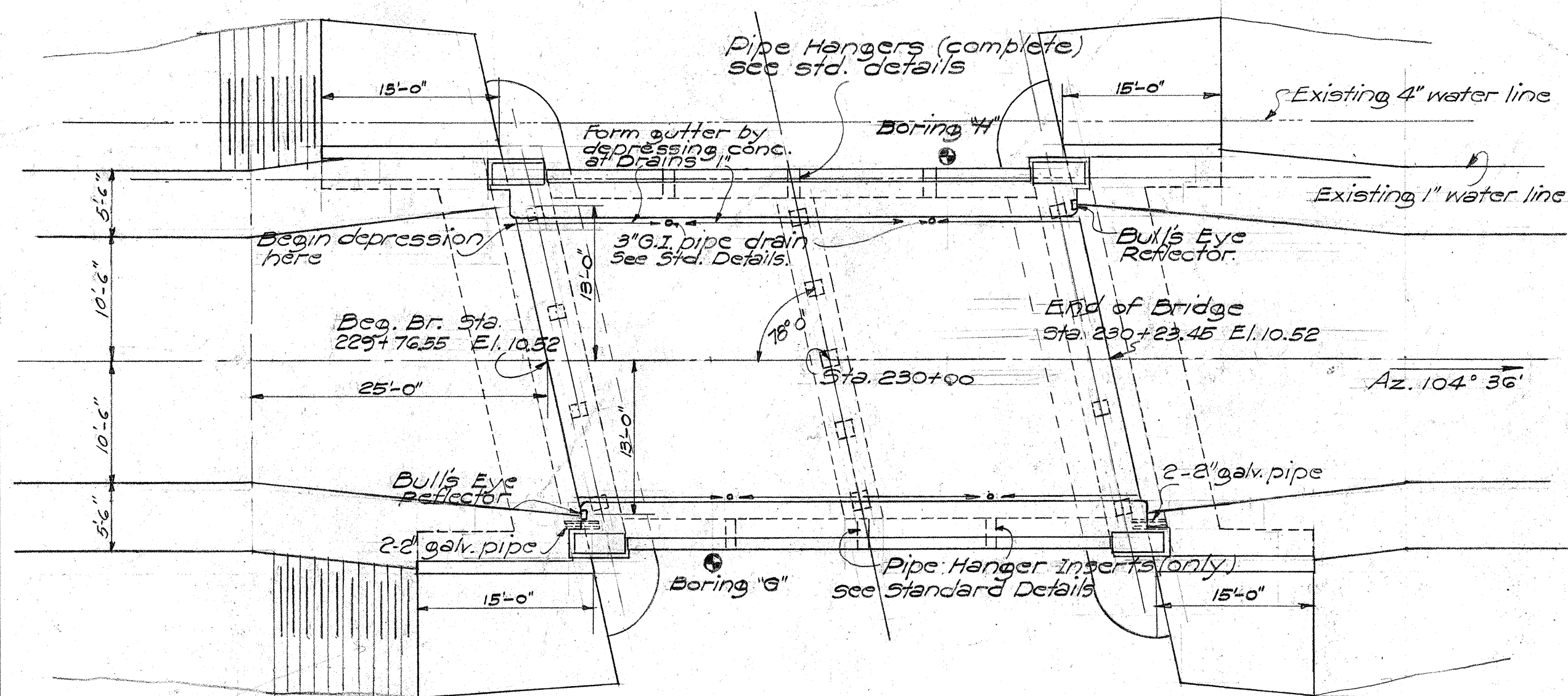
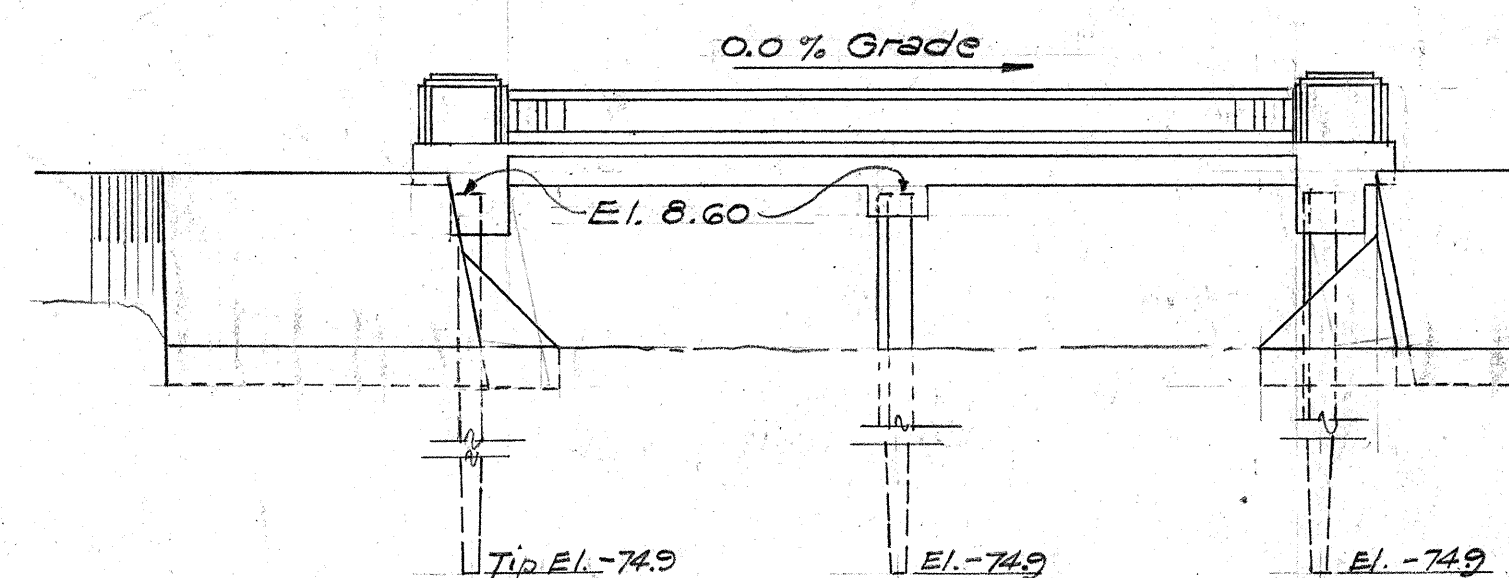




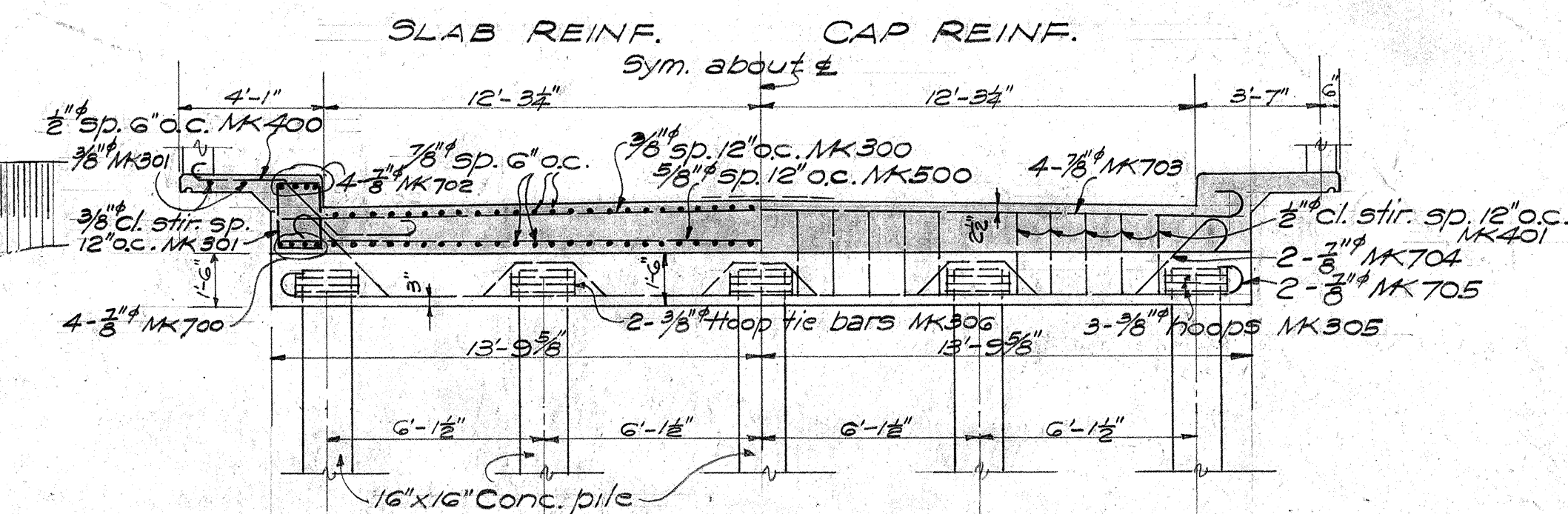
PLAN

Scale 1" = 10'



DOWNSTREAM ELEVATION

Scale 1" = 10'

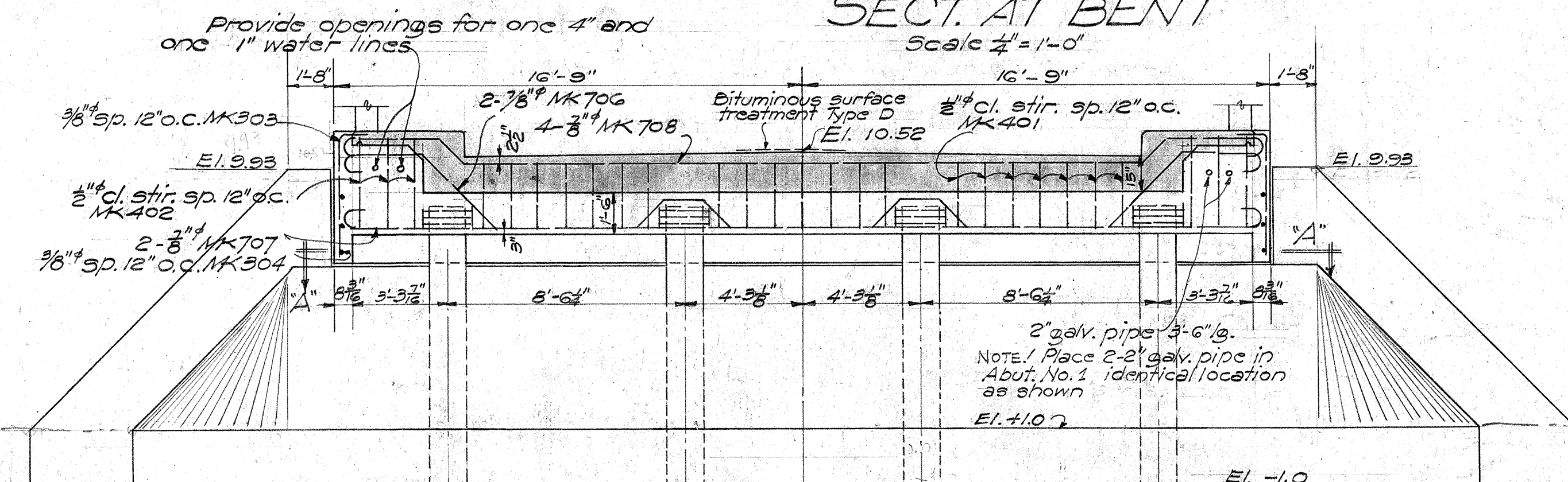


SECT. AT BENT

Scale 1/4" = 1'-0"

ESTIMATED QUANTITIES	
CONCRETE - Class "A"	100.6 C.Y.
REINF. STEEL	14,800 LBS.
STR. EXC.	160 C.Y.
ROCK FILL	415 C.Y.
CONCRETE SOCKET PILES 40'-0" Lg. 19 Piles	
UNTREATED TIMBER PILES 650 1/2" D.	

