

GENERAL NOTES

DESIGN DATA:

H 20-5/16-44 LOADING
 $P_s = 20,000^*$
 $P_c = 1,000$
 $P_c = 1,200$ (for neg. moments in girders)
 $n = 10$

MATERIALS:

All concrete to be class A-1.

CONSTRUCTION METHOD:

First paragraph on page 172 of Section 47.3 B of the Standard Specifications for Road and Bridge. Construction shall be deleted. Concrete in T-beam or deck girder spans shall be placed in one continuous operation without construction joint between girder stem and deck slab.
 Curb, sidewalk, railing and railing post and end posts shall be poured after release of falsework.

PIPE HANGER INSERTS:

Pipe hanger insert shall be furnished & installed by contractor. Inserts are incidental to class A-1 concrete & will not be paid for separately.

METAL GUARD RAIL:

W = 3
 L = 50'-0"
 see standard bridge details drawing.

REFERENCE:

for details of sections "B-B" & "C-C" see sht. #4.
 for details of section "A-A" see sht. #3.

ESTIMATED QUANTITIES

LOCATION	SUPER STRUCTURE		SUB STRUCTURE		TOTAL
	DECK, FRAMES ETC.	SIDEWALK & CURB	BENT #1 FOOTING	BENT #2 FOOTING	
CLASS A-1 CONCRETE	860.	67.	76.5	76.5	1,080. c.y.
REINFORCING STEEL	213,651		3,922	3,922	233,495#
STRUCT. EXCAVATION			425	465	890. c.y.
A.C. PAVING					68. Tons
EMULSIFIED ASPH.					194 Gals.
DAMP PROOFING					395 s.y.
RAILING & END POSTS					532 Lin.Ft.

Damp proofing required in accordance with Standard Specifications except on footings.

A Tack Coat of Emulsified Asphalt, Penetration Type shall be applied on the concrete deck prior to the A.C. Paving at the rate of 0.15 gal/s.y.

BAR DESIGNATIONS

OLD BAR NEW BAR	SIZE DESIGNATION	AREA - in ²	WT. lbs/ft.
3B	3	0.11	0.376
4B	4	0.20	0.668
5B	5	0.31	1.043
6B	6	0.44	1.502
7B	7	0.60	2.044
8B	8	0.79	2.670
10B	10	1.00	3.400
11B	11	1.27	4.303
14B	14	1.56	5.313

TERRITORIAL HIGHWAY DEPARTMENT

TERRITORY OF HAWAII

HALAWA BRIDGE

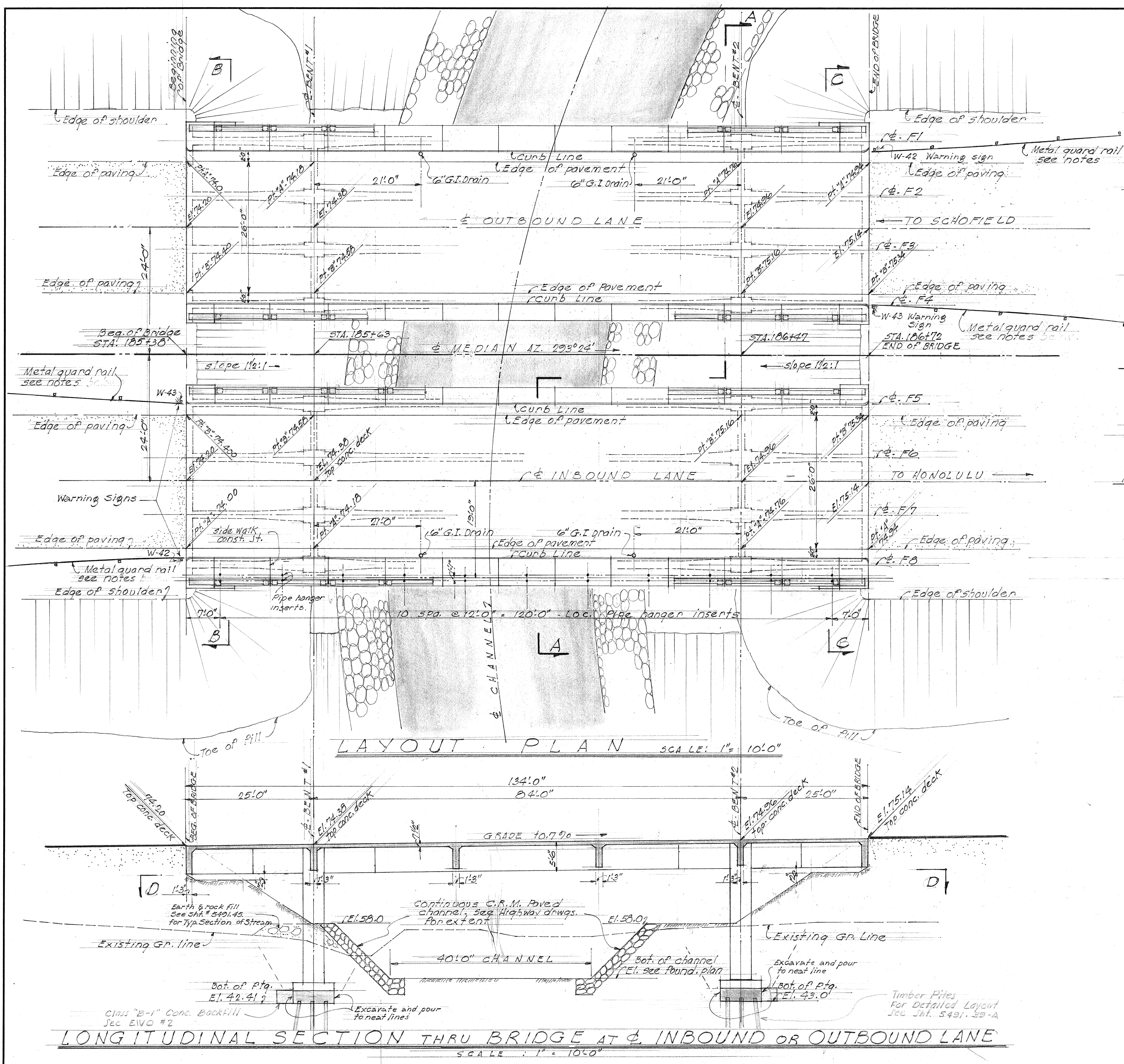
STA. 185+38 TO STA. 186+72

MOANALUA ROAD S213(4)

