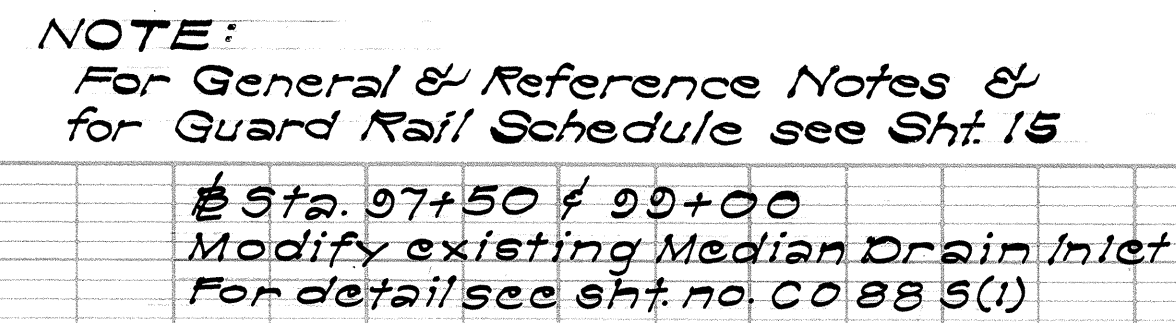


Sta. 105+75 Lt.
Construct: 1-Type "6/6/2" Inlet (Inv.=46.81)
1-Conc. Drop Box
Install: 24" C.M.F. 12 Gage

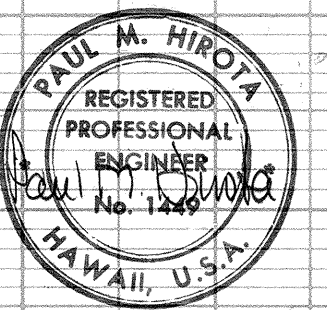
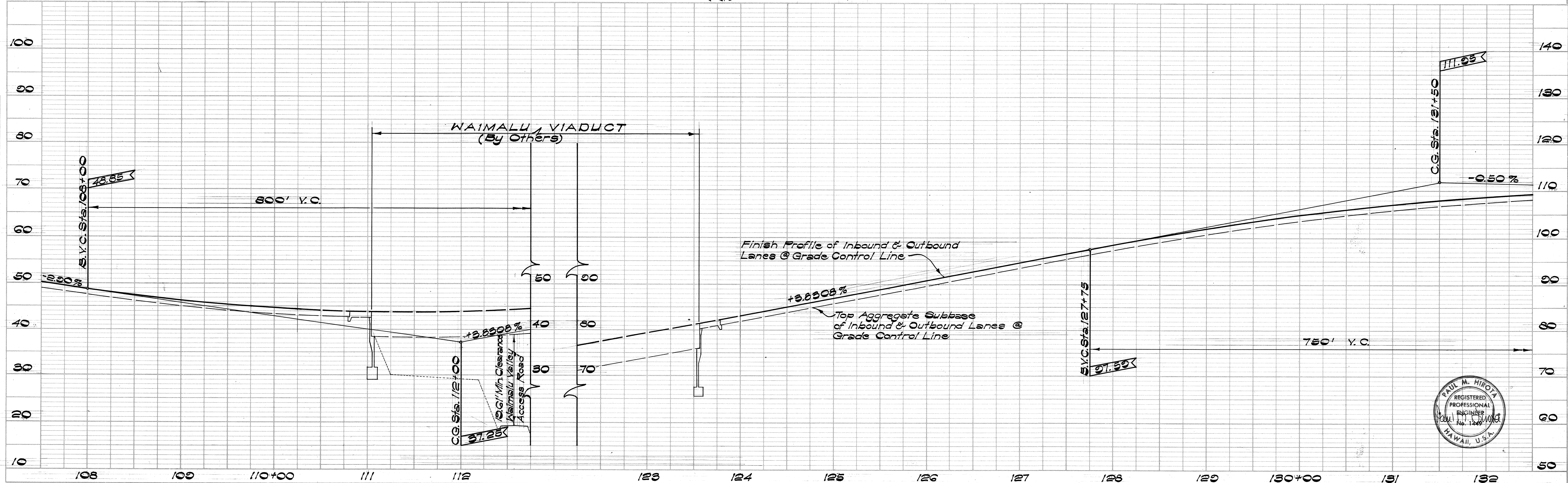
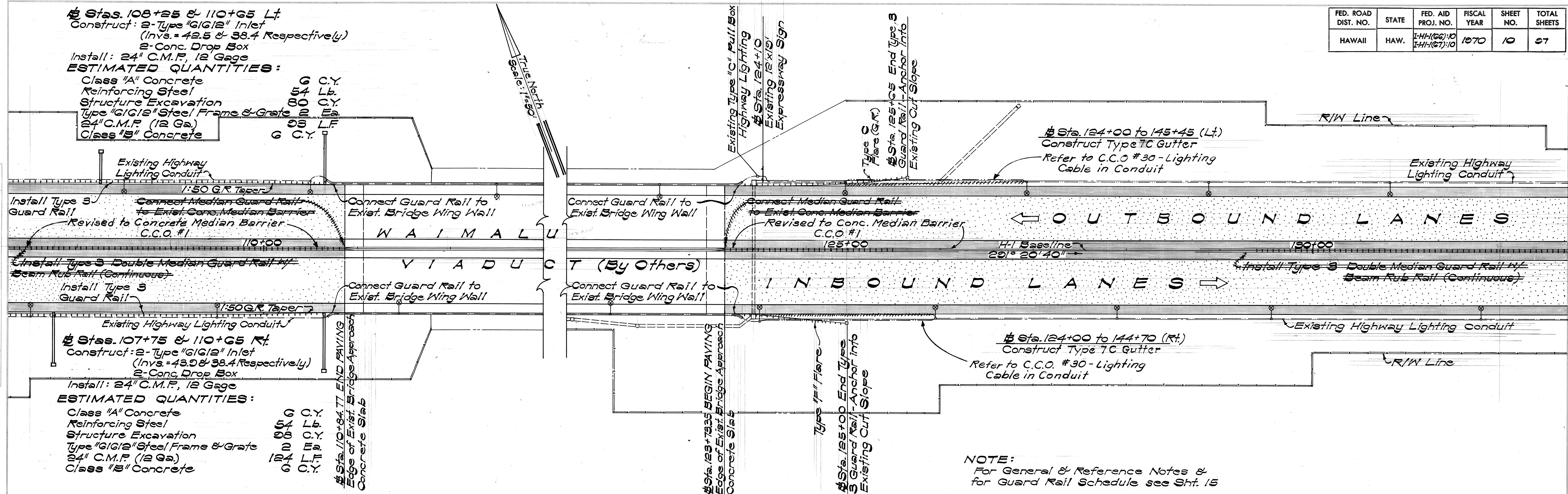
Class "A" Concrete	3 C.Y.
Reinforcing Steel	27 Lb.
Structure Excavation	51 C.Y.
Type "6/12" Steel Frame & Grate	1 Ea.
24" C.M.F. (12 Ga.)	65 L.F.
Class "B" Concrete	3 C.Y.



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HH-(66)-10 1-HH-(67)-10	1970	10	27

Stas. 108+25 & 110+65 Lt.
Construct: 2-Type "G/G/2" Inlet
(Invs. = 42.5 & 38.4 Respectively)
2-Conc. Drop Box
Install: 24" C.M.P. 12 Gage
ESTIMATED QUANTITIES:
Class "A" Concrete 6 C.Y.
Reinforcing Steel 54 Lb.
Structure Excavation 80 C.Y.
Type "G/G/2" Steel Frame & Grate 2 Ea.
24" C.M.P. (12 Ga.) 23 LF
Class "B" Concrete 6 C.Y.

