

[illegible]

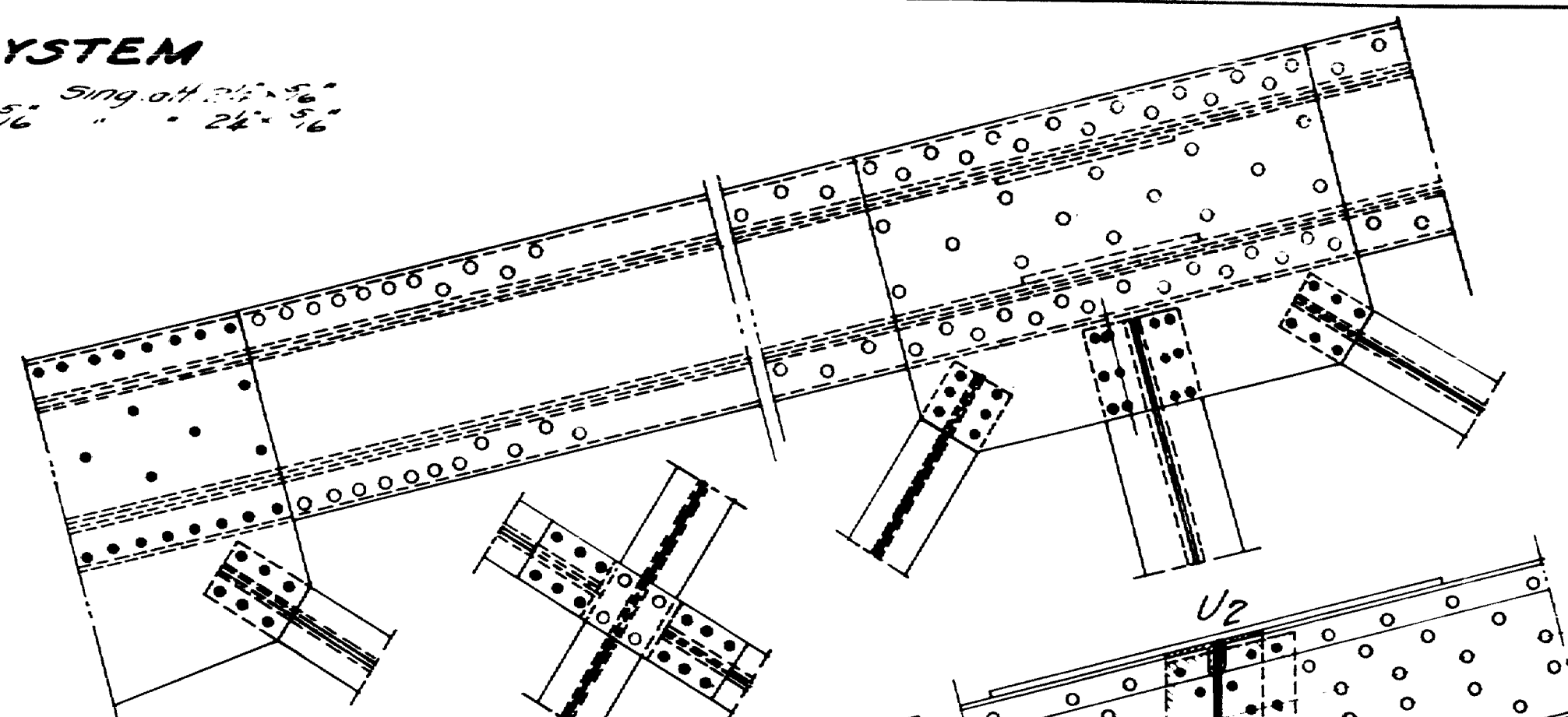
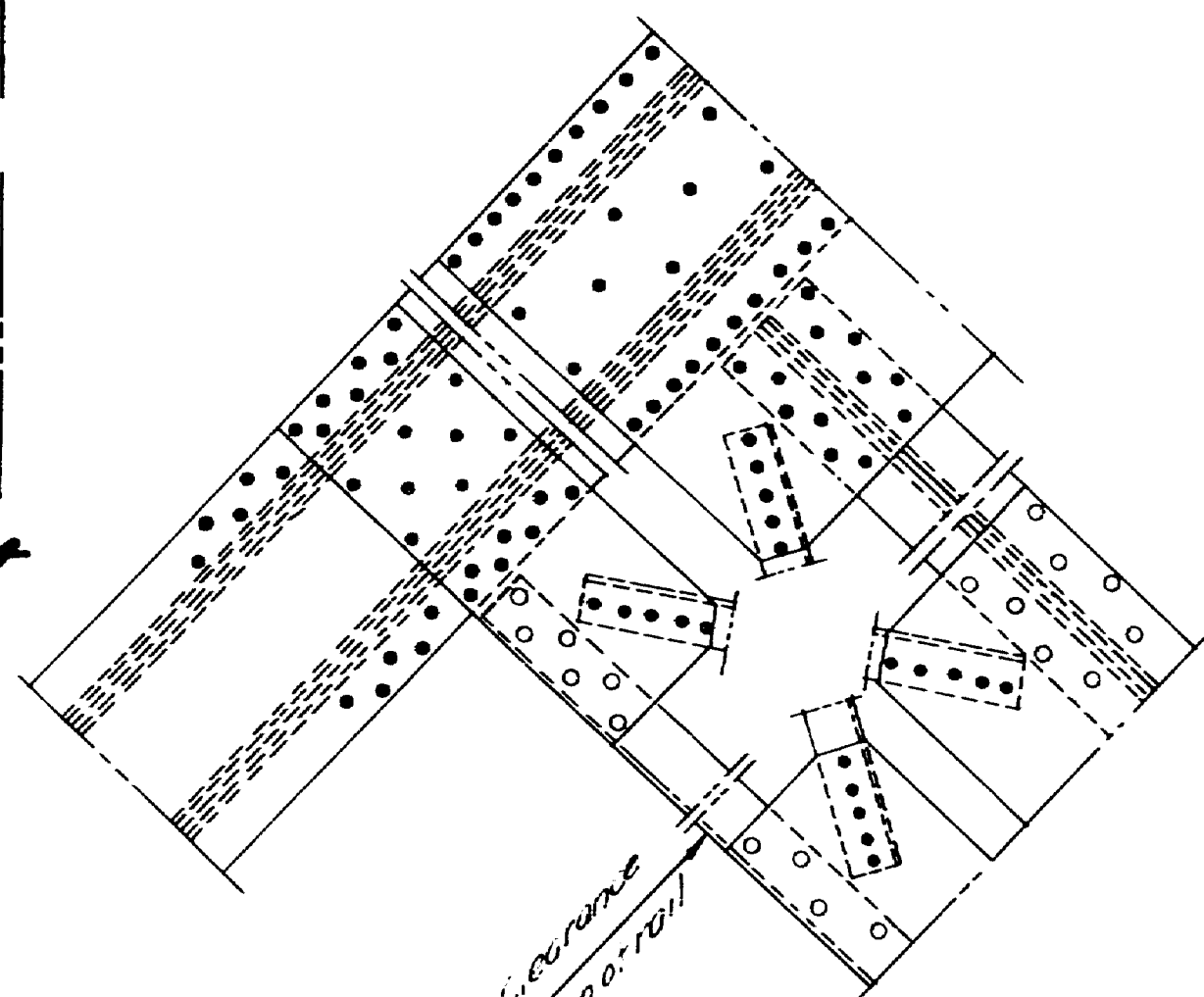
Hand-drawn diagram of a trapezoidal roof section. The diagram is a rectangle with a diagonal line from the top-left corner to the bottom-right corner. The top-left corner is labeled "213' x 41' 3/4\"

[illegible][illegible]

Dec 1900 by Dingden.
 Traced by J.H. & V.E.
 Checked by V.

9

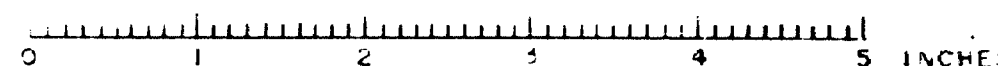
Struts - 6x3 $\frac{1}{2}$ x3 $\frac{1}{2}$ Sing. att. 2x4x5 $\frac{1}{2}$
 Diagonals 4x3 $\frac{1}{2}$ x2 $\frac{1}{2}$ x5 $\frac{1}{2}$ " 2x4x5 $\frac{1}{2}$
 Gusset plates
 Tie plates 3x3
 Rivets 3x3



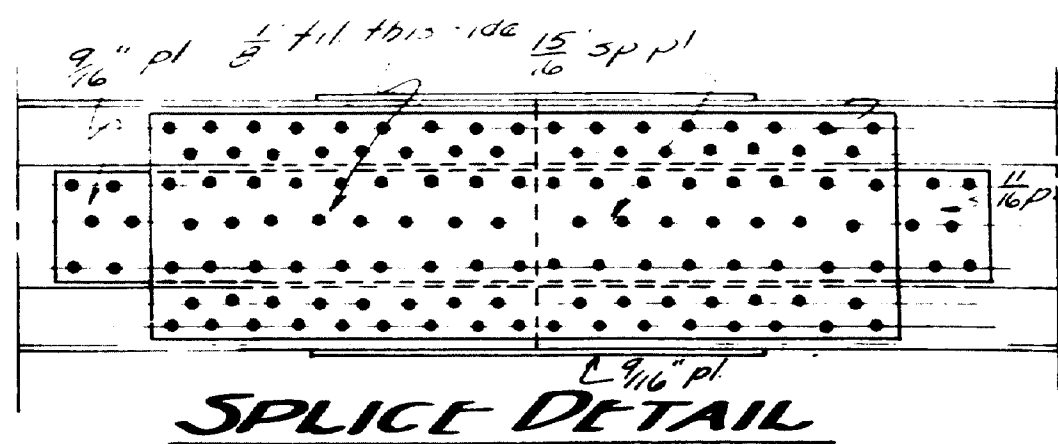
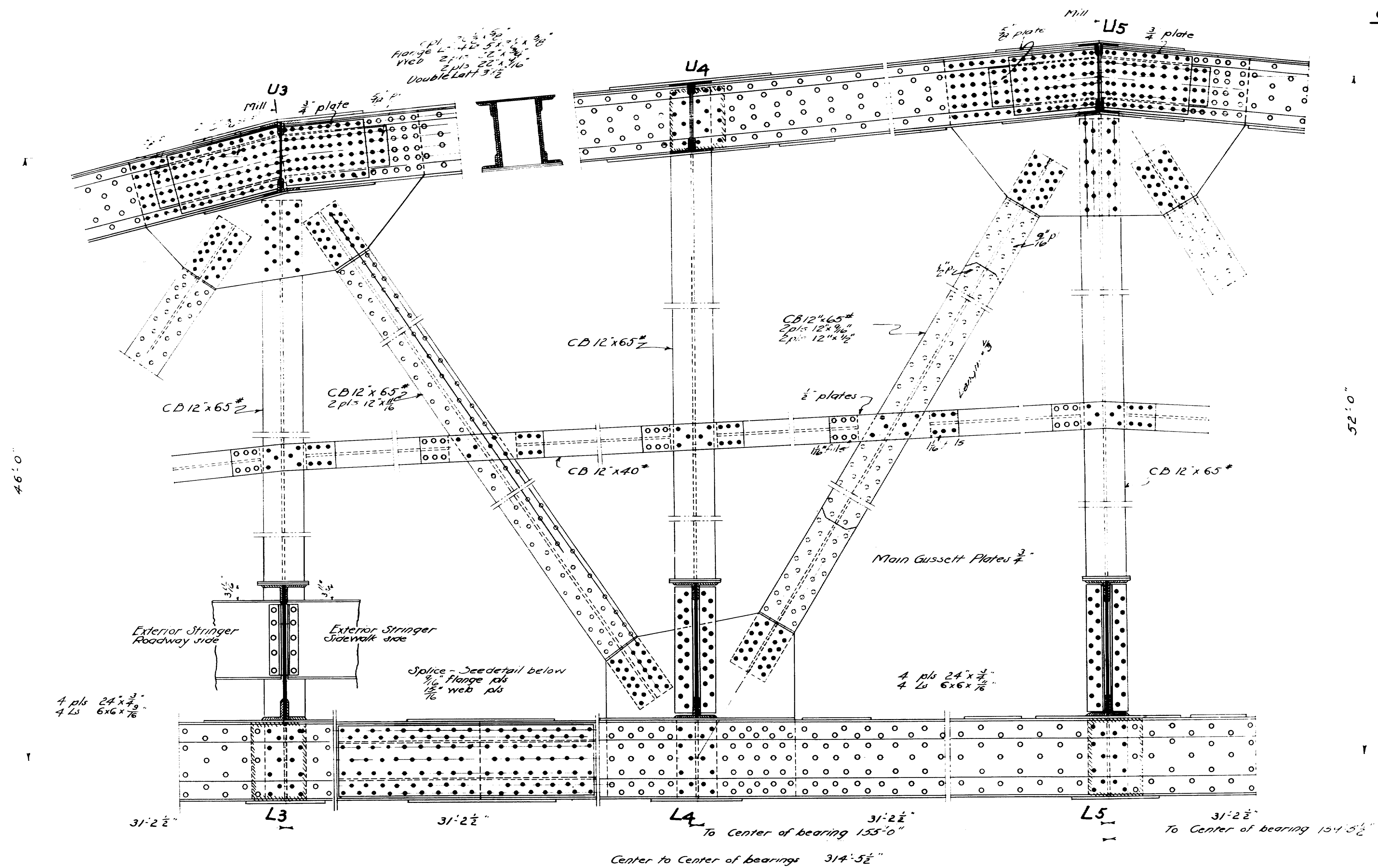
PORTAL



Drawn by BE
Traced by MB
Checked by T/P

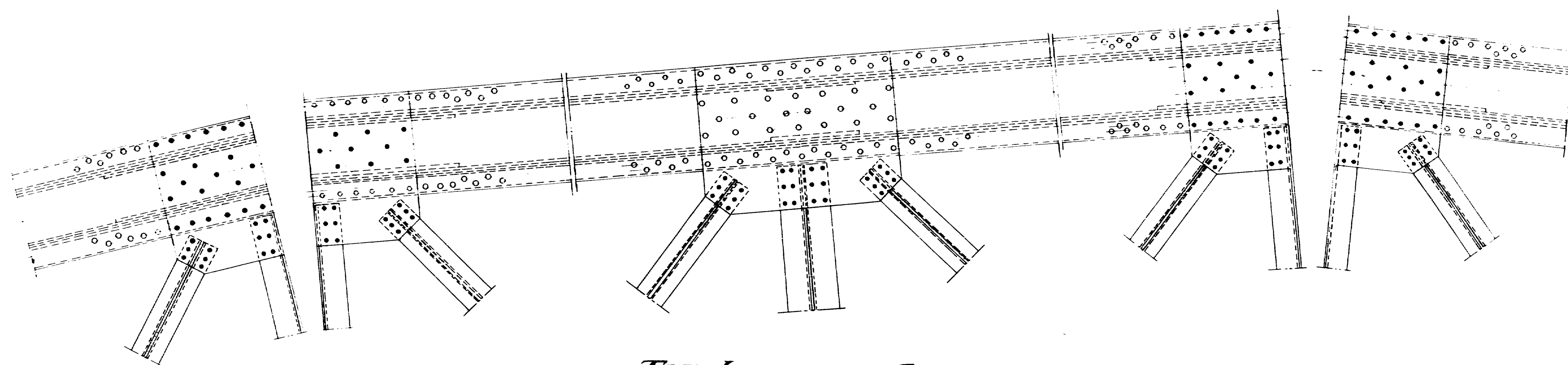


SIDEWALK TRUSS
SPAN NO. 1



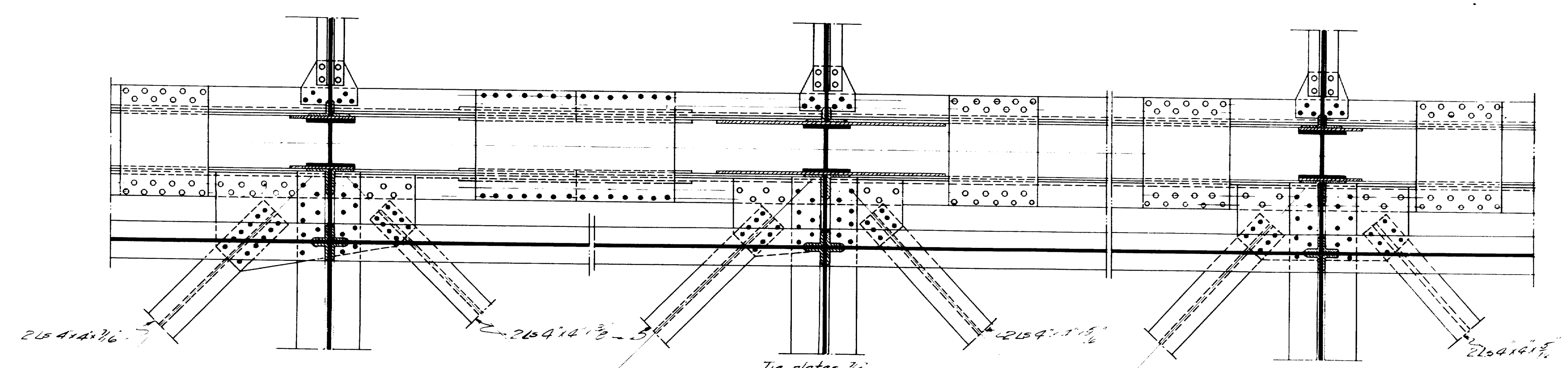
PANELS NO 3-4-5

SIDEWALK TRUSS
SPAN No. 1



TOP LATERAL SYSTEM
PANELS 3-4-5

Struts 4x8 G33x7/8 Single Latt 2x4x5/8
Diagonals 4x8 3x8x1/2 Single Latt 2x4x5/8
Gusset Plates 3/8
Tie plates 3/8
Nuts 3/4"



LOWER LATERAL SYSTEM
PANELS 3-4-5

Tie plates 3/8"

2x4x5/8

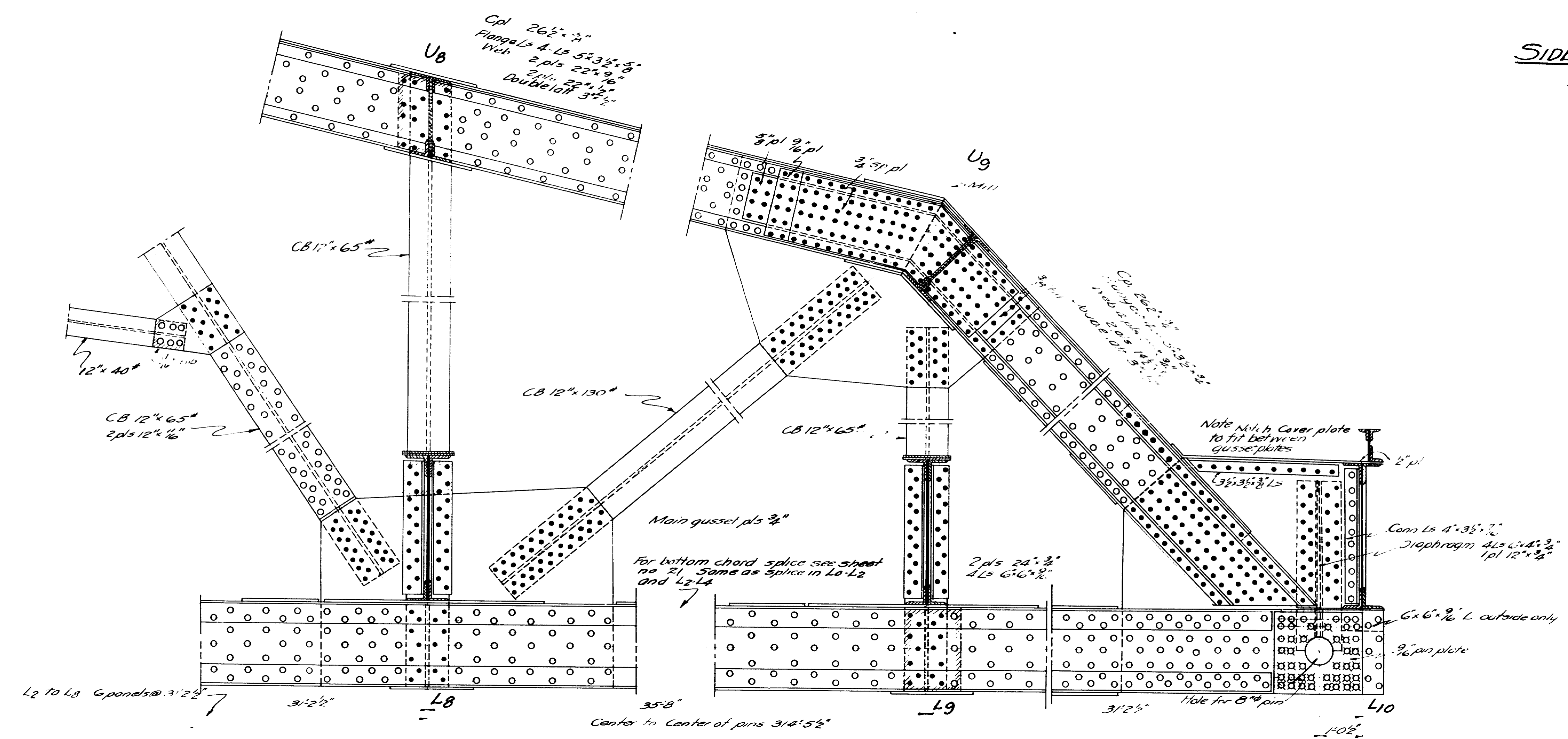
2x4x5/8

2x4x5/8

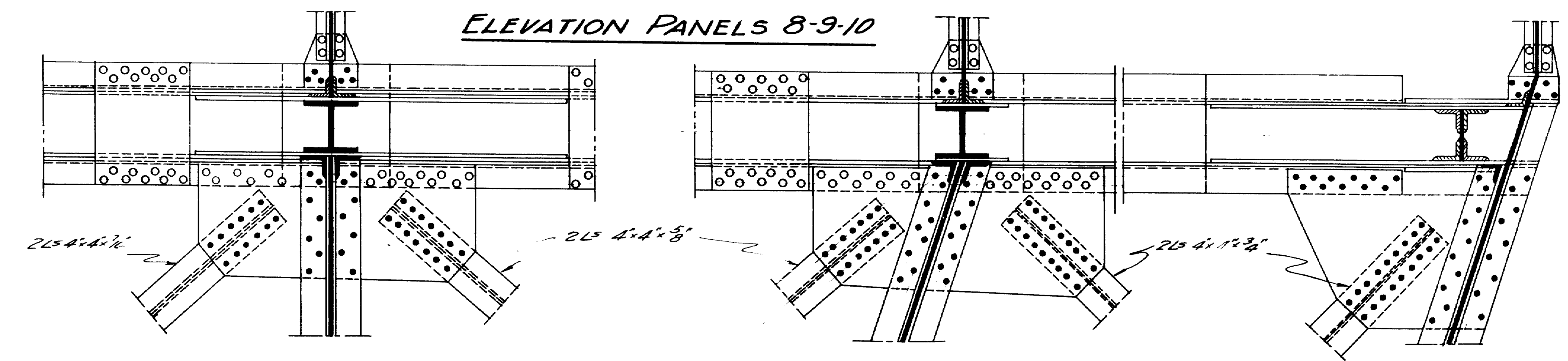
2x4x5/8

Drawn by J. H. E.
Checked by J. H. E.
Diagonal

SIDEWALK TRUSS SPAN NO. 1

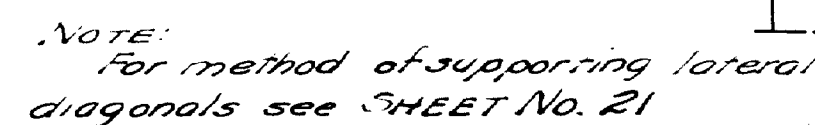


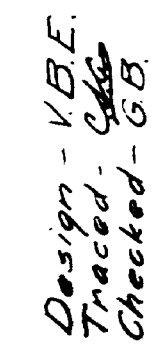
ELEVATION PANELS 8-9-10



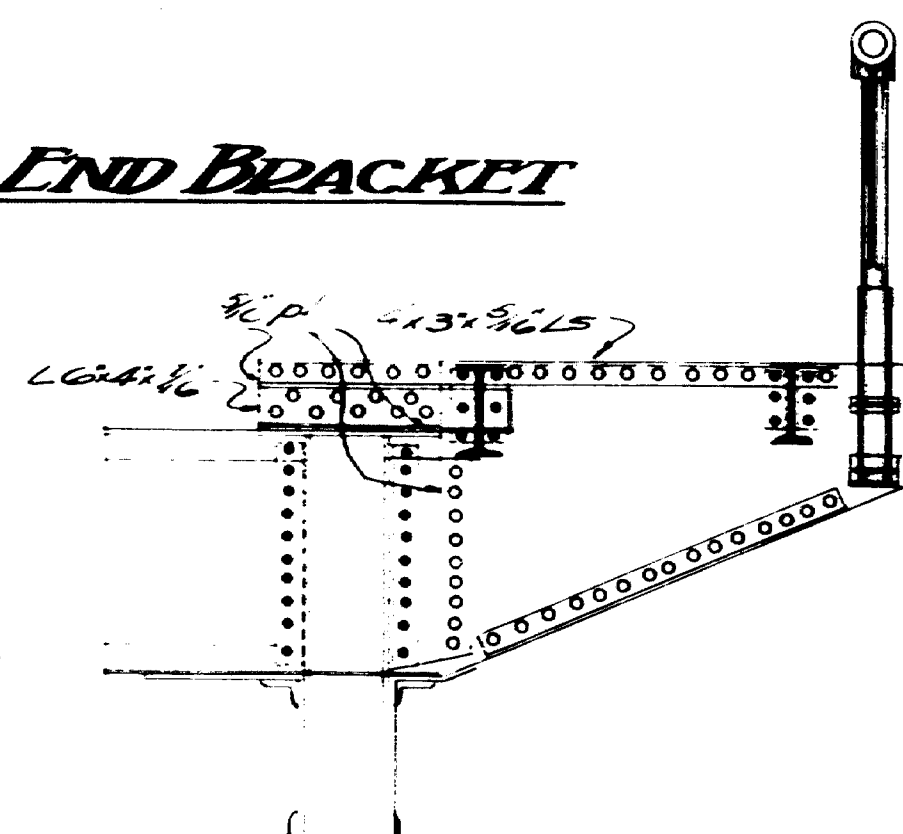
LOWER LATERAL DETAIL

Drawn by U.S.
 Checked by U.S.
 Checked by U.S.



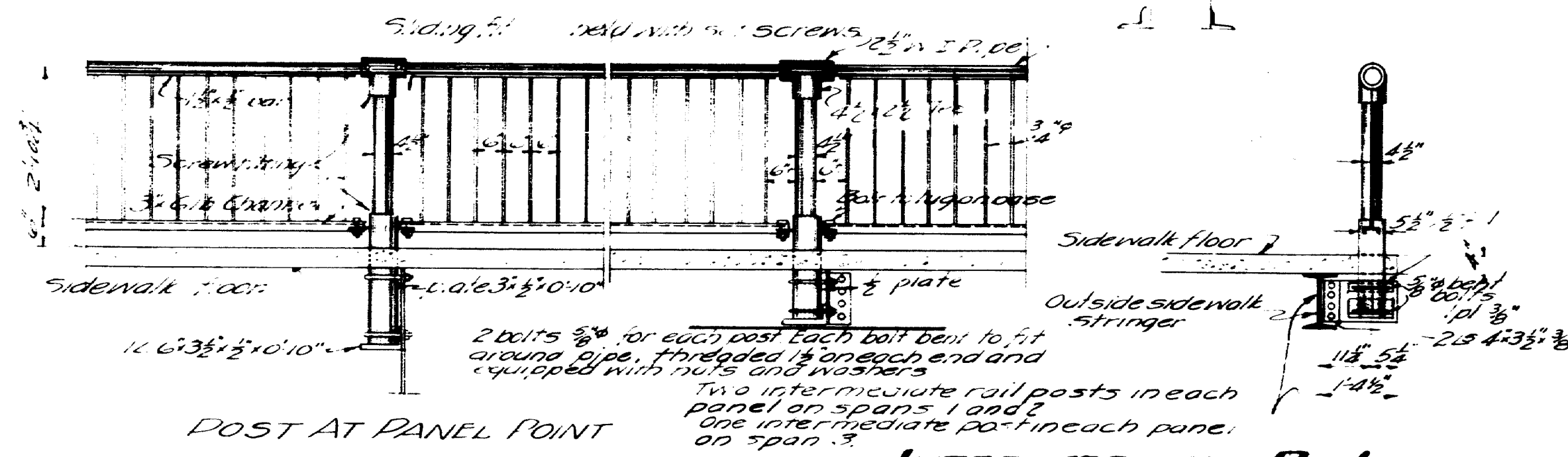


END BRACKET



DETAIL SIDEWALK RAIL

Note: For rail expansion between spans provide a 3\"/>

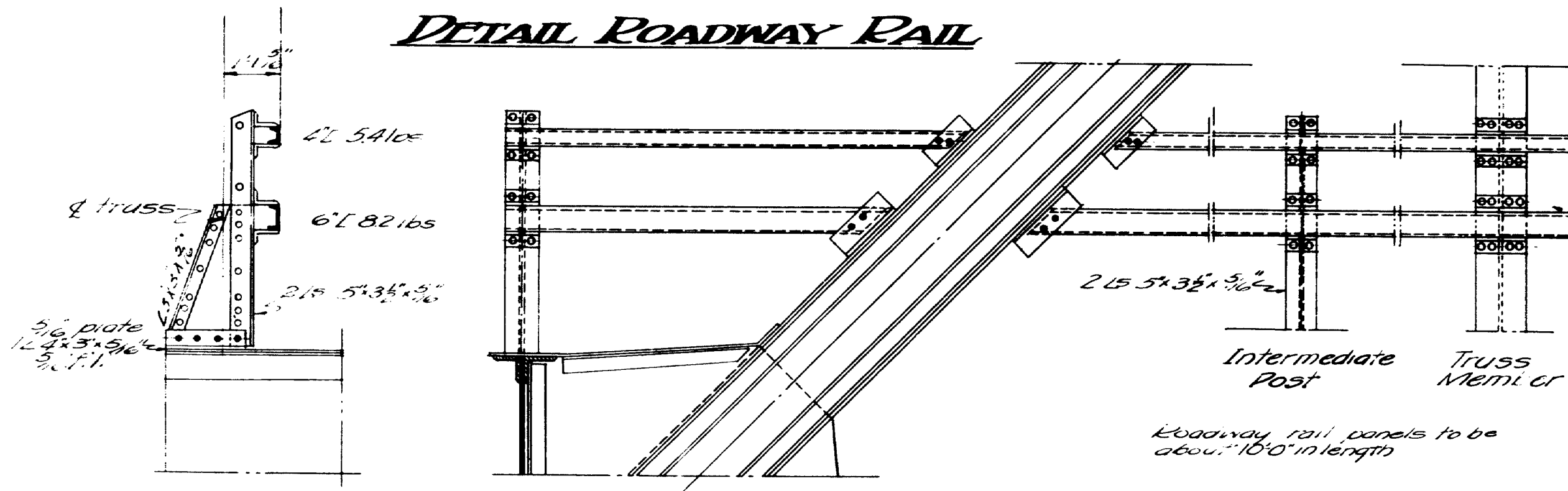


POST AT PANEL POINT

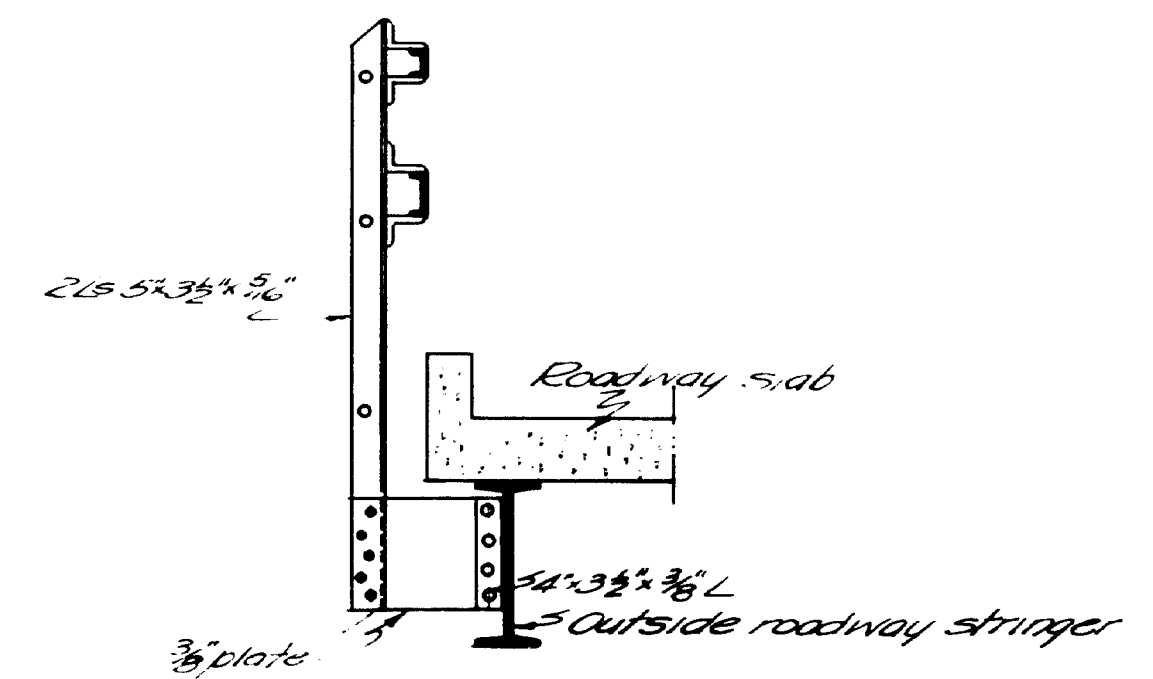
INTERMEDIATE POST

Panel length to be about 10'0\"/>

DETAIL ROADWAY RAIL

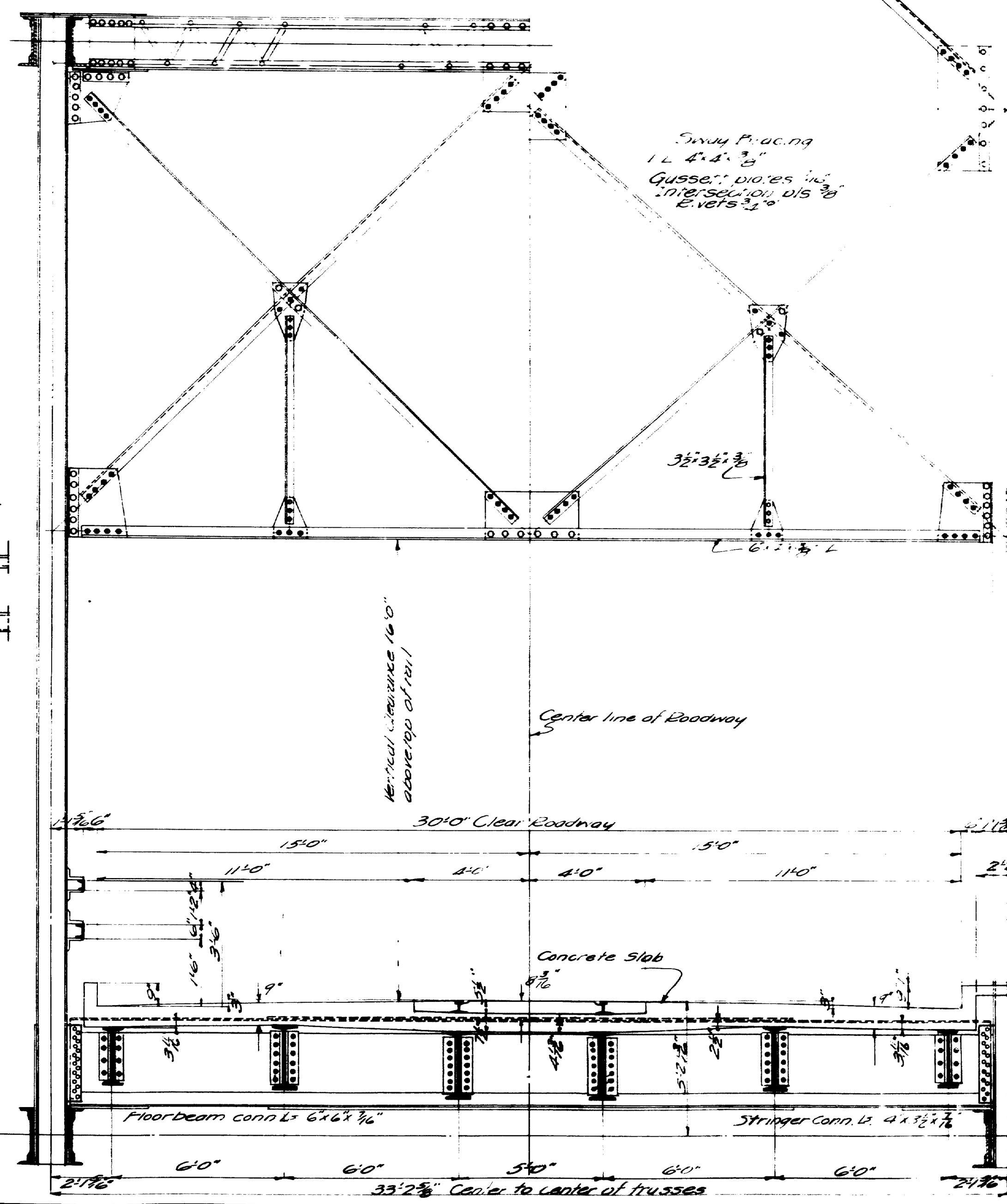
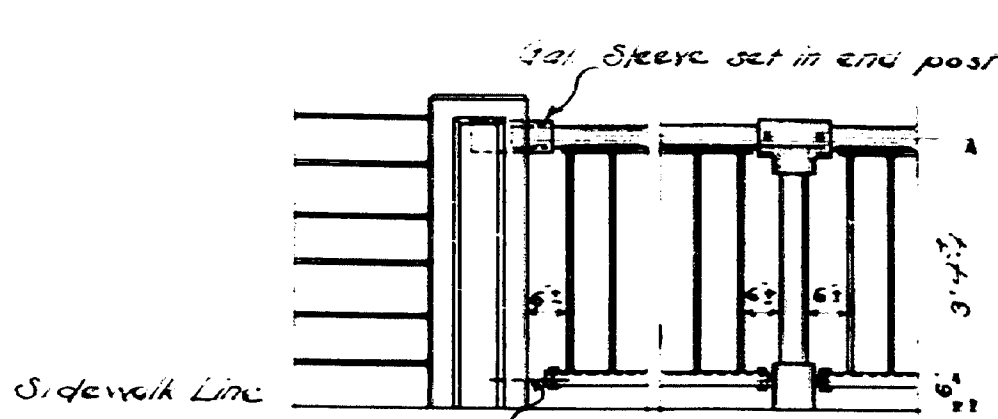


End Post



DETAIL INTERMEDIATE POST

DETAIL SIDEWALK RAIL CONNECTION BRUNSWICK APPROACH



RAIL DETAILS CROSS SECTION OF SPANS 1 AND 2

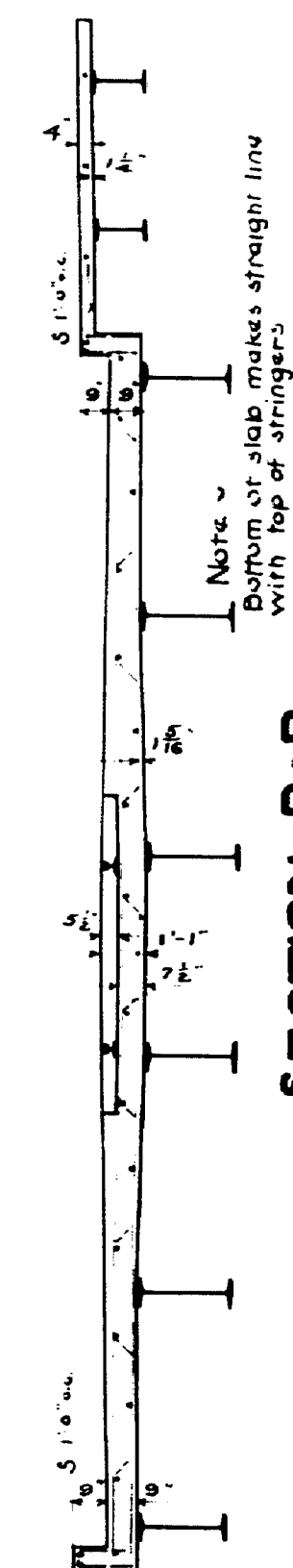
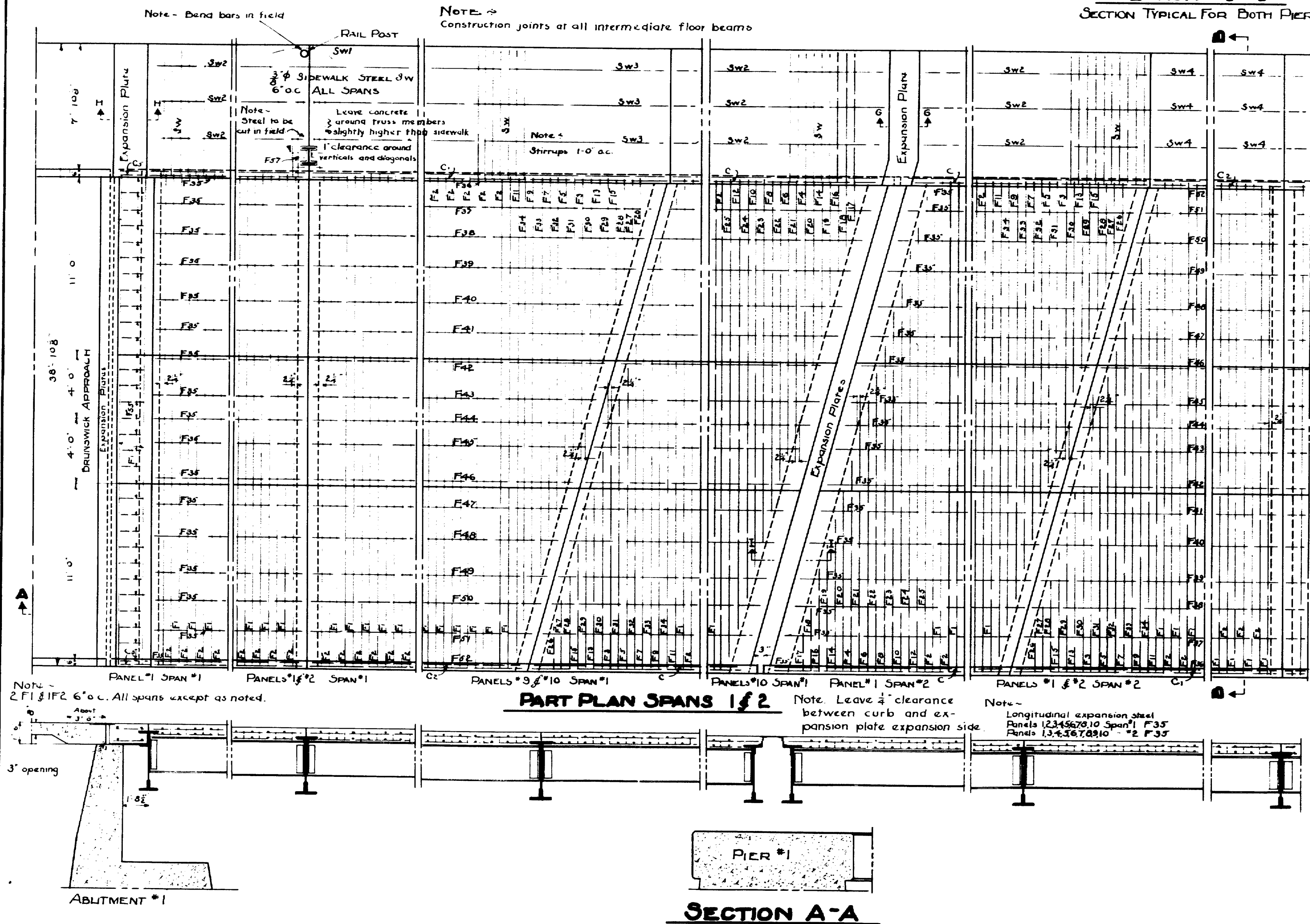
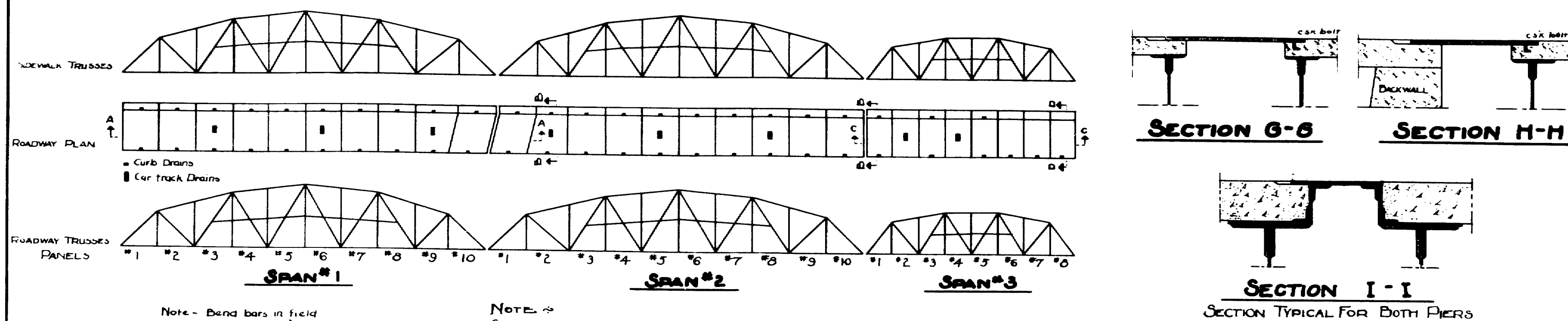
CROSS SECTION SPANS 1 AND 2 Section A-A Sheet no. 18

SIDEWALK BRACKET
Post 4x3x3/4
Rail 3x3x3/4
Nail 3/8
Conn. L 1-3x3x3/4

Design 1022
Checked 1018
10/10/50

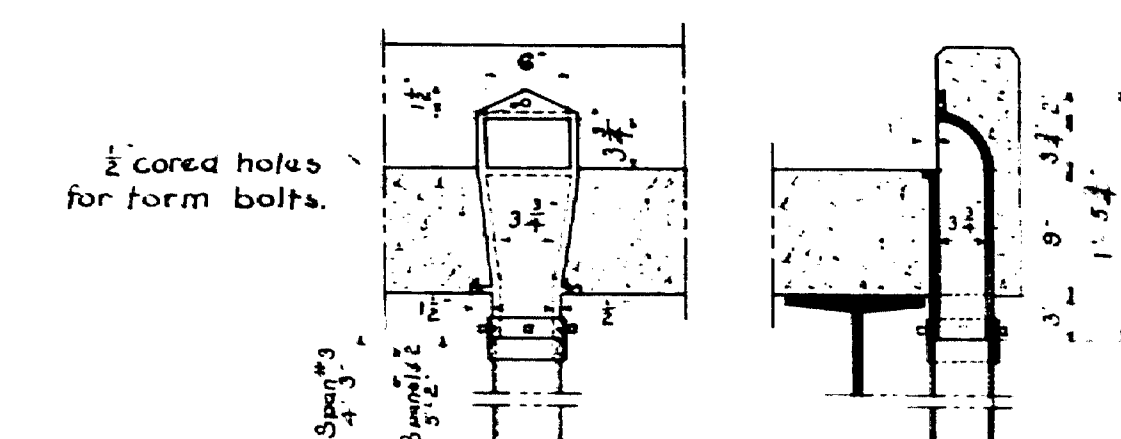
Rail note added 9/15/50

FLOOR PLAN SPANS 1 & 2

[illegible]

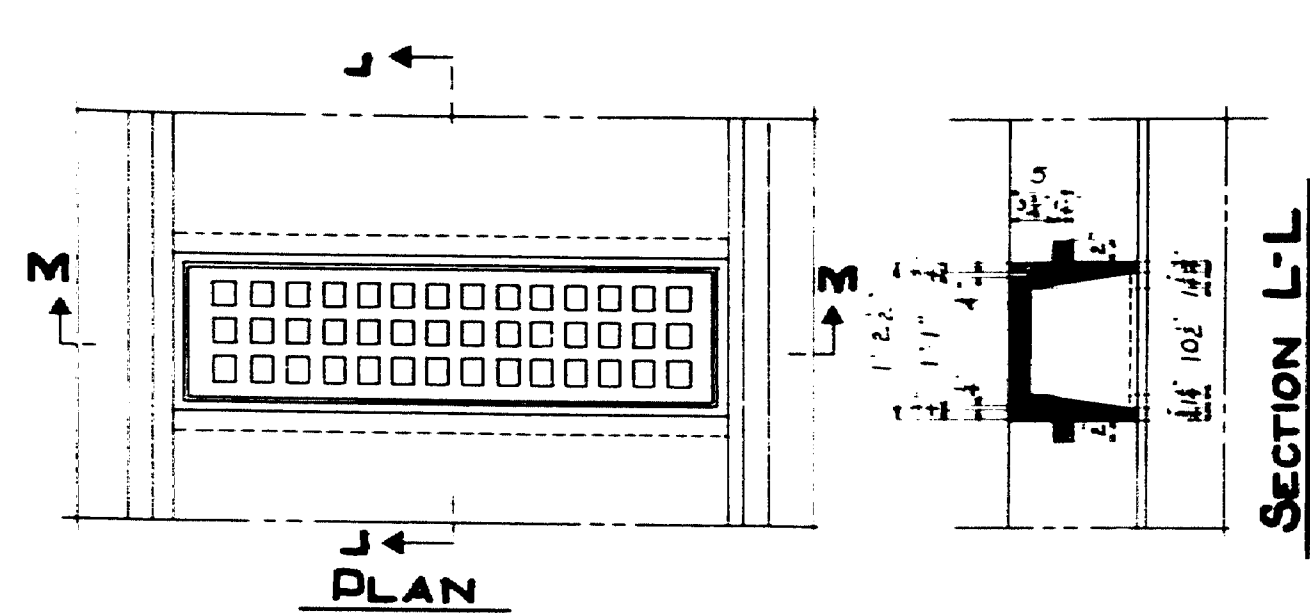
Plan ~ Hamilton
Traced ~ "
Checked ~ H.G.H.

FLOOR PLAN SPANS 2 & 3

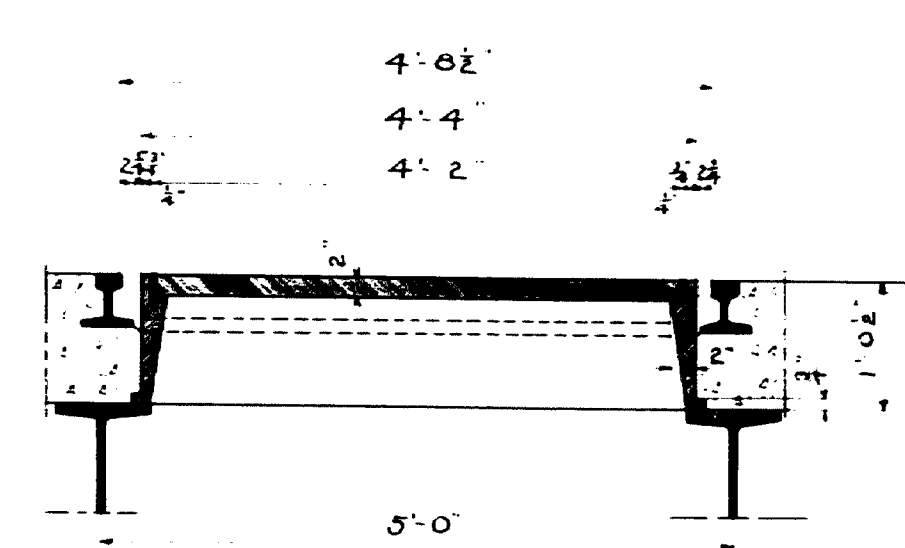


DRAIN DETAILS

49 Required
 49 castings as shown
 49 couplings for 4" dia. pipe
 One-half coupling threaded
 Four threaded holes in each coupling for set screws
 Four holes to be drilled 1/4" deep in each casting to hold ends of set screws.
 196 set screws 1/4" x 3/4"
 40 4" x 5" x 2" std pipes threaded one end
 9 4" x 4" x 3" }



Note -
 Grate 12" x 50" x 2" 42 holes 2 1/2" x 2"
 Frame casting as shown
 Slab steel to be cut to allow placing of drains



DRAIN DETAILS FOR RAILWAY

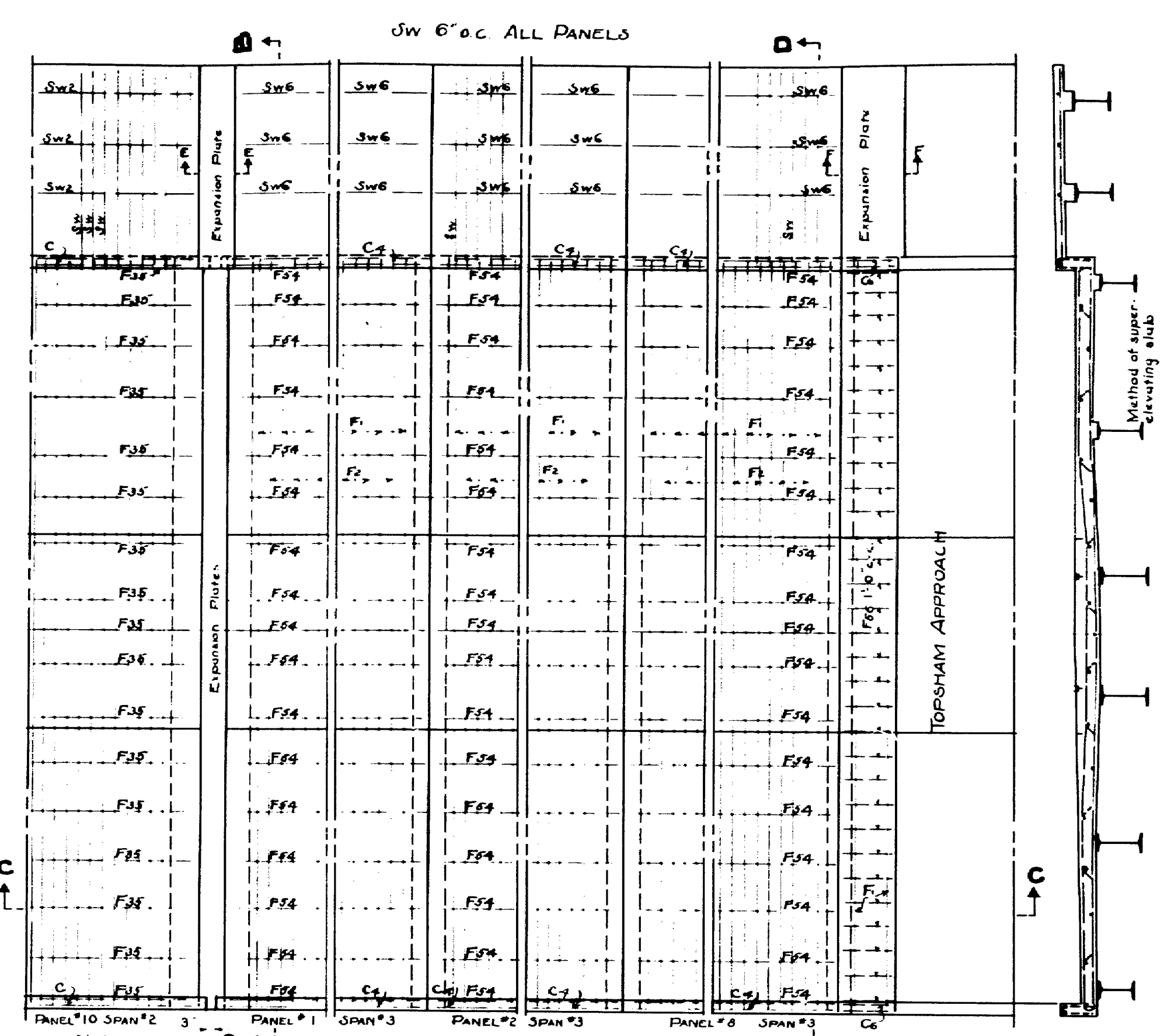
8 Required

STEEL SCHEDULE

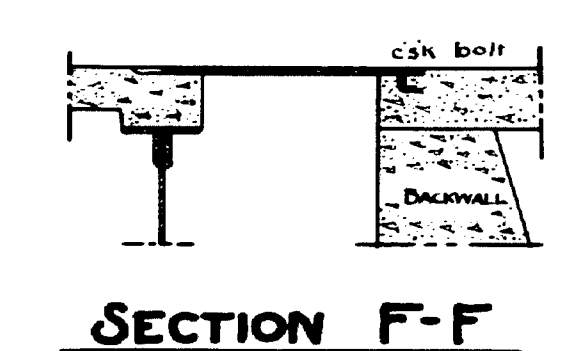
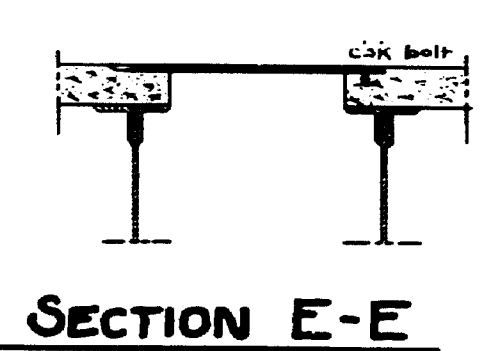
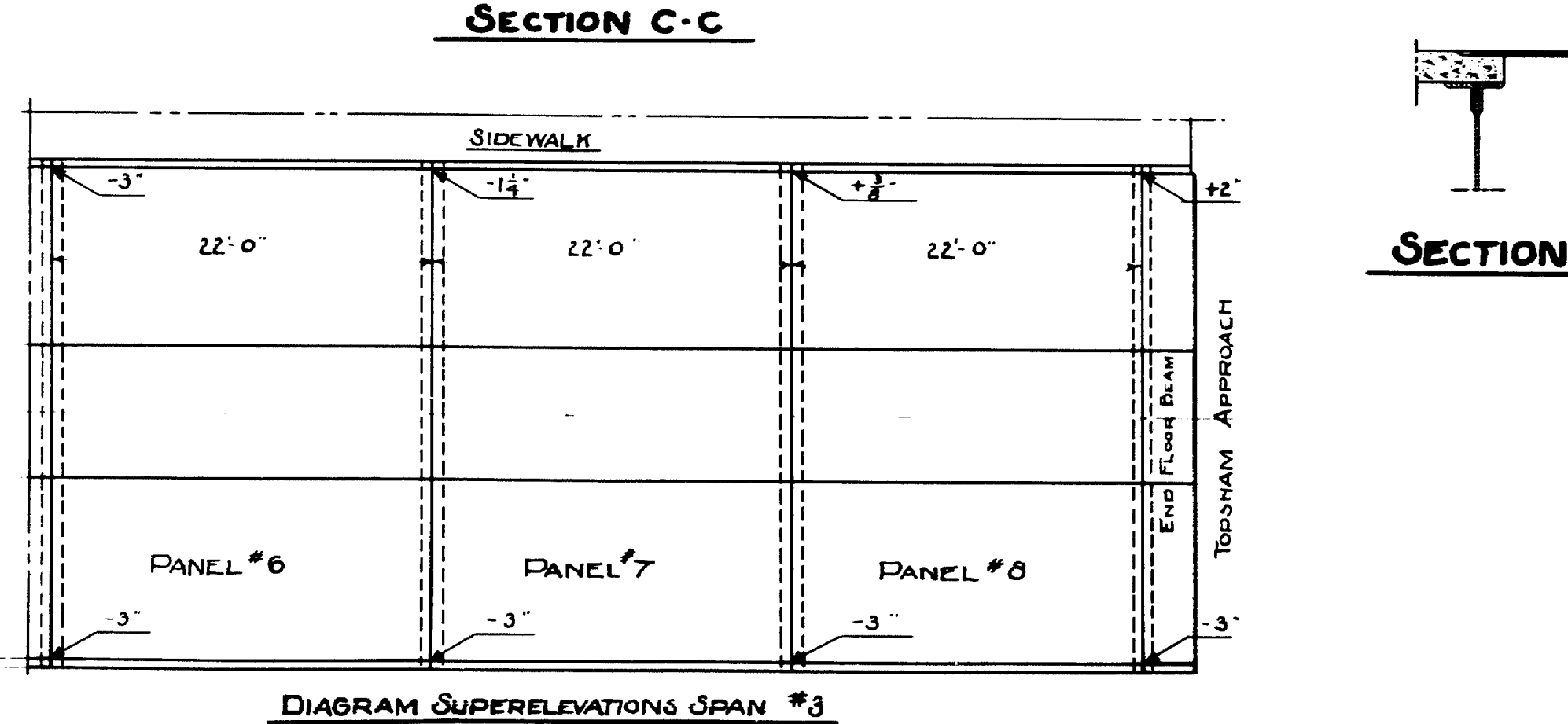
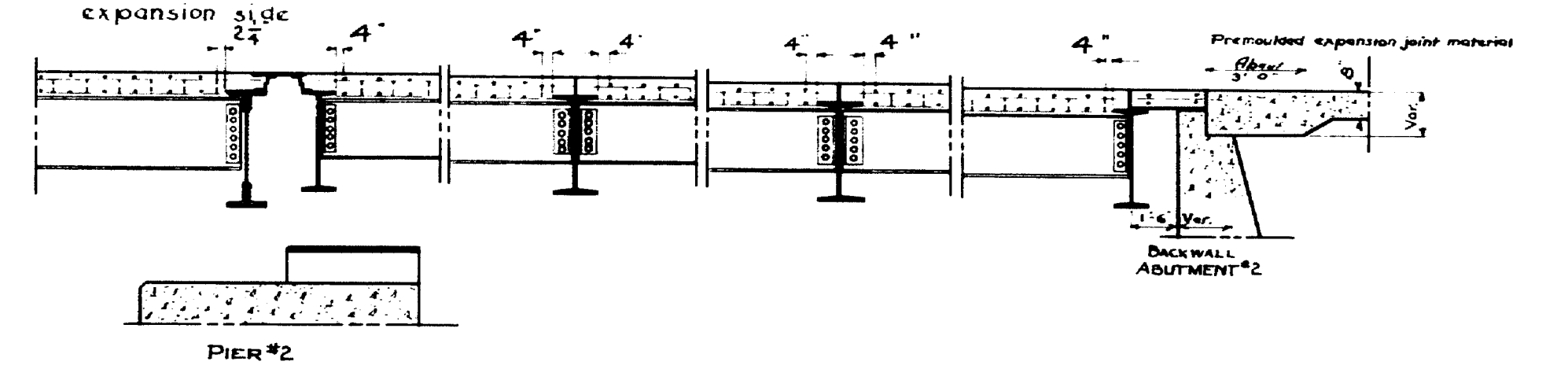
STRAIGHT BARS

MARK	SIZE	NO REQ	LENGTH	LOCATION	MARK	SIZE	NO REQ	LENGTH	LOCATION
F1	3/8"	1492	30'-9"	Span #1	F46	1/2"	2	30'-0"	Span #2
F17	3/8"	4	21'-3 1/2"	Span #2	F47	1/2"	2	29'-6 1/2"	Span #2
F18	3/8"	4	4'-2 1/2"	Span #2	F48	1/2"	2	29'-1"	Span #2
F19	3/8"	4	7'-11"	Span #2	F49	1/2"	2	28'-4 1/2"	Span #2
F20	3/8"	4	11'-7"	Span #2	F50	1/2"	2	27'-11"	Span #2
F21	3/8"	4	15'-4 1/2"	Span #2	F51	1/2"	2	27'-5 1/2"	Span #2
F22	3/8"	4	19'-1 1/2"	Span #2	F52	1/2"	2	26'-11"	Span #2
F23	3/8"	4	22'-10"	Span #2					
F24	3/8"	4	26'-6 1/2"	Span #2	F54	1/2"	136	21'-0"	All Panels Span #3
F25	3/8"	4	30'-3 1/2"	Span #2	C1	3/8"	72	31'-0"	Span #3
F26	3/8"	0	2'-3 1/2"	Span #2	C2	3/8"	4	33'-1"	Span #3
F27	3/8"	0	4'-2"	Span #2	C3	3/8"	4	26'-5"	Span #3
F28	3/8"	0	6'-0 1/2"	Span #2					
F29	3/8"	0	9'-9 1/2"	Span #2	C4	3/8"	32	21'-0"	Span #3
F30	3/8"	0	13'-6"	Span #2	C5	3/8"	4	2'-0"	Span #3
F31	3/8"	0	17'-2 1/2"	Span #2	C6	3/8"	4	2'-0"	Span #3
F32	3/8"	0	20'-11 1/2"	Span #2	SW	3/8"	1632	7'-6"	Span #3
F33	3/8"	0	24'-0 1/2"	Span #2	SW2	3/8"	79	3'-0"	Span #3
F34	3/8"	0	28'-5"	Span #2	SW3	3/8"	57	11'-0"	Span #3
F35	3/8"	306	31'-0"	Span #2	SW4	3/8"	3	15'-4"	Span #3
F36	3/8"	2	35'-1"	Span #2	SW5	3/8"	3	6'-5"	Span #3
F37	3/8"	2	34'-6 1/2"	Span #2					
F38	3/8"	2	34'-1"	Span #2	SW6	3/8"	24	11'-0"	Span #3
F39	3/8"	2	33'-7 1/2"	Span #2	F65	3/8"	62	2'-0"	Span #3
F40	3/8"	2	32'-11"	Span #2	F66	3/8"	31	2'-0"	Span #3
F41	3/8"	2	32'-5 1/4"	Span #2	F67	3/8"	106	3'-0"	Span #3
F42	3/8"	2	32'-0"	Span #2					
F43	3/8"	2	31'-4 1/2"	Span #2					
F44	3/8"	2	31'-0"	Span #2					
F45	3/8"	2	30'-7 1/4"	Span #2					

Note -
 All steel to be plain round bars of structural grade.
 All dimensions to center lines of bars



Note -
 2 F1 F12 6" o.c.
 Note -
 Leave 1/4" clearance between curb and expansion plate on expansion side
 Note -
 Longitudinal expansion steel F54 Panels #1 to #8 incl



SECTION D-D

TYPICAL SUPERELEVATED SECTION

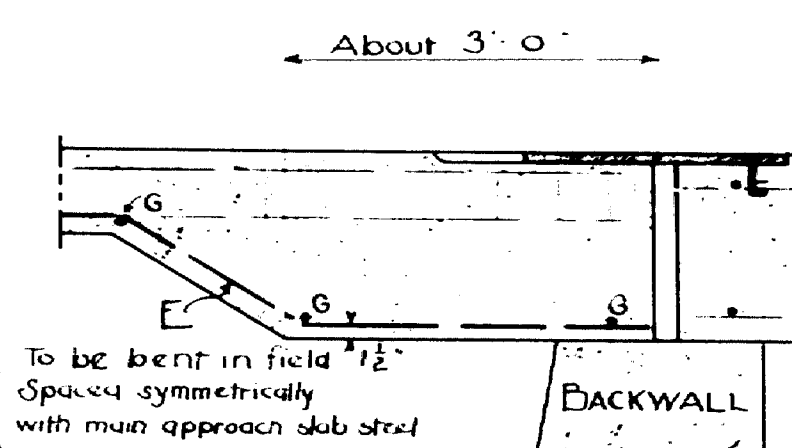
Plan - Yammiller
 Traced - " "
 Checked - H. H. M.