APRIL 1951

SHEET No. 1 OF 4 SHEETS

5491.39



SURVEY PLOTTED BY S. BATES
 DESIGNED BY S. BATES
 TRACED BY S. BATES
 QUANTITIES BY S. BATES
 CHECKED BY S. BATES
 ORIGINAL PLAN NO. 5491.39
 NOTE BOOK NO. 5491.39

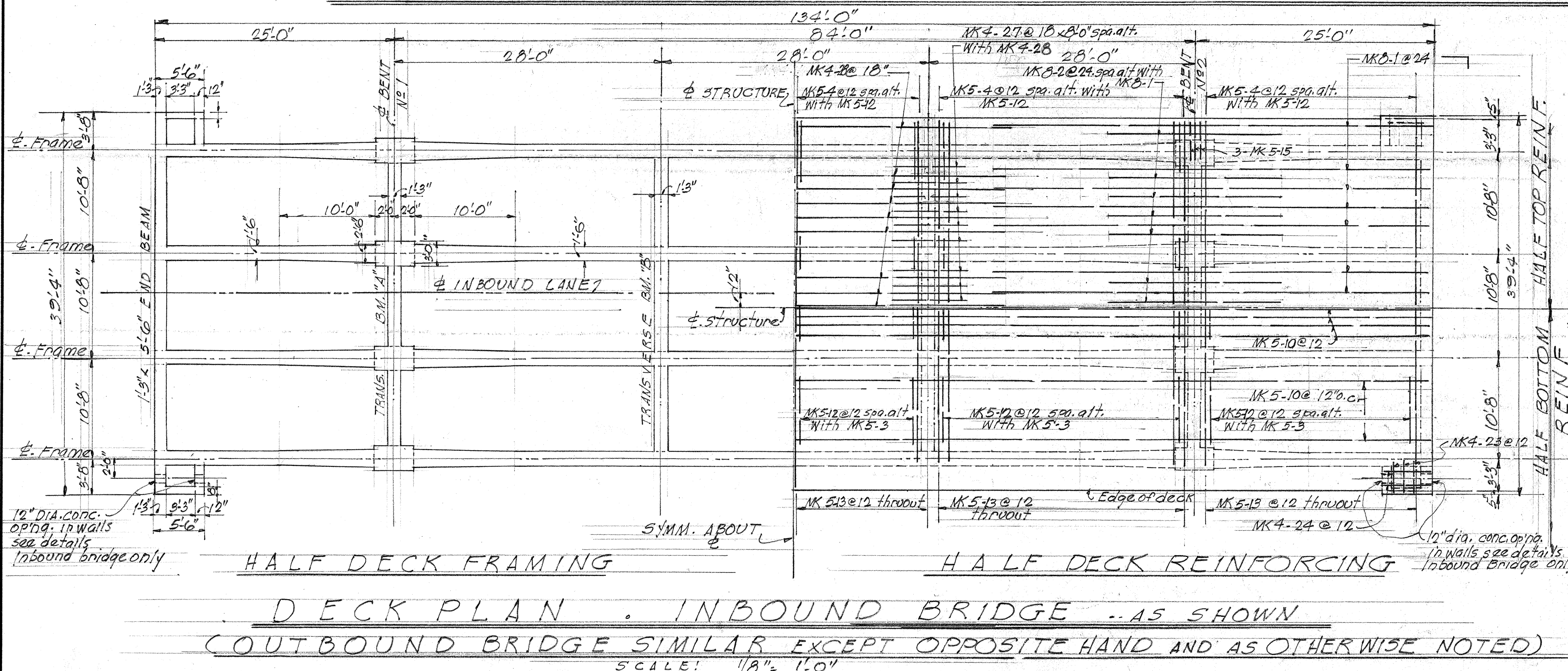
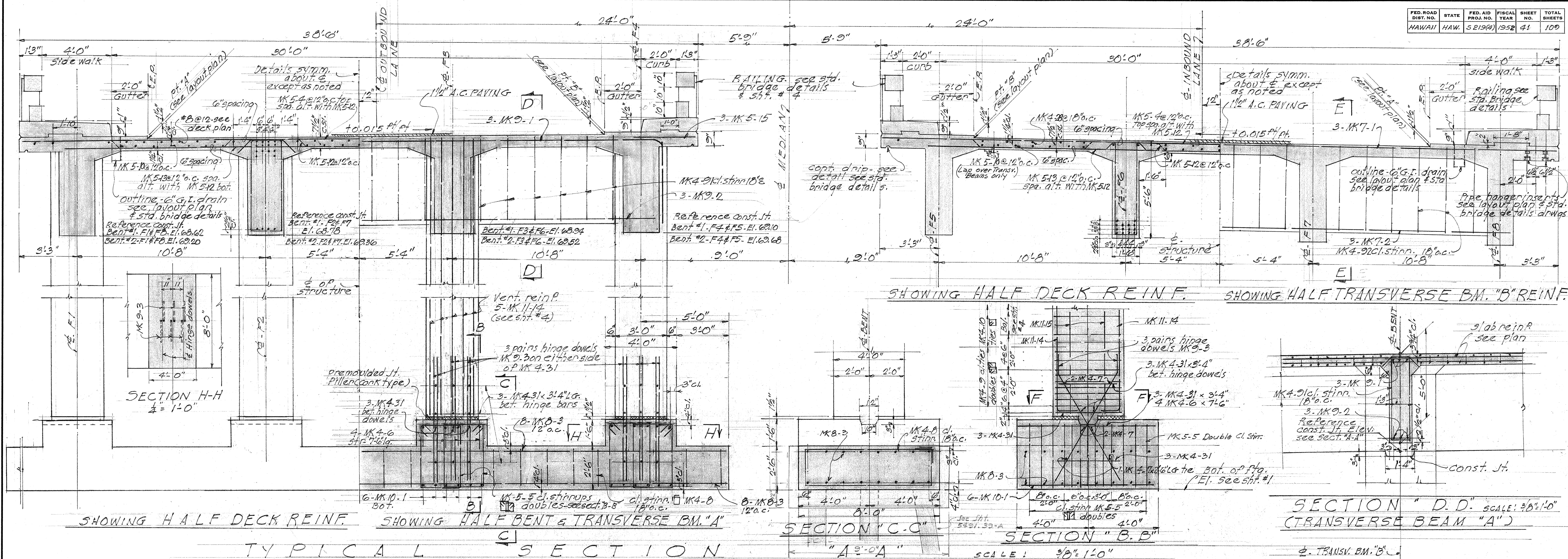


