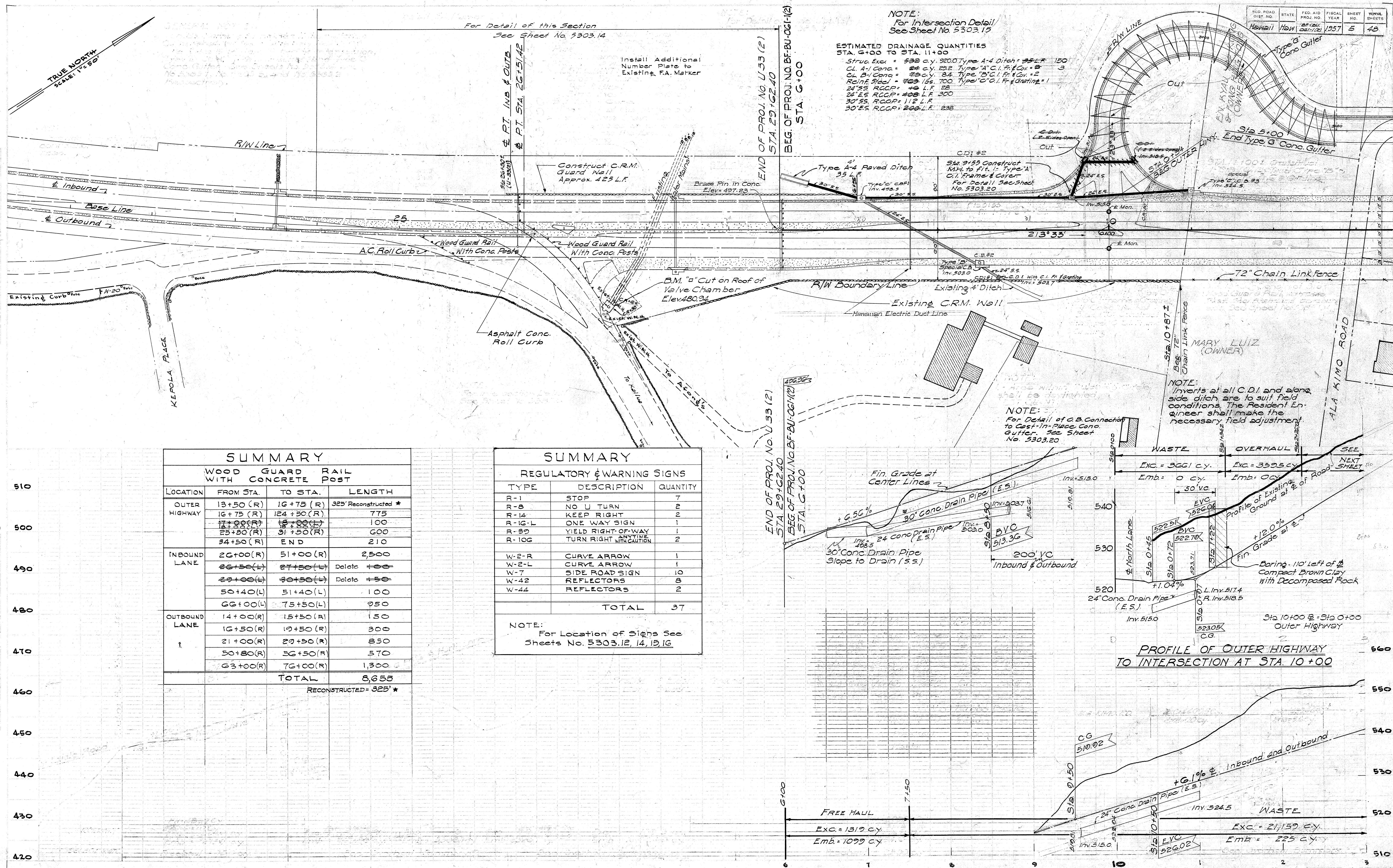


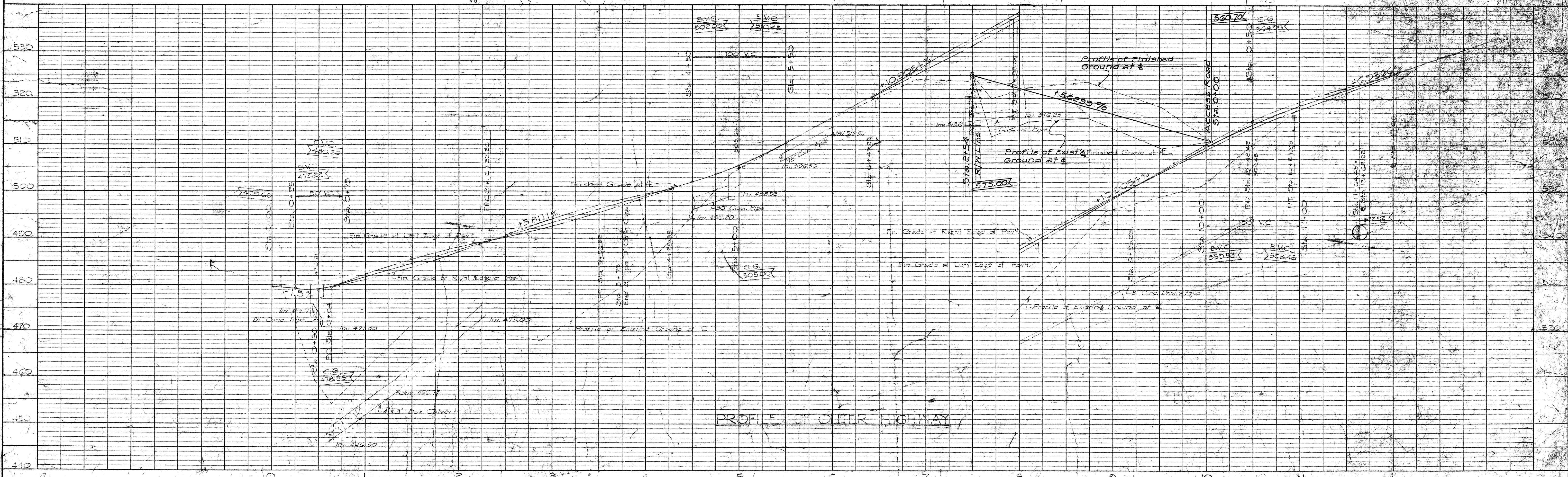
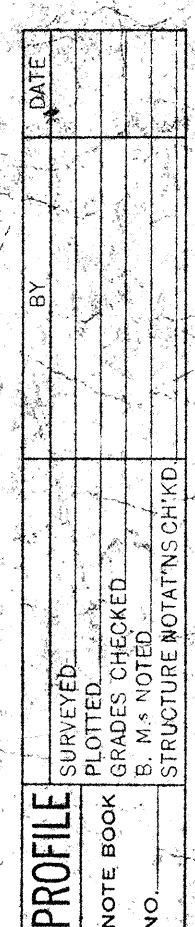


SUMMARY				
WOOD GUARD RAIL WITH CONCRETE POST				
LOCATION	FROM STA.	TO STA.	LENGTH	
OUTER HIGHWAY	13+50 (R)	16+75 (R)	325' Reconstructed *	
	16+75 (R)	124+50 (R)	775	
	17+00 (R)	18+00 (L)	100	
	25+50 (R)	31+50 (R)	600	
	34+50 (R)	END	210	
INBOUND LANE	26+00 (R)	51+00 (R)	2,500	
	26+50 (L)	27+50 (L)	Delete +00	
	29+00 (L)	30+50 (L)	Delete +50	
	50+40 (L)	51+40 (L)	100	
	66+00 (L)	75+50 (L)	950	
OUTBOUND LANE	14+00 (R)	15+50 (R)	150	
	16+50 (R)	19+50 (R)	300	
	21+00 (R)	20+50 (R)	850	
	50+80 (R)	56+50 (R)	570	
	63+00 (R)	76+00 (R)	1,300	
TOTAL			8,655	
			RECONSTRUCTED = 325' *	

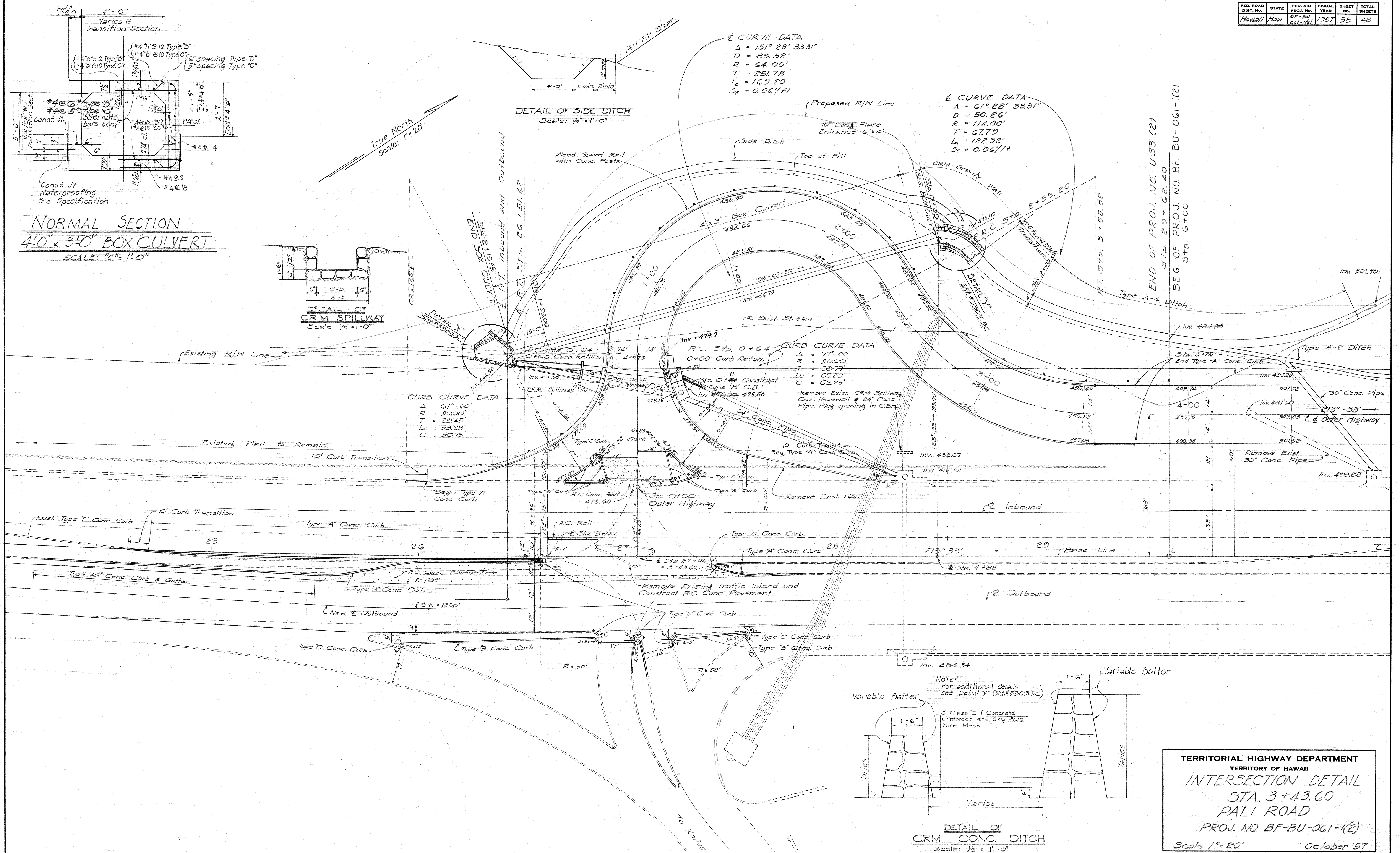
SUMMARY		
REGULATORY & WARNING SIGNS		
TYPE	DESCRIPTION	QUANTITY
R-1	STOP	7
R-8	NO U TURN	2
R-14	KEEP RIGHT	2
R-16-L	ONE WAY SIGN	1
R-32	YIELD RIGHT-OF-WAY	1
R-106	TURN RIGHT WITH CAUTION	2
W-2-R	CURVE ARROW	1
W-2-L	CURVE ARROW	1
W-7	SIDE ROAD SIGN	10
W-42	REFLECTORS	8
W-44	REFLECTORS	2
TOTAL		37

NOTE:
For Location of Signs See
Sheets No. 5303.12, 14, 15, 16

PLAN	SURVEYED _____ BY _____	DATE _____
NOTE BOOK	PLOTTED _____	
NO _____	ALIGNMENT CHECKED _____	
	Rt. OF WAY CHECKED _____	