PLAN OF PAVEMENT ON APPROACH

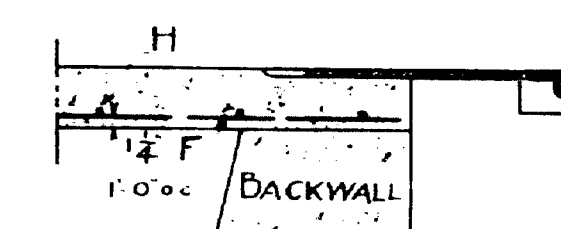
REINFORCING DATA				
MARK	SIZE	NO REQD	LENGTH	LOCATION
A	$\frac{3}{8} \phi$	25	23' - 10 $\frac{1}{2}$ "	Rawly Slab
B	$\frac{3}{8} \phi$	27	29' - 0 $\frac{1}{2}$ "	"
D	$\frac{3}{8} \phi$	7	3' - 0"	"
E	$\frac{3}{8} \phi$	20	1' - 2"	Curbs
J	$\frac{3}{8} \phi$	28	6' - 0"	App. slabs of Abut.
F	$\frac{3}{8} \phi$	14	3' - 0"	Rawly
G	$\frac{3}{8} \phi$	12	11' - 3"	sidew.
H	$\frac{3}{8} \phi$	6	6' - 0"	Rawly

Note ~

All steel to be plain rounds of structural grade.
Each 11'6" x 40' 0" slab contains a minimum of 42
cement blocks & 42 blocks and spacers to support
steel. See detail.
Each 11'6" x 40' 0" slab and curb contains 1137 cu yds. concrete.
8'-5" 0" x 4'-6" sidewalk slabs contain 333 cu yds. concrete.
Each 11'6" x 40' 0" slab and curb contains 566 93" steel
Dovels 'D' to be one-half encased in metal tube.

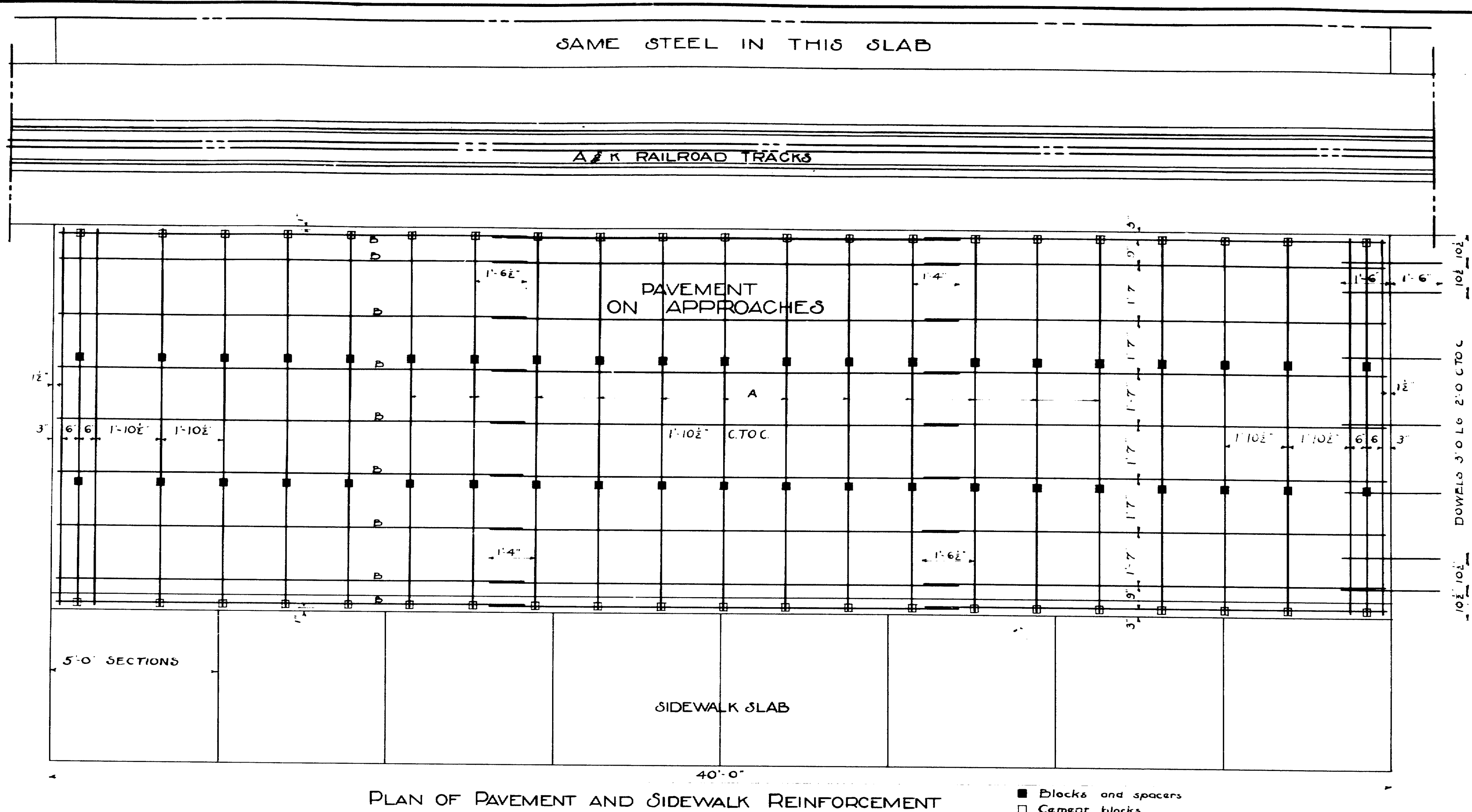


Method of reinforcing roadway approach slab at backwall
Similar at both abutments.



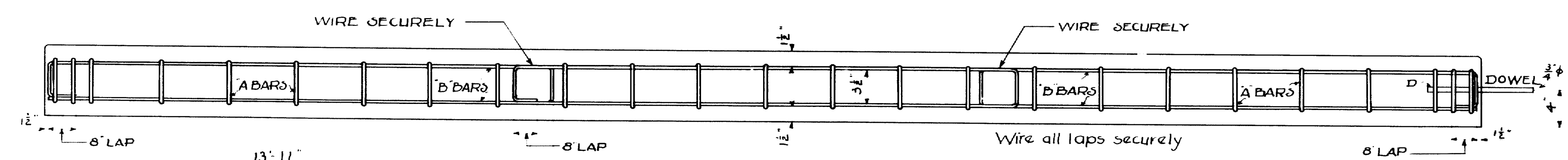
Method of reinforcing sidewalk approach slab at backwall.
Similar at both abutments

Note :
Sidewalk slab adjacent to bridge on
Topsham and Brunswick approaches are
similar.

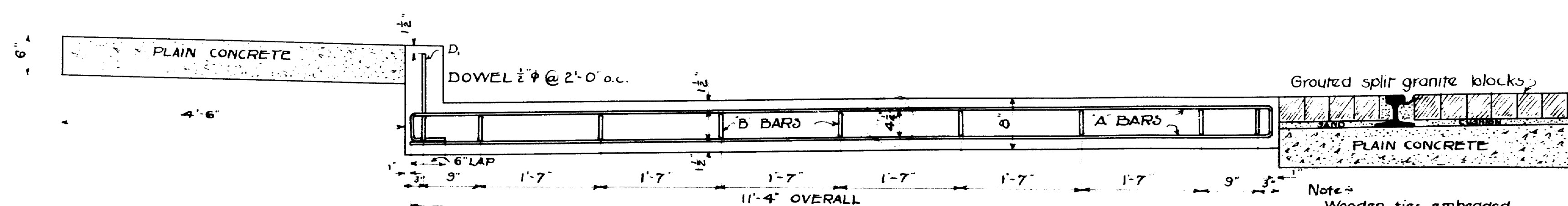


PLAN OF PAVEMENT AND SIDEWALK REINFORCEMENT

- Blocks and spacers
- Cement blocks

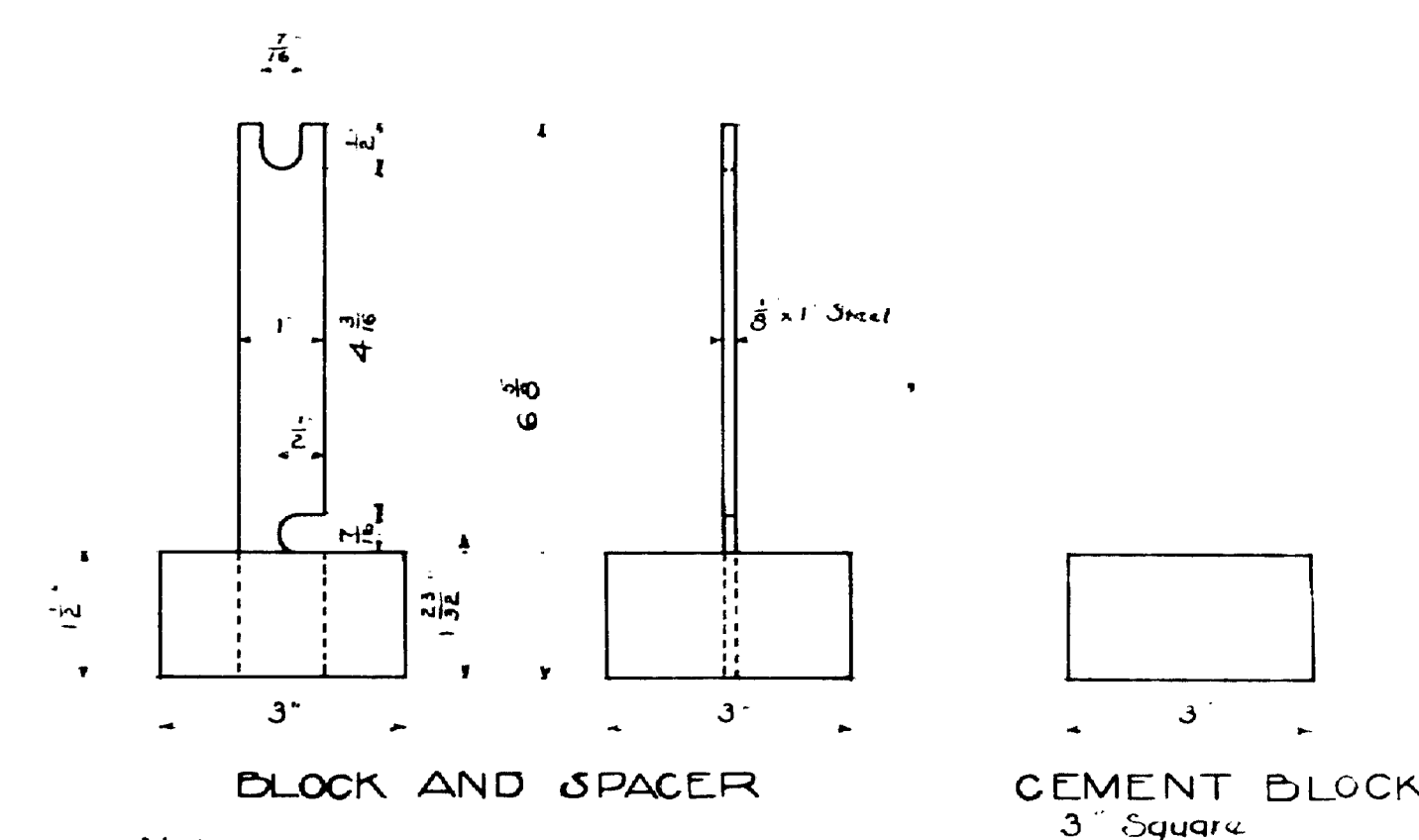


LONGITUDINAL SECTION SHOWING DETAIL OF "B" BARS



TRANSVERSE SECTION SHOWING DETAILS OF 'A' BARS

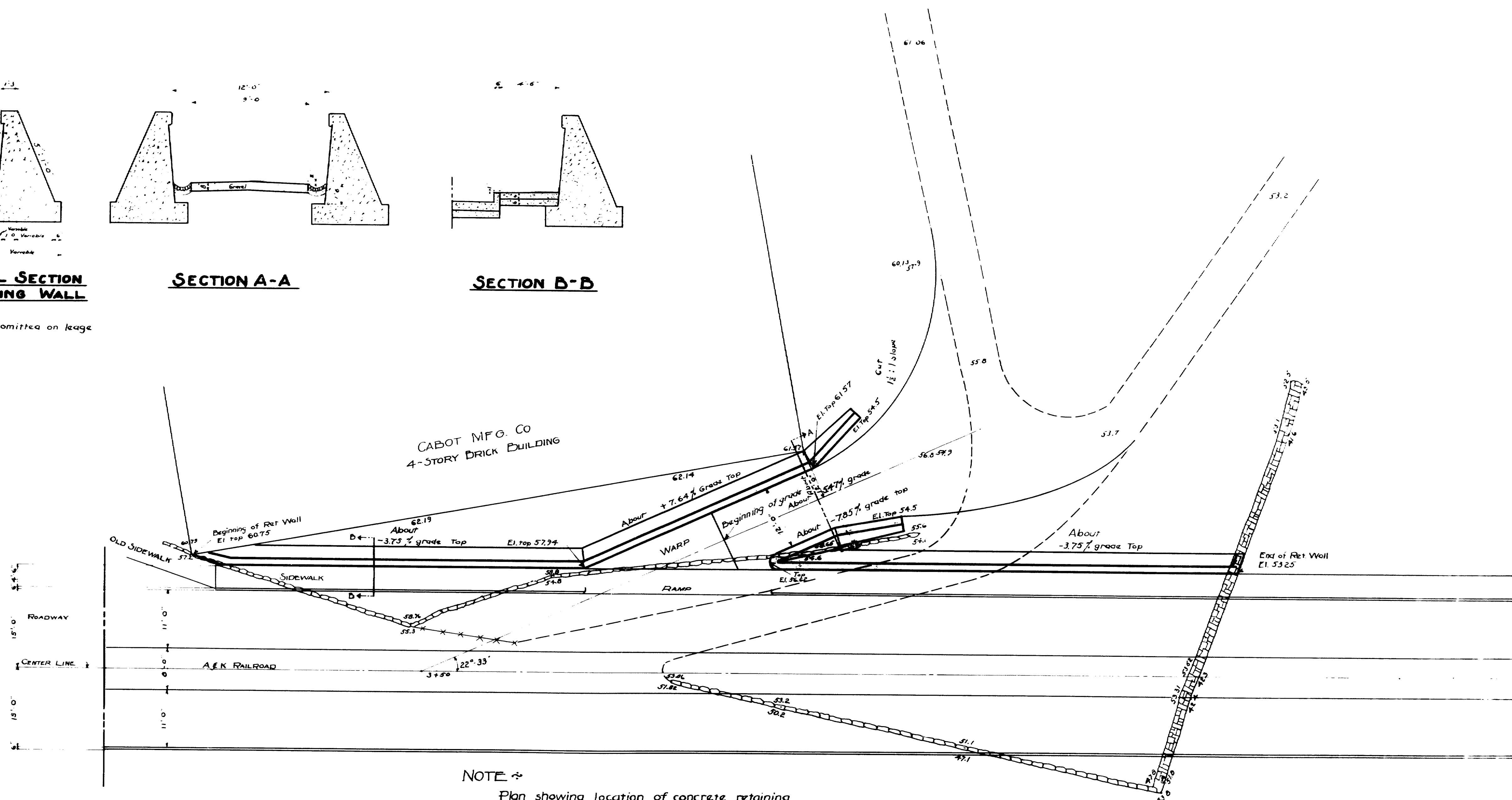
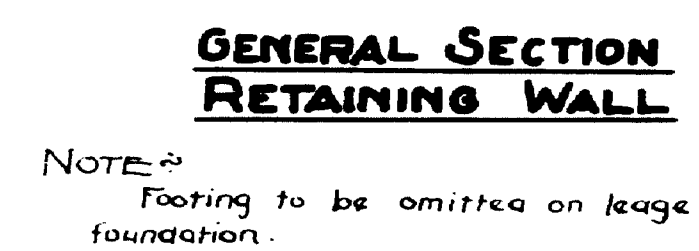
Note:-
Wooden ties embedded
in concrete.



Note ~

Blocks to be made of one part Portland cement and two parts of approved sand and cured under cover for seven days.

Plan ~ Hamilton
Traced ~ "
Checked ~ H.C.H.

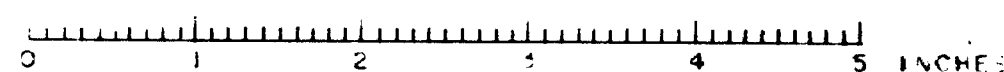


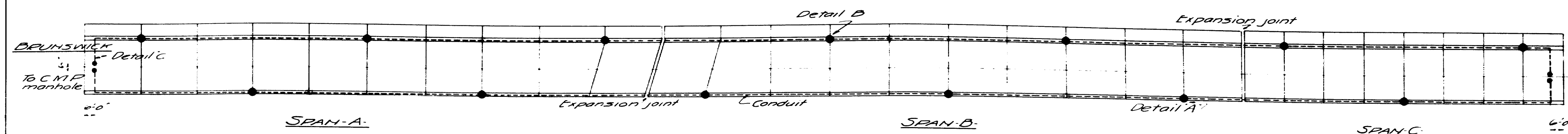
NOTE ~
Plan showing location of concrete retaining wall.
Location and elevations of wall subject to changes to meet field conditions.

SCALE 1" = 10'-0"

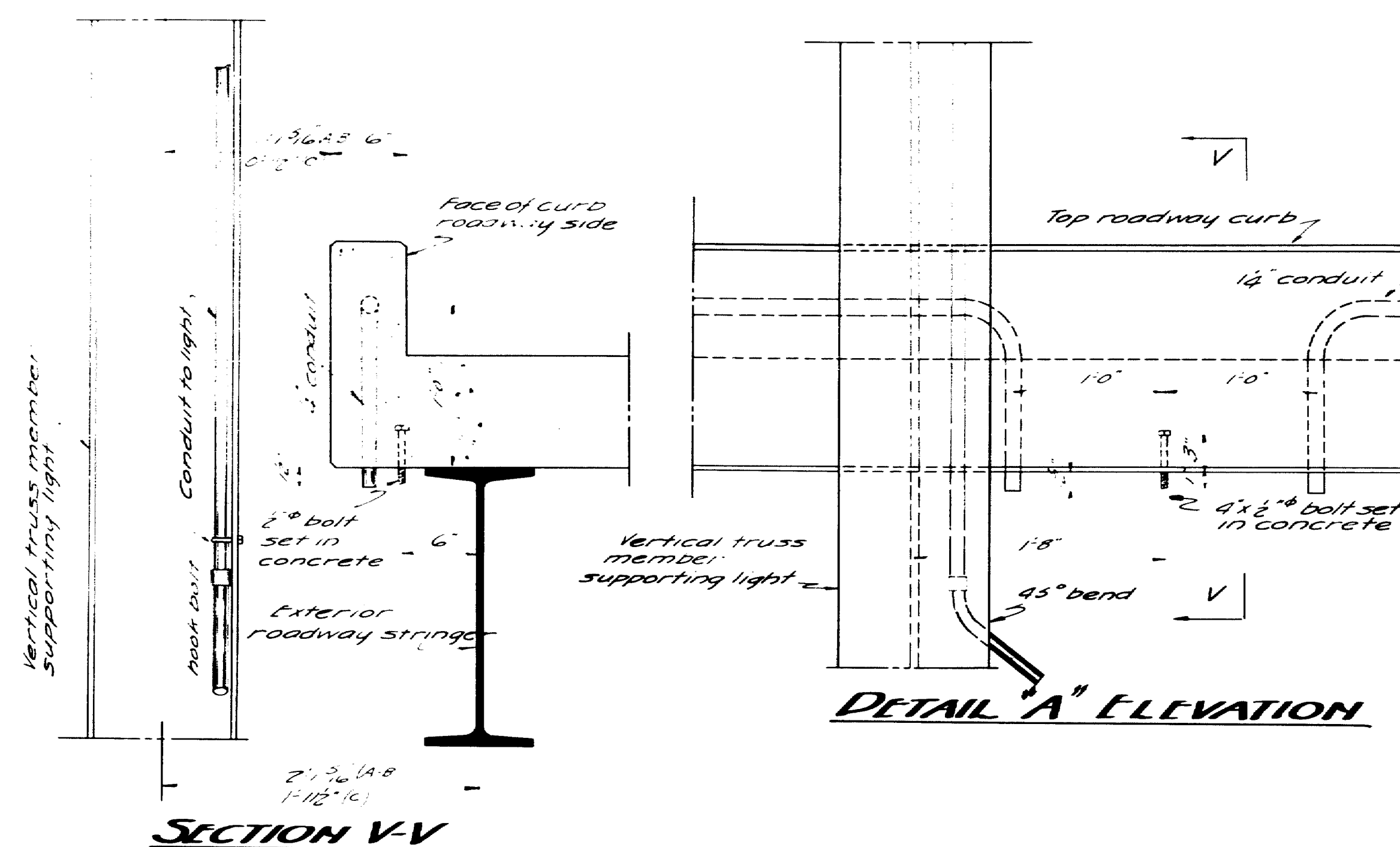
Plan - Hamilton
Tread -
Checked - 11.6.14

14-14

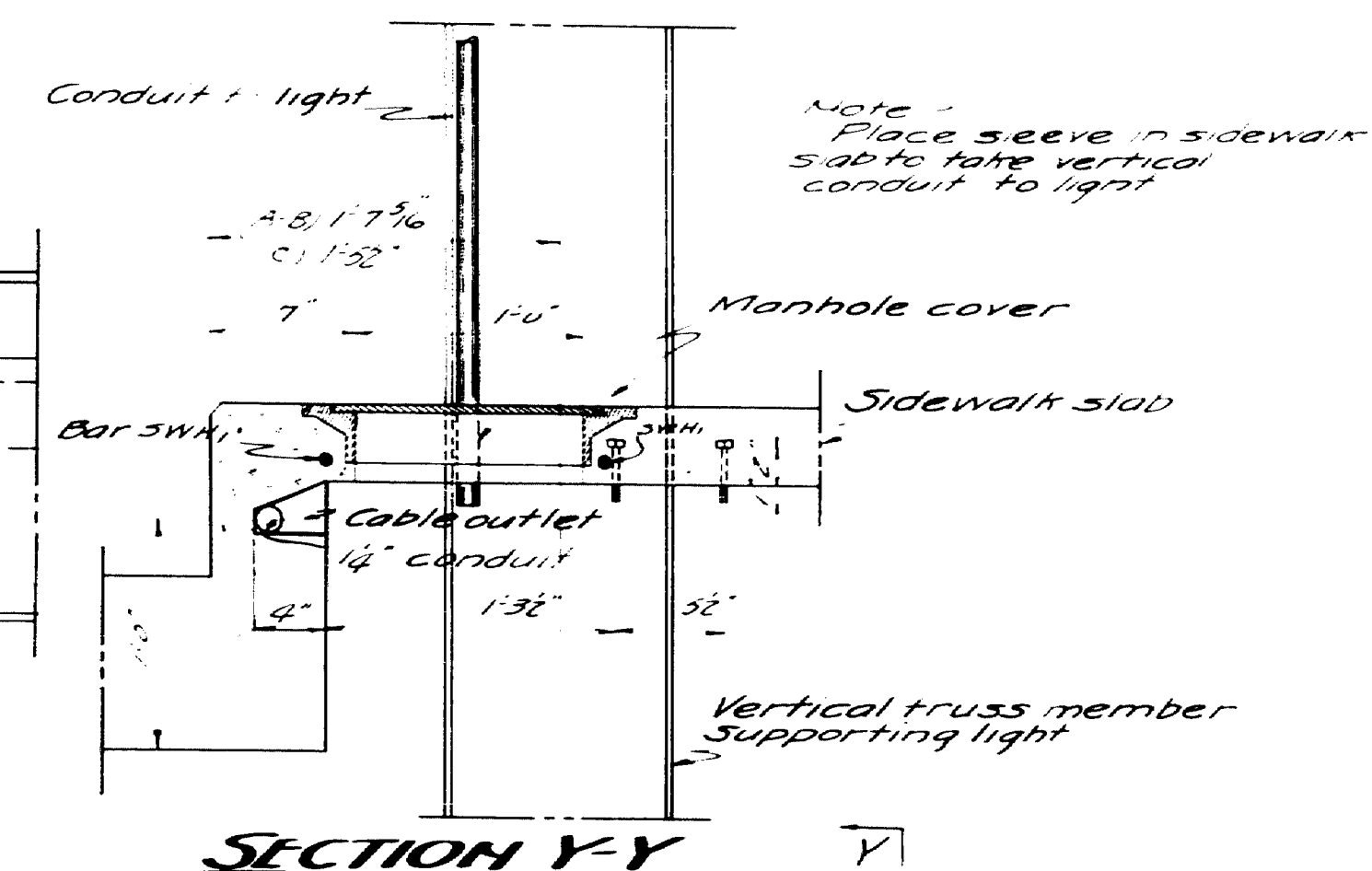




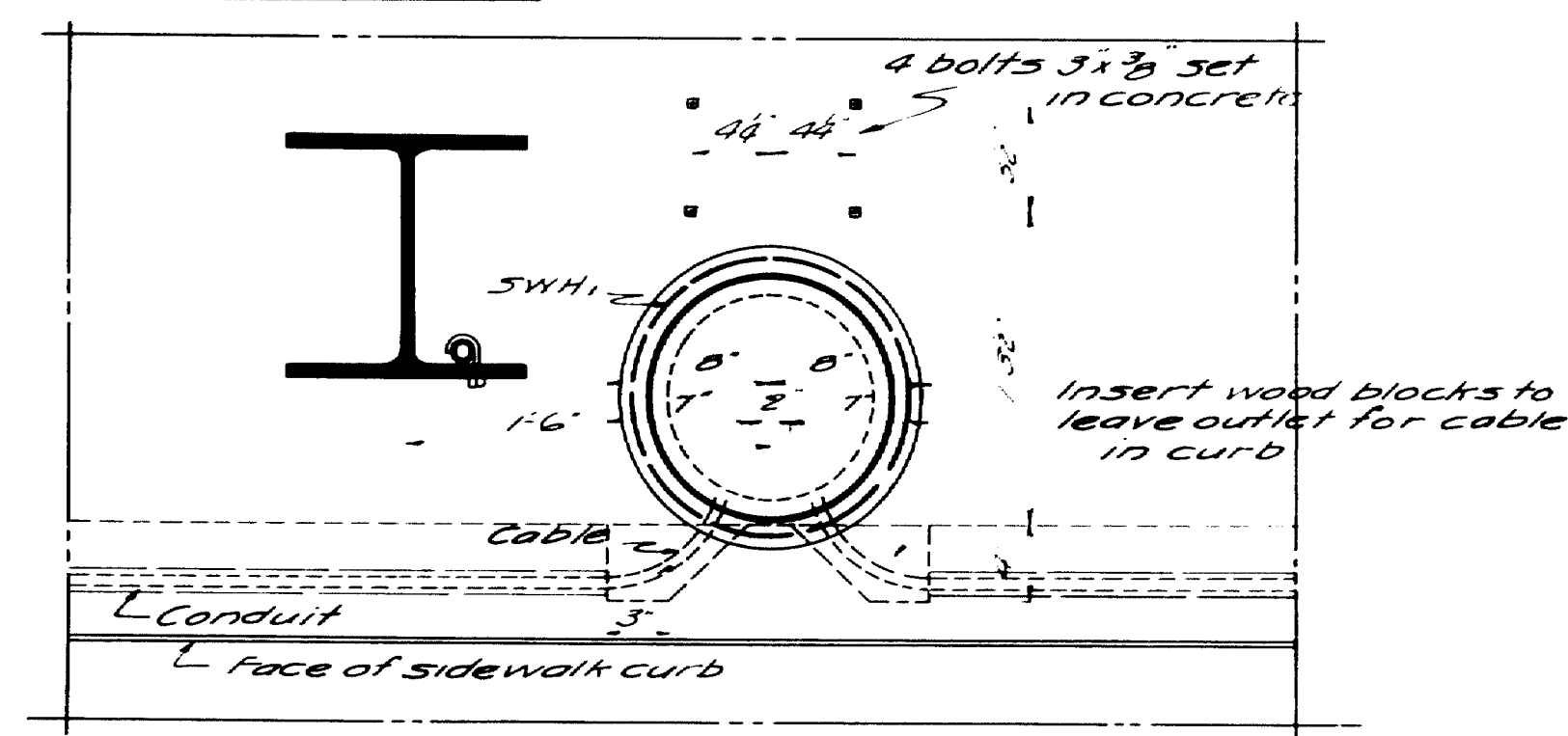
PLAN



DETAIL "A" ELEVATION

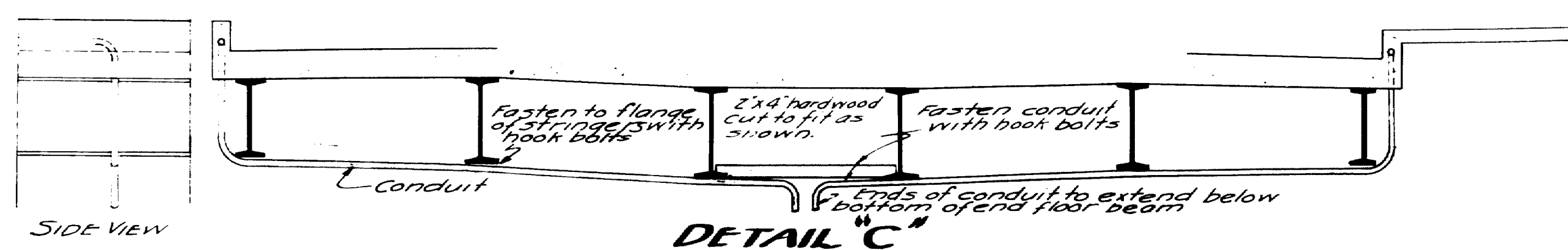


SECTION Y-Y



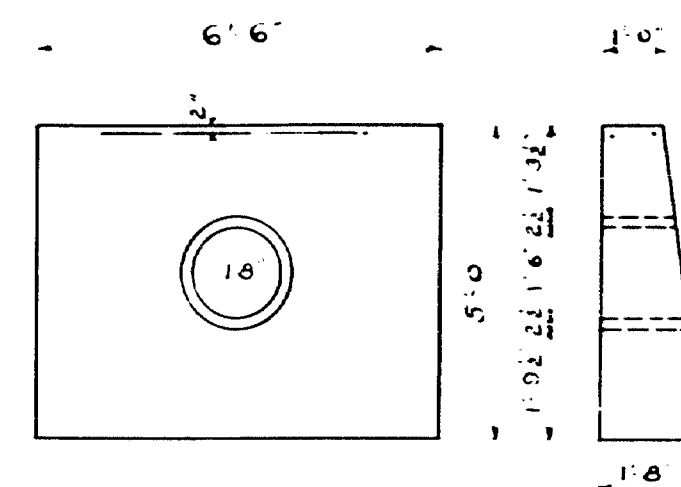
DETAIL "B"

Note- All conduit to be supplied and installed by floor contractor.
Lighting fixtures to be furnished by Commission
Wiring and all other materials to be furnished and installed by the towns.
Manhole covers to be furnished by the Commission

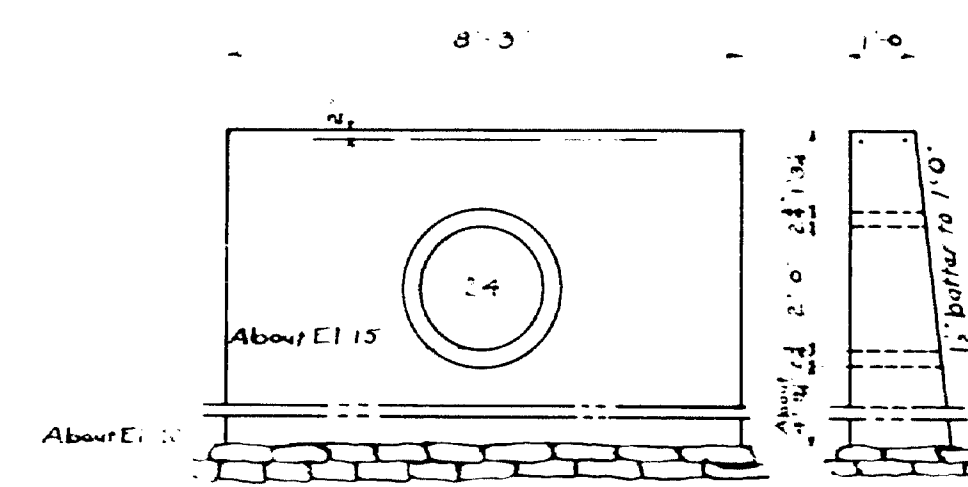


DETAIL "C"

Note ~
Top edges on front and ends to be
chamfered $\frac{1}{2}$ "
Endwalls to extend at least 2'-0" below
bottom of pipe.

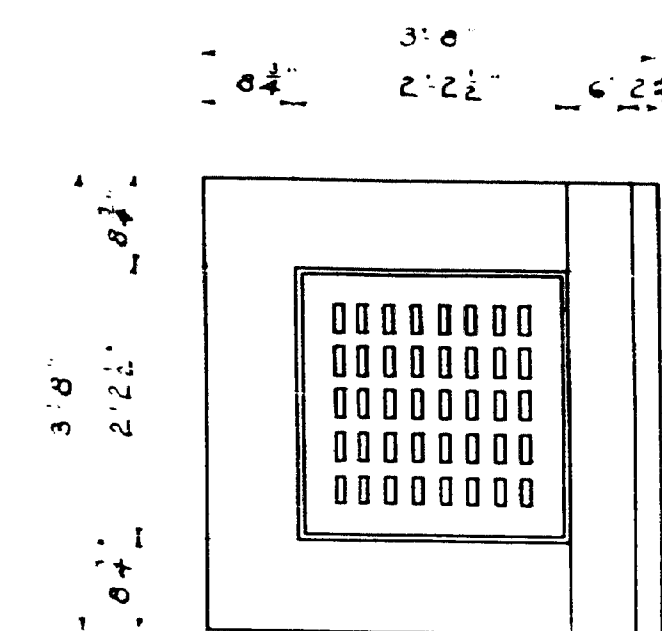


STANDARD CONCRETE END WALL
MINIMUM QUANTITIES - Each End
Pipe 18" x 58'-0"
Concrete 1.446 cu yds
Steel 2'-2" ϕ x 4'-0"

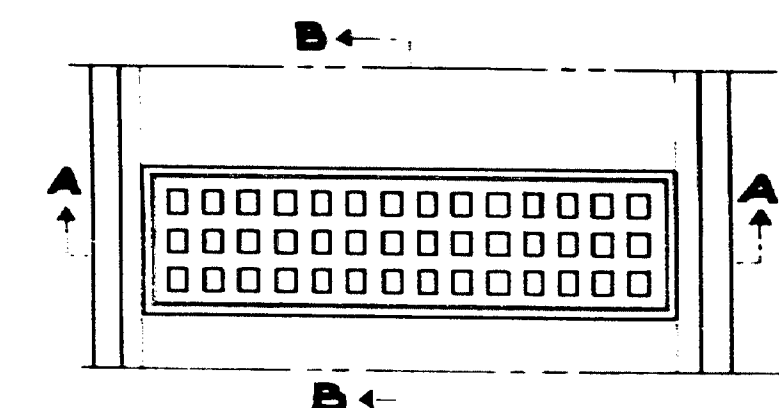


CULVERT AT STATION 20+59.76
MINIMUM QUANTITIES - Each End
Pipe 24" x 105'-0"
Concrete 2.010 cu yds
Steel 2'-2" ϕ x 5'-6"

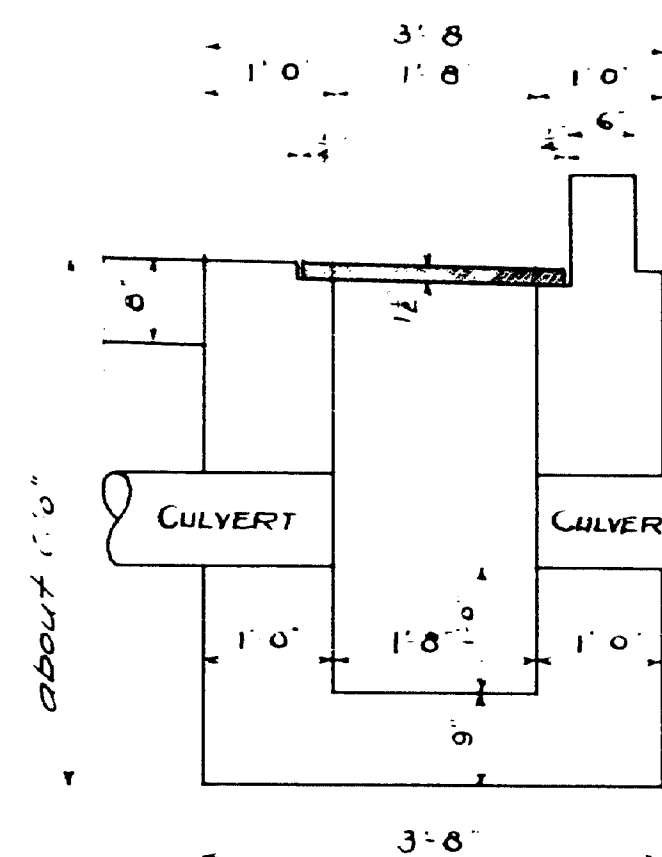
Note - If bottom is exceedingly mucky use
rock debris up to El. 10



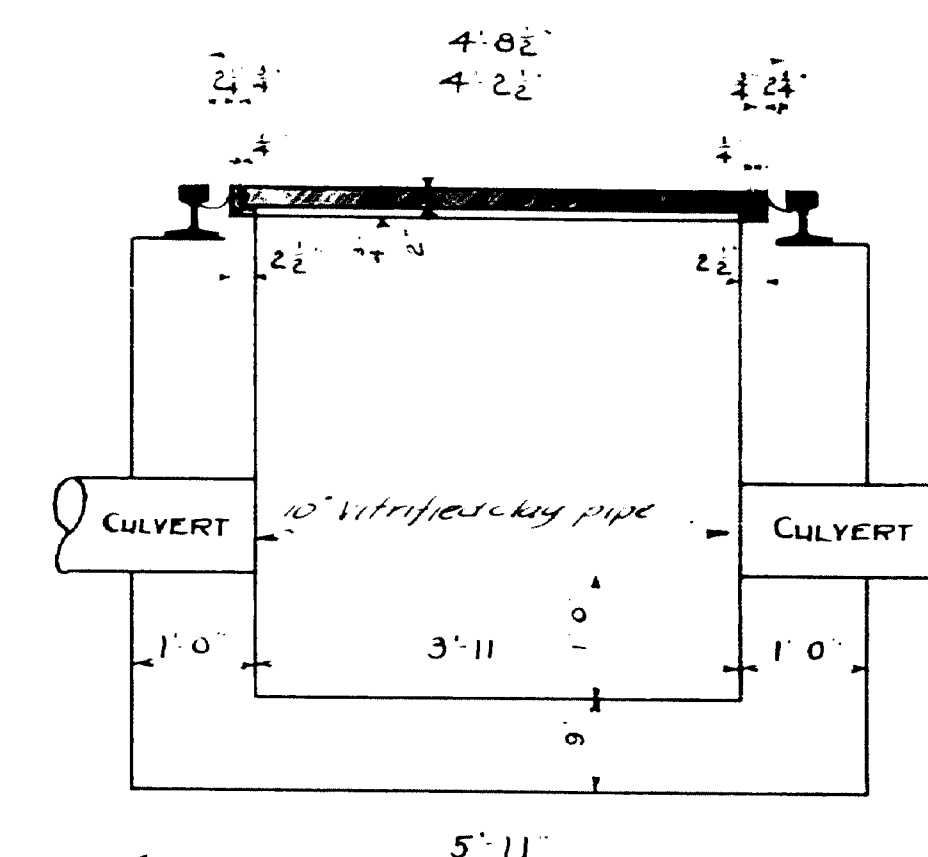
PLAN
Grate: 26x26 x 1/2" - Weight 200"
40 holes 2 1/2" x 1 1/2"



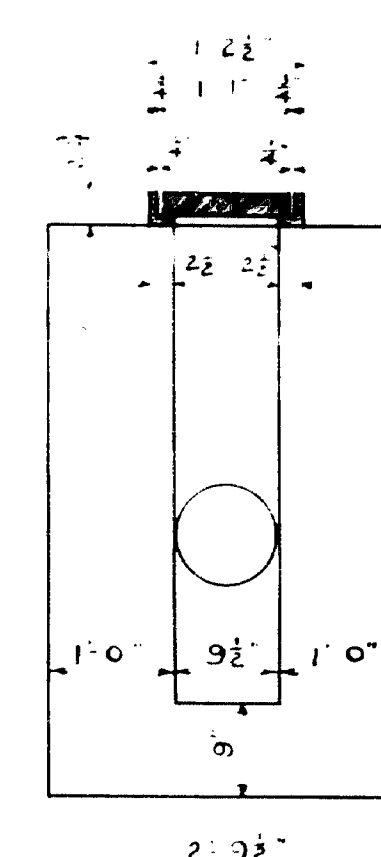
PLAN
Grate: 12 1/2 x 50 x 1/2" - Weight 200"
42 holes 2 1/2" x 2"
Frame: Casting as shown



DROP INLET SECTION
To 0.39 cu yds add 0.39 cu yds
for each foot of height

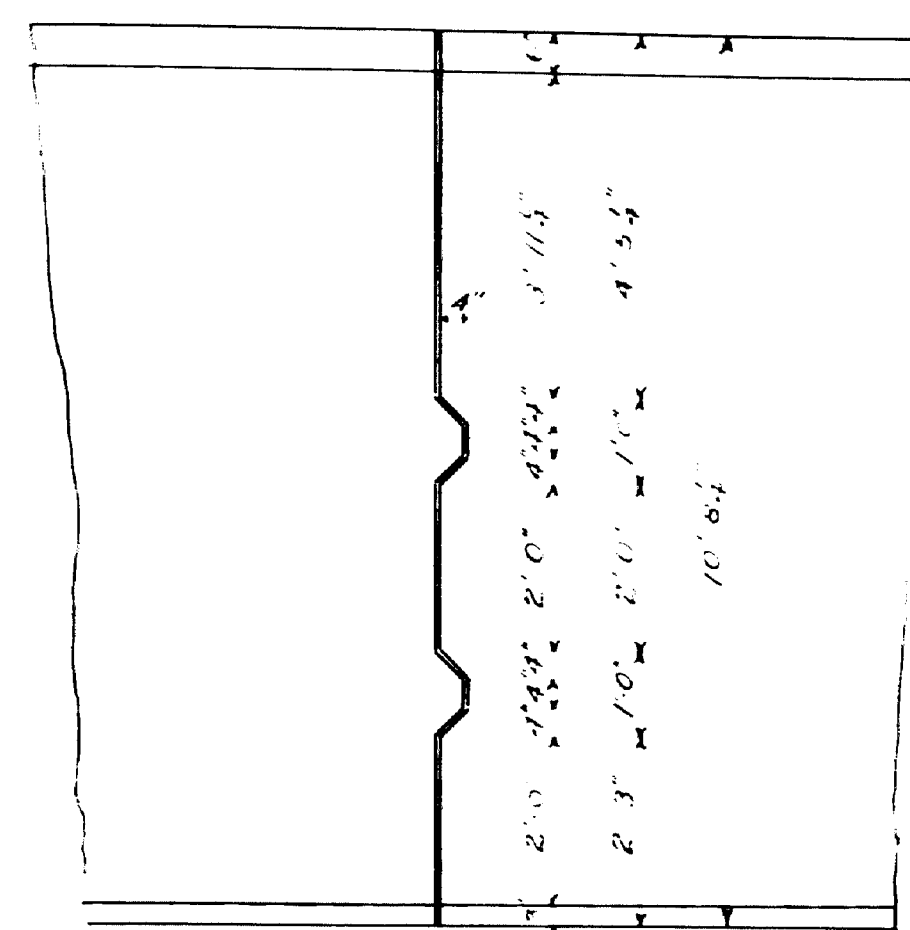
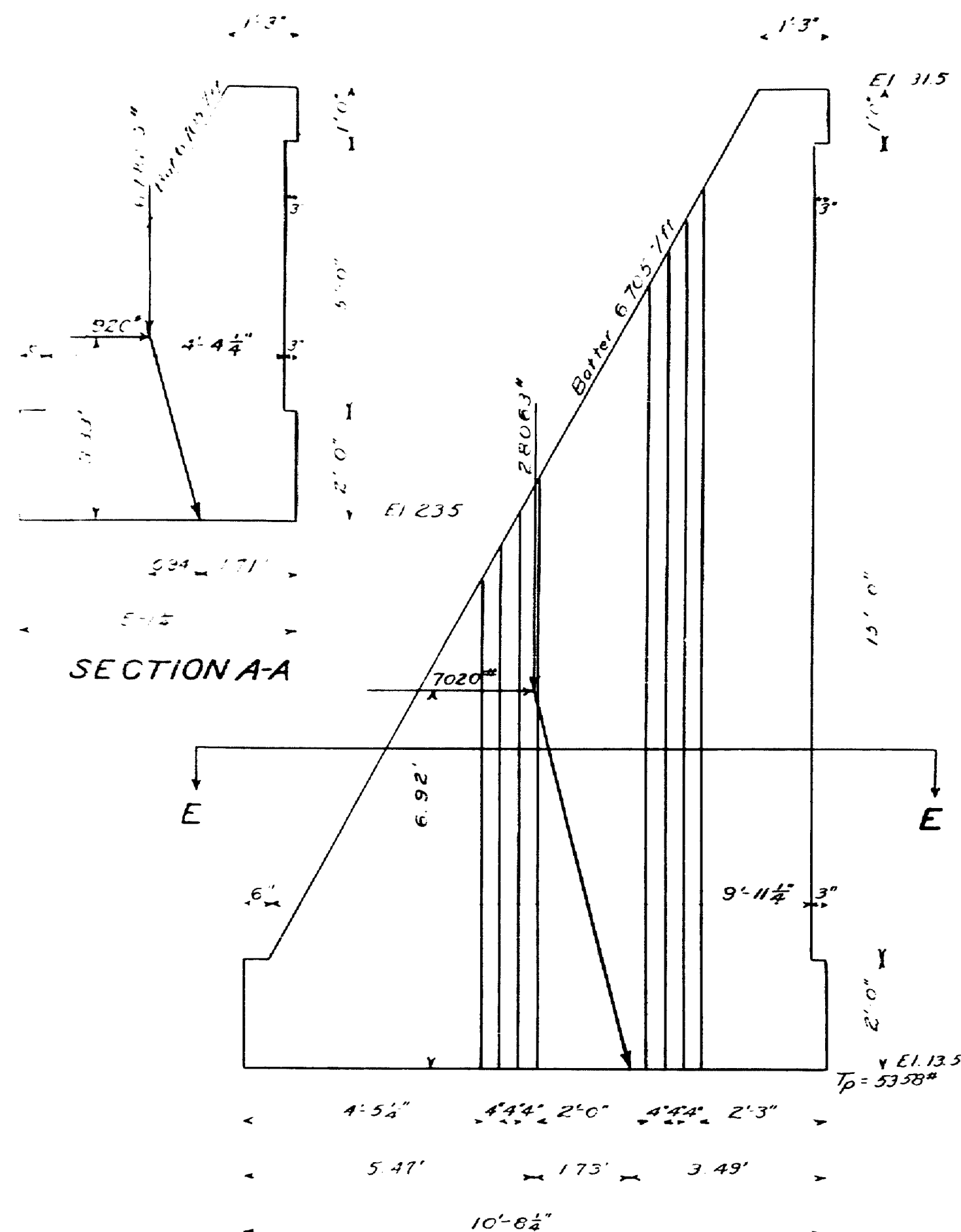


DROP INLET SECTION A-A

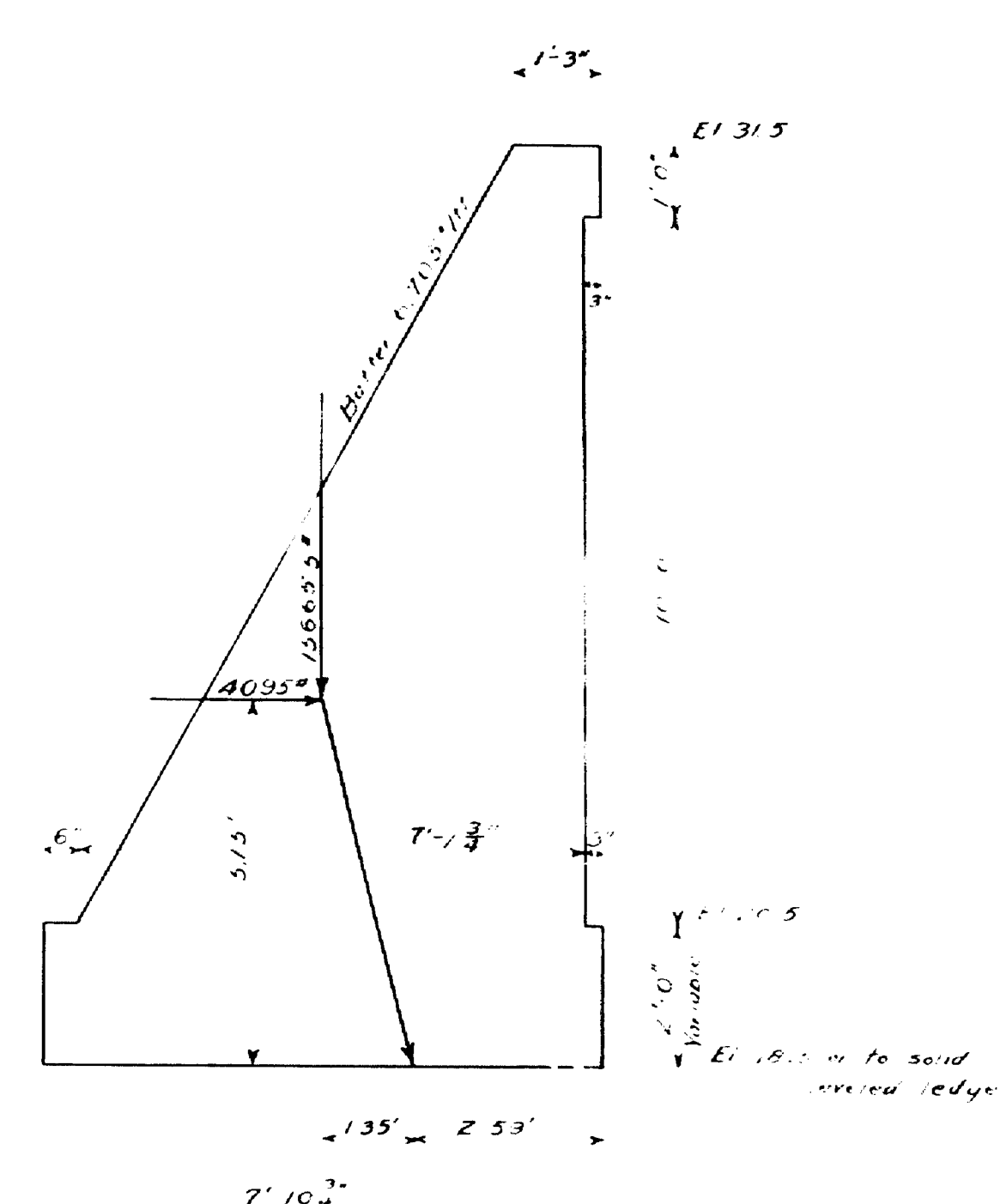
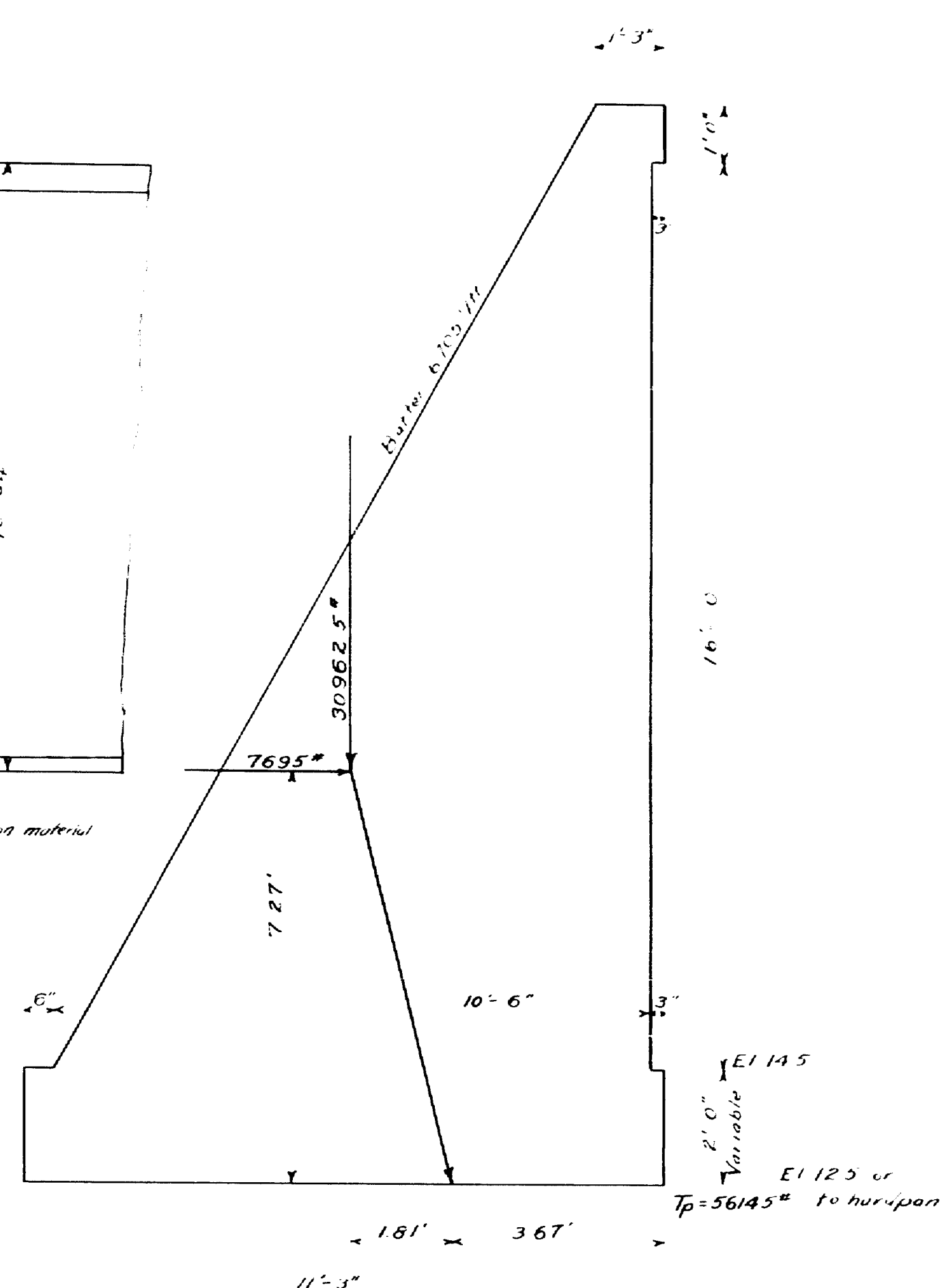


SECTION B-B

Plan ~ Hamilton
Traced ~
Checked ~ HCH

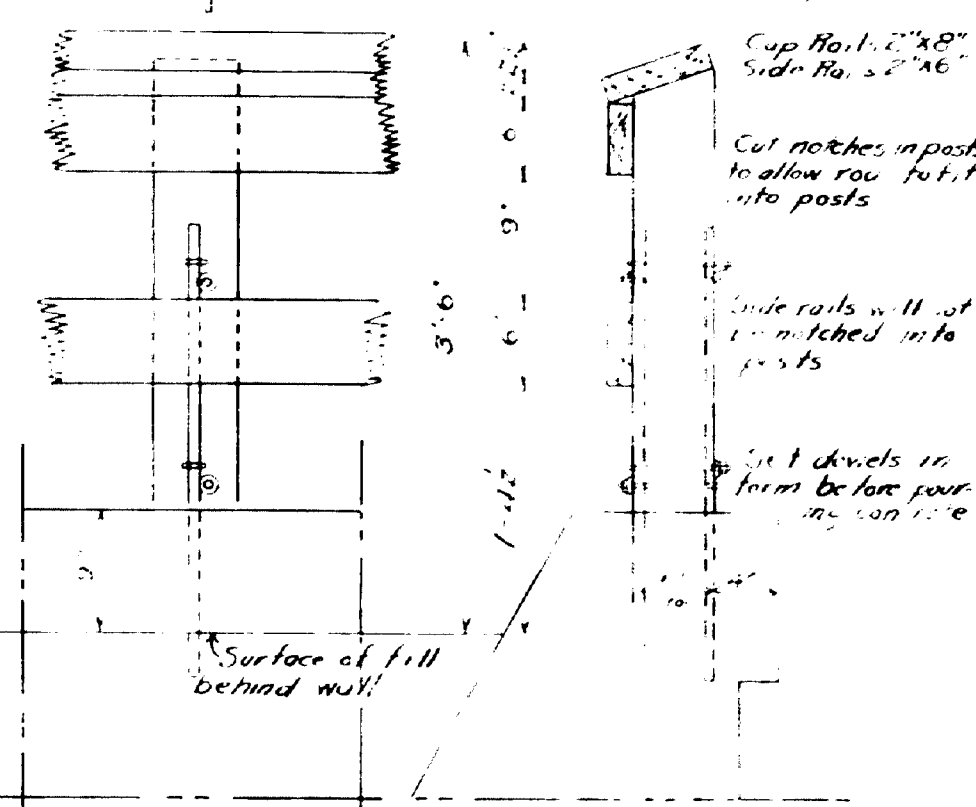


Note - The 3'x5' Box Culvert to come thru retaining wall.



