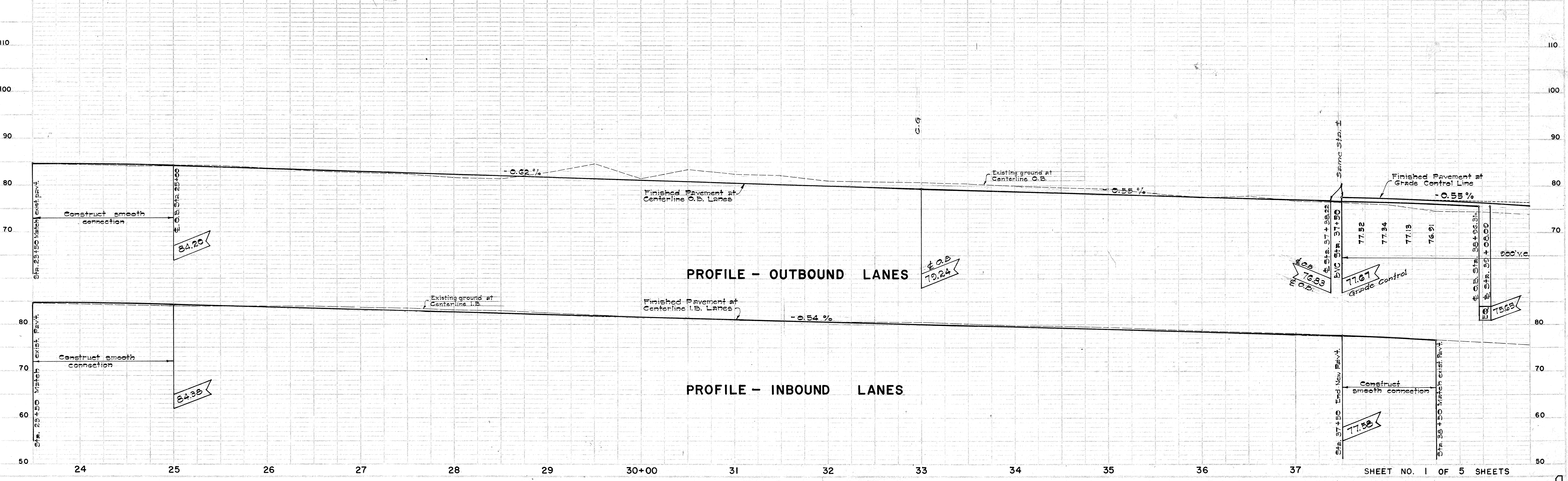
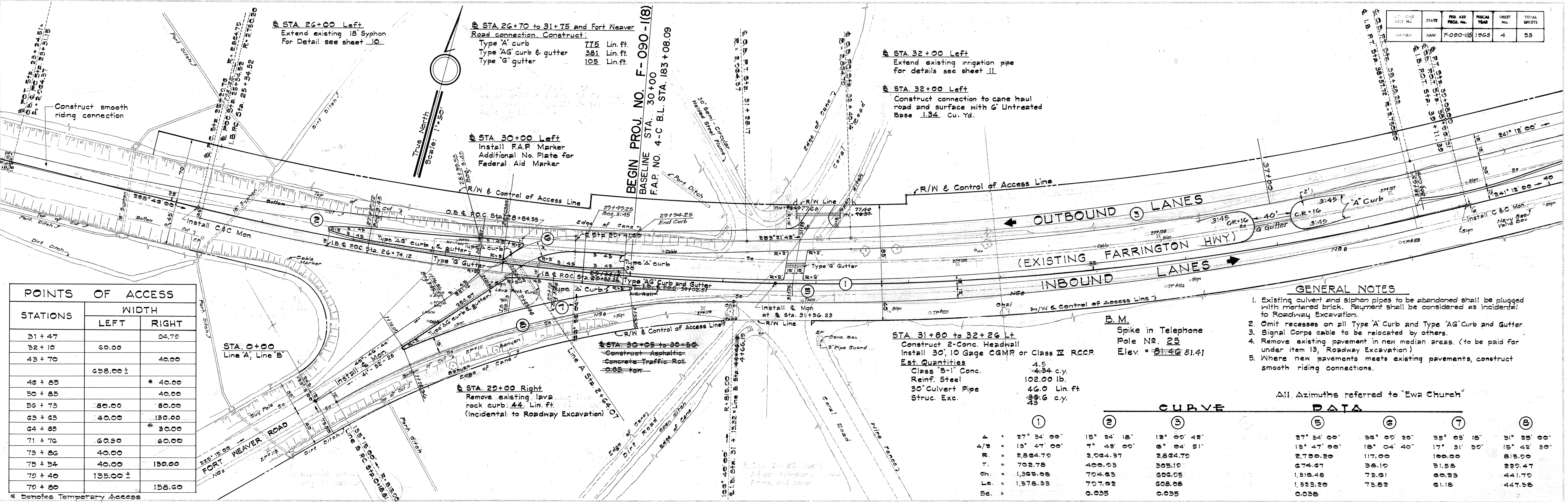


