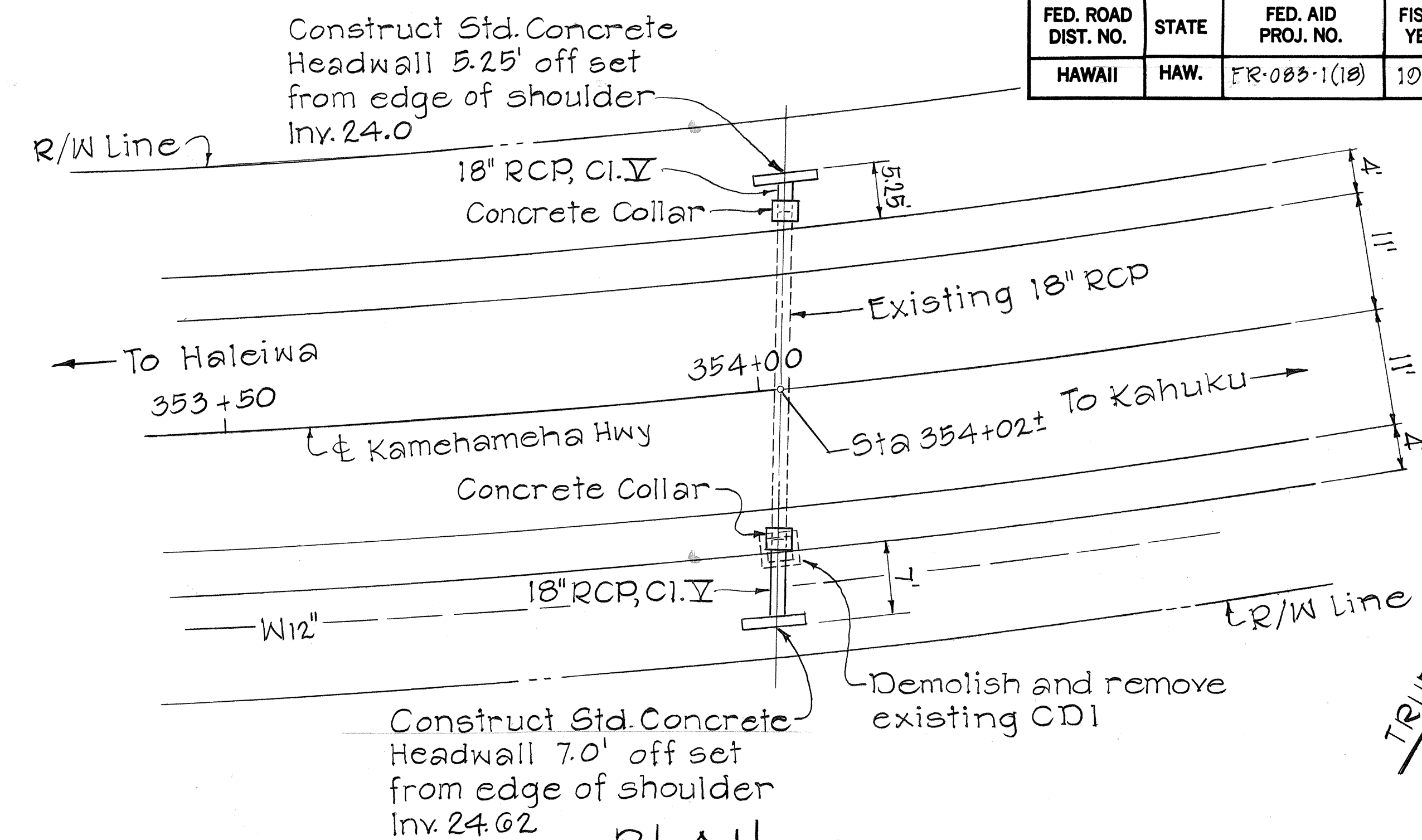


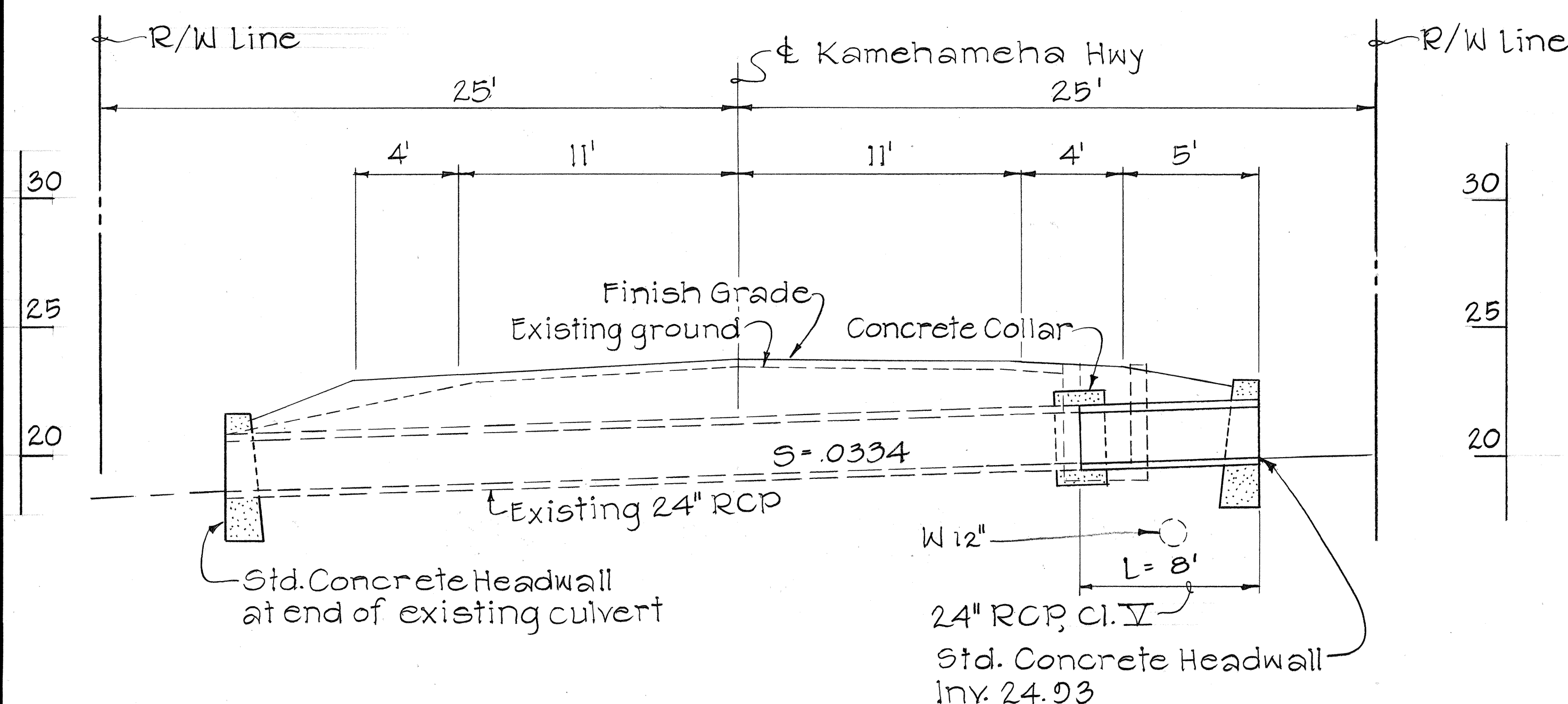
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FR-083-1(18)	1983	25	40



PLAN
Scale: 1" = 10'

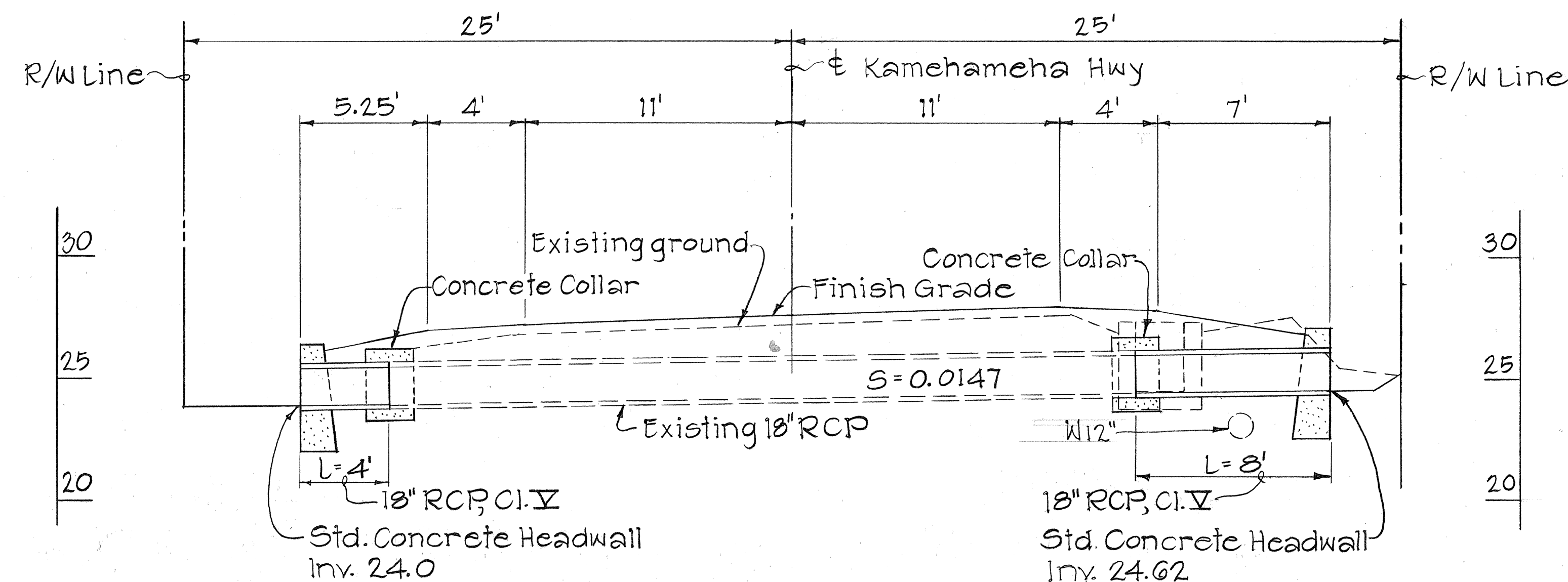


PLAN
Scale: 1" = 10'



