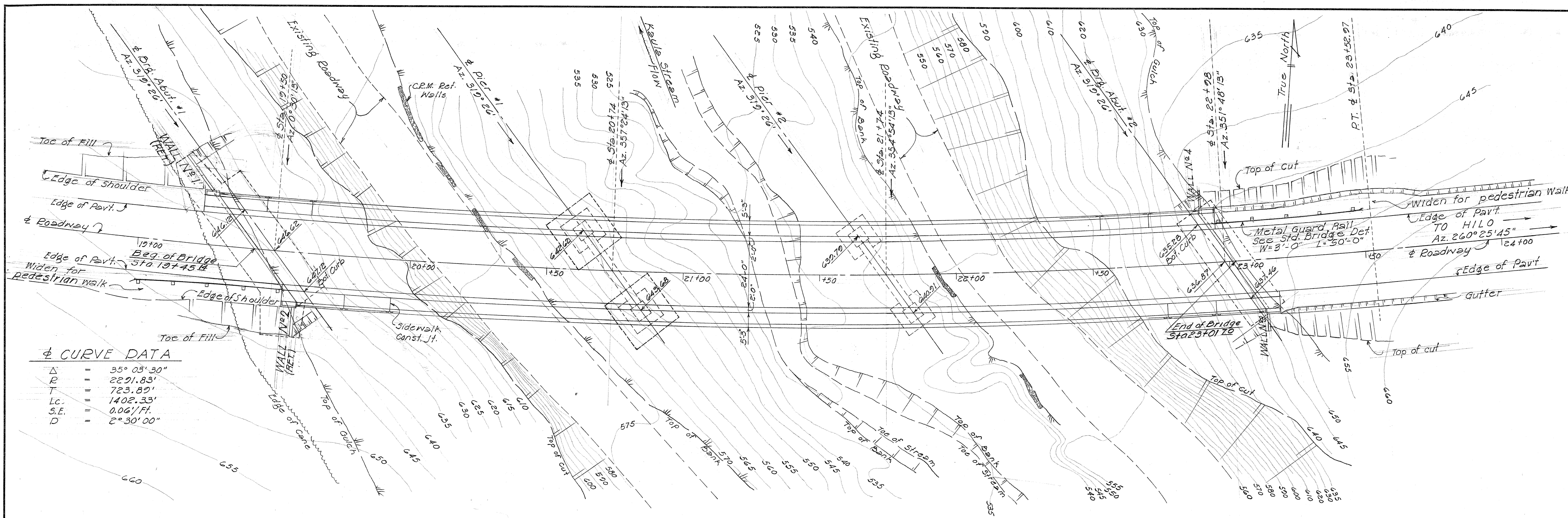




LAYOUT PLAN

Scale ~ 1" = 20'-0"

GENERAL NOTES

MATERIALS

Concrete: All concrete Class A-1

SPECIFICATION FOR ROLLED LEAD PLATE

These plates shall be rolled from pig lead made from ore or other material by process of reduction and refining. The use of reclaimed lead shall not be permitted. The material shall contain a minimum of 93.83% of lead and shall fulfill the requirements of the Standard Specification for Pig Lead, A.S.T.M. Designation B-29.

CONSTRUCTION METHOD

- Backfill behind abutments. All backfill behind abutments shall be complete in place before pouring concrete for the superstructure.
- Sidewalk and railing pour. Sidewalk and railing shall be poured after release of falsework.
- Construction Joints. For details see sheet no. 5907.30

NOTE!! CONSTRUCTION OF FALSEWORK OVER EXIST. ROAD

During construction, existing road must be kept open to traffic at all times. Minimum clear opening shall be 16' high & 14' wide.

ESTIMATED QUANTITIES

Class A-1 Conc.	Lump Sum
Reinf. Steel	Lump Sum
Struct. Exc.	3,400 c.y.
Filter Material	200 c.y.
A.C. Paving	83.5 tons
Bituminous Tack Coat	238 gals

TERRITORIAL HIGHWAY DEPARTMENT

TERRITORY OF HAWAII

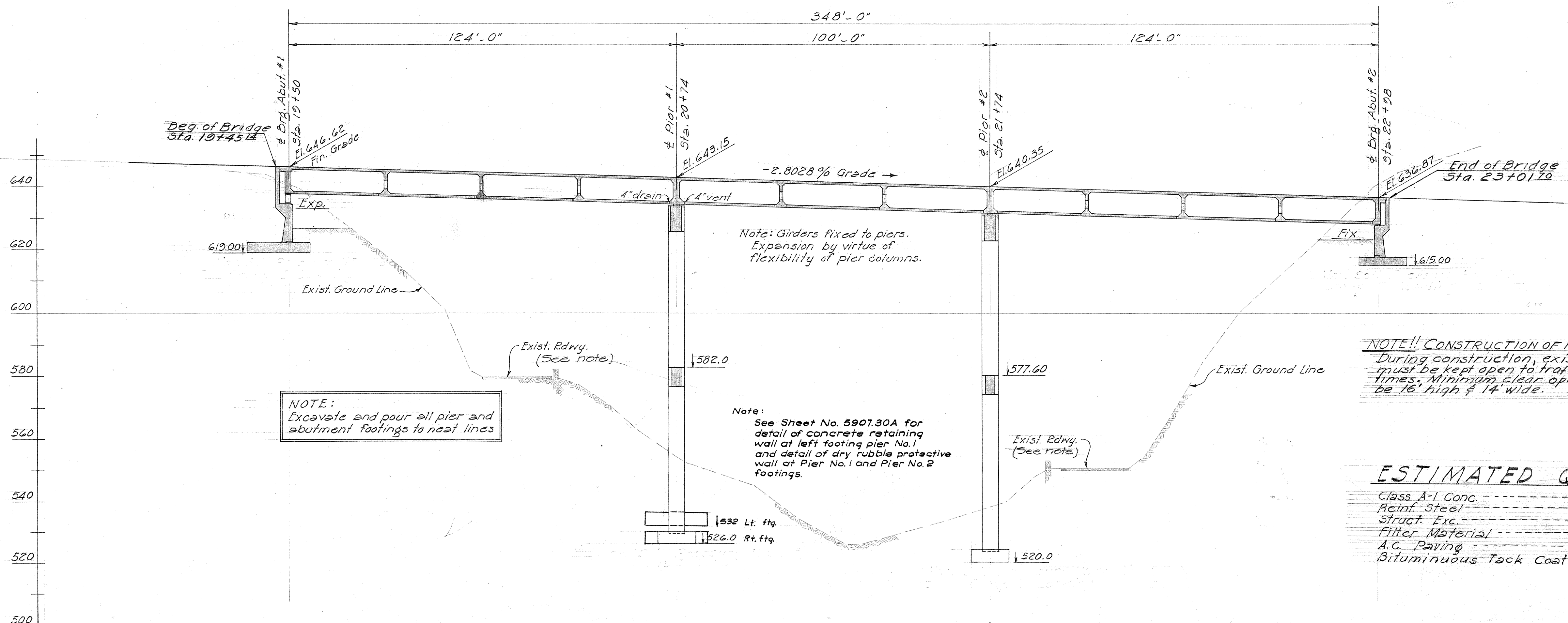
KAULA BRIDGE

Sta. 19+45.14 to Sta. 23+01.20

HAWAII BELT RD. F-019-2 (2)

Nov. 1956

SHEET NO. 1 OF 12 SHEETS



LONGITUDINAL SECTION ALONG & ROADWAY

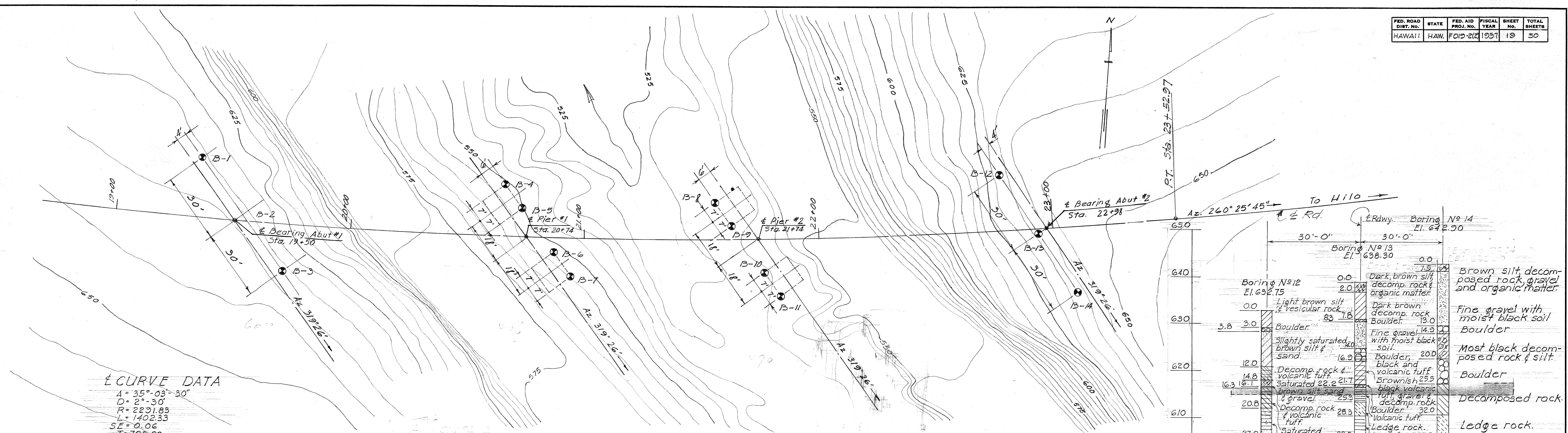
Scale ~ 1" = 20'-0"

SURVEY PLOTTED BY	DATE
PLAN	10-5-56
TRACED BY	11-5-56
QUANTITIES CHECKED BY	
NOTE BOOK	
NO.	

NOTE: Excavate and pour all pier and abutment footings to neat lines

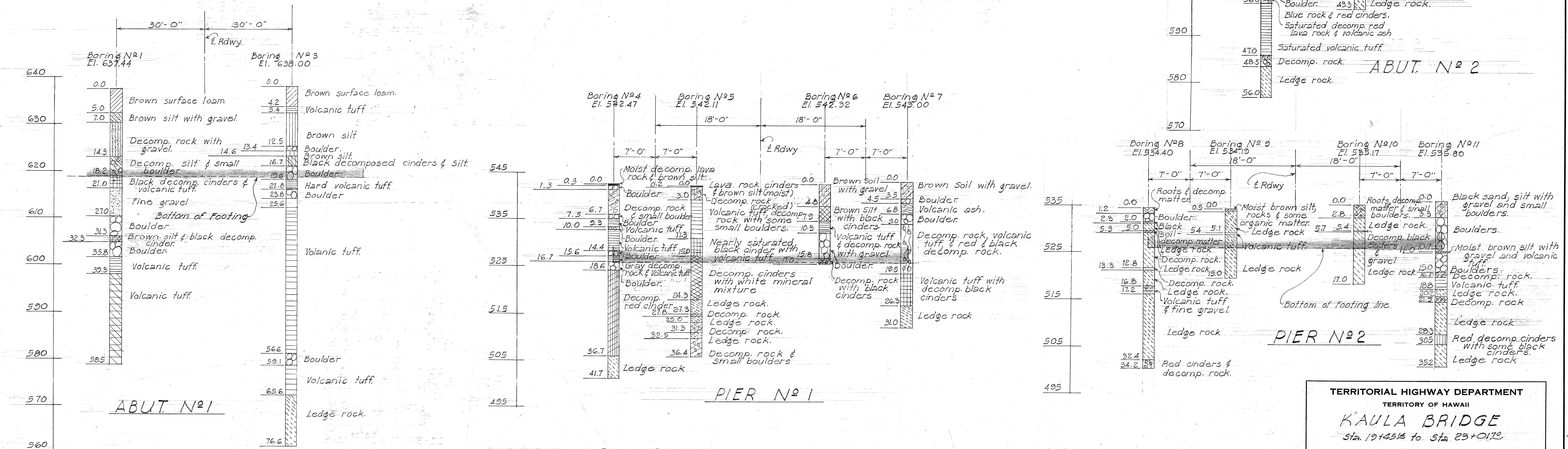
Note: See Sheet No. 5907.30A for detail of concrete retaining wall at left footing pier No. 1 and detail of dry rubble protective wall at Pier No. 1 and Pier No. 2 footings.

Note: Girders fixed to piers. Expansion by virtue of flexibility of pier columns.



CURVE DATA
A = 35° 03' 30"
D = 2° 30'
R = 2231.83
L = 1402.33
SE = 0.06
T = 723.89

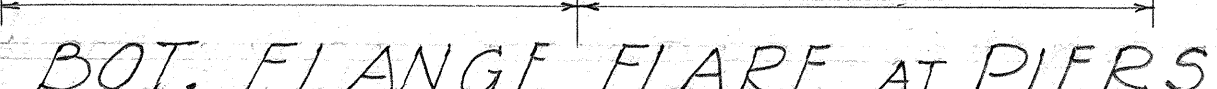
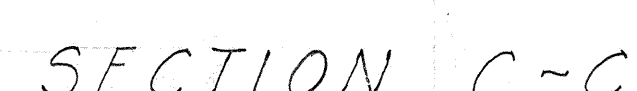
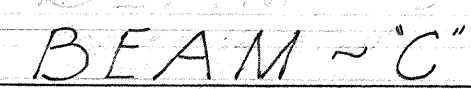
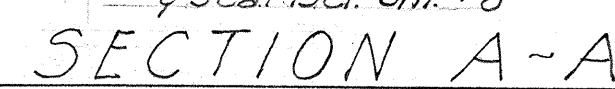
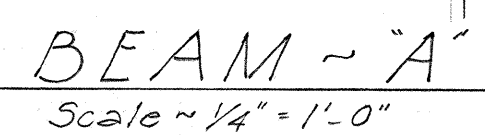
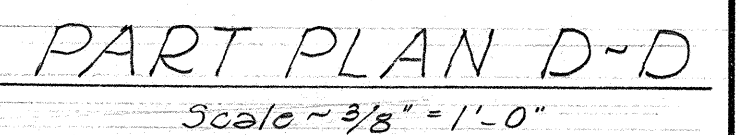
KAULA BRIDGE
SCALE: 1" = 20'