STATE	FED. AID	FISCAL	SHEET	TOTAL
HAWAII	FO-00-10	1968	4	53



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-000-118	1965	5	53

REVISED 3-10-64

STA. 40+00 C.D.I. #1 to C.D.I. #2
Construct 1 Conc. Drop Intake
Install 24" 14 Gage CGMP or Class III RCCP
Est. Quantities
Class B-1 Conc. 1.2 ± 0.5 c.y.
24" Culvert Pipe 58.0 Lin. ft.
Struc. Exc. 28 ± 1.5 c.y.

STA. 40+74
Excavate and Remove 18' of existing 24" pipe culvert and demolish existing C.D.I. (Excavation shall be paid for under item 14(1) and the removal of the pipe culvert and demolition of the C.D.I. shall be incidental to structural excavation.)
Est. Quantities
Struc. Exc. 12 ± 0.5 c.y.

STA. 40+60 to 44+65 C.D.I. #2 to C.B.#1
Construct 1-Grated Conc. Drop Intake and Connect to existing 24" RCCP at neat cut
Install 24" 14 Gage CGMP or Class III RCCP
Est. Quantities
Class A-1 Conc. 1.6 ± 0.2 c.y.
Reinf. Steel 11 ± 0.5 lb.
24" Culvert Pipe 390.0 Lin. ft.
Struc. Exc. 229.6 ± 12.5 c.y.

STA. 44+65 C.B.#1 to C.D.I. #3
Construct 1 Special Type 'B' Catch Basin (See sht. 14 for details)
Install 24" 14 Gage CGMP or Class III RCCP
Est. Quantities
Class A-1 Conc. 5.1 ± 0.4 c.y.
Reinf. Steel 120 ± 2.5 lb.
24" Culvert Pipe 70.0 Lin. ft.
Struc. Exc. 44 ± 0.5 c.y.

STA. 44+65 to KUNIA 'B' STA. 3+30
C.D.I. #3 to C.D.I. #4
Construct 1 Special C.D.I. #3 (See sht. 14 for details)
Install 30" CGSM Spillway
Est. Quantities
Class B-1 Conc. 2.7 ± 0.4 c.y.
30" CGSM Spillway 238.0 Lin. ft.
Struc. Exc. 65.7 ± 0.5 c.y.