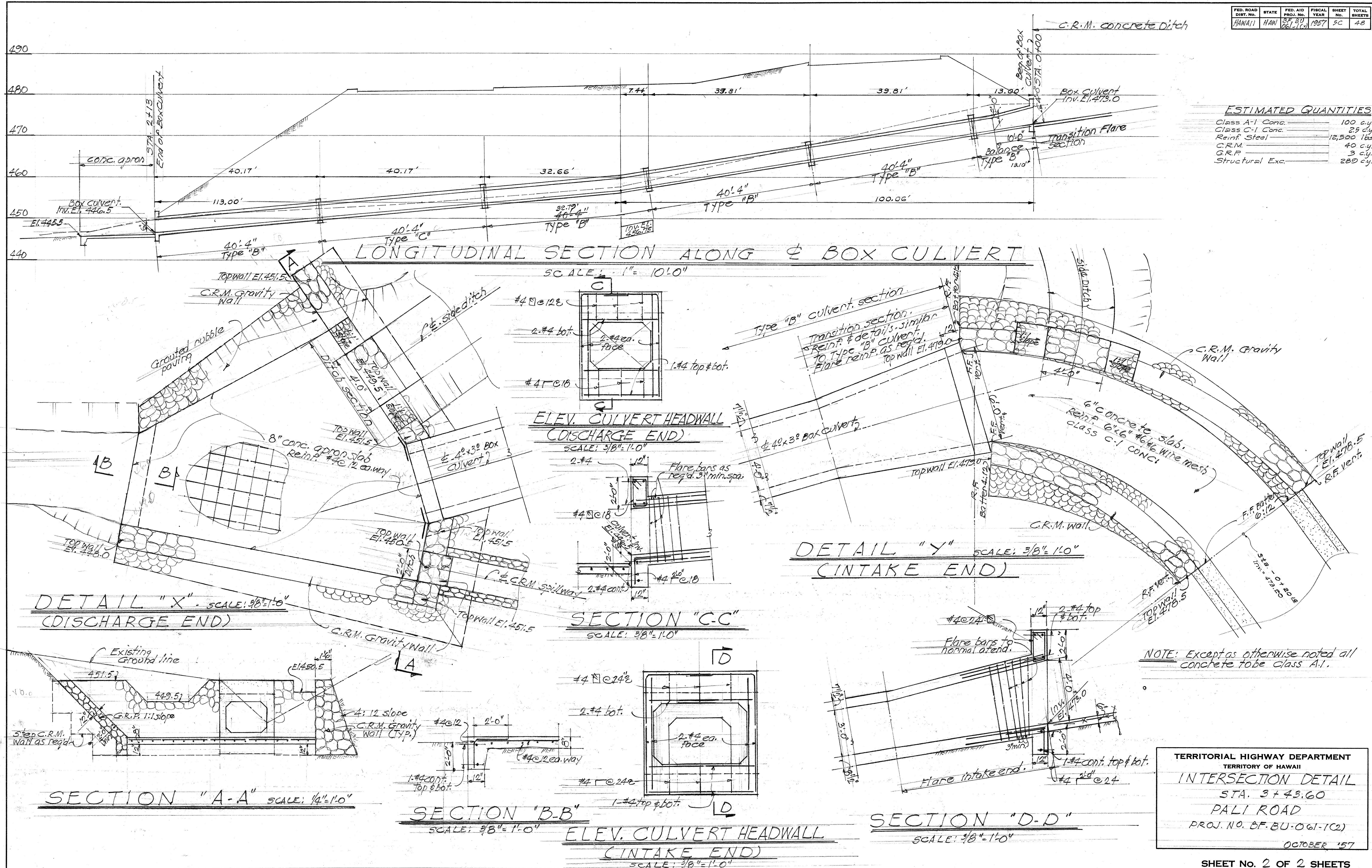


FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
Hawaii	HOW	BF-BU 061-1(e)	1957	5B	48



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
INTERSECTION DETAIL
STA. 3 + 43.60
PALI ROAD
PROV. NO. BF-BU-061-K(2)
Scale 1" = 20' October '57

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	BF-BU-061-102	1957	5C	48

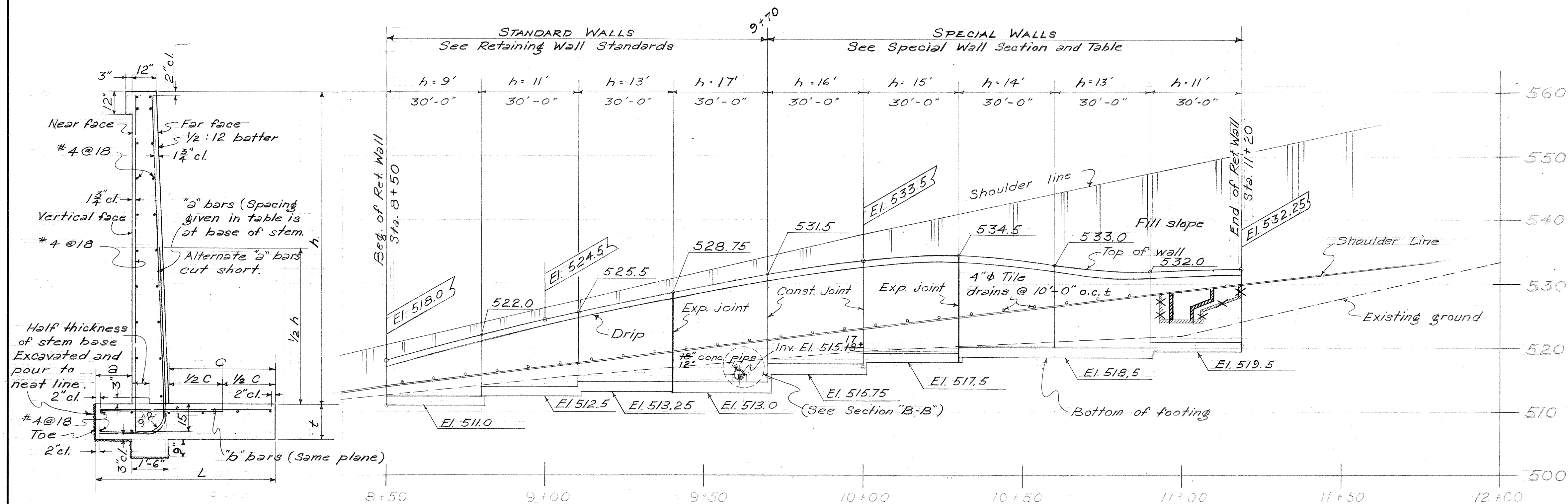


TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
INTERSECTION DETAIL
STA. 3+43.60
PALI ROAD
PROJ. NO. BF-BU-061-102
OCTOBER '57