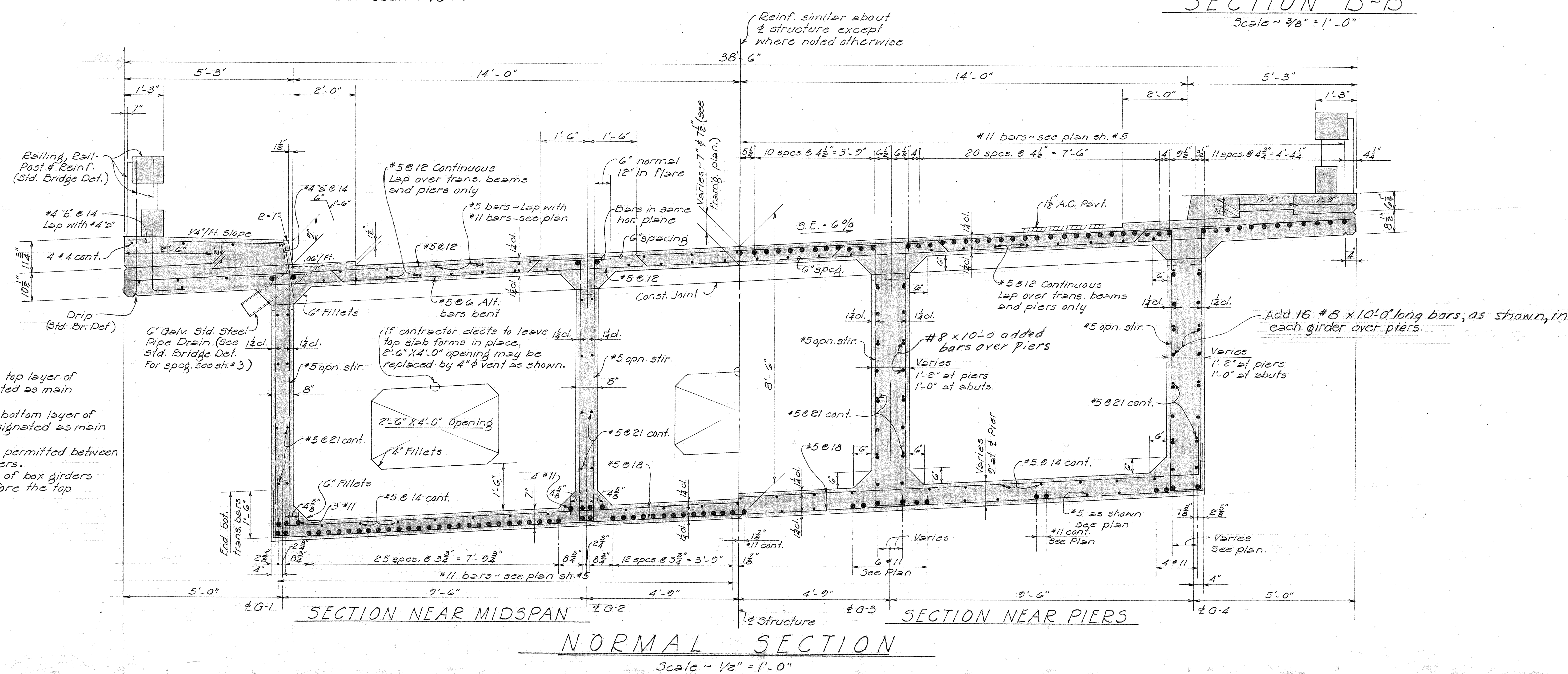
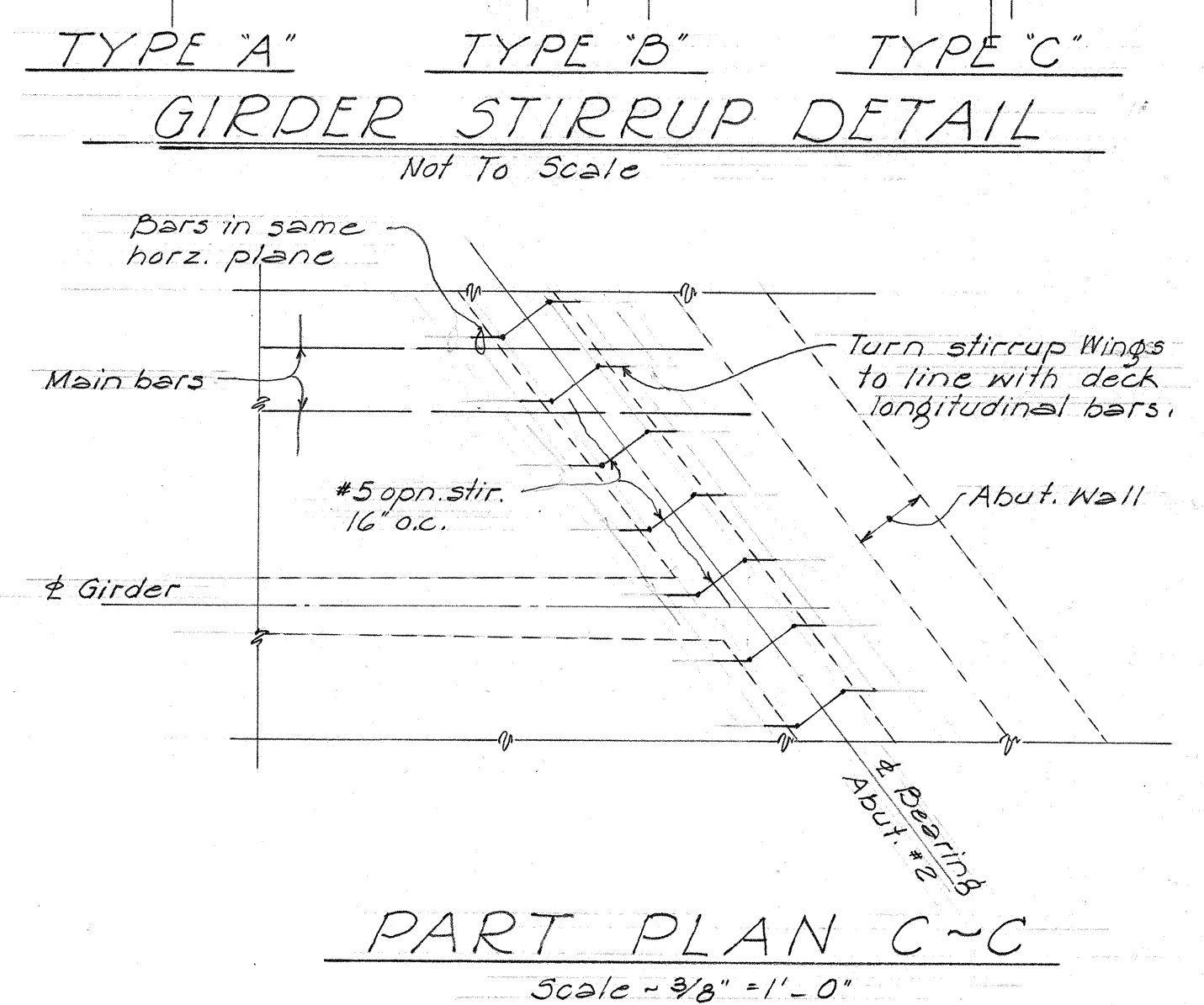
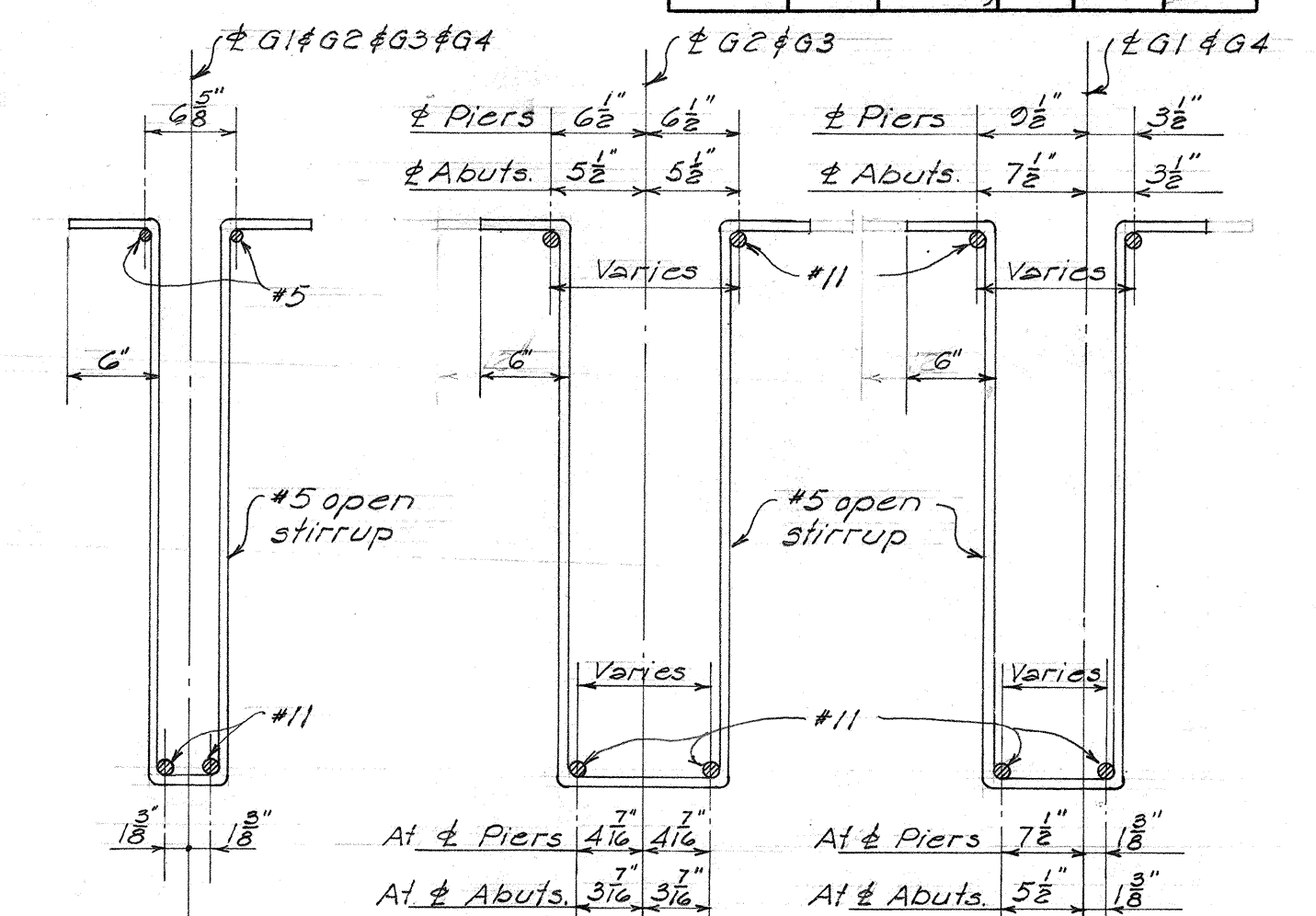
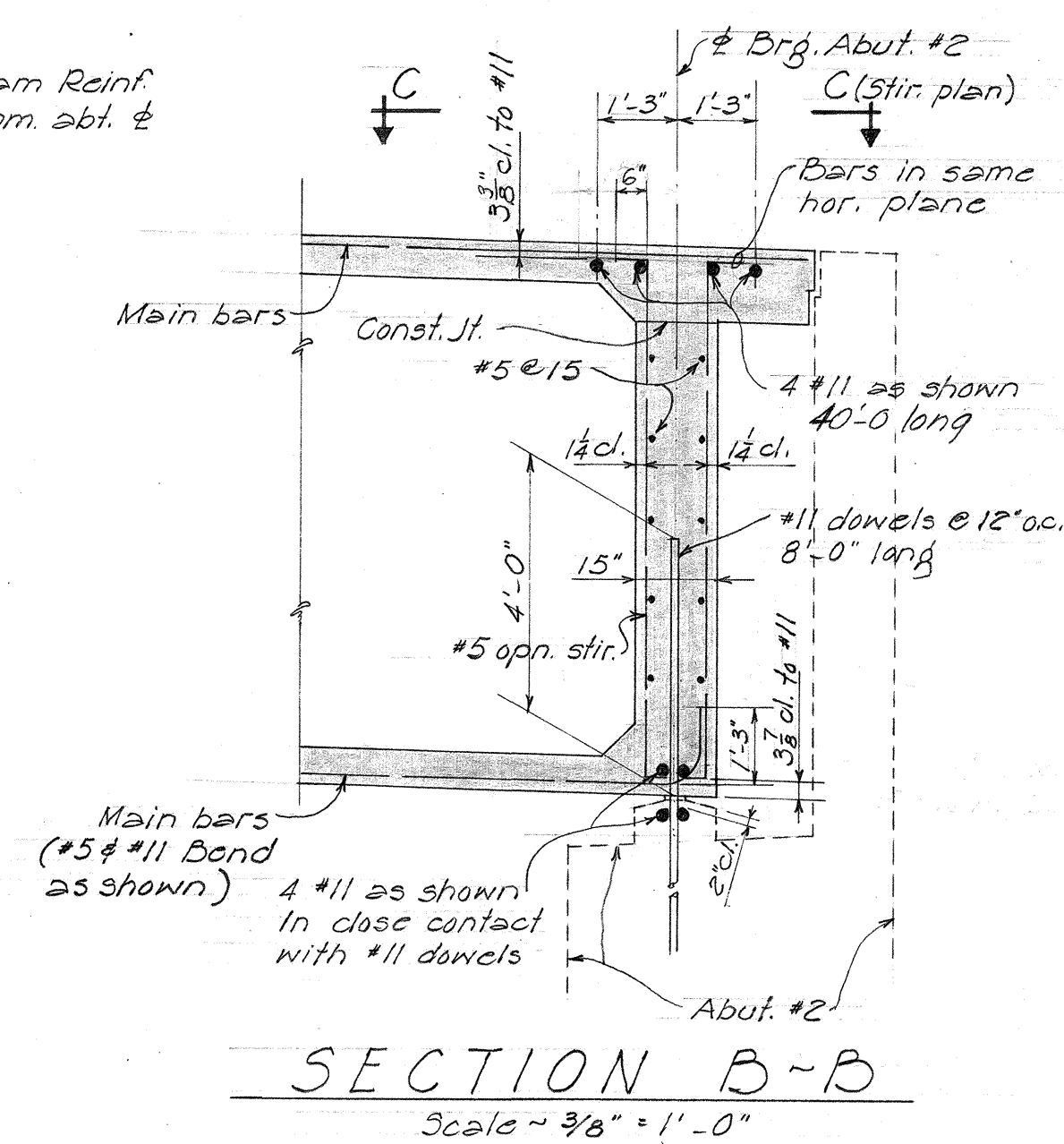
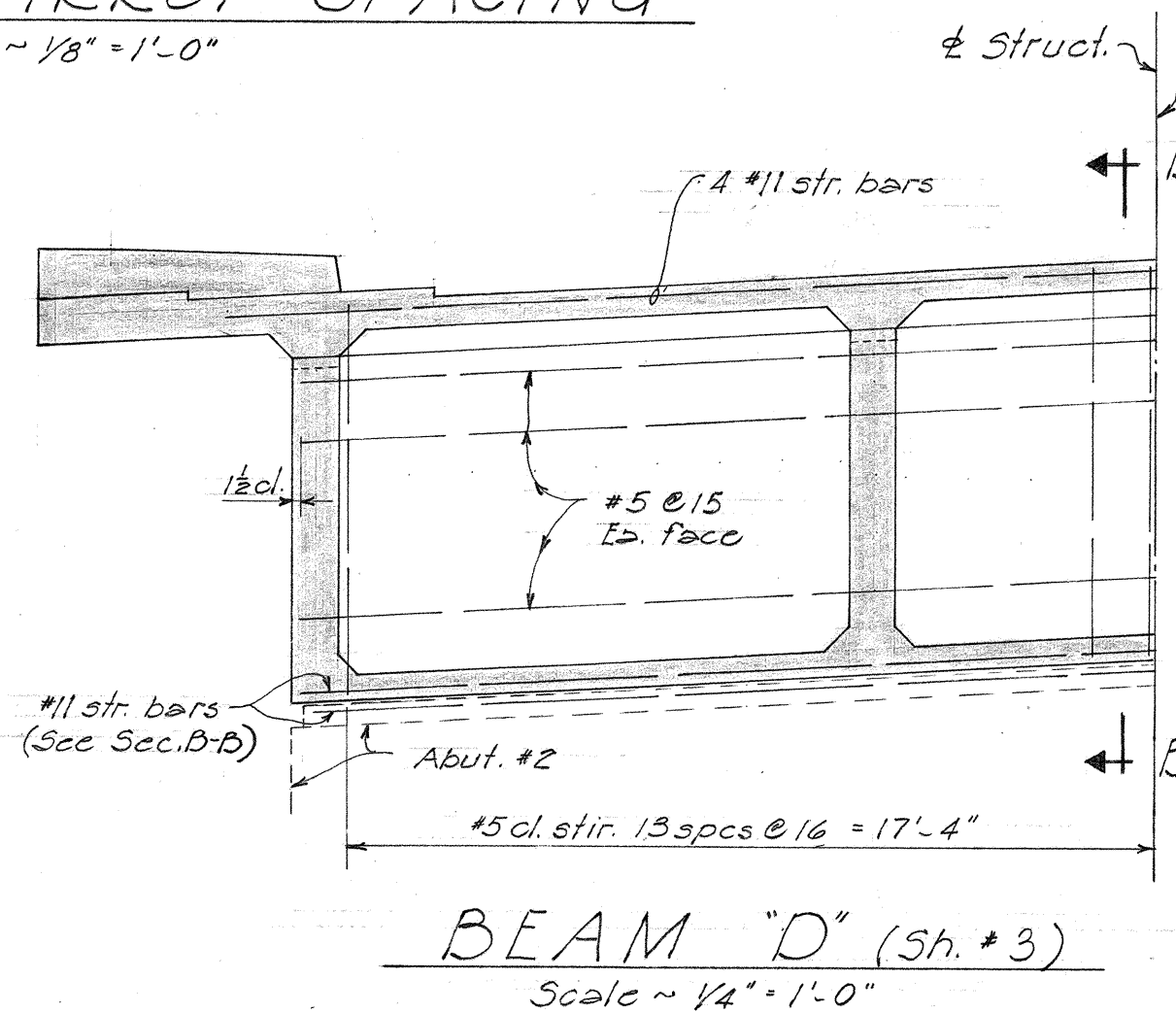
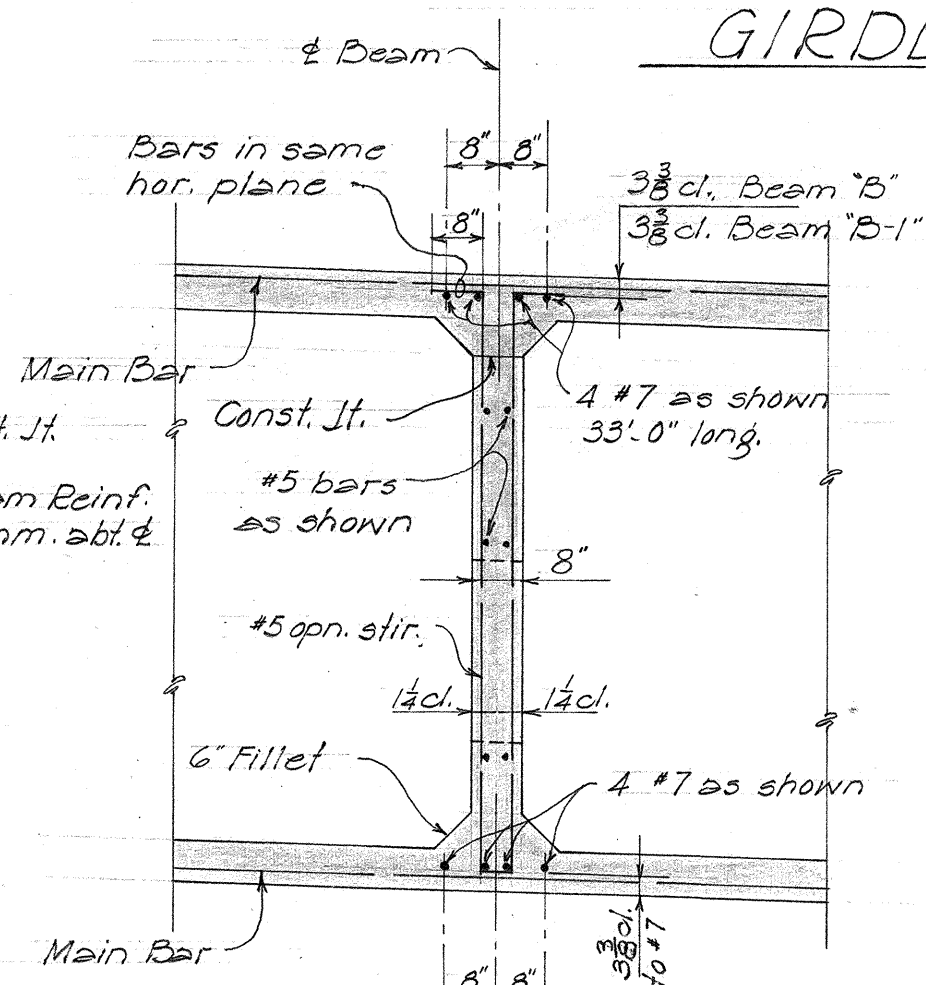
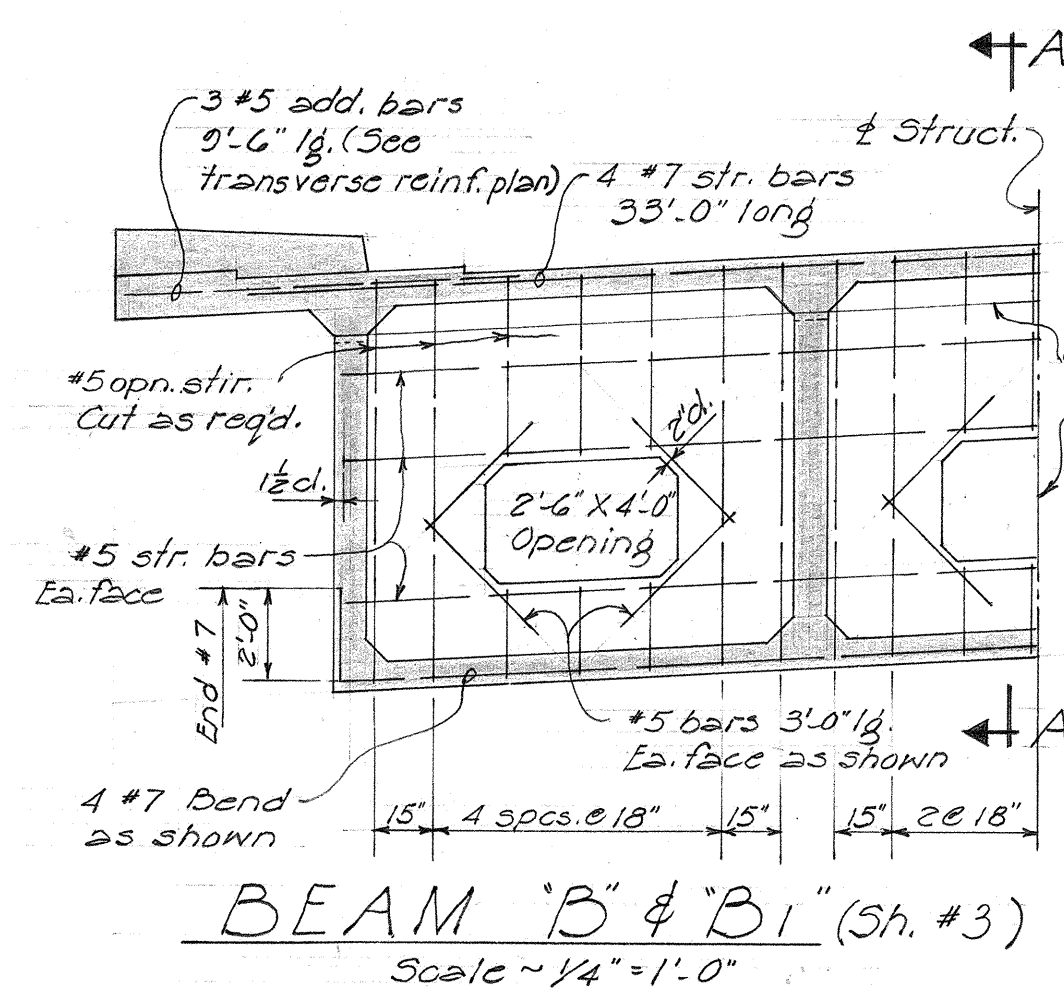
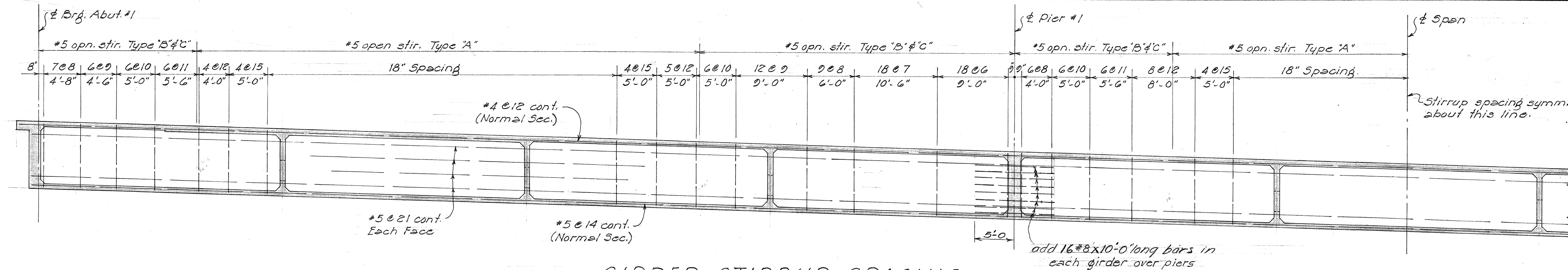
DATE: 7-3-56
DESIGNED BY: N.E.B.
TRACED BY: G. J. J. J.
QUANTITIES BY: G. J. J. J.
CHECKED BY: G. J. J. J.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KAULA BRIDGE
Sta. 19+45.4 to Sta. 23+01.2
HAWAII BELT RD. F-019-2(2)
Nov. 1956

ORIGINAL PLAN	SURVEY PLOTTED BY DESIGNED BY <i>M. C. Dorte/3</i> DRAWN BY <i>B. F. Moore</i>	DATE " <i>10-56</i> " <i>11-56</i> " " " " " "
NOTE BOOK No.	TRACED BY QUANTITIES BY <i>G. T. & C. F.</i> QUANTITIES CHECKED BY <i>M. K.</i> CHECKED BY <i>M. E. F. & T.</i>	" " " " " " " "



SHEET No. 3 OF 13 SHEETS



NOTES:-

- Longitudinal bars in top layer of top flange are designated as main top flange reinf.
- Longitudinal bars in bottom layer of bottom flange are designated as main bottom flange reinf.
- No construction joint permitted between bottom slab and girders.
- Forms for the webs of box girders shall be removed before the top slab is poured.