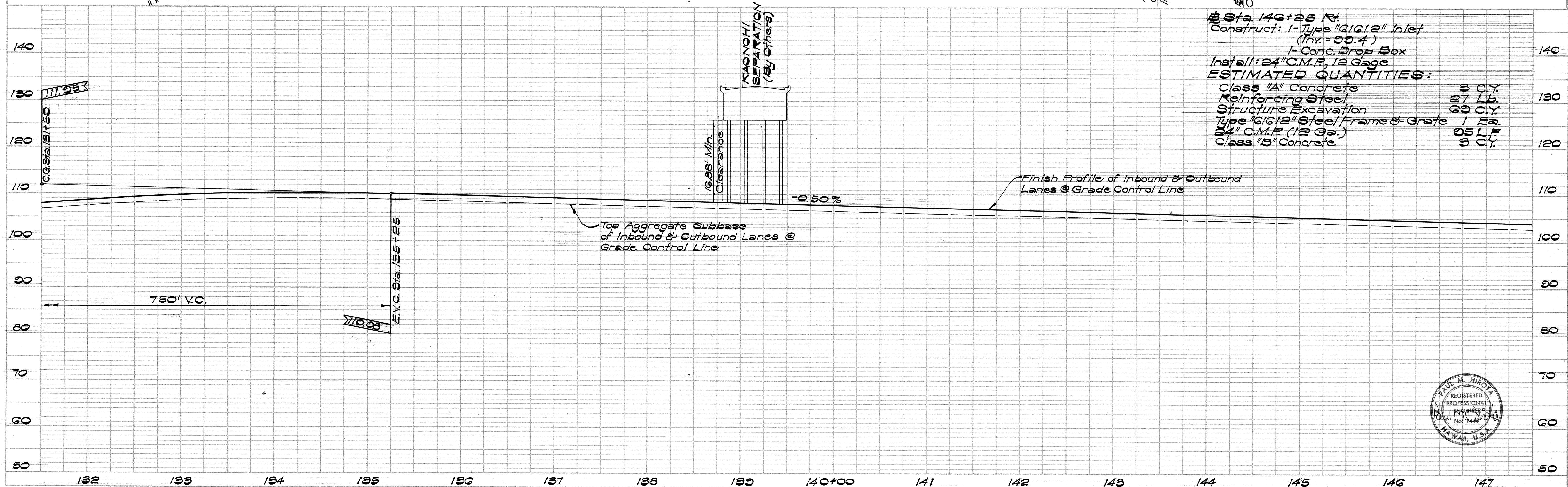
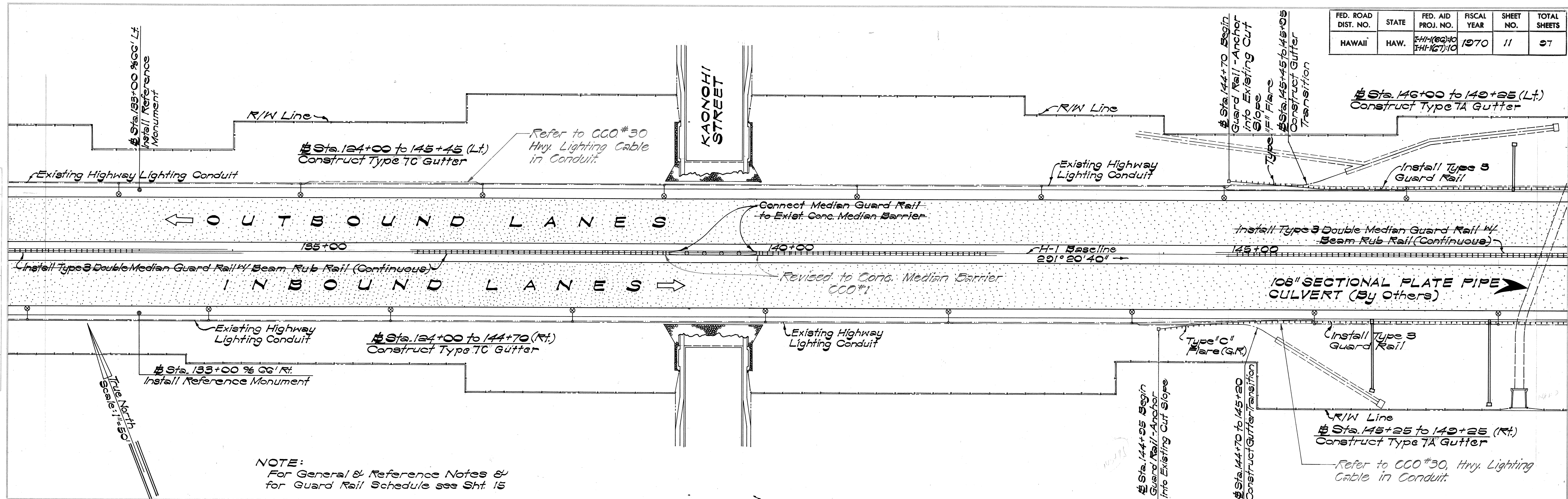
Stas. 107+75 & 110+65 Rt.
Construct: 2-Type "G/G/2" Inlet
(Invs. = 43.9 & 38.4 Respectively)
2-Conc. Drop Box
Install: 24" C.M.P. 12 Gage
ESTIMATED QUANTITIES:
Class "A" Concrete 6 C.Y.
Reinforcing Steel 54 Lb.
Structure Excavation 98 C.Y.
Type "G/G/2" Steel Frame & Grate 2 Ea.
24" C.M.P. (12 Ga.) 124 LF
Class "B" Concrete 6 C.Y.



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	2-HI-160-10 2-HI-167-10	1970	11	27