SHEET No. 2 OF 2 SHEETS

5303.5C

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



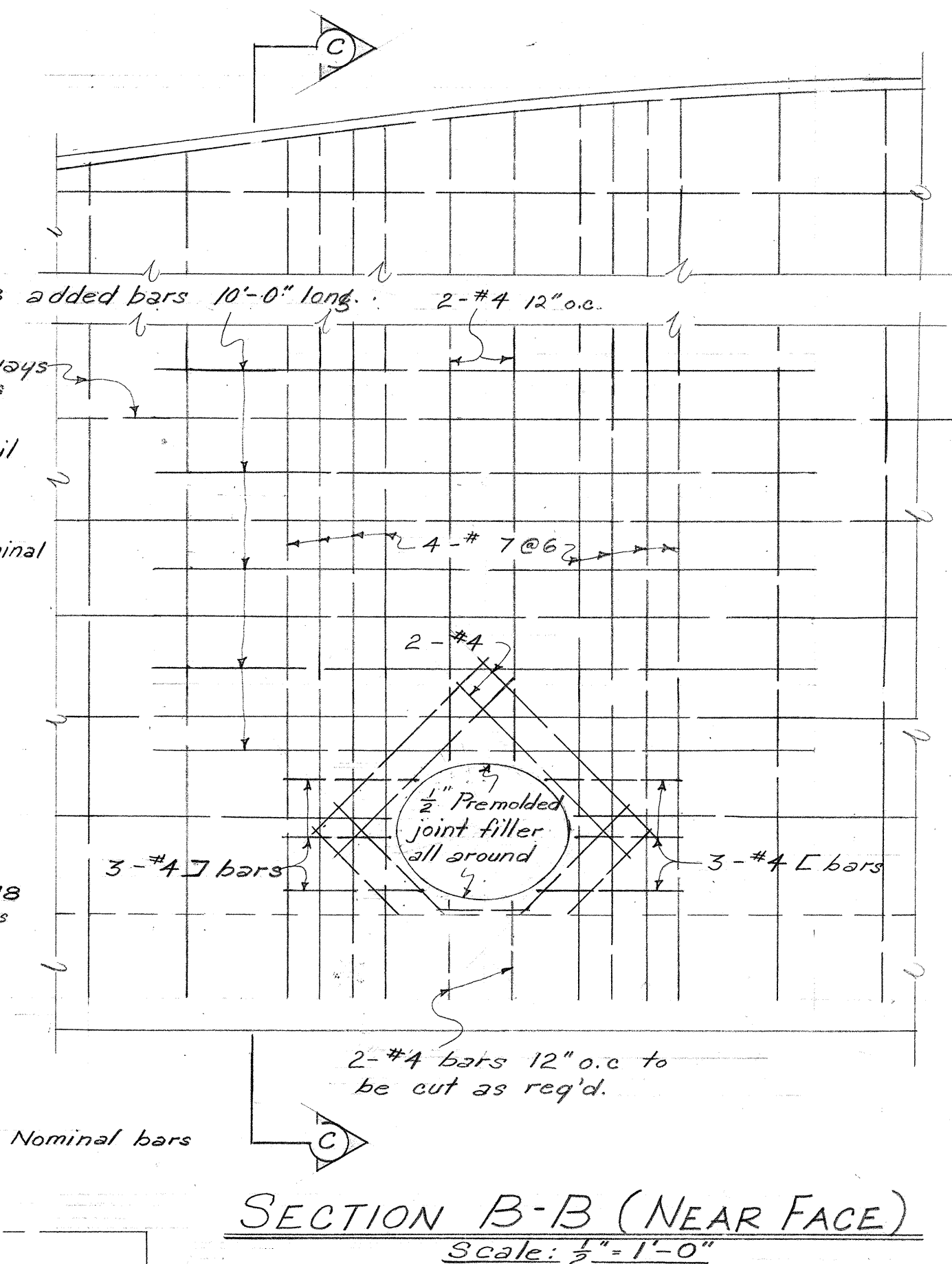
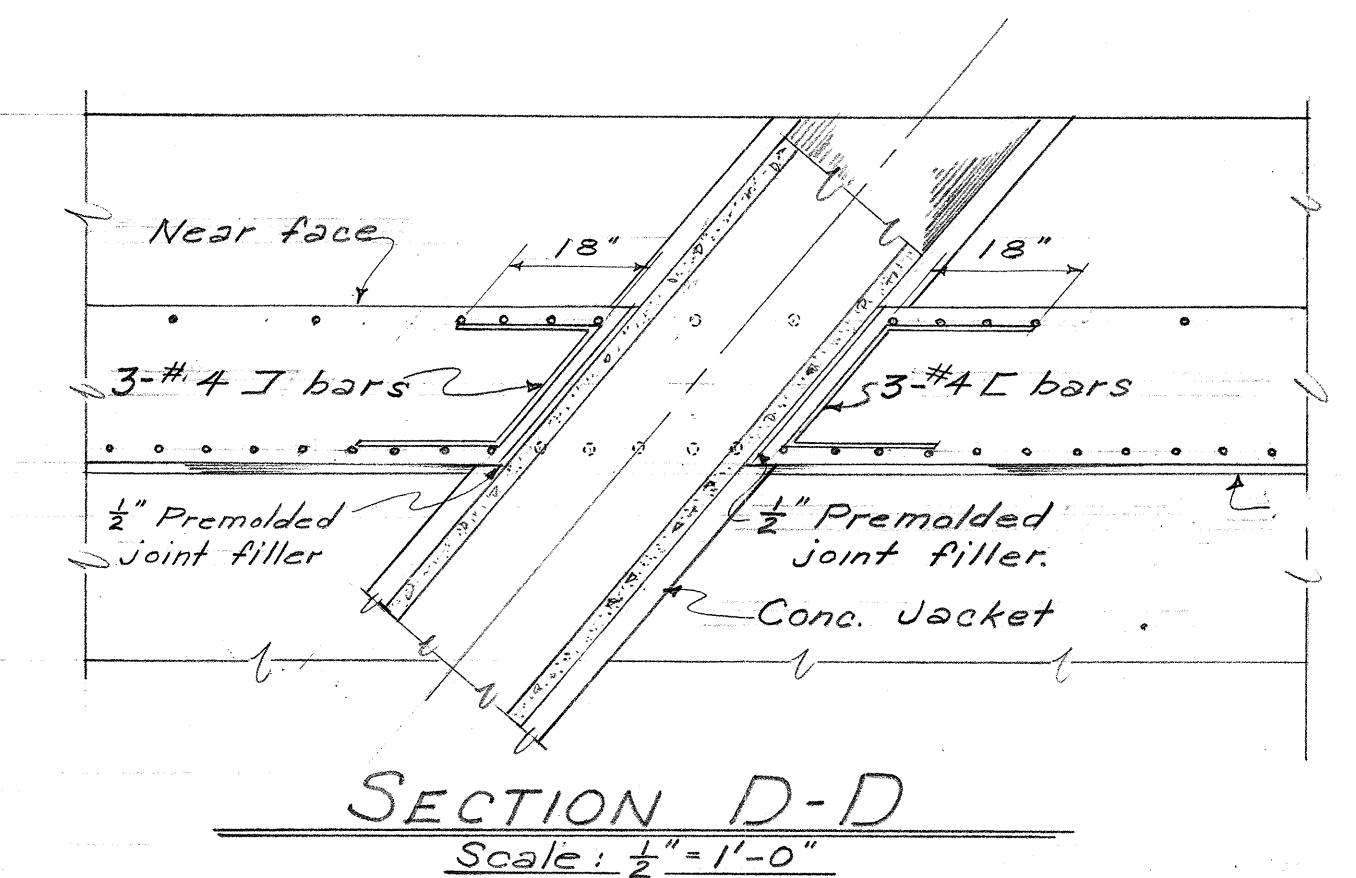
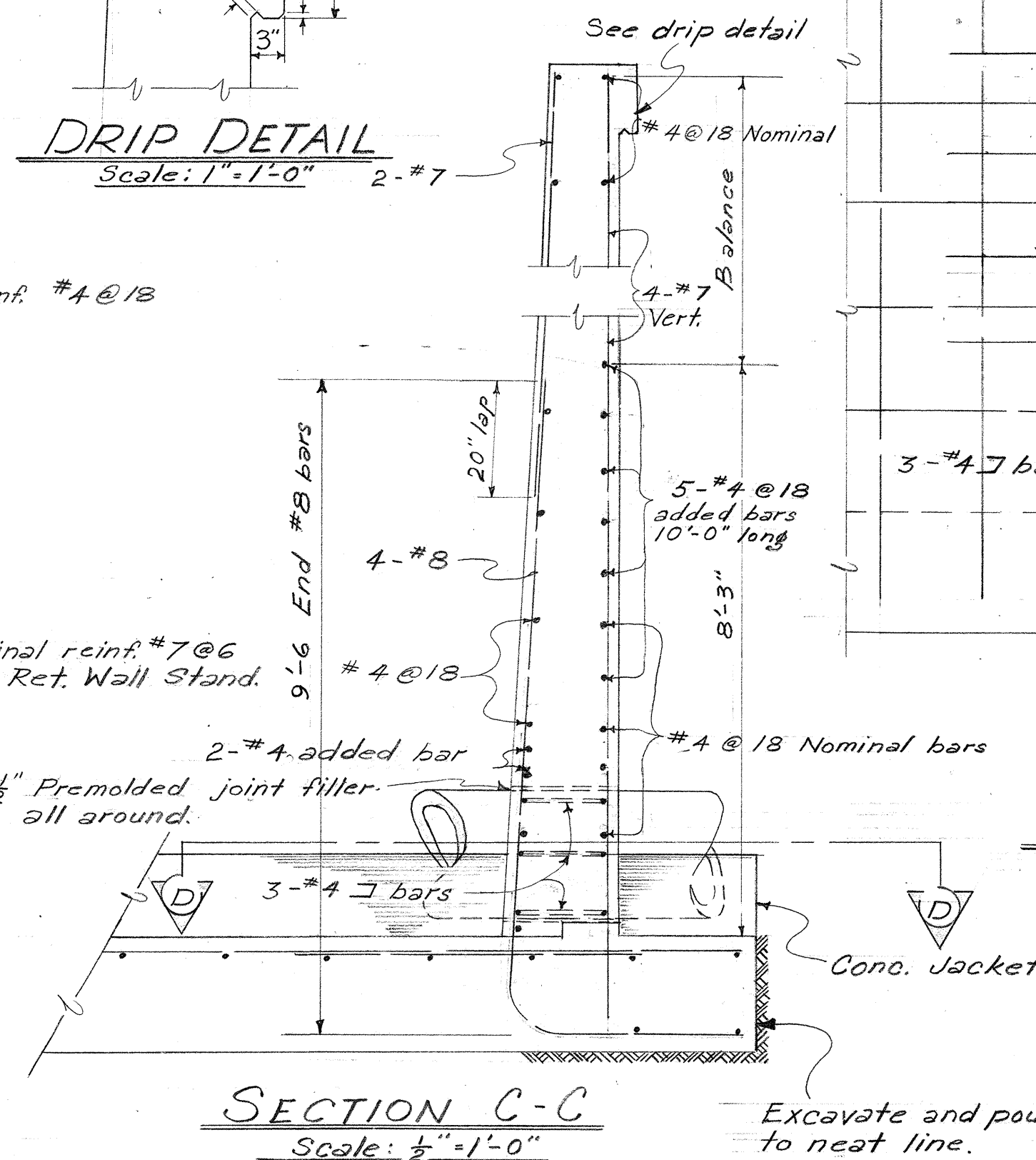
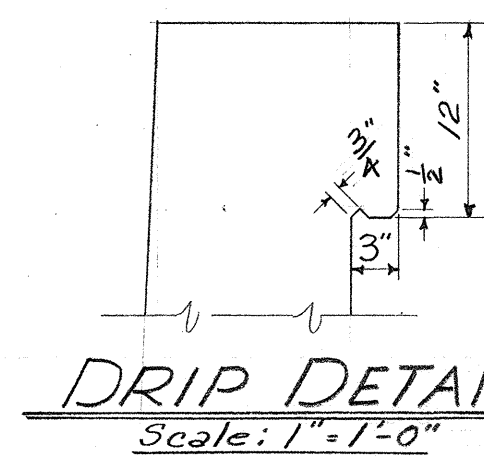
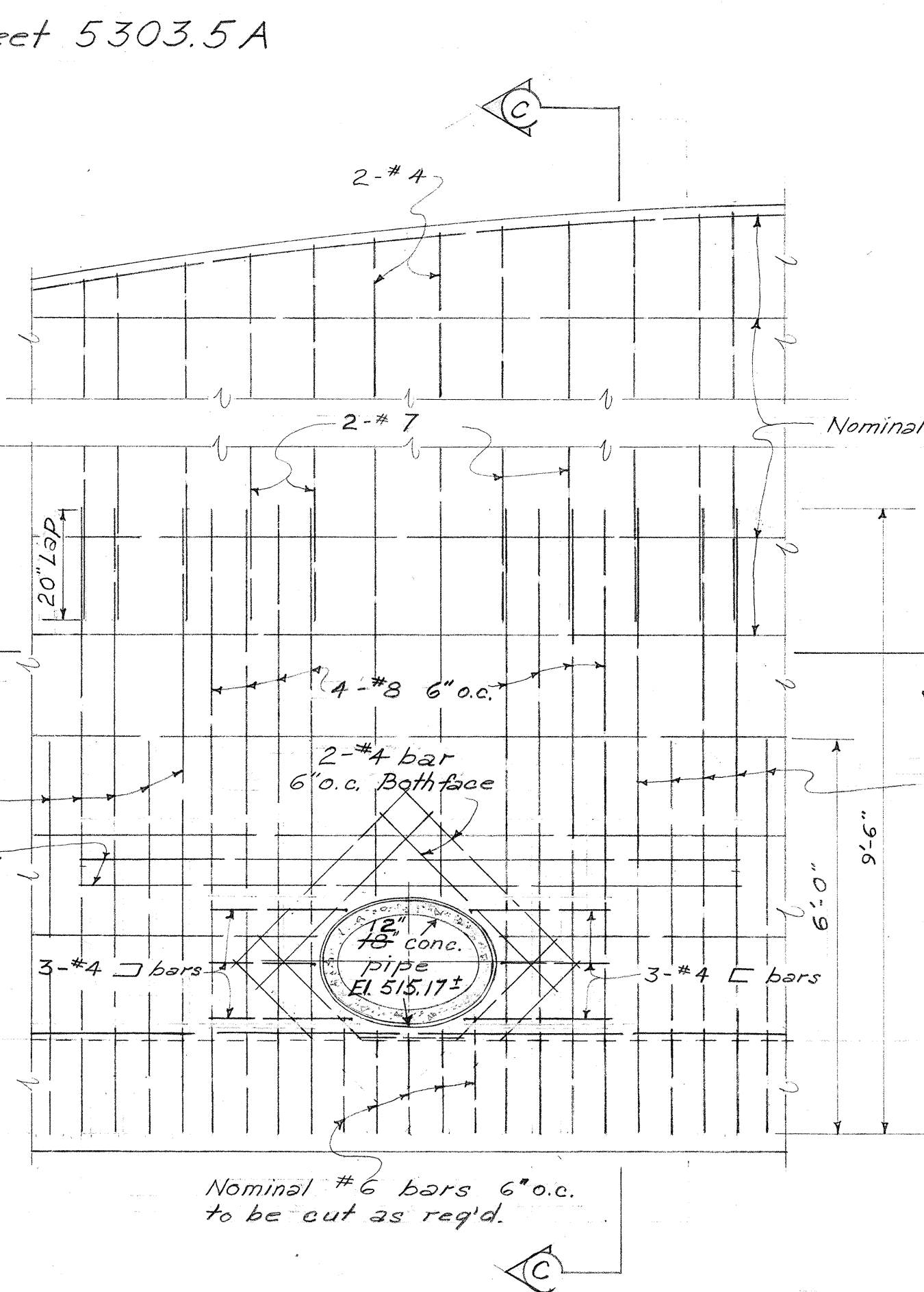
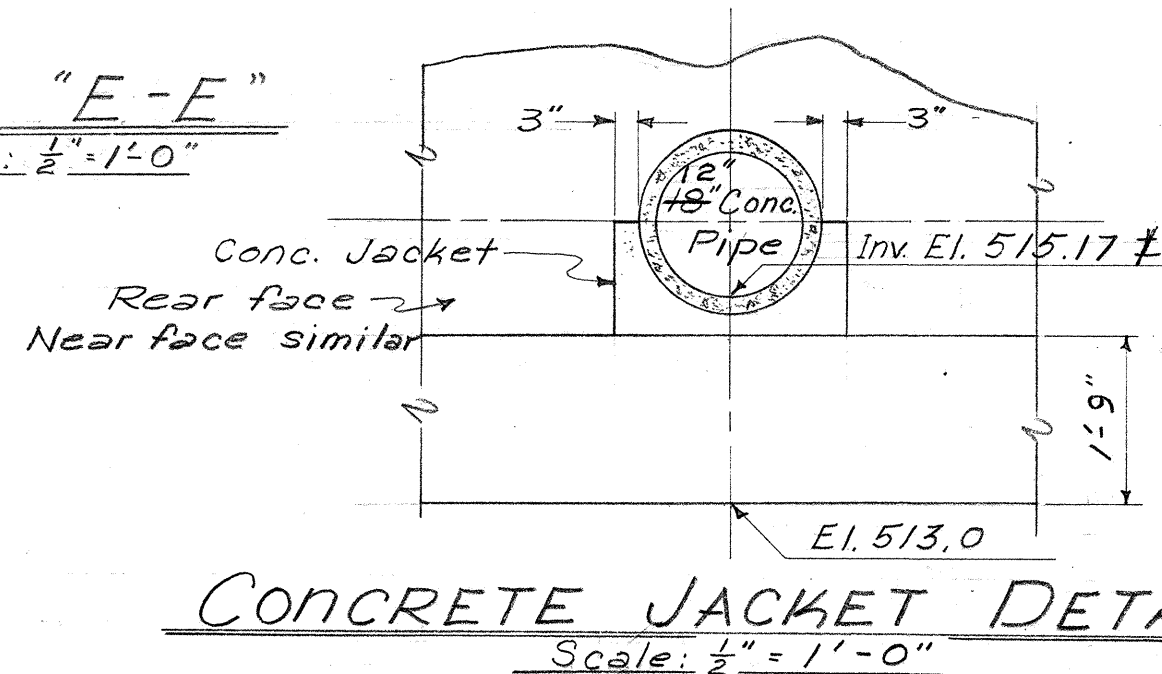
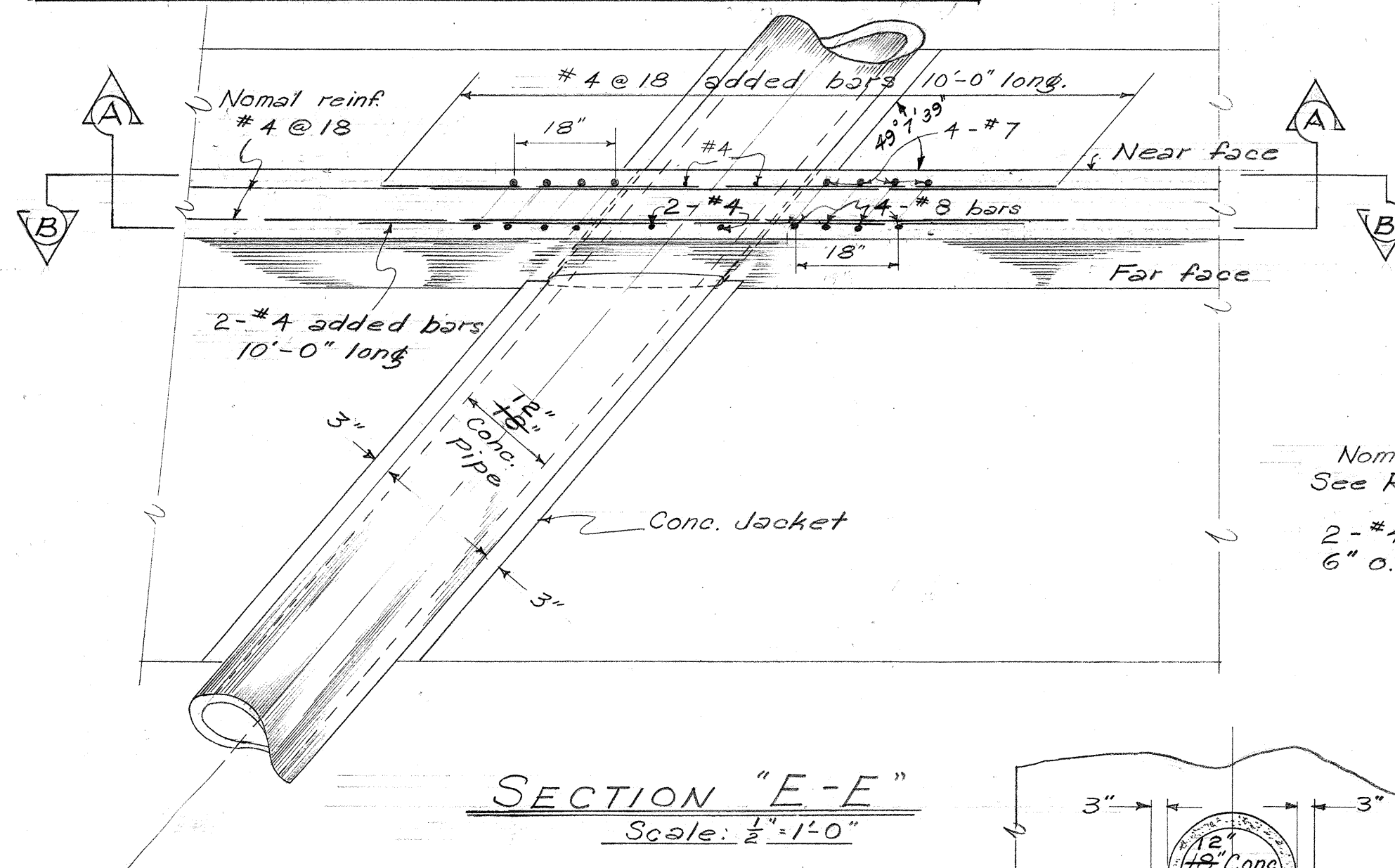
SPECIAL WALL SECTION & TABLE