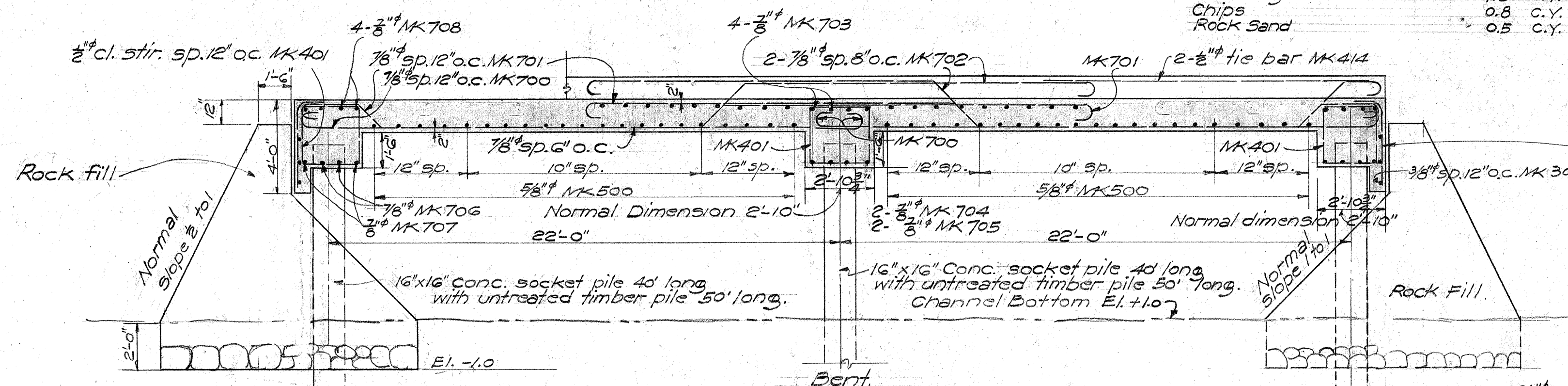
Bituminous Binder	0.32 tons.
Screenings	1.9 C.Y.
Chips	0.8 C.Y.
Rock Sand	0.5 C.Y.



NOTE: Abut. No. 1 similar.

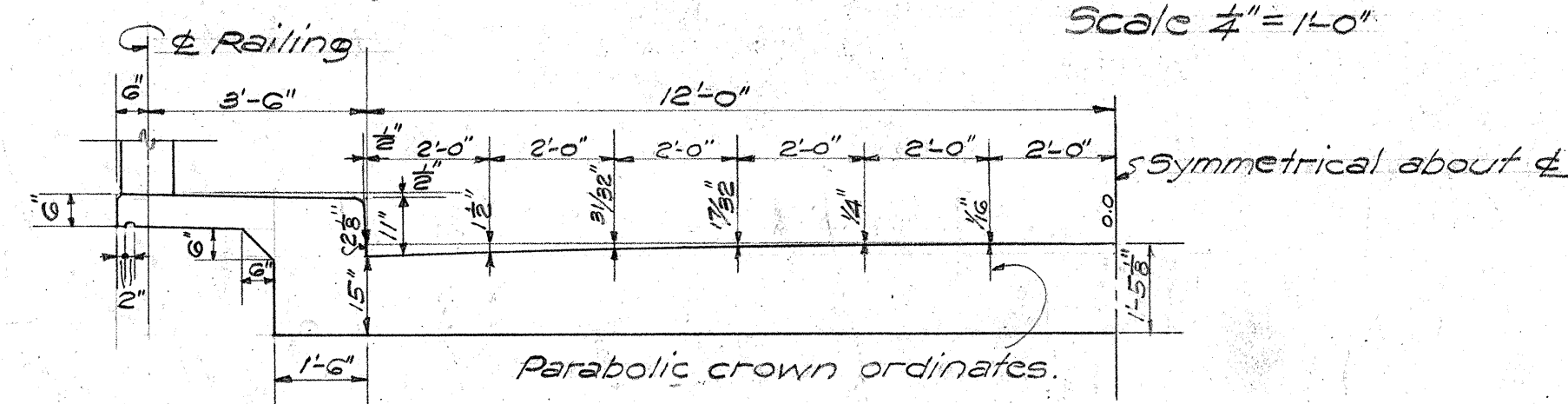
ABUTMENT NO. 2

Scale 1/4" = 1'-0"



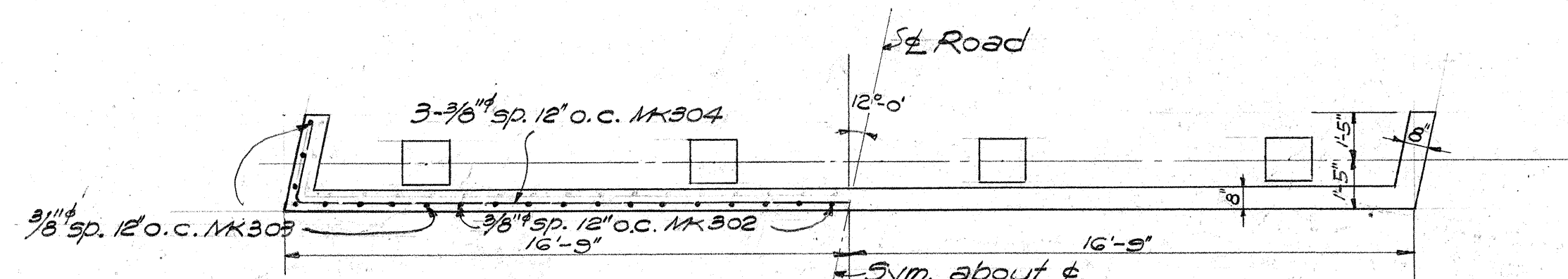
SECT. ALONG & ROAD.

Scale 1/4" = 1'-0"



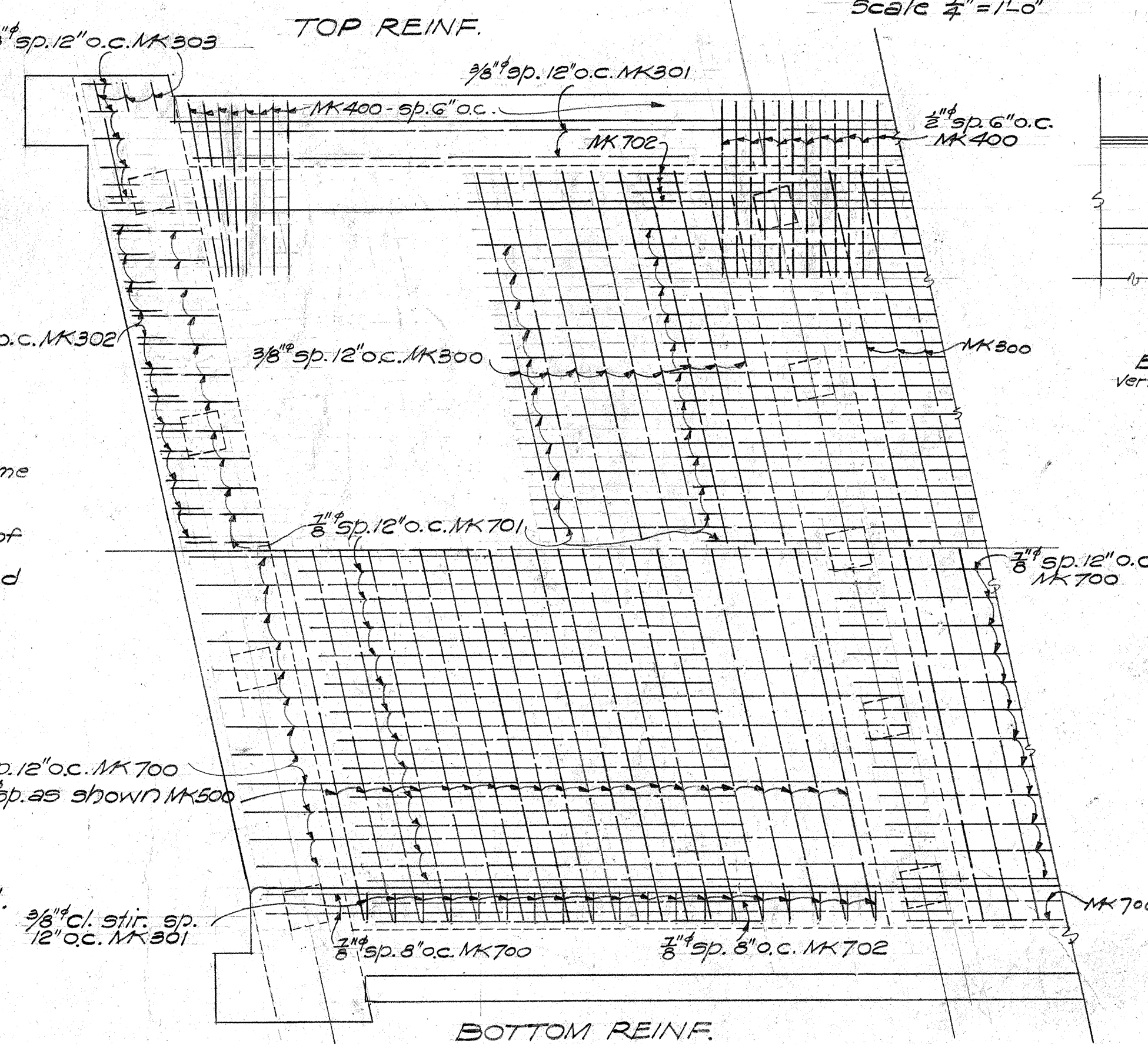
NORMAL SECT.

Scale 3/8" = 1'-0"



SECT. A-A

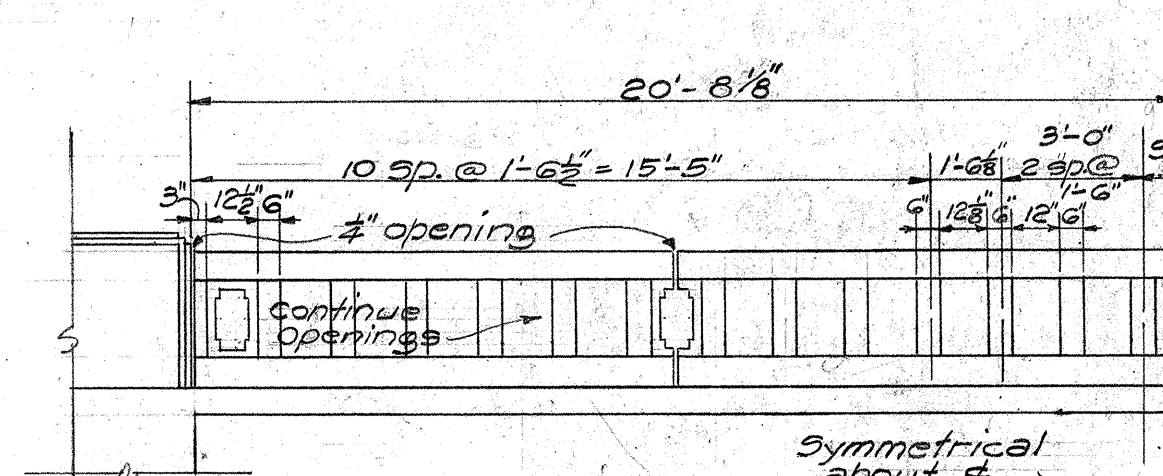
Scale 1/4" = 1'-0"



BOTTOM REINF.