REFERENCE:

AT BEGINNING
OF BRIDGE

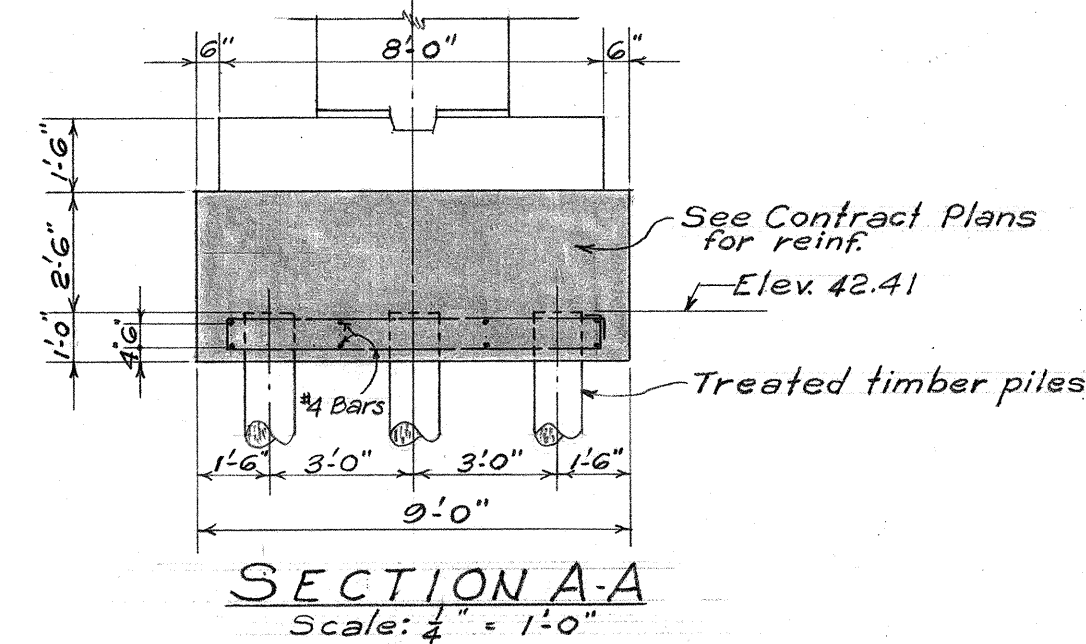
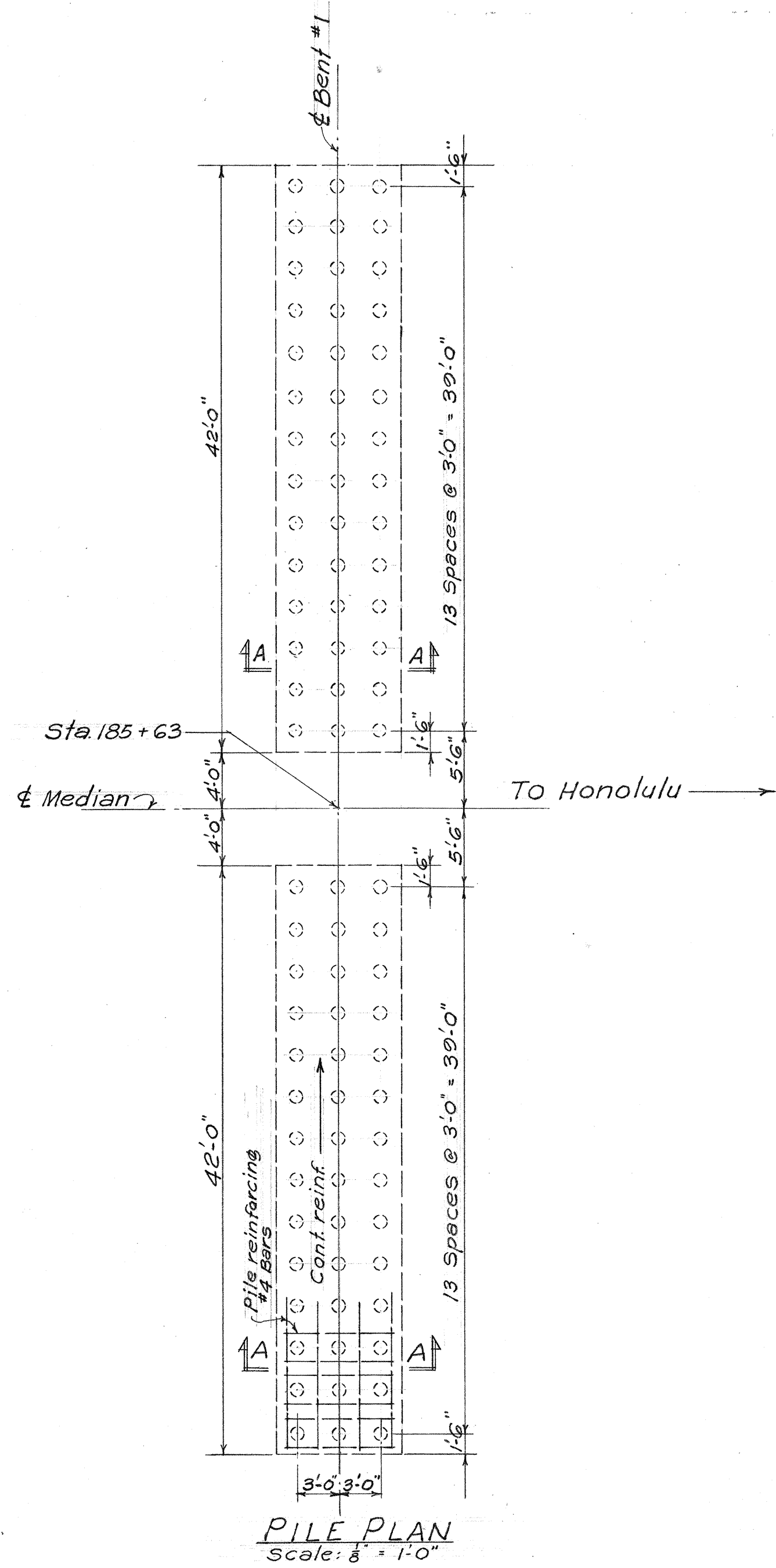
AT BENT No.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
HALAWA BRIDGE
STA. 185+38 TO STA. 186+72
MOANALUA ROAD 5219 (4)
APRIL 1951



