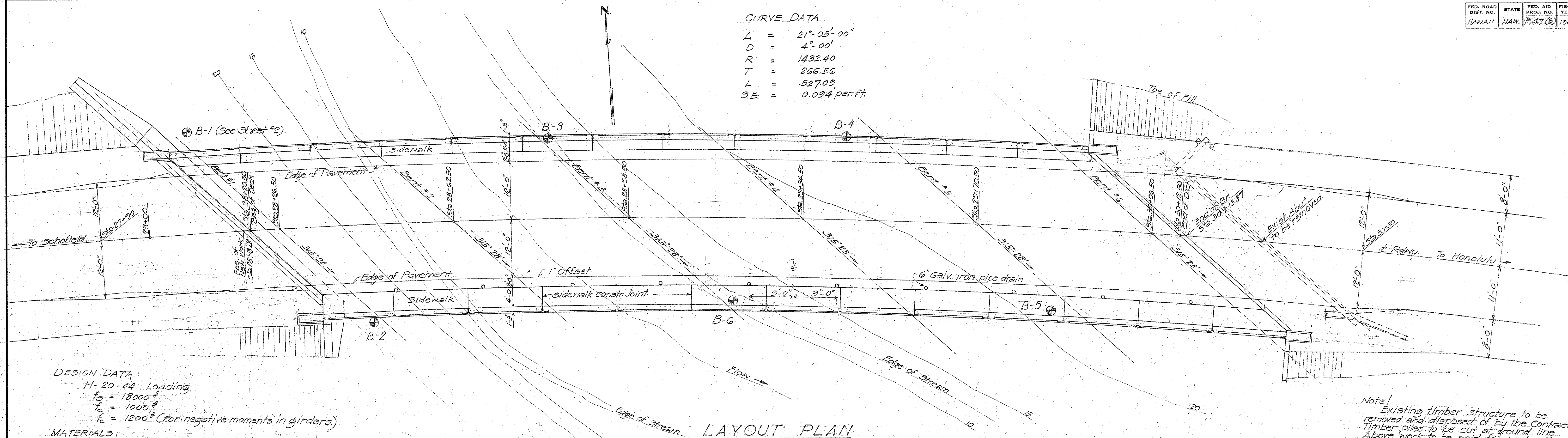


CURVE DATA

$\Delta = 21^{\circ}05'00''$
 $D = 4^{\circ}00'$
 $R = 1432.40$
 $T = 266.56$
 $L = 527.09$
 $S.E. = 0.094 \text{ per ft.}$



DESIGN DATA

H-20-44 Loading
 $f_s = 18000 \#$
 $f_c = 1000 \#$
 $f_c = 1200 \#$ (For negative moments in girders)

MATERIALS:

All concrete except in piles and Abut. No. 1,
 Class A-1. Concrete in piles, Class E-1. Concrete
 in Abut. No. 1, Class C-1.

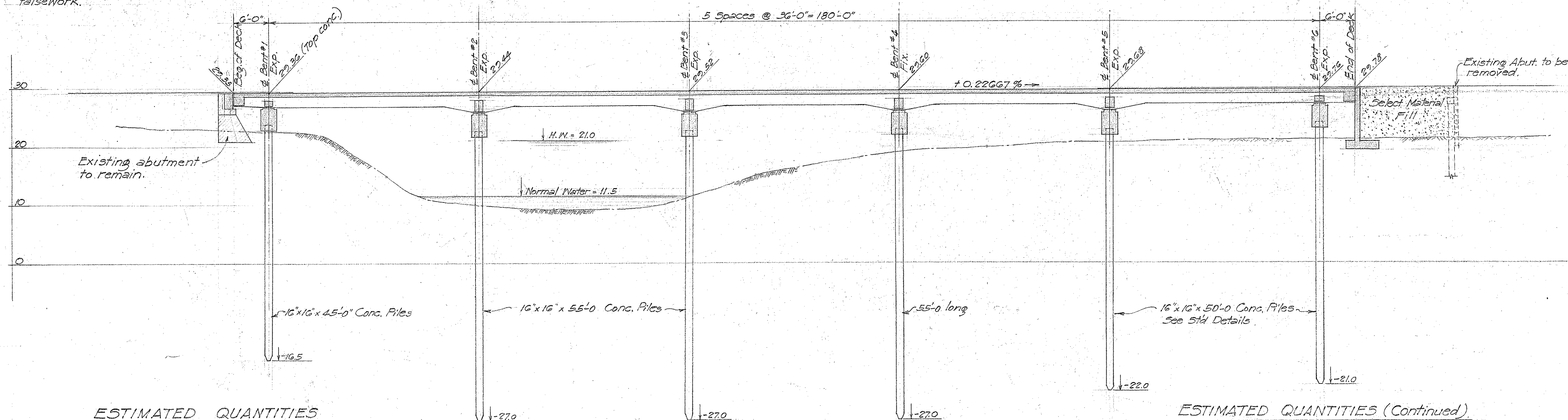
CONSTR. METHOD.

Curb, sidewalk railing and railing
 post shall be poured after release of
 falsework.

LAYOUT PLAN

Scale: 1" = 10'-0"

Note: Existing timber structure to be
 removed and disposed of by the Contractor.
 Timber piles to be cut at ground line.
 Above work to be paid for under item
 of "Demolishing Existing Bridge."



ESTIMATED QUANTITIES

ITEM	SUPER STRUCTURE	RAILING	ABUT. #1	ABUT. #2	PIERS	TOTAL
Class "A-1" Conc.	321.82	54.17	25.41	48.22	98.78	548.40 CY
Class "C-1" Conc.				13.70		13.70 CY
Reinf. Steel (Intermed. Grade)	91,945		5,440	16	3,060	111,585 #
Struct. Exc.			1.7	39.3		40.0 CY
16" x 16" x 45'-0" Conc. Piles					10 Pcs.	10 Pcs.
16" x 16" x 50'-0" Conc. Piles					20 Pcs.	20 Pcs.
16" x 16" x 55'-0" Conc. Piles					30 Pcs.	30 Pcs.

SECTION ALONG & BRIDGE

1" = 10'-0"

NOTE: All piles must penetrate the layers of soft material
 and be driven into the underlying hard strata even in
 case of refusal in the upper compact material. If ordinary
 driving methods are not effective in accomplishing this, jelling
 or drilling will have to be resorted to. Contractor shall make
 all necessary preparations for these operations.

ESTIMATED QUANTITIES (Continued)

ITEM	SUPER STR.	APPR. RDWY.	TOTAL
Special Fill			
Select Material		362 CY	362 CY
Mineral Aggr.		17 CY	17 CY
Filler		6 CY	6 CY
Primer		26 Gal.	26 Gal.
A.C. Pavement	38.1 Tons	8.5 Tons	43.6 Tons

TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII

WAIAWA CUTOFF BRIDGE

Sta. 28+18.70 to Sta. 30+13.87

WAIAWA CUT-OFF

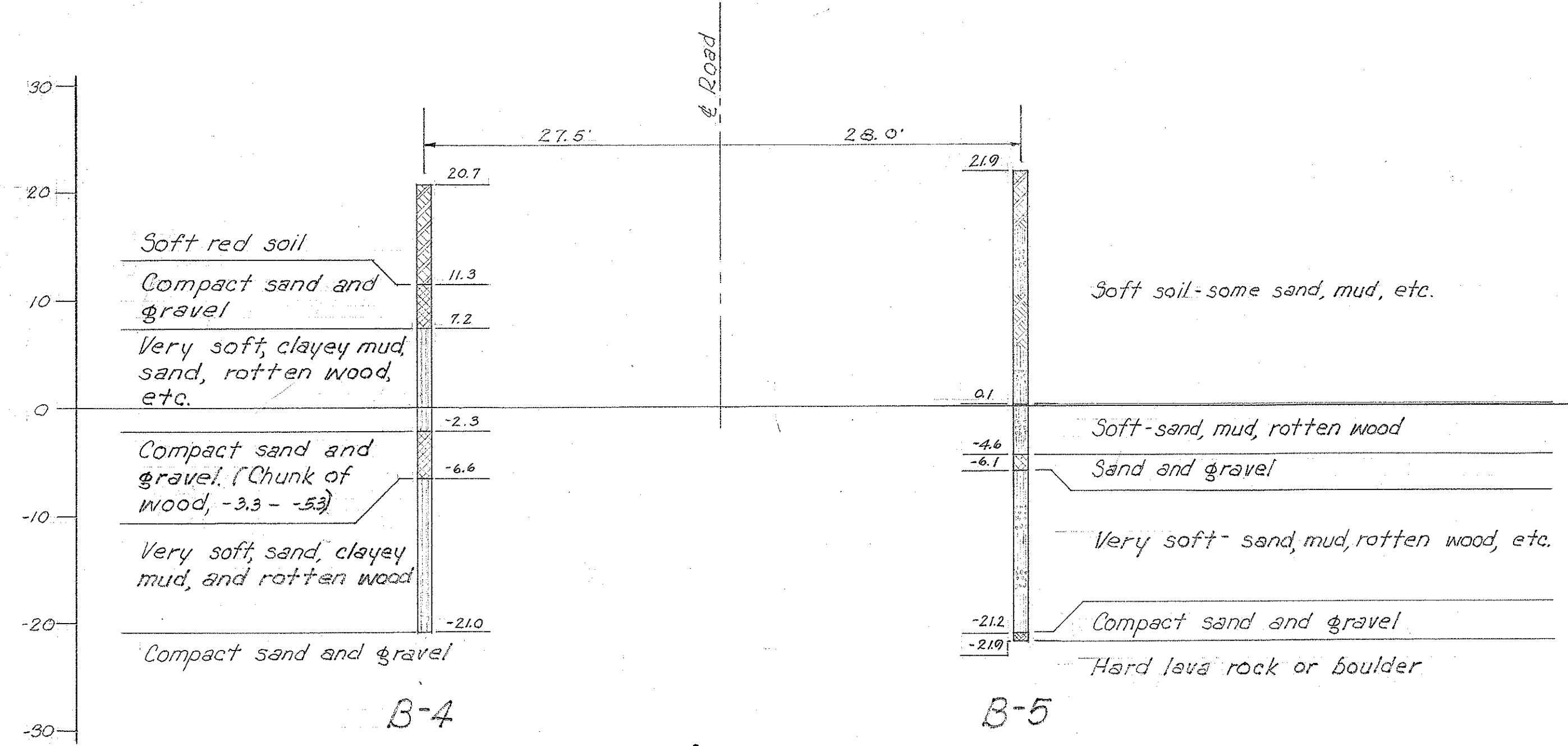
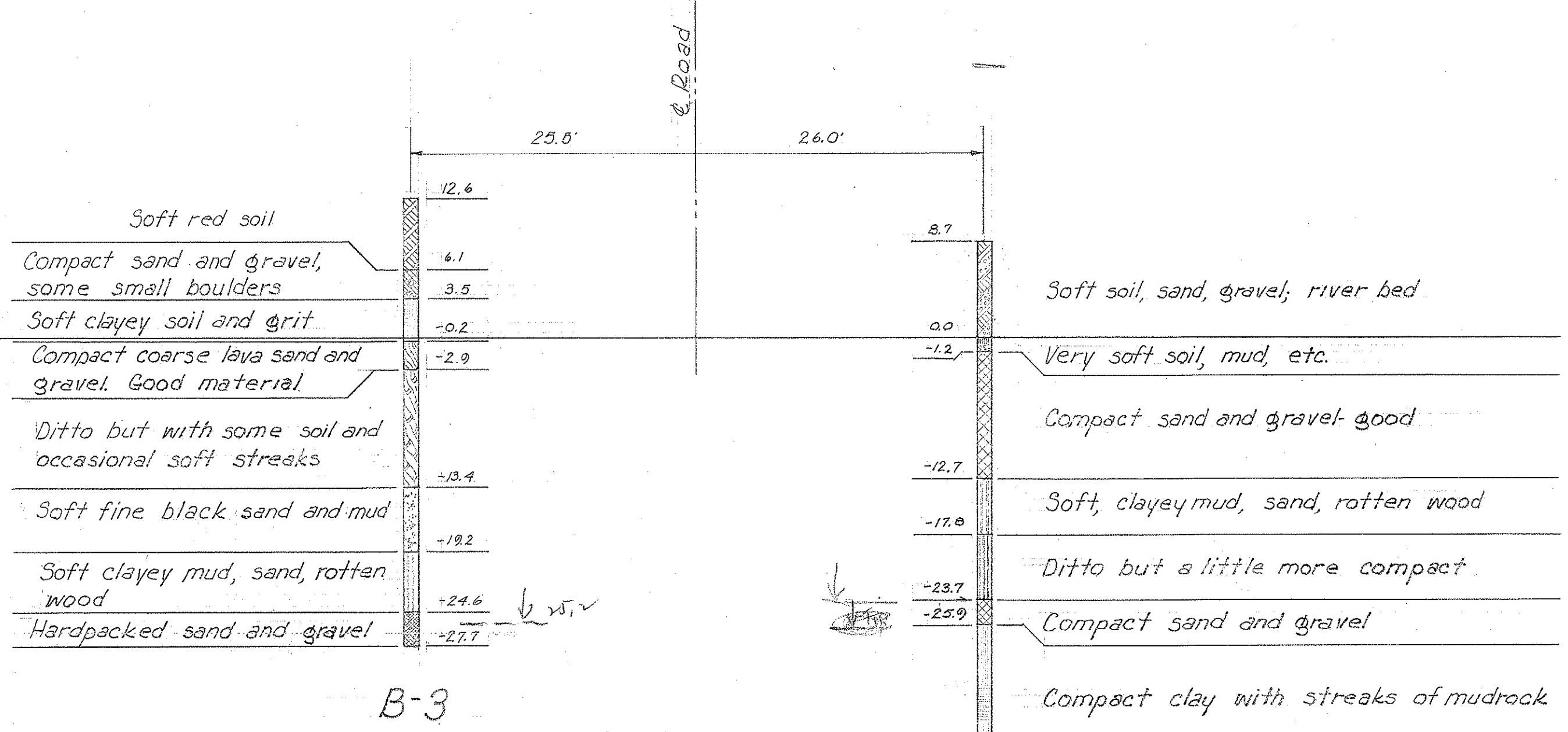
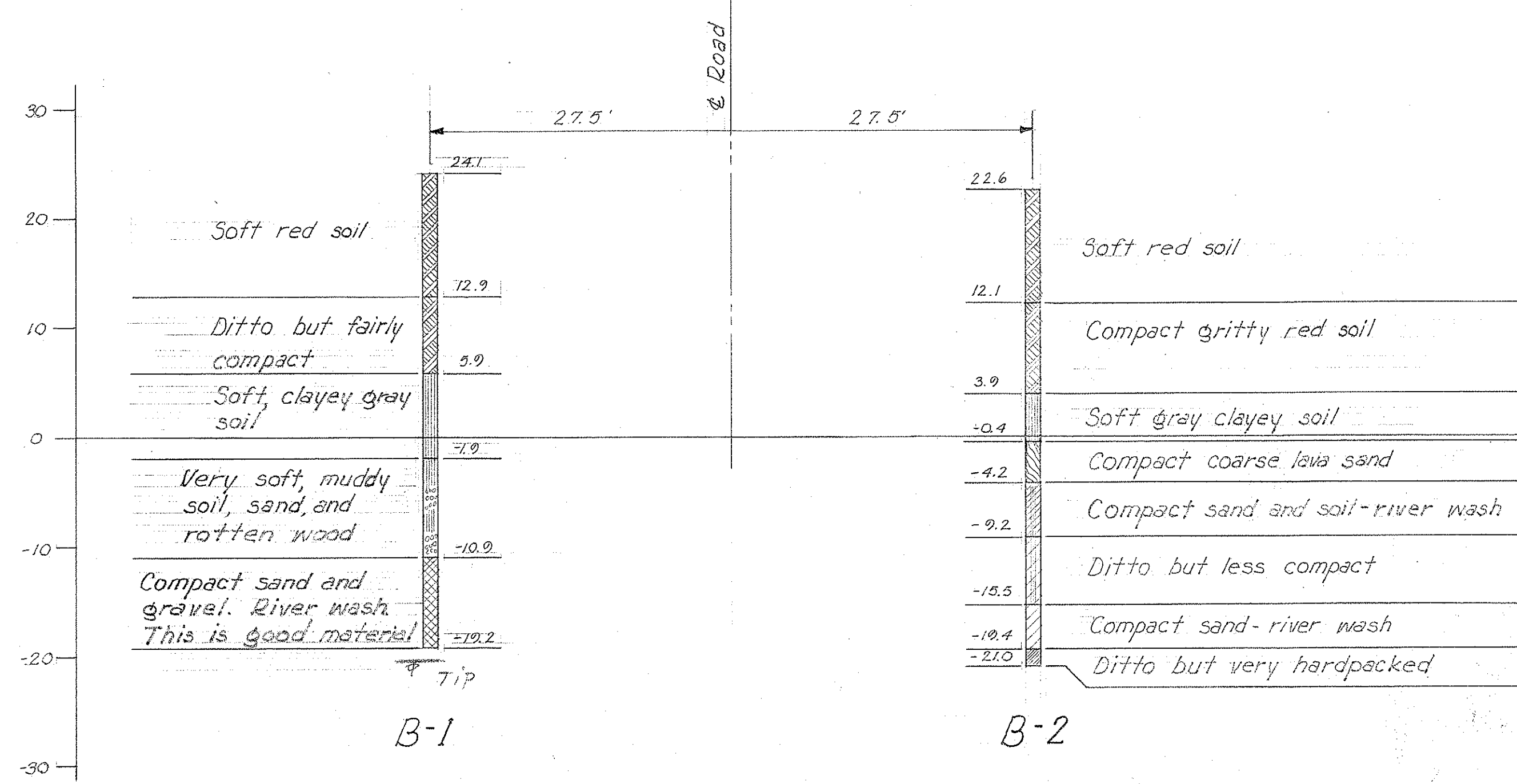
March 1949

SHEET NO. 1 OF 7 SHEETS

5407.3

F-47(3)

5407.3



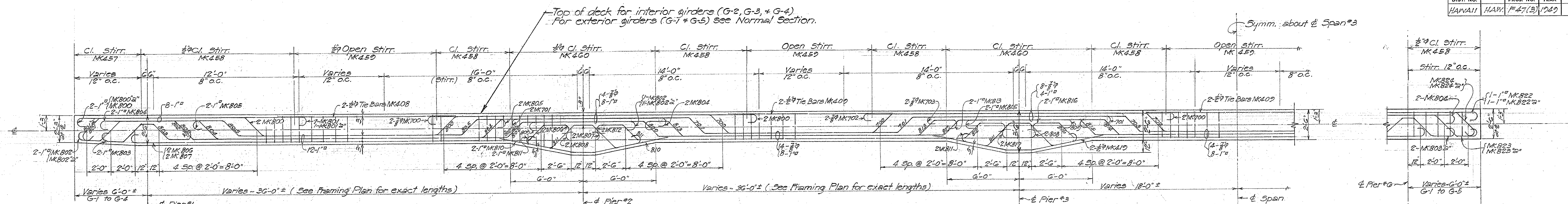
BORING DATA
Scale: 1" = 10'-0"

DATE: Mar. 27, 1929
SURVEY PLOTTED BY: J. W. H. HARRIS
DESIGNED BY: J. W. H. HARRIS
DRAWN BY: J. W. H. HARRIS
NOTE BOOK NO.:
QUANTITIES CHECKED BY:
CHECKED BY:

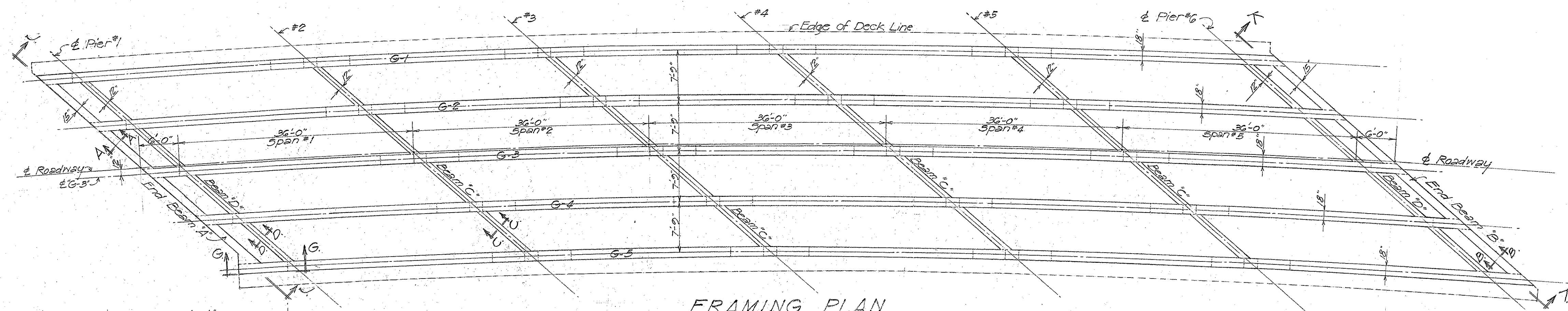
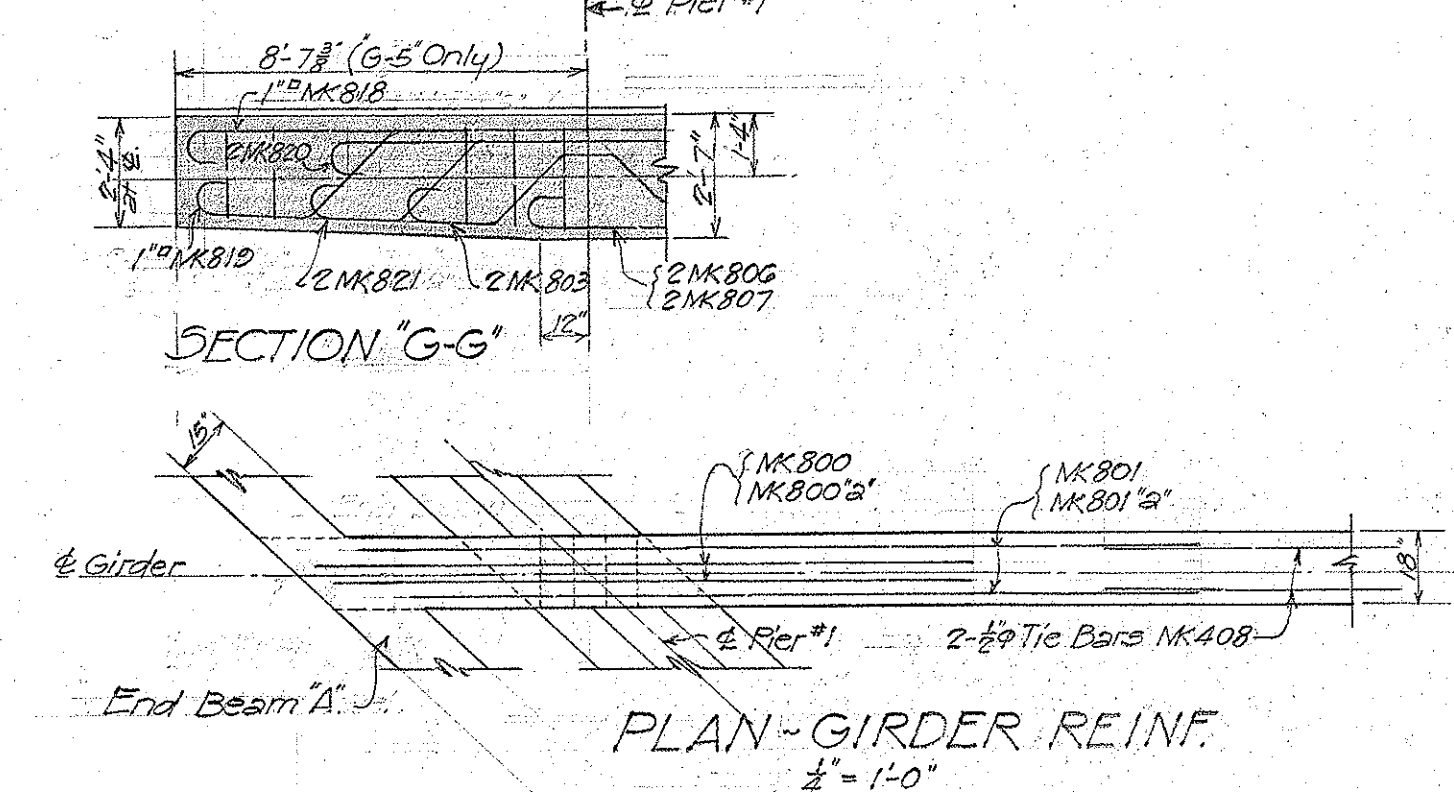
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
WAIANA CUTOFF BRIDGE
Sta. 28+18.70 to Sta. 30+13.87
WAIANA CUT-OFF F-27(55) 47(2) Mar. 1929

SHEET NO. 2 OF 7 SHEETS

5407.4

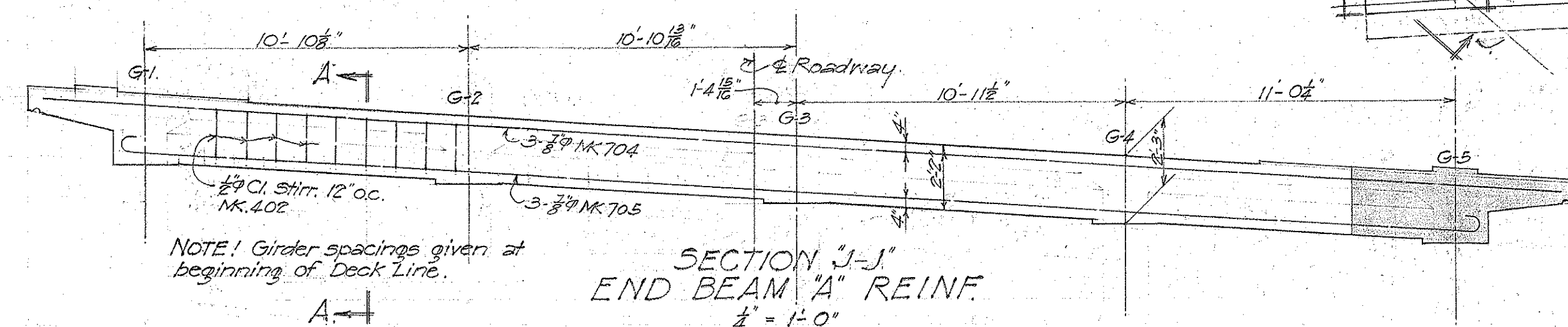


TYPICAL GIRDER REINF.
 $\frac{1}{4}'' = 1'-0''$

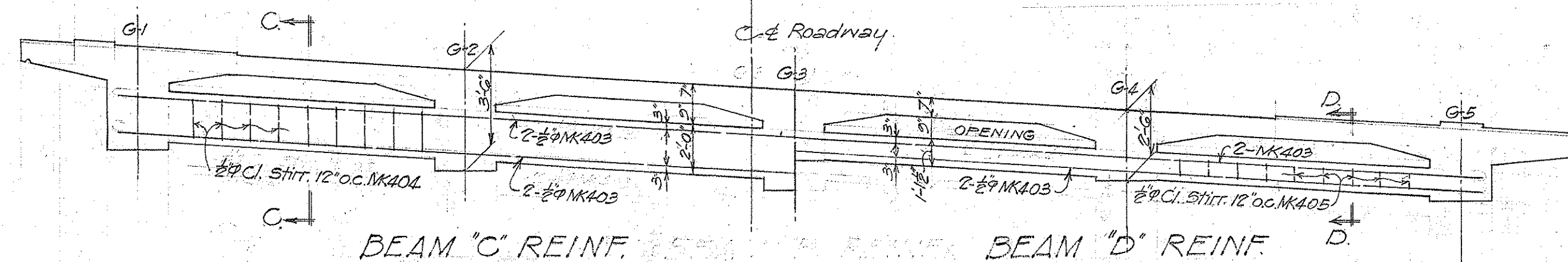


FRAMING PLAN
1" = 10'-0"

GIRDER LENGTHS							
Girder No.	Overhang Beg. Br.	Span #1	Span #2	Span #3	Span #4	Span #5	Overhang End Br.
G-1	5'-11 $\frac{1}{2}$ "	35'-7 $\frac{1}{2}$ "	35'-7 $\frac{1}{2}$ "	35'-6 $\frac{1}{2}$ "	35'-6"	35'-5 $\frac{3}{4}$ "	5'-10 $\frac{1}{2}$ "
G-2	5'-11 $\frac{1}{2}$ "	35'-5 $\frac{3}{4}$ "	35'-0 $\frac{1}{2}$ "	35'-0 $\frac{1}{2}$ "	35'-2 $\frac{1}{2}$ "	35'-8 $\frac{1}{2}$ "	5'-11 $\frac{1}{2}$ "
G-3	6'-0 $\frac{1}{2}$ "	36'-0 $\frac{3}{4}$ "	36'-0 $\frac{3}{4}$ "	36'-0 $\frac{3}{4}$ "	36'-0 $\frac{7}{8}$ "	36'-0 $\frac{1}{8}$ "	6'-0 $\frac{1}{2}$ "
G-4	6'-0 $\frac{3}{4}$ "	36'-2 $\frac{1}{2}$ "	36'-3 $\frac{3}{8}$ "	36'-3 $\frac{1}{2}$ "	36'-3 $\frac{1}{8}$ "	36'-4 $\frac{1}{8}$ "	6'-0 $\frac{1}{2}$ "
G-5	8'-7 $\frac{1}{2}$ "	36'-2 $\frac{1}{2}$ "	36'-6"	36'-6"	36'-7 $\frac{1}{2}$ "	36'-8 $\frac{1}{2}$ "	6'-1 $\frac{1}{2}$ "

