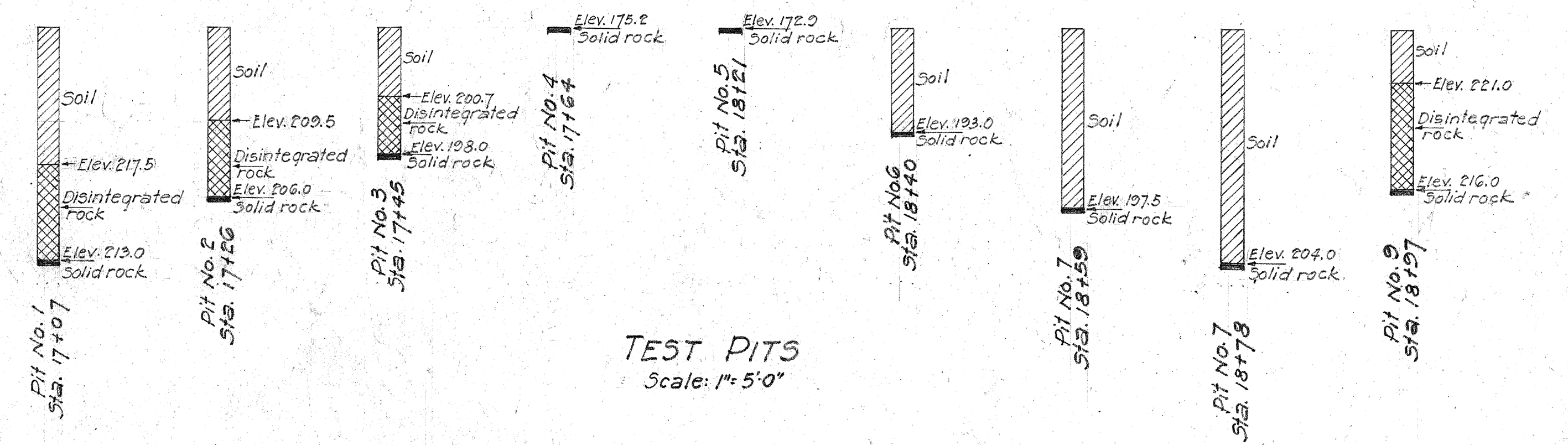
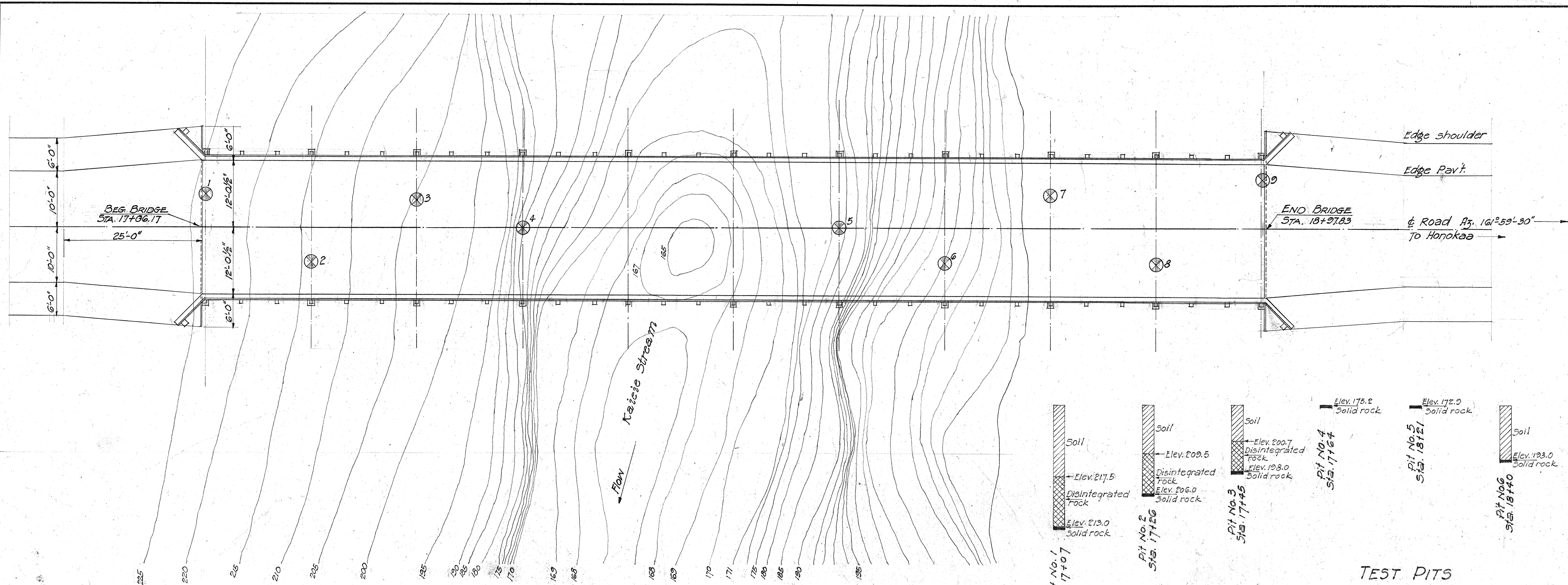
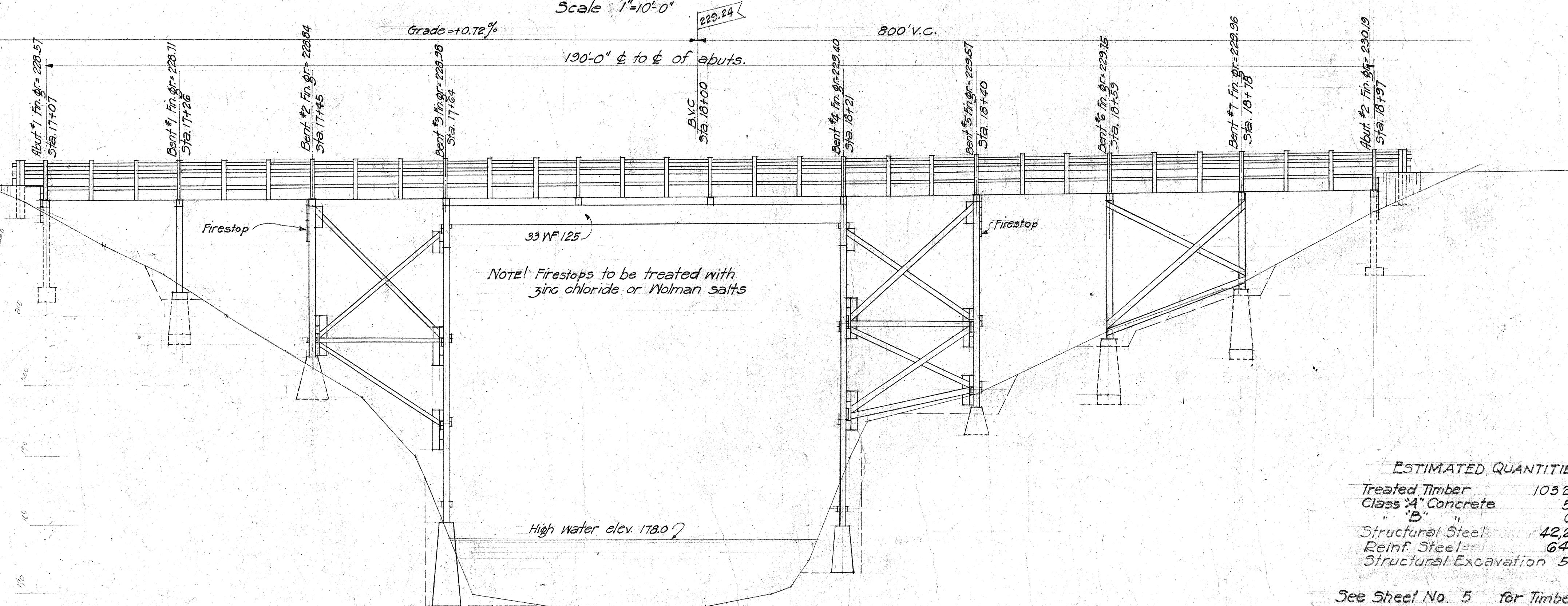


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	14(30)	1941	35	92



LAYOUT PLAN
Scale 1"=10'-0"

TEST PITS
Scale: 1"=5'-0"



DOWNSTREAM ELEVATION
Scale 1"=10'-0"

ESTIMATED QUANTITIES

Treated Timber	103 233 Ft. B.M.
Class "A" Concrete	50.4 C.Y.
" " " " " "	67.2 C.Y.
Structural Steel	42,200 LBS.
Reinf. Steel	6499 LBS.
Structural Excavation	500 C.Y.

See Sheet No. 5 for Timber Bill of Material

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE No. 1

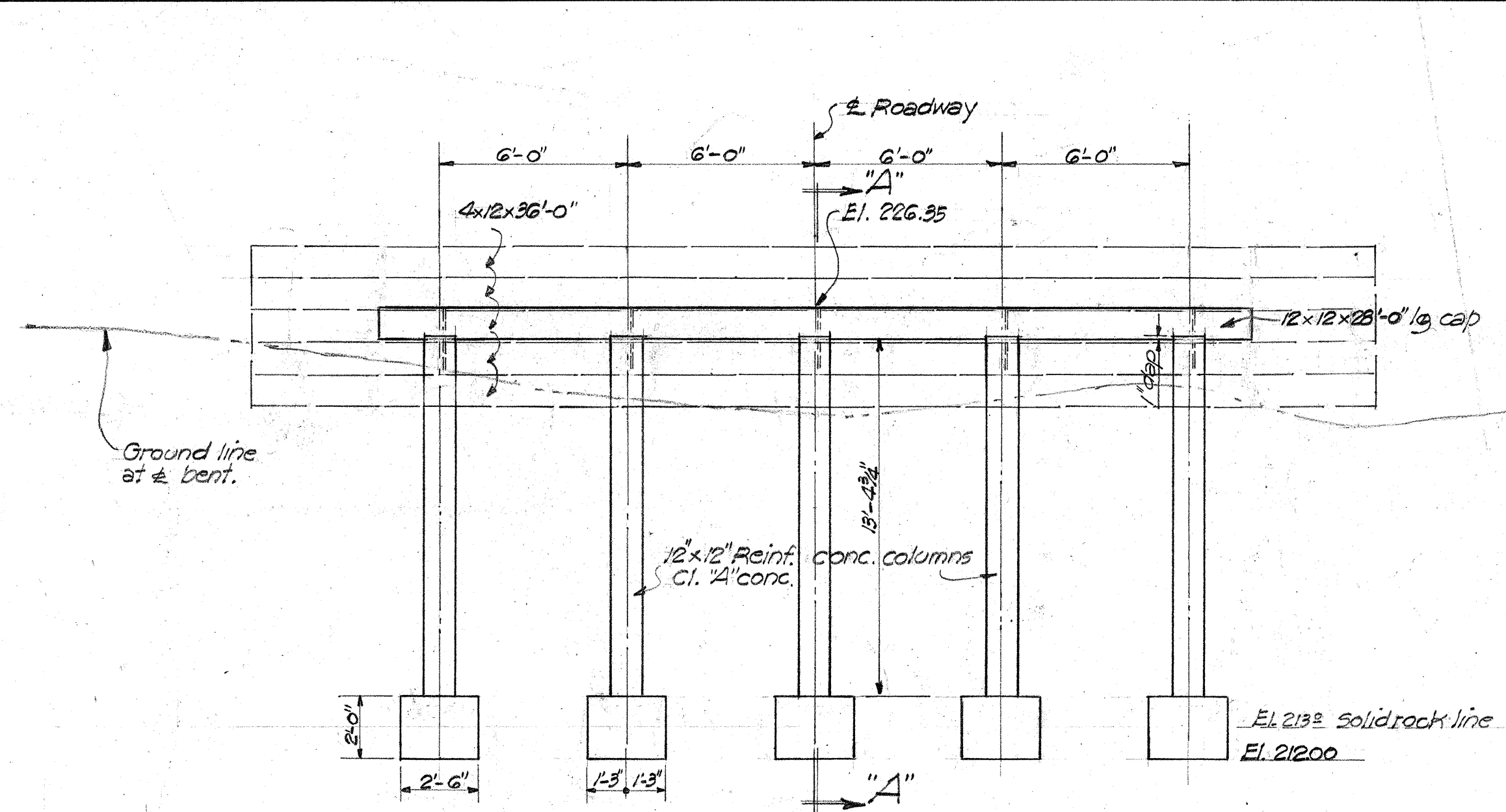
HAWAII BELT RD. F.A.P. 14-B

Sept. 1940

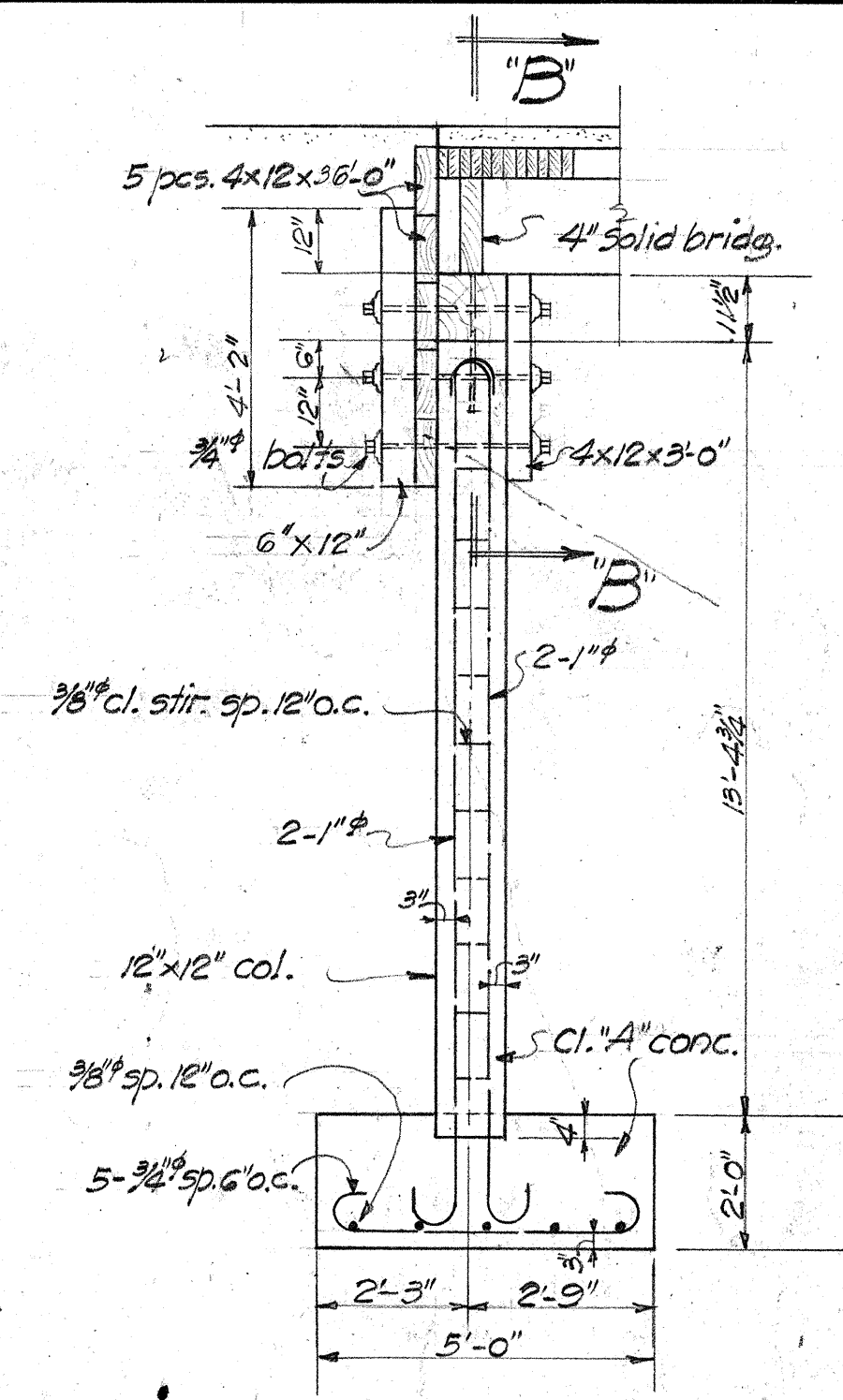
SHEET No. 1 OF 6 SHEETS

ORIGINAL PLAN	DATE
DESIGNED BY	Oct. 1940
DRAWN BY	
CHECKED BY	
QUANTITIES CHECKED BY	
NOTE BOOK	
NO.	

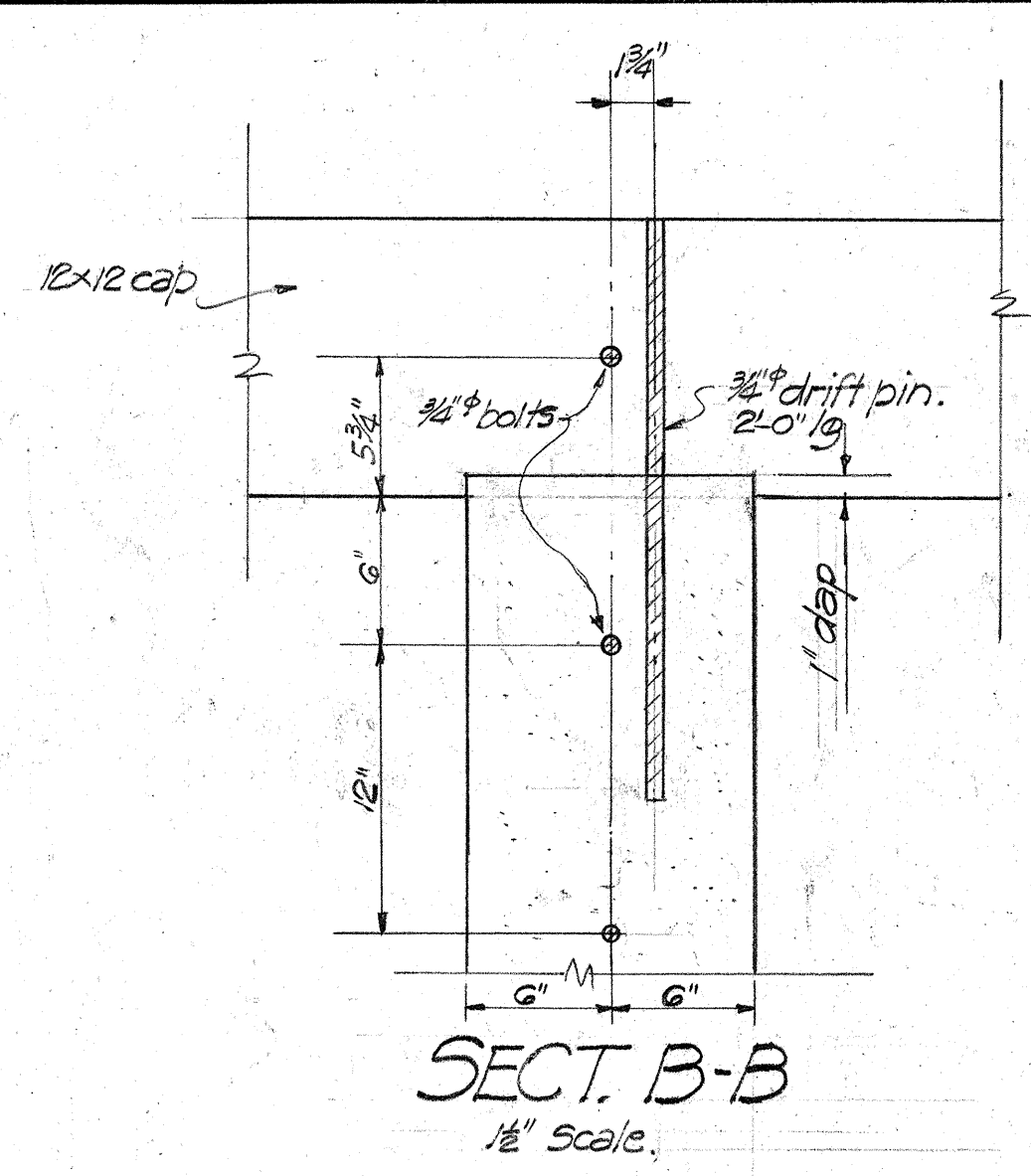
5039.35



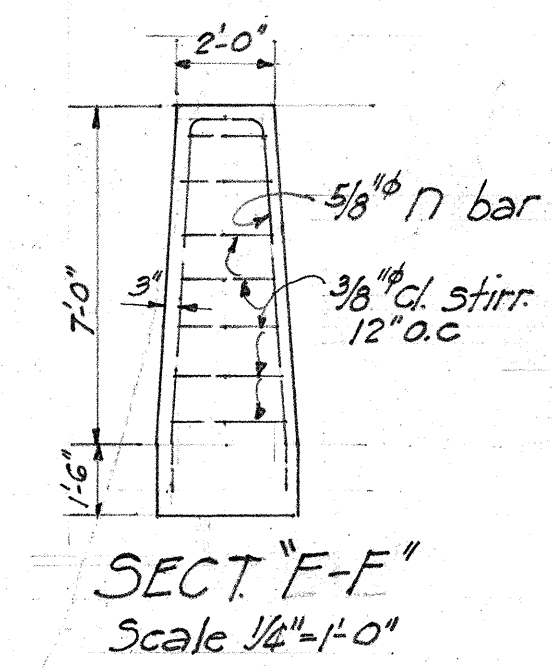
ABUT. NO. 1
1/4" Scale.



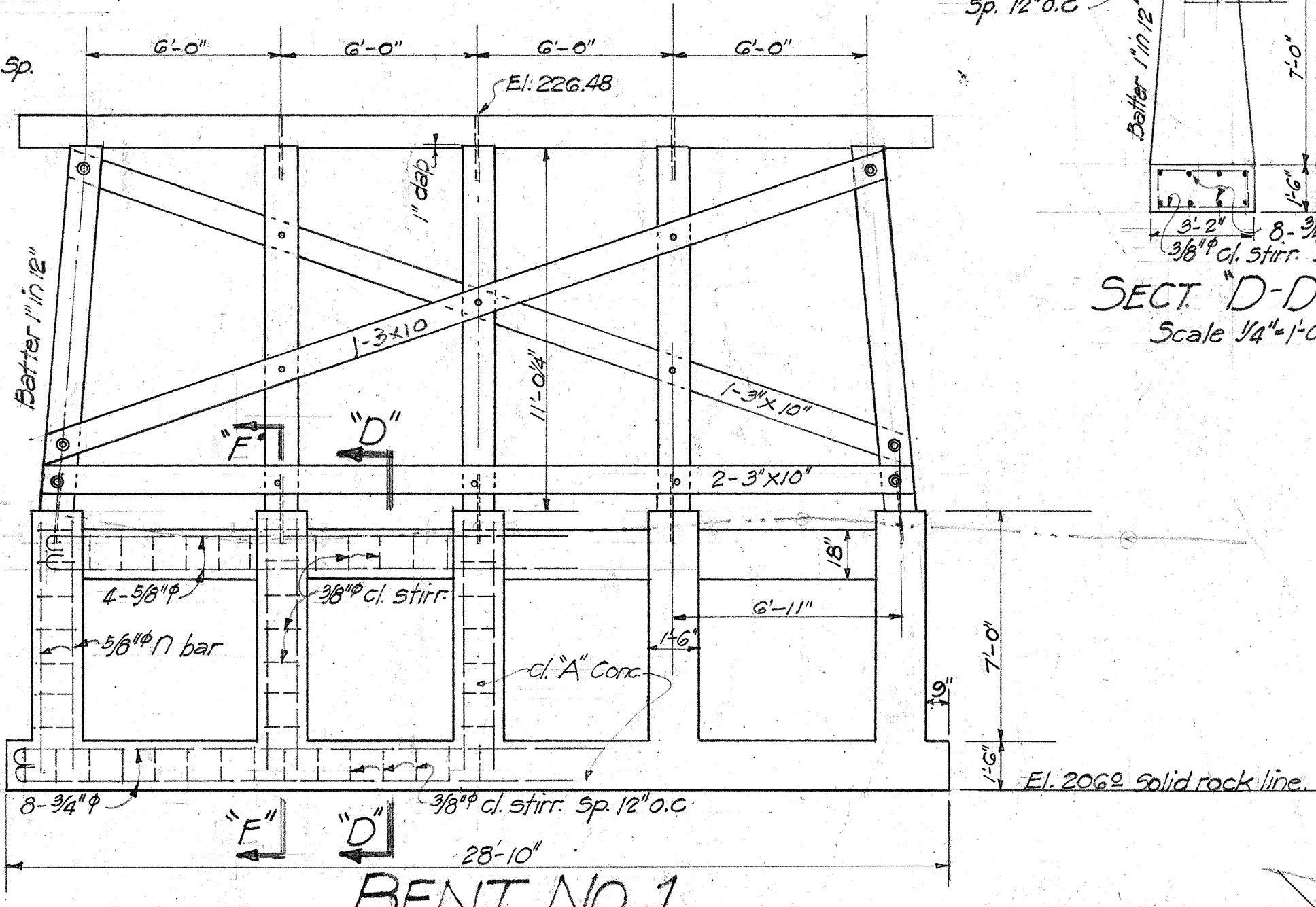
SECT. A-A
3/8" Scale.



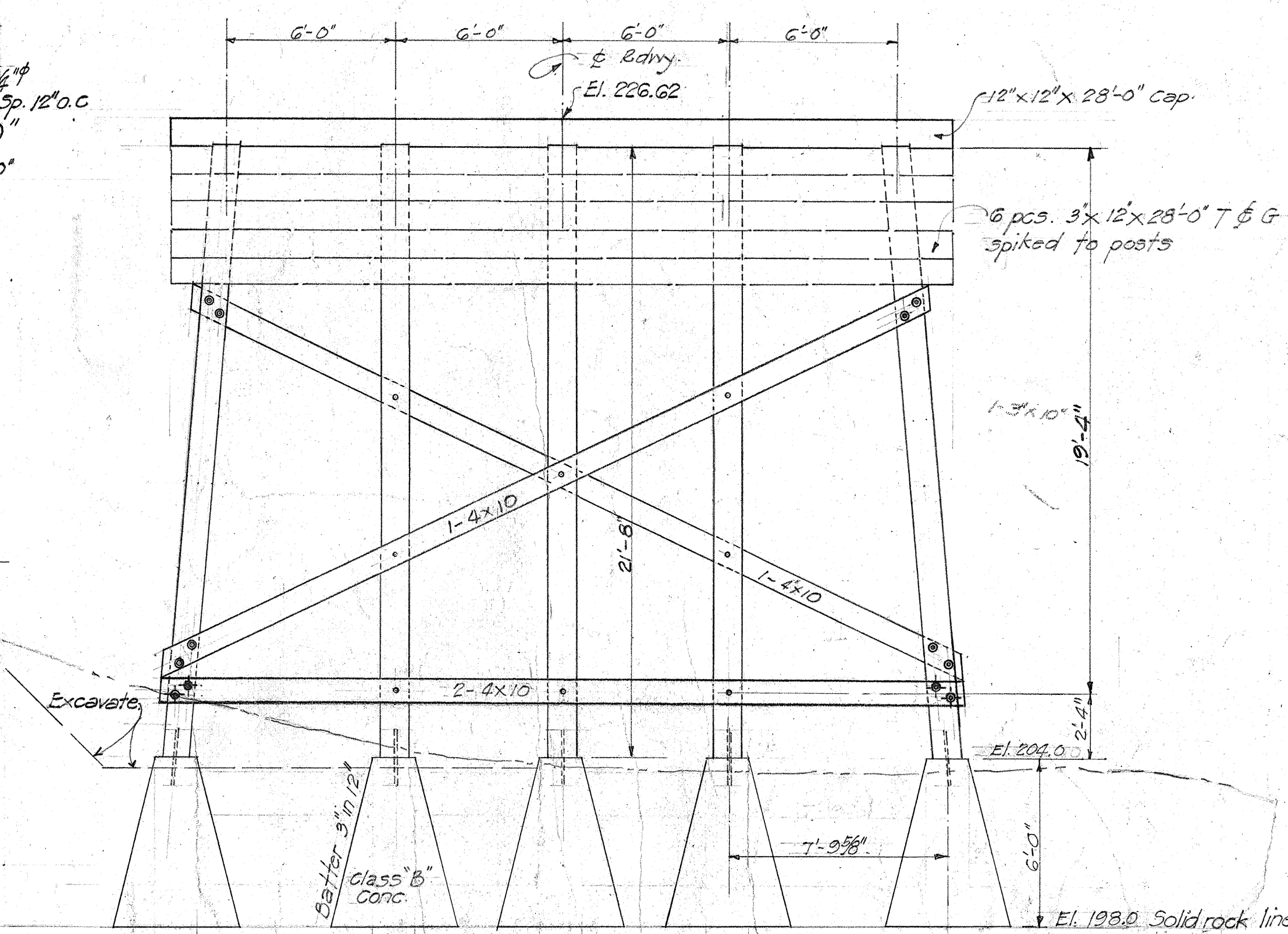
SECT. B-B
1/8" Scale.



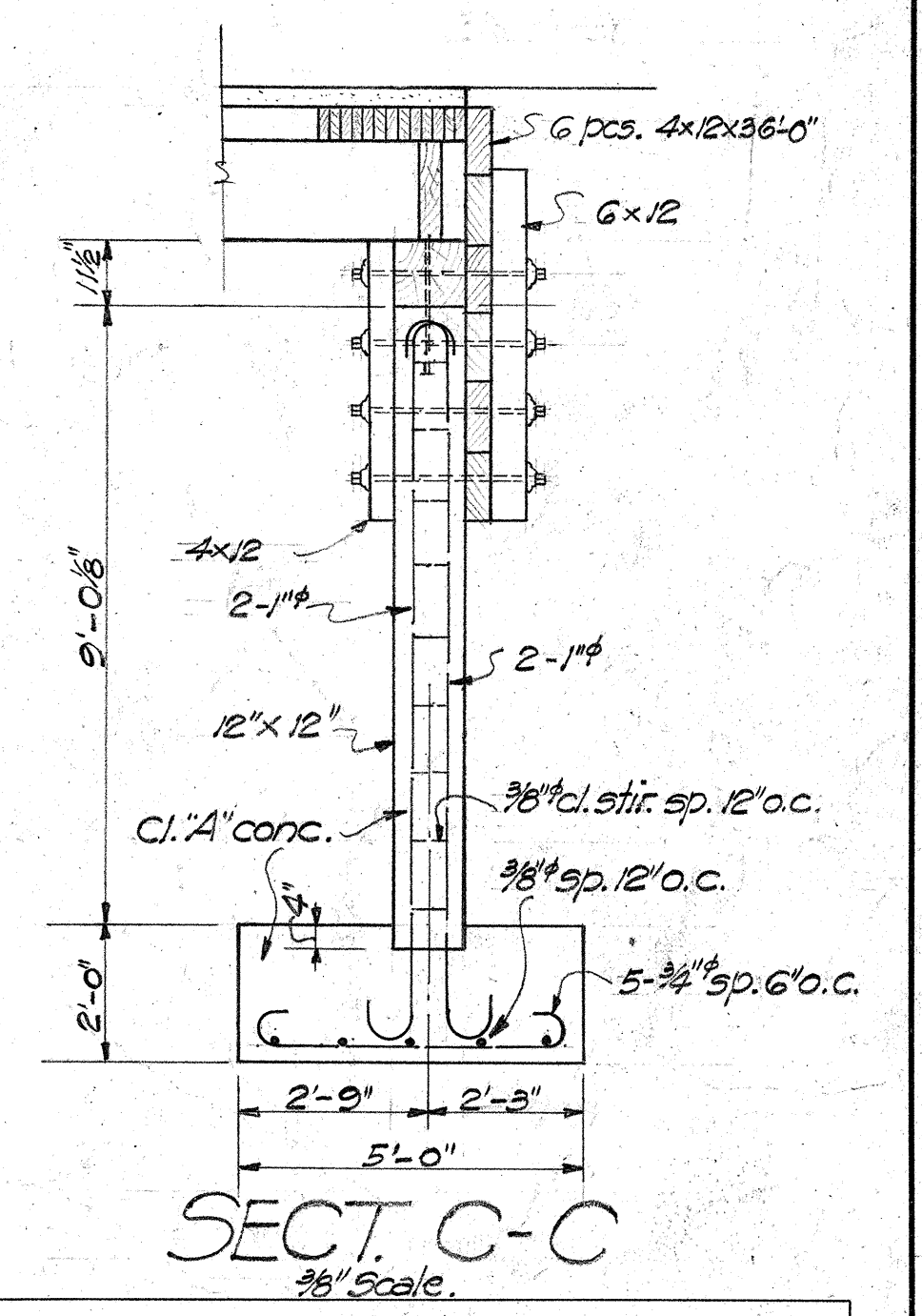
SECT. F-F
Scale 1/4"=1'-0"



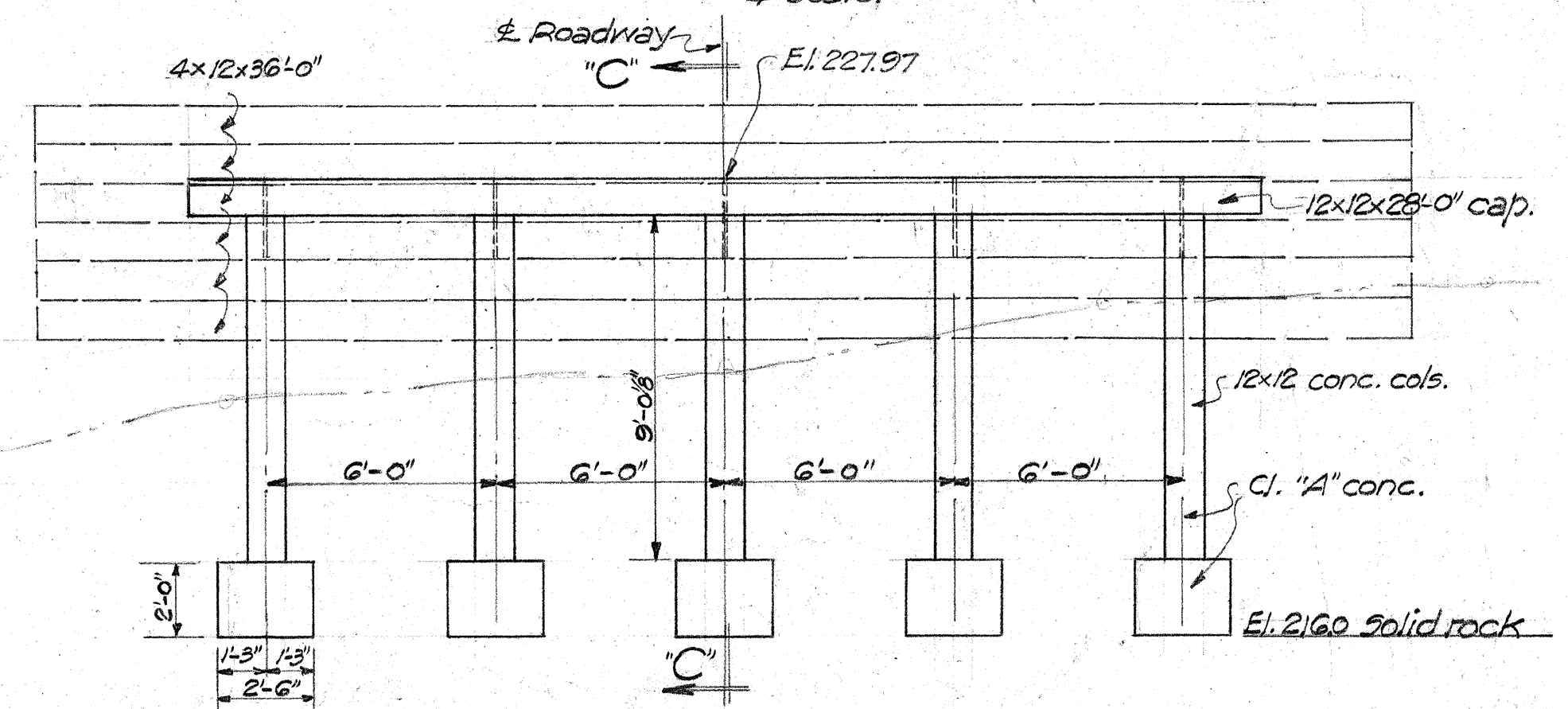
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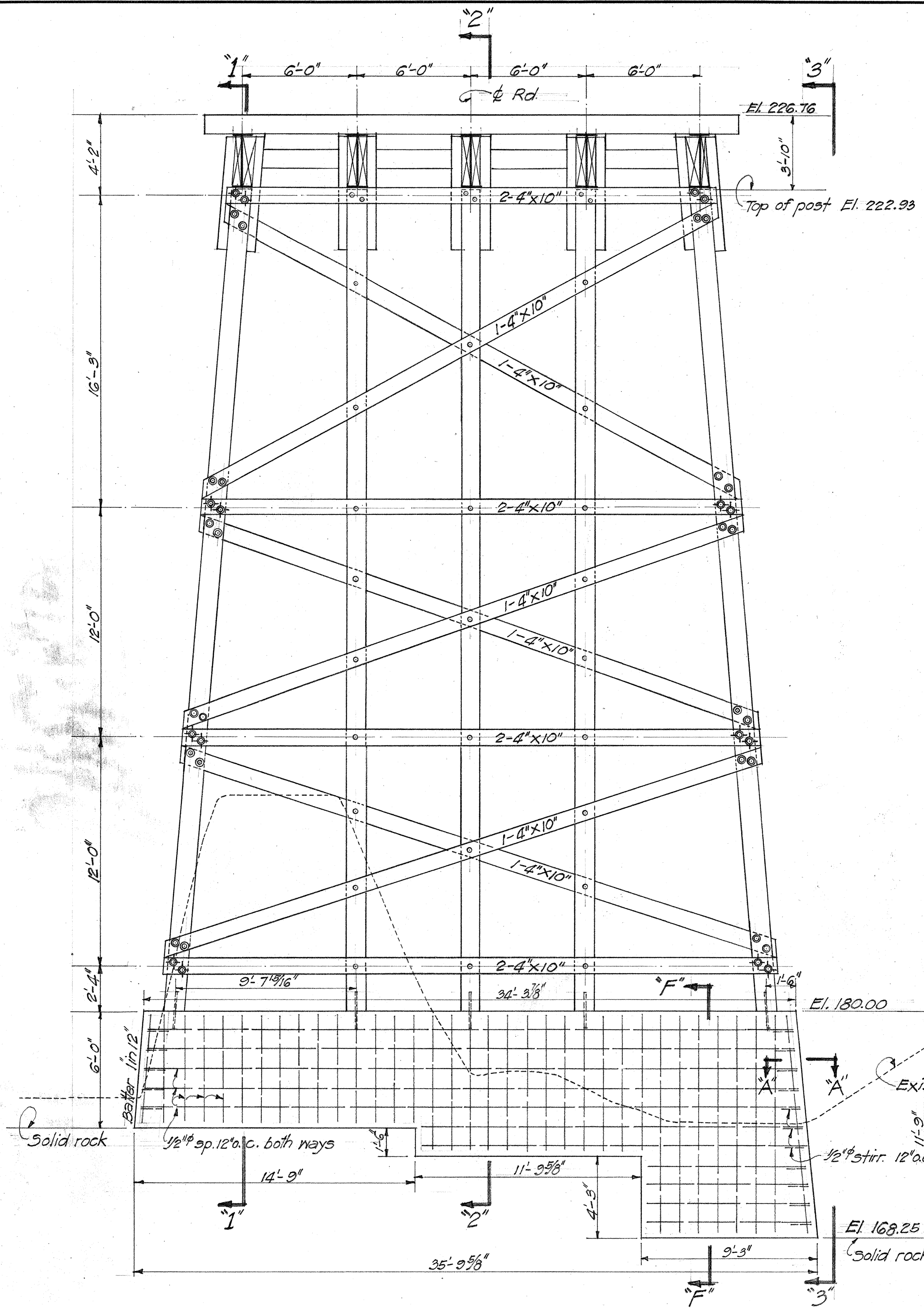
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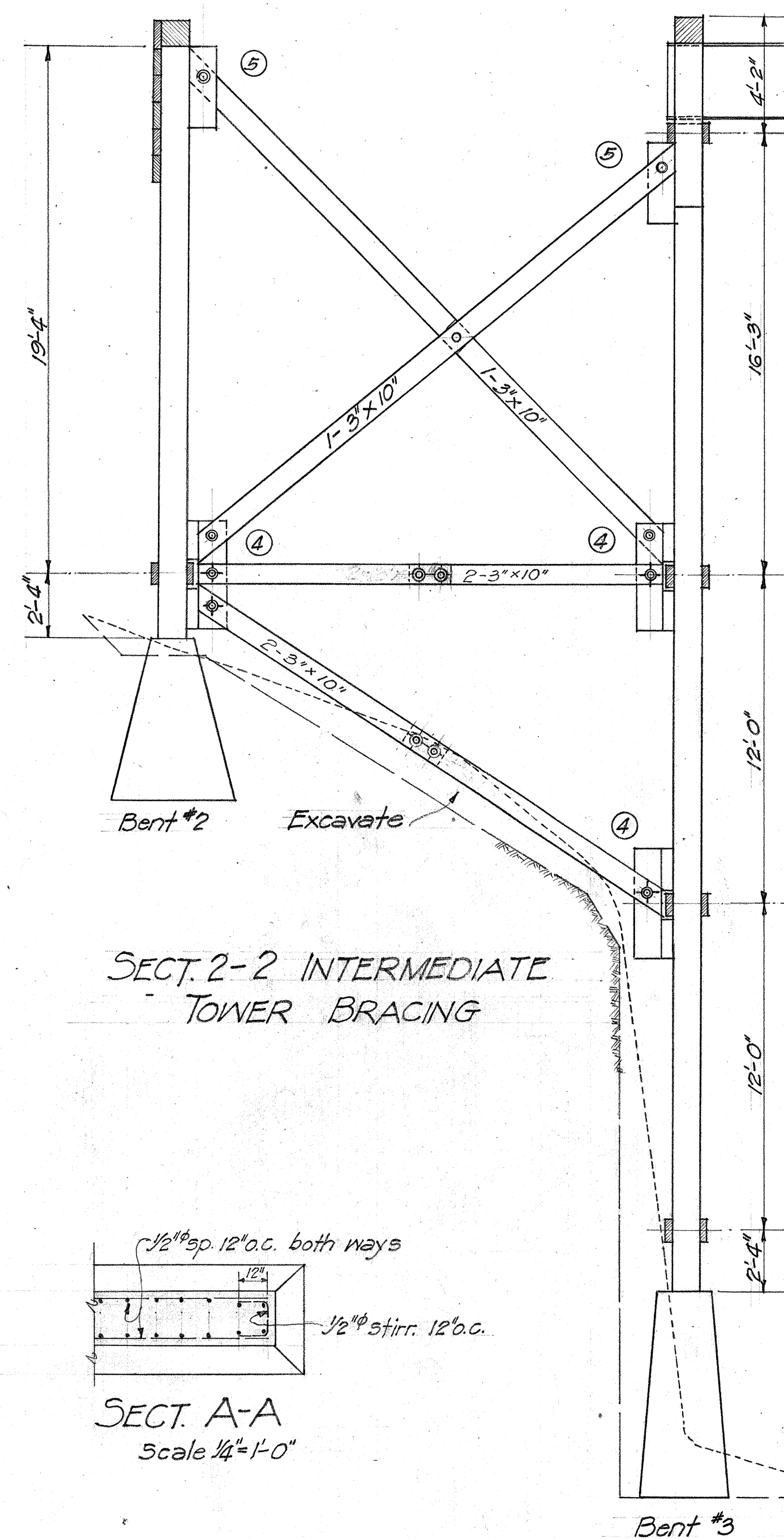
SECT. C-C
3/8" Scale.