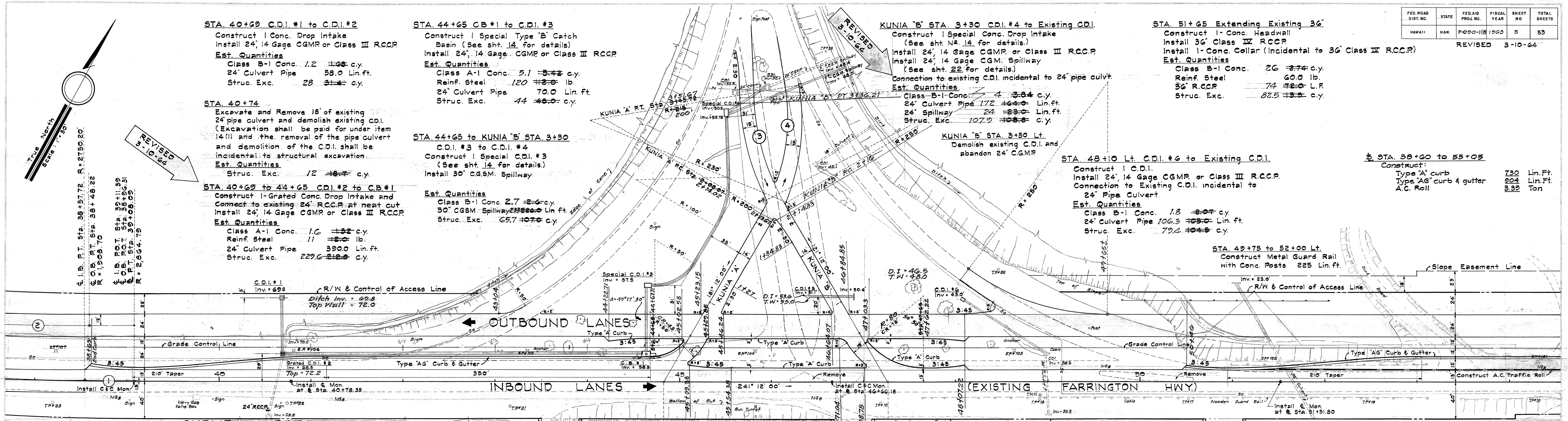
KUNIA 'B' STA. 3+30 C.D.I. #4 to Existing C.D.I.
Construct 1 Special Conc. Drop Intake (See sht. 14 for details)
Install 24" 14 Gage CGMP or Class III RCCP
Install 24" 14 Gage CGM Spillway (See sht. 22 for details)
Connection to existing C.D.I. incidental to 24" pipe culvert
Est. Quantities
Class B-1 Conc. 4 ± 0.4 c.y.
24" Culvert Pipe 172 ± 0.5 Lin. ft.
24" Spillway 24 ± 0.5 Lin. ft.
Struc. Exc. 107.9 ± 0.5 c.y.

STA. 51+65 Extending Existing 36"
Construct 1- Conc. Headwall
Install 36" Class IV RCCP
Install 1- Conc. Collar (Incidental to 36" Class IV RCCP)
Est. Quantities
Class B-1 Conc. 26 ± 0.4 c.y.
Reinf. Steel 60.0 lb.
36" RCCP 74 ± 0.5 L.F.
Struc. Exc. 82.5 ± 0.5 c.y.

STA. 58+60 to 53+05
Construct:
Type 'A' curb 730 Lin. Ft.
Type 'A' curb & gutter 824 Lin. Ft.
A.C. Roll 9.39 Ton

STA. 48+10 Lt. C.D.I. #6 to Existing C.D.I.
Construct 1 C.D.I.
Install 24" 14 Gage CGMP or Class III RCCP
Connection to Existing C.D.I. incidental to 24" Pipe Culvert
Est. Quantities
Class B-1 Conc. 1.8 ± 0.4 c.y.
24" Culvert Pipe 106.3 ± 0.5 Lin. ft.
Struc. Exc. 79.4 ± 0.5 c.y.