PROFILE ALONG & CULVERT
Scale: 1" = 4'

DETAILS OF CULVERT AT STA. 349+45±

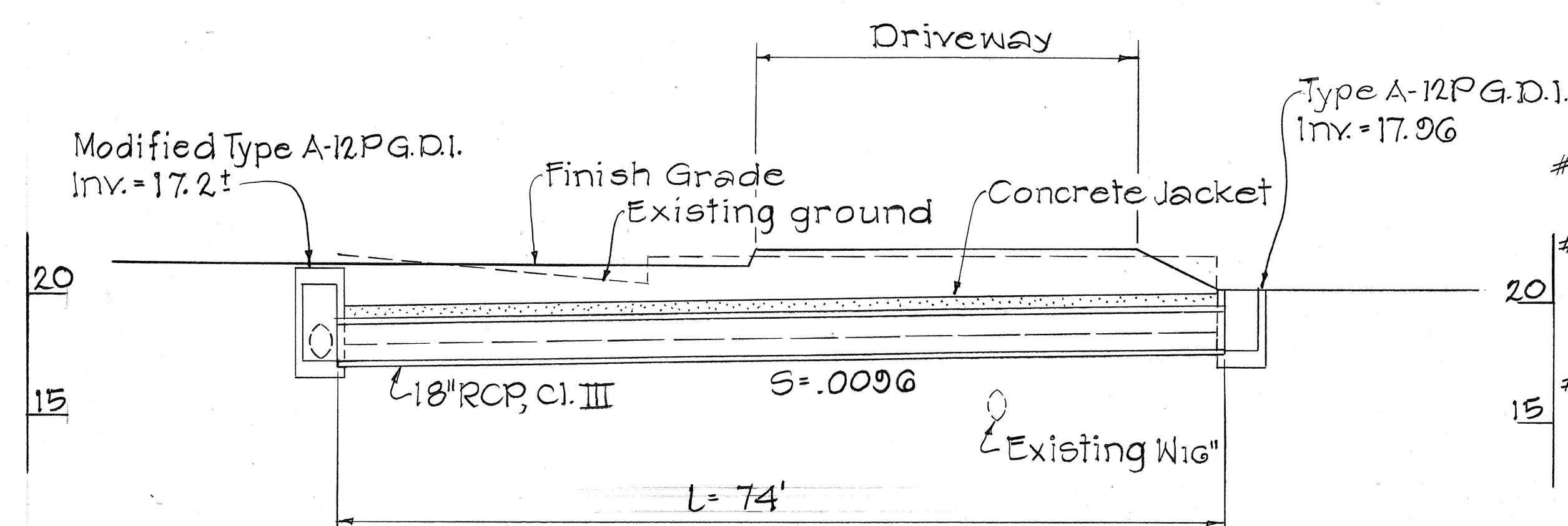
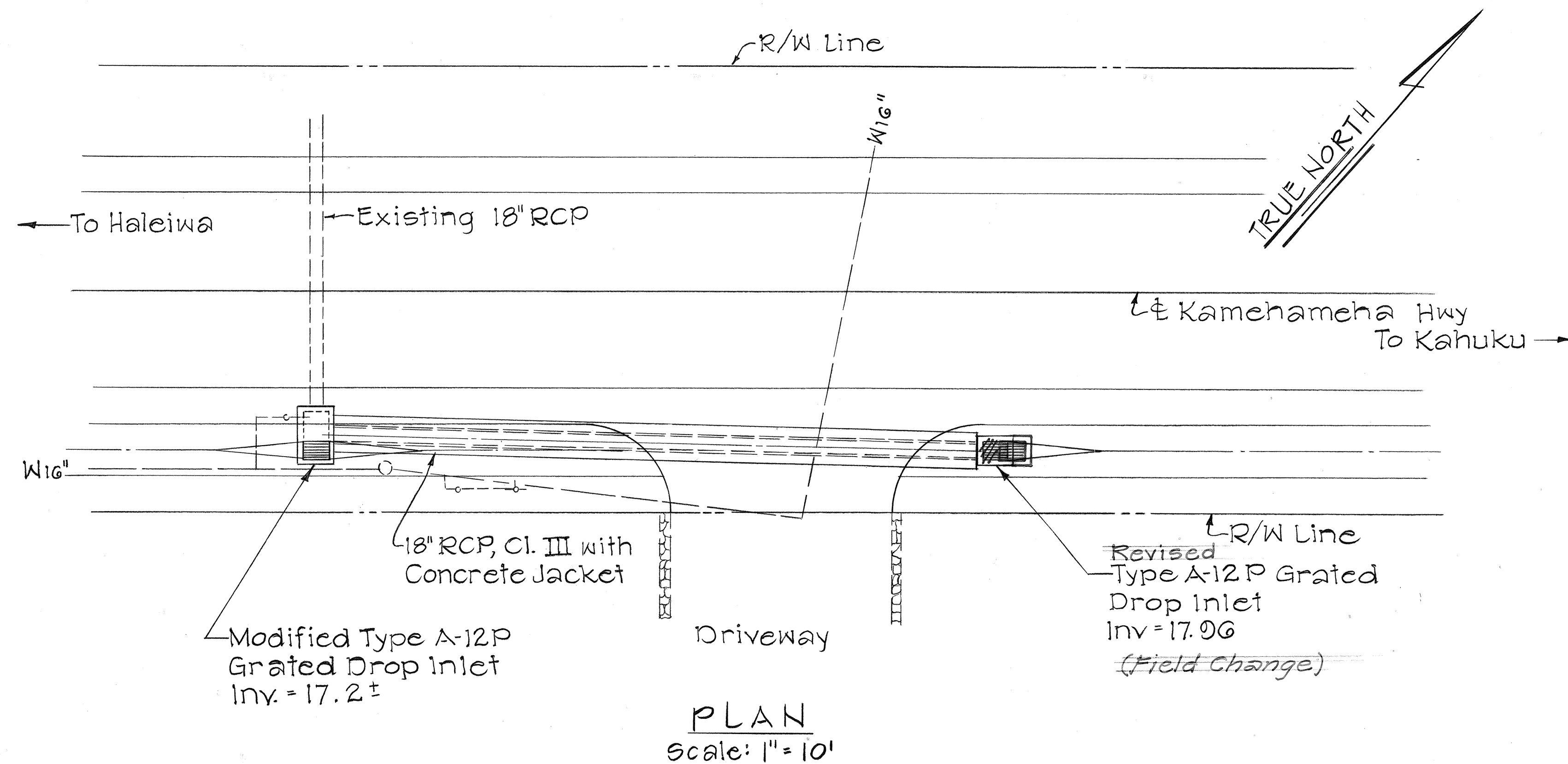


PROFILE ALONG & CULVERT
Scale: 1" = 4'