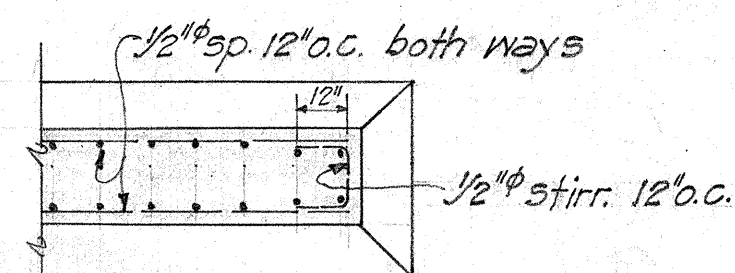
ABUT. NO. 2
1/4" Scale.



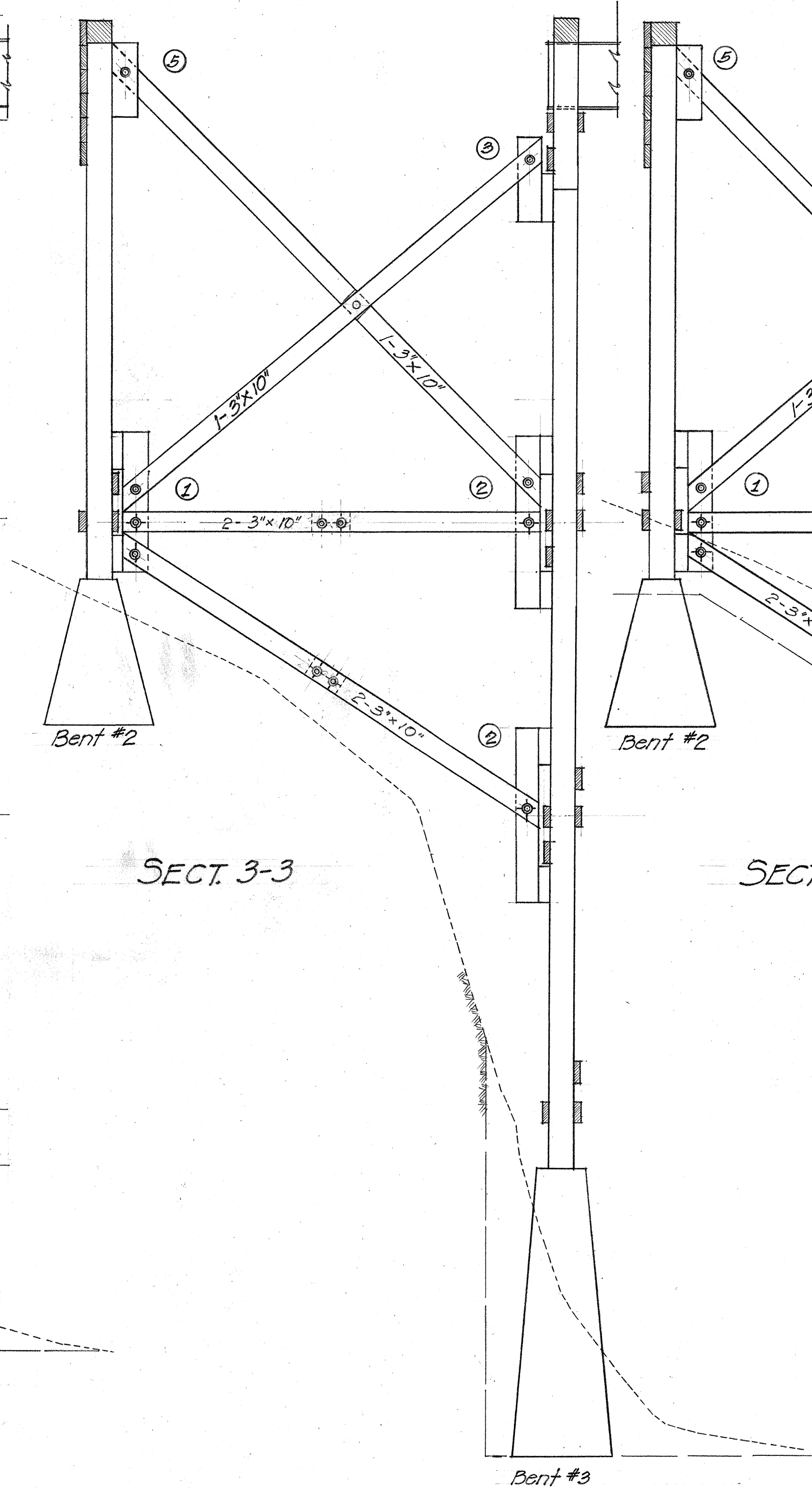
BENT NO. 3
Scale 1/4"=1'-0"



SECT. 2-2 INTERMEDIATE
TOWER BRACING



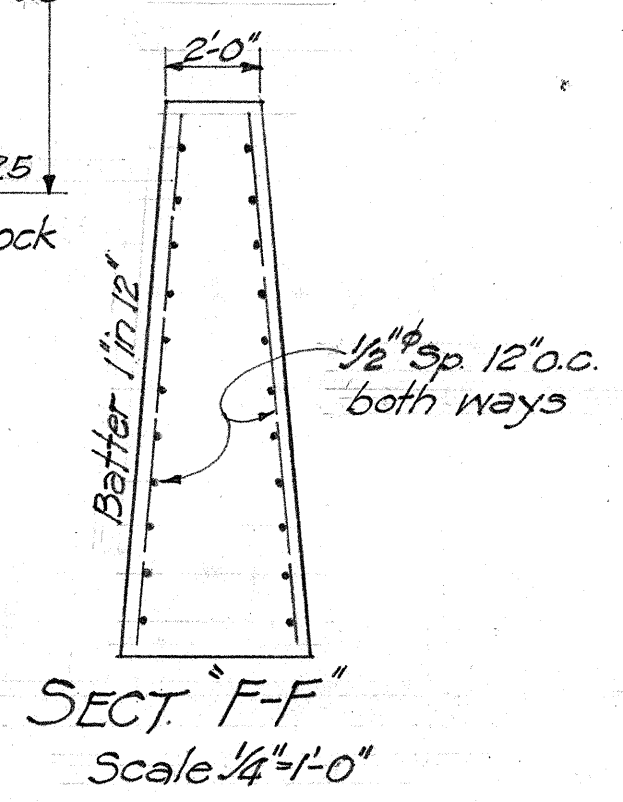
SECT. A-A
Scale 1/4"=1'-0"



SECT. 3-3

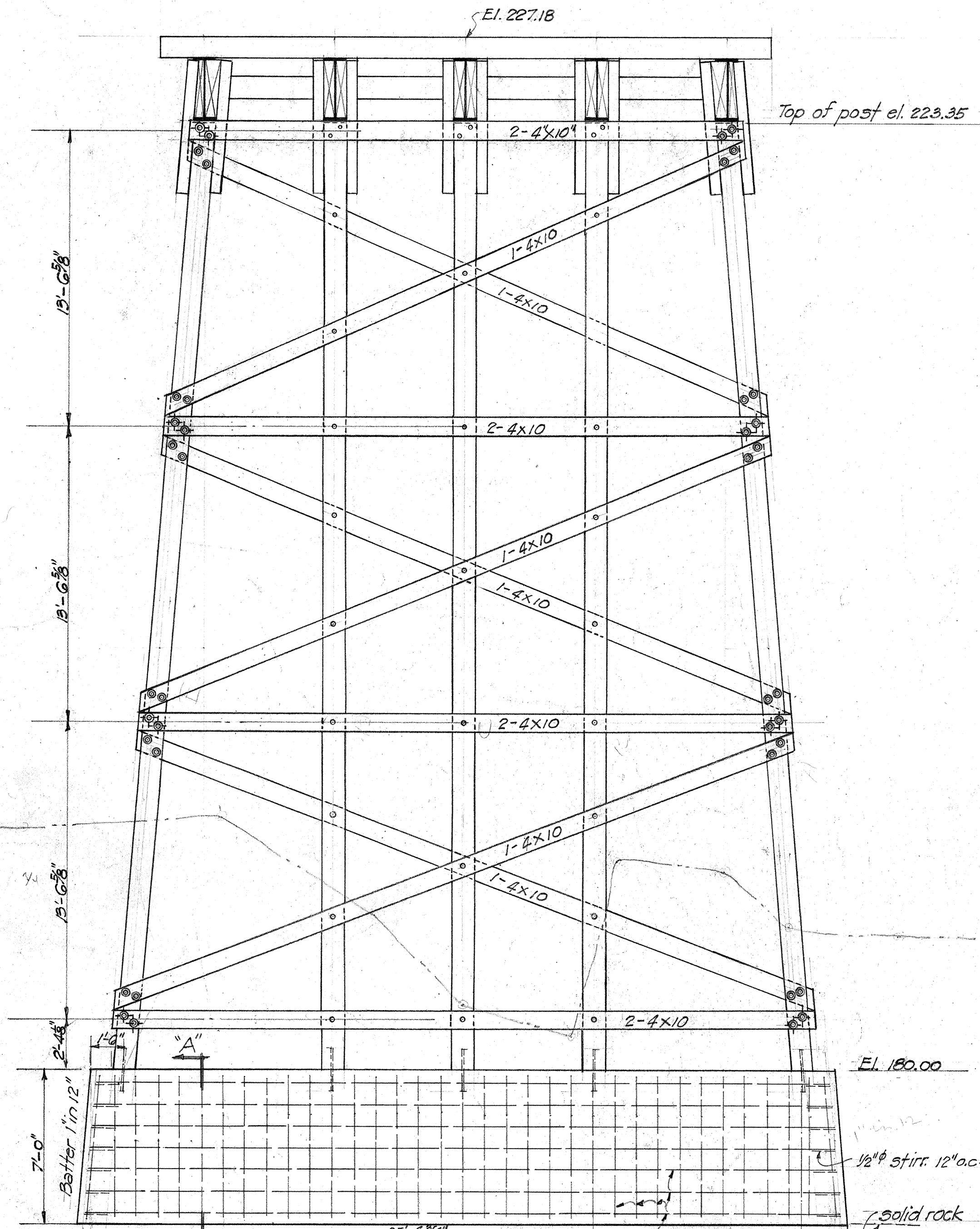
SECT. 1-1

TOWER BRACING - BENTS NO. 2 & 3
Scale 1/4"=1'-0"

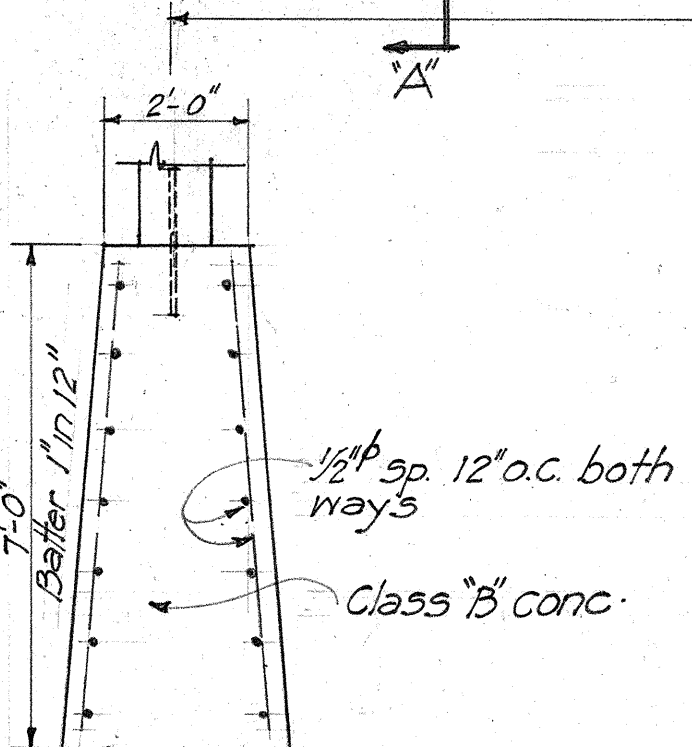


SECT. F-F
Scale 1/4"=1'-0"

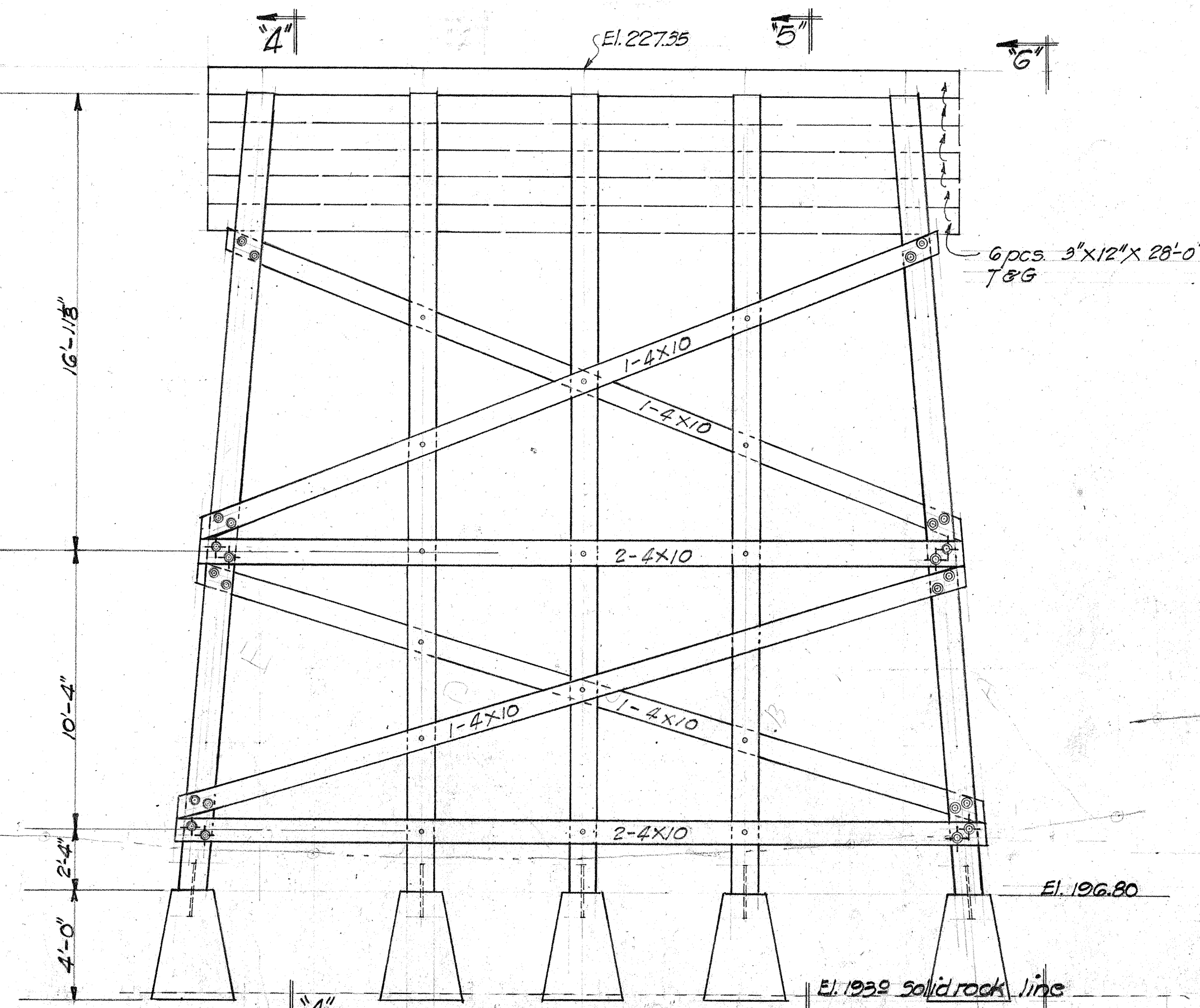
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	14 (B) 1941	38	92	



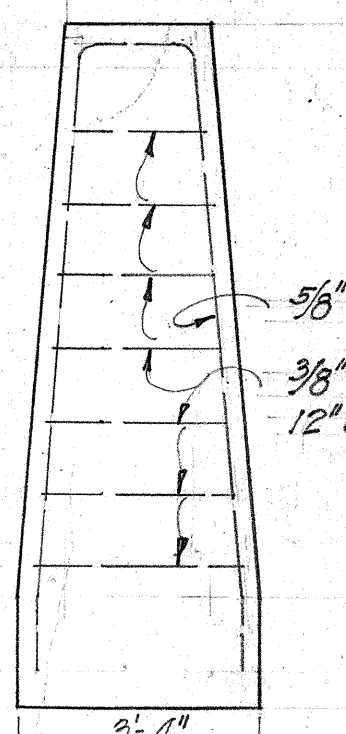
BENT NO. 4
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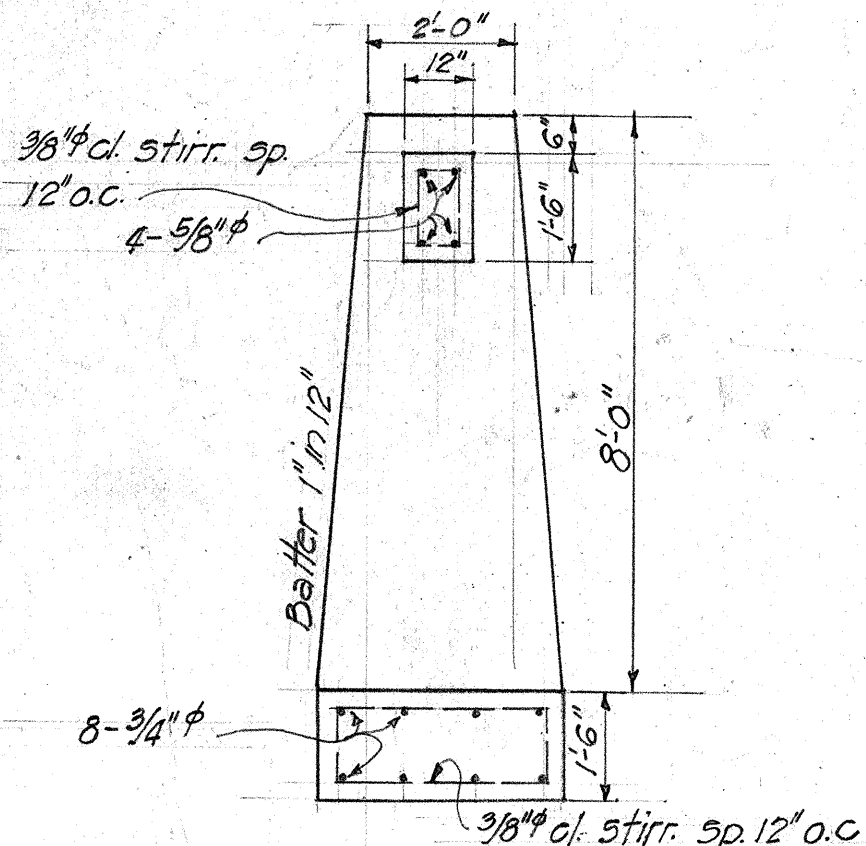
SECT. "A-A"
Scale 3/8"=1'-0"



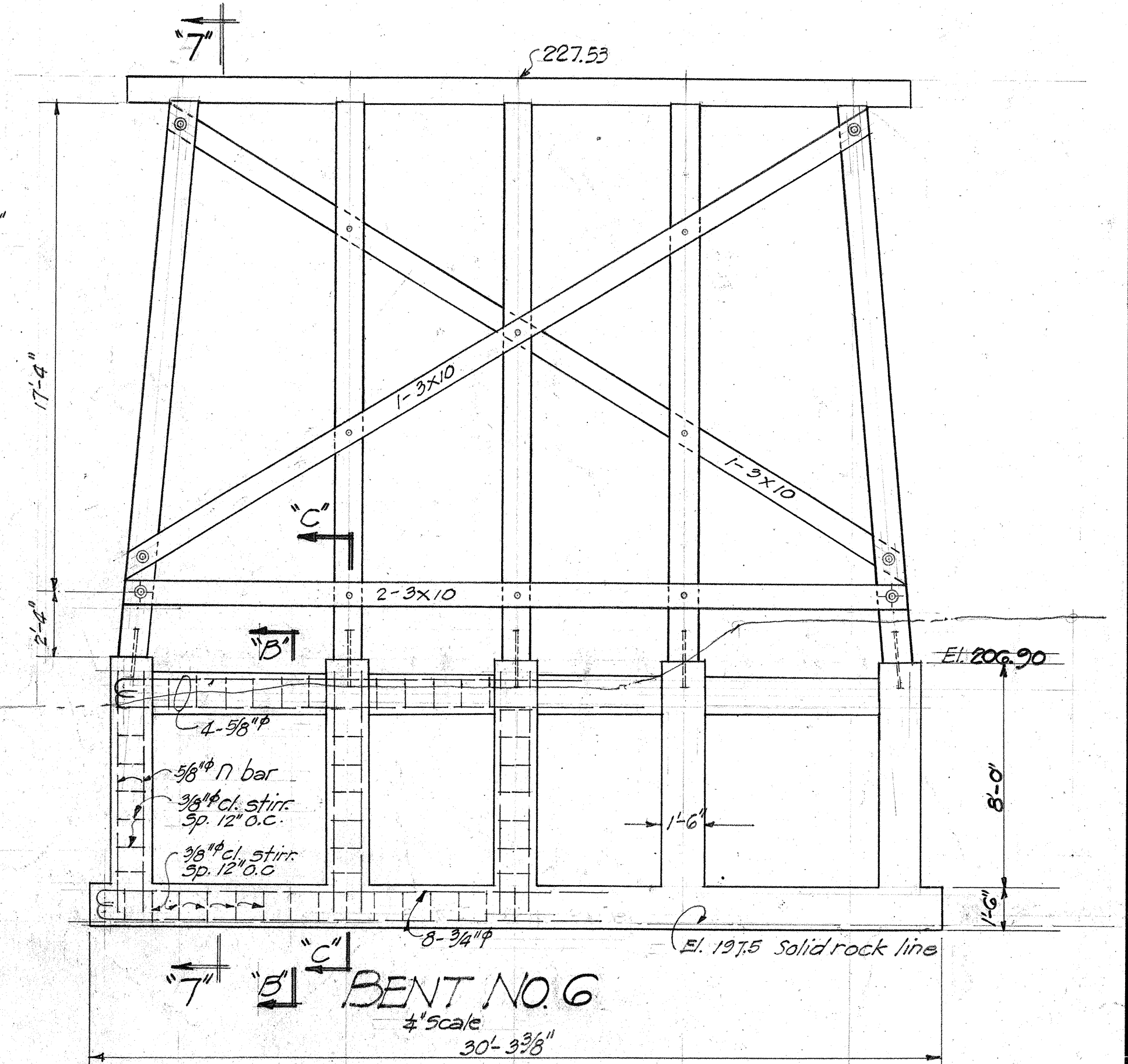
BENT NO. 5
3/4" scale.



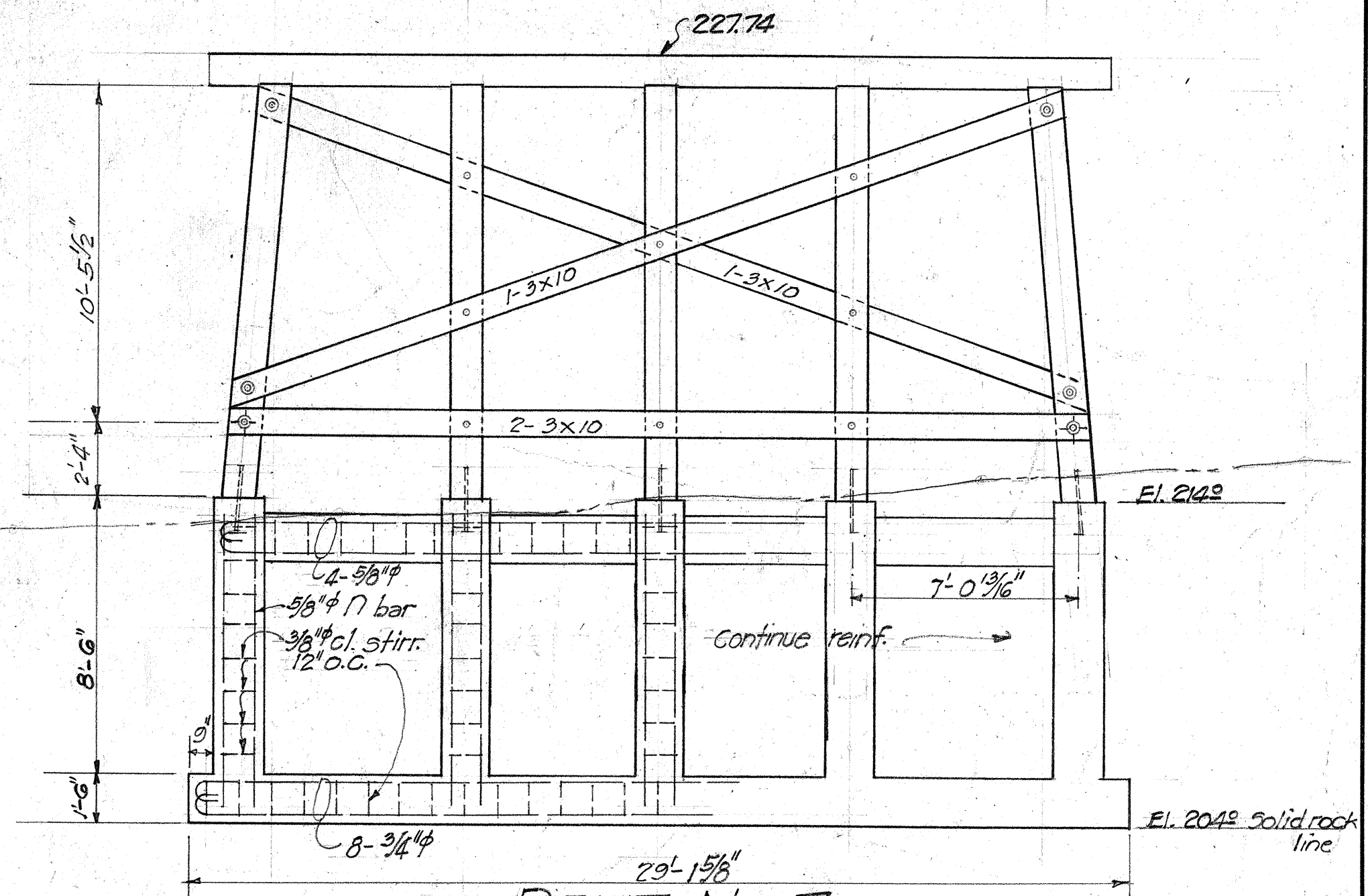
SECT. "C-C"
Scale 3/8"=1'-0"



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



BENT NO. 6
3/4" scale.



BENT NO. 7
3/4" scale.

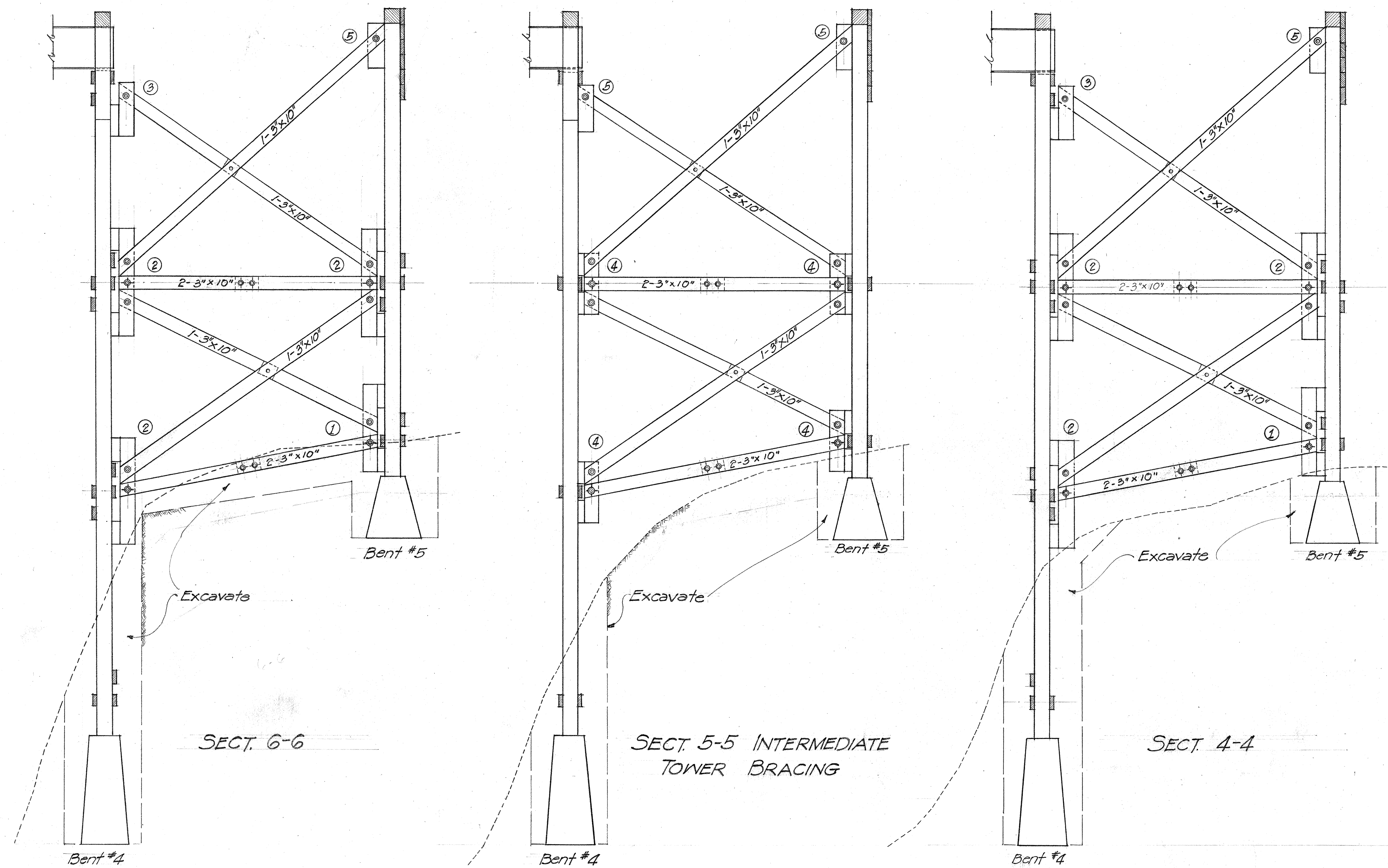
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE No. 1

HAWAII BELT RD. F.A.P. 14-B
Sept. 1940
SHEET No. 4 OF 6 SHEETS

5039.38

DATE	Oct. 1940
SURVEY PLOTTED BY	W. E. BARTON
DESIGNED BY	W. E. BARTON
TRACED BY	W. E. BARTON
QUANTITIES BY	W. E. BARTON
QUANTITIES CHECKED BY	W. E. BARTON
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



TOWER BRACING - BENTS 4 & 5

Scale 1/4"=1'-0"

NOTE!
For location of Sect 4-4, 5-5 & 6-6 see sheet #4

TIMBER BILL OF MATERIAL DOUGLAS FIR - COAST REGION

MEMBER	No.	SIZE & LENGTH	LUMBER GRADING	MILL WORK	Ft. B.M.
Floor Decking	1408	2"x6"x26'-0"	Structural Select Joists & Planks	S1S1E	36556
Bridge Railing	20	3"x8"x20'-0"	"	S4S	800
"	20	4"x8"x20'-0"	"	"	1067
Guard Railing	4	3"x8"x8'-0"	"	"	64
"	4	4"x8"x8'-0"	"	"	85
Bracing - Bents	10	3"x10"x28'-0"	"	Rough	700
"	2	3"x10"x32'-0"	"	"	160
"	4	4"x10"x26'-0"	"	"	347
"	2	4"x10"x28'-0"	"	"	373
"	10	4"x10"x30'-0"	"	"	1000
"	16	4"x10"x32'-0"	"	"	1707
"	3	4"x10"x34'-0"	"	"	207
Bracing - Tower	30	3"x10"x18'-0"	"	"	1350
"	5	3"x10"x20'-0"	"	"	250
"	30	3"x10"x22'-0"	"	"	1650
"	12	3"x10"x24'-0"	"	"	720
"	5	3"x10"x26'-0"	"	"	325
"	2	3"x10"x28'-0"	"	"	140
Tower Br. Gusset Plates	4	4"x12"x5'-8"	"	"	91
"	10	4"x12"x7'-0"	"	"	280
"	4	4"x12"x9'-6"	"	"	56
"	21	4"x12"x4'-0"	"	"	336
"	16	4"x12"x3'-0"	"	"	192
Tower Bracing Blocks	70	6"x12"x1'-6"	Structural Select Beams & Stringers	"	630
"	4	6"x12"x2'-0"	"	"	48
Splice Blocks	18	6"x18"x3'-0"	"	S1S1E	486
Filler Blocks at I's	4	10"x12"x2'-7 1/2"	"	Cut to fit	108
"	16	6"x12"x2'-7 1/2"	"	"	260
Stringers	130	6"x18"x20'-0"	"	S1E Ends aligned to 1/4" edge	23400
Post Scabs at I's	20	6"x12"x6'-0"	"	Rough	720
Bulkhead Scabs	5	6"x12"x10'-0"	"	"	300
"	5	4"x12"x8'-0"	"	"	160
Firestop	12	3"x12"x28'-0"	No. 1 Dimension Joists & Planks	" T&G	1008
Strut Blocks	16	4"x10"x1'-0"	"	"	54
Solid Bridging	9	4"x18"x14'-0"	"	S1E	756
"	2	4"x18"x20'-0"	"	"	240
Solid Bridging at I's	2	4"x10"x16'-0"	"	Rough	107
"	4	4"x12"x16'-0"	"	"	256
Cross Bridging	60	2"x4"x10'-0"	"	"	400
Blocks at Bear. Plate	20	1"x3"x1'-0"	"	"	5
Bulkhead	11	4"x12"x36'-0"	"	"	1584
Fills at Rail Posts	62	2"x8"x1'-6"	"	"	122
Caps	11	12"x12"x28'-0"	Structural Select Posts & Timbers	S1S	3626
Bridge Railing Posts	62	8"x8"x6'-0"	"	S4S	1084
Guard Railing Posts	4	12"x12"x8'-0"	"	"	384
Post - Bents	5	12"x12"x12'-0"	"	Rough	720
"	5	12"x12"x14'-0"	"	"	840
"	5	12"x12"x20'-0"	"	"	1200
"	5	12"x12"x22'-0"	"	"	1320
"	5	12"x12"x30'-0"	"	"	1800
"	10	12"x12"x44'-0"	"	"	5280
Wheel Guard	20	12"x14"x20'-0"	No. 1 Dimension Post & Timbers	S1S1E	5600
"	4	12"x14"x8'-0"	"	"	448
Blocks at Tower Brac.	10	4"x10"x1'-0"	Structural Select Beams & Stringers	Rough	34
"	25	4"x10"x1'-6"	"	"	125
					103233

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

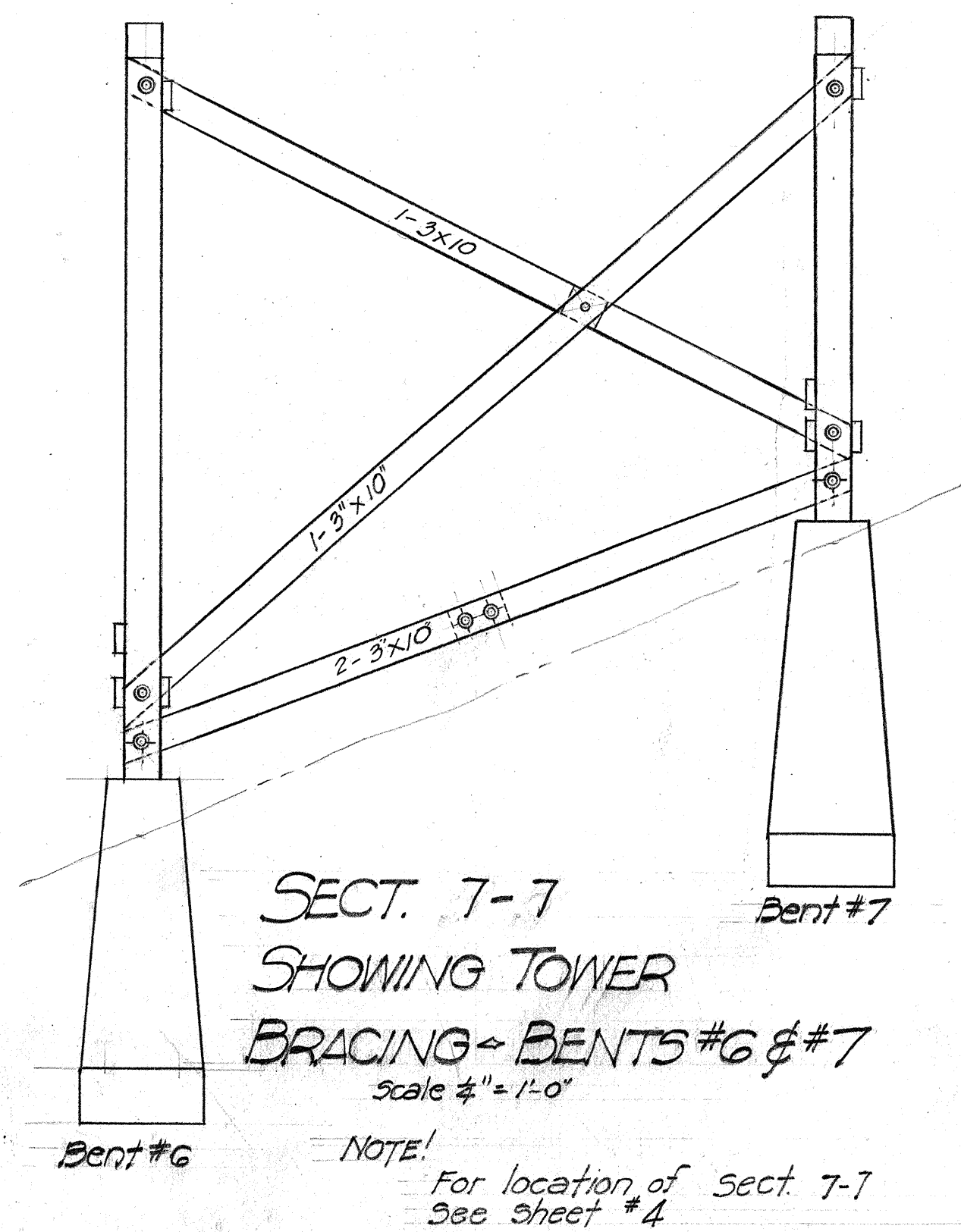
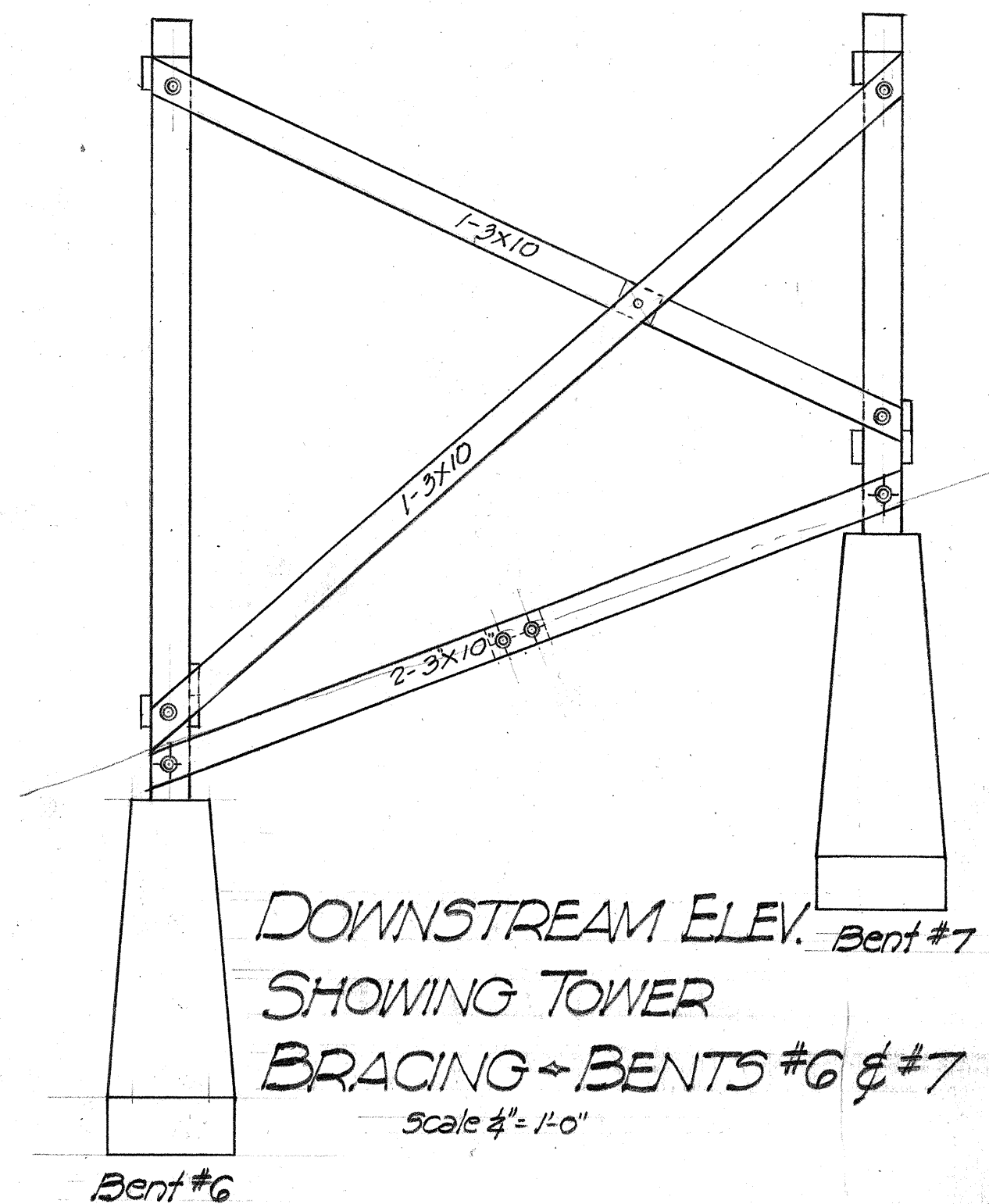
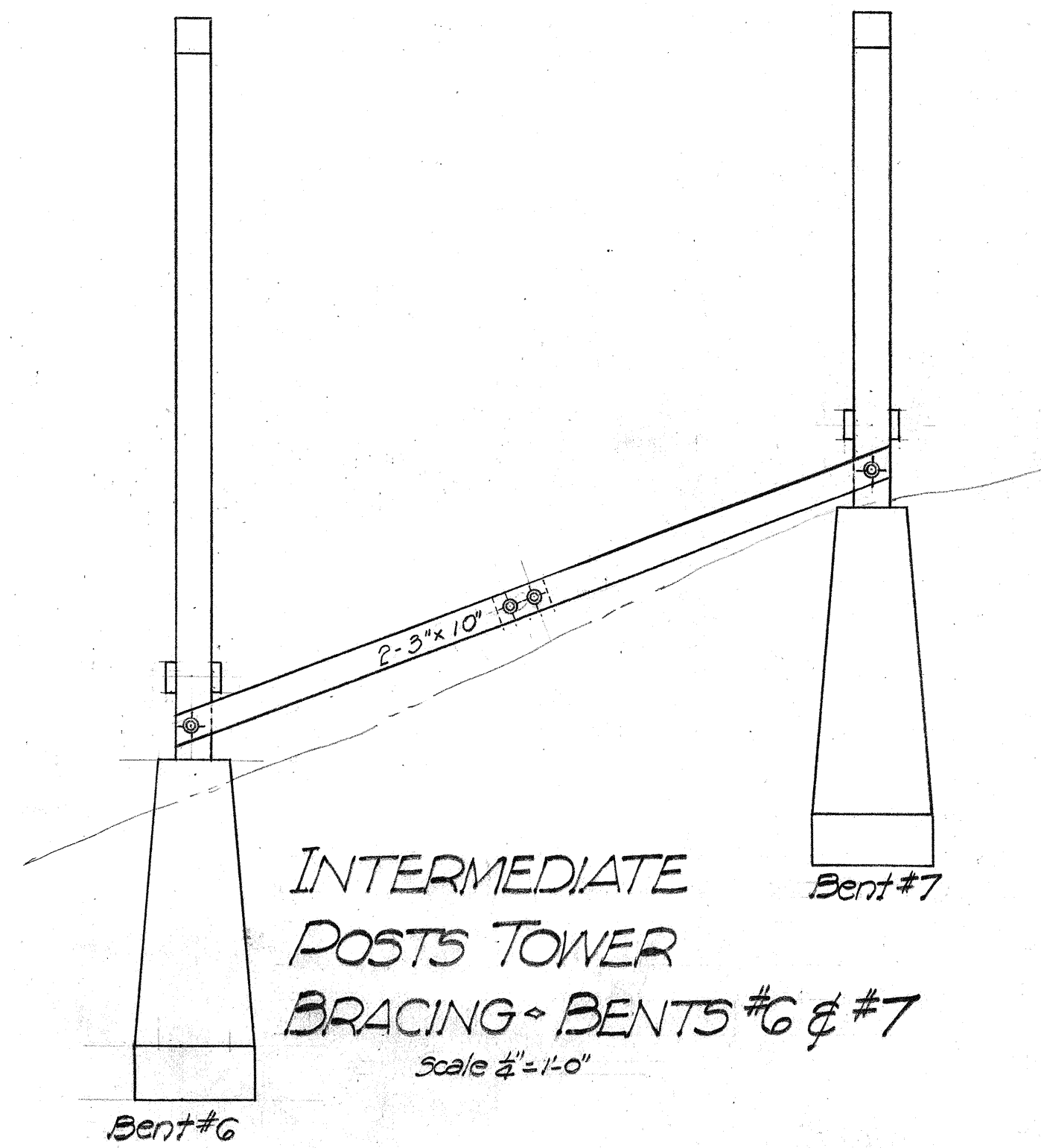
BRIDGE No. 1