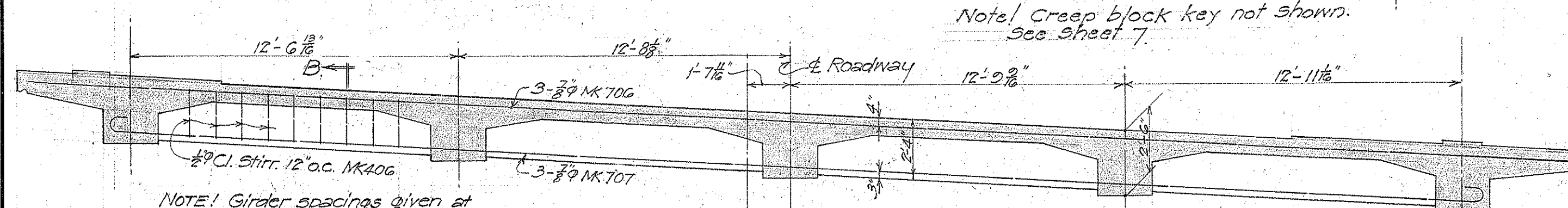


SECTION "J-J"
END BEAM "A" REINF.
 $\frac{1}{4}'' = 1'-0''$

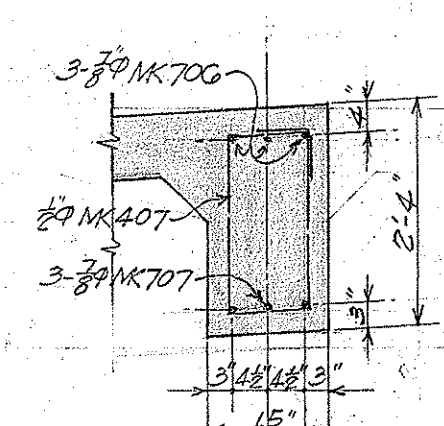


BEAM "C" REINF.

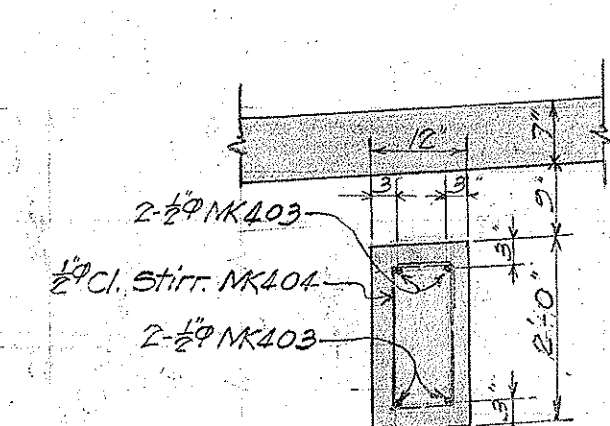
BEAM "D" REINF. D.
Notel Creep block key not shown
See sheet 7



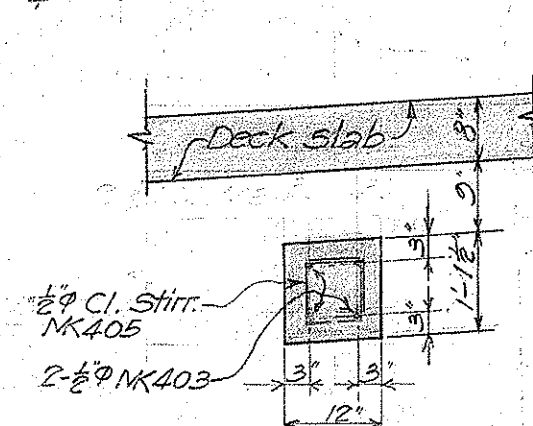
SECTION "K-K"
END BEAM "B" REINFORCING
 $\frac{1}{4}" = 1'-0"$



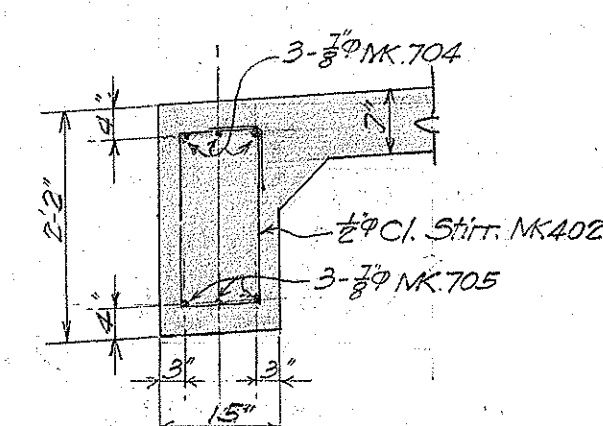
SECTION "B-B"



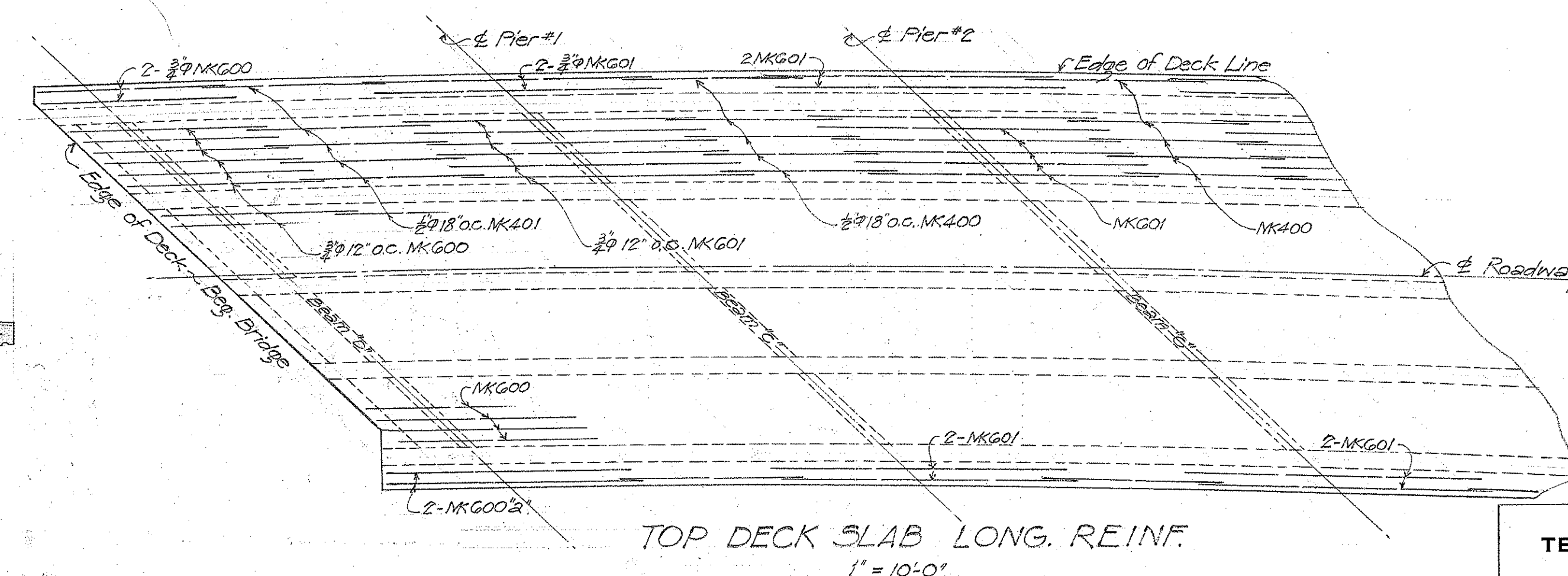
SECTION "C-C"



SECTION "D-D"



SECTION "A-A"



TOP DECK SLAB LONG. REINF.
1" = 10'-0"

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

WAIANA CUTOFF BRIDGE
Sta 28+18.70 to Sta 30+13.87

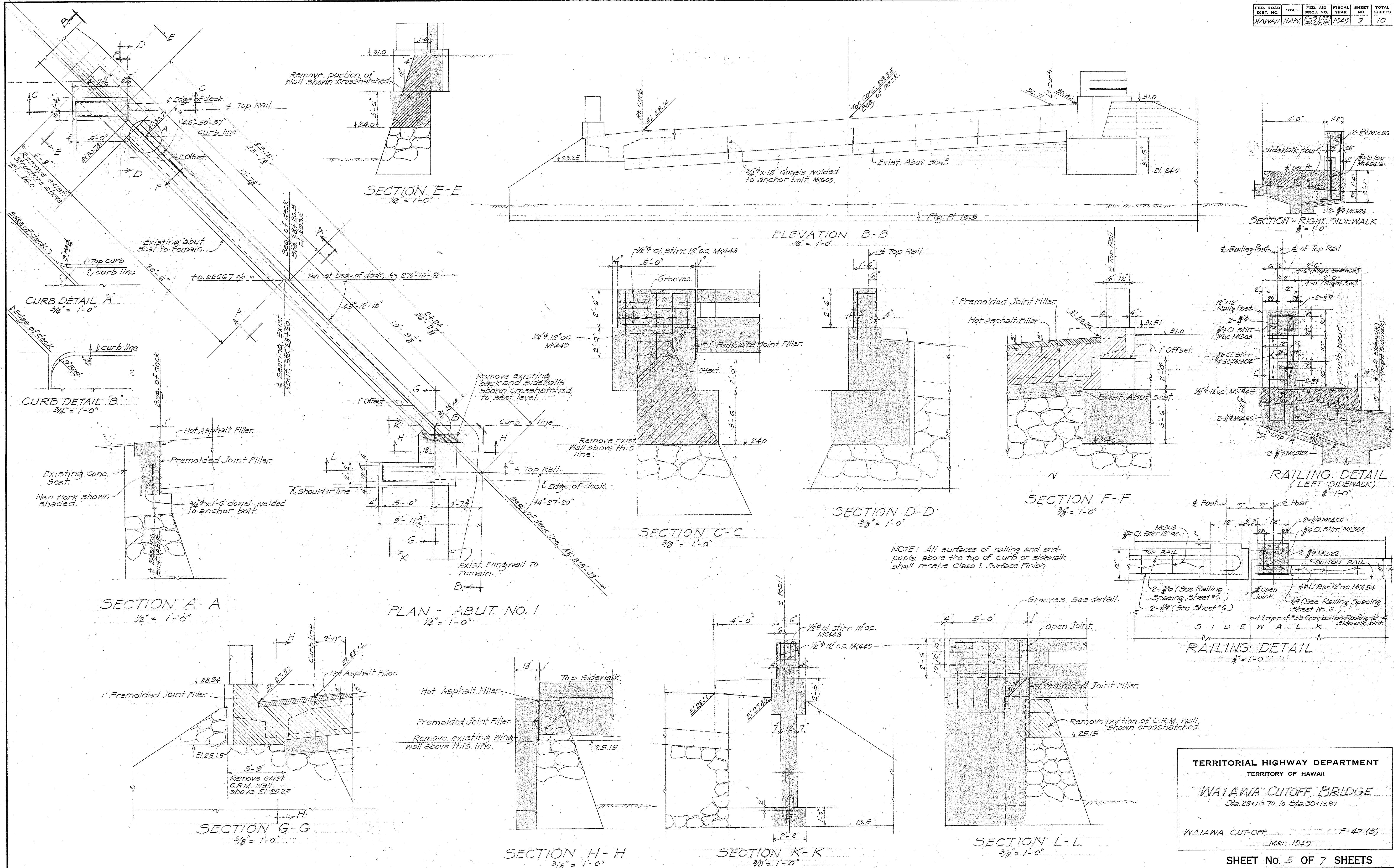
WAIANA CUT-OFF F-9(25)F-47(3)