SLAB REINF.

Scale 1/4" = 1'-0"



RAILING DETAIL

Scale 1/4" = 1'-0"

BORING "H"
Vert. Scale 1" = 20'

+0.3	Hard packed sand.
+0.5	Cemented sand.
-4.8	Tree & finger coral, hp. with sand & shell.
-12.1	Sand, shell some small coral.
-16.8	Compact fine sand, trace of clay & rotten wood.
-30.3	Ditto, but more compact.
-43.7	Soft, sand & clay.
-61.7	Comp. sand with enough clay to make it stand up.
-73.3	Tree coral, hp. sand & shell.
-74.3	

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE NO. 19.

STA. 230+00

WAIALUA-KAENA PT.
ROAD. FAR 35A(1) Part II.

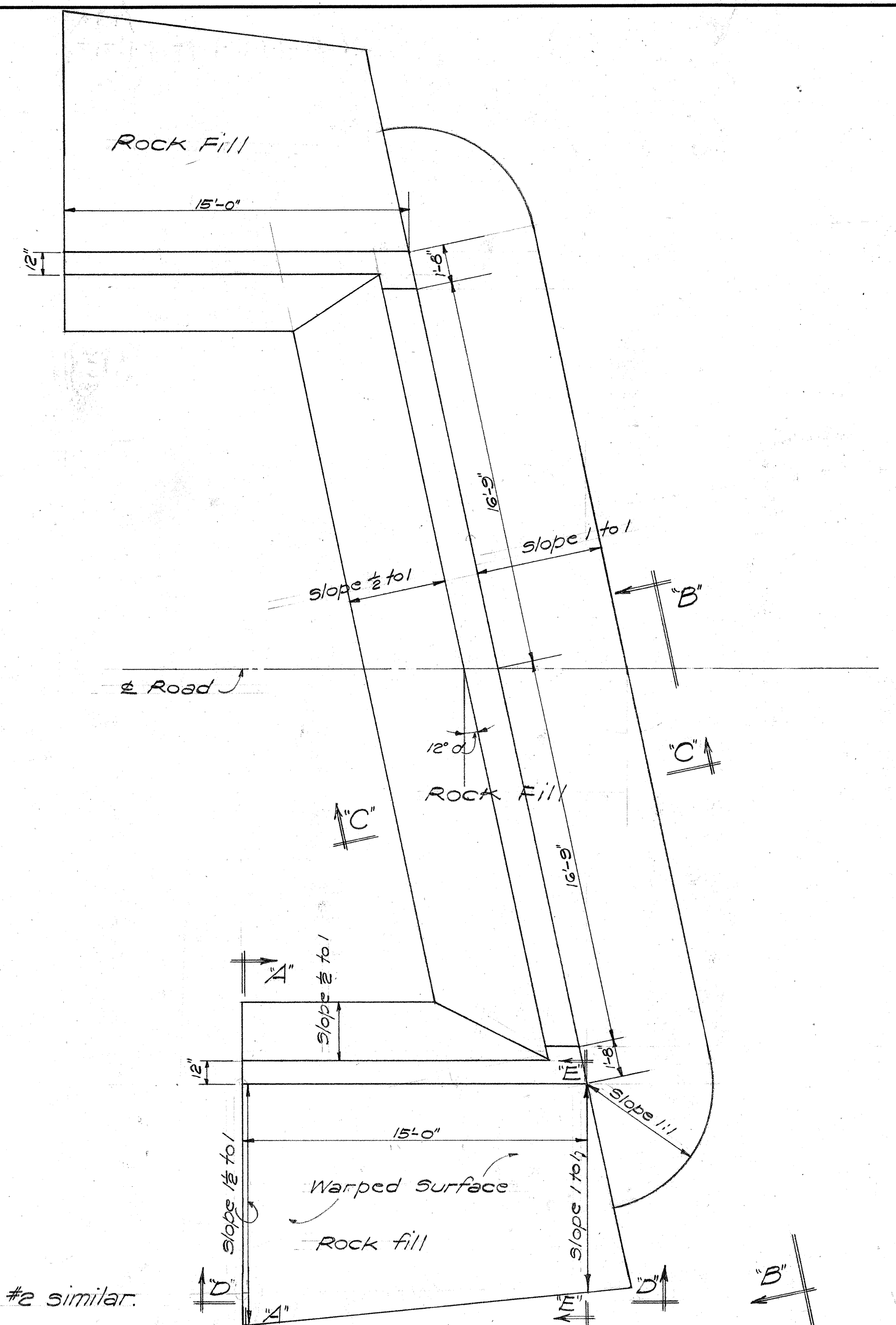
JAN. 1939.

SHEET No. 1 OF 2 SHEETS

5003.12

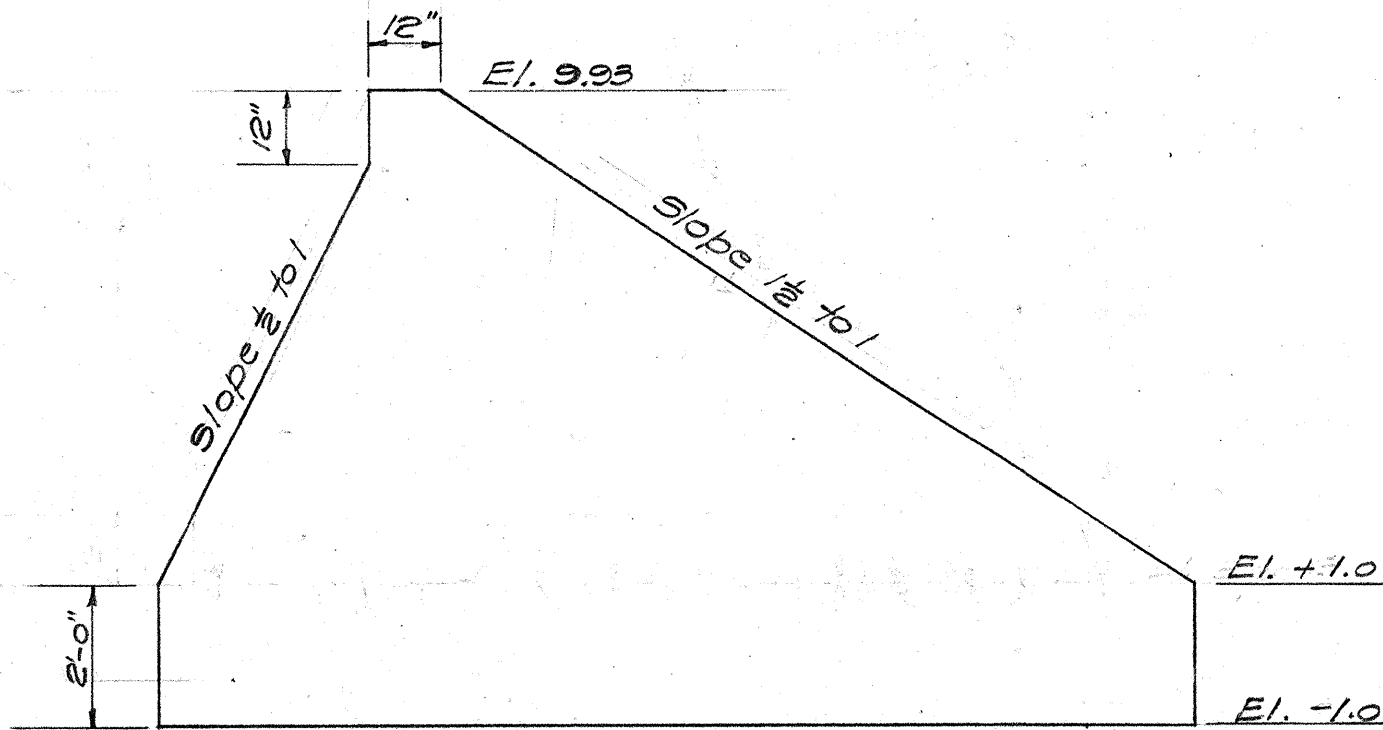
5003.12

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	35-A(1)	1939	13	33

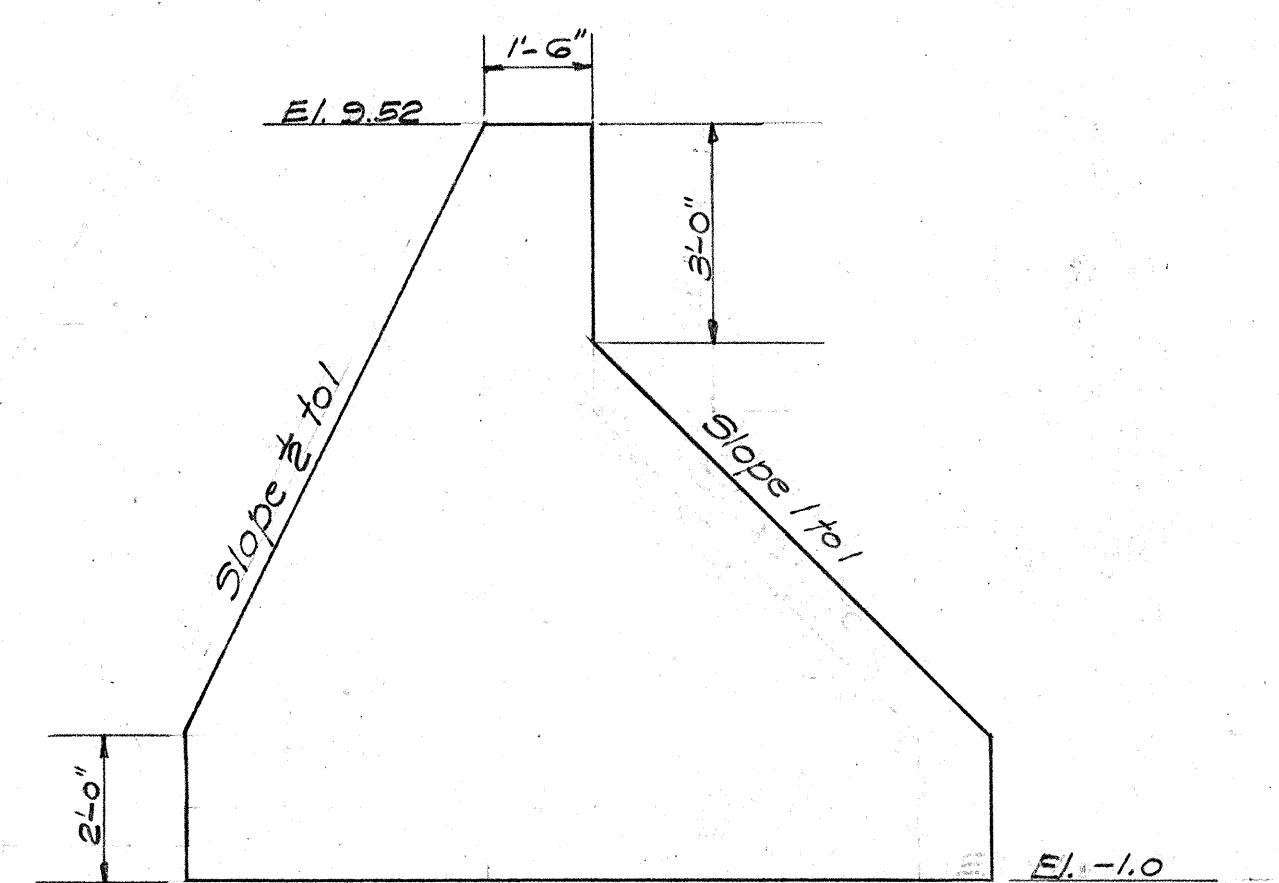


NOTE: Abut. #2 similar.