HAWAII BELT RD. F.A.P. 14-B
Sept. 1940

SHEET No 5 OF 6 SHEETS

5039.39

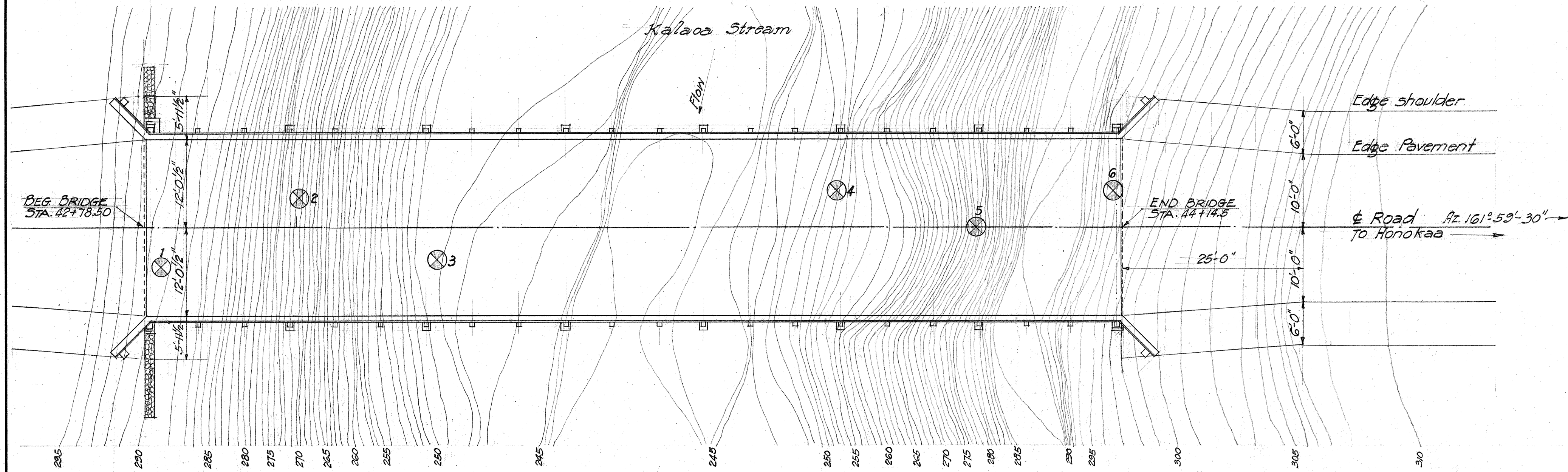
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	142.01	1941	40	92



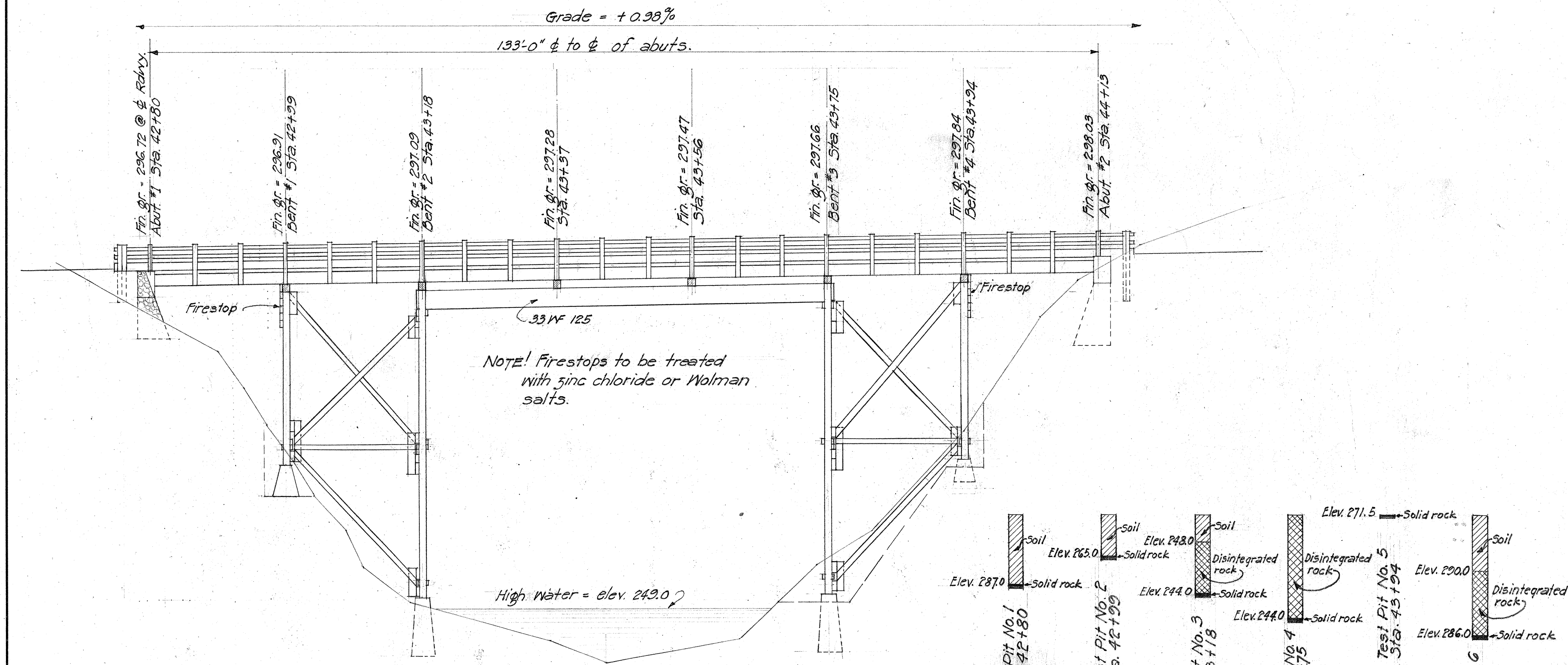
ORIGINAL PLAN	SURVEY PLOTTED BY DATE
NOTE BOOK No.	DESIGNED BY DATE
	DRAWN BY DATE
	QUANTITIES BY DATE
	QUANTITIES CHECKED BY DATE

TERRITORIAL HIGHWAY DEPARTMENT TERRITORY OF HAWAII	
BRIDGE No. 1	
HAWAII BELT RD.	F.A.P. 14-B
Sept. 1940	
SHEET No 6 OF 6 SHEETS	

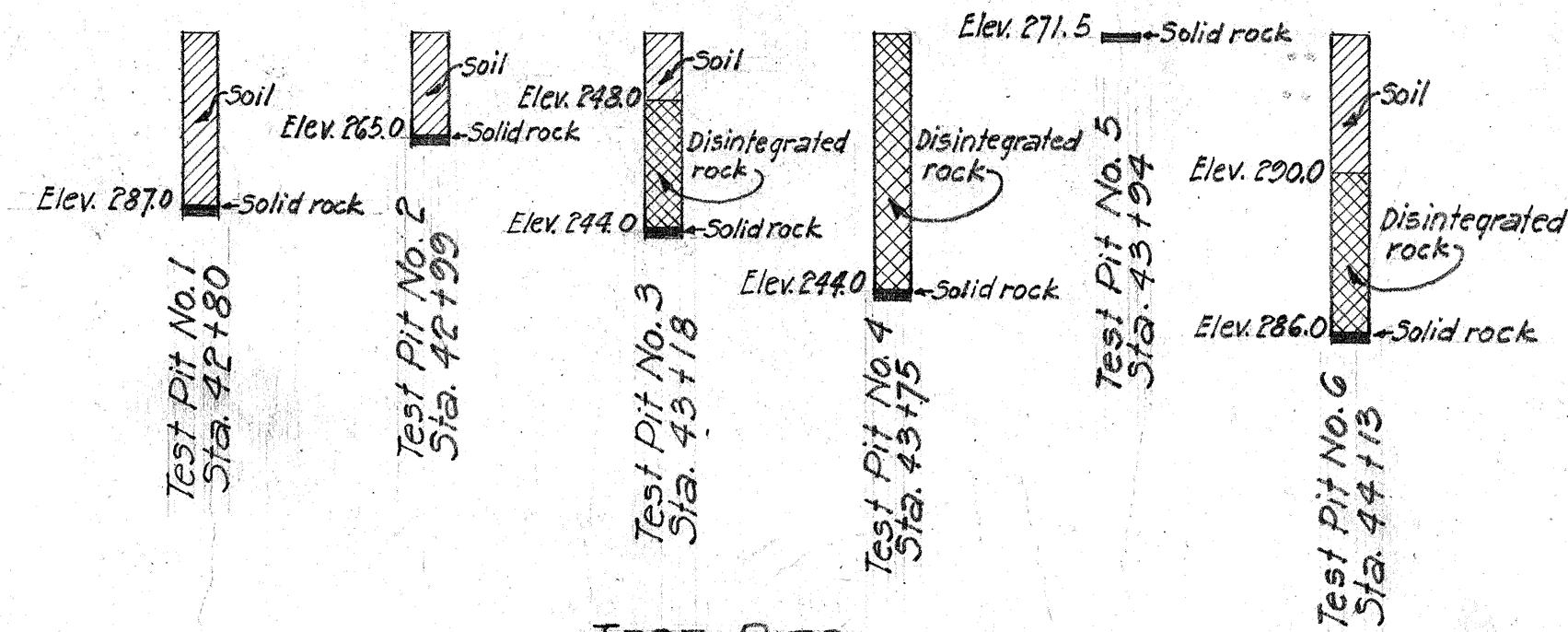
5039.40



LAYOUT PLAN
Scale 1"=10'-0"



DOWNSTREAM ELEVATION
Scale 1"=10'-0"



TEST PITS
Scale 1"=5'-0"

TIMBER BILL OF MATERIAL DOUGLAS FIR - COAST REGION

MEMBER	NO.	SIZE & LENGTH	LUMBER GRADING	MILL WORK	Ft. B.M.
Floor Decking	986	2" x 6" x 26'-0"	Structural Select Joists and Planks	S/SIE	25636
Guard Railing	4	3" x 8" x 8'-0"	"	"	64
"	4	4" x 8" x 3'-0"	"	"	88
Bridge Railing	14	4" x 8" x 20'-0"	"	"	747
"	14	3" x 8" x 20'-0"	"	"	560
Bracing - Bents	4	4" x 10" x 26'-0"	"	Rough	347
"	8	4" x 10" x 30'-0"	"	"	800
"	4	4" x 10" x 32'-0"	"	"	427
"	8	4" x 10" x 34'-0"	"	"	906
"	4	4" x 10" x 36'-0"	"	"	480
Bracing - Tower	20	3" x 10" x 18'-0"	"	"	900
"	30	3" x 10" x 26'-0"	"	"	1950
"	10	3" x 10" x 28'-0"	"	"	700
Tower Br. Gusset Plates	8	4" x 12" x 5'-8"	"	"	192
"	4	4" x 12" x 7'-0"	"	"	112
"	4	4" x 12" x 3'-6"	"	"	56
"	18	4" x 12" x 4'-0"	"	"	288
"	16	4" x 12" x 3'-0"	"	"	192
Splice Blocks	12	6" x 17" x 3'-0"	Structural select Beams & Stringers	S/SIE	324
Tower Br. Blocks	60	6" x 12" x 1'-6"	"	Rough	540
"	4	6" x 12" x 2'-0"	"	"	48
Firestop	12	3" x 12" x 28'-0"	No. 1 Dimension Joists & Planks	Rough T&G	1008
Stringers	91	6" x 18" x 20'-0"	Structural Select Joists & Stringers	SIE Endshed with Bead	16380
Deck Starter	2	6" x 6" x 26'-0"	"	SIE	156
Filler Blocks	44	2" x 8" x 1'-5 1/2"	"	Rough	88
"	4	10" x 12" x 2'-7 1/2"	"	"	107
"	16	6" x 12" x 2'-7 1/2"	"	"	256
Post Scape @ Steel Span	20	6" x 12" x 6'-0"	"	"	720
Railing Posts	44	8" x 8" x 6'-0"	Structural Select Post & Timbers	S4S	1408
"	4	12" x 12" x 8'-0"	"	"	384
Caps	6	12" x 12" x 28'-0"	"	"	2016
Posts - Bents	10	12" x 12" x 26'-0"	"	Rough	3120
"	10	12" x 12" x 48'-0"	"	"	5040
Wheel Guard	14	12" x 14" x 20'-0"	No. 1 Dimension Post & Timbers	S/SIE	3920
"	4	12" x 14" x 8'-0"	"	"	448
Strut Blocks	16	4" x 10" x 1'-0"	No. 1 Dimension Joist & Planks	Rough	53
Solid Bridging	6	4" x 18" x 14'-0"	"	SIE	504
"	2	4" x 18" x 20'-0"	"	"	240
"	2	4" x 10" x 16'-0"	"	Rough	107
"	4	4" x 12" x 16'-0"	"	"	256
Cross Bridging	42	2" x 4" x 10'-0"	"	"	280
Blocks at Bear. Plates	20	1" x 3" x 1'-0"	"	"	5
End Planking Support	2	2" x 4" x 6'-0"	"	"	8
End Planking	2	2" x 12" x 3'-0"	"	"	12
"	2	2" x 6" x 3'-0"	"	"	6
Sills	2	6" x 8" x 28'-0"	No. 1 Timbers Post & Stringers	SIS	224
Blocks at Tower Bracing	10	4" x 10" x 1'-0"	Structural Select Joists & Stringers	Rough	34
"	20	4" x 10" x 1'-6"	"	"	100
					72234

ESTIMATED QUANTITIES

Treated Timber	72,234 Ft. B.M.
Class 'A' Concrete	91 C.Y.
" 'B'	63.6 C.Y.
Cement Rubble Masonry	68 C.Y.
Structural Steel	42,200 LBS.
Reinf. Steel	1932 LBS.
Structural Excavation	400 C.Y.

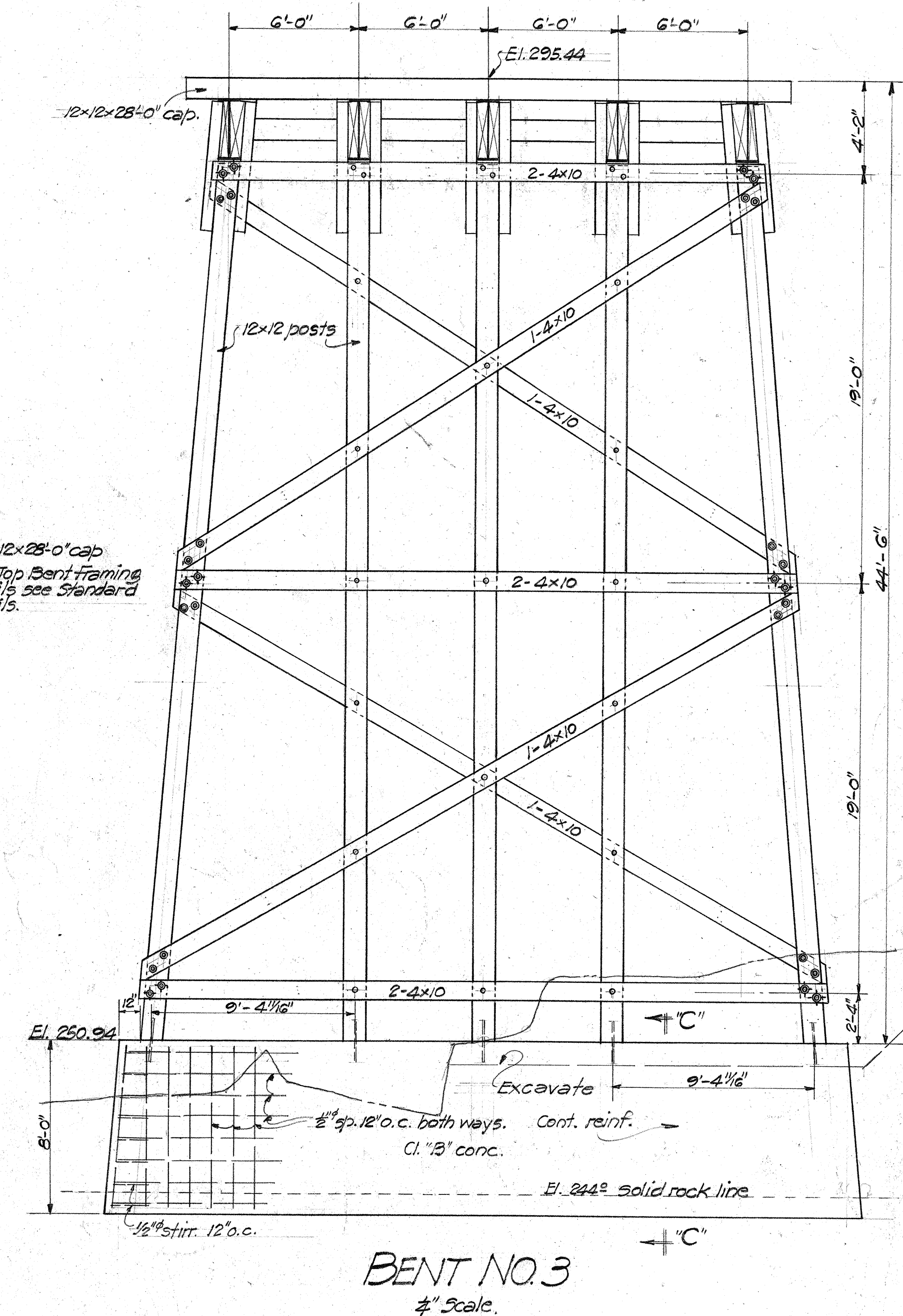
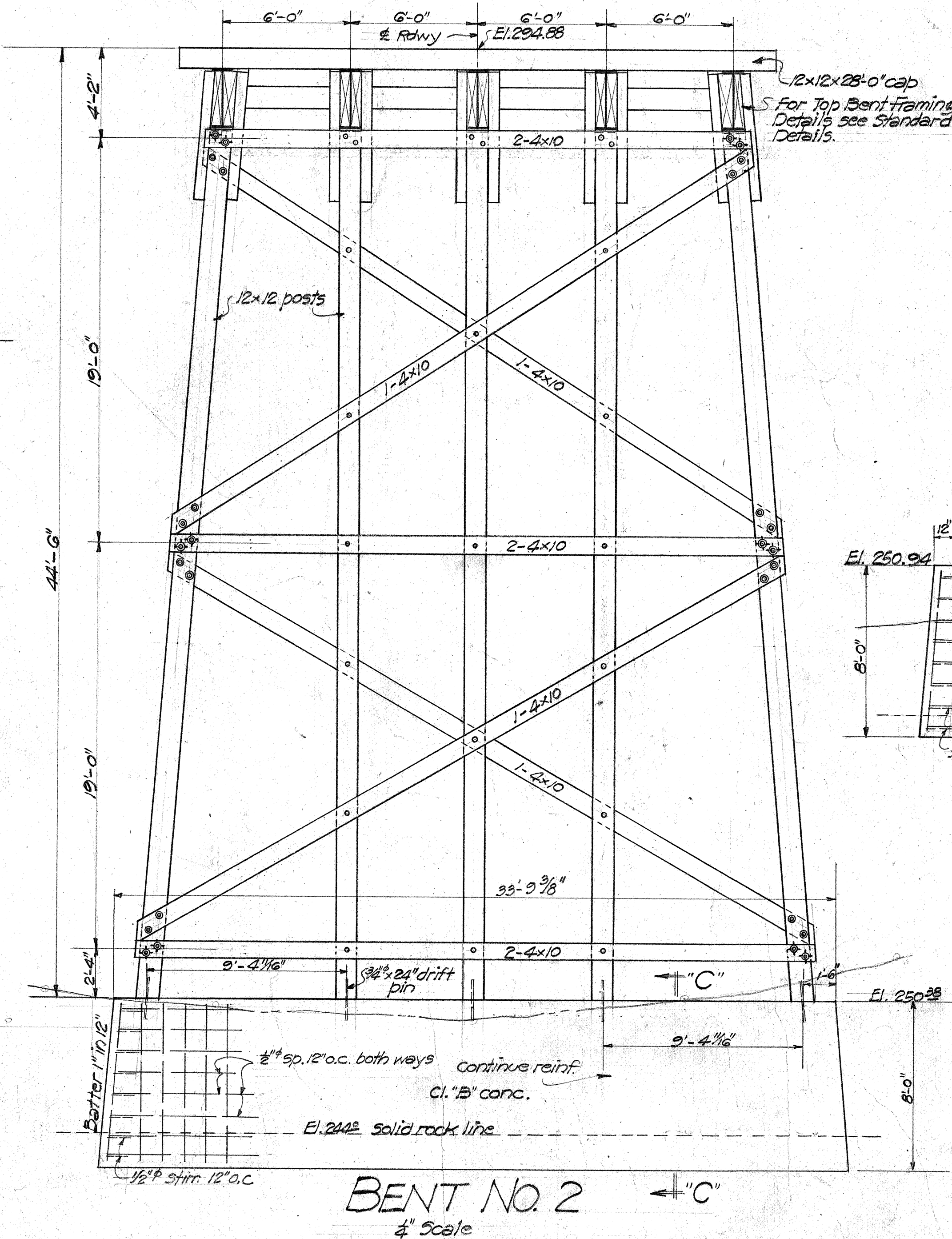
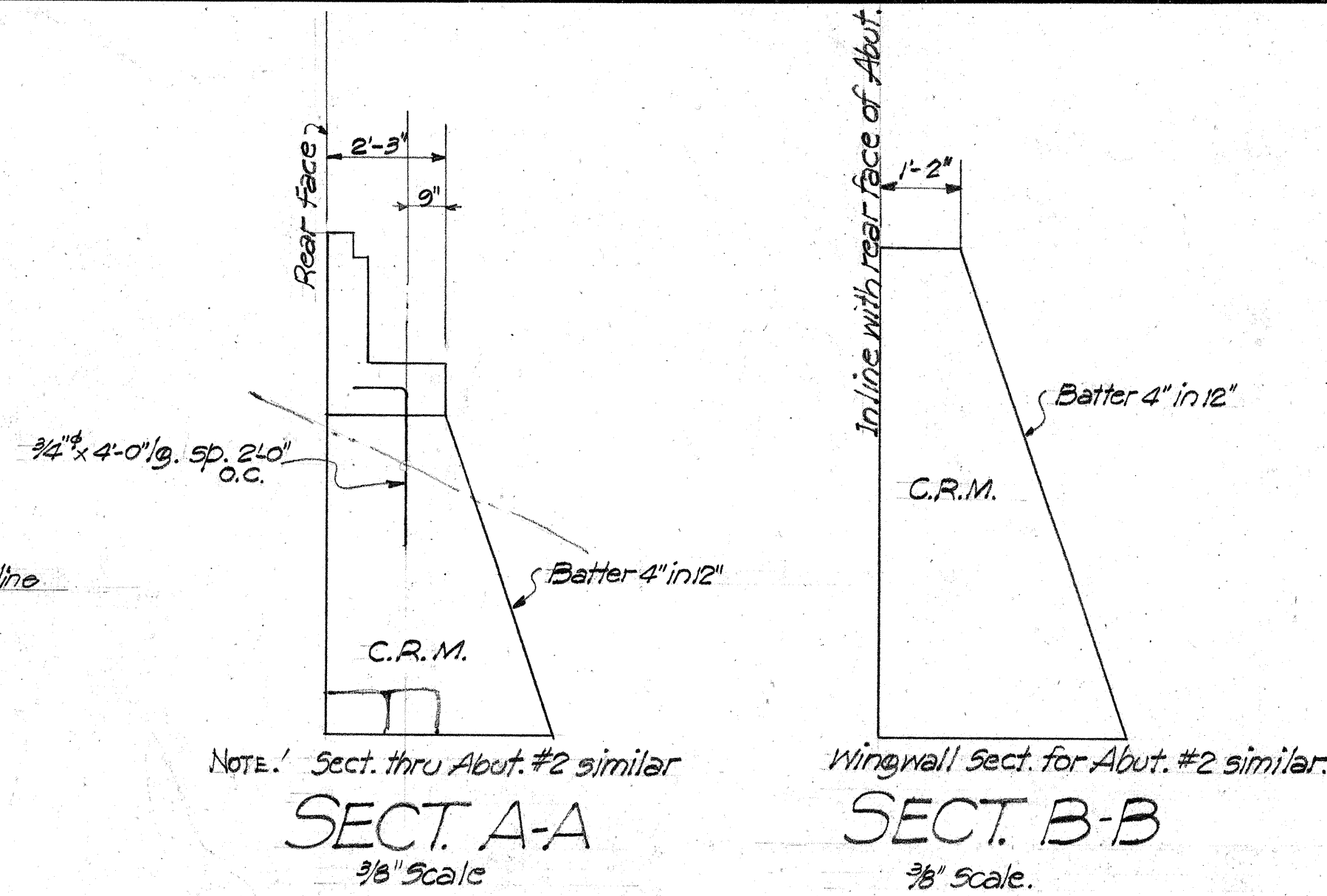
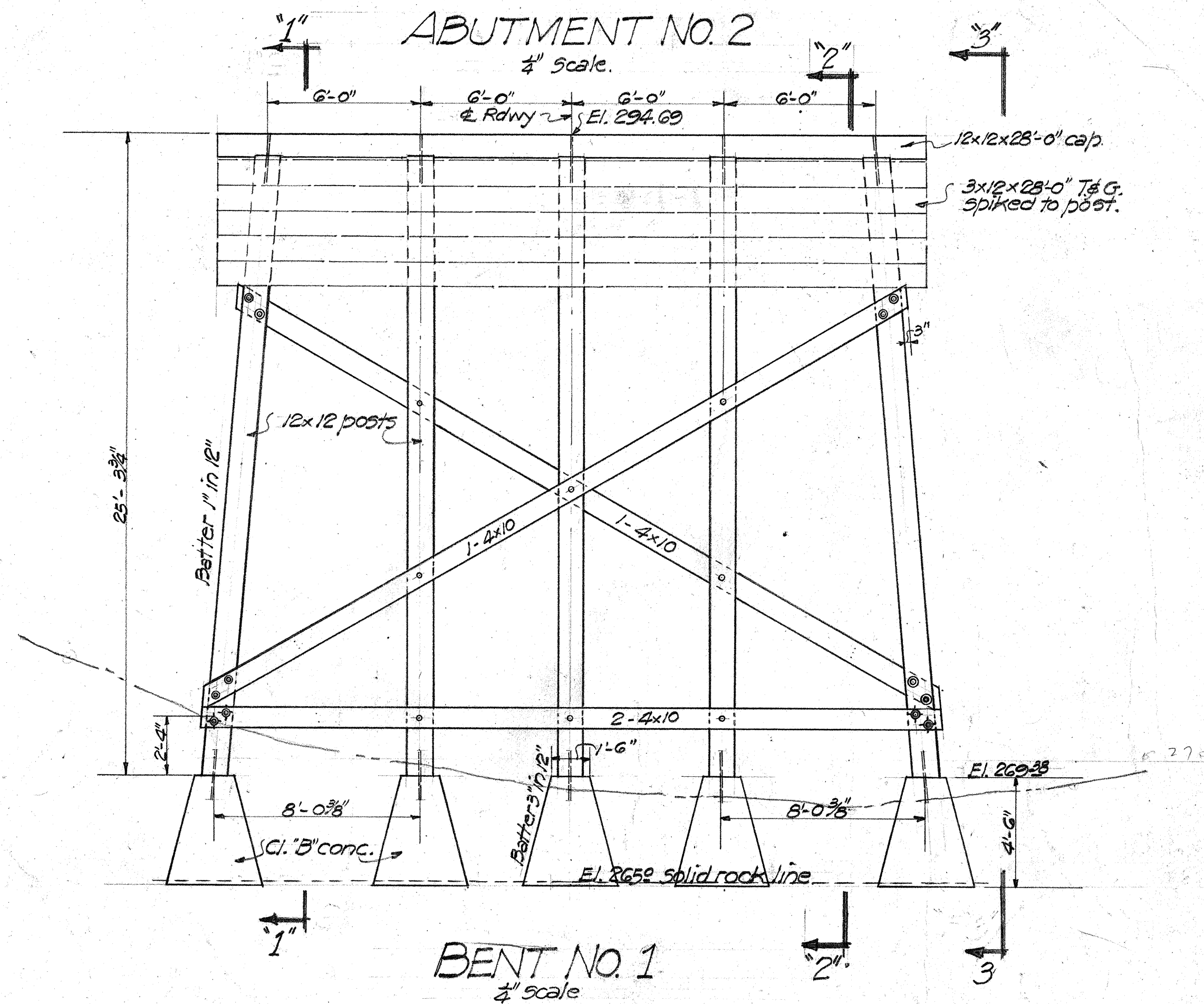
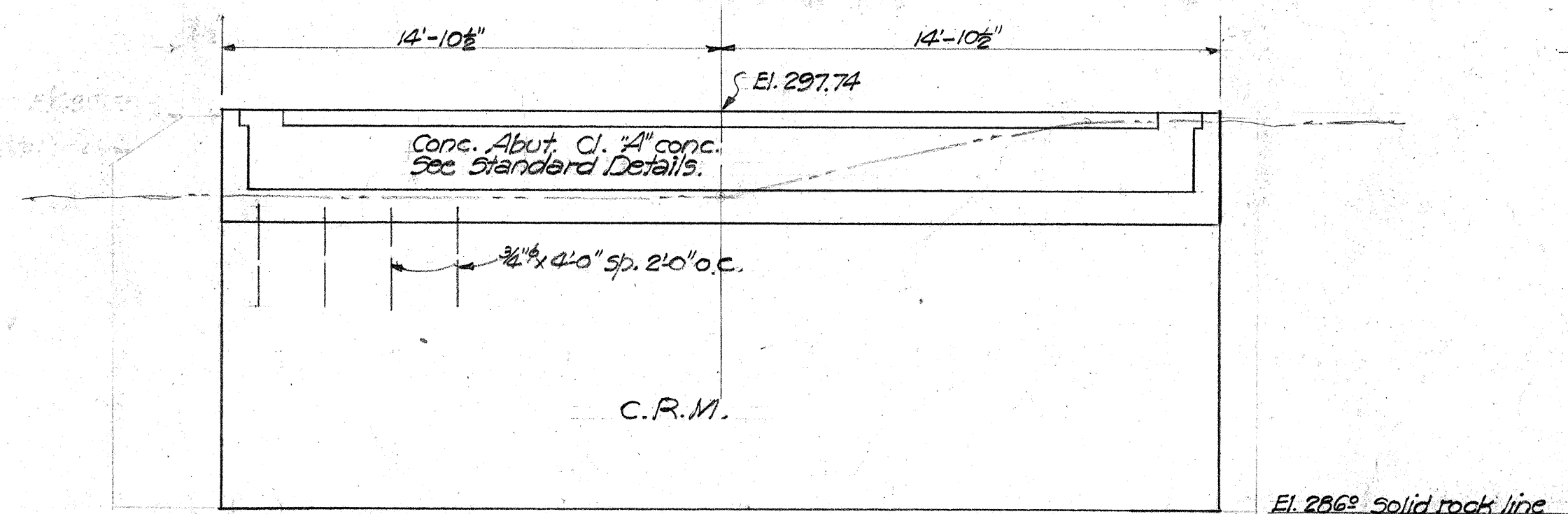
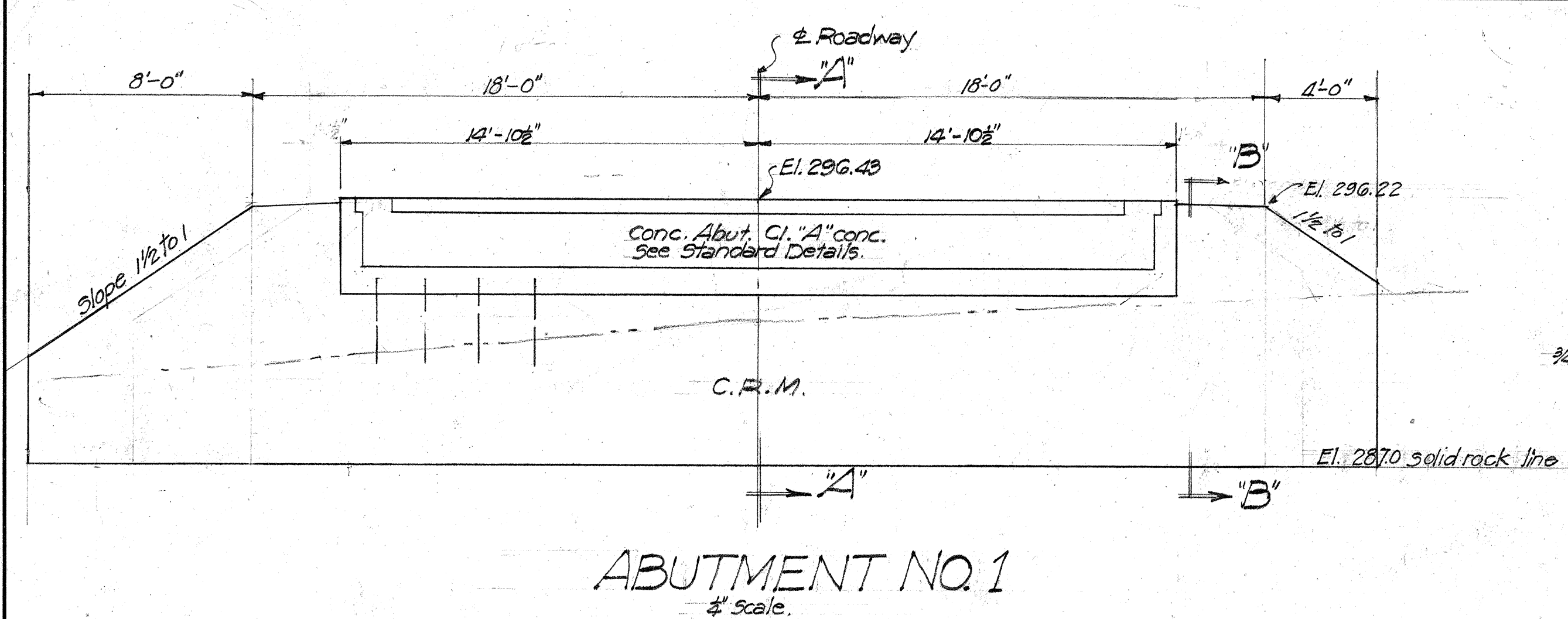
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE NO. 2

HAWAII BELT RD. Sept. 1940 F.A.P. 14-B

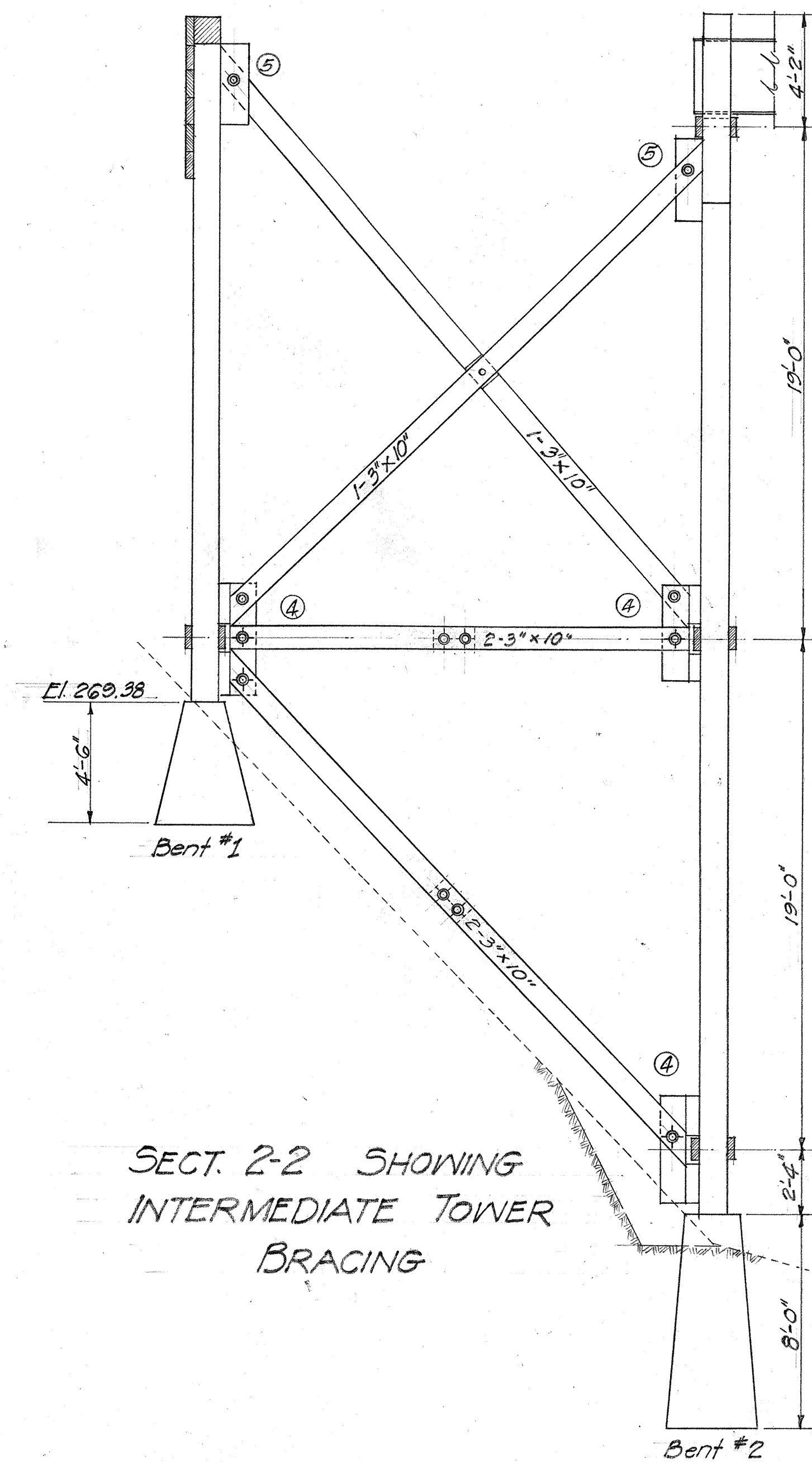
SHEET No. 1 OF 4 SHEETS

5039.41

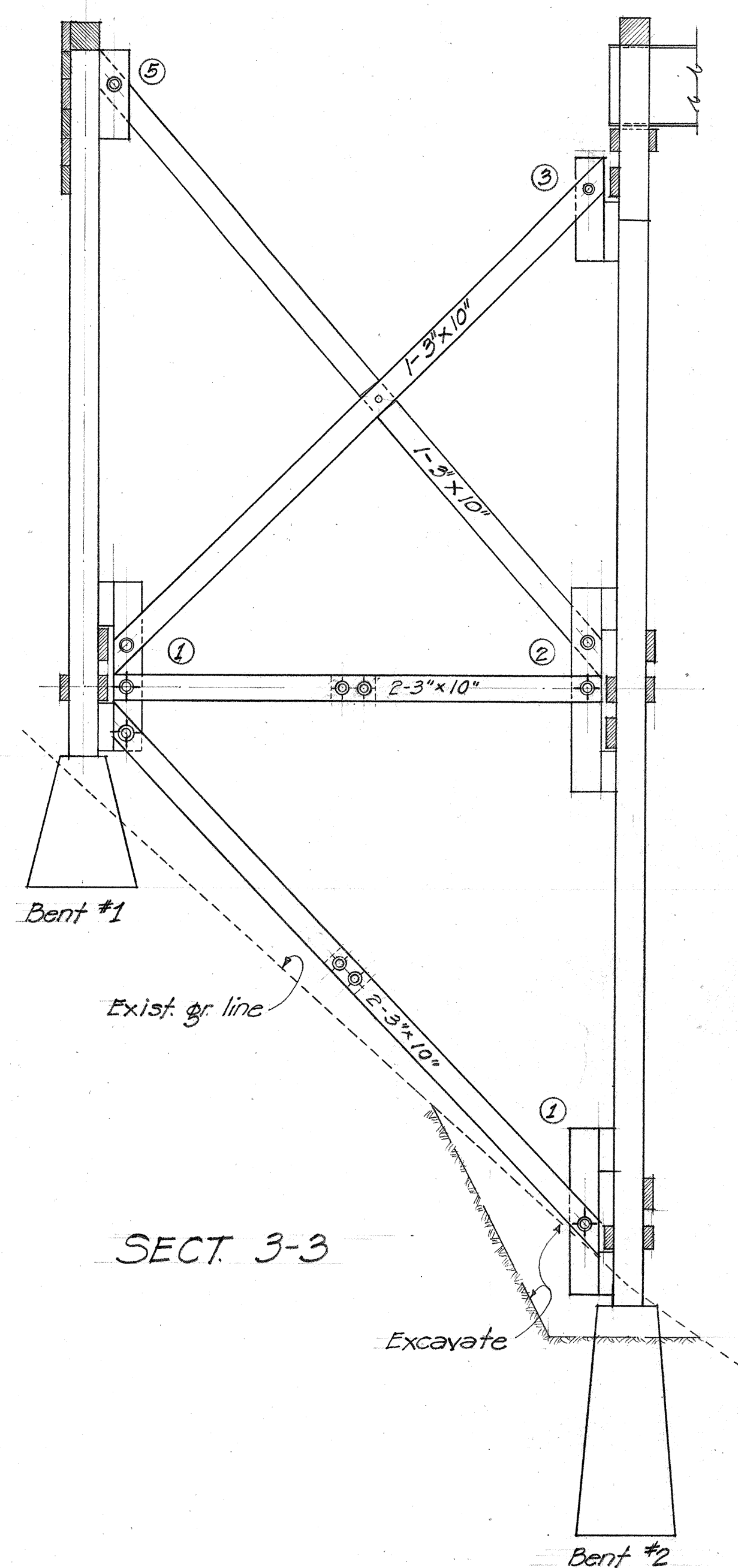


- Explanation of symbols used in Bent & Tower Bracing Connections.
- 1- 3/4" bolt
 - 1- 3/4" Ogee C.I. washers.
 - 1- 3/4" split ring connector.
 - 2- 3/4" x 3/4" Ogee C.I. washers.
 - 1- 3/4" bolt
 - 2- 3/4" split ring connectors.
 - 2- 3/4" x 3/4" Ogee C.I. washers.