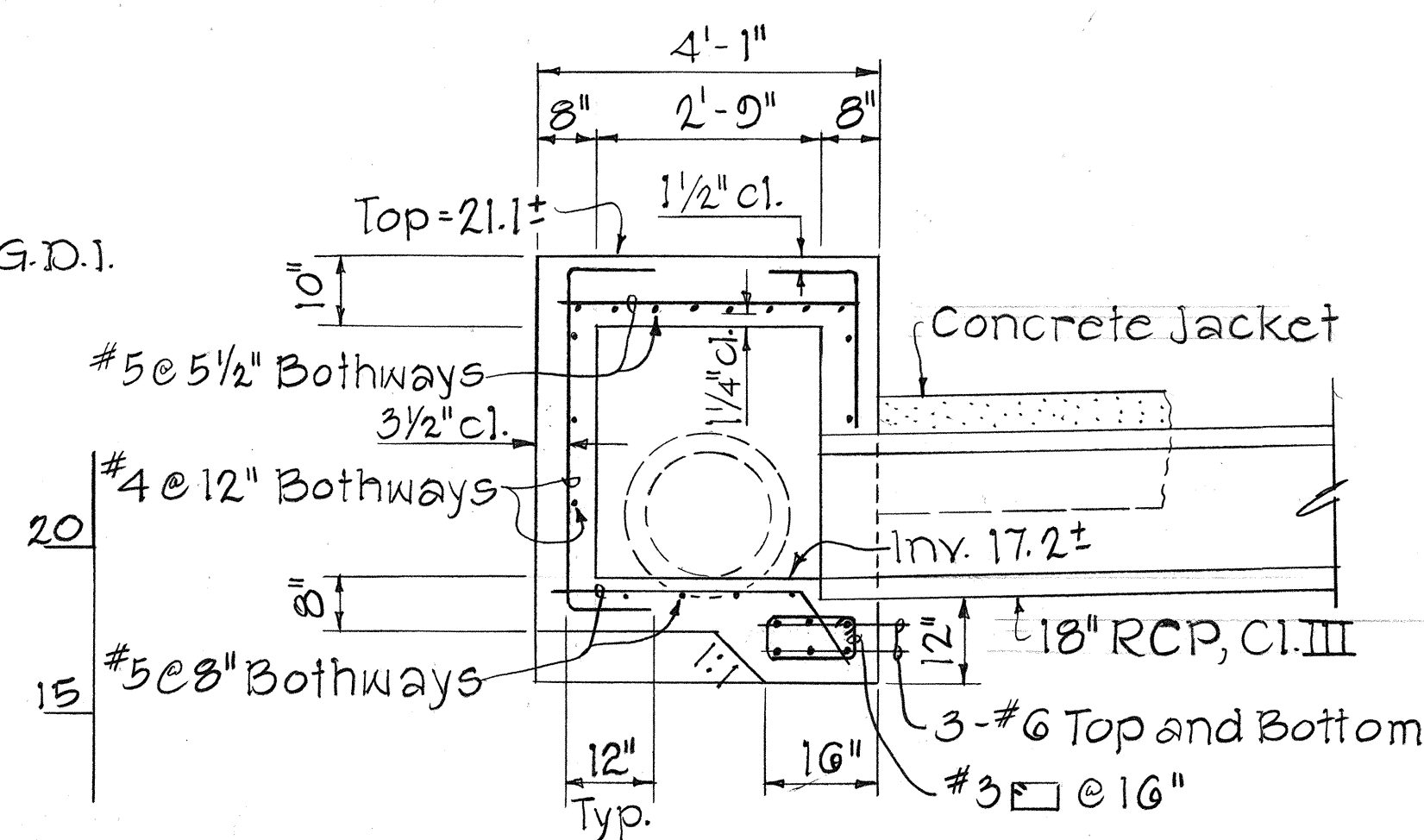
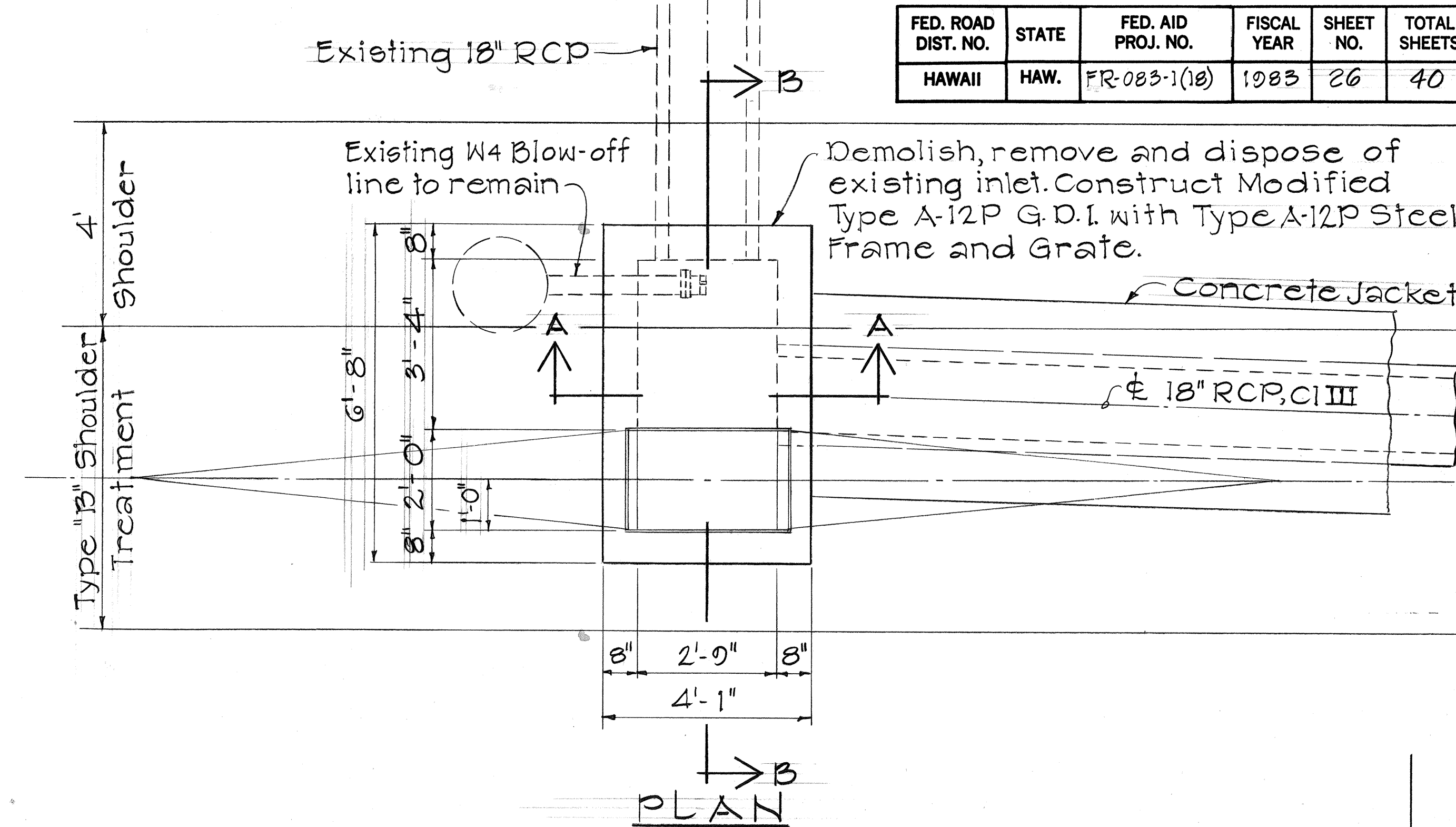
DETAILS OF CULVERT AT STA. 354+02±

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
DRAINAGE DETAILS
KAMEHAMEHA HWY RESURFACING
KAUNALA ST TO VICINITY OF
WAIALEE BRIDGE
PROJ. NO. FR-083-1(18)
Scale: As Noted Date: Dec 1982
SHEET NO. 1 OF 5 SHEETS

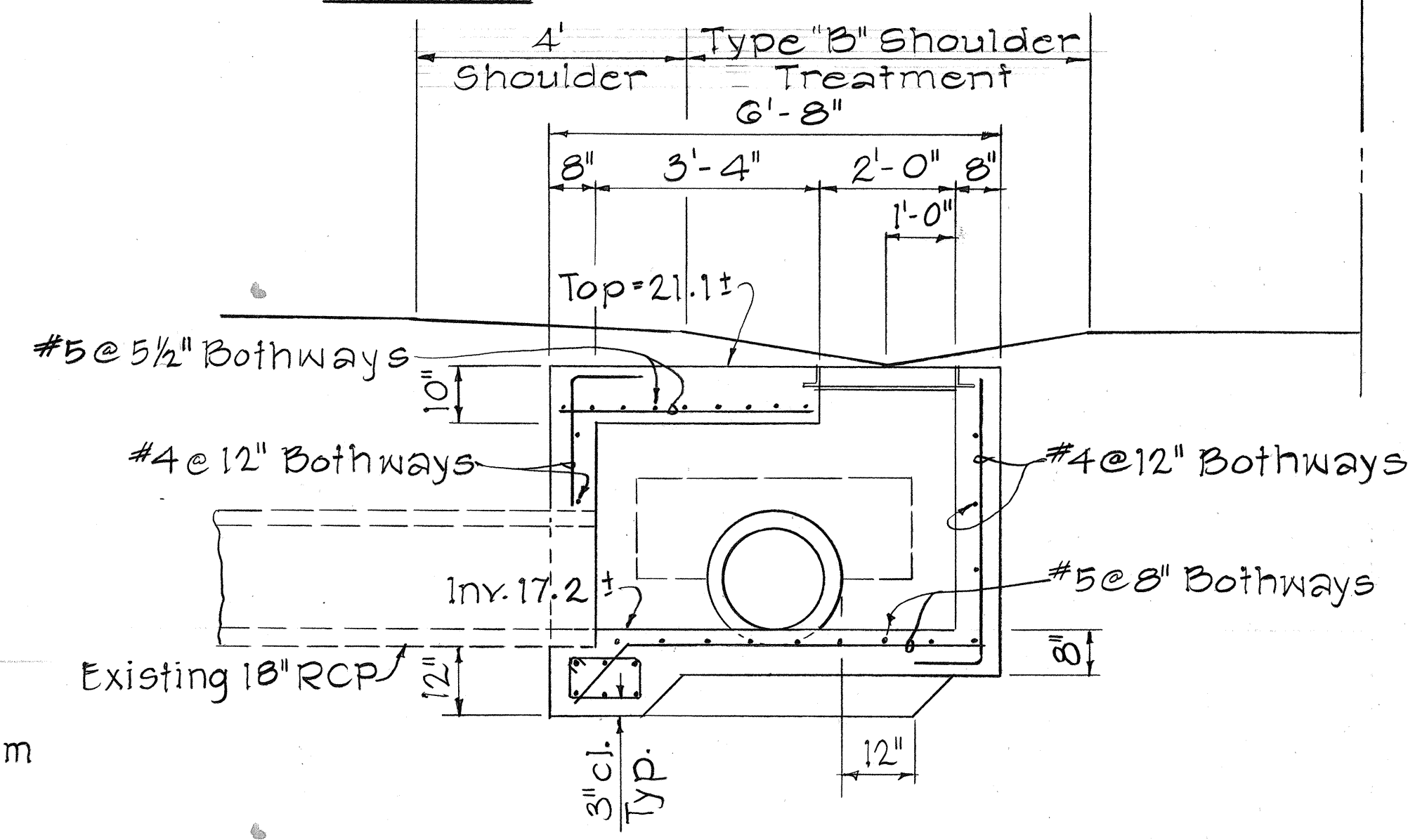
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FR-083-1(18)	1983	26	40



PROFILE ALONG CULVERT AT DRIVEWAY
Scale: Vert 1" = 5'
Horiz 1" = 10'

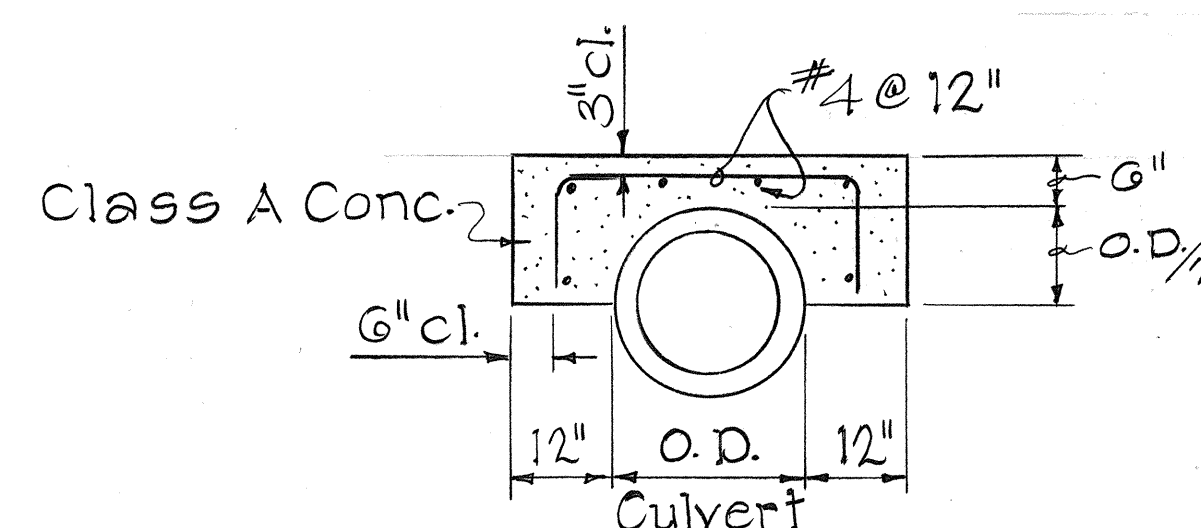


SECTION "A-A"