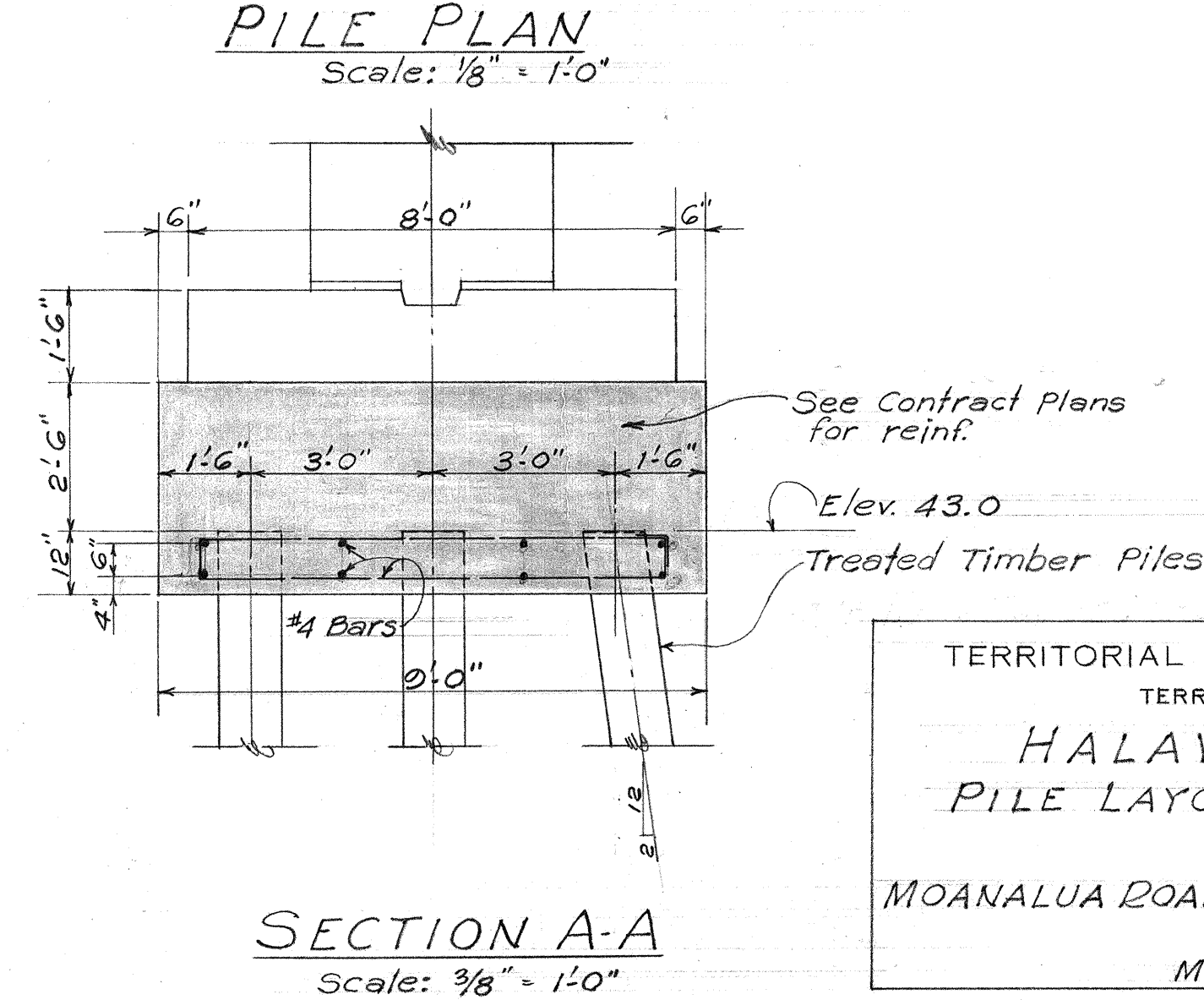
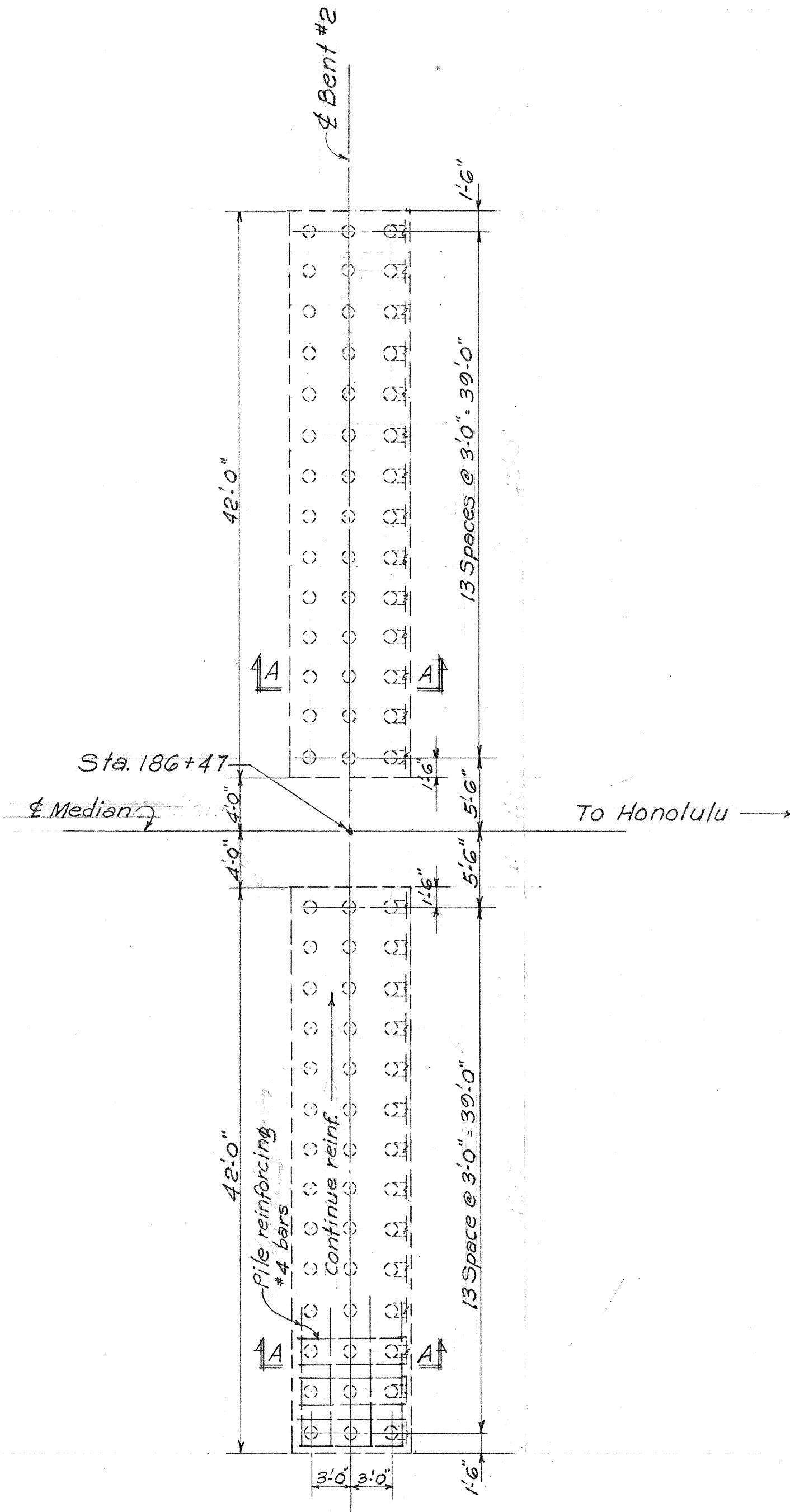
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
HALAWA BRIDGE
STA. 185+38 TO STA. 186+72
MOANALUA ROAD 5219(4)
APRIL 1951
SHEET NO. 3 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
HALAWA BRIDGE
PILE LAYOUT PLAN - BENT #1
MOANALUA ROAD S 219(4)
April 1953