Feb, 1949

SHEET No. 4 OF 7 SHEETS

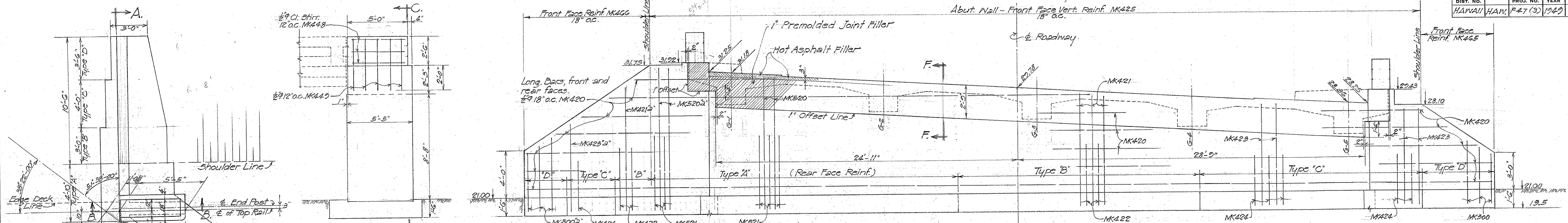
5405.6

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-9 (35) 1st. Unit.	1949	7	10

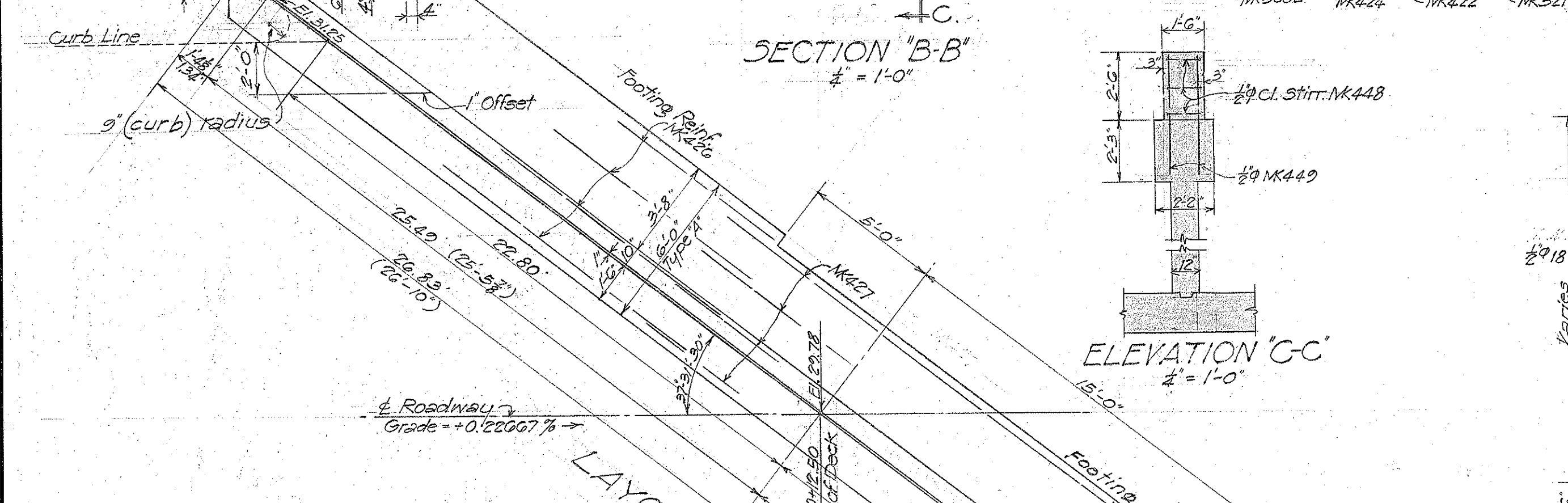


TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
WAILAWA CUT-OFF BRIDGE
Sta. 28+13.70 to Sta. 30+13.81
WAILAWA CUT-OFF *F. 47 (3)*
Mar. 1949