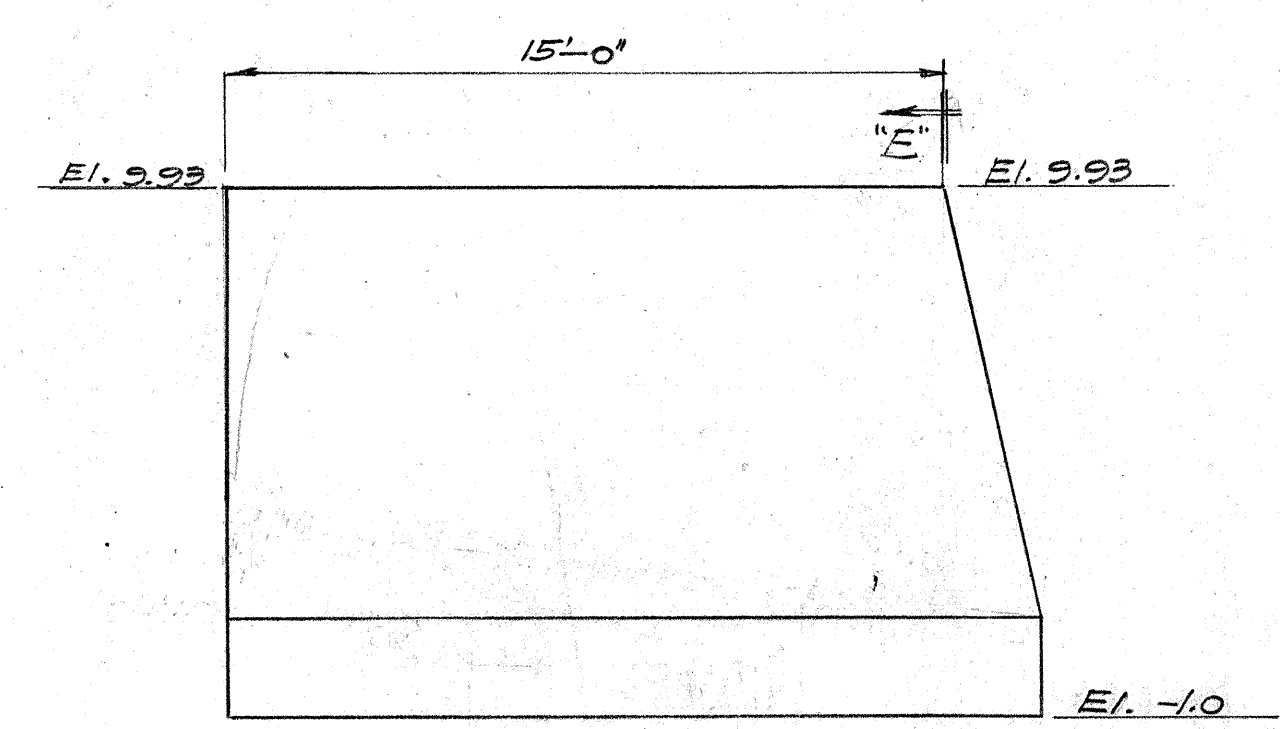
PLAN-ABUT. #1
RETAINING DAM
Scale 1/4" = 1'-0"



SECT. A-A
Scale 3/8" = 1'-0"

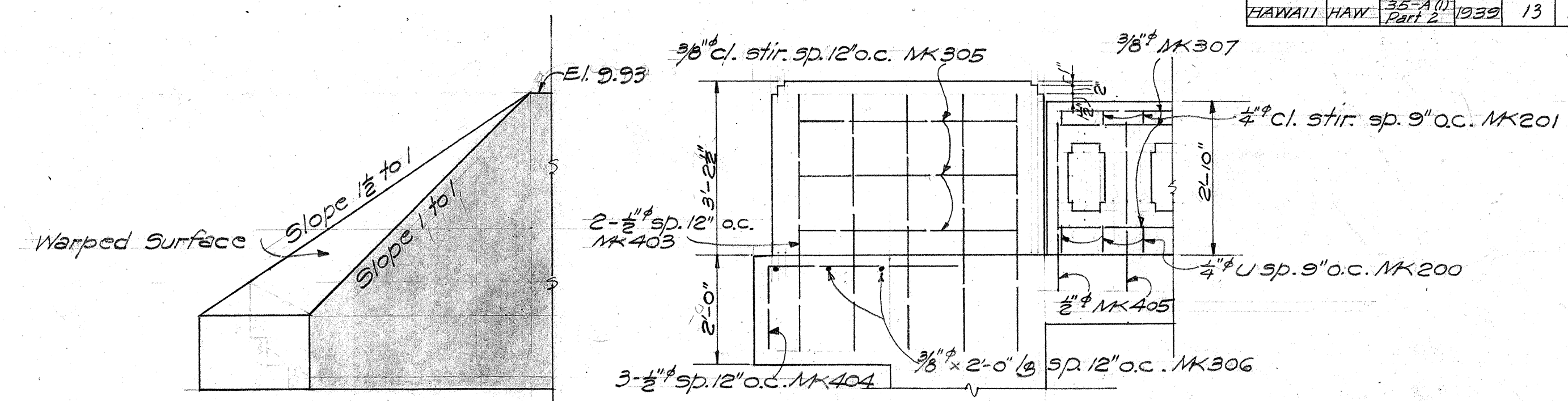


SECT. C-C
Scale 3/8" = 1'-0"



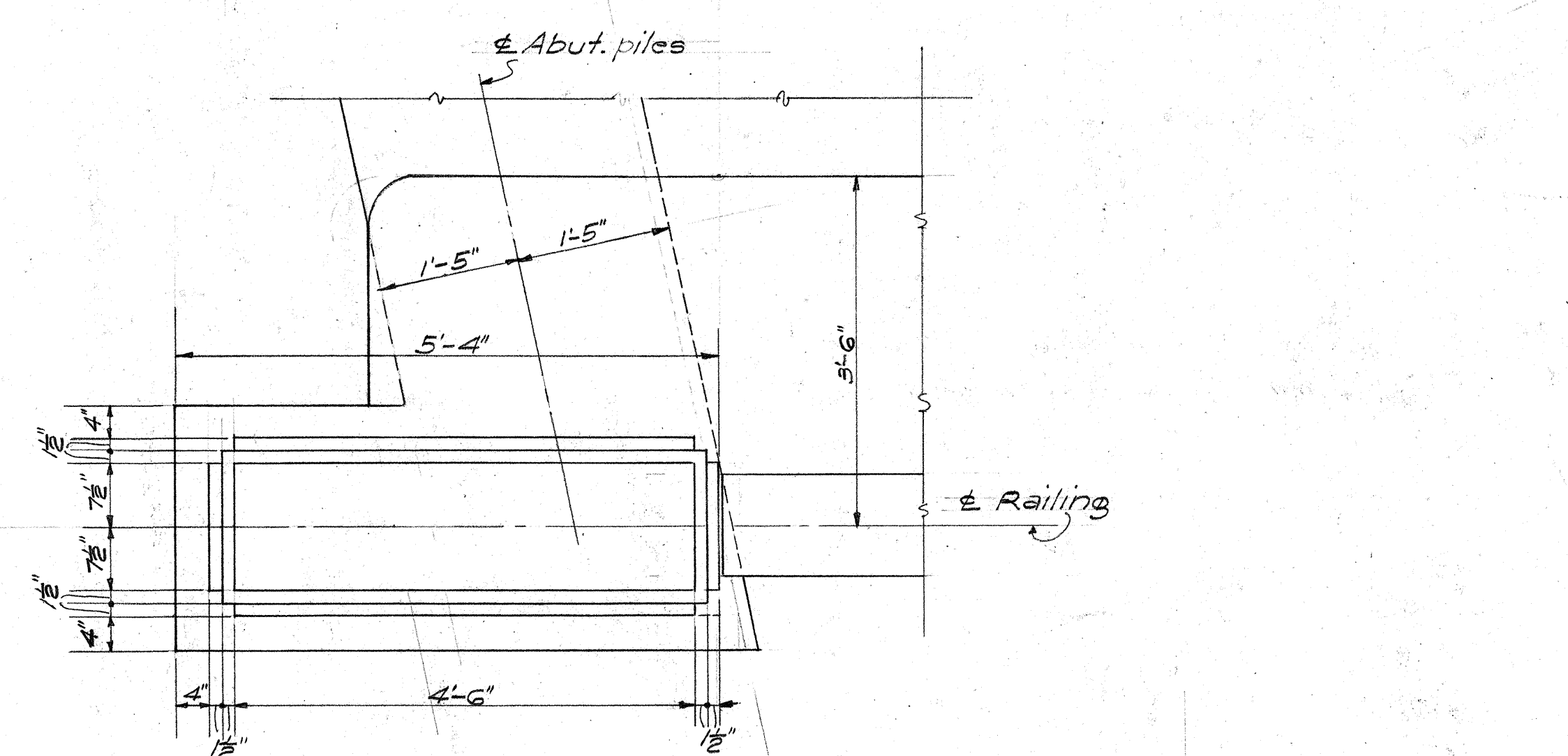
SECT. D-D
Scale 1/4" = 1'-0"

NOTE: Other Wing Walls similar.