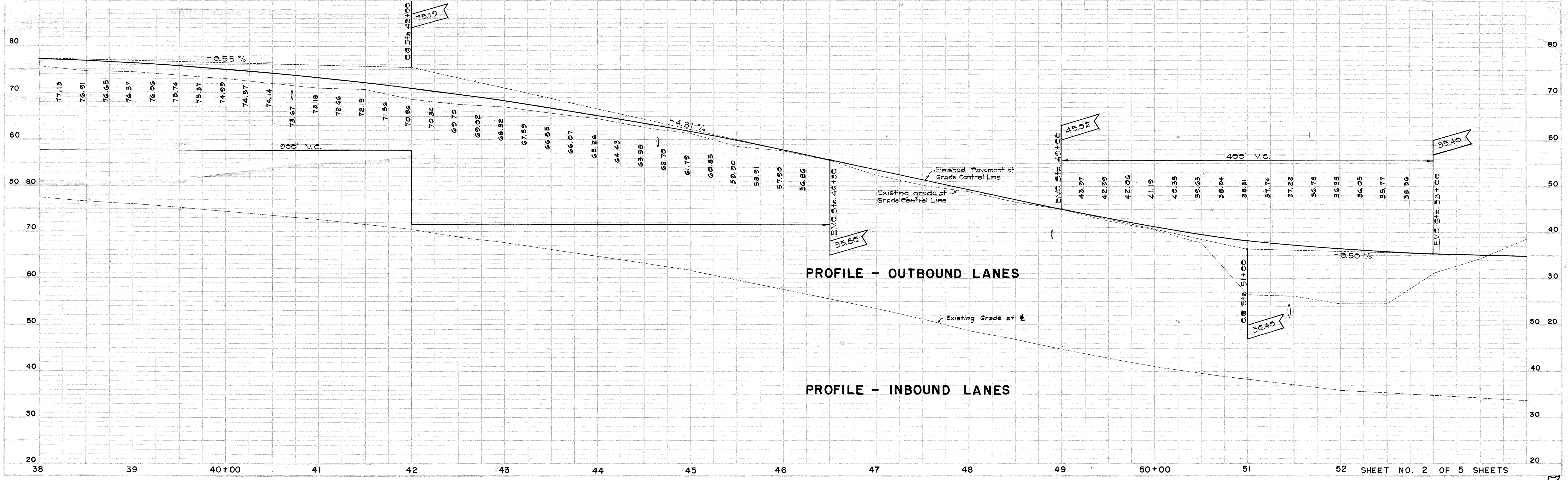
STA. 49+75 to 52+00 Lt.
Construct Metal Guard Rail with Conc. Posts 225 Lin. ft.



CURVE DATA

	①	②	③	④
Δ	27° 34' 00"	12° 09' 42"	27° 33' 00"	39° 26' 00"
A/2	13° 47' 00"	6° 04' 51"	13° 46' 30"	19° 45' 00"
R	2,864.79'	2,864.79'	2,864.79'	2,000.00'
T	702.78'	305.19'	61.29'	71.68'
Ch.	1,365.08'	608.95'	39.53'	134.95'
L.C.	1,378.33'	608.08'	120.21'	137.65'
P.E.		0.035%		

B.M.
Spike in Telephone Pole
No. 21 Elev. = 68.34



PROFILE - OUTBOUND LANES

PROFILE - INBOUND LANES

STA. 66+60 to 70+80 C.D.I. #2 to SDMH #1
Construct 1 Special Grated Drop Intake
(See sht. 17 for details.)
Install 24" 14 Gage CGMP or Class III RCCP
Est. Quantities
Struc. Exc. 265.8 ± 0.0 c.y.
Class A-1 Conc. 1.4 ± 0.0 c.y.
24" Culvert Pipe 41.6 ± 0.0 Lin. ft.