TABLE OF DIMENSION AND REINFORCING STEEL					
h	11'	13'	14'	15'	16'
a	18"	24"	24"	27"	30"
L	7.5'	8.5'	9.0'	9.25'	9.5'
t	18"	24"	24"	24"	24"
"a" bars	#6@5 1/2"	#6@5 1/2"	#7@7"	#7@7"	#7@6 1/2"
"b" bars	#6@5 1/2"	#6@7"	#7@7"	#7@6 1/2"	#7@7"
F.S. Sliding	1.74	1.51	1.51	1.18	1.63
F.S. Overturning	2.13	1.94	1.86	2.16	2.02
Toe Pressure	2800	3200	4200	3300	3700

RETAINING WALL ELEVATION

Scale: (Vertical) 1" = 10'-0"
(Horizontal) 1" = 20'-0"

Note: For plan see sheet 5303.5A



ESTIMATED QUANTITIES
Concrete — 310 c.y.
Steel — 23,200 lbs.
Struct. Exc. — 290 c.y.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
RETAINING WALL
Sta. 8+50 to 11+20
PALI ROAD BF-BU-061-1(2)
Nov. 1957

ORIGINAL PLAN
DATE
DRAWN BY
CHECKED BY
NOTES
QUANTITIES CHECKED BY
NO.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
Hawaii	HI	BF-SU 061-HI	1957	5E	48

NOTE:

All Existing Water Mains shall Remain in Service until New Substitute Mains are Installed and put in Operation.

For Profile of Water Mains, See Sht. No. 5303.5F.

*5 Horiz. as shown
Also 4 - #5 Diag. 20'

#4 Vert. 12" o.c. 

#4 Vert. 12" o.c. Trench Bottom

SECTION AT KICKER BLOCK

Scale: $\frac{3}{8}" = 1'-0"$

Concrete block to embed into side of trench
a minimum of 2'± subject to Engineer's approval.

END OF PROJ. NO. U 53 (2)

BEG. OF PROJ. 54-6400

SHEET No. 1 OF 2 SHEETS

5303.511

NOTE:
THESE PLANS WERE PREPARED IN COOPERATION WITH THE OFFICE
OF THE BOARD OF WATER SUPPLY, CITY & COUNTY OF HONOLULU.

WATER SYSTEM

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

ADJUSTMENT OF WATER SYSTEM

PALI ROAD

PROJ. NO. BF-BU-061-1(E)

Scale 1" = 20'

October '57

APPROVED: 
MANAGER & CHIEF ENGINEER
BOARD OF WATER SUPPLY

DATE: JANUARY 3, 1958

J. P. Henke
Dir. Eng. B. & S. 1-9-58

DETAIL OF
CRM. CONC. DITCH
Scale: $\frac{1}{2}'' = 1' - 0''$

NOTE!
For additional details
see Detail "y" (Sht. #5303.5C)

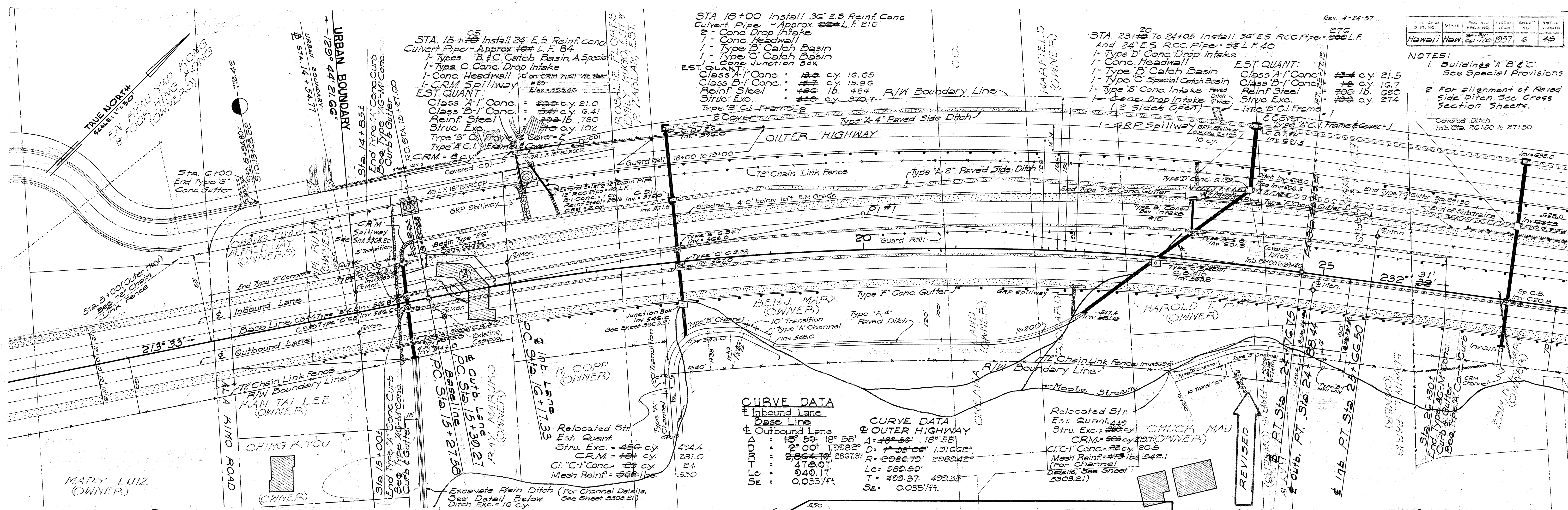
C' Class "C-1" Concrete
reinforced with 6x6 #6's
Wire Mesh

NOTE:

This Sht. Applies to the Adjustment of Water System.

For Intersection Detail, See Sht. Nos. 5303.5A and 5303.5B.