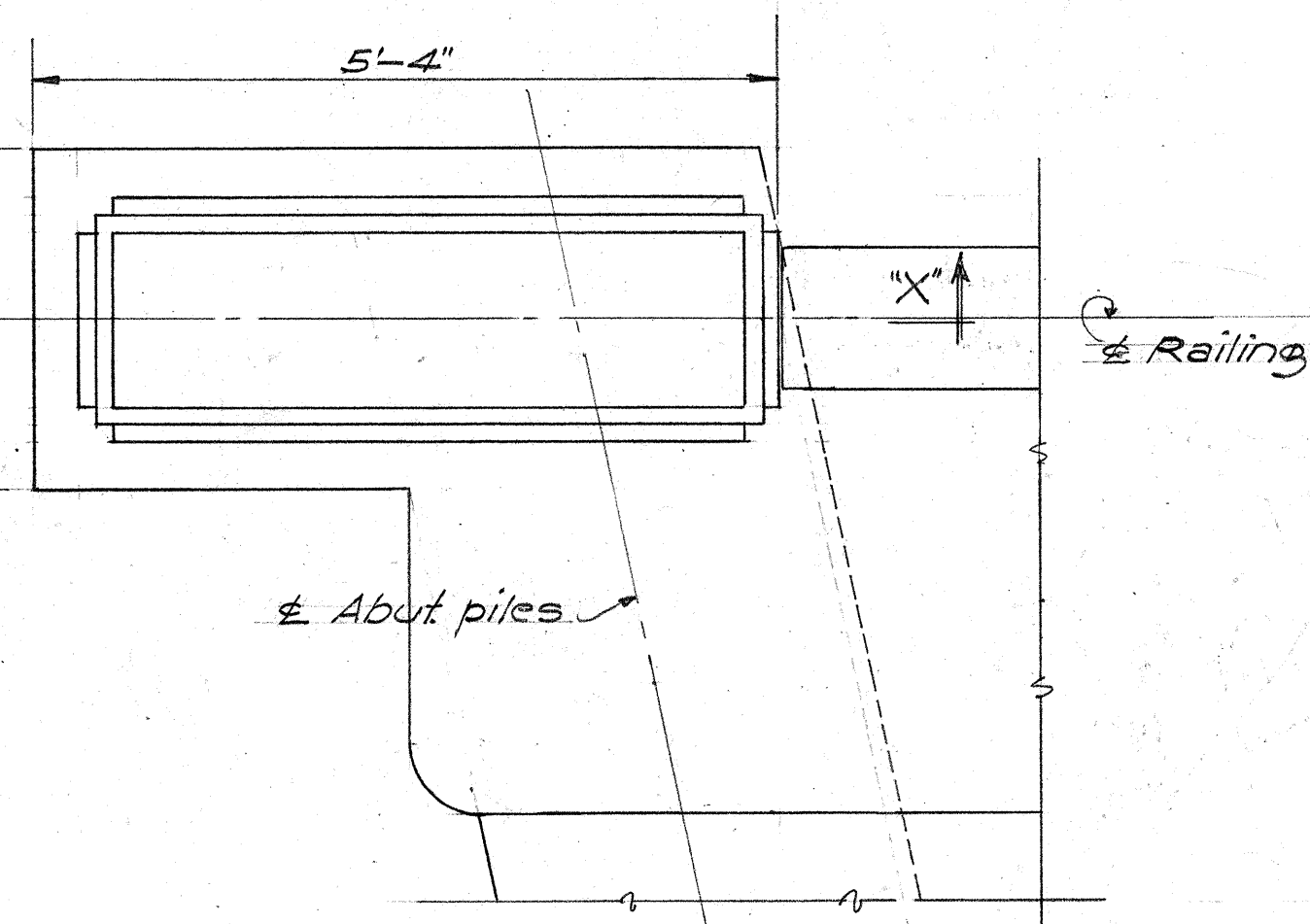


SECT. E-E
Scale 1/4" = 1'-0"

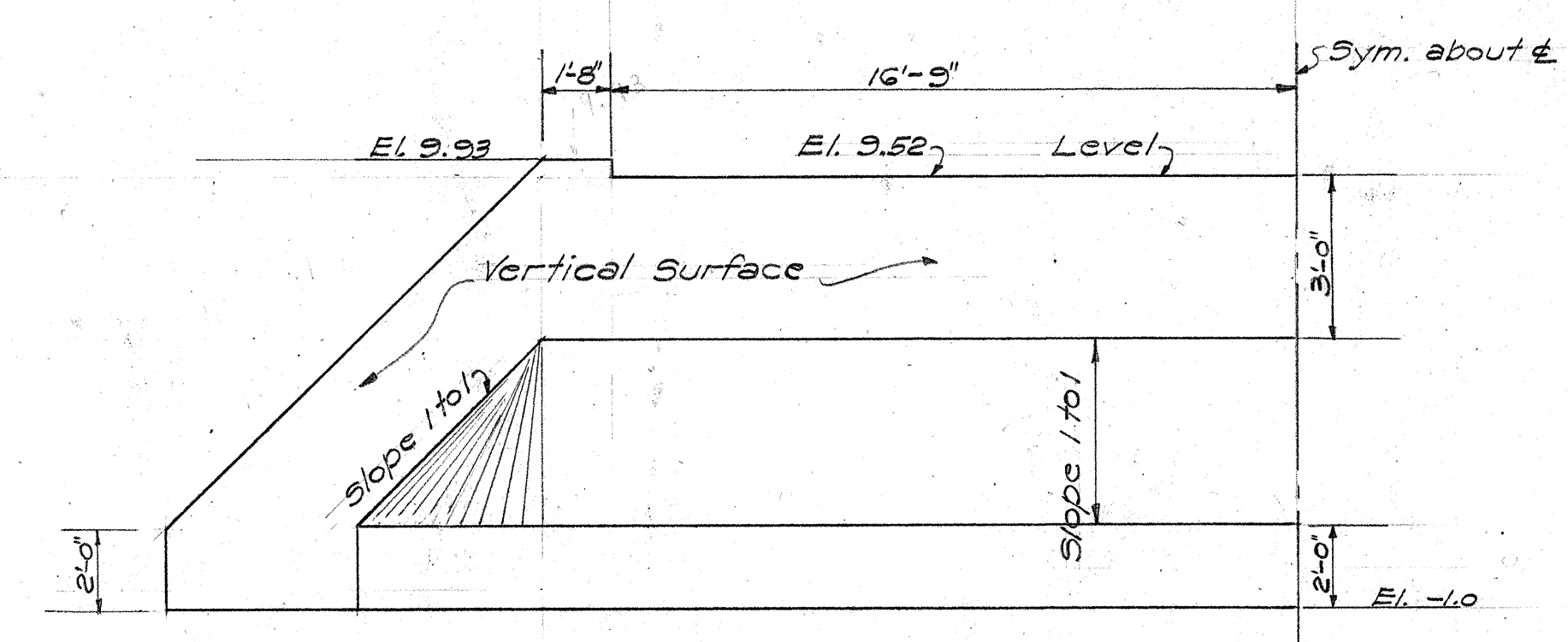
SECT. X-X
Scale 1/2" = 1'-0"



PLAN-END POST
Scale 3/4" = 1'-0"



PLAN-END POST
Scale 3/4" = 1'-0"



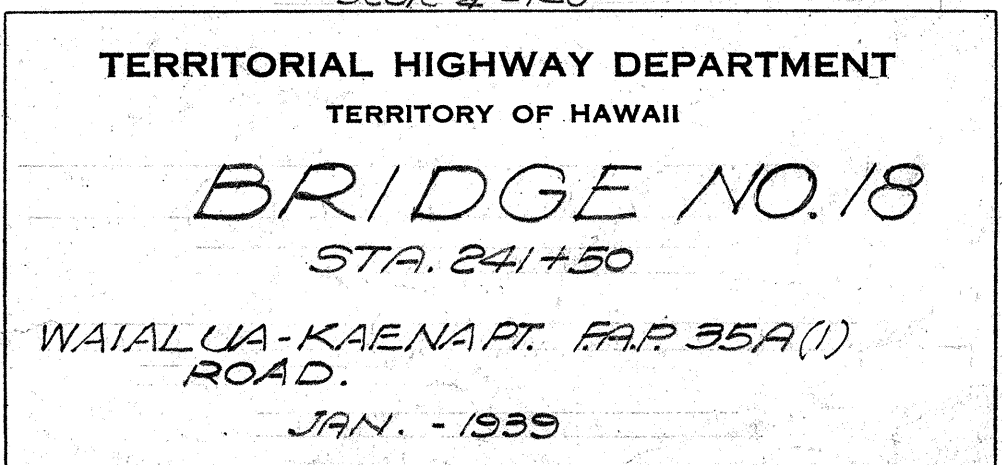
SECT. B-B
Scale 1/4" = 1'-0"

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
BRIDGE NO. 19
STA. 230+00
WAIALUA-KAENA PT.
ROAD. F.A.P. 35-A(1) PART II
JAN. 1939.

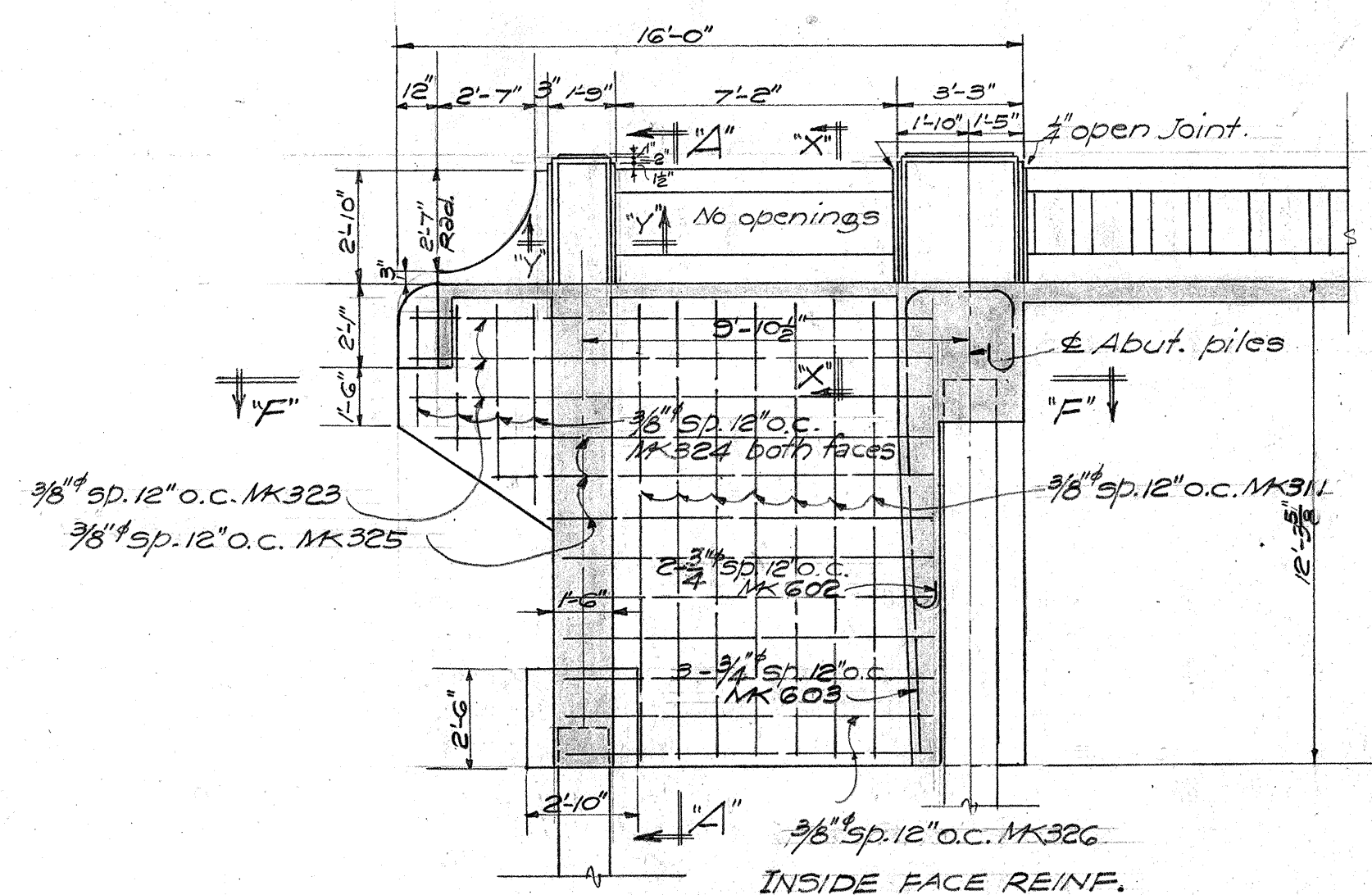
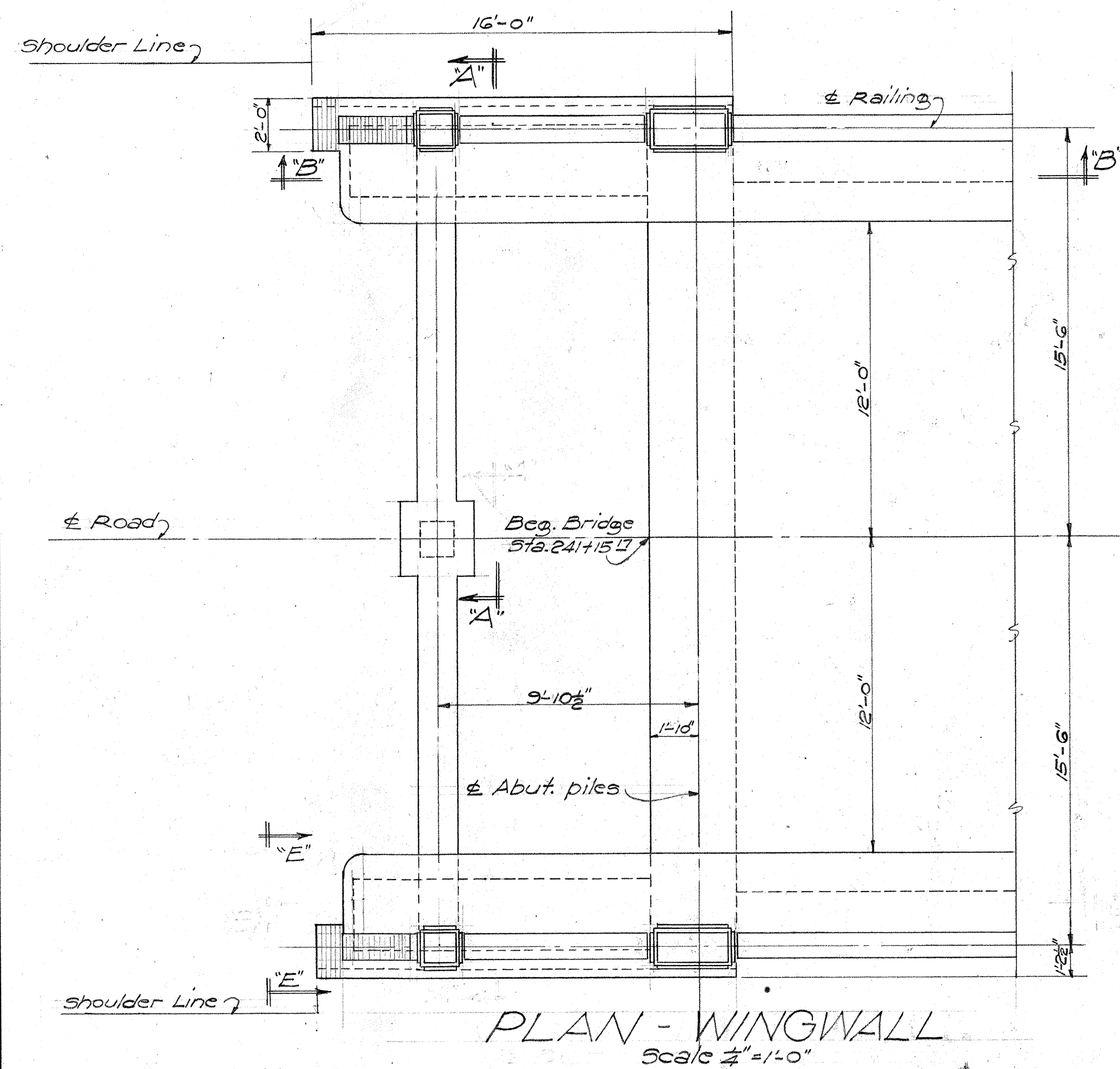
SHEET No 2 OF 2 SHEETS