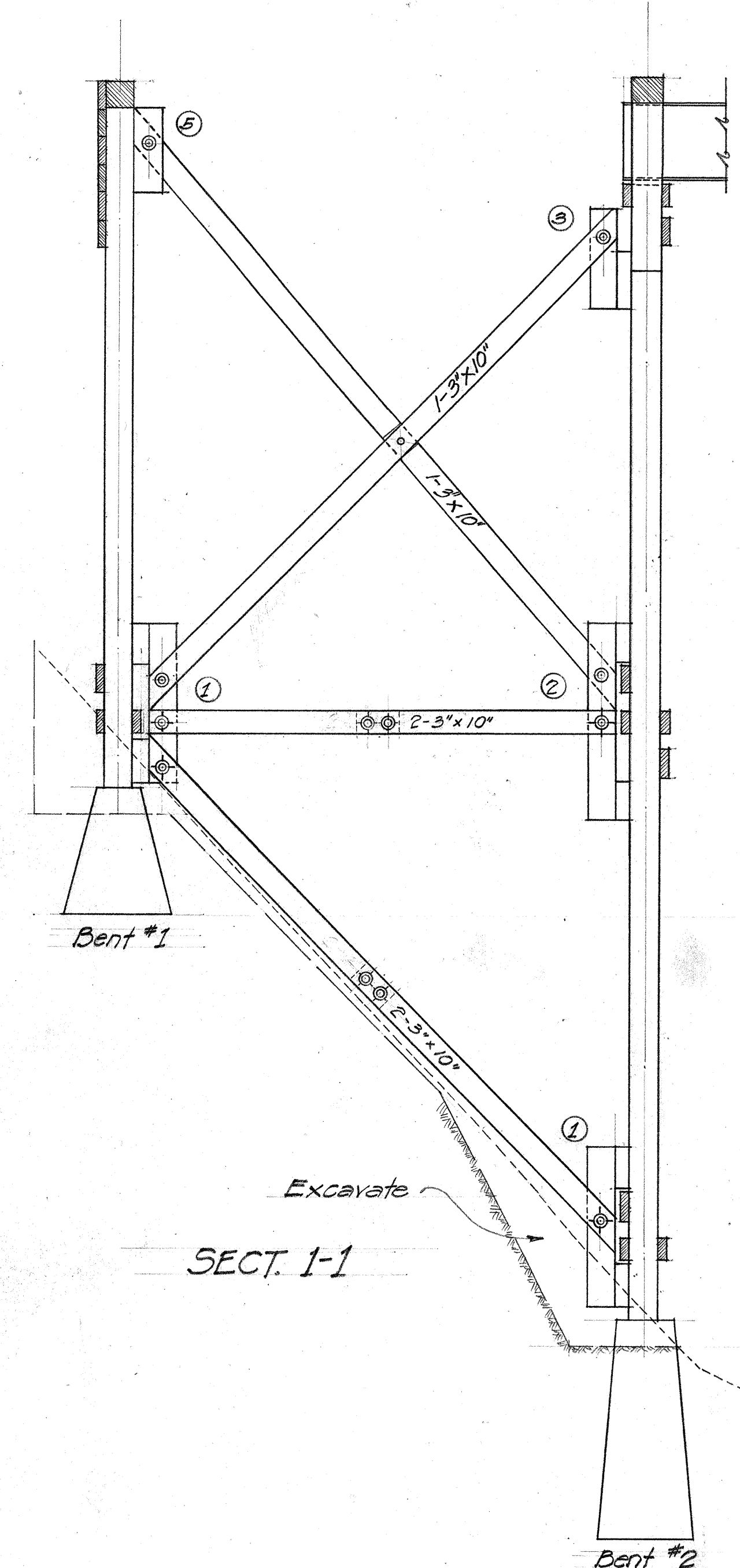
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	14B0	1941	43	92



SECT. 2-2 SHOWING
INTERMEDIATE TOWER
BRACING



SECT. 3-3



SECT. 1-1

TOWER BRACING - BENTS 1 & 2

Scale 1/4"=1'-0"

NOTE:
For location of Sect 1-1, 2-2 & 3-3
See sheet no.

ORIGINAL PLAN	SURVEY PLOTTED BY DESIGNED BY TRACED BY QUANTITIES BY QUANTITIES CHECKED BY CHECKED BY	DATE 1/2/41
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TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

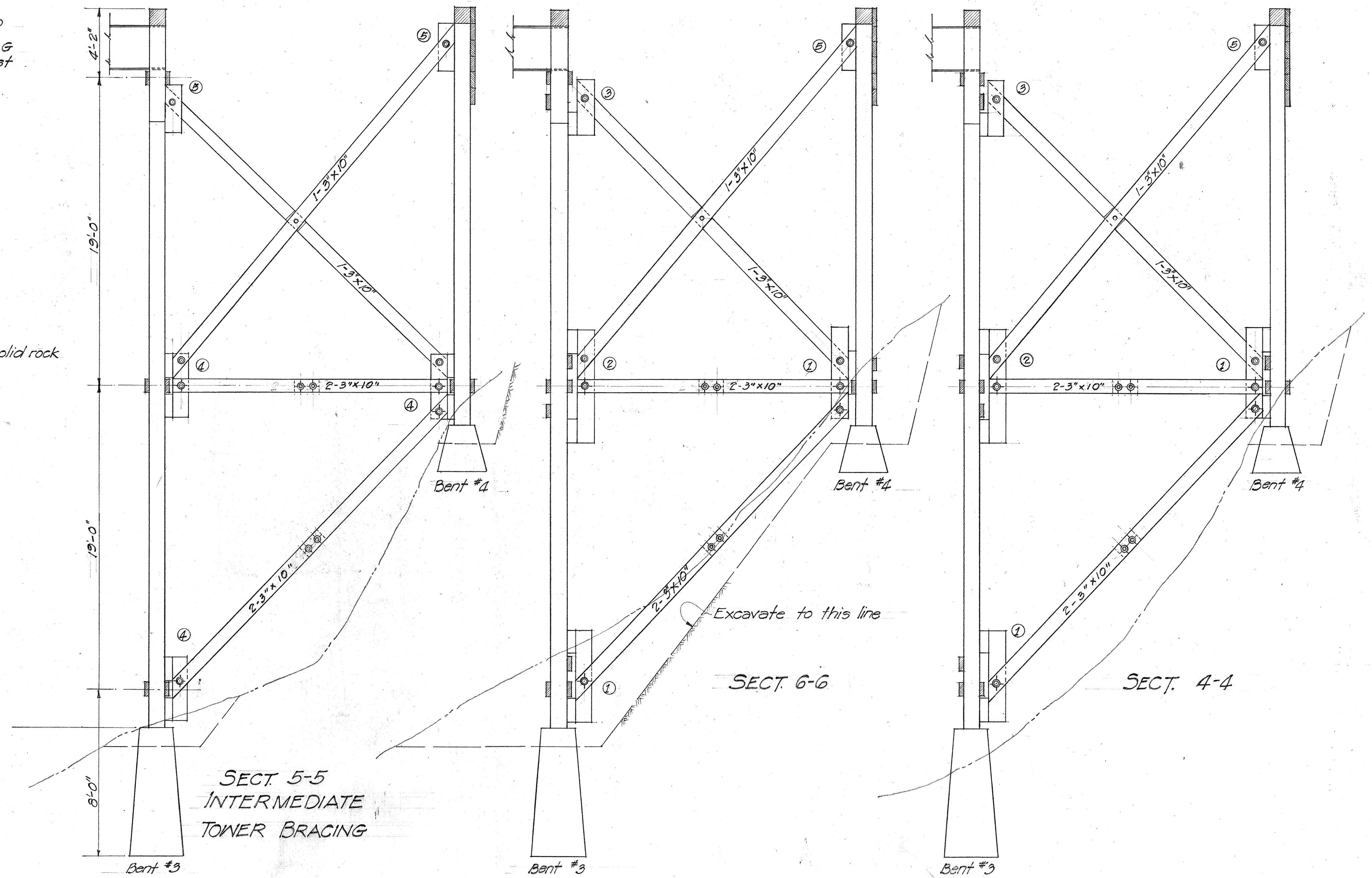
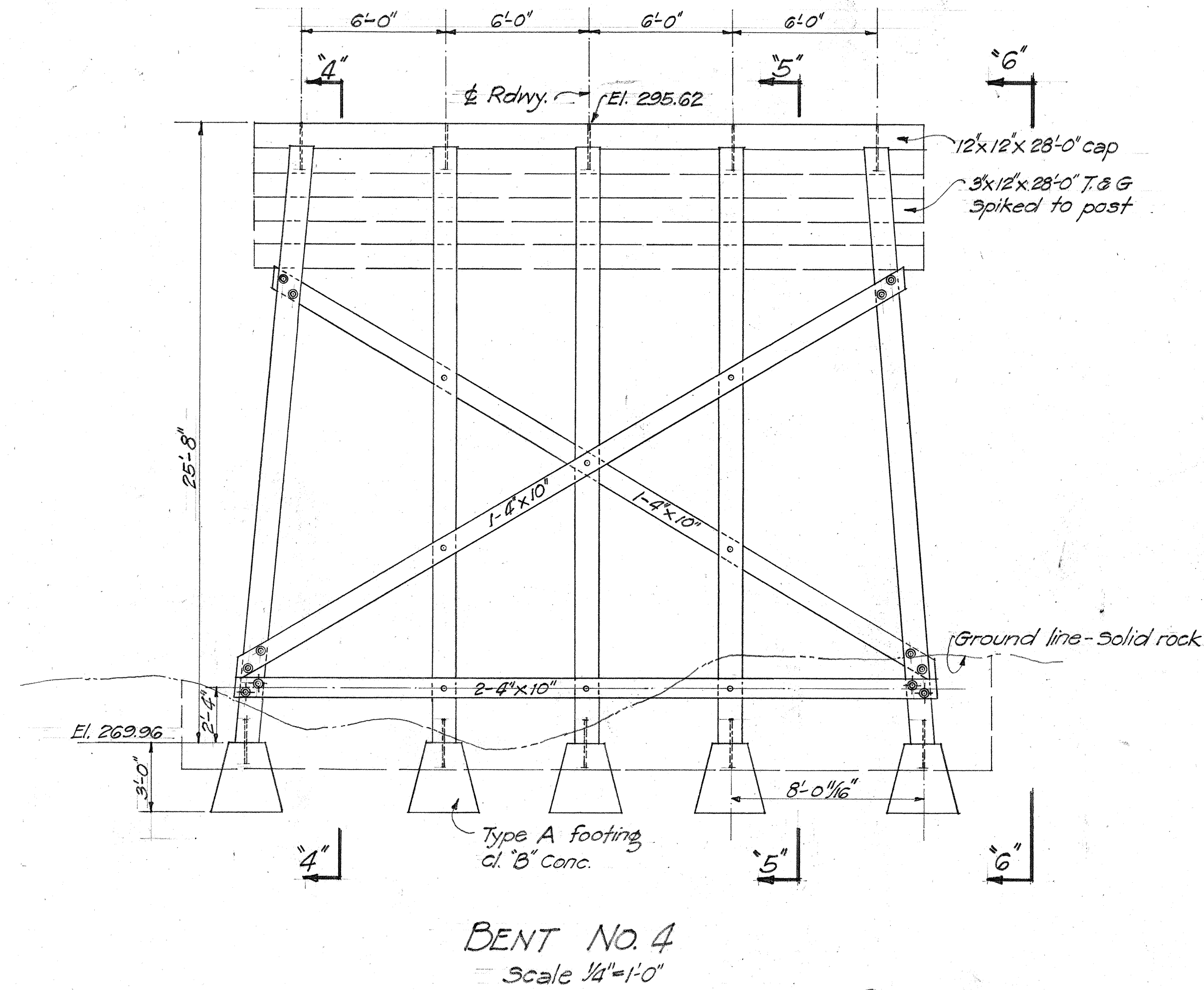
BRIDGE No. 2

HAWAII BELT RD F.A.P. 14 B

SHEET No 3 OF 4 SHEETS

5039.43

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	14B01	1941	44	92



TOWER BRACING - BENTS 3 & 4
Scale 1/4"=1'-0"

ORIGINAL PLAN	DATE
DESIGNED BY	SEP 1940
DRAWN BY	
QUANTITIES BY	
CHECKED BY	

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE No. 2

HAWAII BELT RD. F.A.P. 14-B
Sept. 1940

SHEET No 4 OF 4 SHEETS

5039.44

Corrected 4/28/41

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	14-80	1941	45	92

TIMBER BILL OF MATERIAL DOUGLAS FIR - COAST REGION

MEMBER	NO.	SIZE & LENGTH	LUMBER GRADING	MILL WORK	FT. B.M.
Floor Decking	2806	2x6x24'-0"	Structural Select	S1S1E	72956
Bridge Railing	40	4x8x20'-0"	"	345	2,133
"	40	3x8x20'-0"	"	"	1,600
Guard Railing	2	4x8x14'-0"	"	"	74
"	2	3x8x14'-0"	"	"	56
Bracing - Bents	1	3x10x16'-0"	"	"	40
"	2	3x10x18'-0"	"	"	90
"	3	3x10x22'-0"	"	"	165
"	17	3x10x28'-0"	"	"	1,190
"	16	3x10x30'-0"	"	"	1,200
"	30	3x10x32'-0"	"	"	2,400
"	23	3x10x34'-0"	"	"	1,955
"	20	3x10x36'-0"	"	"	1,800
"	16	3x10x38'-0"	"	"	1,520
"	12	3x10x40'-0"	"	"	1,200
"	8	4x10x26'-0"	"	"	693
"	2	4x10x28'-0"	"	"	187
"	16	4x10x30'-0"	"	"	1,600
"	12	4x10x32'-0"	"	"	1,280
"	10	4x10x34'-0"	"	"	1,133
"	8	4x10x36'-0"	"	"	960
"	6	4x10x38'-0"	"	"	760
Bracing - Tower	132	3x10x18'-0"	"	"	5,940
"	30	3x10x20'-0"	"	"	1,950
"	57	3x10x22'-0"	"	"	3,135
"	91	3x10x24'-0"	"	"	5,460
"	15	3x10x26'-0"	"	"	975
"	6	3x10x28'-0"	"	"	420
Tower Br. Gussset Pl.	25	4x12x5'-8"	"	"	600
"	52	4x12x7'-0"	"	"	1,456
"	27	4x12x9'-6"	"	"	492
"	72	4x12x4'-0"	"	"	1,152
"	19	4x12x3'-0"	"	"	228
Tower Bracing Blks.	298	6x12x1'-6"	Structural Select beams & stringers	"	2,682
Bracing Separators	66	4x10x1'-0"	"	"	220
"	80	4x10x1'-6"	"	"	400
"	24	12x10x1'-6"	"	"	360
splice blocks	38	6x18x9'-0"	"	"	1,020
Filler blocks at 1's	16	6x12x6'-0"	"	"	576
"	4	9x12x6'-0"	"	"	216
Stringers	260	6x18x20'-0"	"	"	4,680
Post scabs at 1's	40	6x12x6'-0"	"	"	1,440
Bulkhead Scabs	5	6x12x6'-0"	"	"	180
"	5	4x12x4'-0"	"	"	80
Caps	20	12x12x28'-0"	Structural Select Posts & Timbers	"	6,720
Bridge railing posts	122	8x8x6'-0"	"	"	3,904
Guard railing posts	4	12x12x8'-0"	"	"	384
Posts - Bents	1	12x12x12'-0"	"	"	144
"	1	12x12x14'-0"	"	"	168
"	2	12x12x16'-0"	"	"	384
"	6	12x12x18'-0"	"	"	1,296
"	9	12x12x20'-0"	"	"	720
"	2	12x12x22'-0"	"	"	528
"	1	12x12x24'-0"	"	"	288
"	3	12x12x26'-0"	"	"	936
"	3	12x12x28'-0"	"	"	1,008
"	1	12x12x30'-0"	"	"	360
"	8	12x12x32'-0"	"	"	3,072
"	7	12x12x34'-0"	"	"	2,856
"	9	12x12x36'-0"	"	"	3,888
"	2	12x12x38'-0"	"	"	912
"	4	12x12x40'-0"	"	"	1,920
"	12	12x12x42'-0"	"	"	6,048
"	23	12x12x44'-0"	"	"	12,144
"	1	12x12x46'-0"	"	"	552
"	6	12x12x50'-0"	"	"	3,600

TOTAL FORWARD 222,876

See Sh. No. 2 for Timber Bill of Material Cont'd.

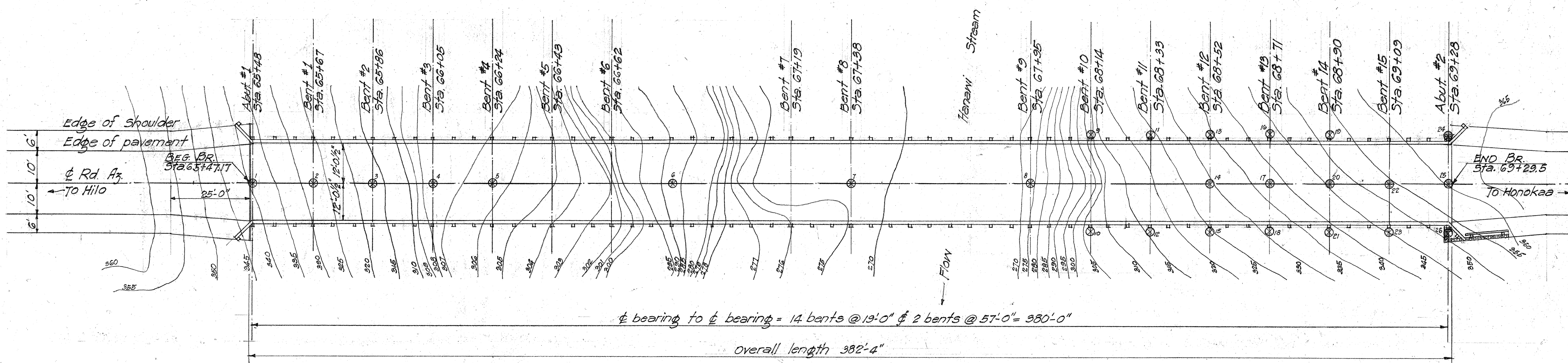
ESTIMATED QUANTITIES

Treated Timber	241,291 Ft. B.M.
Glass 'A' Concrete	118.6 C.Y.
" 'B' "	201.2 C.Y.
Cement Rubble Masonry	620 C.Y.
Structural Steel	84,700 LBS.
Reinf. Steel	14,400 LBS.
Structural Excavation	1,200 C.Y.
Unclassified Excavation	1,900 C.Y.

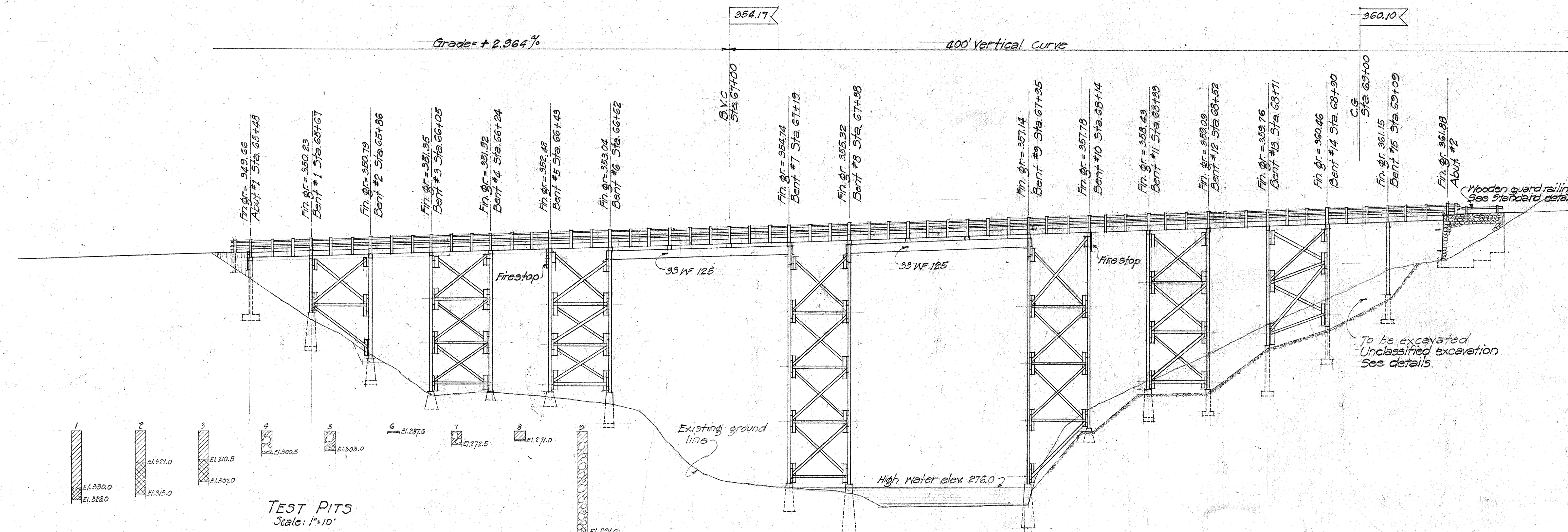
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE No. 3
Sta. 65+47.17 to 69+29.5
HAWAII BELT ROAD F.A.P. 14-B
Nov. 1940

SHEET No. 1 OF 14 SHEETS



LAYOUT PLAN OF BRIDGE
Scale 1"=20'

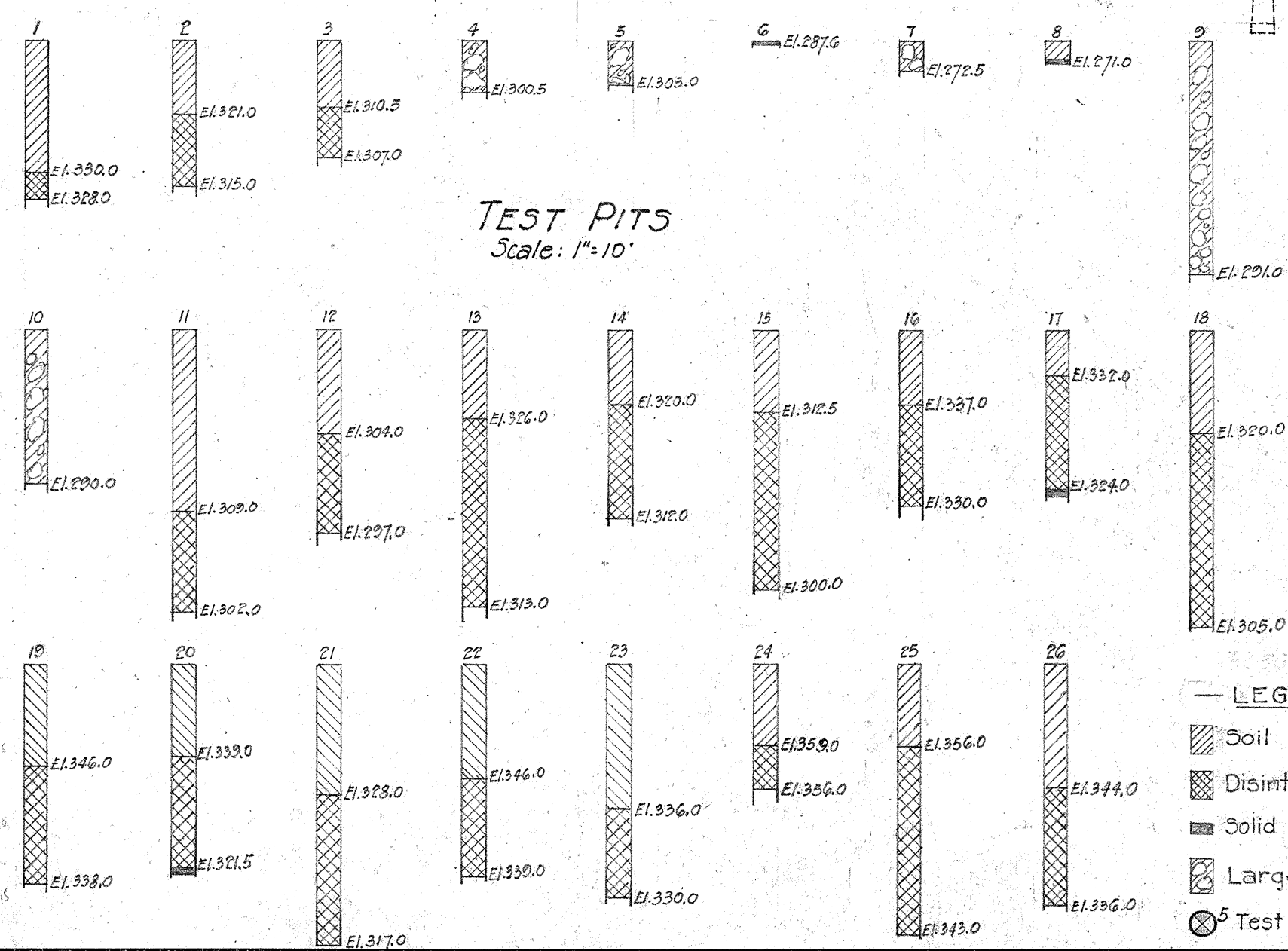


DOWNSTREAM ELEVATION
Scale 1"=20'

NOTE:
Firestops to be treated with
zinc chloride or Molman salts

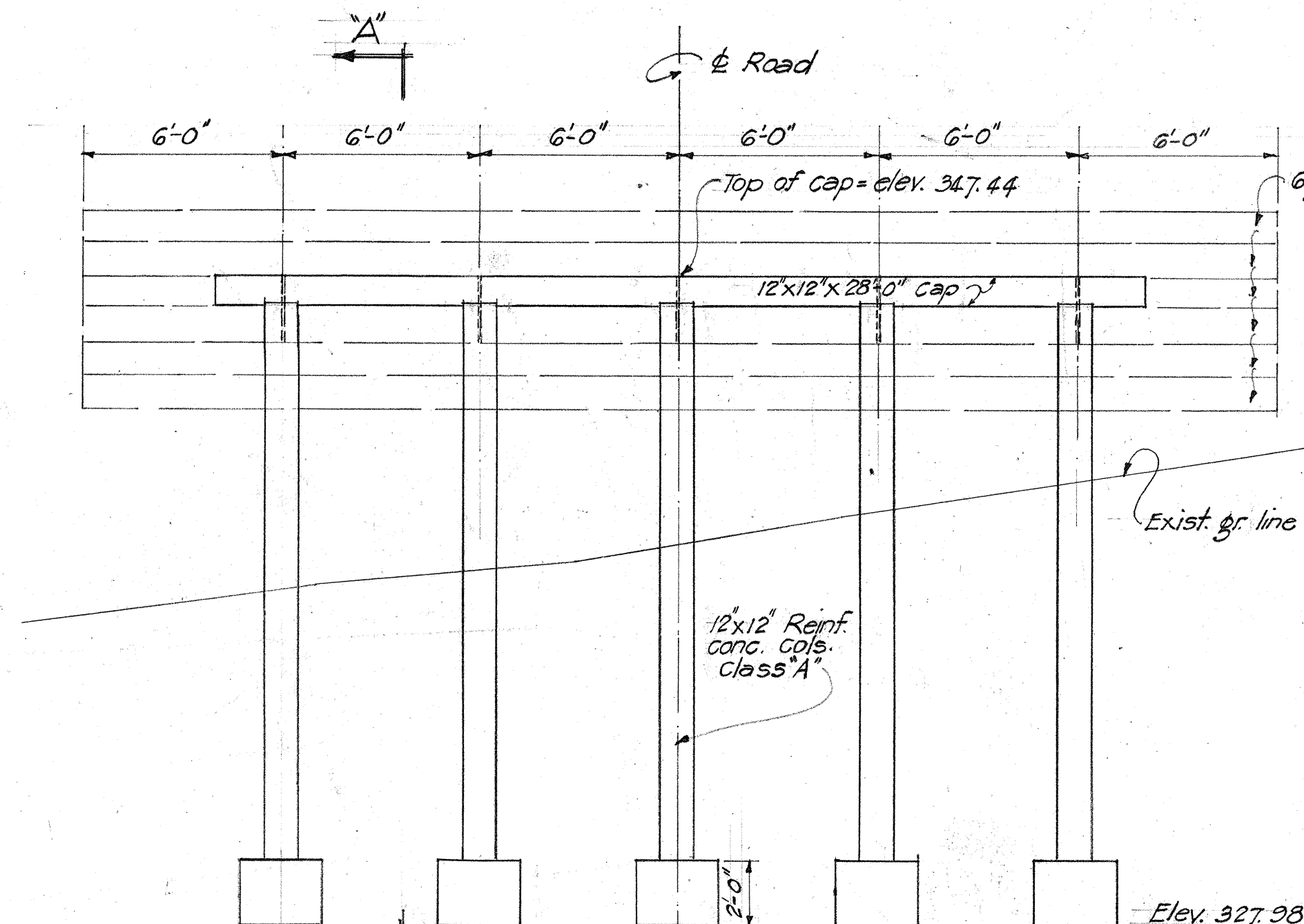
- LEGEND
- Soil
 - Disintegrated rock
 - Solid rock
 - Large boulders
 - Test Pit

TEST PITS
Scale: 1"=10'

Correction - Fin. Gr. Bent #13
559.86 to 552.16

DATE	Nov. 1940
SURVEY PLOTTED BY	M. R. B. 10-16
DESIGNED BY	M. R. B. 10-16
TRACED BY	M. R. B. 10-16
QUANTITIES CHECKED BY	M. R. B. 10-16
CHECKED BY	M. R. B. 10-16
ORIGINAL PLAN	No.
NOTE BOOK	No.

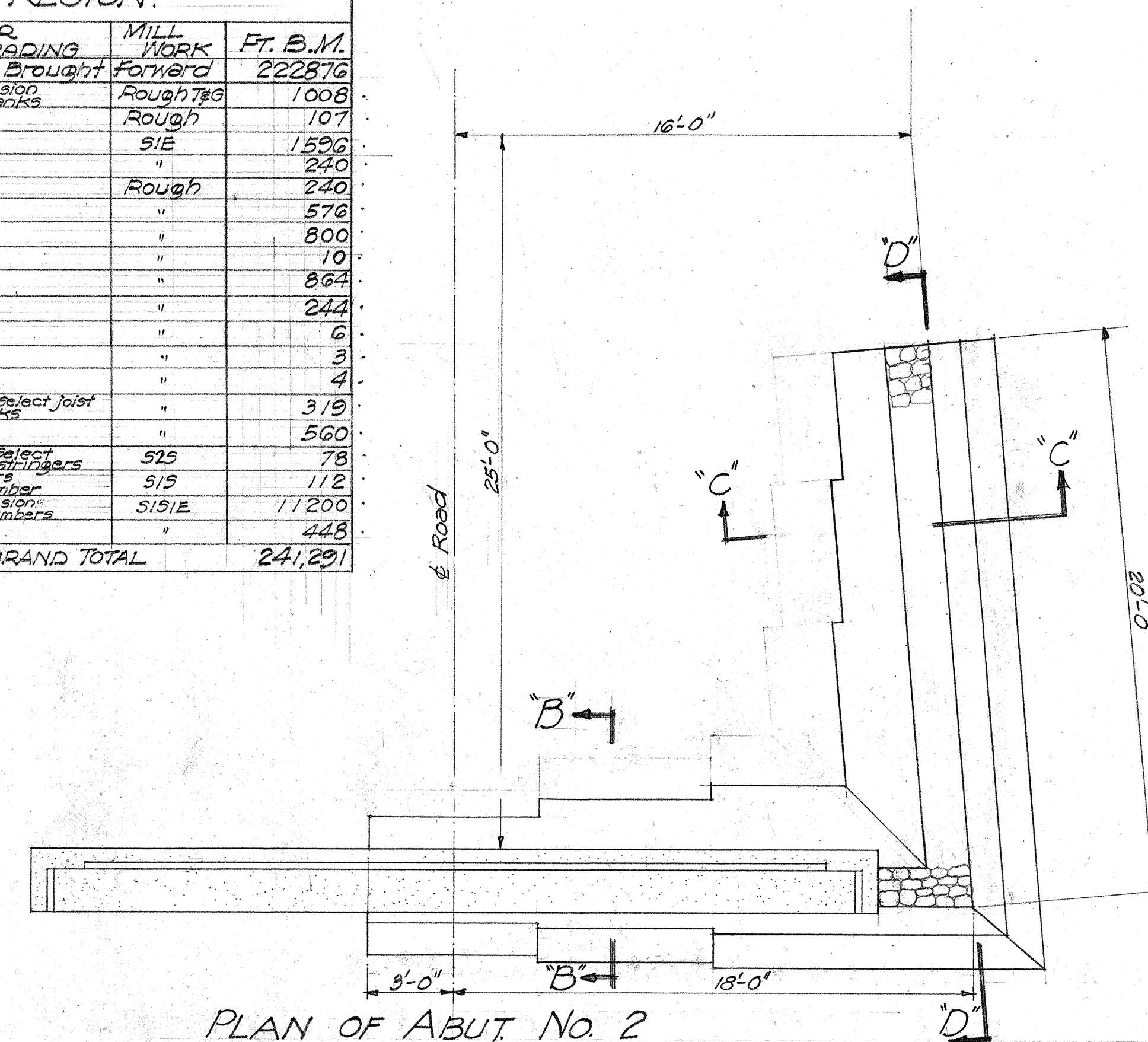
5039.45



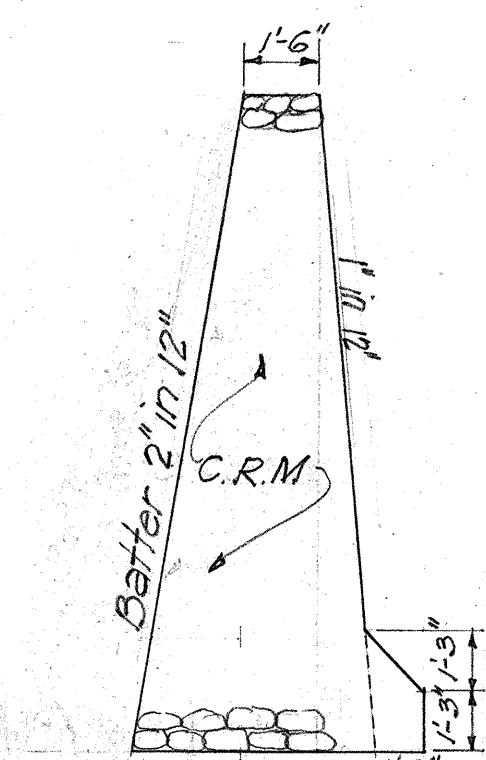
ABUT. No. 1
Scale 1/4"=1'-0"

TIMBER BILL OF MATERIAL (CONT'D.)
DOUGLAS FIR - COAST REGION.

