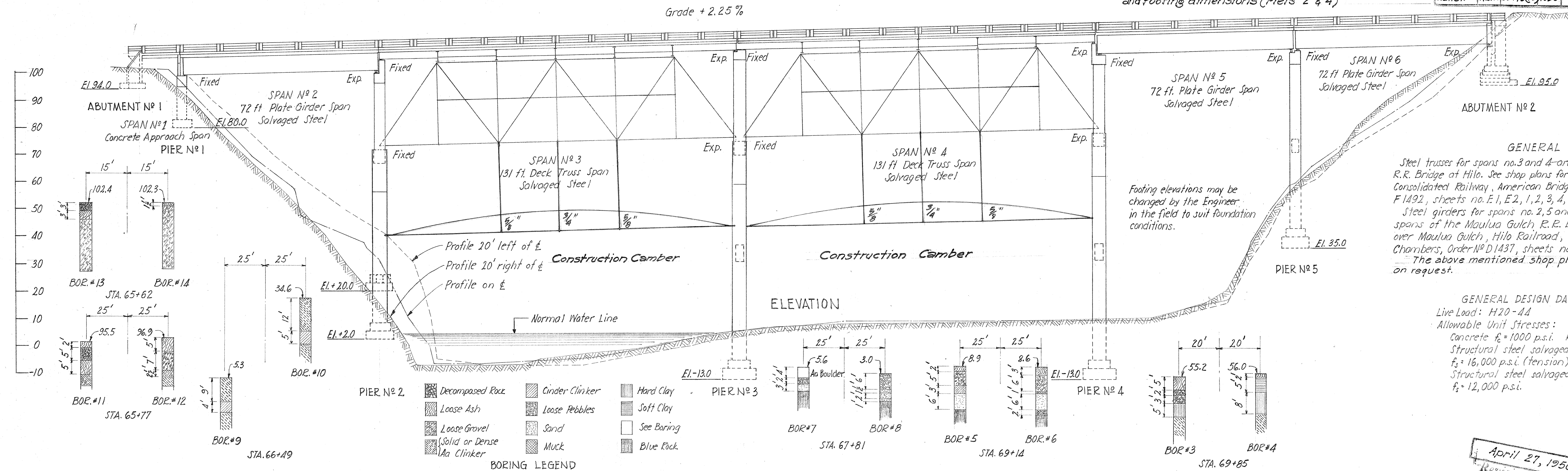


Revisions: Changed max. foundation pressures (Piers 2,3,4,5) and footing dimensions (Piers 2 & 4)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw.	SDR 3(10)	1950	5	23



GENERAL NOTES

Steel trusses for spans no. 3 and 4 are to be salvaged from the Wailuku River R.R. Bridge at Hilo. See shop plans for "Bridge over the Wailuku River, Hawaii Consolidated Railway, American Bridge Co. (Pencoyd Drawing Room) Order No. F1492, sheets no. E1, E2, 1, 2, 3, 4, 5."

Steel girders for spans no. 2, 5 and 6 are to be salvaged from 6 - 72'-0" spans of the Maulua Gulch R.R. Bridge. See shop plans for "Viaduct over Maulua Gulch, Hilo Railroad, Peaville Extension, Hamilton and Chambers, Order No. D1437, sheets no. E2, 2, 3, 4, 5, 6, 7."

The above mentioned shop plans shall be available to the contractor on request.

GENERAL DESIGN DATA

Live Load: H20-44

Allowable Unit Stresses:

Concrete $f_c = 1000$ p.s.i. Reinf. steel $f_s = 18,000$ p.s.i. $n = 10$

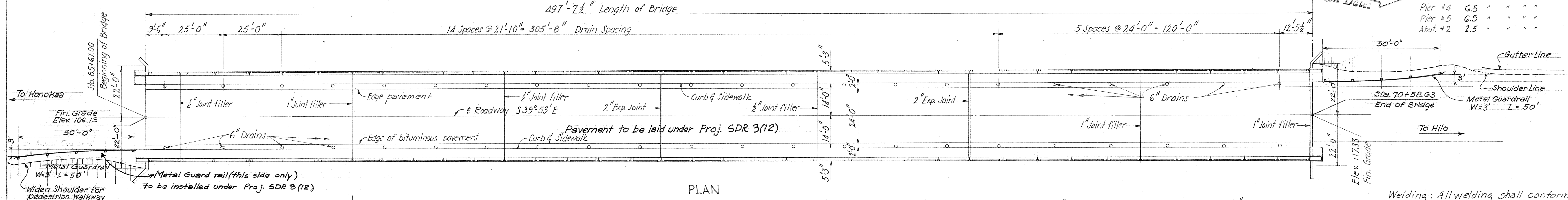
Structural steel salvaged from Wailuku River Bridge; $f_t = 16,000$ p.s.i. (tension) $f_c = 16,000 - 70 \frac{1}{2}$ (compression)

Structural steel salvaged from Maulua Gulch Bridge; $f_t = 12,000$ p.s.i.

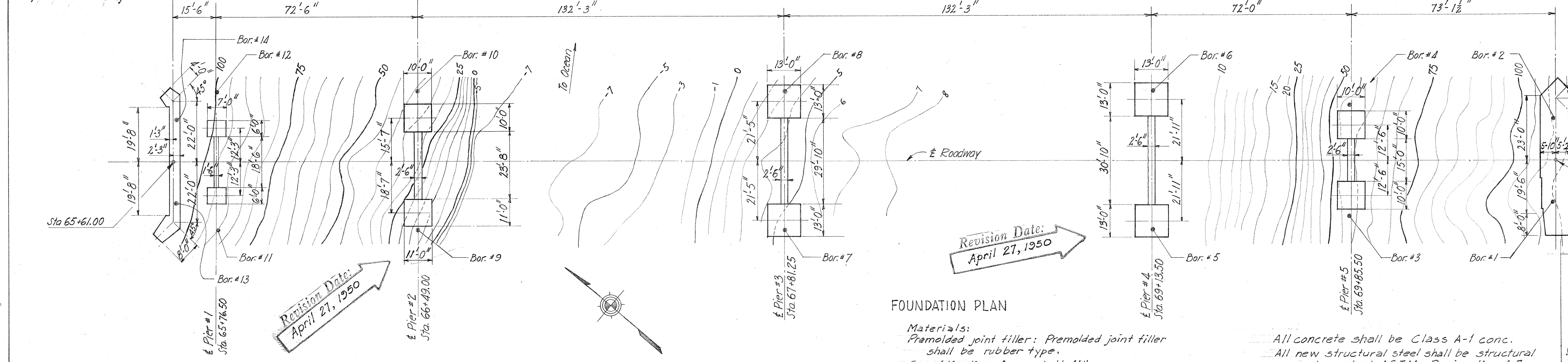
MAX. FOUNDATION PRESSURES

Abut. #1	1.1 Tons per sq. ft.
Pier #1	3.7 " " " "
Pier #2	7.5 " " " "
Pier #3	6.5 " " " "
Pier #4	6.5 " " " "
Pier #5	6.5 " " " "
Abut. #2	2.5 " " " "

April 27, 1950
Revision Date:



PLAN



FOUNDATION PLAN

Materials:

Premolded joint filler: Premolded joint filler shall be rubber type.

Specification for asphalt filler.

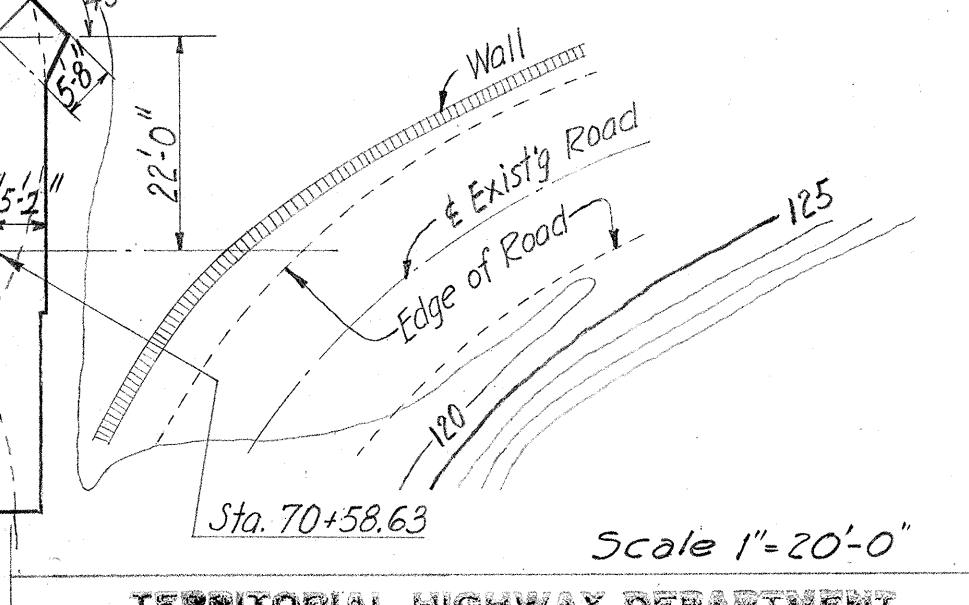
Softening point 167-185°F (A.S.T.M. D36-26). Penetration 30-45 (A.S.T.M. D 5-25). Flash point Min. 446°F (A.S.T.M. D 92-46).

All concrete shall be Class A-1 conc.

All new structural steel shall be structural carbon steel A.S.T.M. Designation A-7, unless otherwise noted.

Rivet steel: All rivets shall be structural rivet steel A.S.T.M. D A-141.

Welding: All welding shall conform to the latest standard specifications for Welded Highway and Railway Bridges, Design, Construction, and Repair, of the American Welding Society.



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

KOLEKOLE BRIDGE
STA. 65+61.0 TO 70+58.63

HAWAII BELT ROAD SDR 3(10)

FEBRUARY 1950
SHEET No 1 OF 18 SHEETS

Revised 1-12-50

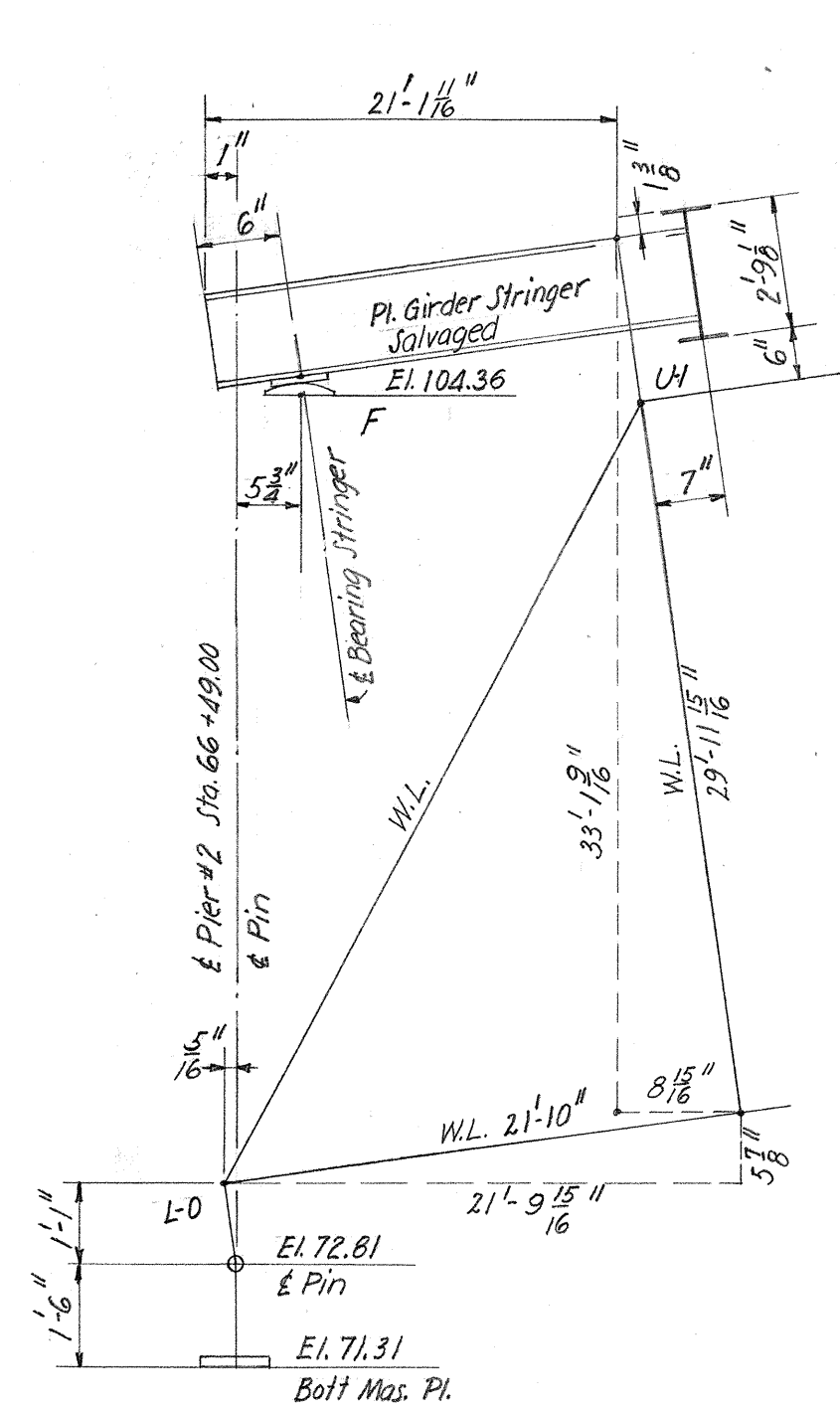
5463.5

PLANS MADE BY
BUREAU OF PUBLIC ROADS
DIVISION OF HIGHWAYS
SAN FRANCISCO, CALIFORNIA
DESIGNED BY A.E.L. DATE 8/29/49
CHECKED BY A.E.L. DATE 1/20/50
DRAWN BY A.E.L.

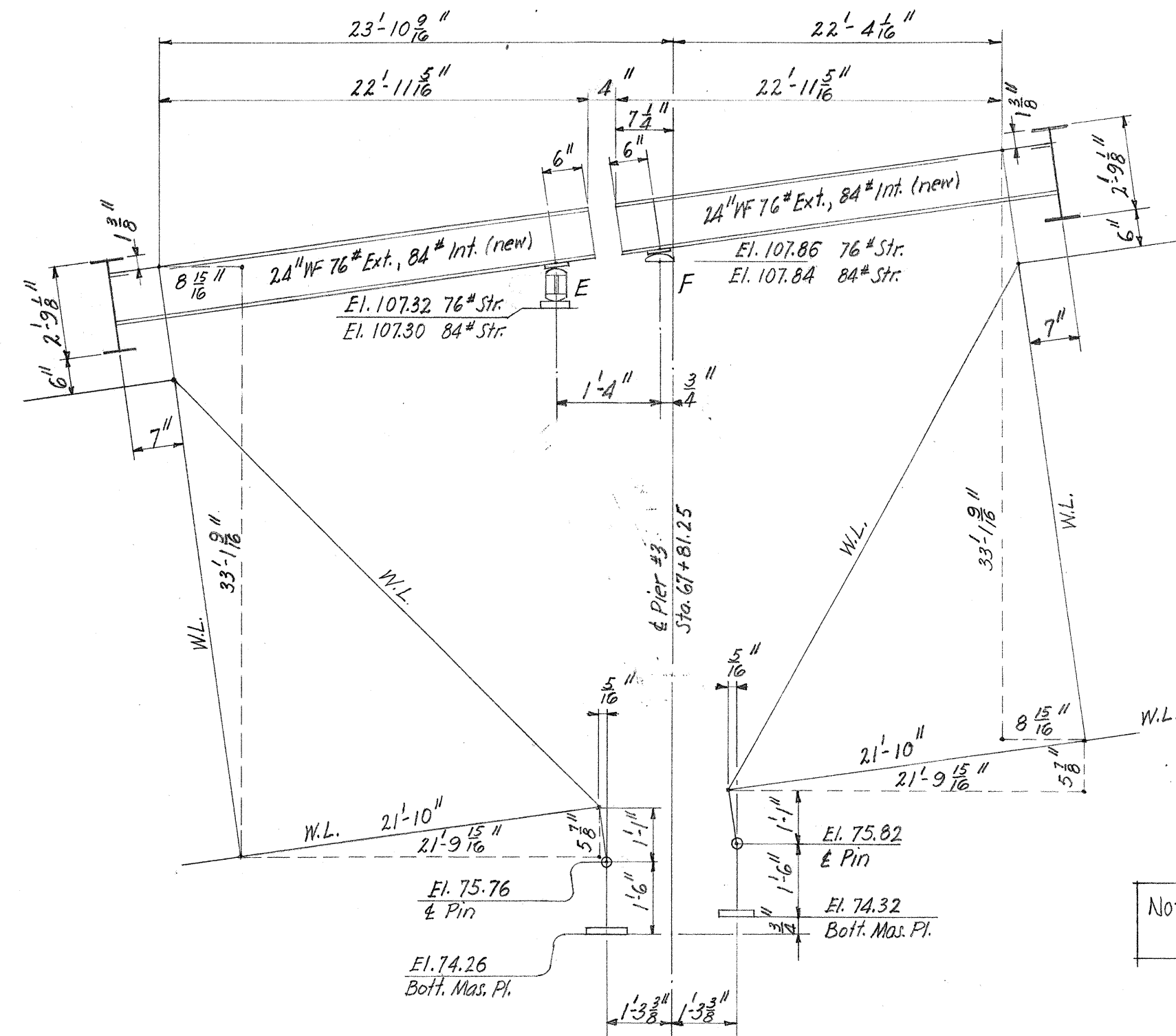
Note: See Sheet 5 for Estimate.

Construction Methods.

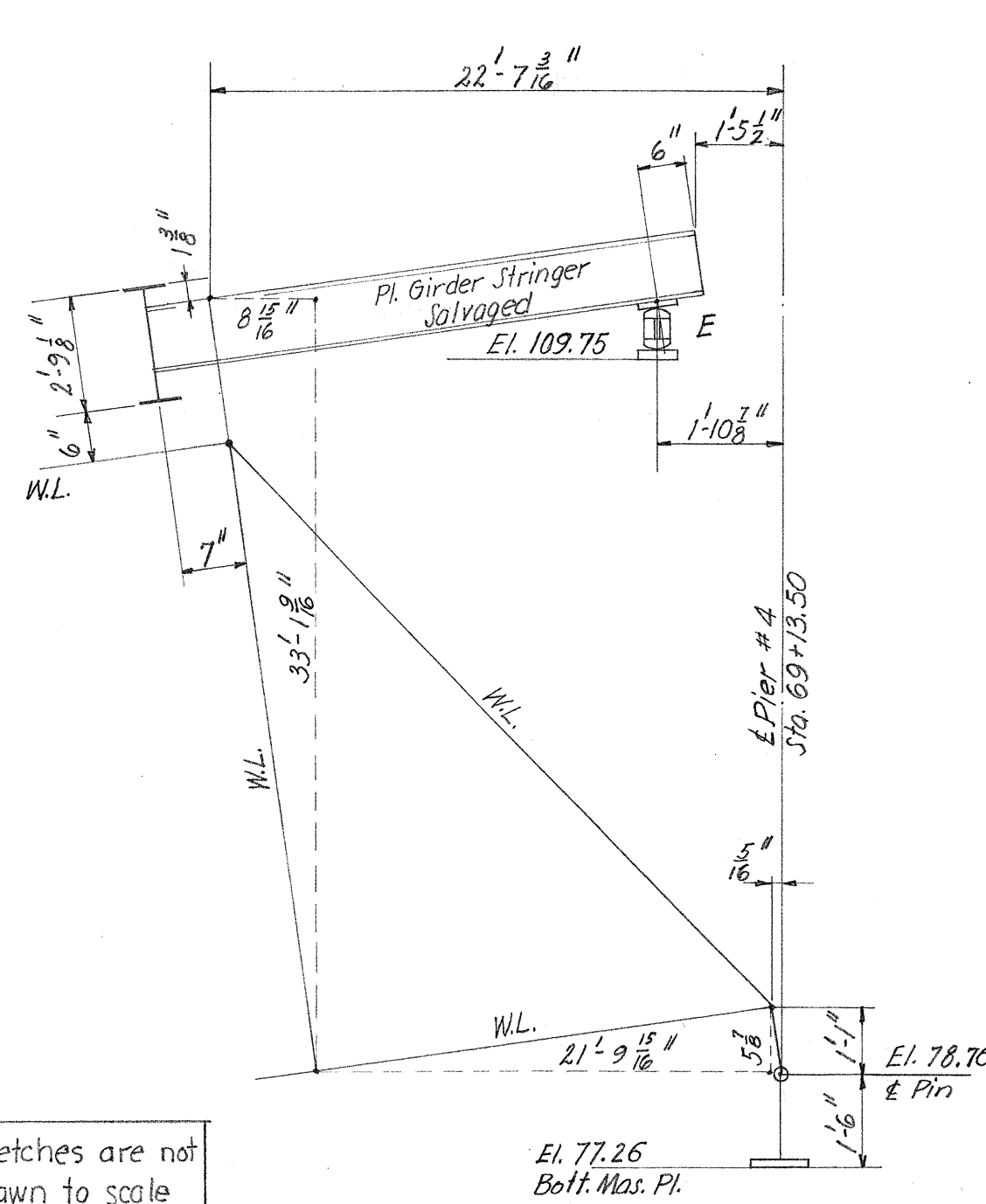
All surfaces of railings, posts, and end posts above top of curb shall have Class 1 surface finish.



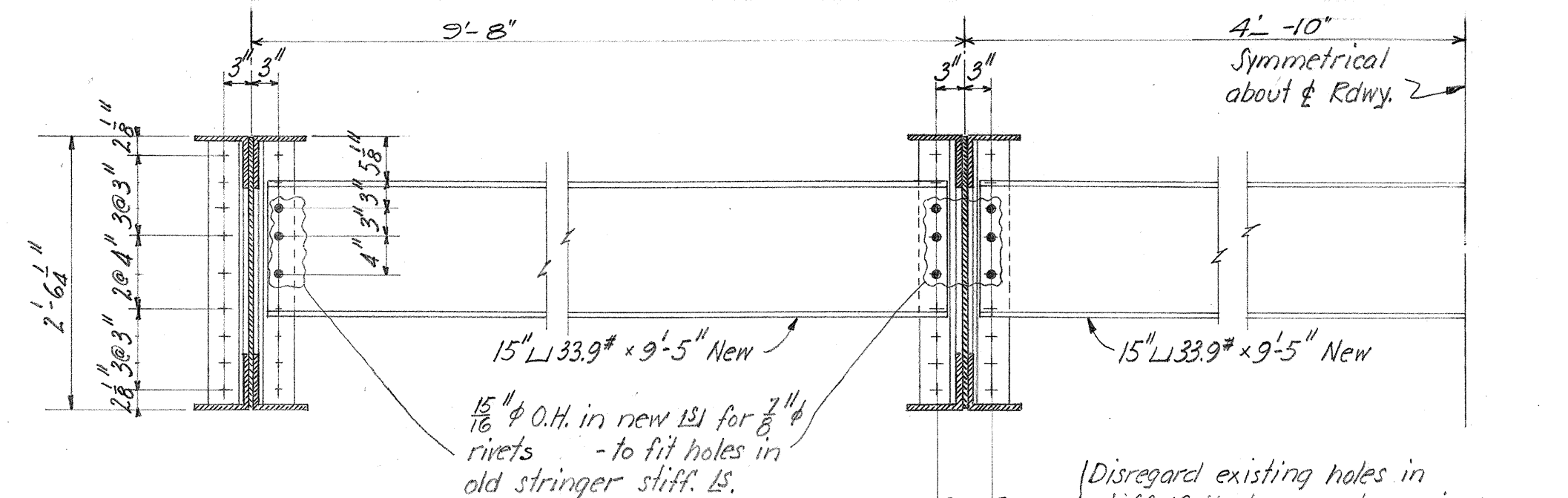
PIER No 2



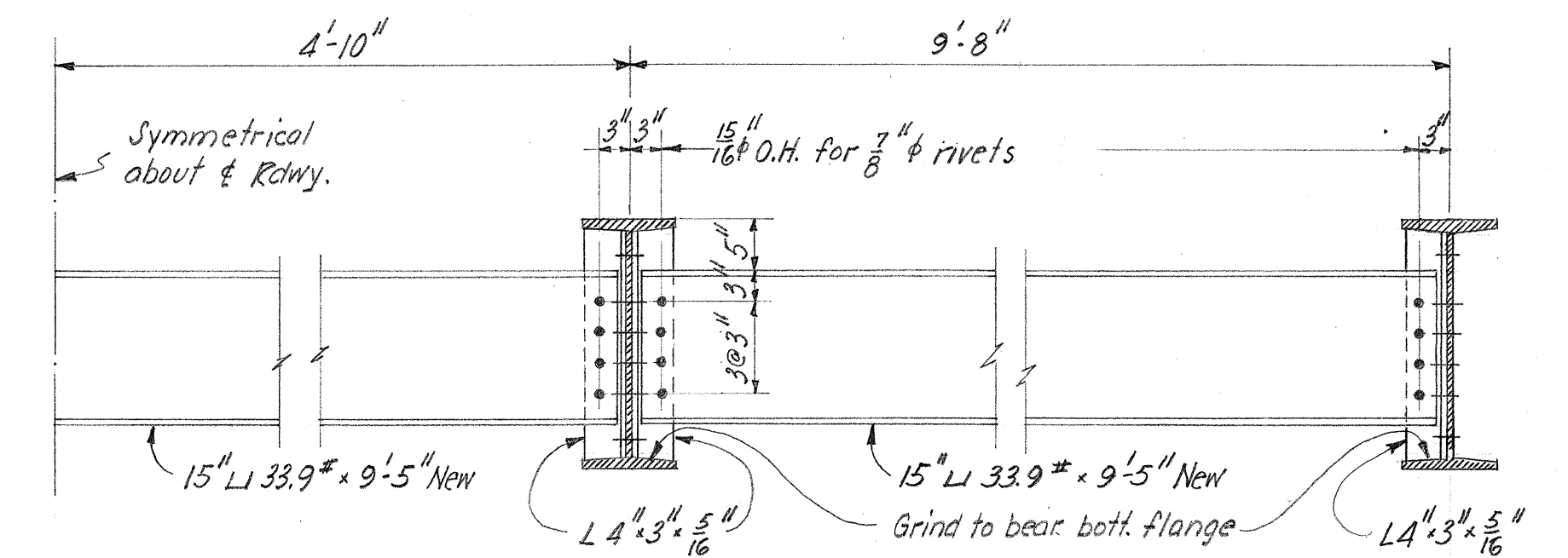
PIER No 3



PIER No 4

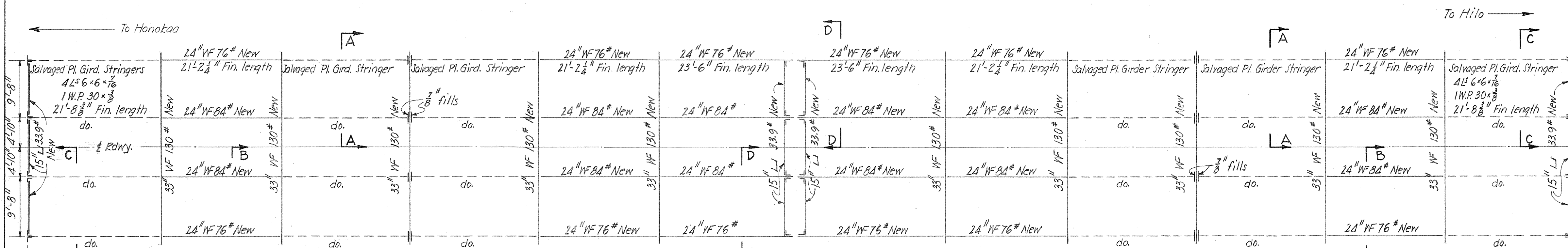


SECTION C-C
DIAPHRAM END PANELS PIERS No 2 & 4
SCALE 3/4" = 1'-0"

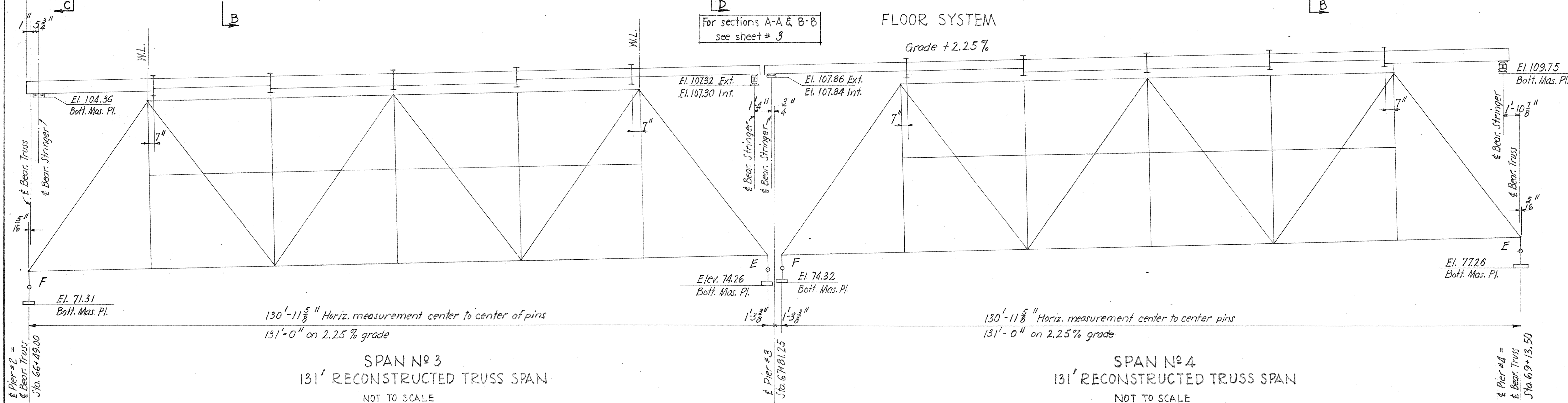


SECTION D-D
DIAPHRAM END PANELS PIER No 3
SCALE 3/4" = 1'-0"

Note: Connection plates for lateral bracing to be removed from salvaged stringers.

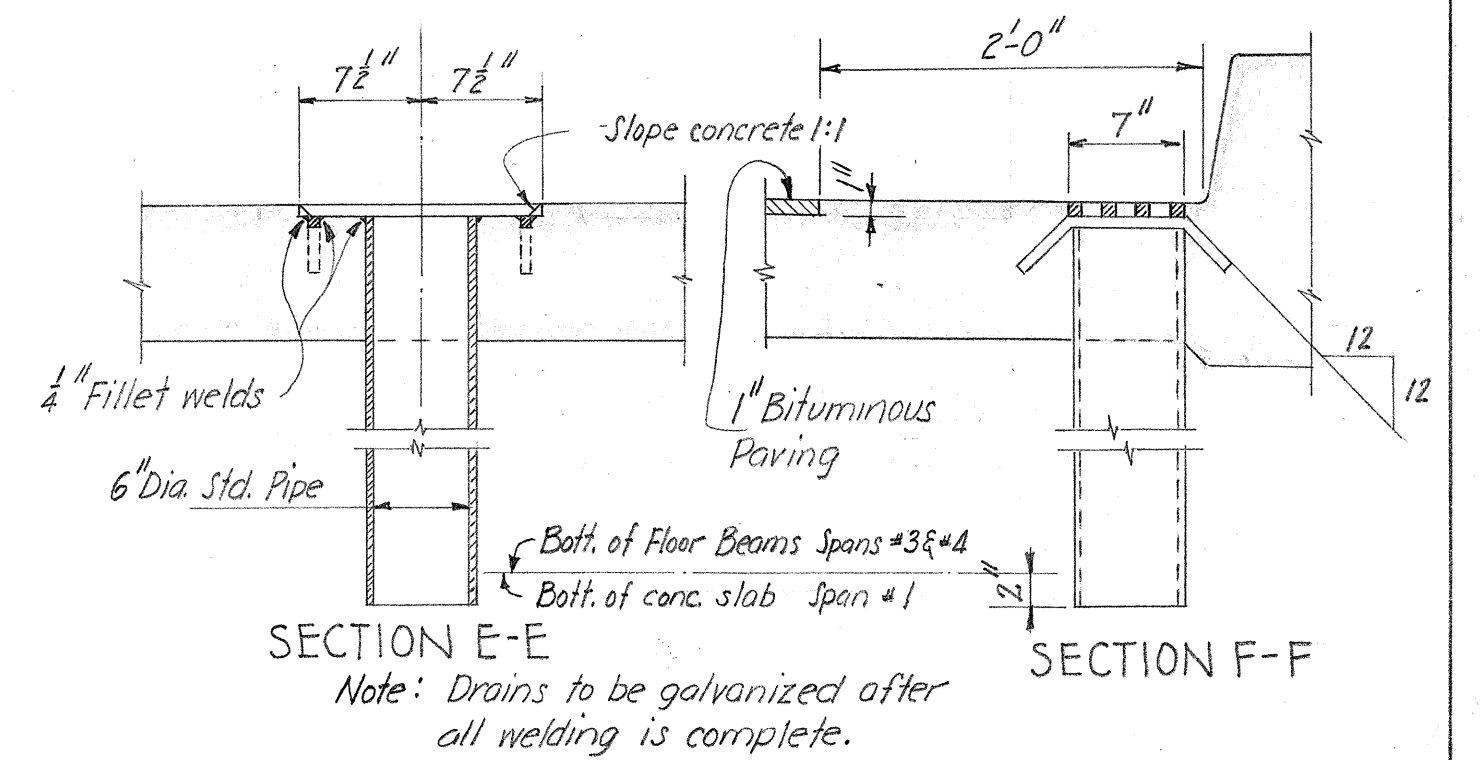


FLOOR SYSTEM



SPAN No 3
131' RECONSTRUCTED TRUSS SPAN
NOT TO SCALE

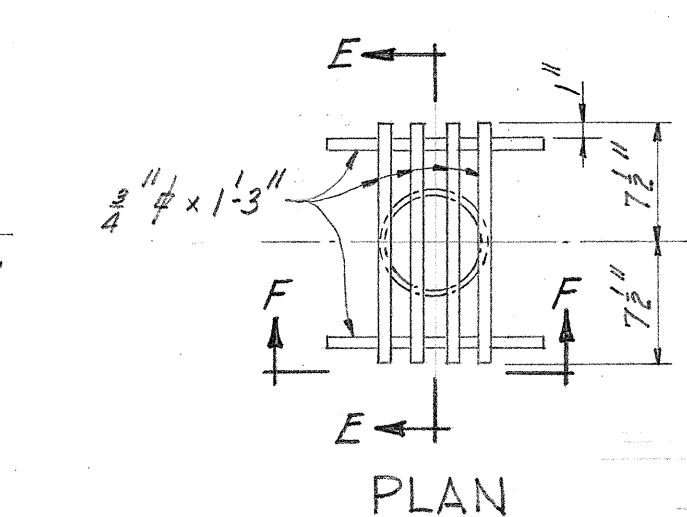
SPAN No 4
131' RECONSTRUCTED TRUSS SPAN
NOT TO SCALE



SECTION E-E

Note: Drains to be galvanized after all welding is complete.