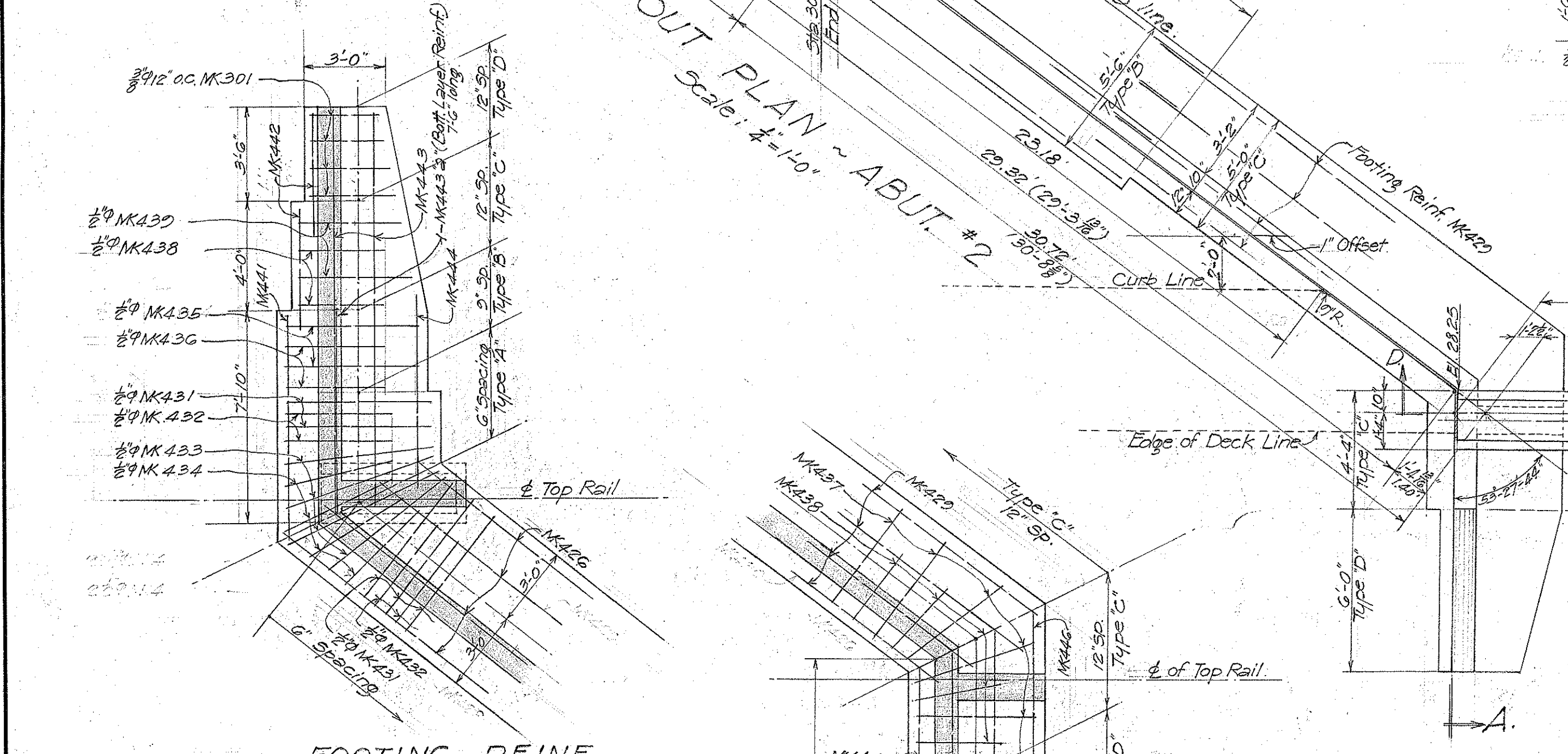
SHEET No. 5 OF 7 SHEETS



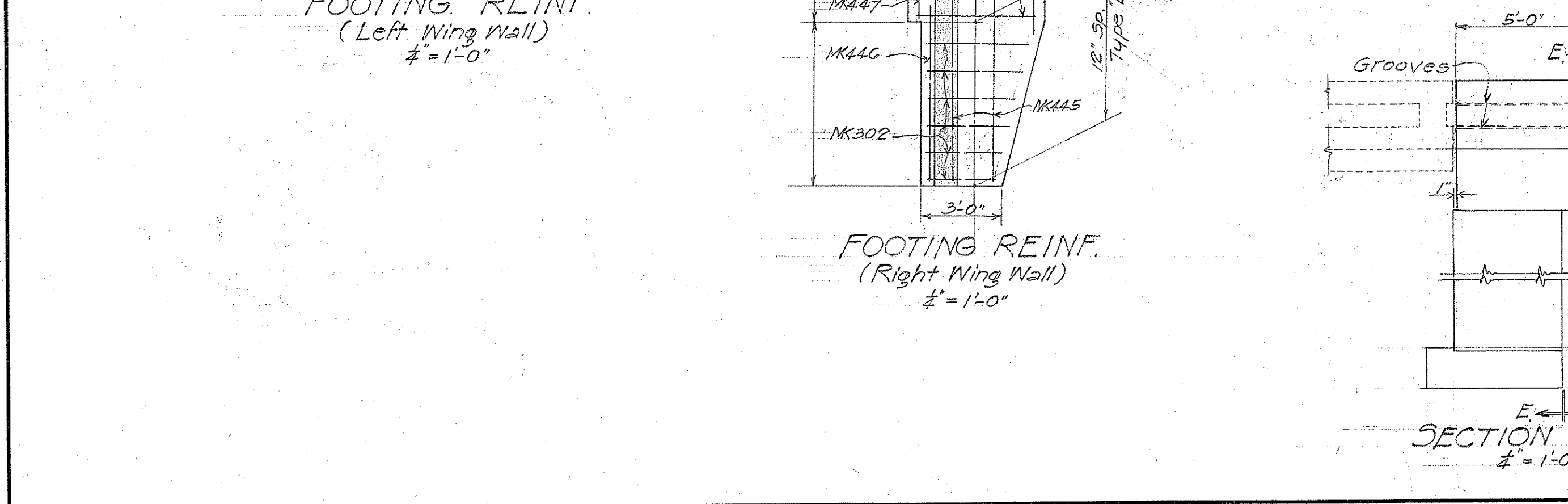
ELEVATION "A-A"
1/4" = 1'-0"



SECTION "B-B"
1/4" = 1'-0"

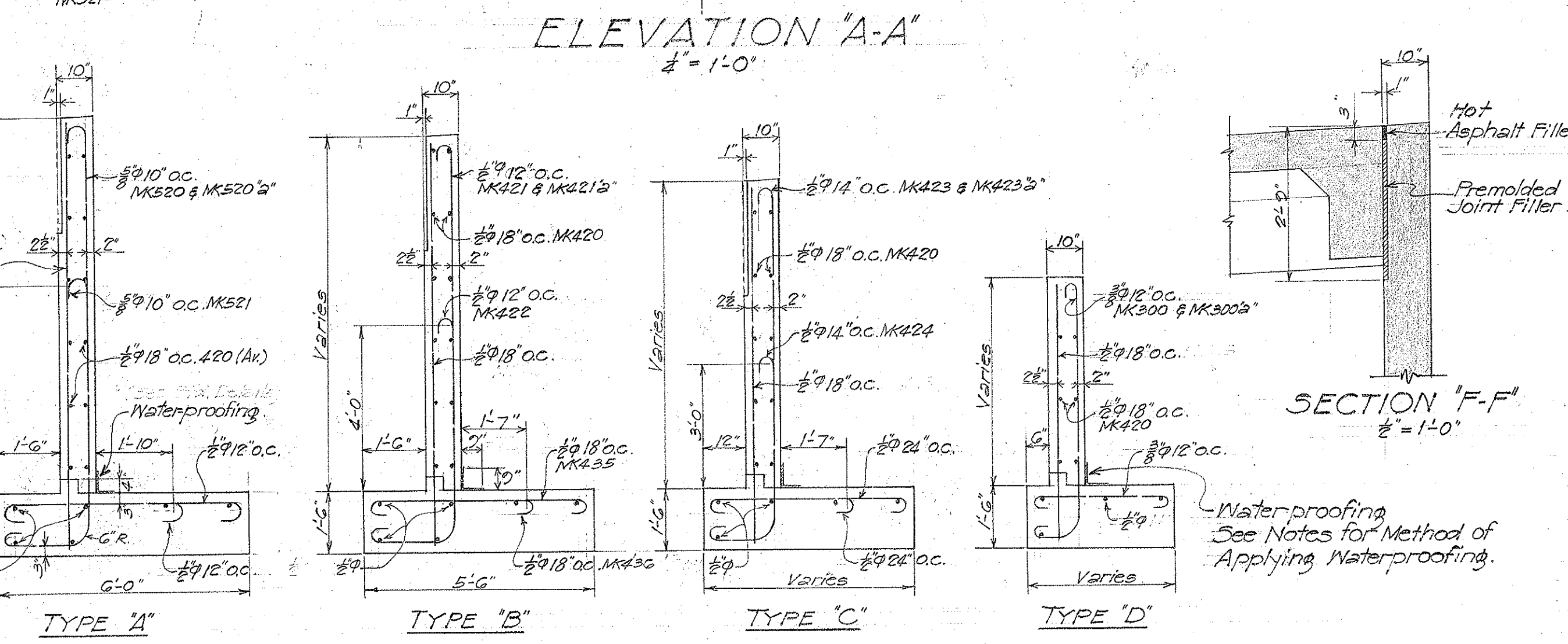


LAYOUT PLAN
Scale: 1/4" = 1'-0"



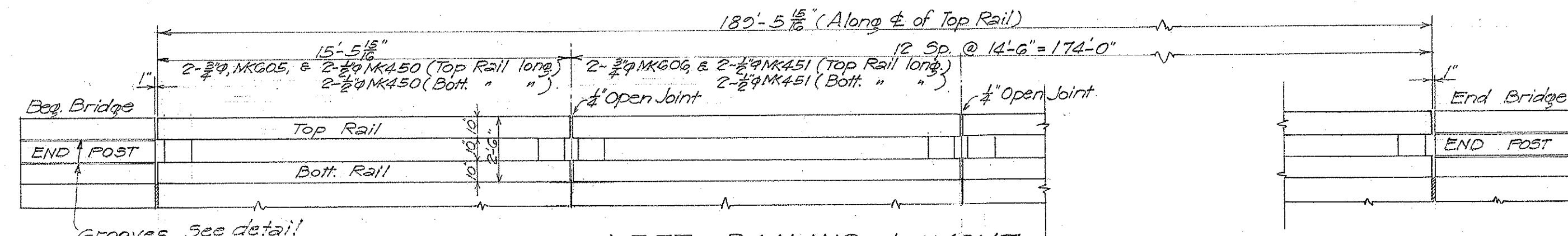
FOOTING REINF.
(Left Wing Wall)
1/4" = 1'-0"

FOOTING REINF.
(Right Wing Wall)
1/4" = 1'-0"

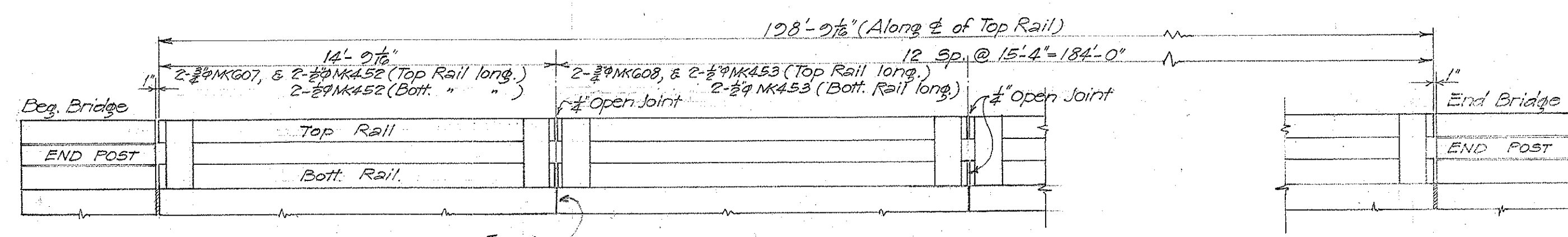


TYPICAL SECTION OF ABUTMENT AND WING WALLS
Scale: 1/4" = 1'-0"

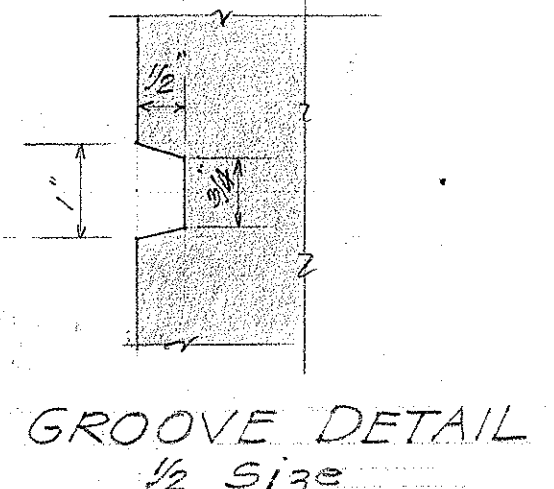
METHOD OF APPLYING WATERPROOFING.
(1) Mop surface either side of joint as required with asphalt 85-100 penetration applied at 200° F.
(2) Apply one layer of 55-lb. composition roofing to hot asphalt.
(3) Mop surface of composition roofing and 3" beyond all around with thick coat of asphalt as specified under (1).