PLAN	DATE
SURVEYED	BY
PLOTTED	BY
ALIGNED	BY
CHECKED	BY
NO.	BY

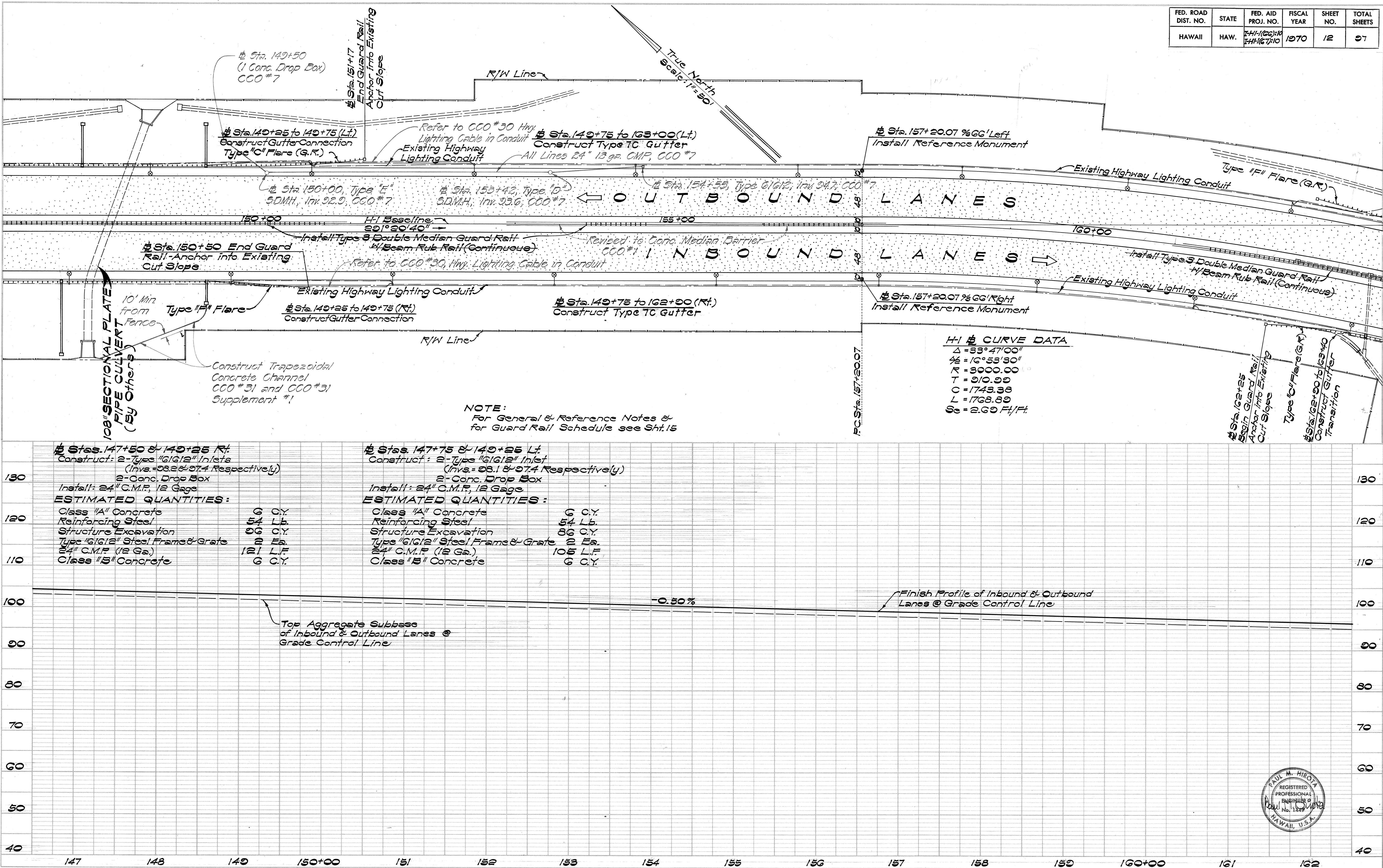
PROFILE	DATE
SURVEYED	BY
PLOTTED	BY
CHECKED	BY
NO.	BY



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7-41-(66)-10 7-41-(67)-10	1970	12	27

PLAN	DATE	BY	DATE
SURVEYED			
PLOTTED			
NOTE BOOK			
NO.			

PROFILE	DATE	BY	DATE
SURVEYED			
PLOTTED			
NOTE BOOK			
NO.			



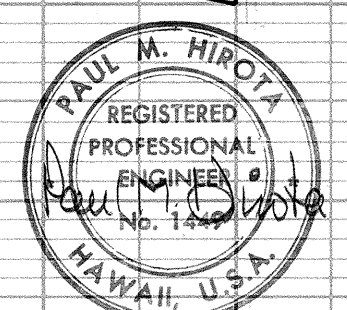
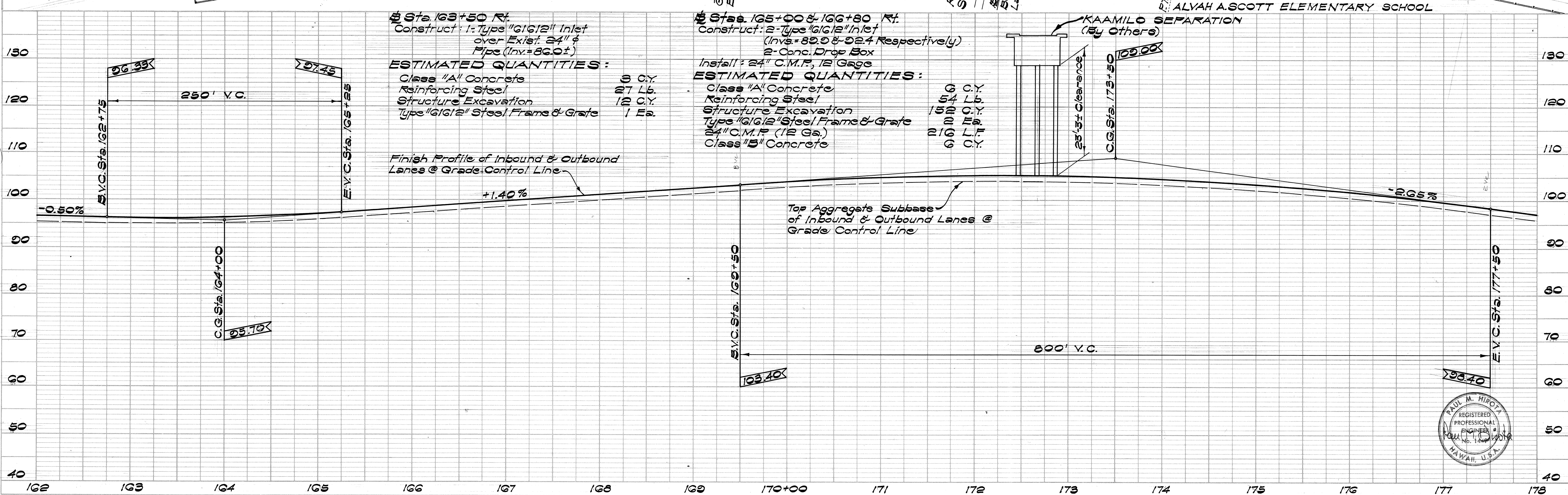
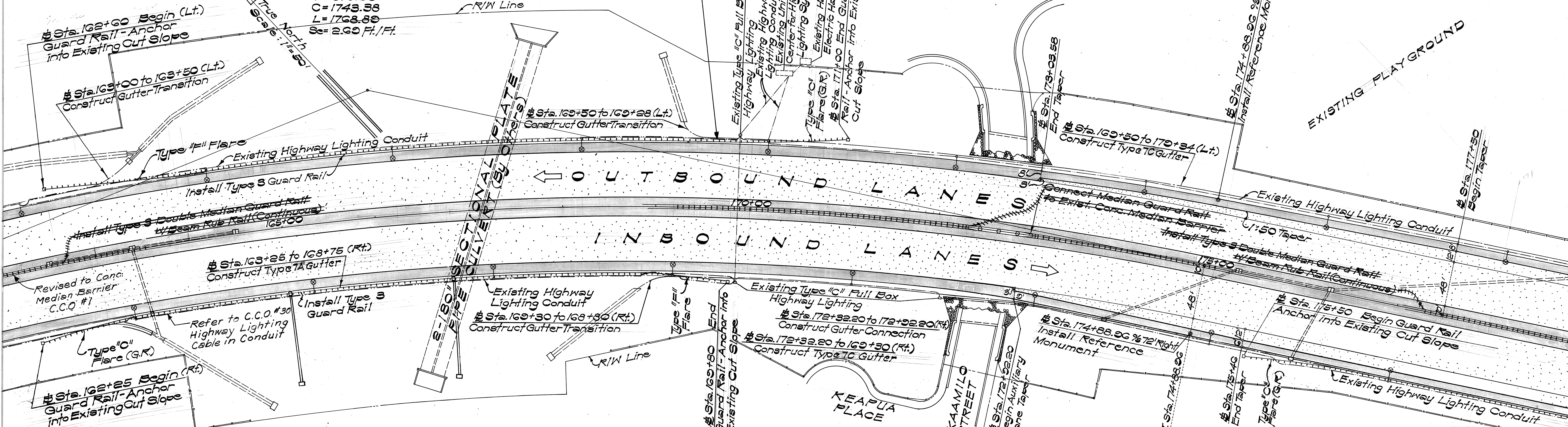
NOTE:
For General & Reference
Notes & for Guard Rail
Schedule see Sht. 15

H/I CURVE DATA

$\Delta = 33^\circ 47' 00''$
 $\Delta a = 16^\circ 53' 30''$
 $R = 3000.00$
 $T = 910.93$
 $C = 1743.38$
 $L = 1768.88$
 $S = 2.65 \text{ Ft./Ft.}$