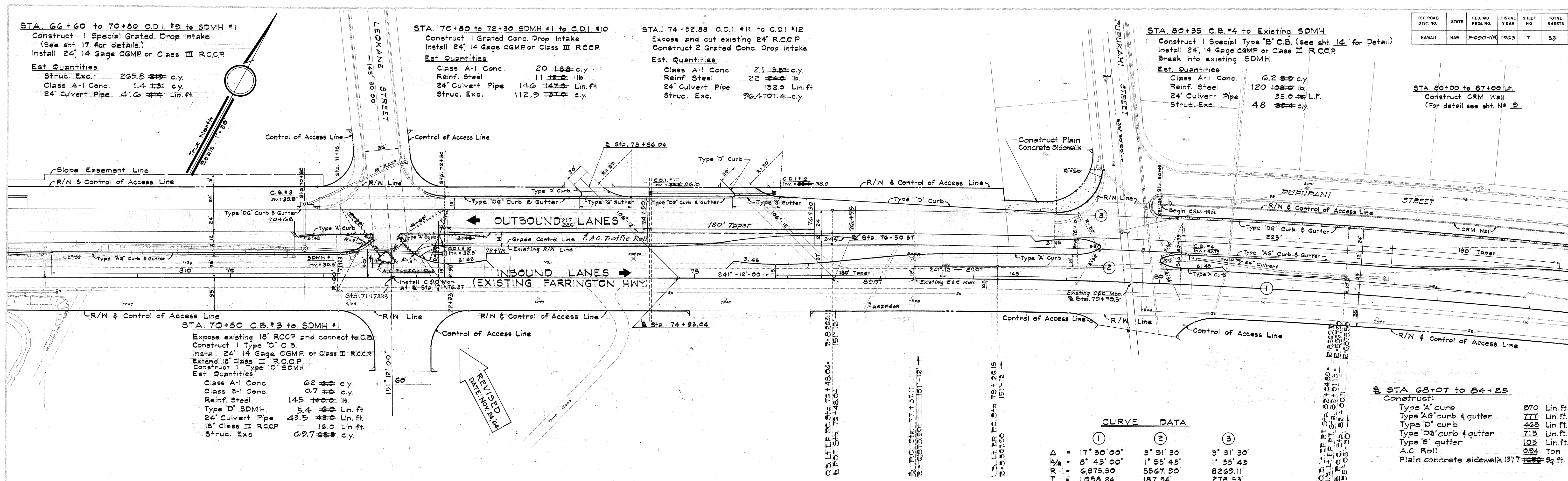
STA. 70+80 to 72+30 SDMH #1 to C.D.I. #10
Construct 1 Grated Conc. Drop Intake
Install 24" 14 Gage CGMP or Class III RCCP
Est. Quantities
Class A-1 Conc. 20 ± 0.0 c.y.
Reinf. Steel 11 ± 0.0 lb.
24" Culvert Pipe 14.0 ± 0.0 Lin. ft.
Struc. Exc. 112.9 ± 0.0 c.y.

STA. 74+52.88 C.D.I. #11 to C.D.I. #12
Expose and cut existing 24" RCCP.
Construct 2 Grated Conc. Drop Intake
Est. Quantities
Class A-1 Conc. 2.1 ± 0.0 c.y.
Reinf. Steel 22 ± 0.0 lb.
24" Culvert Pipe 152.0 Lin. ft.
Struc. Exc. 96.4 ± 0.0 c.y.

STA. 80+35 C.B. #4 to Existing SDMH
Construct 1 Special Type "B" C.B. (see sht. 14 for Detail)
Install 24" 14 Gage CGMP or Class III RCCP
Break into existing SDMH.
Est. Quantities
Class A-1 Conc. 6.2 ± 0.0 c.y.
Reinf. Steel 120 ± 0.0 lb.
24" Culvert Pipe 35.0 ± 0.0 L.F.
Struc. Exc. 48 ± 0.0 c.y.

STA. 80+00 to 87+00 L+
Construct CRM Wall
(For detail see sht. N# 2)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F-080-108	1963	7	93