ORIGINAL	SURVEY PLOTTED BY	DATE
PLAN	DESIGNED BY <u>M.F. Bartels</u>	" <u>10-56</u>
	DRAWN BY <u>B. Tomczak</u>	" <u>11-56</u>
	TRACED BY	"
	QUANTITIES BY <u>G.I. F.F.C.</u>	"
	QUANTITIES CHECKED BY <u>M.K.</u>	"
	CHECKED BY <u>M.F. F.B.Y.</u>	"
NOTE BOOK		
No.		

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

KAULA BRIDGE
Sta. 19+45.3 to Sta. 23+01.29

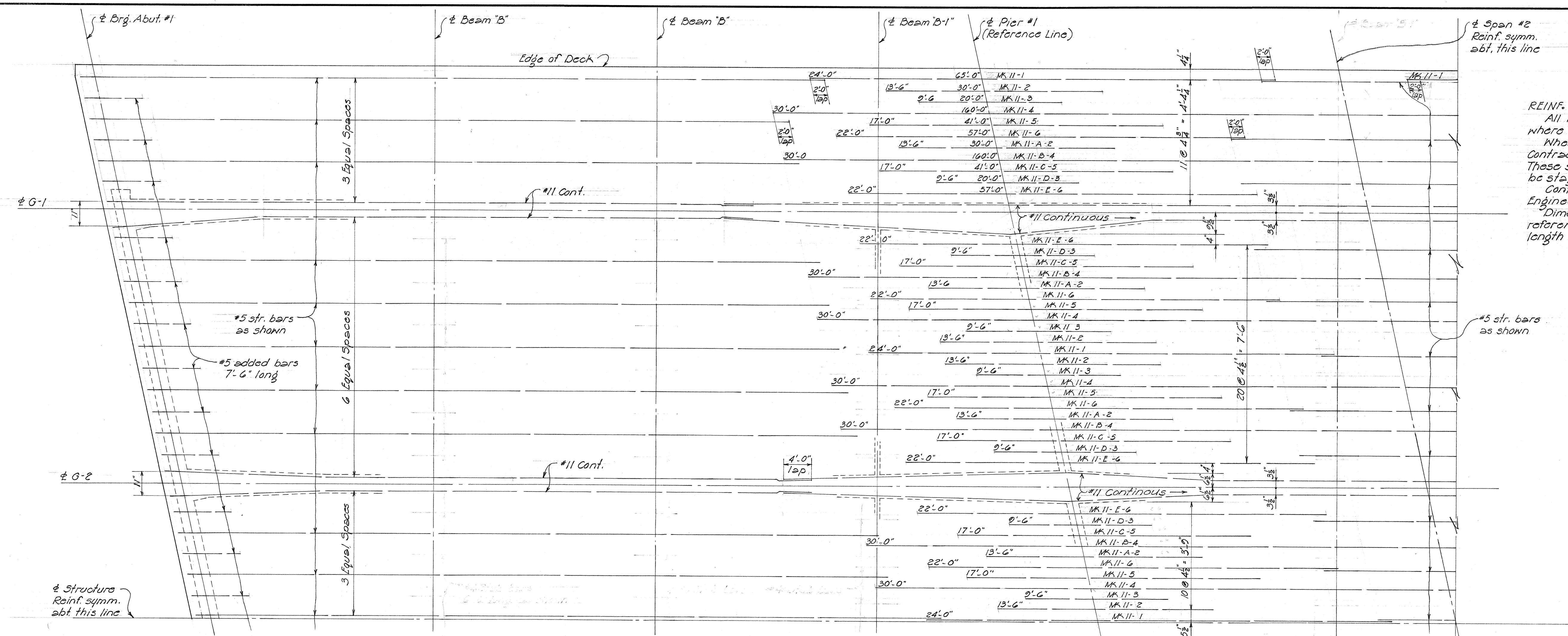
HAWAII BELT RD. F-019-2 (2)
Nov. 1956

SHEET No. 4 OF 13 SHEETS

5907.21

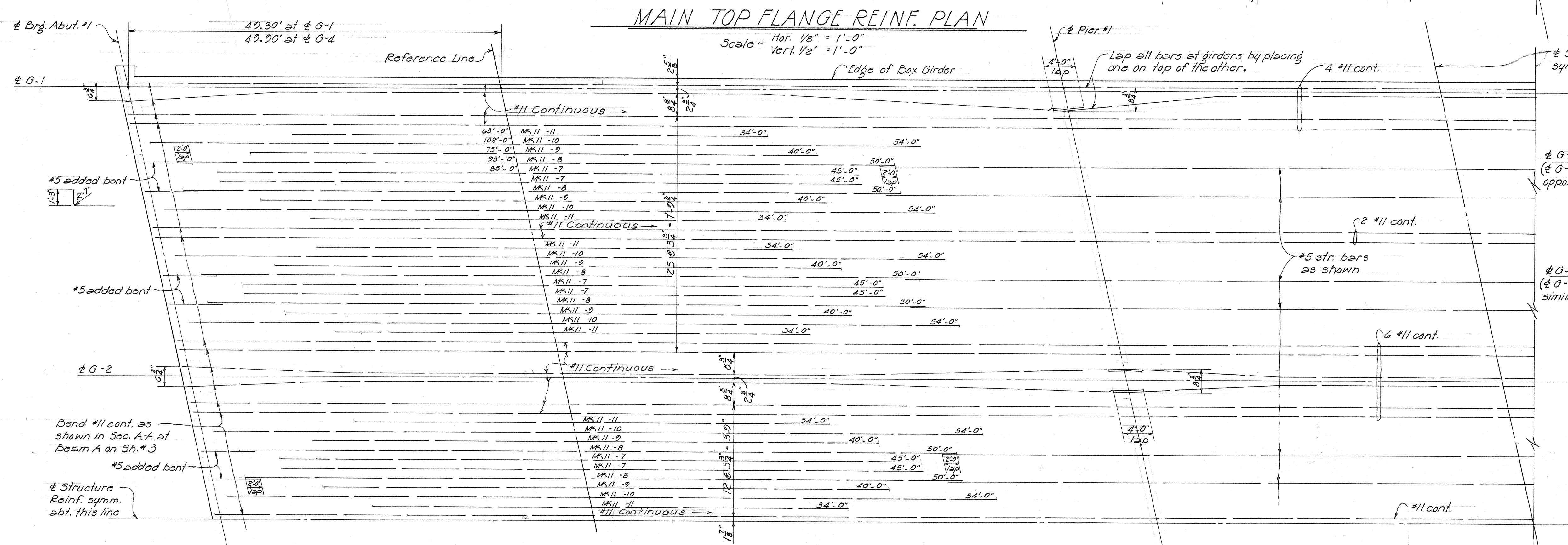
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	F019-2(2)	1956	22	50

REINF. NOTES: ~
 All laps are made by placing bars side by side except where noted otherwise.
 When no splices are shown for bars longer than 60 feet, Contractor may use one splice at an arbitrary location. These splices shall not be bunched together and shall be staggered.
 Contractor shall furnish a splice layout plan to the Engineer.
 Dimensions at end of bars indicate distance from reference line. Dimensions at center of bars indicate length of bar ~ does not include lap.



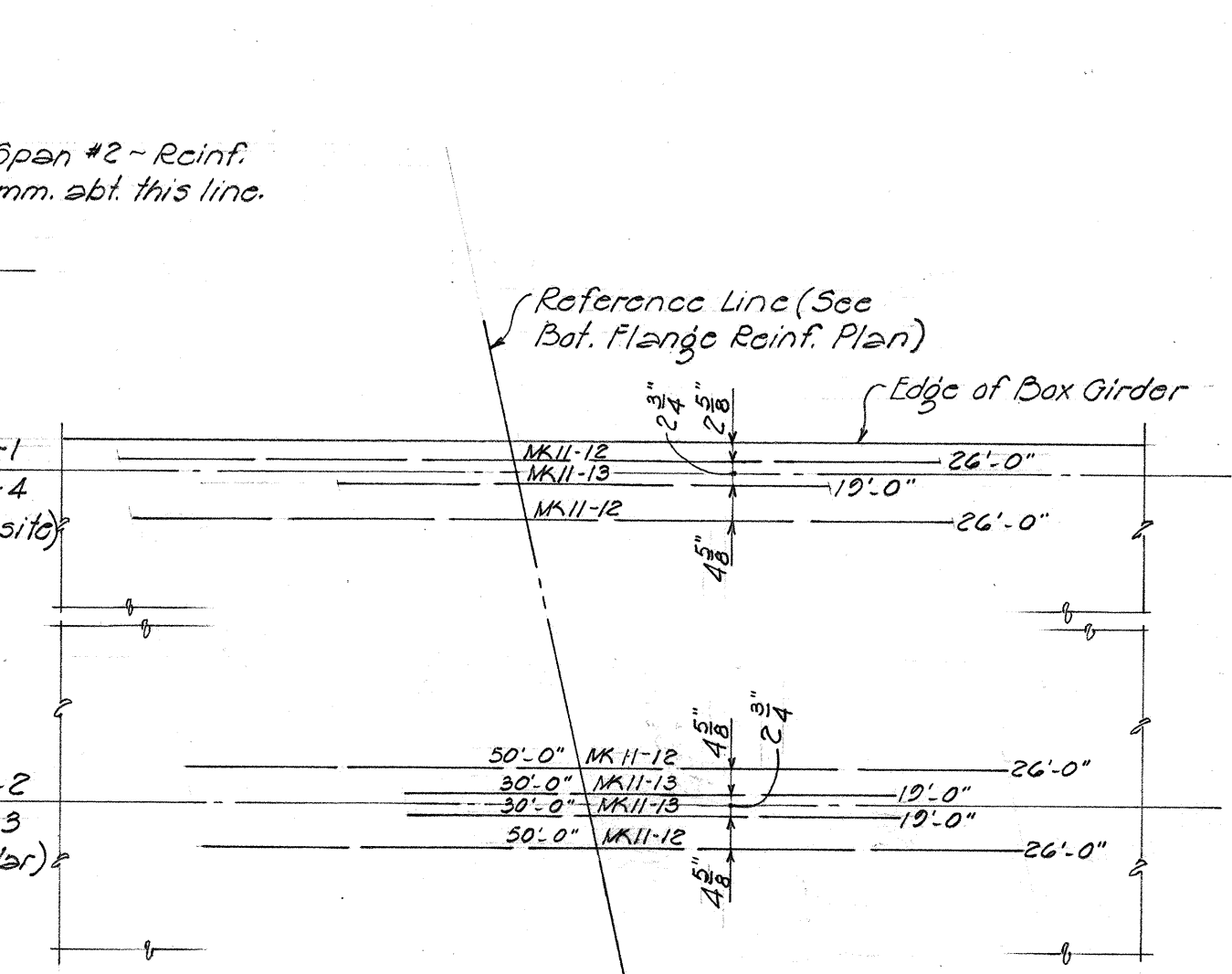
MAIN TOP FLANGE REINF. PLAN

Scale ~ Hor. 1/8" = 1'-0"
 Vert. 1/2" = 1'-0"



MAIN BOT. FLANGE REINF. PLAN

Scale ~ Hor. 1/8" = 1'-0"
 Vert. 1/2" = 1'-0"



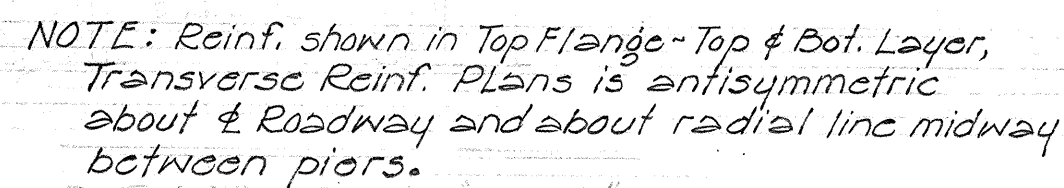
TOP LAYER ~ BOT. FLANGE REINF.

Scale ~ Hor. 3/32" = 1'-0"
 Vert. 1/2" = 1'-0"

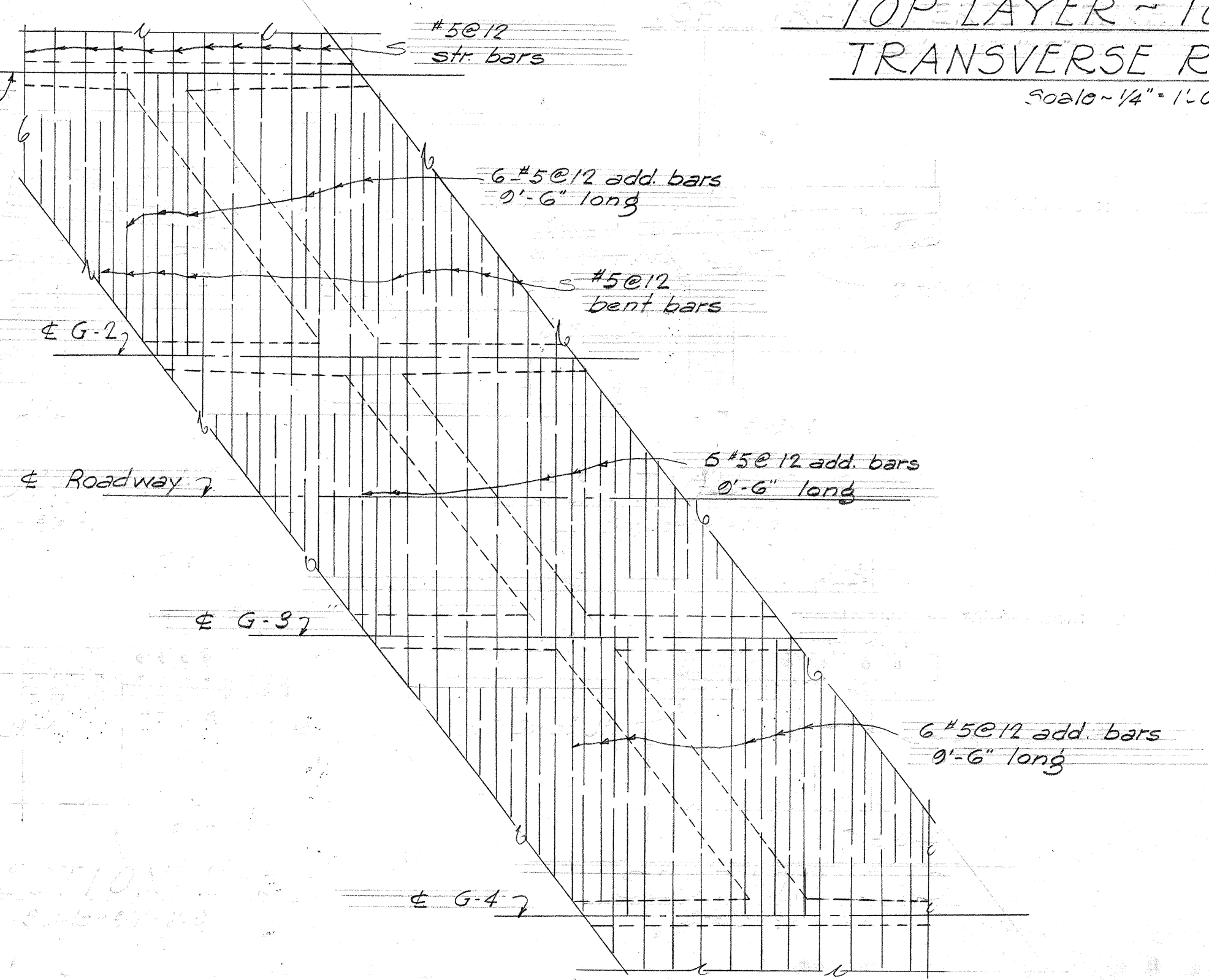
TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII
KAULA BRIDGE
 Sta. 19+45.15 to Sta. 23+01.25
 HAWAII BELT RD. F-019-2 (2)
 Nov. 1956

DESIGNED BY	DATE
FRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

ORIGINAL PLAN	SURVEY PLOTTED BY DESIGNED BY <i>M. E. Bartels</i> DRAWN BY <i>G. E. Hammett</i>	DATE " " " "	<i>10-56</i> <i>2-57</i> " "
NOTE BOOK No.	TRACED BY QUANTITIES BY <i>G. T. F. C.</i> QUANTITIES CHECKED BY <i>M. K.</i> CHECKED BY <i>M. K. F. 134</i>	" " " "	" " " "



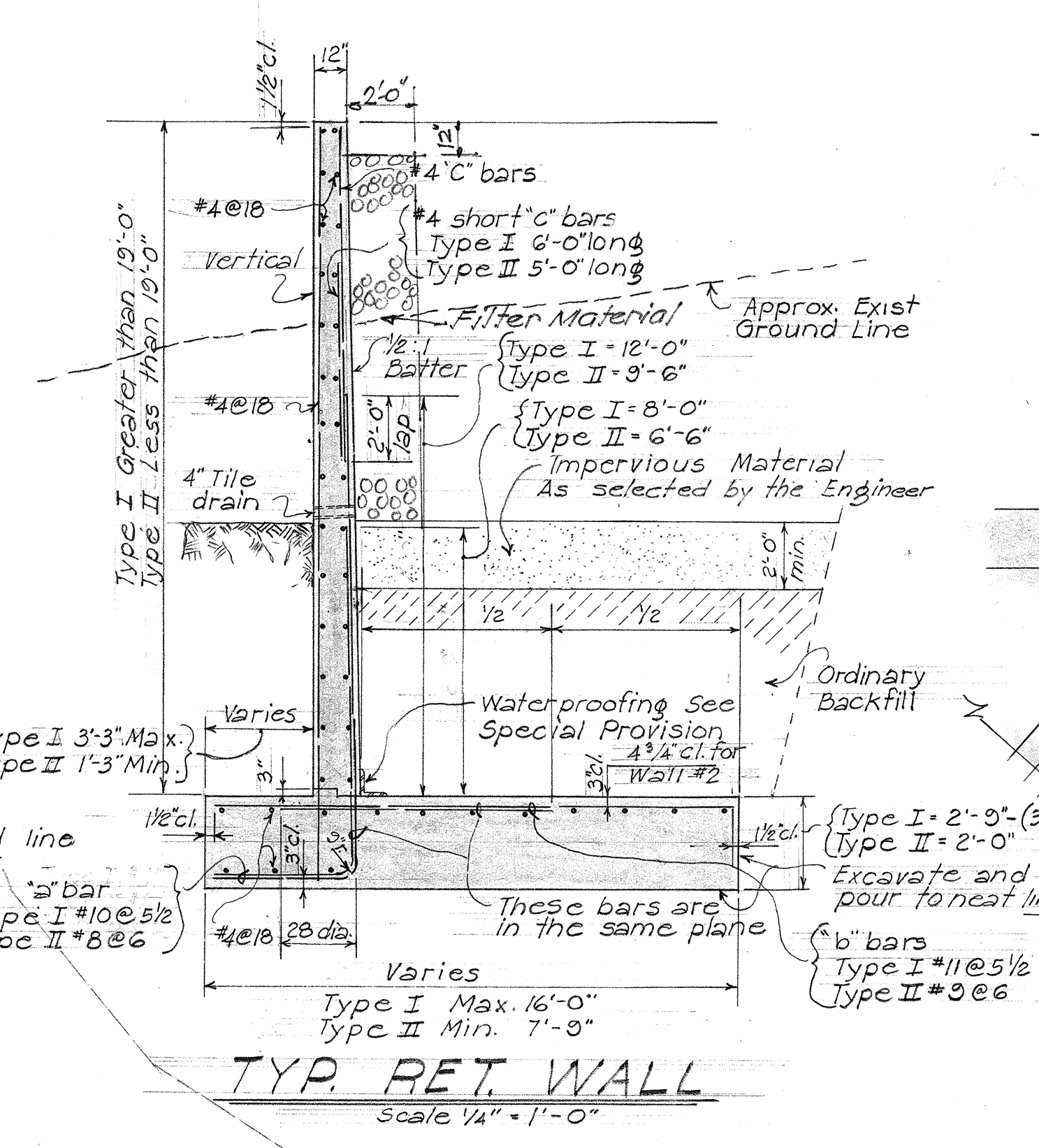
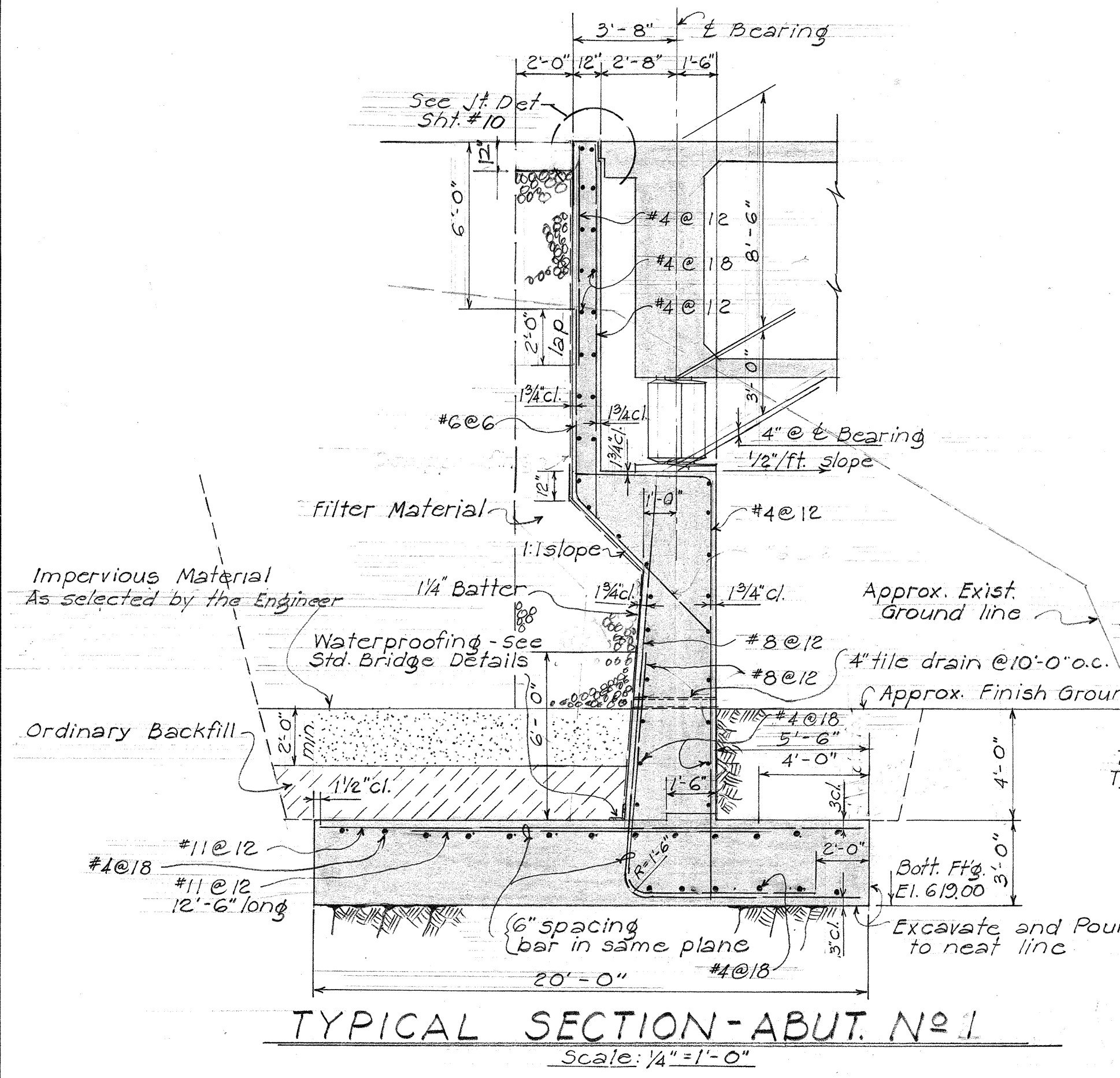
AT ABUTS. / AT TRANS. BEAMS
TOP LAYER ~ TOP FLANGE
TRANSVERSE REINF. PLAN
20x10-1/4" x 1.0"