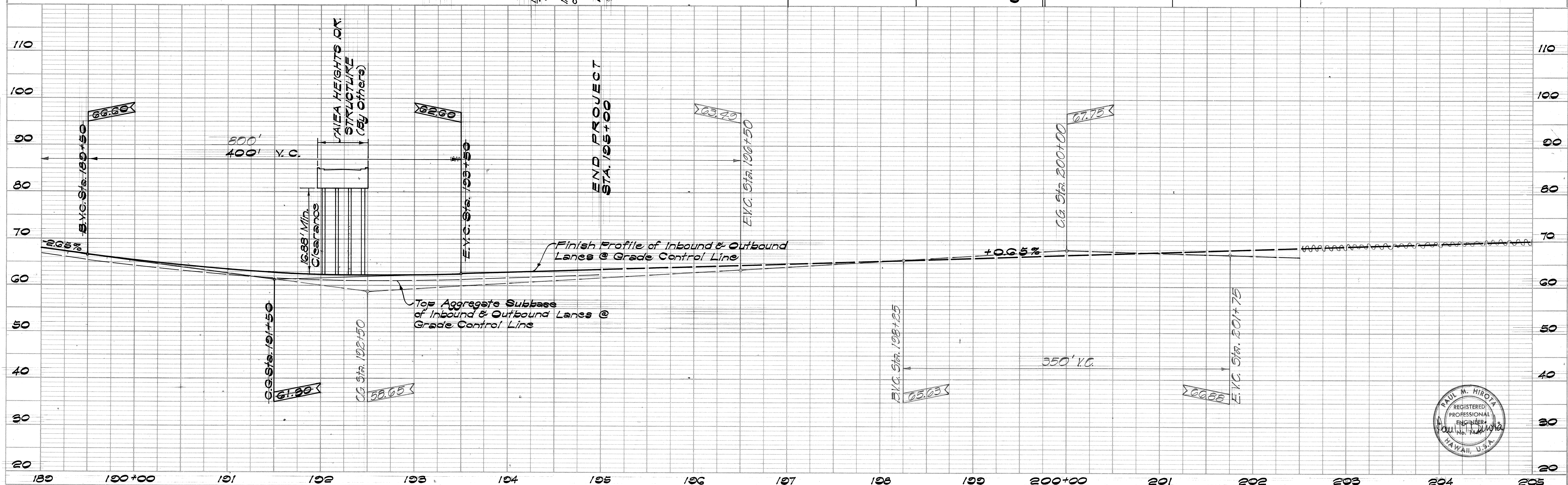
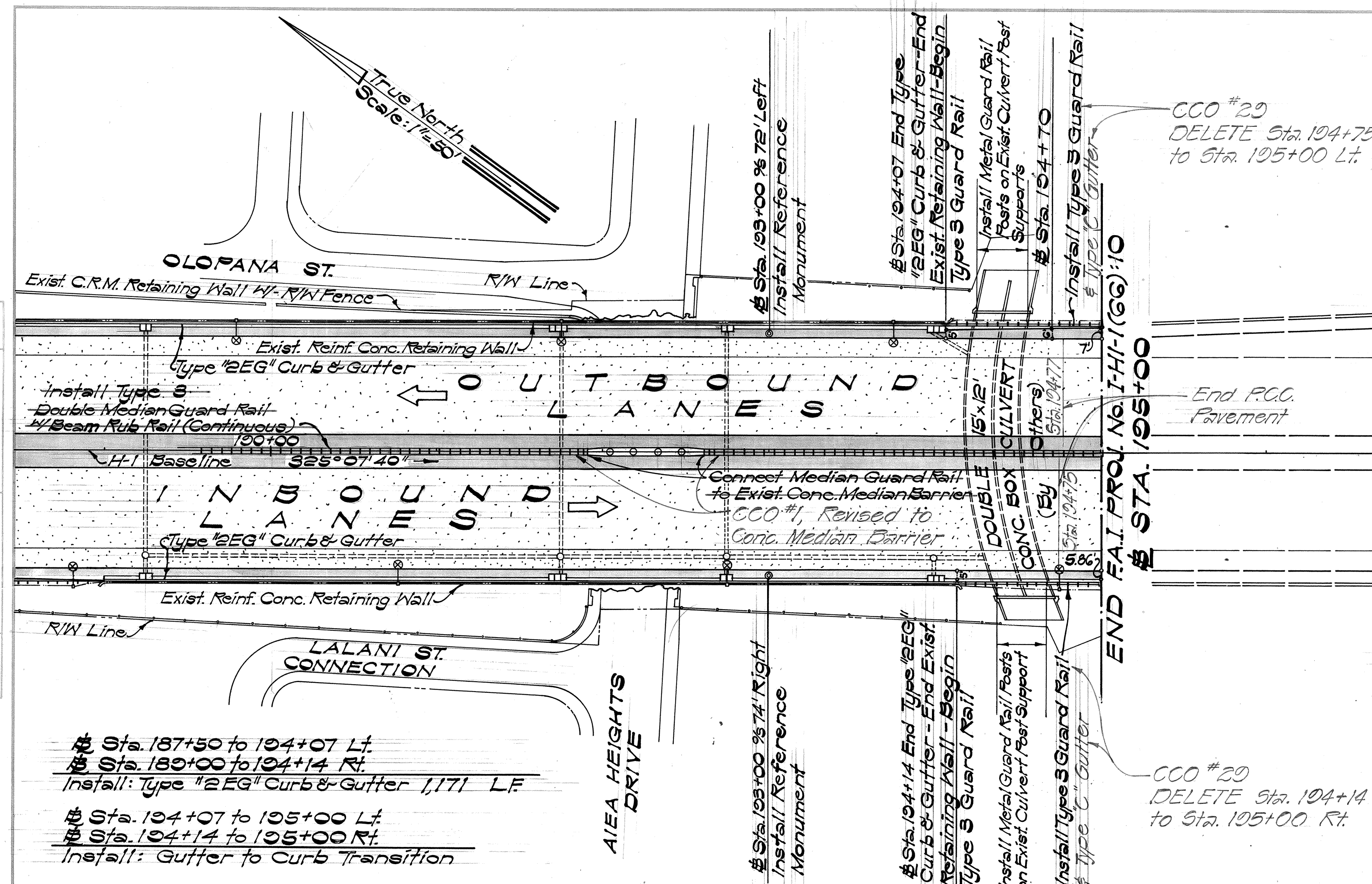
Refer to C.C.O. #30 - Highway
Lighting Cable in Conduit

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HI-166(10) FHI(67)-10	1970	13	27



PLAN	DATE	BY
SURVEYED		
PLOTTED		
ALIGNED CHECKED		
NOTE BOOK		
NO.		

PROFILE	DATE	BY
SURVEYED		
PLOTTED		
NOTE BOOK		
NO.		



GENERAL NOTES

- Origin of Azimuths: Hawaiian Plane Coordinate. Coordinates referred to: Grid System, Zone III.
- For Detailed Plan of the Interchange, see Shts. 16 to 19, inclusive.
- Unless otherwise noted, all Drainage & Highway Lighting Systems shall be installed by others & are shown for the contractor's convenience only. The locations are approximate & if the locations differ from that shown any adjustment to the new work indicated on the plans shall be made by the contractor at no additional cost to the State.

- Slotted drains installed between Sta. 75+25 to 79+50 & 96+00 to 99+00 shall connect to stubs provided in the drainage structures installed by others at Sta. 75+25, 97+50 & 99+00.
- All fencing installed along Kamehameha Highway shall be chain link with top tension wire. All other fencing installed shall be chain link with top rail. Exact limits shall be as directed by the Engineer.
- Shoulder dimensions in the Aiea speed change lane areas are from edge of travel way to the edge of shoulder pavement. (See typical section, Sht. 4 & curb detail, Sht. 62.)