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

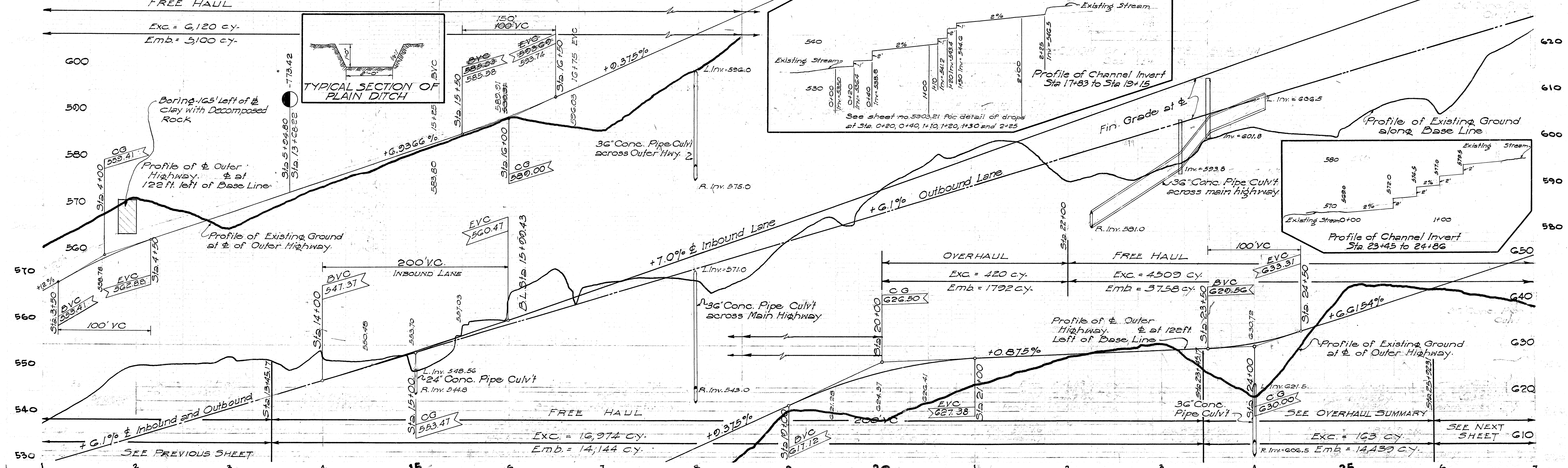
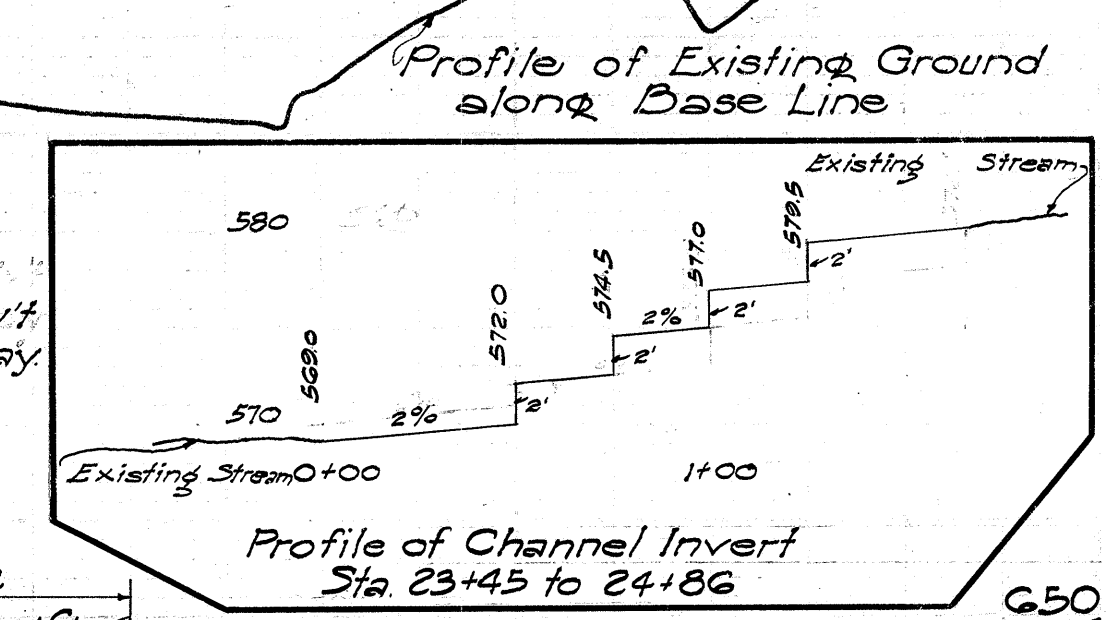
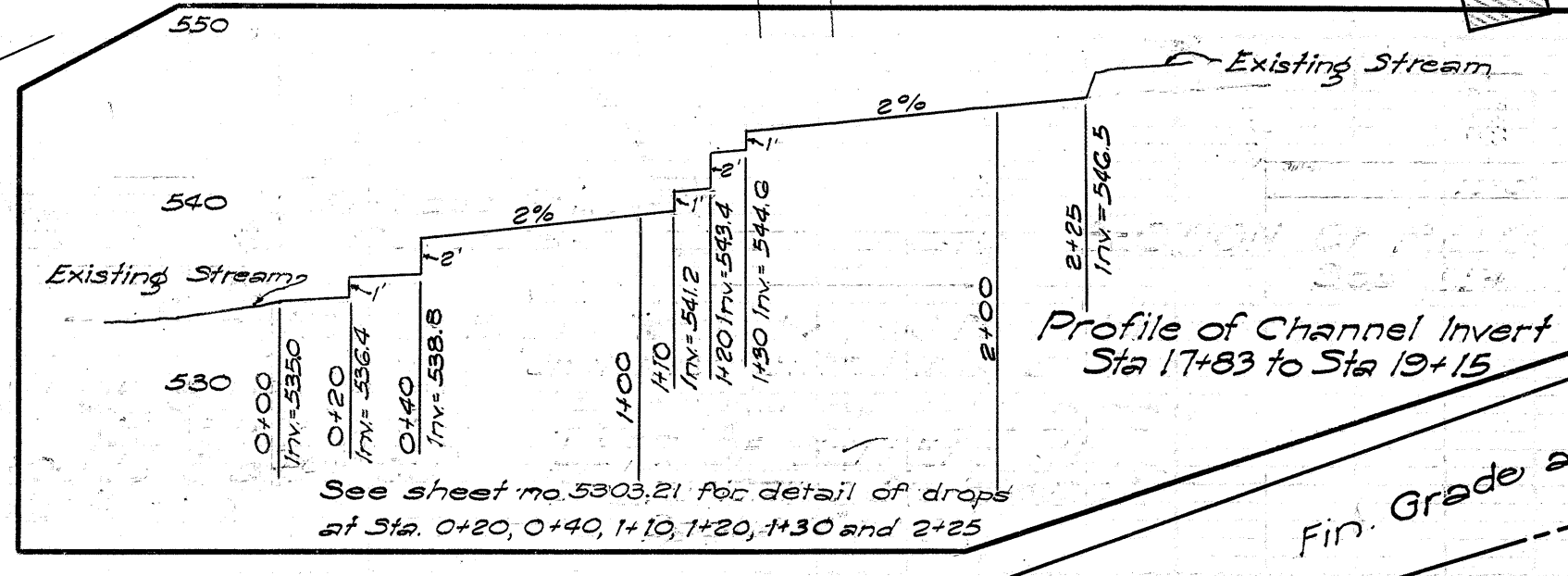
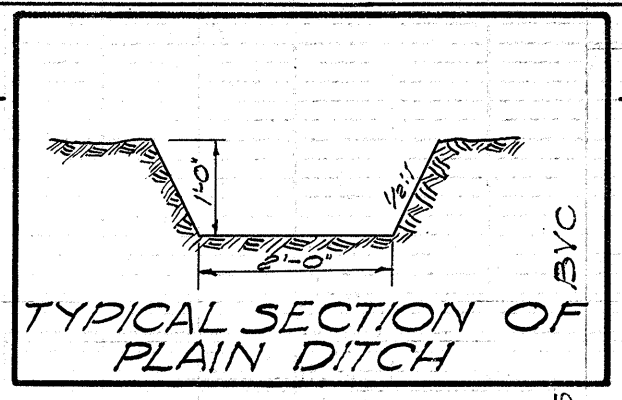


CURVE DATA

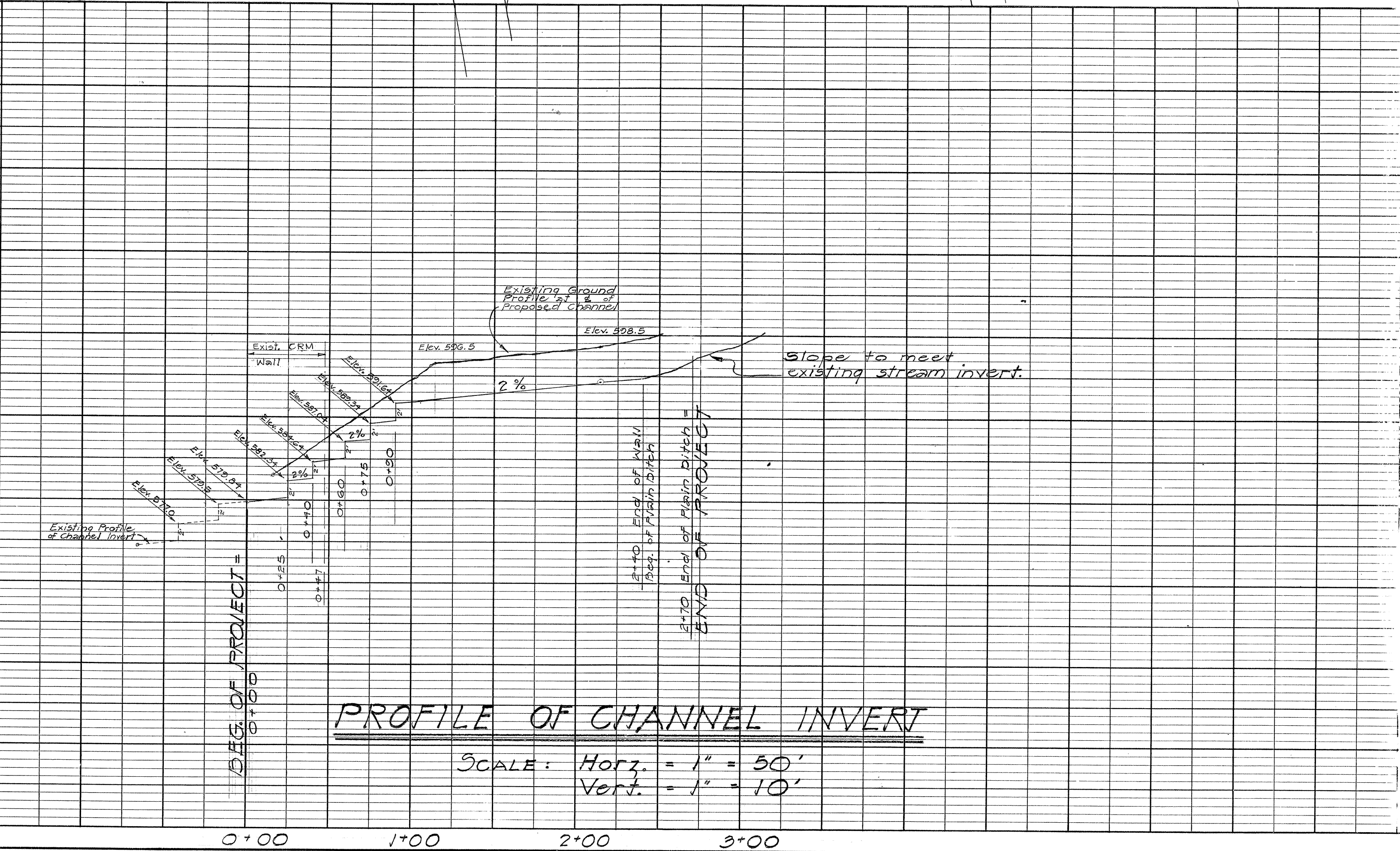
Inbound Lane
 Base Line
 Δ = 18° 58' 18" 58'
 D = 1,998.22
 R = 2,864.70
 Lc = 478.07
 T = 940.17
 Se = 0.035/ft.

OUTER HIGHWAY
 Base Line
 Δ = 18° 58' 18" 58'
 D = 1,998.22
 R = 2,864.70
 Lc = 478.07
 T = 940.17
 Se = 0.035/ft.

Relocated Str.
 Est. Quant. 449
 Struc. Exc. = 388 cy.
 CRM = 203 cy. 21.7 (OWNER)
 C.I. Conc. = 22 cy. 20.5
 Mesh Reinf. = 473 lbs. 542.1
 (For Channel Details, See Sheet 5303.21)



PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	B. M.'S NOTED		
	STRUCTURE NOTATIONS CH'KD.		



CRM SPILLWAY CONNECTION
SECTION "B-B"
AT STA. 1+26
Scale: $\frac{1}{2}'' = 1'-0''$

SECTION THROUGH CUT-OFF WALL
AT END OF SLAB
Scale: $\frac{1}{2}'' = 1'-0''$

CHANNEL AND DITCH CONNECTION
AT STA. 2+40
Scale: $\frac{1}{8}'' = 1'-0''$

SECTION "A-A"
Scale: $\frac{1}{4}'' = 1'-0''$

DROP DETAIL FOR CHANNEL
SECTION THROUGH $\frac{1}{2}$ OF CHANNEL
Scale: $\frac{3}{8}'' = 1'-0''$