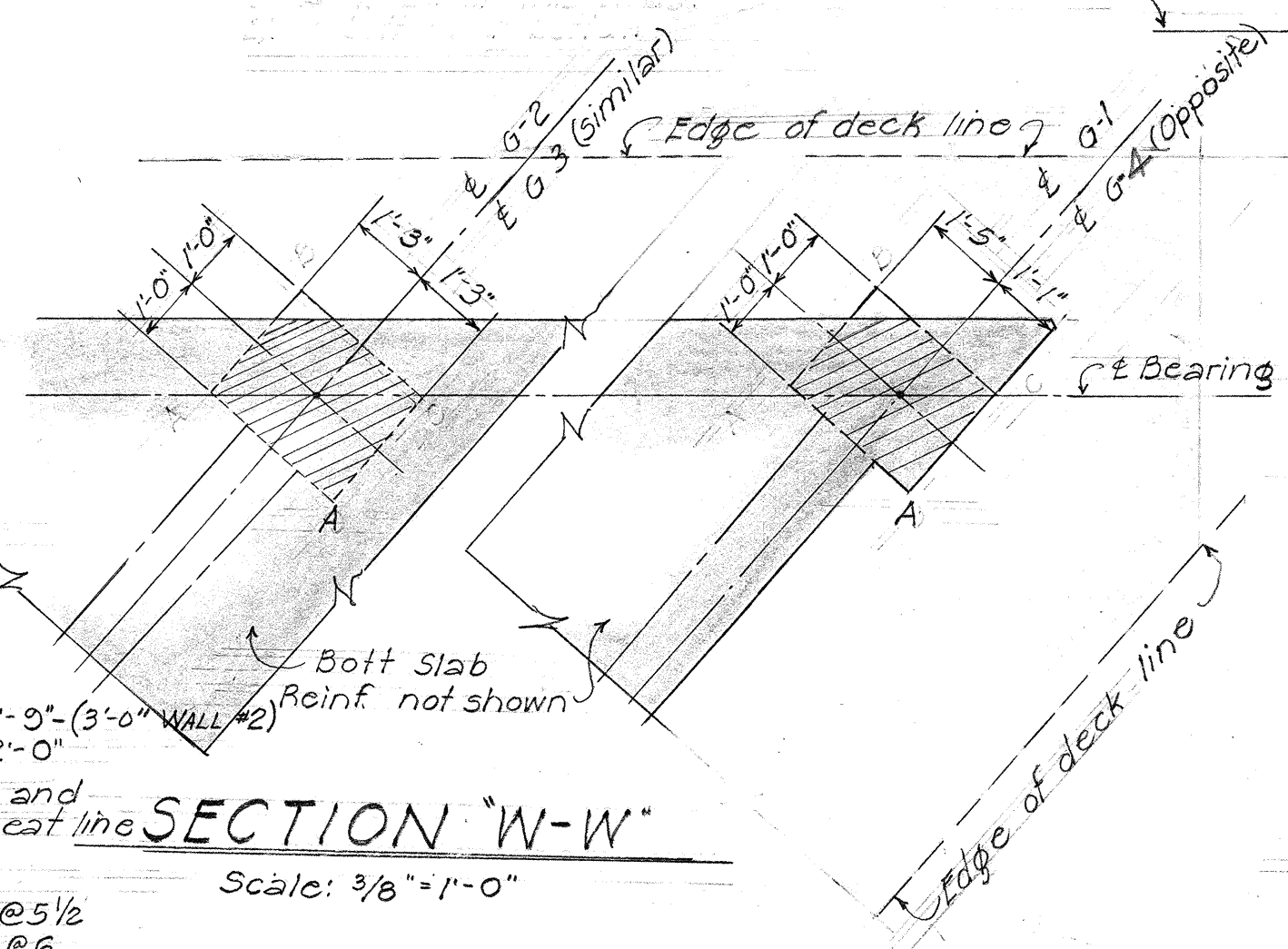
AT BEAM "C"
BOT. LAYER ~ TOP FLANGE REINF. PLAN Scale: $\frac{1}{4}'' = 1'-0''$

SHEET No. 6 OF 13 SHEETS

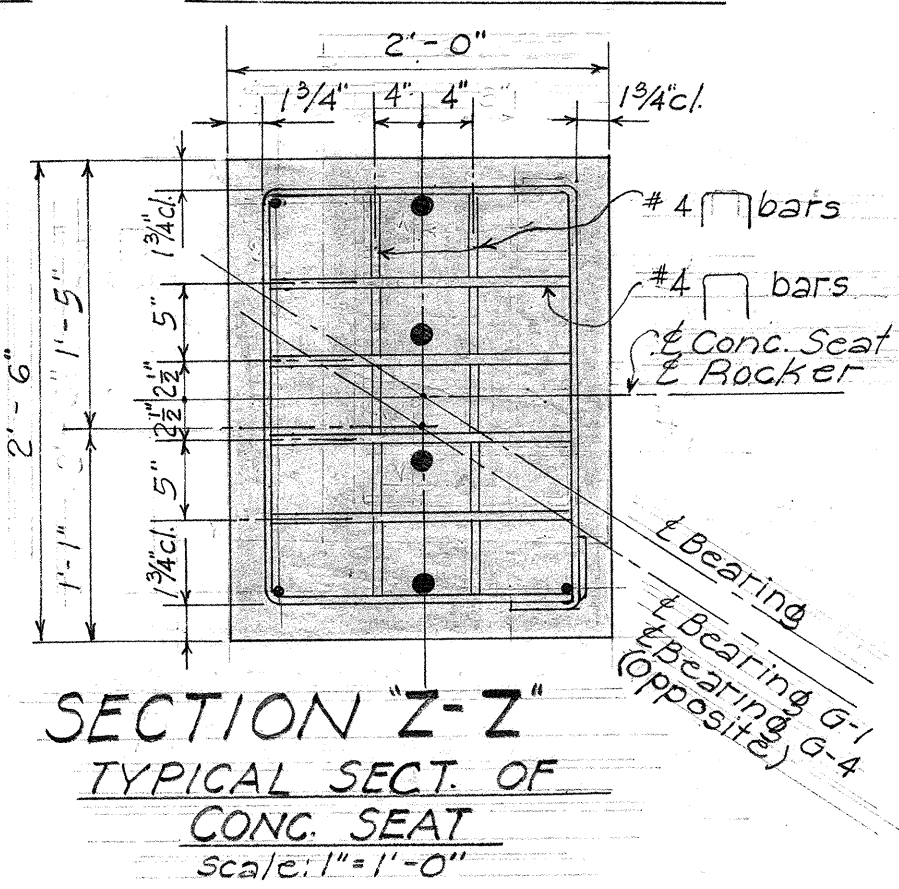
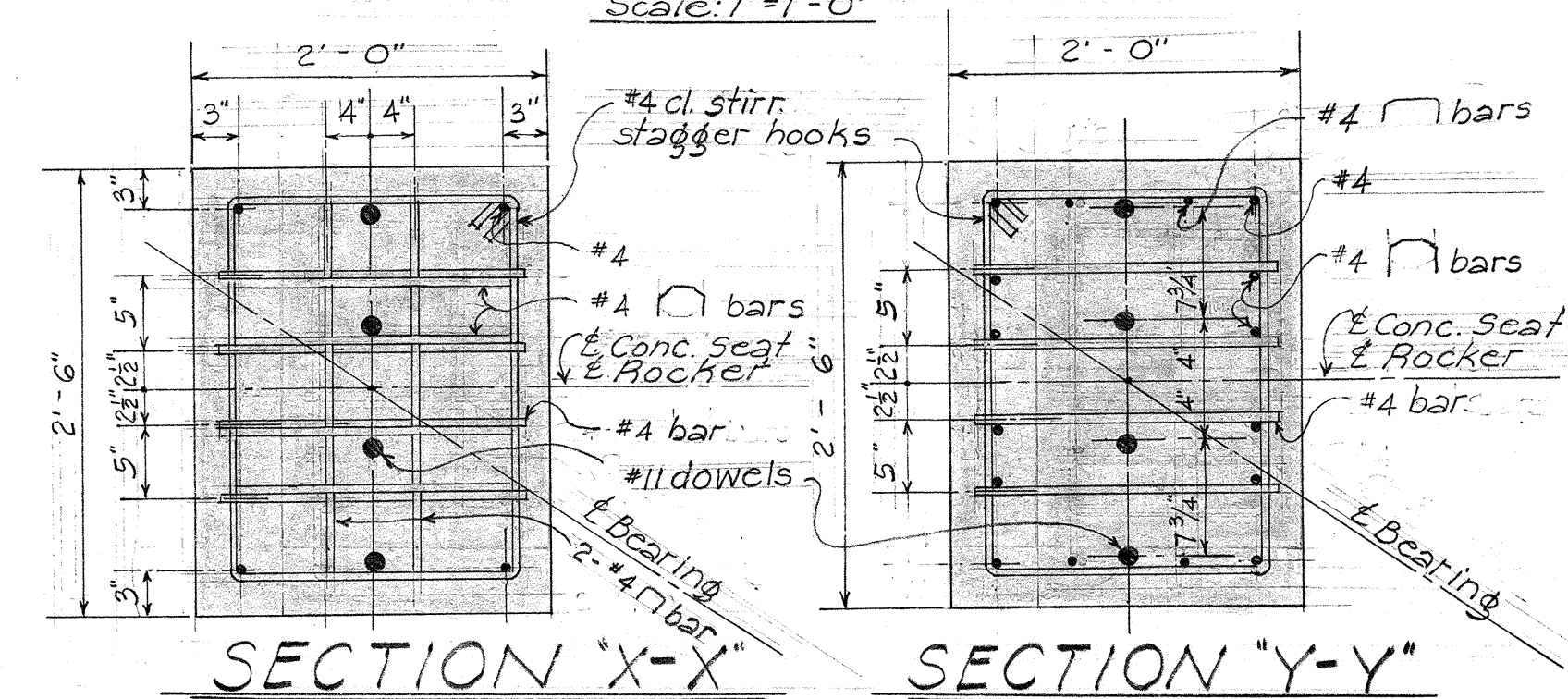
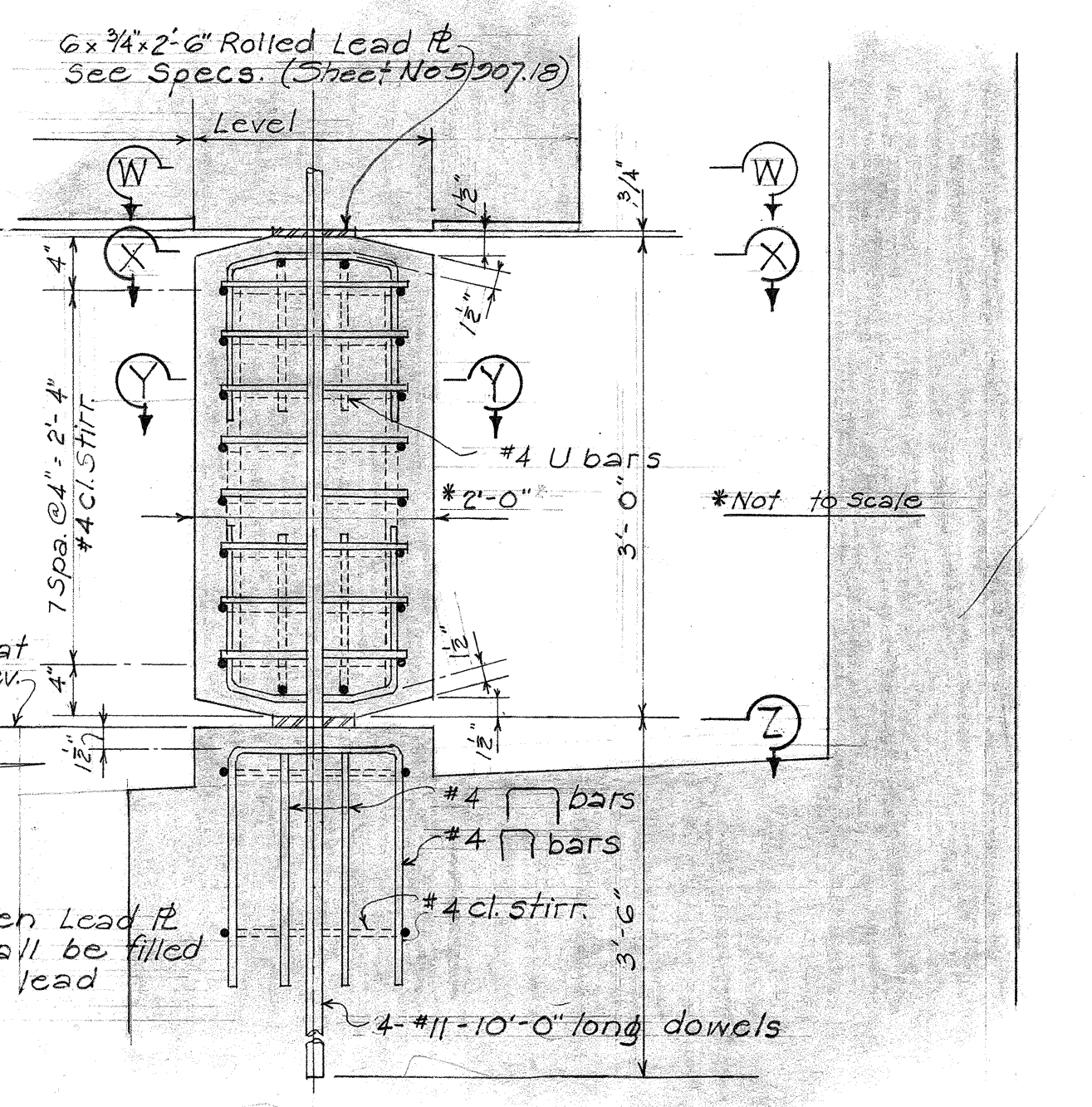
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-019-2(2)	1957	25	50



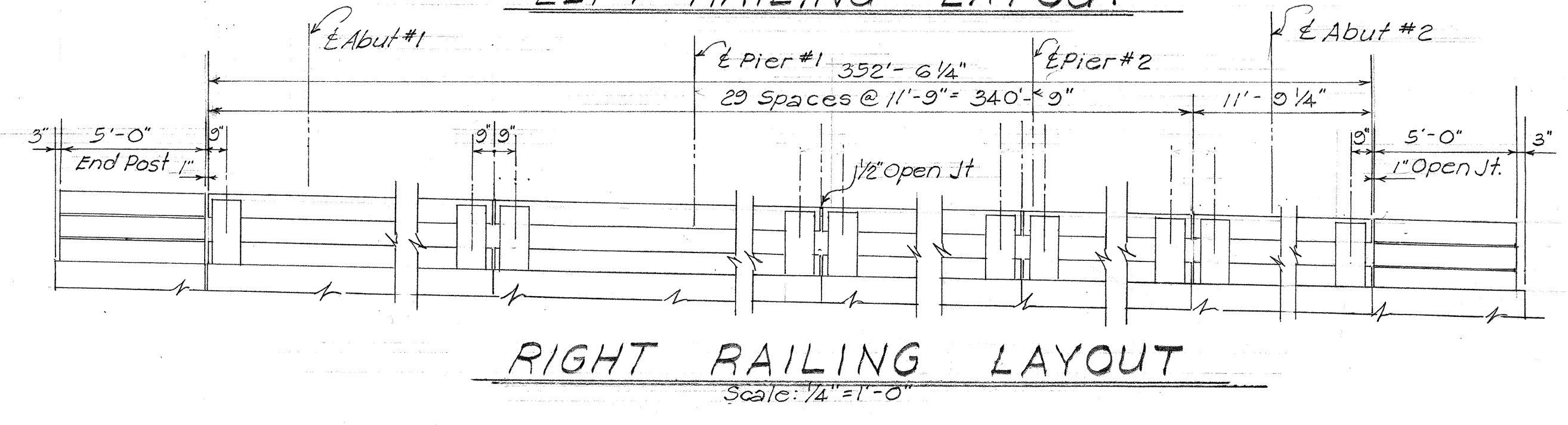
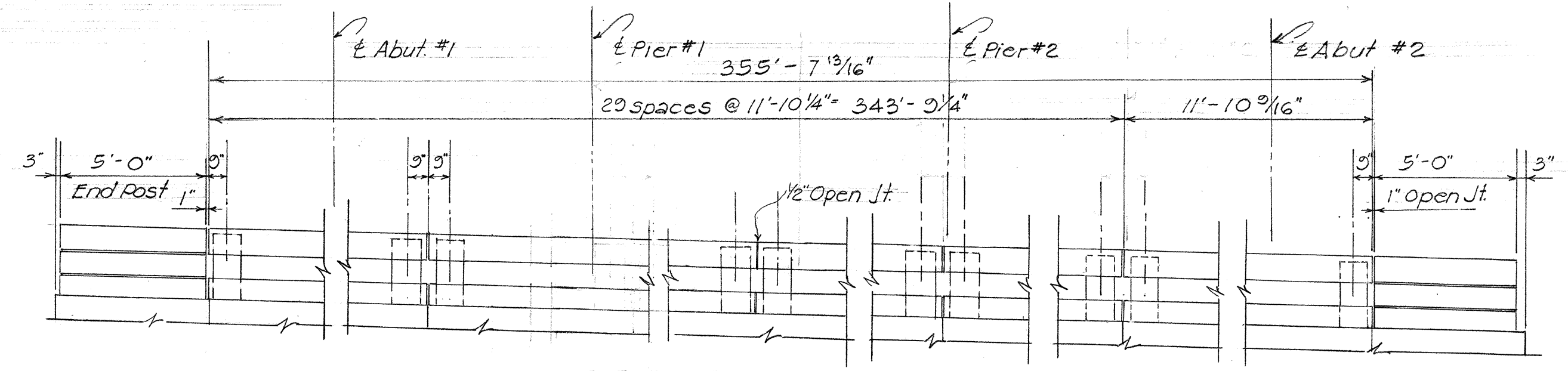
NOTE:
1. Hatch Area is level.
2. El. of bottom of bottom slab at A is El. of this Area



El. of level Area
G-1 El. 637.39
G-2 El. 637.11
G-3 El. 638.05
G-4 El. 638.36



NOTE:
Railing lengths are horizontal lengths given along inside face of railing.
For Railing and End Post details see Standard Bridge Details.