REFERENCE NOTES

- For Details of Guard Rail Post connection to Aiea Stream Culvert Post Supports, see Sht. 65.
- For Details of Guard Rail connections to Bridge Median Barriers & End Posts, see Shts. 68 & 70 respectively.
- For Details of Guard Rail installation adjacent to Exist. Aiea C.R.M. Retaining Walls, see Sht. 65.
- For Details of gutter transition & gutter connection see Shts. 86 & 87 respectively.
- For Details of Type 1A, 1B & 7C Gutter see Sht. 86
- For Details of Gutter to Curb Transitions, see Sht. 87

MONUMENT SCHEDULE

# STA.	OFFSET	# STA.	OFFSET
63+00	3 Ft. Left	157+20.07	66 Ft. Left & Right
70+00	3 Ft. Left	174+88.96	74 Ft. Left & Right
77+11.92	3 Ft. Left	193+00	74 Ft. Left & Right
103+00	66 Ft. Left & Right		
193+00	66 Ft. Left & Right		

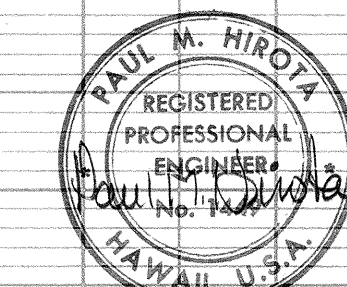
NOTE: Use plan offsets for monuments.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	TH-1(66)10	1970	15	27

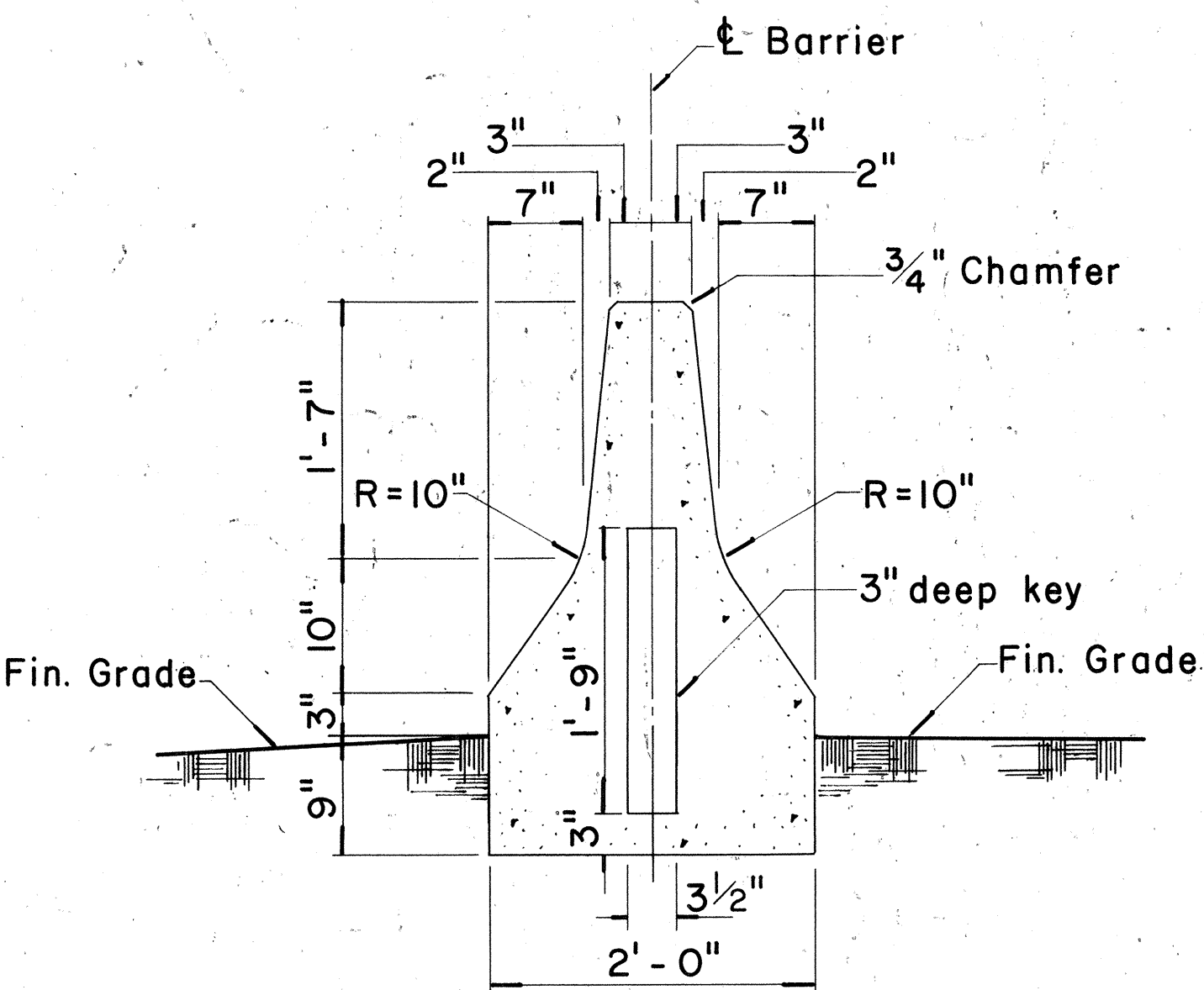
GUARDRAIL SCHEDULE	Double Rub Rail	Single
# Sta. 62+97.24 to 105+00	11,400 L.F.	
# Sta. 62+25.55 (Lt.) to Ramp "F"		952 L.F.
# Sta. 11+62.00		
Ramp "A" Sta. 16+41.00 to # Sta. 21+50.00 (Rt.)		1,516 L.F.
Ramp "E" Sta. 6+75.00 to # Sta. 21+50.00 (Lt.)		916 L.F.
# Sta. 100+75 (Rt.) to 110+72.06 (Rt.)		907 L.F.
# Sta. 102+00 (Lt.) to 110+72.06 (Lt.)		878 L.F.
# Sta. 123+86.06 (Rt.) to 125+00 (Rt.)		114 L.F.
# Sta. 123+86.06 (Lt.) to 125+00 (Lt.)		179 L.F.
# Sta. 144+25 (Rt.) to 150+50 (Rt.)		555 L.F.
# Sta. 144+70 (Lt.) to 151+17 (Lt.)		545 L.F.
# Sta. 162+25 (Rt.) to 169+80 (Rt.)		755 L.F.
# Sta. 162+60 (Lt.) to 171+00 (Lt.)		840 L.F.
# Sta. 175+50 (Rt.) to 189+00 (Rt.)		1,350 L.F. *
# Sta. 177+73 (Lt.) to 187+50 (Lt.)		978 L.F. *
# Sta. 194+14 (Rt.) to 195+00 (Rt.)		86 L.F. *
# Sta. 194+07 (Lt.) to 195+00 (Lt.)		93 L.F. *
Ramp "C" Sta. 2+40.05 (Rt.) to Sta. 19+37.12 (Rt.)		1,607 L.F. *
Ramp "G" Sta. 4+55 (Lt.) to Ramp "A" Sta. 10+97 (Lt.)		846 L.F.
Ramp "A" Sta. 11+63 (Rt.) to Sta. 13+14.20 (Rt.)		135 L.F.
Ramp "H" Sta. 2+95 (Lt.) to Ramp "F" Sta. 6+03 (Lt.)		673 L.F.
Ramp "F" Sta. 7+22 (Rt.) to Sta. 8+71.92 (Rt.)		139 L.F.
TOTAL		14,232 L.F.