STA. 1+25 to STA. 2+40
Scale: $\frac{3}{8}'' = 1'-0''$

STA. 0+47 to STA. 1+25
Scale: $\frac{3}{8}'' = 1'-0''$

STA. 0+00 to STA. 0+47
Scale: $\frac{3}{8}'' = 1'-0''$

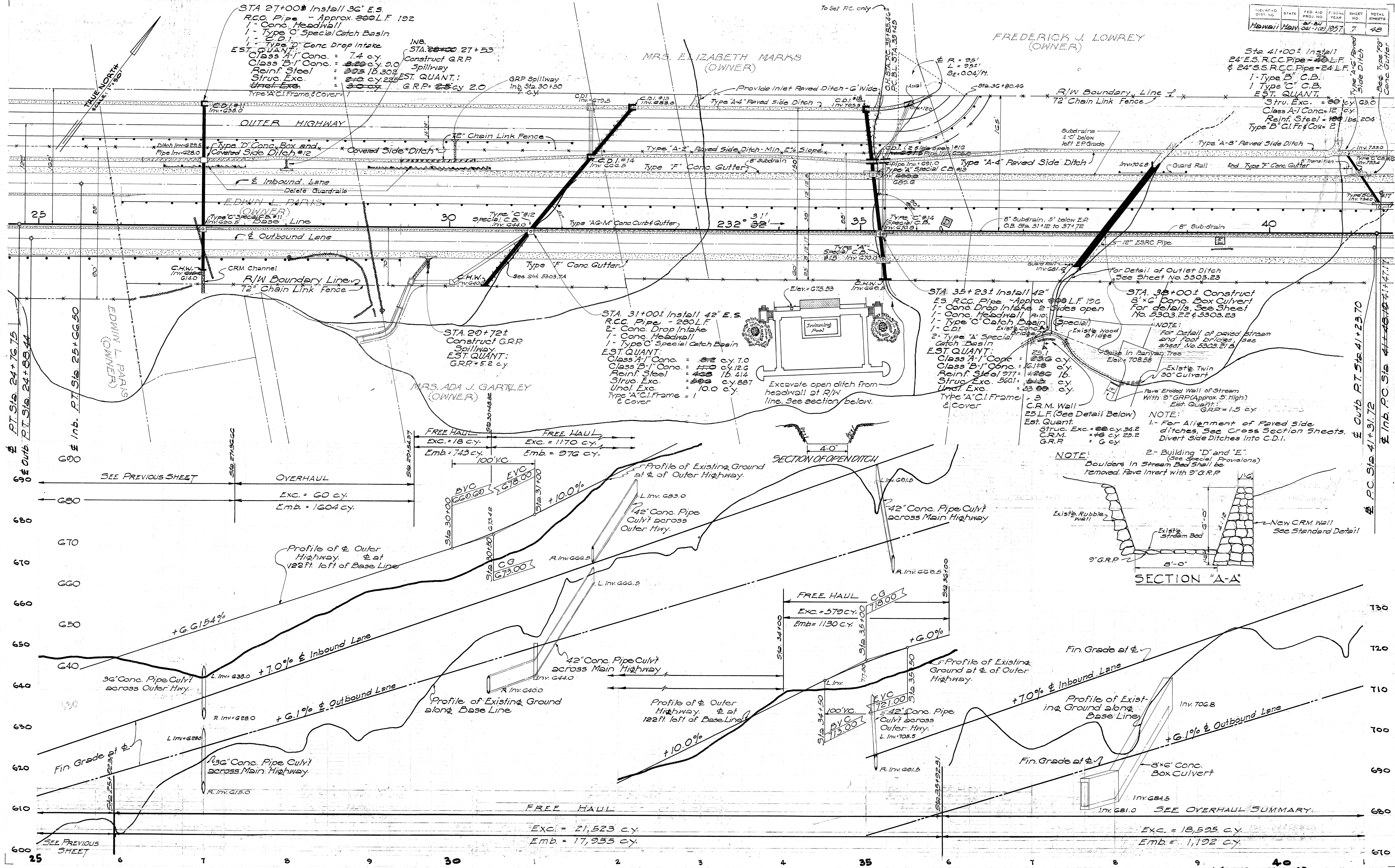
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII

**REALIGNMENT
OF
MOOLE STREAM**

Scale: As Noted Date: Aug. 1960

Sheet No. 1 of 1 sheet

PROJECT NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII 100-100	HI	001-100	1957	7	48

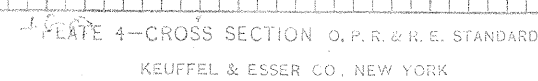
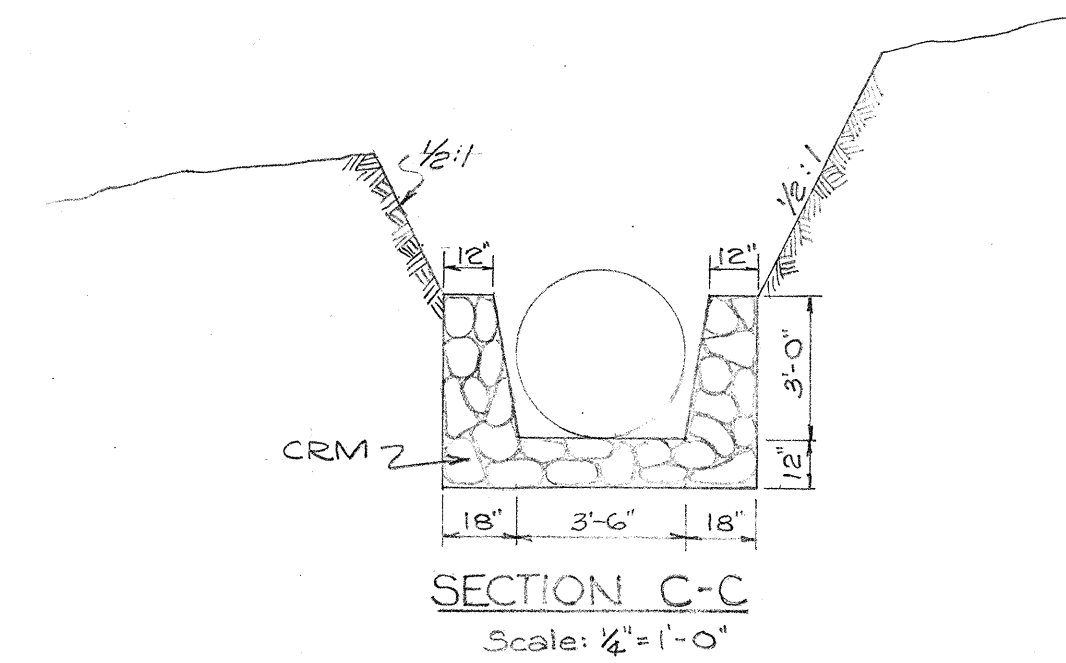
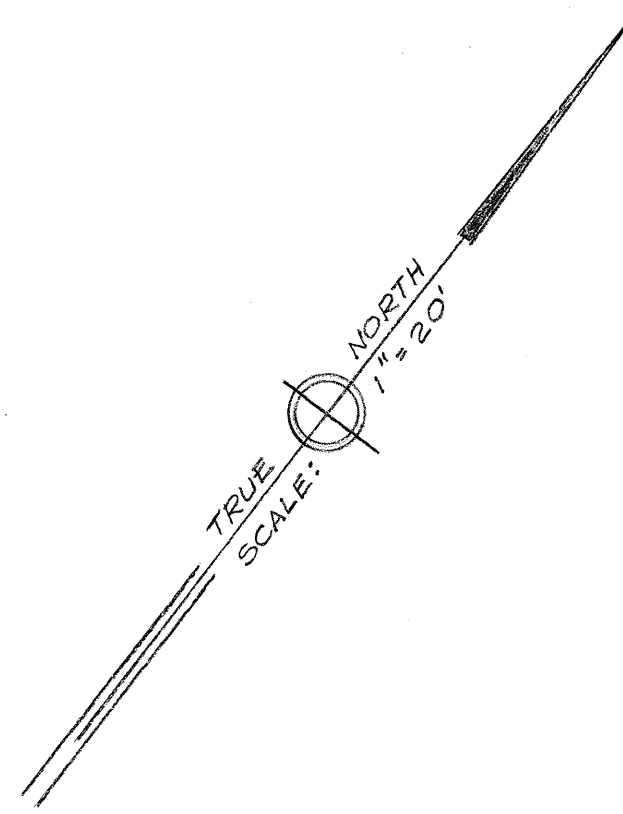


SECTION OF OPEN DITCH

SECTION "A-A"

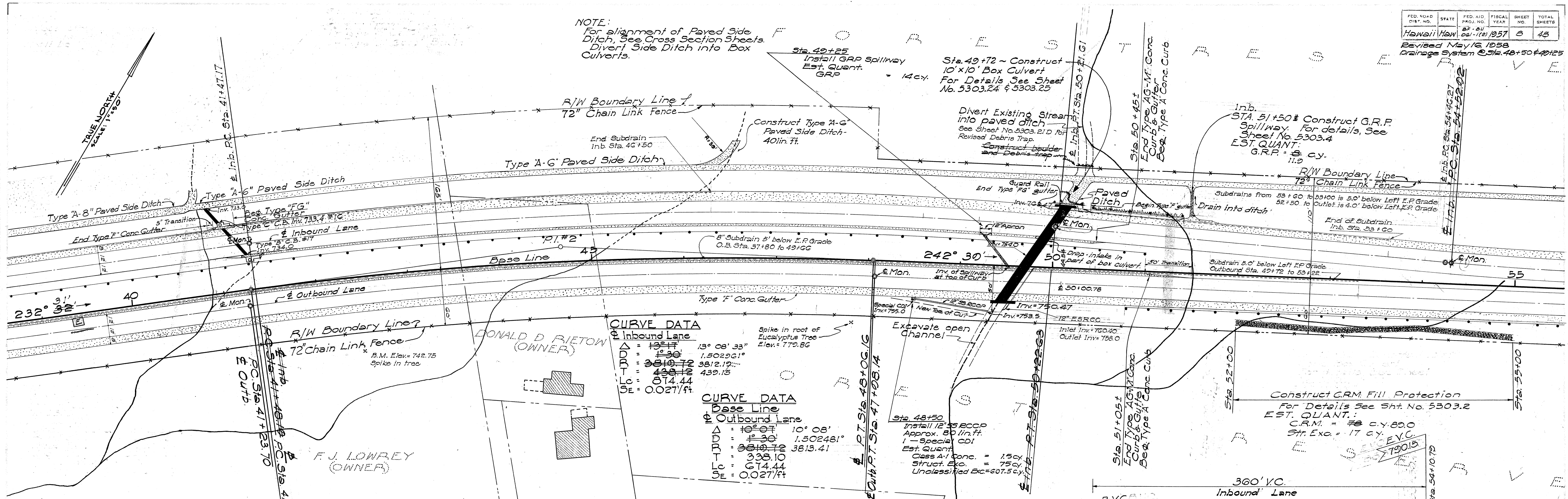
5303.7

Revised 10-10-57



5303.7A

NOTE:
For alignment of Paved Side Ditch, See Cross Section Sheets.
Divert Side Ditch into Box Culverts.

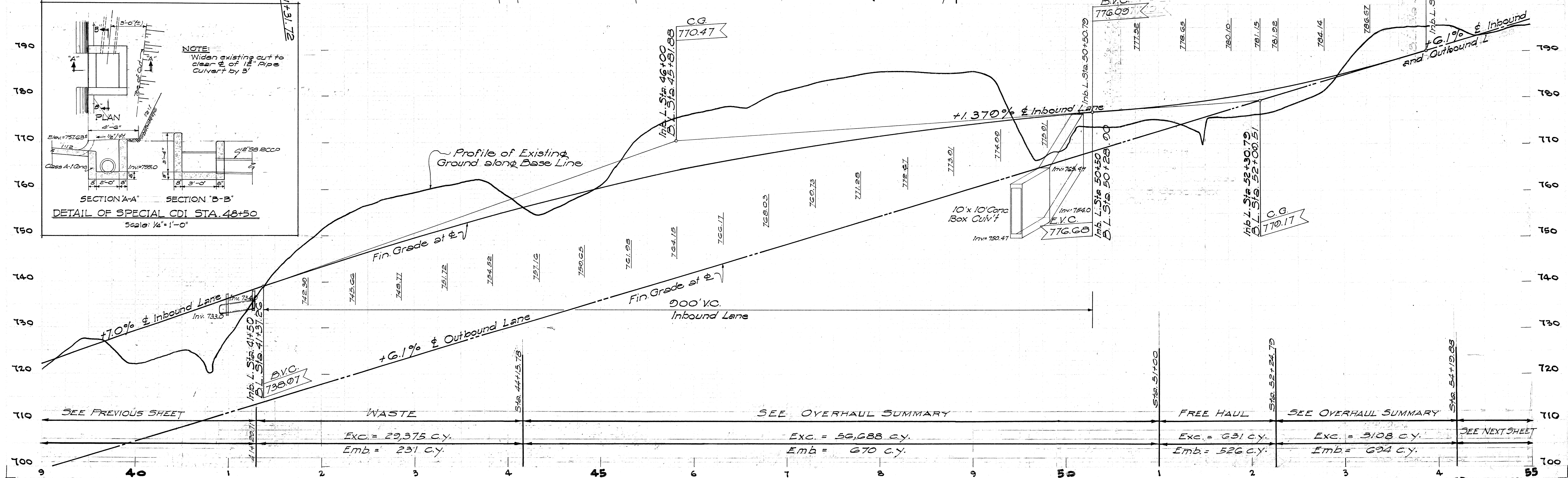
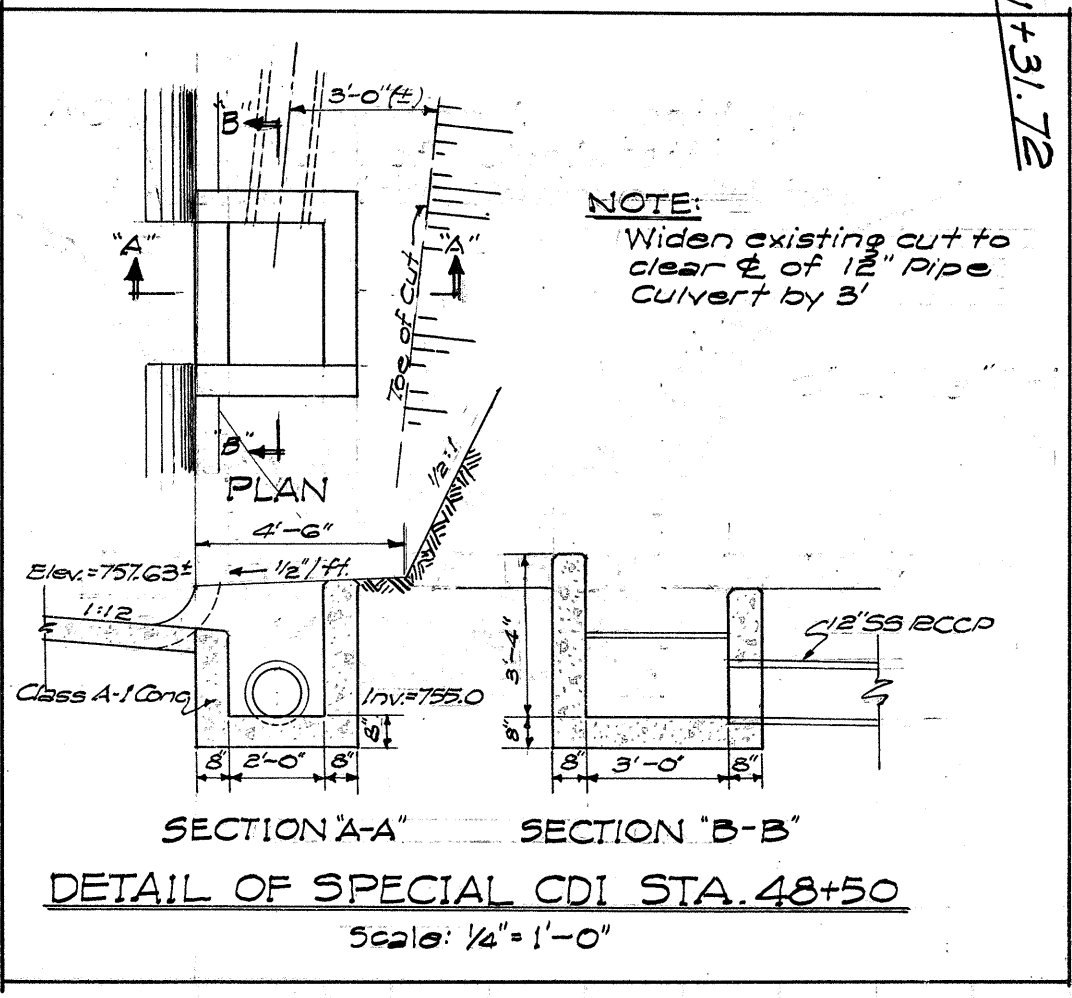