SECTION "B-B"

DETAILS OF MODIFIED TYPE A-12P GRATED DROP INLET
Scale: 1/2" = 1'-0"

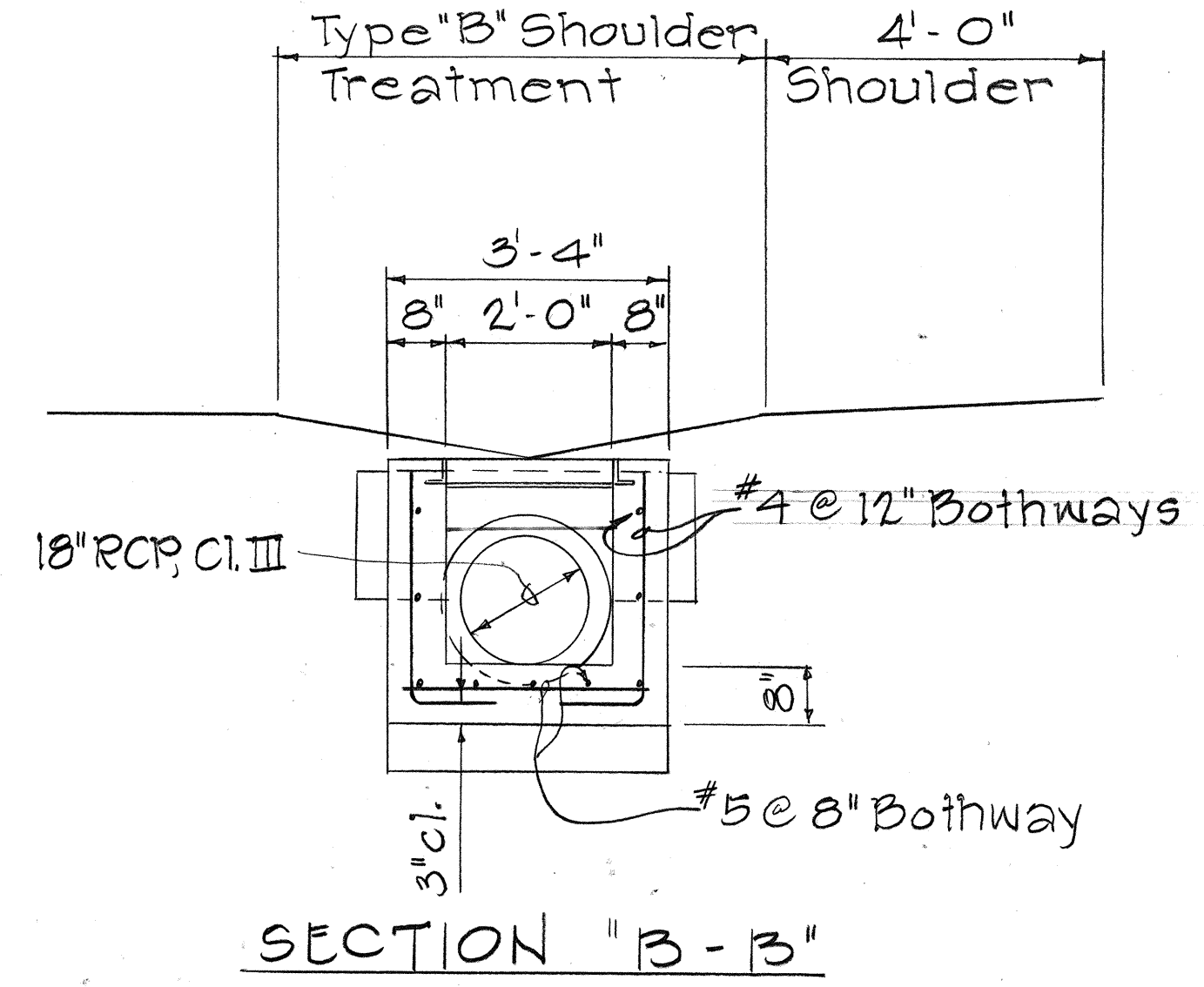
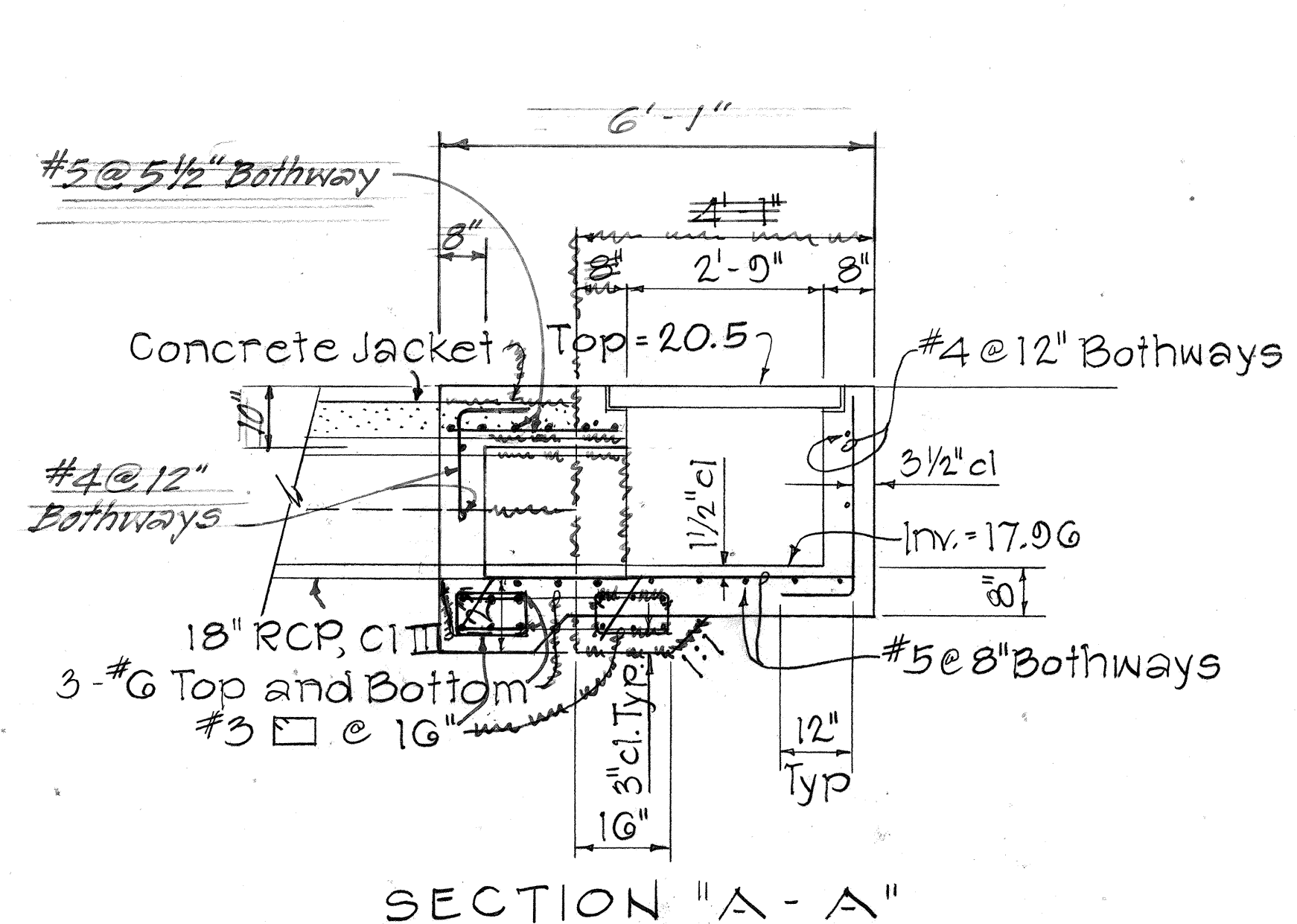
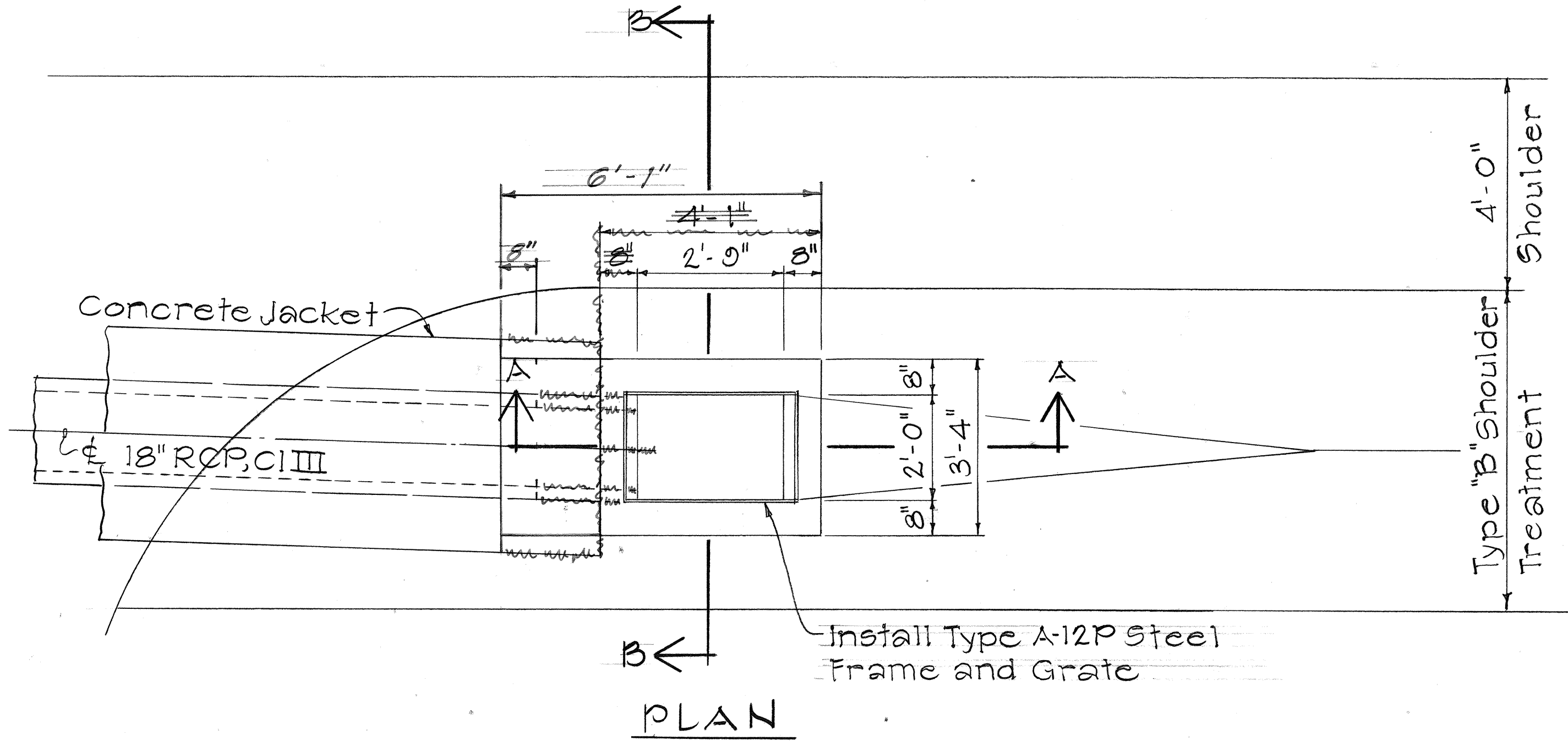