Dowels - 3/4" 34 Rod @ 2'-9" = 93' c. (last)
Hook Bolts 4" per post

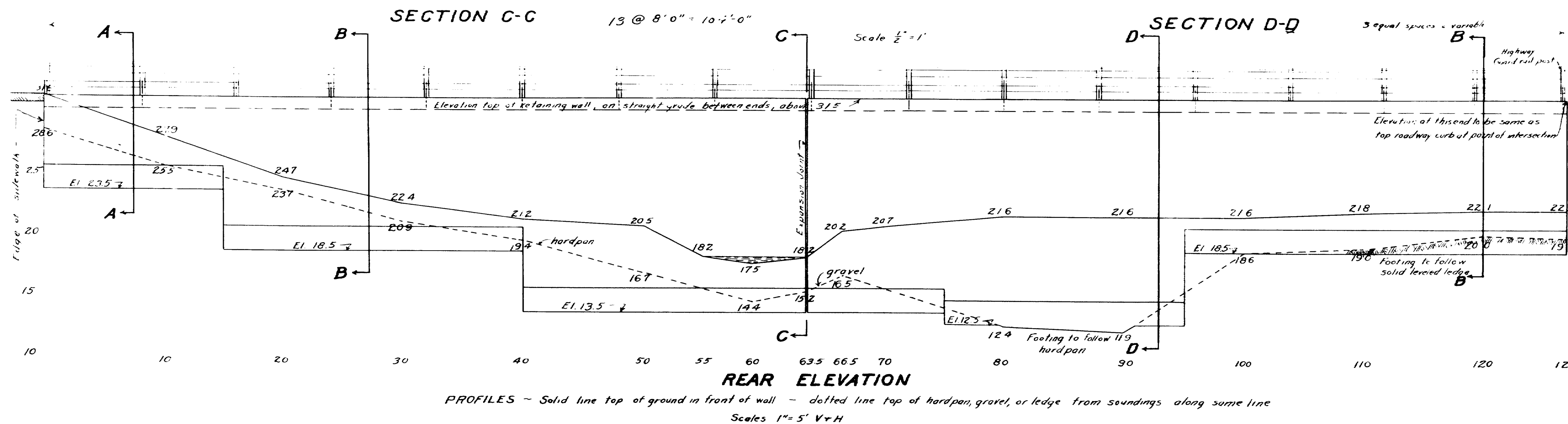
Base bolts in posts to allow bolts to sit over road and extend thru posts



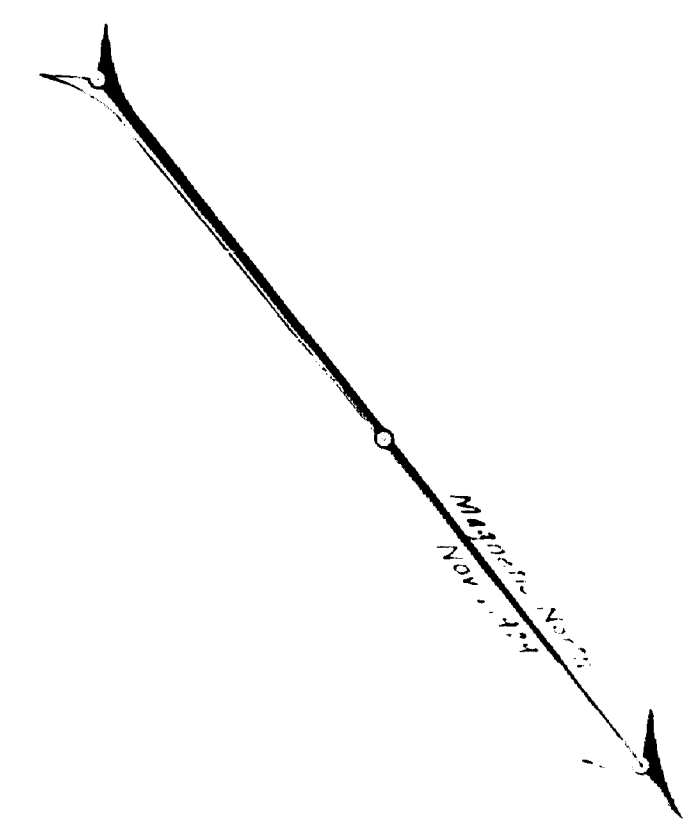
GUARD RAIL DETAILS

MAINE HIGHWAY COMMISSION
BRIDGE DIVISION
ANDROSCOGGIN RIVER BRIDGE
OVER THE
ANDROSCOGGIN RIVER
BETWEEN THE TOWNS OF
BRUNSWICK AND TOPSHAM
CUMBERLAND AND SAGadahoc Co.
RETAINING WALL ON PROPERTY LINE
A.L. BOUCHER - TOPSHAM APPROACH
SHEET of AUGUSTA, ME. JULY 3, 1931.

14-145



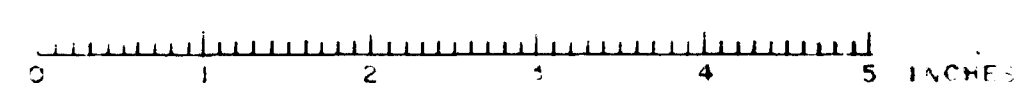
0 1 2 3 4 5 INCHES



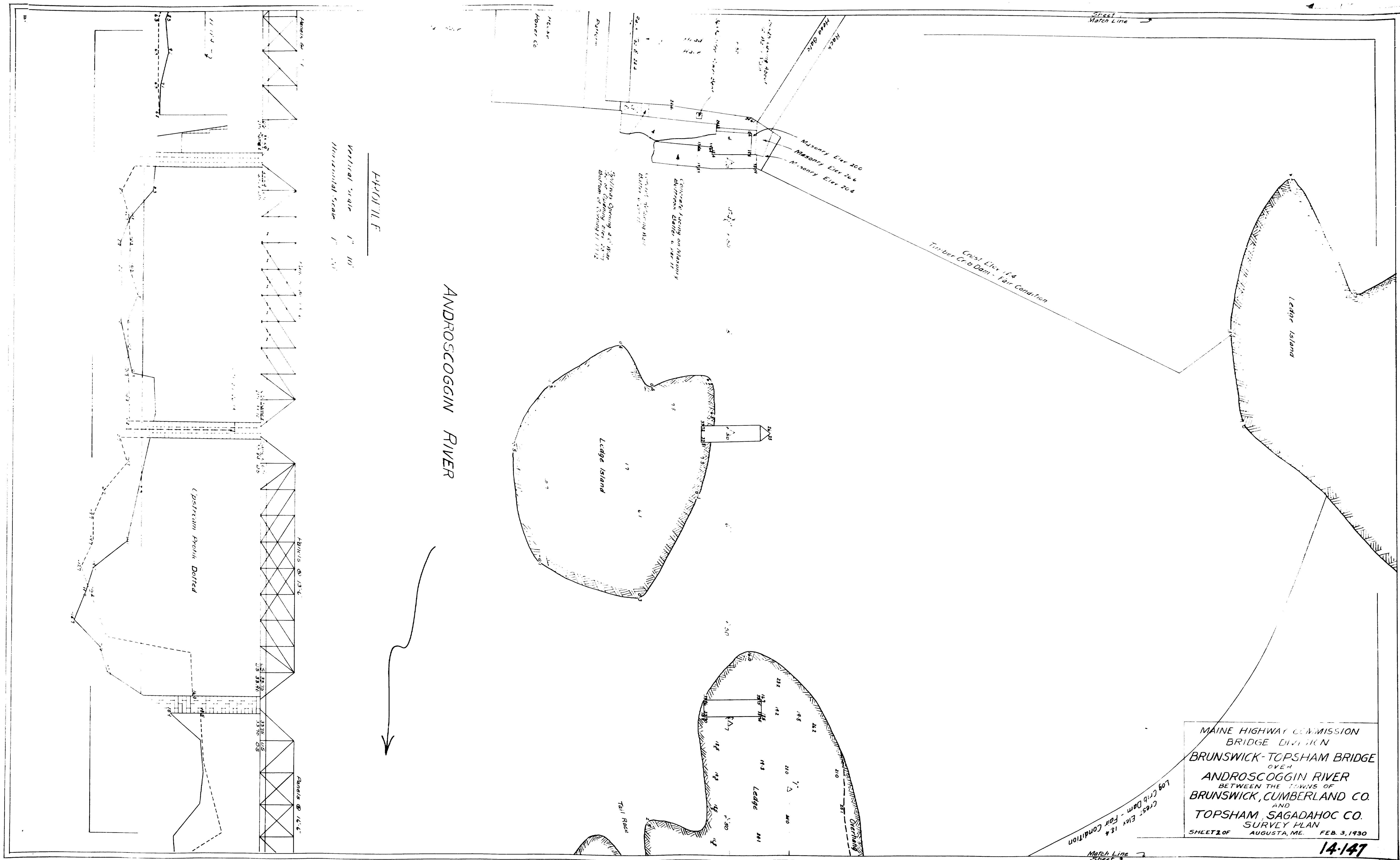
MAINE HIGHWAY COMMISSION
BRIDGE DIVISION
BRUNSWICK-TOPSHAM BRIDGE
OVER
ANDROSCOGGIN RIVER
BETWEEN THE TOWNS OF
BRUNSWICK, CUMBERLAND CO.
AND
TOPSHAM, SAGadahoc CO.
SURVEY PLAN
SHEET 1 OF AUGUSTA, ME. FEB. 3, 1930

14-146

Match Line
Sheet 2

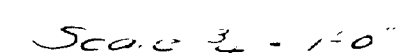


Surveyed by Deelman, Dec. 2, 1929
Plotted and Traced by Deelman

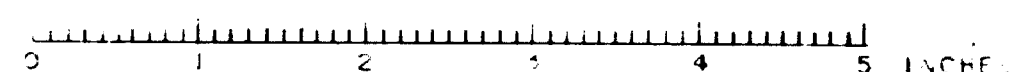


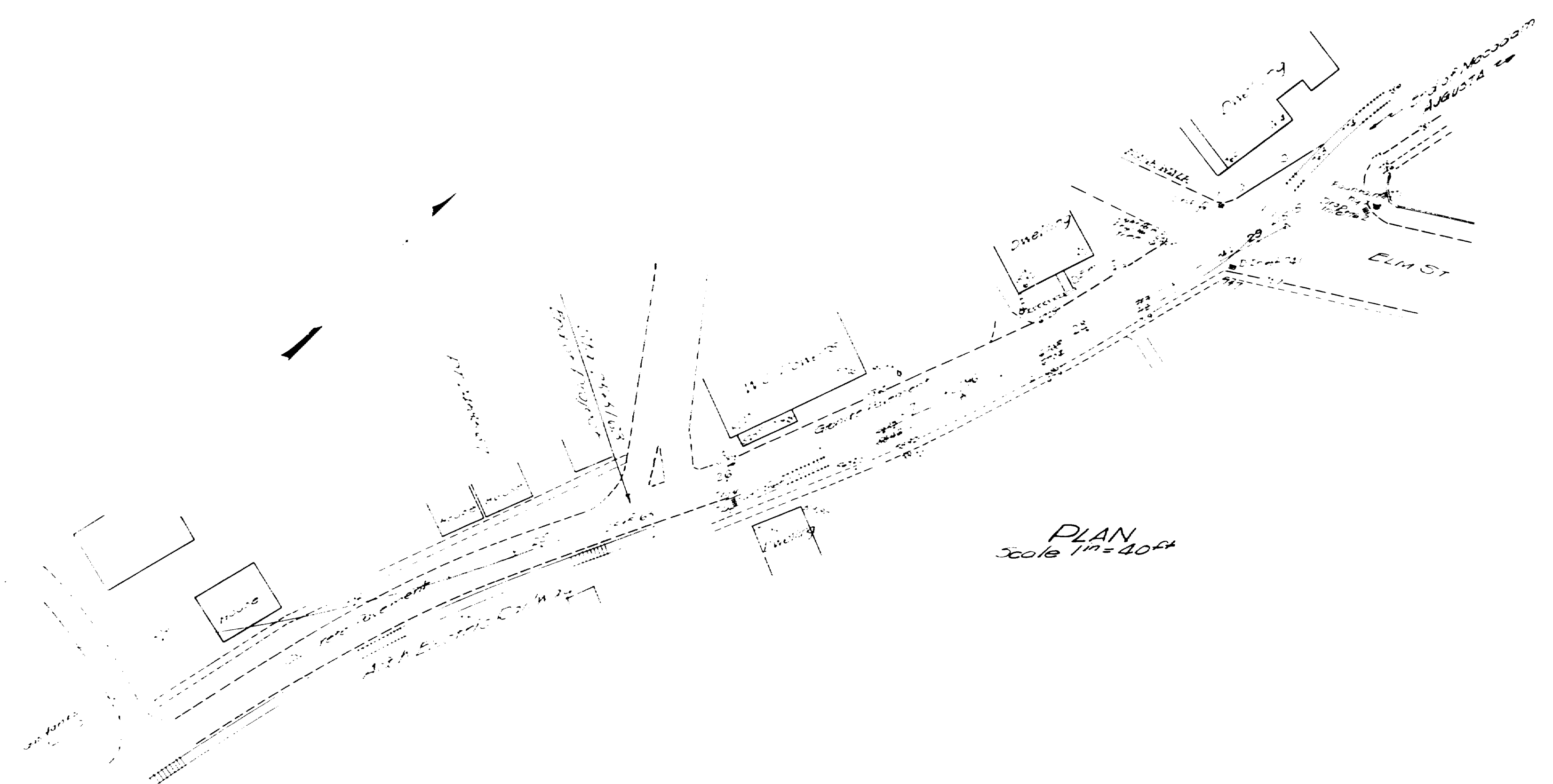
BRIDGE

Method of supporting water pipe
underneath bridge floor. 5-3-3

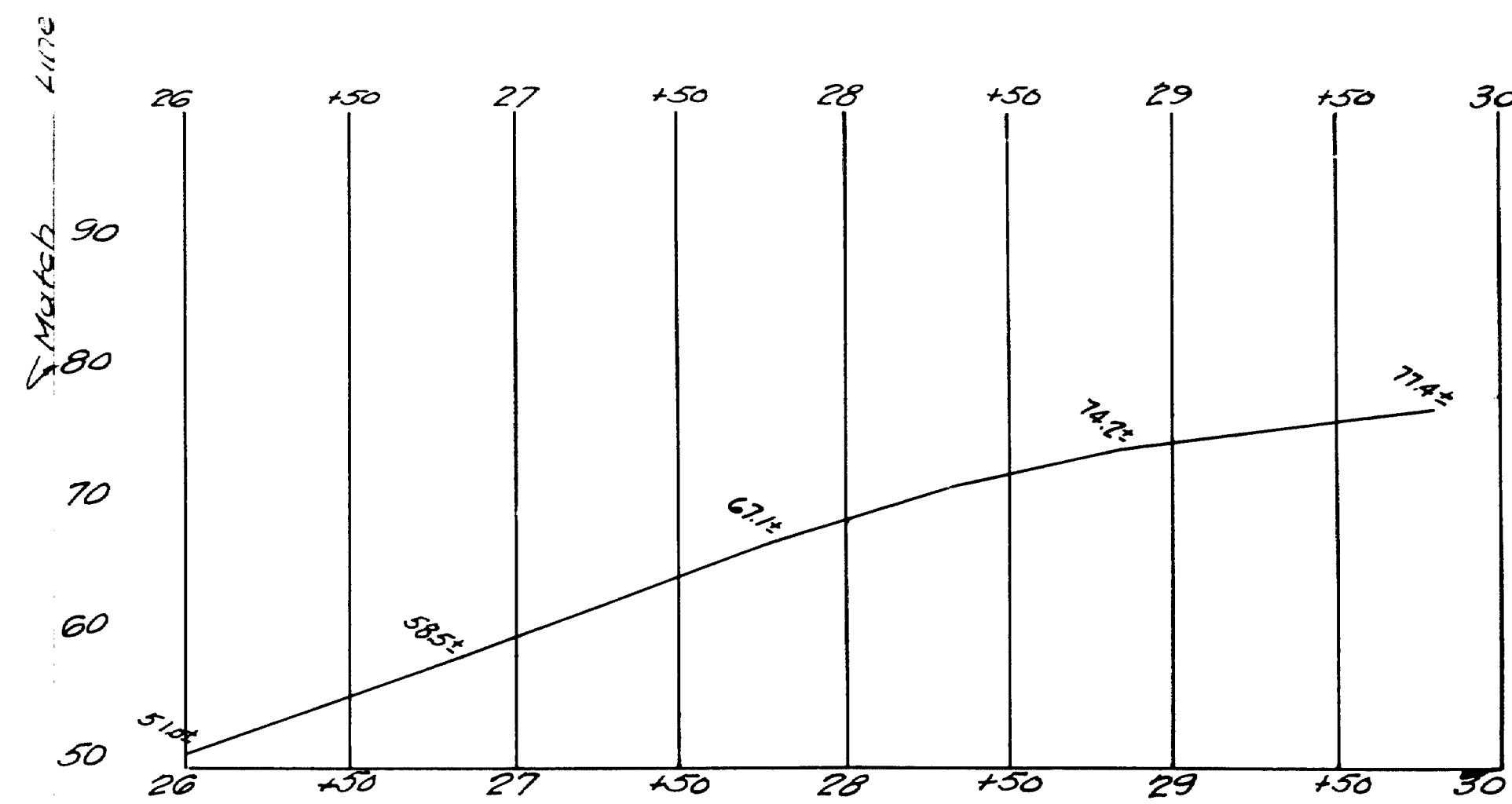


10.13.43
10.13.43
10.13.43



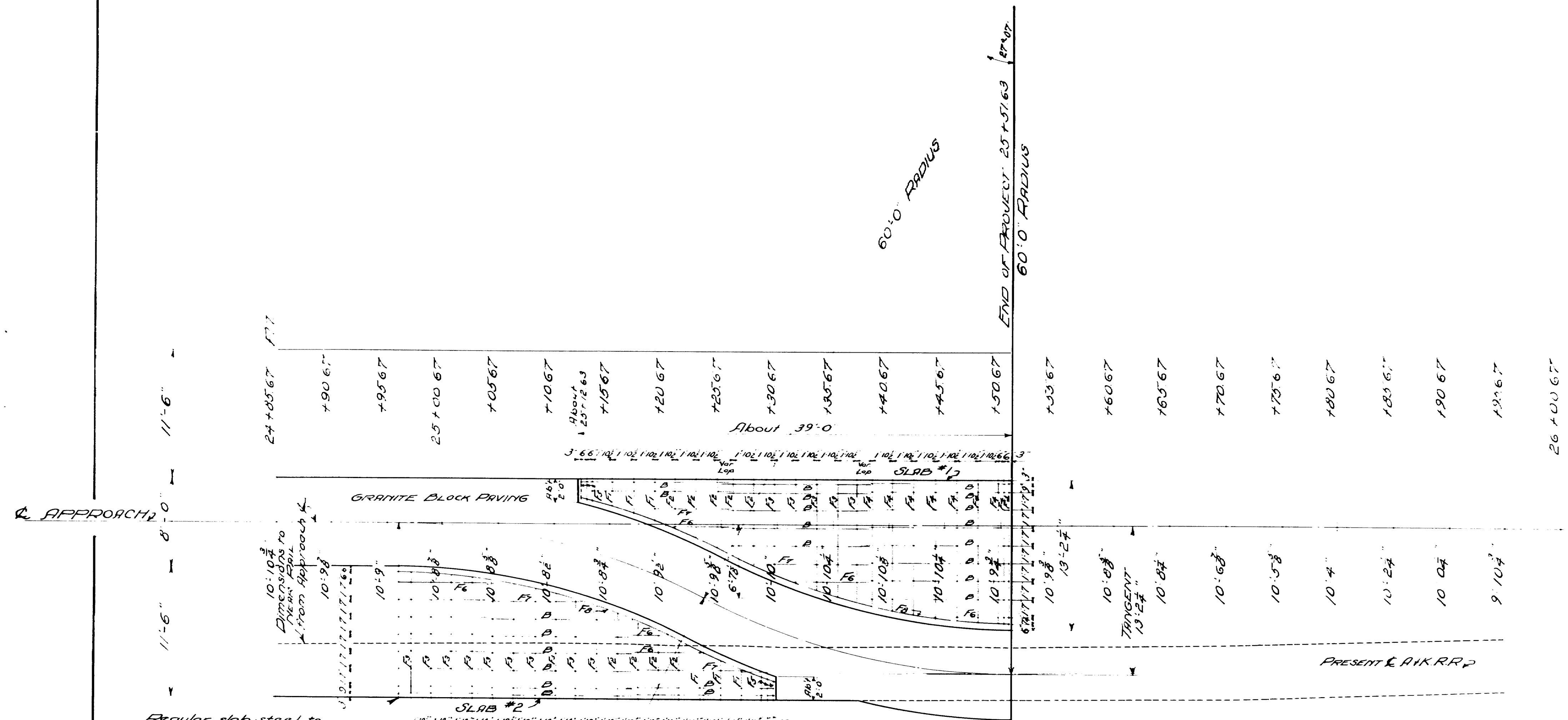


PLAN
Scale 1" = 40'

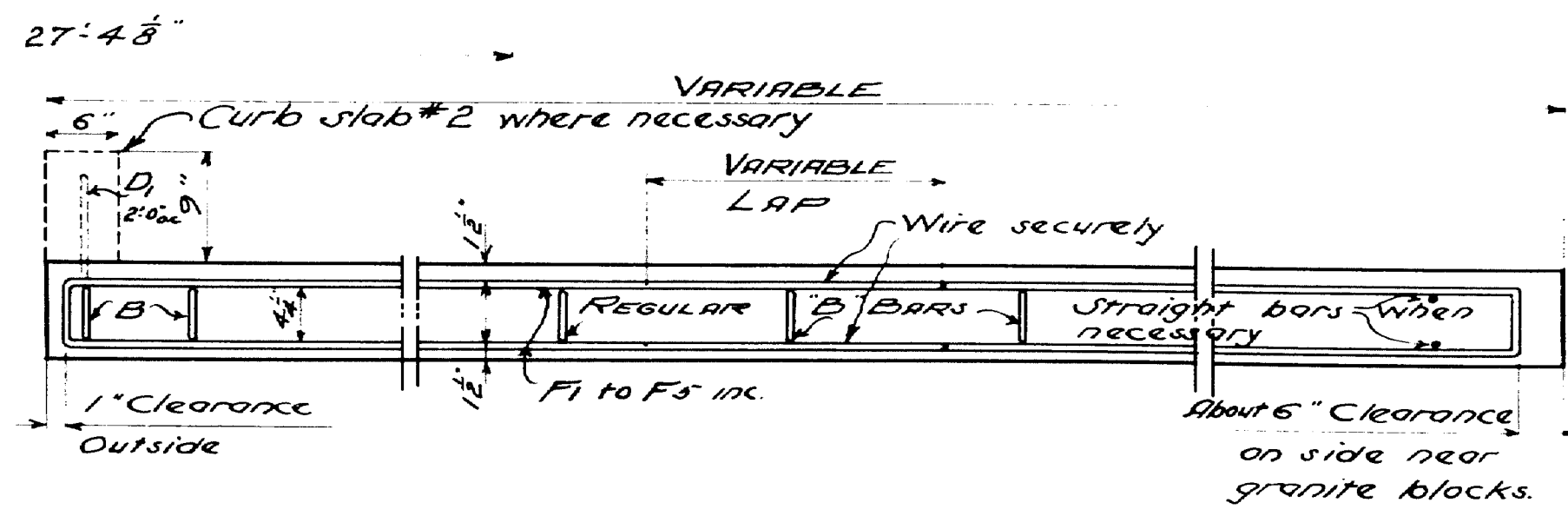


Approximate Profile along Road
SCALE 1" = 40' Hor.
1" = 10' Vert.

SLAB DETAIL AND TRACK LAYOUT AT END OF PROJECT



Regular slab steel to the left of this point. B bars extend into slab #2. These B bars are not included in schedule.



TRANSVERSE SECTION

NOTE - Longitudinal section is similar to regular slab section. (Sheet 30)

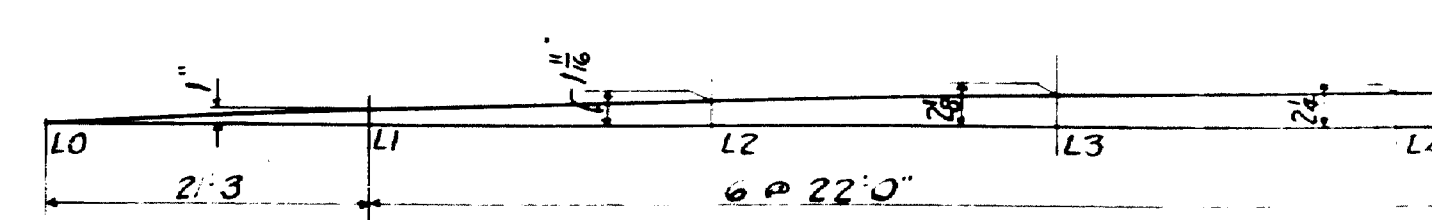
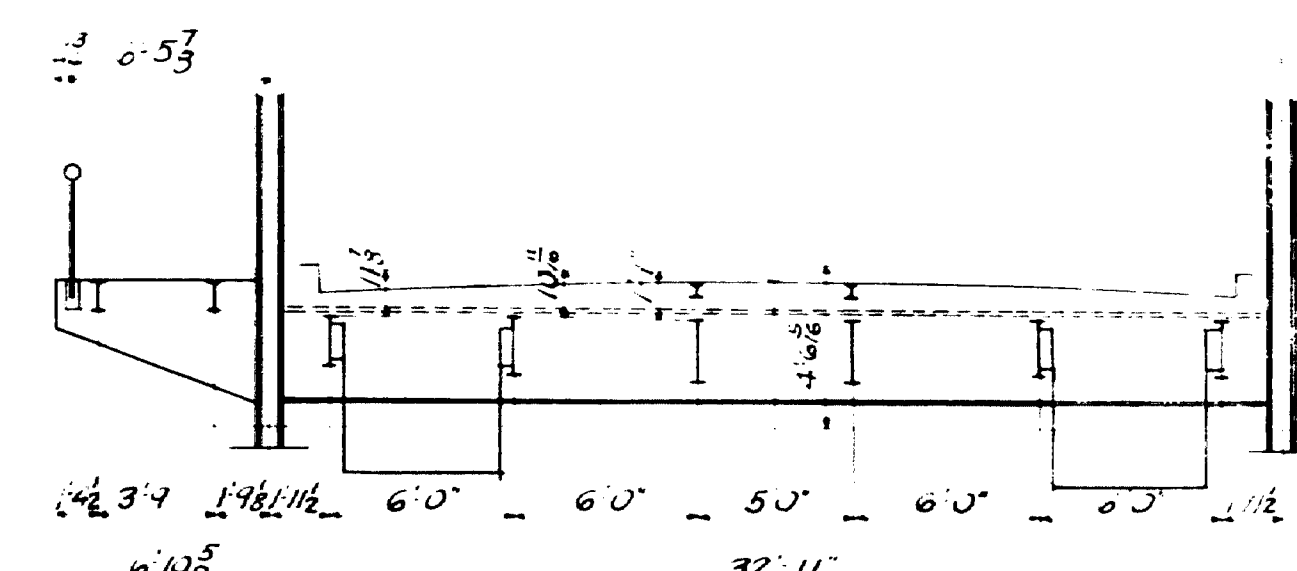
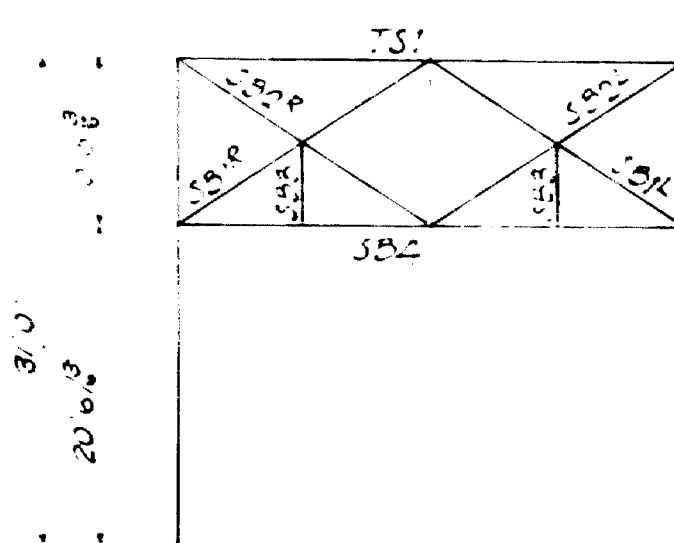
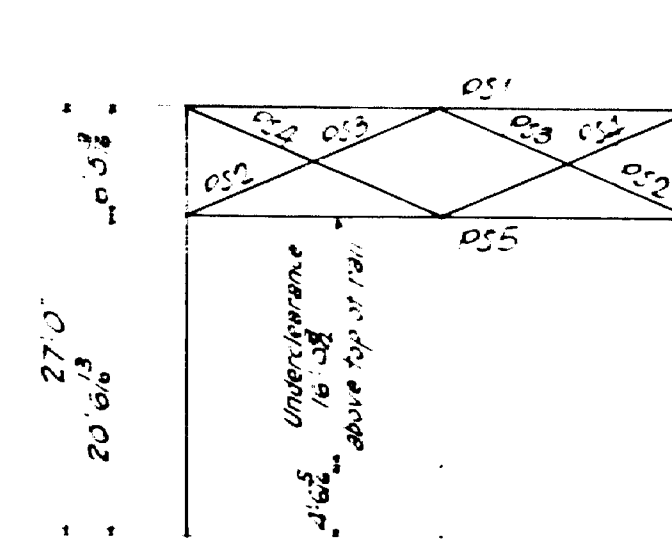
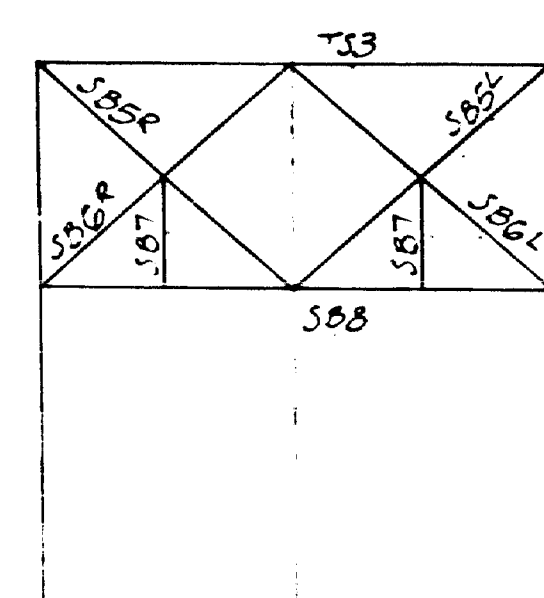
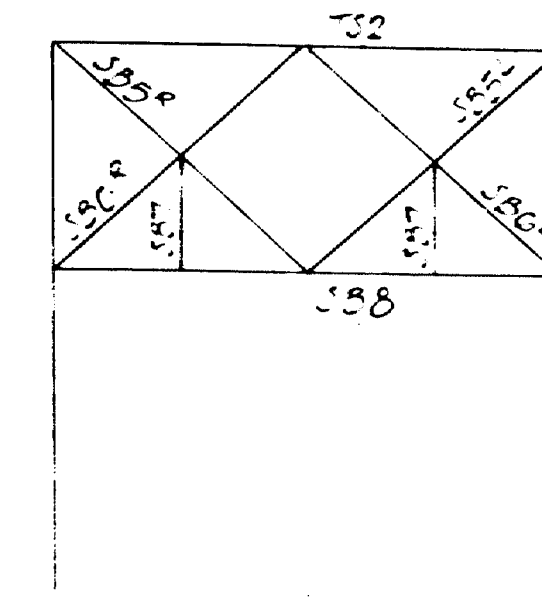
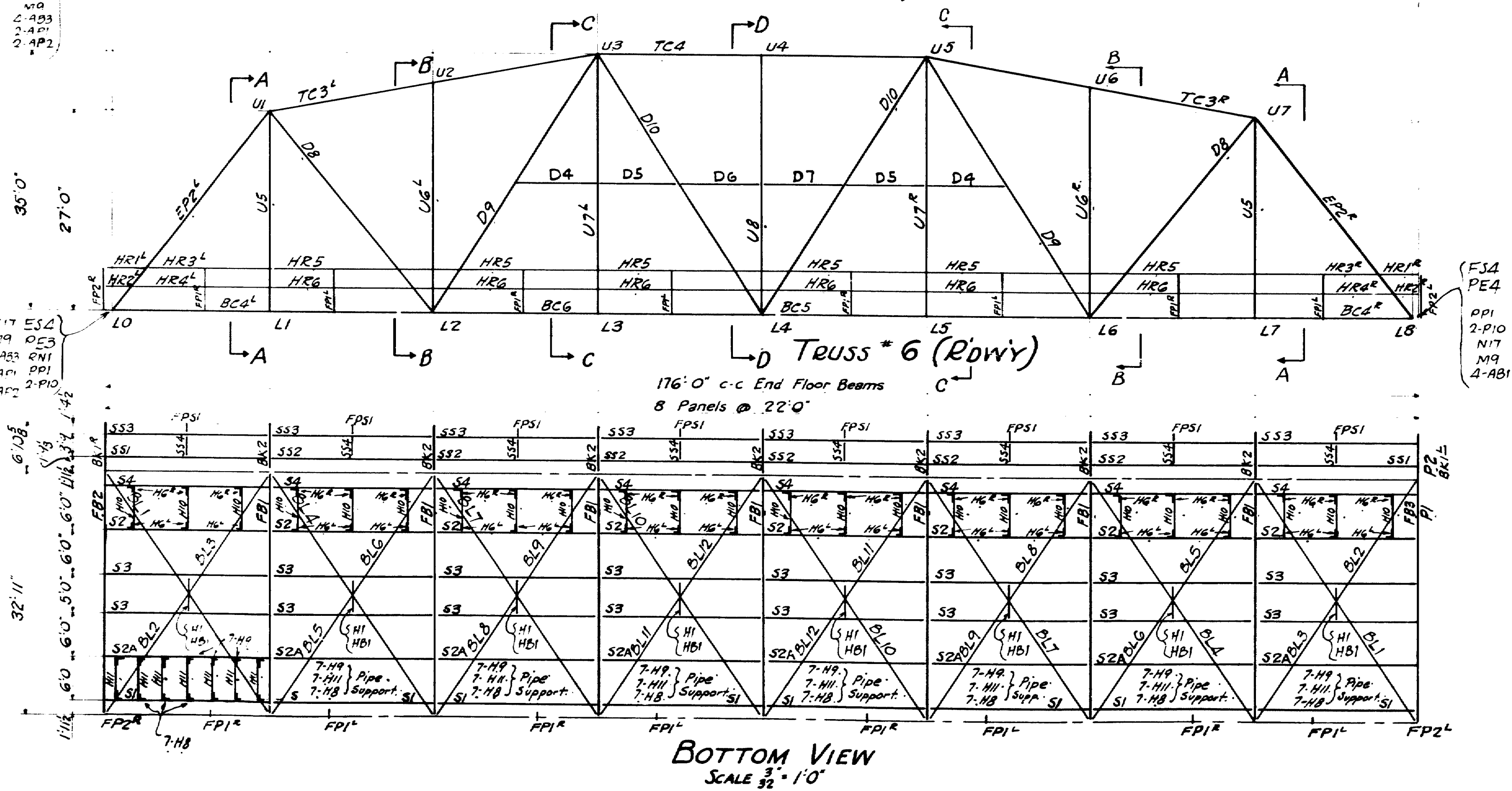
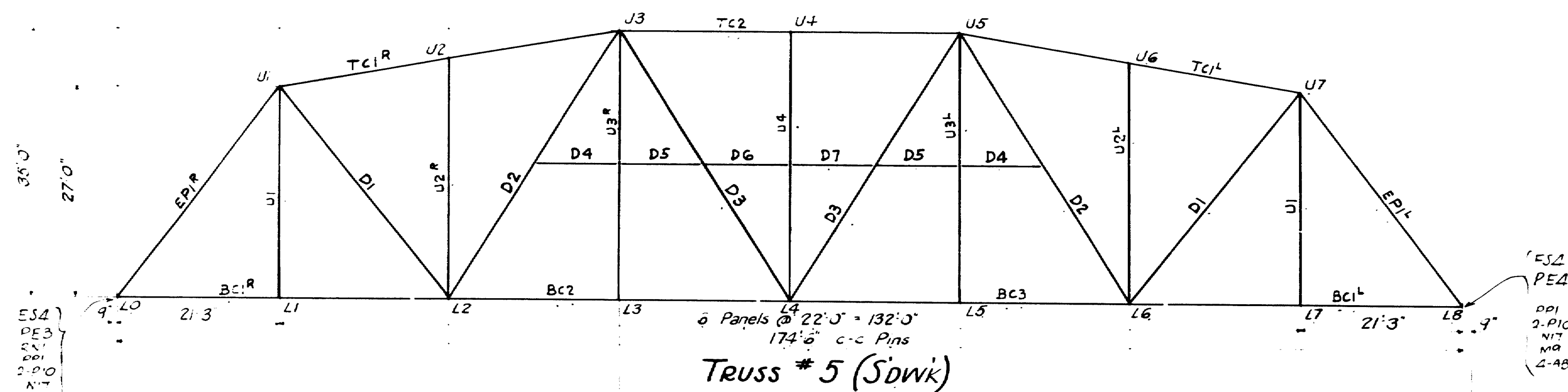
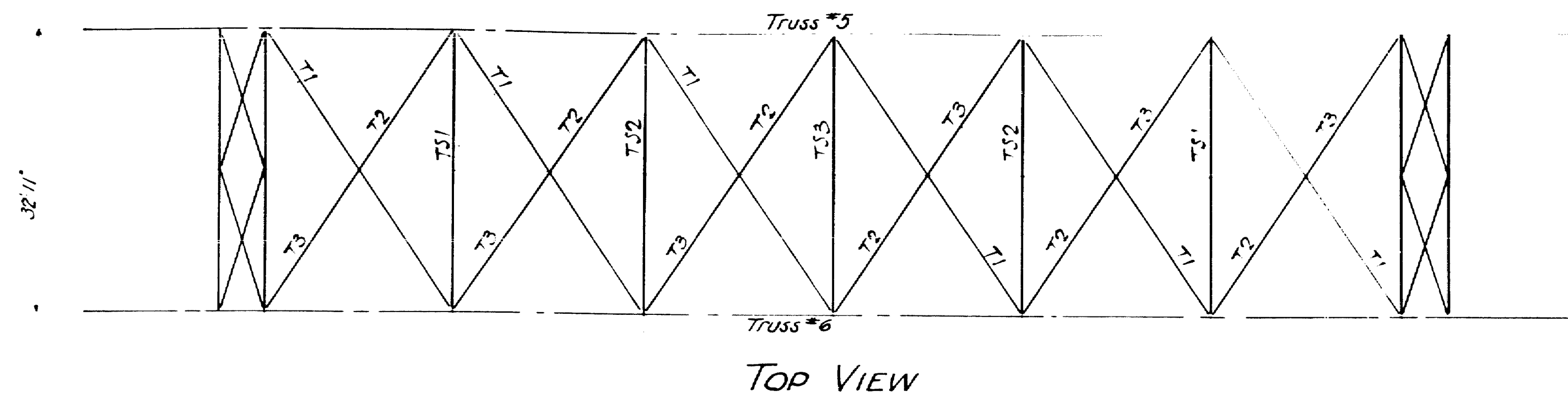
STEEL SCHEDULE					
A					
MARK	SIZE	NO REQ'D	Δ	TOTAL LENGTH	LOCATION
F1	3/8"	12	2'-0"	4'-4 3/8"	Slabs #1 & #2
F2	"	18	4'-0"	8'-4 3/8"	"
F3	"	30	6'-0"	12'-4 3/8"	"
F4	"	18	7'-0"	14'-4 3/8"	" #1

STRAIGHT STEEL					
MARK	SIZE	NO REQ'D	LENGTH	LOCATION	
F5	3/8"	12	1'-6"	Slabs #1 & #2	
F6	"	12	7'-0"	"	
F7	"	8	10'-0"	"	
F8	"	8	25'-0"	"	
D1	5/8"	17	1'-2"	Curb	

NOTE - 23 "B" bars req'd (See detail on SHEET No. 30.)

All steel to be plain rounds of good structural grade. Note - See SHEET #30 for spacing of blocks and spacers. Use similar methods for slabs #1 & #2.

Plan - Checked
Traced - " V.B.H.
Checked - " V.B.H.

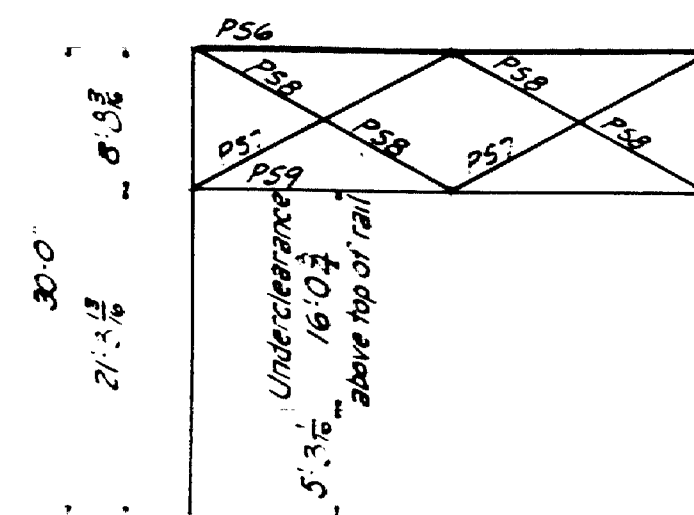


Brinsford - Topsham Bridge
over Androscoggin River - State of Maine
Erection Plan - Span "C"

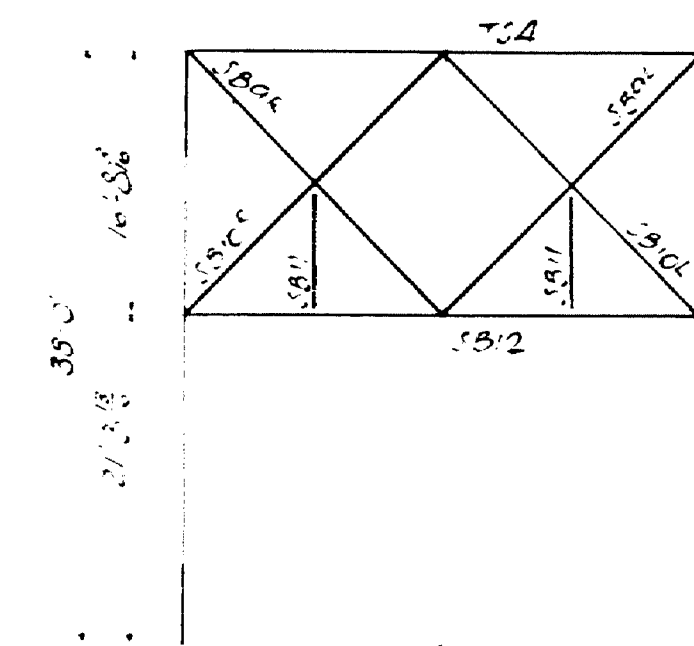
E.M.H.
A.E.S.

as noted 5-11-31

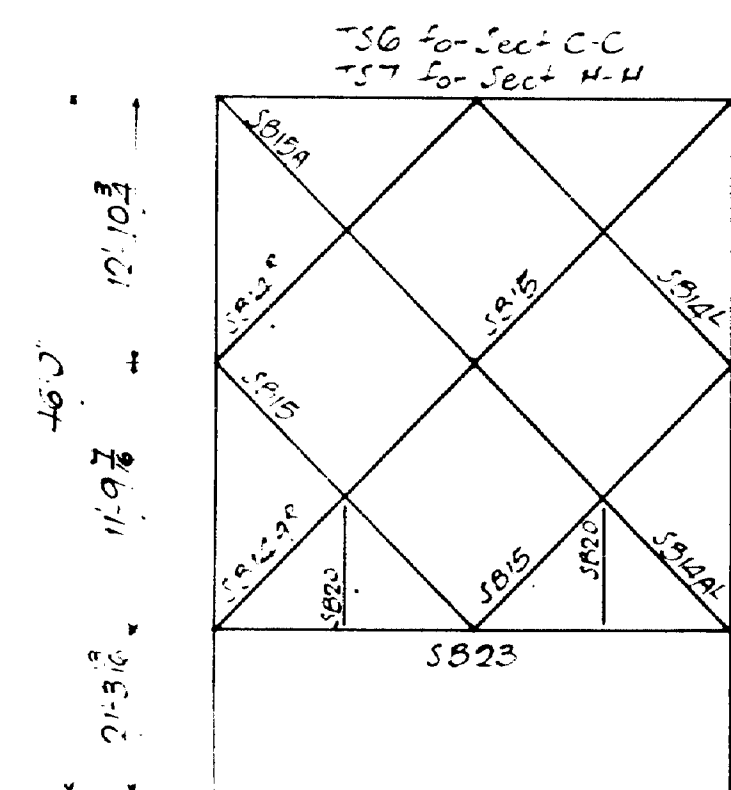
5928



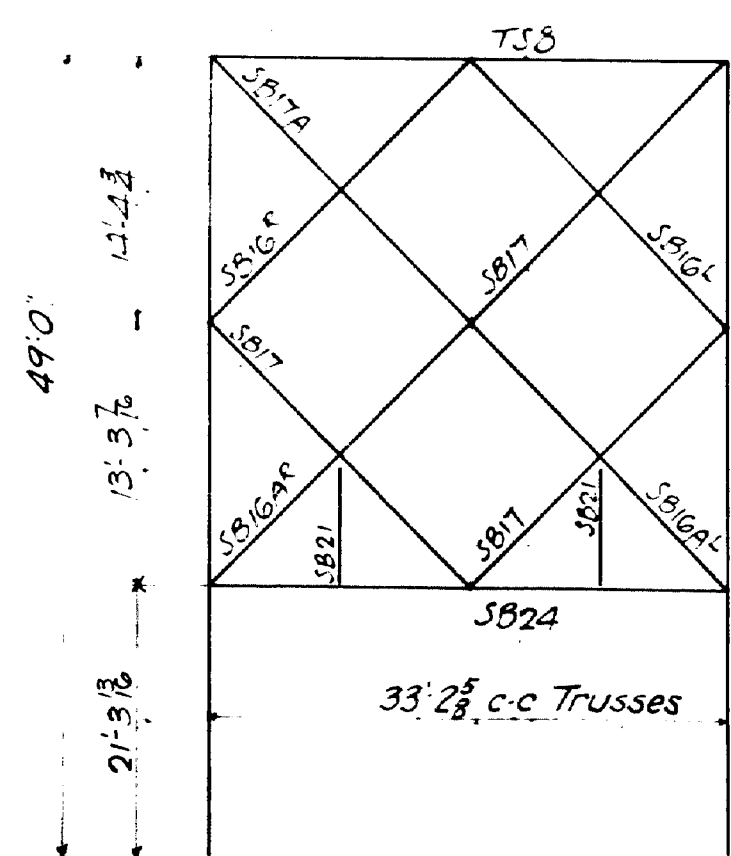
SECTION AA



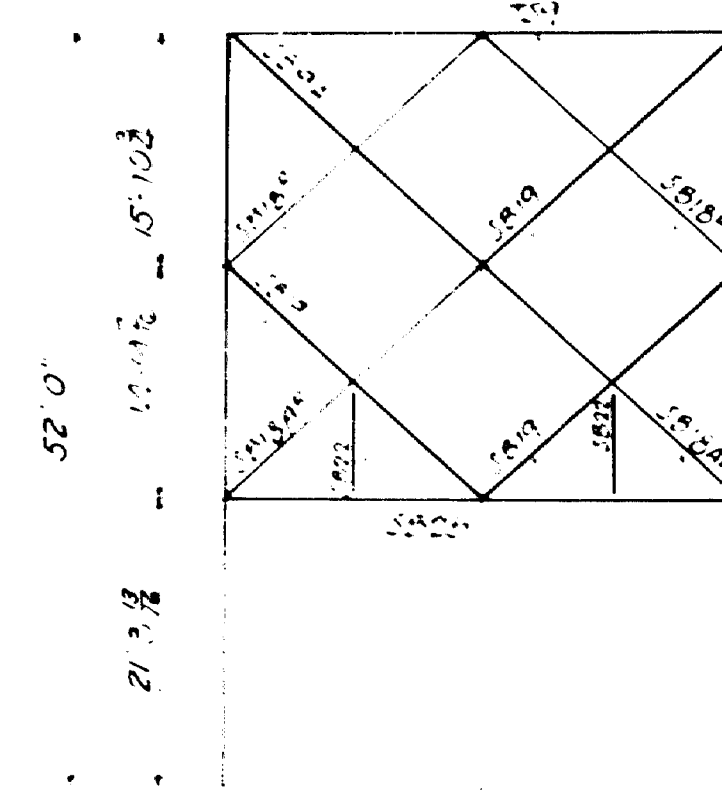
B-B



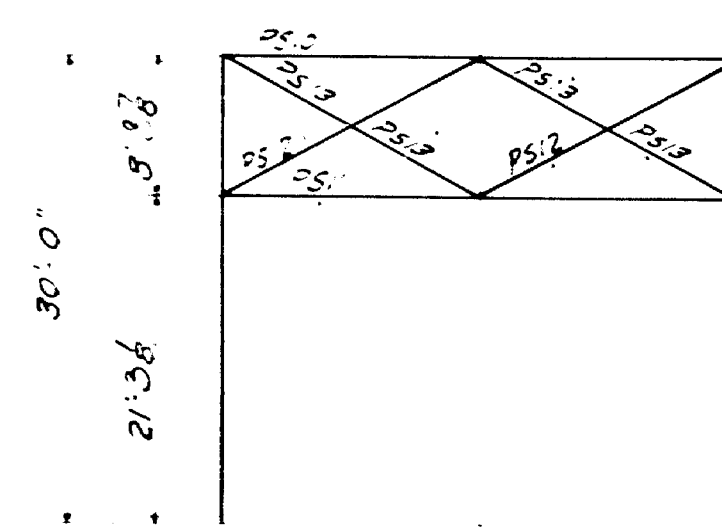
C-C H-H



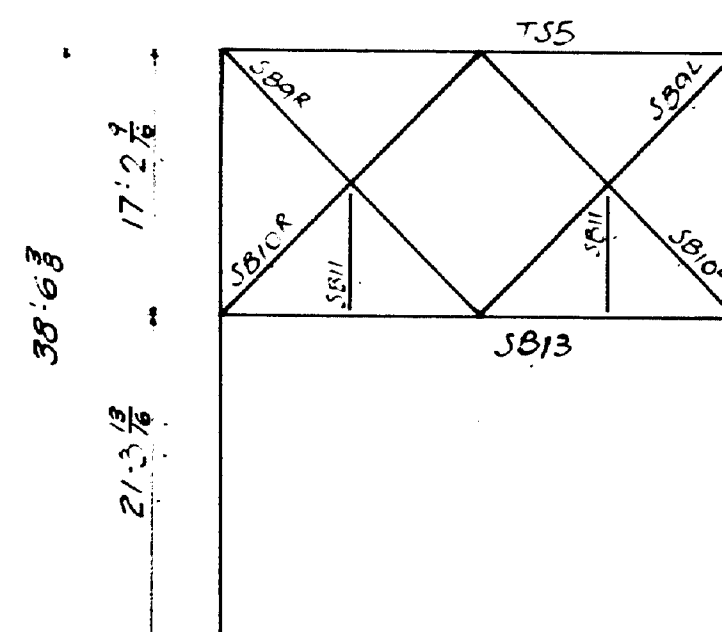
D-D



E-E

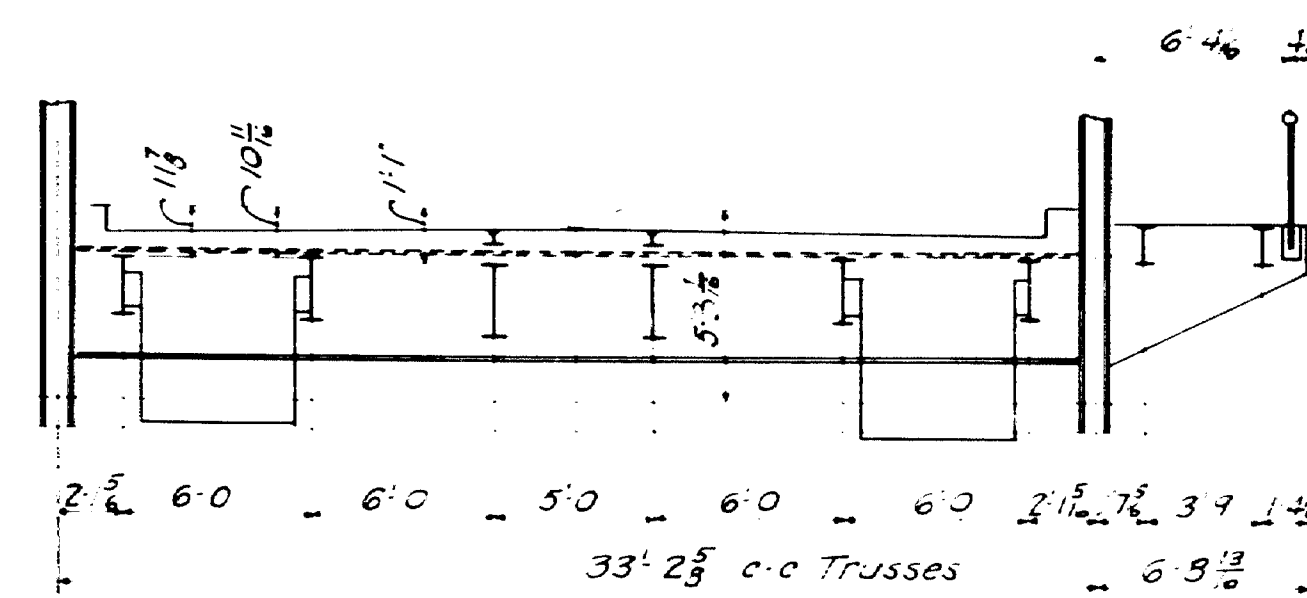


F-F



33'-2 3/8" c-c Trusses

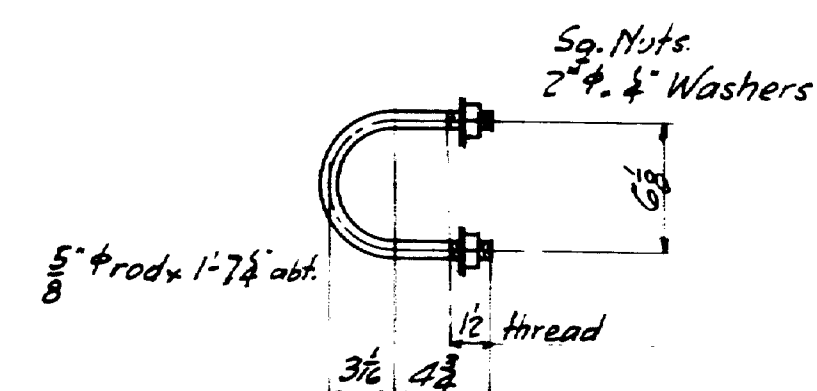
G-G



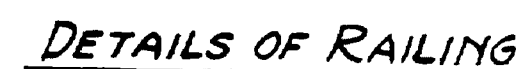
TYPICAL SECTION THRU ROADWAY

"A" "B"

THE BOSTON BRIDGE WORKS INC. BOSTON, MASS.	
NAME Brunswick-Topsfield Bridge over Androscoggin River, State of Maine	
DETAILS OF Erection Plan - Sections	
RIVETS	EX. NO. 10. DRAWN BY E.M.H.
HOLES	EX. NOTED. CHECK'D BY
SCALE none	DATE LIST PAGE
JOB 5928	SH. E3
REVISIONS	



Req'd.:-158



Paint according to specifications. (95% Red Lead)

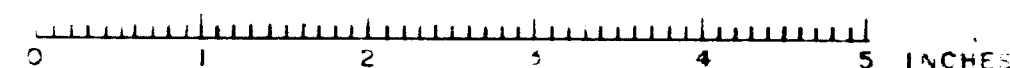
A-B-C

BRUNSWICK-TOPSHAM BRIDGE
over Androscoggin River - State of Maine
Railing

5-16-31.

5928

E5



Notes

Specifications: State of Maine for Steel Highway Bridges-1930.

All main material, forming parts of a member composed of not more than 5 thicknesses of metal, may be punched $\frac{1}{16}$ " larger than the nominal diameter of the rivets, whenever the thickness of the metal is not greater than $\frac{3}{4}$ " inch. When there are more than 5 thicknesses, or when any of main material is thicker than $\frac{3}{4}$ ", all of the holes shall be punched with a punch $\frac{1}{8}$ " smaller, and after assembling reamed $\frac{1}{16}$ " larger than the nominal diameter of the rivets, except that when the metal is thicker than the diameter of the rivet the holes shall be drilled.

Field connections, except those for lateral, longitudinal and sway bracing shall be reamed to a metal templet, using three point drill, or else with parts assembled.

Sheared edges of plates more than $\frac{5}{8}$ " in thickness and carrying calculated stress shall be planed to a depth of $\frac{1}{4}$ ". Reentrant cuts shall be filleted before cutting. Gussets are not to be planed.

Paint

One coat of paint as per specifications except surfaces to be riveted in contact either in the shop or field shall not be painted. Surfaces not in contact but which will be inaccessible after assembly or erection shall be painted 2 coats.

Paint to be 95% Red Lead.

Span A	Span B	Span C	LIST OF DRAWINGS
			E1 Erection Diagram
			E2 " "
			E3 " "
			E4 " "
			E5 Sidewalk Railing
			E6 Notes
			1 Castings
			2 Roller Nests
			3 Floor Beams
			4 Truss "5 - Sidewalk
			4A " " "
			4B " " "
			5 Bottom Laterals
			6 Stringers
			7 Top Laterals and Sways
			8 Stringers
			9 Sway Braces and Portal
			10 Stringers
			11 Bottom Laterals
			12 Truss "6 Roadway
			12A " " "
			12B " " "
			13 Truss "1 and "3
			13A " " "
			13B " " "
			13C " " "
			14 Brackets
			15 Top Laterals
			16 Floor Beams
			17 Sway Bracing
			18 Portal
			19 "
			20 Sway Bracing
			21 Floor Beams
			22 Truss - Sidewalk
			22A " " "
			23 Truss - Roadway
			23A " " "
			23B " " "
			23C " " "
			24 Truss - Roadway
			24A " " "
			24B " " "
			24C " " "
			24D " " "

Span A	Span B	Span C	LIST OF DRAWINGS - CONTINUED -
	25		Truss - Roadway
	25A		" "
	26		" Sidewalk
	26A		" "

A-B-C

Brunswick - Topsham Bridge
over Androscoggin River, Maine.
Notes - List of Drawings.