SECTION F-F

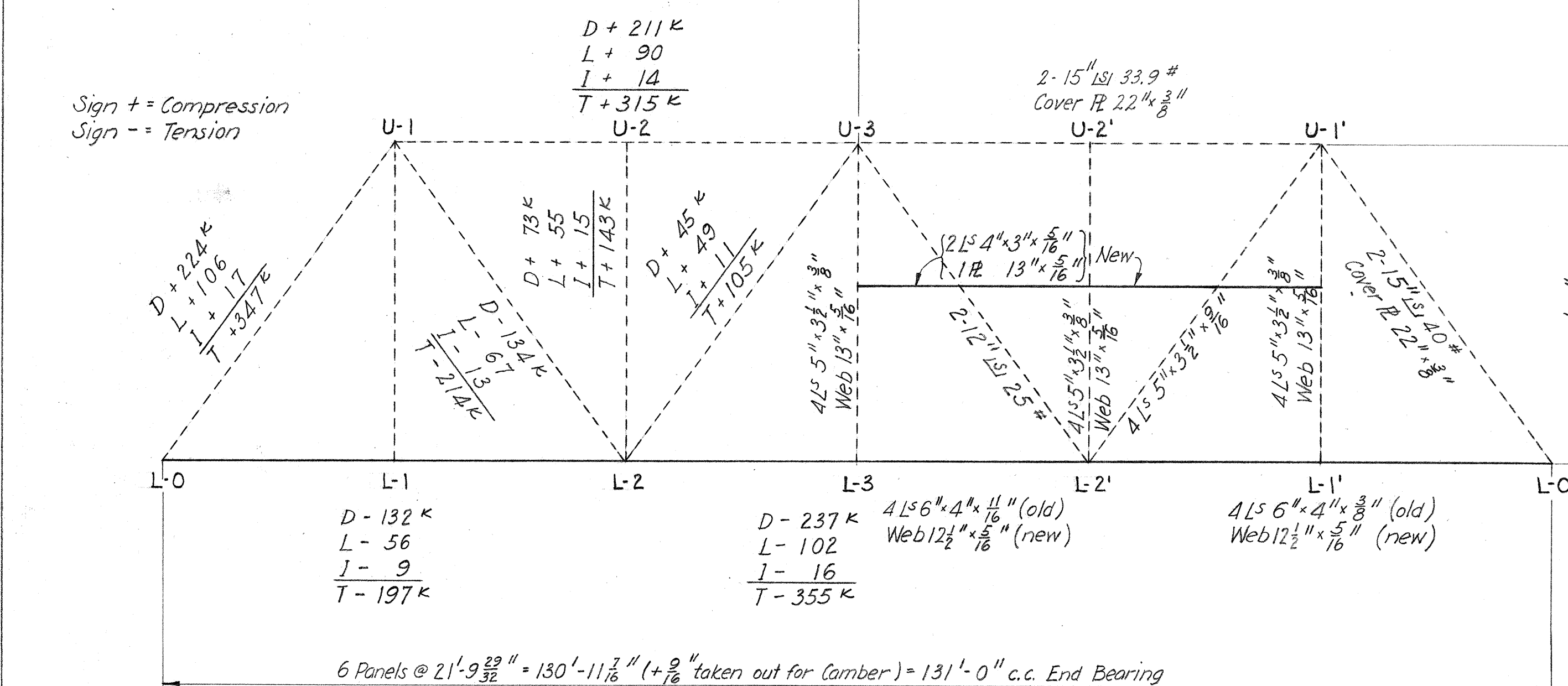
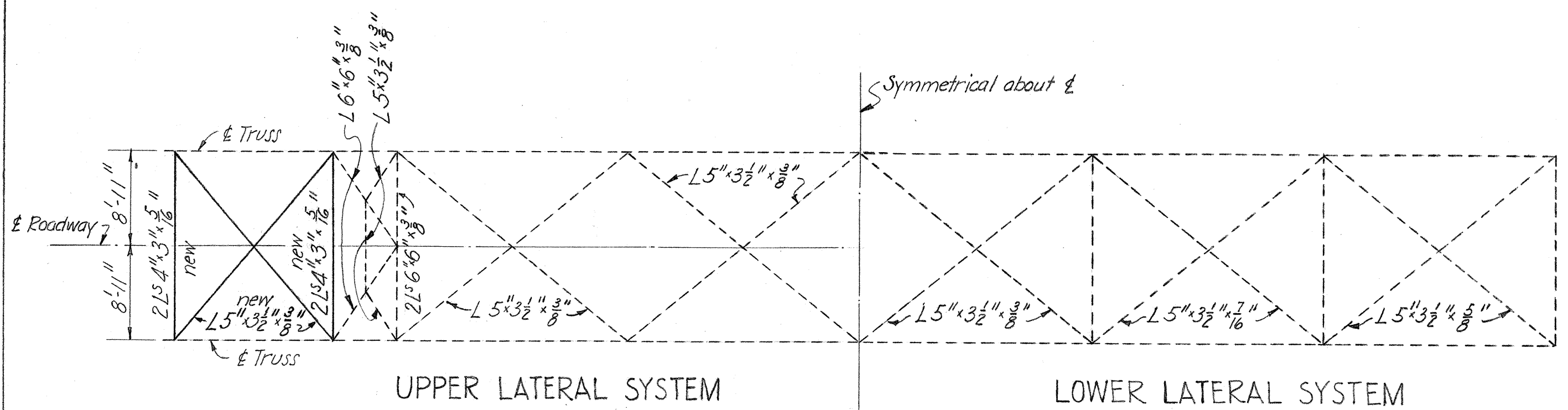


ROADWAY DRAIN DETAILS
SPANS No 1, No 3, & No 4
SCALE 1" = 1'-0"

Note: All drains shall be incidental to Class A-1 concrete and shall not be paid for separately.

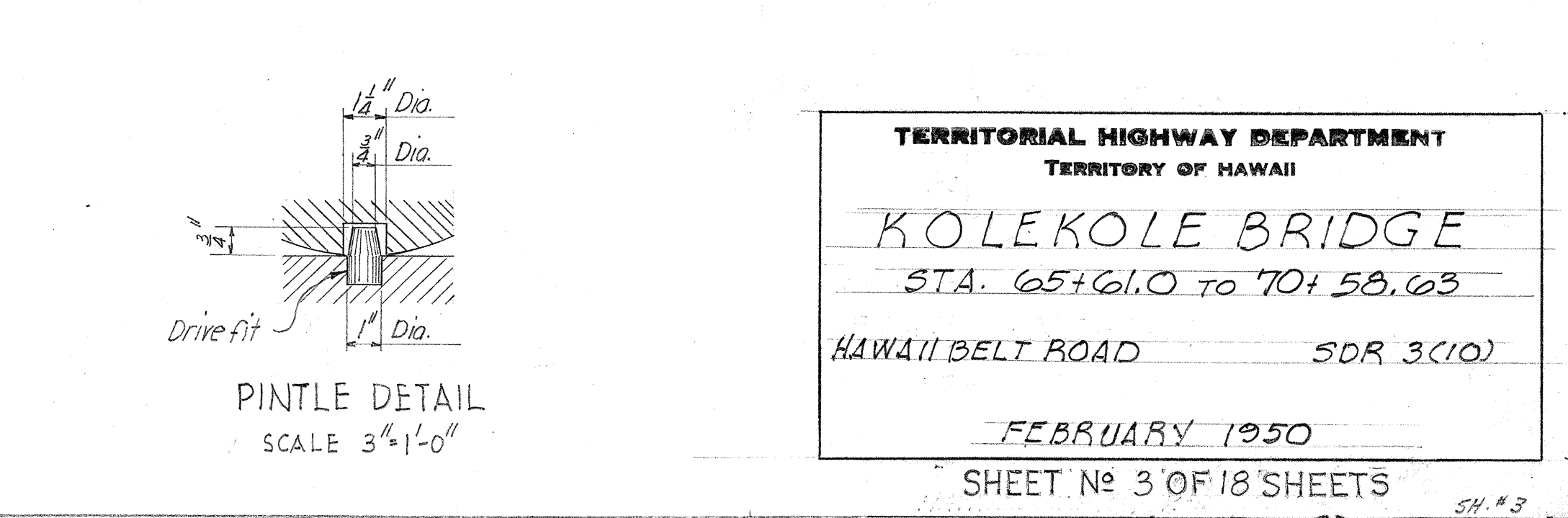
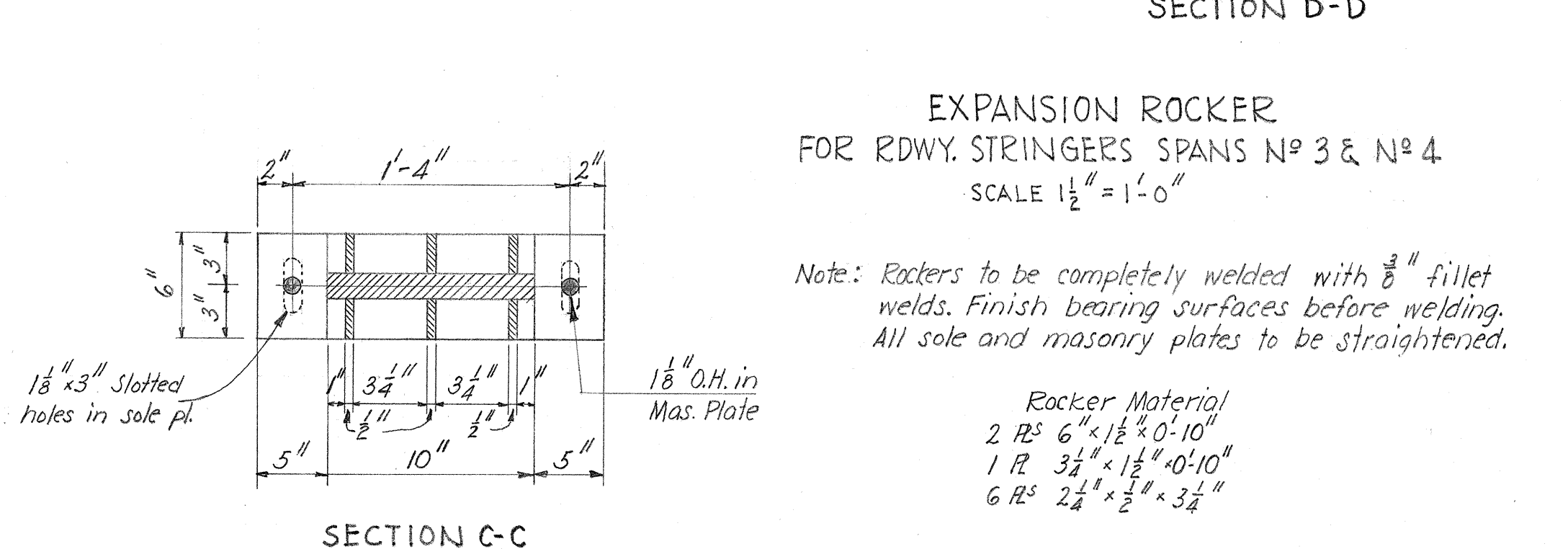
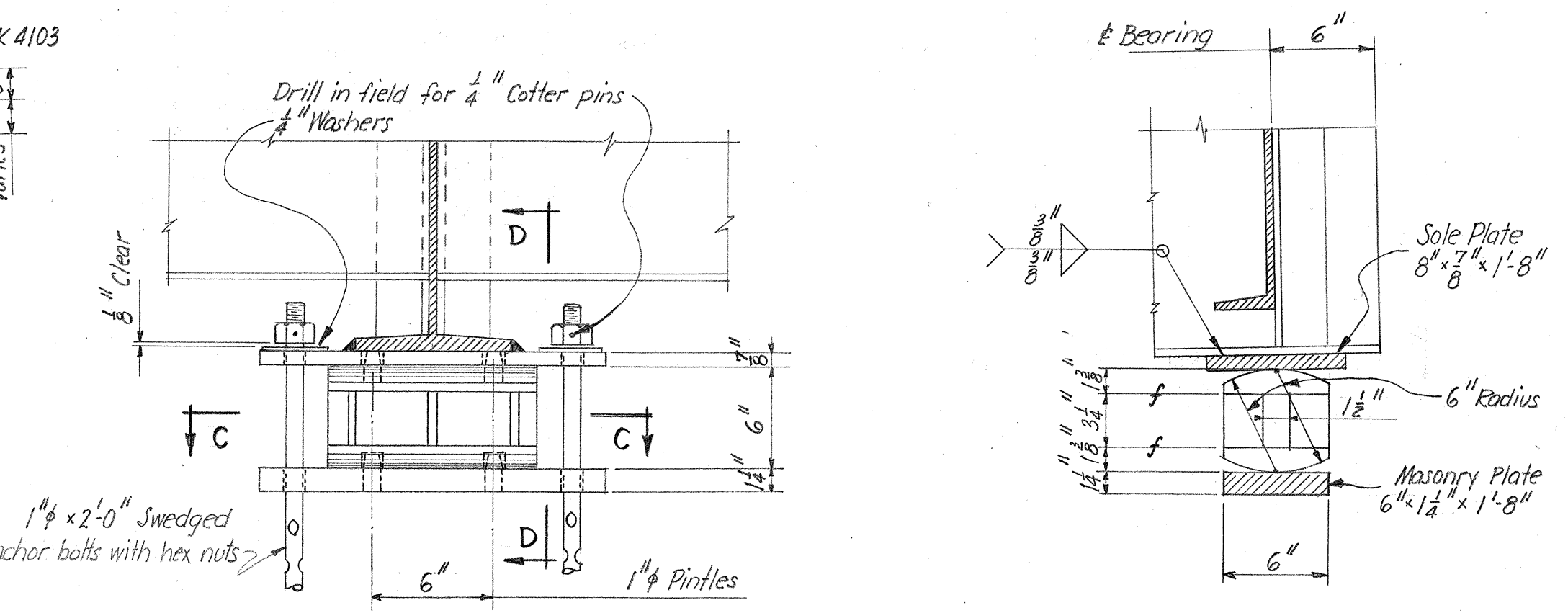
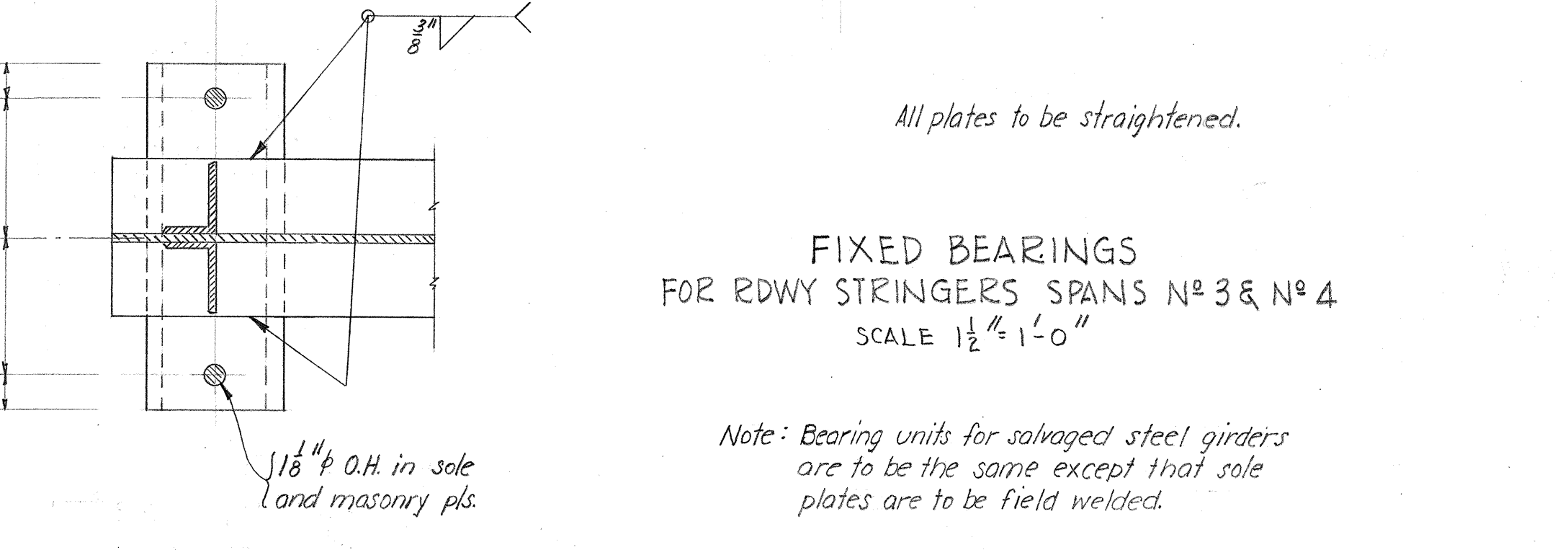
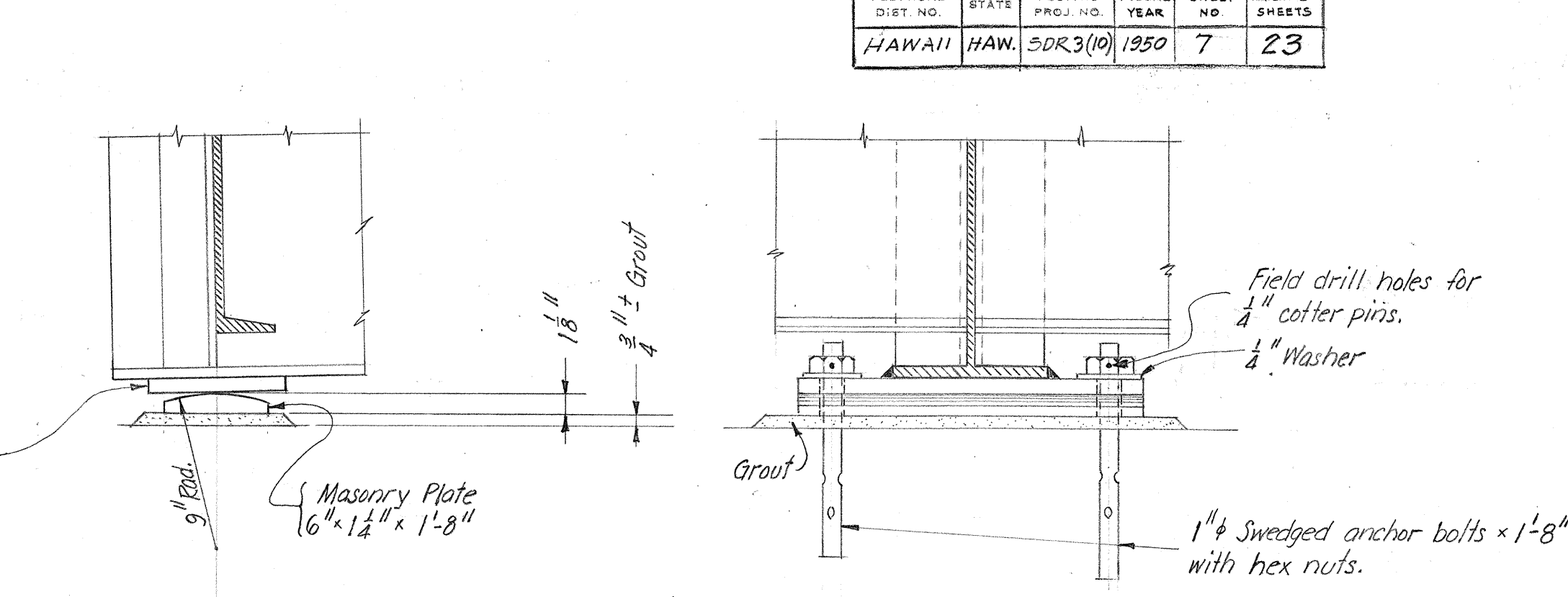
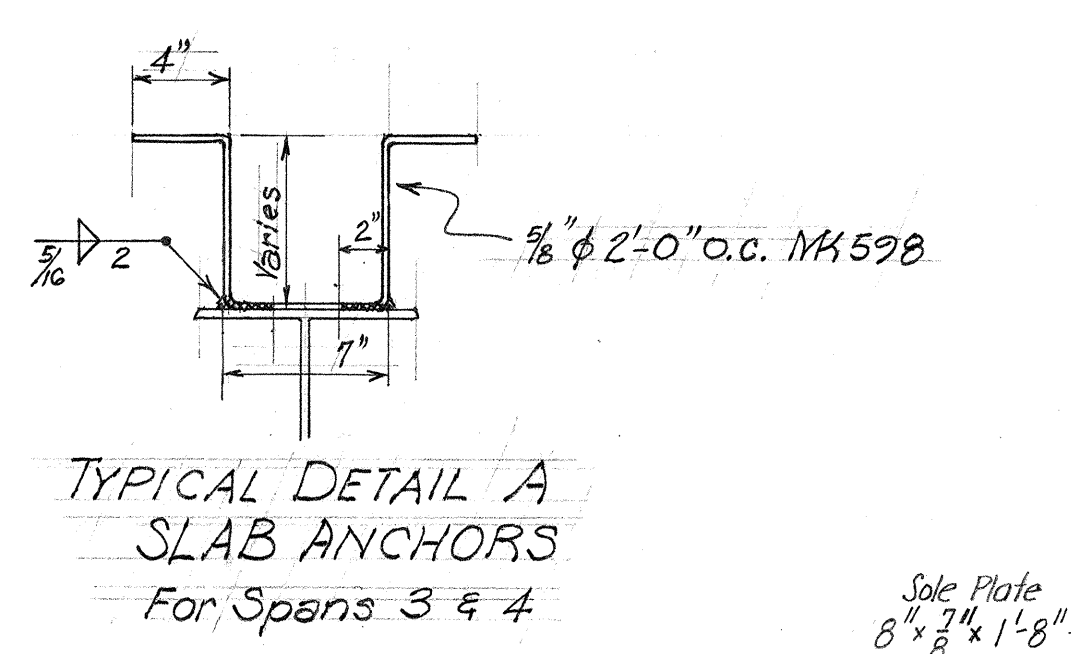
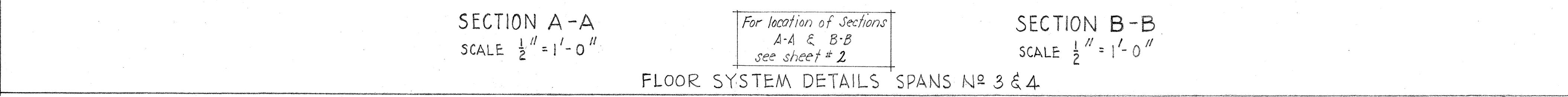
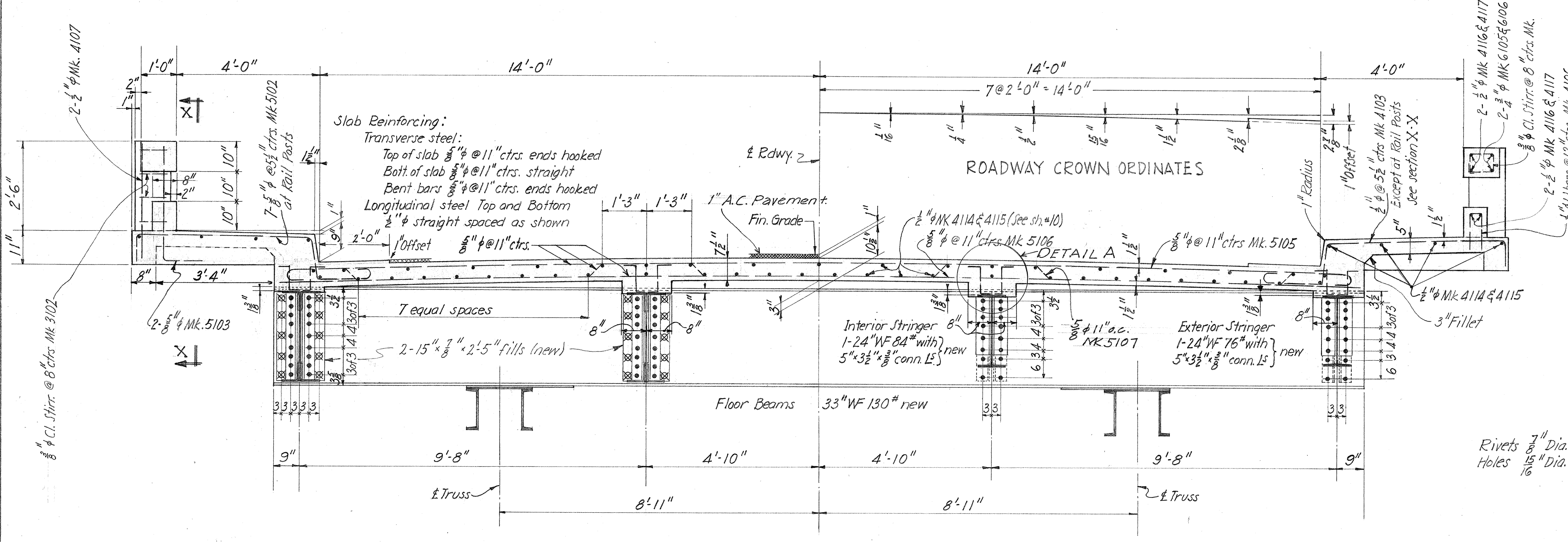
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KOLEKOLE BRIDGE
STA. 65+61.0 TO 70+58.63
HAWAII BELT ROAD SDR 3(10)
FEBRUARY 1950
SHEET No 2 OF 18 SHEETS
Revised 11-15-49

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	SDR3(10)	1950	7	23



Indicates old member from existing truss.
Indicates new or revised member.

ALLOWABLE UNIT STRESSES
 $f_t = 16,000$ p.s.i. Tension.
 $f_c = 16,000 - 70 \frac{L}{r}$ Compression.



TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII
KOLEKOLE BRIDGE
 STA. 65+61.0 TO 70+58.63
 HAWAII BELT ROAD SDR 3(10)
 FEBRUARY 1950
 SHEET N° 3 OF 18 SHEETS

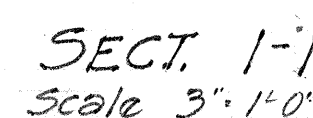
PLANS MADE BY
 BUREAU OF PUBLIC ROADS
 DIVISION OF HIGHWAYS
 WESTERN HEADQUARTERS SAN FRANCISCO, CALIFORNIA
 DESIGNED BY A.E.L. DATE MAY 1943 TRACED BY DATE
 DRAWN BY A.E.L. MAY 1943 CHECKED BY DATE

—

No.	Length	Total Length
6	46'-0"	240.0'
4	38'-0"	128.0
2	30'-6"	61.0
Total		429.0'
54 Hangers ($3 \times \frac{1}{2} \times 0'-11"$) @ 4.7"		254 12
54 Braces ($3 \times \frac{1}{2} \times 2'-0"$) @ 12.0"		551 12
54 Lugs ($3 \times \frac{1}{2} \times 0'-3\frac{1}{2}"$) @ 15"		81 12
108 Side Pls ($3 \times \frac{1}{2} \times 0'-6\frac{1}{2}"$) @ 20"		216 12
G. Alignment Pls @ 0.7"		4 12
108 $\frac{1}{2} \times 2'-0"$ long @ 668"		144 12
108 Plates for Hanger @ 2.39'		258 12
SPANS 3-4		
New Structural Steel		2876 12
Salvaged Structural Steel		10,536 12



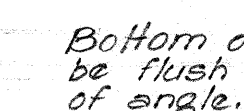
Scale: 1" = 10'-0"



ELEV. H-H
Scale 1 1/2" = 1'-0"



NORMAL SECTION
Scale: $\frac{1}{2}'' = 1'-0''$



PLAN E-E
Scale 3" = 1'-0"

HANGER DETAIL
SPANS 2-5-6
Scale: $\frac{3}{4}'' = 1'-0''$

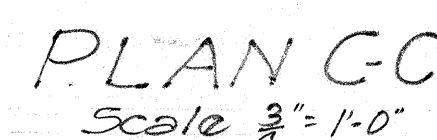


SECTION X-1
Scale: 3" = 1'-0"

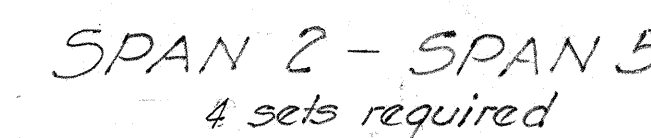
SPLICE DETAIL



WELD DETAIL
Scale 1" = 1'-0"



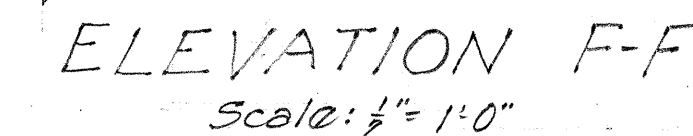
SECTION D-D
Scale: $1\frac{1}{2}'' = 1'-0''$



SPAN 6
2 sets required

LOCATION OF HANGERS

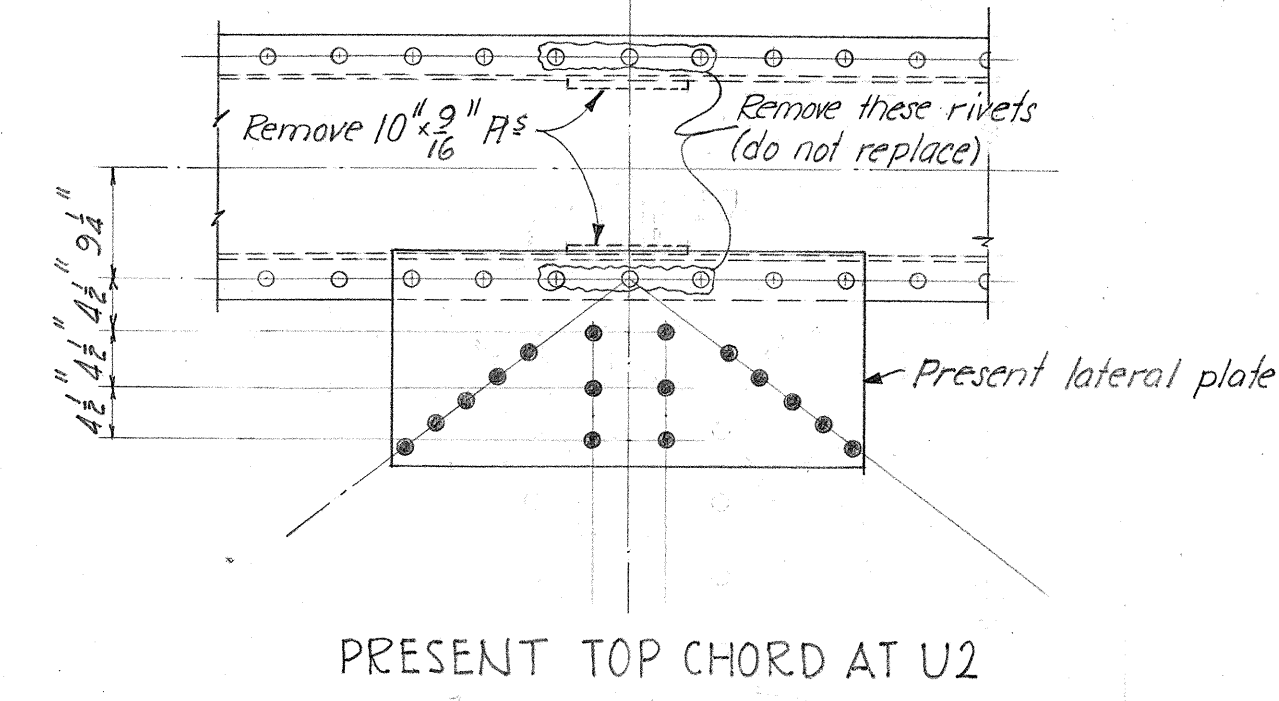
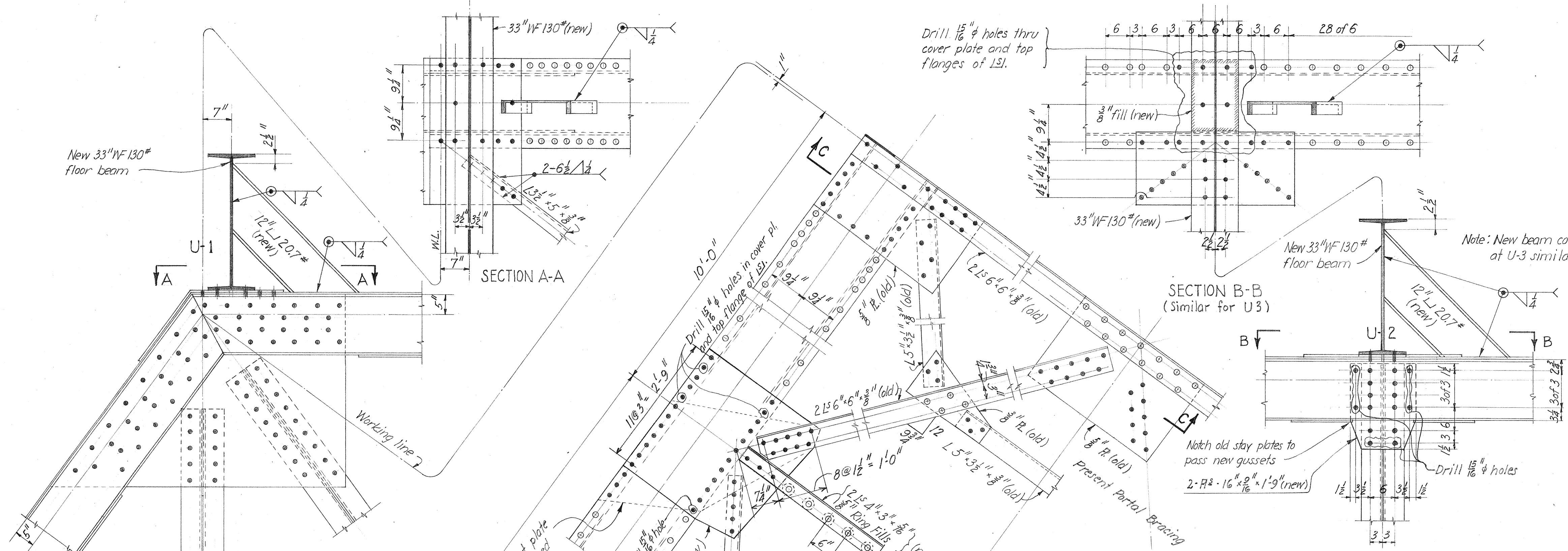
Scale: 1" = 10' 0"



SECTION G-G
Scale: $\frac{1}{2}'' = 1'-0''$

SHEET No. 3A OF 18 SHEETS

5463.7A



ESTIMATE									
LOCATION	STRUCT. EXCAV. C.Y.	CLASS A-1 CONC. C. Y. (FOOTINGS)	Reinf. Steel lbs. (Interm. Grade)	Furnishing, fabricating & erecting new steel incl. 1 coat paint, lbs.	Cleaning, fabricating & erecting salvaged steel incl. 1 coat paint, lbs.	Painting new & salvaged steel with 2 field coats of paint.	Removing and replacing 1/2" rivets, each.	A. C. Pavement Tons	
ABUT. N ^o 1	130	17	23	2317					
PIER N ^o 1	150	8	28	4962					
PIER N ^o 2	210	35.38	177	22797	24128				
PIER N ^o 3	400	68	243	32110	39075				
PIER N ^o 4	470	57.68	255	34872	40777				
PIER N ^o 5	340	40	111	17353	13843				
ABUT. N ^o 2	450	45	59	8343					
SPAN N ^o 1			24	3186					
SPAN N ^o 2			80	14456	5900	119000		2300	
SPAN N ^o 3			134	22473	66200	176000		1550	
SPAN N ^o 4			134	22473	66200	176000		1550	
SPAN N ^o 5			80	14537	5800	118500		2300	
SPAN N ^o 6			79	14417	5800	117500		2300	
RAILING			61	11723					
Slab Anchors				2612					
	2150	270	1488	229,681	149,900	707,000	Lump Sum	10,000	715
		284		245,372					

Revision Date: April 27, 1950

Revision Date: April 27, 1950

Revisions: Changed quantities for reinf. steel & Class A-1 concrete.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

KOLEKOLE BRIDGE

STA. 65+61.0 TO 70+58.63

HAWAII BELT ROAD SDR 3(10)

FEBRUARY 1950

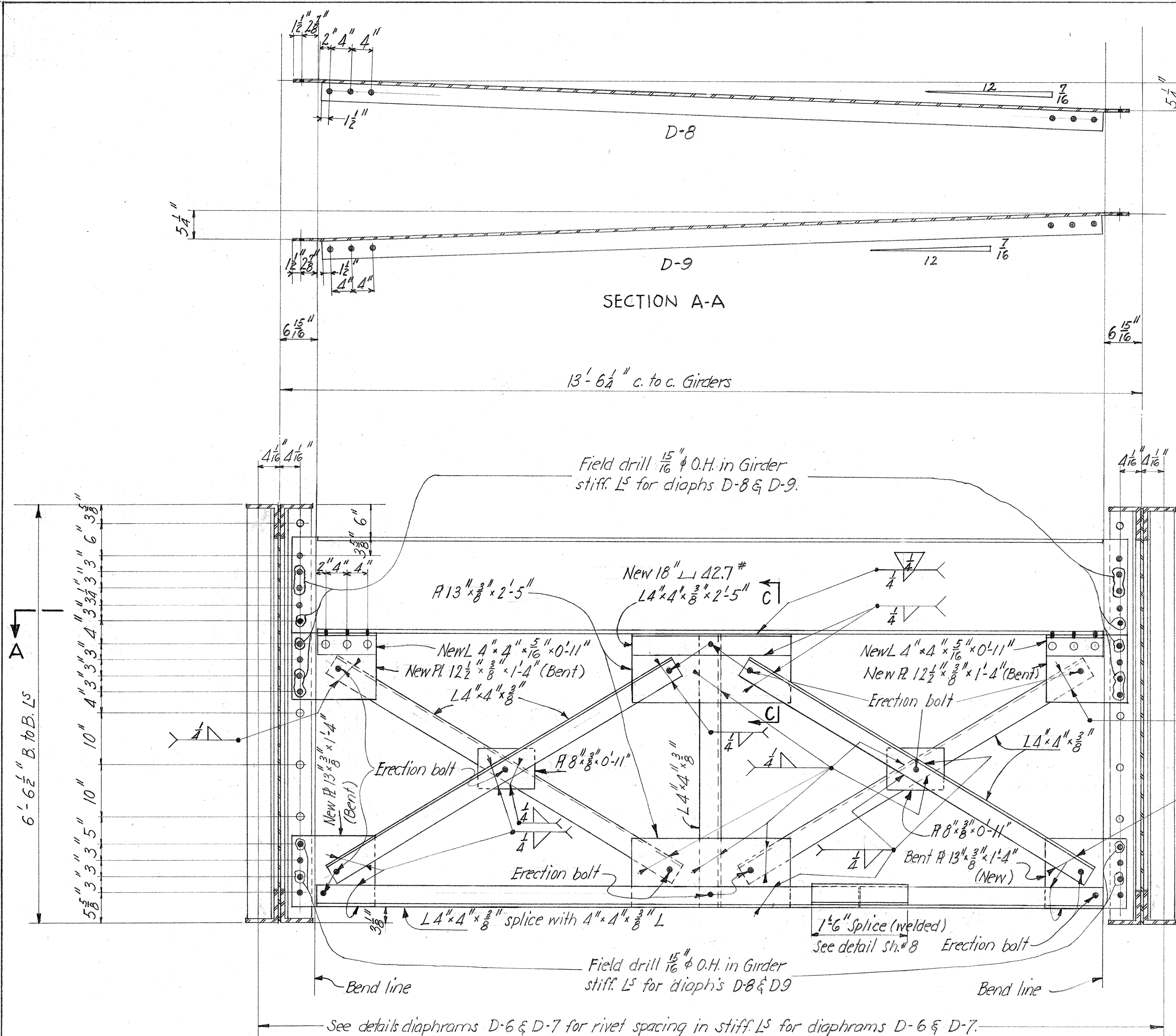
SHEET N^o 5 OF 18 SHEETS

SCALE 3/4" = 1'-0"