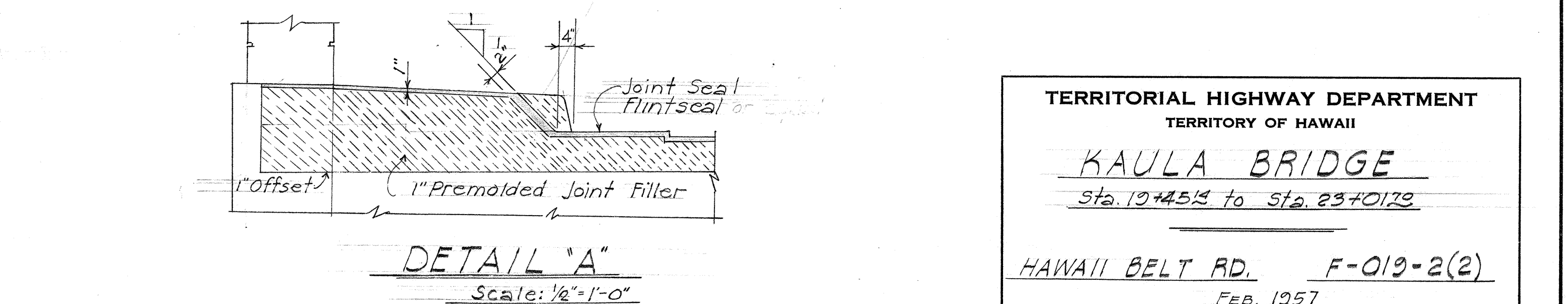
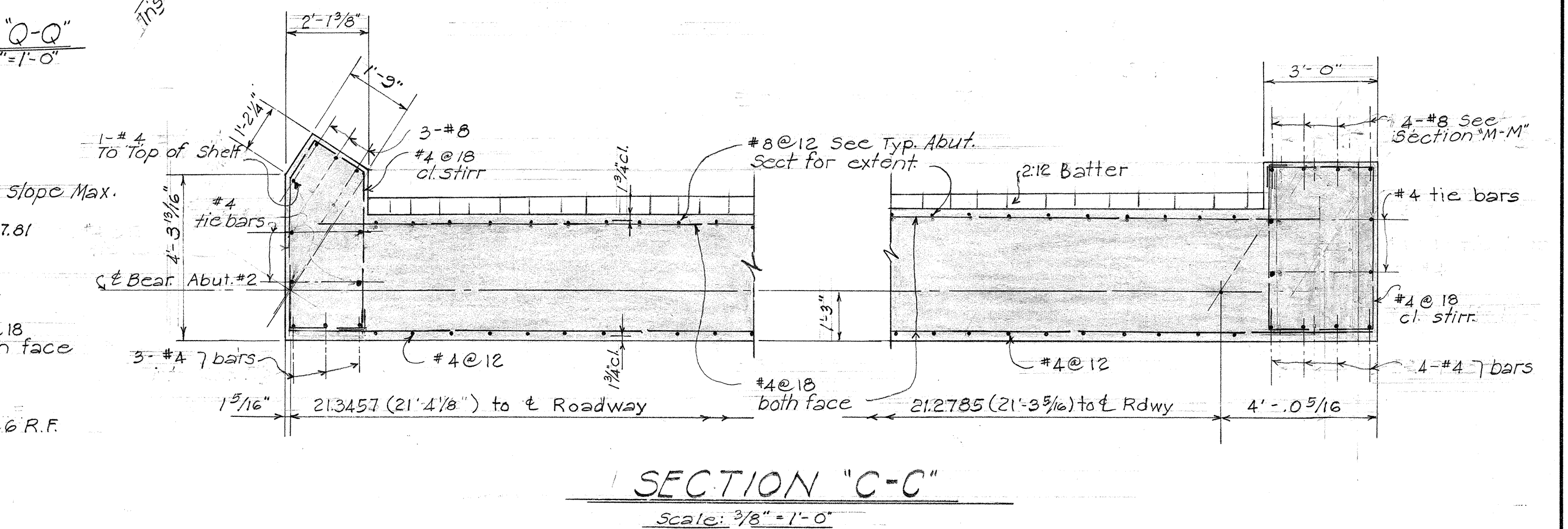
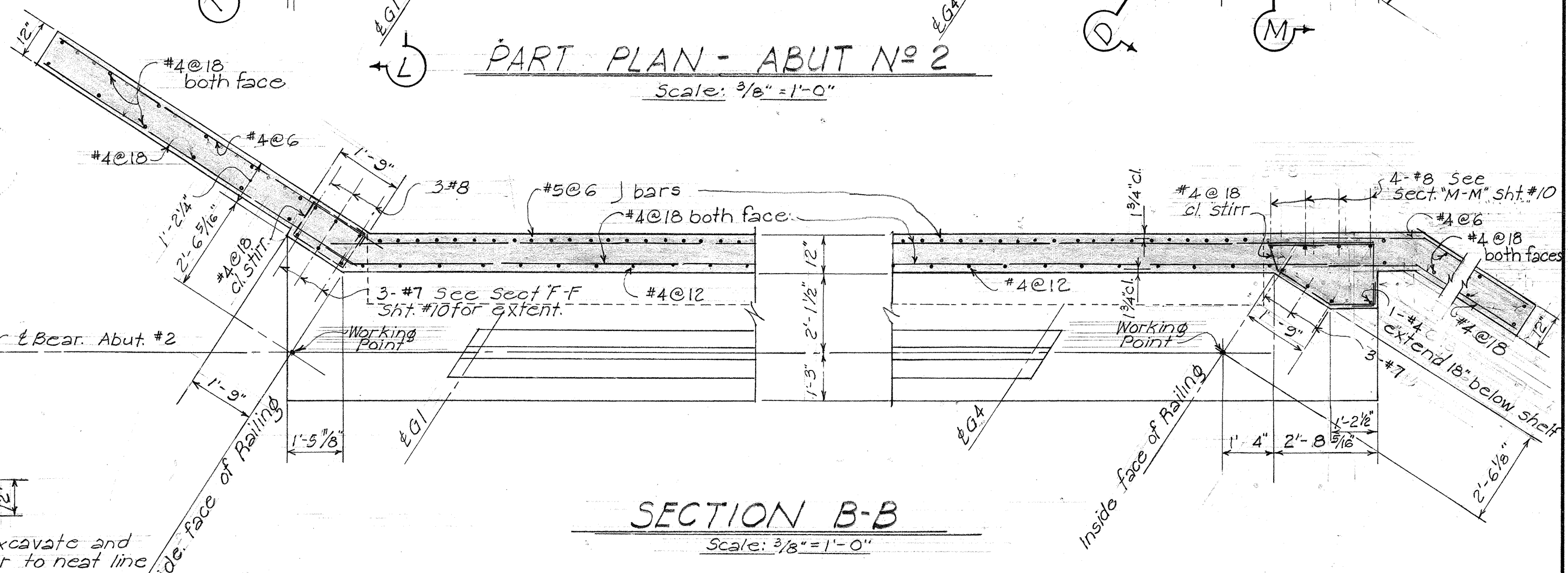
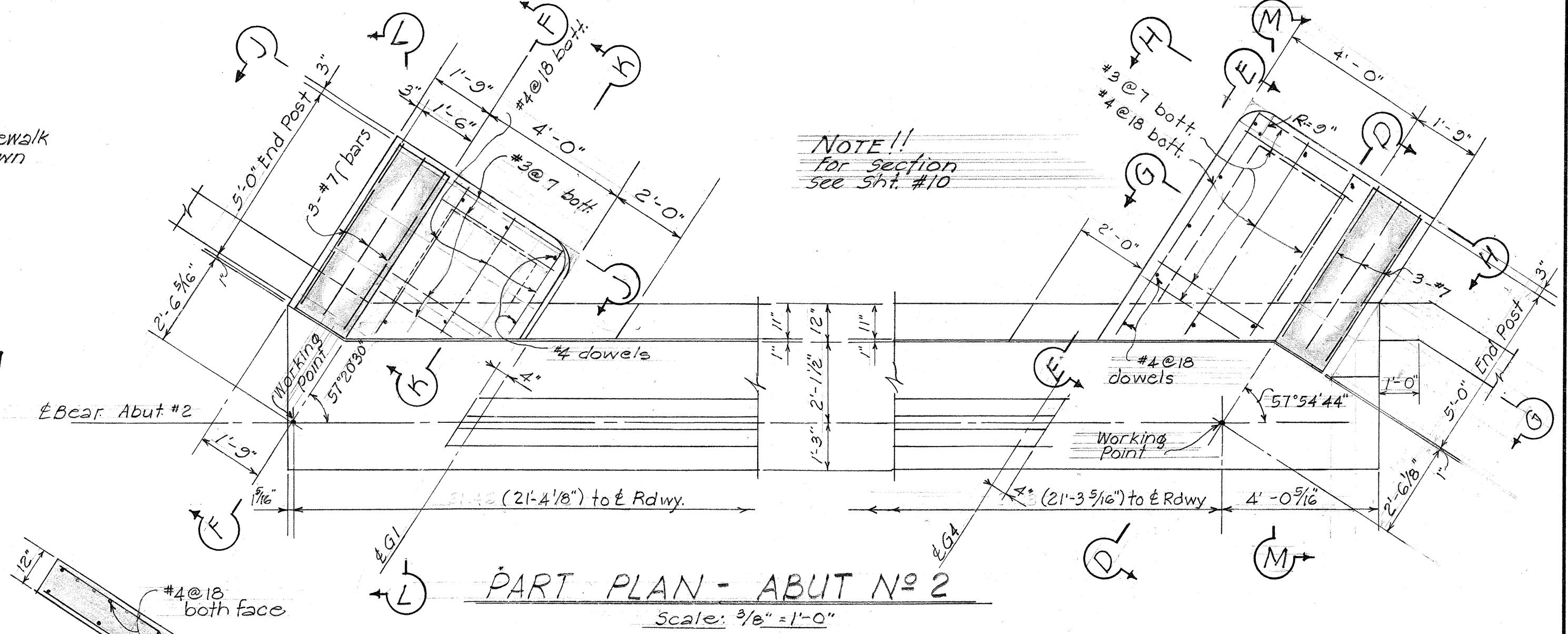
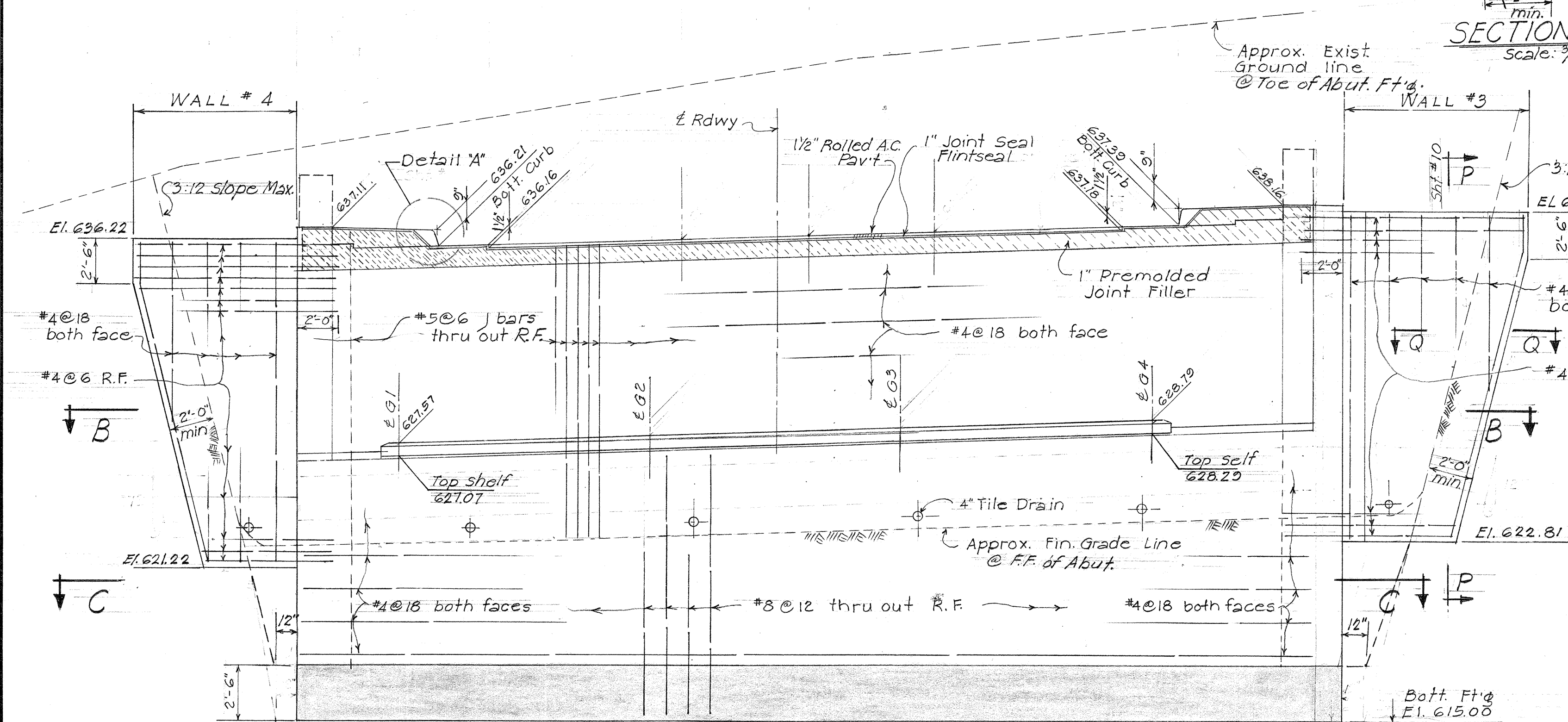
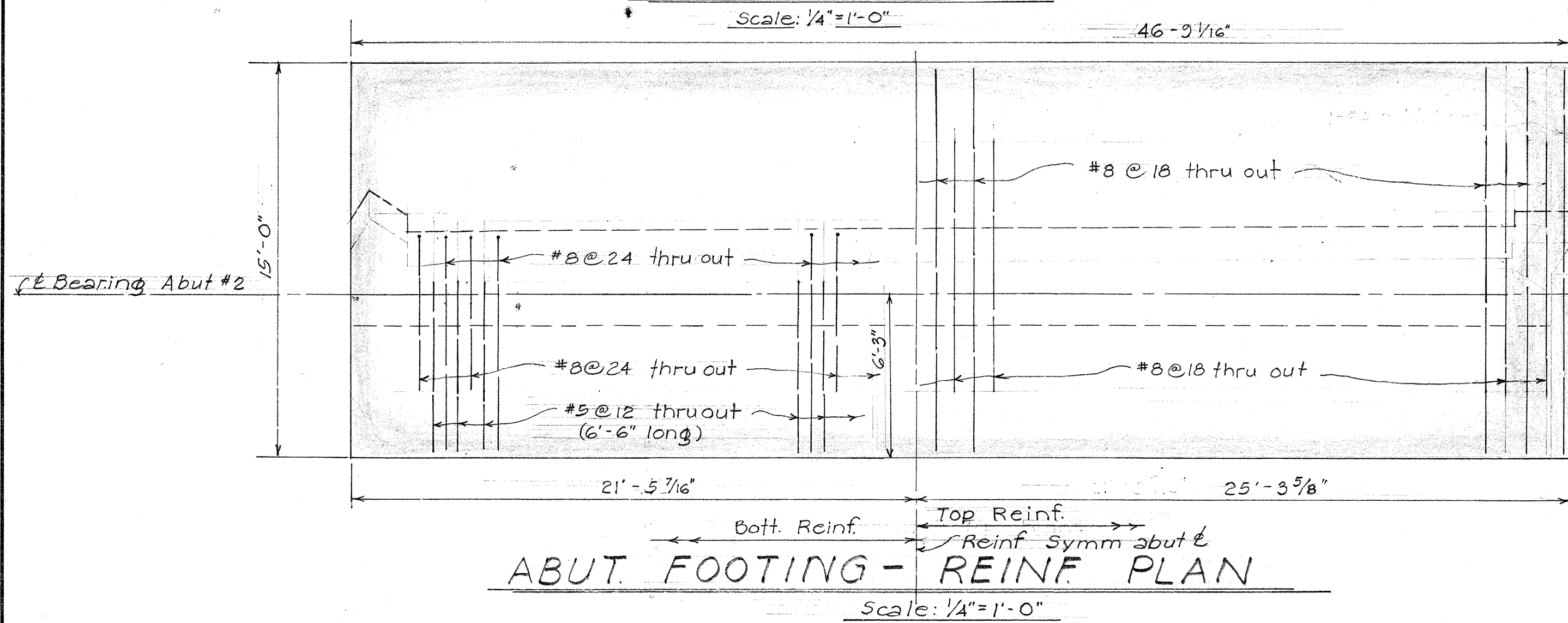
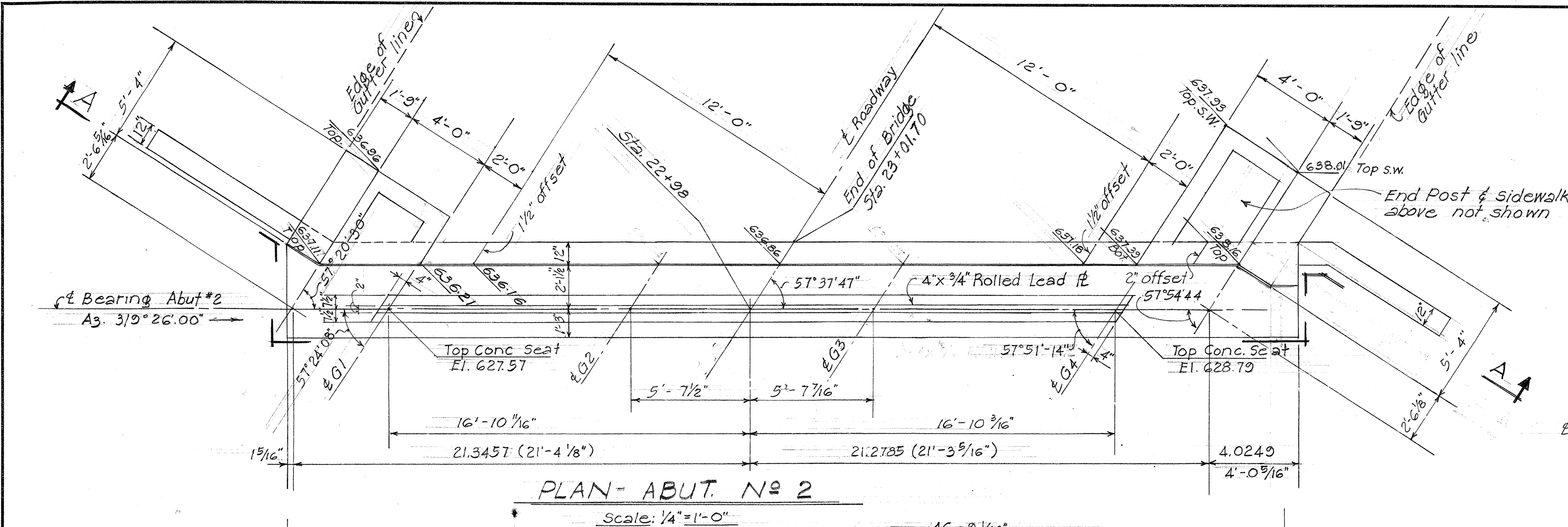
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KAULA BRIDGE
Sta. 19+45.14 to Sta. 23+01.20
HAWAII BELT RD. F-019-2(2)
FEB. 1957

SHEET NO. 8 OF 13 SHEETS

5907.25

DESIGNED BY	DATE
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F019-2(2)	1957	26	50