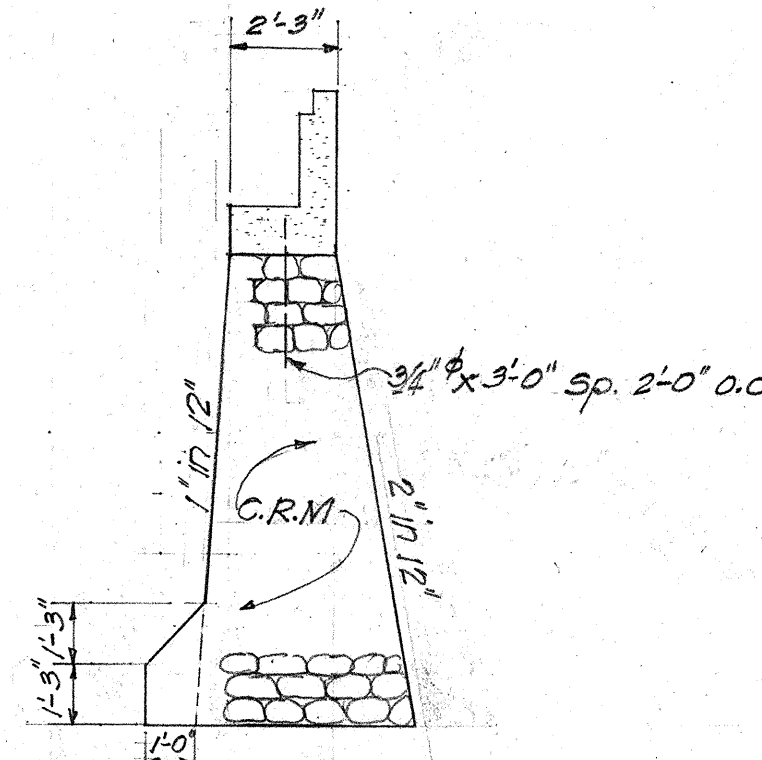
MEMBER	NO.	SIZE & LENGTH	LUMBER GRADING	MILL WORK	FT. B.M.
Firestop	12	3x12x28'-0"	No. 1 dimension joist & planks	Rough	1008
Strut Blocks	32	4x10x1'-0"	"	Rough	107
Solid Bridging	19	4x18x14'-0"	"	S/E	1596
"	2	4x18x20'-0"	"	"	240
Solid bridg. at I's	4	4x10x18'-0"	"	Rough	240
"	8	4x12x18'-0"	"	"	576
Cross bridging	120	2x4x10'-0"	"	"	800
Blocks at brg. pl.	40	1x3x1'-0"	"	"	10
Bulkhead	6	4x12x36'-0"	"	"	864
Fills at rail posts	122	2x8x1'-6"	"	"	244
Planking at Abut.	1	2x12x3'-0"	"	"	6
"	1	2x6x3'-0"	"	"	3
Planking supports	1	2x4x6'-0"	"	"	4
Bent Brace splice	30	3x10x4'-3"	Structural select joist & planks	"	319
Bent Post splice	40	4x12x3'-6"	"	"	560
Deck starter	1	6x6x26'-0"	Structural select joist & planks	S/S	78
Abutment Sill	1	6x8x28'-0"	No. 1 timbers	S/S	112
Wheel Guard	40	12x14x20'-0"	No. 2 dimension joist & planks	S/S	11200
"	4	12x14x8'-0"	"	"	448
GRAND TOTAL					24,291



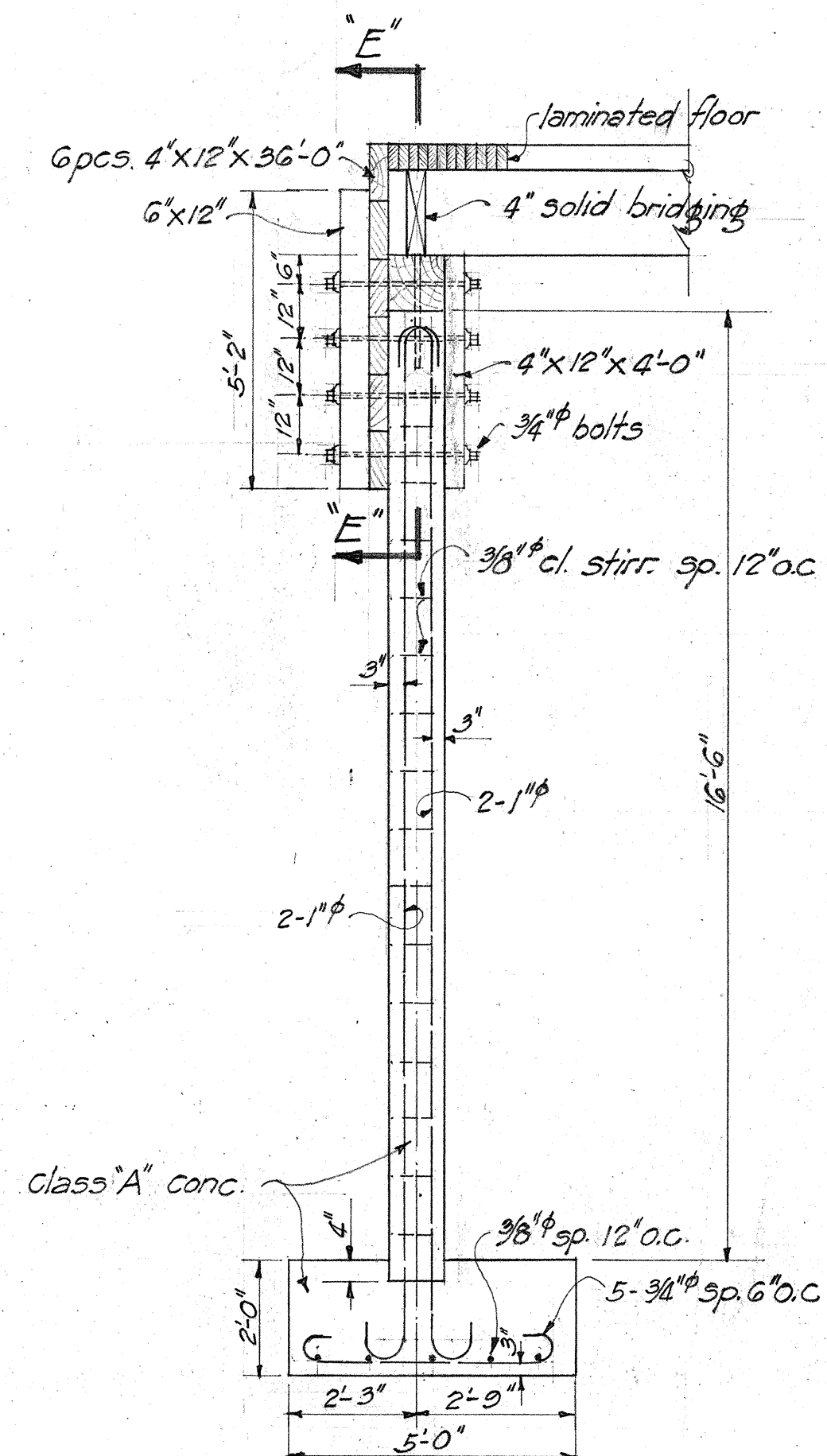
PLAN OF ABUT. No. 2
Scale 1/4"=1'-0"



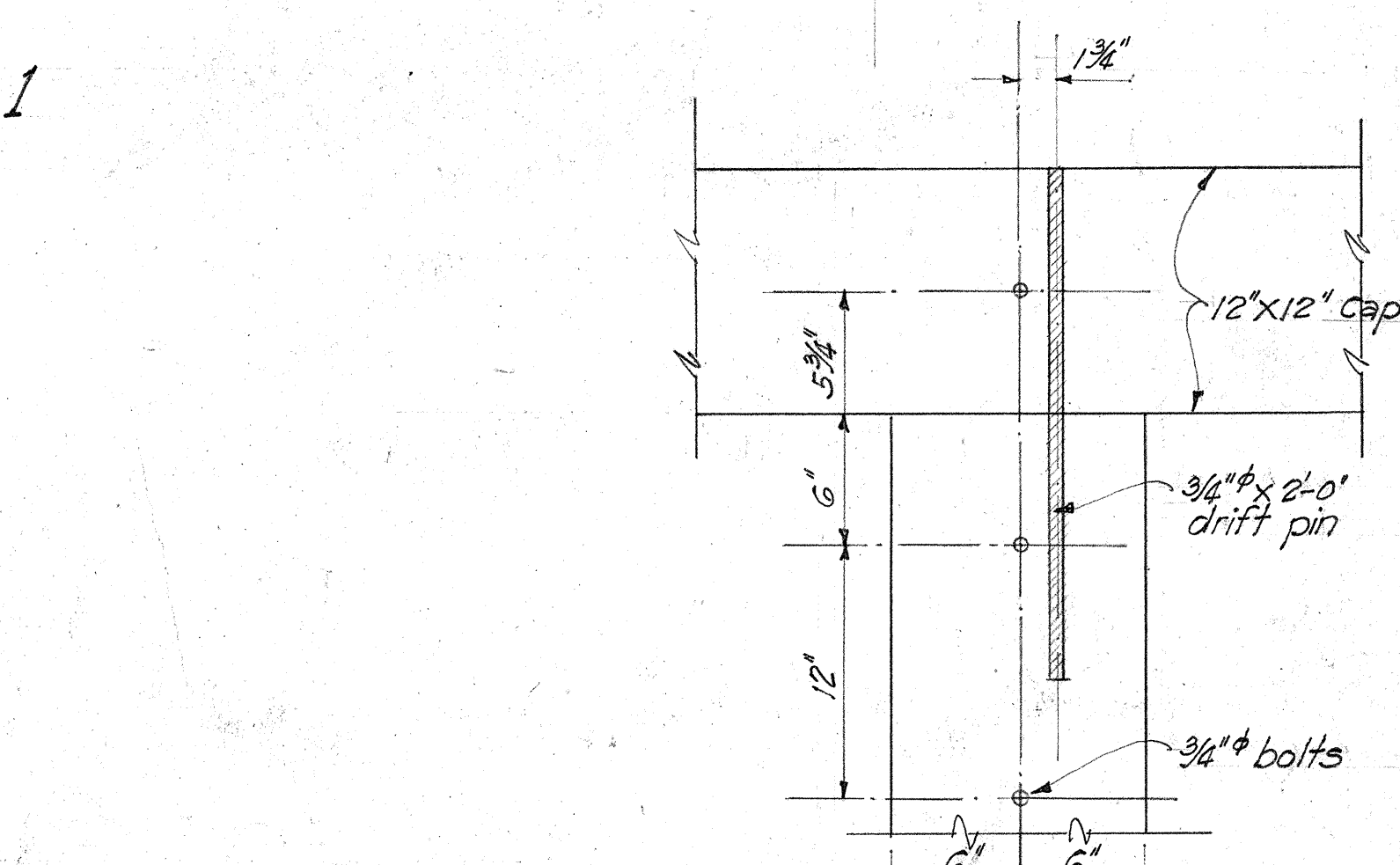
SECT. "C-C"
Scale 1/4"=1'-0"



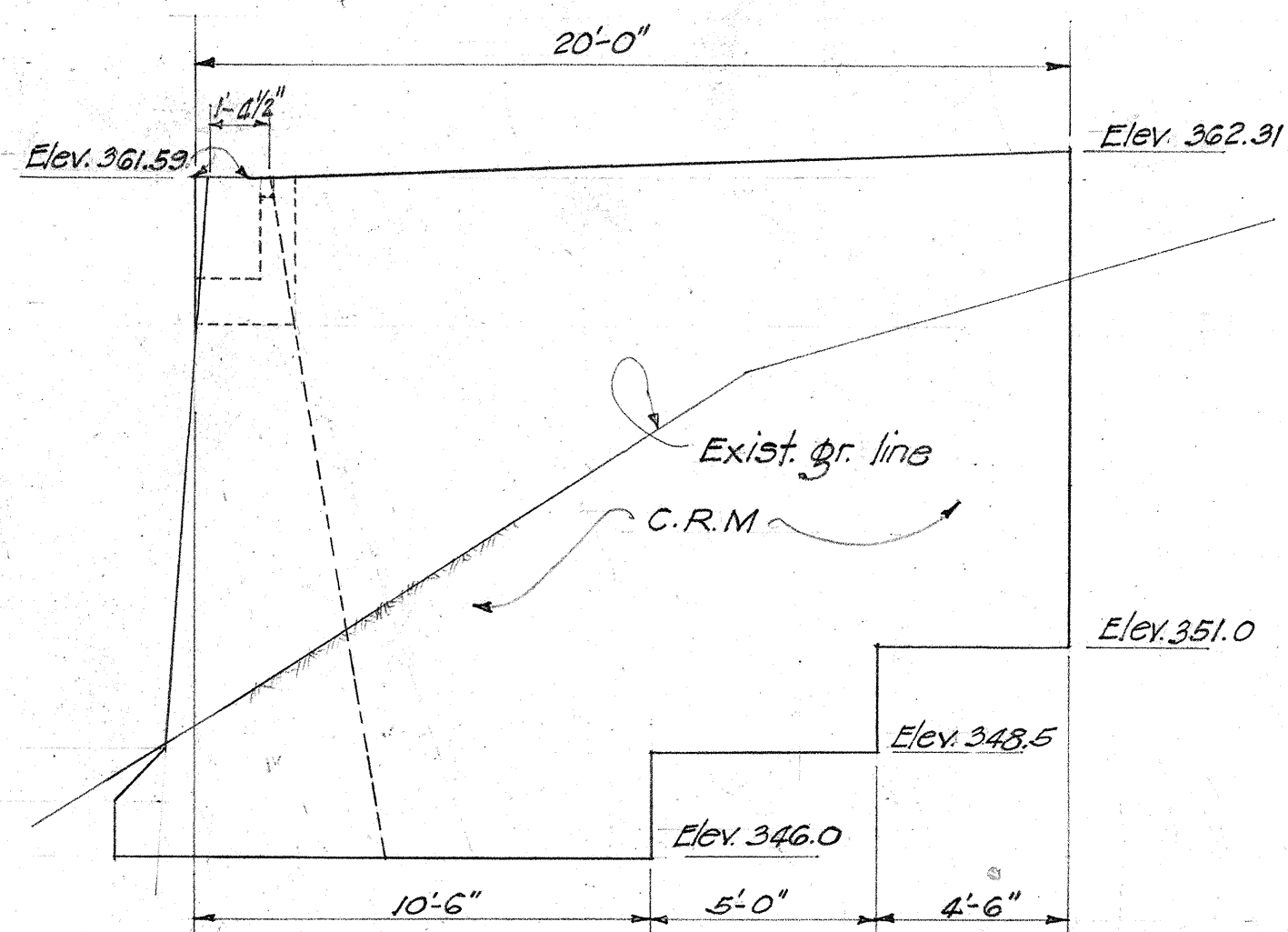
SECT. "B-B"
Scale 1/4"=1'-0"



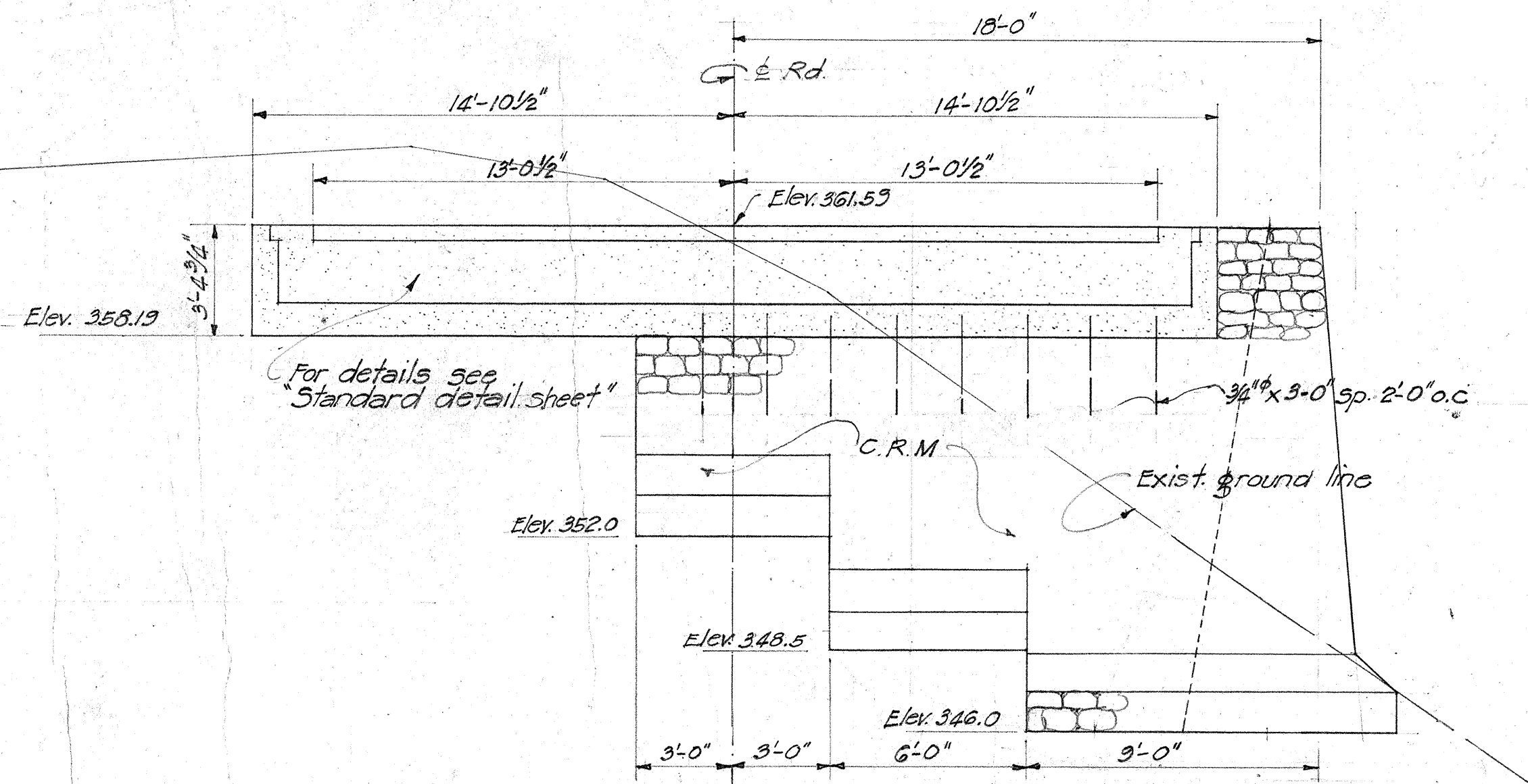
SECT. "A-A"
Scale 3/8"=1'-0"



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



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



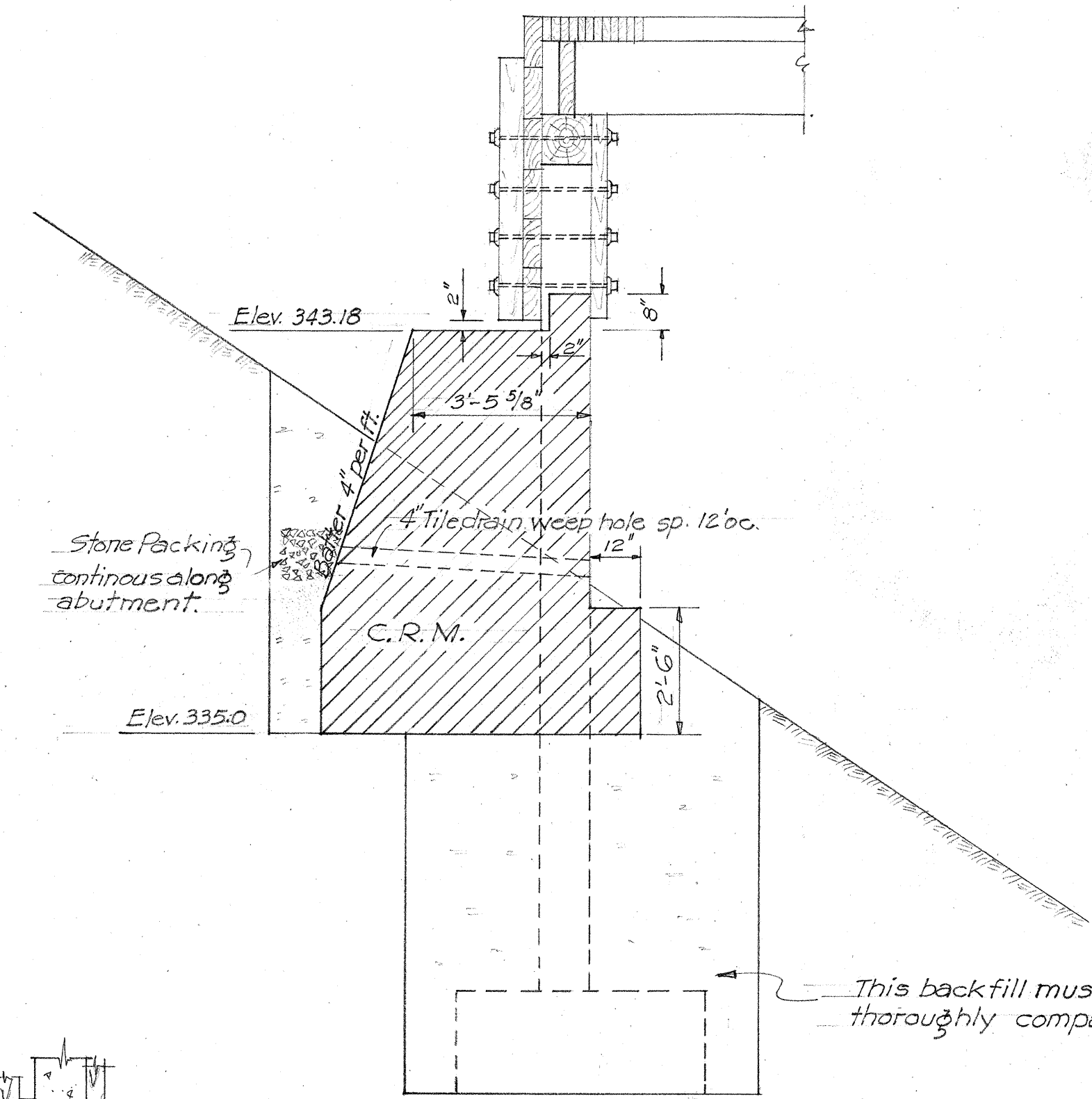
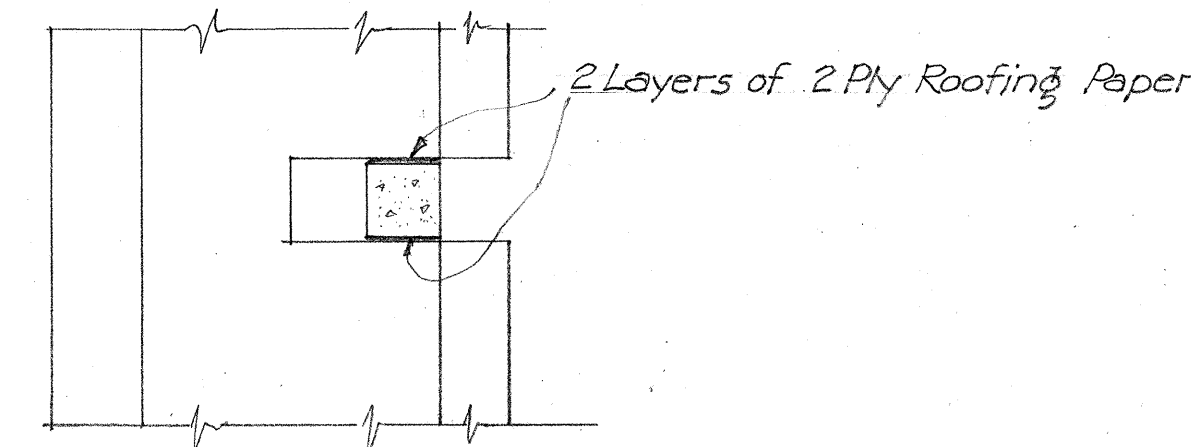
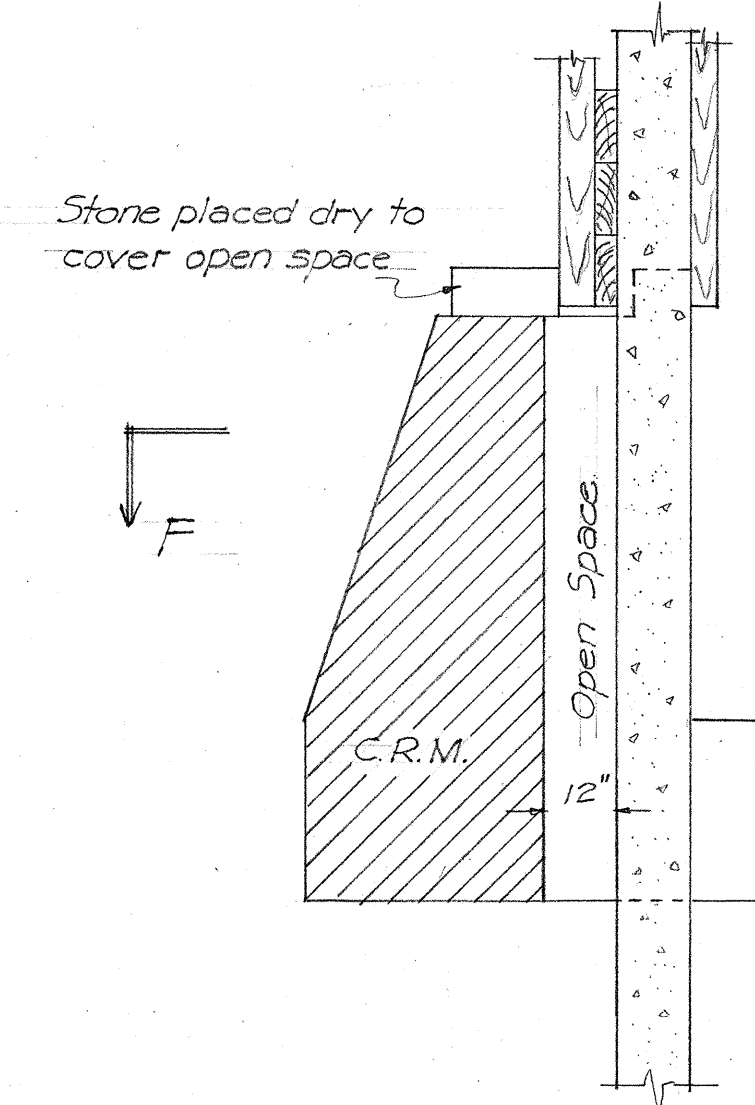
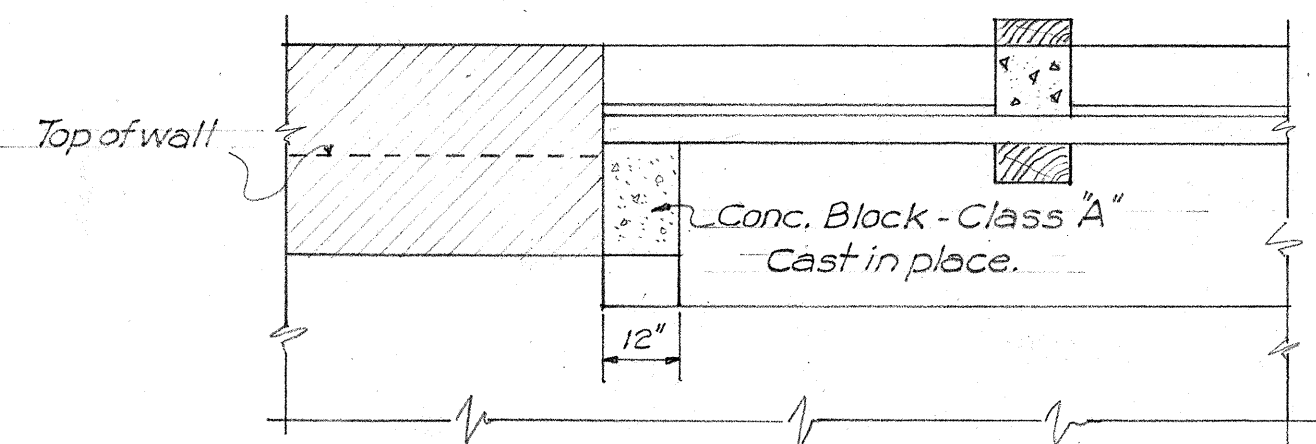
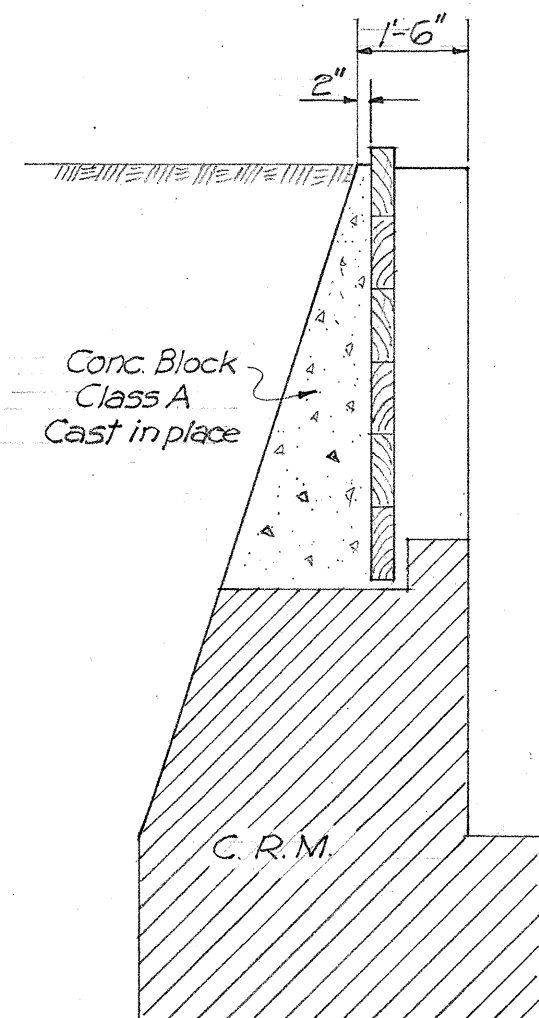
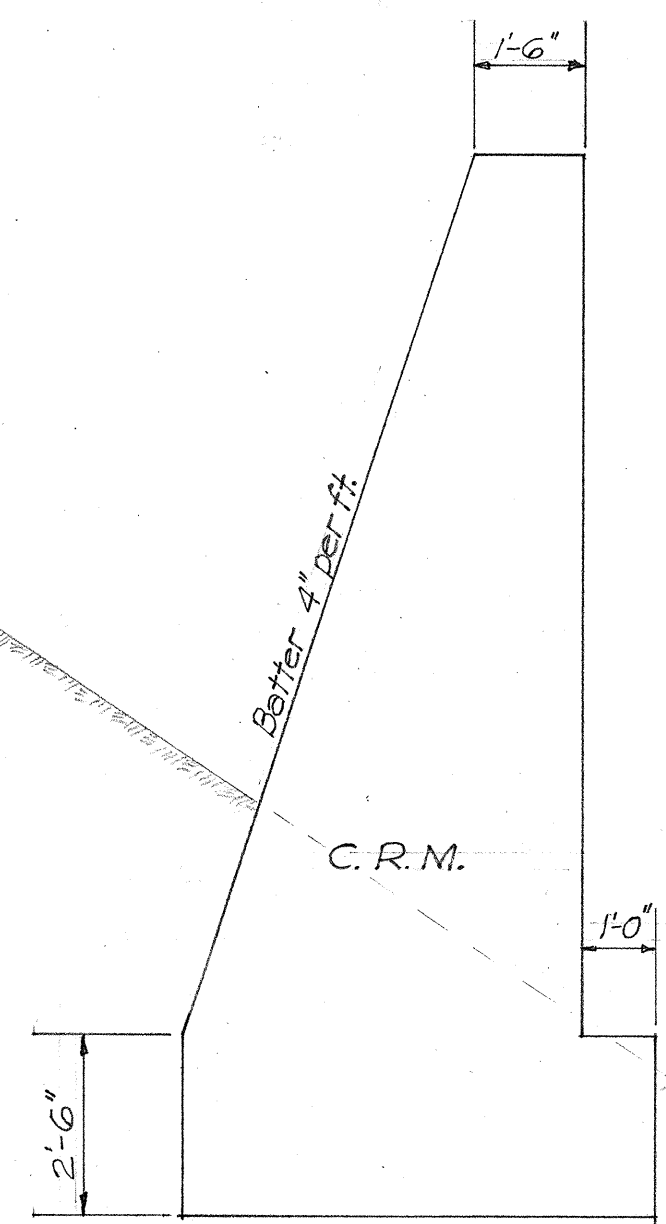
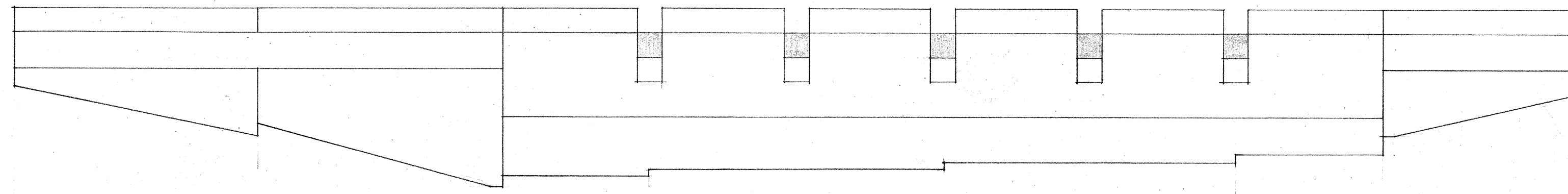
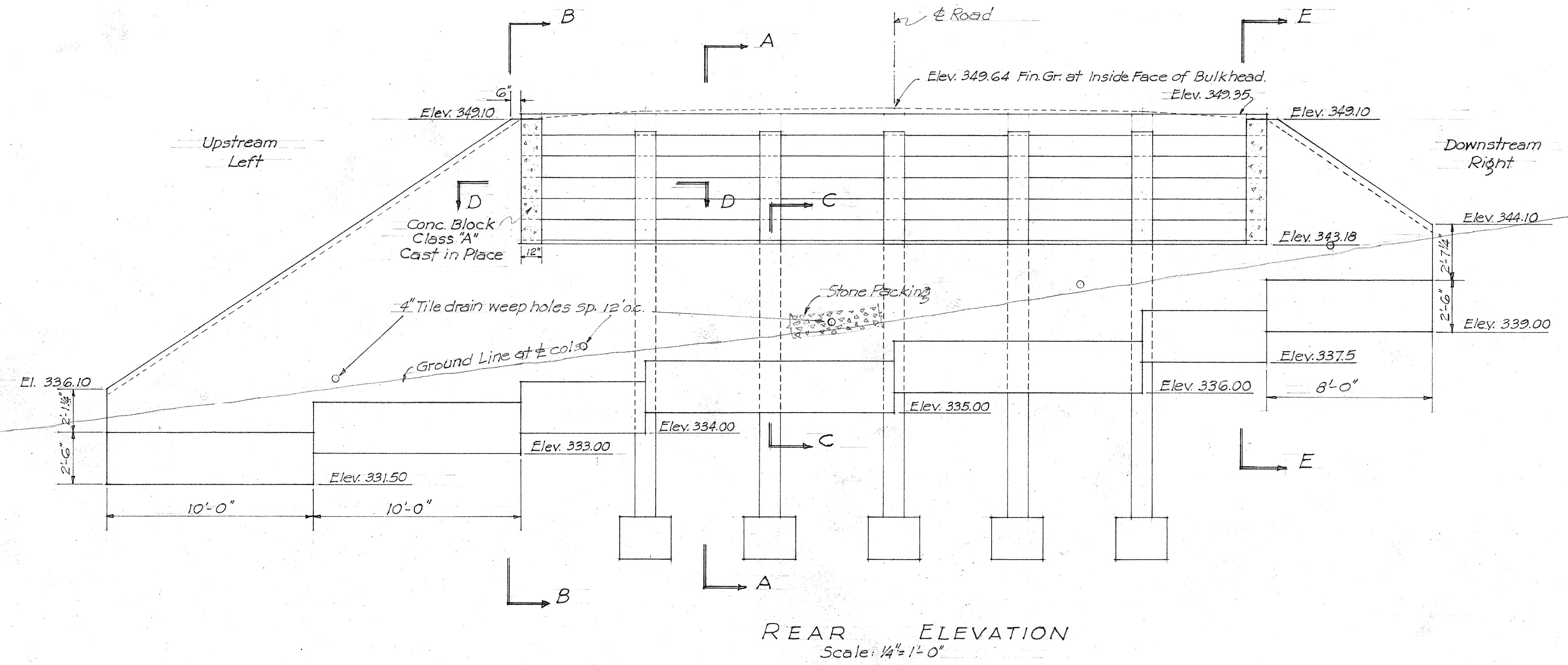
ABUT. No. 2
Scale 1/4"=1'-0"

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE No. 3
Sta. 65+47.17 to 69+29.5
HAWAII BELT ROAD F.A.P. 14-B
Sept. 1940

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	14-B	1941	46A	

Note: Retaining wall & wing walls as shown on this sheet are in addition to that part of Abut. No. 1 shown on Sheet No. 5039-46.



QUANTITIES

Class A Concrete	0.6 c.y.
Cement Rubble Masonry	84.0 c.y.
Structural Excavation	70.0 c.y.

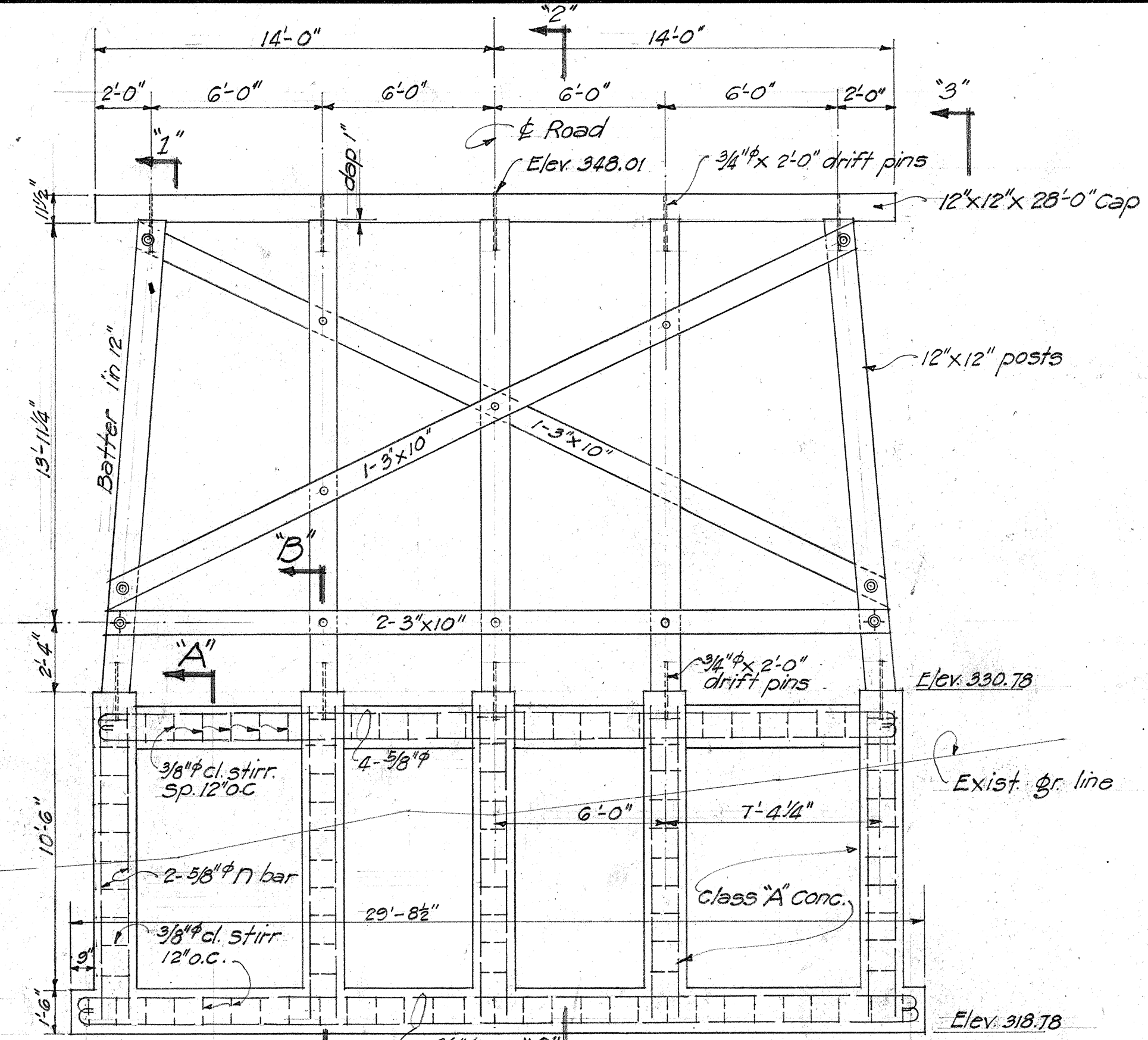
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
BRIDGE No. 3
Sta. 65+47.17 to 63+23.5
RETAINING WALL AT ABUT. No. 1
HAWAII BELT ROAD F.A.G.H. 14B(2)
July 1941