ORIGINAL
PLAN
NOTE BOOK
No.

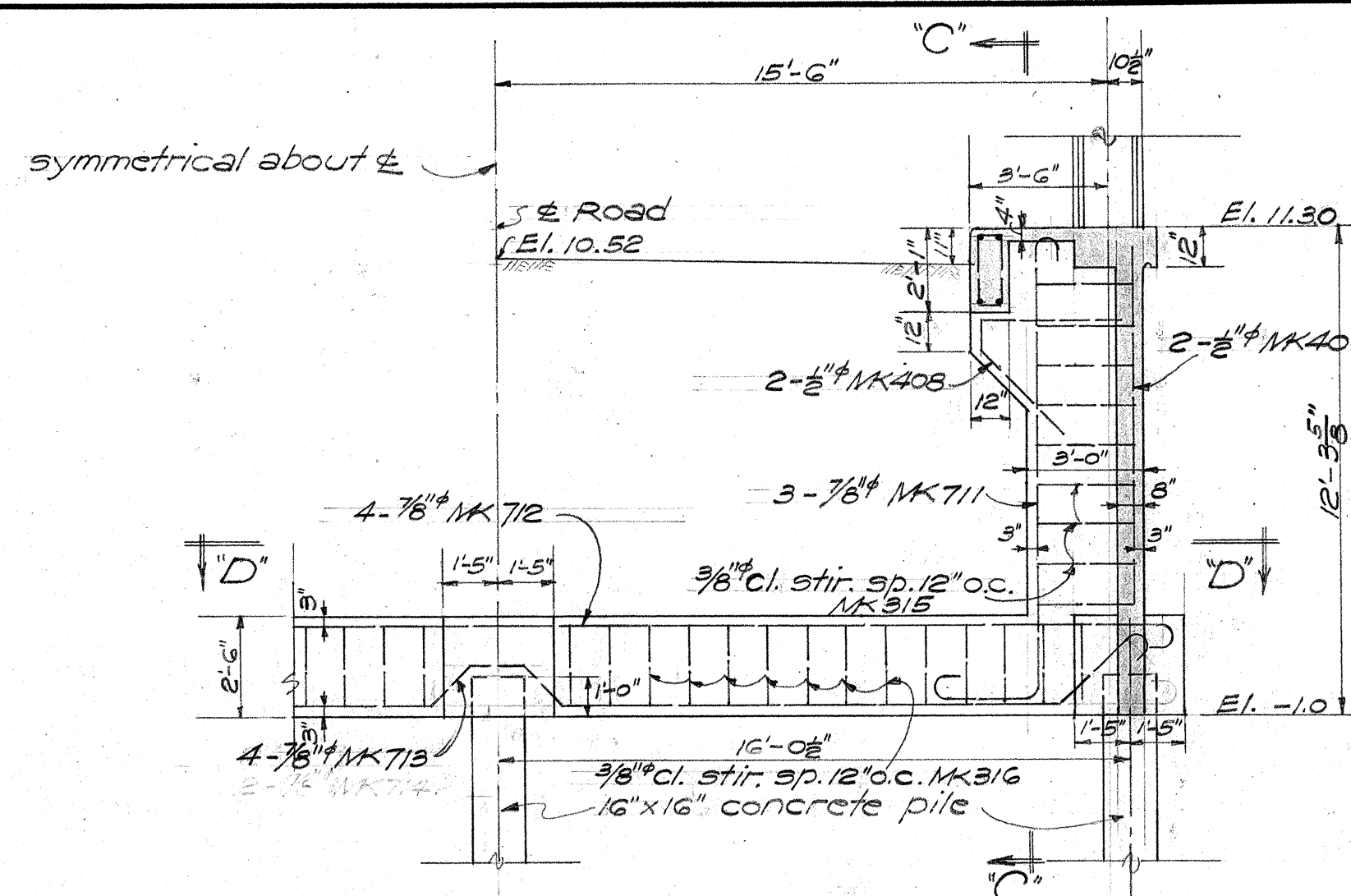
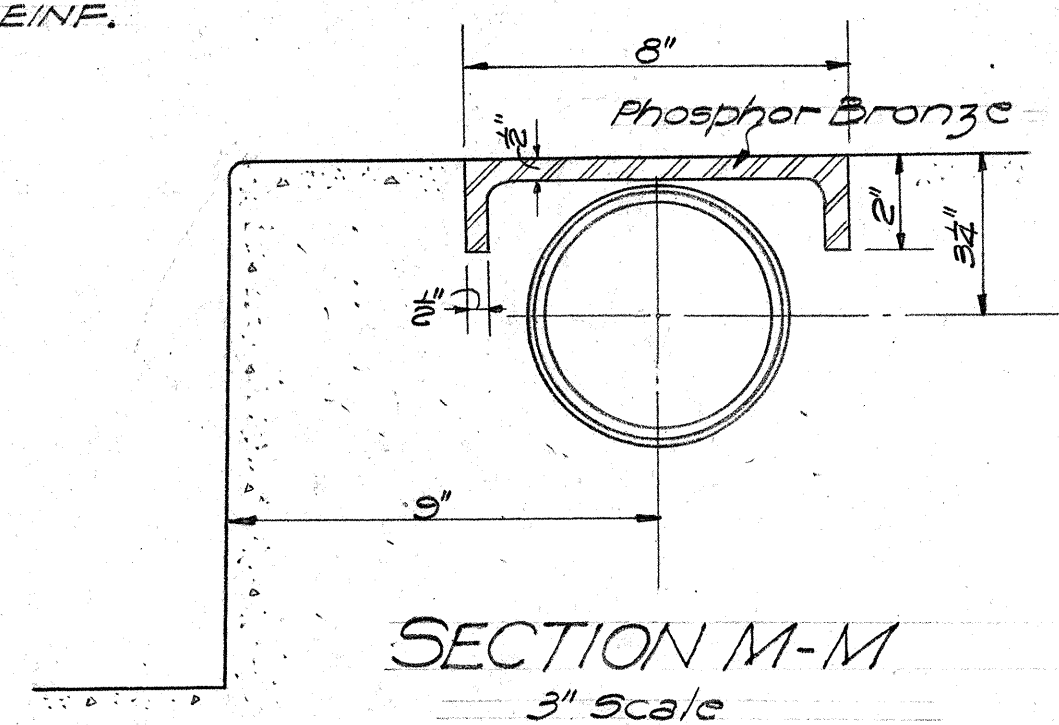
SURVEY PLOTTED BY: DATE: 1-30-39
DESIGNED BY: M. S. BARTLES
DRAWN BY: J. H. BARTLES
CHECKED BY: J. H. BARTLES
QUANTITIES CHECKED BY: J. H. BARTLES