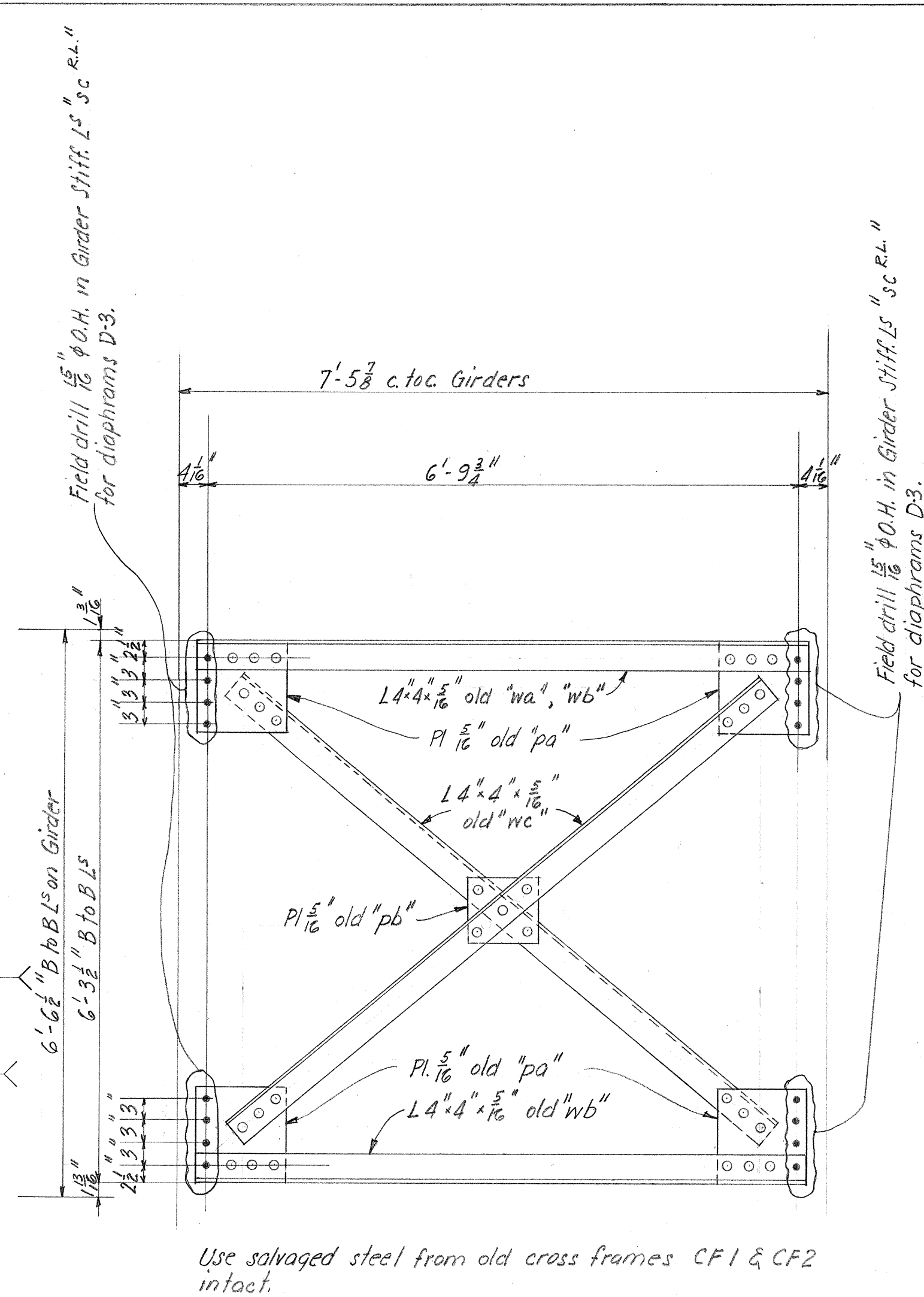
5463.9

KOLEKOLE

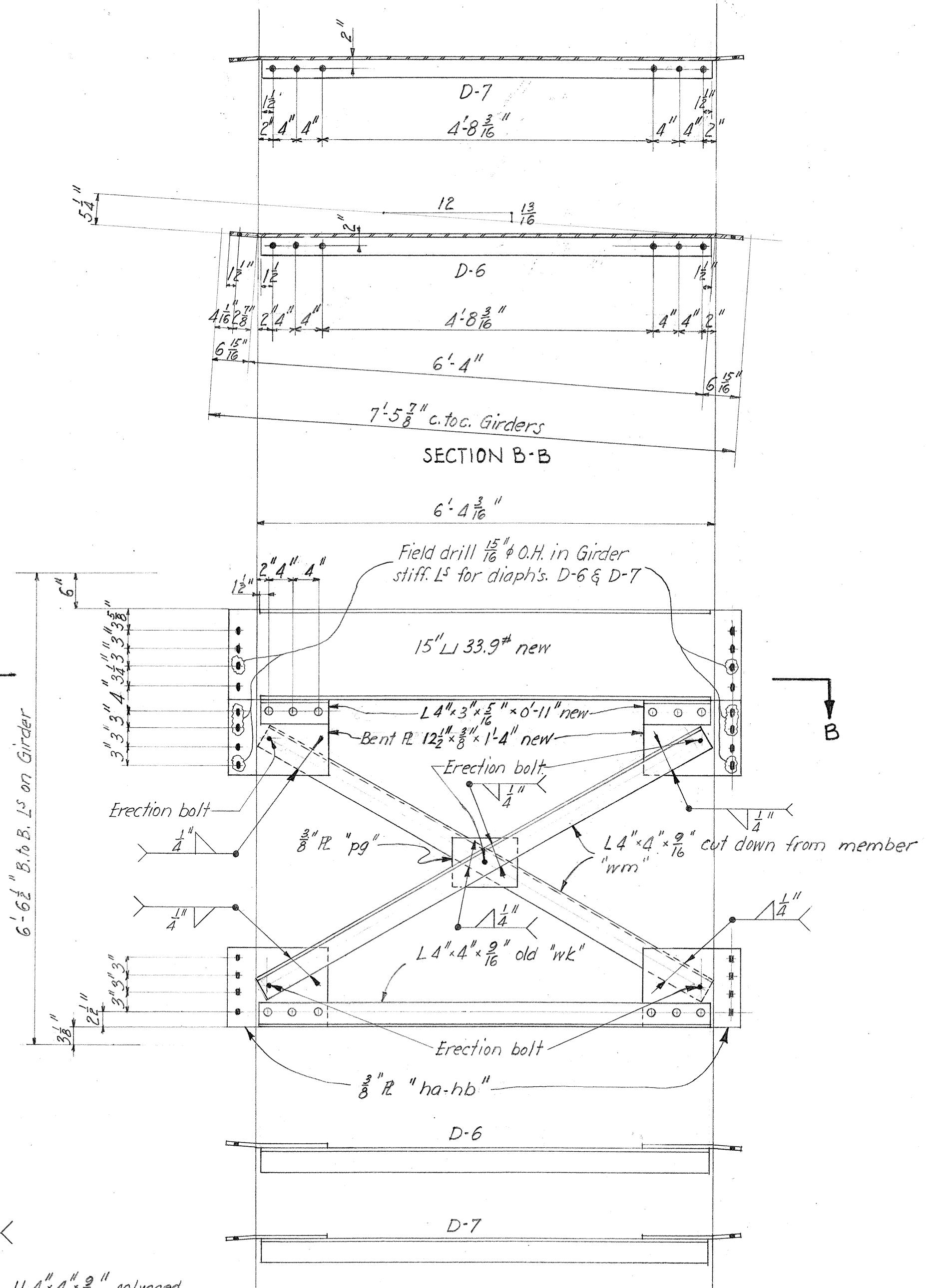
PLANS MADE BY
BUREAU OF PUBLIC WORKS
DEPARTMENT OF COMMERCE
WESTERN HEADQUARTERS
DESIGNED BY AEL DATE MAR 19 TRACED BY DATE
DRAWN BY AEL " MAR 19 CHECKED BY " JAN 1950



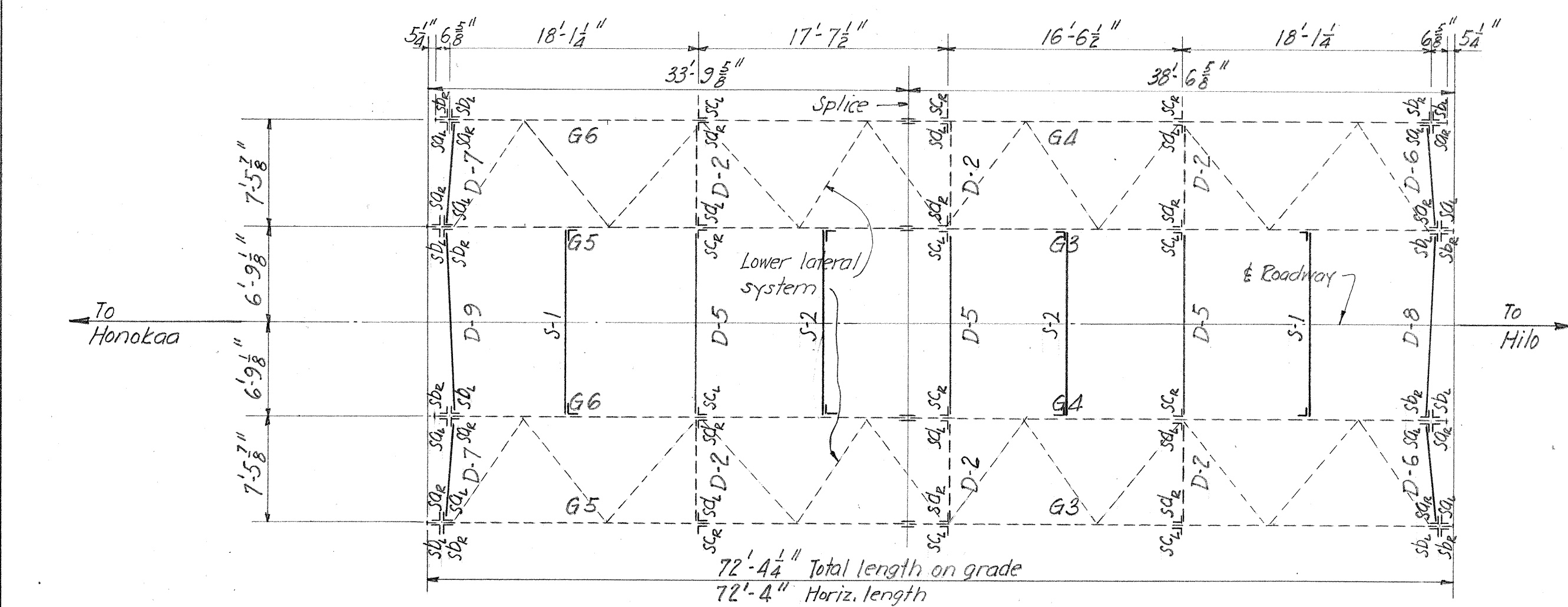
DETAILS DIAPHRAGMS D-8 & D-9
SCALE $\frac{3}{4}$ " = 1'-0"



DETAIL DIAPHRAGMS D2 & D3
SCALE $\frac{3}{4}$ " = 1'-0"



DETAILS DIAPHRAGMS D6 & D7
SCALE $\frac{3}{4}$ " = 1'-0"



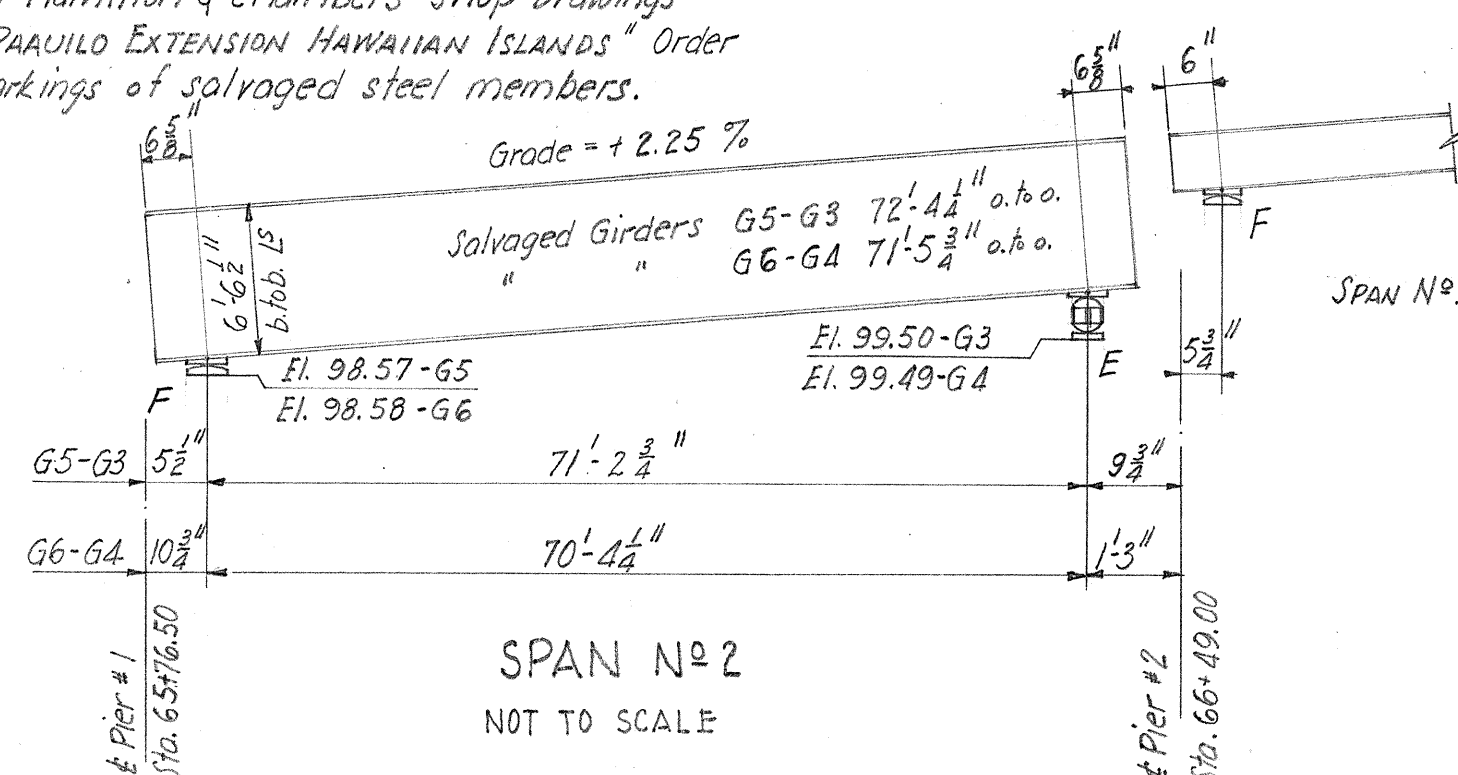
SPAN No 2
STRUCTURAL STEEL LAYOUT
SCALE $\frac{1}{8}$ " = 1'-0"

NOTES:
Upper lateral system to be eliminated when girders are re-erected.
Open holes in flange cover plates and flange LS to be filled with $\frac{3}{8}$ " rivets or bolts.
Other open holes to be disregarded.

Roadway slab to be same as for Spans No 5 & No 6. (See sheet #7)
See sheet #8 for detail diaphragm D-5.
Refer to old Hamilton & Chambers Shop Drawings "Hilo RAILROAD, PAAULU EXTENSION HAWAIIAN ISLANDS" Order No. 1437 for markings of salvaged steel members.

SECTION C-C
SCALE $\frac{1}{2}$ " = 1'-0"

STRUTS S1 & S2
SCALE $\frac{3}{4}$ " = 1'-0"



SPAN No 2
NOT TO SCALE

Rivets $\frac{7}{8}$ " Dia.
Holes $\frac{15}{16}$ " Dia.

TERRITORIAL HIGHWAY DEPARTMENT TERRITORY OF HAWAII	
KOLEKOLE BRIDGE	
STA. 65+61.0 TO 70+58.63	
HAWAII BELT ROAD SDR 3(10)	
FEBRUARY 1950	
SHEET No 6 OF 18 SHEETS	

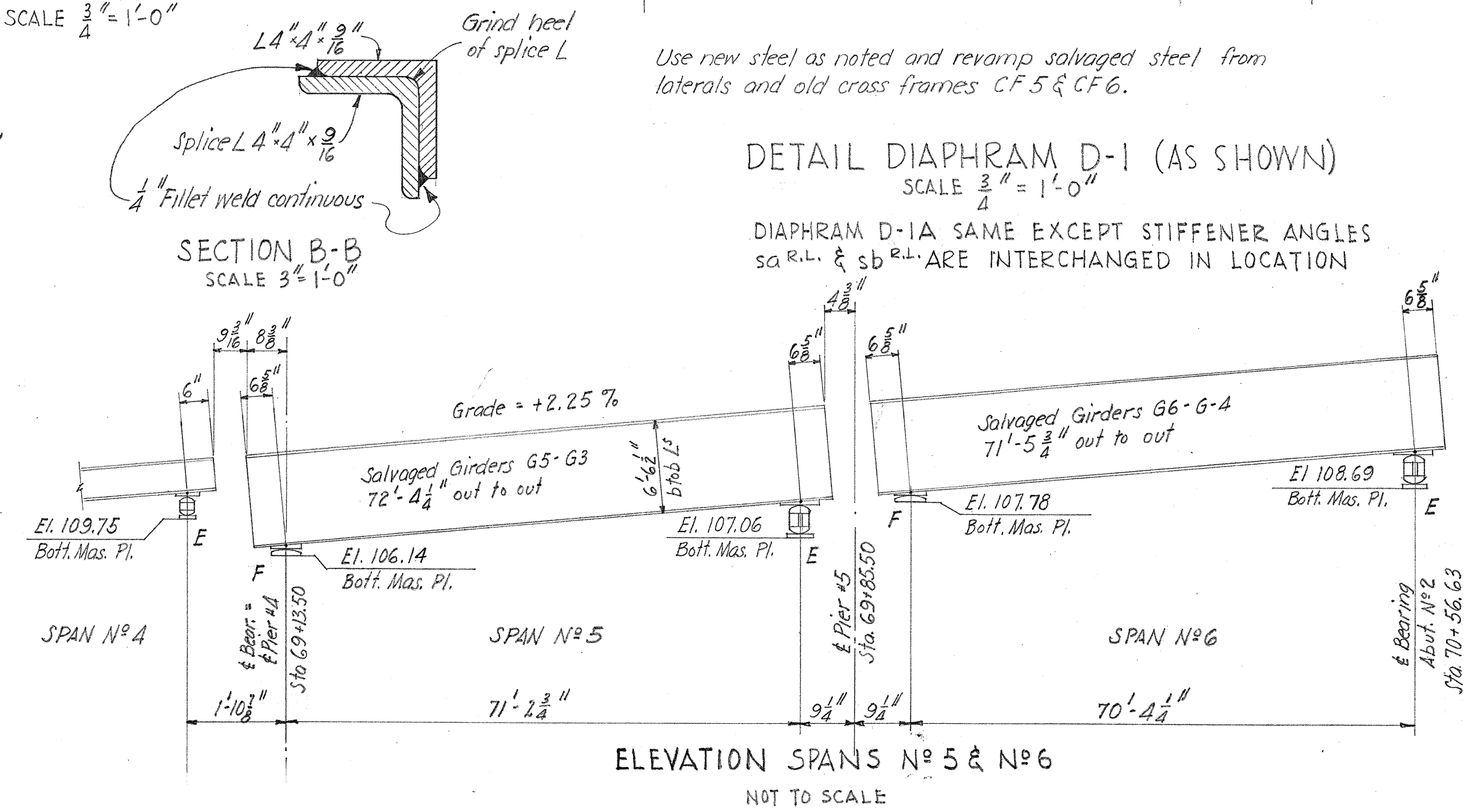
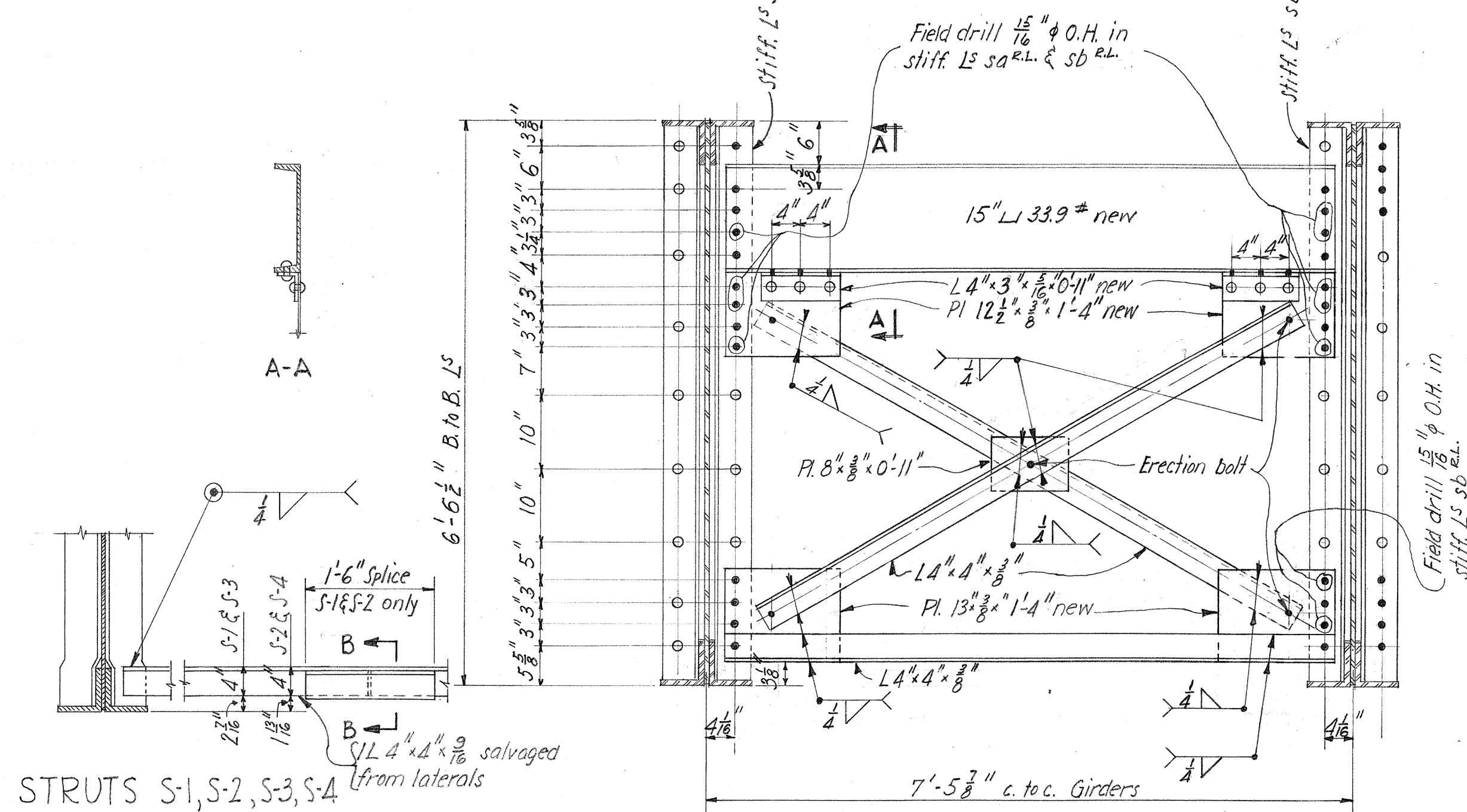
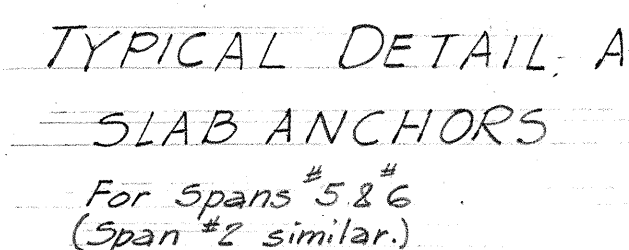
Revised 1-11-50

5463.10
KOLEKOLE

PLANS MADE BY
BUREAU OF PUBLIC ROADS
CONSTRUCTION DIVISION
WESTERN HEADQUARTERS
DESIGNED BY A.E.L. DATE JUNE 1949
DRAWN BY A.E.L. " JUNE 1949 CHECKED BY J.H.C. " Jan 1950

Indicates existing member from old bridge.
Indicates new or revised member.
D-2 Use old cross frame CF1 & CF2
D-5, D-6, D7 Use new steel and salvaged
D-8 & D9 steel as shown and noted.
S-1 & S-2 Use salvaged steel as noted.

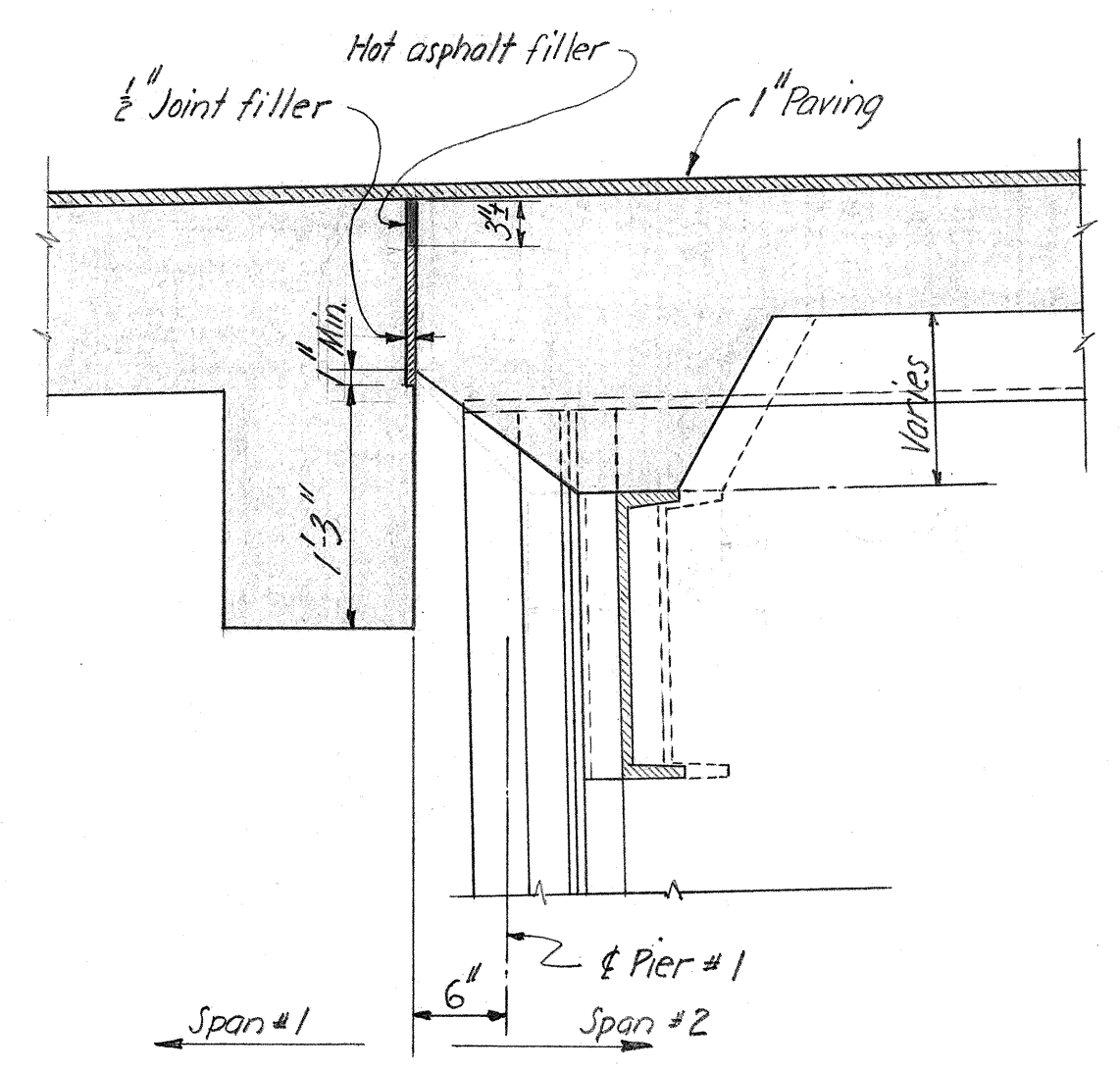
Note! See Table Sheet No. 7
for Girder make up.



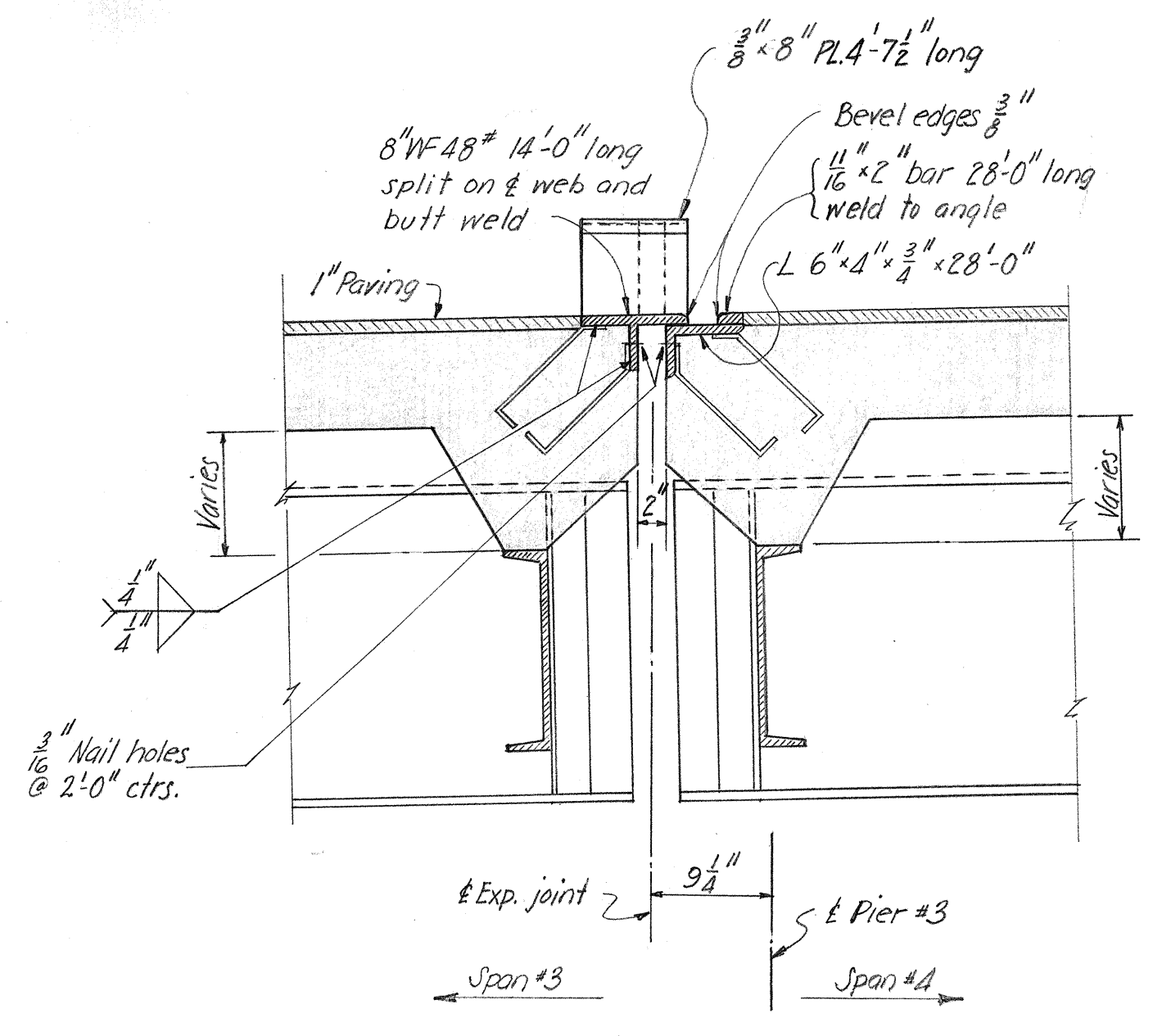
SALVAGED GIRDERS			
G6	G5	G4	G6
$11\frac{1}{2} \times 6 \times 6 \times 38'6\frac{1}{2}"$	$11\frac{1}{2} \times 6 \times 6 \times 33'9\frac{1}{2}"$	$11\frac{1}{2} \times 6 \times 4 \times 38'1\frac{1}{2}"$	$11\frac{1}{2} \times 6 \times 6 \times 33'4\frac{1}{2}"$
W.P. $78\frac{1}{2} \times 38'6\frac{1}{2}"$	W.P. $78\frac{1}{2} \times 33'9\frac{1}{2}"$	W.P. $78\frac{1}{2} \times 38'1\frac{1}{2}"$	W.P. $78\frac{1}{2} \times 33'4\frac{1}{2}"$
2CP. $16\frac{1}{2} \times 20'1\frac{1}{2}"$	2CP. $16\frac{1}{2} \times 15'1\frac{1}{2}"$	2CP. $16\frac{1}{2} \times 20'1\frac{1}{2}"$	2CP. $16\frac{1}{2} \times 15'1\frac{1}{2}"$
2CP. $16\frac{1}{2} \times 29'11\frac{1}{2}"$	2CP. $16\frac{1}{2} \times 25'0\frac{1}{2}"$	2CP. $16\frac{1}{2} \times 29'11\frac{1}{2}"$	2CP. $16\frac{1}{2} \times 25'0\frac{1}{2}"$

NOTE: Upper and Lower Lateral systems to be eliminated when girders are re-erected. Open holes in flange cover plates and flange LS to be filled with $\frac{3}{8}$ " rivets or bolts; other open holes to be disregarded. Refer to old Hamilton & Chambers shop drawings "Hilo Railroad, Paauilo Extension Hawaiian Islands" Order No. 1437 for markings of salvaged steel members.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw.	SDR 3(10)	1950	13	23

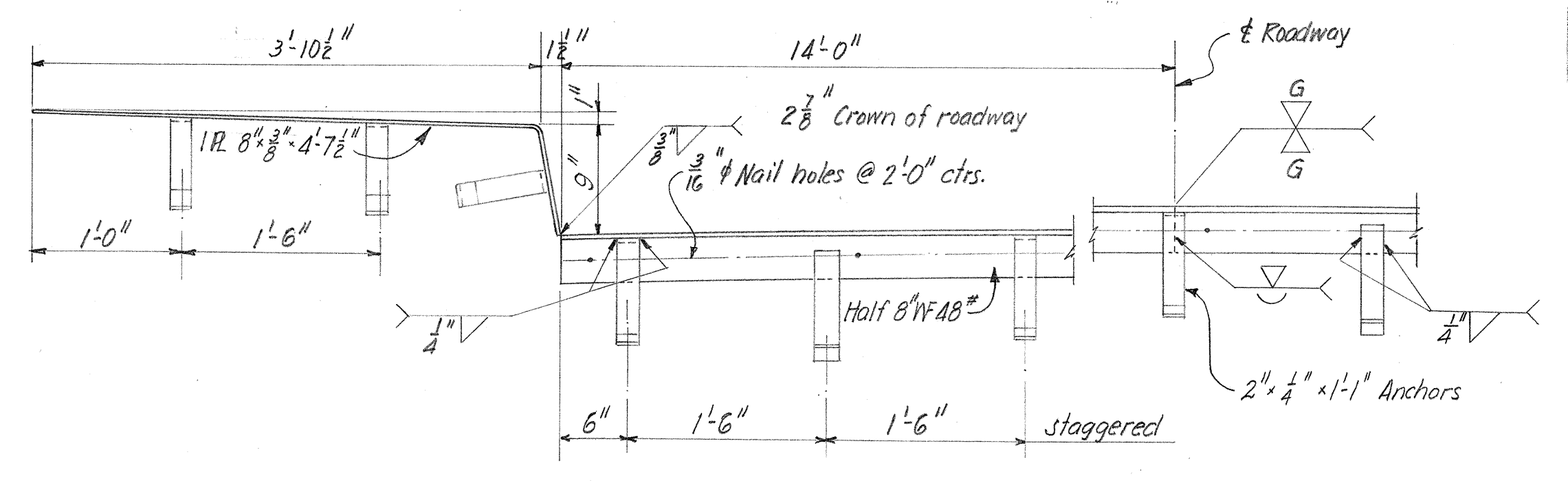


JOINT IN ROADWAY SLAB AT PIER #1

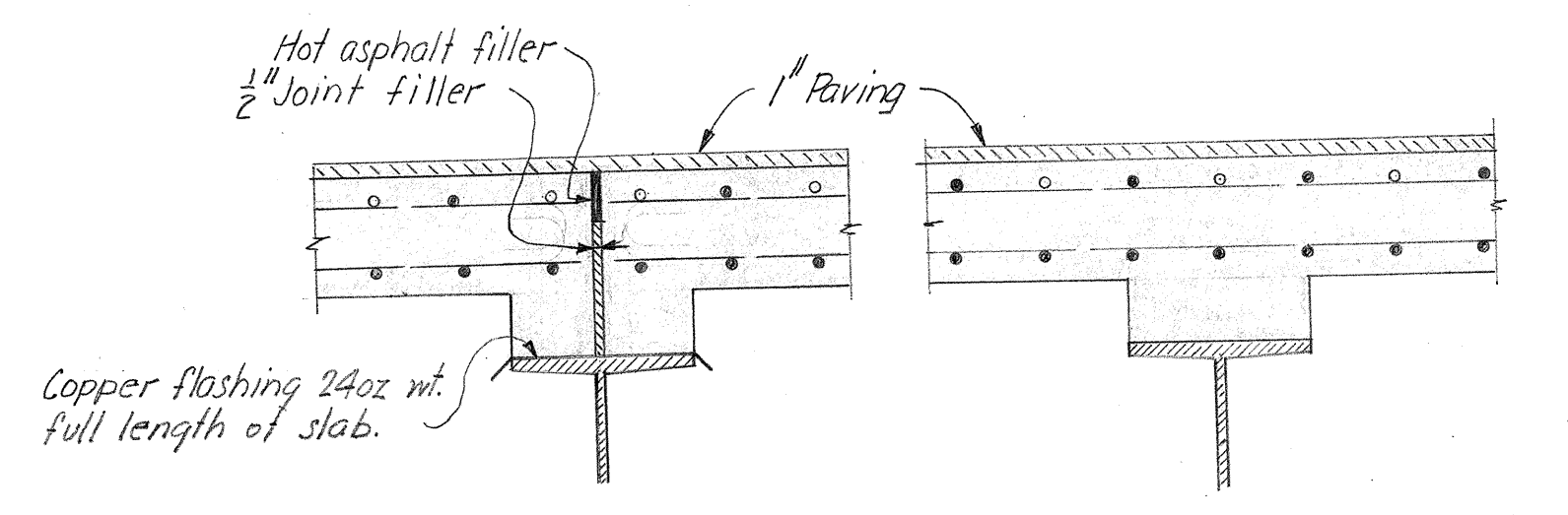


EXPANSION JOINT AT PIER #3

Note: Split 8" WF 48" and 6" x 4" x 3/4" L for expansion joints at Piers No. 3 & 4 to be bent to fit crown of roadway.