* Indicates Metal Guard Rails on Metal Posts - No Option

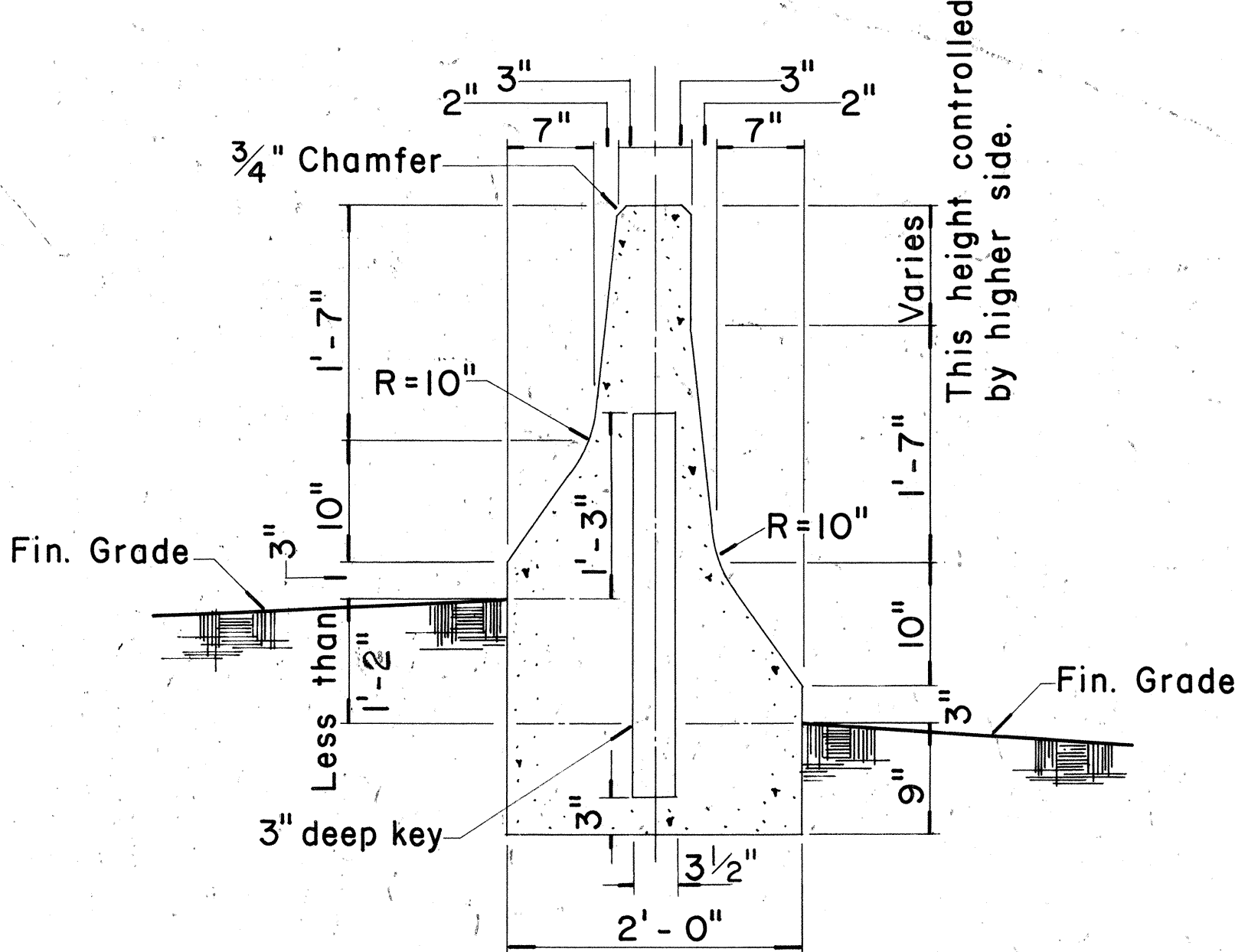
* TOTAL - 4,198 L.F.



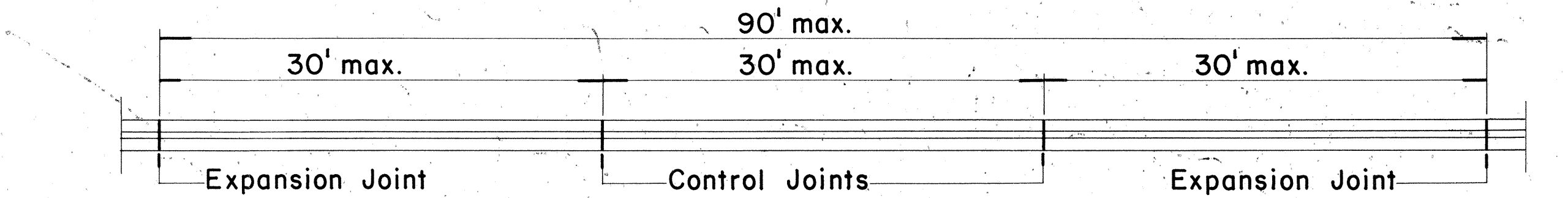
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(66)10 I-HI-1(67)10	1970	CO155-1	27



TYPE 4A
Scale: 1" = 1'-0"

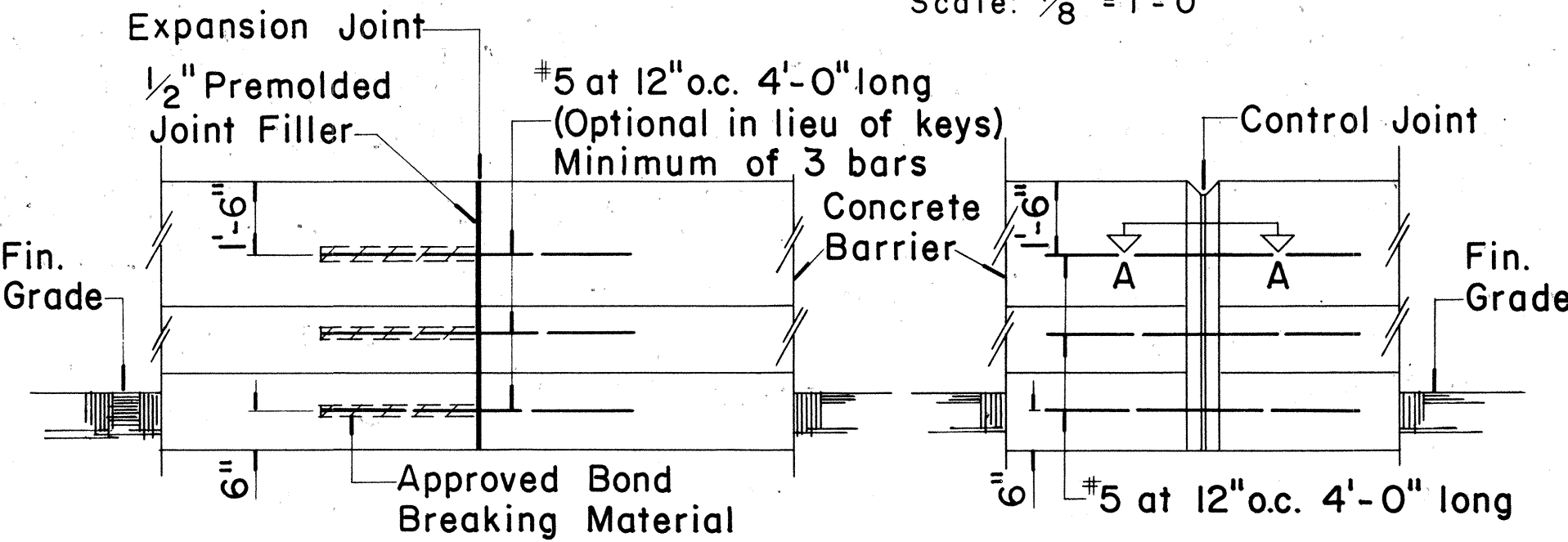


TYPE 4B
Scale: 1" = 1'-0"