SHEET No. 1 OF 1 SHEET



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
HALAWA BRIDGE
PILE LAYOUT PLAN - BENT #2
MOANALUA ROAD S 219(4)
MARCH 1953

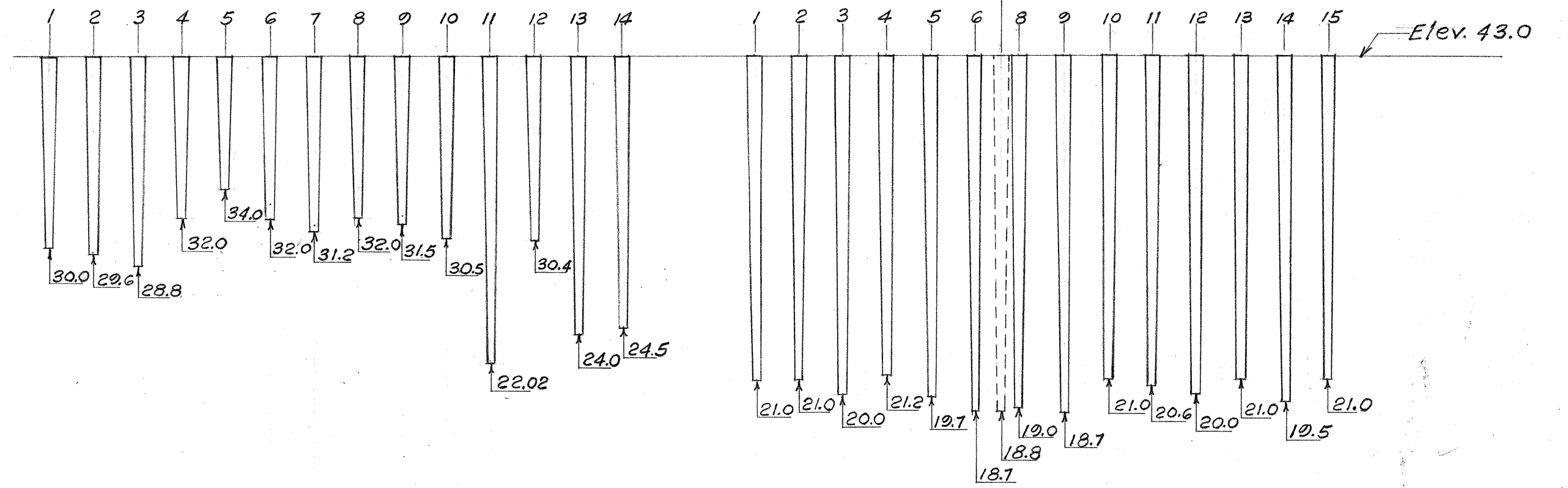
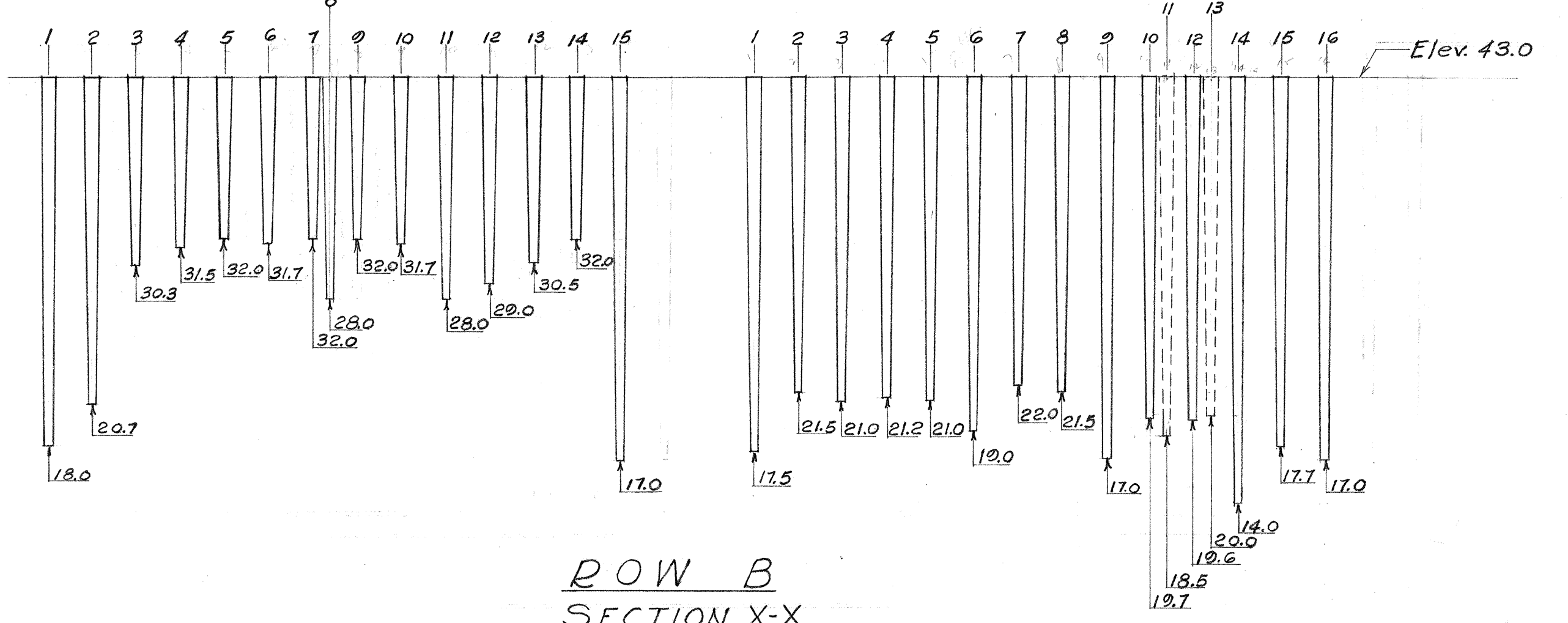
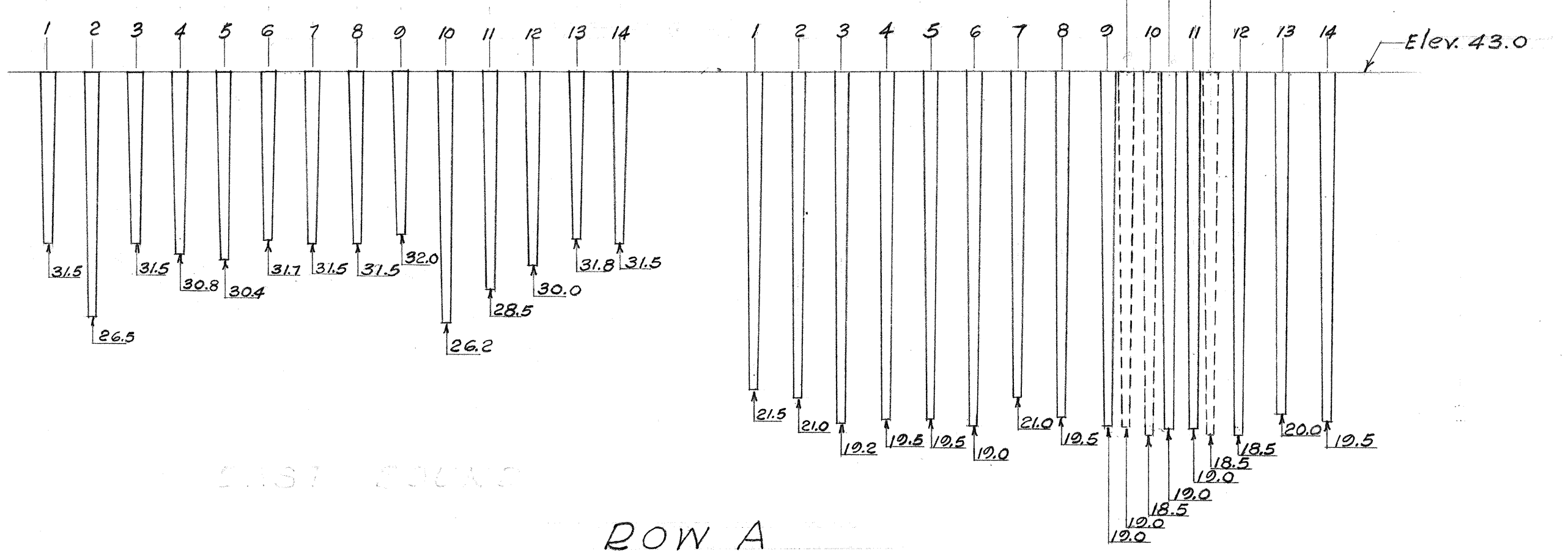
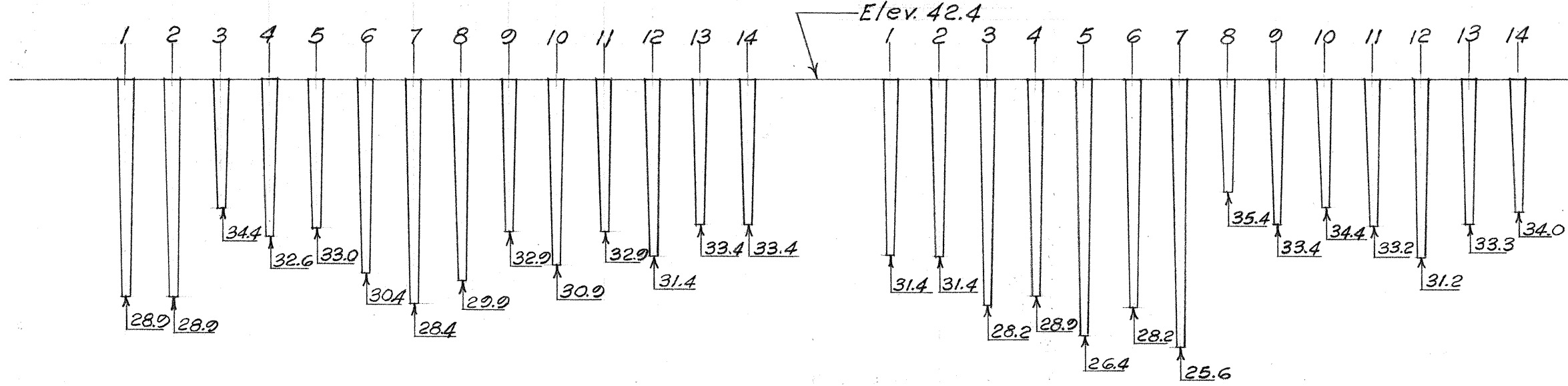