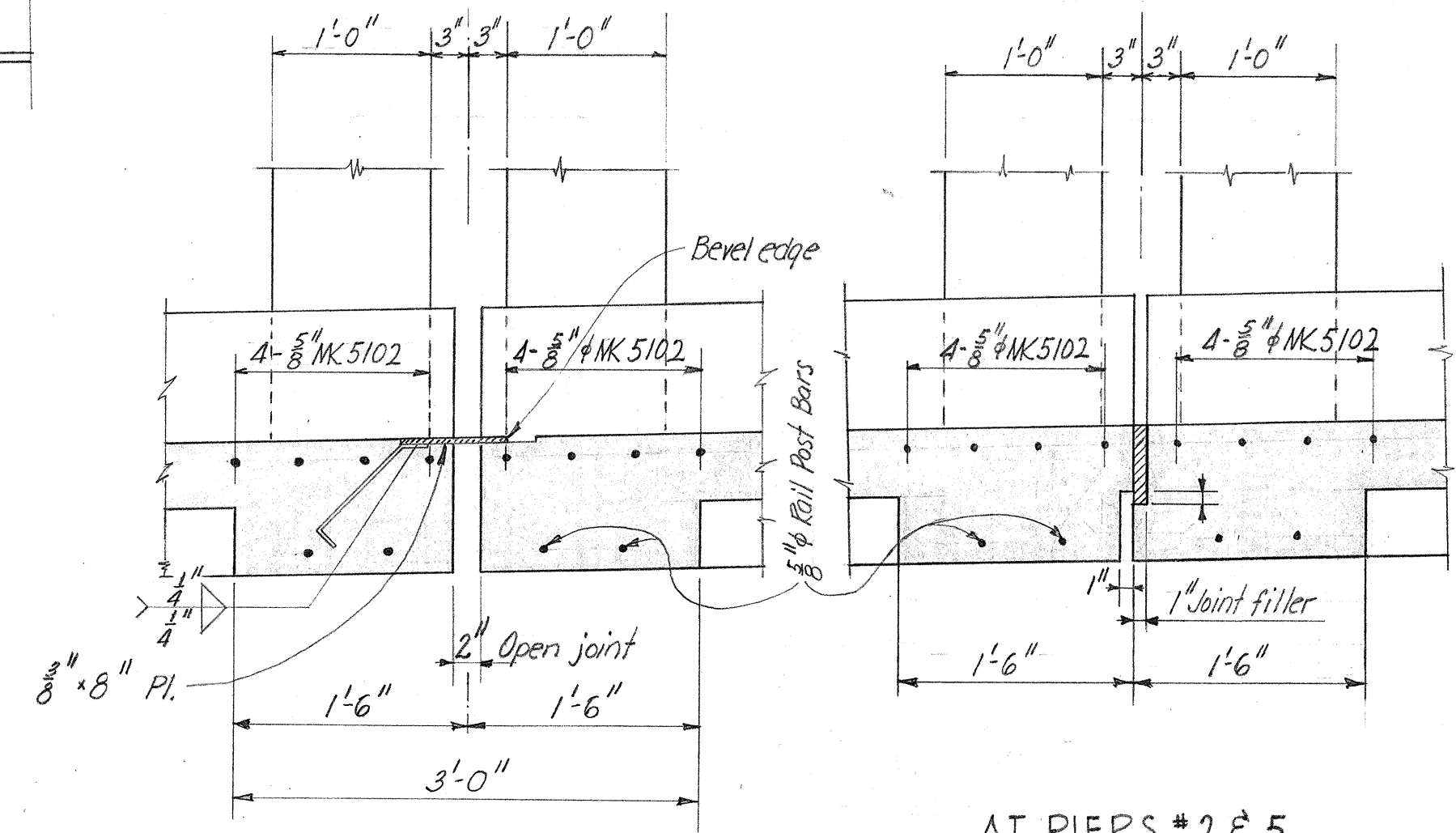


EXPANSION SECTION AT PIERS #3 & #4



JOINT IN SLAB AT U-3

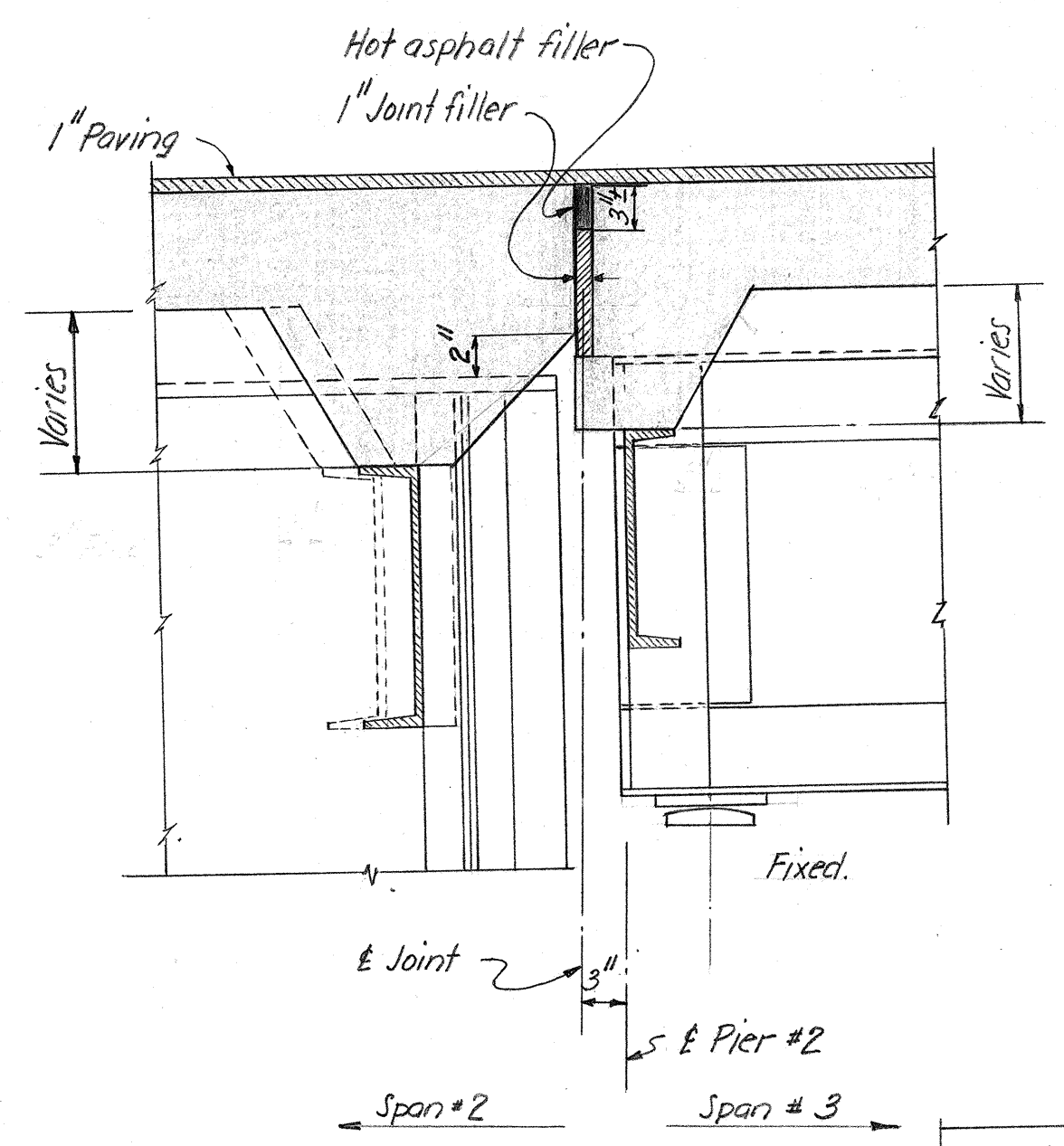
DETAIL AT U-1, U-2, U-1', U-2' ROADWAY SLAB DETAILS SPANS #3 & #4



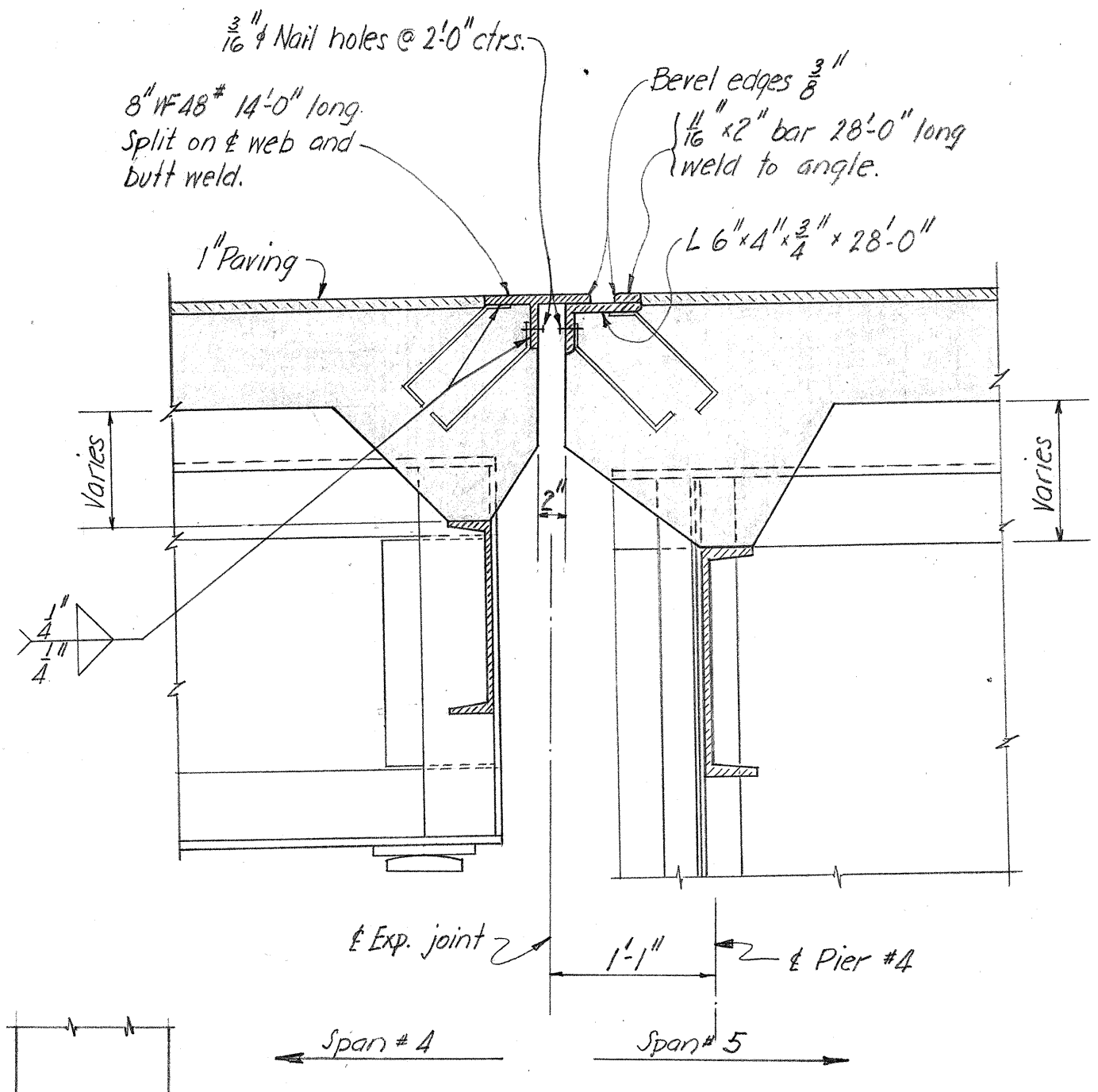
AT PIERS #3 & #4

INTERMEDIATE JOINTS IN SIDEWALK SLAB

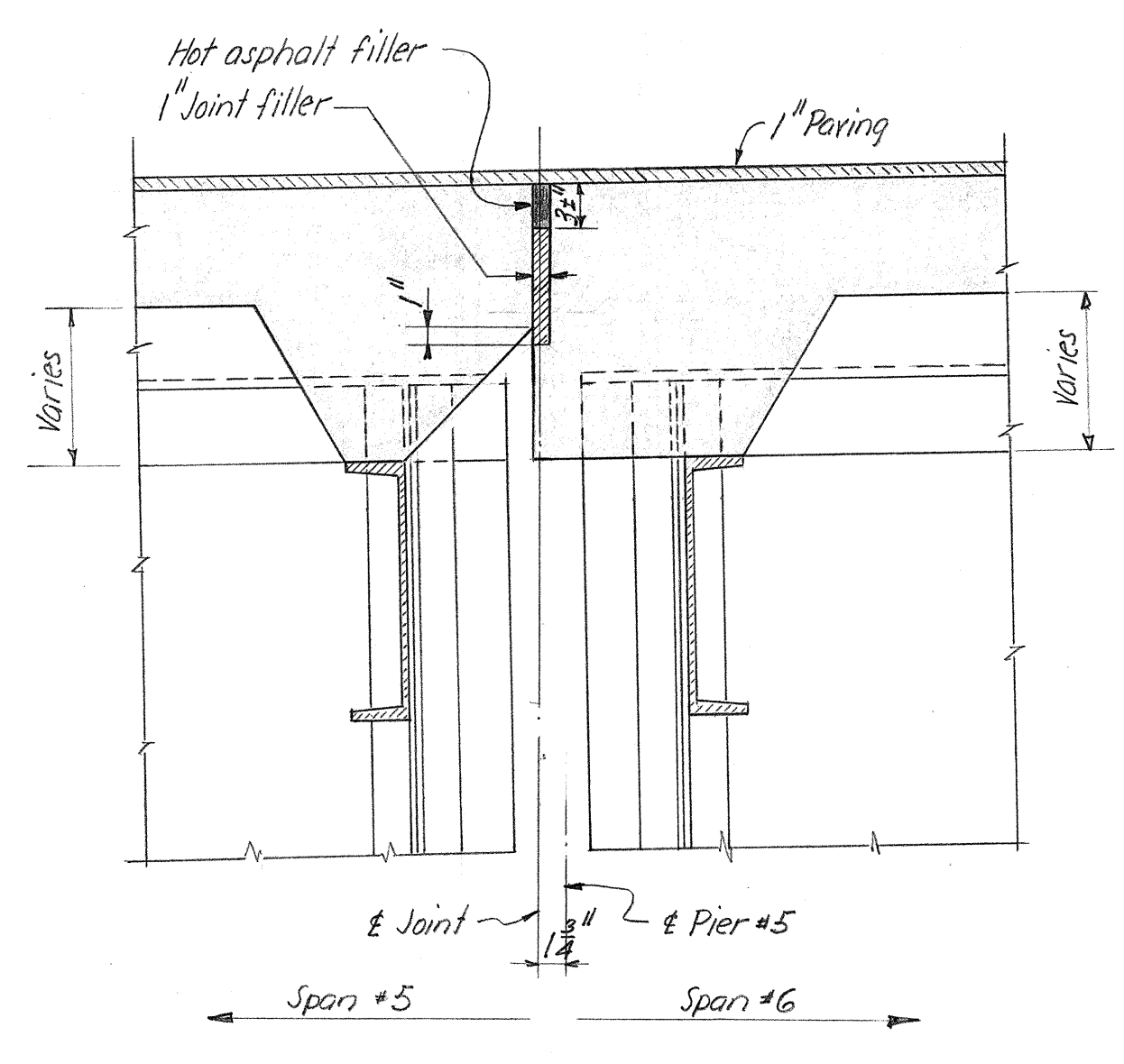
AT PIERS #2 & #5



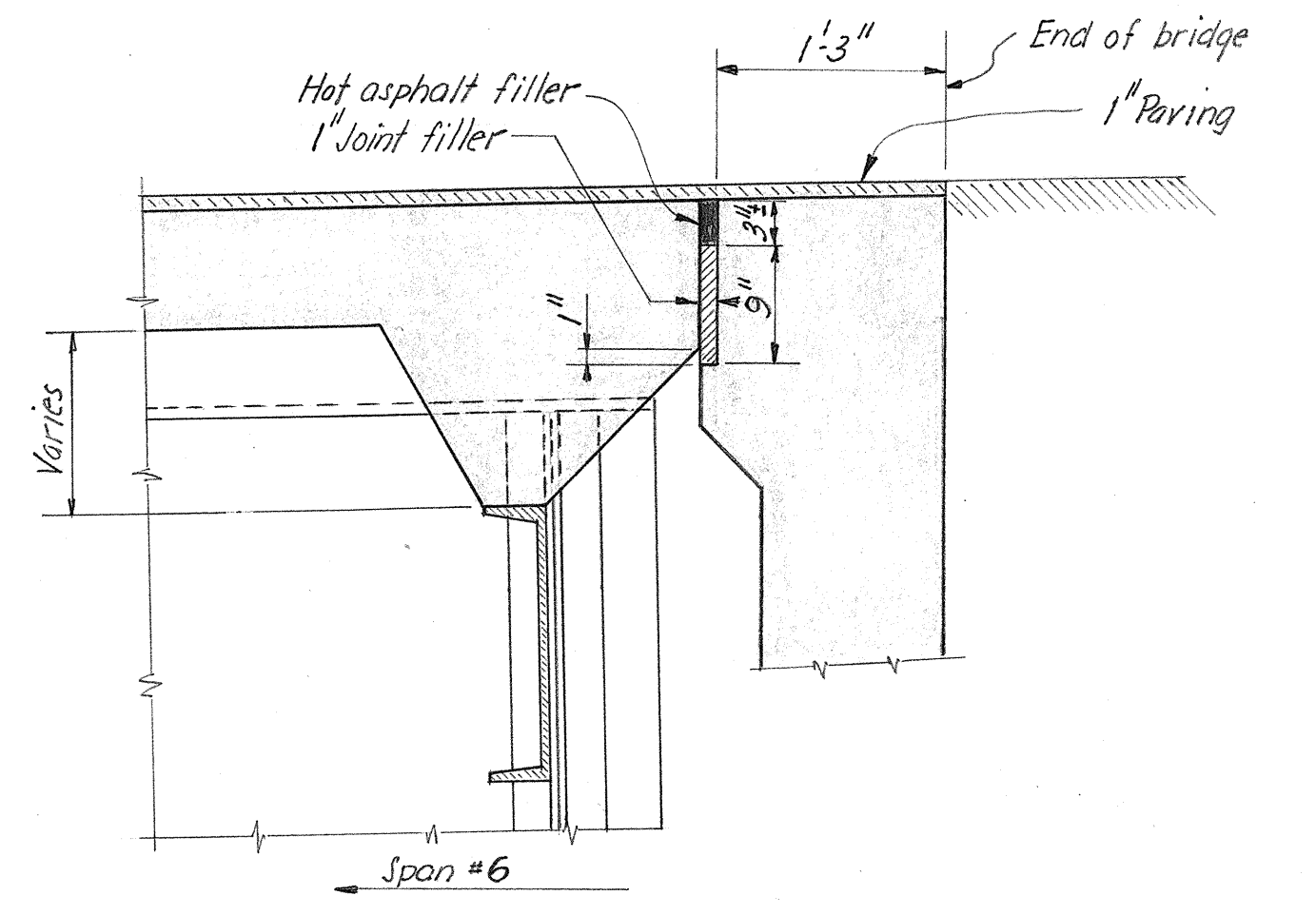
JOINT IN ROADWAY SLAB AT PIER #2



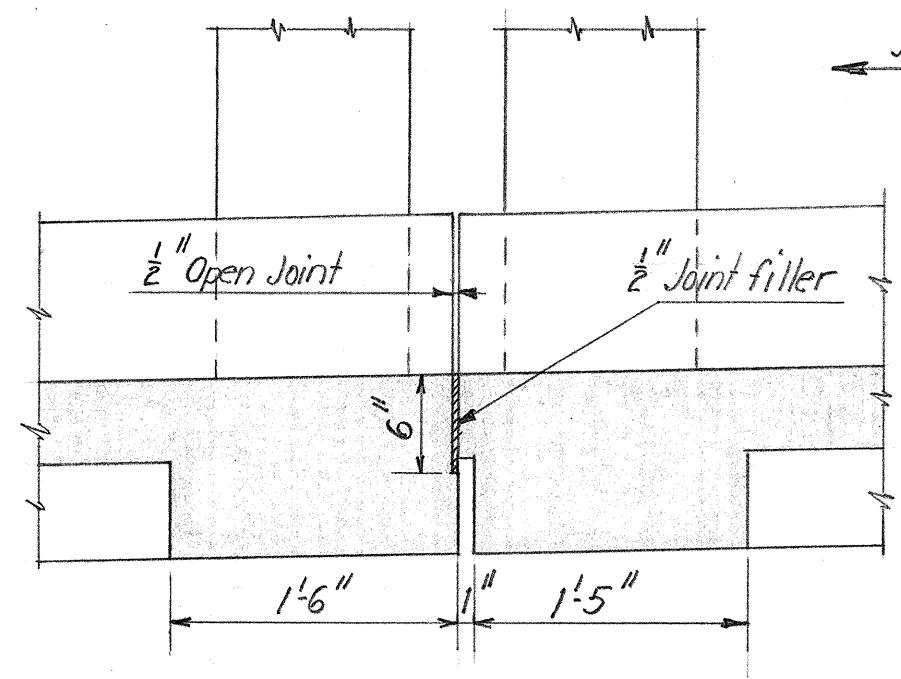
EXPANSION JOINT AT PIER #4



JOINT IN ROADWAY SLAB AT PIER #5



JOINT IN ROADWAY SLAB AT ABUTMENT NO. 2



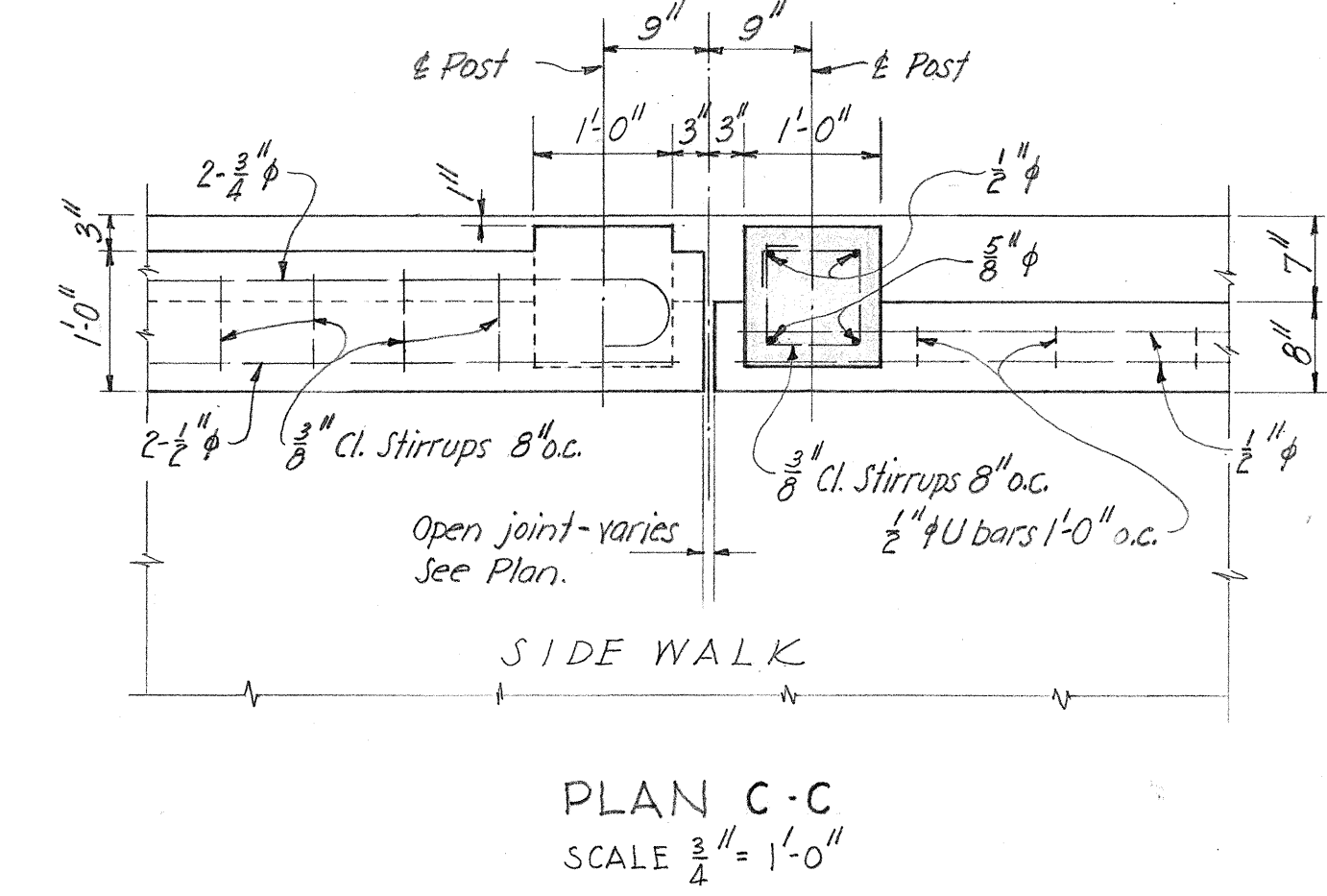
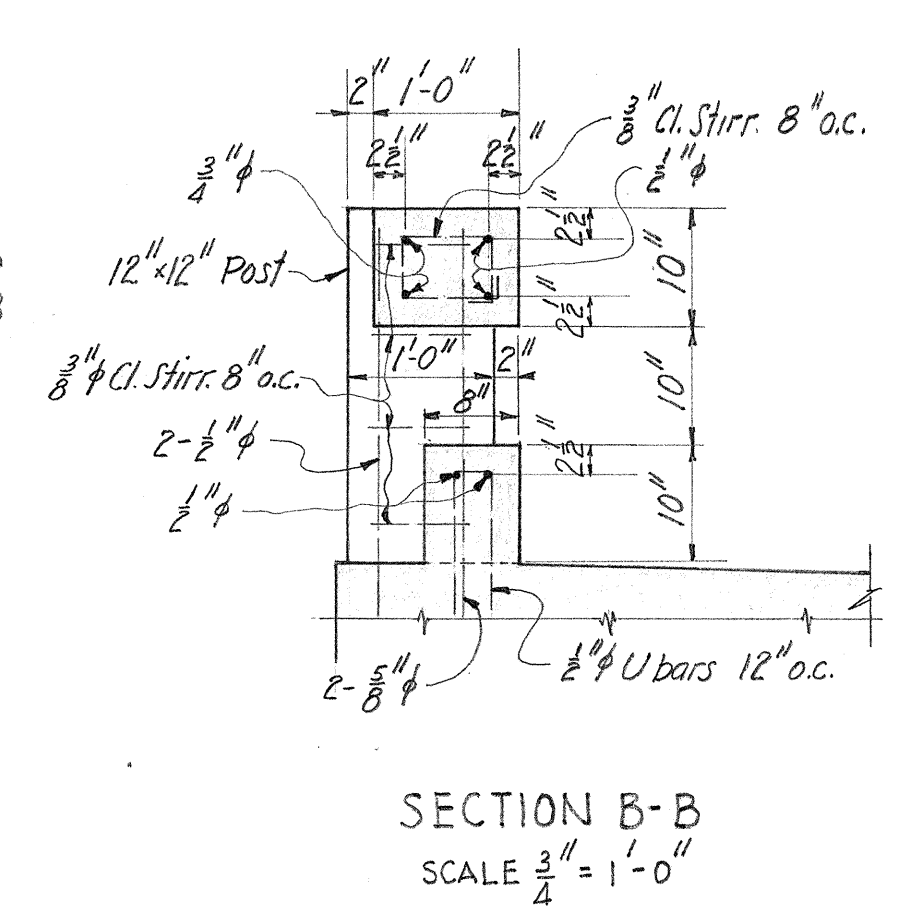
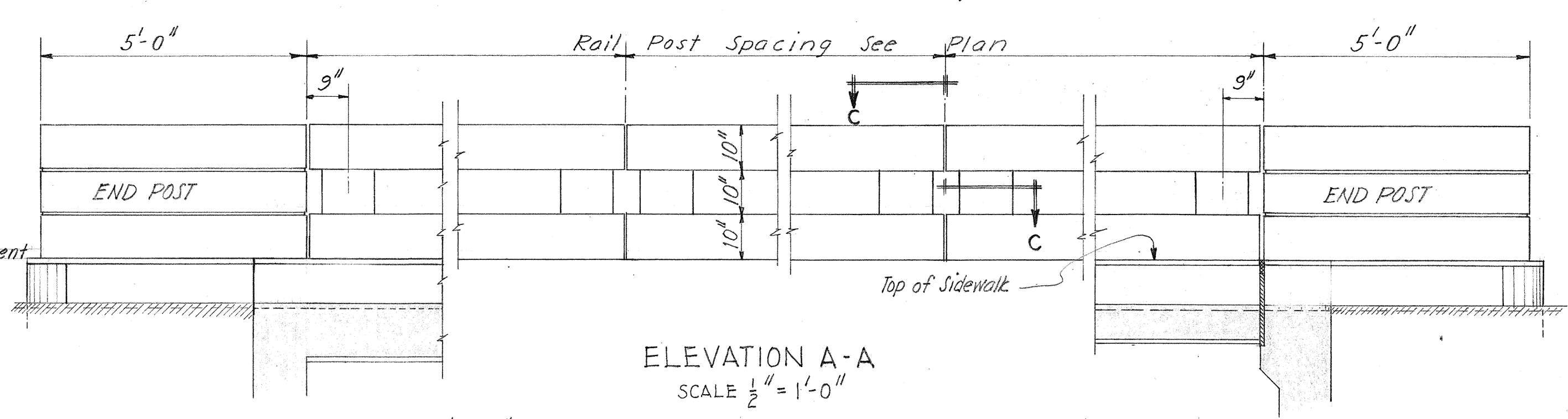
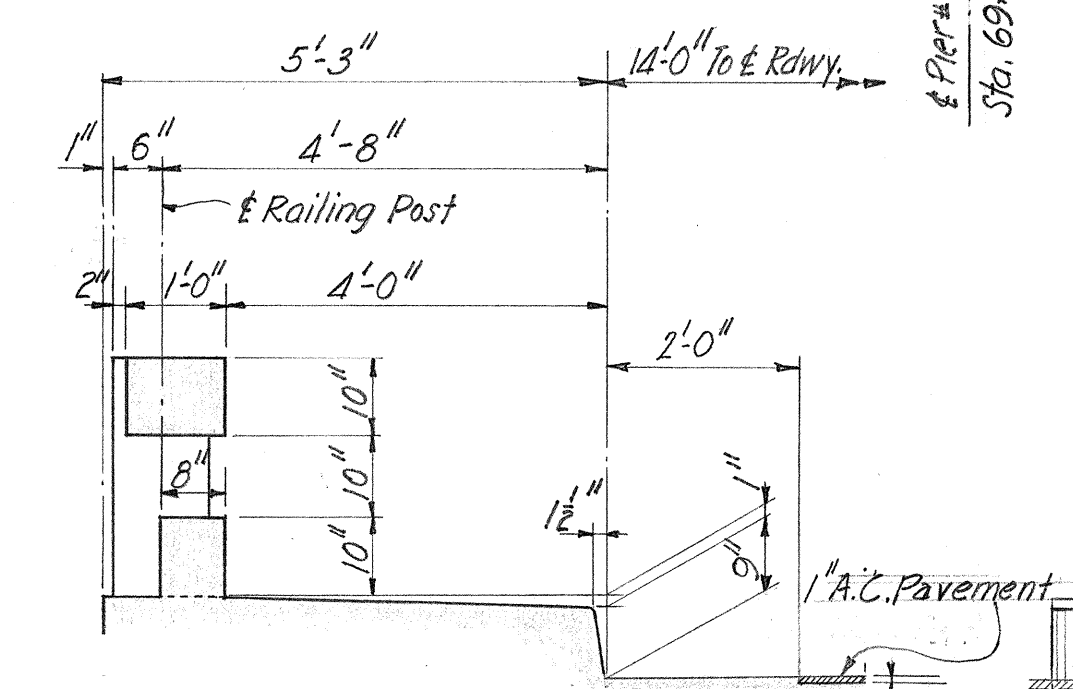
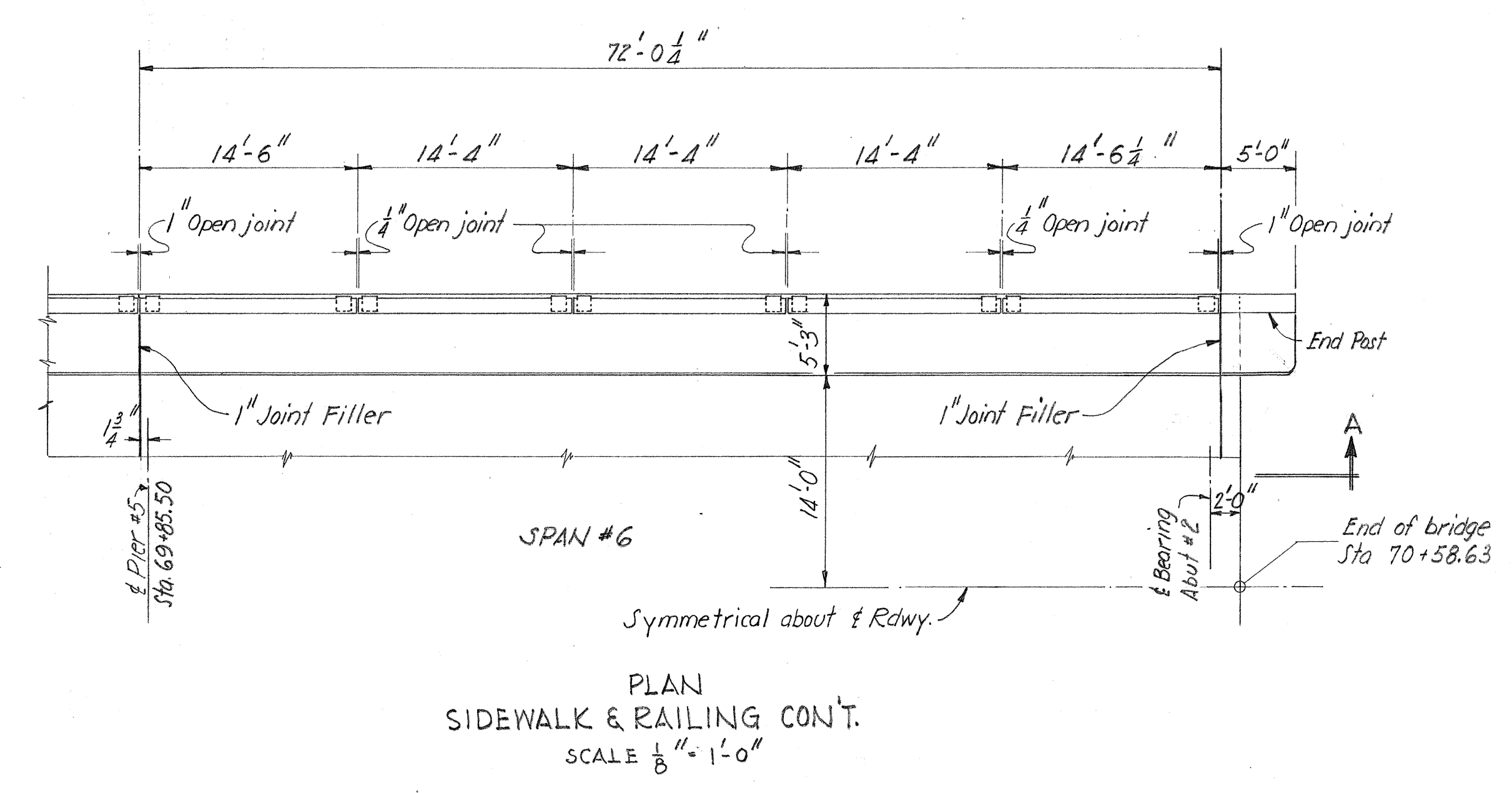
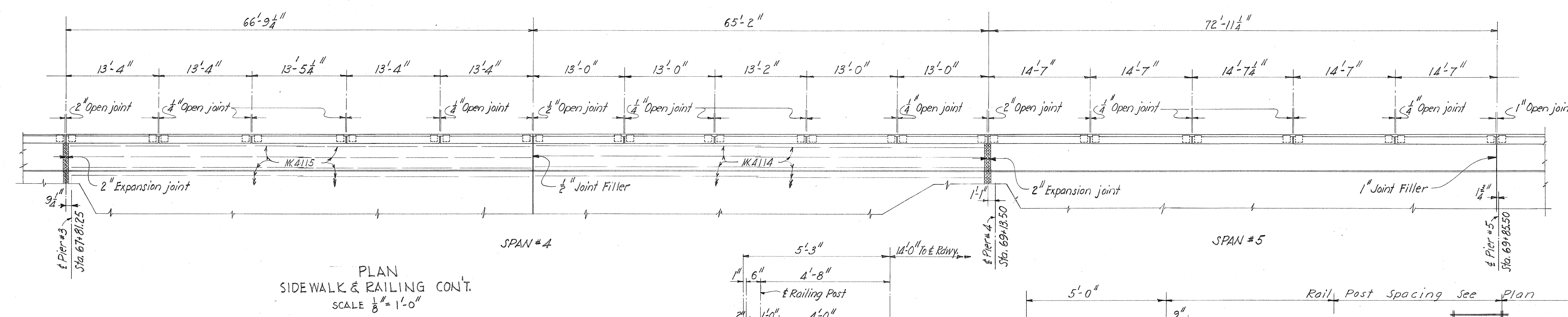
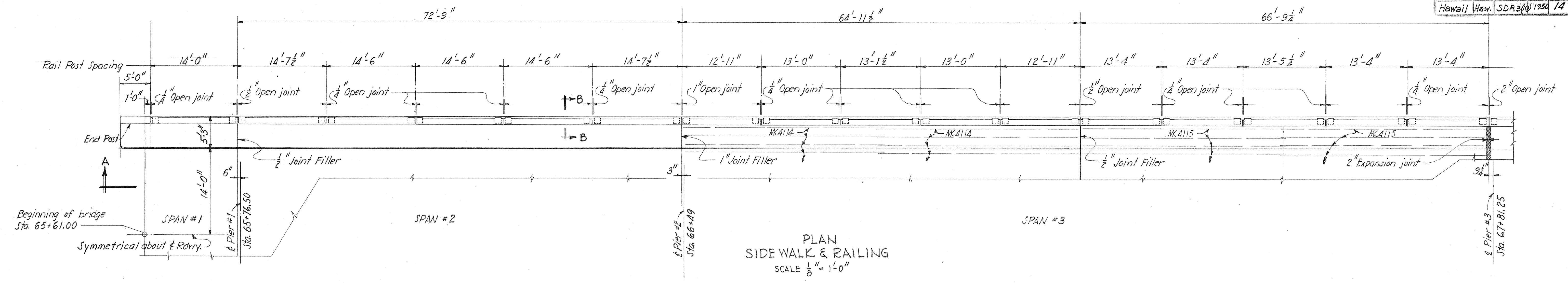
JOINT IN SIDEWALK SLAB AT PIER #1

Scale 1" = 1'-0"

TERRITORIAL HIGHWAY DEPARTMENT	
TERRITORY OF HAWAII	
KOLEKOLE BRIDGE	
STA. 65+61.0 TO 70+58.63	
HAWAII BELT ROAD	SDR 3(10)
FEBRUARY 1950	
SHEET NO. 9 OF 18 SHEETS	

Revised 11-15-19 5463.13 KOLEKOLE AEL

PLANS MADE BY
BUREAU OF PUBLIC ROADS
DESIGNED BY AEL
DRAWN BY AEL
DATE
CHECKED BY AEL
11 JAN 1950



LONGITUDINAL REINFORCING BARS FOR RAILING-MARKING

BAR DESCRIPTION	SPAN NO					
	1	2	3	4	5	6
TYPE B - 3/8" φ TOP RAIL	NK 6101	NK 6102	NK 6105	NK 6105	NK 6106	NK 6104
STRAIGHT - 1/2" φ TOP & BOTT. RAIL	NK 4105	NK 4113	NK 4116	NK 4116	NK 4113	NK 4113

NOTES
 Grade +2.25 %.
 Set rail posts vertical.
 See sheet no. 13 for details of END POSTS.

TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII
KOLEKOLE BRIDGE
 STA. 65+61.0 TO 70+58.63
 HAWAII BELT ROAD SDR 3(10)
 FEBRUARY 1950
 SHEET NO 10 OF 18 SHEETS

PLANS MADE BY
 SUPERVISOR OF ROADS
 DEPARTMENT OF COMMERCE
 WESTERN HEADQUARTERS SAN FRANCISCO
 DESIGNED BY AEL DATE AUG 49 TRACED BY DATE
 DRAWN BY AEL " AUG 49 CHECKED BY 12/22 " Jan 1950

PLANS MADE BY
BUREAU OF PUBLIC ROADS
DEPARTMENT OF COMMERCE
WESTERN HEADQUARTERS SAN FRANCISCO, CALIFORNIA
DESIGNED BY Car DATE Aug 49 TRACED BY _____ DATE _____
DRAWN BY Car " Aug 49 CHECKED BY Fife " Jan. 1950

Sta. 65+61 → 15'-0" → Sta. 65+76

Elev. 106.05
Top of concrete

1/2" NK 416 @ 1'-0" ctrs.

2"x4" key Constr. joint

5/8" NK 5101

1/2" NK 4102 @ 2'-0" ctrs.

7/8" NK 7101 @ 7 1/2" ctrs.

2"x4" key

3/8" cl. stirr. NK 301 @ 1'-0" ctrs.

3- 3/4" NK 601

2" NK 7102

1/2" NK 416 @ 6" ctrs. in col's

1'-0"

13'-0"

1'-0"

2"

2"

Elev. 98.52

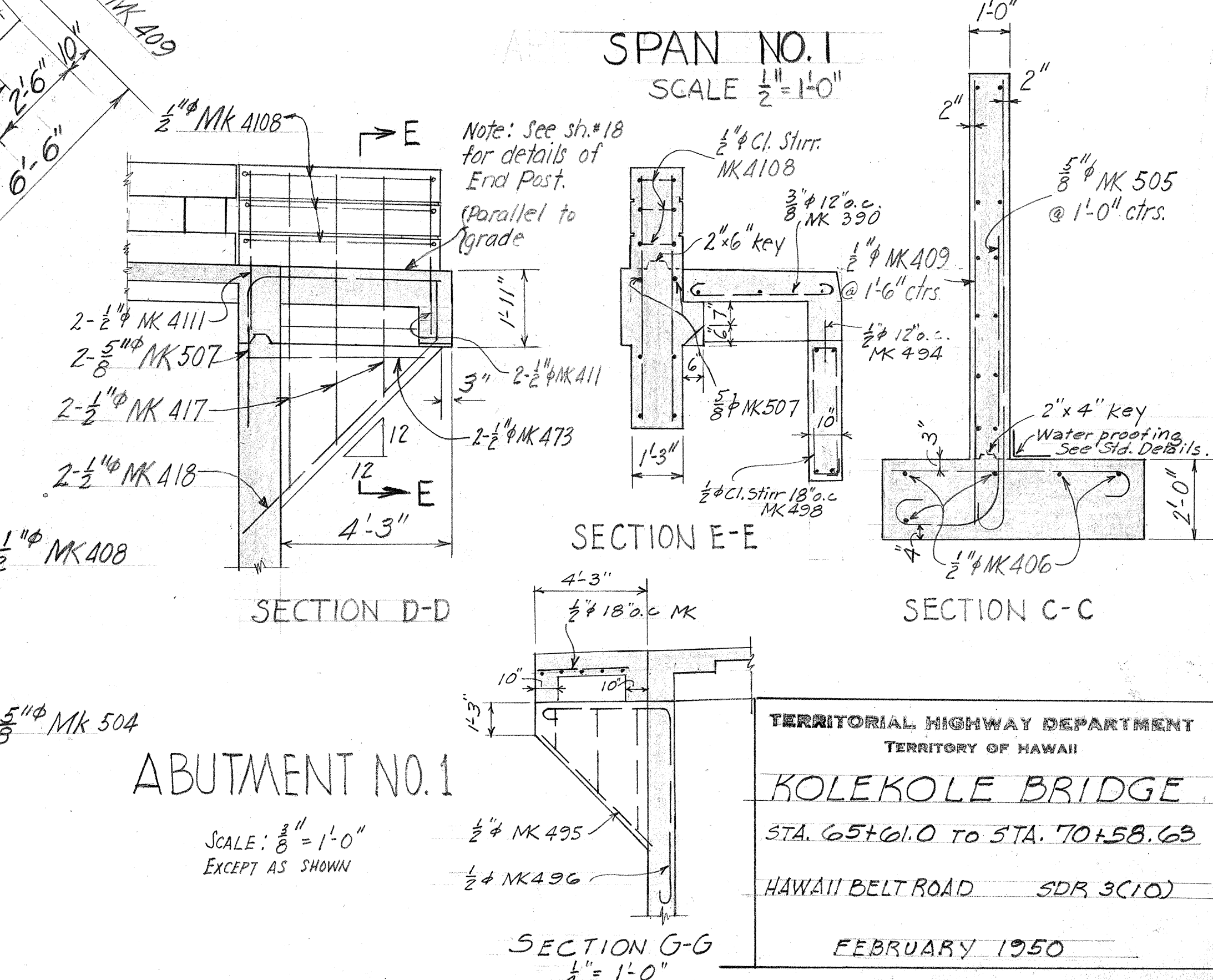
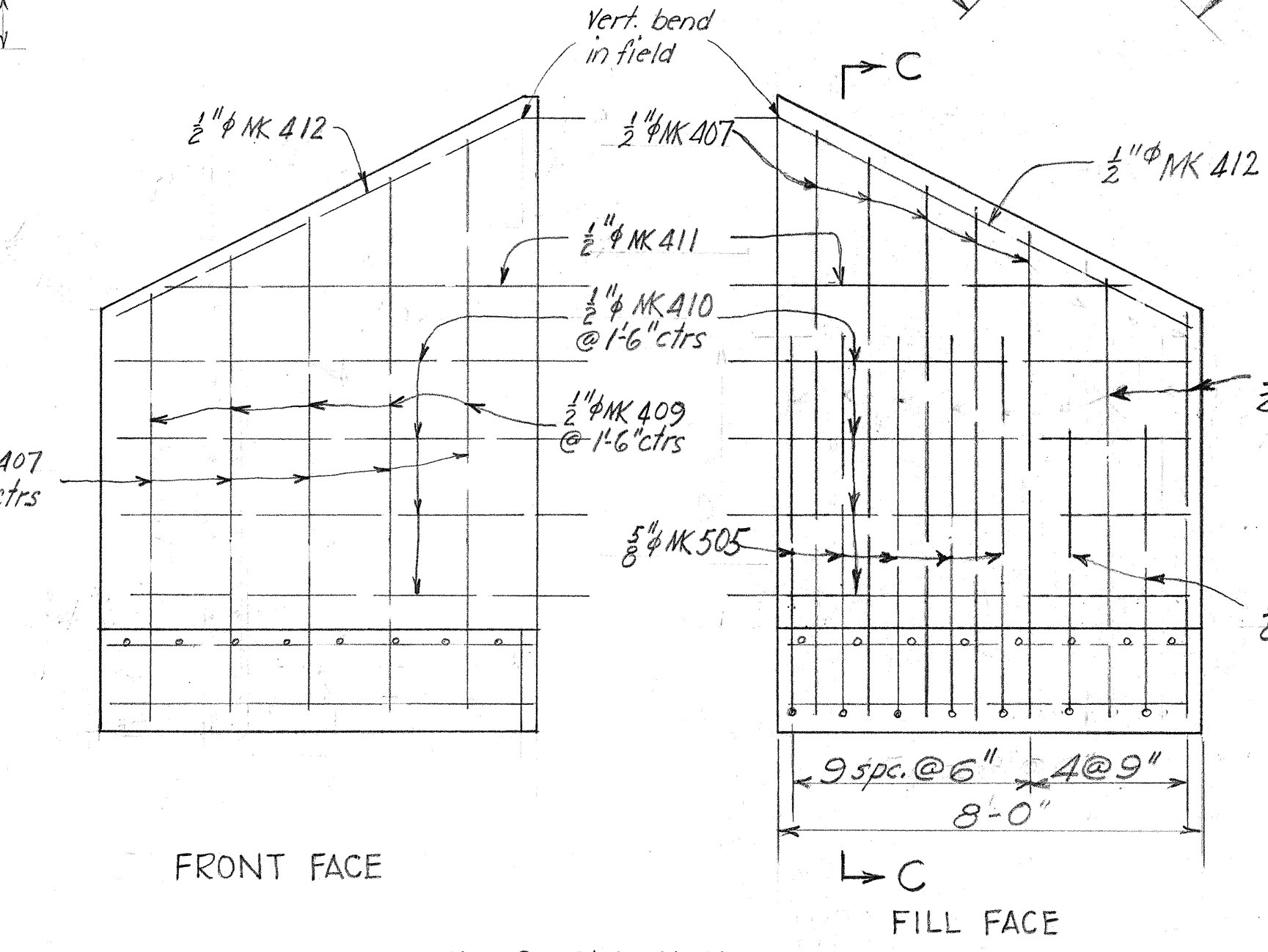
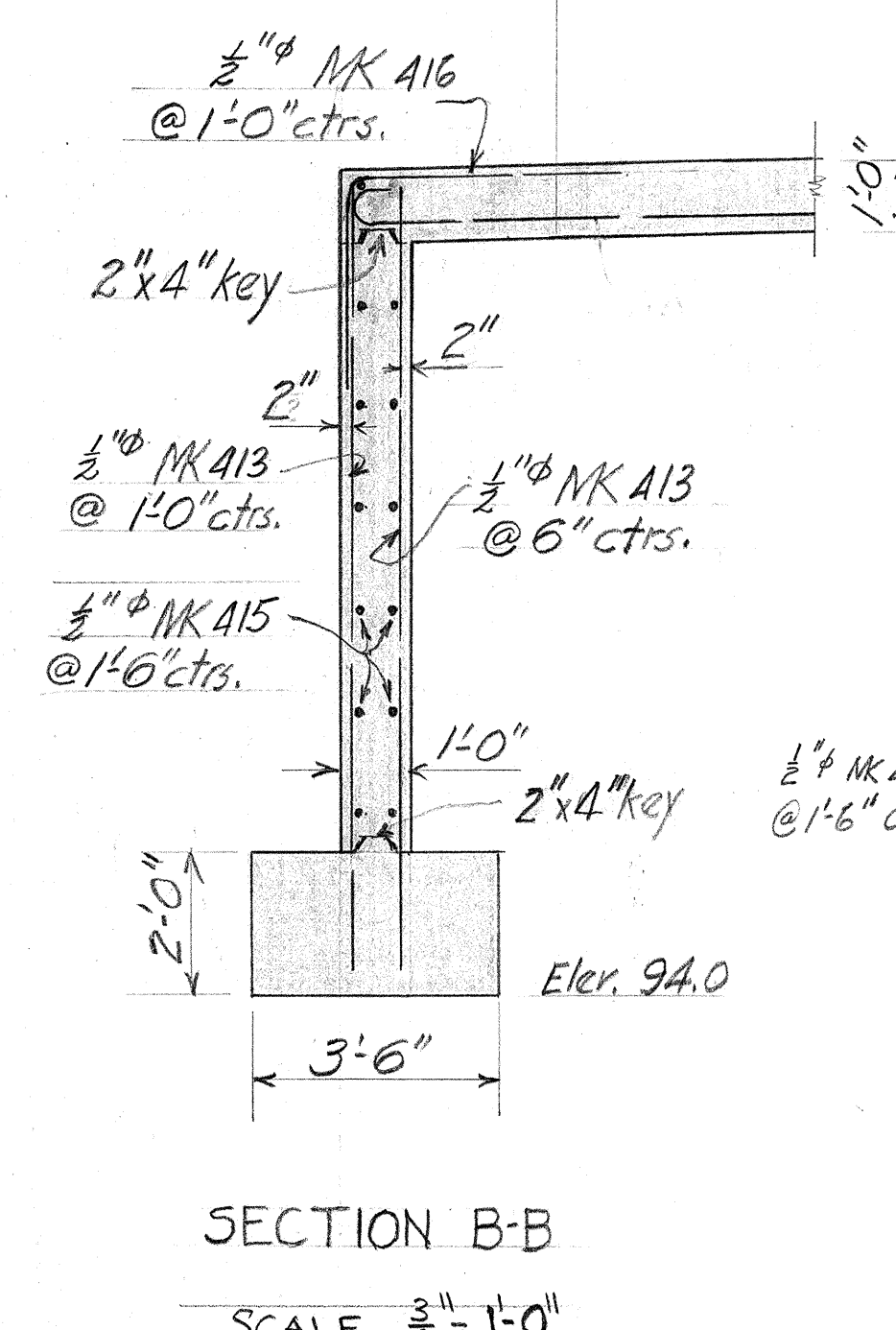
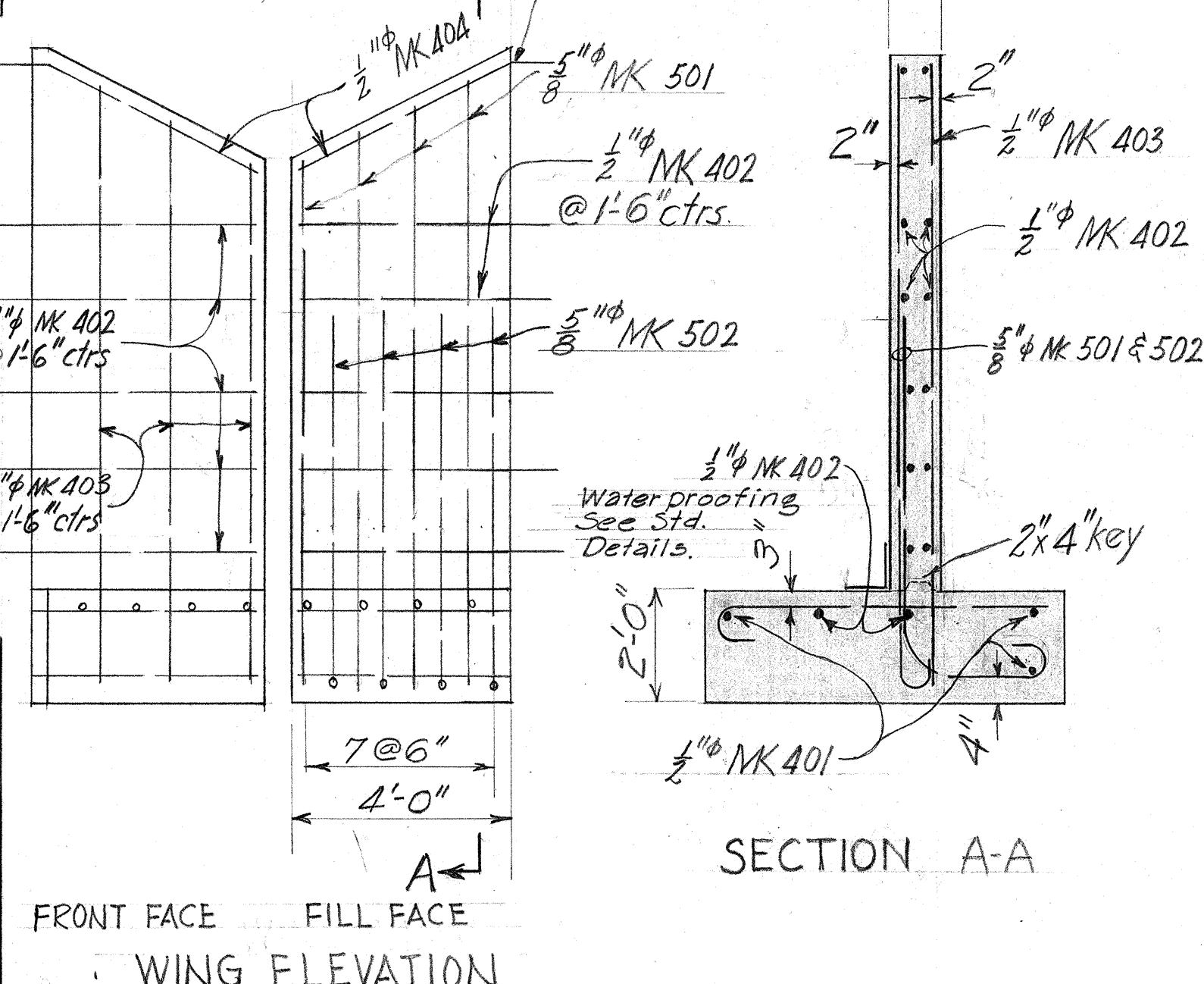
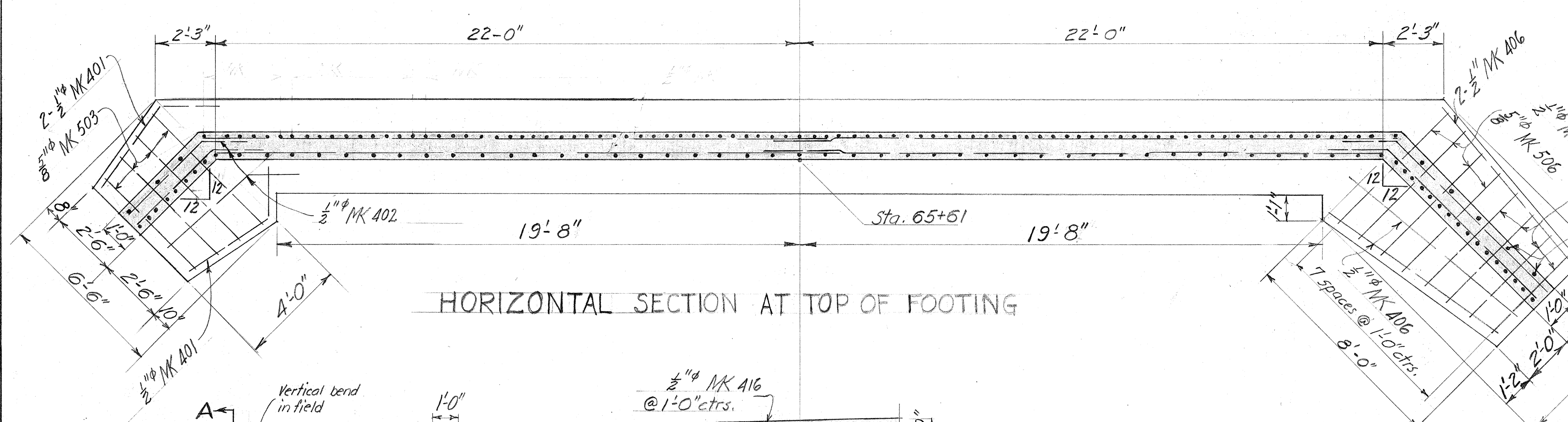
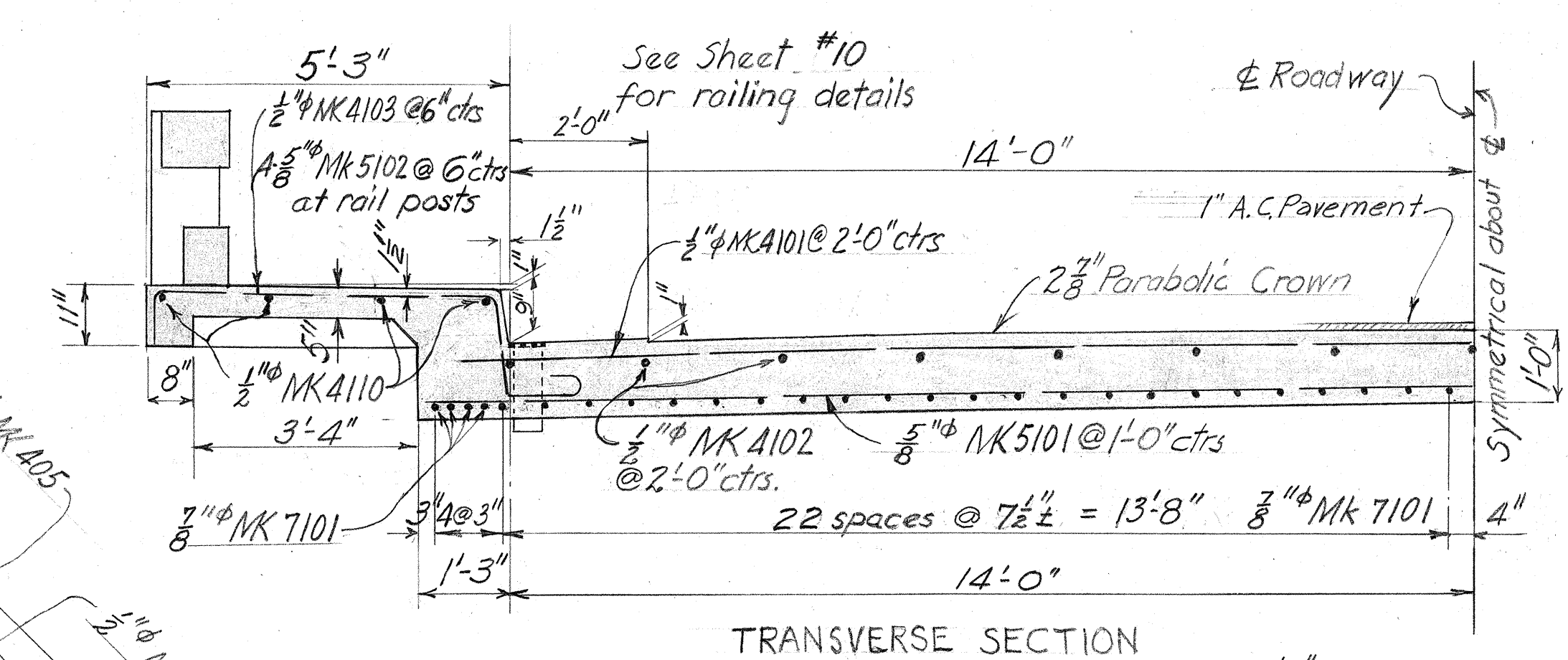
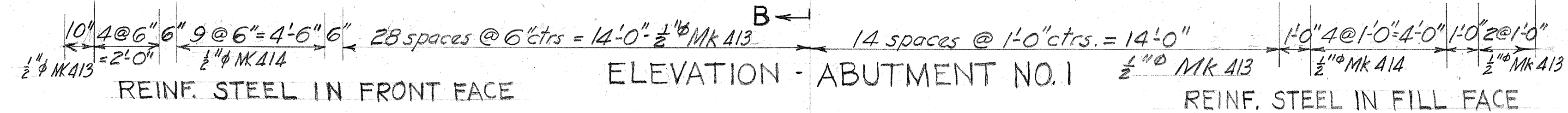
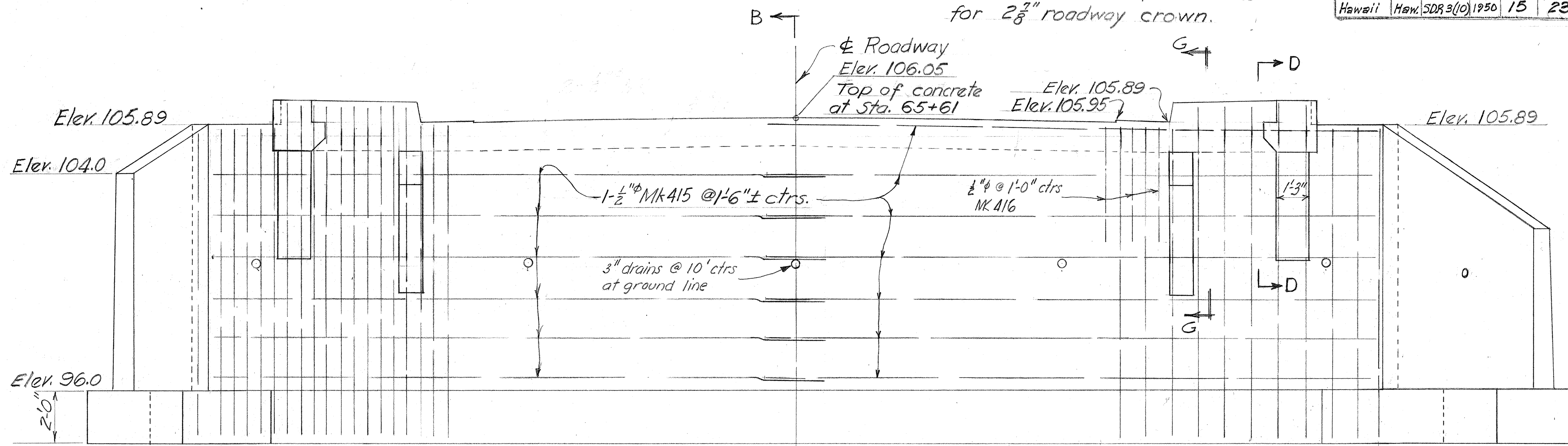
ABUT. NO. 1