PLAN

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

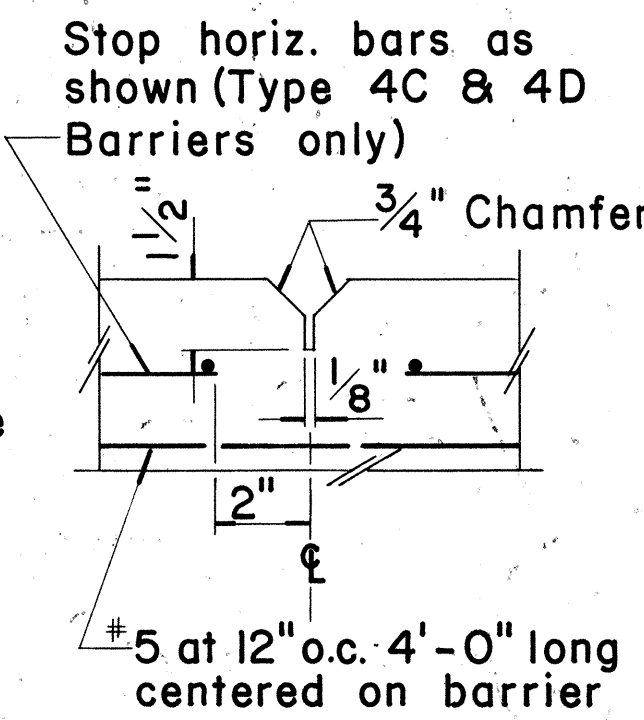


EXPANSION JOINT

CONTROL JOINT

ELEVATION

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



SECTION "A-A"

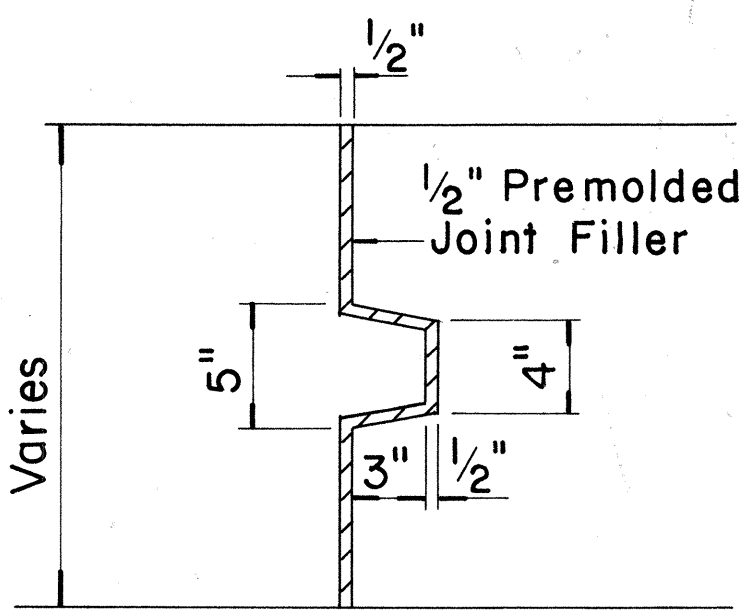
Scale: 3" = 1'-0"

TYPE 4 MEDIAN GUARD RAIL SCHEDULE		
Sta. To Sta.	TYPE 4A (Lin. Ft.)	TYPE 4B (Lin. Ft.)
62+97.24 to 72+22.30	925.06	
75+10.57 to 94+70.65		1,960.08
95+47.65 to 100+25		477.35
100+25 to 110+84.77	1057.77	
123+73.35 to 138+56.13	1,482.78	
139+75.83 to 154+00	1,424.17	
154+00 to 172+46.62		1,846.62
172+87.36 to 178+00		512.64
178+00 to 180+31.17	231.17	
180+82.03 to 191+75.61	1,093.58	
192+74.62 to 195+00	225.38	

TOTAL 6,441.91 4,796.67

GENERAL NOTES

1. Precast Rigid Barrier Guard Rail may be installed as an option to cast-in-place Type 4 Rigid Barrier Guard Rail. Contractor shall submit shop drawings to Engineer for approval.
2. Expansion Joints shall be constructed at ninety-foot (90 ft.) maximum intervals and at existing expansion joints of structures. (Use 1/2" premolded joint filler, incidental to Type 4 Rigid Barrier Guard Rail). Control Joints shall be placed between expansion joints at 30' maximum. Shear keys shall be required at all construction joints.
3. The exterior surface and vertical alignment of the Type 4 Rigid Barrier Guard Rail shall be constructed to give a uniform and presentable appearance. Variation of more than 1/4" in 20' max. and 1/2" in 40' or more will be considered objectionable. The Engineer shall determine the acceptability of the work. During the course of the work, samples may be tested and measurements made to establish whether or not the specified values or dimensions are being met. If the specified values or dimensions are not being met, the Engineer shall determine the degree of the non-conformance, the effect on the serviceability of the project, whether the work be accepted and remain in place and, if so, the amount to be paid for such work, or whether the work shall be removed and replaced or otherwise corrected at the Contractor's expense.



SECTION THRU KEY AT EXPANSION JOINT

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

GUARD RAIL TYPE 4 (RIGID BARRIER)