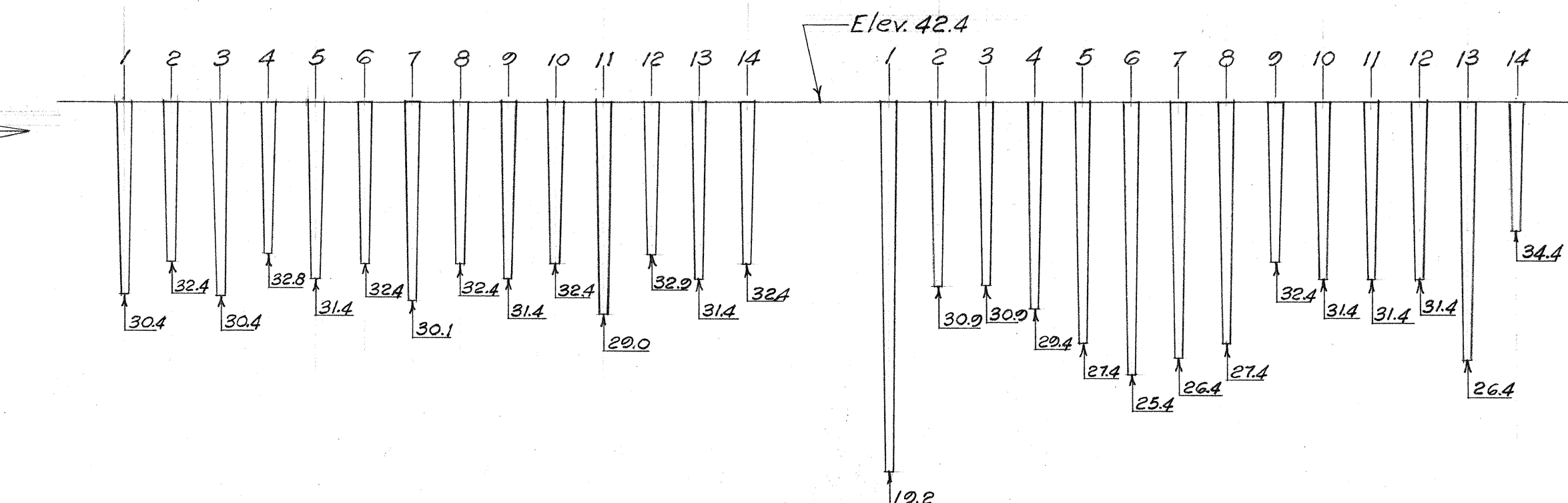
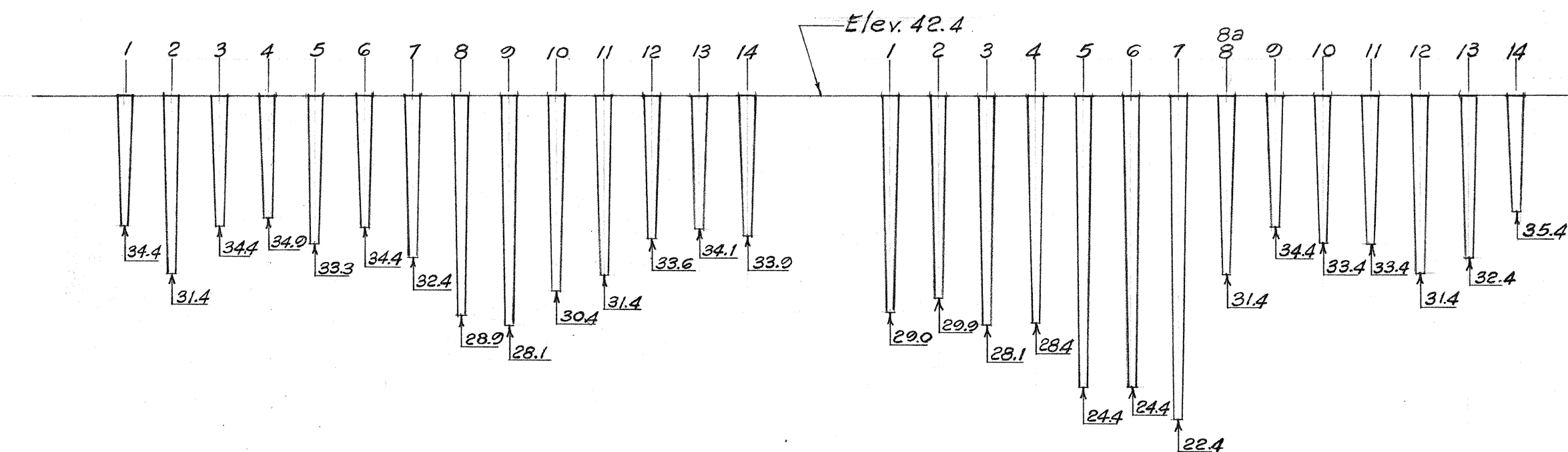
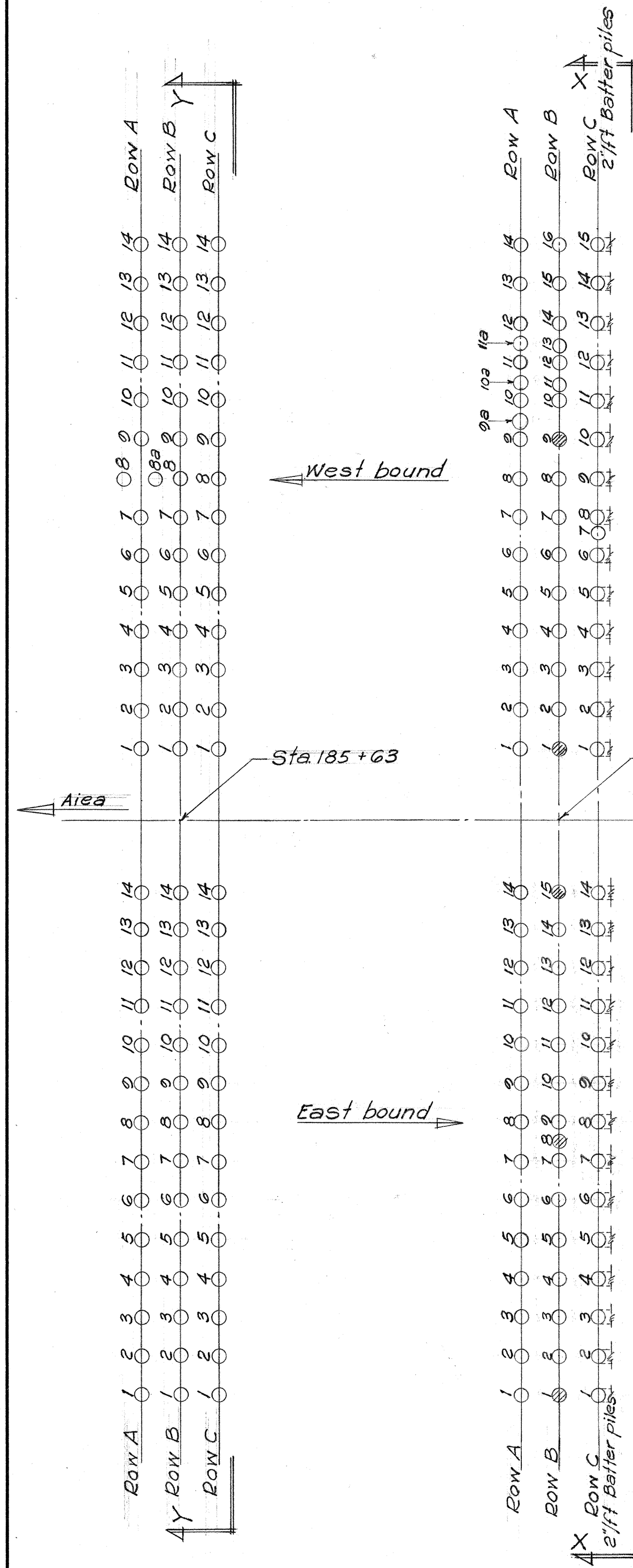
SHEET No. 1 OF 1 SHEET