LONGITUDINAL SECTION AT C OF ROADWAY

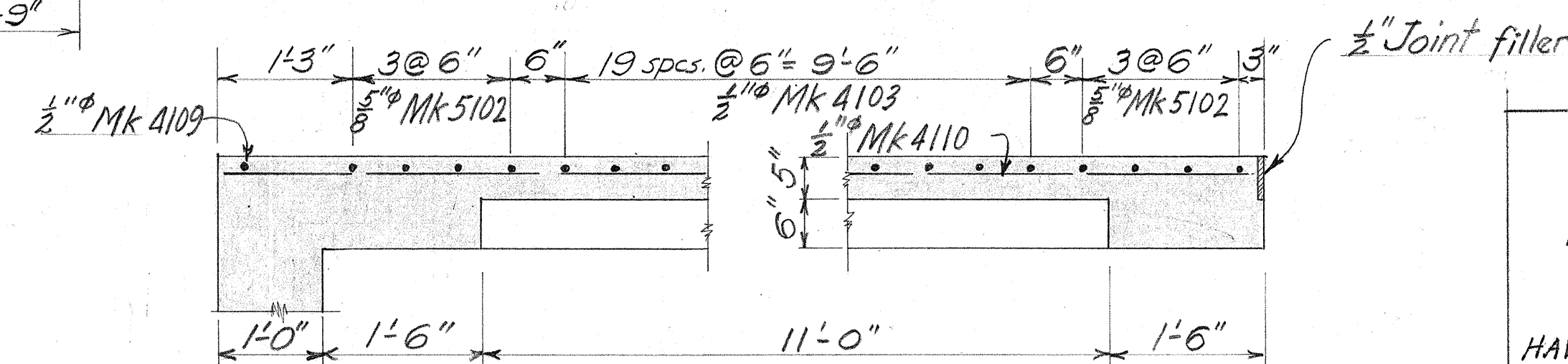
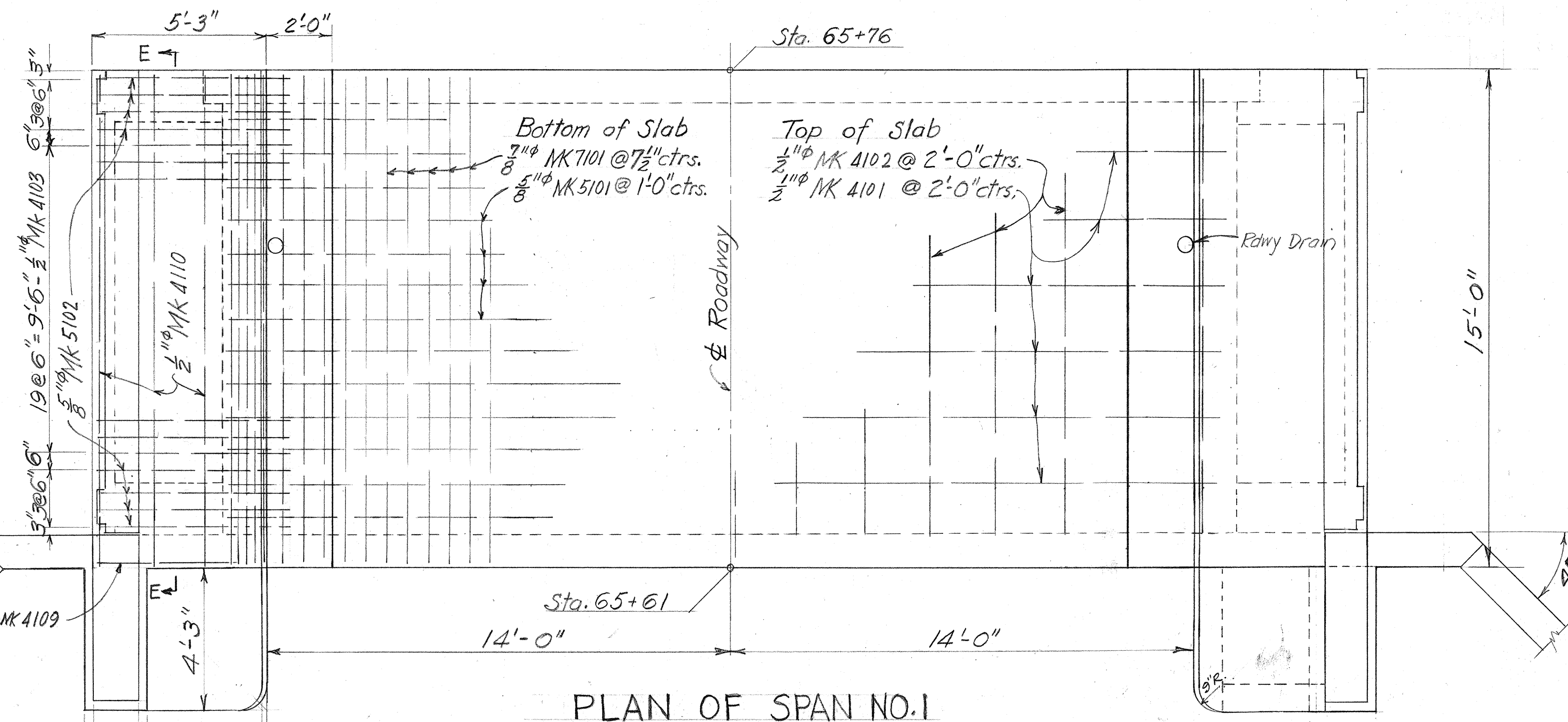
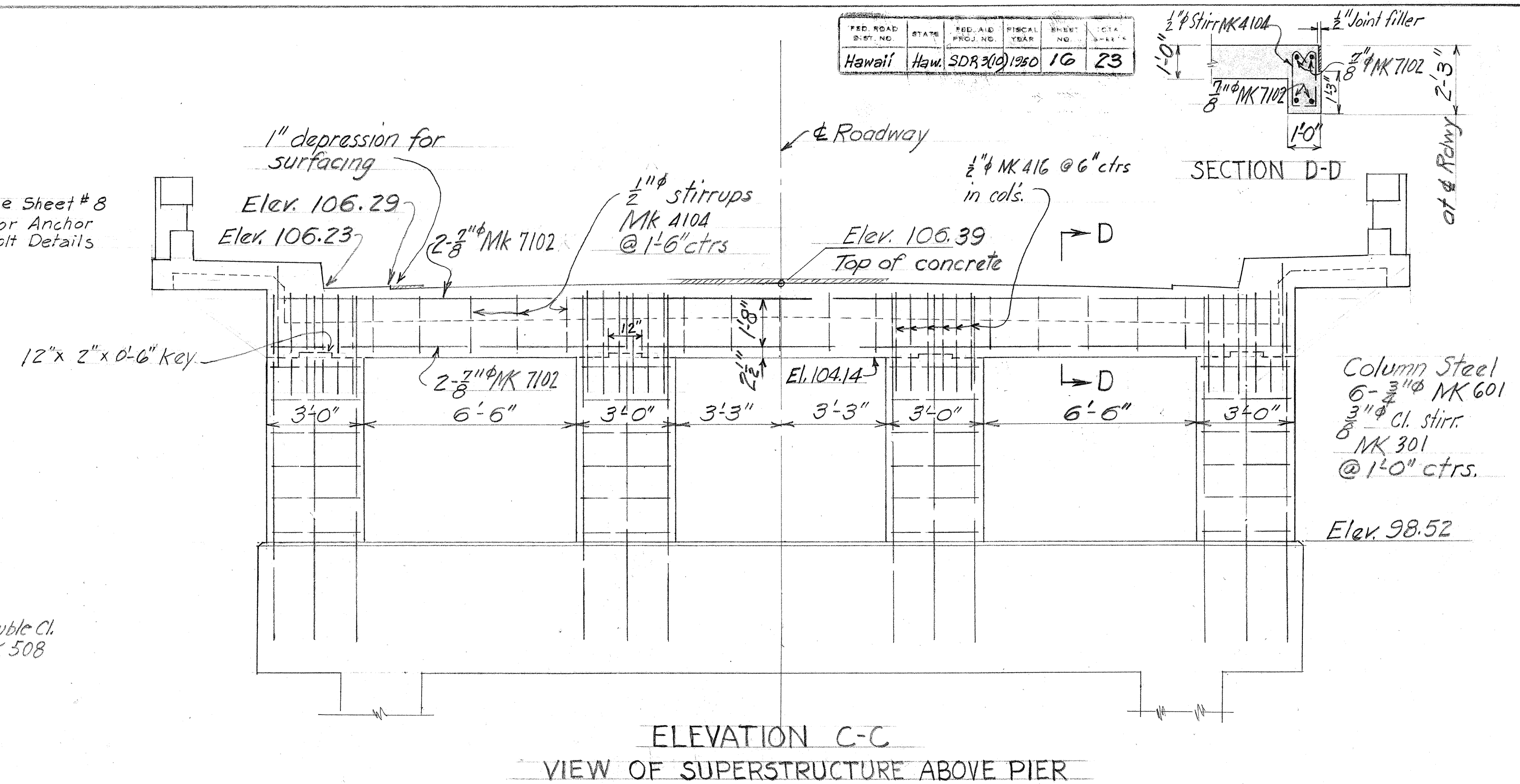
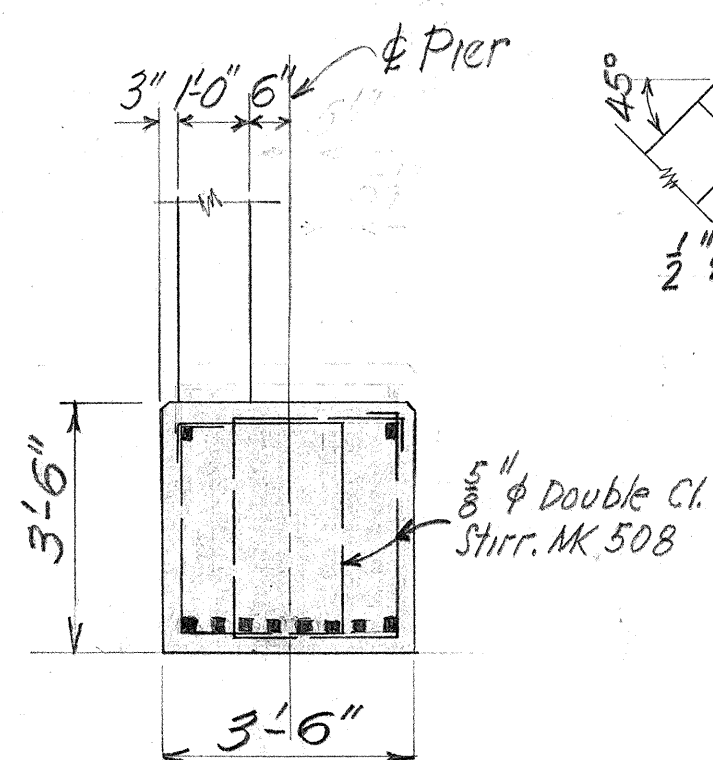
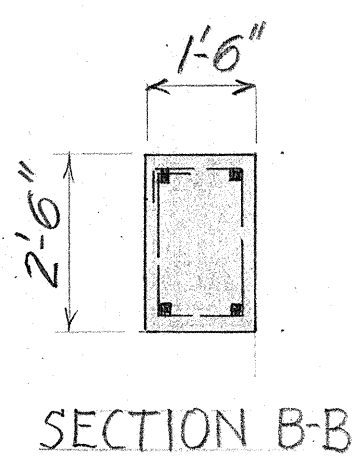
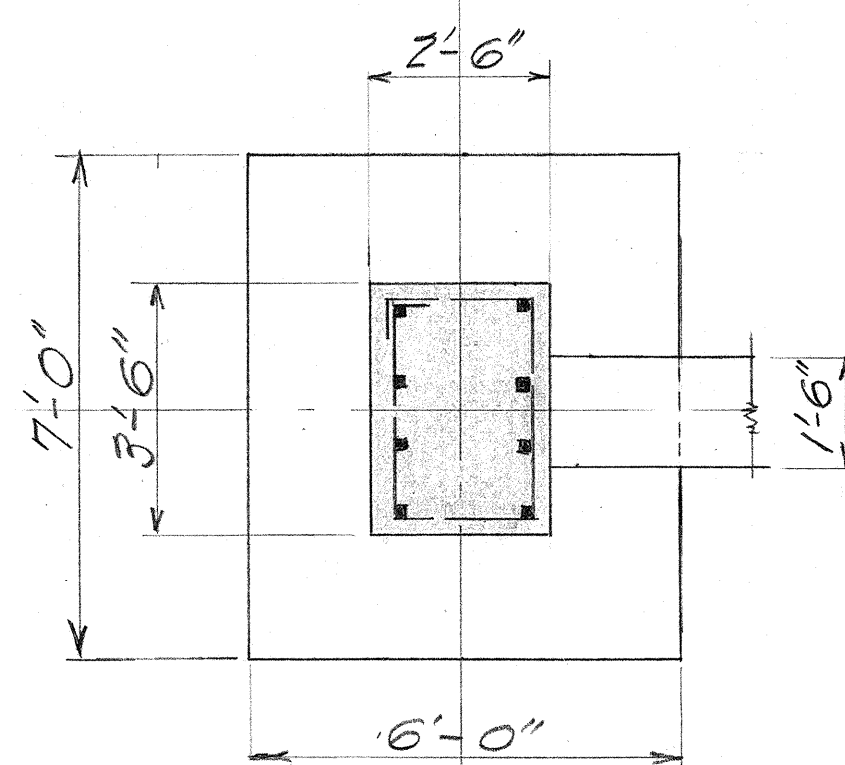
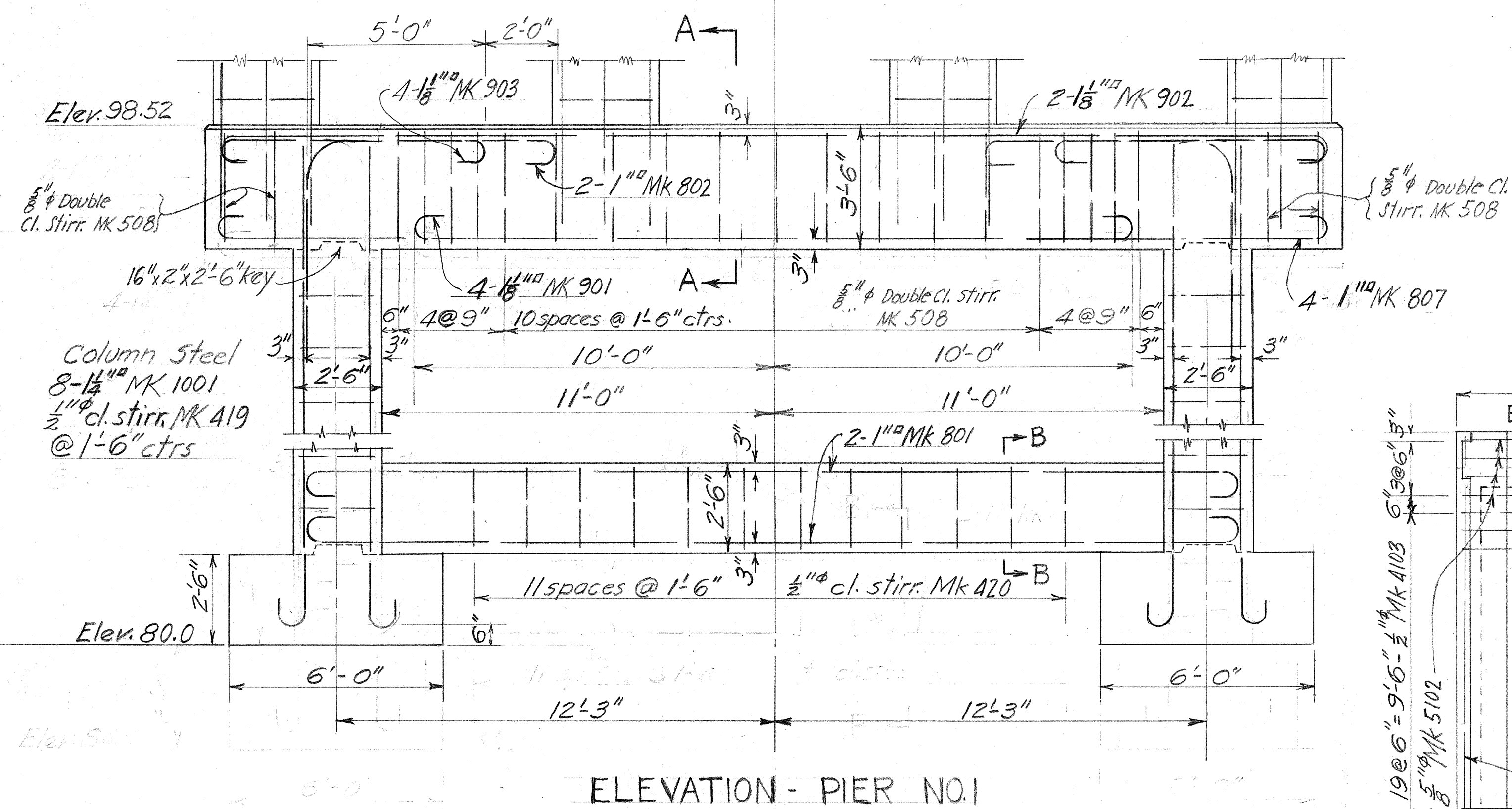
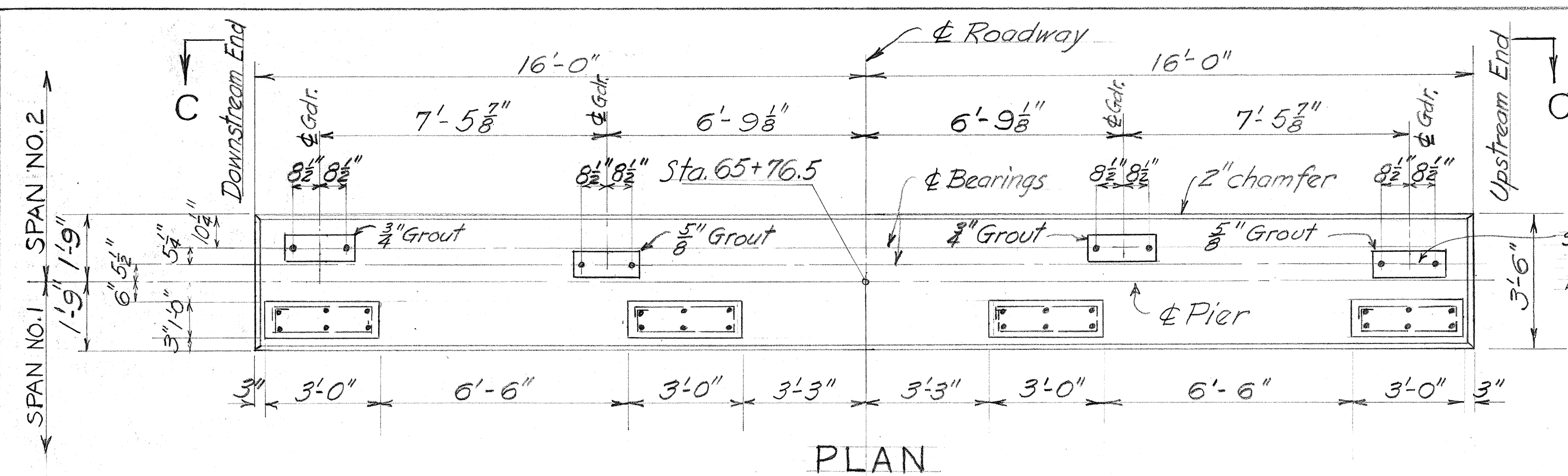
PIER NO. 1

Elev. 94.0

Top of conc. Elev. 106.39



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KOLEKOLE BRIDGE
STA. 65+61.0 TO STA. 70+58.63
HAWAII BELT ROAD SDR. 3C(10)
FEBRUARY 1950



TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII
 KOLEKOLE BRIDGE
 STA. 65+61.0 to 70+58.63
 HAWAII BELT ROAD SDR 3 (10)
 FEBRUARY 1950
 SHEET No 12 OF 18 SHEETS

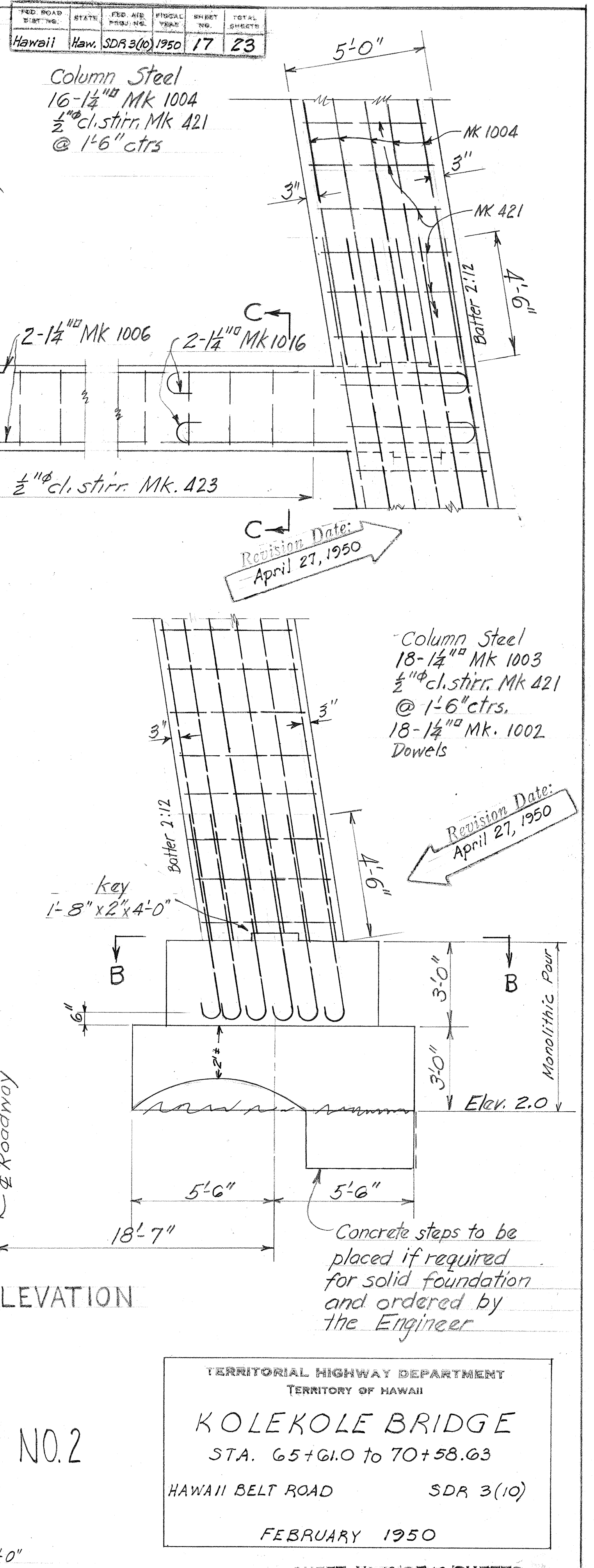
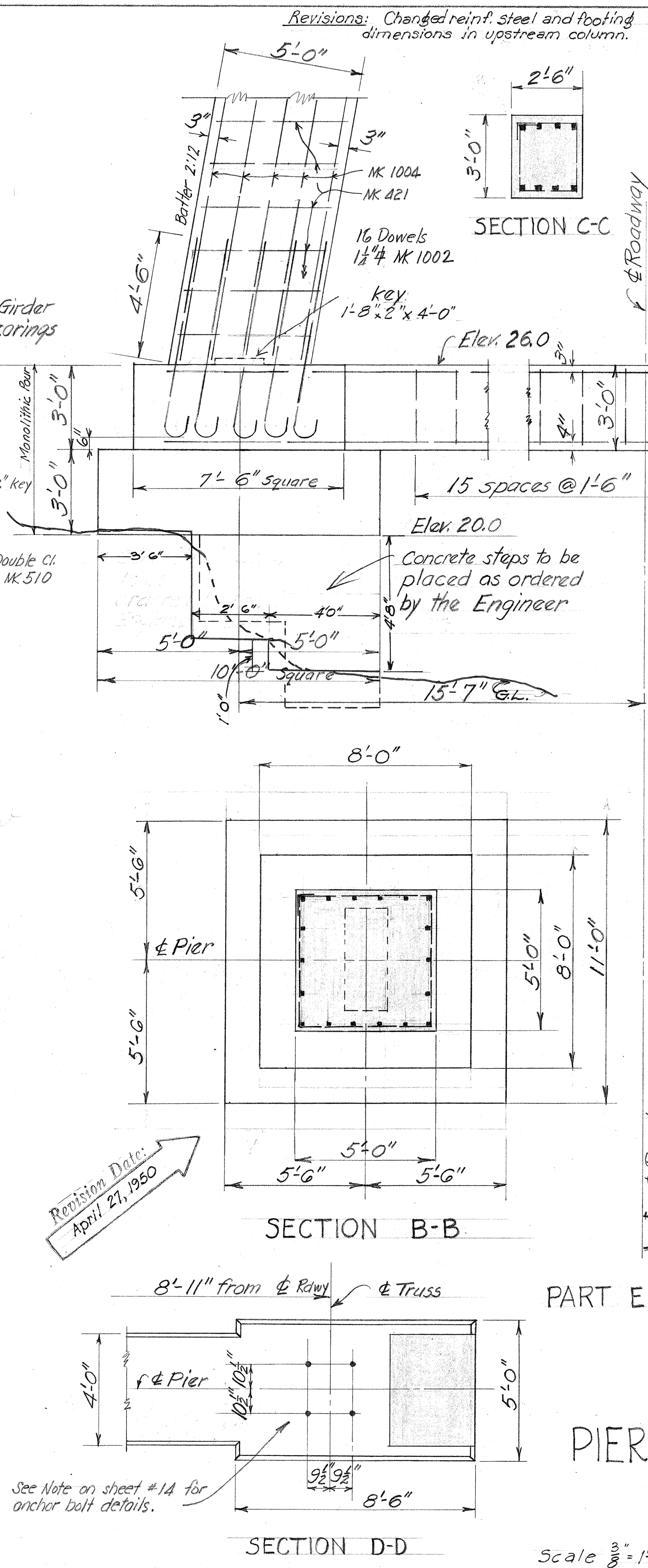
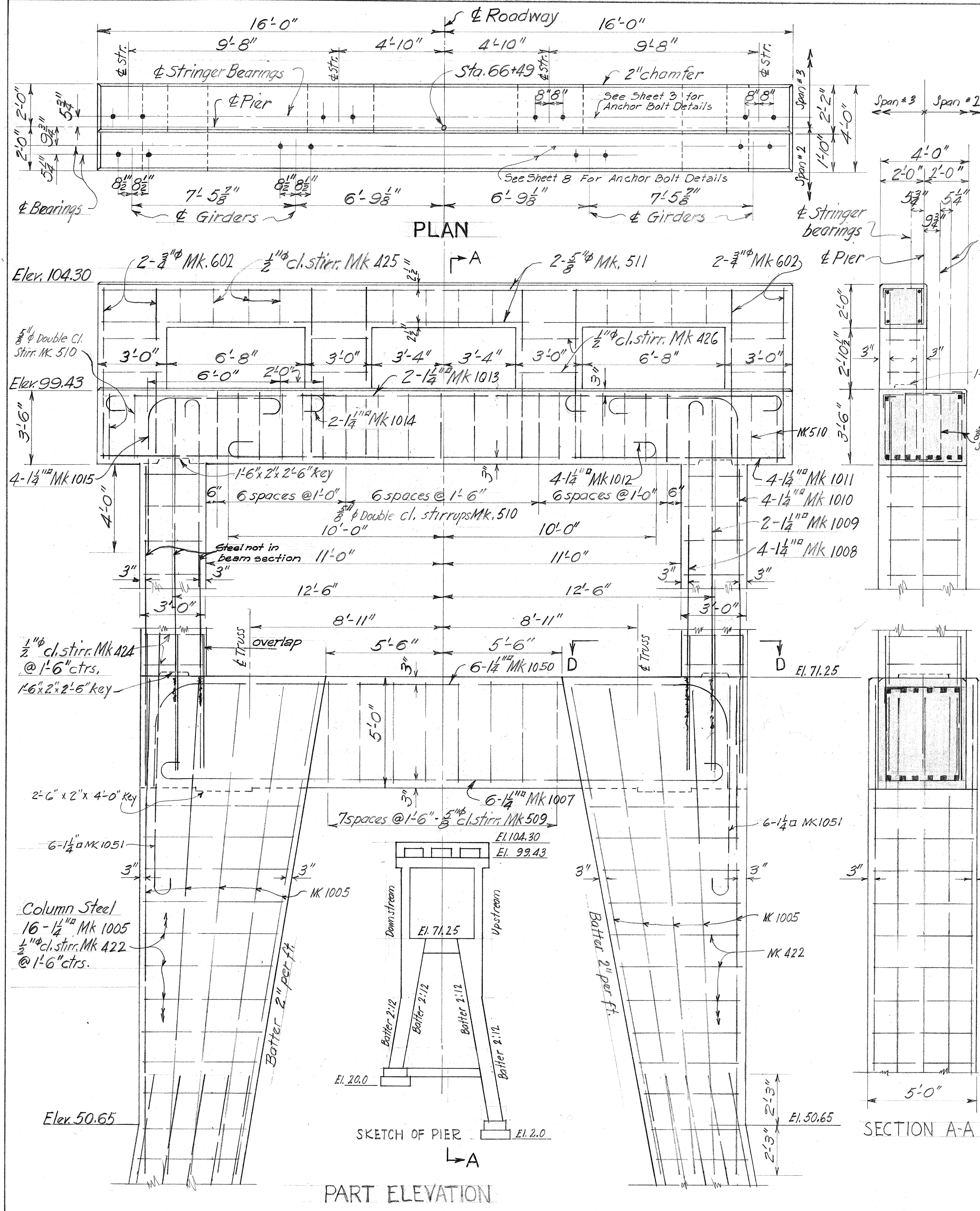
Revised 1-16-4

5463.16

PLANS MADE BY
BUREAU OF PUBLIC ROADS
DEPARTMENT OF COMMERCE
WESTERN HEADQUARTERS SAN FRANCISCO, CALIFORNIA

DESIGNED BY Cap? DATE Aug 49 TRACED BY _____ DATE _____
DRAWN BY Cap " Aug 49 CHECKED BY F.H.L. " Jan 1950

PLANS MADE BY
BUREAU OF PUBLIC ROADS
DEPARTMENT OF COMMERCE
WESTERN HEADQUARTERS - SAN FRANCISCO, CALIFORNIA
DESIGNED BY C.W. DATE 5/15/50 CHECKED BY H.E. 11 Jan 50



FED. ROAD DIST. NO.	STATE	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw.	SDR 3(10)	17	23

Column Steel
16-1/2" Mk 1004
1/2" cl. stirr. Mk 421
@ 1'-6" ctrs

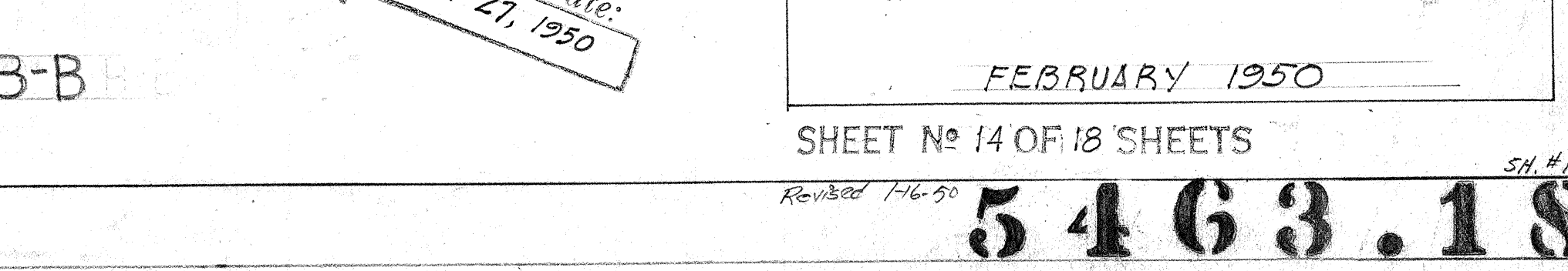
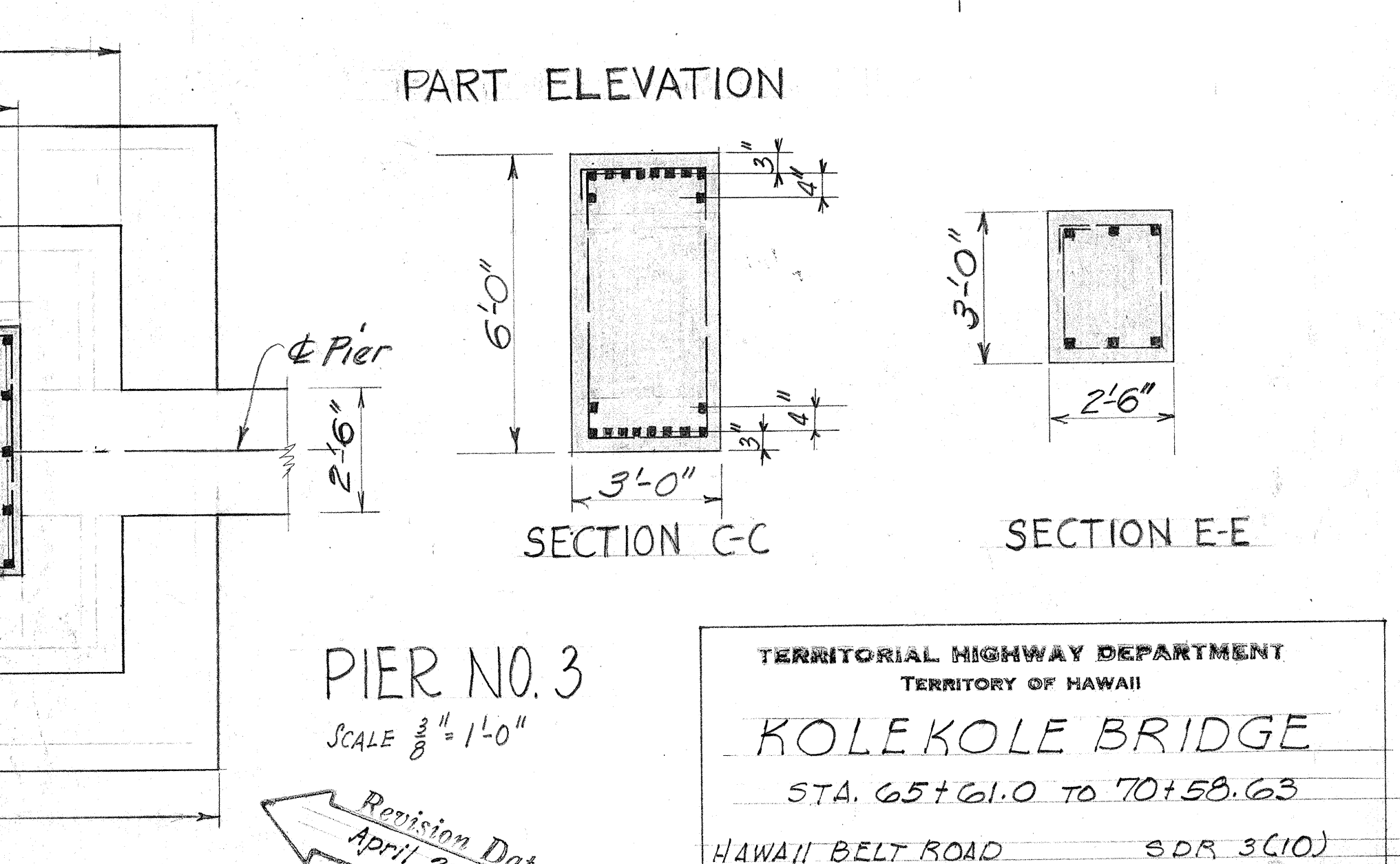
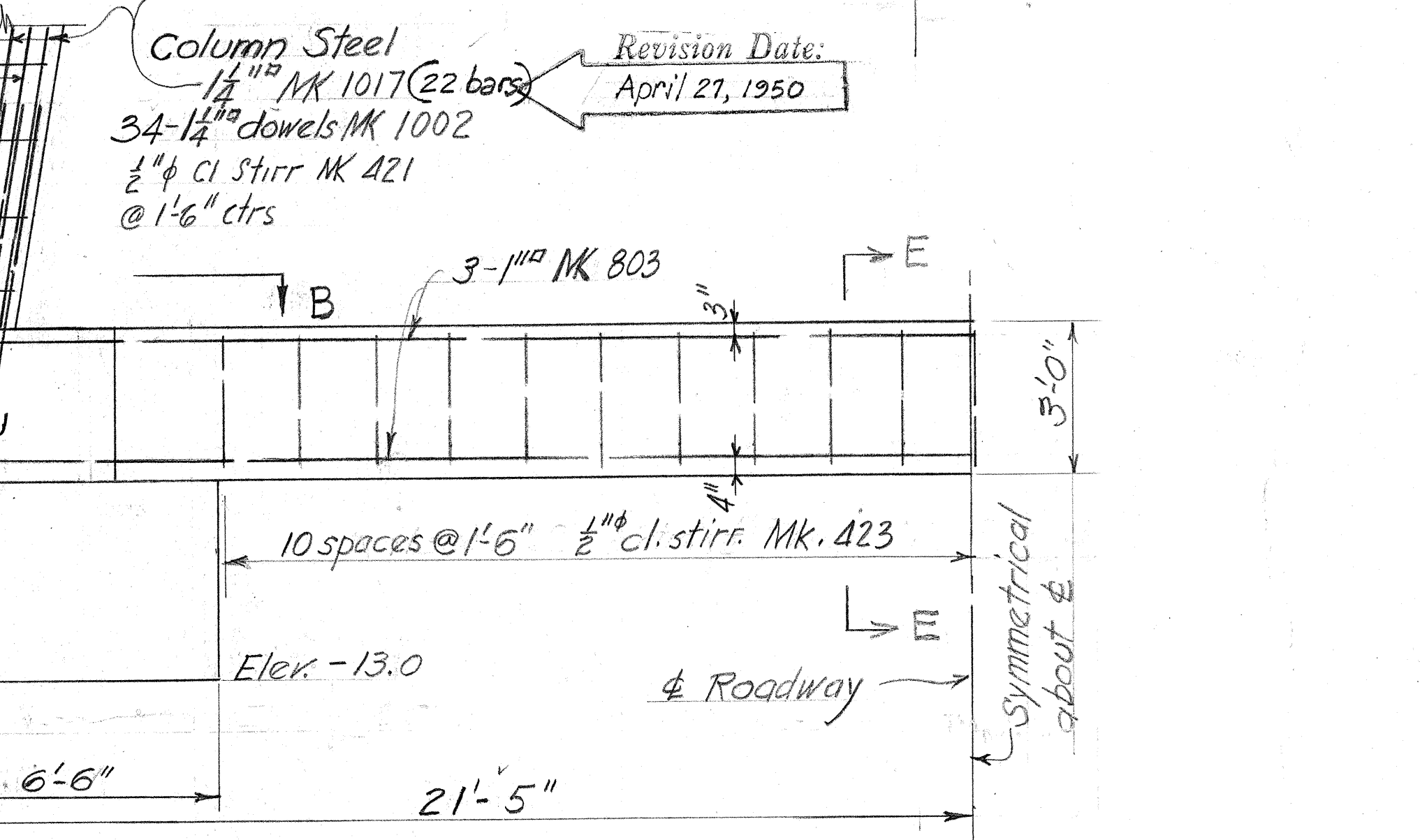
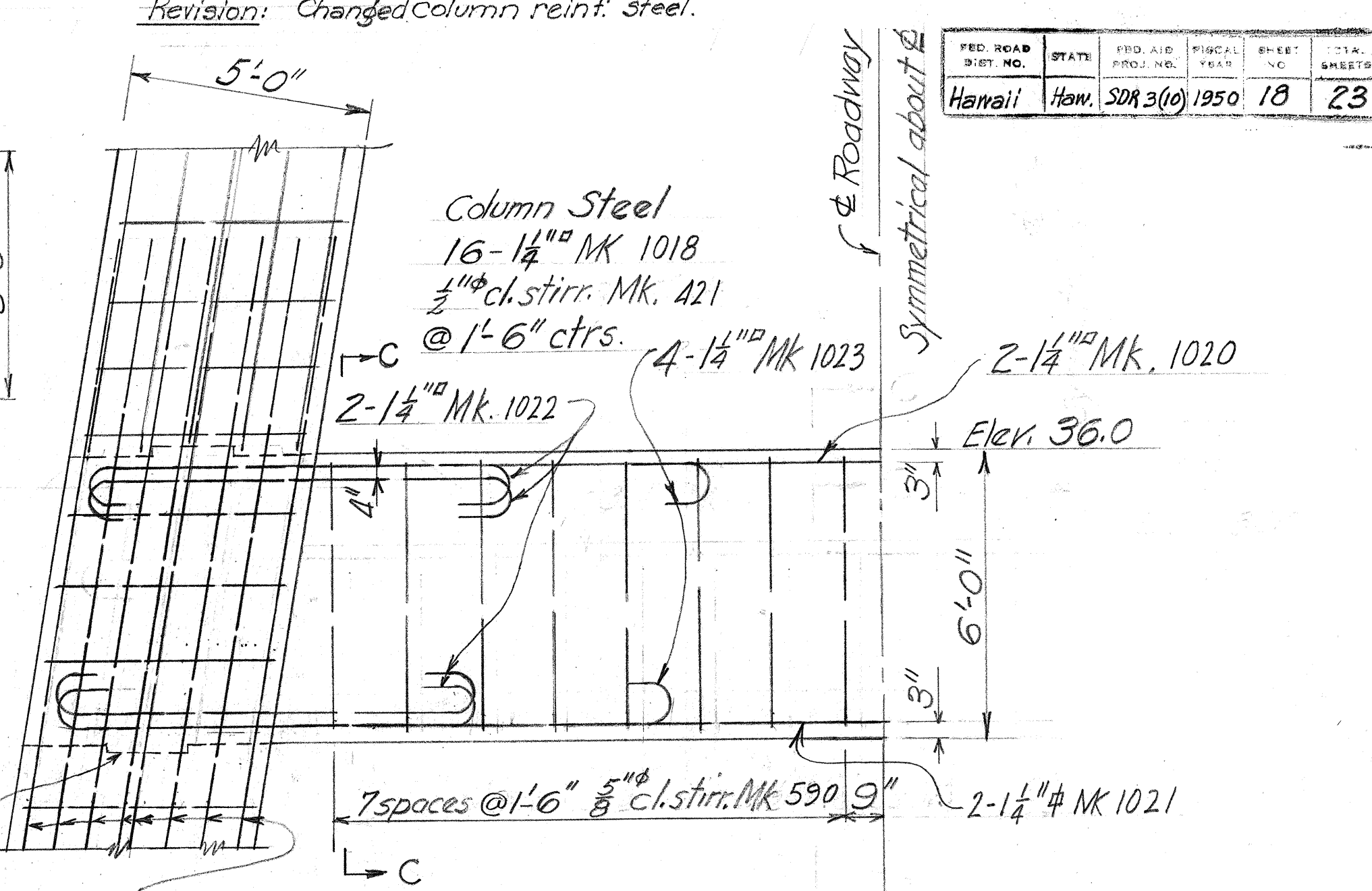
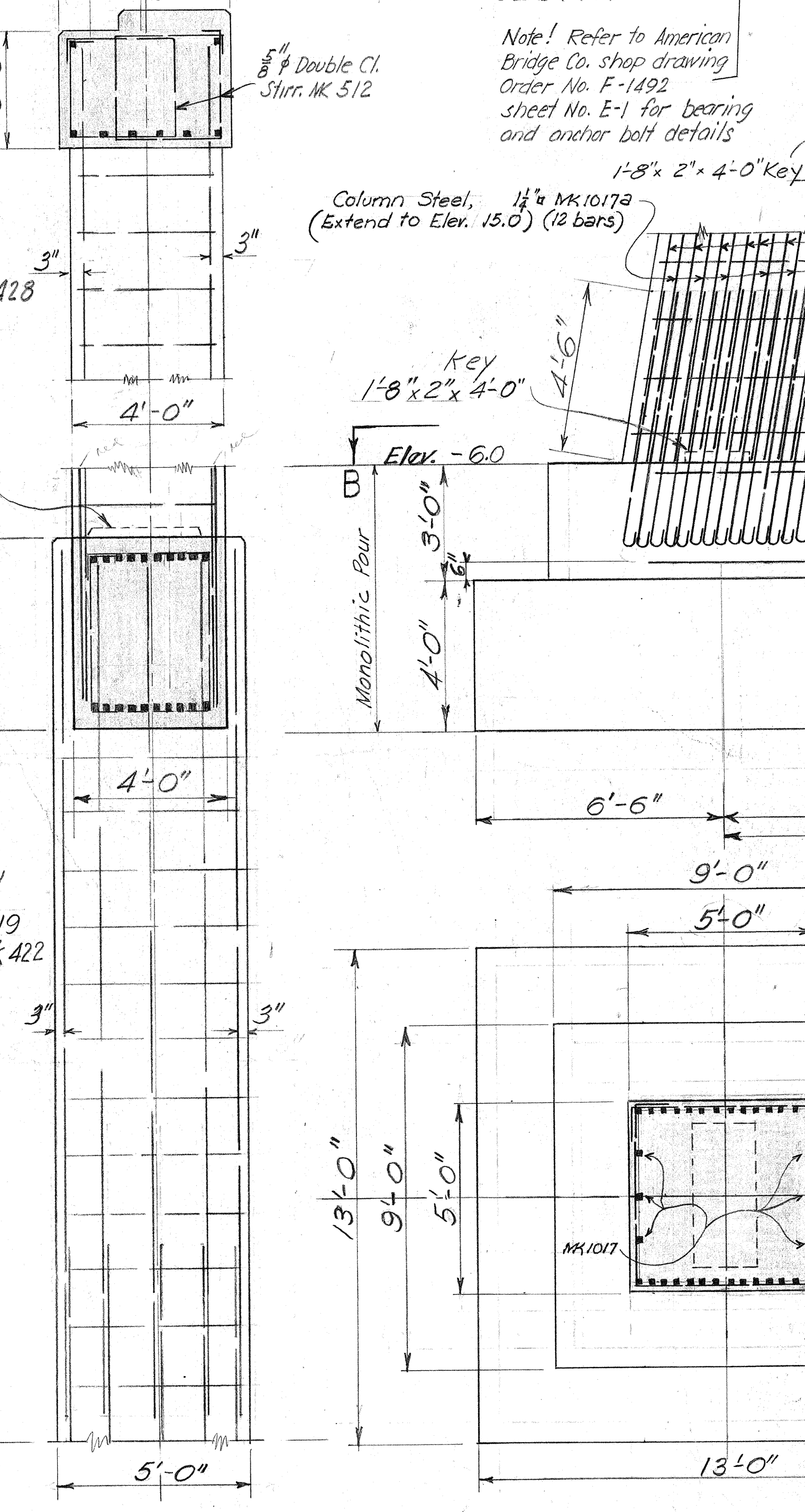
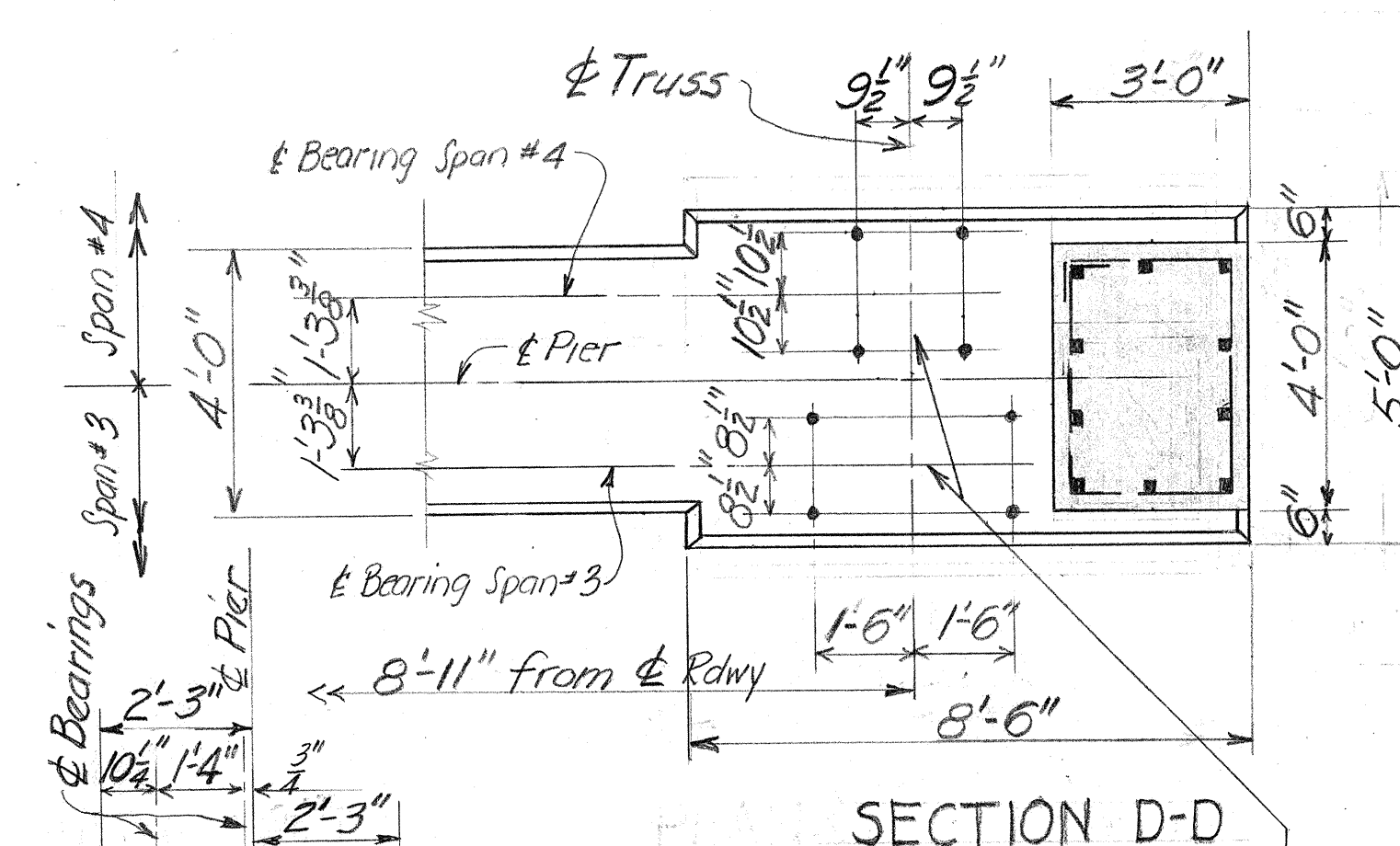
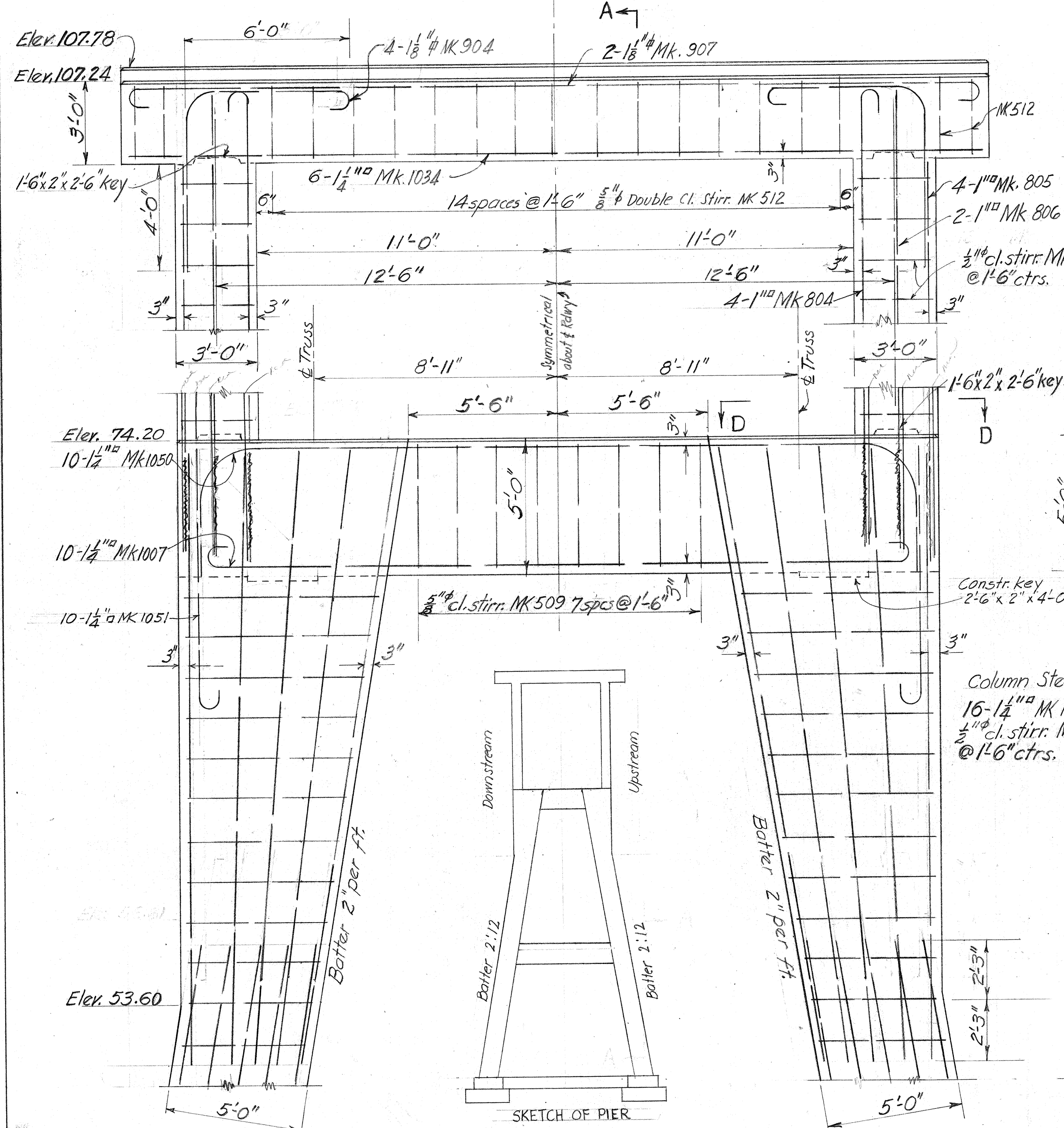
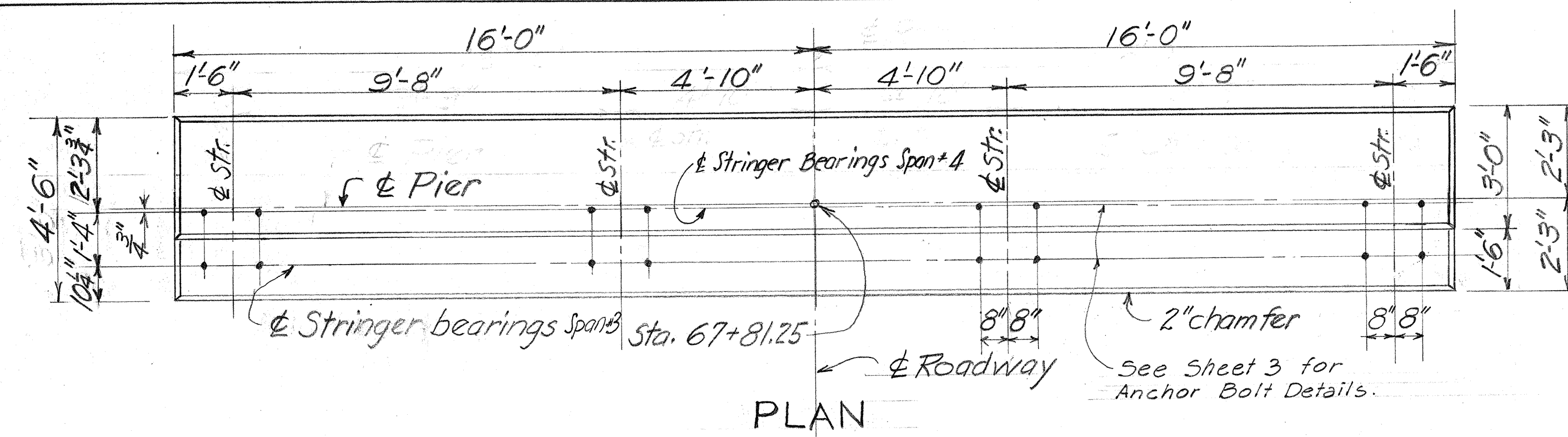
Column Steel
18-1/2" Mk 1003
1/2" cl. stirr. Mk 421
@ 1'-6" ctrs.
18-1/2" Mk. 1002
Dowels