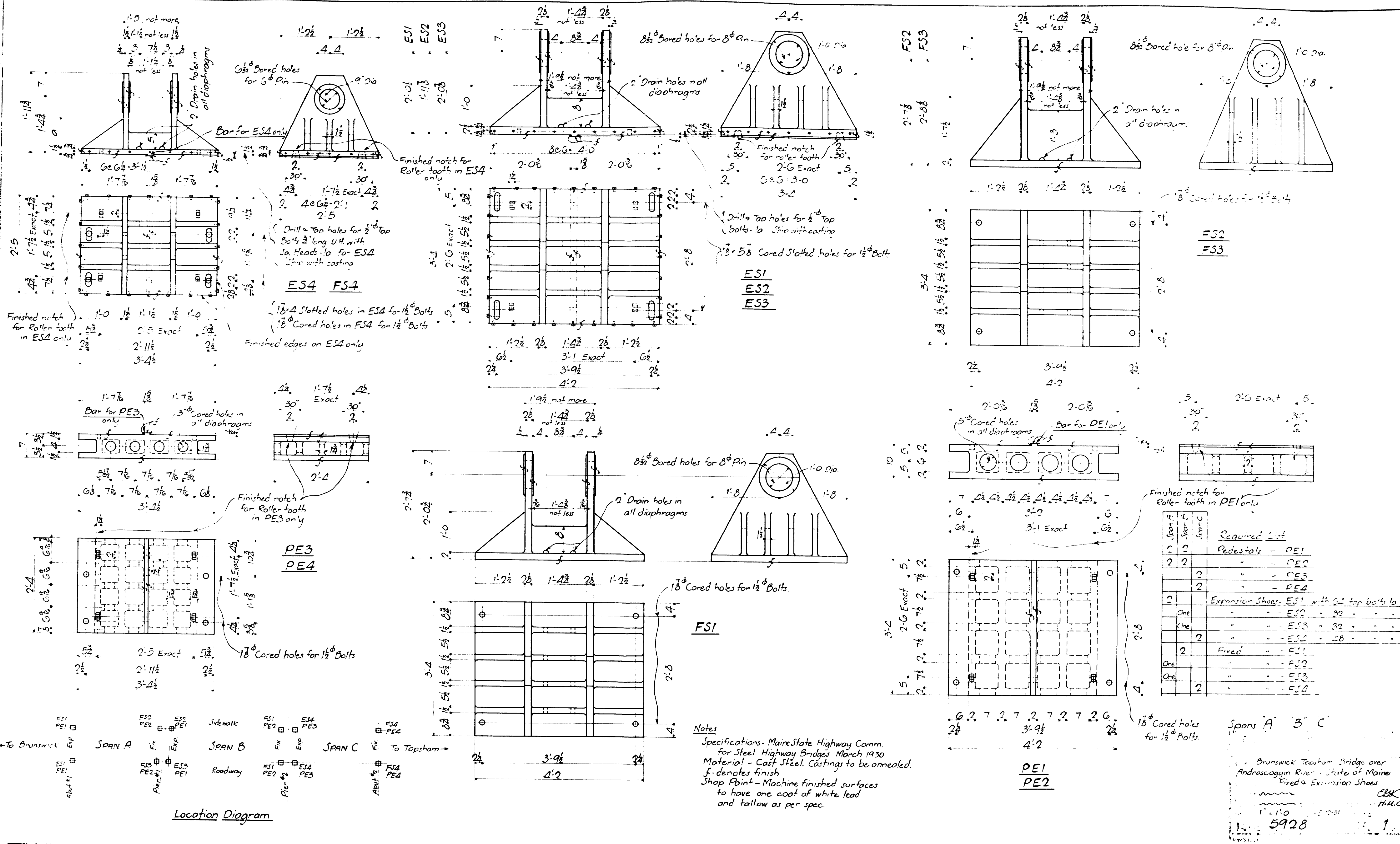
(R) 8-3-31 CEK Sheet 26 26A added

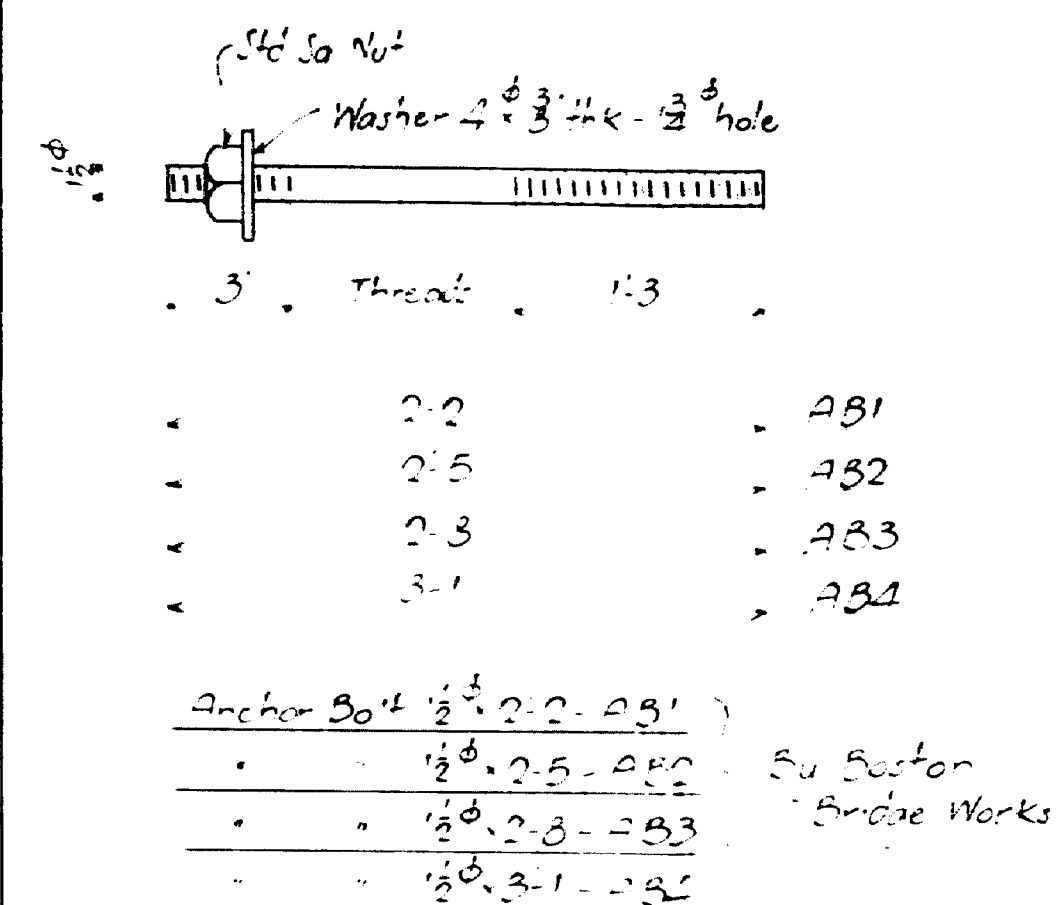
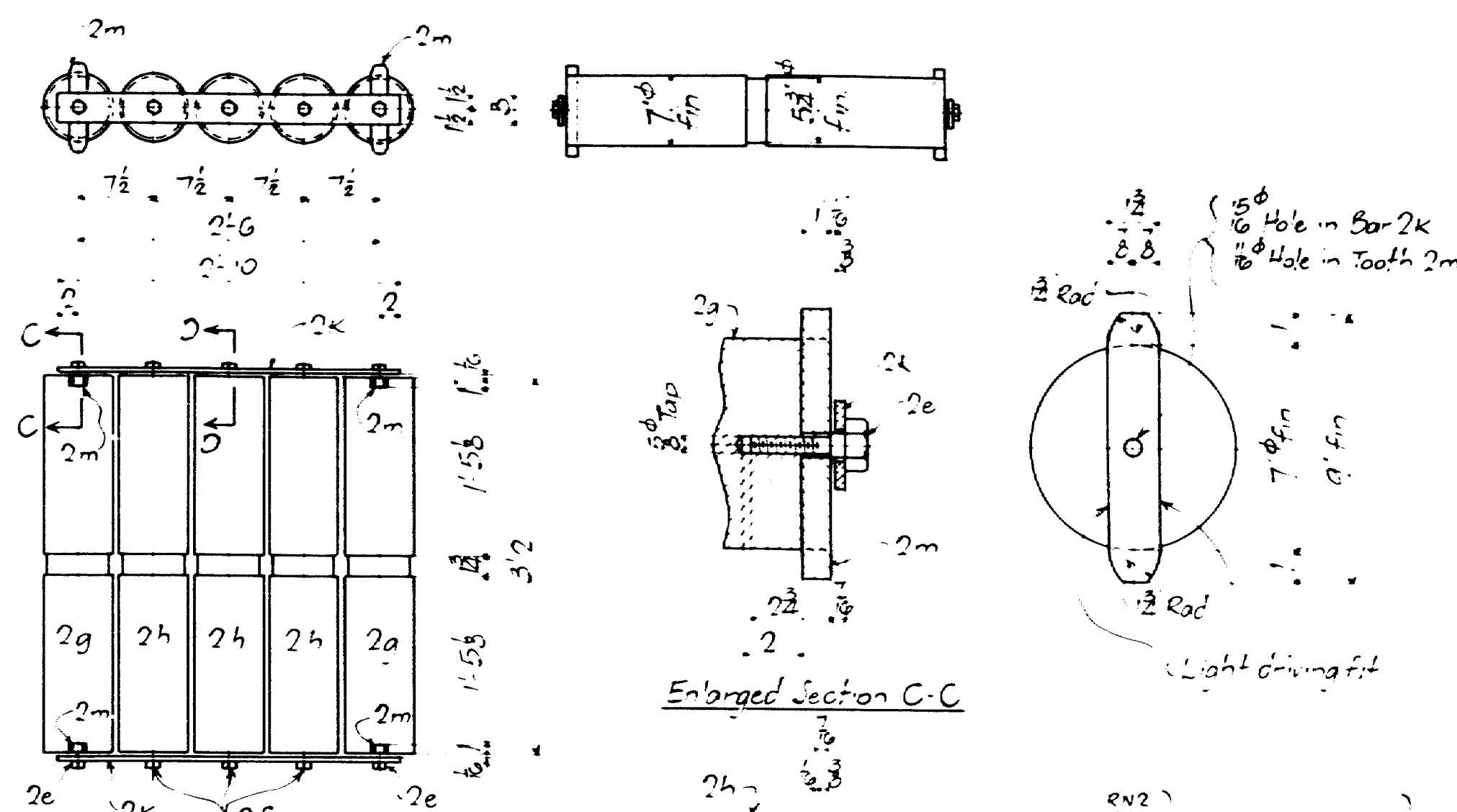
6/5/31

5928

E6

14-157





ROLLER NEST-RN2

Material for One

2 Rollers $7\phi \times 3'2 - 2g$ (in all over)

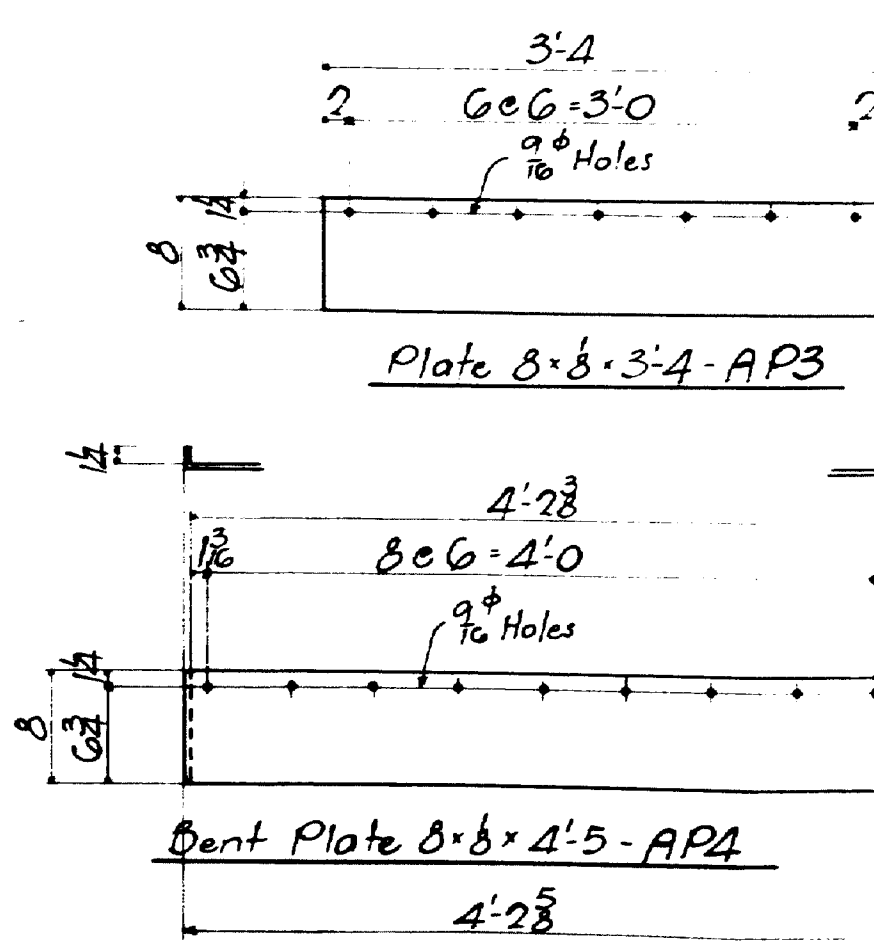
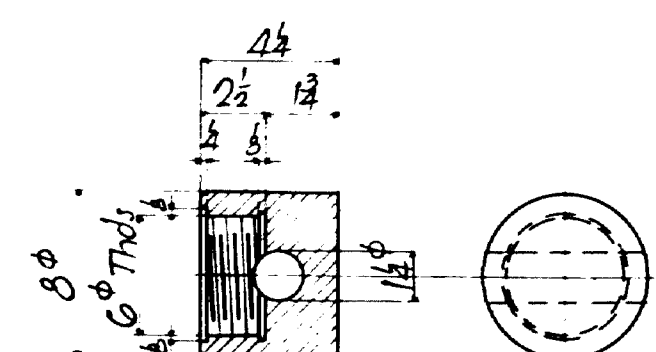
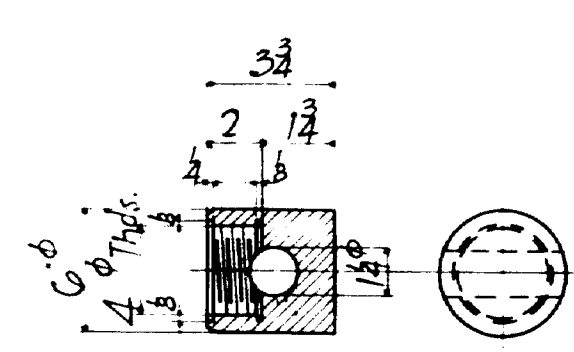
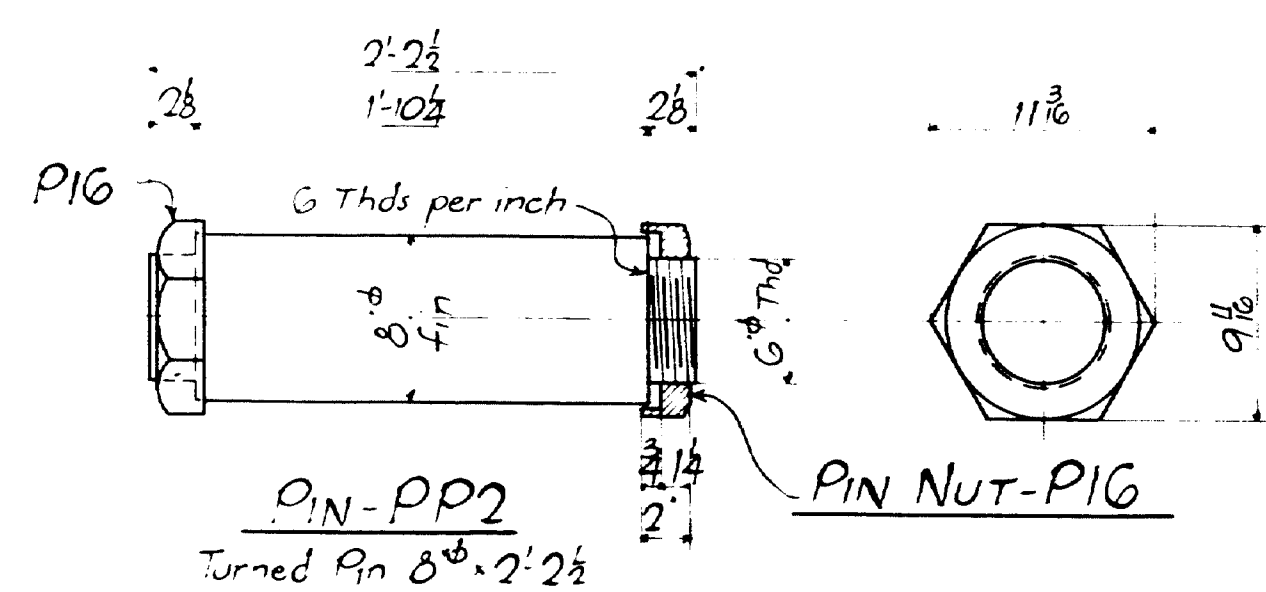
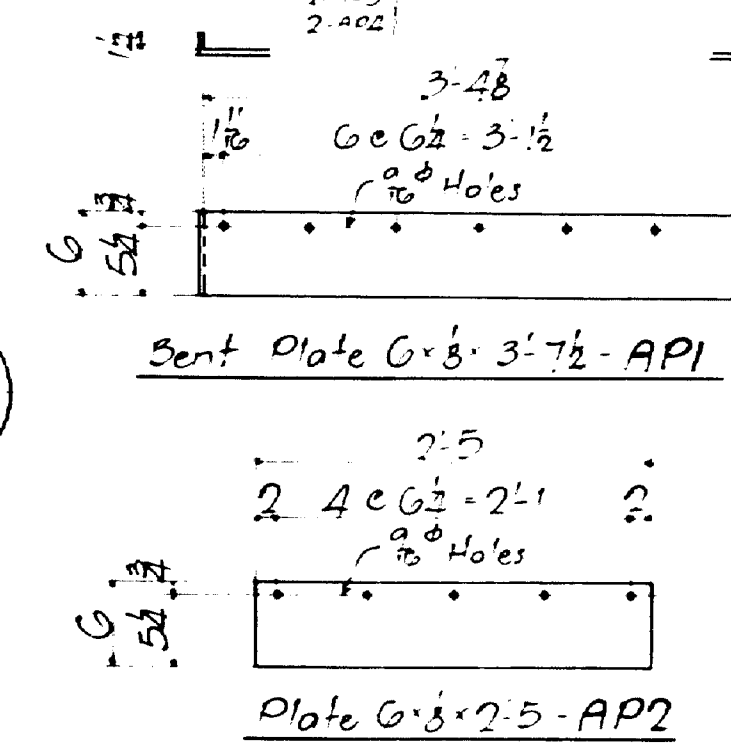
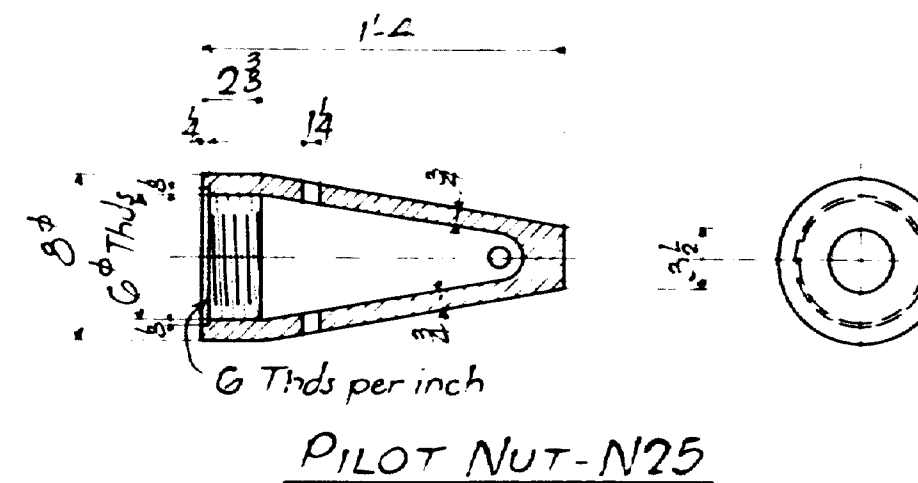
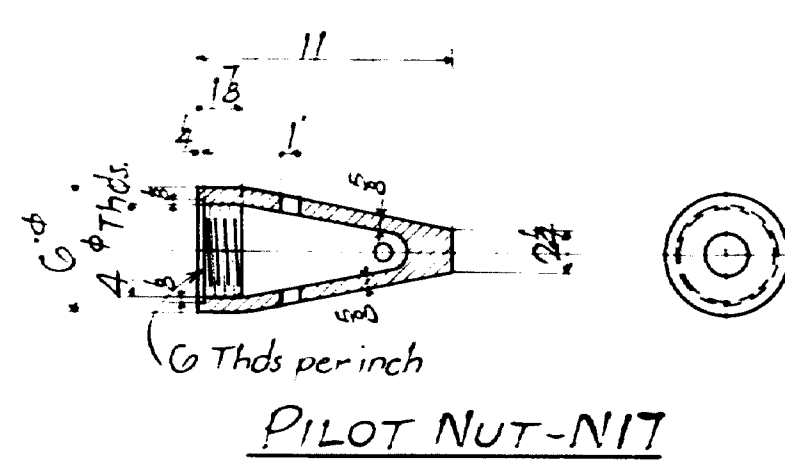
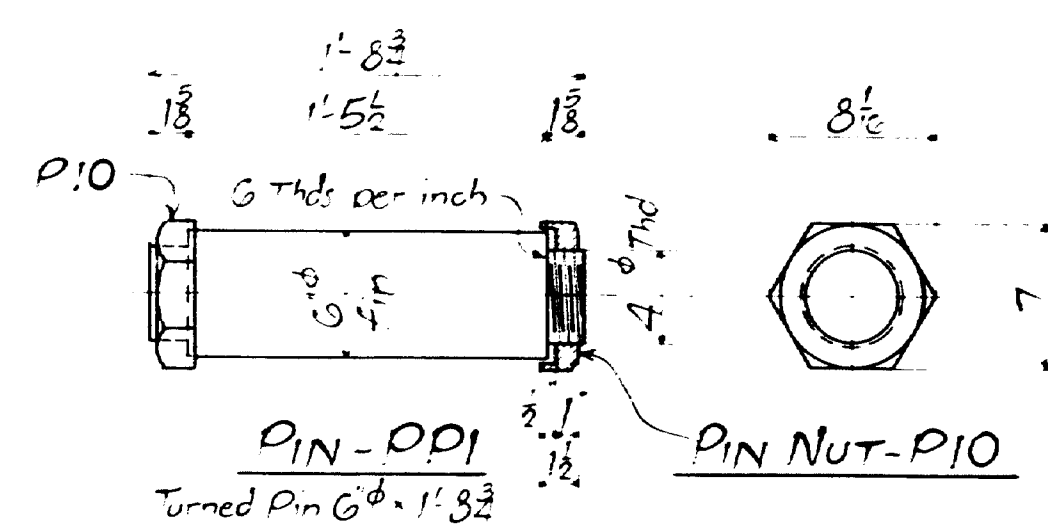
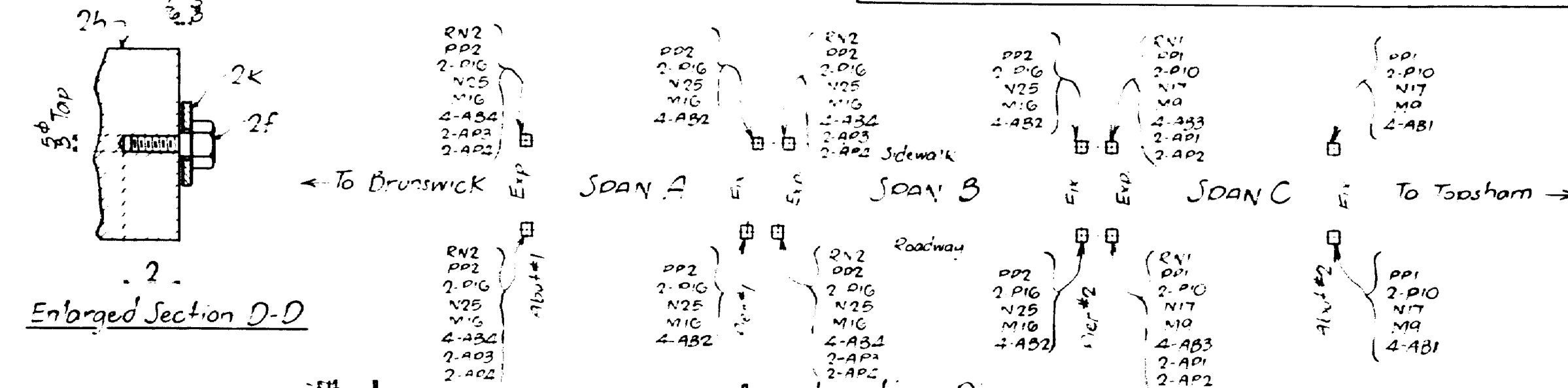
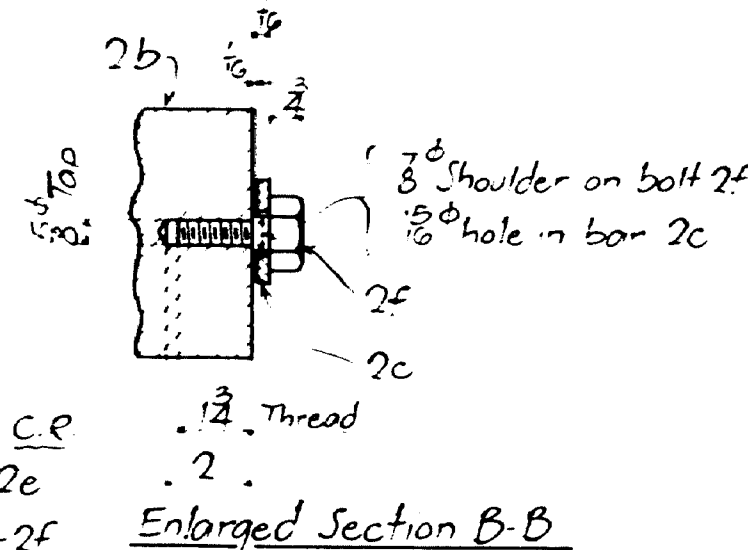
3 " $7\phi \times 3'2 - 2h$ (" " ")

2-Bars $5' \times \frac{3}{8} - 2 \cdot 10' - 2k$

4-Tooth Bars $1\frac{1}{2} \times 1 \cdot 9 - 2m$ (in all over) C.R.

4-Top Bolts $2c$

6-Top Bolts $2f$



<u>Nest's</u>	<u>Nest's</u>	<u>Nest's</u>	<u>Required List:</u>	
		4	<u>Apron Pipes</u> - AP1	} By Boston Bridge Works.
		4	" " - AP2	
4	4		" " - AP3	
4	4		" " - AP4	
		2	<u>Roller Nests</u> - RN1	
		2	" " - RN2	
		4	<u>Pins</u> - PP1	
4	4		" - PP2	
		8	<u>Pin Nuts</u> - P10	(Ship with PP1)
8	8		" " - P16	(Ship with PP2)
		8	<u>Anchor Bolts</u> - AB1	
8	8		" " - AB2	} By Boston Bridge Works.
		8	" " - AB3	
8	8		" " - AB4	

One - Pilot Nut - N17
One - " " - N25
One - Driving Nut - M9
One - " " - M10

DRIVING NUT-M9

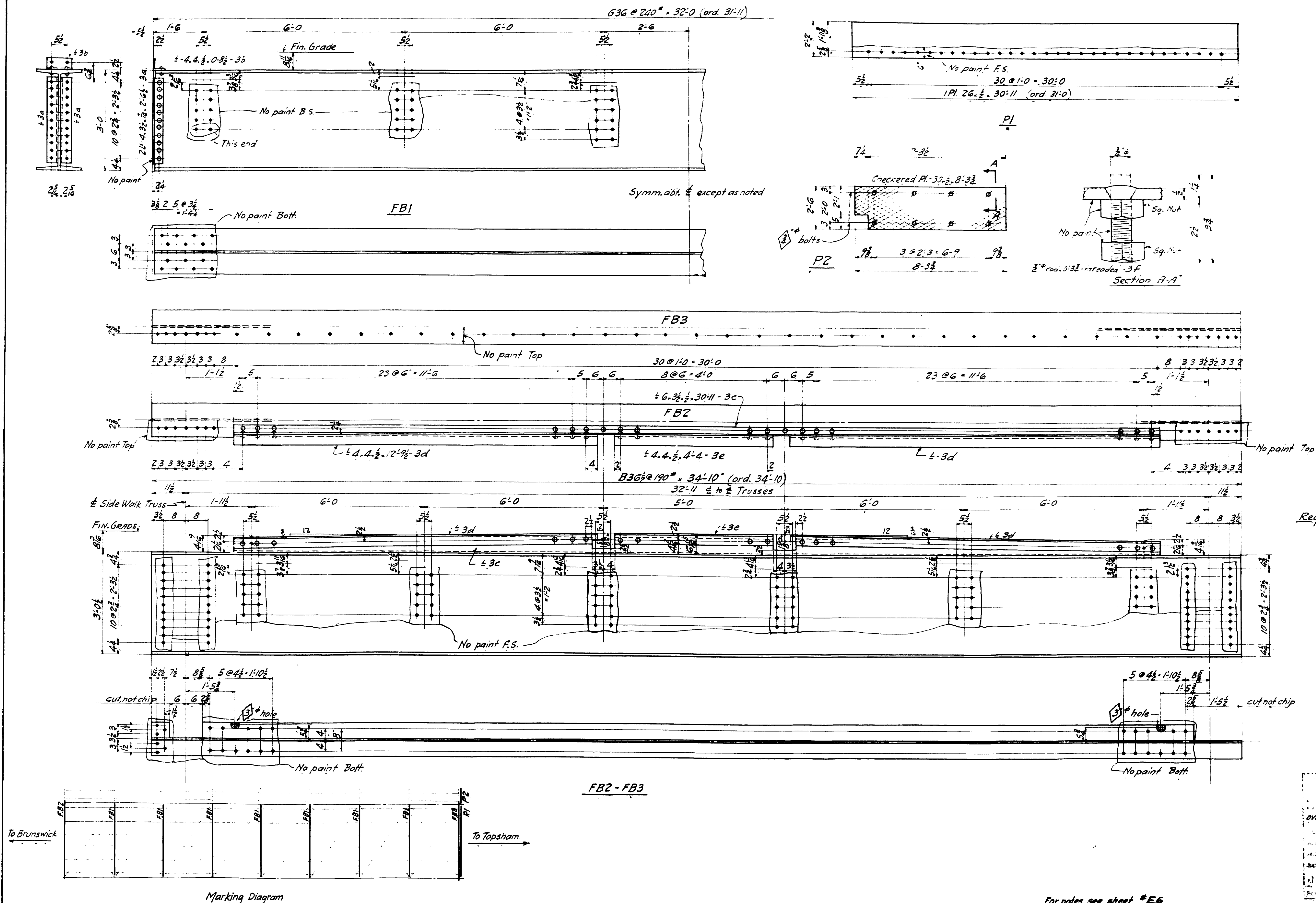
DRIVING NUT-MIG

Pin nuts, pilot nuts and driving nuts to be
McClintic - Marshall Standard

Notes
Specifications - Maine State Highway Comm
for Steel Highway Bridges March 1930.

Shop Paint - Machine finished surfaces
to have one coat of white lead
and tallow as per spec.
Structural steel to have
One Coat 95% Red Lead.

Brunswick Topsham Bridge over
 Androscoggin River - State of Maine
 Rollers - Pins - Bolts - Nuts
 1, 1 1/2, 3 - 10 - 5231, 12 1/2
 5928 \$ 2
 Rt. Pins Nuts chkd to Mc Marshall Std. 6300



- Required List:
- | | |
|-------------------|----------------------|
| 7- Int. Fl. Beams | FB1 |
| One- End | FB2 - As Shown |
| One - | FB3 - Opp. of shown. |
| One-Apron Pl. | P1 |
| One - | P2 |

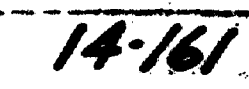
"G"

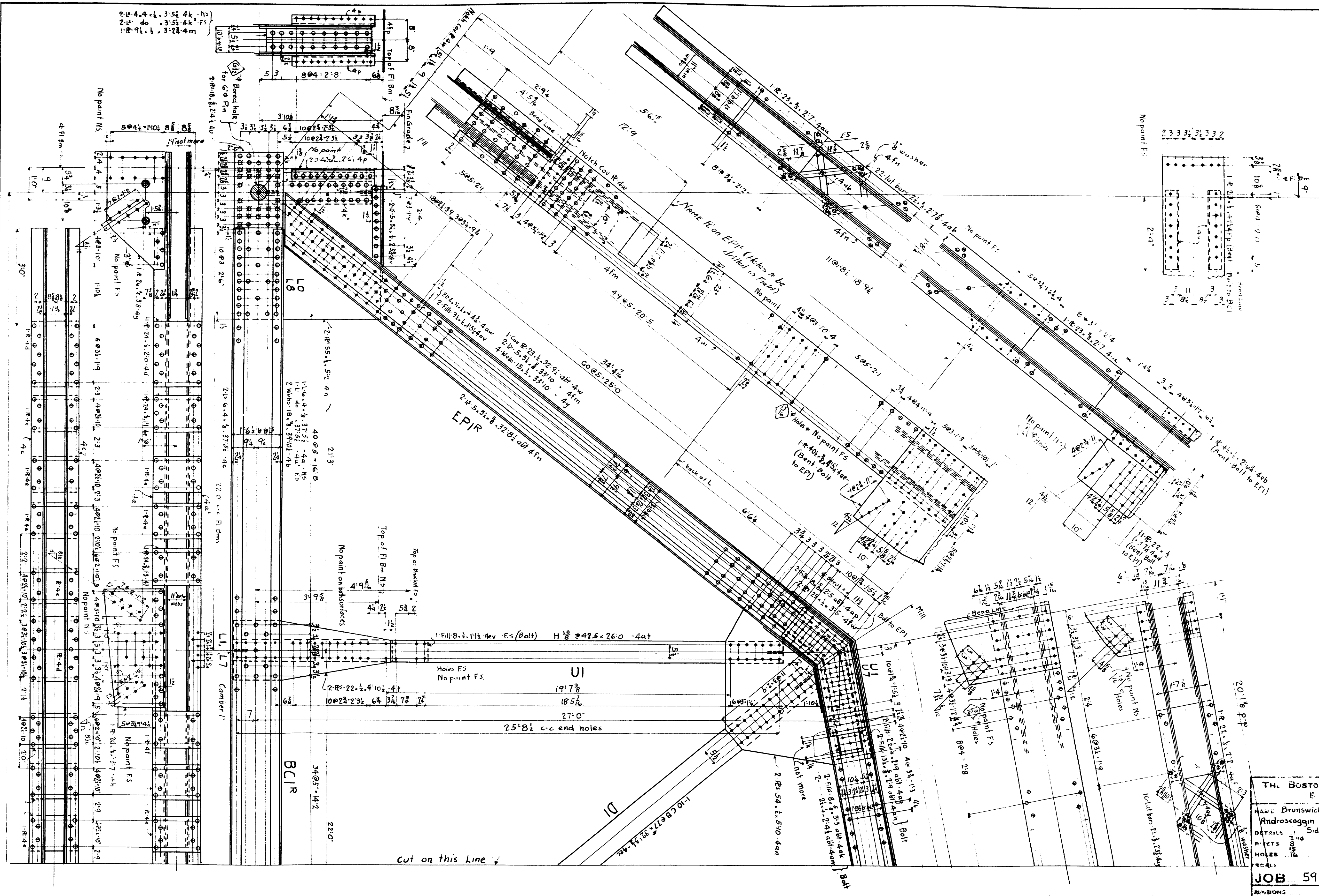
BRUNSWICK-TOPSHAM BRIDGE
OVER ANDROSCOGGIN RIVER-STATE OF MAINE
FLOORBEAMS-APRON PLS.

NOV 5928 3113

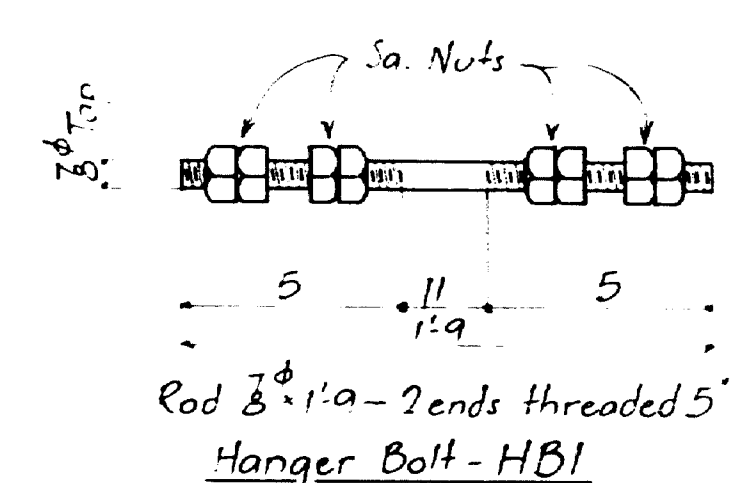
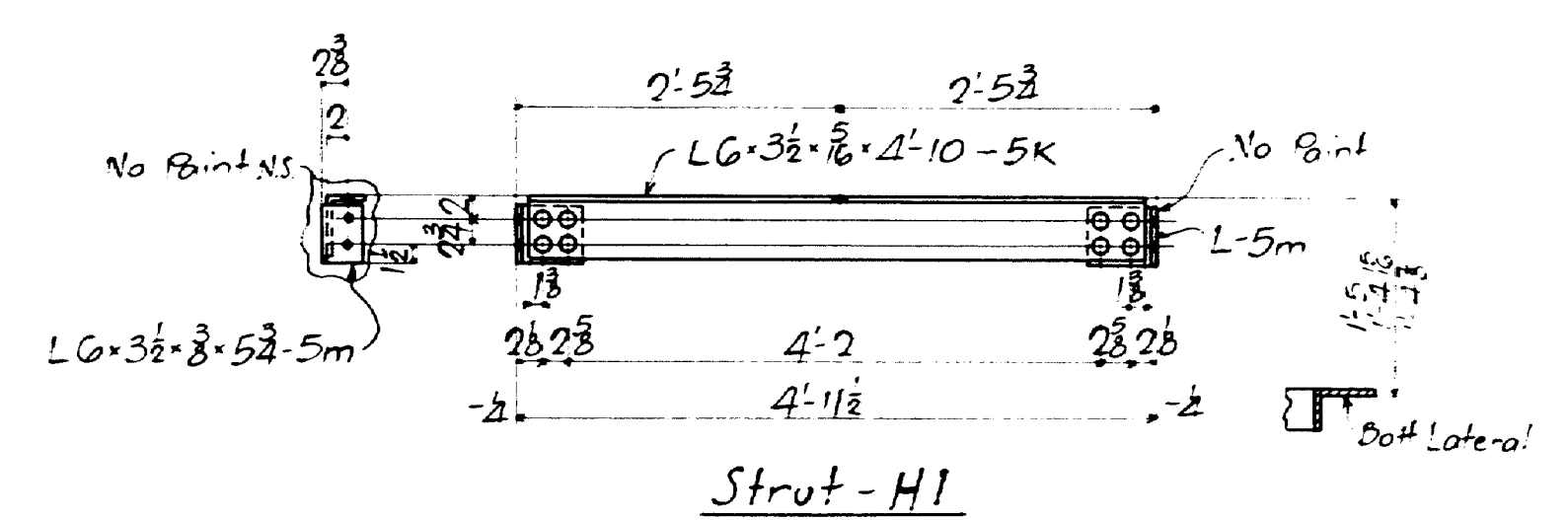
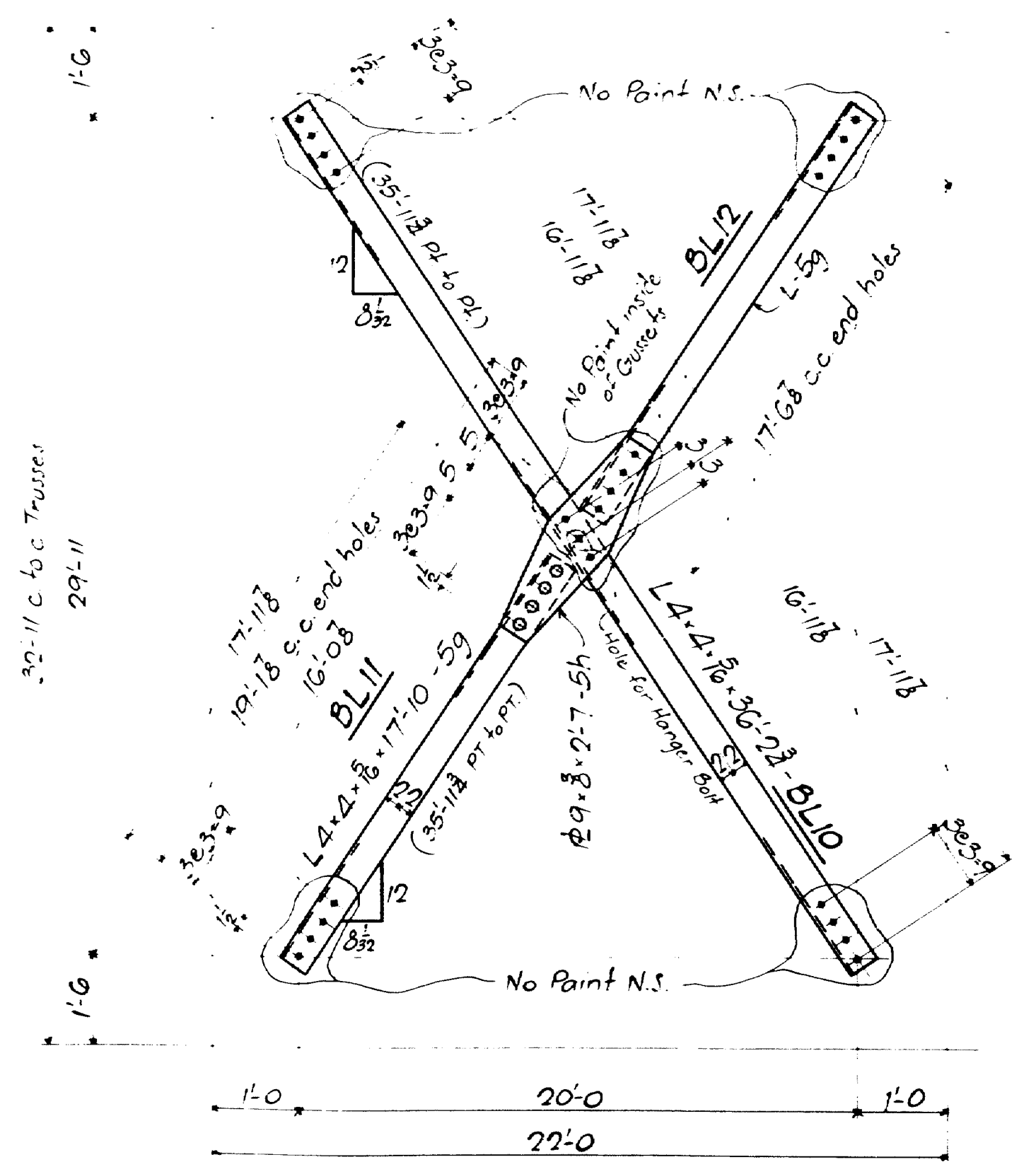
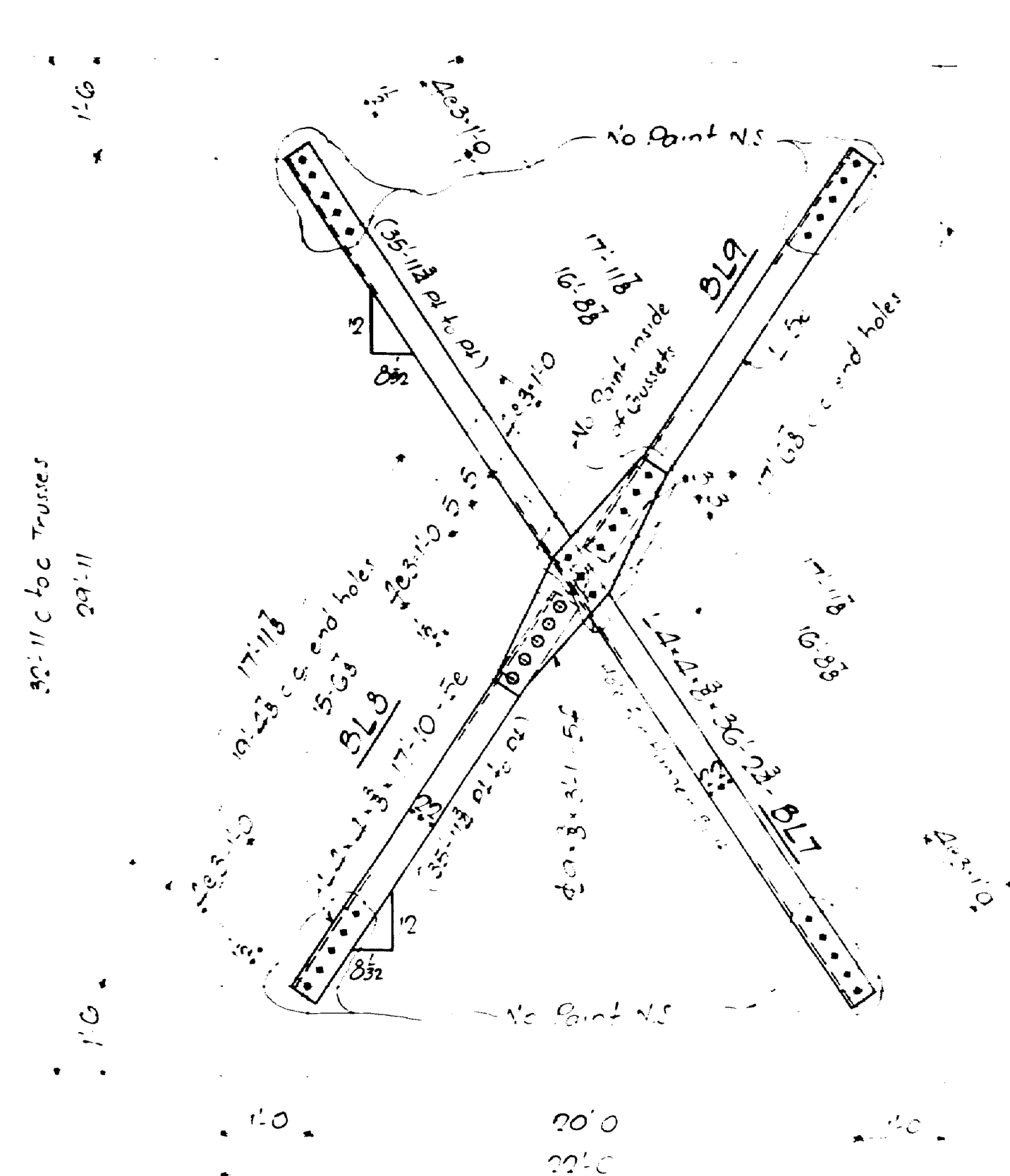
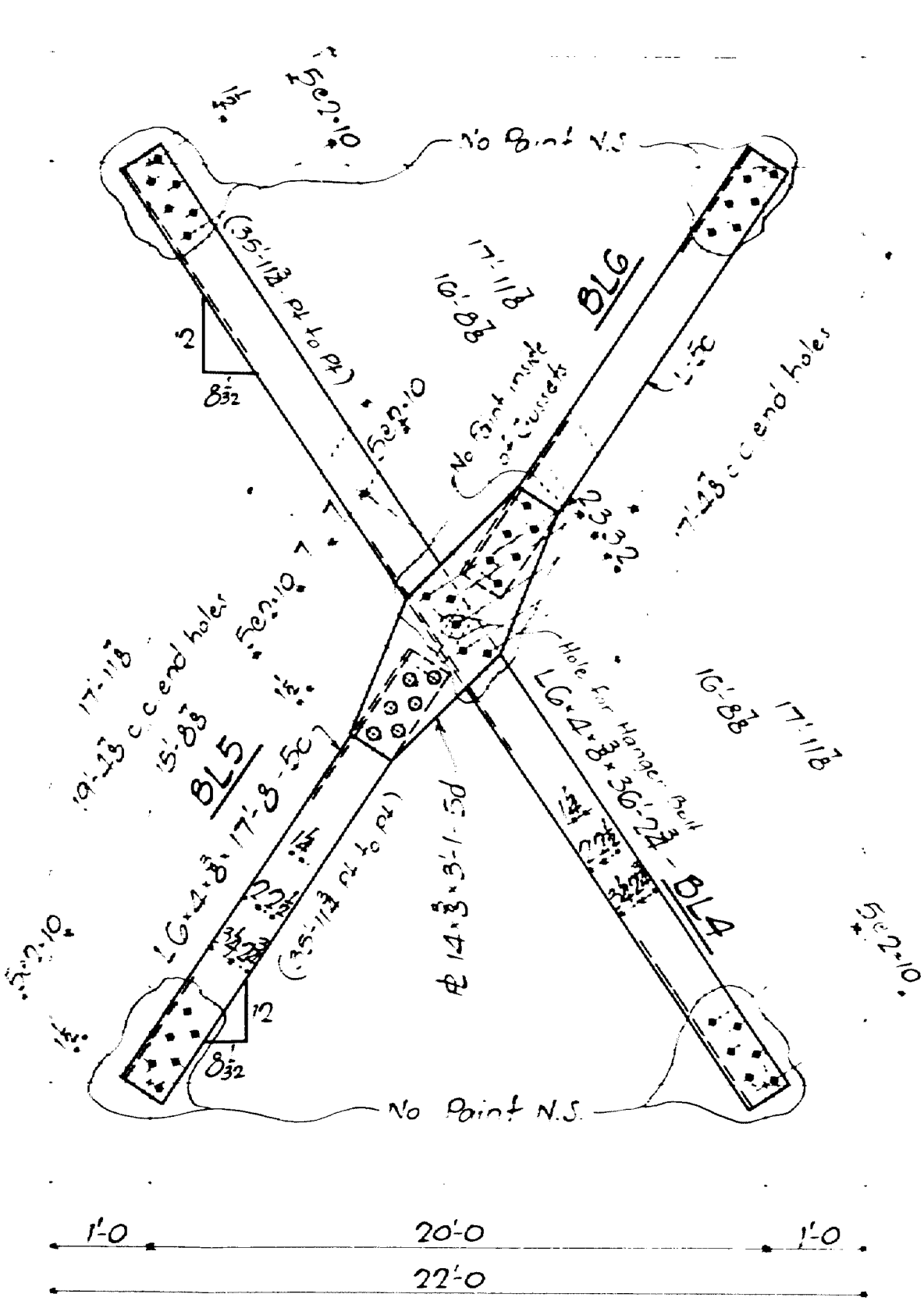
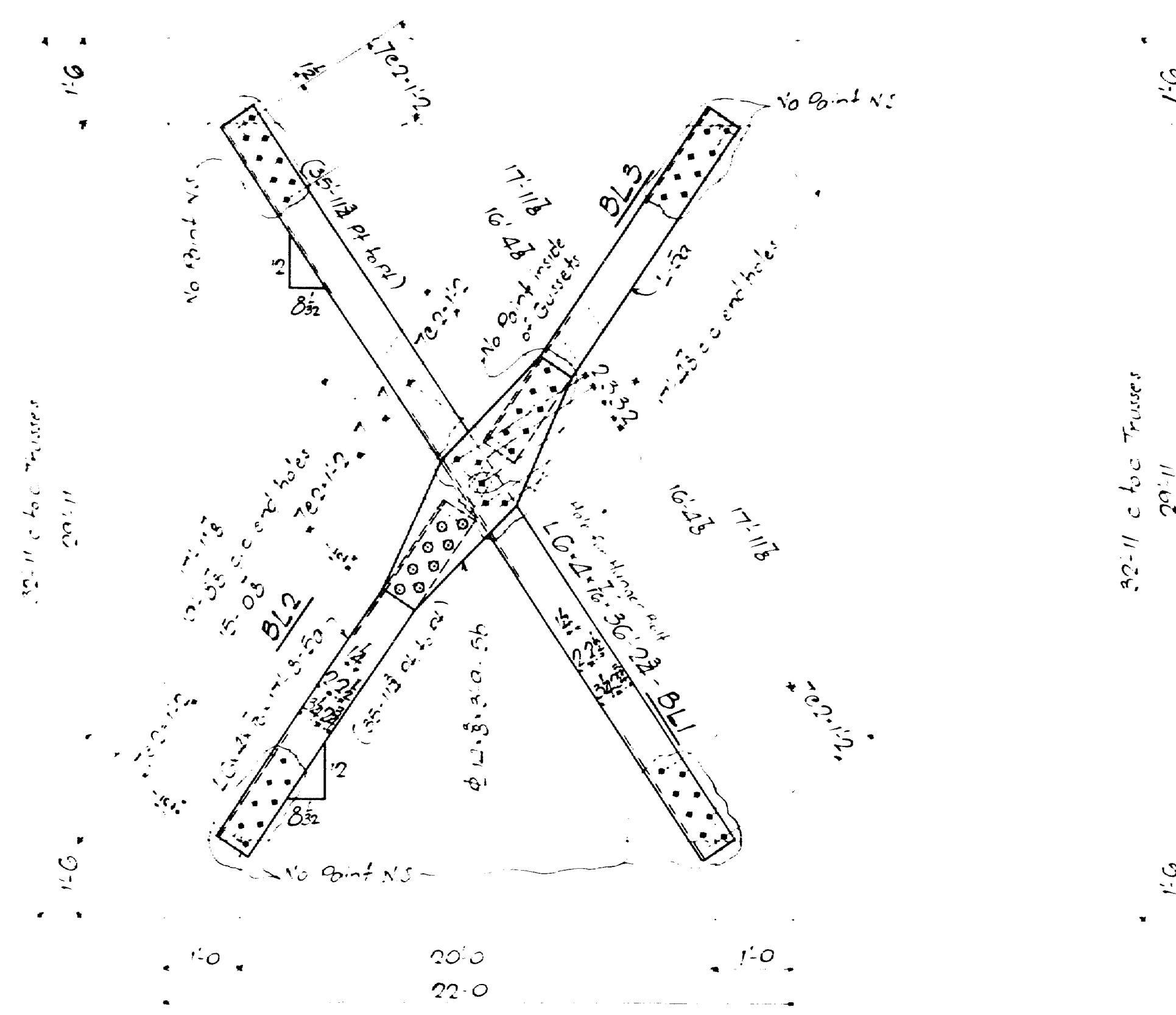
REVISION: RT-6-17-74. Length of dam changed-P2 revised

For notes see sheet #E6



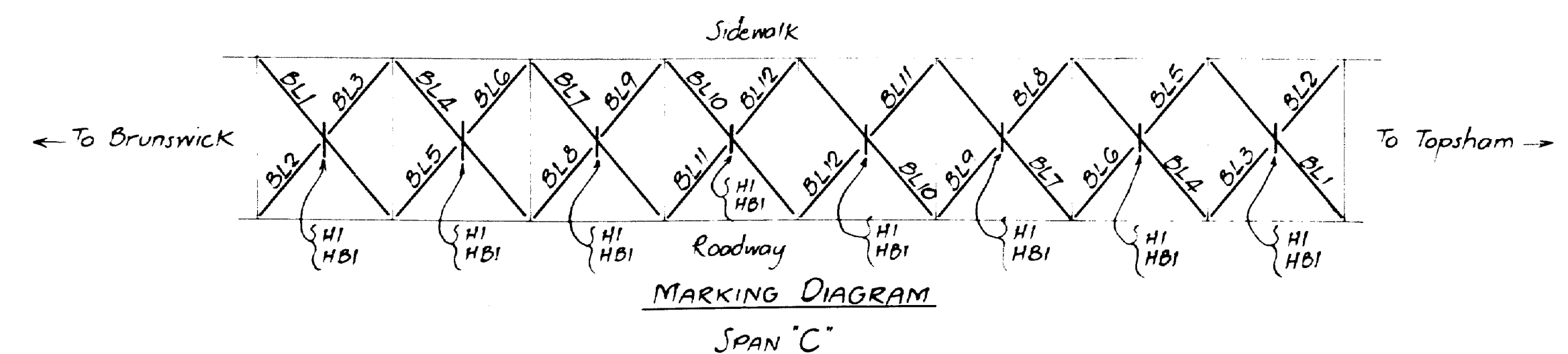


THE BOSTON WORKING	
BRIDGE TRUSS	
NAME Bruntswig-Townsend Bridge over Androscoggin River - State of Maine	
DETAILS Sidewalk Truss # 5	
PIEETS 1 1/4	PIEETS 1 1/4
HOLES 16	HOLES 16
TABLE 1	TABLE 1
JOB 5928	SH 4B
REVISED	



Required List

2	Bottom Laterals - BL1
2	BL2
2	BL3
2	BL4
2	BL5
2	BL6
2	BL7
2	BL8
2	BL9
2	BL10
2	BL11
2	BL12
8	Hanger Struts - H1
8	" Bolts - HBI



FOR NOTES SEE SHEET-EG

THE BOSTON BRIDGE & IRON WORKS INC.
BOSTON, MASS.