LEFT RAILING LAYOUT
1/4" = 1'-0"



RIGHT RAILING LAYOUT
1/4" = 1'-0"



GROOVE DETAIL
1/2 Size

NOTE: See Sheet No. 5 for further railing details.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

WAIANA CUTOFF BRIDGE

Sta. 28+13.70 to Sta. 30+13.87

WAIANA CUT-OFF F-47 (3)

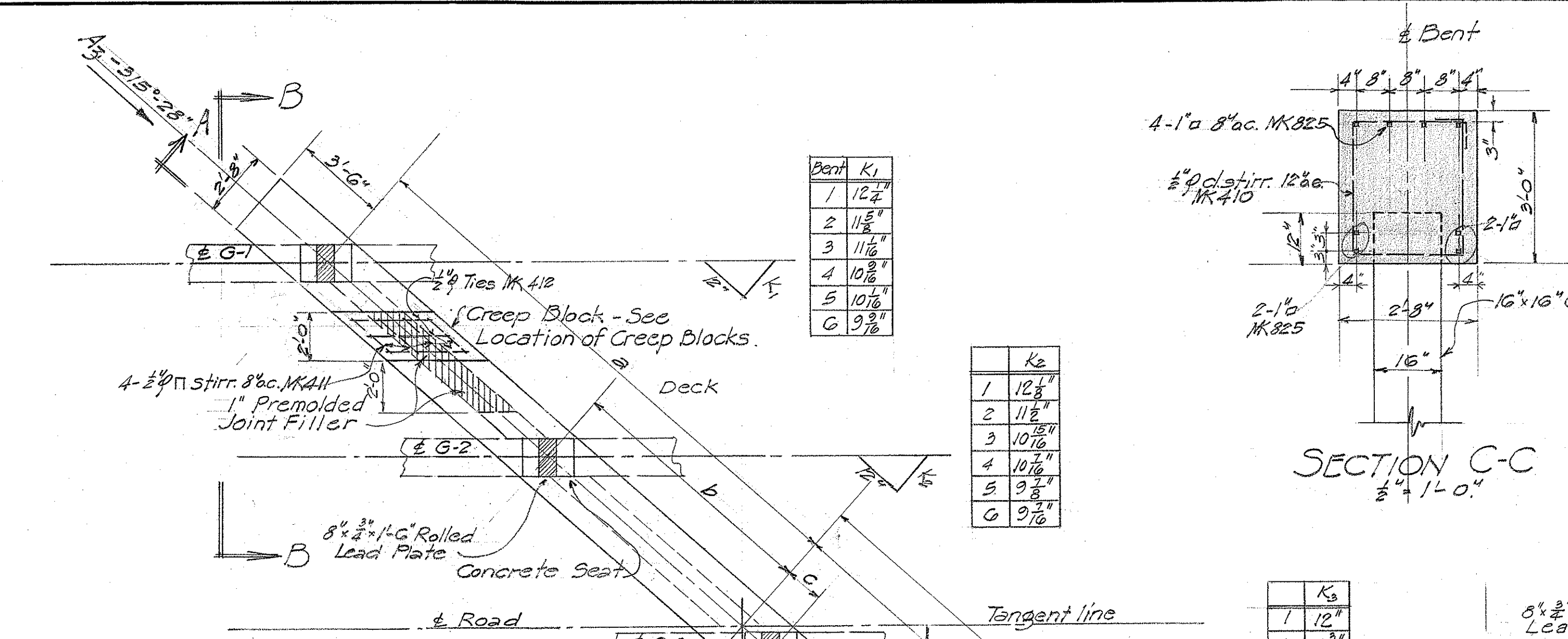
Mar. 1949

SHEET No. 6 OF 7 SHEETS

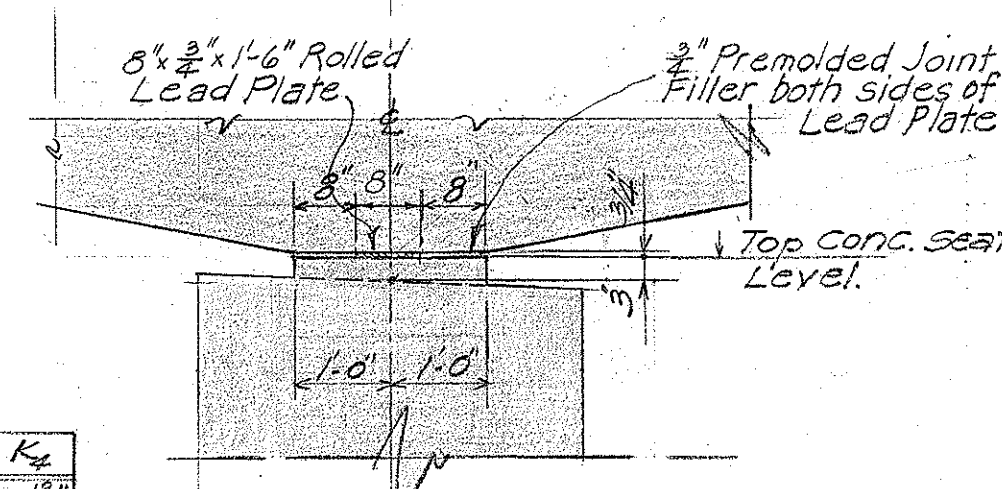
5407.8

SURVEY PLOTTED BY DATE
DRAWN BY
CHECKED BY
NOTE BOOK
No.

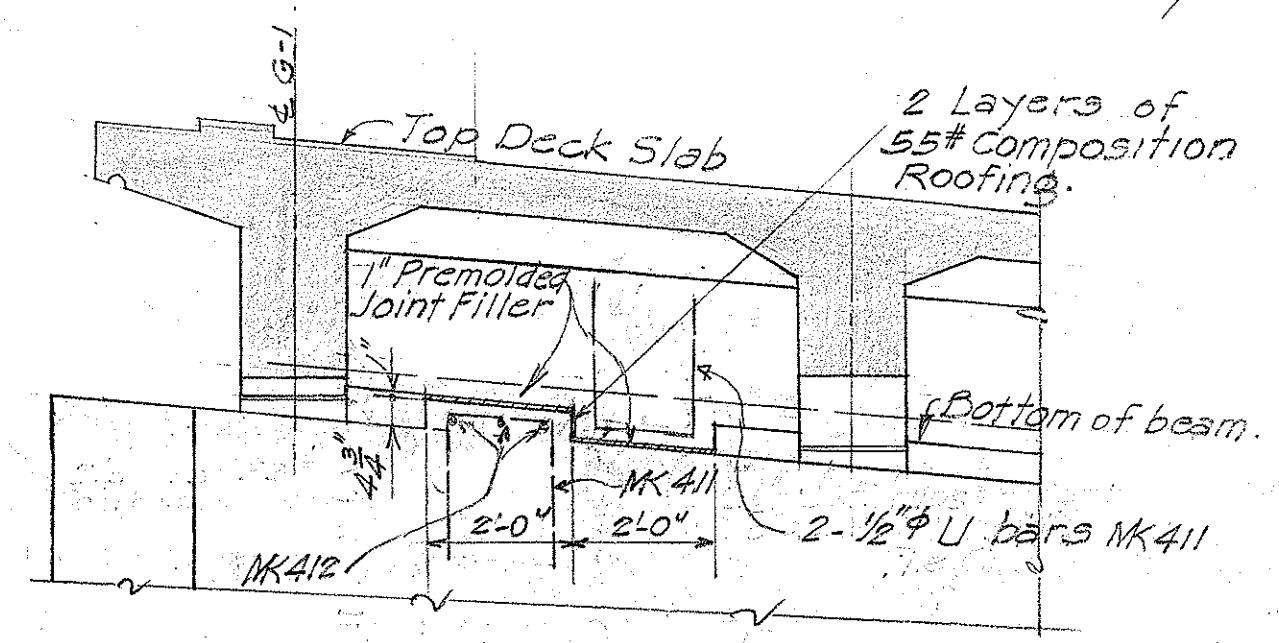
	Bent #1	#2	#3	#4	#5	#6
Angle θ	44°-57'-54"	43°-31'-30"	42°-05'-06"	40°-30'-42"	39°-12'-18"	37°-45'-54"
a	20'-5"	20'-11"	21'-6"	22'-1"	22'-9"	23'-5"
b	9'-6"	9'-9"	10'-0"	10'-3"	10'-7"	10'-11"
c	1'-5"	1'-5"	1'-5"	1'-6"	1'-7"	1'-7"
d	12'-5"	12'-9"	13'-1"	13'-5"	13'-10"	14'-4"
e	23'-5"	24'-1"	24'-9"	25'-6"	26'-4"	27'-2"
Elev. A Top Seat G-1	28.13	27.21	27.29	27.37	27.45	28.53
Elev. B Top Seat G-5	25.28	24.37	24.45	24.54	24.62	25.70



SECTION C-C
1/4" = 1'-0"

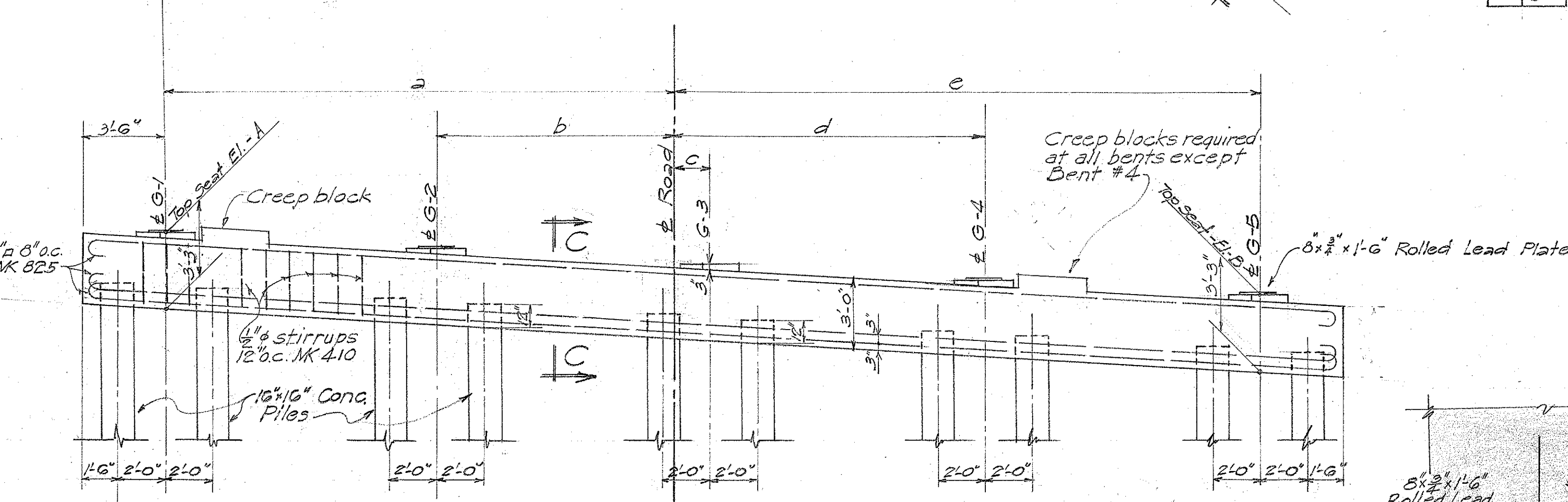


DETAIL EXPANSION BEARING
SECTION D-D
1/2" = 1'-0"