CONCRETE JACKET DETAIL
Scale: 1/2" = 1'-0"

DETAIL OF DRAINAGE IMPROVEMENTS AT ENTRANCE TO CONVALESCENT HOME

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
DRAINAGE DETAILS
KAMEHAMEHA HWY RESURFACING
KAUNALA ST TO VICINITY OF
WAIALEE BRIDGE
PROJ. No. FR-083-1(18)
Scale: As Noted Date: Dec 1982
SHEET NO. 2 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FR-083-1(18)	1983	27	40

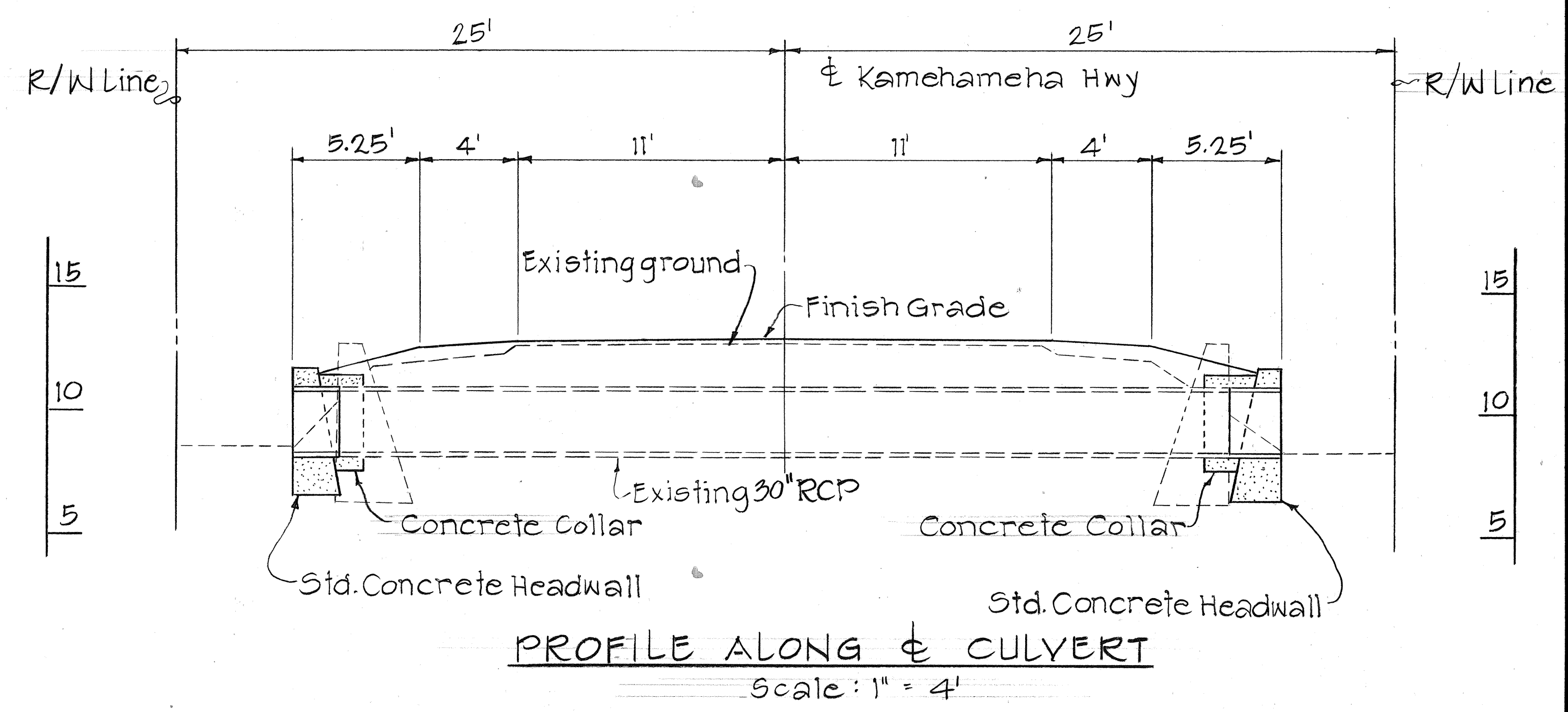
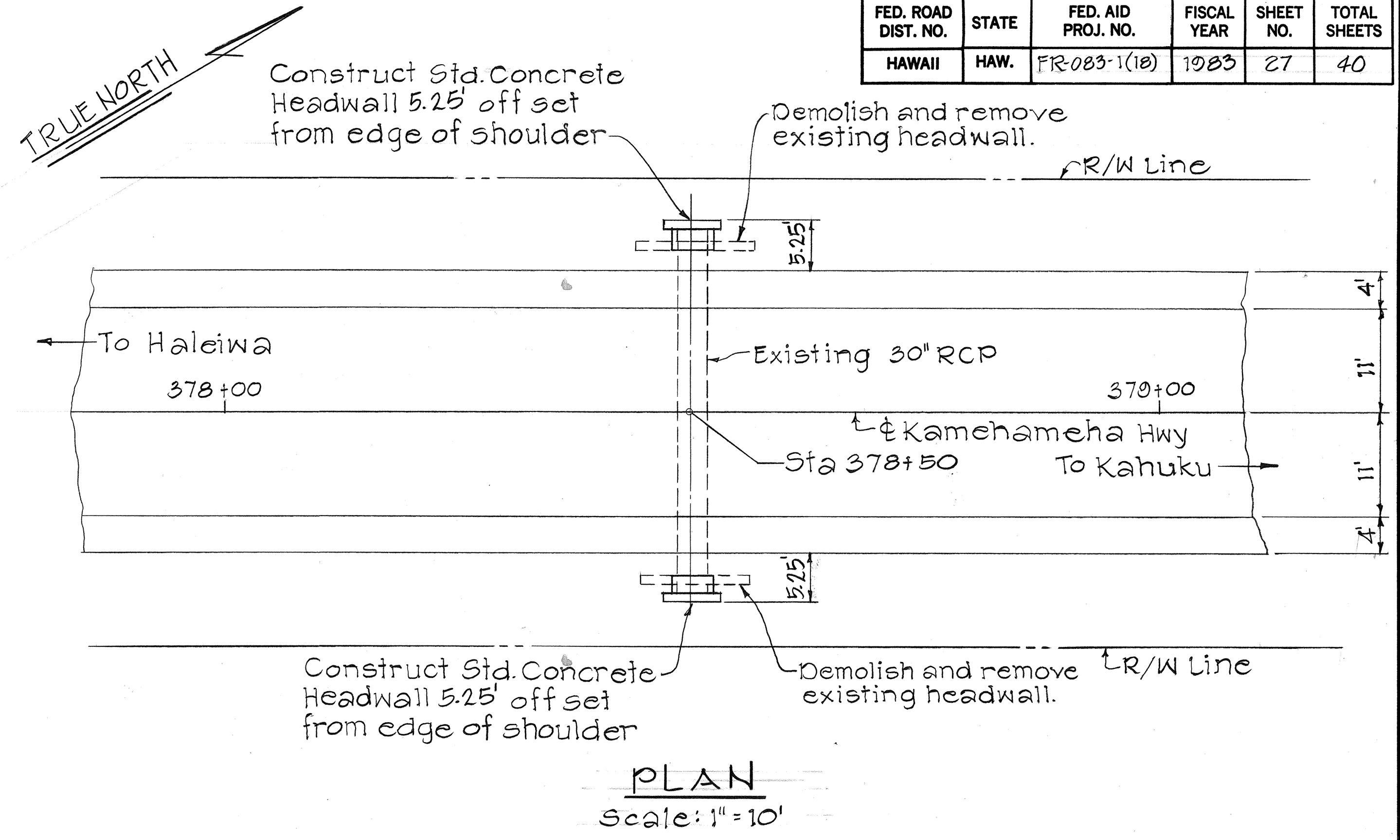