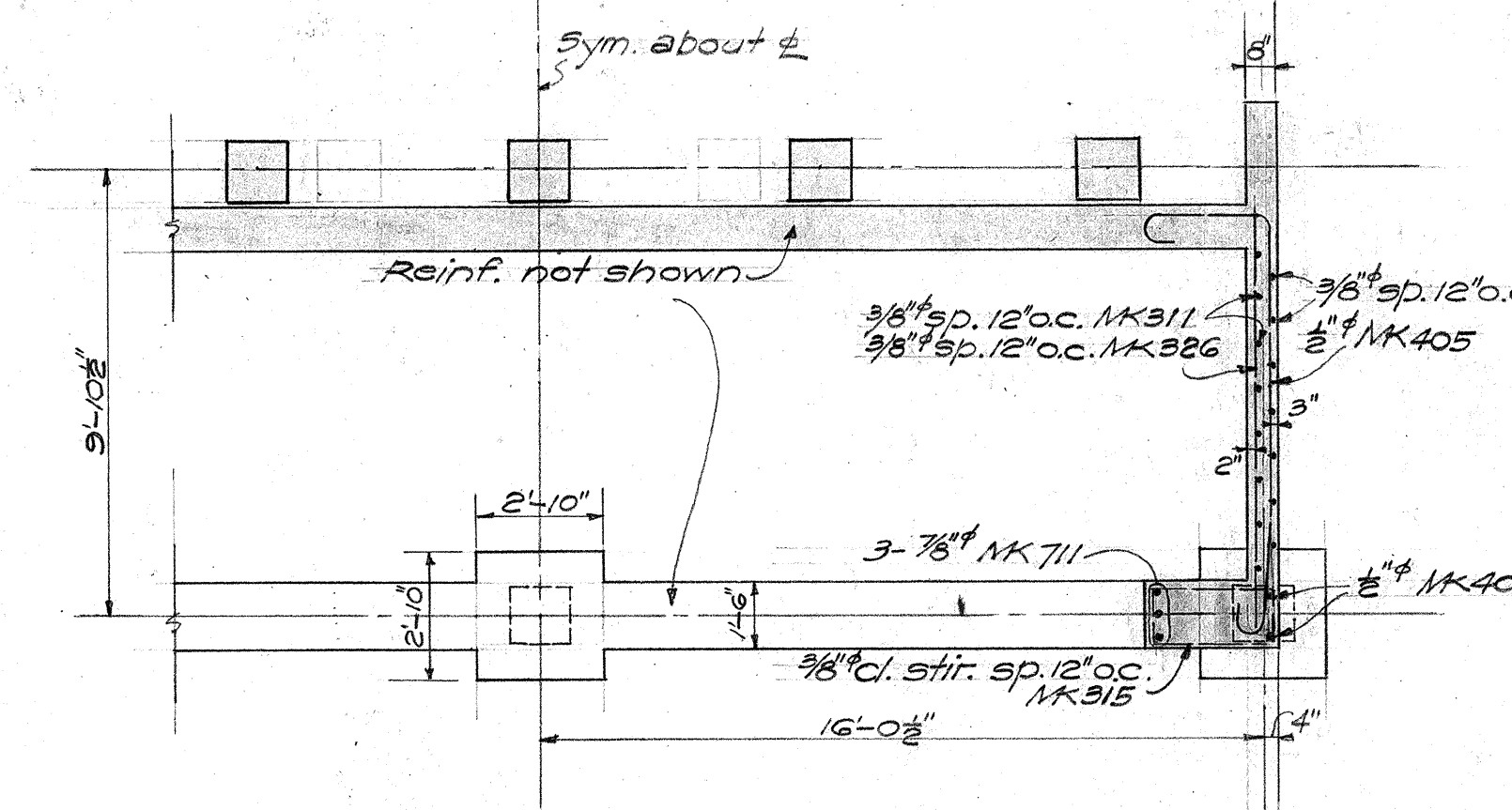
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	35A(1)	1939	15	33



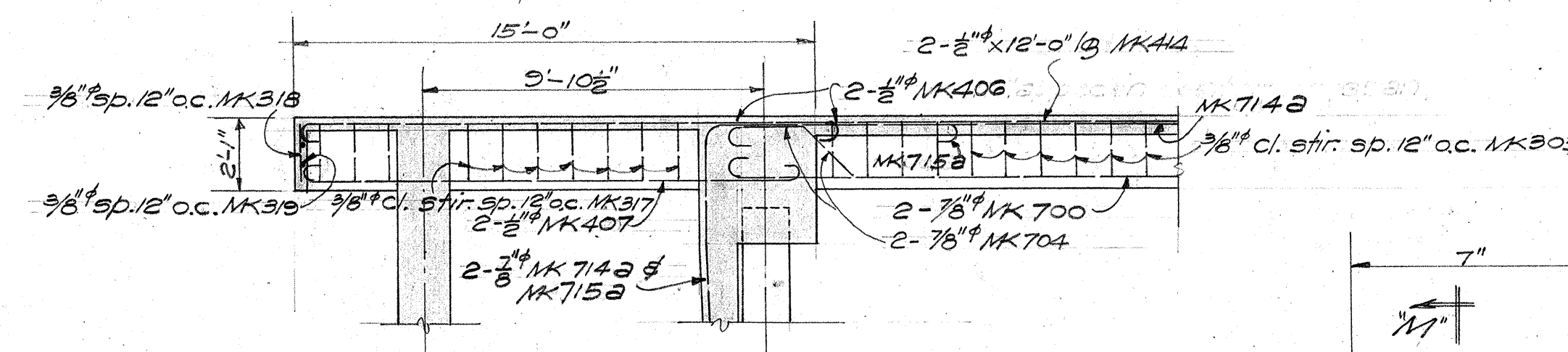
SECT. B-B
Scale $\frac{1}{4}'' = 1'-0''$



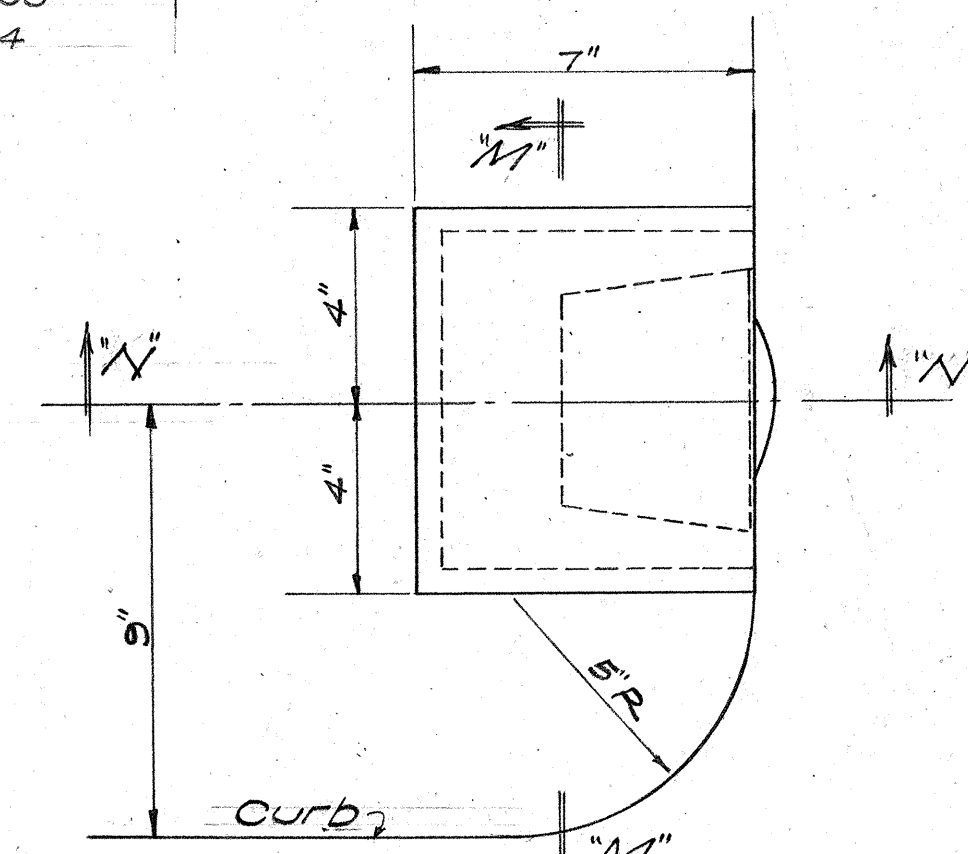
SECT. A-A
Scale $\frac{1}{4}'' = 1'-0''$



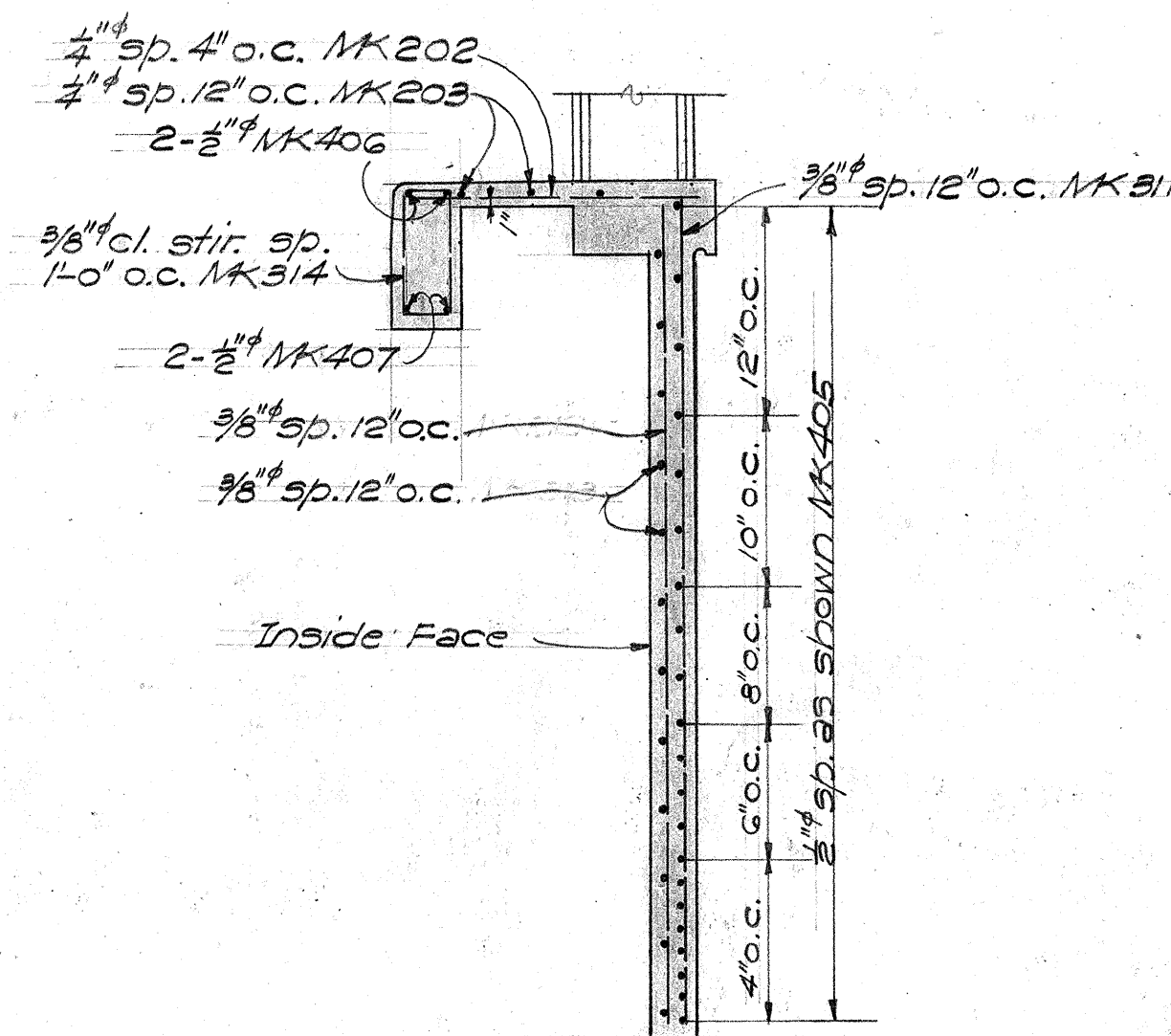
SECT. D-D
Scale $\frac{1}{4}'' = 1'-0''$