SHEET No. OF SHEETS

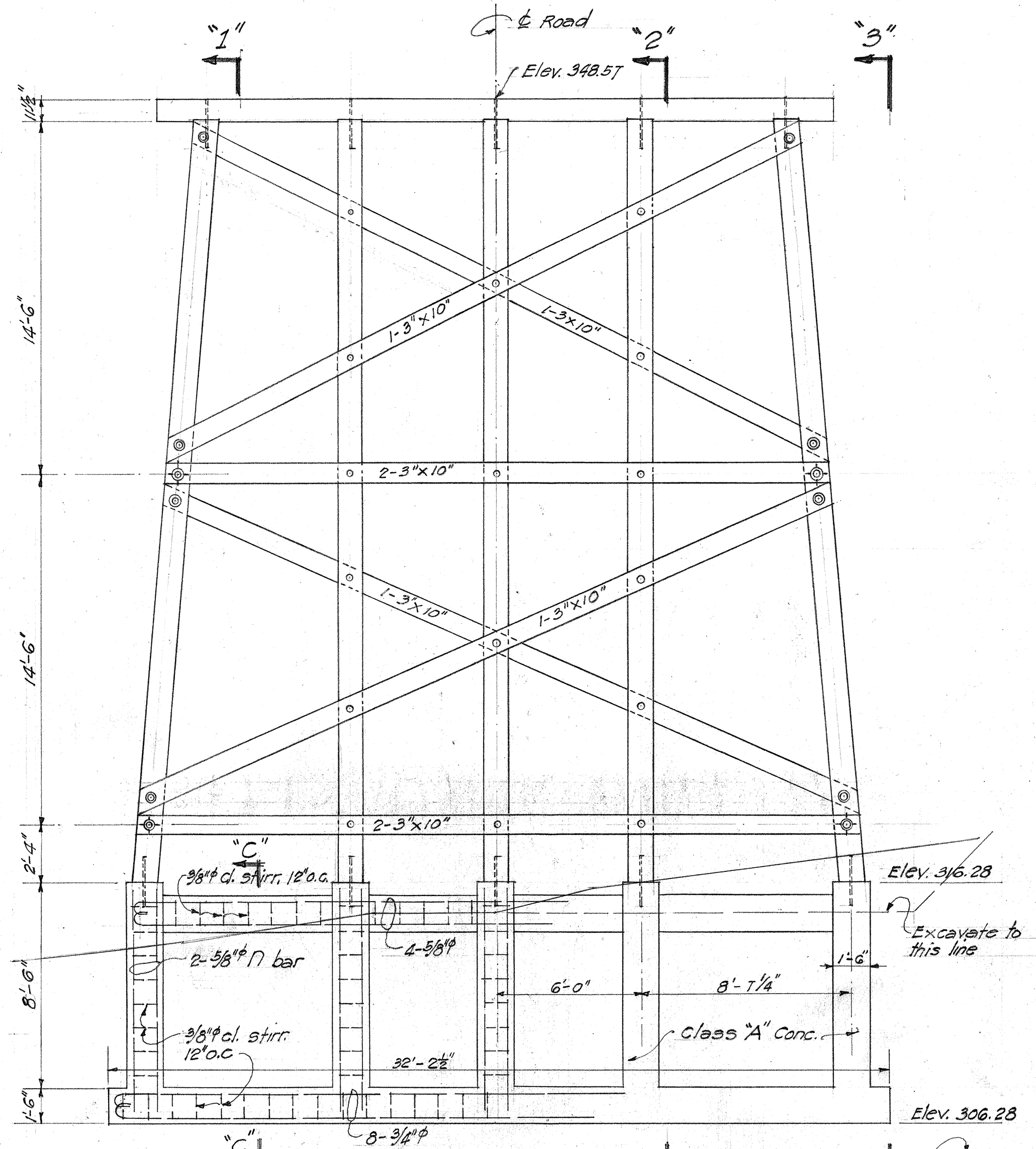
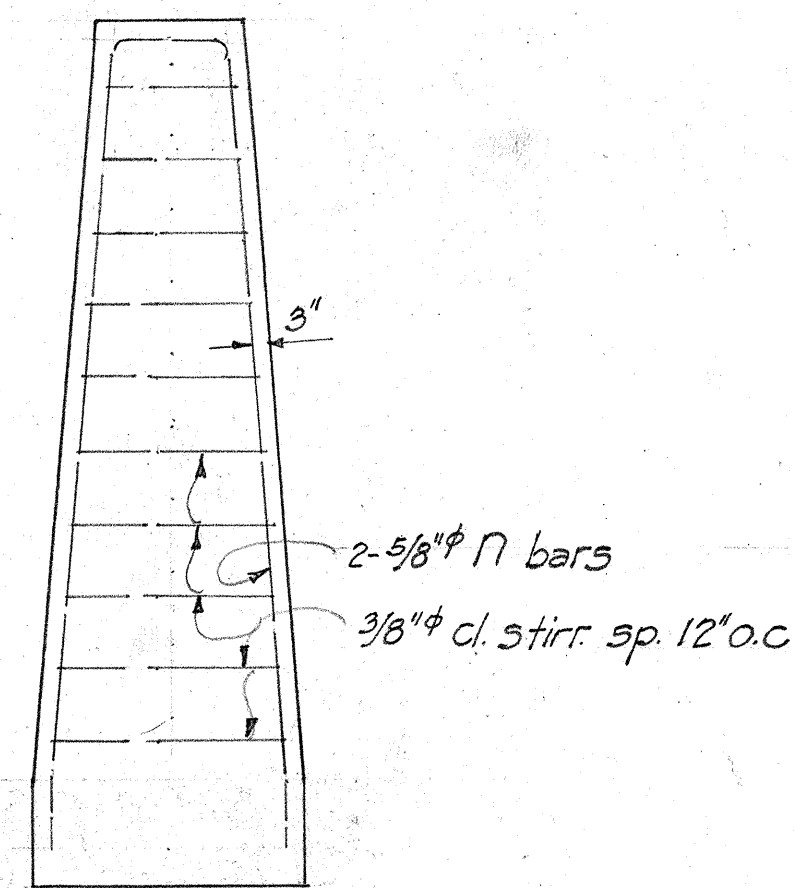
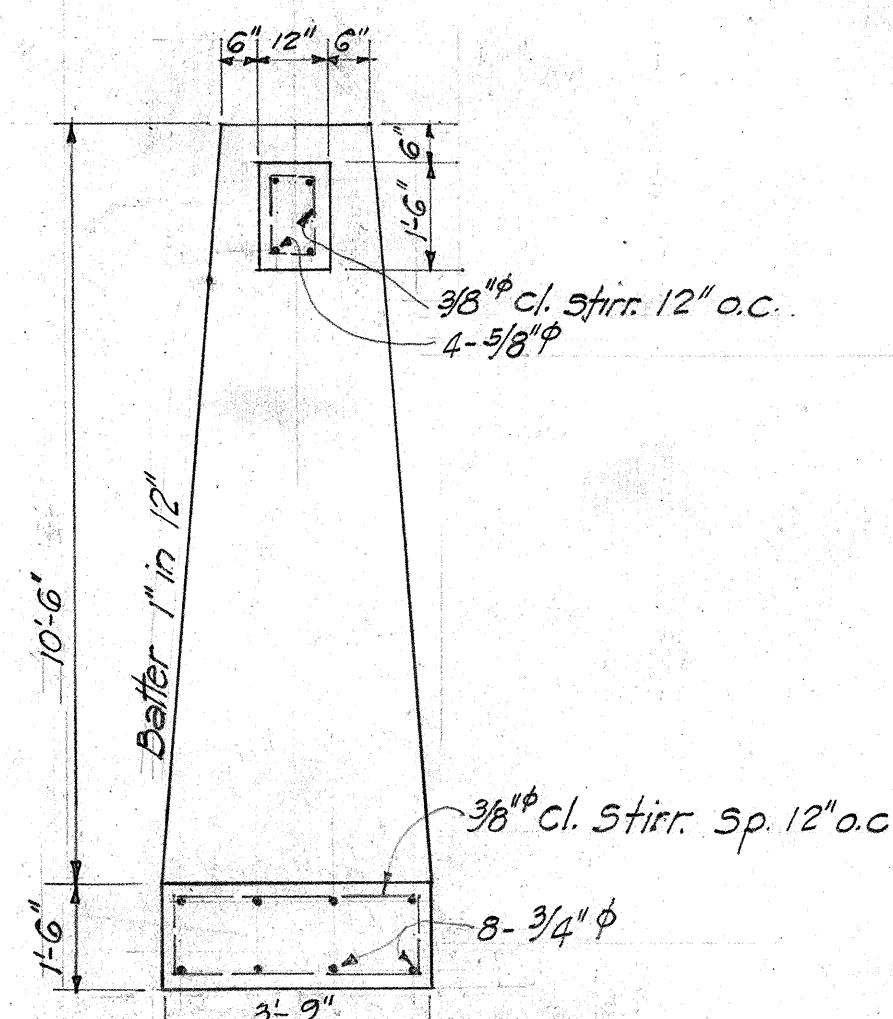
5039.46A

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

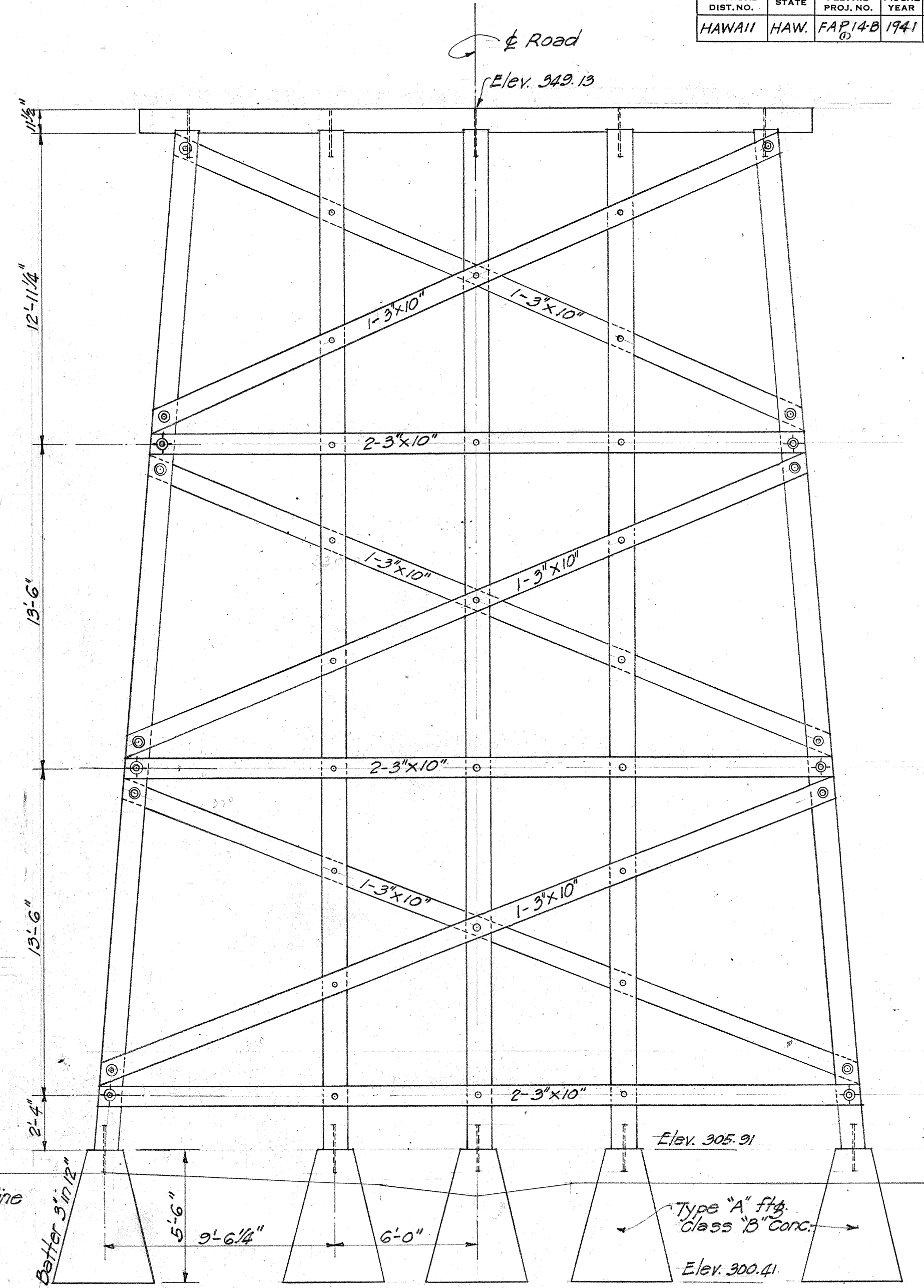
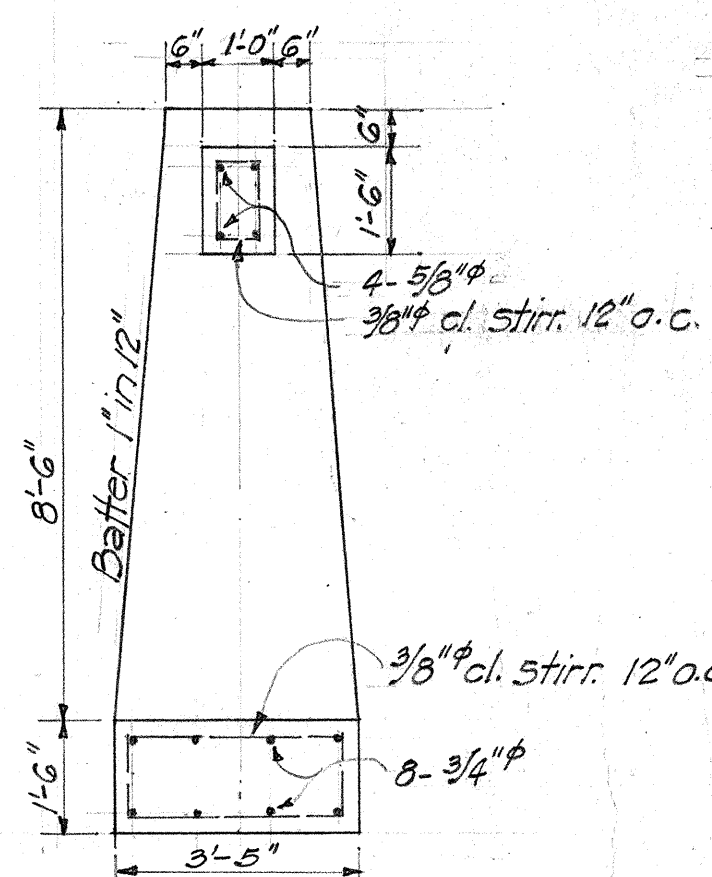
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FAP 14-B	1941	41	92



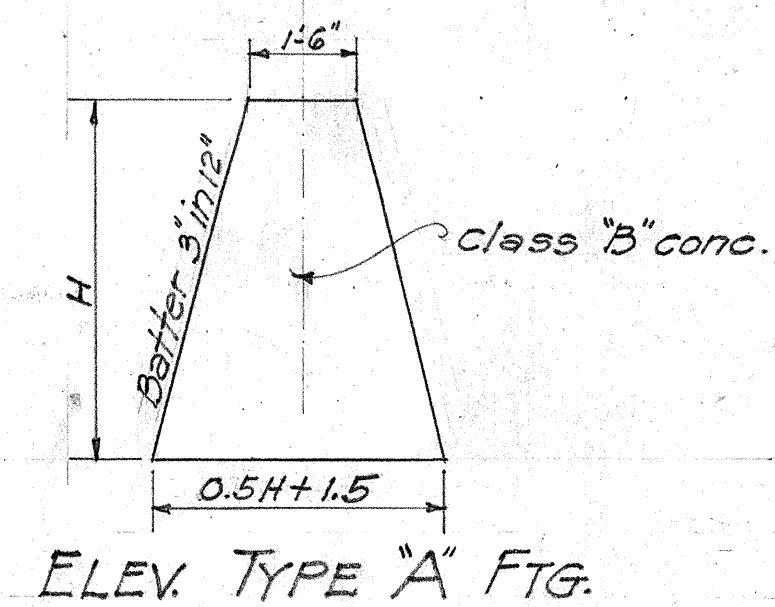
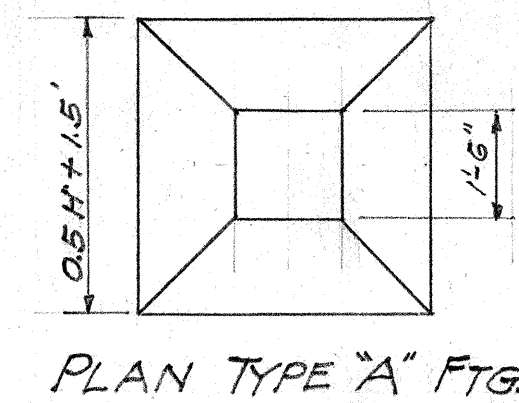
NOTE:
For Sect 1-1, 2-2, & 3-3 see sheet #3



NOTE:
For Sect 1-1, 2-2 & 3-3 see sheet No. 3



NOTE:
For Sect 1-1, 2-2 & 3-3 see sheet No. 3



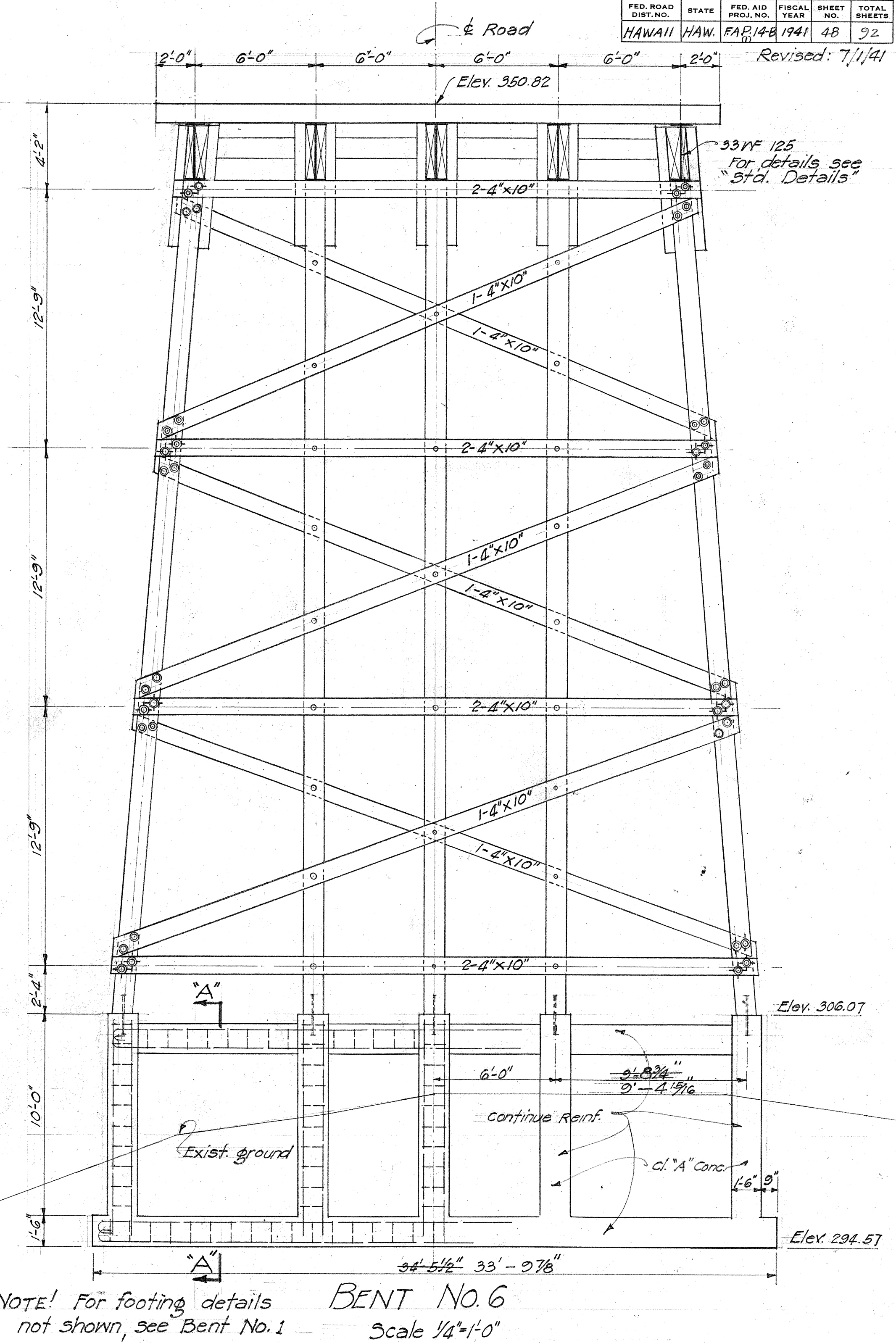
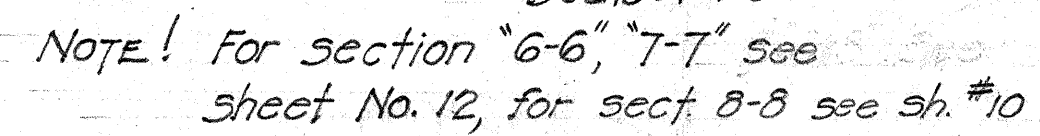
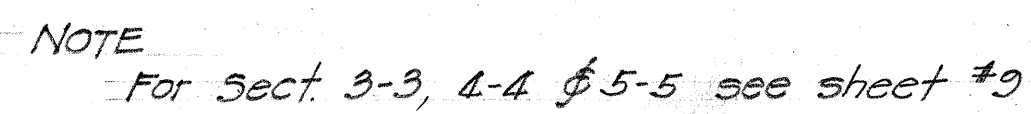
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE No. 3
Sta 65+47.17 to 69+29.5
HAWAII BELT ROAD F.A.P. 14-B
Sept. 1940

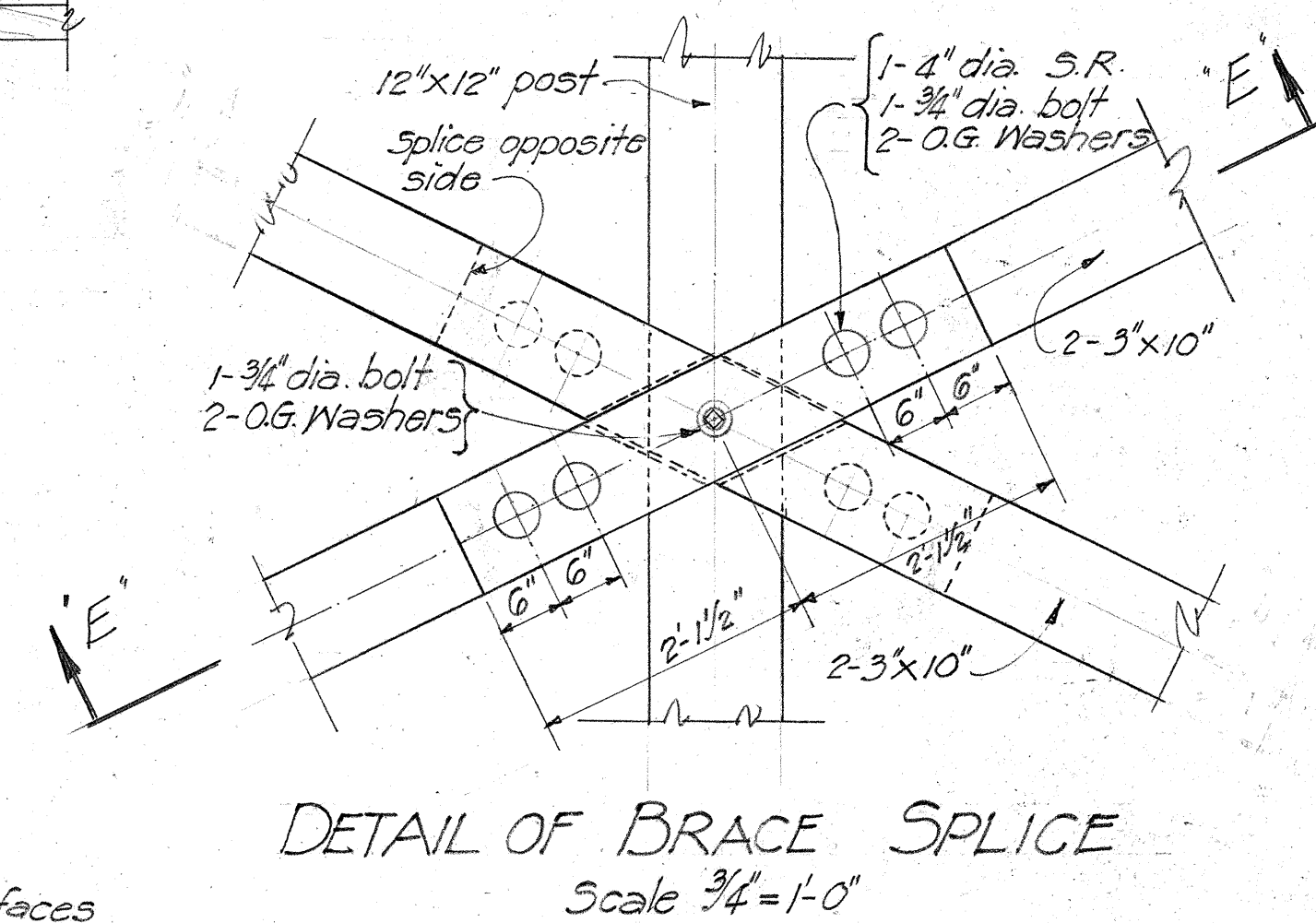
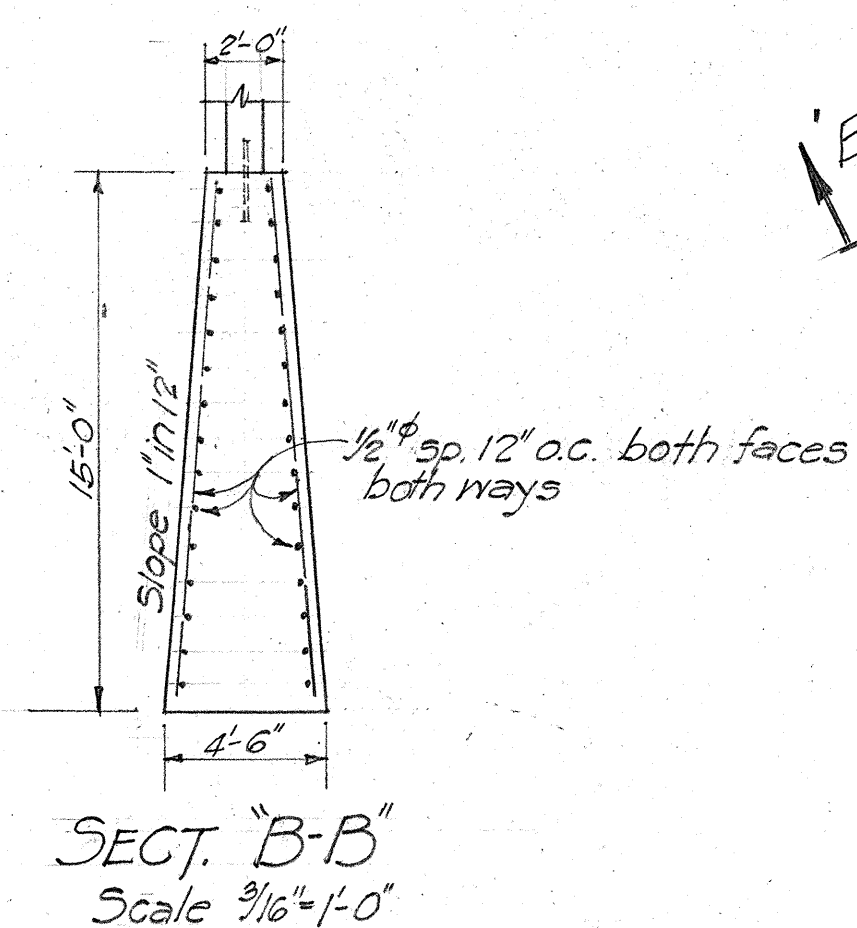
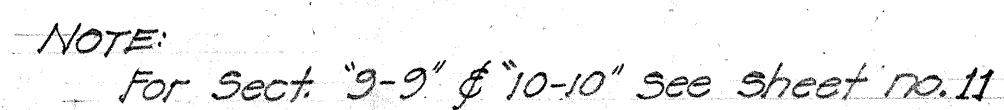
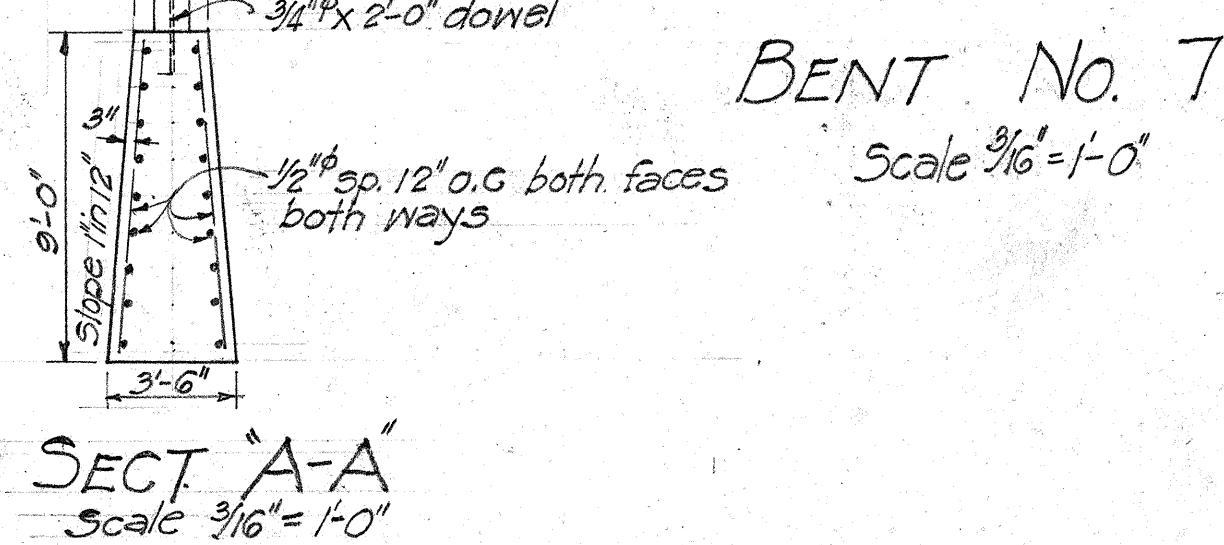
SHEET No 3 OF 14 SHEETS

5039.47

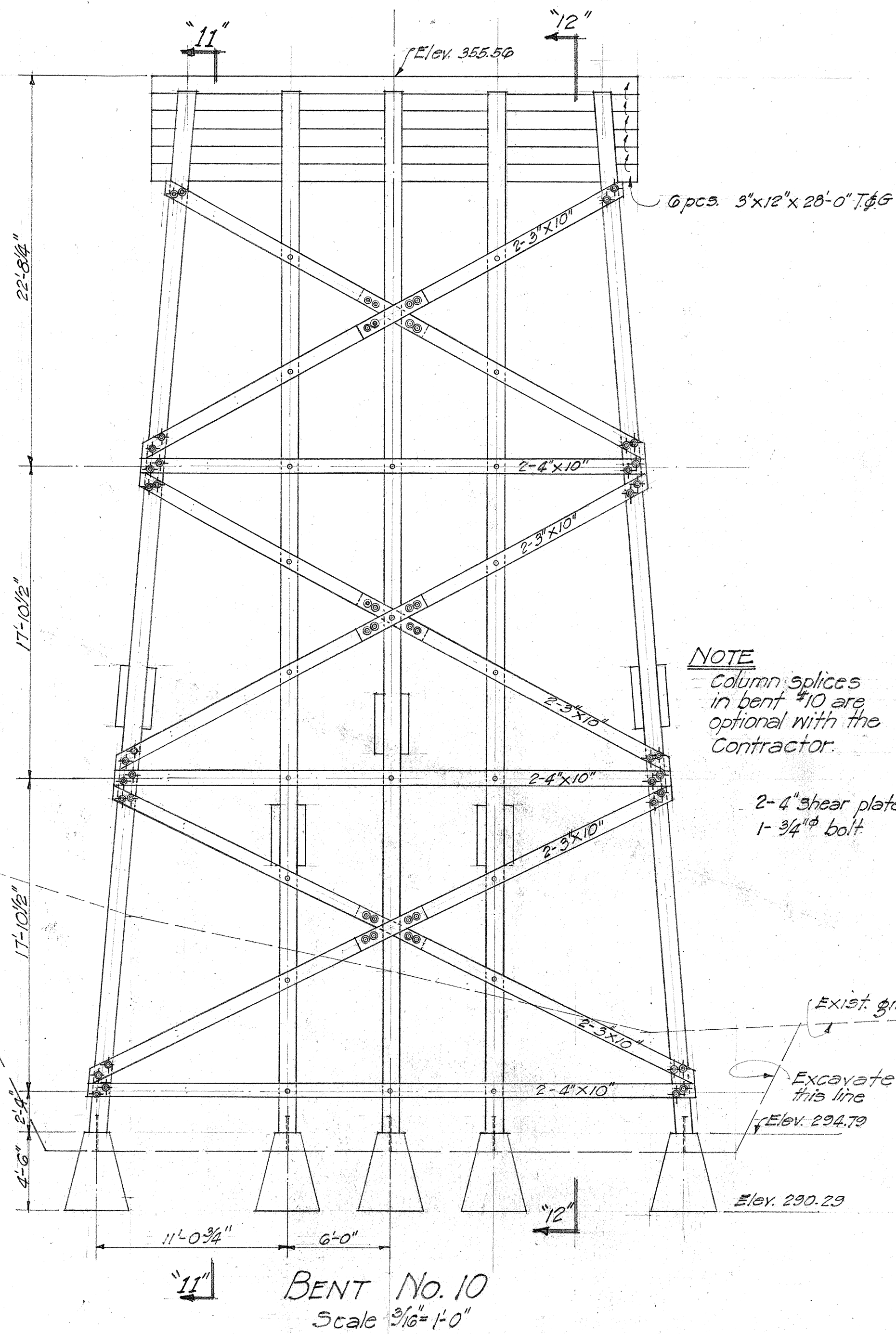
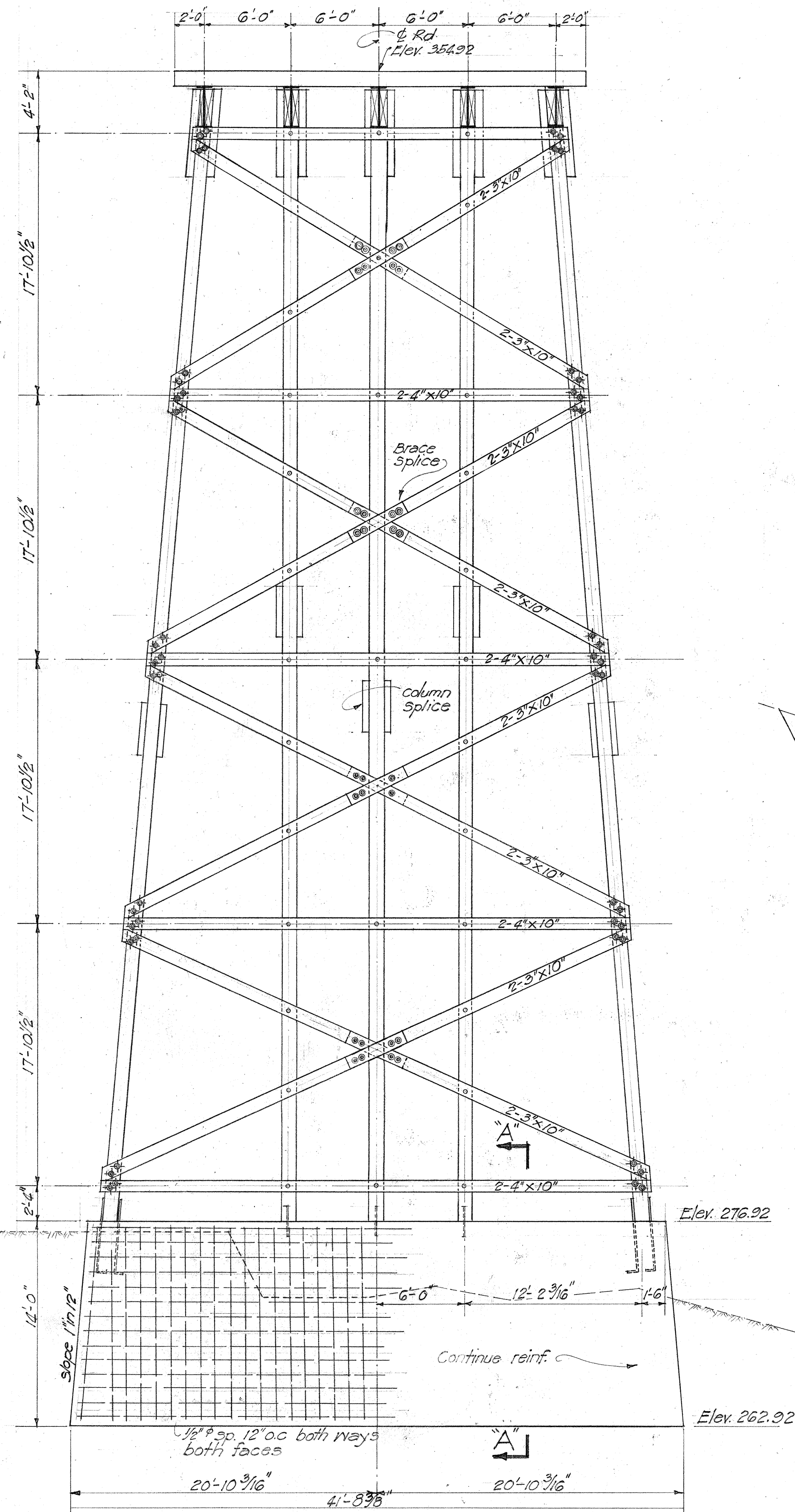
Revised: 7/1/41



SHEET № 4 OF 14 SHEETS



SHEET No 5 OF 14 SHEETS

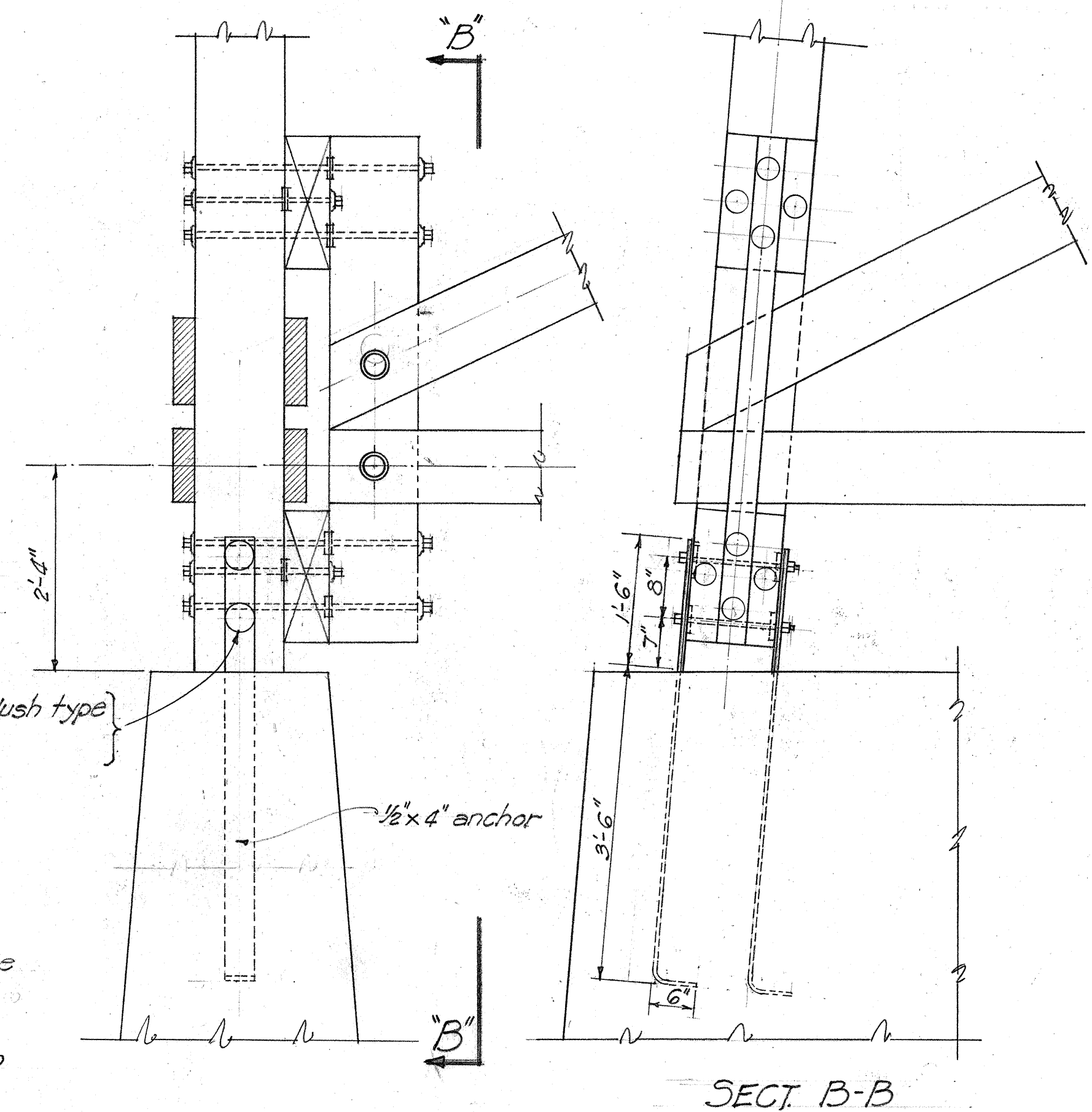


NOTE
Column splices in bent #10 are optional with the Contractor.

2'-4" shear plate. Flush type
1- 3/4" bolt

Exist. gr. line

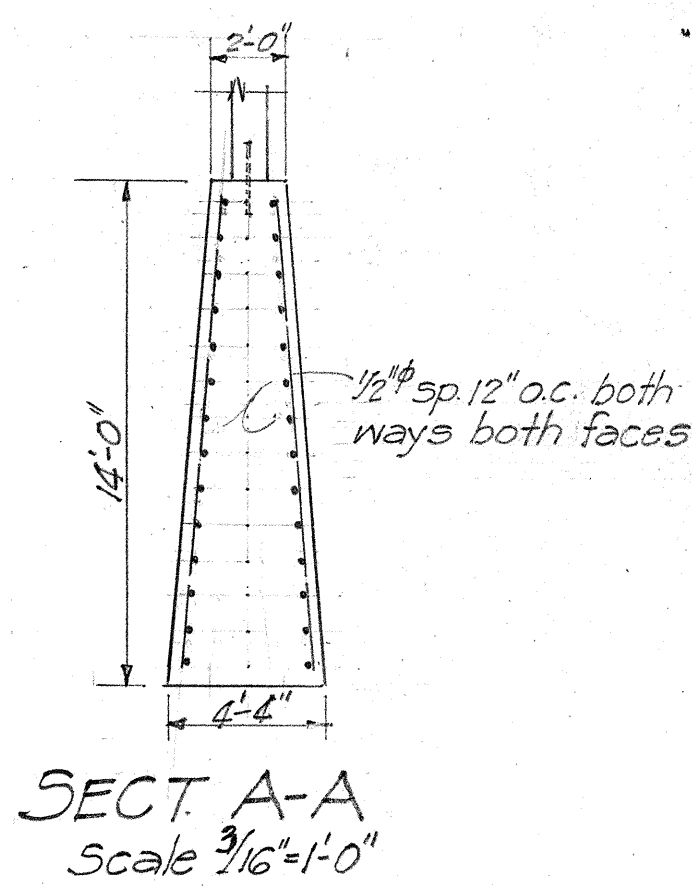
Excavate to this line
Elev. 294.79



DETAIL OF ANCHORS

Scale 3/4" = 1'-0"

NOTE:
Anchors occur at the outside posts of bents 7, 8, & 9 only.