CURVE DATA
Inbound Lane

Δ	13° 08' 33"
UV	1,502.96'
UV	3812.19'
T	439.15'
Lc	874.44'
Se	0.0271/f'

CURVE DATA
Base Line

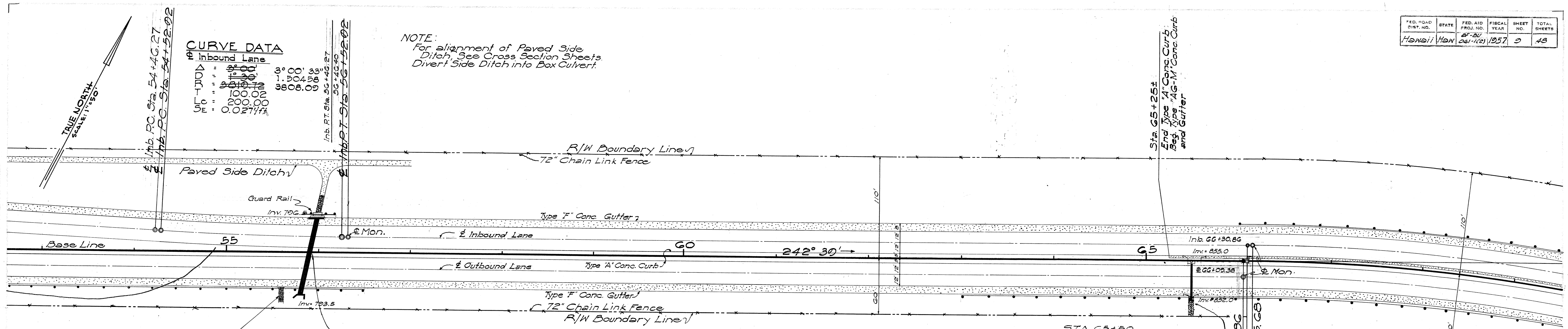
Δ	10° 08'
UV	1,502.48'
UV	3813.41'
T	338.10'
Lc	674.44'
Se	0.0271/f'



CURVE DATA

Inbound Lane	
PC	54+46.27
PT	55+00.00
PI	55+00.00
PE	55+00.00
CE	55+00.00
LC	55+00.00
EC	55+00.00
SE	55+00.00
SC	55+00.00
TC	55+00.00
TE	55+00.00
LE	55+00.00
CE	55+00.00
SE	55+00.00
SC	55+00.00
TC	55+00.00
TE	55+00.00
LE	55+00.00

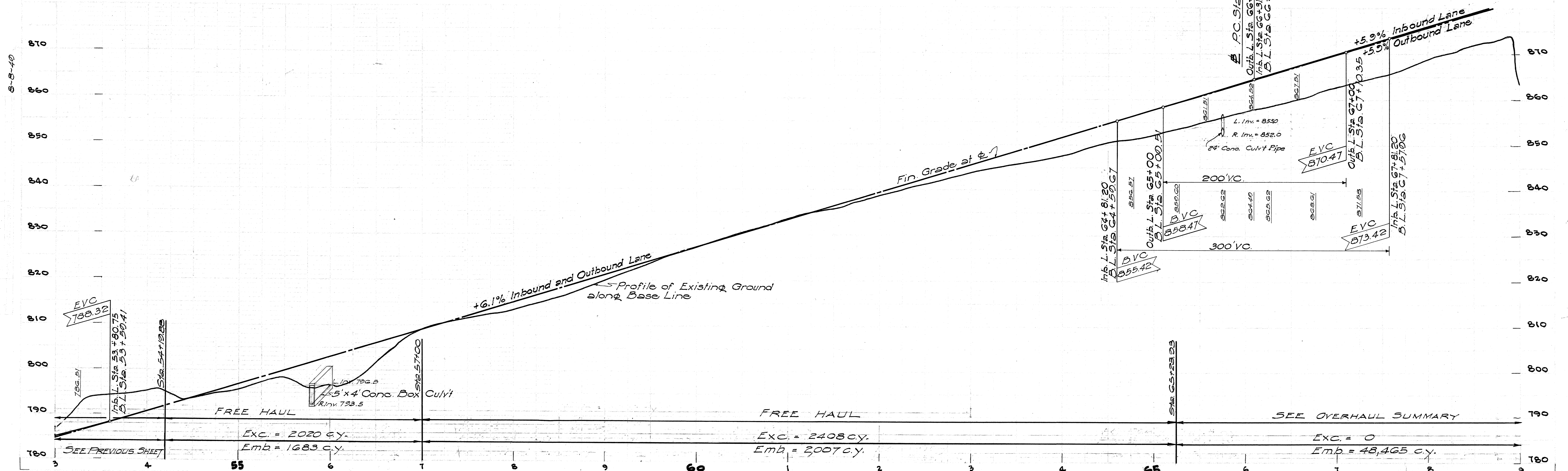
NOTE:
For alignment of Paved Side Ditch, See Cross Section Sheets.
Divert Side Ditch into Box Culvert.



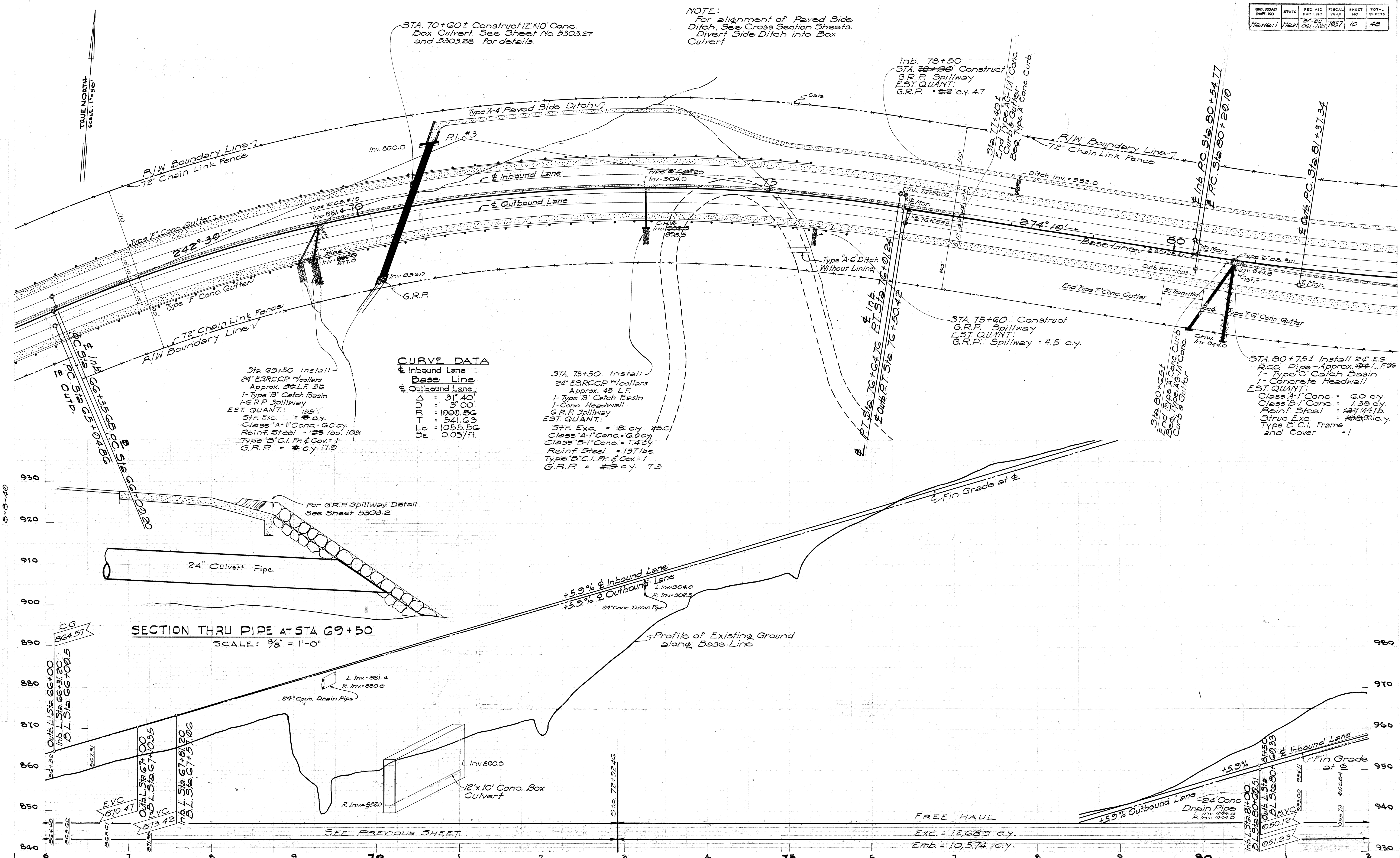
STA. 65+50
Install 24" E.S. RCC. Pipe
w/ Conc. Collars Approx. 48 L.F.
1- G.R.P. Spillway 48
1- Type 'B' Catch Basin #18
EST. QUANT:
Class A-1" Conc. = 6.0 c.y.
G.R.P. = 4.5 c.y.
Reinf. Steel = 18.102
Type B C.I. Frame and Cover = 1
See Sheet 5303.10 For Detail of Outlet
Struc. Exc. = 27.0 c.y.