INTERSTATE ROUTE H-1
F.A.I. PROJ. No's I-HI-1(66)10 & I-HI-1(67)10

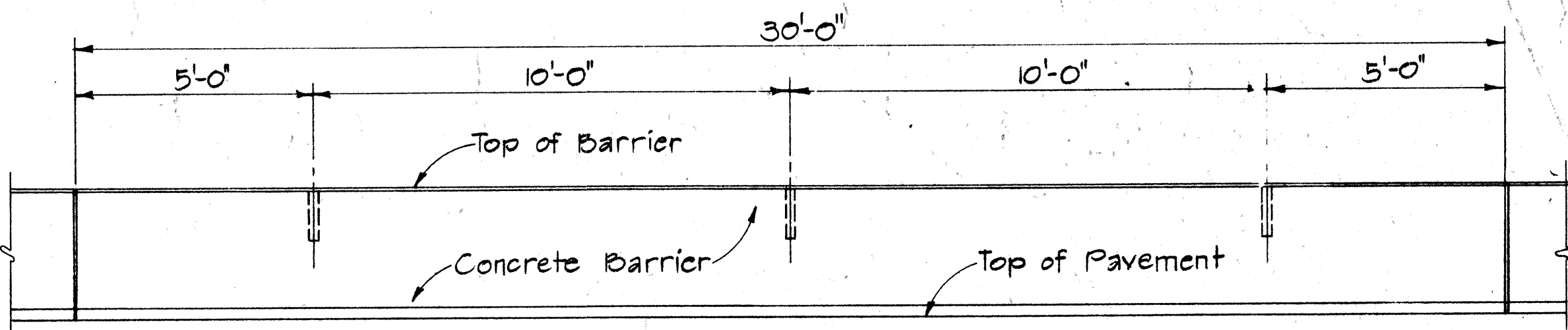
Scale: As Shown Oct. 1969

SHEET No. OF SHEETS

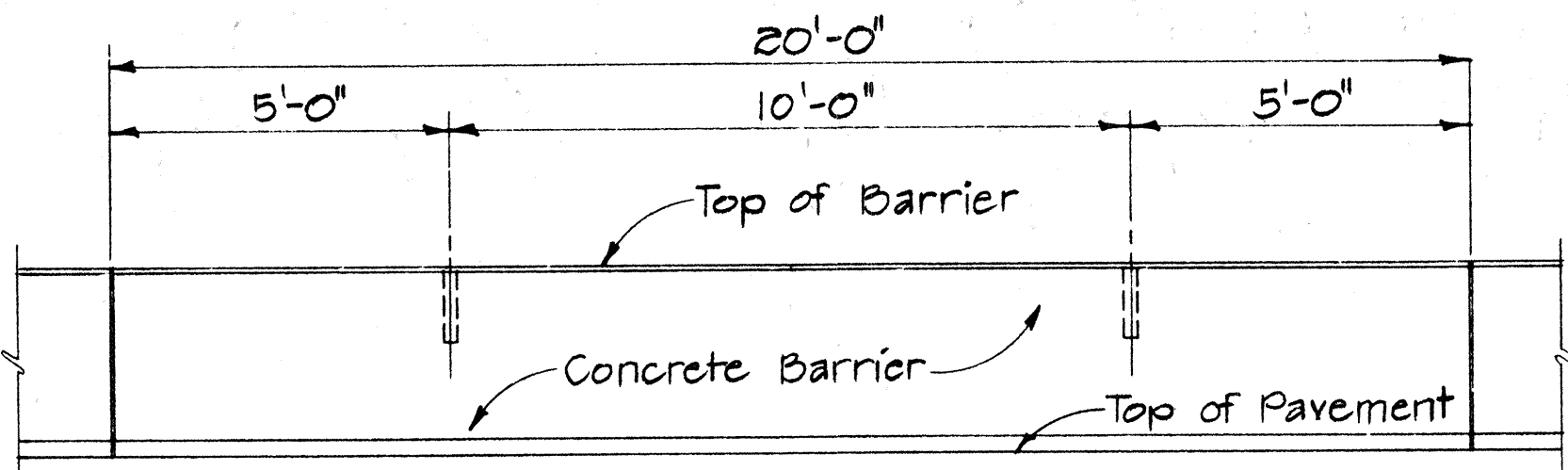
C.O. 155-1

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	
NO.	

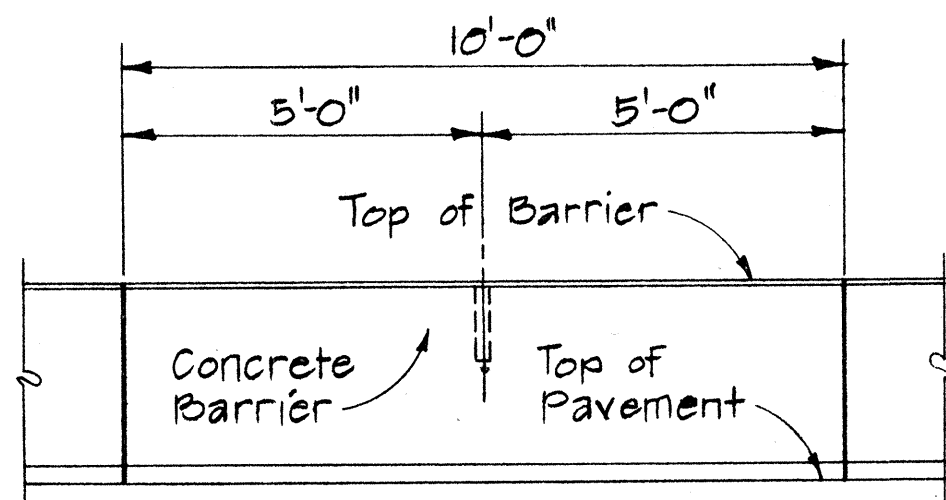
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(66):10 I-H-1(67):10	1970	00-155-2	27



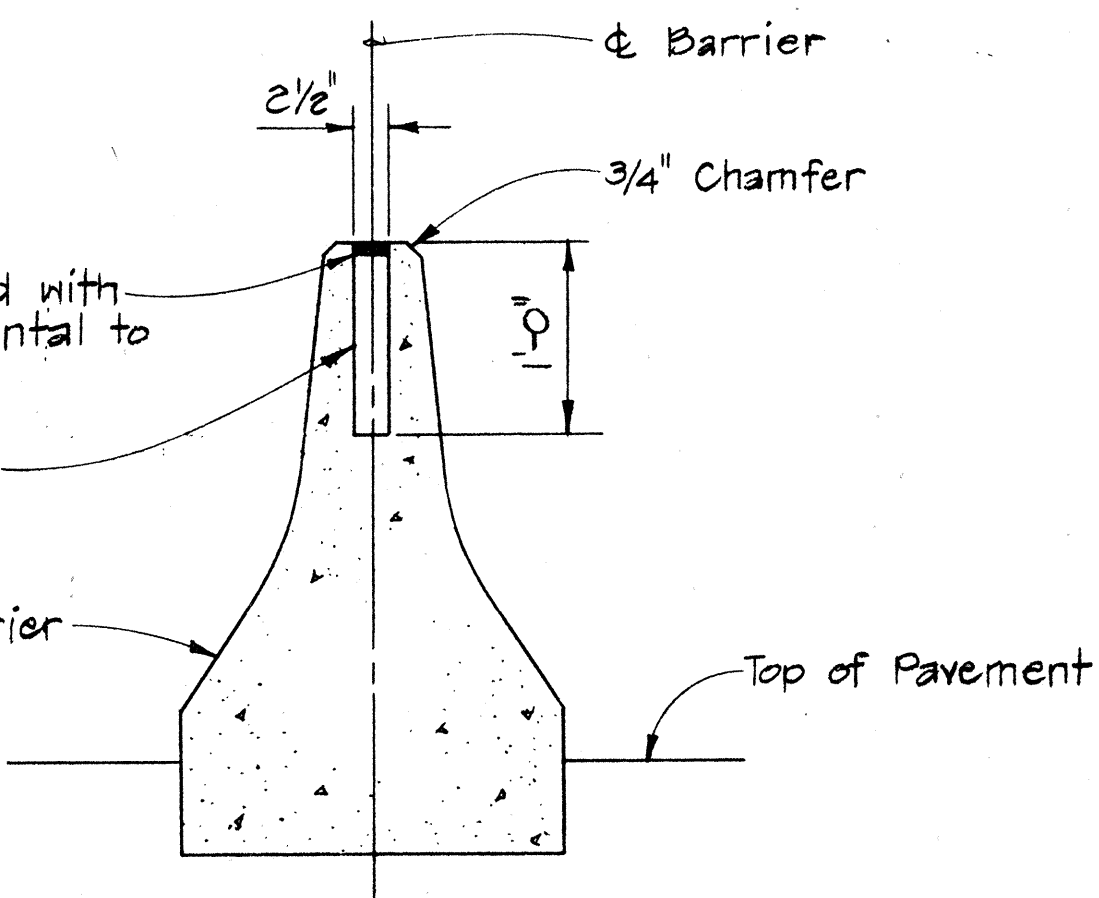
ELEVATION
30' LENGTH CONCRETE BARRIER
Scale: 3/8"=1'-0"



ELEVATION
20' LENGTH CONCRETE BARRIER
Scale: 3/8"=1'-0"



ELEVATION
10' LENGTH CONC. BARRIER
Scale: 3/8"=1'-0"



Hole to be plugged with
3/4" Mortar (Incidental to
Concrete Barrier)

Provide 2 1/2" hole
spaced 10' o.c.

Cast-In-Place or
Precast Conc. Barrier

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

HOLE SPACING DETAIL FOR CONCRETE BARRIER

APPROVAL RECOMMENDED:
Eishi Tanaka
TRAFFIC ENGINEER
12/29/69
DATE

APPROVED:
Shunji S. Saito
ASSISTANT CHIEF, ENGINEERING
12-20-69
DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HOLE SPACING DETAILS
FOR CONC. BARRIER

Scale: As Shown

Nov. 1968

SHEET No. OF SHEETS DT 507

C.O. 15S-2

THIS SHEET IS A SUPPLEMENT
TO THE CONTRACT PLAN

ORIGINAL PLAN	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	