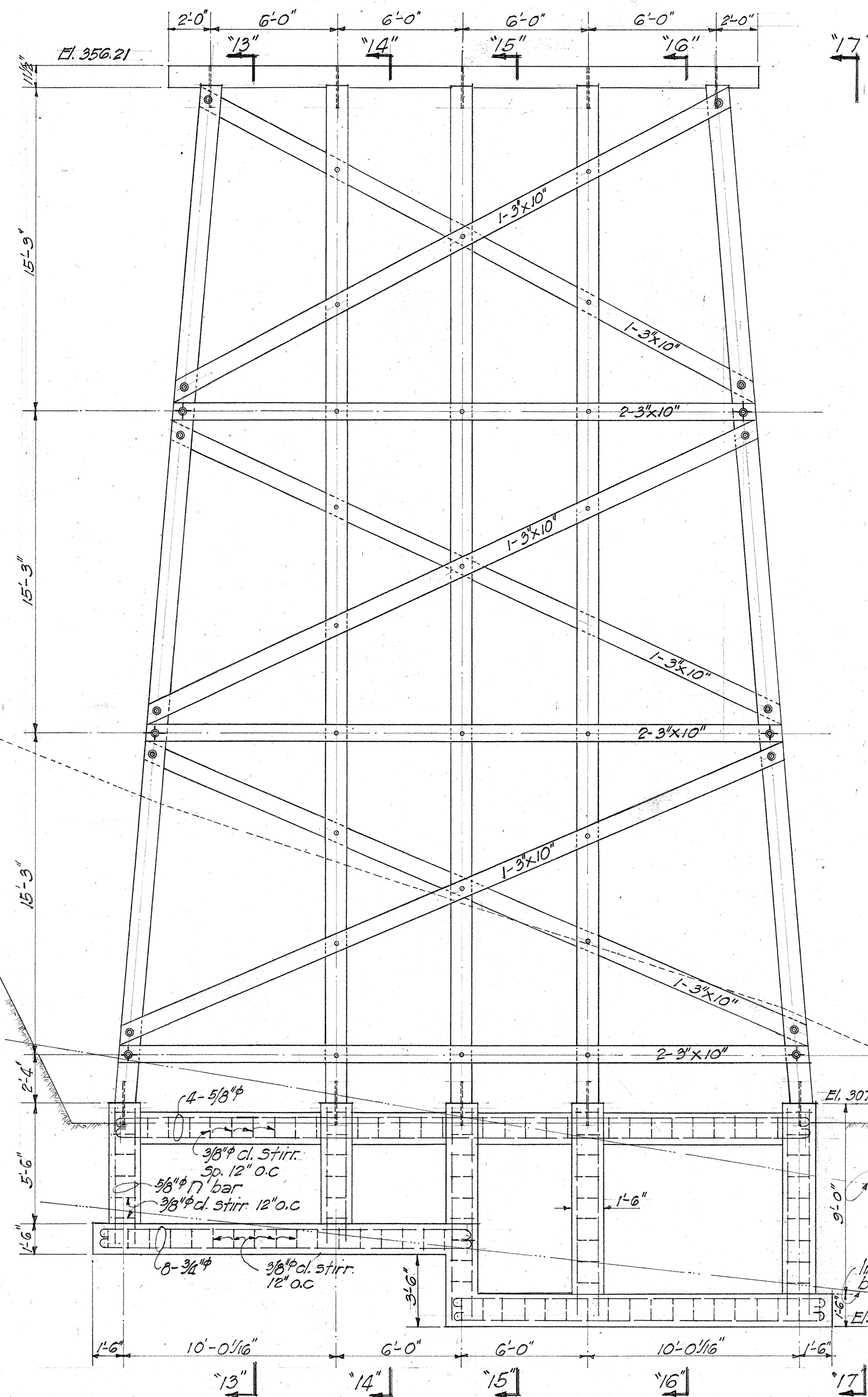


TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE No. 3
Sta. 65+47.17 to 69+29.5
HAWAII BELT ROAD F.A.P. 14-B
Sept 1940

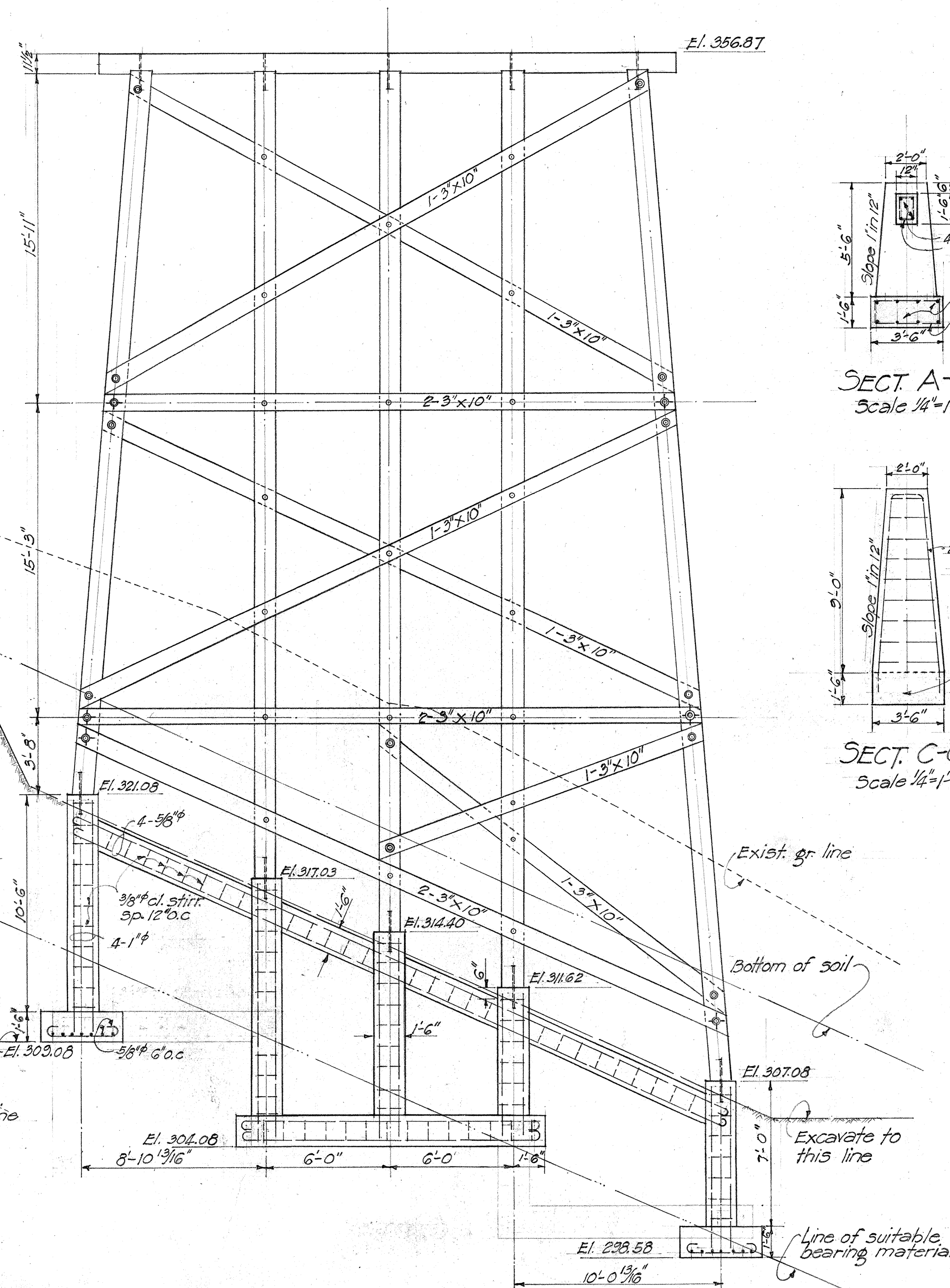
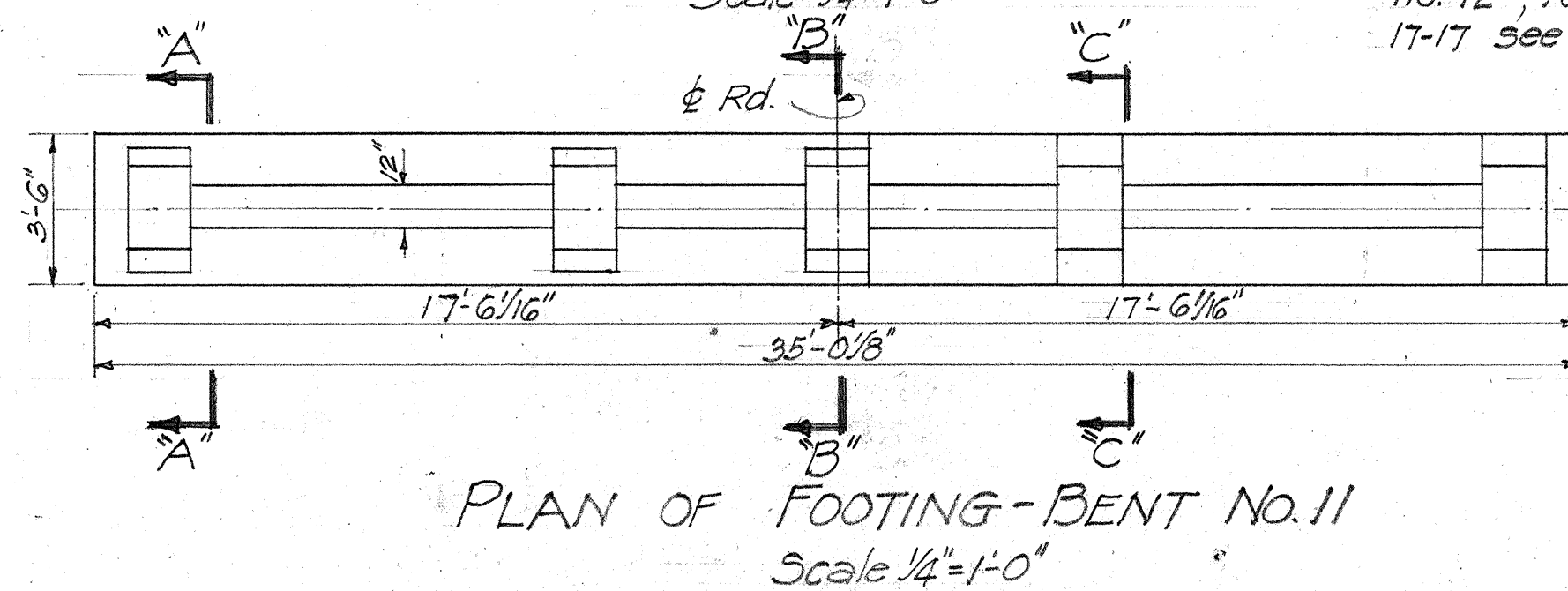
SHEET No 6 OF 14 SHEETS

5039.50

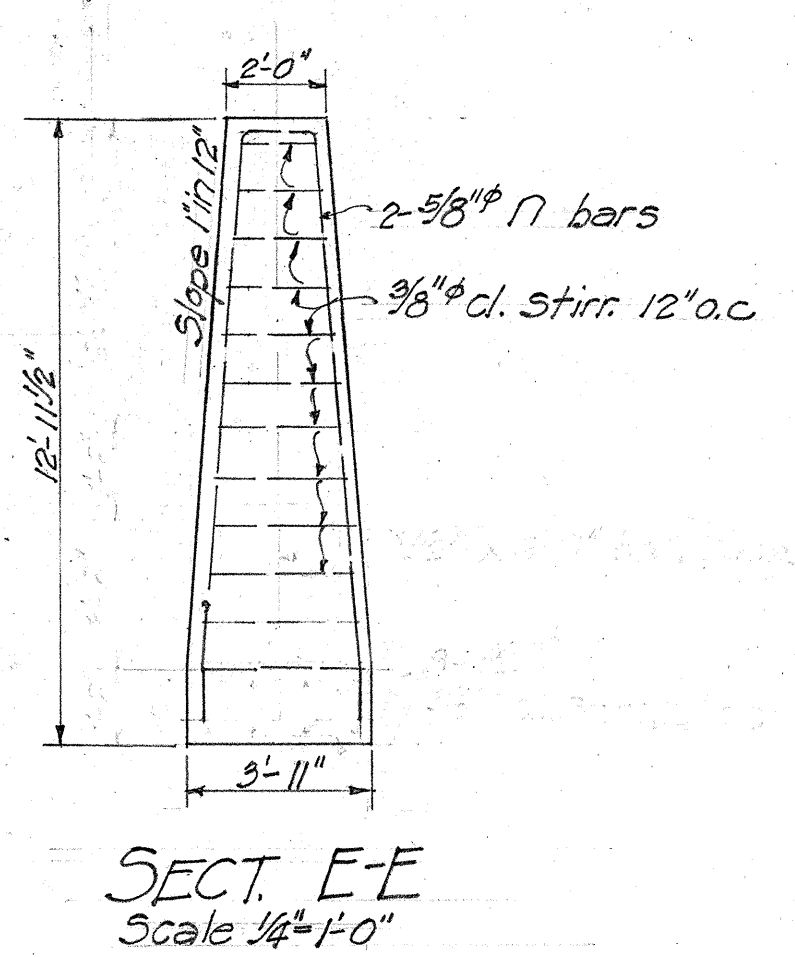
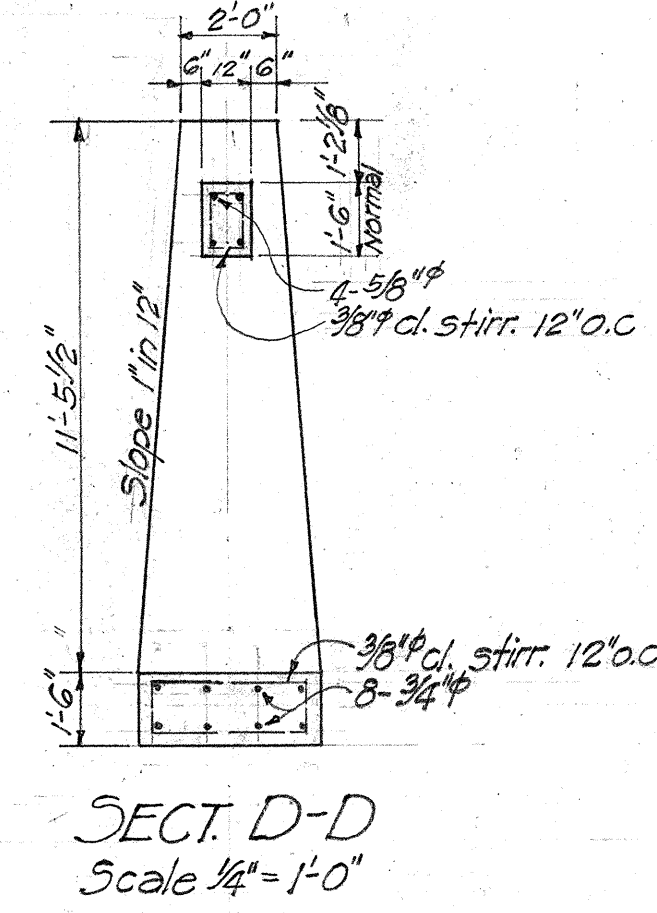
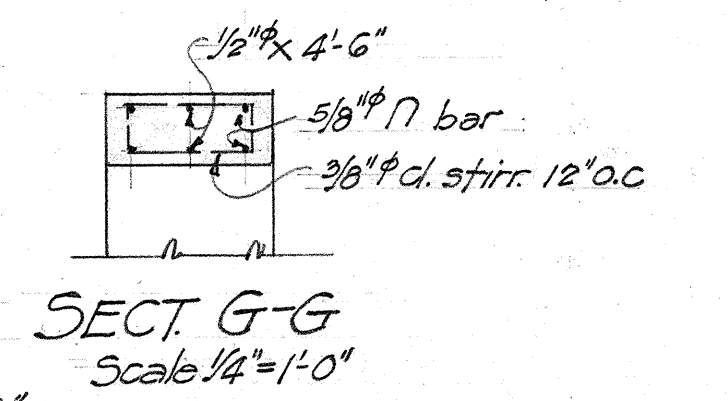
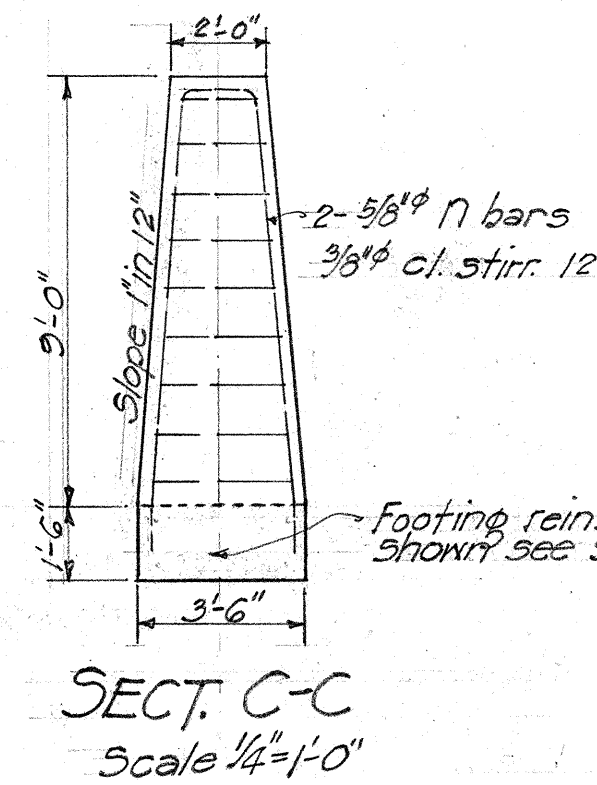
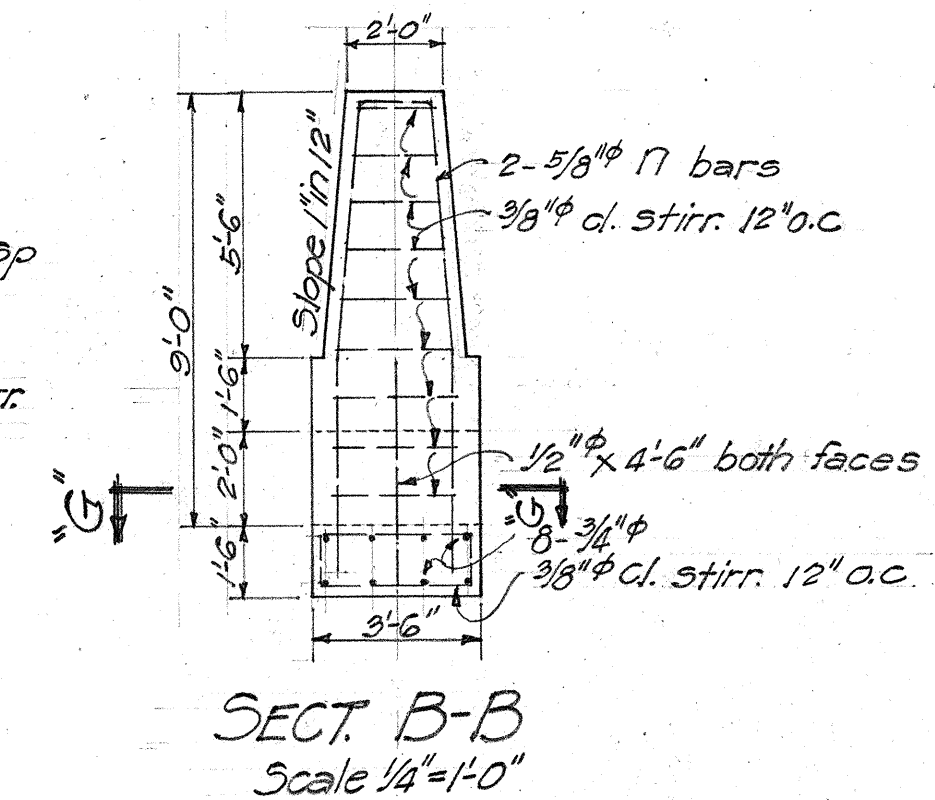
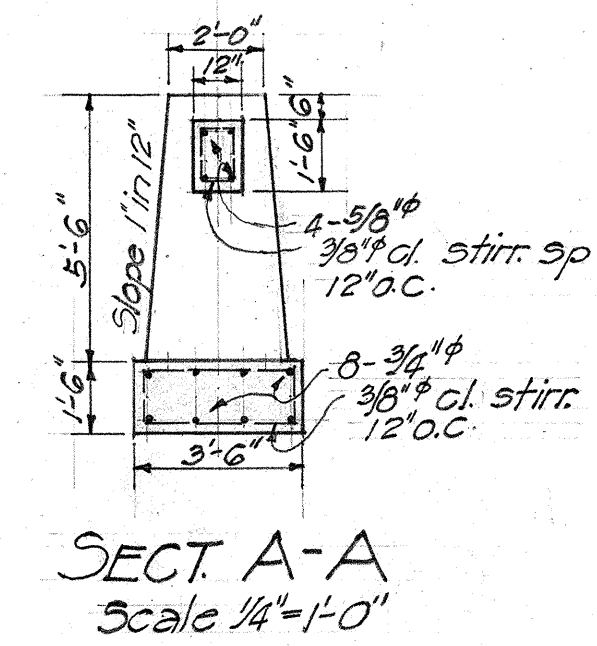
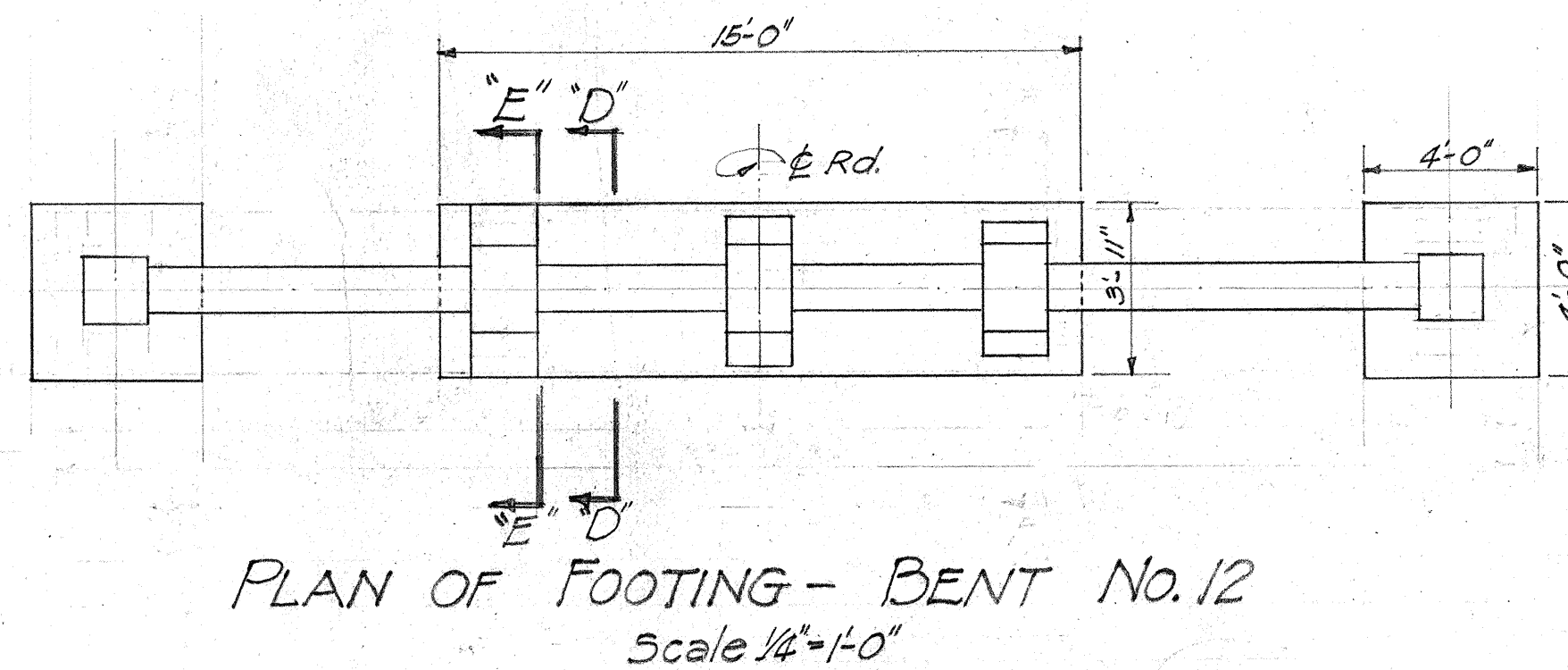


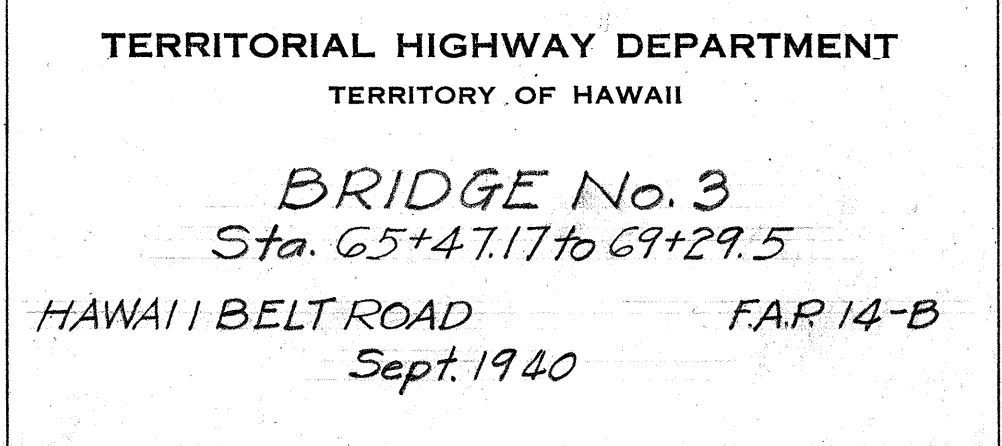
BENT No. 11
Scale 1/4"=1'-0"

NOTE:
For Sect. 13-13 & 14-14 see sheet
no. 12, for Sect. 15-15, 16-16 &
17-17 see sheet no. 13



BENT No. 12
Scale 1/4"=1'-0"



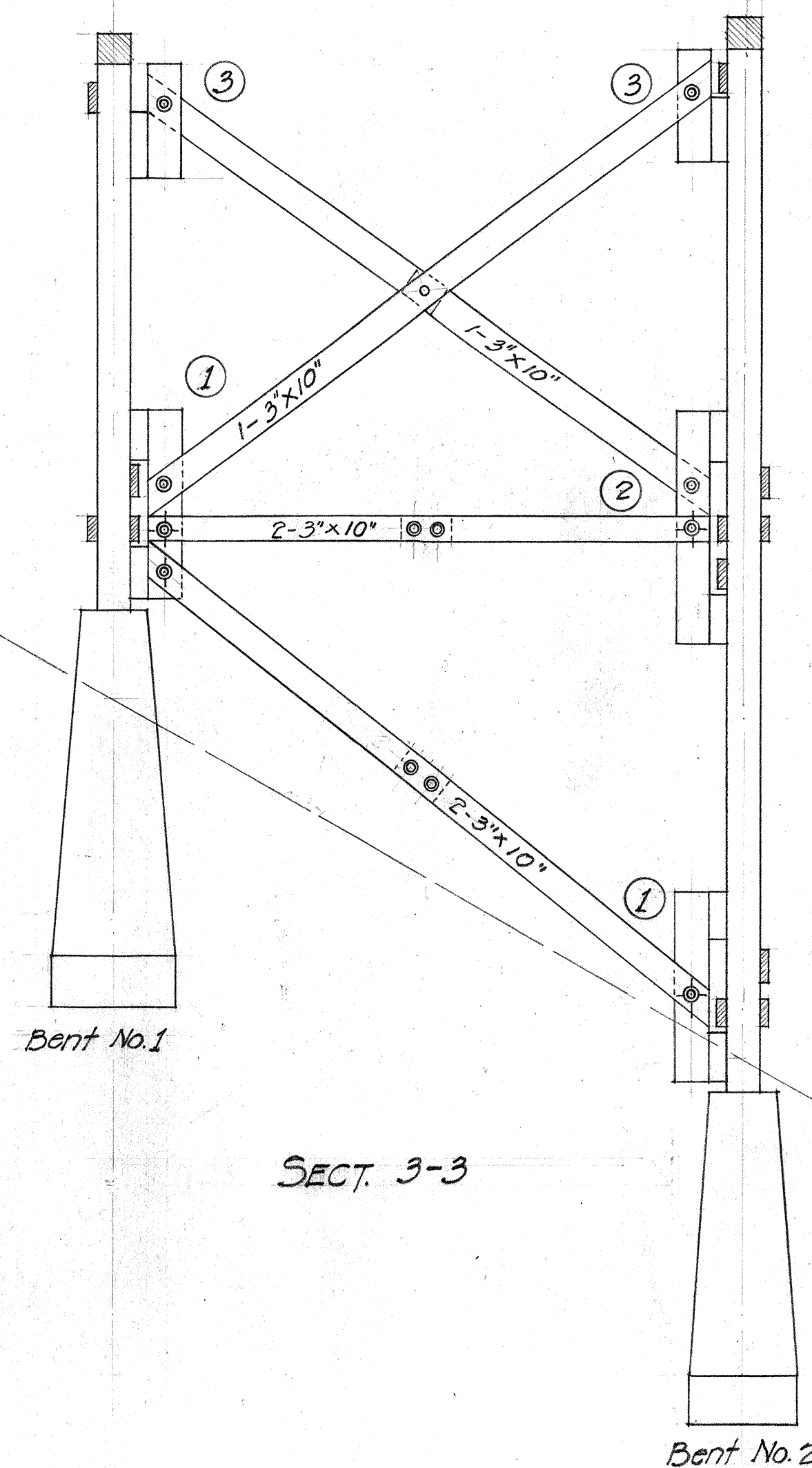
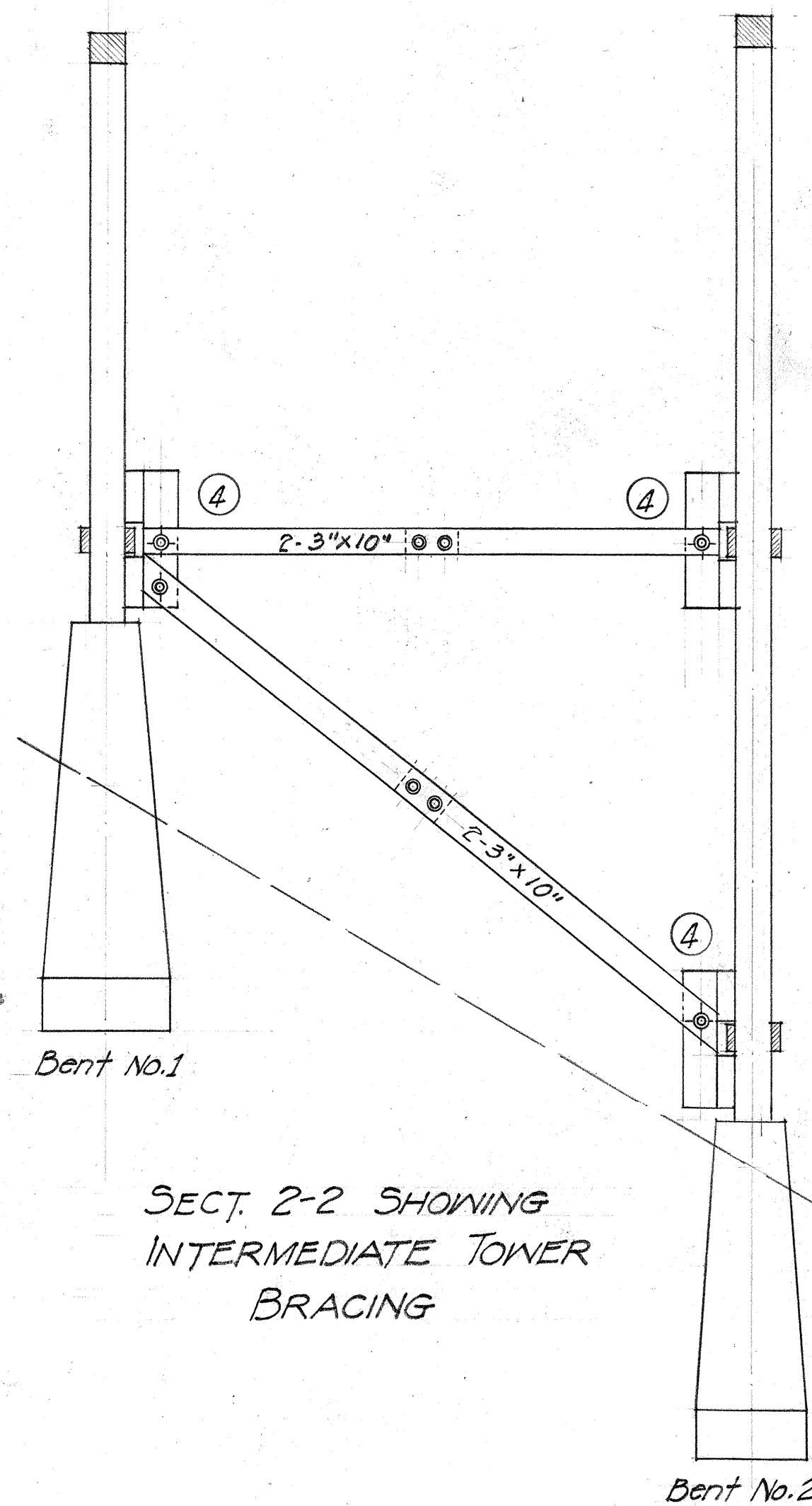
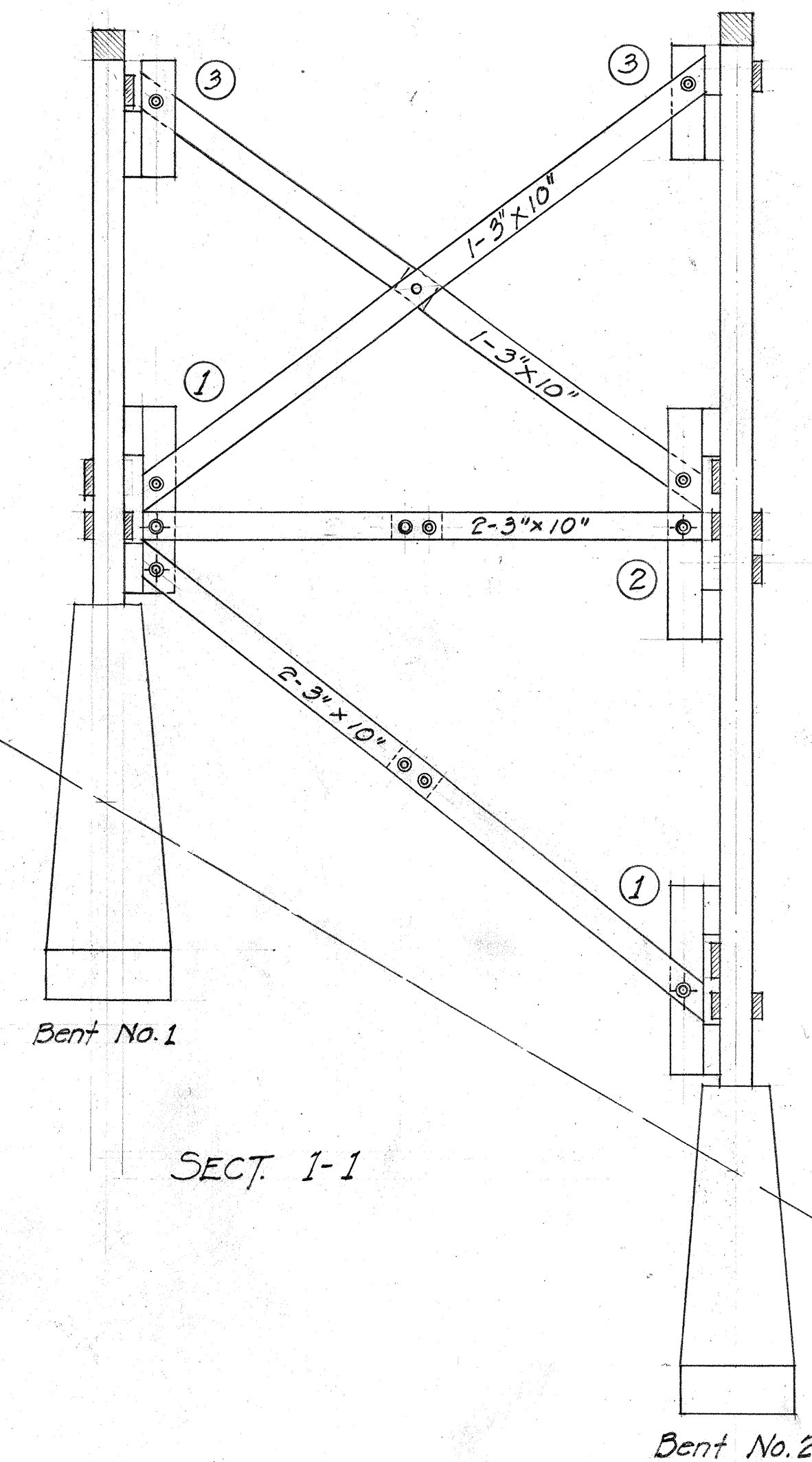


5039.52

Correction: Bent #13 left post dimension corrected
16'-0" to 16'-8"

ORIGINAL PLAN	SURVEY PLOTTED BY DESIGNED BY DRAWN BY TRACED BY QUANTITIES BY QUANTITIES CHECKED BY CHECKED BY	DATE " " " " " "
NOTE BOOK	BY <u>W. R. BARTLETT</u> BY <u>M. VAN NANTHA</u> BY BY BY <u>M. R. BARTLETT</u> BY <u>J. J. JING</u> BY	<u>Nov. 1944</u> " " " " " "
N _o .		

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FAP 14-B	1941	53	92



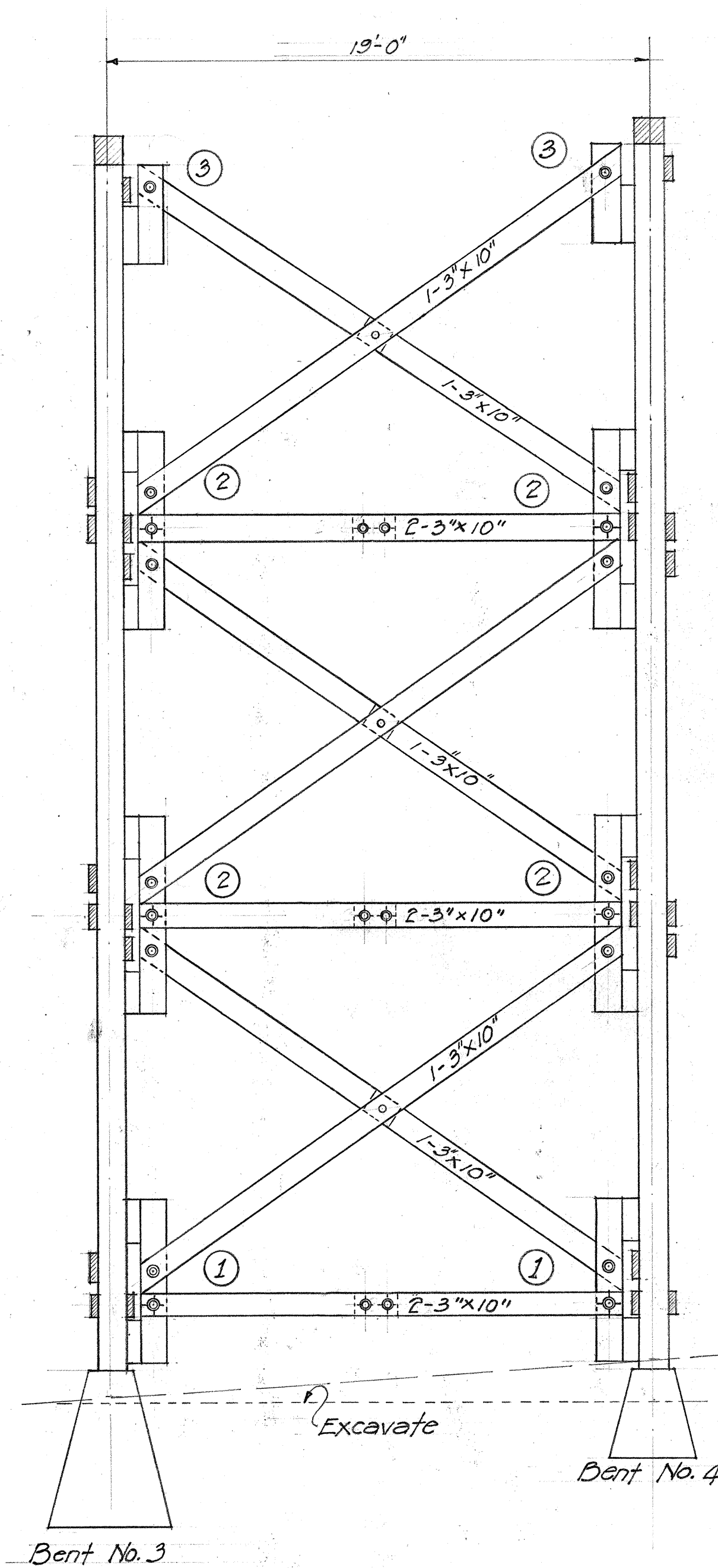
TOWER BRACING BENTS 1 & 2
Scale 1/4" = 1'-0"

NOTE:
For location of Sect. 1-1, 2-2 & 3-3 see sh. #3

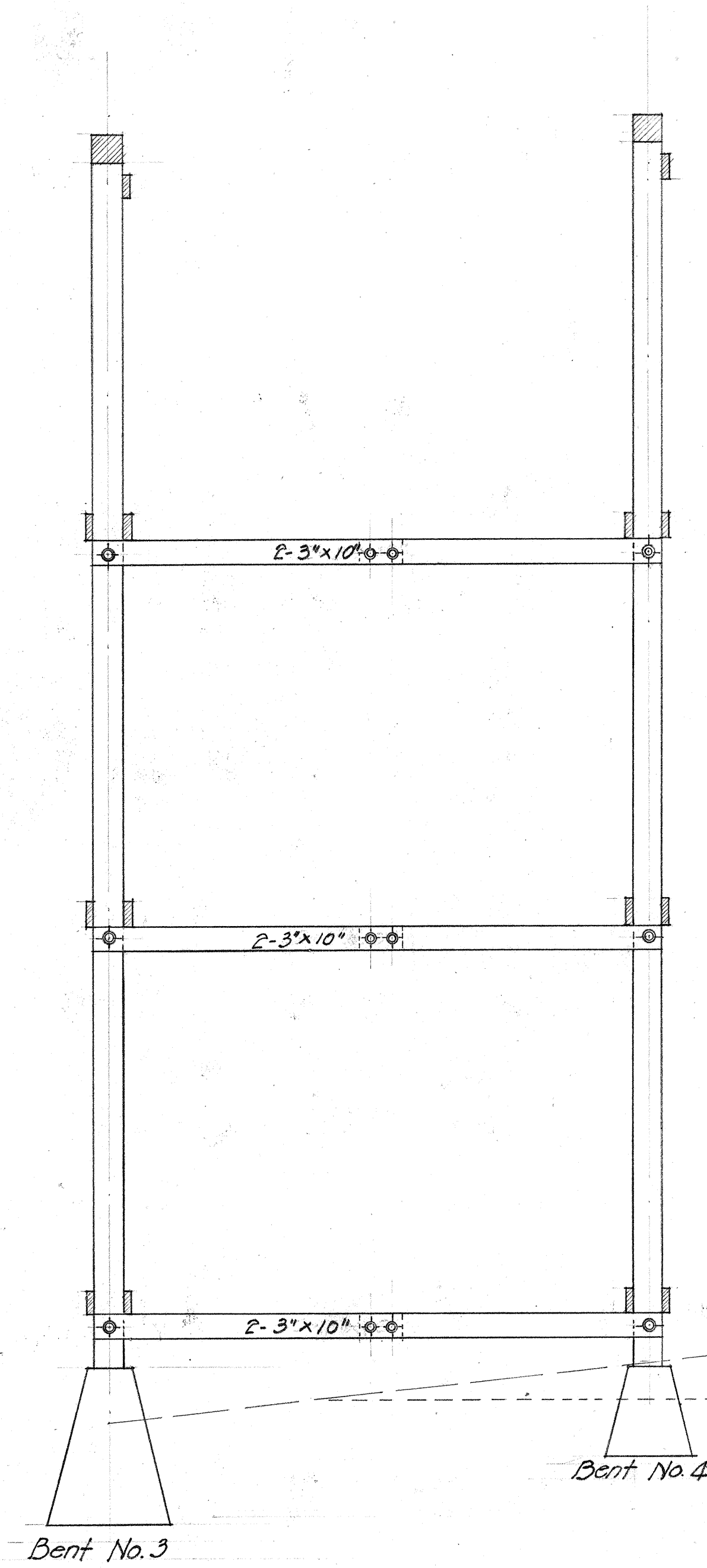
ORIGINAL PLAN	DATE
DESIGNED BY	Nov. 1940
DRAWN BY	
QUANTITIES BY	
CHECKED BY	

TERRITORIAL HIGHWAY DEPARTMENT	
TERRITORY OF HAWAII	
BRIDGE No. 3	
Sta. 65+47.17 to 69+29.5	
HAWAII BELT ROAD	FAP 14-B
Sept. 1940	
SHEET No. 9 OF 14 SHEETS	