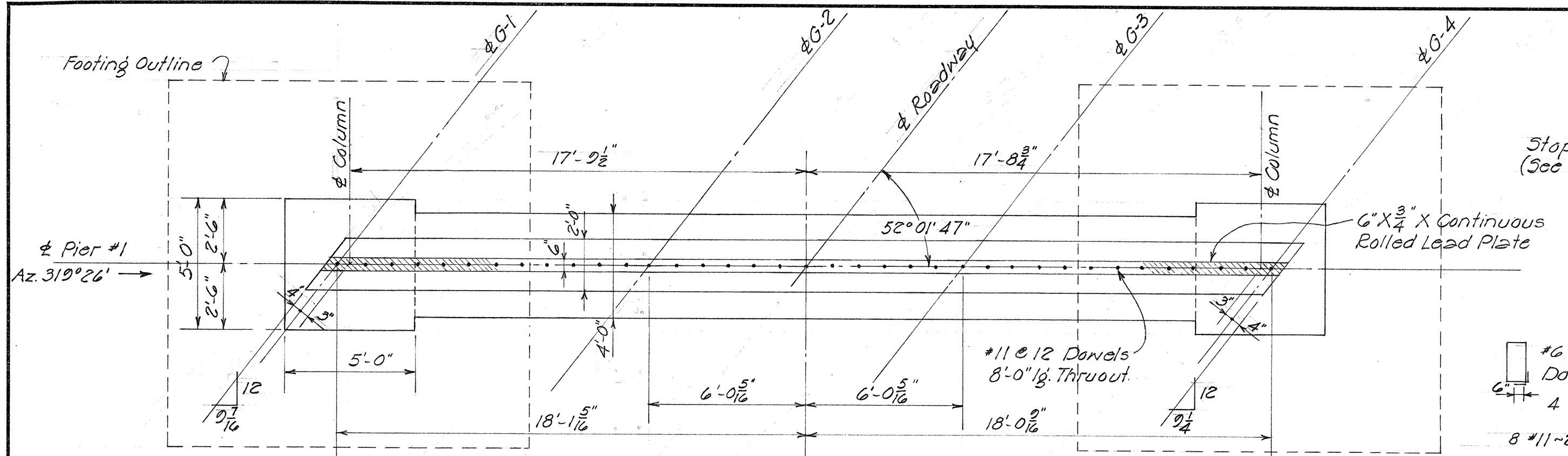
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

KAULA BRIDGE
Sta. 19+45.5 to Sta. 23+01.25

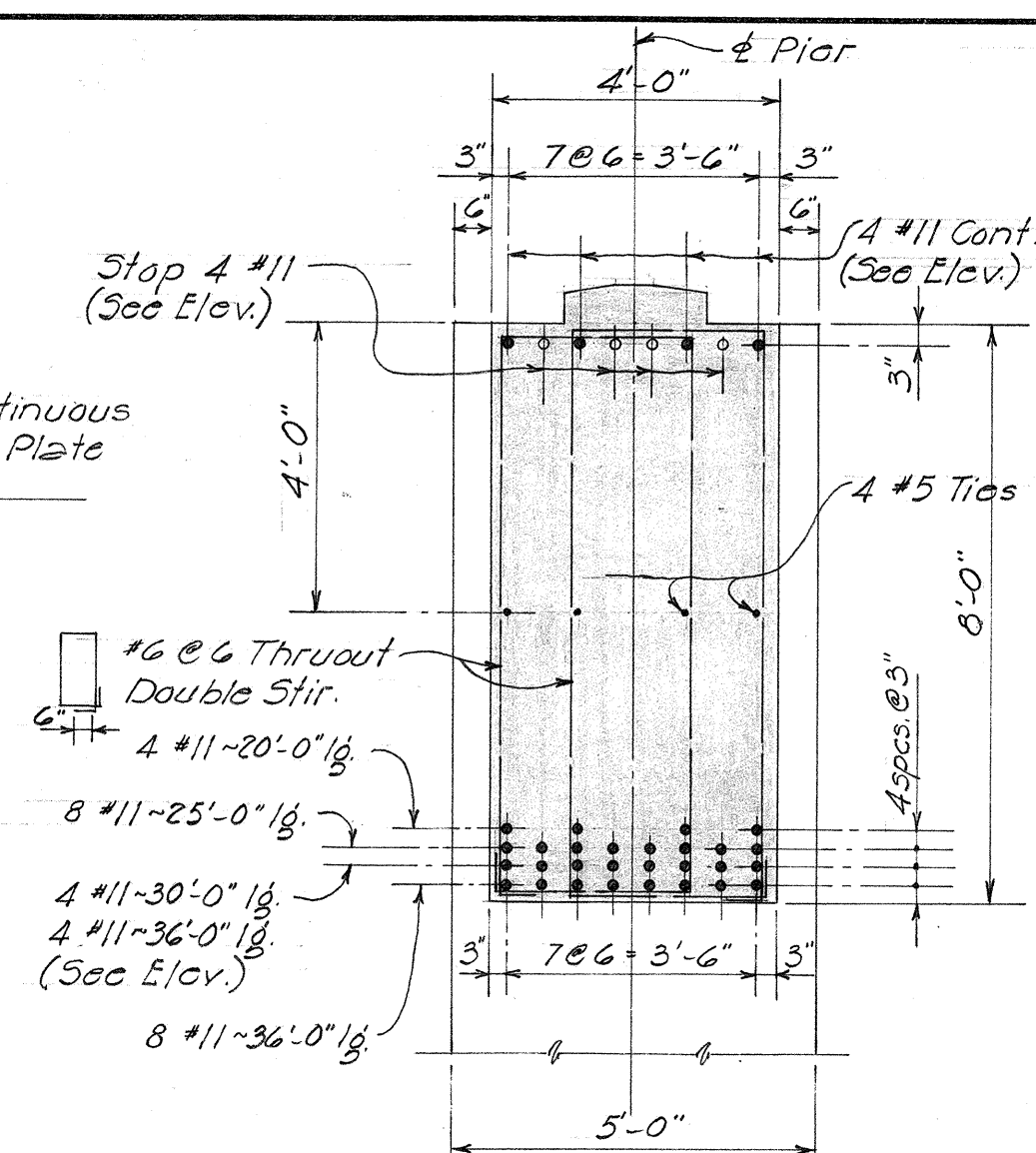
HAWAII BELT RD. F-019-2(2)
FEB. 1957

SURVEY PLOTTED BY	DATE
DESIGNED BY	2/7/57
TRACED BY	2/7/57
QUANTITIES BY	2/7/57
CHECKED BY	2/7/57
ORIGINAL PLAN	
NOTE BOOK	
No.	

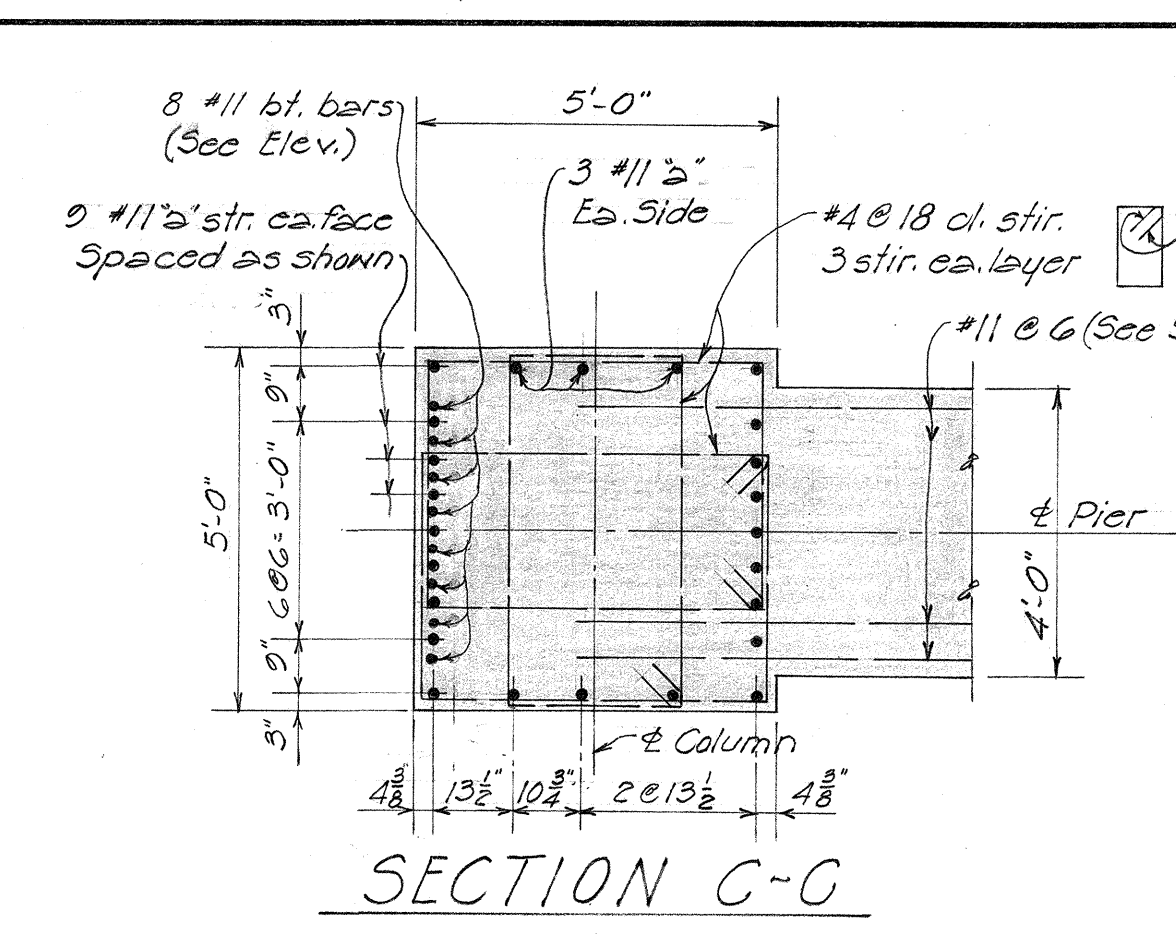
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	F-019-2	1957	23	50



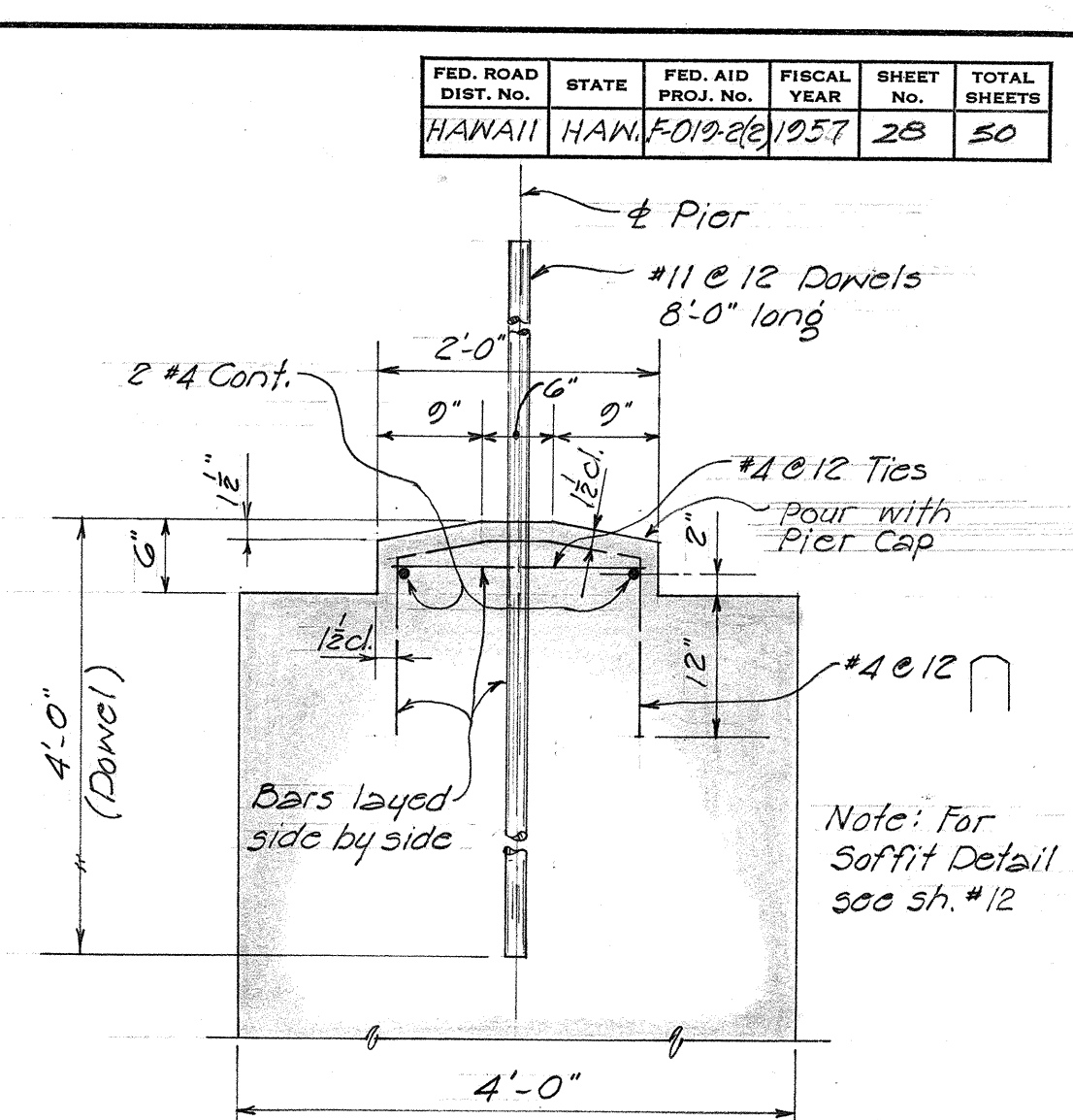
PLAN - PIER #1
Scale - 1/4" = 1'-0"



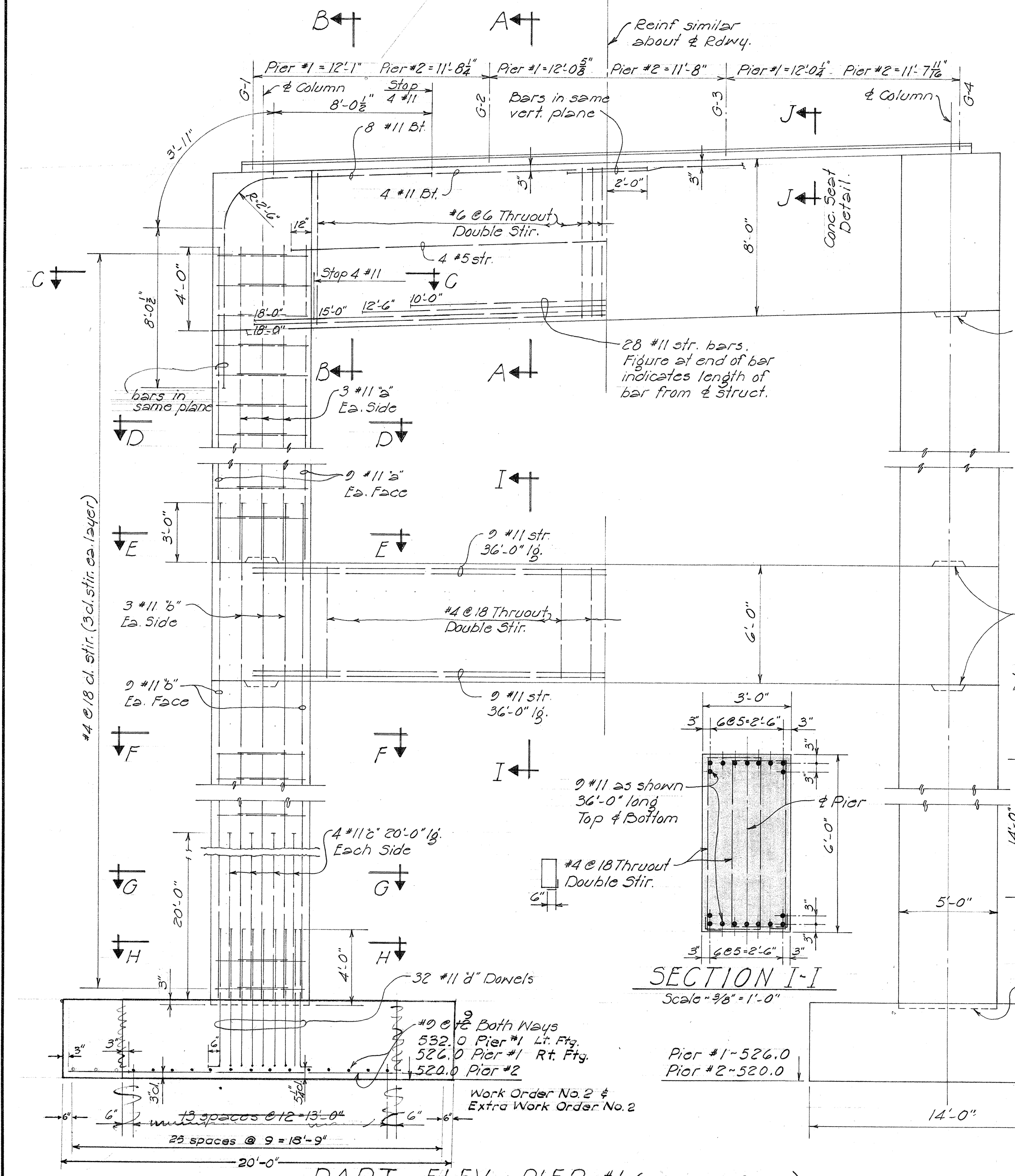
SECTION A-A
Scale - 3/8" = 1'-0"



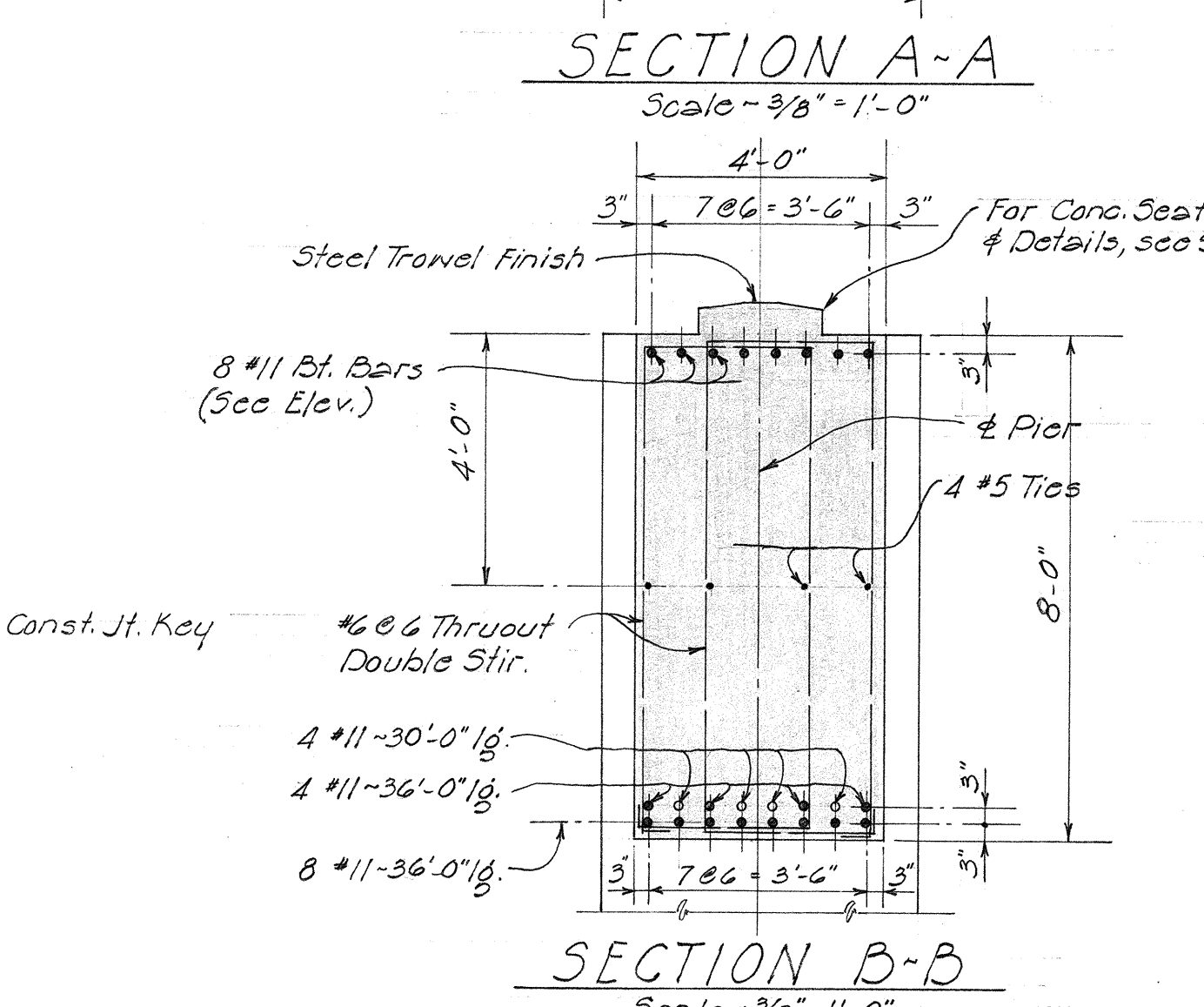
SECTION C-C
Scale - 3/8" = 1'-0"