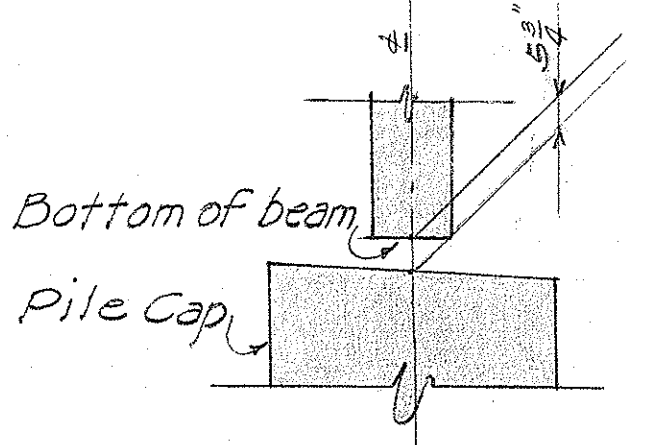


ELEVATION B-B
3/8" = 1'-0"

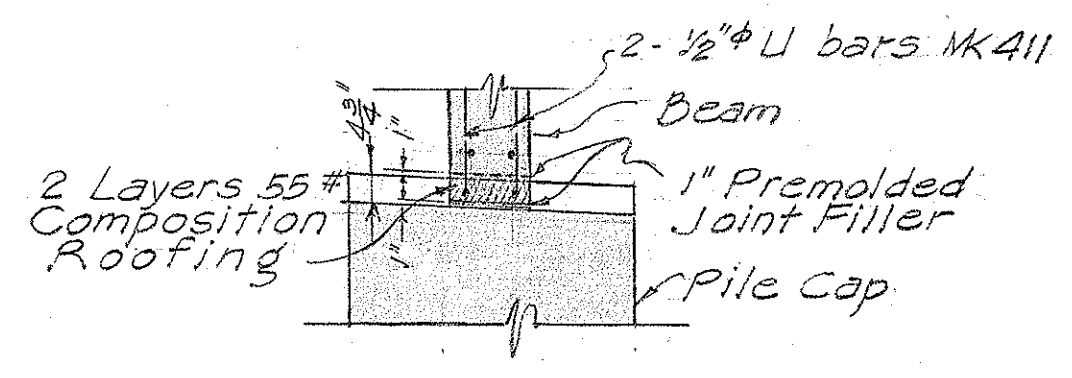
TYPICAL PLAN OF BENT
1/4" = 1'-0"



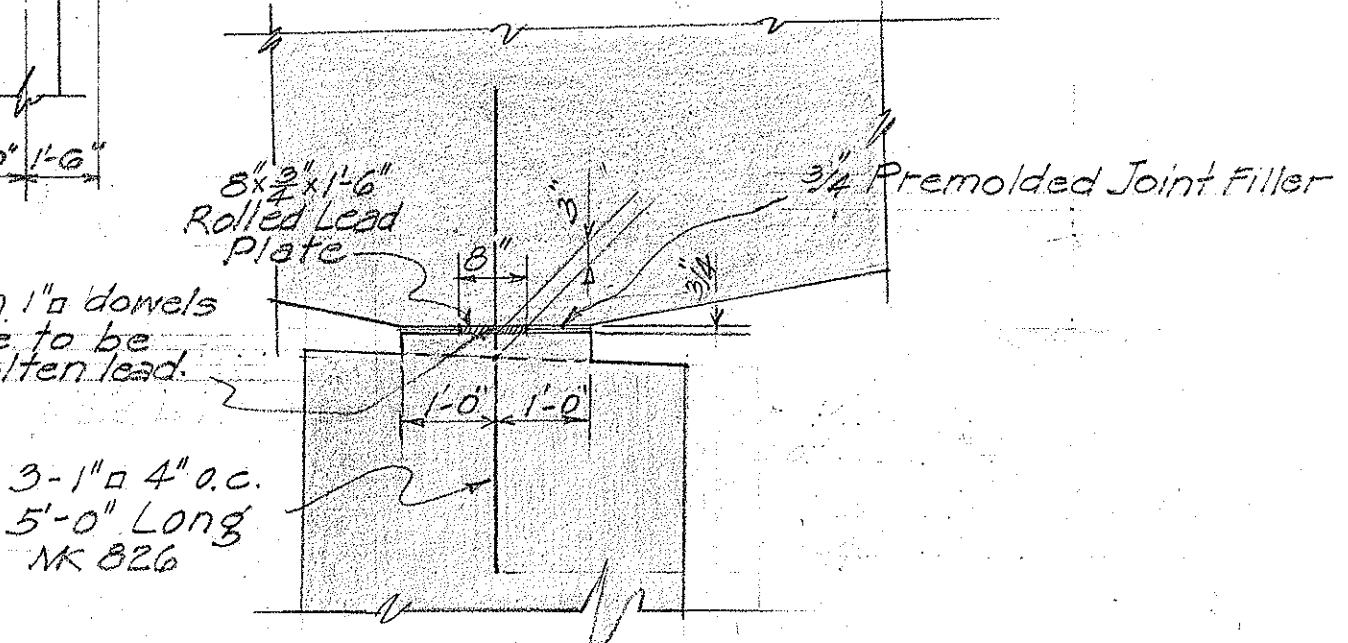
ELEVATION A-A
1/4" = 1'-0"



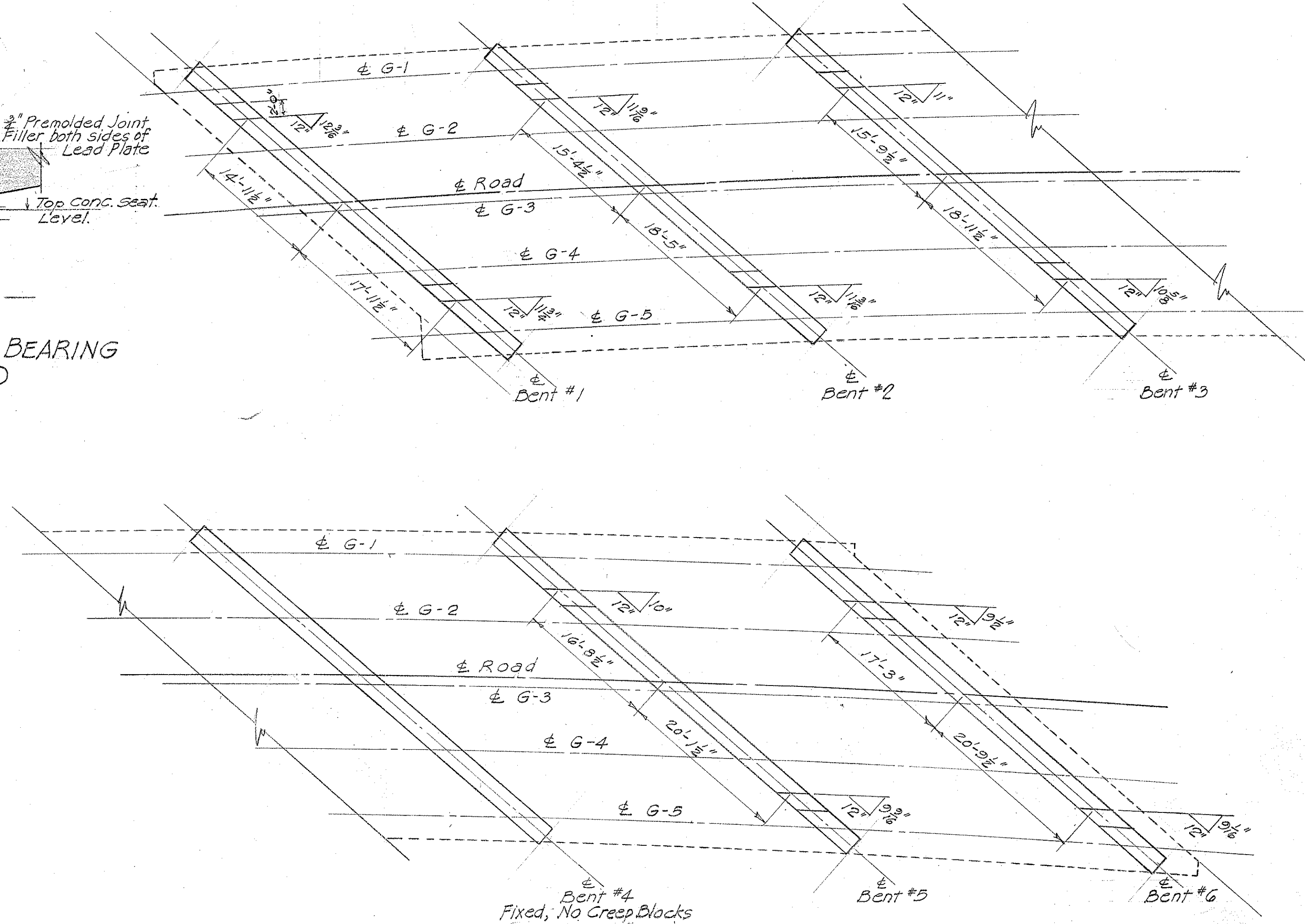
SECTION F-F
3/8" = 1'-0"



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



DETAIL FIXED BEARING
SECTION ALONG G GIRDER
1/2" = 1'-0"



LOCATION OF CREEP BLOCKS
1" = 10'-0"

SPECIFICATION FOR ROLLED LEAD BEARING PLATES

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 99.85% of lead and shall fulfill the requirements of the "Standard Specifications for Pig Lead", A.S.T.M. Designation B29.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

WAIAWA CUTOFF BRIDGE
Sta. 28+13.70 to Sta. 30+13.87

WAIAWA CUT-OFF P.F. 47(3)
Mar. 1949

DATE: Feb. 25, 1949
 SURVEY PLOTTED BY: B. B. B. B.
 DESIGNED BY: B. B. B. B.
 DRAWN BY: B. B. B. B.
 QUANTITIES CHECKED BY: B. B. B. B.
 NOTE BOOK NO. 12
 CHECKED BY: B. B. B. B.