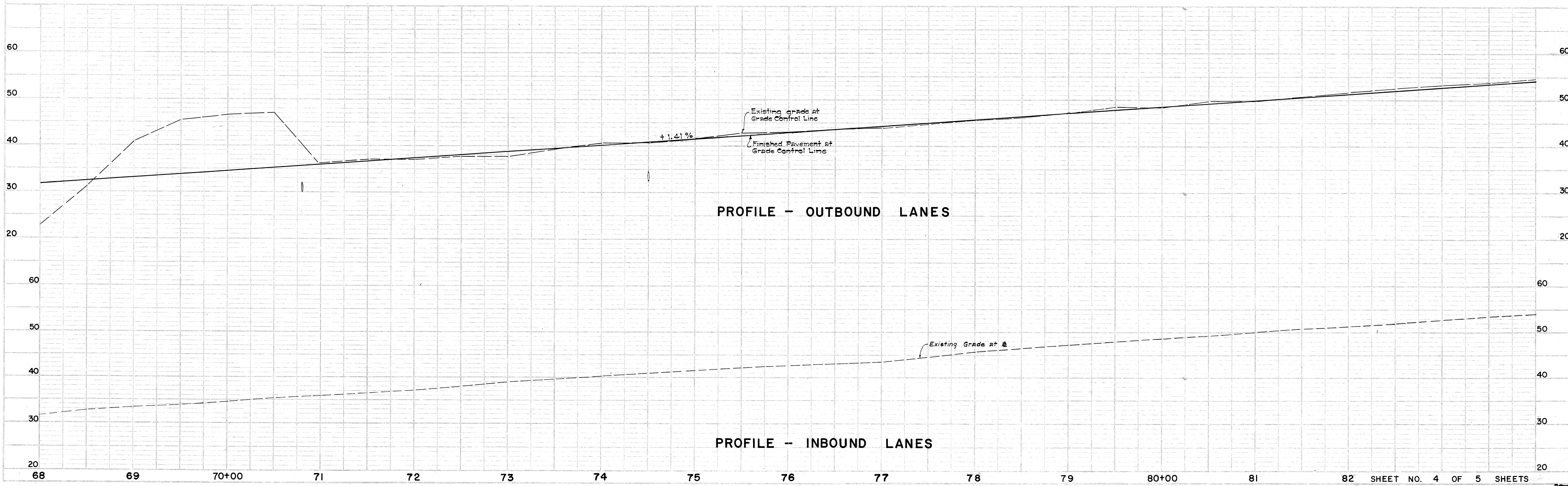


STA. 70+80 C.B. #3 to SDMH #1
Expose existing 18" RCCP and connect to C.B.
Construct 1 Type "C" C.B.
Install 24" 14 Gage CGMP or Class III RCCP
Extend 18" Class III RCCP
Construct 1 Type "D" SDMH.
Est. Quantities
Class A-1 Conc. 62 ± 0.0 c.y.
Class B-1 Conc. 0.7 ± 0.0 c.y.
Reinf. Steel 145 ± 0.0 lb.
Type "D" SDMH 5.4 ± 0.0 Lin. ft.
24" Culvert Pipe 43.5 ± 0.0 Lin. ft.
18" Class III RCCP 16.0 Lin. ft.
Struc. Exc. 69.7 ± 0.0 c.y.

CURVE DATA

①	②	③
Δ = 17° 30' 00"	5° 51' 30"	5° 51' 30"
R = 8° 45' 00"	1° 55' 45"	1° 55' 45"
R = 6,875.50'	5567.90'	8269.11'
T = 1,058.24'	187.54'	278.53'
Ch. = 2,091.85'	374.88'	556.74'
Lc. = 2,100.00'	374.95'	556.85'

STA. 88+07 to 84+25
Construct:
Type "A" curb 870 Lin. ft.
Type "AG" curb & gutter 777 Lin. ft.
Type "D" curb 468 Lin. ft.
Type "DG" curb & gutter 715 Lin. ft.
Type "E" gutter 105 Lin. ft.
A.C. Roll 0.94 Ton
Plain concrete sidewalk 1377 ± 0.0 sq. ft.



PROFILE - OUTBOUND LANES

PROFILE - INBOUND LANES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F-090-1(8)	1963	8	53

STA. 84+00 to 87+00
 Construct:
 Type "AG" curb & gutter 242 Lin. ft.
 Type "DG" curb & gutter 270 Lin. ft.

CURVE DATA

①
 $\Delta = 17^{\circ} 30' 00''$
 $4\frac{1}{2} = 8' 45' 00''$
 $R = 6,875.50'$
 $T = 1,058.24'$
 $Ch = 2,091.65'$
 $Lc = 2,100.00'$