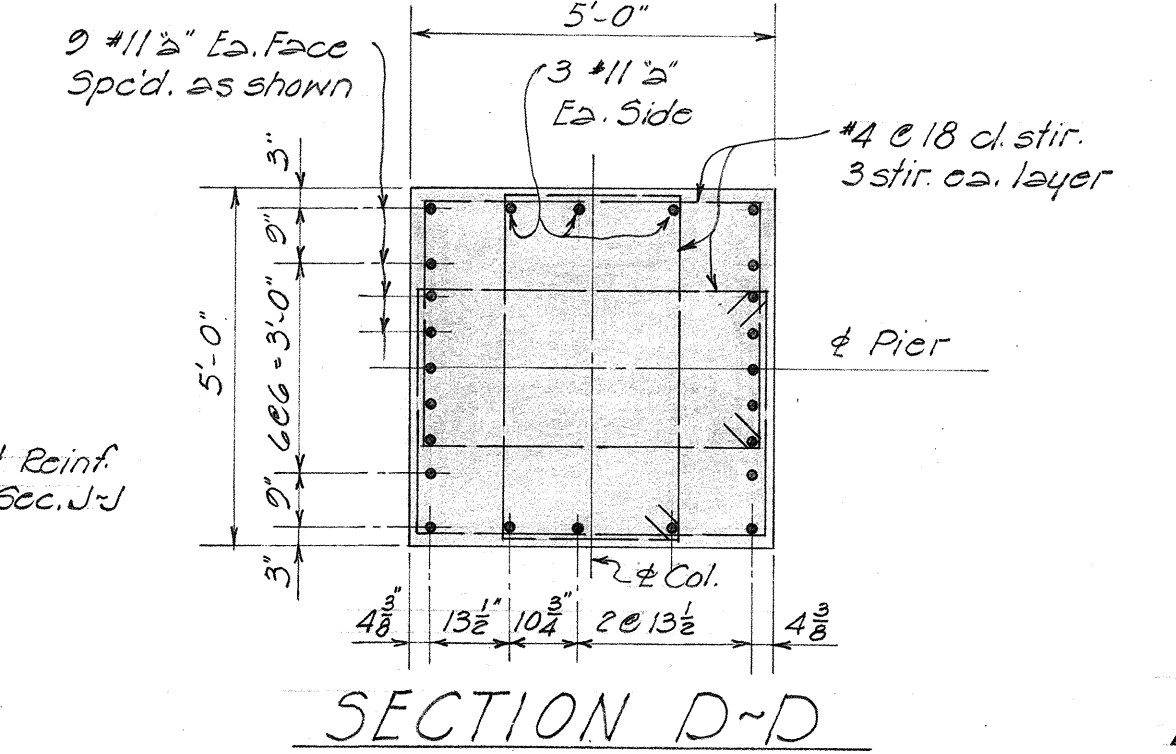
SECTION J-J
Scale - 3/4" = 1'-0"



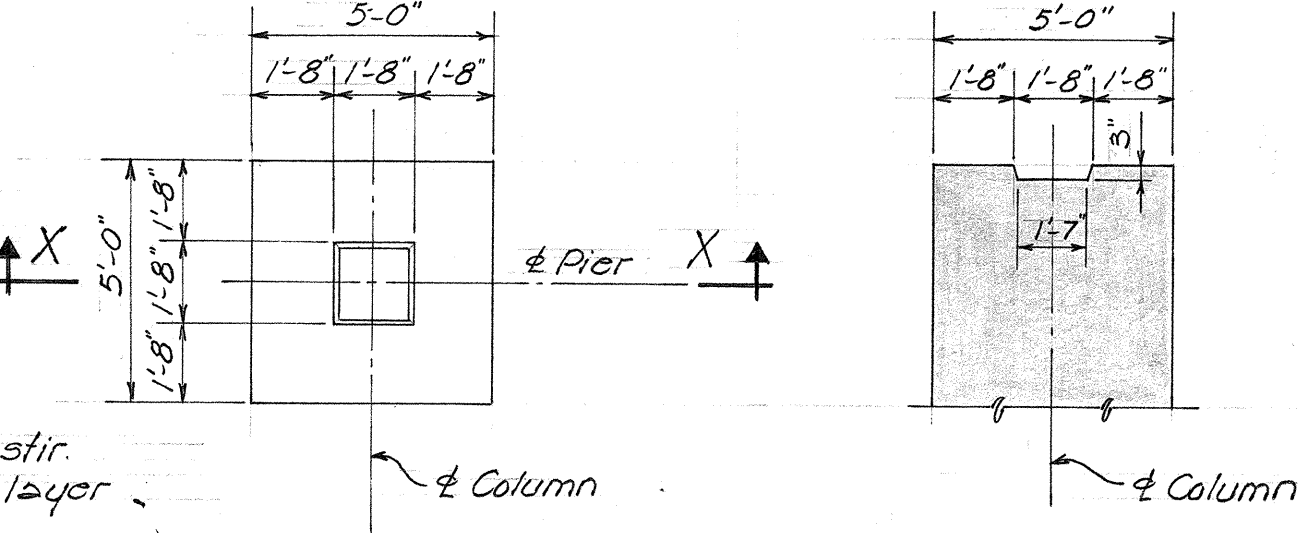
PART ELEV. - PIER #1 (SHOWING REINF.)
(Pier #2 Similar) Scale - 1/4" = 1'-0"



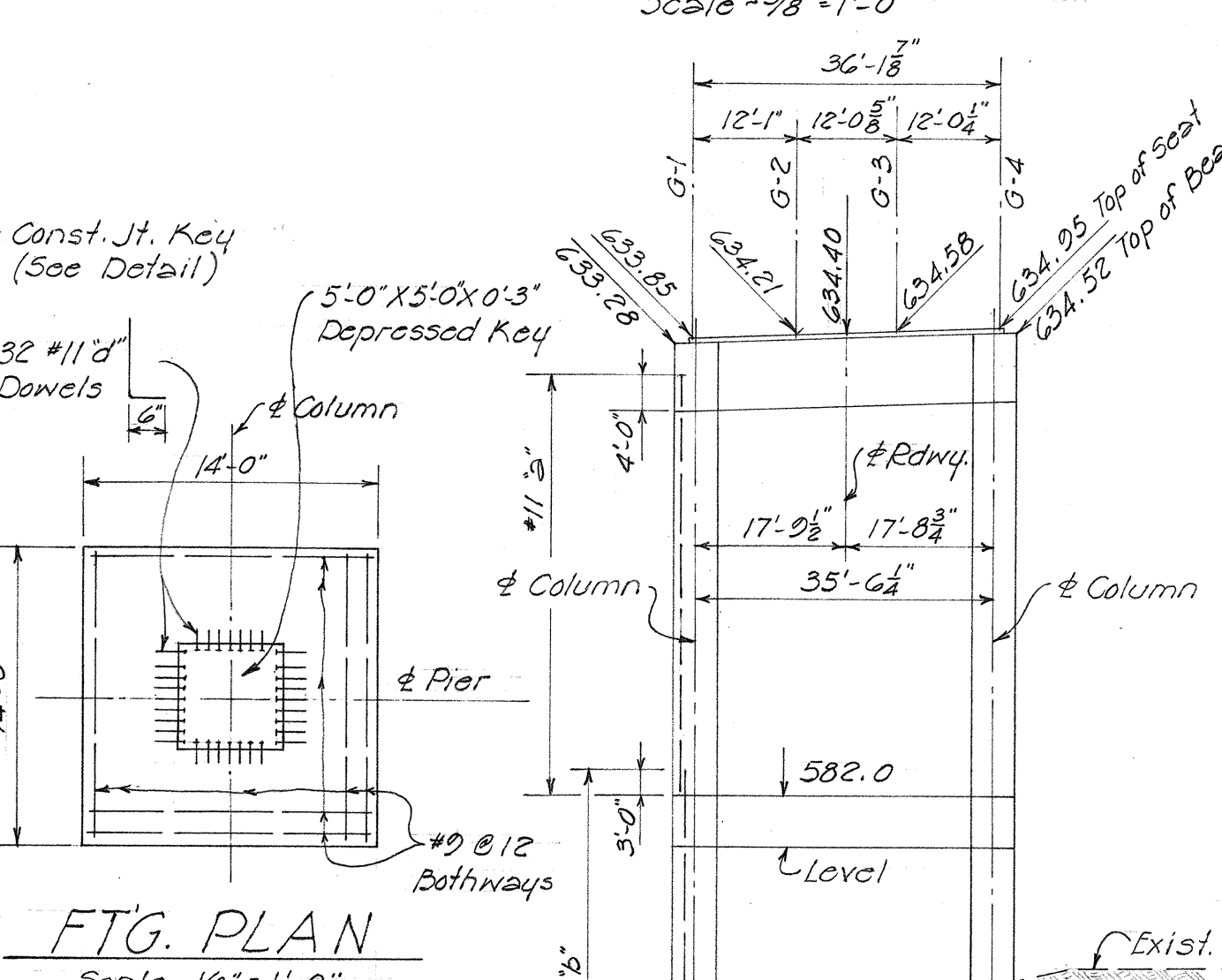
SECTION B-B
Scale - 3/8" = 1'-0"



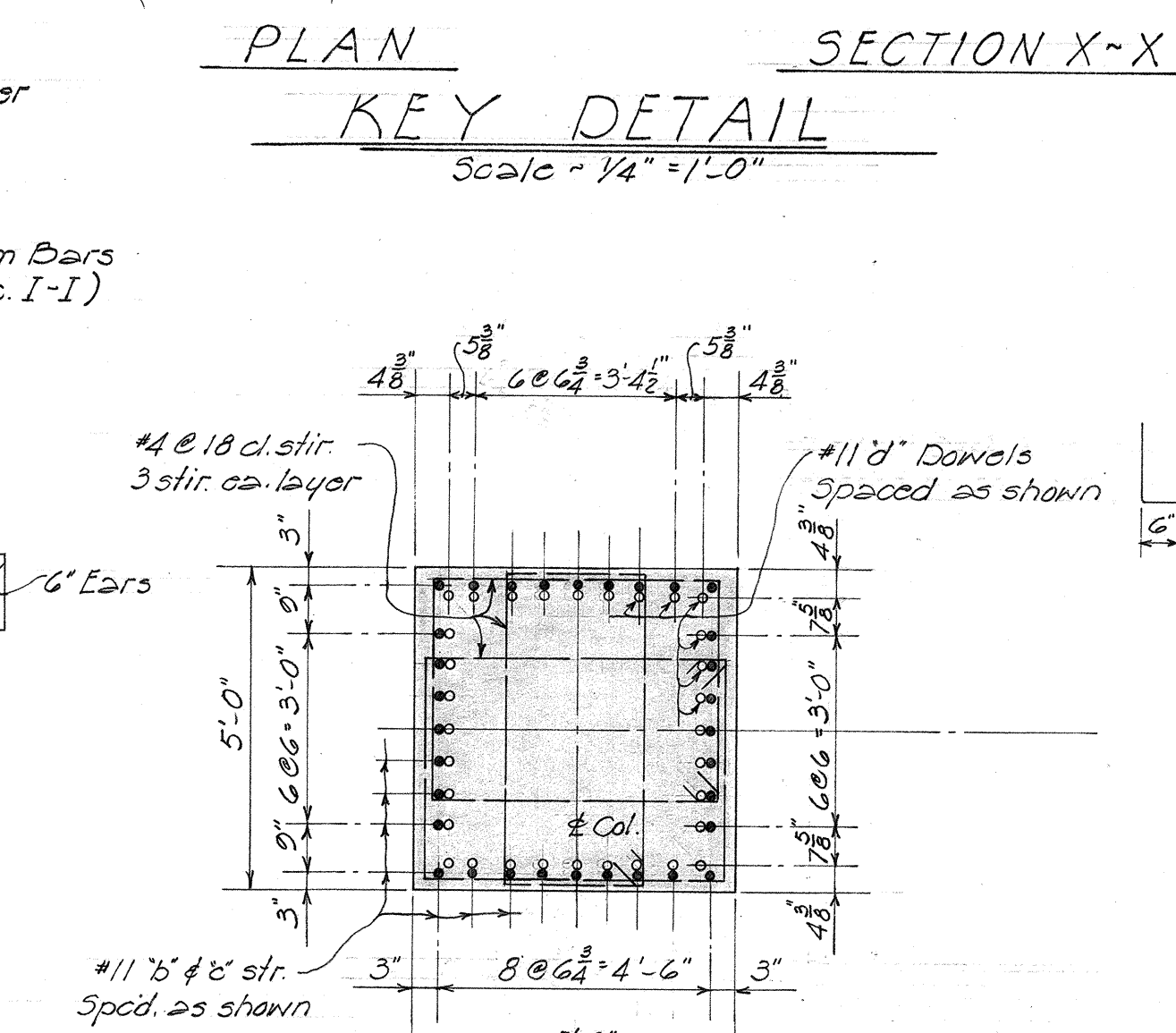
SECTION D-D
Scale - 3/8" = 1'-0"



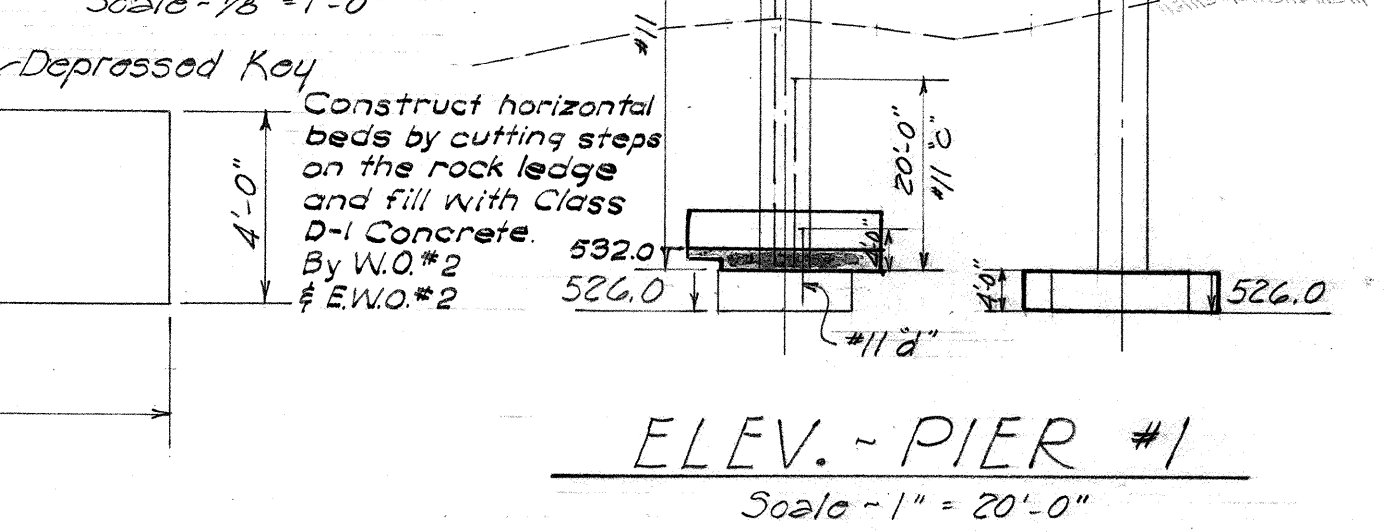
SECTION X-X
Scale - 1/4" = 1'-0"



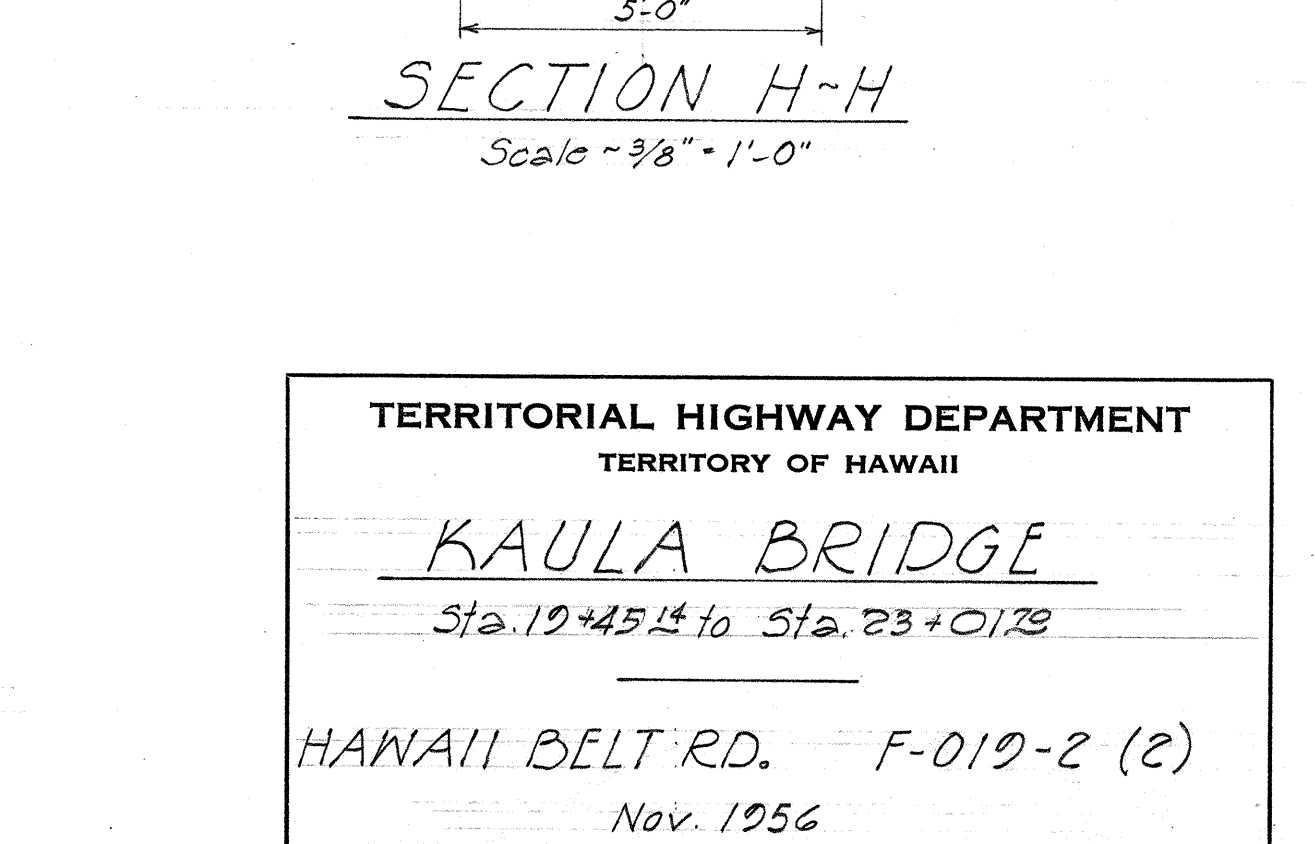
SECTION E-E
Scale - 3/8" = 1'-0"



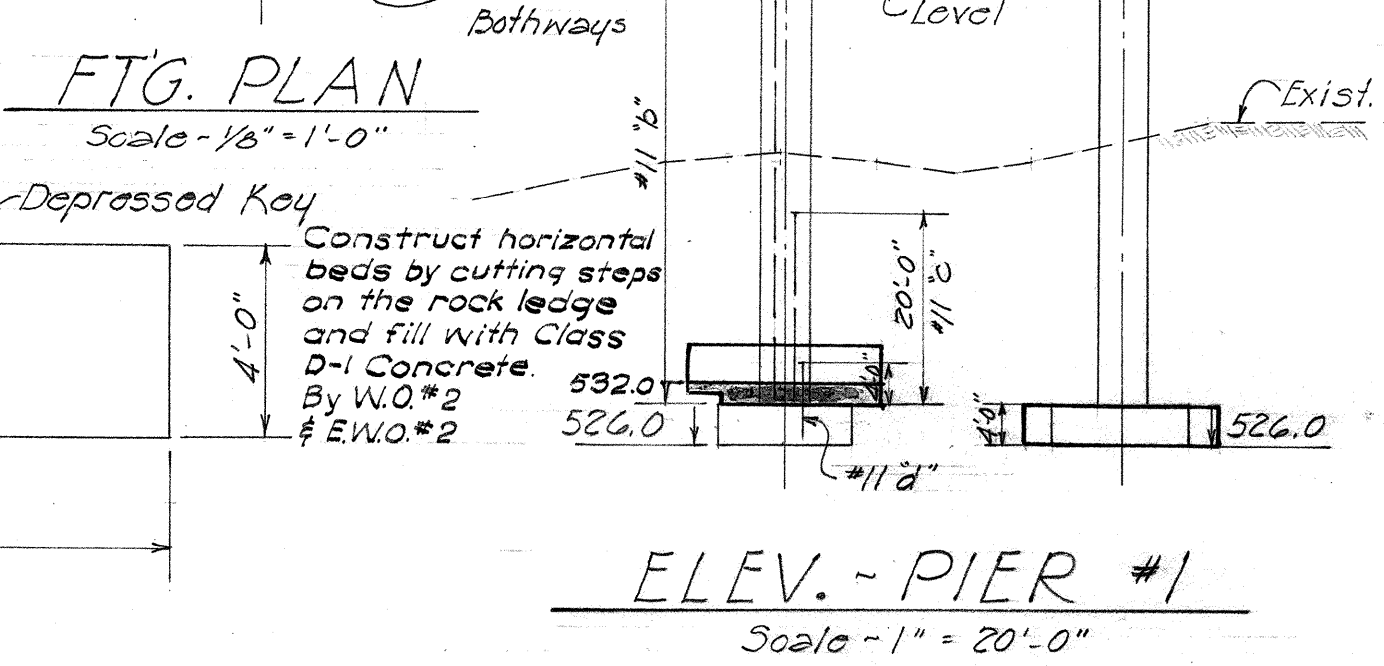
SECTION H-H
Scale - 3/8" = 1'-0"



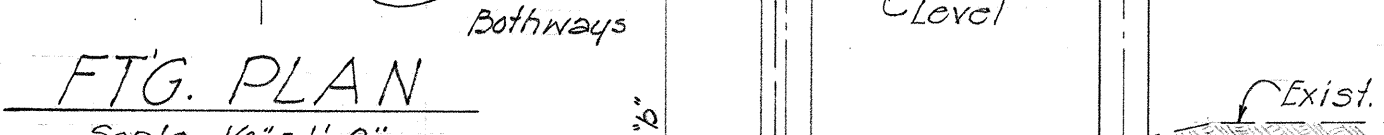
SECTION F-F
Scale - 3/8" = 1'-0"



SECTION G-G
Scale - 3/8" = 1'-0"



ELEV. - PIER #1
Scale - 1" = 20'-0"



FTG. PLAN
Scale - 1/8" = 1'-0"

SURVEY PLOTTED BY	DATE
DESIGNED BY	10-56
DRAWN BY	2-57
CHECKED BY	
QUANTITIES CHECKED BY	
NOTED BY	
NO.	