REVISED

TYPE A-12P GRATED DROP INLET AT ENTRANCE TO CONVALESCENT HOME

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

(Field Change)



DETAILS OF CULVERT AT STA. 378+50

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

DRAINAGE DETAILS

KAMEHAMEHA HWY RESURFACING

KAUNALA ST TO VICINITY OF

WAI'ALEE BRIDGE

PROJ. No. FR-083-1(18)

Scale: As Noted Date: Dec 1982

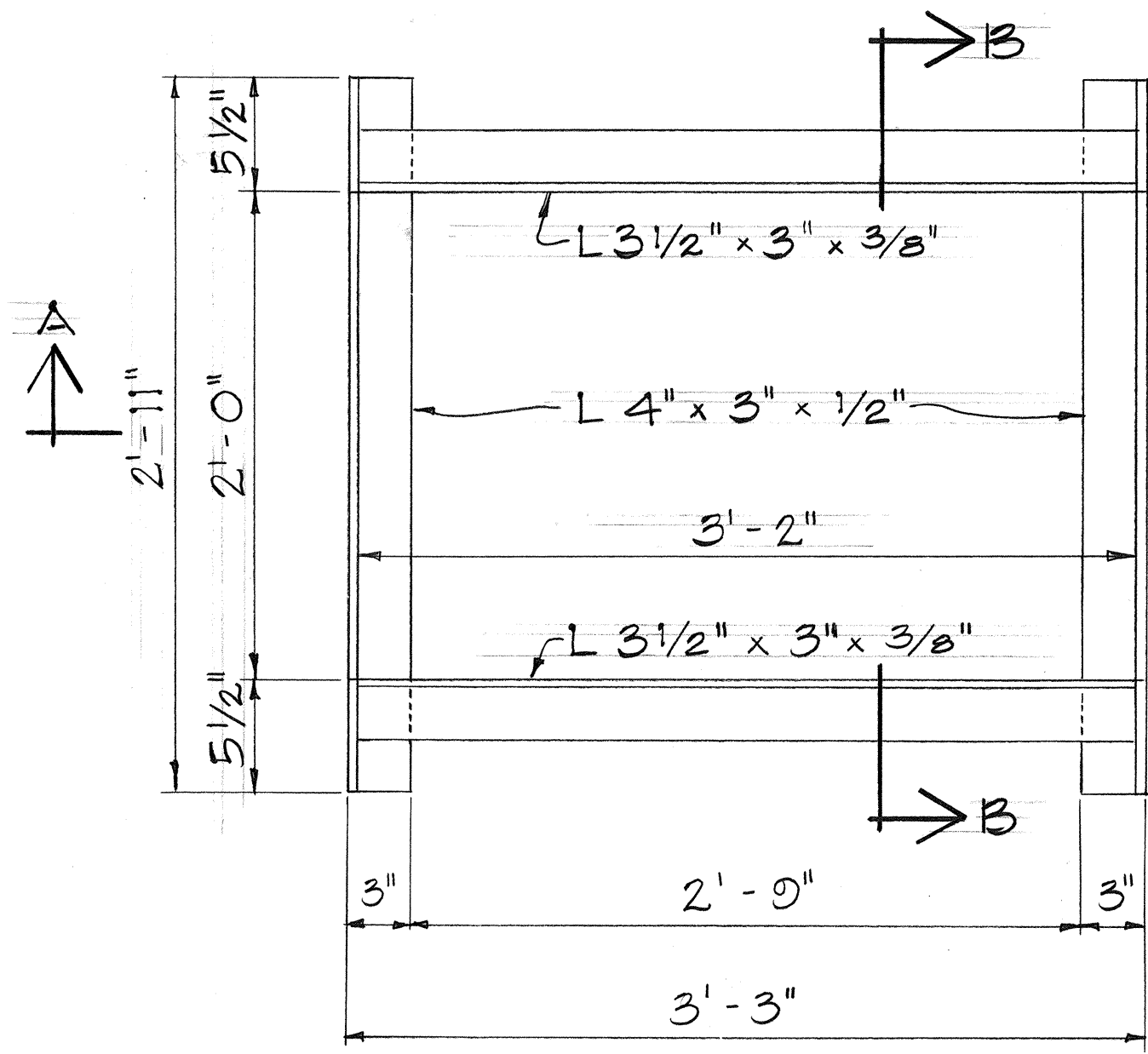
SHEET NO. 3 OF 5 SHEETS

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

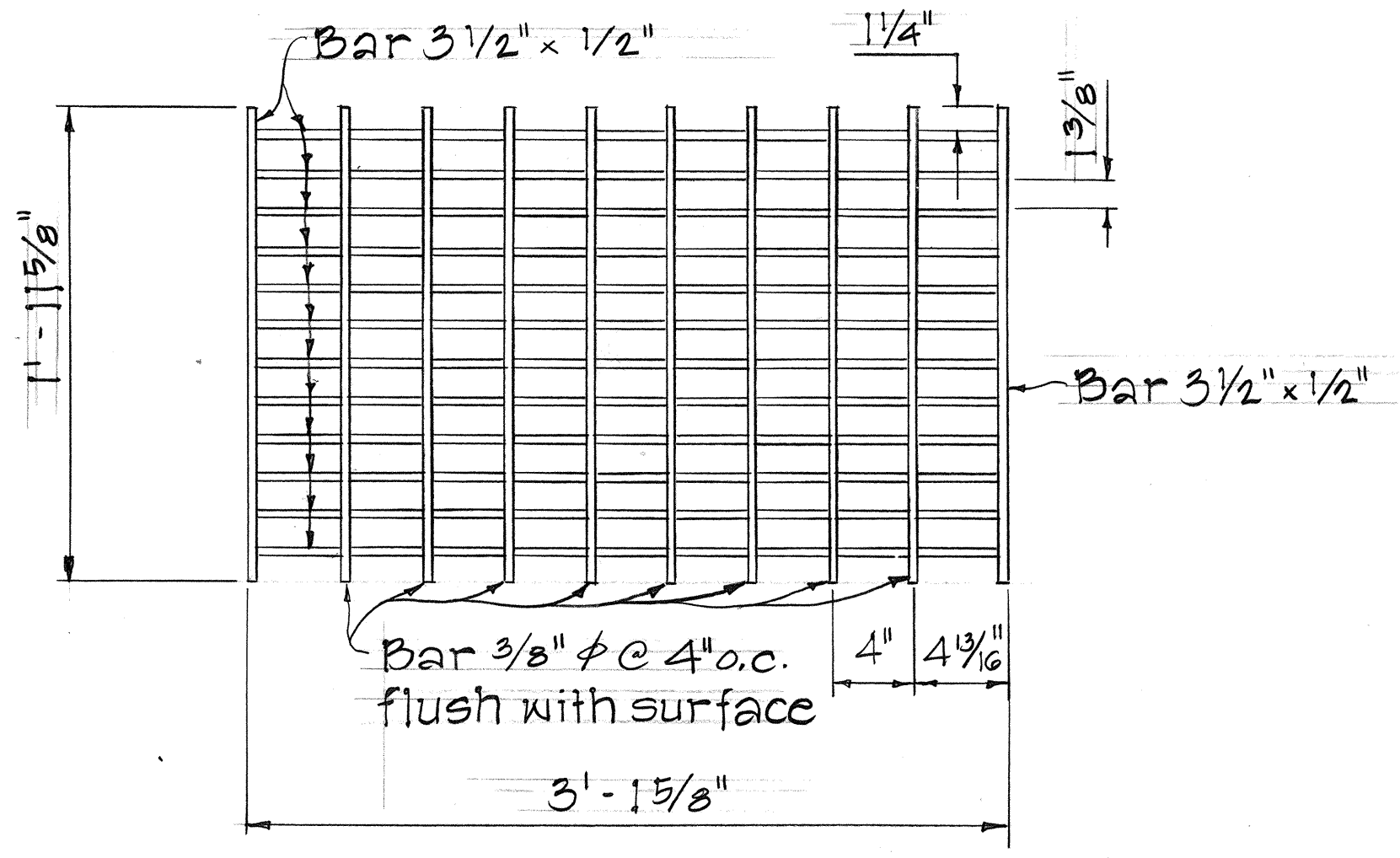
DRAINAGE NOTES:

- Demolishing, removing and disposing a portion or the entire existing structure shall not be paid for separately but shall be incidental to the various contract items in the proposal.
- In the event of plan alterations causing increase or decrease to the quantity of specified lump sum work, the following estimated quantities shall be used to determine theoretical unit price as defined in subsection 104.02 (B) lump sum items:

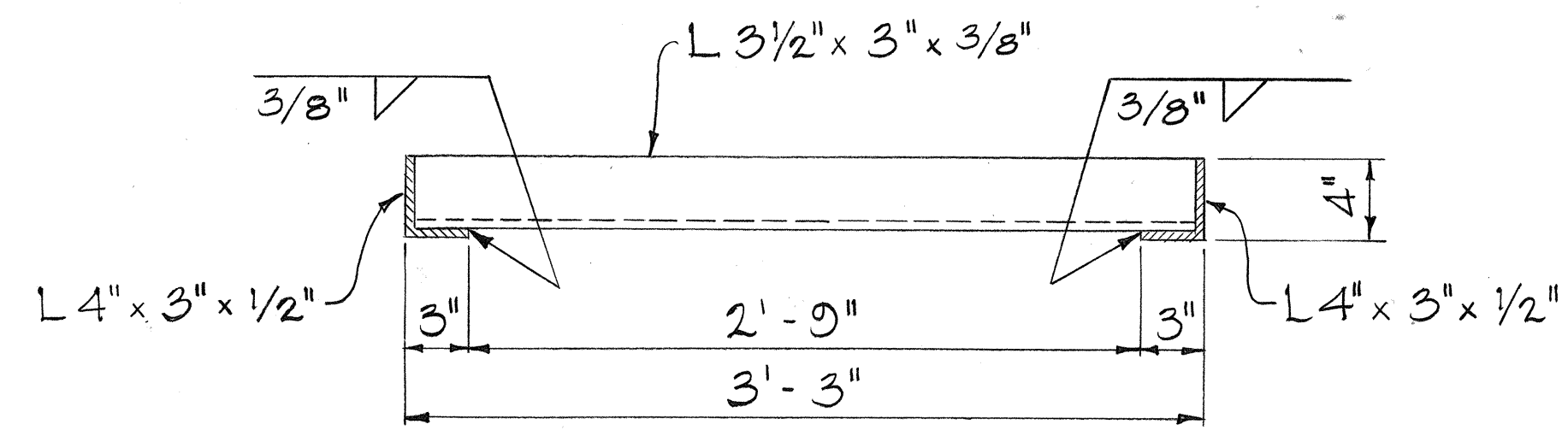
STRUCTURE	STATION	LUMP SUM ITEM NO.		
		206.1001	503.0011	602.1001
		Structure Exca- vation other than at Bridges	Class A Conc.	Reinforcing Steel
		UNIT	USED	C.Y. C.Y. Lbs
Headwall	349+45±Lt	4.5	1.8	25
Headwall	349+45±Rt	8.0	2.4	60
Headwall	354+02±Lt	5.0	1.7	55
Headwall	354+02±Rt	7.0	1.7	55
Modified Type A-12P GDI	362+90±Rt	10.0	3.0	300
Type A-12P GDI & Conc. Jacket	363+72±Rt	40.5	12.1	700
Headwall	378+50±Lt	7.0	3.5	30
Headwall	378+50±Rt	7.0	3.5	30
TOTAL		89	29.7	1255



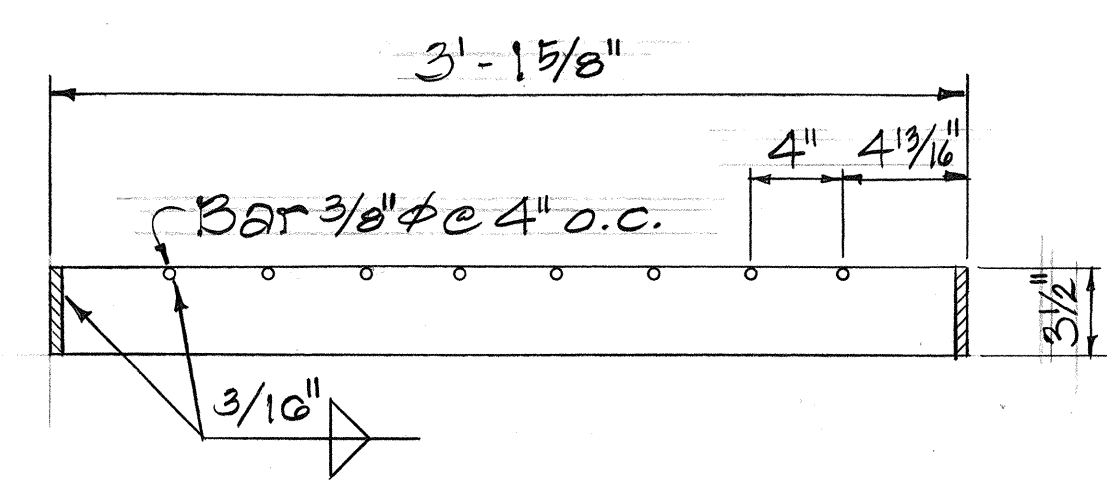
PLAN



PLAN

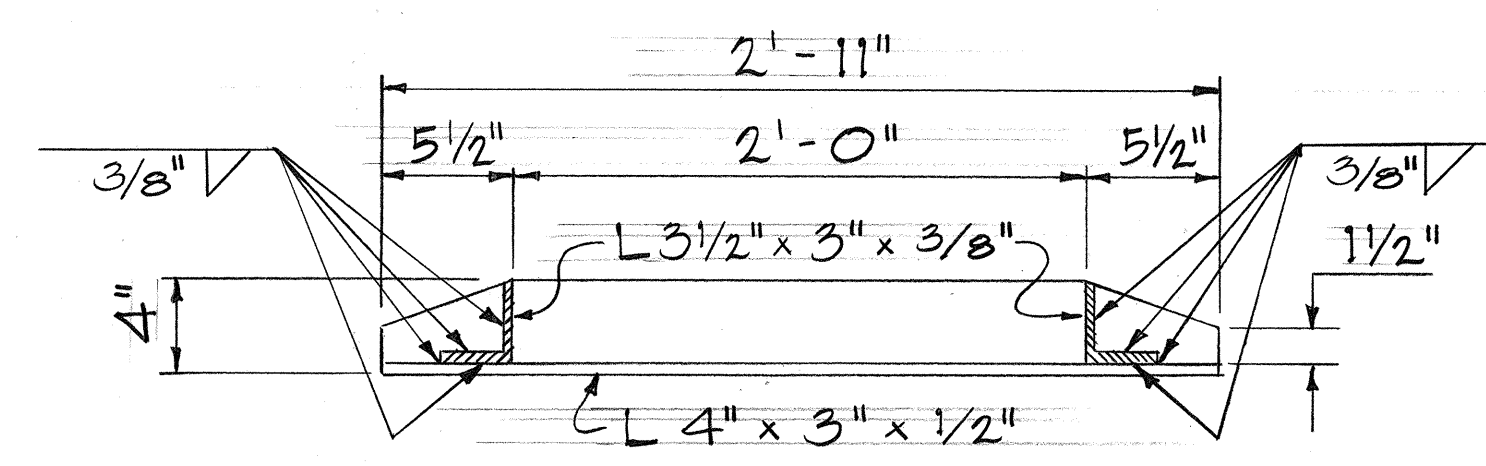


SECTION "A-A"



SECTION

DETAILS OF GRATE

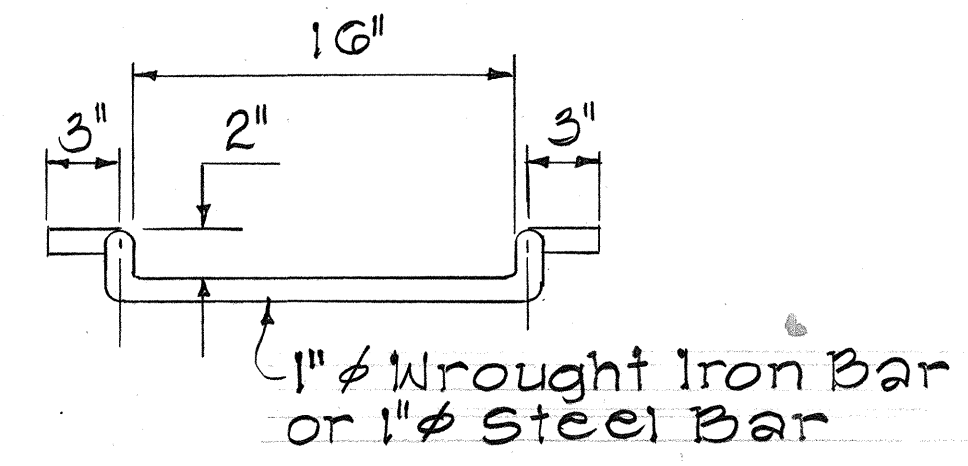


SECTION "B-B"