TERRITORIAL HIGHWAY DEPARTMENT
Territory of Hawaii
KOLEKOLE BRIDGE
STA. 65+61.0 to 70+58.63
HAWAII BELT ROAD SDR 3(10)
FEBRUARY 1950

SHEET NO. 13 OF 18 SHEETS

5463.17

Kolekole Bridge C.W.



PLANS MADE BY
BUREAU OF PUBLIC ROADS
DEPARTMENT OF COMMERCE
WESTERN HEADQUARTERS SAN FRANCISCO, CALIFORNIA

DESIGNED BY Cal DATE Oct 49 TRACED BY _____ DATE _____
DRAWN BY Cal " Oct 49 CHECKED BY APL " Jan 50
APL

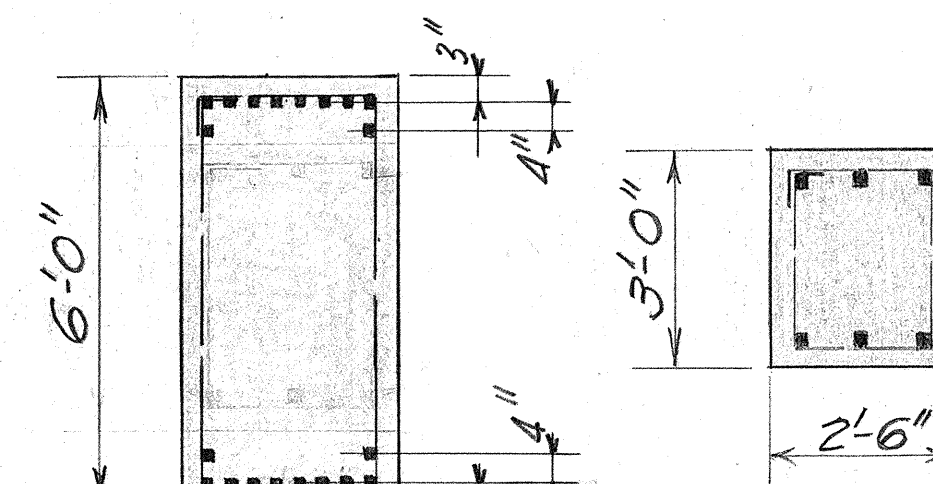
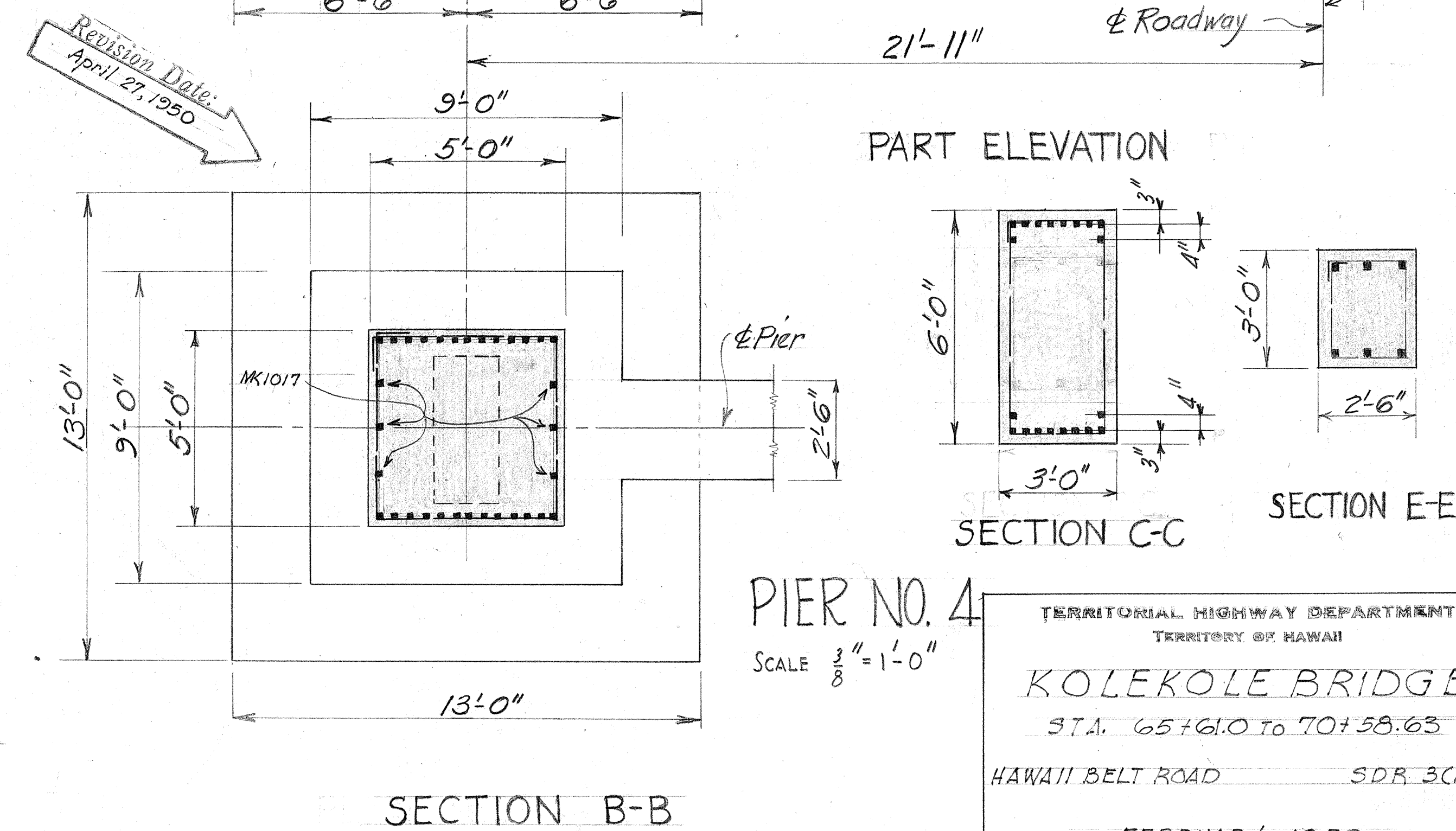
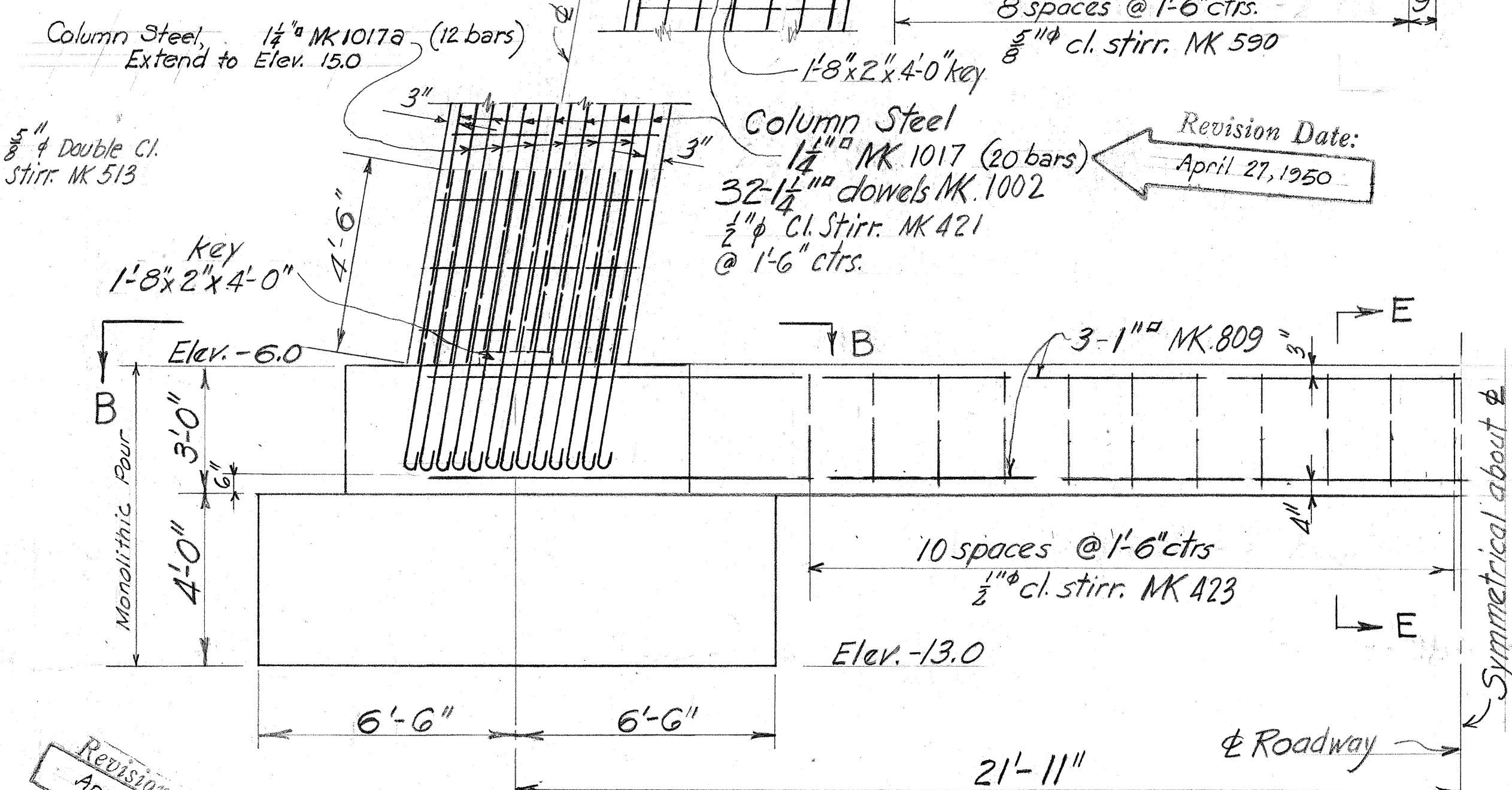
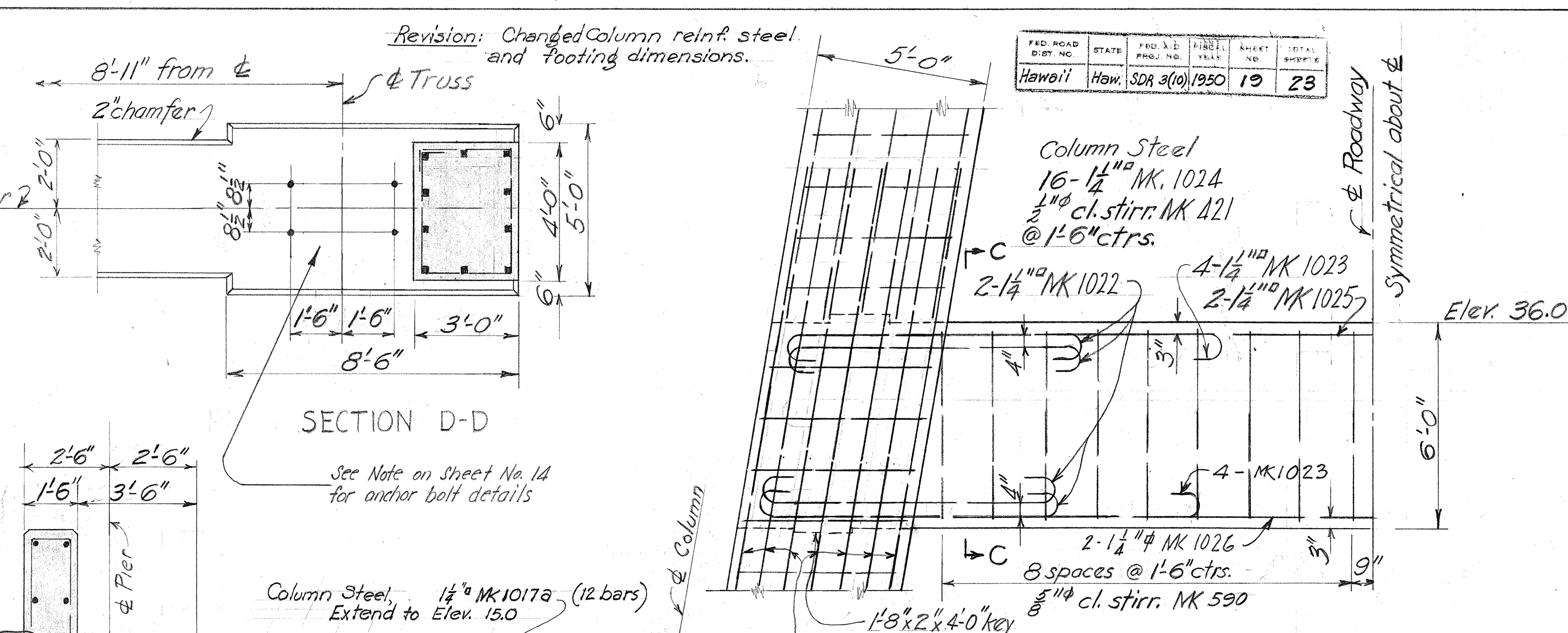
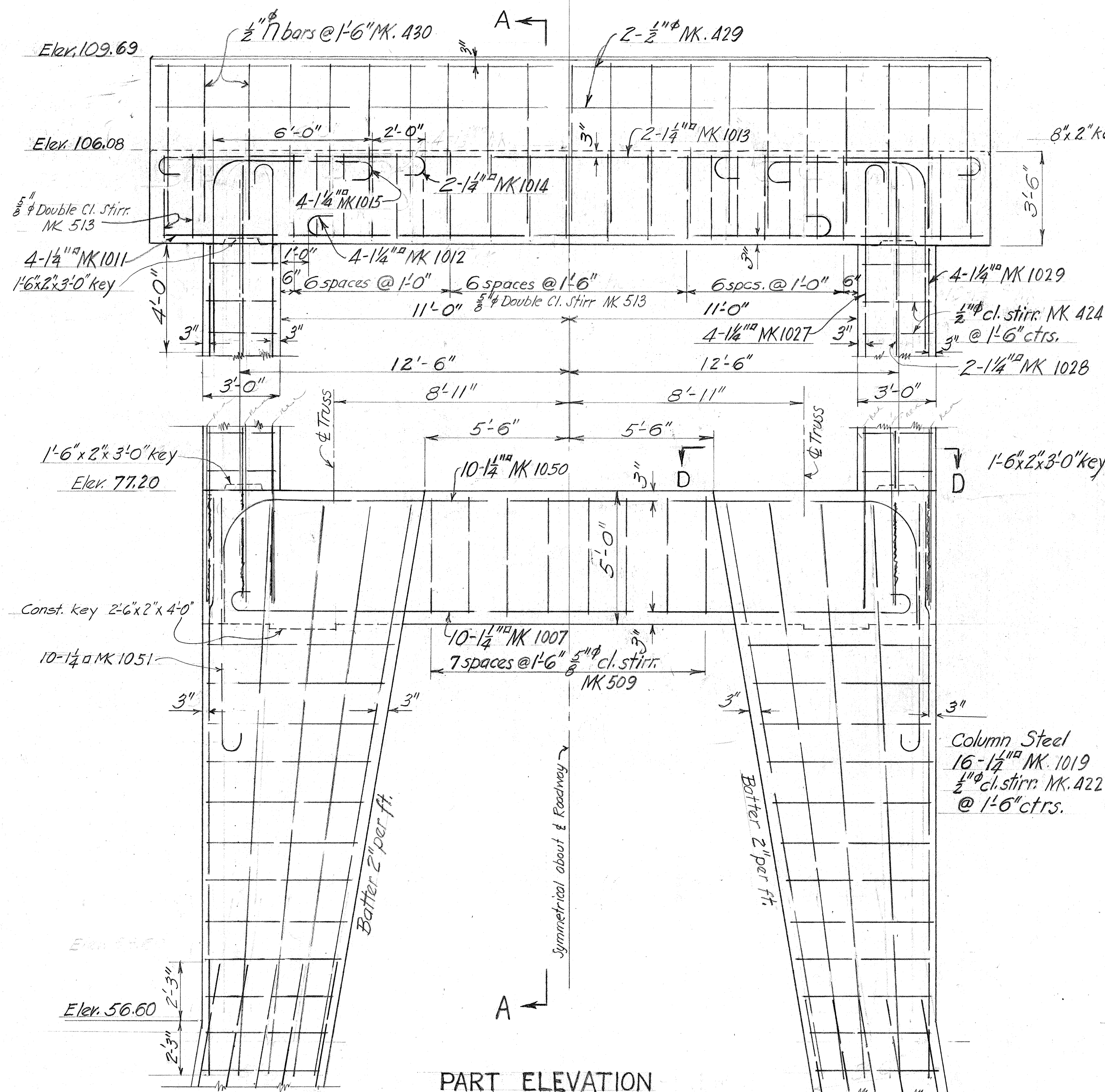
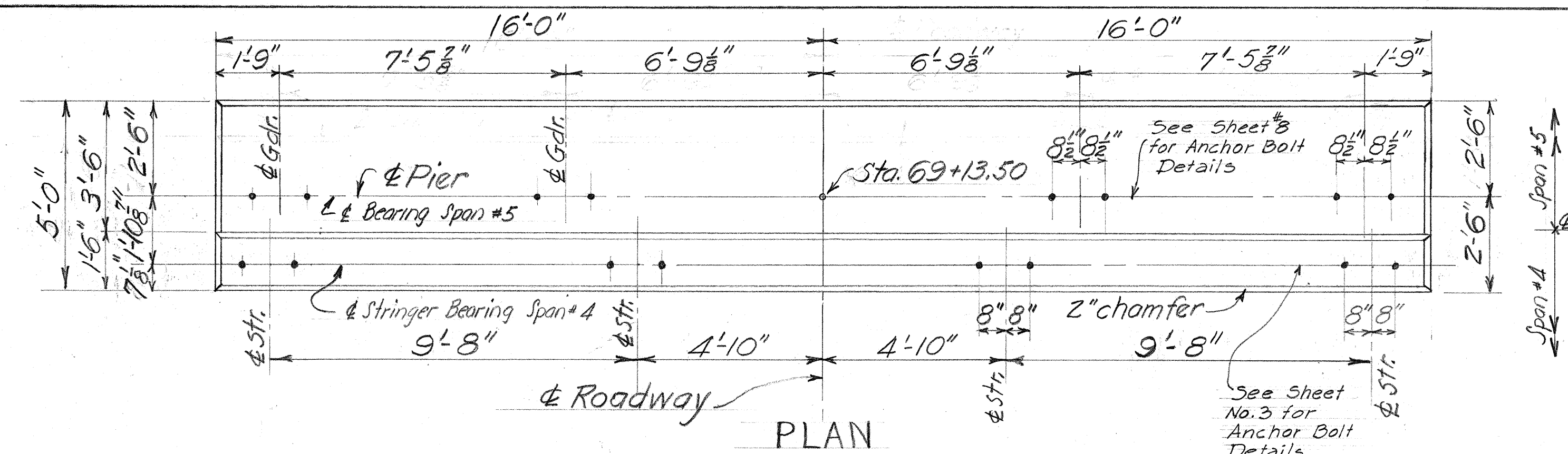
PIER NO. 3
SCALE $\frac{3}{8}'' = 1'-0''$
Revision Date:
April 27, 1950

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KOLEKOLE BRIDGE
STA. 65+61.0 TO 70+58.63
HAWAII BELT ROAD SDR 3(10)
FEBRUARY 1950

SHEET No 14 OF 18 SHEETS

Revised 1-16-50

KOLEKOLE *con*



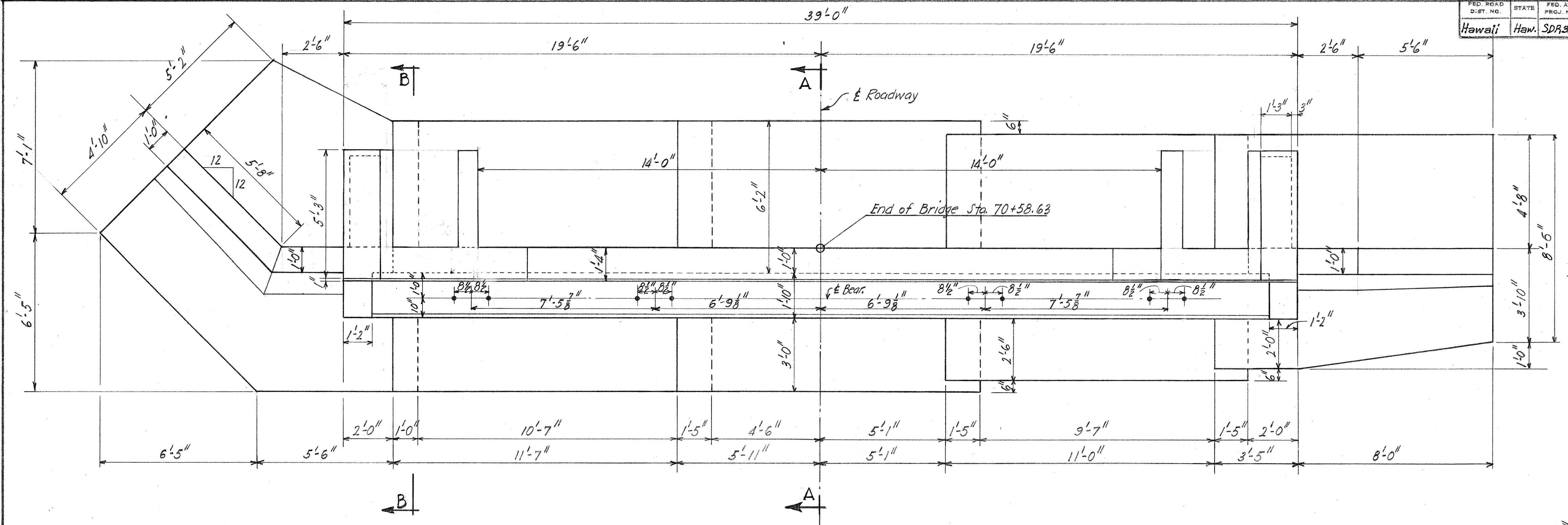
PIER NO. 4
SCALE $\frac{3}{8}" = 1'-0"$

TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII
 KOLEKOLE BRIDGE
 STA. 65+61.0 To 70+58.63
 HAWAII BELT ROAD SDR 3(10)
 FEBRUARY 1950