NAME: Brunswick - Topsham Bridge over
Androscoggin River, State of Maine

DET. ILL. BY: Bottom Laterals - Hangers

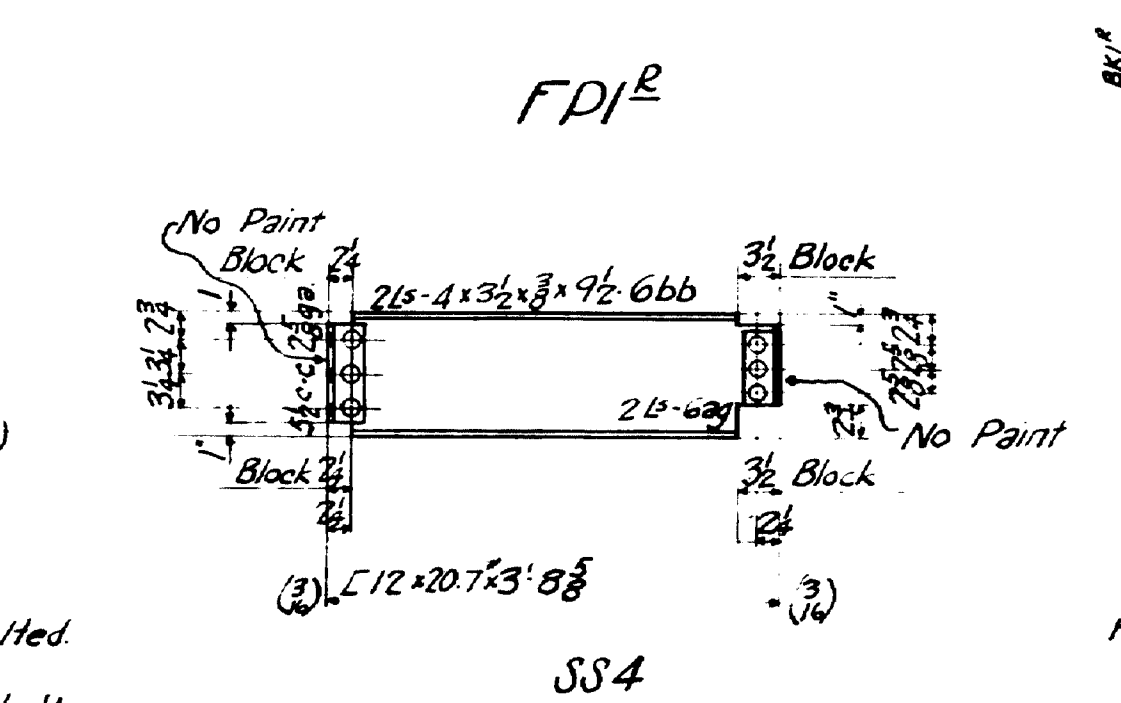
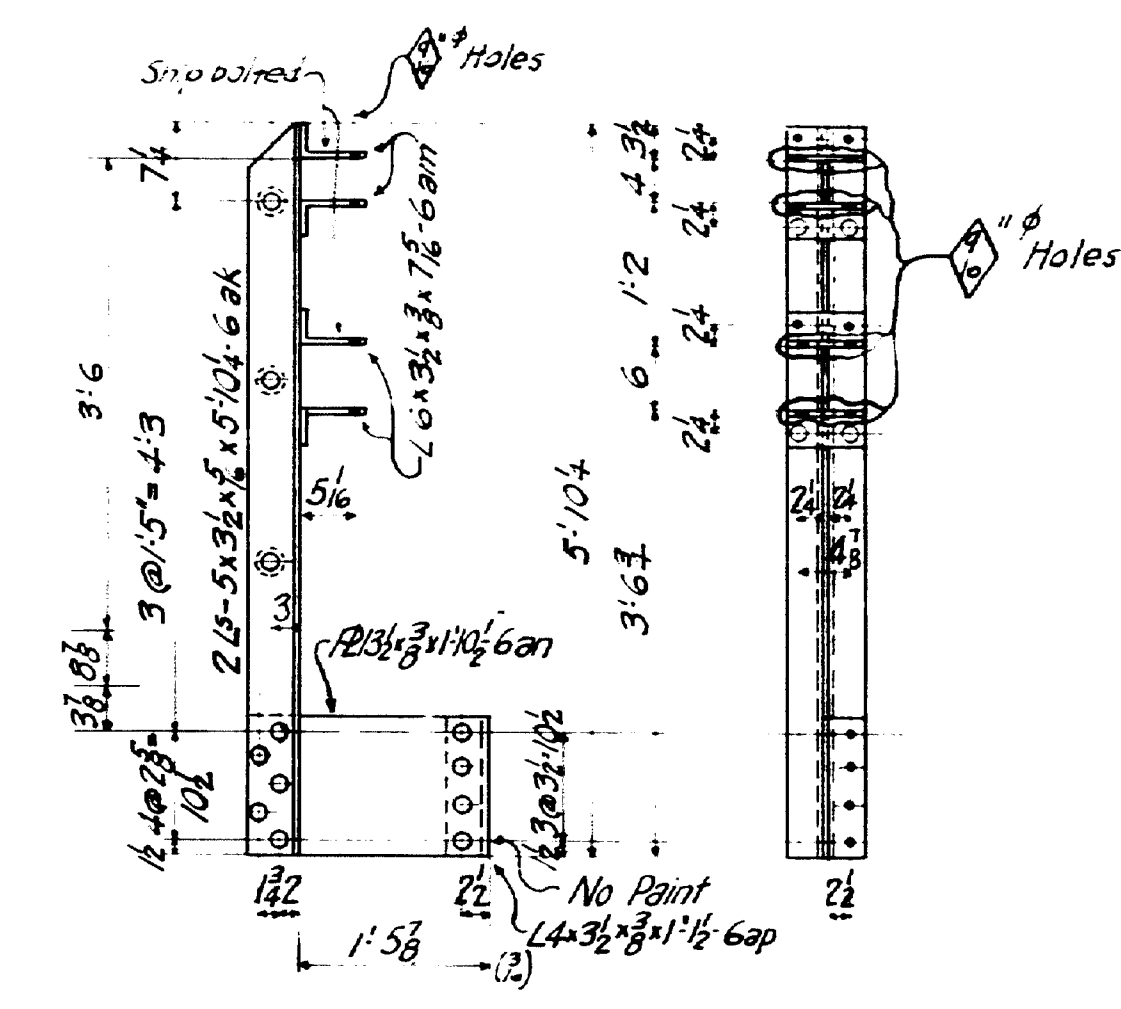
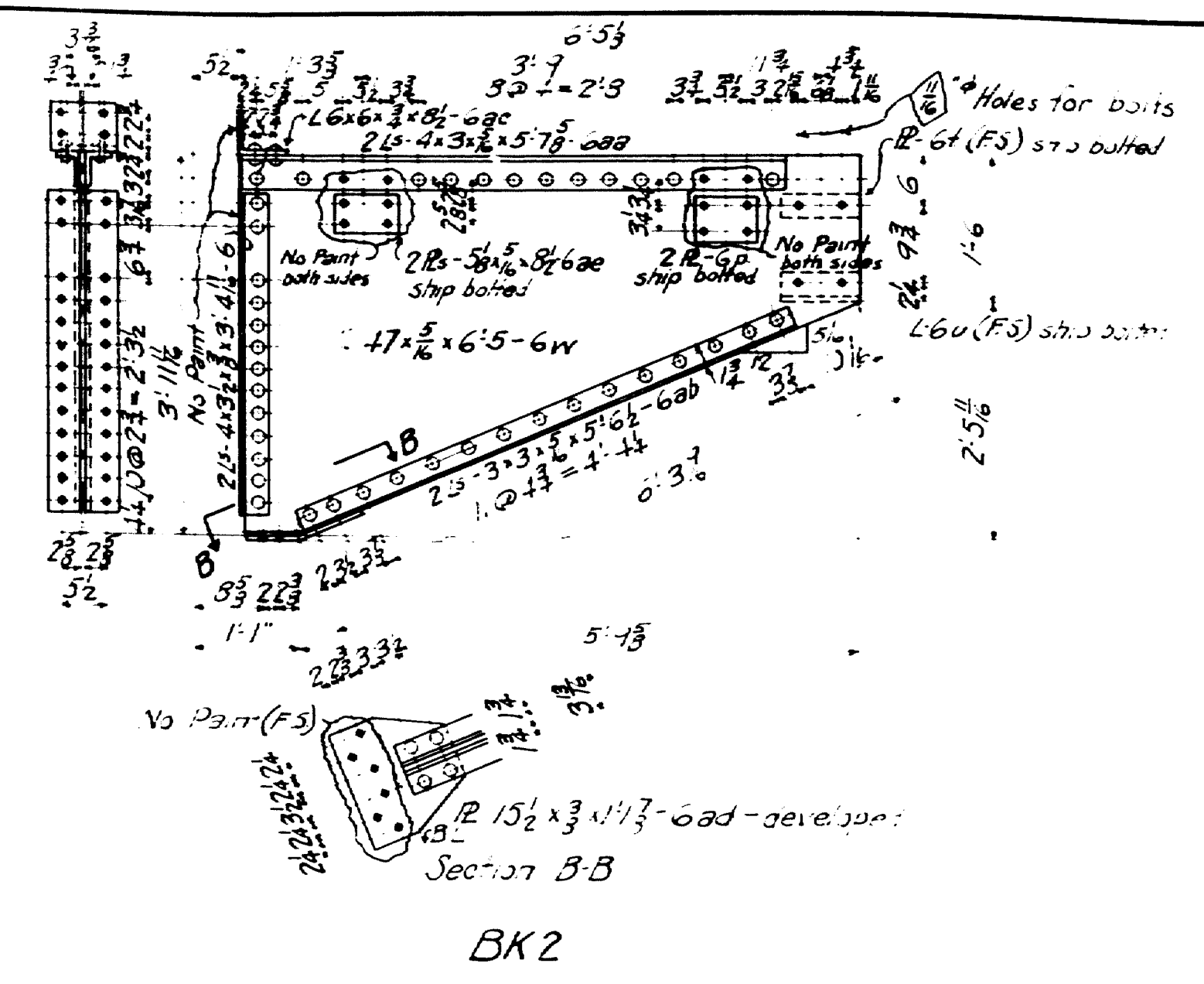
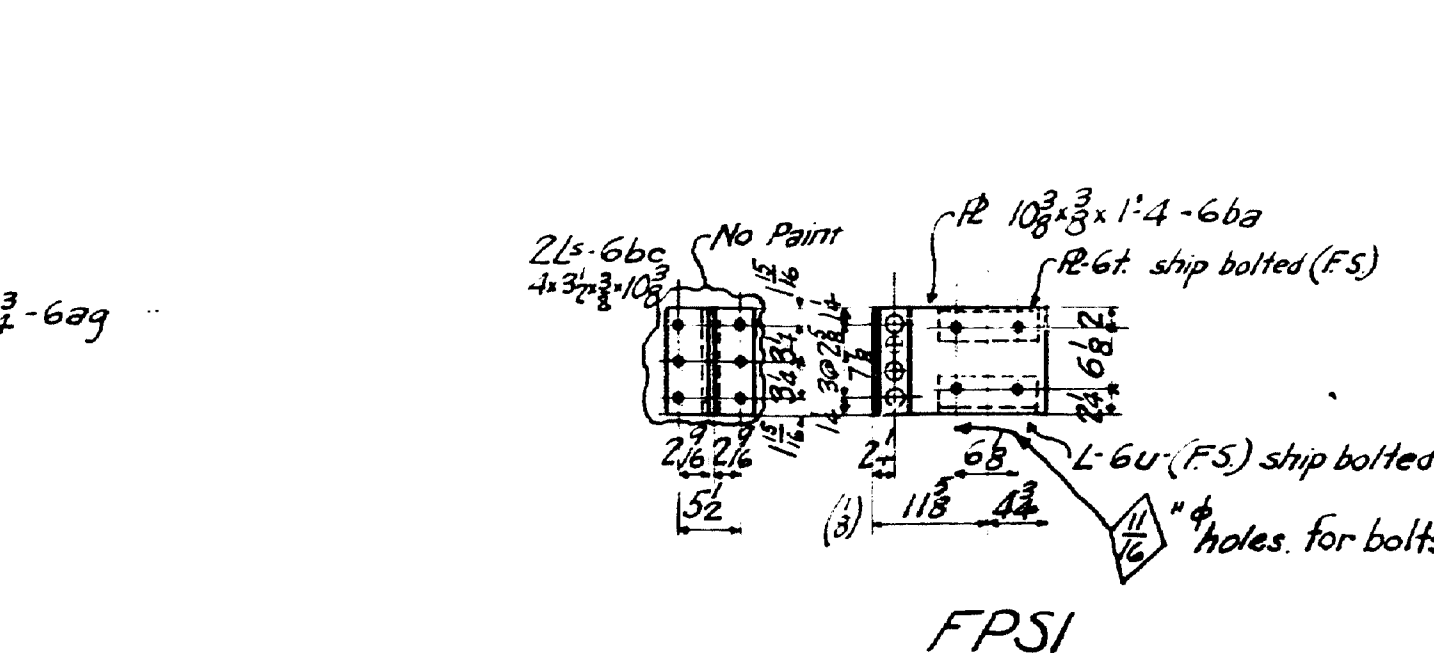
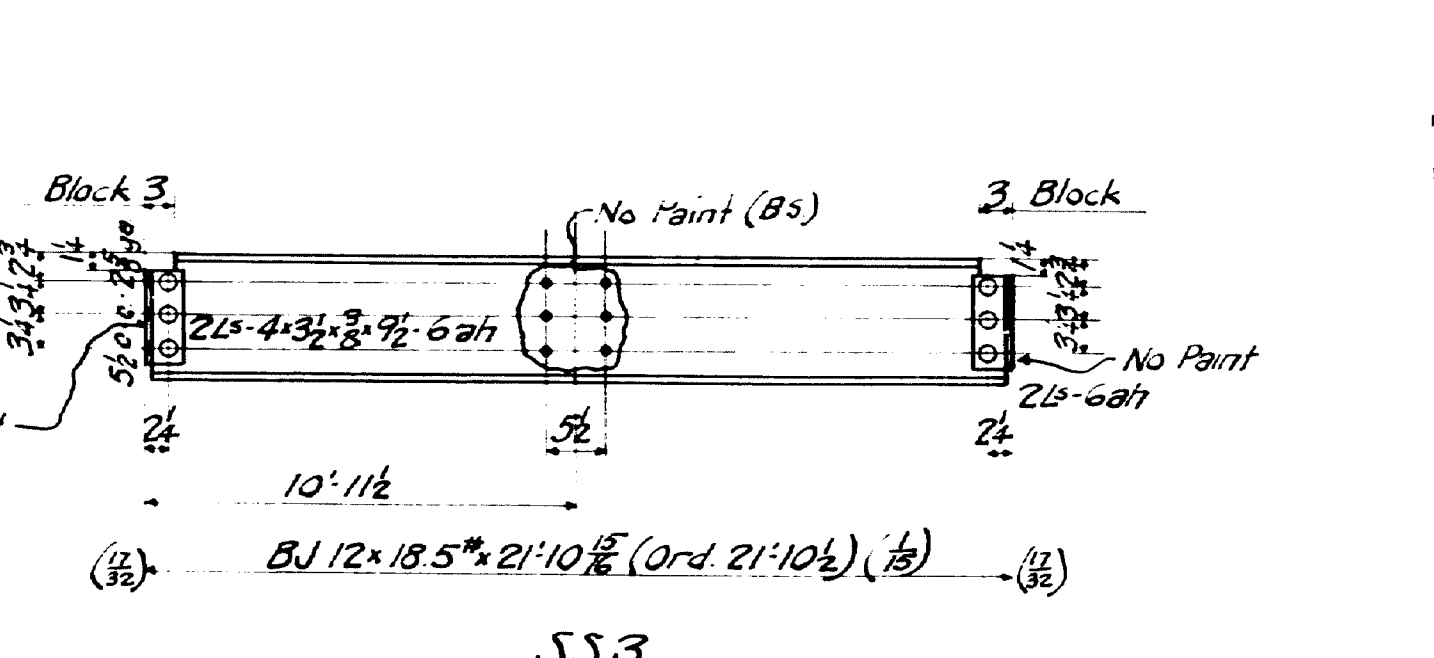
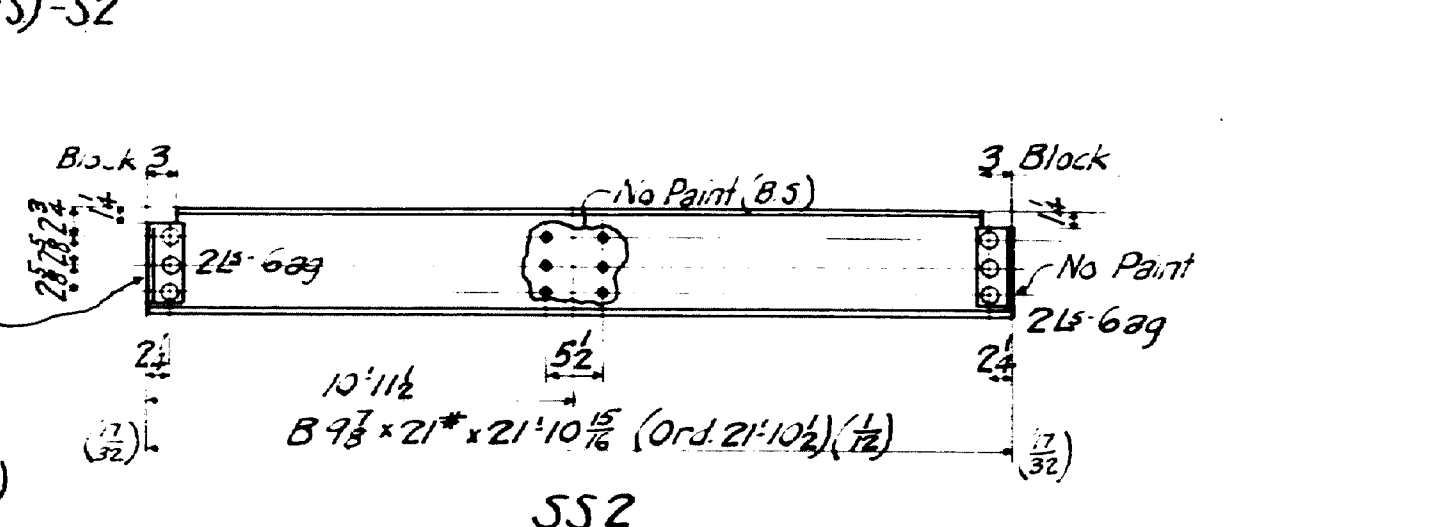
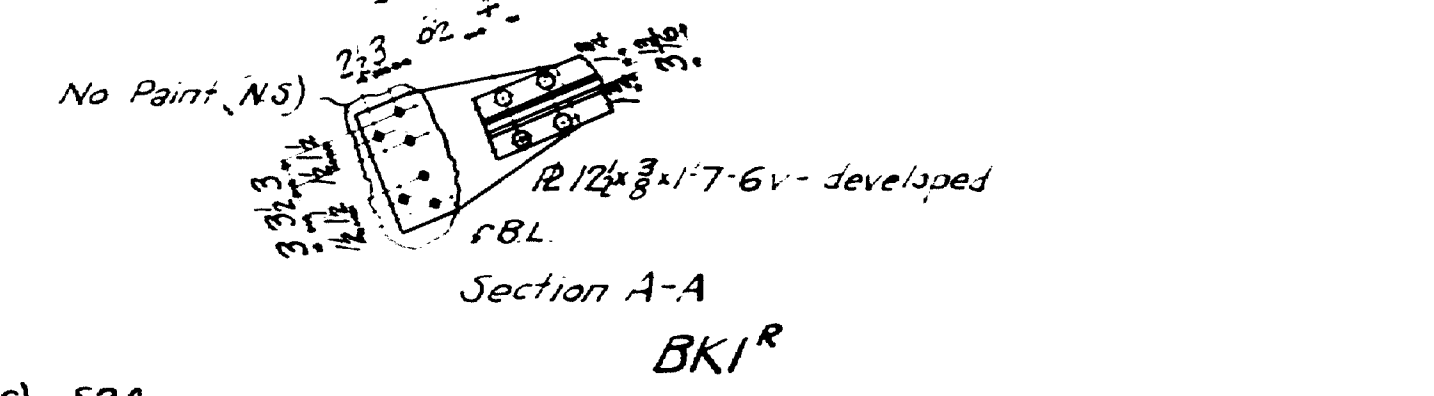
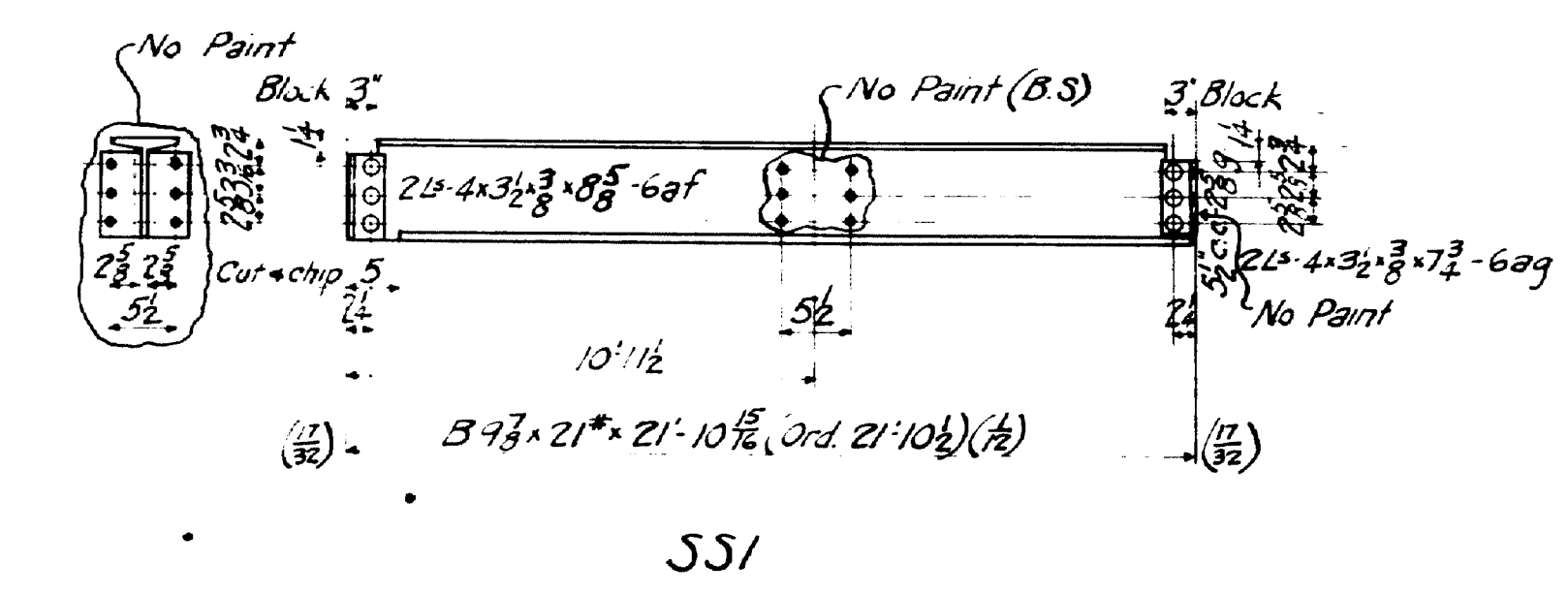
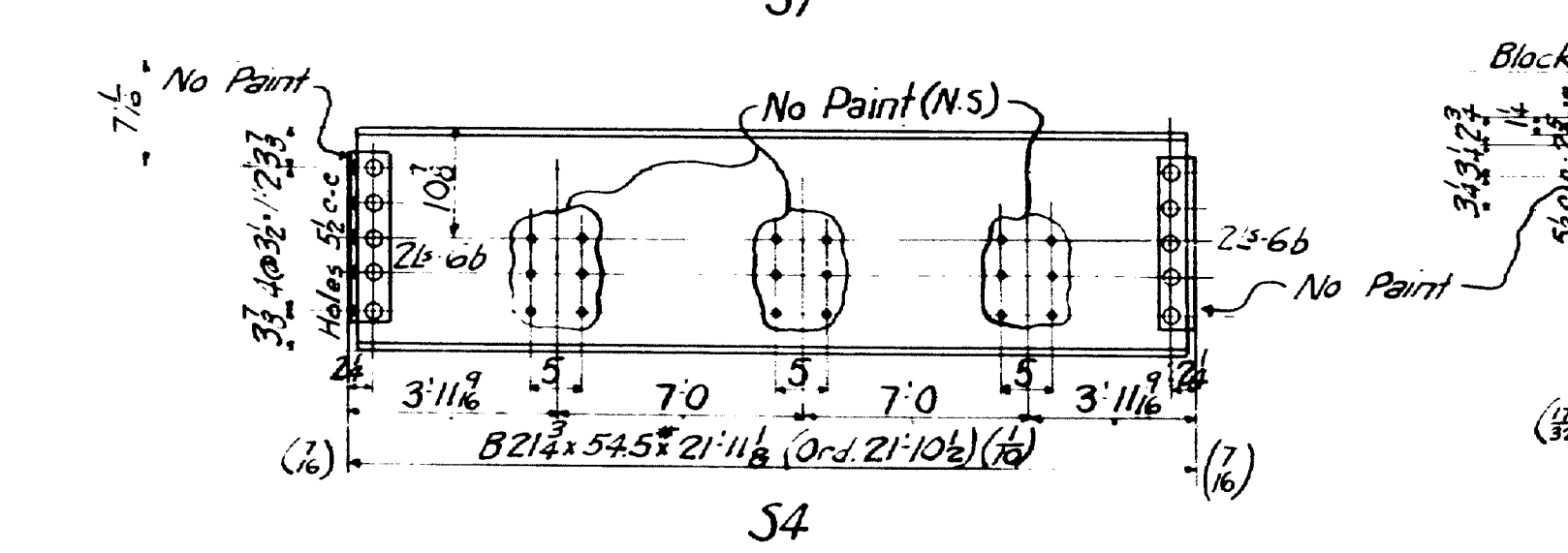
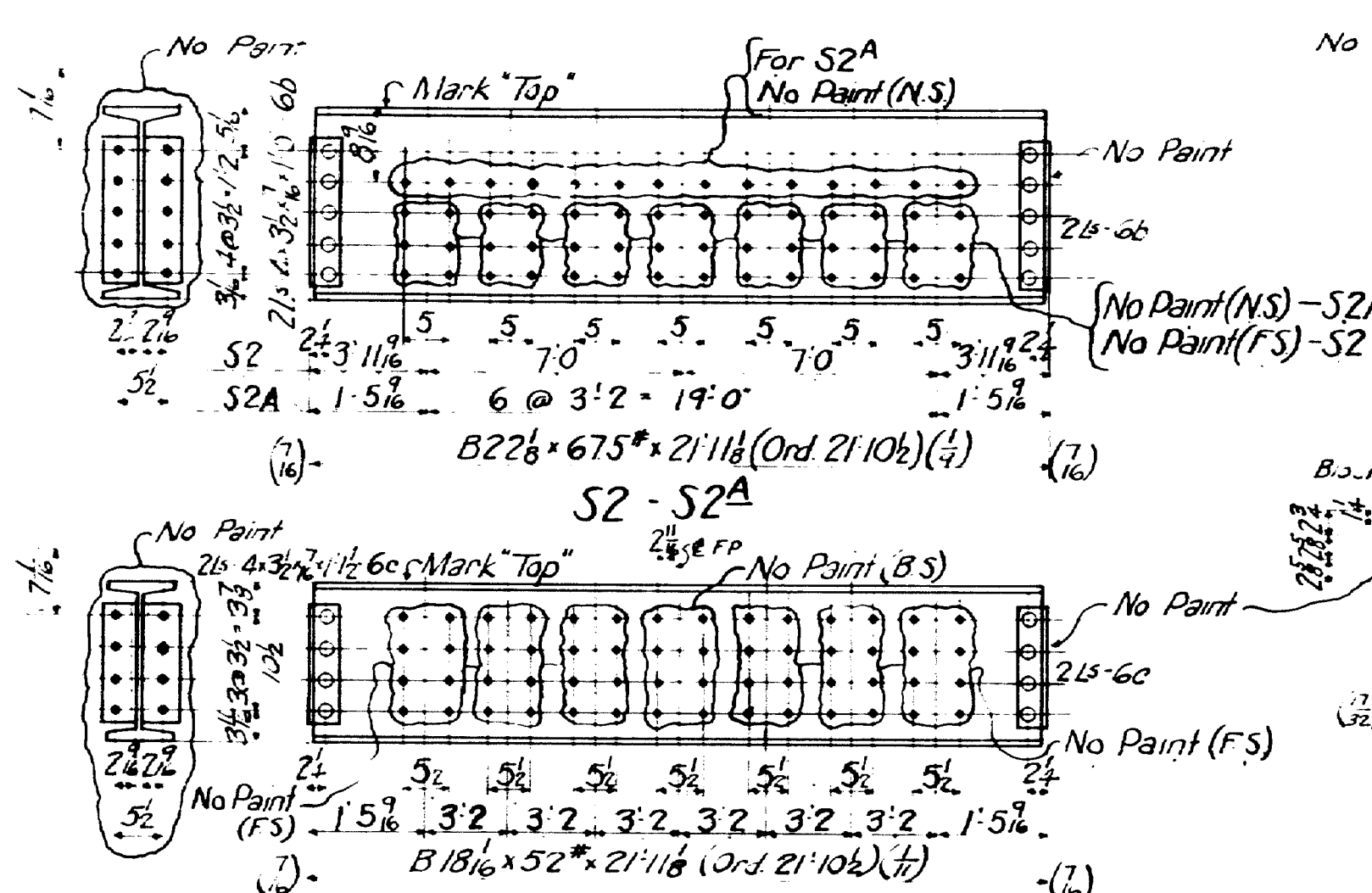
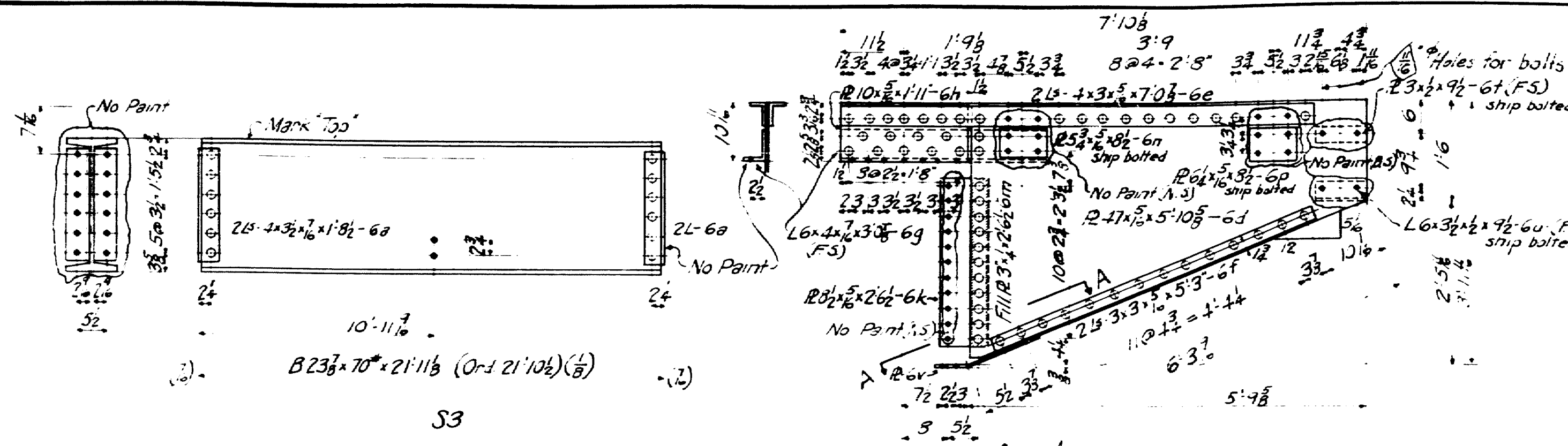
RIVETS: 3/8" DIA. 100% ZINC PLATED

NO. OF: 100

SCALE: 1/2" = 1'-0" (SEE SHEET-EG FOR 1-2)

JOB 5928 SH. 5

REVISIONS



Required List

8 - Stringers	- S1
8 -	- S2
16 -	- S3
8 -	- S4
2 - Sidewalk Stringers	- SS1
6 -	- SS2
8 -	- SS3
9 -	- SS4
One S. Deck Bracket	- BK1
One -	- BK2
4 - Fence Posts	- FPI
One -	- FP2
One -	- FP2L
8 - Fence Post Supports	- FPS1
4 - Fence Posts	- FPS1
8 - Stringers	- S2A

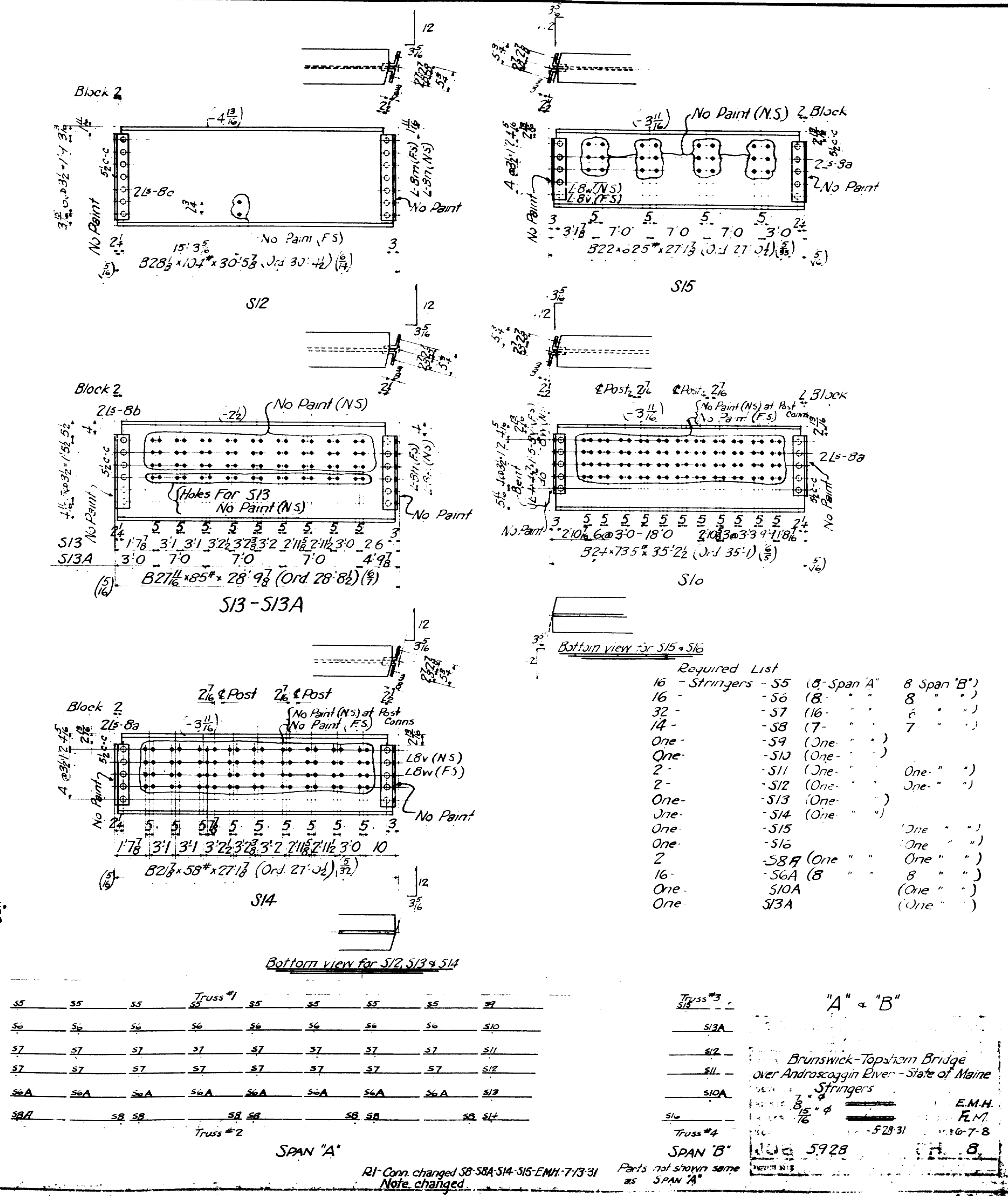
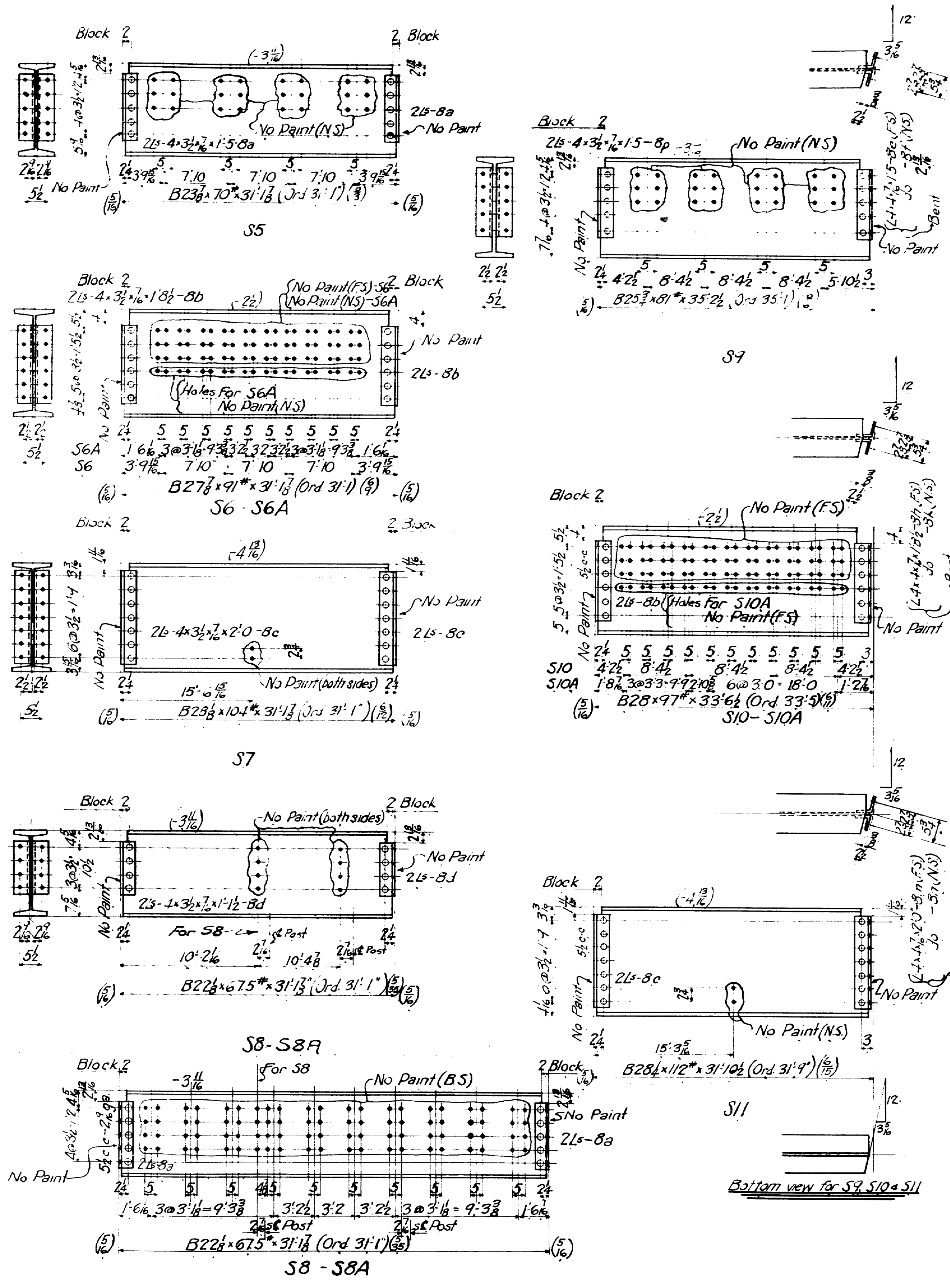
FPS1	FPS1	FPS1	FPS1	FPS1	FPS1	FPS1	FPS1	FPS1	FPS1
SS3	SS3	SS3	SS3	SS3	SS3	SS3	SS3	SS3	SS3
SS4	SS4	SS4	SS4	SS4	SS4	SS4	SS4	SS4	SS4
S4	S4	S4	S4	S4	S4	S4	S4	S4	S4
S2	S2	S2	S2	S2	S2	S2	S2	S2	S2
S3	S3	S3	S3	S3	S3	S3	S3	S3	S3
S3	S3	S3	S3	S3	S3	S3	S3	S3	S3
S2A	S2A	S2A	S2A	S2A	S2A	S2A	S2A	S2A	S2A
S1	S1	S1	S1	S1	S1	S1	S1	S1	S1
FP2	FP1	FP1	FP1	FP1	FP1	FP1	FP1	FP1	FP2

MARKING DIAGRAM
SPAN "C"

For NOTES SEE SHEET E6

Brunswick-Topsnam Bridge
over Androscoggin River State of Maine
Stringers, Brackets & Fence Posts
EMH
HL
12-13-14

R2 Holes changed S1-6a chd. FPIB-6-3031
R1 Holes added to S1, S2, S4-S2A added EMH
Required List



RI Conn. changed S8-S8A-S14-S15-EMH-7/13/31
Note changed

Parts not shown same as SPAN "A"

"A" & "B"

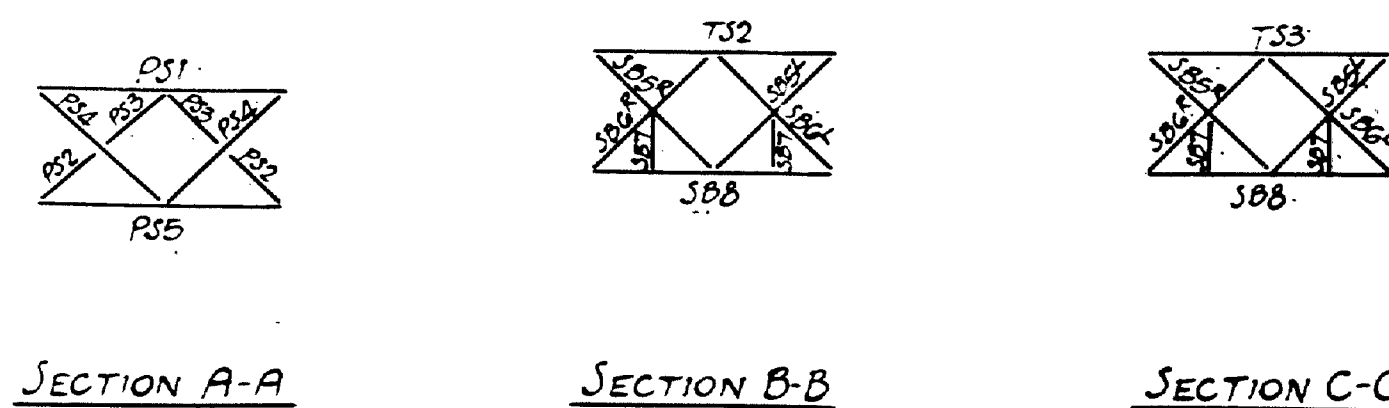
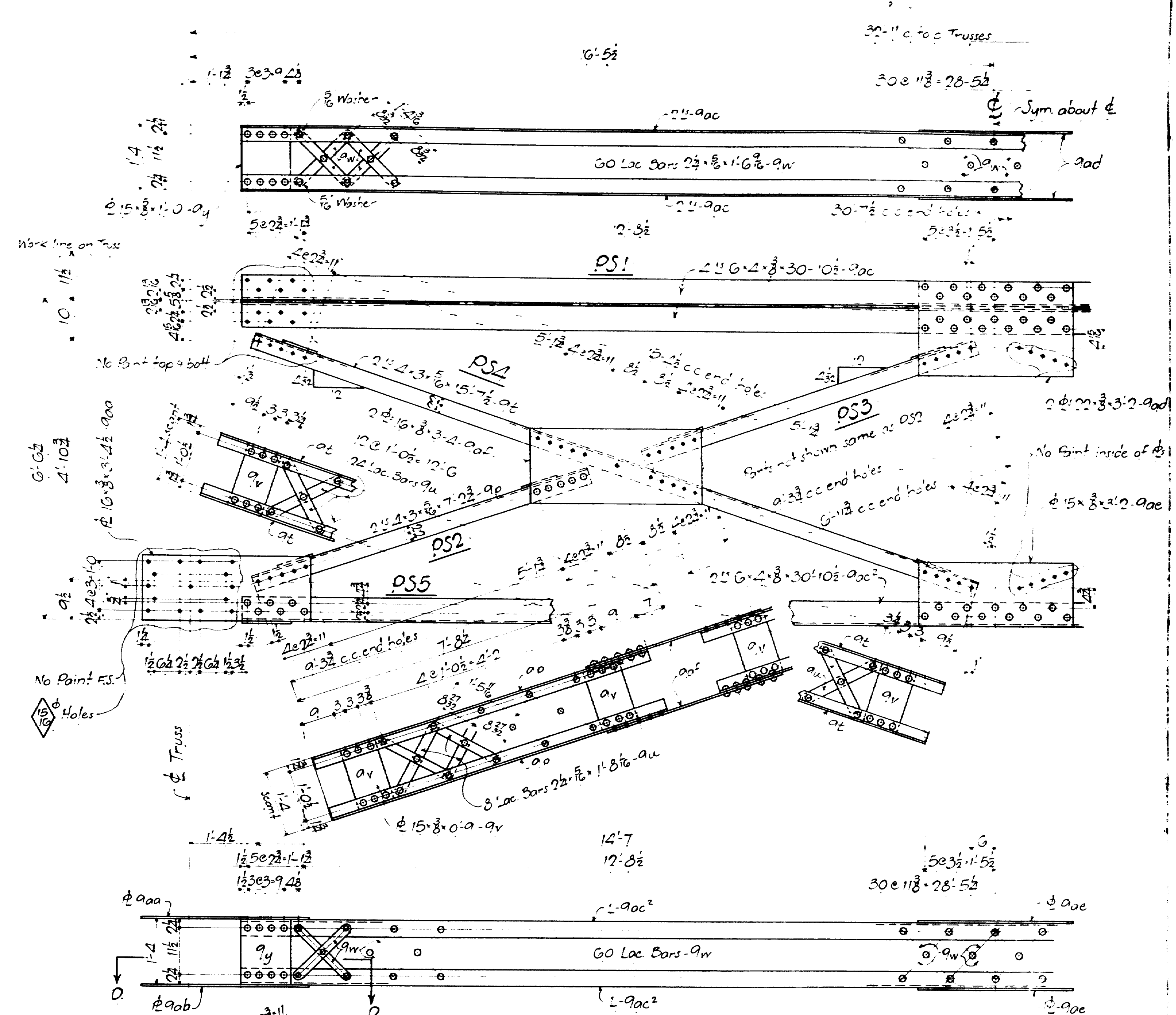
Brunswick-Topsfield Bridge
over Androscoggin River - State of Maine

Stringers

EMH
FLM

528-31

5928



<u>Required List</u>		
2 - Top Struts -	TS2	
One " "		TS3
3 - Sway Bracing -		SBS ^R
3 " "		SBS ^L
3 " "		SBS ^R
3 " "		SBS ^L
6 " "		SJ7
3 " "		SBS
2 - Portal Struts -	DS1	
4 " "		DS2
4 " "		DS3
4 " "		DS4
2 " "		DS5

FOR NOTES: SEE SHEET E6

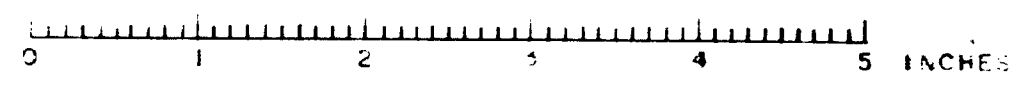
Span "C"

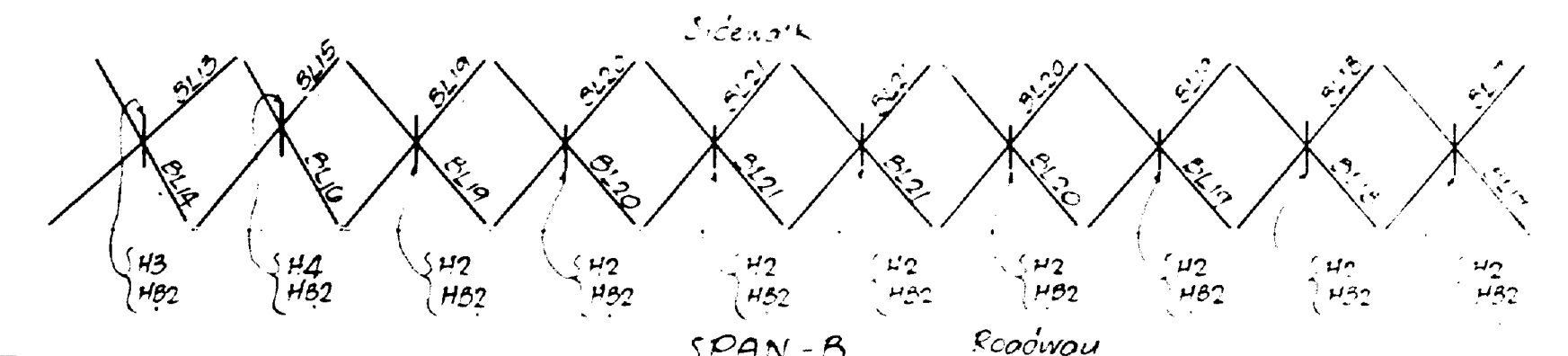
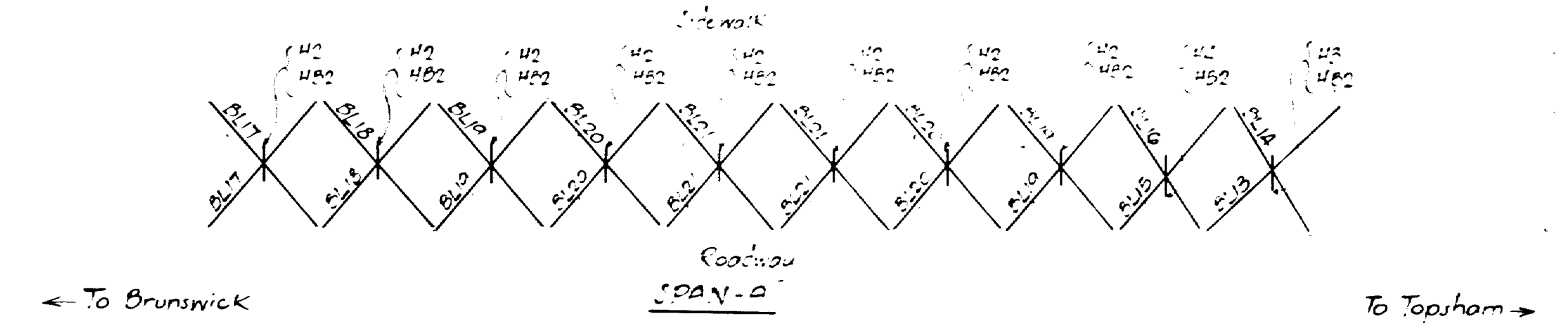
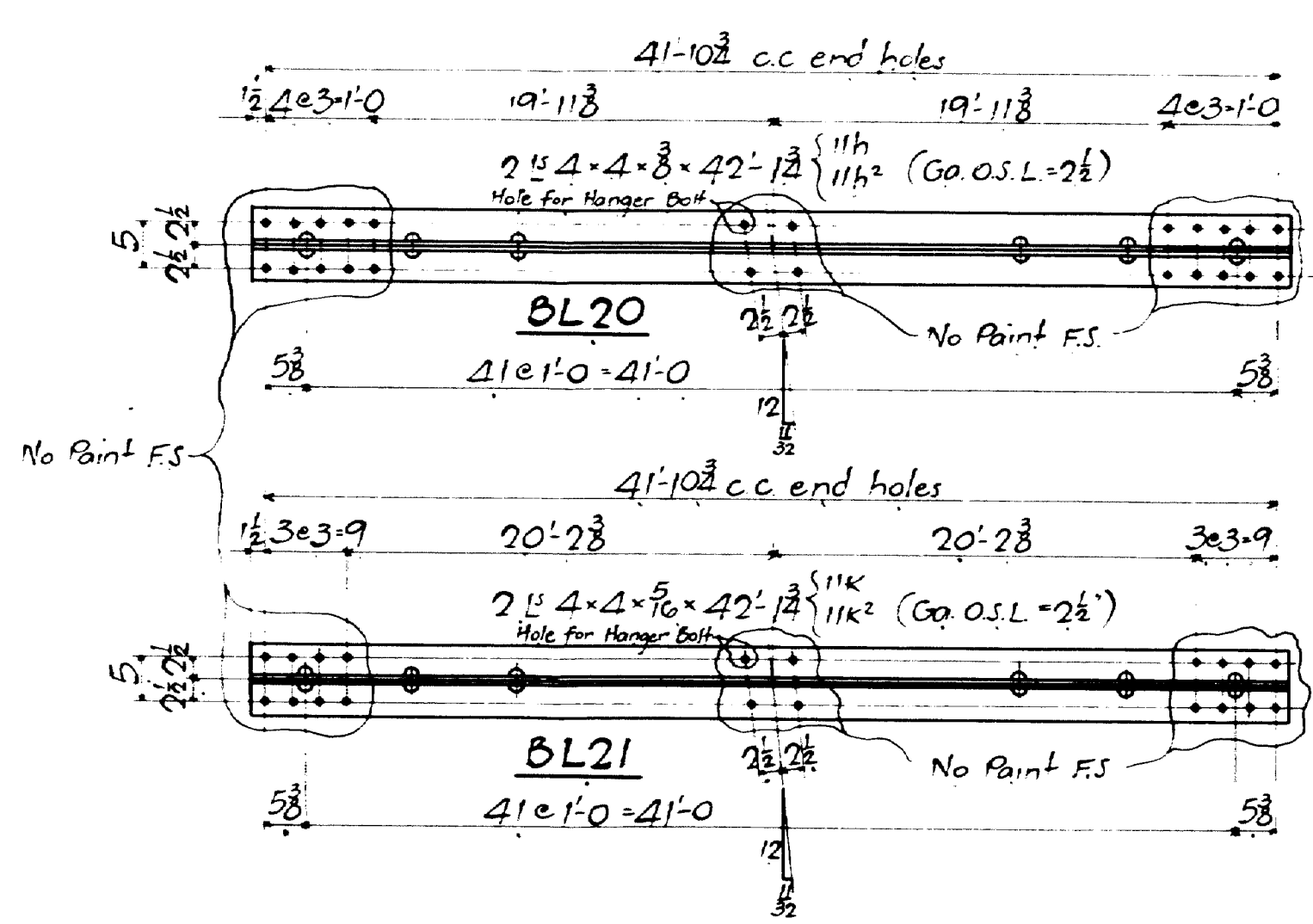
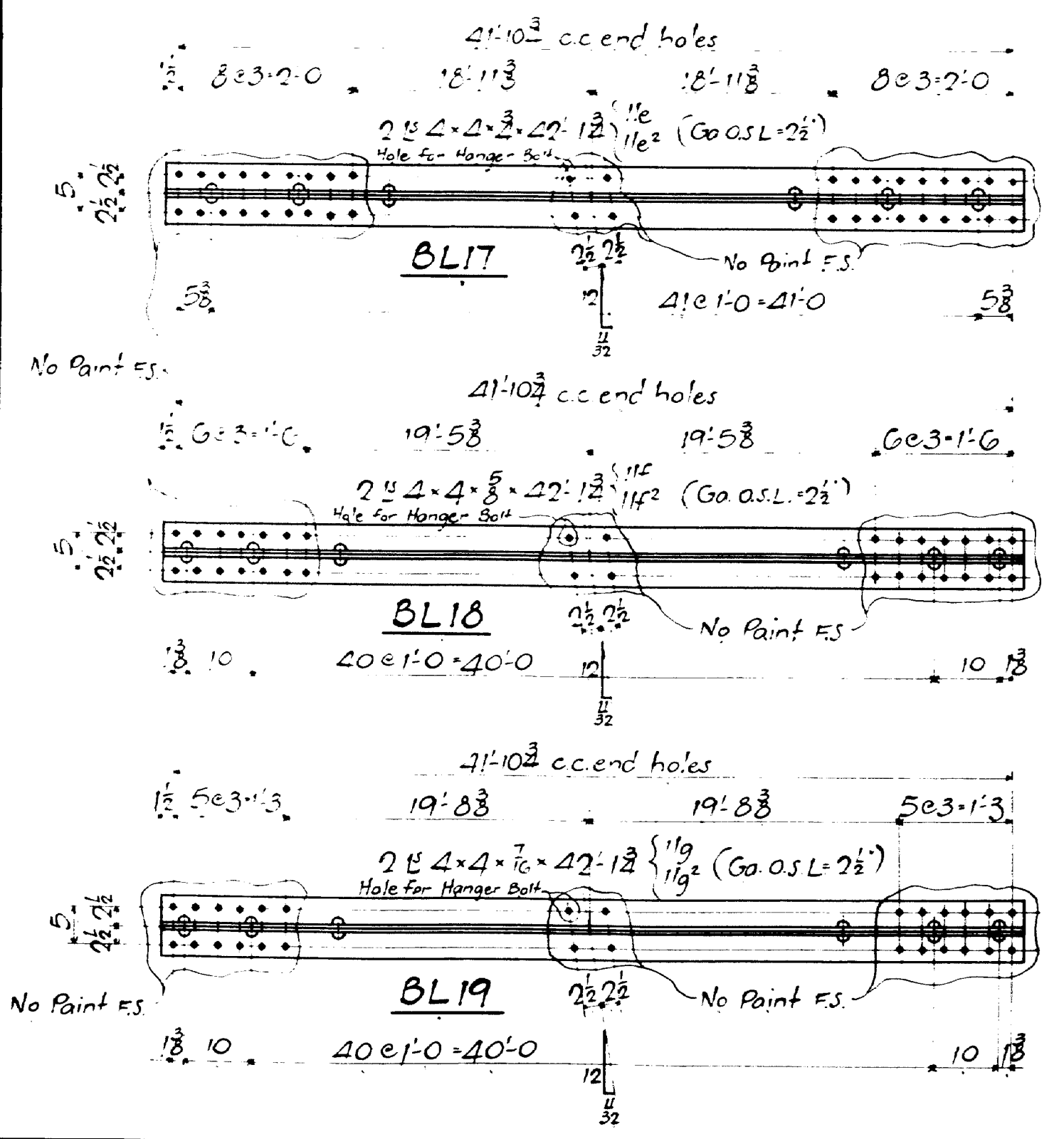
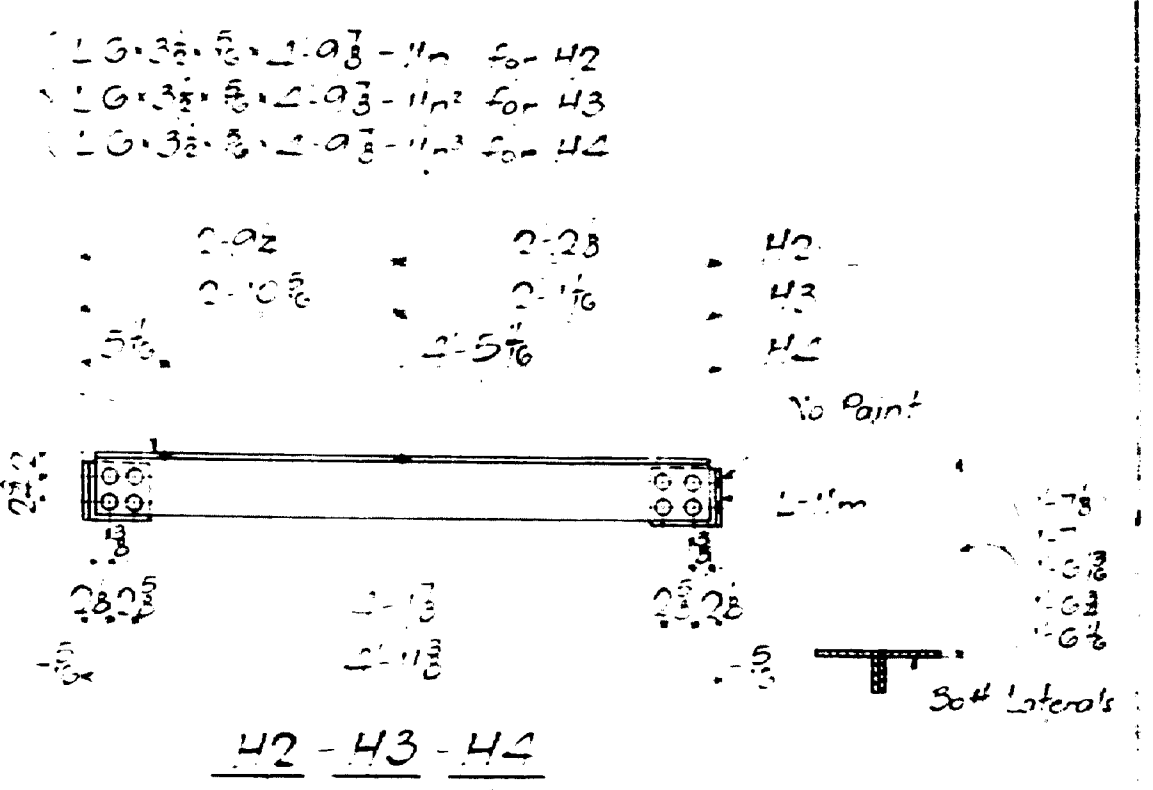
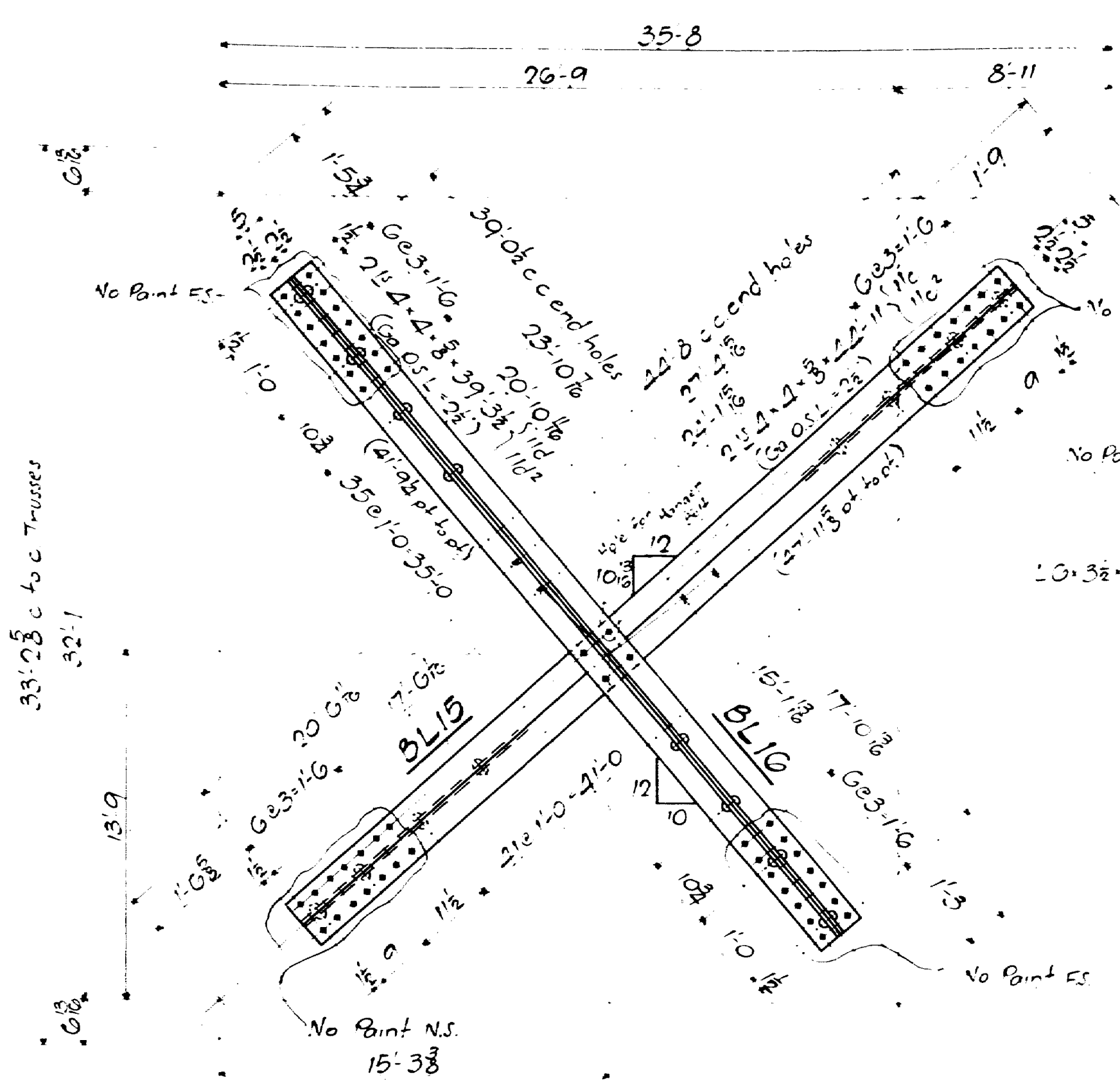
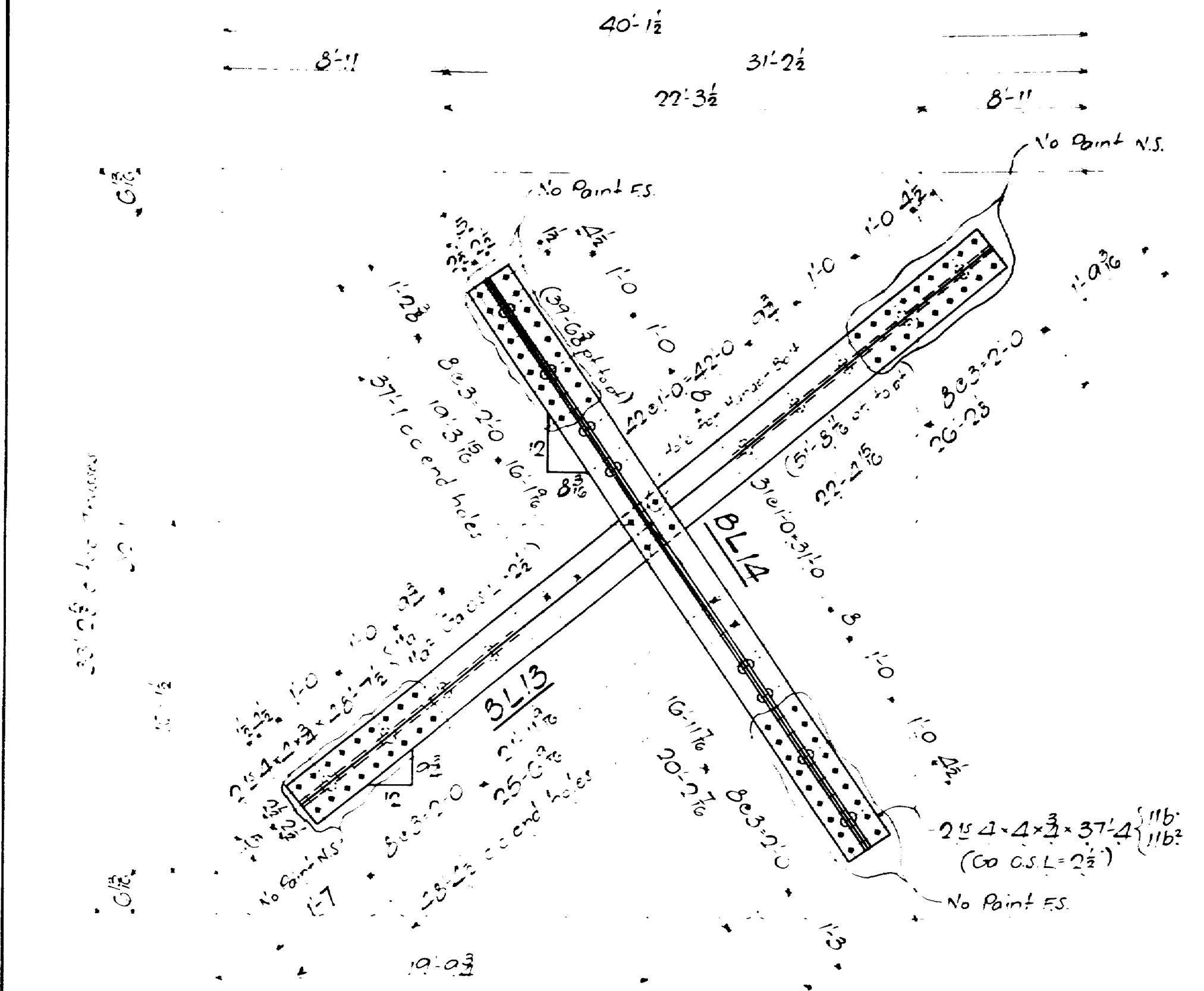
Brunswick - Toosham Bridge over
Androscoggin River - State of Maine
Jway Bracing & Portal

3/4
10 φ
2 = 1'-0" 5-2 1/2 31

5928 9-10-11

71 10-11-11 Pk on 360' span Edge dist on P44 ENK G-12-31





Required List	
One	Bottom Laterals - BL13
One	BL14
One	BL15
One	BL16
2	BL17
2	BL18
4	BL19
4	BL20
4	BL21
8	Hanger Struts - H2
One	H3
One	H4
10	Bolts - HB2

MARKING DIAGRAMS

Spans 'A' 'B'

THE BOSTON BRIDGE WORKS INC.
BOSTON, MASS.

NAME Brunswick-Topsfield Bridge over
Androscoggin River State of Maine

DETAILS of Bottom Laterals-Hangers

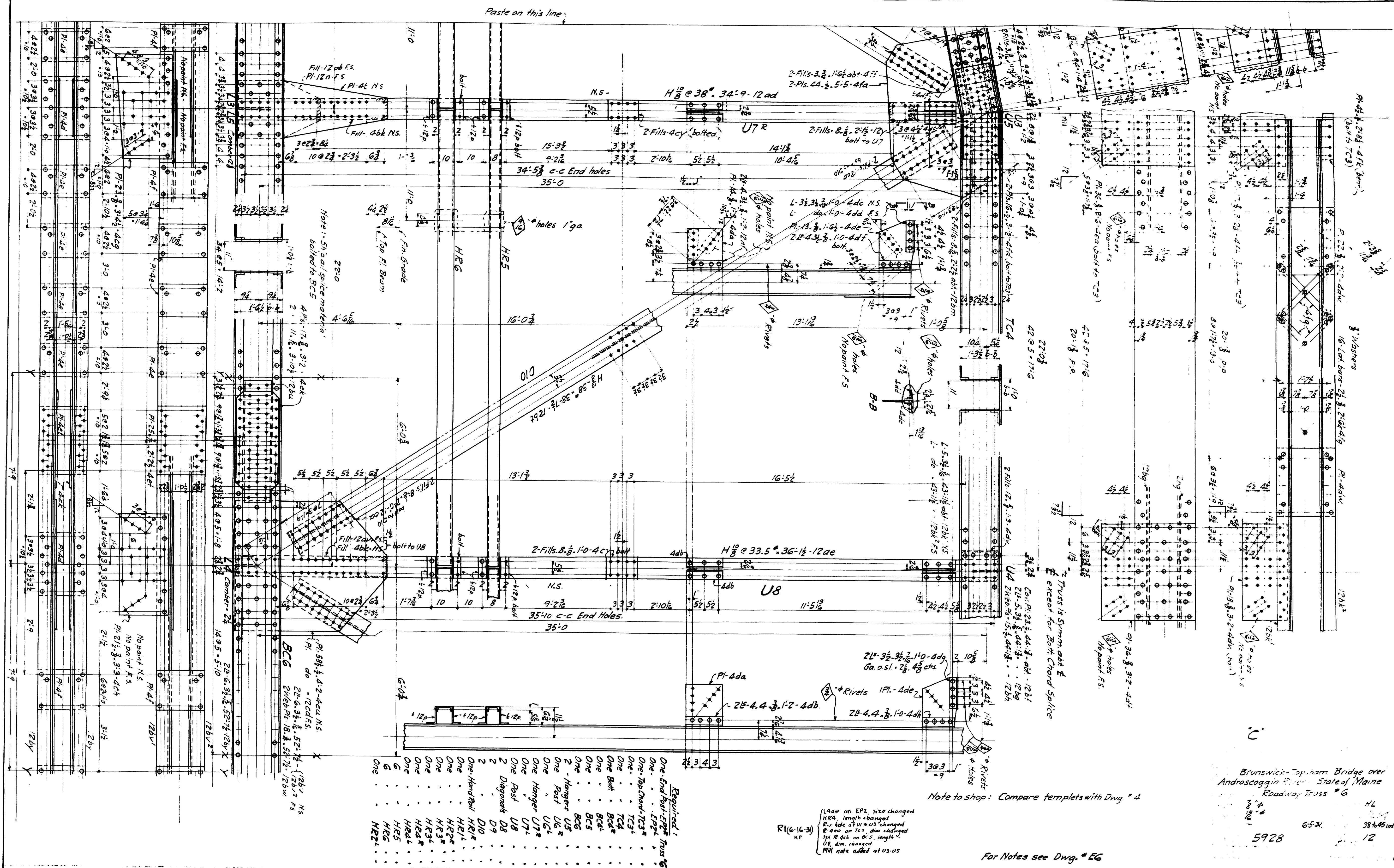
RIVETS 1/2" EX NOTED CHECKED BY E.M.