CURVE DATA

Inbound Lane	
PC	54+46.27
PT	55+00.00
PI	55+00.00
PE	55+00.00
CE	55+00.00
LC	55+00.00
EC	55+00.00
SE	55+00.00
SC	55+00.00
TC	55+00.00
TE	55+00.00
LE	55+00.00

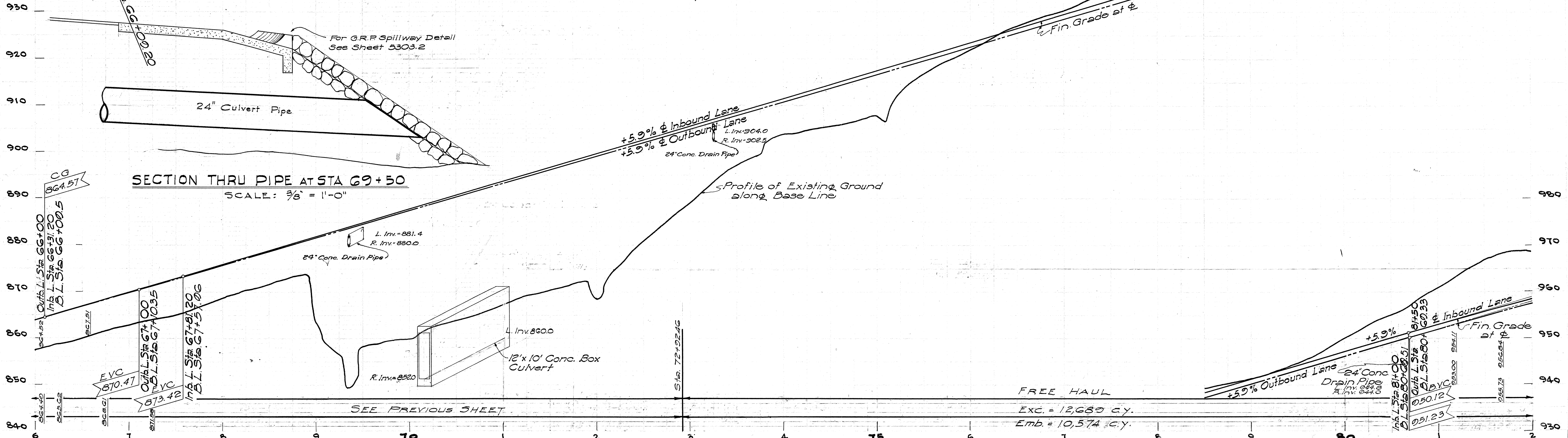


Hwy. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
Hawaii	HAW	25-BU 201-1(2)	1957	10	48



3-8-40

SECTION THRU PIPE AT STA 69+50
SCALE: 3/8" = 1'-0"



5303.10

NOTE:
For Paved Side Ditch Details,
See Sheet No. 5303.20
For alignment of Paved Side
Ditch, See Cross Section Sheets.

CURVE DATA

Inbound Lane	Outbound
PC	20+00
PT	20+50
PI	20+25
CE	0.035/ft.

CURVE DATA

Inbound Lane	Base Line
PC	31+12
PT	31+12
PI	20+64.10
CE	0.035/ft.

CURVE DATA

Outbound Lane	Base Line
PC	20+00
PT	20+50
PI	20+25
CE	0.035/ft.

CURVE DATA

Outbound Lane	Base Line
PC	20+00
PT	20+50
PI	20+25
CE	0.035/ft.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	HAWAII	68-64	1957	11	48

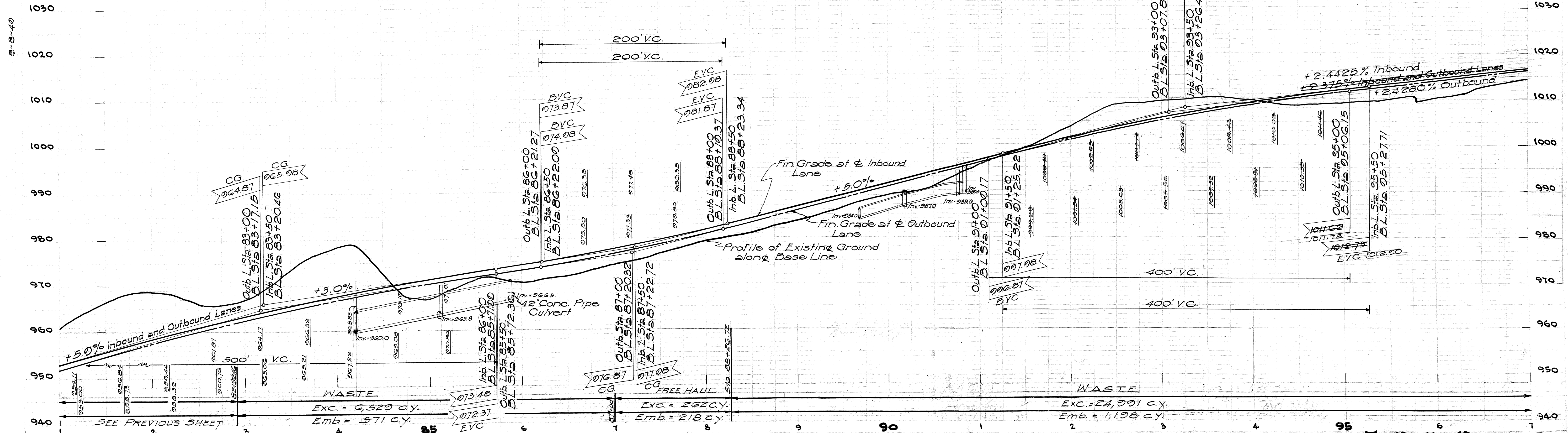
STA. 85+22± Install 42" E.S.
RCC Pipe - Approx. 2 Sides Open #17
1- Conc. Drop Intake - 2 Sides Open #17
1- Conc. Headwall
1- Type 'C' Catch Basin #22
1- Type 'A' Catch Basin #23
EST. QUANT:
Class 'A-1' Conc. = 140 c.y. 13.3
Class 'B-1' Conc. = 74 c.y. 9.0
Reinf. Steel = 284 lbs. 274
Struc. Exc. = 303 c.y. 260.7
Uncl. Exc. = 100 c.y.

Sta. 97+00± Install 24" E.S.
RCC Pipe - Approx. 2 Sides Open #17
1- Type 'A' Catch Basin
1- Type 'C' Catch Basin
1- Standard Conc. Headwall
EST. QUANT:
Class 'A-1' Conc. = 13.5 c.y.
Class 'B-1' Conc. = 1.4 c.y.
Reinf. Steel = 284 lbs. 250.5
Struc. Exc. = 28 c.y. 28.6
Type 'B' C.I. Fr. & Cov. = 2
Channel Exc. = 8 c.y.

NOTE:
For Intersection Details, See
Sheet No. 5303.16

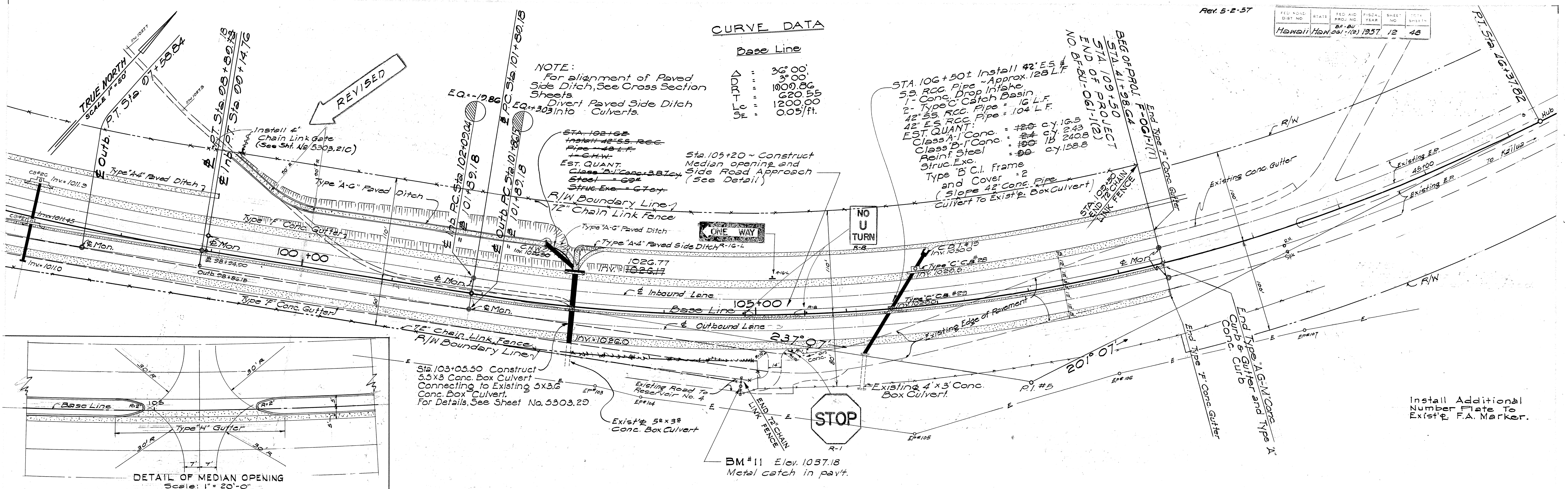
STA. 00+00± Install 24" E.S.
RCC Pipe - Approx. 2 Sides Open #17
Construct Conc. Drop Intake
EST. QUANT:
Struc. Exc. = 47 c.y. 68.2
Class 'B-1' Conc. = 112 c.y. 3.22
Uncl. Exc. = 62.8 c.y.

EST. QUANT:
Class 'A-1' Conc. = 104 c.y. 10.4
Reinf. Steel = 120 lbs. 202
Struc. Exc. = 87 c.y. 10.1
Type 'B' C.I. Fr. & Cover = 2



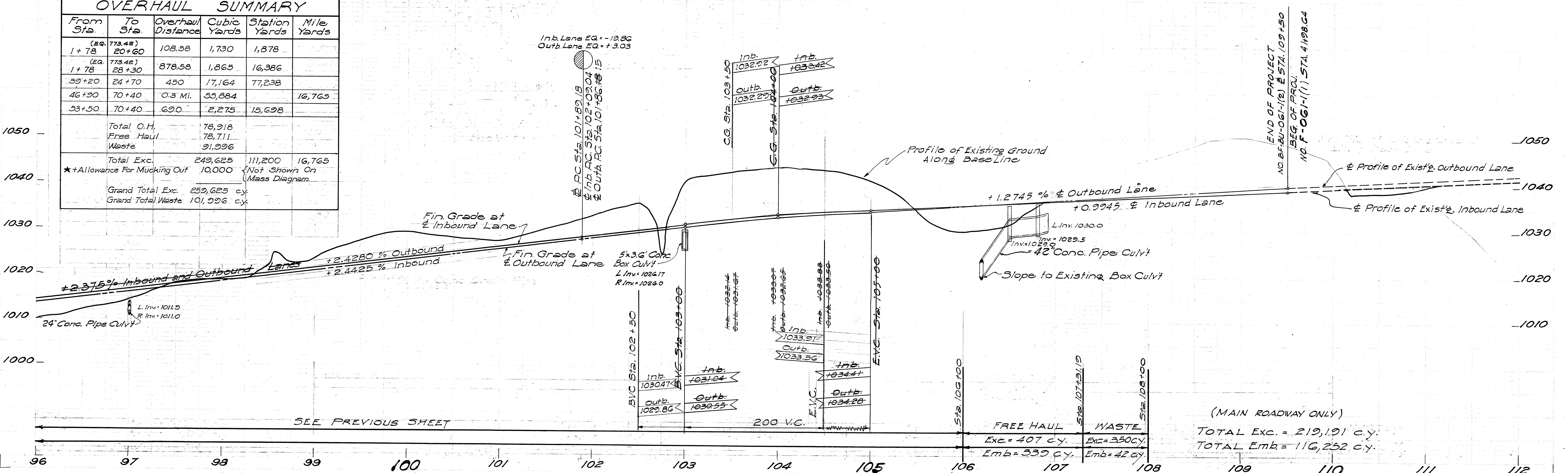
Rev. 5-2-57

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	66-061-061-1(12)	1957	12	48



OVERHAUL SUMMARY

From Sta.	To Sta.	Overhaul Distance	Cubic Yards	Station Yards	Mile Yards
(EQ. 773.42) 1+78	20+60	108.58	1,730	1,878	
(EQ. 773.42) 1+78	26+30	878.58	1,865	16,386	
39+20	24+70	450	17,164	77,238	
46+90	70+40	0.3 Mi.	55,884		16,765
33+50	70+40	690	2,275	15,628	
Total O.H.			78,918		
Free Haul			78,711		
Waste			91,996		
Total Exc.		249,625	111,200	16,765	
★ Allowance For Mucking Out		10,000			
Grand Total Exc.		259,625	c.y.		
Grand Total Waste		101,996	c.y.		



5303.12