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

HALAWA BRIDGE
PILE LAYOUT PLAN - BENT #2
MOANALUA ROAD S 219(4)
MARCH 1953

SHEET No. OF SHEETS

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS



PILE LAYOUT
BENT #1

PILE LAYOUT
BENT #2

ROW C
SECTION Y-Y

BENT #1

ROW C
SECTION X-X

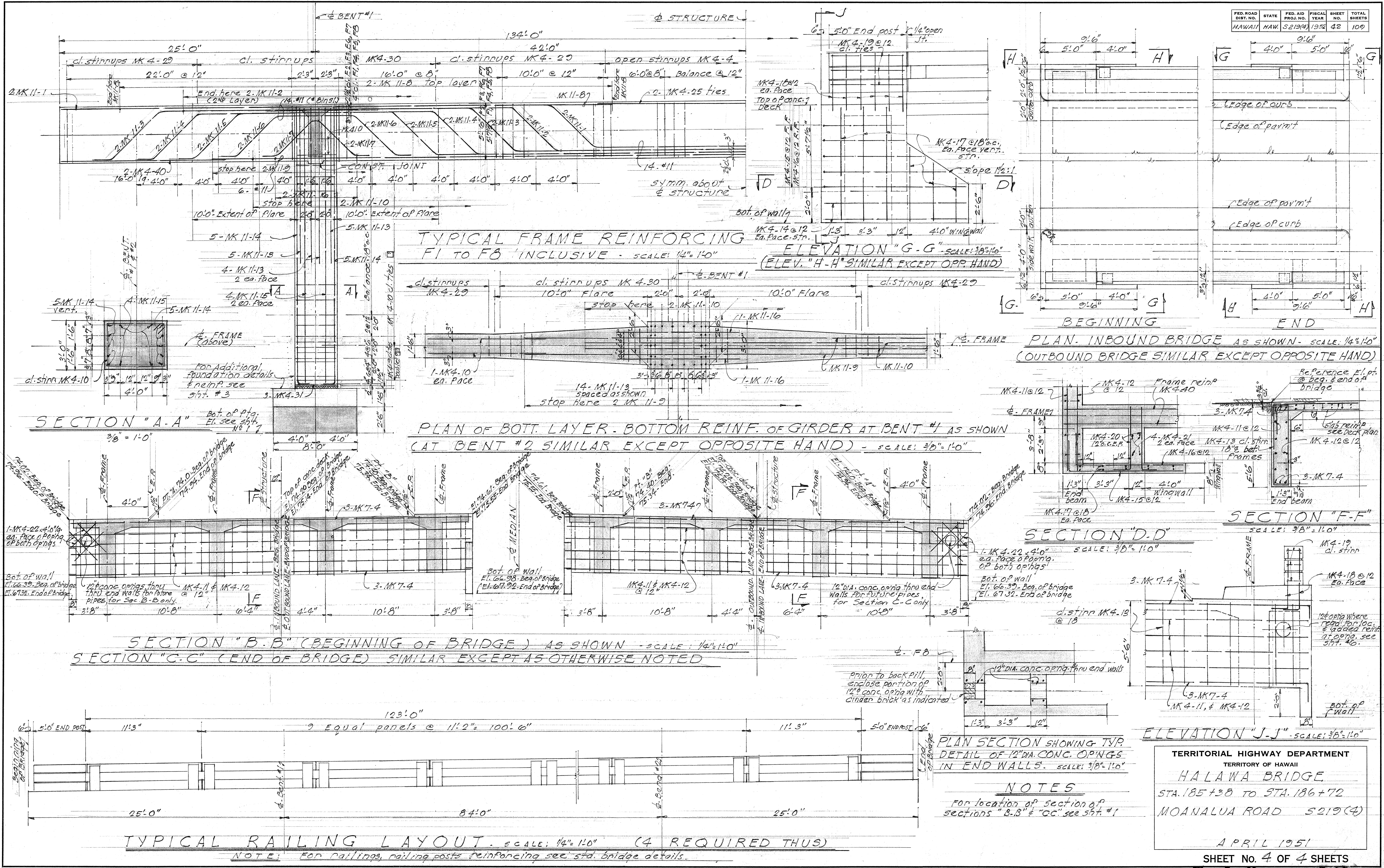
BENT #2

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

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
HALAWA BRIDGE
Sta. 185 + 38 to Sta. 186 + 72
PILE TIP ELEVATION AS DRIVEN
MOANALUA ROAD S 219 (4)
March 1953
SHEET No. 1 OF 1 SHEETS

Note: ⊙ Indicates Test Piles

DATE:
SURVEY PLOTTED BY:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
NOTE BOOK NO.



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
HALAWA BRIDGE
STA. 185+38 TO STA. 186+72
MOANALUA ROAD S219(4)

APRIL 1951
SHEET No. 4 OF 4 SHEETS

5491.42

ORIGINAL PLAN
DESIGNED BY
TRACED BY
QUANTITIES BY
CHECKED BY
DATE
1/51

NOTES
For location of section of sections "B-B" & "C-C" see sheet #1