HOLES 1/2" EX NOTED CHECKED BY E.M.

SCALE 1/2" = 1'-0" DATE 5-25-21 LIST PAGE 24-25

JOB 5928 SH 11

REVISIONS



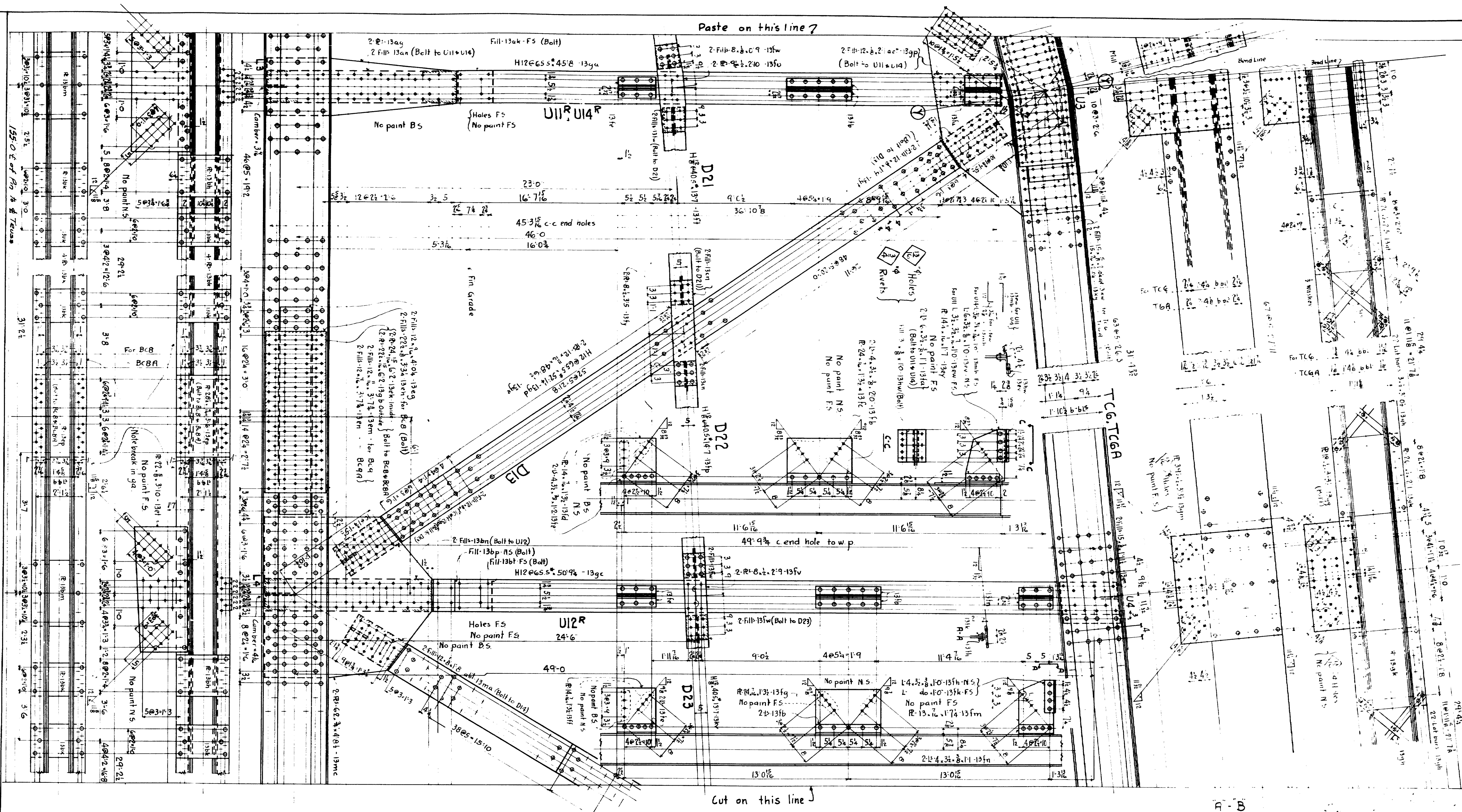
Brunswick-Topham Bridge over
Androscoggin River - State of Maine
Roadway Truss #6

592

6-5-34

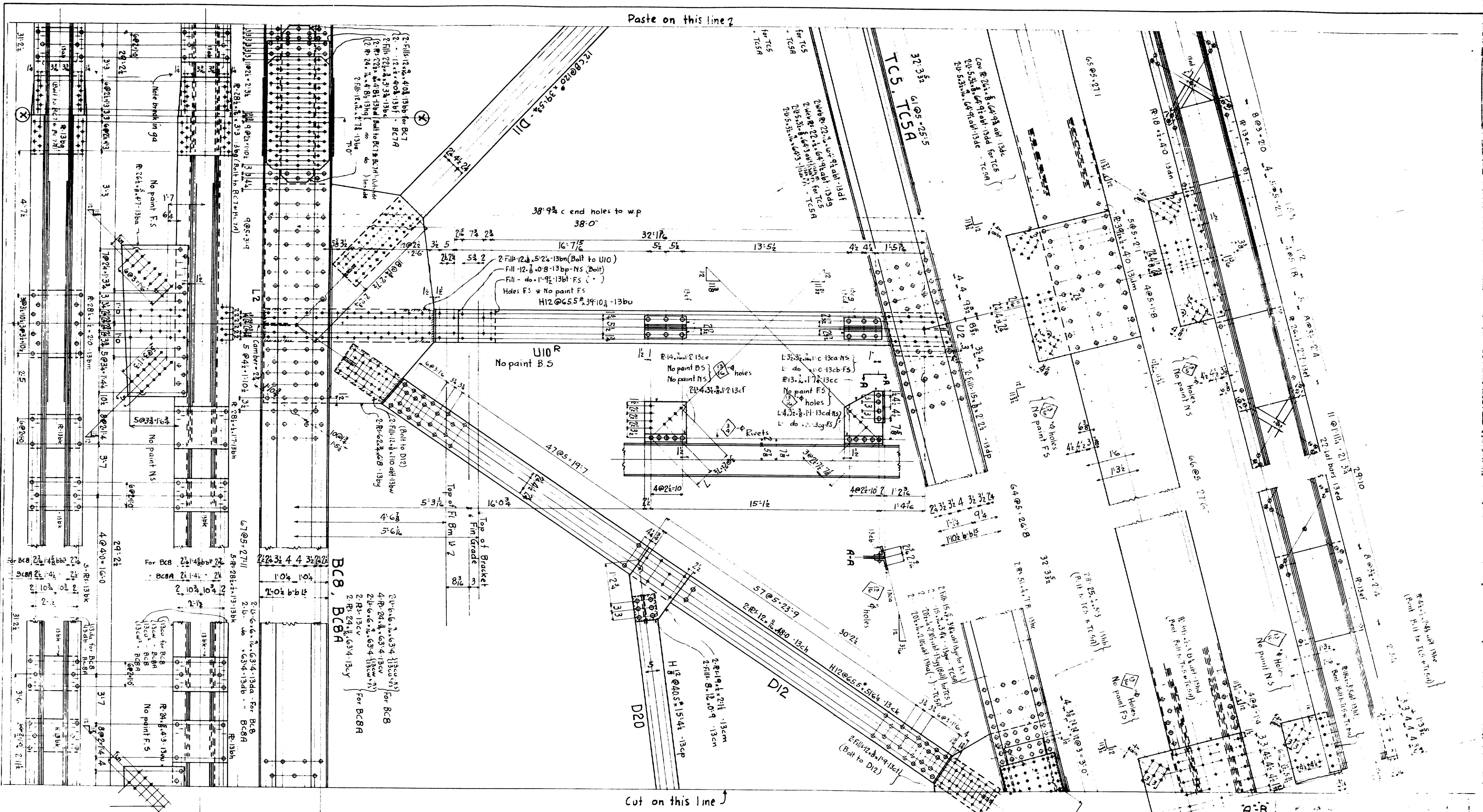
14-170



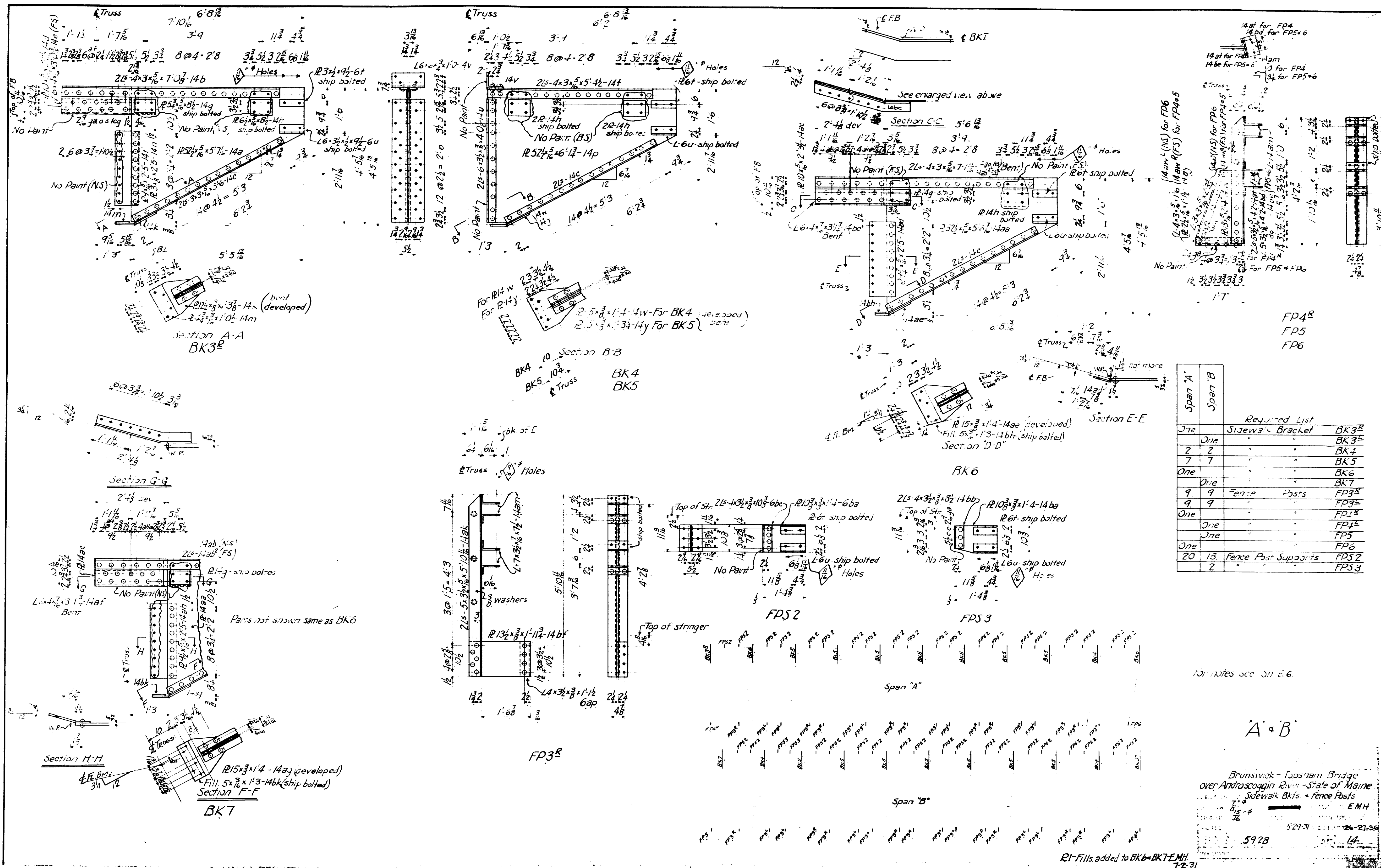


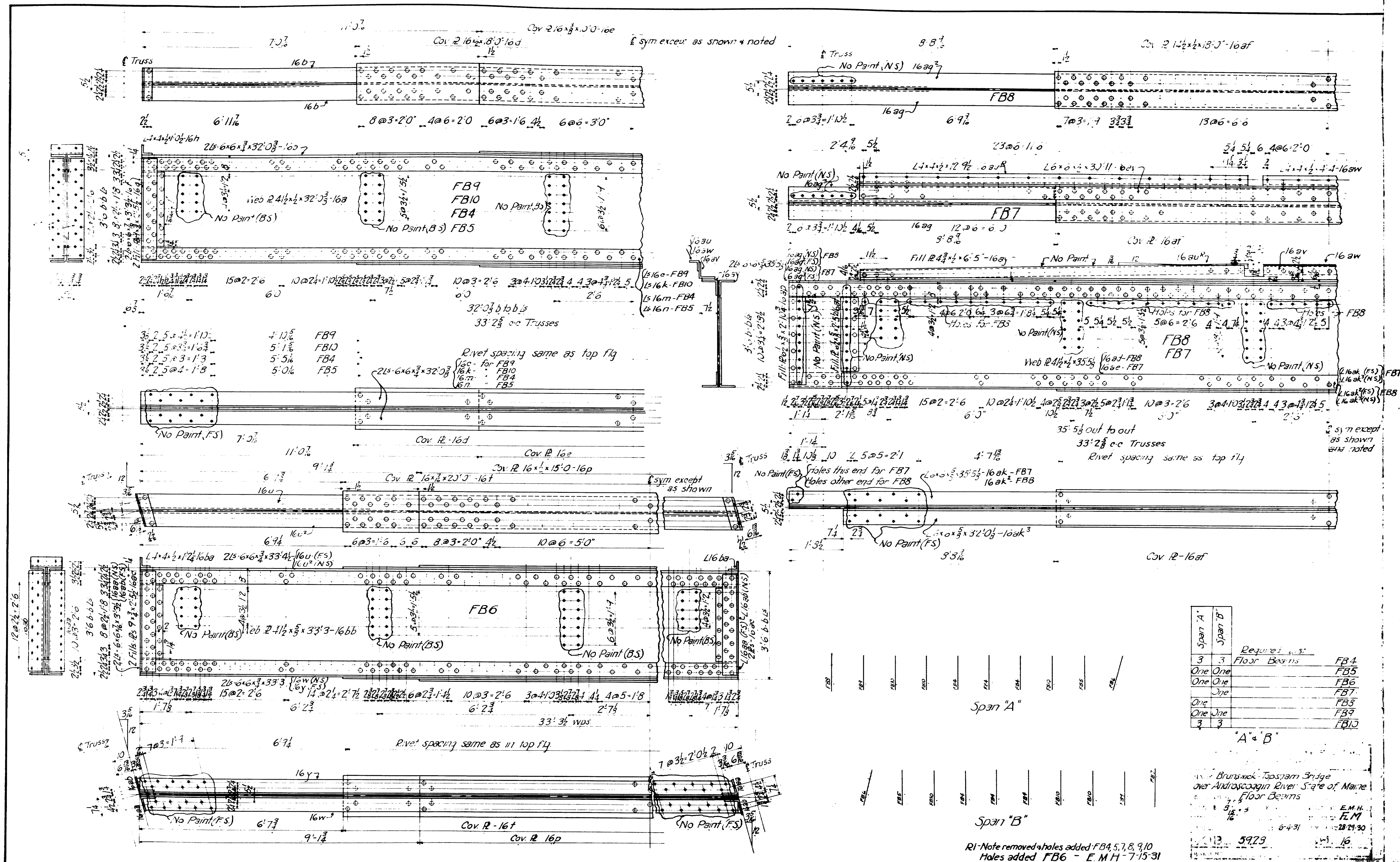
A-B

Brunswick Topsham Bridge over
Androscoggin River - State of Maine
Truss Sections - Span A & B
HP
6-26-31 5872 inc.
5928 13A



Brunswick-Topsnam Bridge over
 Androscoggin River - State of Maine
 Truss Sections - Span "A" & "B"
 H.P.
 5872
 5872 in.
 13 B
 5928
 6-26-31





Span A	Span B	Required	Notes
3	3	Floor Beams	FB4
One	One		FB5
One	One		FB6
One	One		FB7
One	One		FB8
One	One		FB9
3	3		FB10

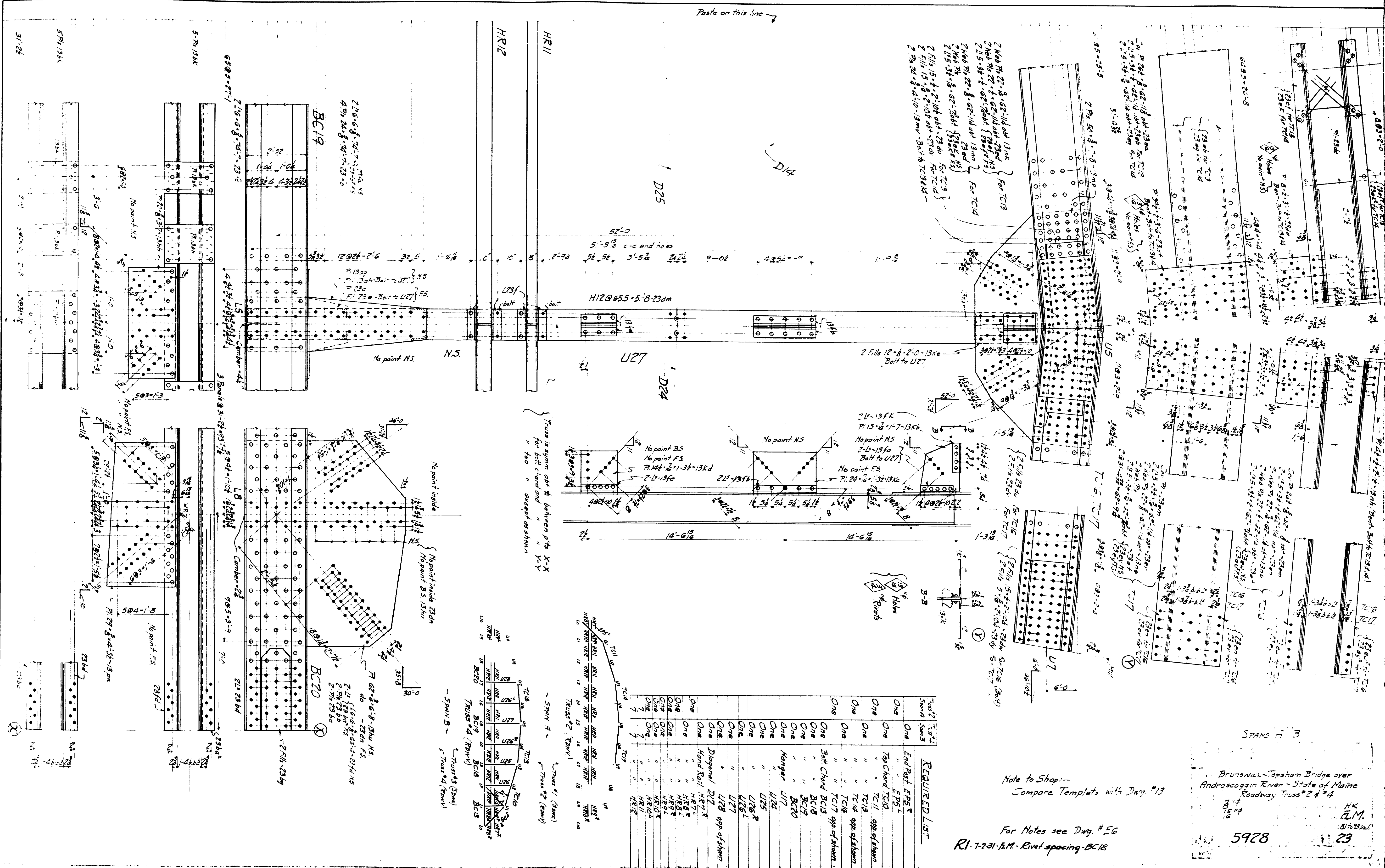
"A" & "B"

Brunswick Topnam Bridge
over Androscoggin River State of Maine
Floor Beams

5929

RI-Note removed holes added FB4, 5, 7, 8, 9, 10
Holes added FB6 - E.M.H. 7-15-31





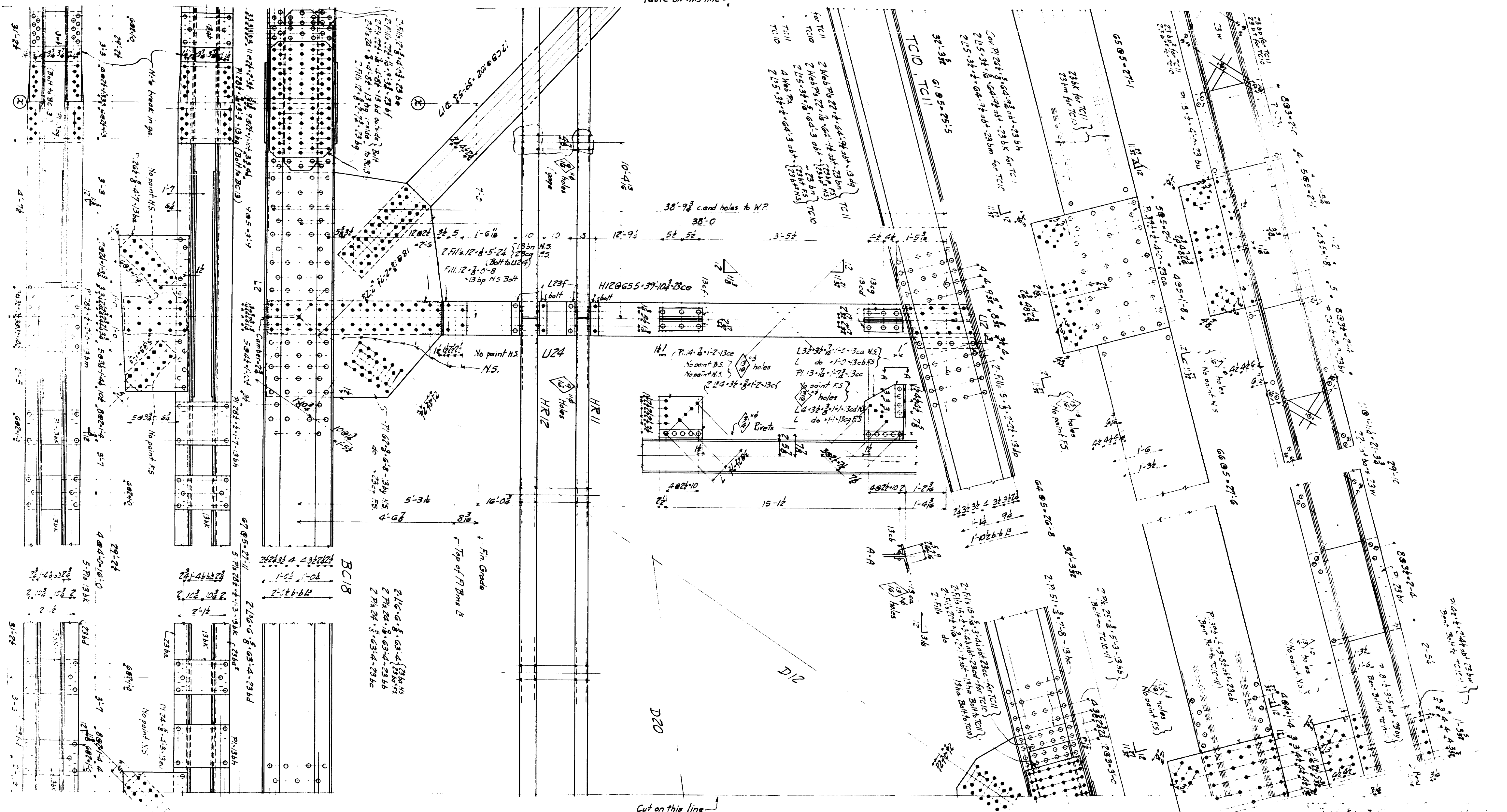
Note to Shop:-
Compare Templates with Dwg. #13

For Notes see Dwg. #56

RI. 7-231-F.M.-Rivet spacing-B/C/B

Brutswick-Topsam Bridge over
Androscoggin River - State of Maine
Roadway Truss # 2 # 34
7' 3" HK
15' 11" L.M.
16' 81 to 23
5928 23

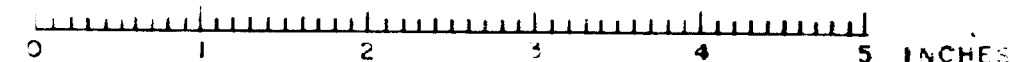
Cut on this line—



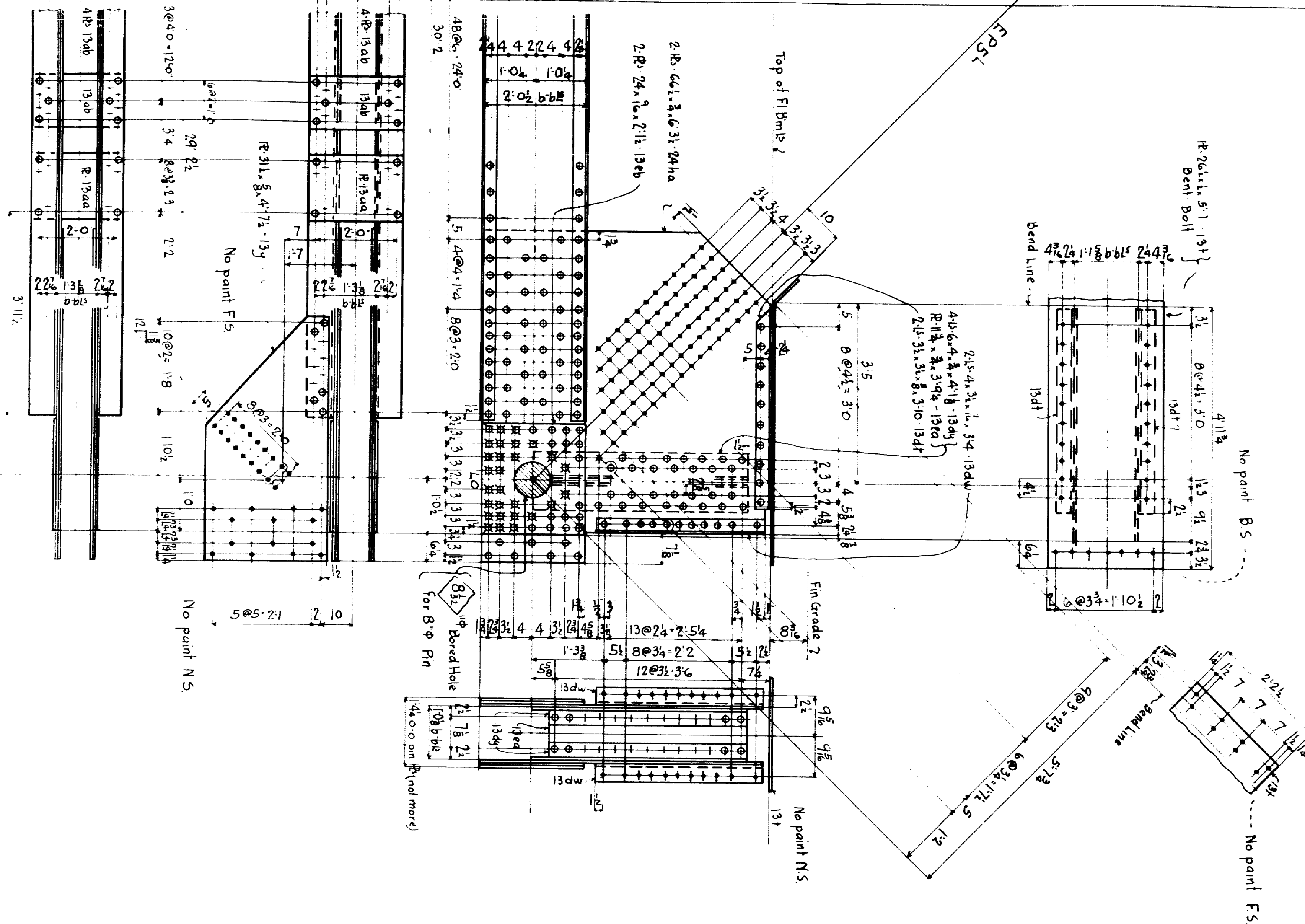
5928

HK.
F.L.M.
81 to 93 and
Z3B

14-00000



Paste on this line 

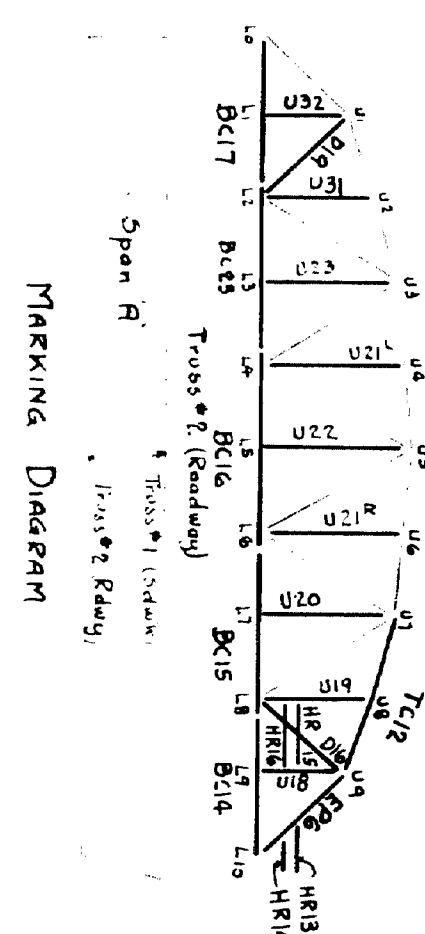


Note to shop:
Save templates for dwg #26.

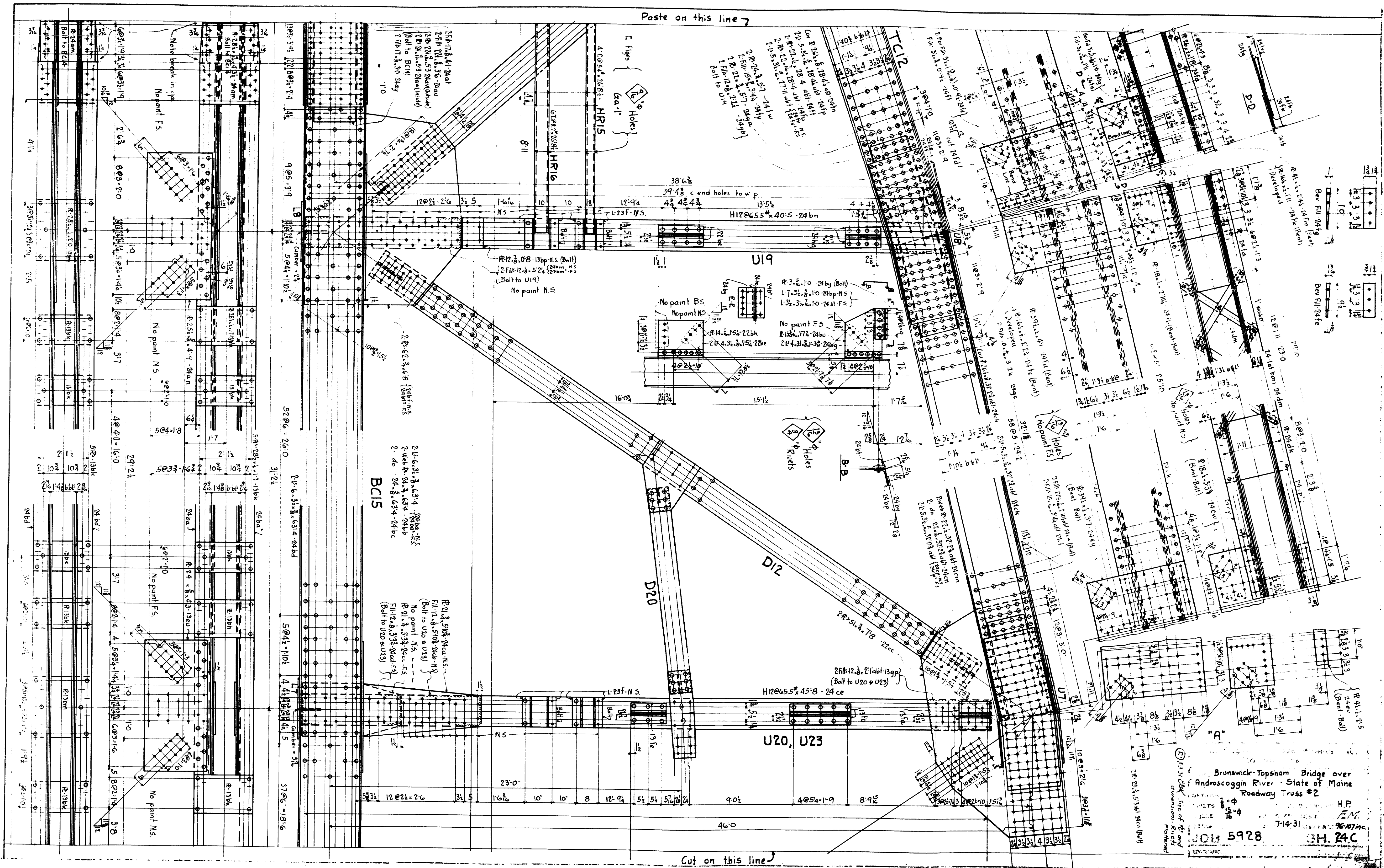
For notes see also *EG.

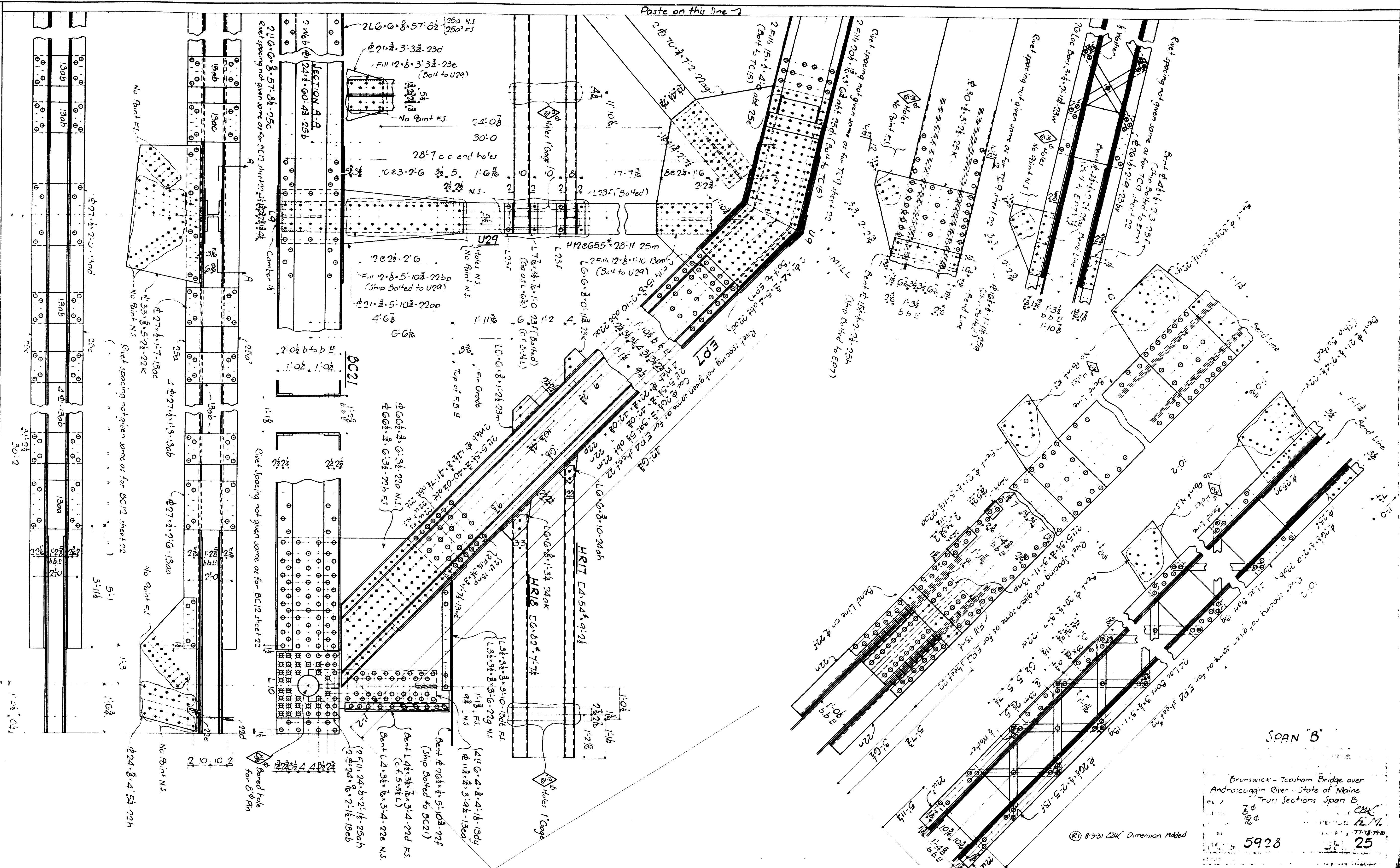
Span #1	Span #2	REQUIRED	LIST
One	End Post	EP6	
One	Top Chord	TC12	
One	Bottom	BC4	
One	"	BC15	
One	"	BC16	
One	"	BC17	
One	"	BC25	
One	Hanger	UB8	
One	"	UB9	
One	"	UZ20	
One	"	UZ18	
One	"	UZ16	
One	"	UZ22	
One	"	UZ21	
One	"	UZ23	
One	"	UB1	
One	"	UB2	
One	Diagonal	UB6	
One	"	UB9	
One	Hand Rail	HR13	
One	"	HR14	
One	"	HR15	
One	"	HR16	

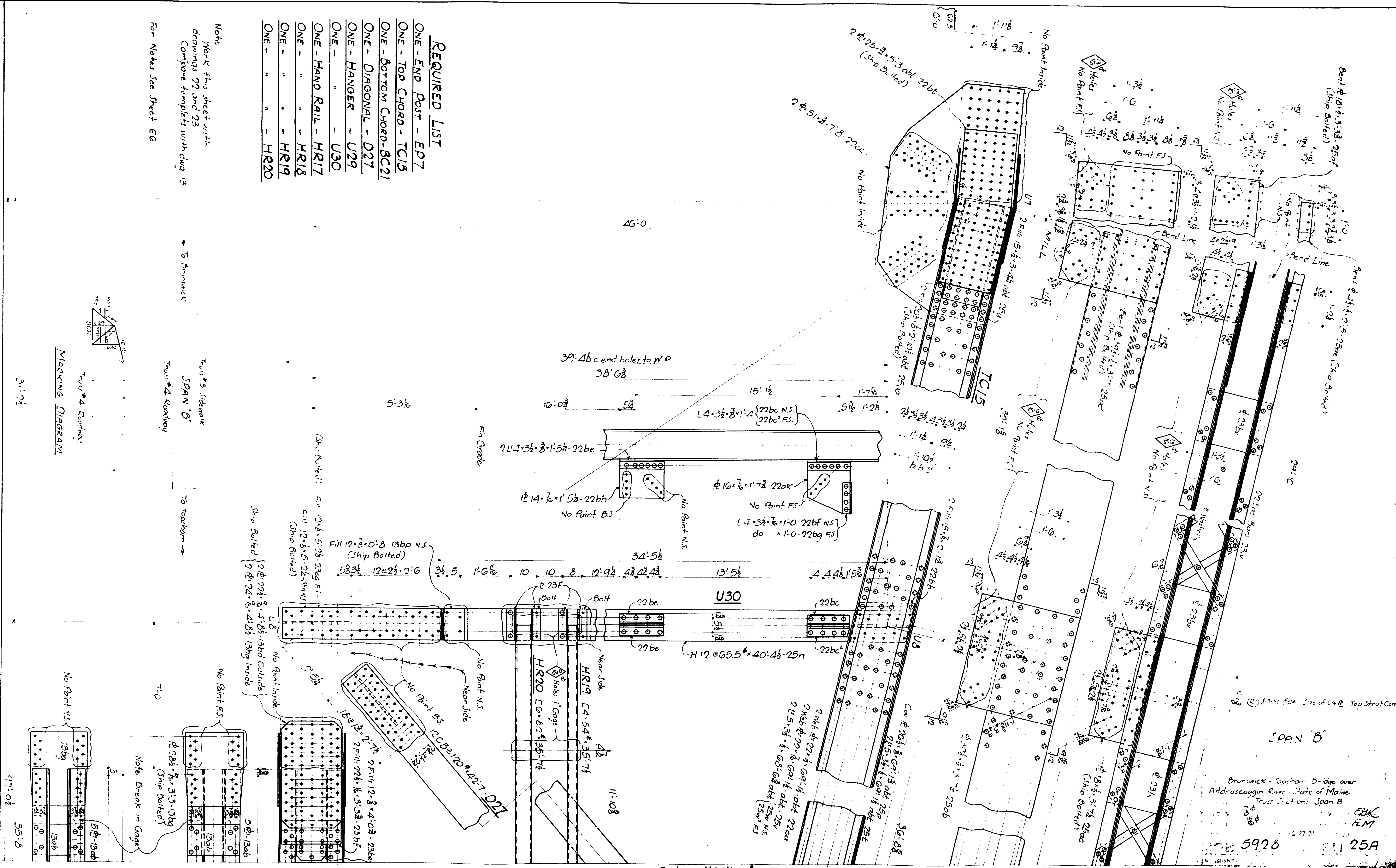
opp. of shown



A
 Brunswick-Topsnam Bridge over
 Androscoggin River- State of Maine
 Roadway Truss # 2
 10-14-31
 503 5928
 DIVISION







REQUIRED LIST

- ONE- END POST - EP7
- ONE- TOP CHORD - TC15
- ONE- BOTTOM CHORD - BC21
- ONE- DIAGONAL - D27
- ONE- HANGER - U29
- ONE- " - U30
- ONE- " - HR17
- ONE- " - HR18
- ONE- " - HR19
- ONE- " - HR20

Note
Work this sheet with
drawings 22 and 23
Compare templates with drawing 13

Truss #3 Sideview
SPAN 6'
Truss #4 Endview
To Towroom

MARKING DIAGRAM

31'-2 1/2"

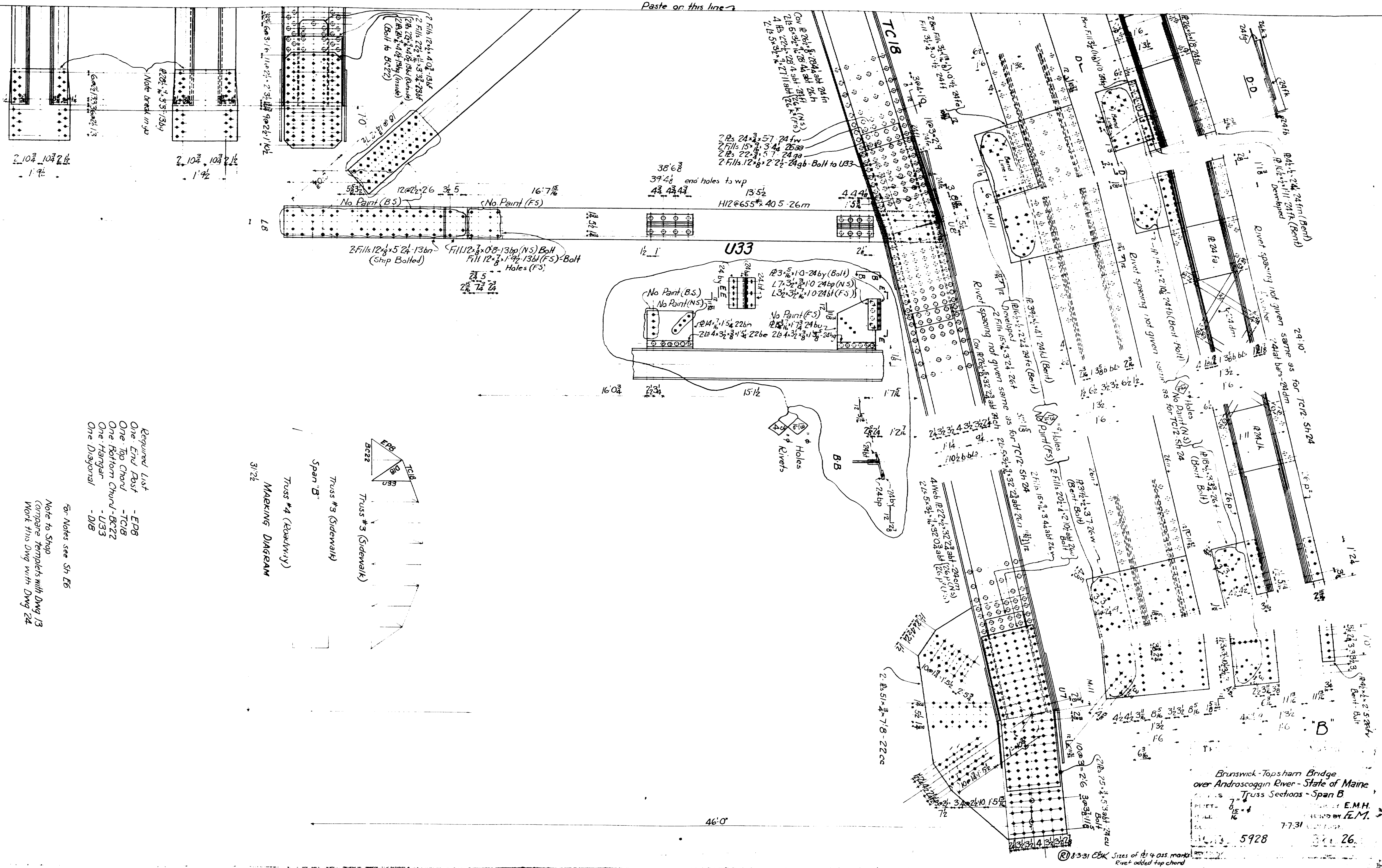
35'-8"

SPAN 6'

Brunswick-Towroom Bridge over
Androscoggin River - State of Maine
Truss Sections: Span B

5928

25A



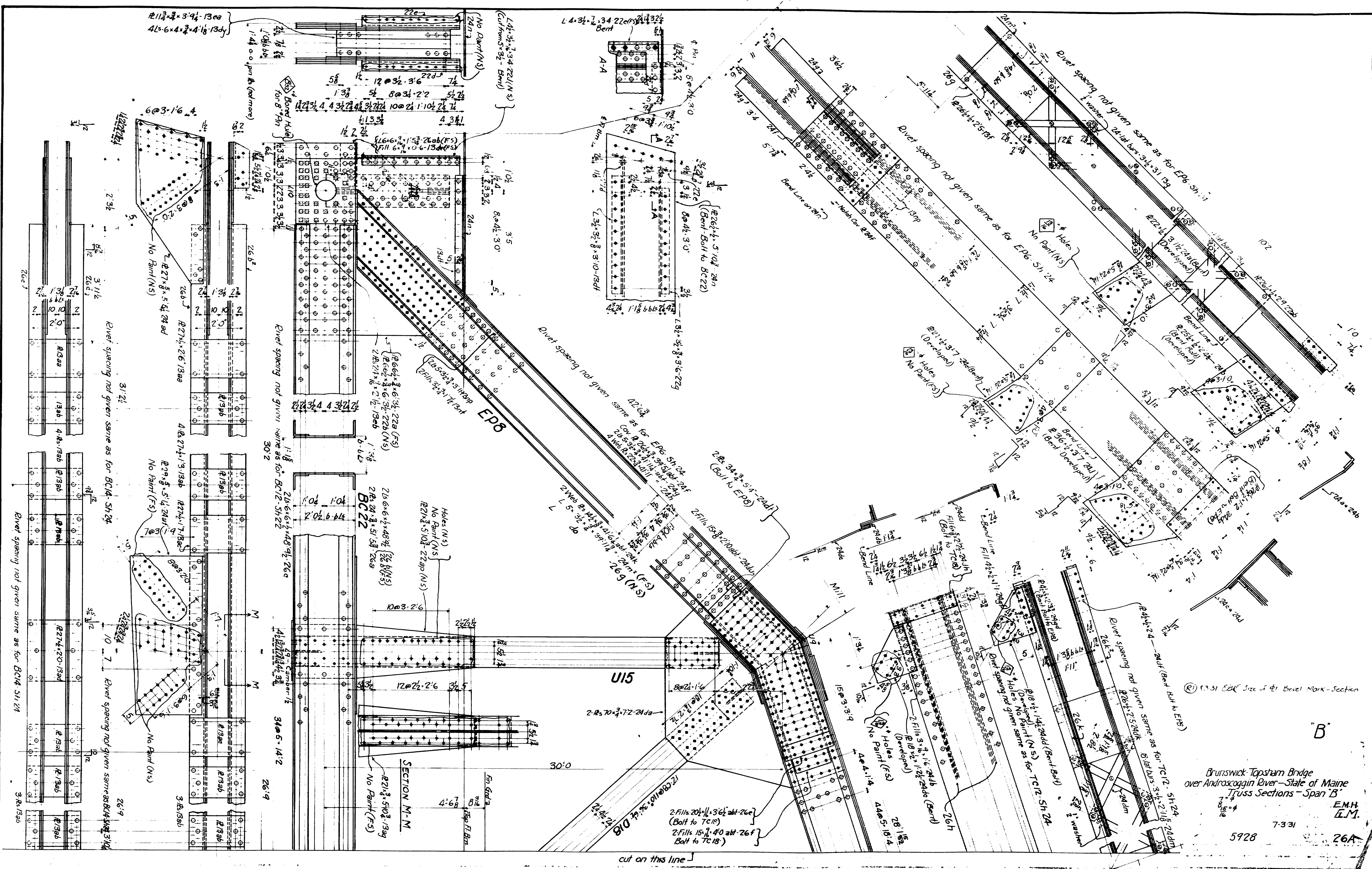
- Required List
- EPB
 - TC18
 - One Top Chord
 - One Bottom Chord - DC22
 - U33
 - One Hanger
 - DB

For Notes see Sh E6

Note to Shop

Compare templates with Dwg 13

Work this Dwg with Dwg 24



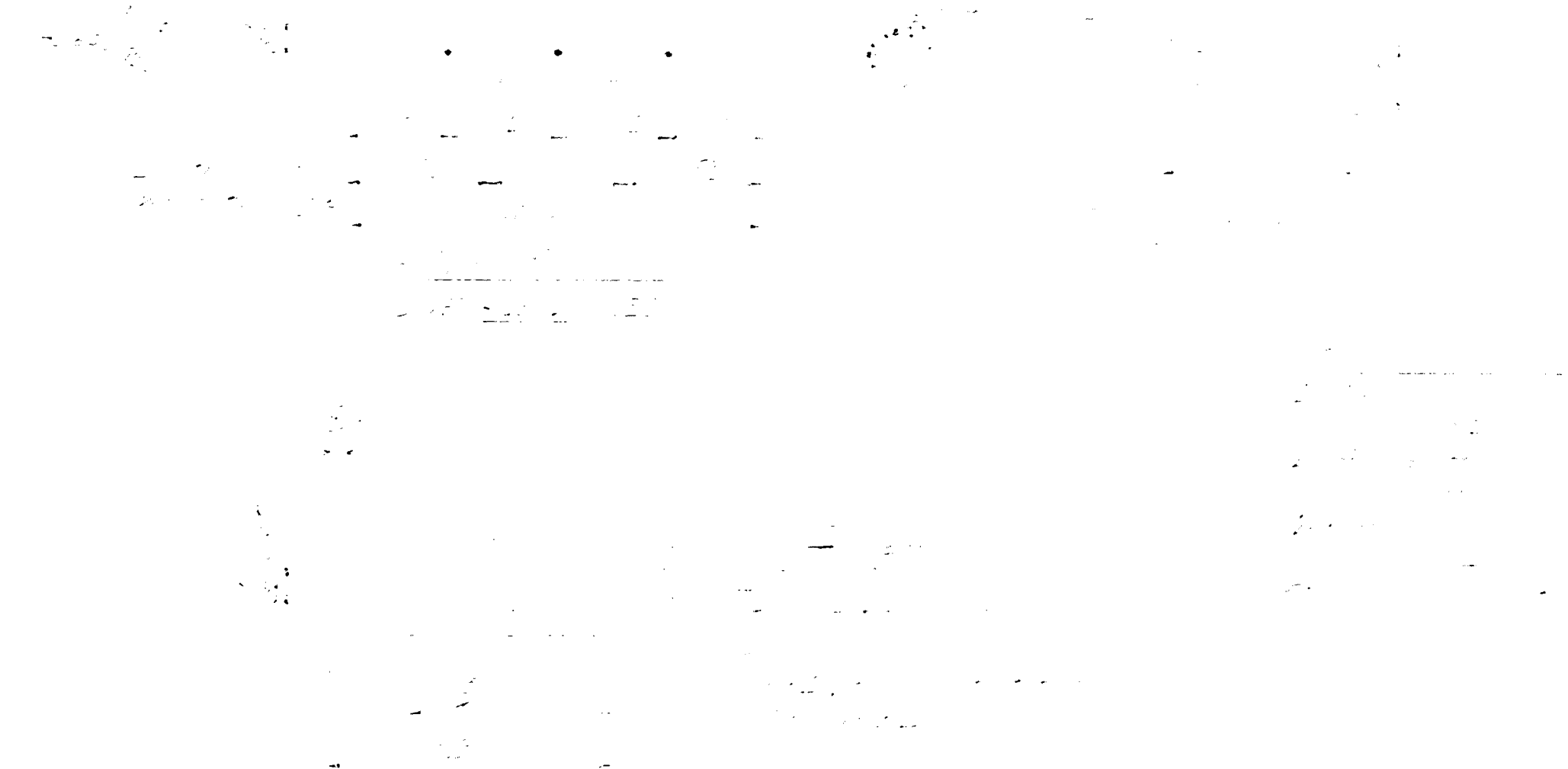
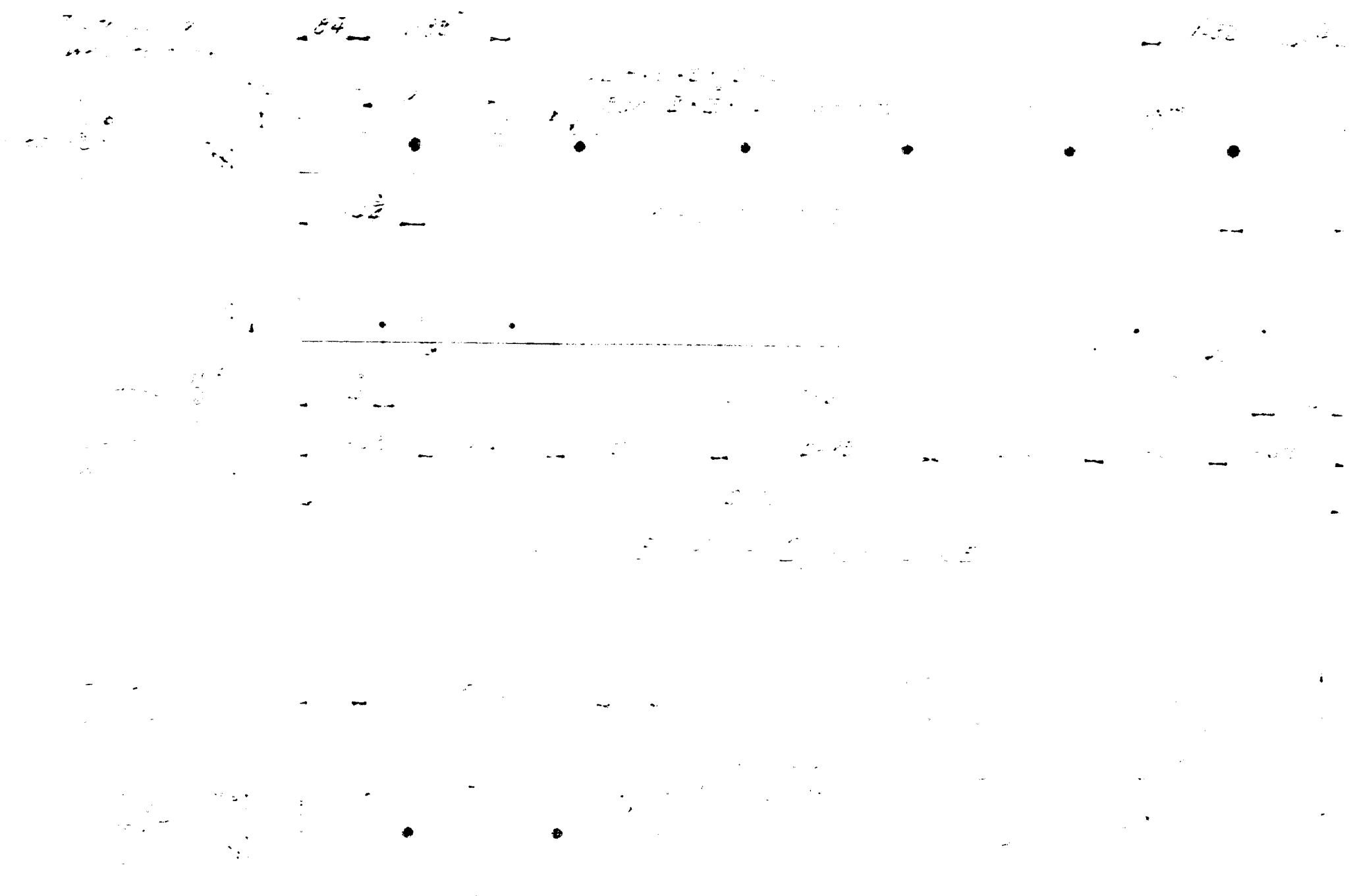
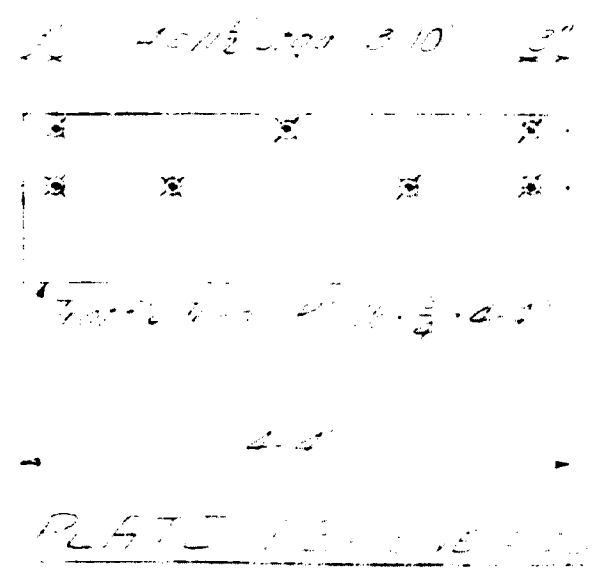
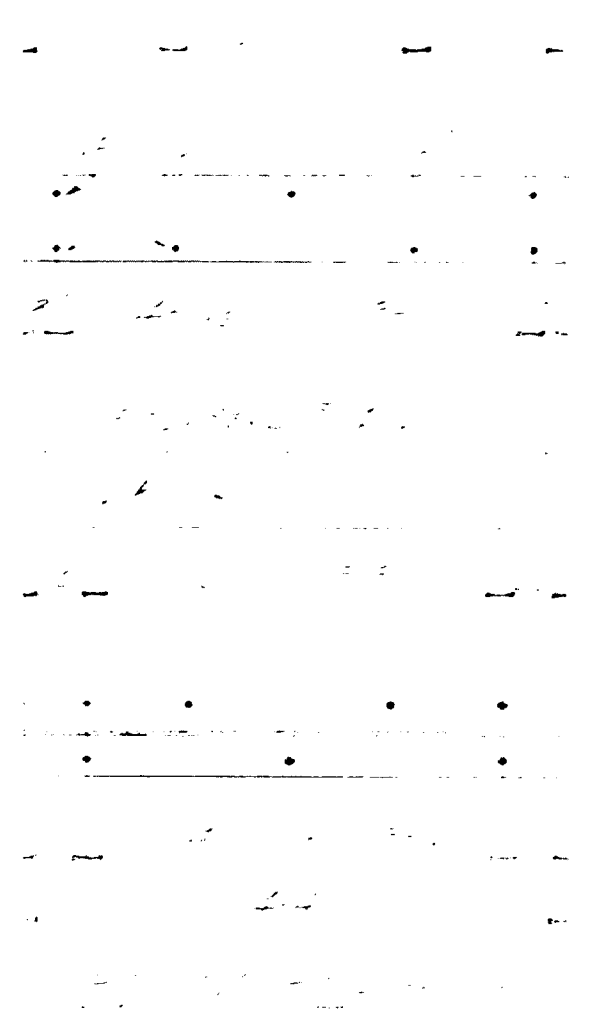
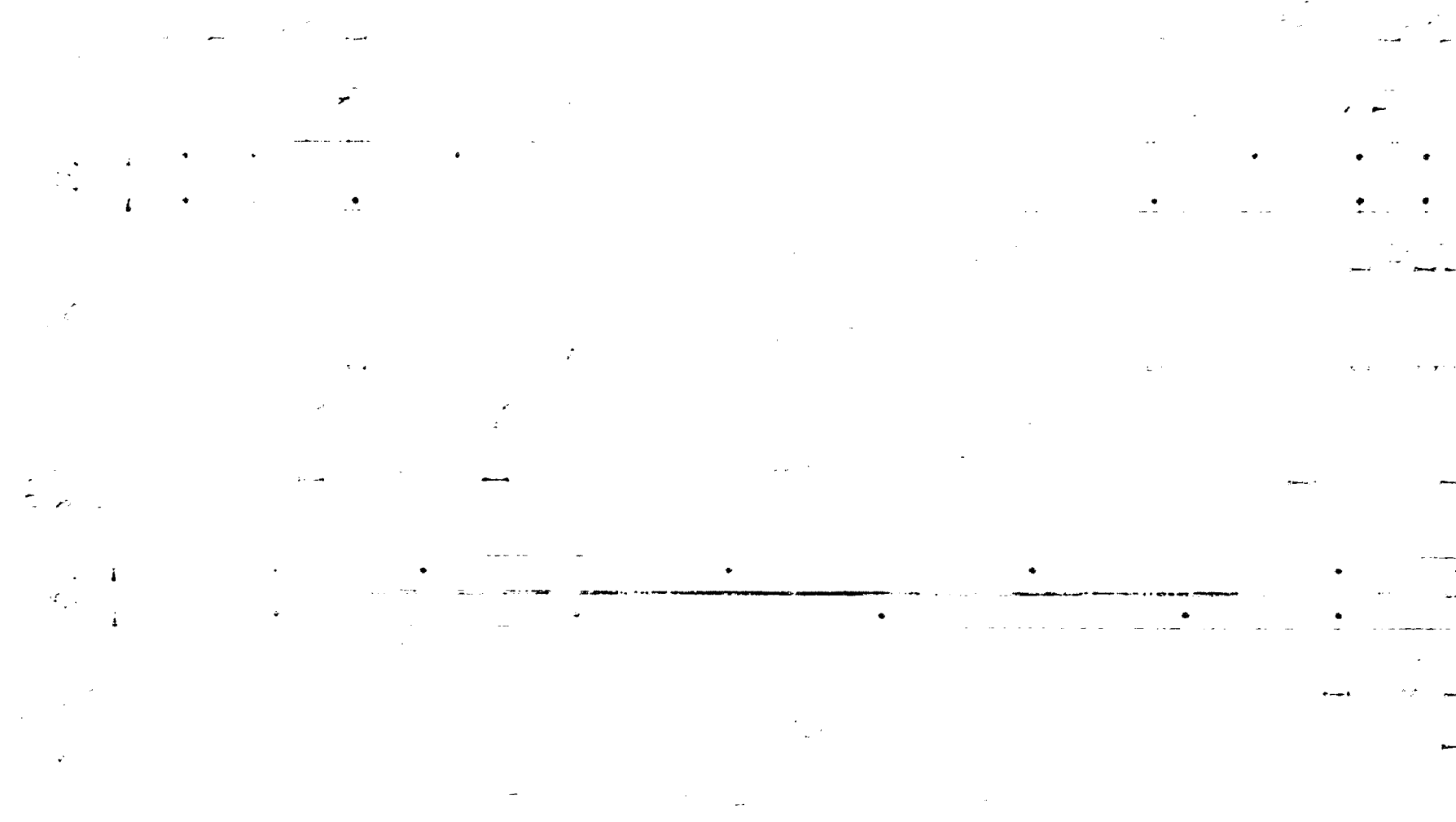
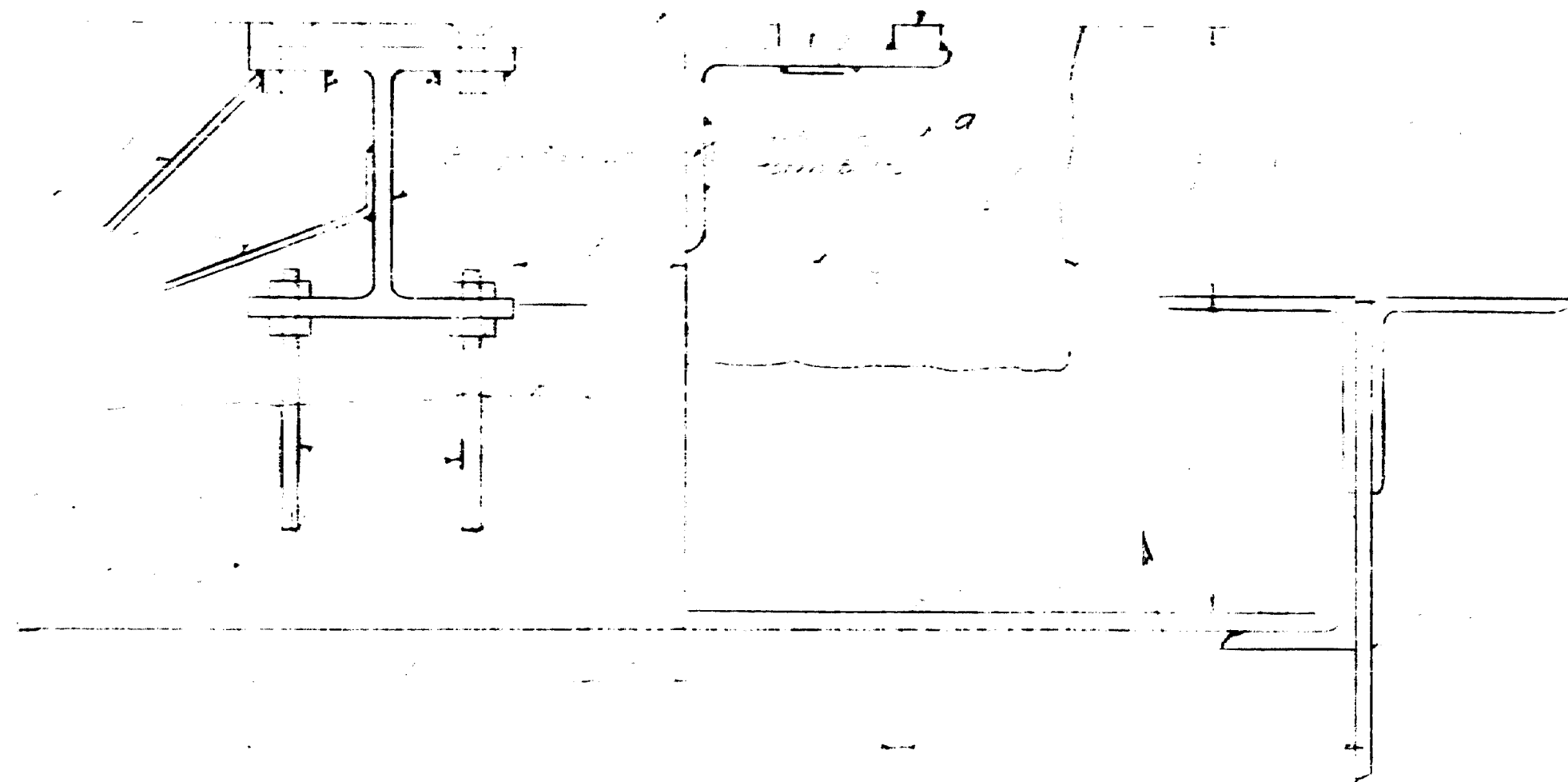
Brunswick Topsham Bridge
over Androscoggin River—State of Maine
Truss Sections—Span B

EMH
L.M.