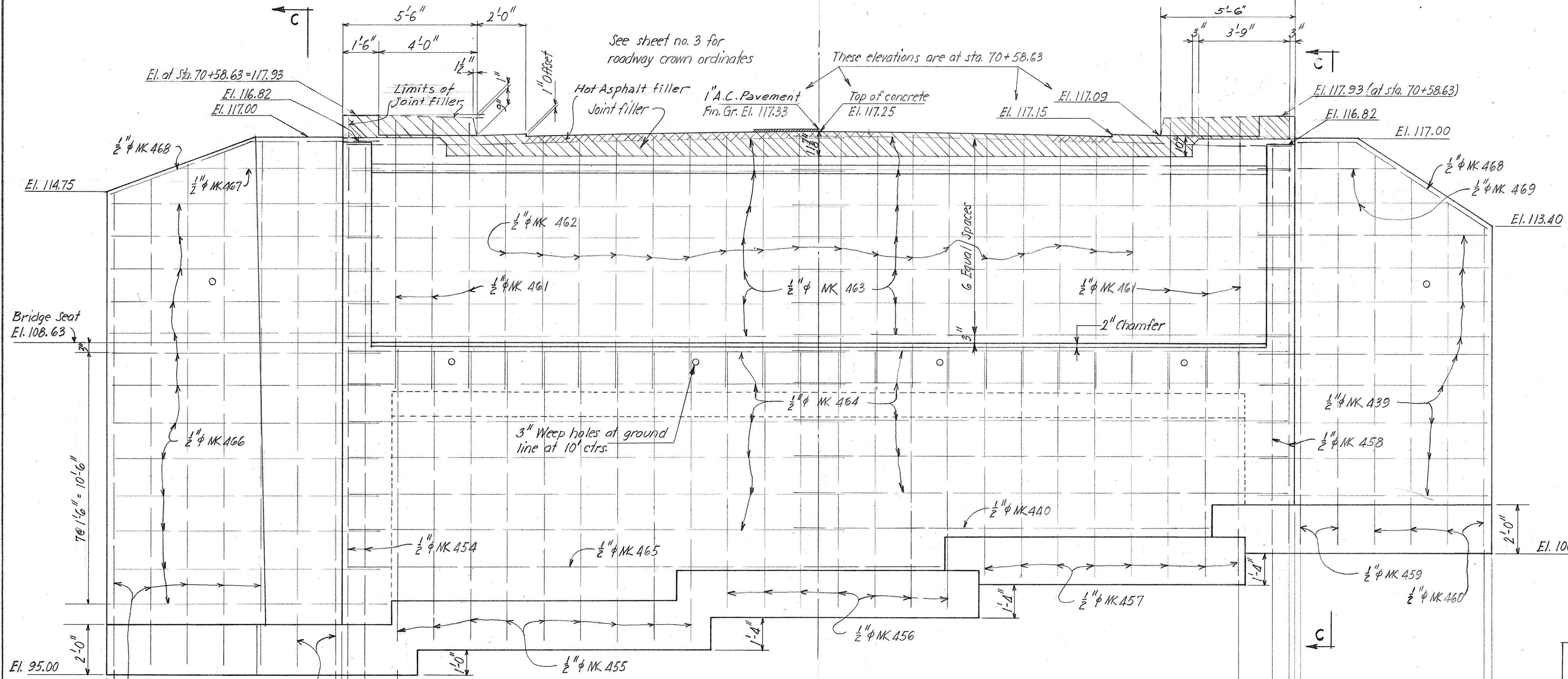
SHEET No 15 OF 18 SHEETS

1-16-50 Revised **5463.19** SH # 15

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw.	SDR 3(10)	1950	21	23

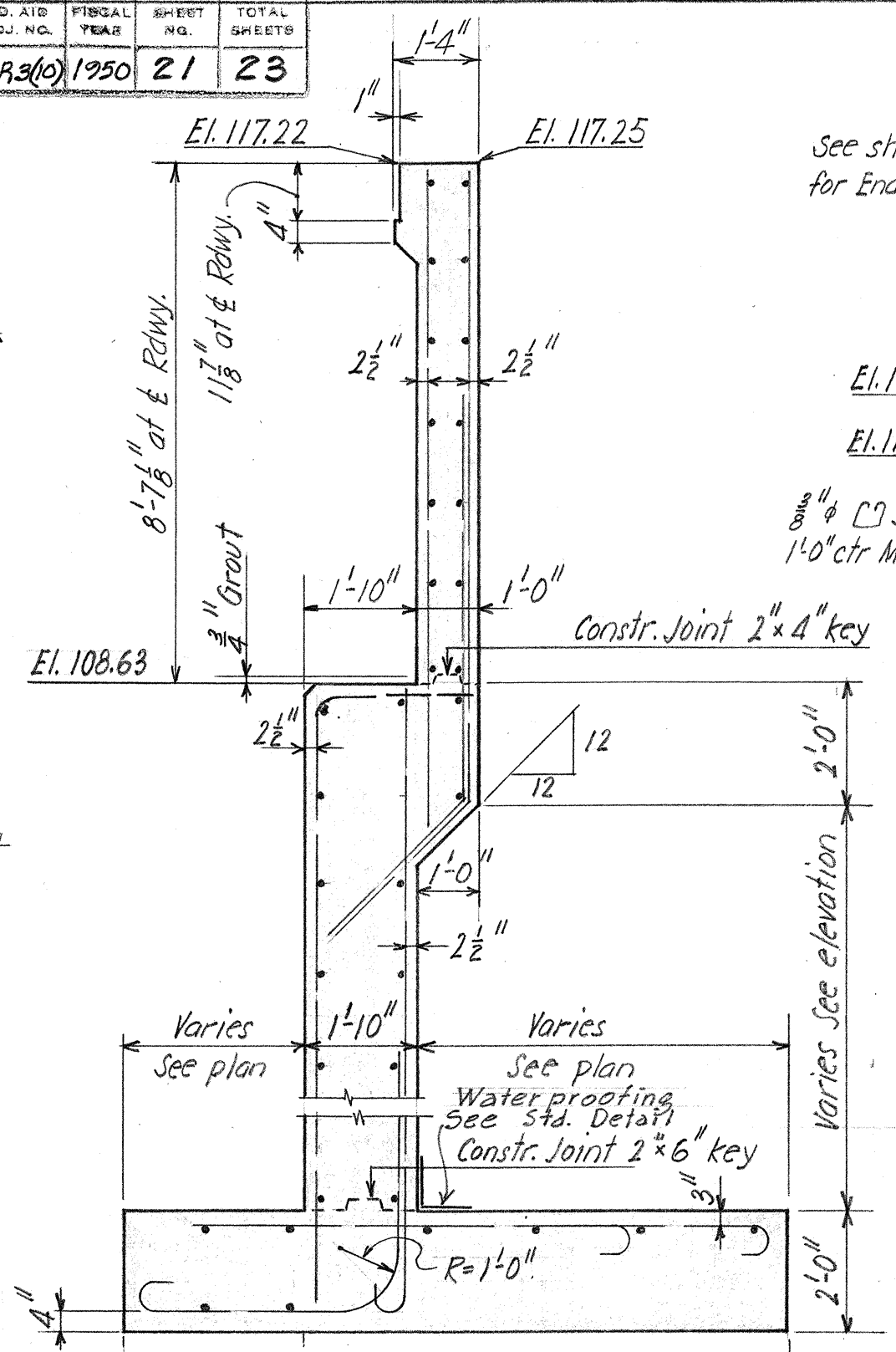


PLAN ABUTMENT No 2

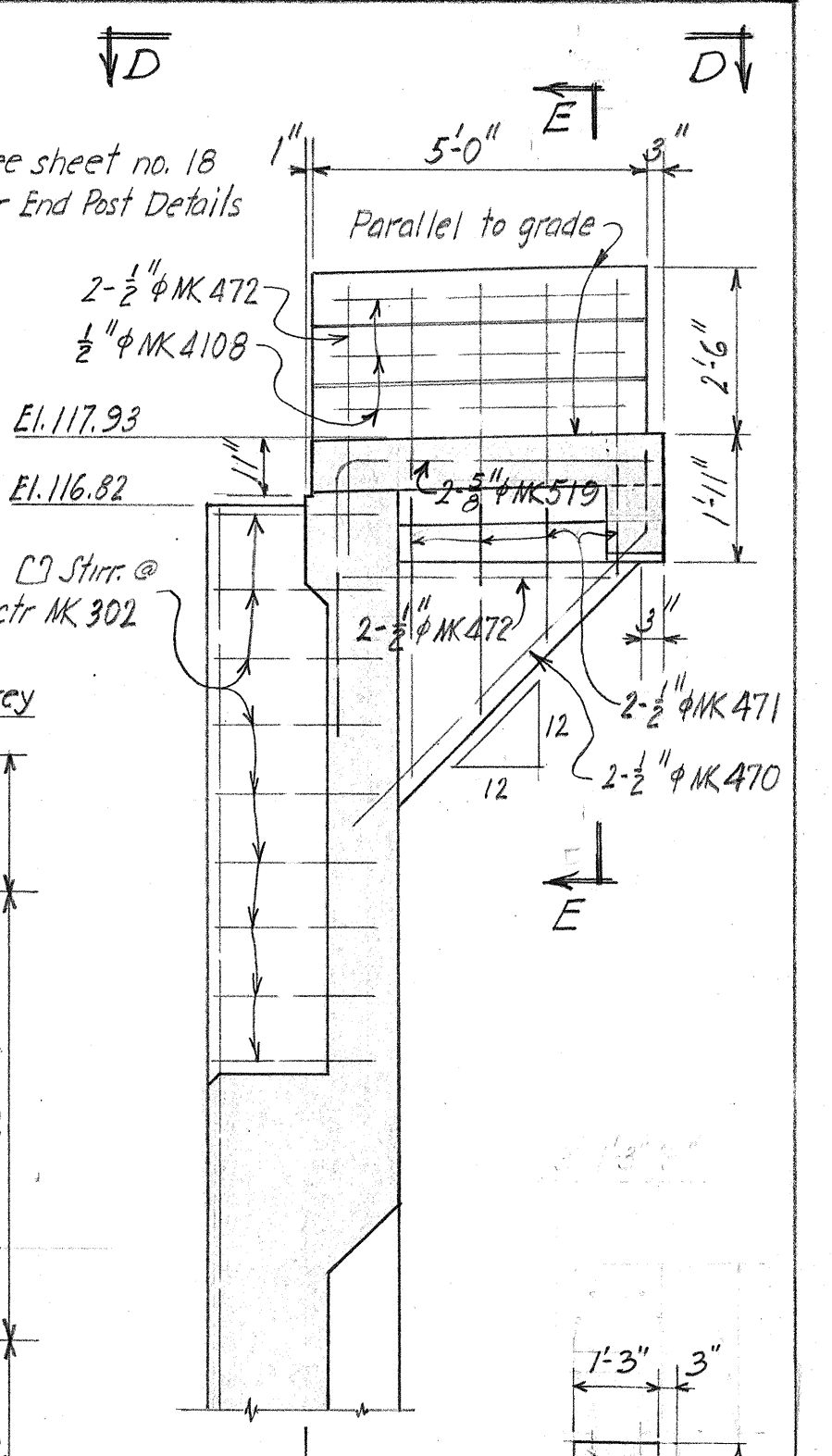


ELEVATION ABUTMENT No 2
REINF. STEEL FRONT FACE

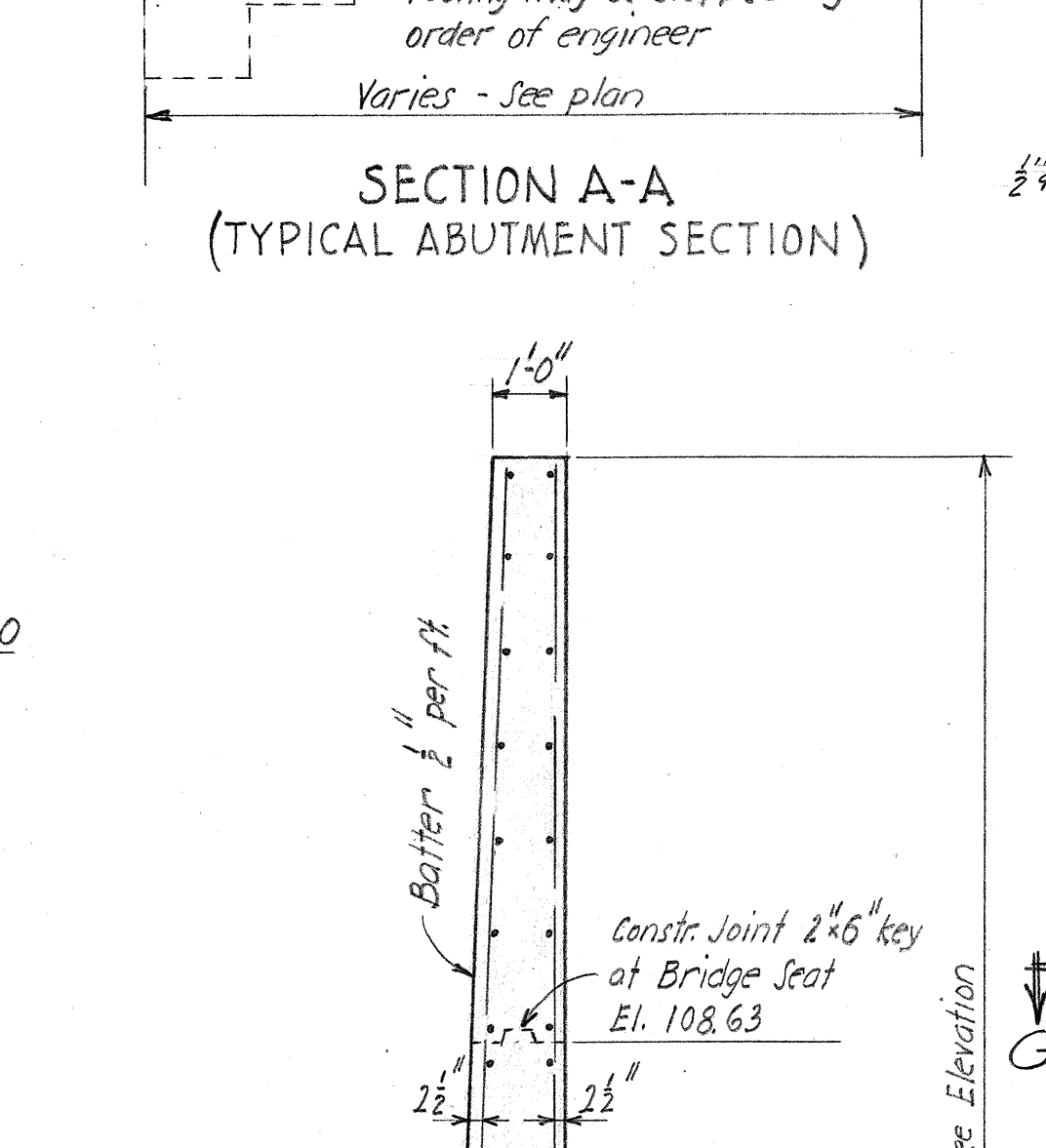
Note: For size and spacing of wall reinforcing in abutment and wingwalls see "Elevations"-sheets no. 17 & 18. For size and spacing of footing reinf. see "Plan" Sheet No. 18.



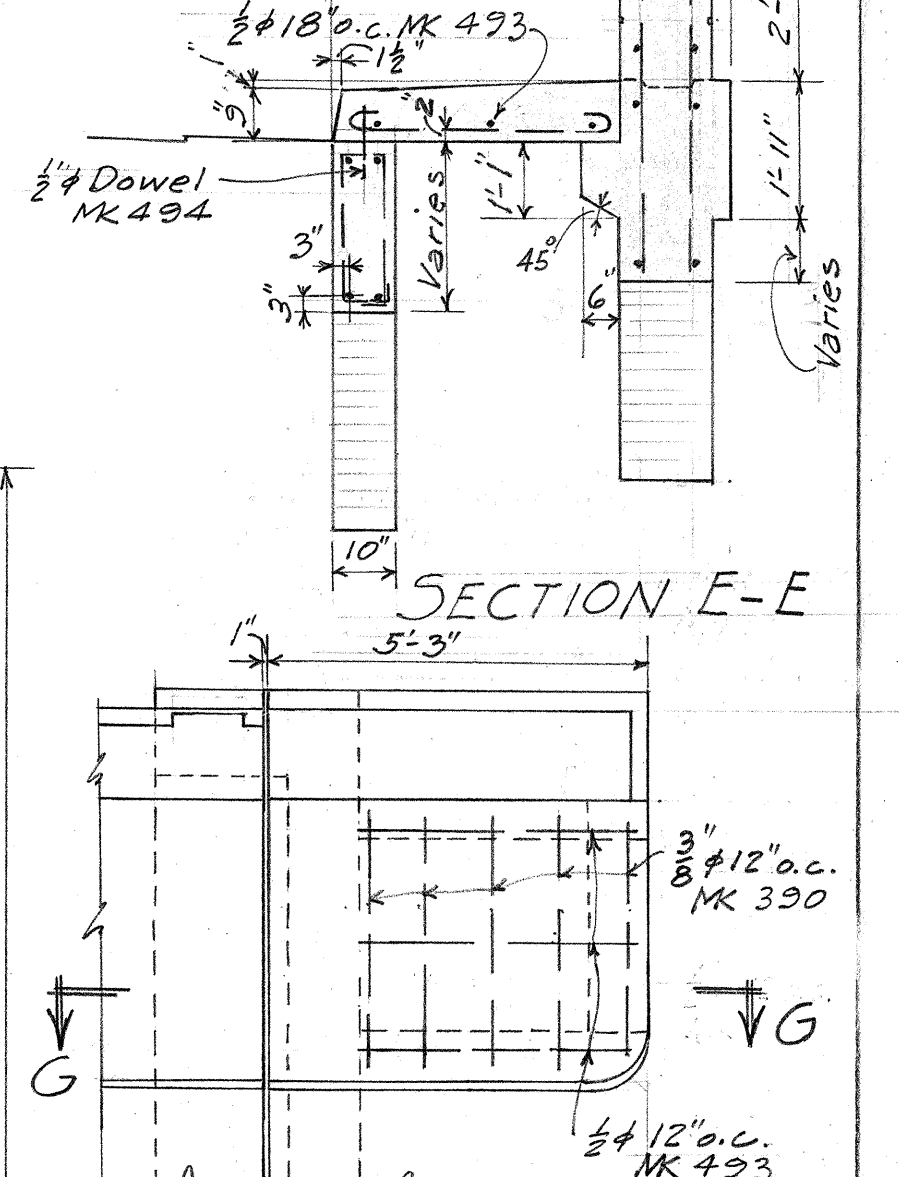
SECTION A-A
(TYPICAL ABUTMENT SECTION)



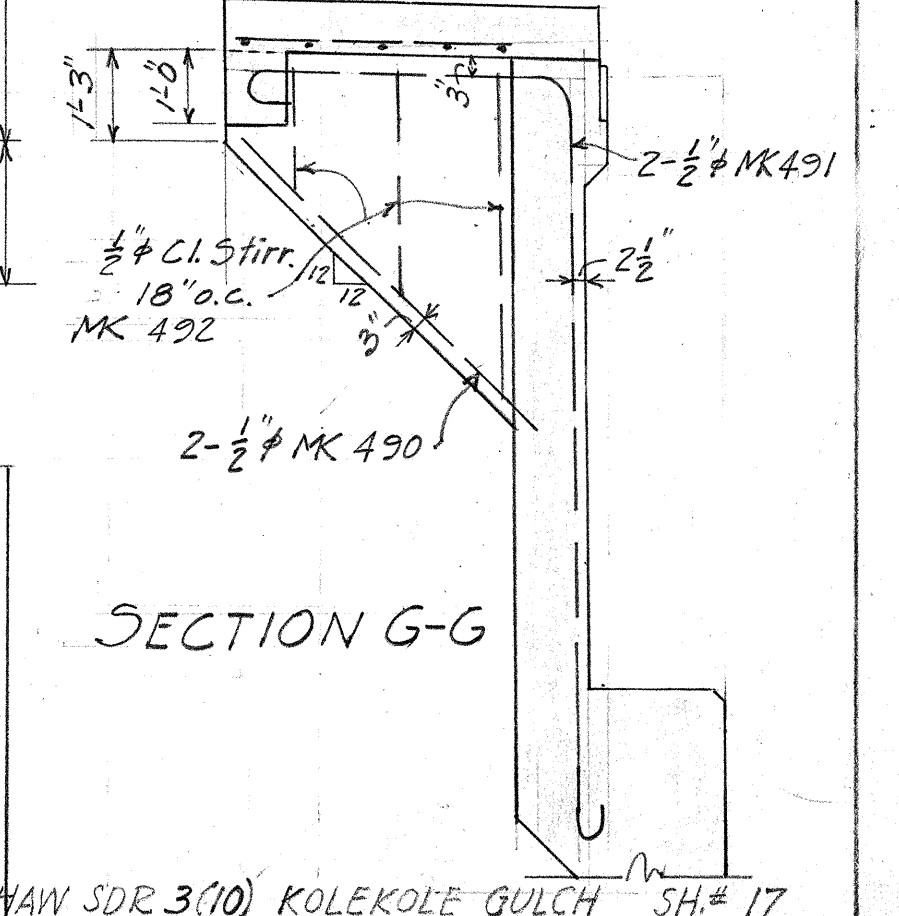
SECTION B-B



SECTION C-C
TYPICAL WING WALL SECTION



PLAN D-D



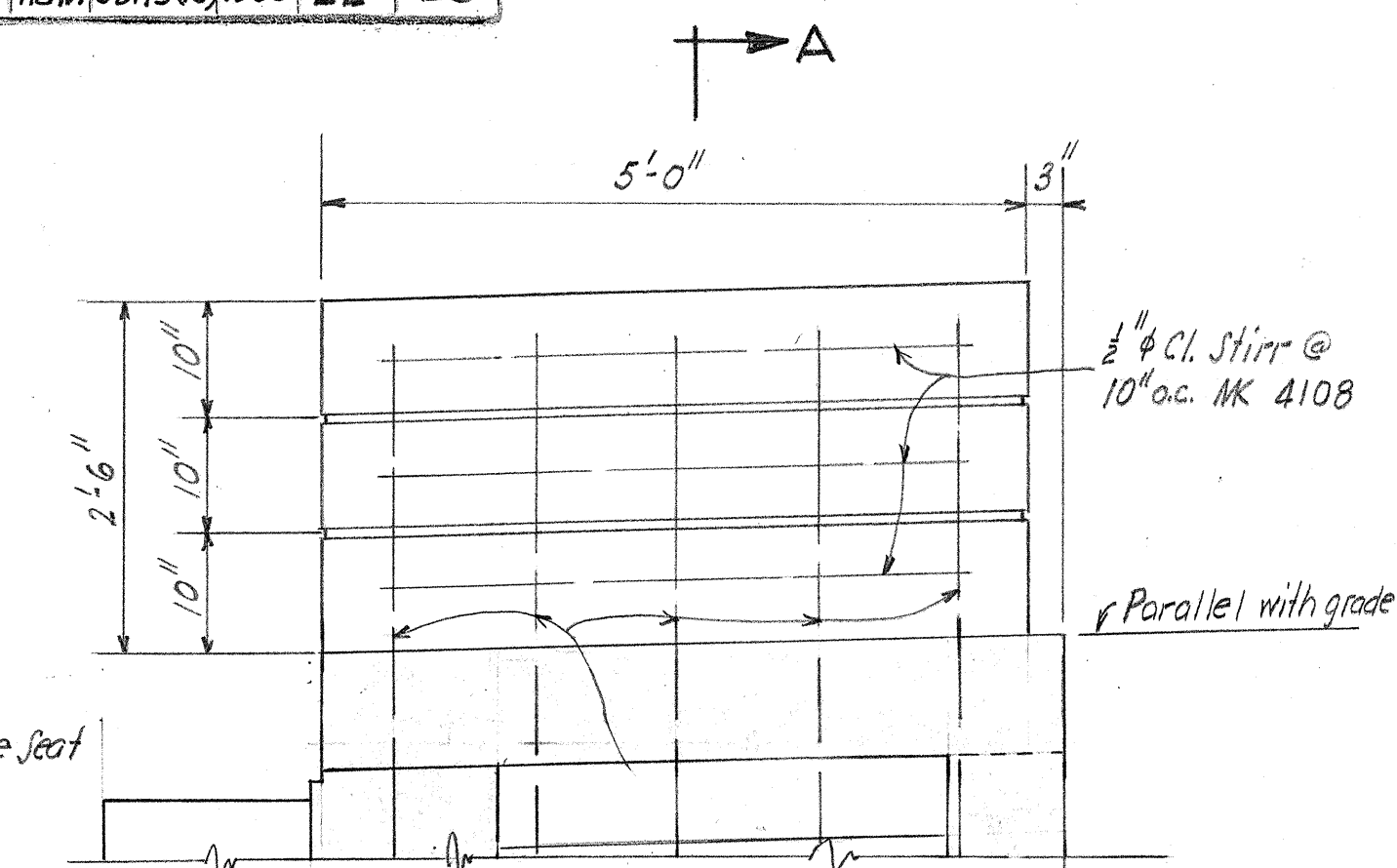
SECTION G-G

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KOLEKOLE BRIDGE
STA. 65+61.0 TO 70+58.63
HAWAII BELT ROAD SDR 3(10)
FEBRUARY 1950
Scale 3/8"=1'-0"

HAW SDR 3(10) KOLEKOLE GULCH SH# 17

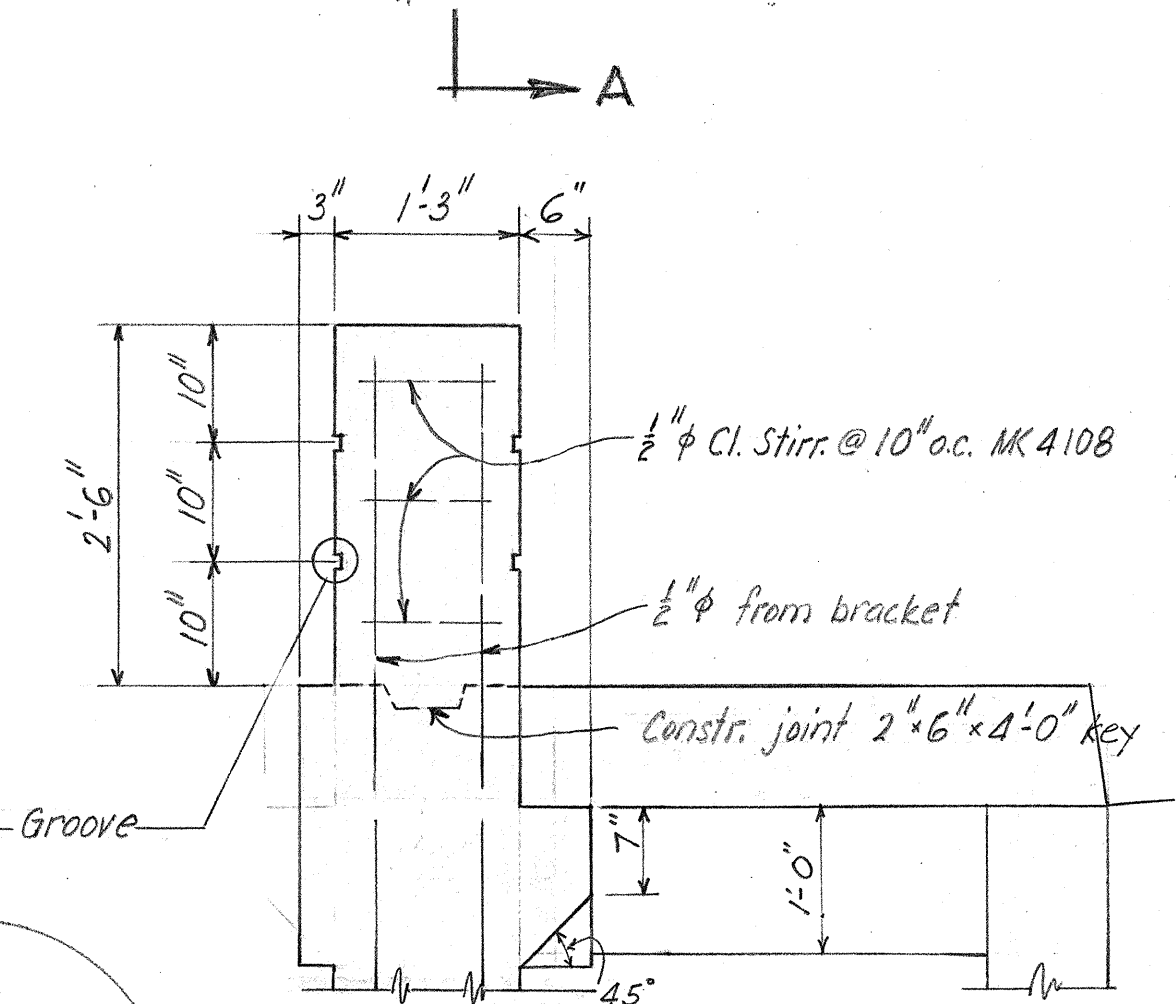
PLANS MADE BY
BUREAU OF PUBLIC ROADS
DEPARTMENT OF COMMERCE
WESTERN HEADQUARTERS, SAN FRANCISCO, CALIFORNIA
DESIGNED BY AEL DATE JUN 29 TRACED BY DATE
DRAWN BY AEL DEC 19 CHECKED BY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw.	SDR3(0)	1950	22	23



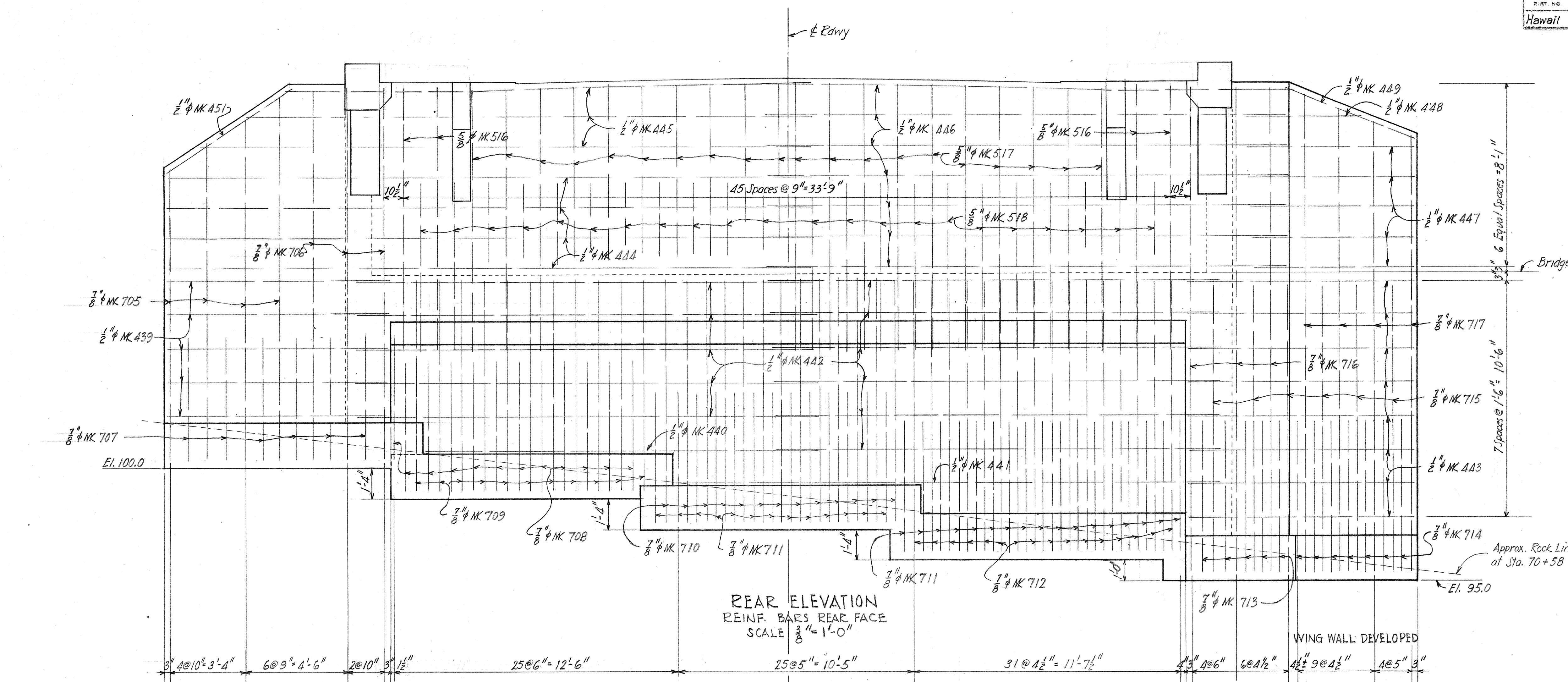
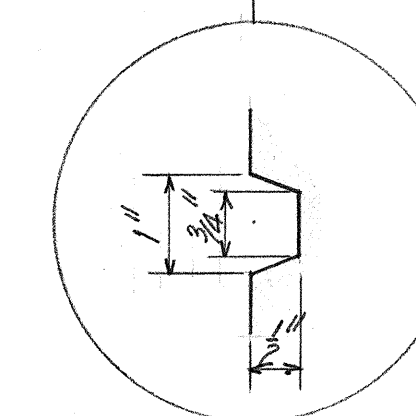
ELEVATION END POST

Scale $\frac{3}{4}'' = 1'-0''$



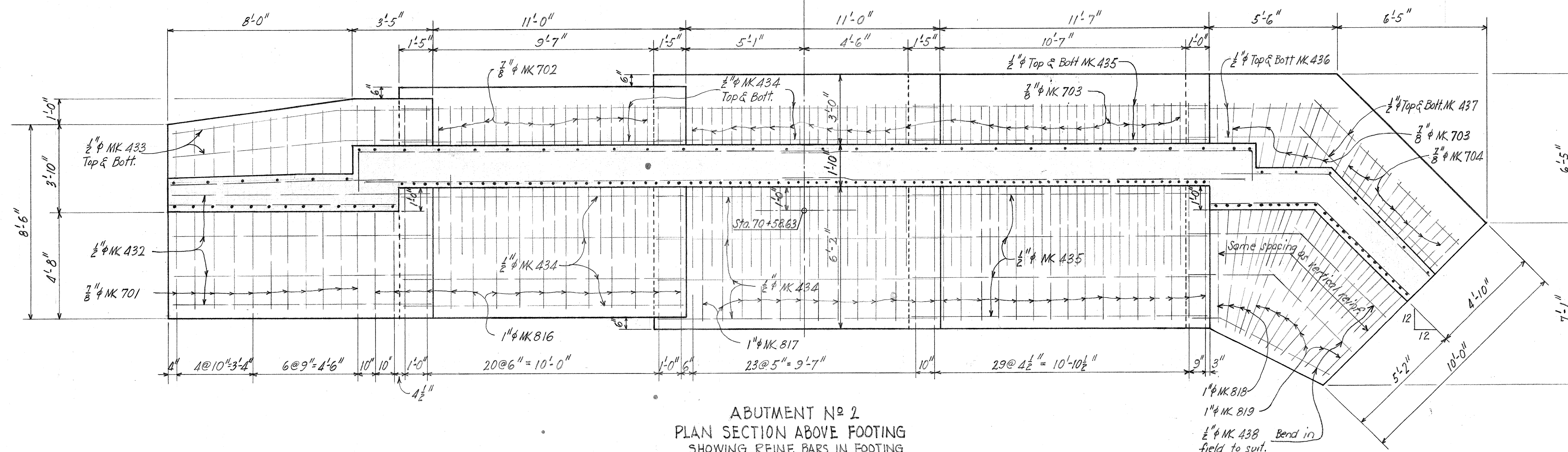
SECTION A A

DETAILS OF END POSTS



REAR ELEVATION
REINF. BARS REAR FACE
SCALE $\frac{3}{8}'' = 1'-0''$

WING WALL DEVELOPMENT



ABUTMENT No 2
PLAN SECTION ABOVE FOOTING
SHOWING REINF. BARS IN FOOTING

Note: Bars and spacings shown are for bars in top of footing unless otherwise noted.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KOLEKOLE BRIDGE
STA. 65+61.0 to 70+58.63
HAWAII BELT ROAD SDR 3(10)
FEBRUARY 1950

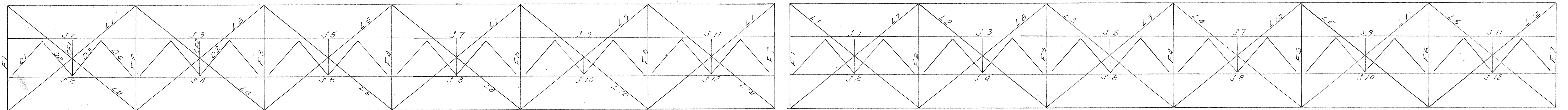
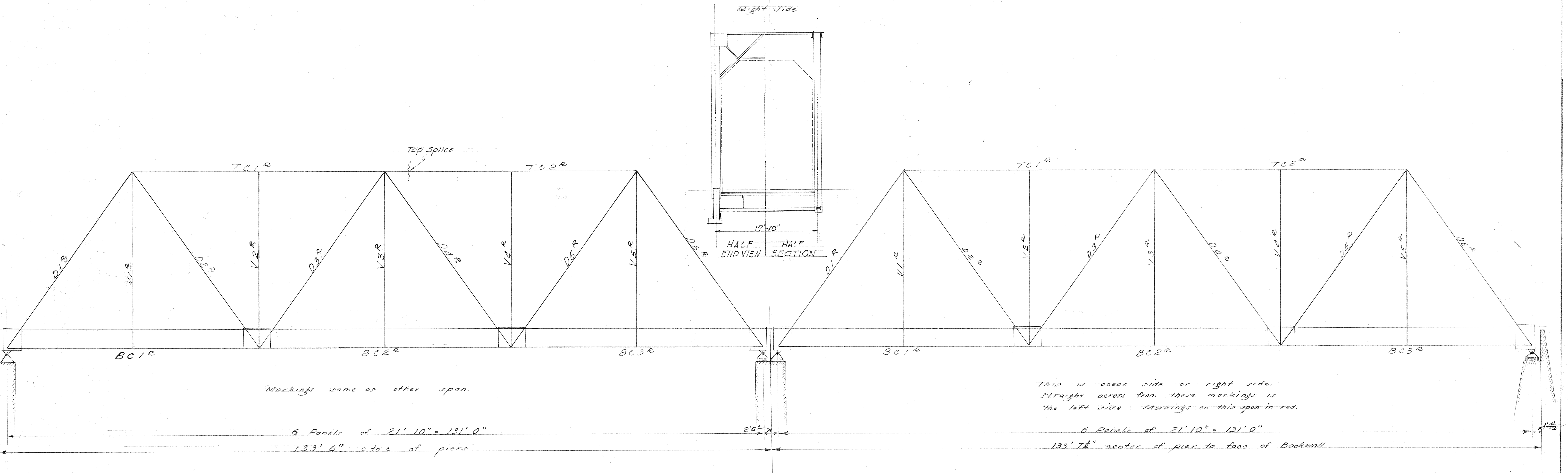
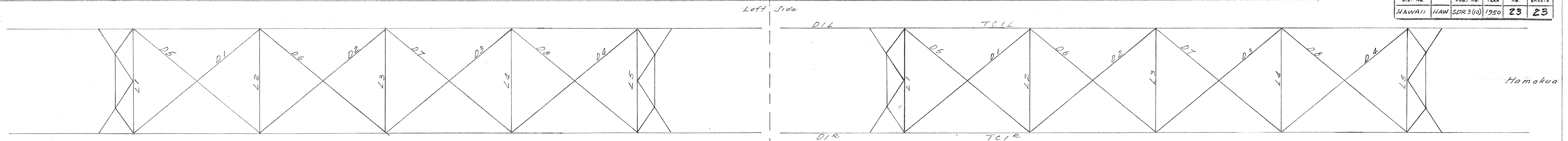
SHEET №18 OF 18 SHEETS

5463.22

A.E.L

PLANS MADE BY
BUREAU OF PUBLIC ROADS
DEPARTMENT OF COMMERCE
WESTERN HEADQUARTERS SAN FRANCISCO, CALIFORNIA

DESIGNED BY AEL DATE July 29 TRACED BY DATE
DRAWN BY AEL " Dec 29 CHECKED BY AEL " Jan 1930



MATCH MARKING DIAGRAM FOR WAILUKU BRIDGE STEEL

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
KOLEKOLE BRIDGE
STA. 65+61.0 TO 70+58.63
HAWAII BELT ROAD SDR 3(10)
FEBRUARY 1950