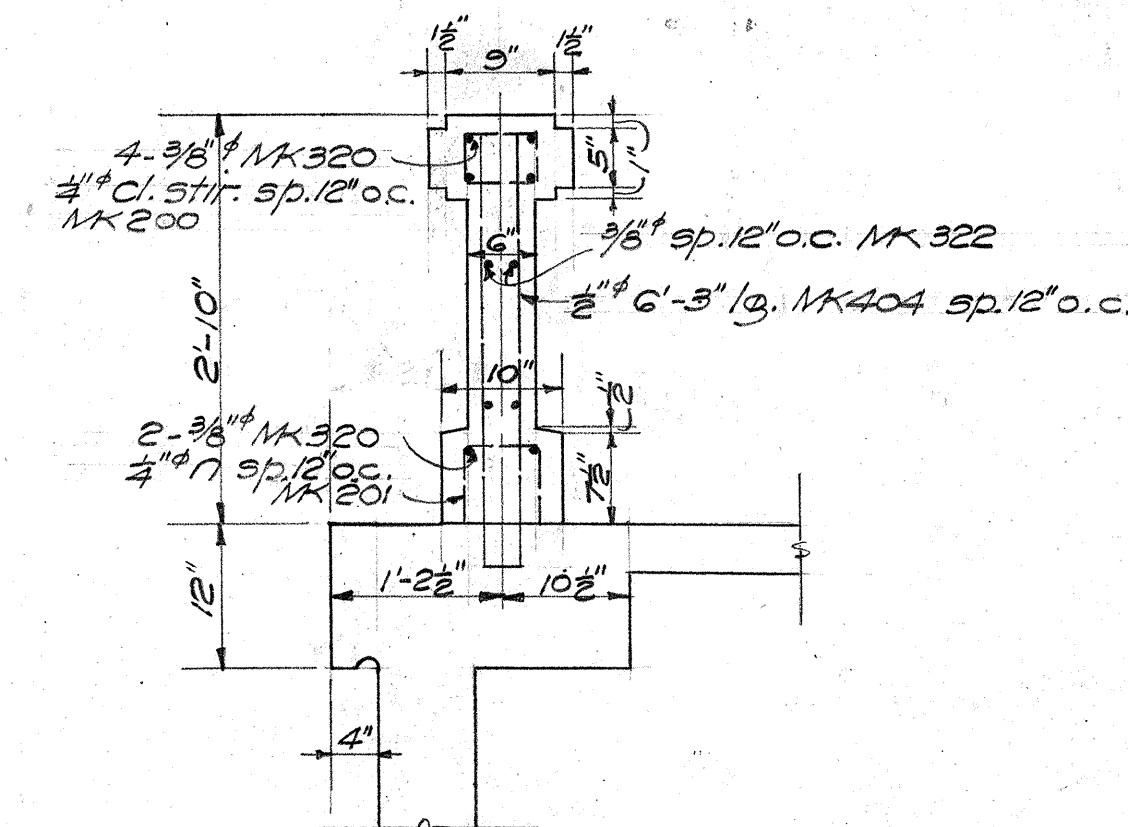
SECT. C-C
Scale $\frac{1}{4}'' = 1'-0''$



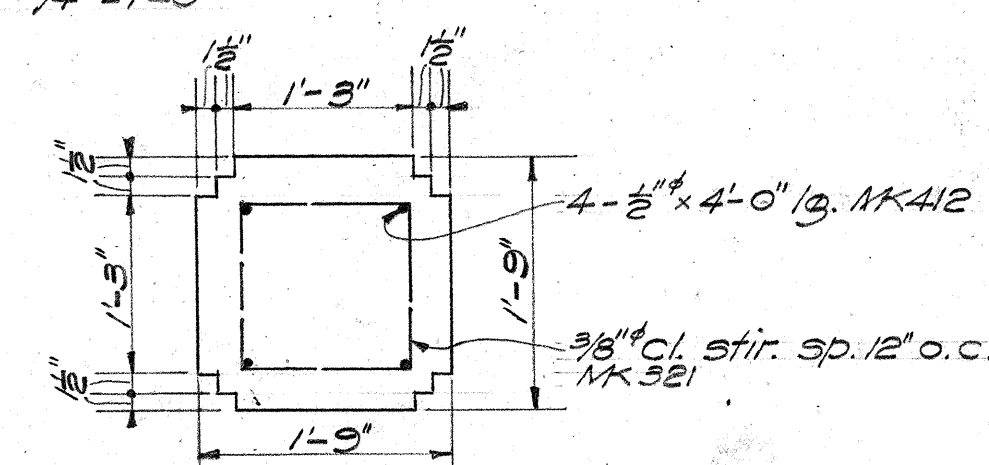
PLAN - BULLSEYE REFLECTOR
3" Scale



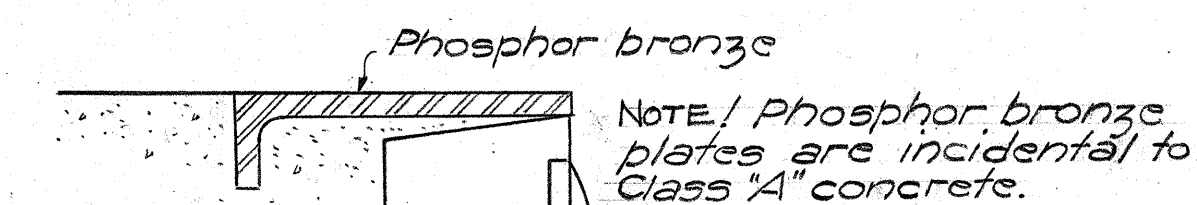
WINGWALL REINF.
Scale $\frac{3}{8}'' = 1'-0''$



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

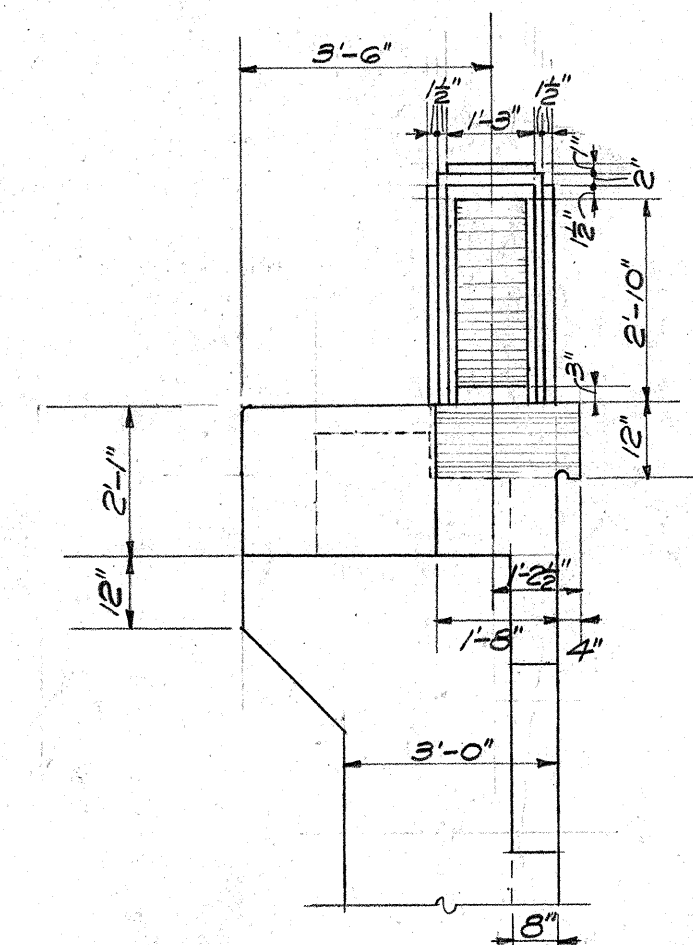


SECT. Y-Y
Scale $\frac{3}{4}'' = 1'-0''$

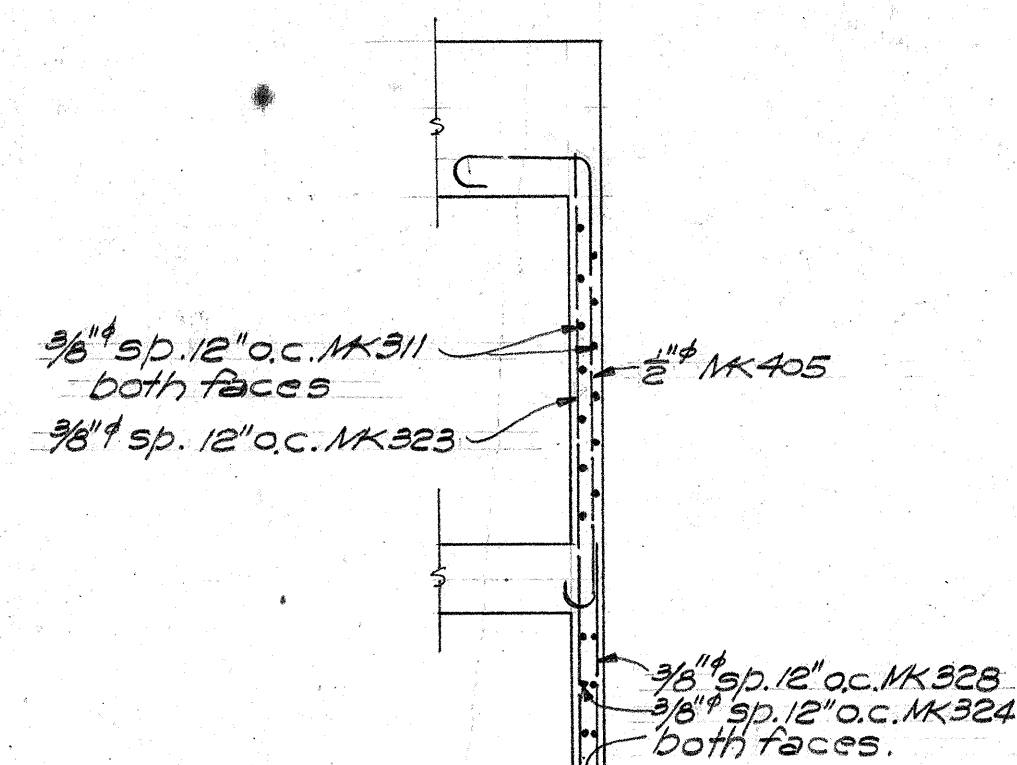


SECT. N-N
Scale 3" = 1'-0"

NOTE! Bullseye reflector to be furnished by Ter. Highway Dept. and to be installed by the contractor.



SECT. E-E
Scale $\frac{3}{8}'' = 1'-0''$



SECT. F-F
Scale $\frac{1}{2}'' = 1'-0''$

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE NO. 18

STA. 241+50

WAIALUA-KAENA PT. RD. F.A.R. 35A(1)

JAN. 1939.

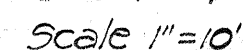
SHEET No 2 OF 2 SHEETS

5003.15

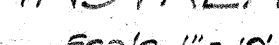
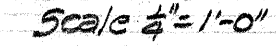
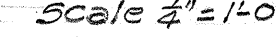
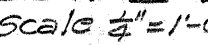
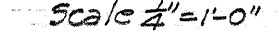
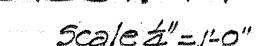
5003.15

ORIGINAL	DATE
PLAN	1-39
DESIGNED BY	W. E. BARTLETT
DRAWN BY	J. H. HARRIS
QUANTITIES BY	E. HARRIS
CHECKED BY	E. HARRIS
NOTE BOOK	
No.	

SHE



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



STA. 324+81.5

F.A.P. 35461

1941. 25. 4. 10.

SHEET No / OF / SHEETS

5003.17A

Revision:- Bridge placed on skew.

ORIGINAL PLAN	SURVEY PLOTTED BY DESIGNED BY <i>M. J. BARTLES</i> DRAWN BY <i>T. J. TING</i> TRACED BY QUANTITIES BY <i>h. j.</i> QUANTITIES CHECKED BY CHECKED BY	DATE <i>2-7-60</i> " " " " " "
NOTE BOOK		
No.		