5928

26A

3" CSK Dots



14-198-A

STATE OF MAINE STATE HIGHWAY COMMISSION

PLAN AND PROFILE

STATE HIGHWAY "Q"

BRUNSWICK-TOPSHAM

CUMBERLAND CO. — SAGadahoc CO.

FEDERAL AID PROJECT NO. 128-A

BRIDGE PROJECT

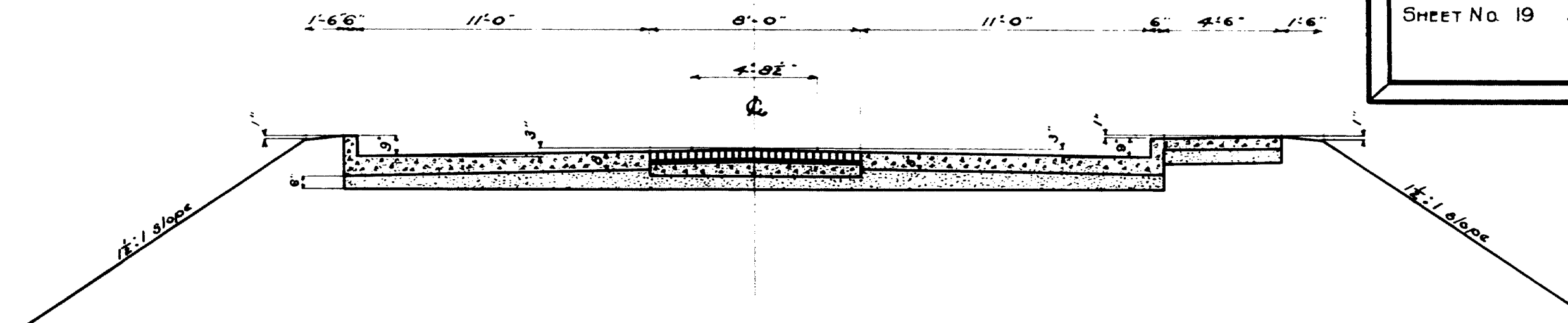
TOTAL LENGTH = .460 MILES

SCALES { PLAN 1 IN. = 40 FT.
PROFILE { HOR. 1 IN. = 40 FT.
VER. 1 IN. = 10 FT.
CROSS SECTIONS 1 IN. = 5 FT.

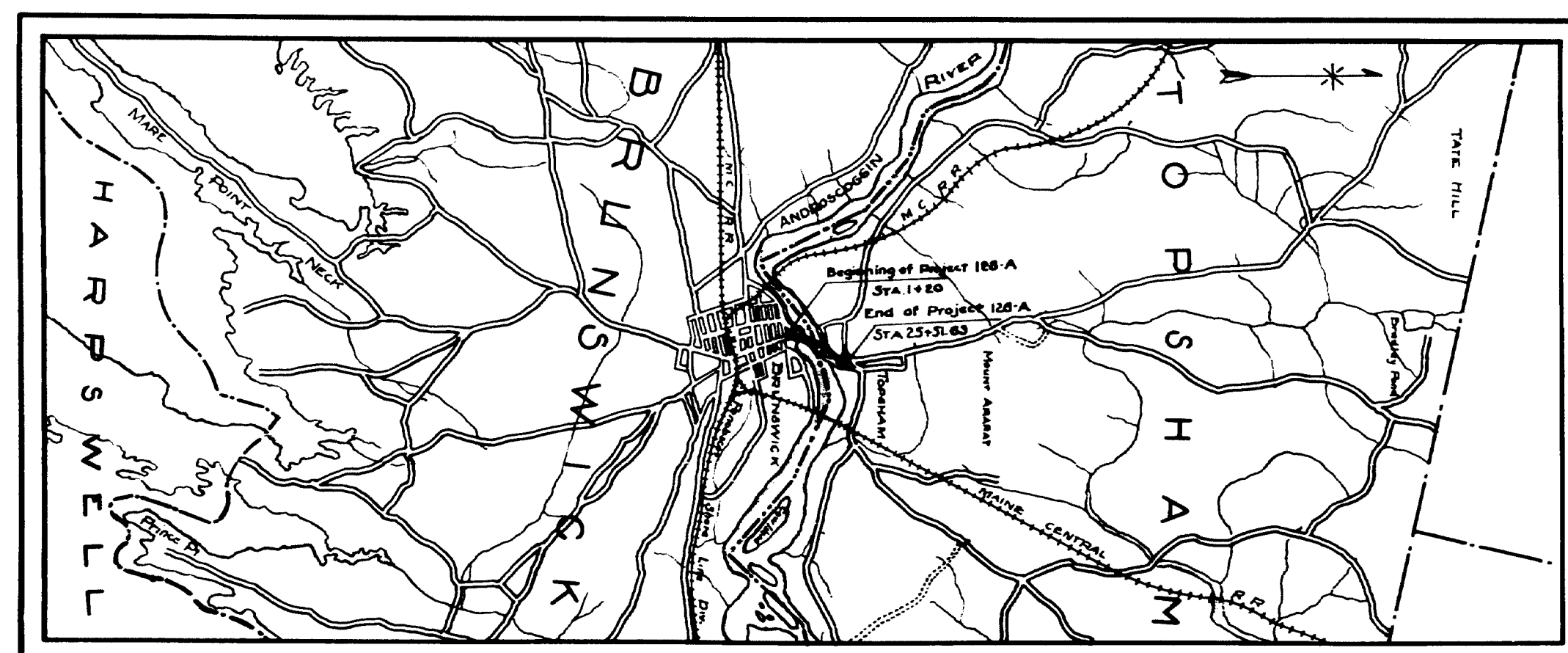
HIGHWAY SECTION 1+20 TO 3+20 AND 24+50 TO 25+51.63 — LENGTH = .057 MILES.
BRIDGE SECTION 3+20 TO 24+50 — LENGTH = .403 MILES.

CONVENTIONAL SIGNS	
STATE OR NATIONAL LINE	—————
COUNTY LINE	—————
TOWN LINE	—————
UNFENCED PROPERTY	—————
FENCE	—————
RIGHT OF WAY LINE	—————
TRAVELED WAY	—————
RAILROAD	—————
RETAINING WALL	—————
SURVEY LINE	—————
CULVERT	—————
DROP INLET	—————
TROLLEY POLE	—————
POWER POLE	—————
TEL. POLE	—————
MARSH	—————
TREES	—————
STONE WALL	—————

INDEX OF SHEETS			
SHEET NO. 1	TITLE PAGE	SHEET NO. 20	STRESSES, SPAN NO. 3
SHEET NO. 2	TYPICAL SECTIONS	SHEET NO. 21	DETAIL SPAN NO. 1 SIDEWALK TRUSS
SHEET NO. 3	PLAN AND PROFILE	SHEET NO. 22	" " " " " "
SHEET NO. 4	GROSS SECTIONS	SHEET NO. 23	" " " " " "
SHEET NO. 5	ABUTMENT NO. 1	SHEET NO. 24	" " " " " "
SHEET NO. 6	ABUTMENT NO. 1	SHEET NO. 25	" " " " " "
SHEET NO. 7	DIER NO. 1	SHEET NO. 26	PEDESTAL DETAILS
SHEET NO. 8	DIER NO. 2	SHEET NO. 27	CROSS SECTION SPAN NO. 1 AND NO. 2
SHEET NO. 9	ABUTMENT NO. 2	SHEET NO. 28	AND RAIL DETAILS
SHEET NO. 10	FLOOR SYSTEM SPAN 1 AND 2	SHEET NO. 29	FLOOR PLAN SPANS NO. 1 AND NO. 2
SHEET NO. 11	GENERAL DETAIL AND FLOOR SYSTEM	SHEET NO. 30	" " " " NO. 2 AND NO. 3
SHEET NO. 12	PANEL NO. 2, SPAN NO. 2	SHEET NO. 31	PLAN APPROACH PAVEMENT
SHEET NO. 13	FLOOR SYSTEM AND CROSS SECTION	SHEET NO. 32	RETAINING WALL BRUNSWICK AP- PROACH
SHEET NO. 14	SPAN NO. 3	SHEET NO. 33	LIGHTING DETAILS
SHEET NO. 15	STRESSES, SPAN NO. 1		DRAIN DETAILS, APPROACHES
SHEET NO. 16	STRESSES, SPAN NO. 2		



TYPICAL SECTION APPROACH



PORTIONS OF CUMBERLAND AND SAGADAHOC COUNTIES
SCALE 1/25,000

APPROVED:
MAINE STATE HIGHWAY COMMISSION

Edward G. Partridge
Edmund J. Bennett
W. J. Harrison
Frederic J. Brown
CHIEF ENGINEER

APPROVED:
U. S. BUREAU OF PUBLIC ROADS

[Signature]
DISTRICT ENGINEER
[Signature]
CHIEF ENGINEER
[Signature]
DIRECTOR

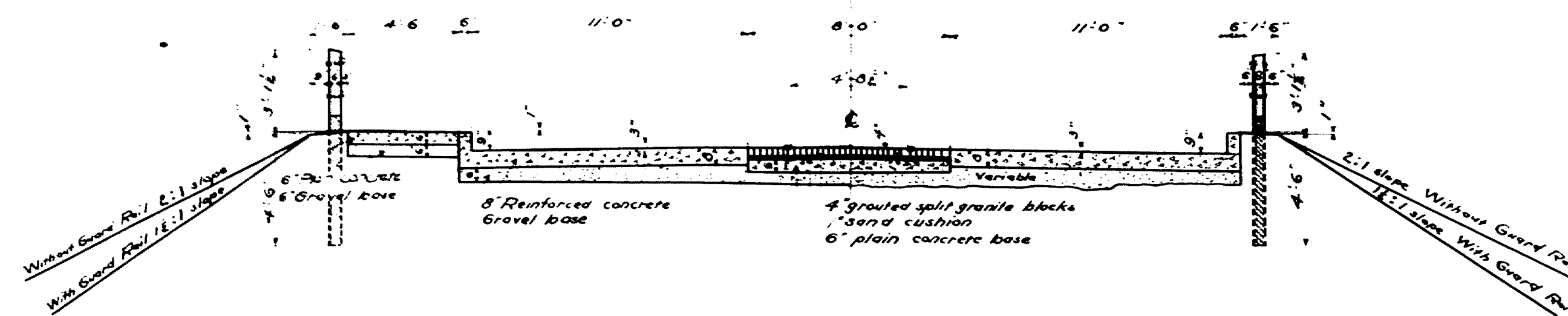
TYPICAL CROSS SECTIONS

[illegible]

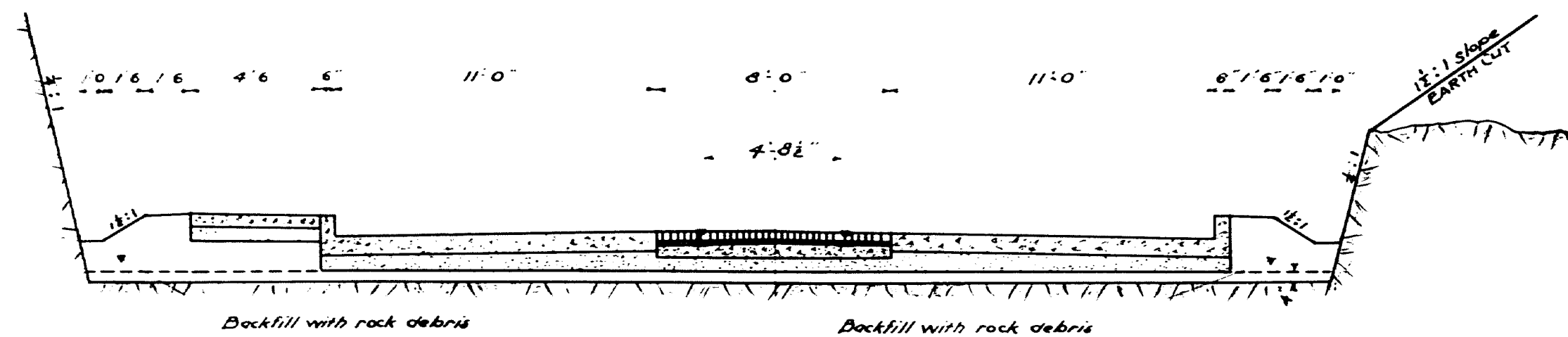
DROP INLETS

About Sta 3+75	2 curb drop inters	1 car track drop inter
6+00		
21+00	1	1

At end of 3'x5' box culvert 1 drop inlet

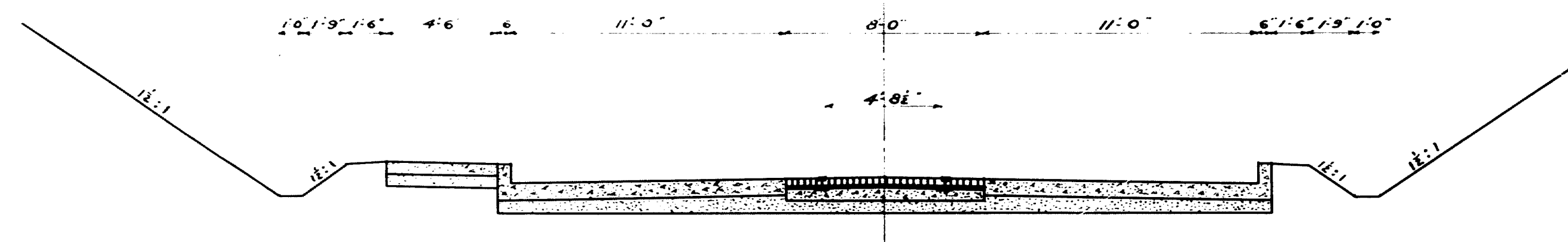


TYPICAL SECTION APPROACH

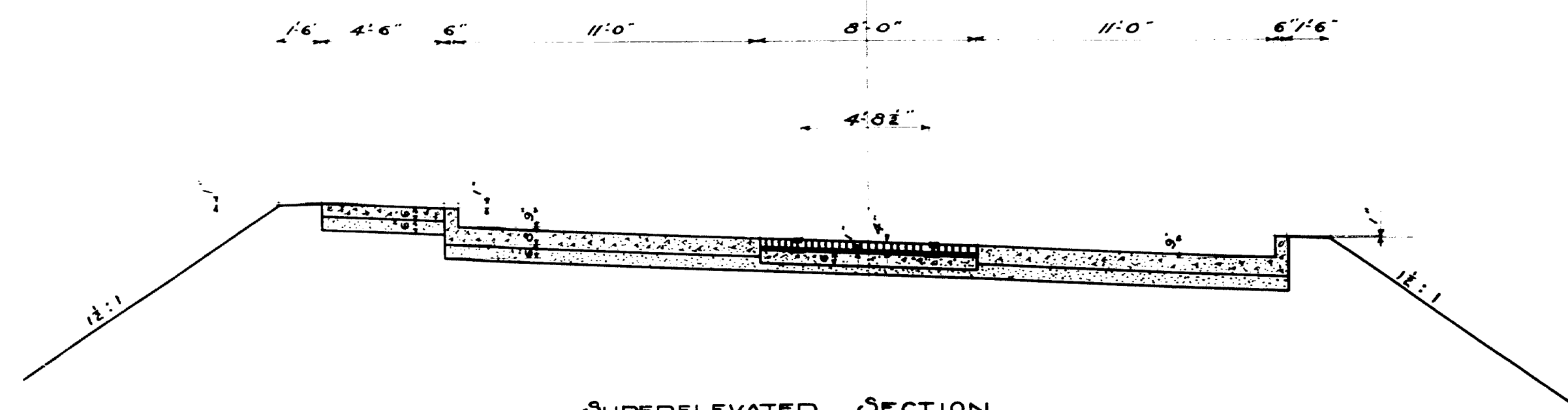


GRAVEL BASE		
Sidewalk	8.3333	cu. yds. per 100 lin ft
Roadway	63.2962	" " " " " "

LEDGE



EARTH

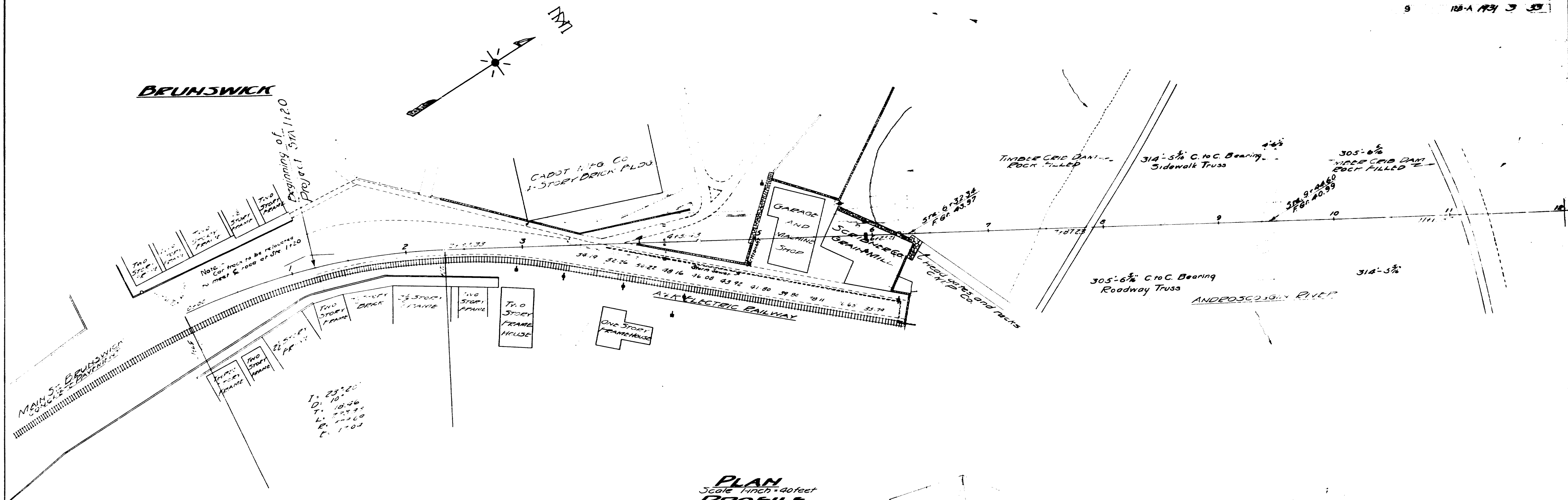


SUPERELEVATED SECTION
MAXIMUM SUPERELEVATION $\frac{1}{2}$ " to 1'-0"

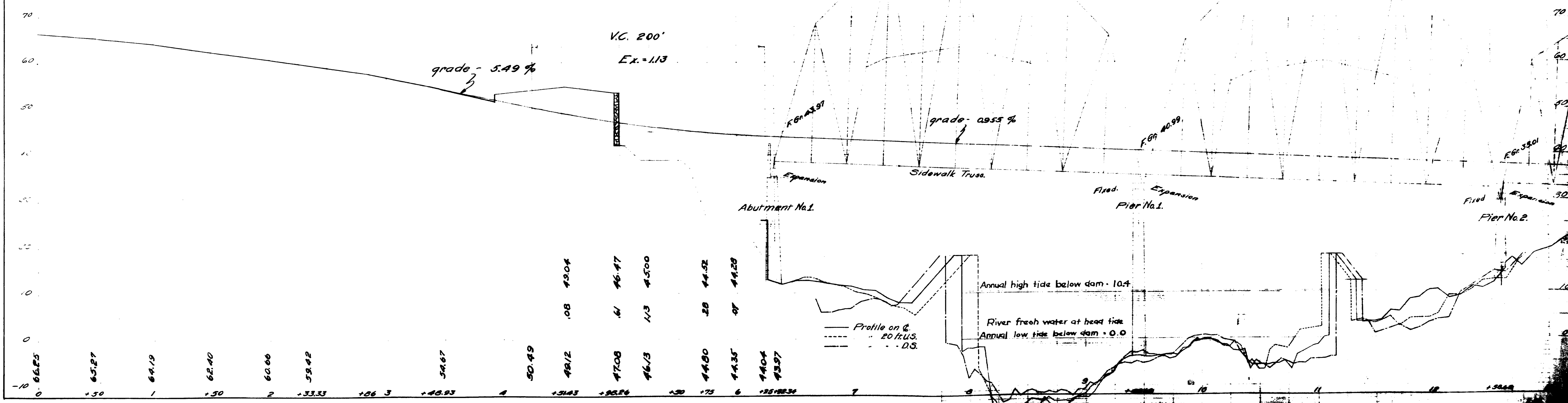
Plan ~ Hamilton
 Traced ~ "
 Checked ~ HCH

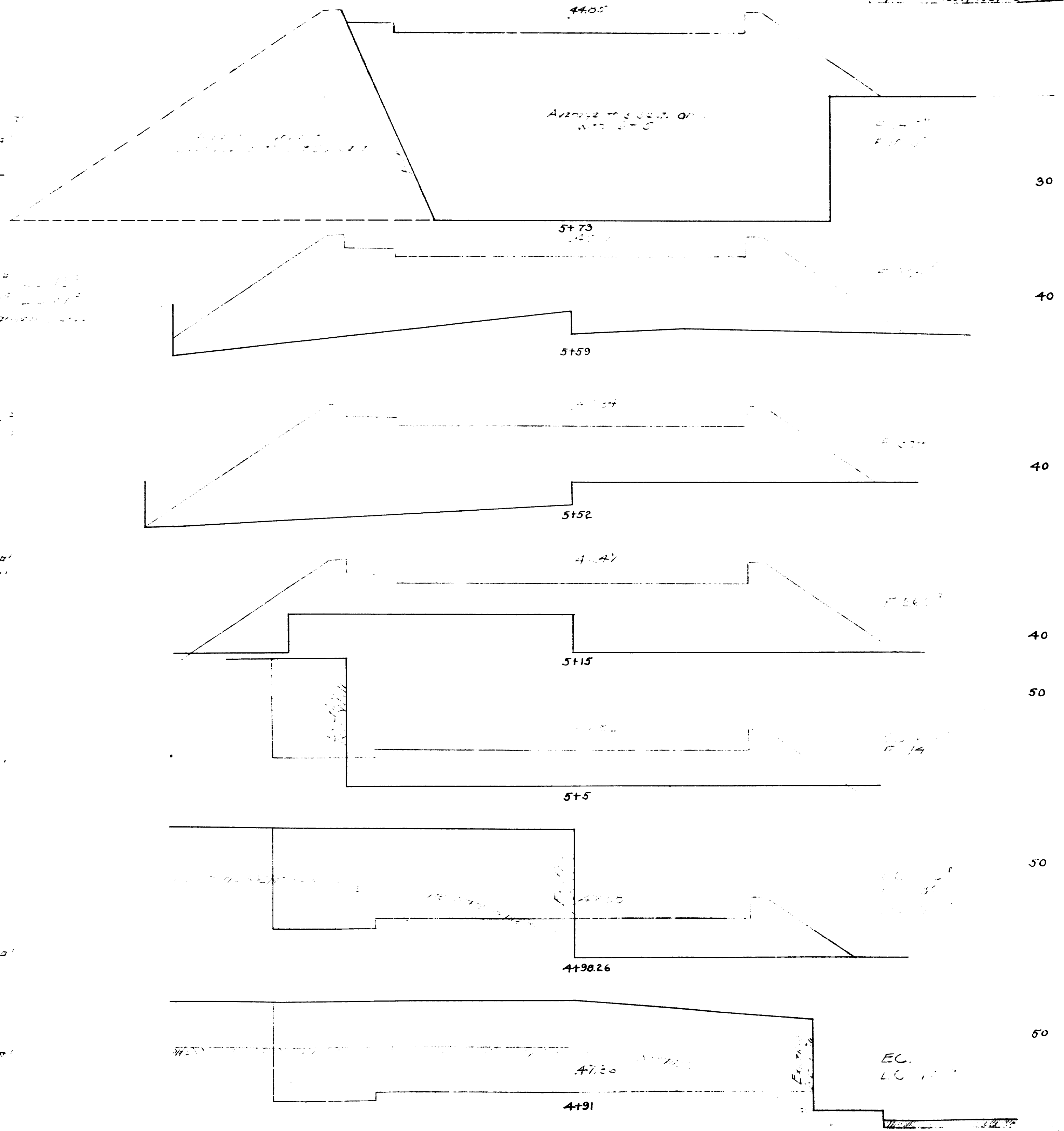
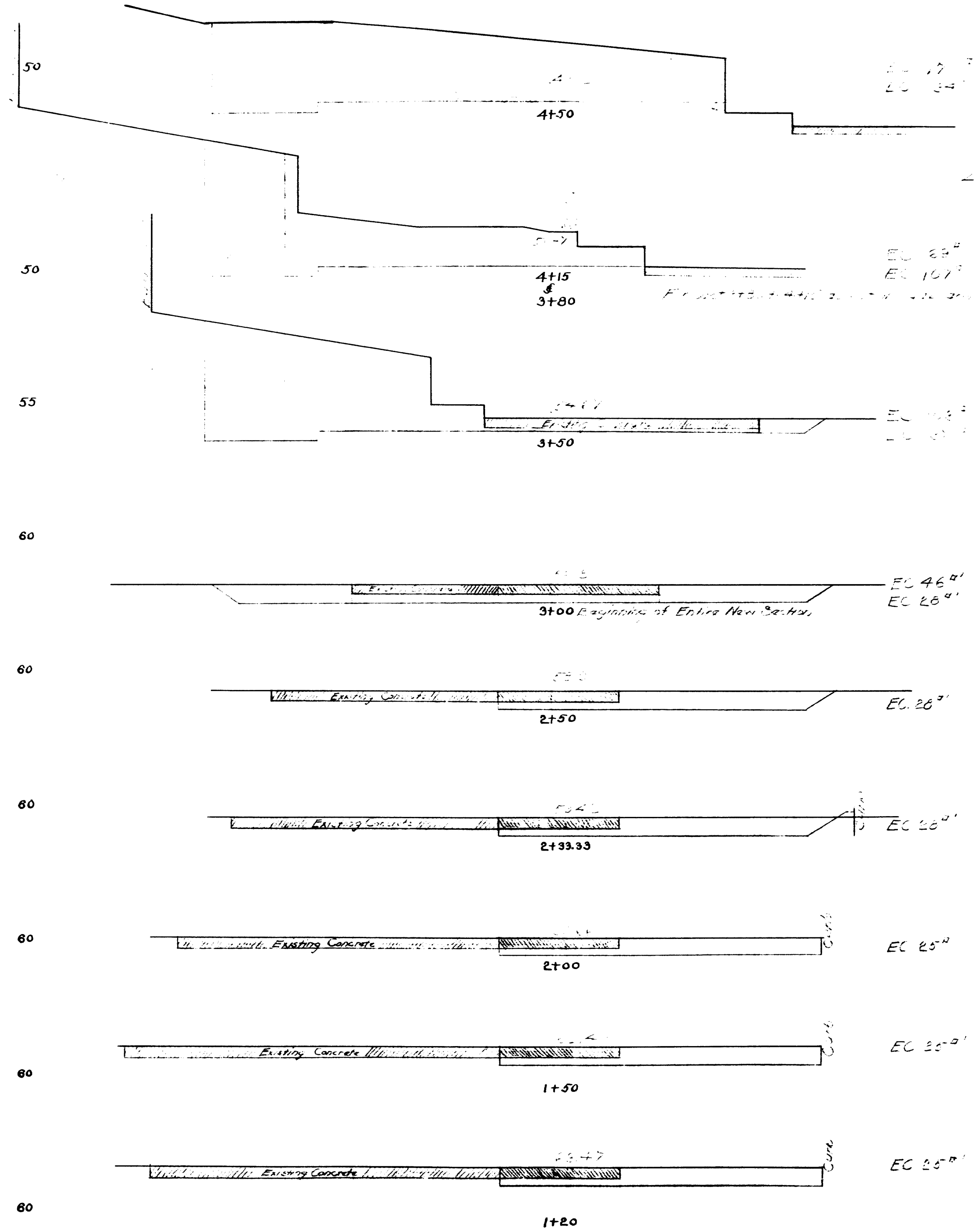
BRUNSWICK

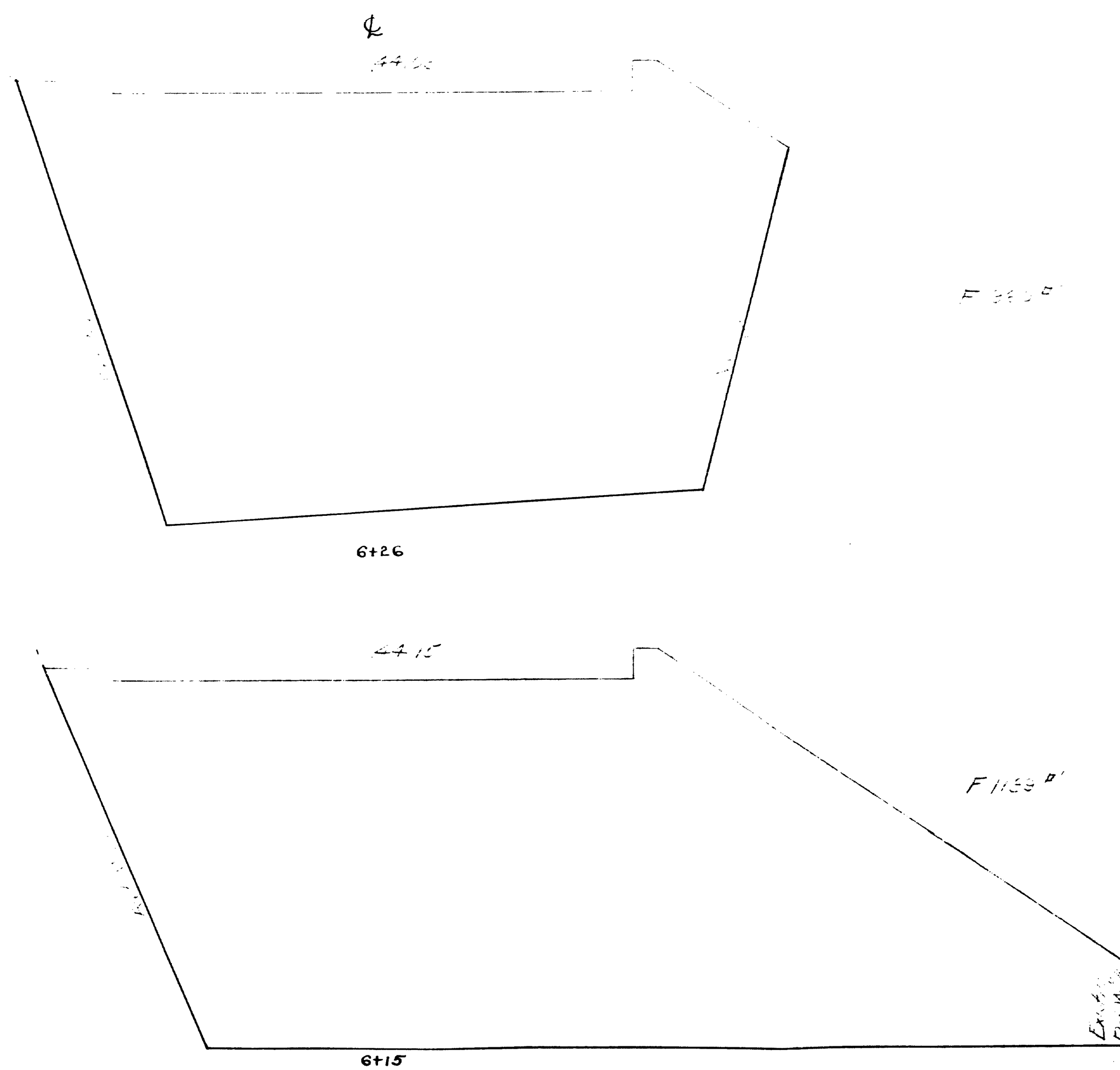
Beginning of Project STA 11+20

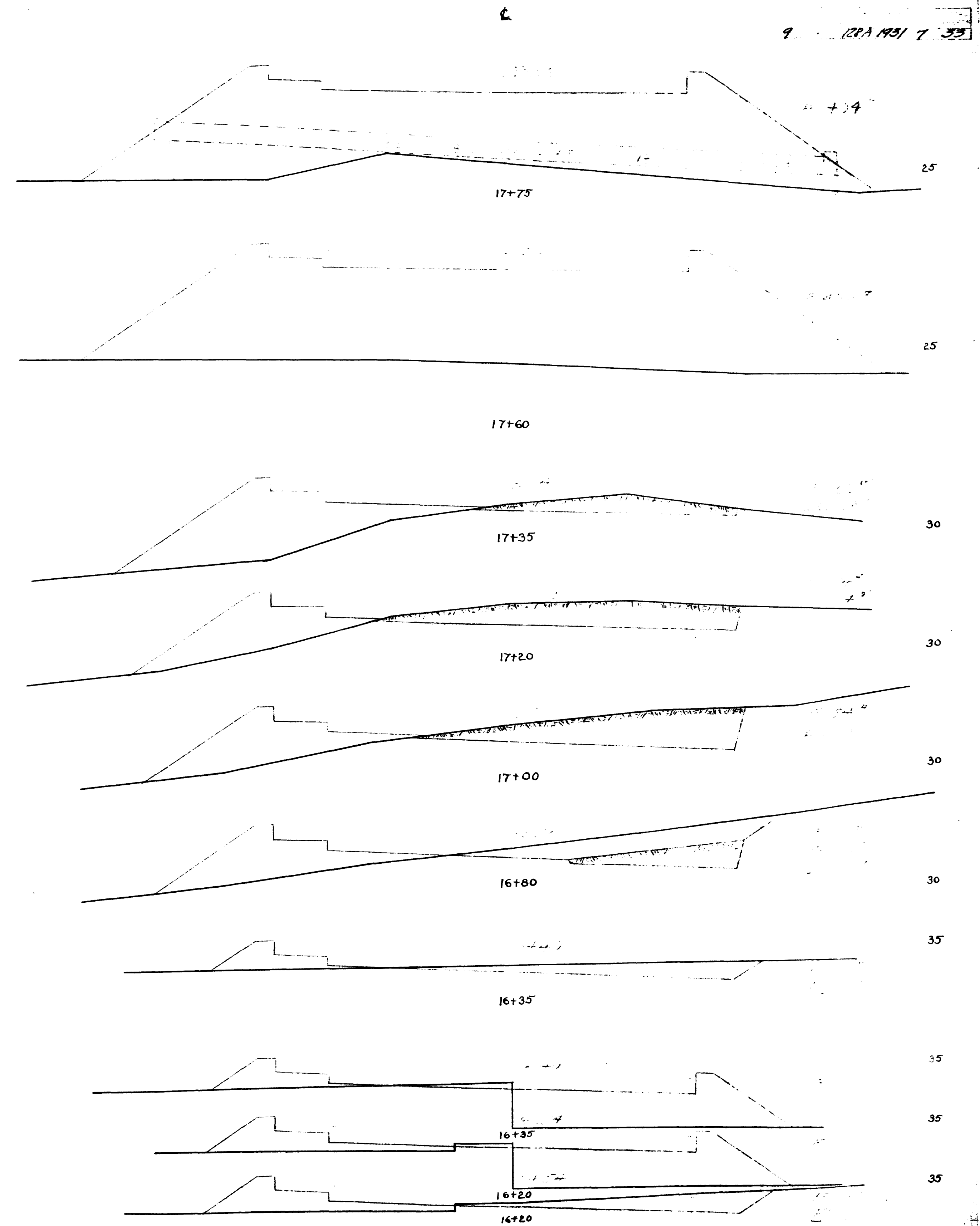
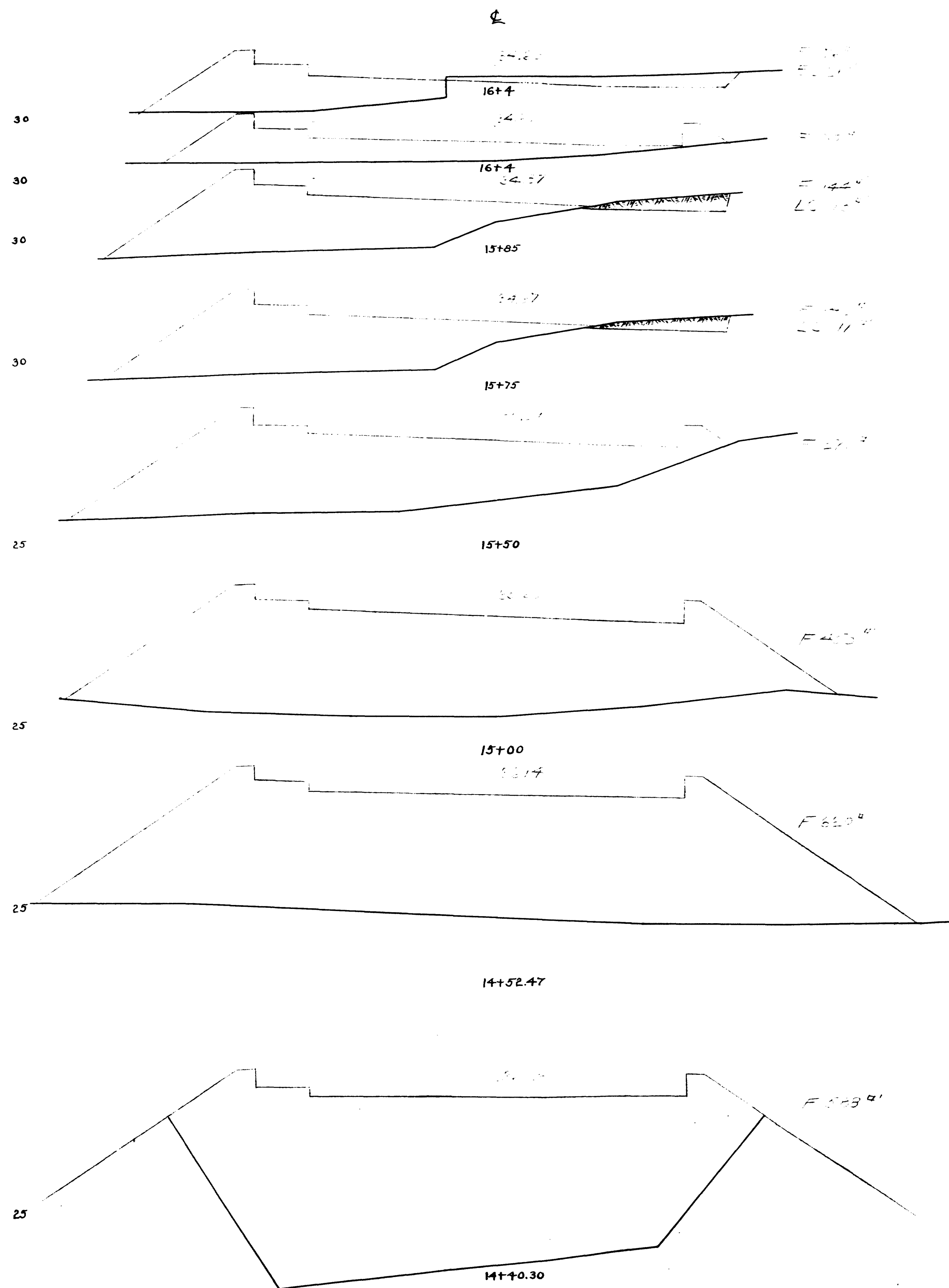


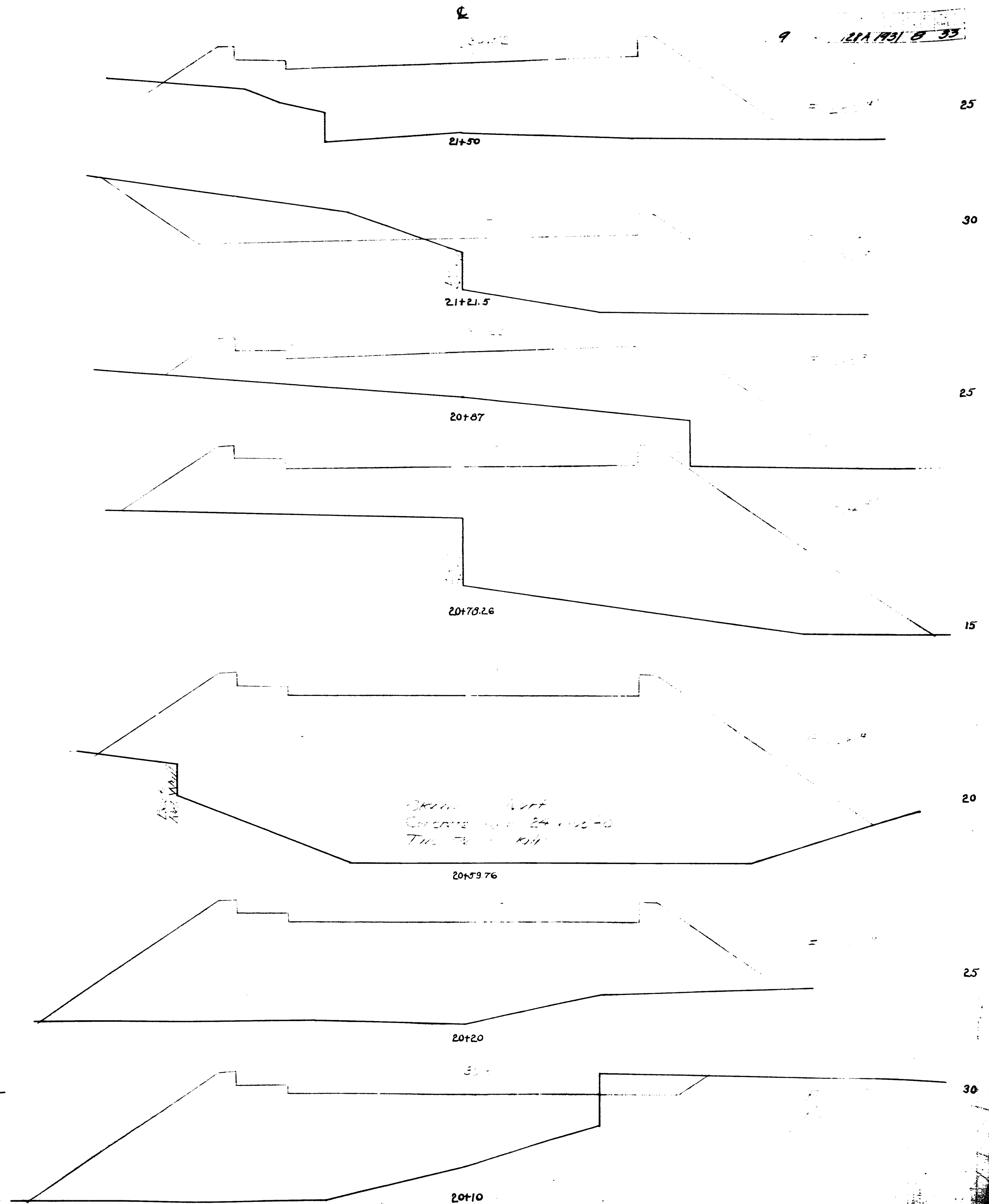
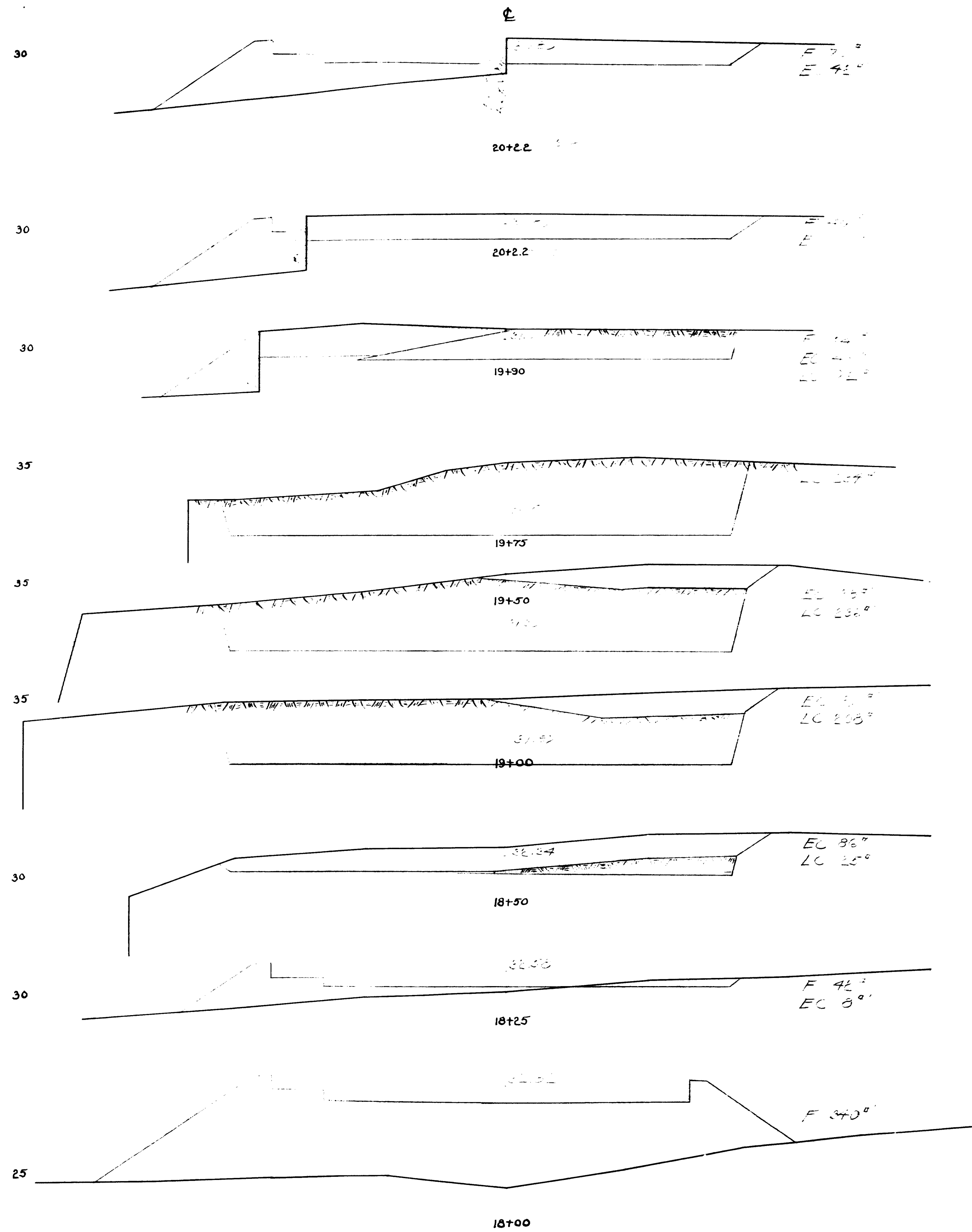
PLAN
Scale: 1 inch = 40 feet
PROFILE
Scale: 1 inch = 10 feet
Ver. 1" = 10'
Hor. 1" = 40'

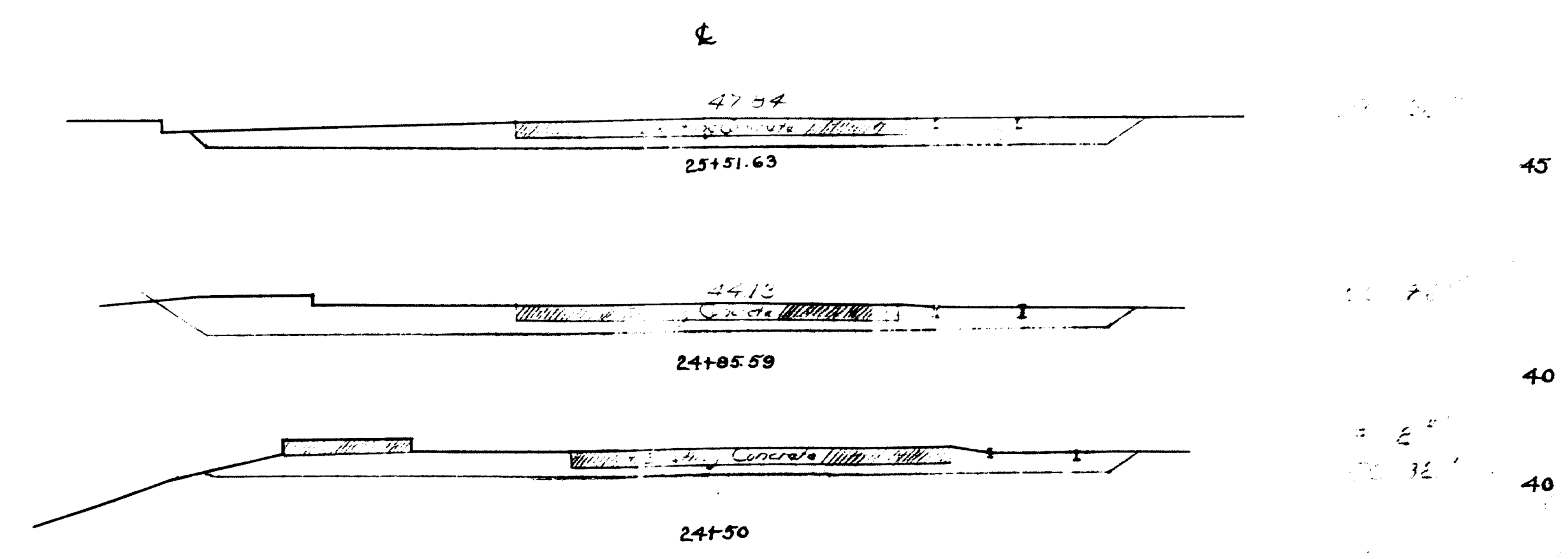
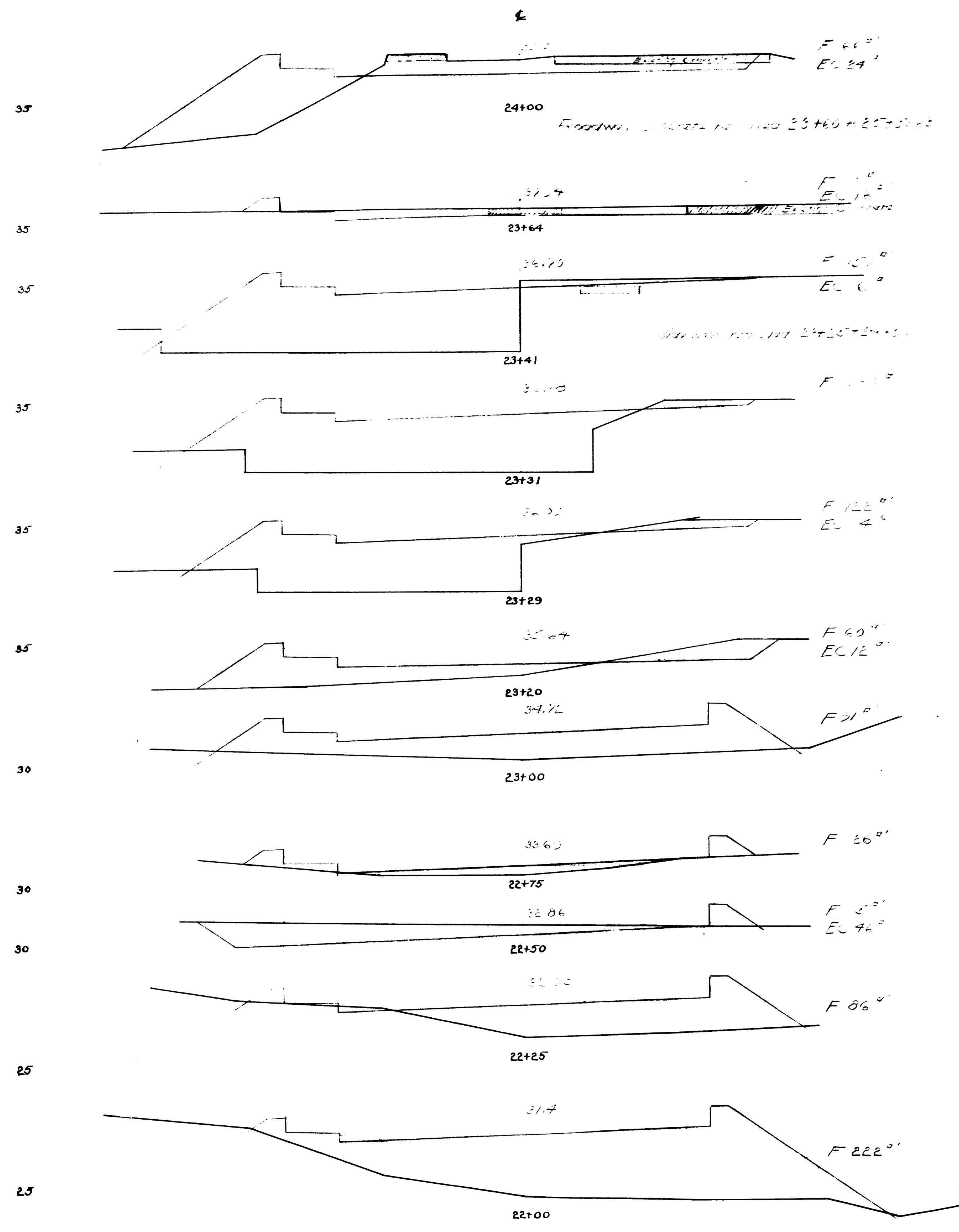




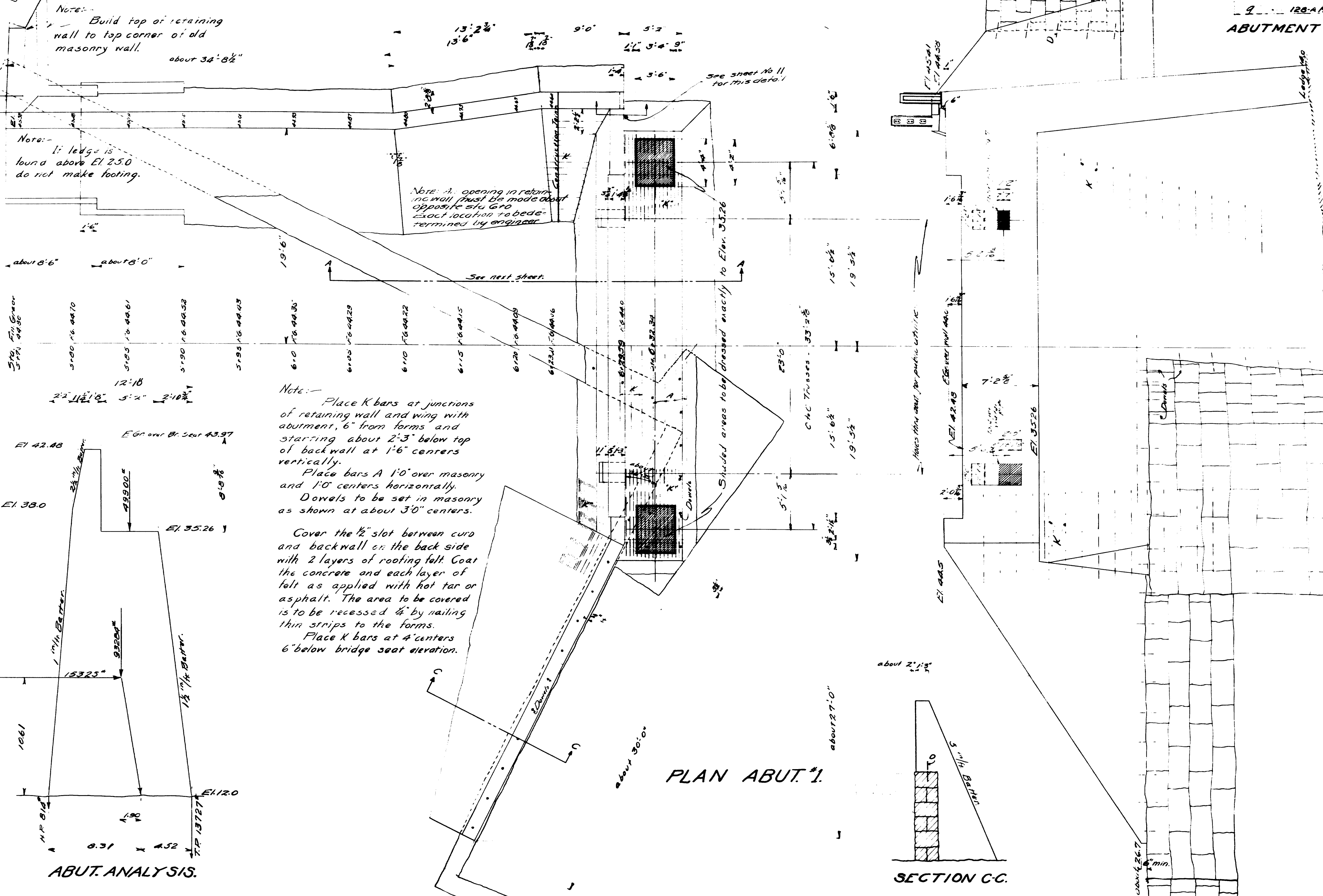




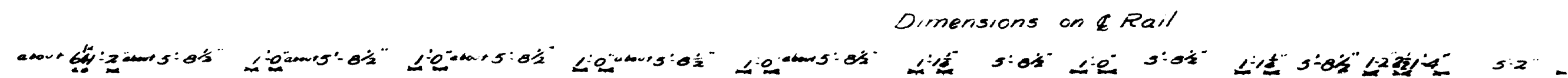




FRONT ELEVATION:



Design Called
Checked - NO



NOTE: An opening in retaining wall for drain pipe must be set opposite sra 6 to approx. 6 ft. Exact location to be determined by the engineer.