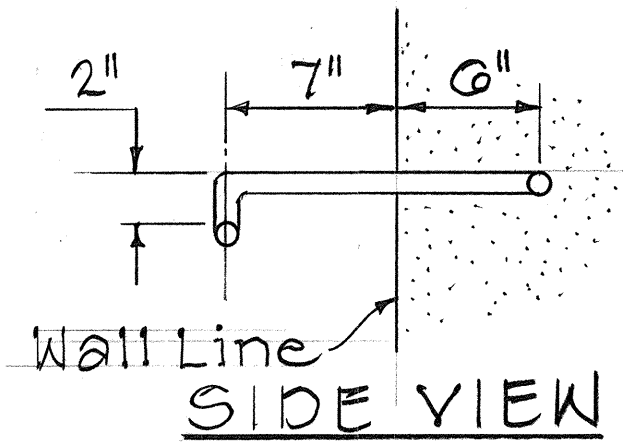
DETAILS OF FRAME

DETAIL OF TYPE A-12P STEEL FRAME AND GRATE

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



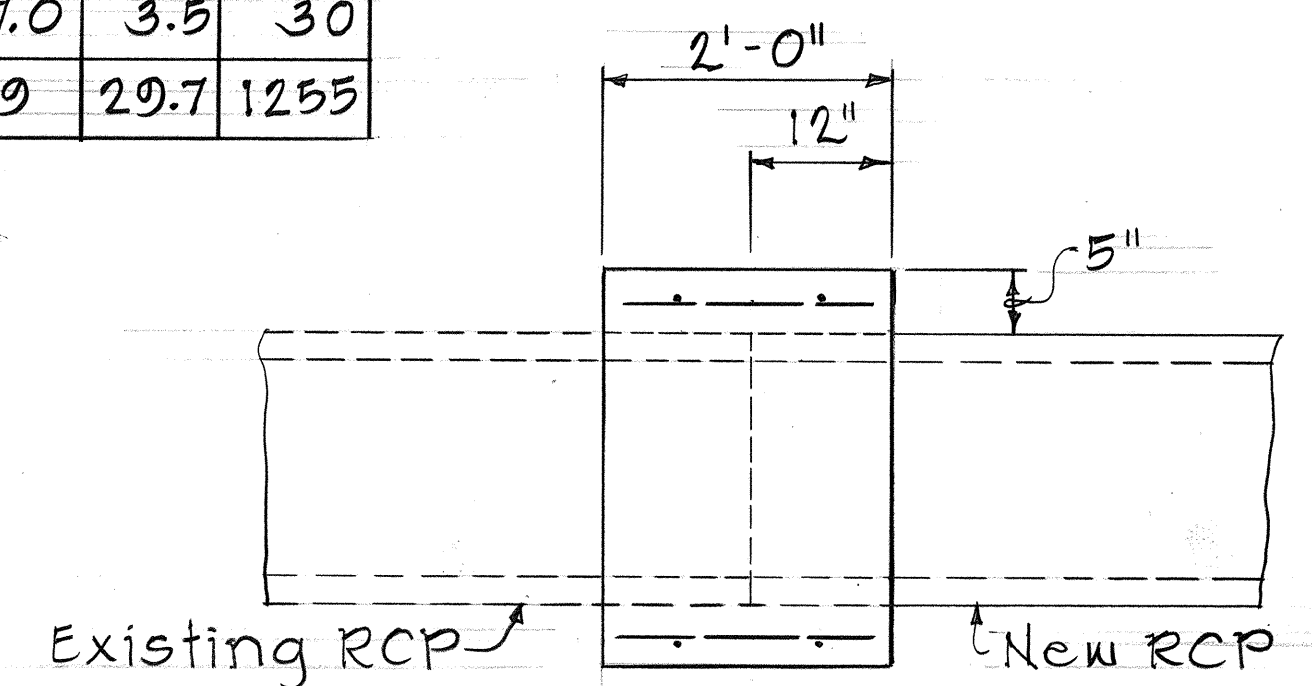
FRONT VIEW



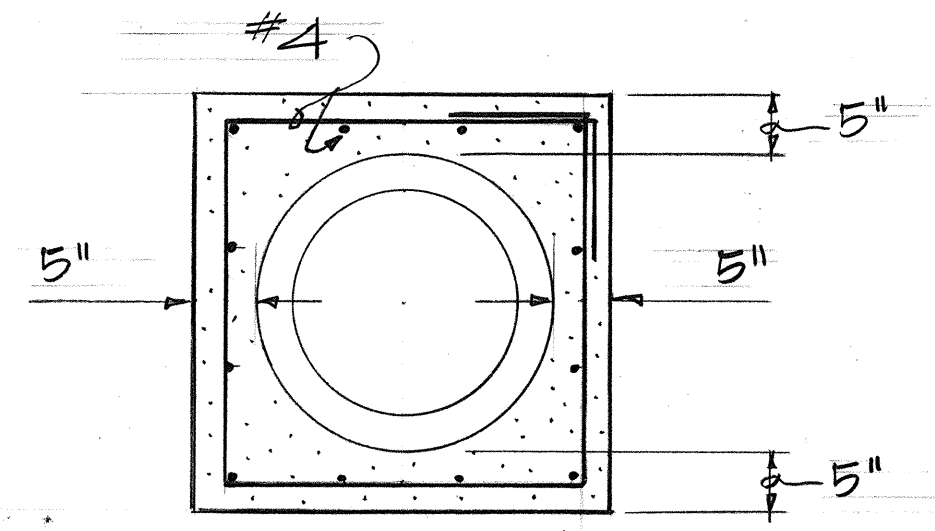
SIDE VIEW

MANHOLE RUNG

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



PLAN



SECTION

DETAIL OF CONCRETE COLLAR

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

DRAINAGE DETAILS

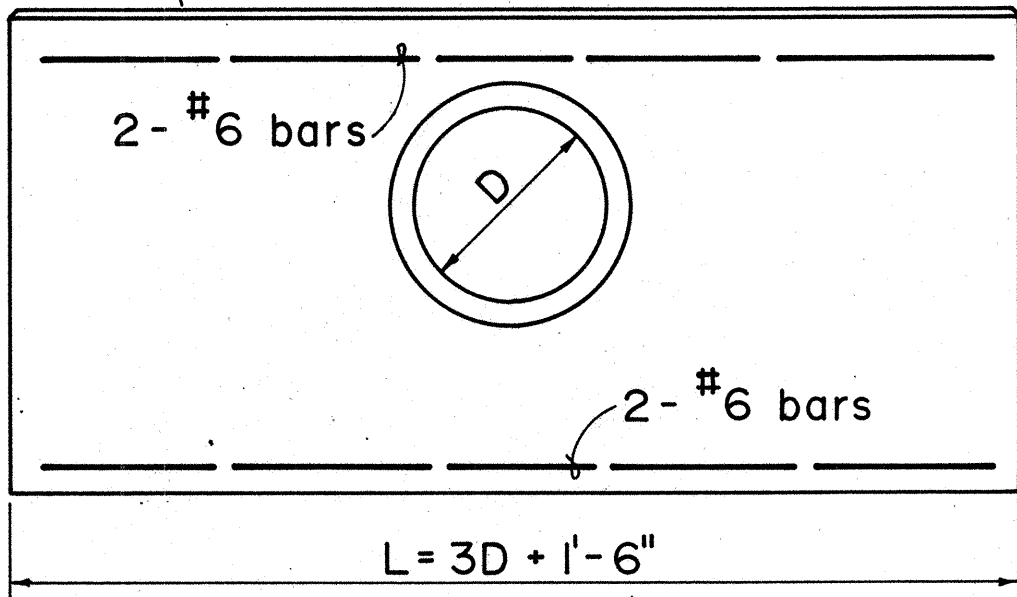
KAMEHAMEHA HWY RESURFACING
KAUNALA ST TO VICINITY OF
WAIALEE BRIDGE
PROJ. NO. FR-083-1(18)

Scale: As Noted Date: Jan 1983

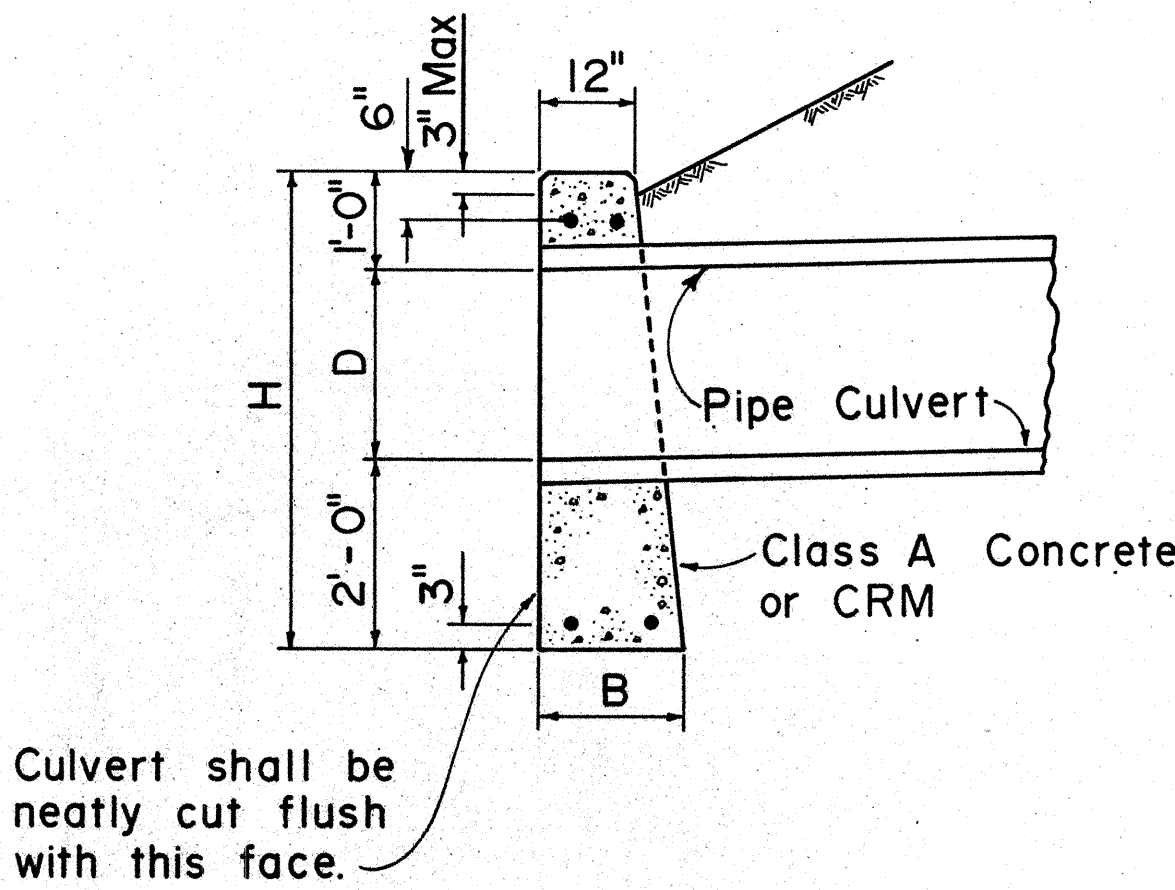
SHEET NO. 4 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FR-083-1(10)	1983	29	40

Chamfer all exposed edges one inch



ELEVATION



SECTION

DATA FOR CONC. HDWL.			
D	B	L	H
18"	1'-6"	6'-0"	4'-6"
24"	1'-6"	7'-6"	5'-0"
30"	2'-0"	9'-0"	5'-6"
36"	2'-0"	10'-6"	6'-0"
42"	2'-6"	12'-0"	6'-6"
48"	2'-6"	13'-6"	7'-0"

DATA FOR CRM HDWL.			
D	B	L	H
18"	1'-9"	6'-0"	4'-6"
24"	2'-0"	7'-6"	5'-0"
30"	2'-3"	9'-0"	5'-6"
36"	2'-6"	10'-6"	6'-0"

CONCRETE OR CRM HEADWALL

APPROVAL RECOMMENDED:
T. Nakano
 HYDRAULIC DESIGN ENGINEER 6-19-79
 DATE

APPROVED:
Harbert Zaleishi
 ASSISTANT CHIEF, ENGINEERING 6-22-79
 DATE

NO.	REVISION	APPROVED BY	DATE
1.	Supersedes Sht. DH 10 approved 12-17-69	H.T.	6/22/79
2.	Change Class of concrete	H.T.	12/4/80

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
CONCRETE OR CEMENT
RUBBLE MASONRY HEADWALLS

Not To Scale
Date: June 1979

SHEET No. 5 OF 5 SHEETS DH10

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