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

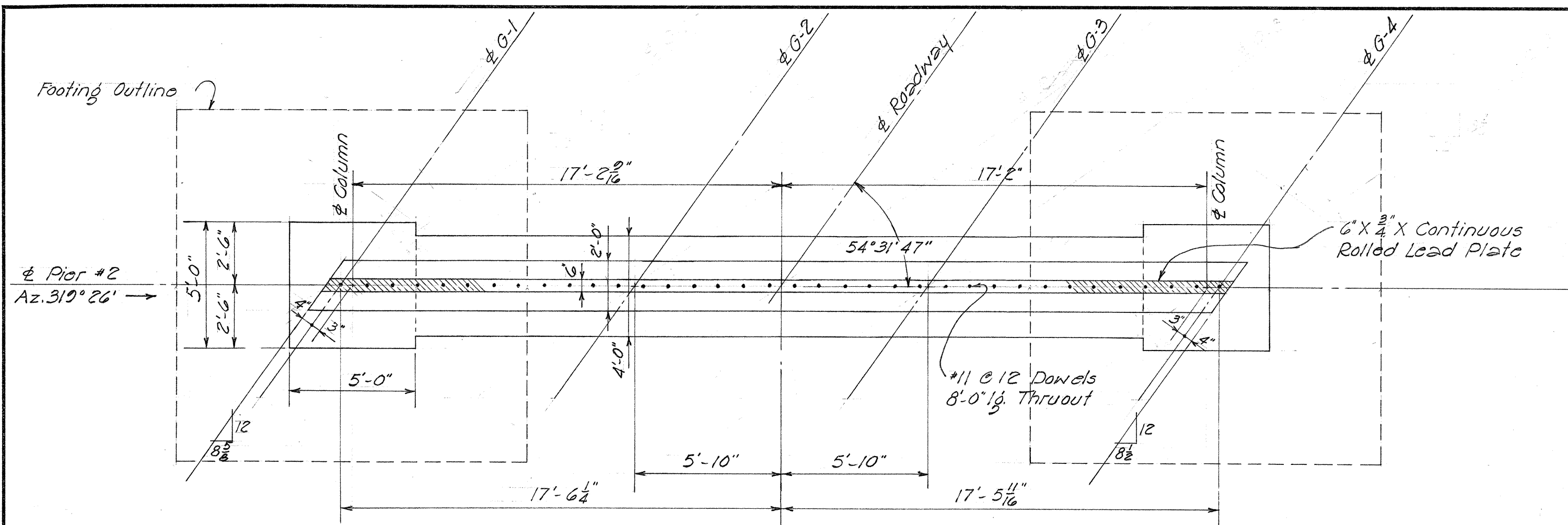
KAULA BRIDGE

Sta. 12+45.14 to Sta. 23+01.23

HAWAII BELT RD. F-019-2 (2)

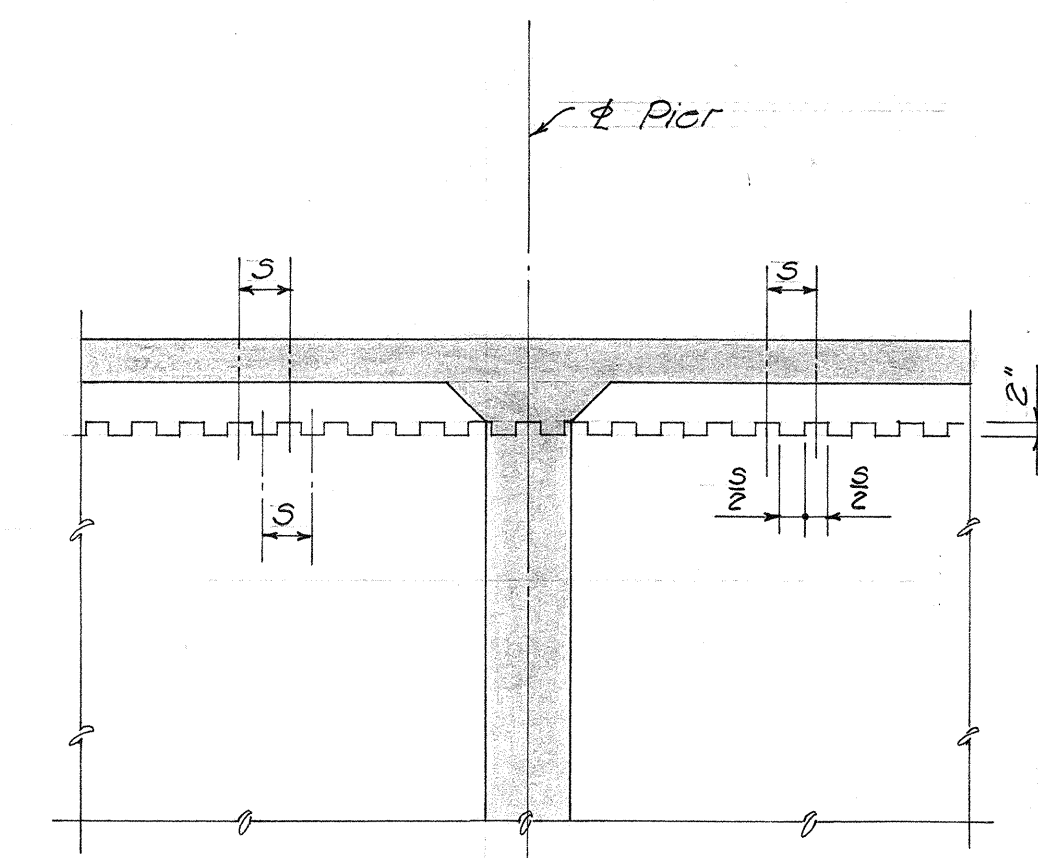
Nov. 1956

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
HAWAII	HAW.	F019-26	1957	29	50



PLAN ~ PIER #2

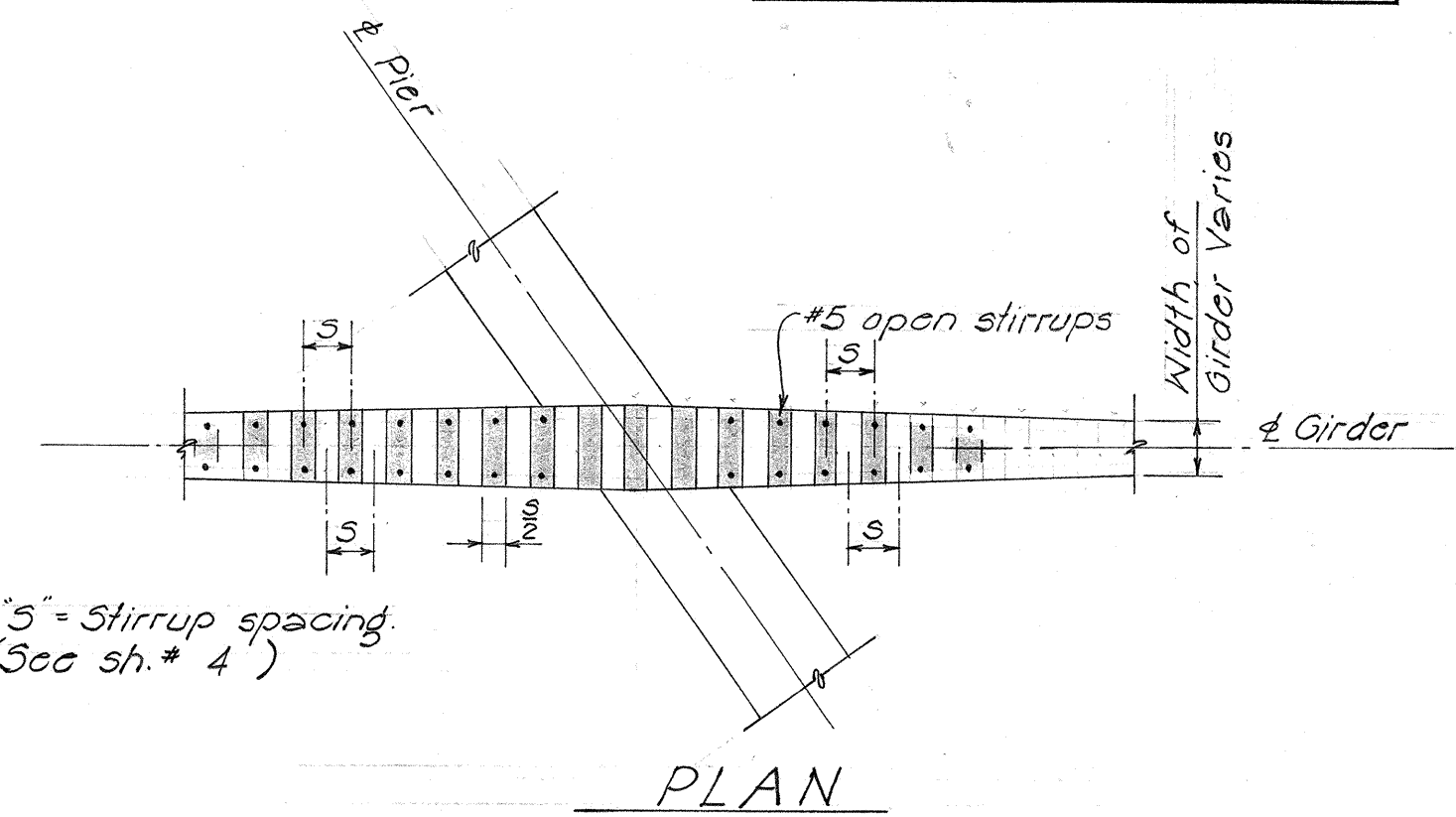
Scale 1/4" = 1'-0"



SECTION

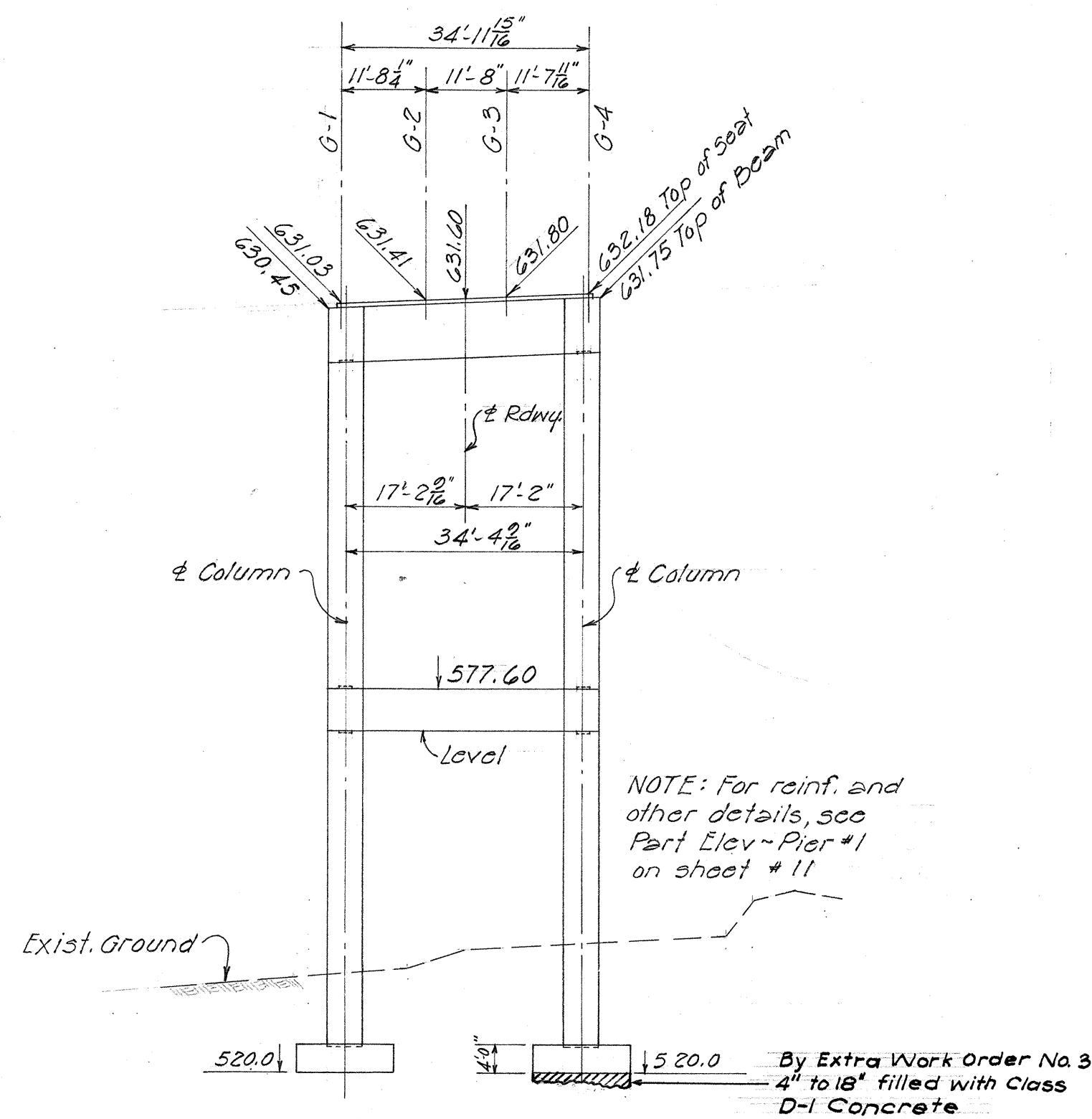
SHEAR KEY DETAIL

Scale 3/8" = 1'-0"



PLAN

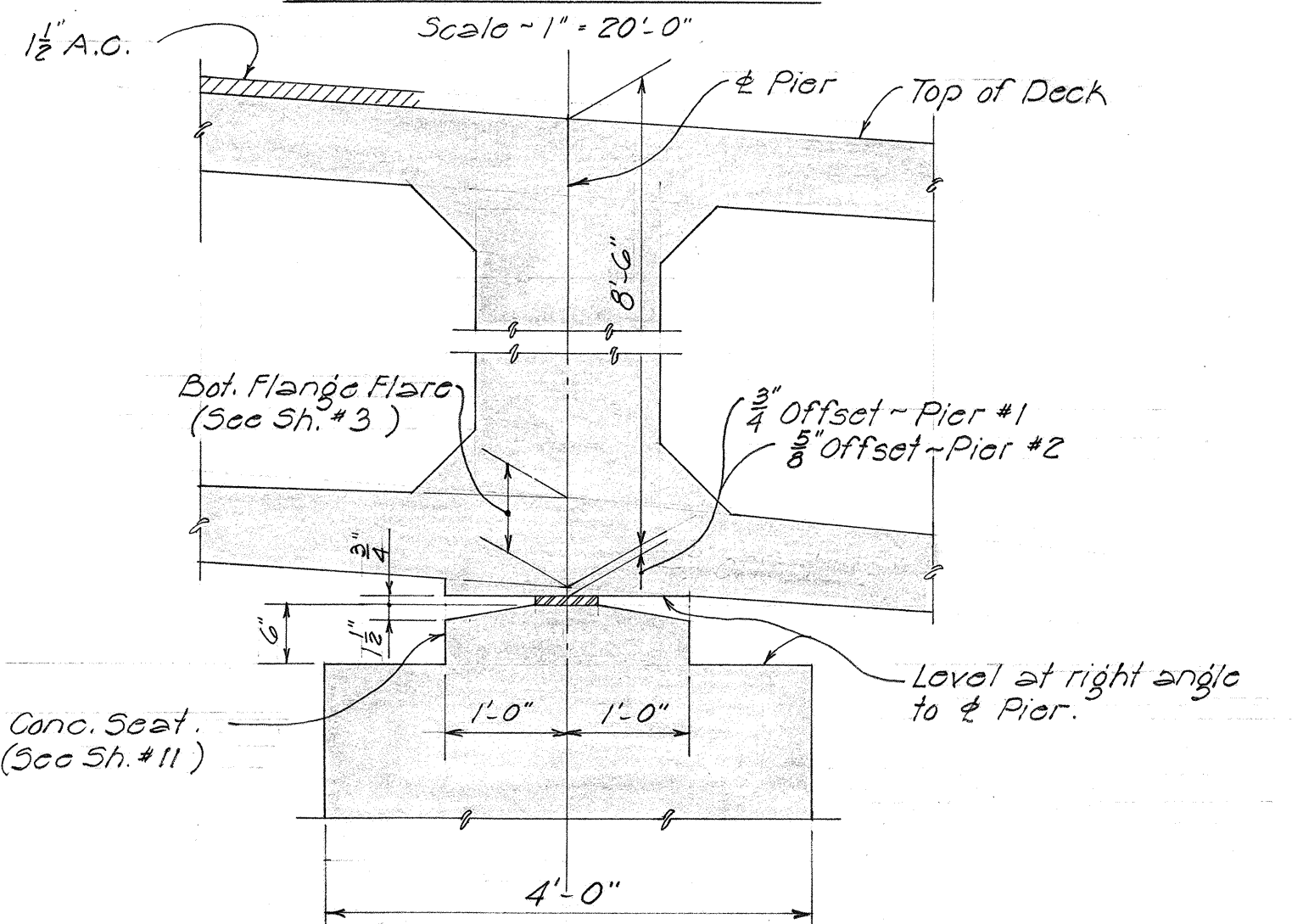
Note: 'S' = Stirrup spacing (See sh. # 4)



ELEV. ~ PIER #2

Scale 1" = 20'-0"

NOTE: For reinf. and other details, see Part Elev. ~ Pier #1 on sheet # 11



SOFFIT DET. AT PIERS

Scale 3/4" = 1'-0"

ORIGINAL PLAN	DATE
DESIGNED BY M.E. Daniels	10-56
TRACED BY J. L. L. L.	2-57
QUANTITIES BY G.T. F. F.	
NOTES CHECKED BY J. L. L.	
NO.	

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

KAULA BRIDGE

Sta. 19+45.14 to Sta. 23+01.72

HAWAII BELT RD. F-019-2 (2)

Nov. 1956

SHEET No. 12 OF 13 SHEETS

5907.29