5039.53



SECT. 3-3

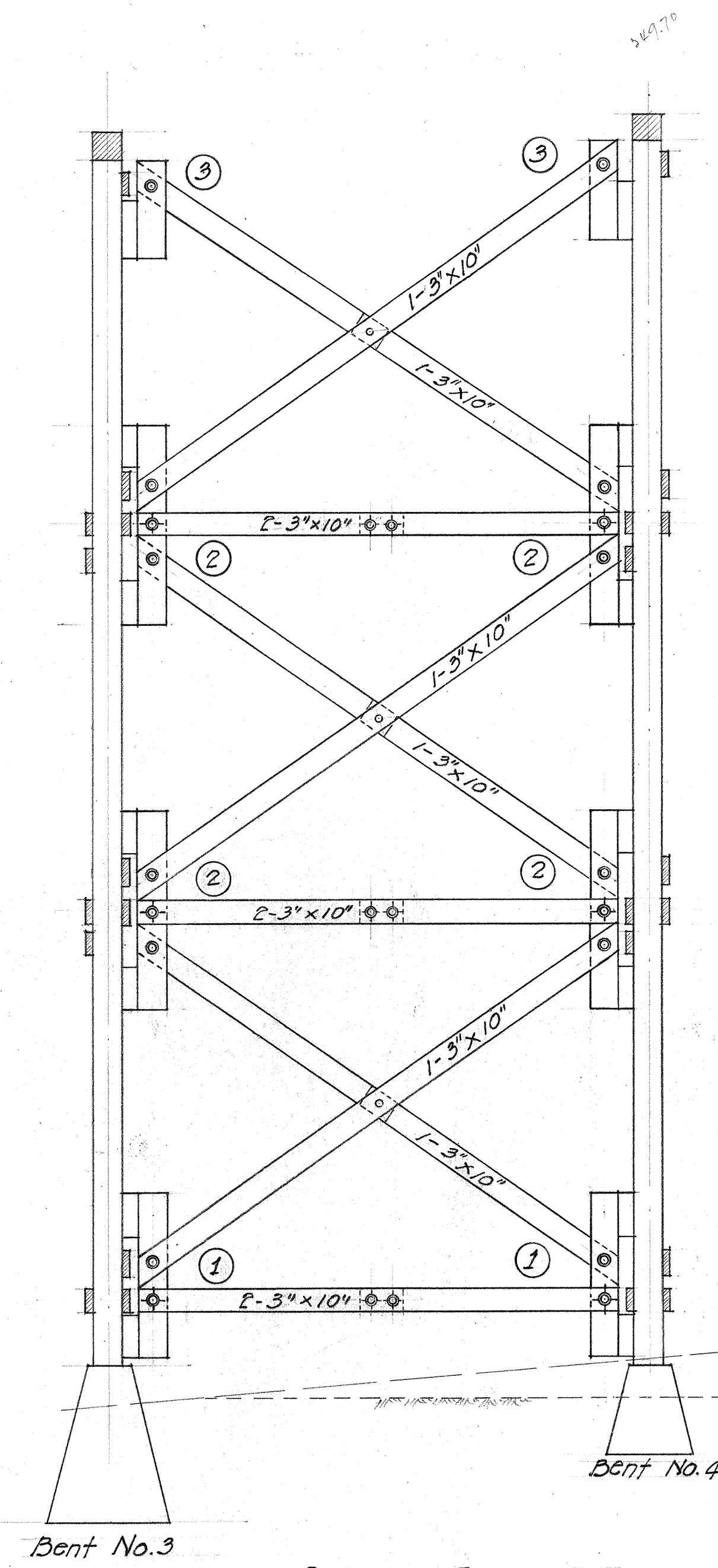


SECTION 4-4 SHOWING
INTERMEDIATE TOWER BRACING

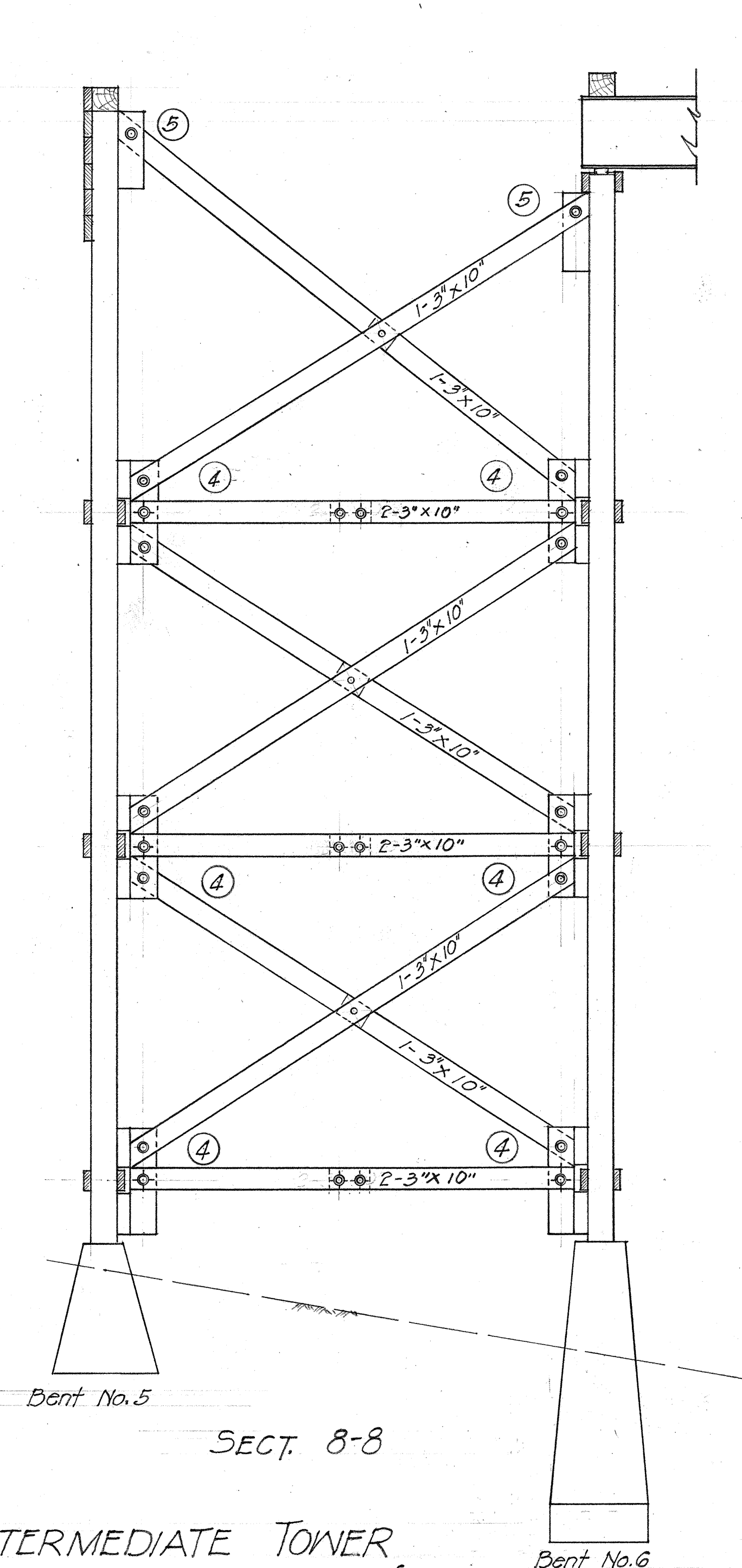
TOWER BRACING BENTS 3 & 4

Scale 1/4"=1'-0"

NOTE
For location of Sect. 3-3, 4-4 & 5-5 see sheet #4



SECT. 5-5



SECT. 8-8

INTERMEDIATE TOWER BRACING BENTS 5 & 6

NOTE:
For location of Sect. 8-8 see sheet #4
For outside post bracing see sheet #12

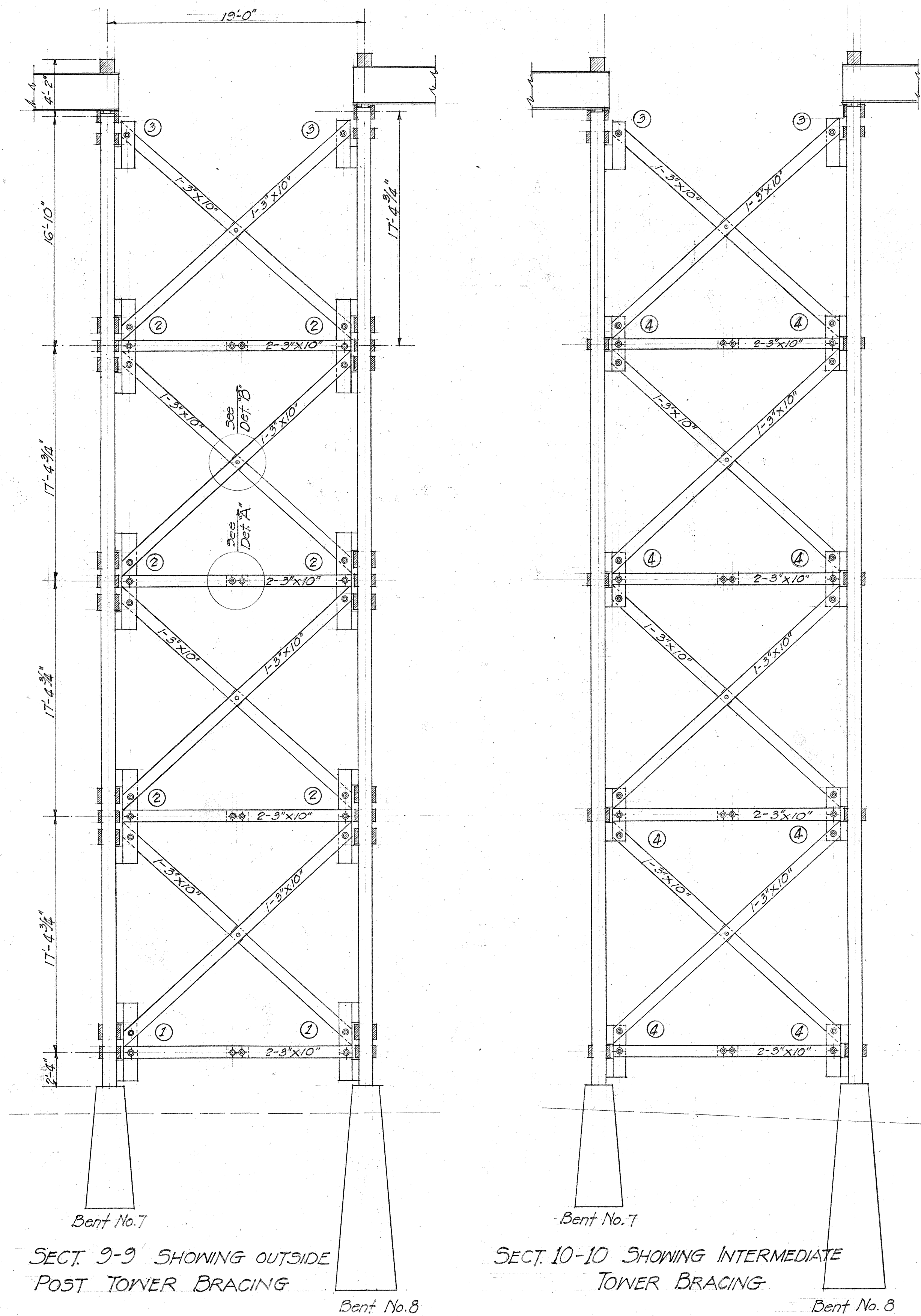
DATE: Nov. 1940
SURVEY PLOTTED BY: J. C. BATES
DESIGNED BY: J. C. BATES
DRAWN BY: J. C. BATES
QUANTITIES BY: J. C. BATES
CHECKED BY: J. C. BATES
ORIGINAL PLAN
NOTE BOOK
No.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE No. 3
Sta. 65+47.17 to 69+29.5
HAWAII BELT ROAD F.A.P. 14-B
Sept. 1940

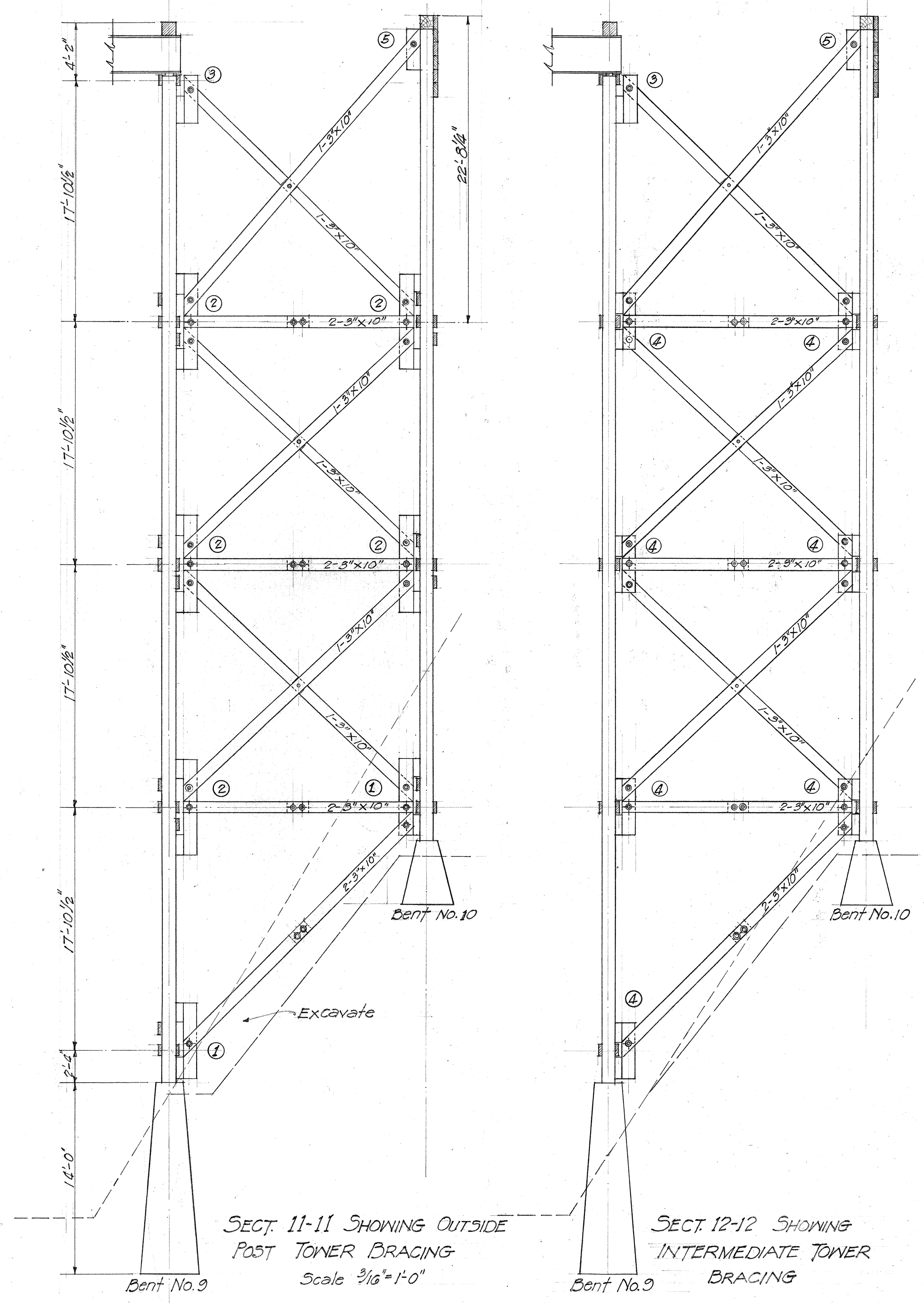
SHEET No. 10 OF 14 SHEETS

5039.54



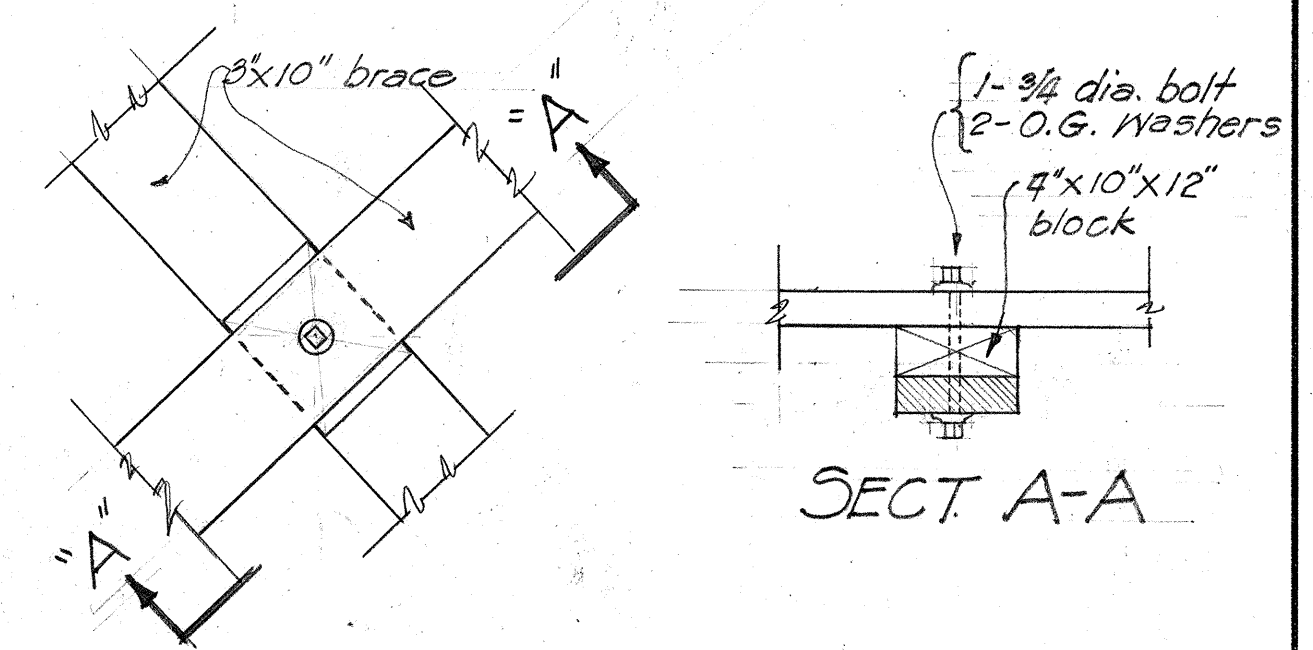
TOWER BRACING BENTS 7 & 8
Scale 3/16"=1'-0"

NOTE: For location of Sect. 9-9 & 10-10 see sheet no. 5

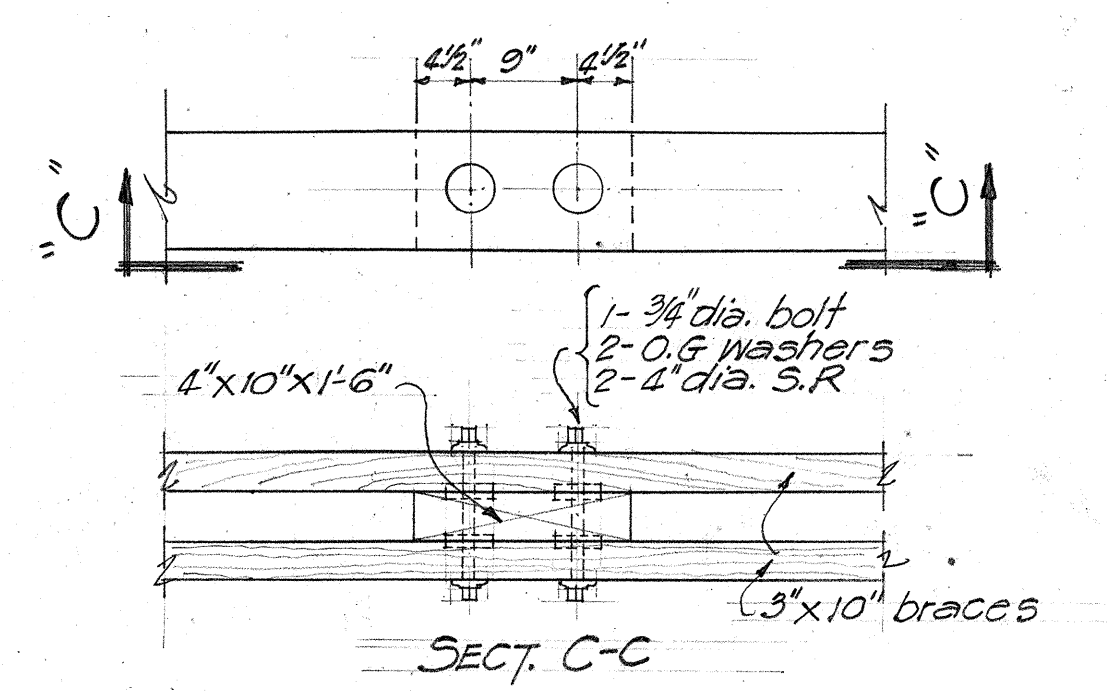


TOWER BRACING BENTS 9 & 10
Scale 3/16"=1'-0"

NOTE: For location of Sect. 11 & 12-12 see sheet no. 6



DETAIL "B"
Scale 3/4"=1'-0"



DETAIL "A"
Scale 3/4"=1'-0"

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE No. 3
Sta. 65+47.17 to 69+29.5

HAWAII BELT ROAD F.A.P. 14-B
Sept 1940

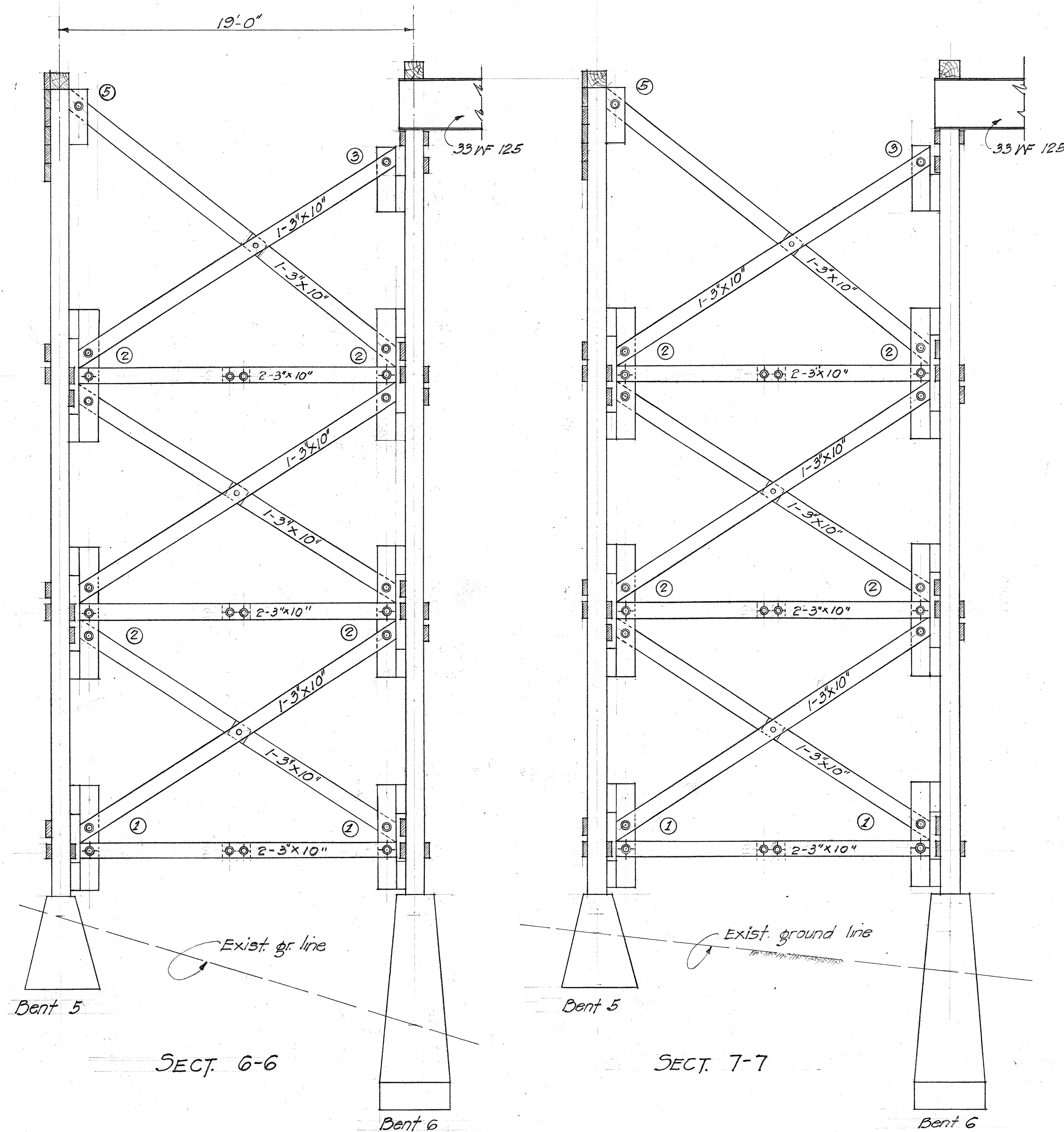
SHEET No 11 OF 14 SHEETS

5039.55

ORIGINAL
PLAN
NOTE BOOK
No.

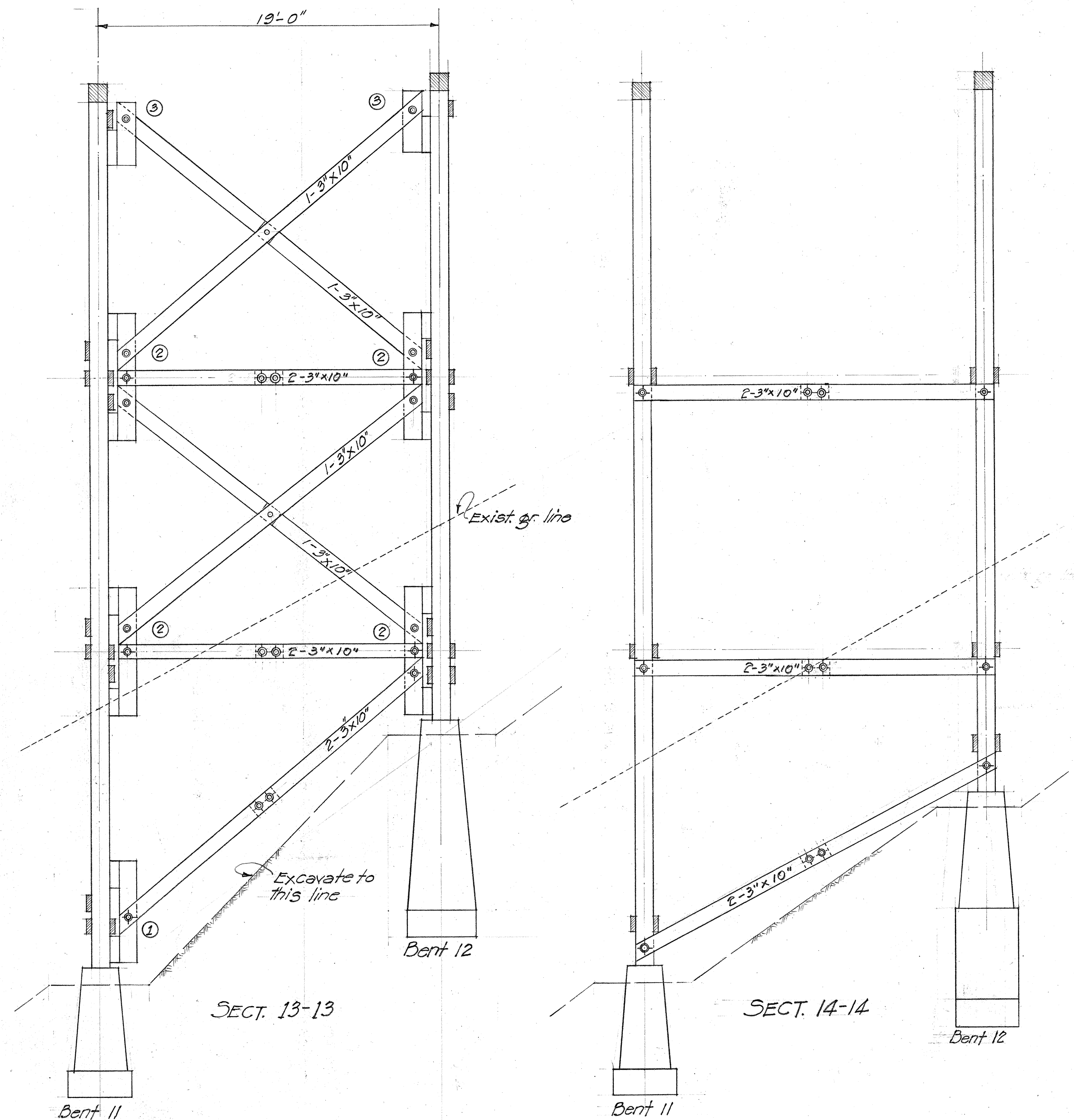
SURVEY PLOTTED BY
DESIGNED BY
DRAWN BY
CHECKED BY

DATE
10/19/40
10/19/40
10/19/40
10/19/40



TOWER BRACING BENTS 5 & 6
Scale 1/4" = 1'-0"

NOTE: For location of Sect. 6-6 & 7-7 see sheet no. 4
For intermediate tower bracing see sheet no. 10



TOWER BRACING - BENTS 11 & 12
Scale 1/4" = 1'-0"

NOTE: For location of Sect. 13-13 & 14-14 see sheet no. 7

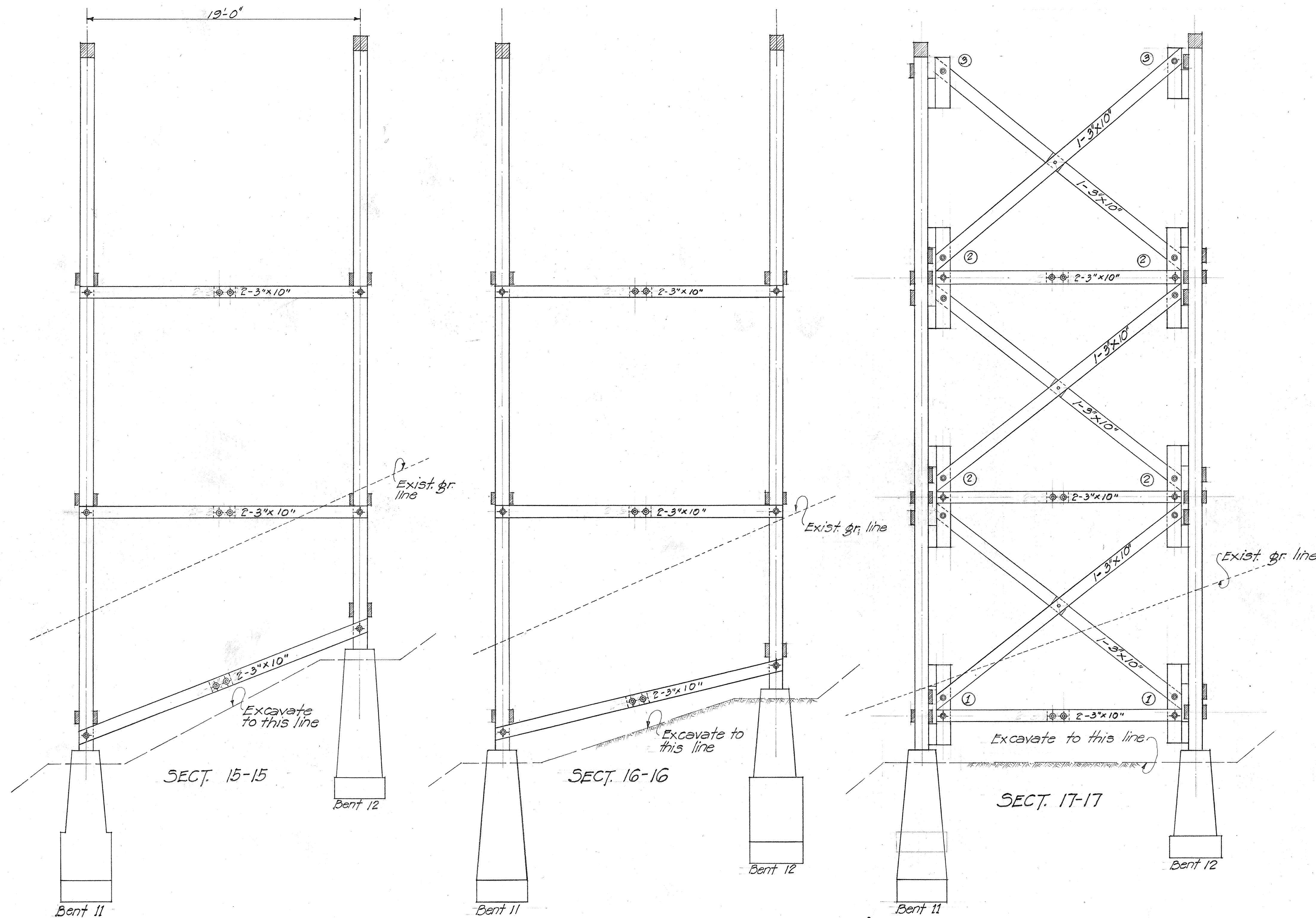
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE No. 3
Sta 65+47.17 to 69+29.5
HAWAII BELT ROAD F.A.P. 14-B
Sept. 1940

SHEET No 12 OF 14 SHEETS

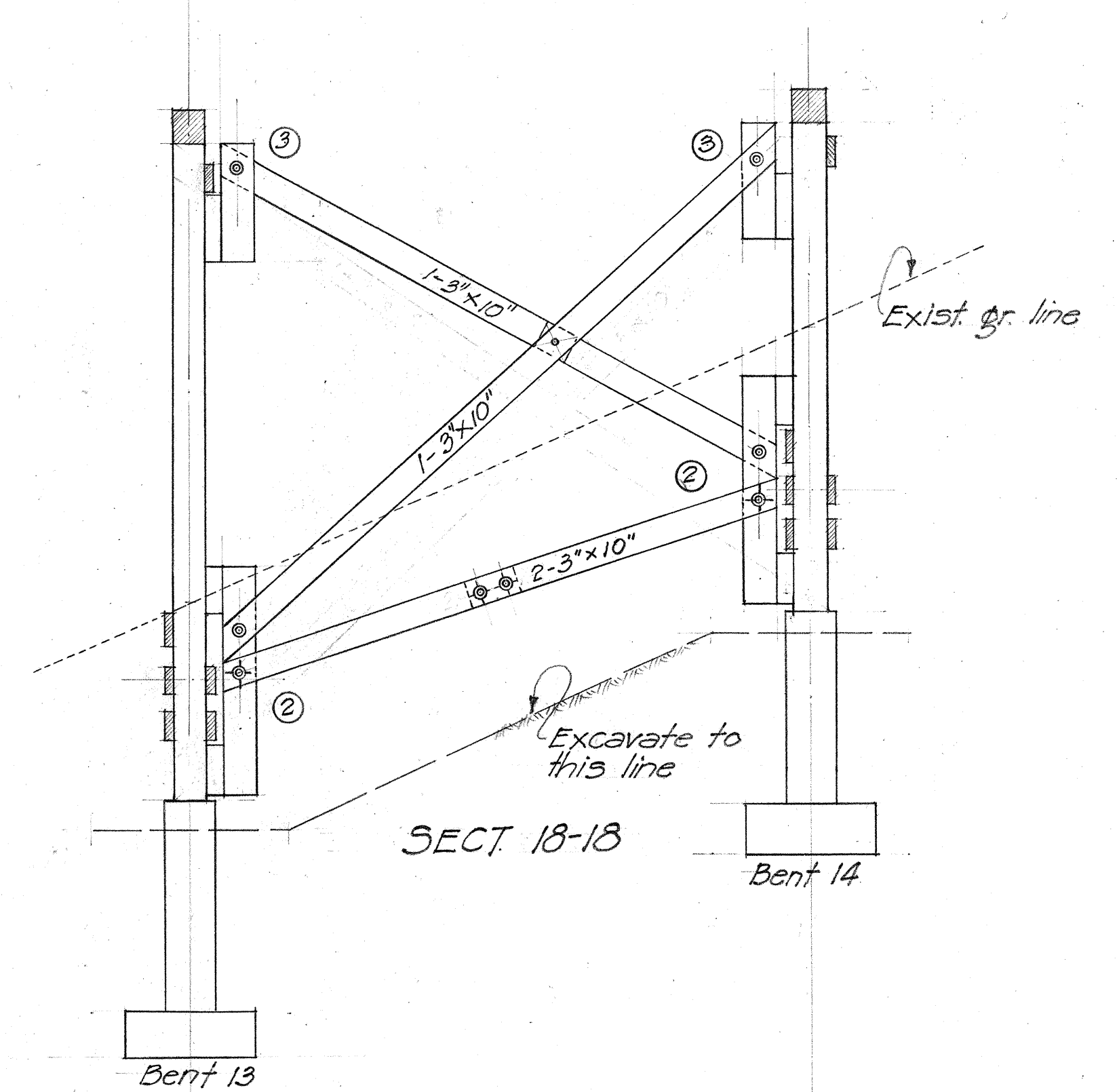
5039.56

SURVEY PLOTTED BY: DATE: 10/1/50
DESIGNED BY: M. J. BENTLEY
CHECKED BY: M. J. BENTLEY
QUANTITIES BY: M. J. BENTLEY
NOTE BOOK No.



TOWER BRACING - BENTS 11 & 12
Scale $\frac{1}{4}"=1'-0"$

NOTE For location of Sect. 15-15, 16-16 & 17-17 see sheet no. 7



TOWER BRACING - BENTS 13 & 14
Scale $\frac{1}{4}"=1'-0"$

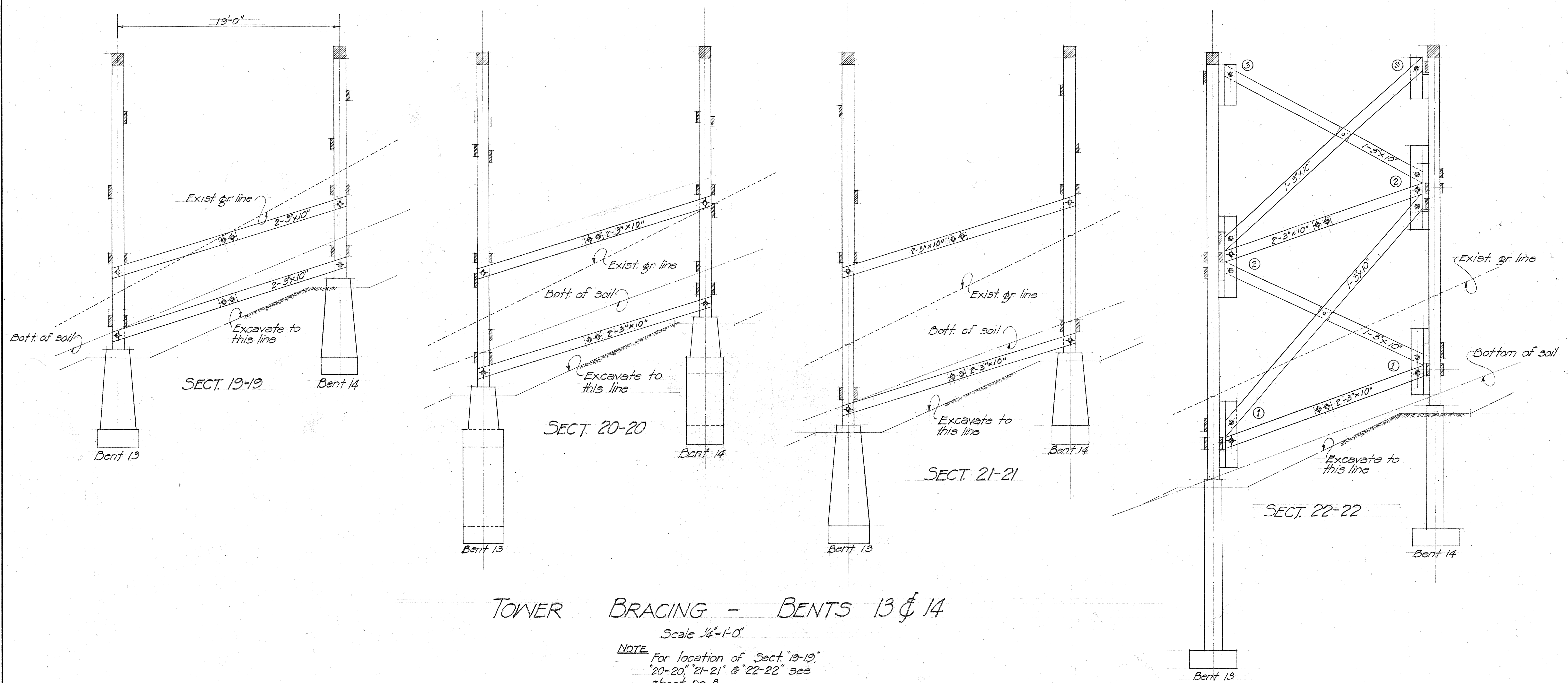
NOTE For location of Sect. 18-18 see sheet no. 8

ORIGINAL PLAN
DESIGNED BY
CHECKED BY
DATE
Nov. 1940
No.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
BRIDGE No 3
Sta 65+47.17 to 69+29.5
HAWAII BELT ROAD F.A.P. 14-B
Nov. 1940

SHEET No 13 OF 14 SHEETS

5039.57



TOWER BRACING - BENTS 13 & 14

Scale 1/4"=1'-0"

NOTE: For location of Sect. "19-19," "20-20," "21-21" & "22-22" see sheet no. 8

ORIGINAL PLAN
DESIGNED BY
CHECKED BY
DATE
No.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

BRIDGE No. 3
Sta. 65+47.17 to 69+29.5
HAWAII BELT ROAD F.A.P. 14-B
Sept. 1940

SHEET No. 14 OF 14 SHEETS

5039.58