Steel for posts to be set in retaining wall. Precast rail bars in lengths as seen in field. Place rail bars in position with ends projecting into post forms 2". Wrap ends 6" with two thicknesses of roofing felt. Fold in ends, and when post forms are removed, cut away all exposed felt. Panels on posts to be 1/8" thick. Chamfer all exposed edges of concrete 1/2" unless otherwise indicated.

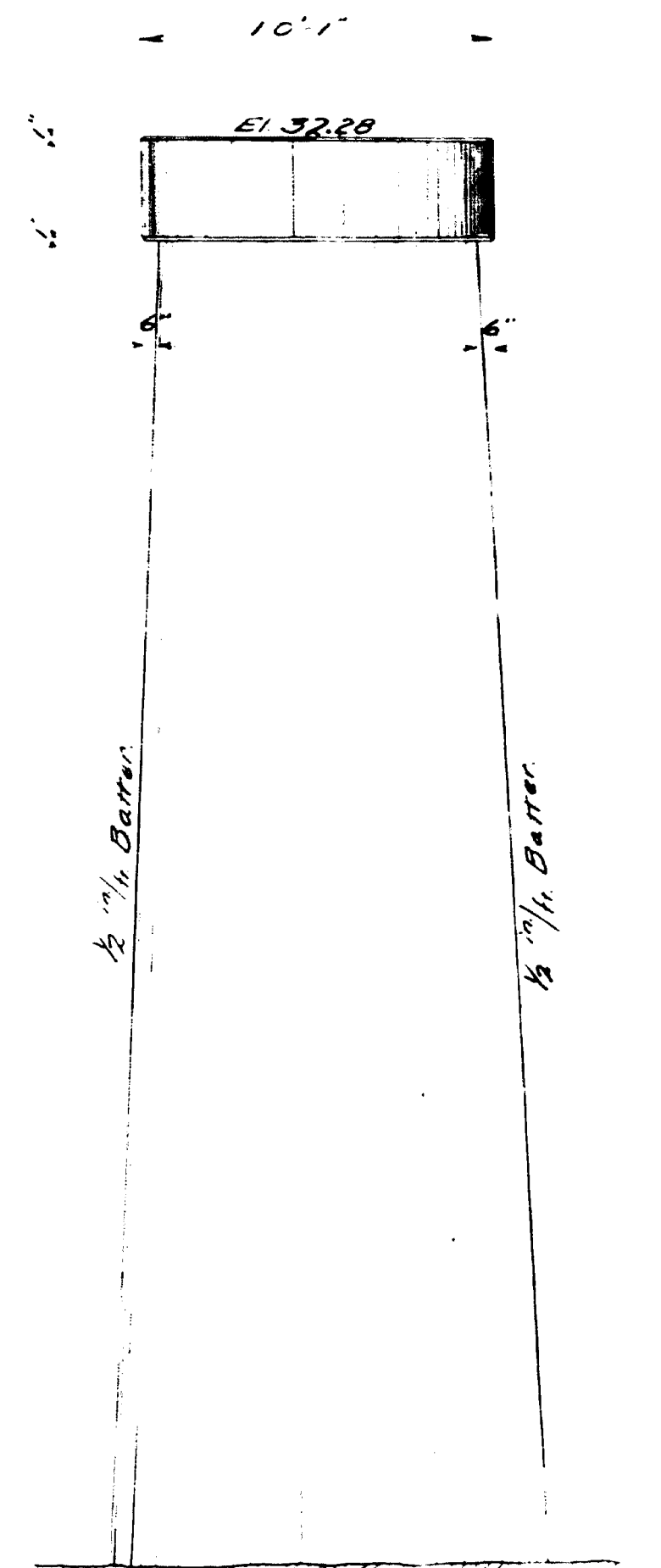
MARK	SIZE	NO. REQD	LENGTH	LOCATION
A	$\frac{3}{8}$ " ϕ	4	12'-0"	About over Masonry
D	-	32	1'-6"	Dowels to ...
K	-	70	8'-0"	Ret. Wall - Wings & 3rd
P	-	36	4'-9"	Posts
R	$\frac{3}{8}$ " ϕ	48	6'-6"	Rail, Cut in field

All steel to be plain round bars of structural grade.



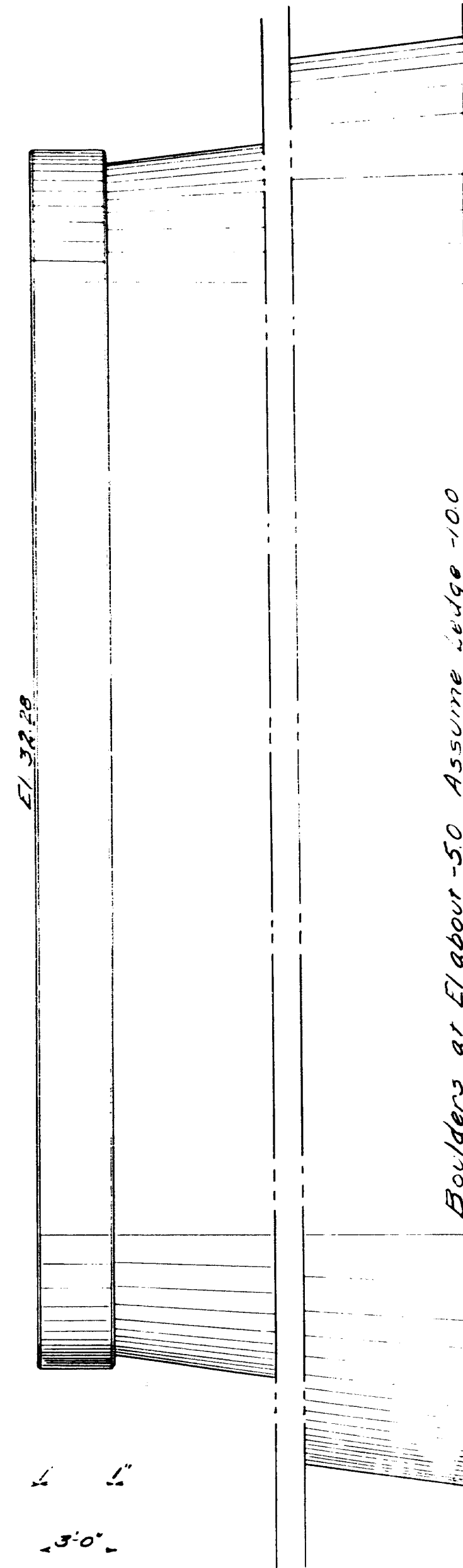
RET. WALL ANALYSIS

PIER #1.

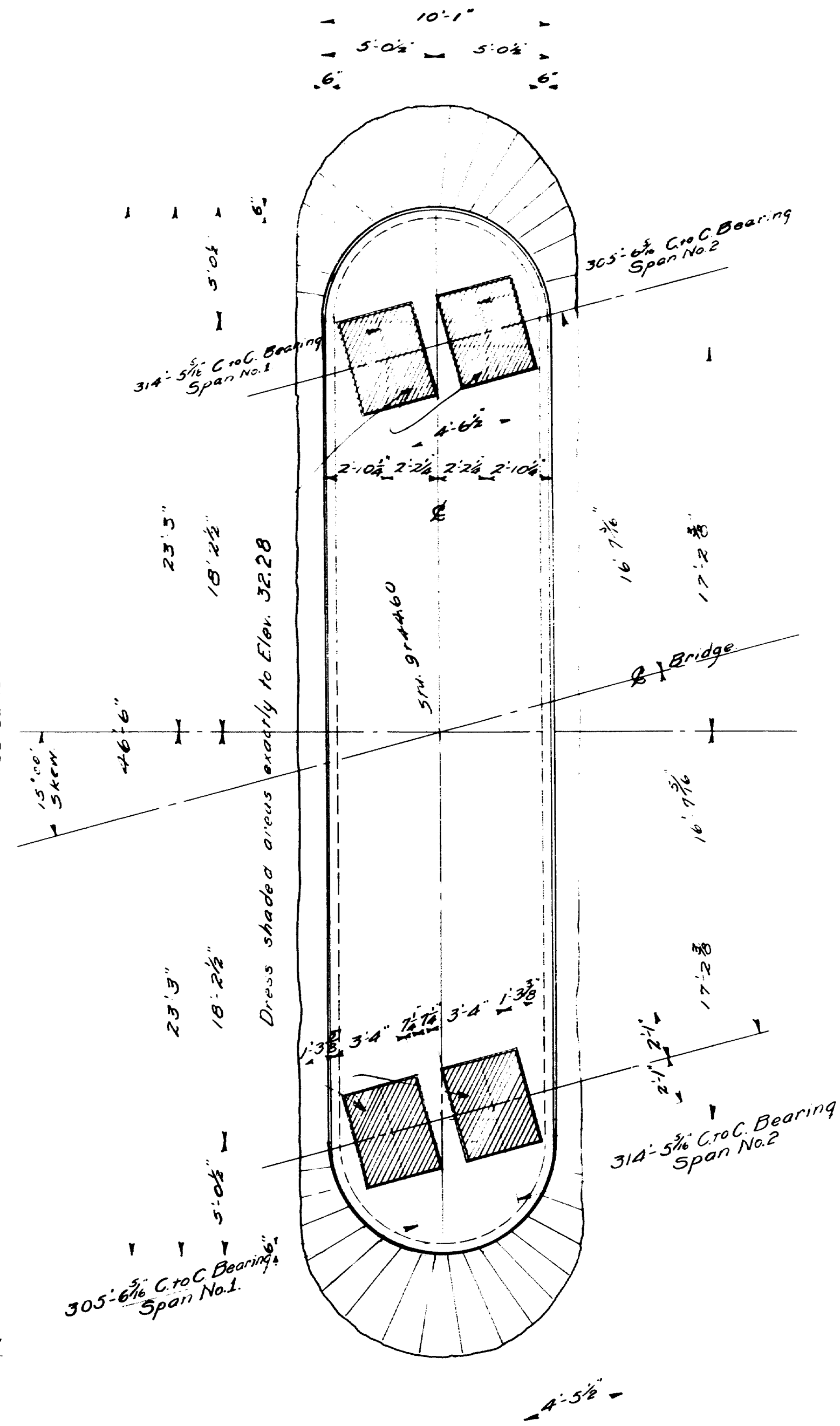


FRONT ELEVATION

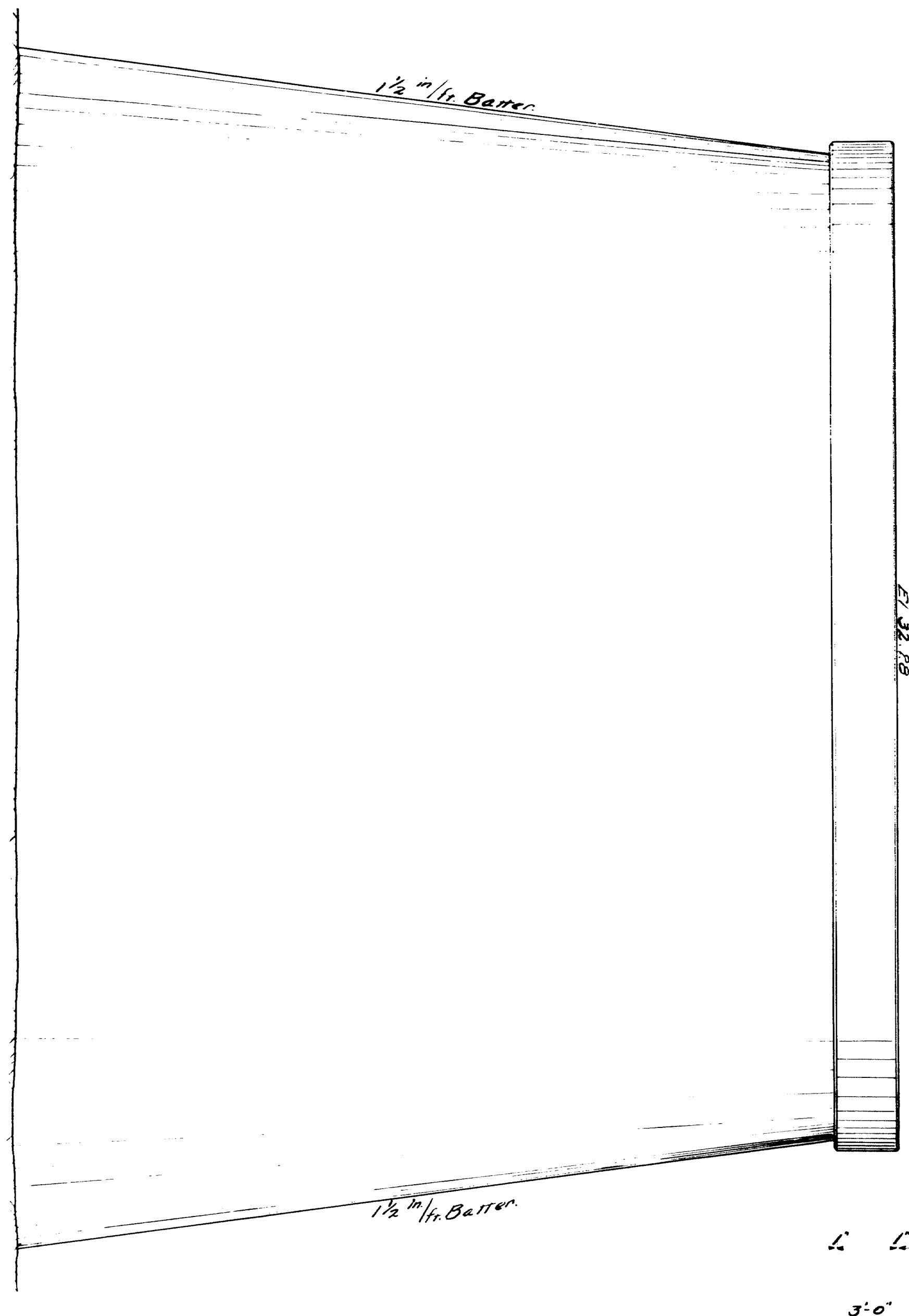
SIDE ELEVATION.



PLAN PIER #1.

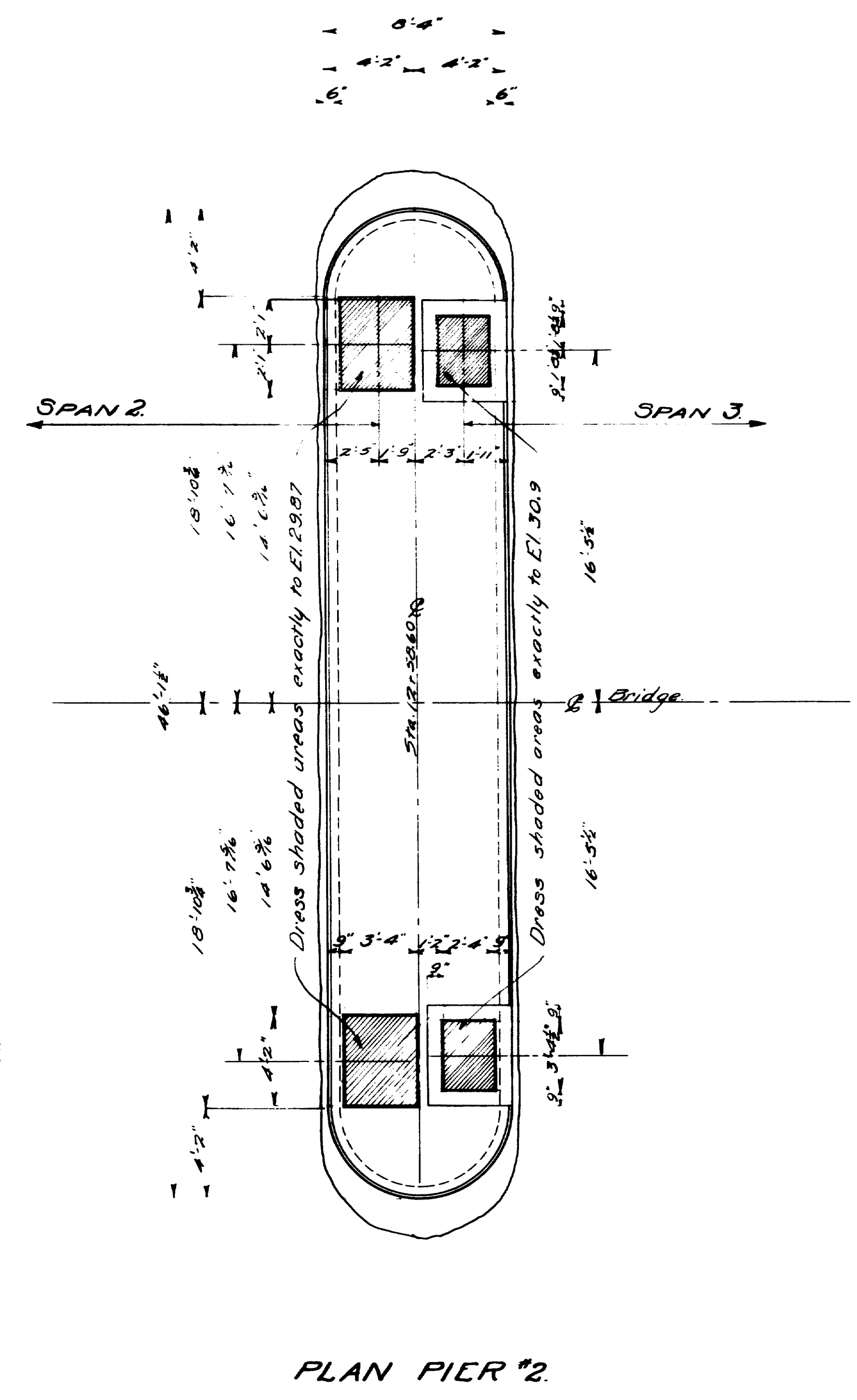
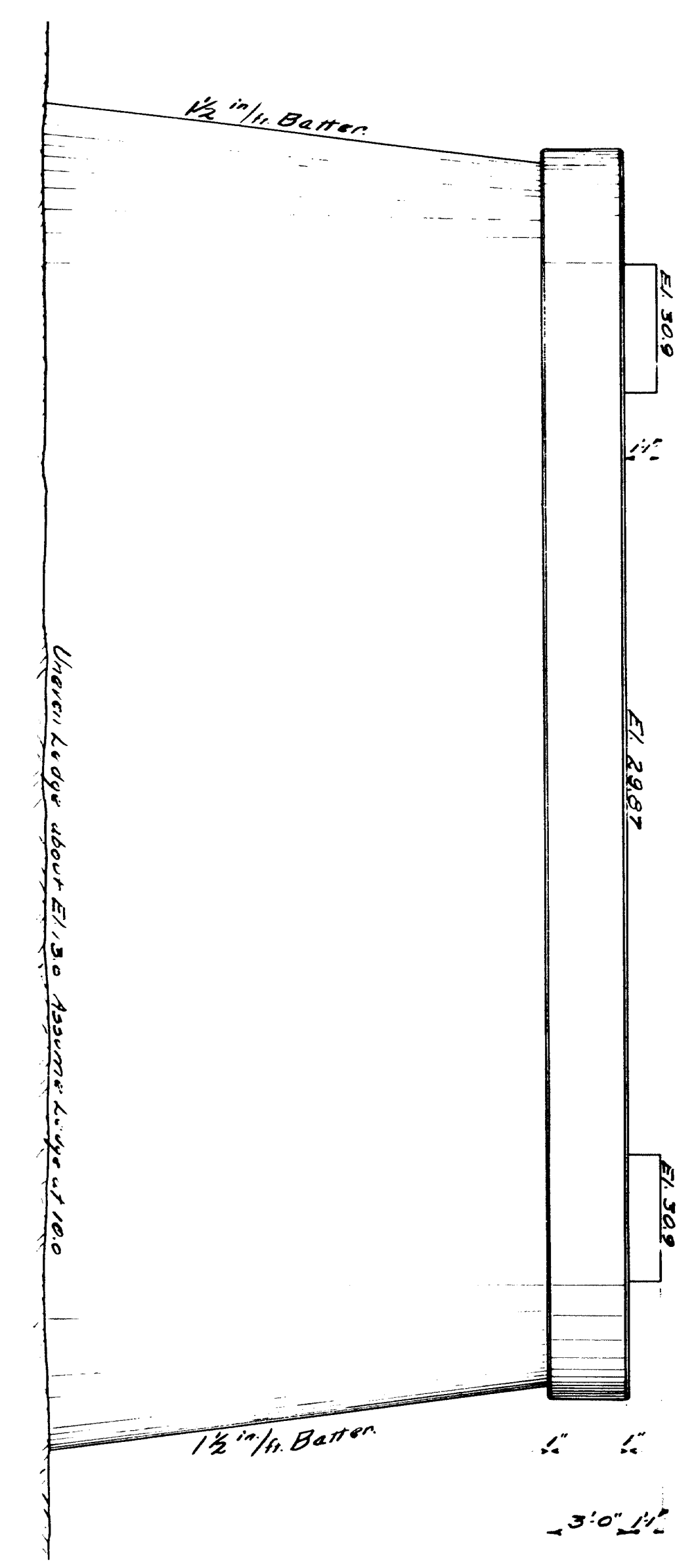


SIDE ELEVATION.

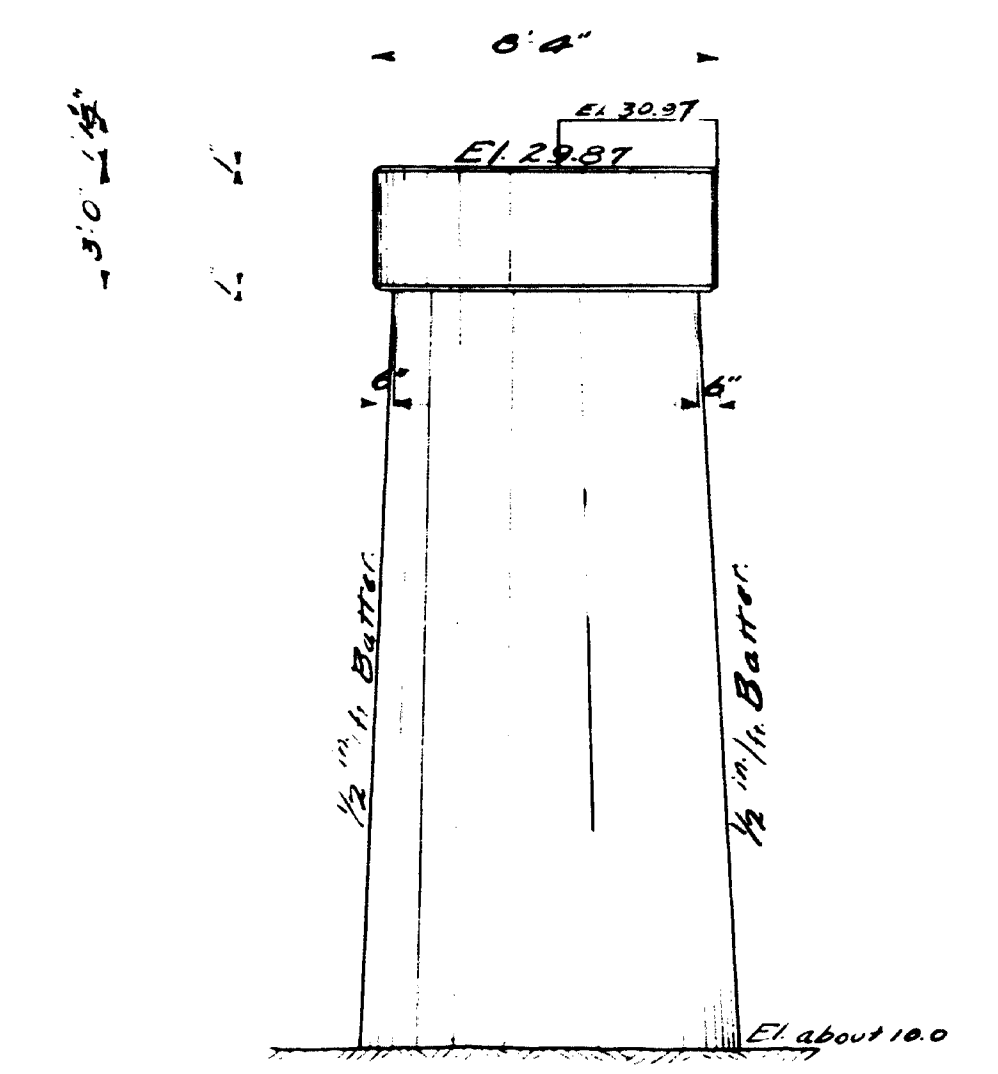


PIER #2

SIDE ELEVATION



PLAN PIER #2

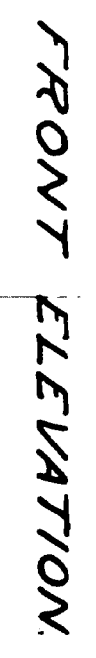


FRONT ELEVATION

Design - CAG
Checked - WB



Revised 6/12/24 B. Notes for Public Utilities Form 4000.



PLAN ABUTMENT #2.

Note:— Make horizontal construction joint about 3' above highest point of ledge.

REAR ELEVATION.

Design *CJA*
Checked-*WB*

LOADING

Live Load
Floor system and hangers, two 15-ton trucks and one electric train.
Trusses - Total moving uniform load of 469 lbs per linear foot, 13,200 lbs concentration for moment, 13,100 lbs concentration for shear and electric car loading.

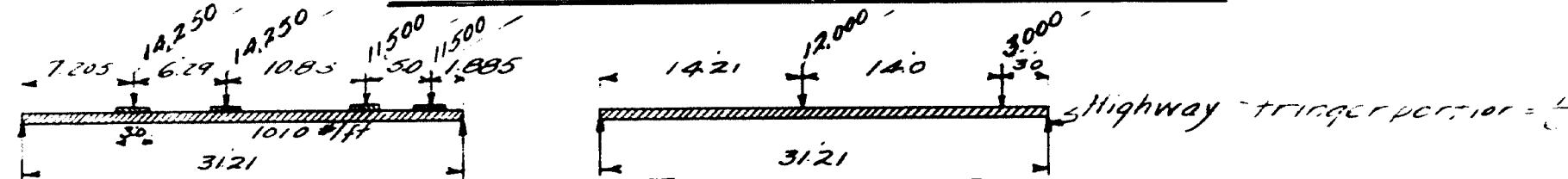
Impact coefficient of live load stress
 $I = \frac{50}{L + 125}$ where L = loaded length of span in feet.

Sidewalk Loading
Stringers and brackets - 100 lbs per sq. foot.
Sidewalk truss - $P = \frac{(40 \times 3000)(53 - M)}{L}$ where P = live load in lbs per sq. ft. of sidewalk area, but not to exceed 100 lbs per sq. ft.
L = loaded length of sidewalk in feet.
W = width of sidewalk in feet.

Wind Loading
50 lbs per sq. ft. on 1/2 times area of windward truss, including floor stringers etc., and considered as a moving load.
For electric car loading see sheet no. 17.

RAILWAY STRINGERS

RAILWAY STRINGER REGULAR PANEL



Dead Load
rail - 30 lbs.
surf & slab - 853
additional wgt - 23
stringer - 104
1010 lb per ft.

RL live = $11500 \times 8.77 + 12250 \times 9.17 = 22280$

LL.M. = $(22280 \times 13.445 + 12250 \times 6.29 - 7125 \times 7.5) \div 1.5 \times 12 = 3702,500$ in lbs.

Impact M. = .321

D.L.M. = $1.5 \times 1010 \times 31.21 = 1475,700$

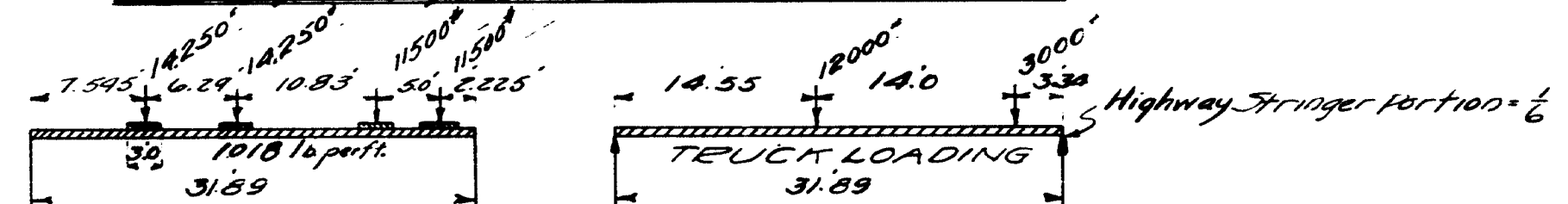
HIS Moment + I. = 512,300

Total Mom. = 6,809,000

S. = $\frac{6,809,000}{24,000} = 283.7$

Use B 28 - 28" x 104 lb S: 284.7

Railway Stringer No. 9 Panel, Sidewalk Side



RL = $11500 \times 9.85 + 12250 \times 9.24 = 22354$

LL.M. car = $(22354 \times 13.435 + 12250 \times 6.29 - 7125 \times 7.5) \div 1.5 \times 12 = 3,857,200$ in lbs.

Impact M. = .319

LL.M. HIS = $6839 \times 14.55 \times 12 \times \frac{1}{2} = 1,199,000$

+100% overload = 1,199,000

Impact = .319

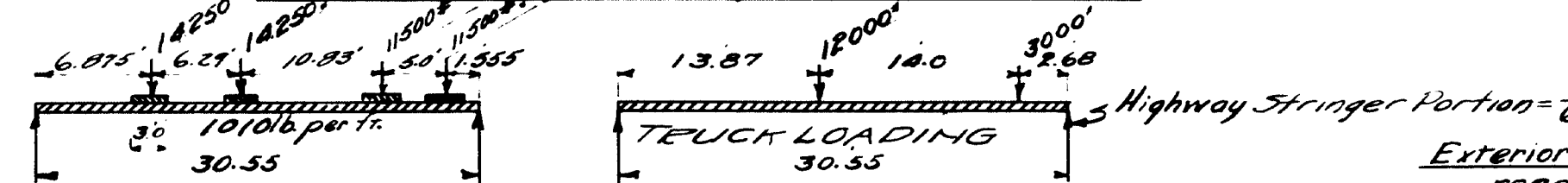
D.L.M. = $1.5 \times 1010 \times 31.89 = 1,552,900$

Total M. = 7,165,500

S. = $\frac{7,165,500}{24,000} = 298.6$

Use B 28 - 28" x 112 lb S: 306.4

Railway Stringer No. 9 panel, roadway side



Dead Load
rail - 30 lb
surf & slab - 853
additional wgt - 23
stringer - 104
1010 lb per ft.

RL = $11500 \times 8.11 + 12250 \times 9.16 = 22205$

LL.M. = $(22205 \times 13.146 + 12250 \times 6.29 - 7125 \times 7.5) \div 1.5 \times 12 = 3,552,300$ in lbs.

Impact M. = .322

LL.M. HIS = $6815 \times 13.87 \times 12 \times \frac{1}{2} = 1,438,000$

+100% overload = 1,438,000

Impact = .322

D.L.M. = $1.5 \times 1010 \times 30.55 = 1,414,000$

Total M. = 6,609,800

S. = $\frac{6,609,800}{24,000} = 275.4$

Use B 28 - 28" x 104 lb S: 284.7

Dead Panel Loads

Span No. 1

Sidewalk Truss
Panel 1 to 7 incl. 148,900 lbs.
Panel 8 154,300
Panel 9 155,900

Roadway Truss
Panel 1 to 7 incl. 124,700
Panel 8 119,900
Panel 9 120,900

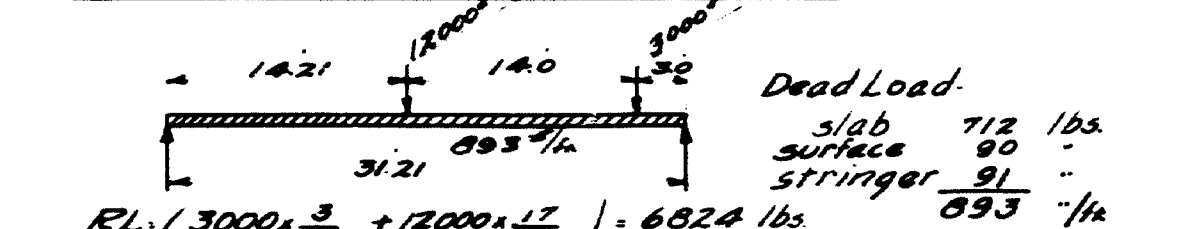
Span No. 2

Sidewalk Truss
Panel 1 148,900
Panel 2 146,200
Panel 3 to 9 incl. 148,000

Roadway Truss
Panel 1 127,500
Panel 2 126,400
Panel 3 to 9 incl. 125,400

ROADWAY STRINGERS

Interior Roadway Stringers Regular Panel



Dead Load
slab 712 lbs.
surface 90
stringer 91
893 lb

RL = $(3000 \times \frac{3}{31.21} + 12000 \times \frac{17}{31.21}) = 6824$ lbs

LL.M. = $6824 \times 14.21 \times 12 \times \frac{1}{2} = 1,531,500$ in lbs.

+100% overload = 1,531,500

Impact M. = .321

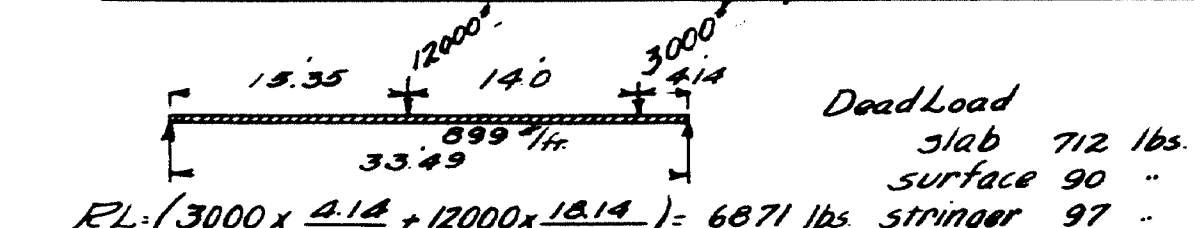
D.L.M. = $1.5 \times 893 \times 31.21 = 1,304,800$

Total M. = 3,403,400

S. = $\frac{3,403,400}{24,000} = 141.8$

Use B 28 - 28" x 91 lb S: 246.9

Interior Roadway Stringer No. 9 panel, Sidewalk Side



Dead Load
slab 712 lbs.
surface 90
stringer 97
899 lb

RL = $(3000 \times \frac{4.14}{33.49} + 12000 \times \frac{16.14}{33.49}) = 6871$ lbs

LL.M. = $6871 \times 15.35 \times 12 \times \frac{1}{2} = 1,687,500$ in lbs.

+100% overload = 1,687,500

Impact M. = .316

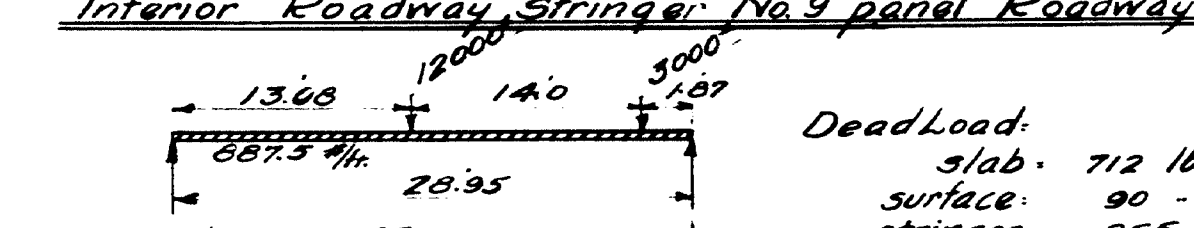
D.L.M. = $1.5 \times 899 \times 33.49 = 1,512,450$

Total M. = 3,333,950

S. = $\frac{3,333,950}{24,000} = 138.9$

Use B 28 - 28" x 97 lb S: 265.1

Interior Roadway Stringer No. 9 panel, Roadway side



Dead Load
slab 712 lbs.
surface 90
stringer 85.5
887.5 lbs per ft.

RL = $(3000 \times \frac{1.87}{28.95} + 12000 \times \frac{15.82}{28.95}) = 6772$ lbs

LL.M. = $6772 \times 13.08 \times 12 \times \frac{1}{2} = 1,417,250$ in lbs.

+100% overload = 1,417,250

Impact M. = .325

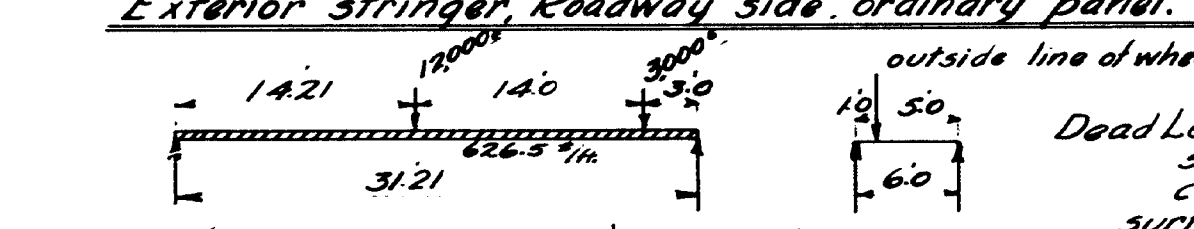
D.L.M. = $1.5 \times 887.5 \times 28.95 = 1,115,700$

Total M. = 4,871,400

S. = $\frac{4,871,400}{24,000} = 203.0$

Use B 28 - 28" x 85 lb S: 222.1

Exterior stringer, Roadway side, ordinary panel



Dead Load
slab 450 lbs.
curb 56
surface 53
stringer 67.5
626.5 lb per ft.

RL = $(3000 \times \frac{3}{31.21} + 12000 \times \frac{17}{31.21}) = 6824$ lbs

LL.M. = $6824 \times 14.21 \times 12 \times \frac{1}{2} = 1,531,500$ in lbs.

+100% overload = 1,531,500

Impact M. = .321

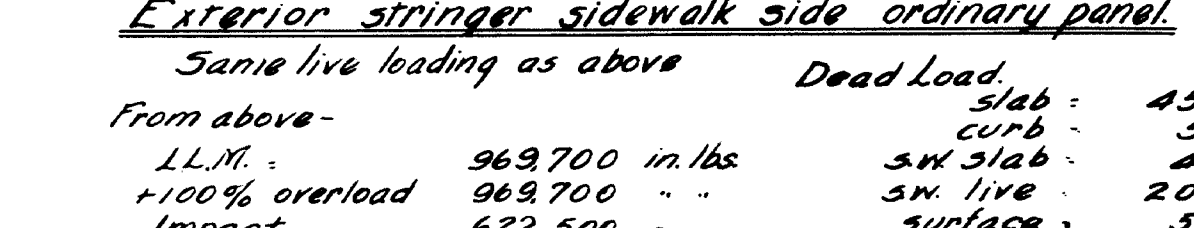
D.L.M. = $1.5 \times 626.5 \times 31.21 = 1,154,400$

Total M. = 3,477,300

S. = $\frac{3,477,300}{24,000} = 144.9$

Use B 22 - 22" x 67.5 lb S: 148.1

Exterior stringer sidewalk side ordinary panel



Dead Load
slab 450 lbs.
curb 56
surface 53
stringer 70
626.5 lb per ft.

RL = $(3000 \times \frac{3}{31.21} + 12000 \times \frac{17}{31.21}) = 6824$ lbs

LL.M. = $6824 \times 14.21 \times 12 \times \frac{1}{2} = 1,531,500$ in lbs.

+100% overload = 1,531,500

Impact M. = .321

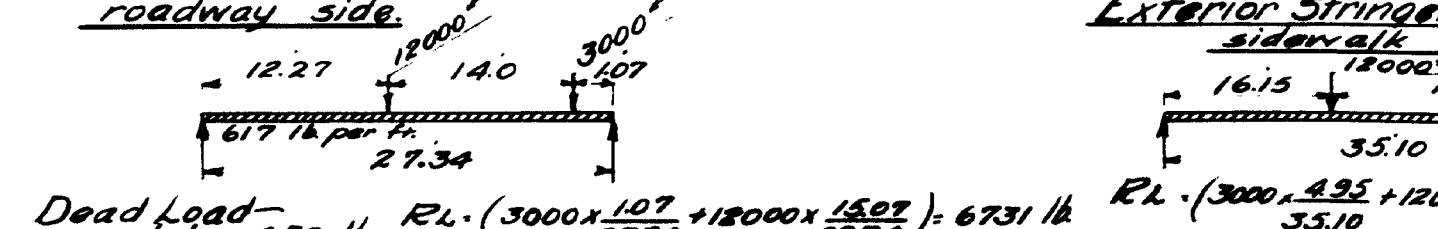
D.L.M. = $1.5 \times 626.5 \times 31.21 = 1,154,400$

Total M. = 3,477,300

S. = $\frac{3,477,300}{24,000} = 144.9$

Use B 22 - 22" x 67.5 lb S: 148.1

Exterior Stringer No. 9 Panel, Span No. 1



Dead Load
slab 450 lb
curb 56
surface 53
stringer 70
626.5 lb per ft.

RL = $(3000 \times \frac{1.07}{27.34} + 12000 \times \frac{15.87}{27.34}) = 6731$ lb

LL.M. = $6731 \times 12.27 \times 12 \times \frac{1}{2} = 825,900$ in lbs.

+100% overload = 825,900

Impact M. = .328

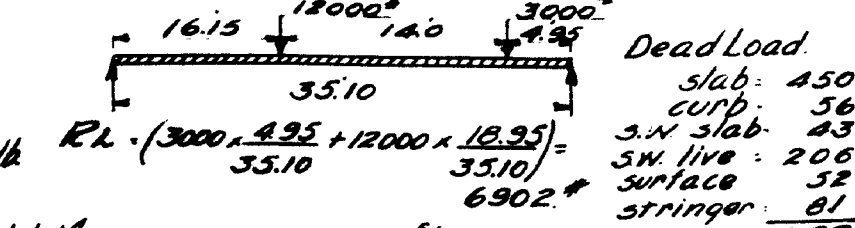
D.L.M. = $1.5 \times 6731 \times 27.34 = 1,144,700$

Total M. = 2,833,400

S. = $\frac{2,833,400}{24,000} = 118.1$

Use B 28 - 28" x 58 lb S: 124.7

Exterior Stringer No. 9 Panel, Span No. 1



Dead Load
slab 450 lb
curb 56
surface 53
stringer 80
639 lb per ft.

RL = $(3000 \times \frac{4.35}{35.10} + 12000 \times \frac{18.35}{35.10}) = 6902$ lbs

LL.M. = $6902 \times 16.15 \times 12 \times \frac{1}{2} = 1,114,700$ in lbs.

+100% overload = 1,114,700

Impact M. = .313

D.L.M. = $1.5 \times 6902 \times 35.10 = 1,641,000$

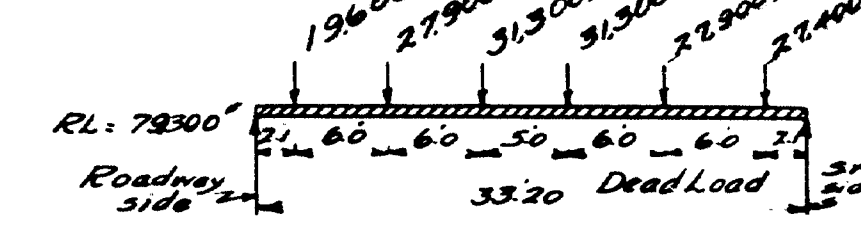
Total M. = 4,568,200

S. = $\frac{4,568,200}{24,000} = 190.2$

Use B 26 - 26" x 71 lb S: 201.7

FLOOR BEAMS

Intermediate



Dead Load
slab 712 lbs.
surface 90
stringer 91
893 lb

RL = $(27400 \times \frac{2.1}{33.2} + 27900 + 31300 + 19600 \times \frac{3.11}{33.2}) = 79300$ lbs

LL.M. car = $46600 \times 14.1 = 657,100$ ft lbs.

+50% overload = 328,500

Impact M. = .267

LL.M. HIS = $27600 \times 14.1 - 13,800 \times 16 = 263,200$

+100% overload = 168,300

Impact = .267

Total L.L.M. = 1,673,300

-10% = 1,507,800

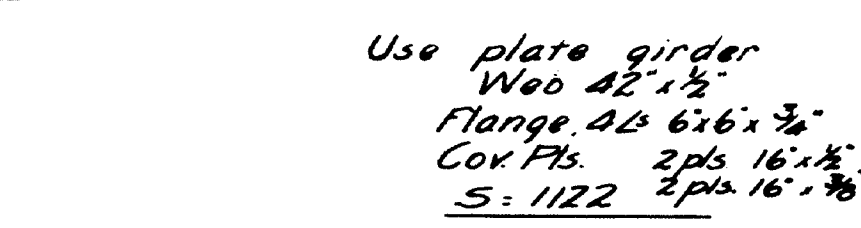
D.L.M. conc. = $79,300 \times 12.1 - 19600 \times 12 - 27900 \times 16 = 715,500$ ft lbs

D.L.M. uniform = $\frac{265 \times 33.2}{8} = 39,300$

S. = $\frac{2,262,600 \times 12}{24,000} = 1131.5$

Total M. = 2,262,600

End Floorbeam



Dead Load
slab 712 lbs.
surface 90
stringer 91
893 lb

RL = $(13700 \times \frac{2.1}{33.2} + 13950 + 13900 + 9800 \times \frac{3.11}{33.2}) = 39897$ lbs

LL.M. car = $34,150 \times 14.1 = 481,500$ ft lbs.

+50% overload = 240,800

Impact M. = .321

LL.M. HIS = $27300 \times 14.1 - 13,650 \times 16 = 166,500$

+100% overload = 166,500

Impact = .321

Total L.L.M. = 1,394,400

-10% = 1,254,700

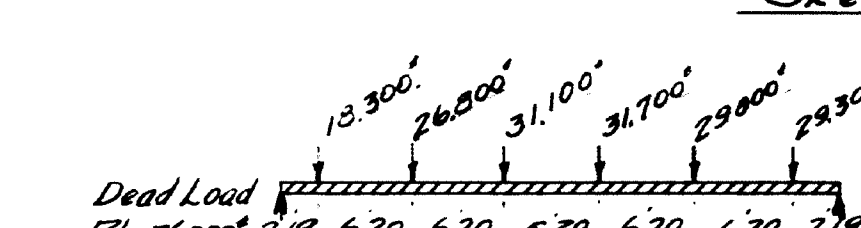
D.L.M. conc. = $39,897 \times 14.1 - 9800 \times 12 - 13,950 \times 16 = 357,100$

D.L.M. uniform = $\frac{220 \times 33.2}{8} = 30,300$

S. = $\frac{1,642,100 \times 12}{24,000} = 821.0$

Total M. = 1,642,100

Skewed Floorbeam at Panel Point No. 9



Dead Load
slab 450 lbs.
curb 56
surface 53
stringer 67.5
626.5 lb per ft.

RL = $(29300 \times \frac{2.19}{34.36} + 29000 \times \frac{8.39}{34.36} + 31700 \times \frac{14.59}{34.36} + 31100 \times \frac{13.79}{34.36} + 26800 \times \frac{2.599}{34.36}) = 77600$ lbs

RL car = $47000 \times \frac{14.59}{34.36} + 46300 \times \frac{3.79}{34.36} = 46600$ lbs

LL.M. car = $46600 \times 14.59 = 679,900$ ft lbs.

+50% overload = 333,950

Impact M. = .267

LL.M. HIS = $26,800 \times 14.59 - 13,400 \times 11.9 + 13700 \times 3.2 = 171,000$

+100% overload = 171,000

Impact = .267

Total L.L.M. = 1,725,450

-10% = 1,552,900

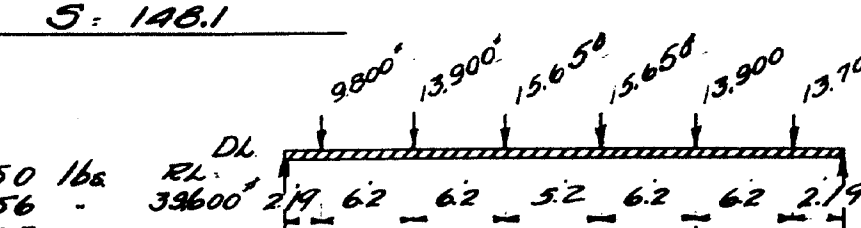
D.L.M. conc. = $77,600 \times 14.59 - 10,300 \times 12 - 26,800 \times 12 = 739,100$

D.L.M. uniform = $\frac{306 \times 34.36}{8} = 4,200$

S. = $\frac{2,337,200 \times 12}{24,000} = 1168.6$

Total M. = 2,337,200

Skewed End Floorbeam



Dead Load
slab 450 lbs.
curb 56
surface 53
stringer 67.5
626.5 lb per ft.

RL = $(13700 \times \frac{2.19}{34.36} + 13900 \times \frac{8.39}{34.36} + 15650 \times \frac{13.90}{34.36} + 13900 \times \frac{2.599}{34.36}) = 39600$ lbs

RL car = $29,400 \times \frac{14.59}{34.36} + 32,300 \times \frac{3.79}{34.36} = 31,100$ lbs

LL.M. car = $31,100 \times 14.59 = 453,800$ ft lbs.

+50% overload = 226,900

Impact M. = .321

LL.M. HIS = $26,750 \times 14.59 - 13,700 \times 11.9 - 12,900 \times 5.2 = 167,000$

+100% overload = 167,000

Impact = .321

Total L.L.M. = 1,072,600

-10% = 965,340

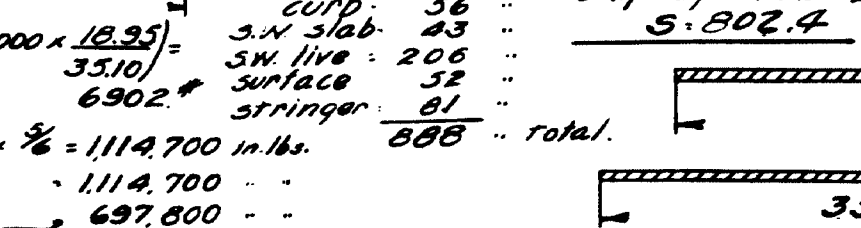
D.L.M. conc. = $39,600 \times 14.59 - 9800 \times 12 - 13,900 \times 12 = 370,100$

D.L.M. uniform = $\frac{220 \times 34.36}{8} = 3,200$

S. = $\frac{2,337,200 \times 12}{24,000} = 1168.6$

Total M. = 2,337,200

Sidewalk Stringers



Dead Load
slab 450 lb
curb 56
surface 53
stringer 80
639 lb per ft.

RL = $(3000 \times \frac{4.35}{35.10} + 12000 \times \frac{18.35}{35.10}) = 6902$ lbs

LL.M. = $6902 \times 16.15 \times 12 \times \frac{1}{2} = 1,114,700$ in lbs.

+100% overload = 1,114,700

Impact M. = .313

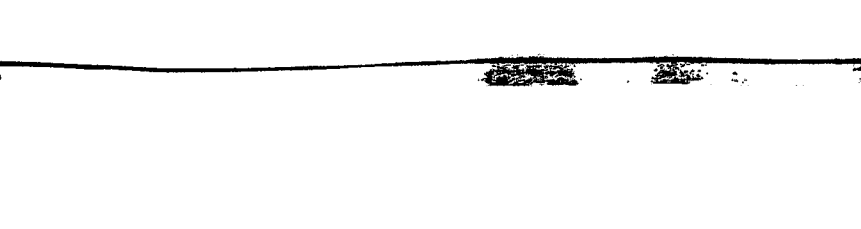
D.L.M. = $1.5 \times 6902 \times 35.10 = 1,641,000$

Total M. = 4,568,200

S. = $\frac{4,568,200}{24,000} = 190.2$

Use B 26 - 26" x 71 lb S: 201.7

Interior Stringer



Dead Load
slab 450 lb
curb 56
surface 53
stringer 80
639 lb per ft.

RL = $(3000 \times \frac{4.35}{35.10} + 12000 \times \frac{18.35}{35.10}) = 6902$ lbs

LL.M. = $6902 \times 16.15 \times 12 \times \frac{1}{2} = 1,114,700$ in lbs.

+100% overload = 1,114,700

Impact M. = .313

D.L.M. = $1.5 \times 6902 \times 35.10 = 1,641,000$

Total M. = 4,568,200

S. = $\frac{4,568,200}{24,000} = 190.2$

Use B 26 - 26" x 71 lb S: 201.7

Exterior Stringer



Dead Load
slab 450 lb
curb 56
surface 53
stringer 80
639 lb per ft.

RL = $(3000 \times \frac{4.35}{35.10} + 12000 \times \frac{18.35}{35.10}) = 6902$ lbs

LL.M. = $6902 \times 16.15 \times 12 \times \frac{1}{2} = 1,114,700$ in lbs.

+100% overload = 1,114,700

Impact M. = .313

D.L.M. = $1.5 \times 6902 \times 35.10 = 1,641,000$

Total M. = 4,568,200

S. = $\frac{4,568,200}{24,000} = 190.2$

Use B 26 - 26" x 71 lb S: 201.7

STRESS SPANS 1&2

Dead Load
slab 712 lbs.
surface 90
stringer 91
893 lb

RL = $(27400 \times \frac{2.1}{33.2} + 27900 + 31300 + 19600 \times \frac{3.11}{33.2}) = 79300$ lbs

LL.M. car = $46600 \times 14.1 = 657,100$ ft lbs.

+50% overload = 328,500

Impact M. = .267

LL.M. HIS = $27600 \times 14.1 - 13,800 \times 16 = 263,200$

+100% overload = 168,300

Impact = .267

Total L.L.M. = 1,673,300

-10% = 1,507,800

D.L.M. conc. = $79,300 \times 12.1 - 19600 \times 12 - 27900 \times 16 = 715,500$ ft lbs

D.L.M. uniform = $\frac{265 \times 33.2}{8} = 39,300$

S. = $\frac{2,262,600 \times 12}{24,000} = 1131.5$

Total M. = 2,262,600

Dead Load
slab 712 lbs.
surface 90
stringer 91
893 lb

RL = $(13700 \times \frac{2.1}{33.2} + 13950 + 13900 + 9800 \times \frac{3.11}{33.2}) = 39897$ lbs

LL.M. car = $34,150 \times 14.1 = 481,500$ ft lbs.

+50% overload = 240,800

Impact M. = .321

LL.M. HIS = $27300 \times 14.1 - 13,650 \times 16 = 166,500$

+100% overload = 166,500

Impact = .321

Total L.L.M. = 1,394,400

-10% = 1,254,700

D.L.M. conc. = $39,897 \times 14.1 - 9800 \times 12 - 13,950 \times 16 = 357,100$

D.L.M. uniform = $\frac{220 \times 33.2}{8} = 30,300$

S. = $\frac{1,642,100 \times 12}{24,000} = 821.0$

Total M. = 1,642,100

Dead Load
slab 712 lbs.
surface 90
stringer 91
893 lb

RL = $(3000 \times \frac{1.87}{28.95} + 12000 \times \frac{15.82}{28.95}) = 6772$ lbs

LL.M. = $6772 \times 13.08 \times 12 \times \frac{1}{2} = 1,417,250$ in lbs.

+100% overload = 1,417,250

Impact M. = .325

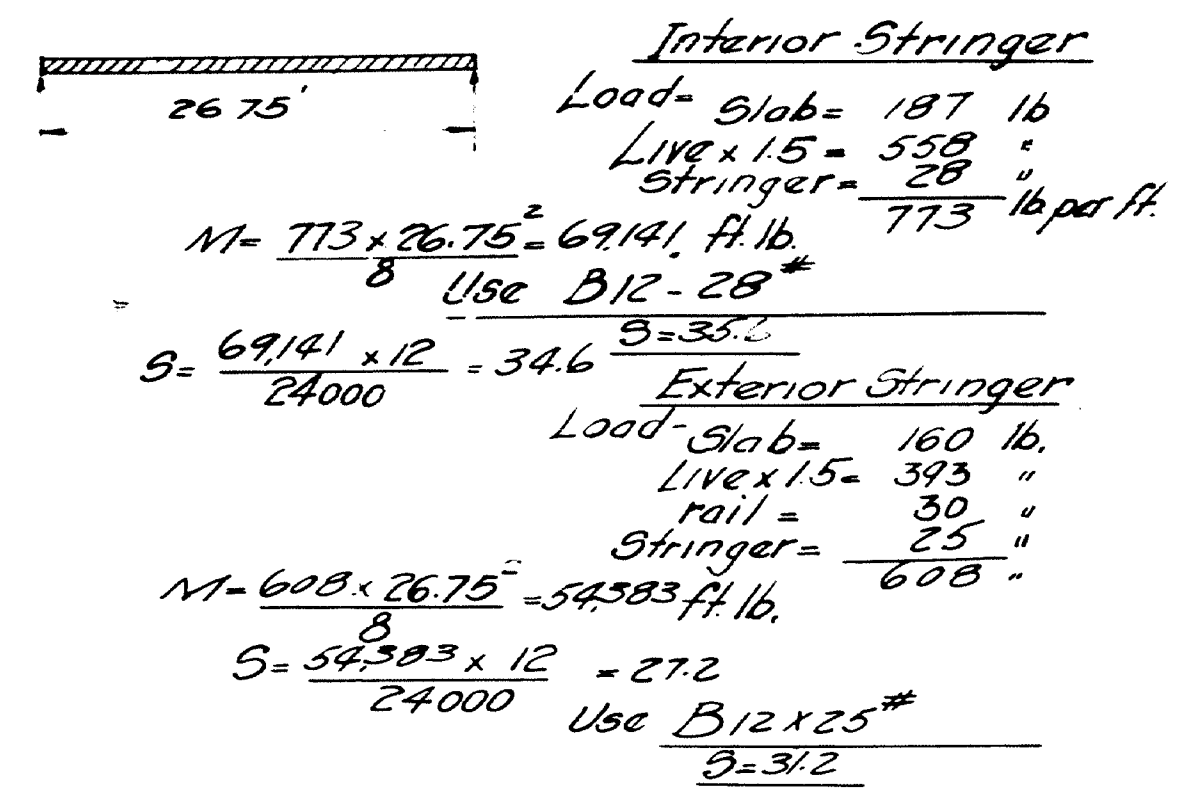
D.L.M. = $1.5 \times 887.5 \times 28.95 = 1,115,700$

Total M. = 4,871,400

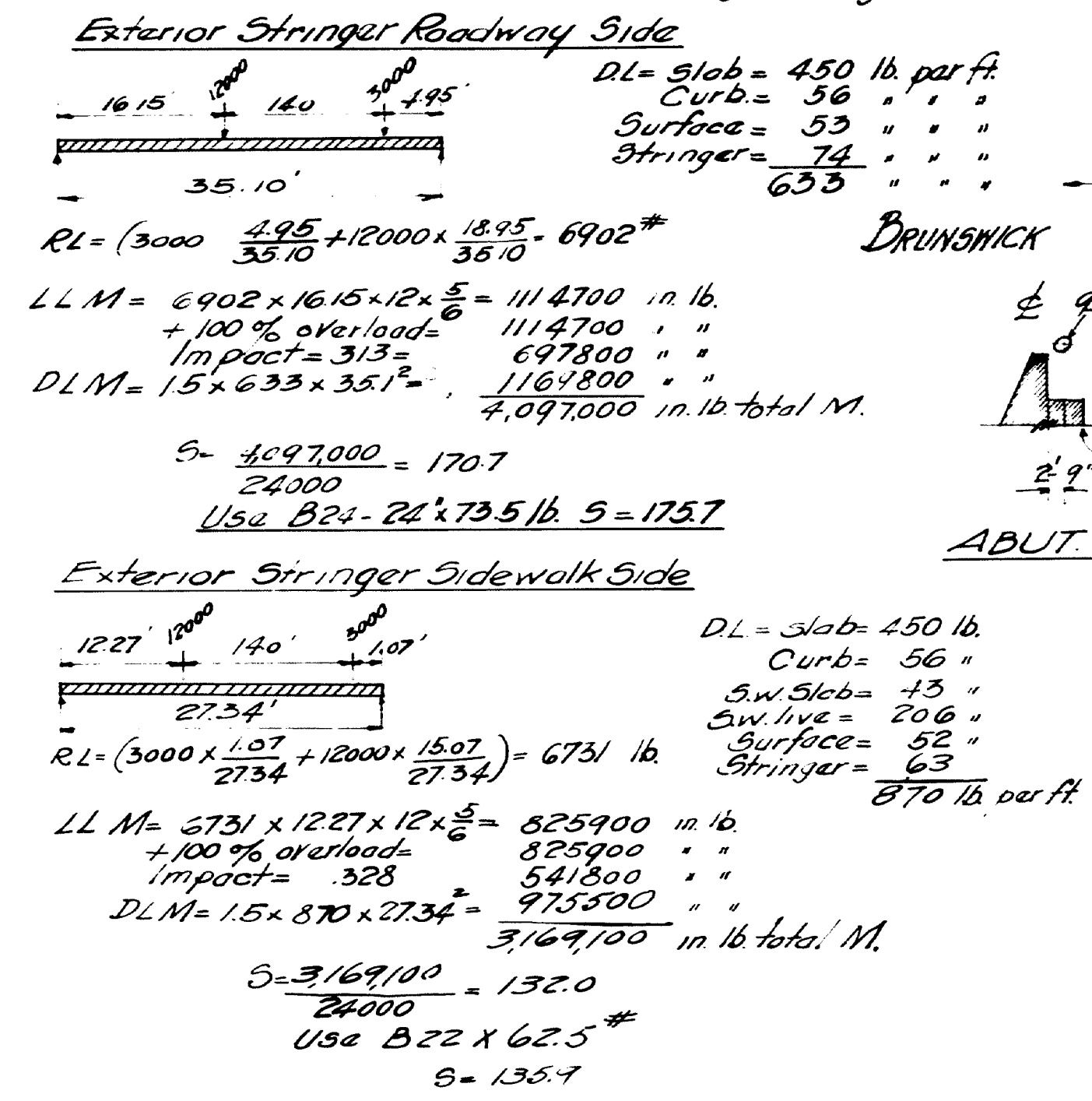
S. = $\frac{4,871,400}{24,000} = 203.0$

Use B 28 - 28" x 85 lb S:

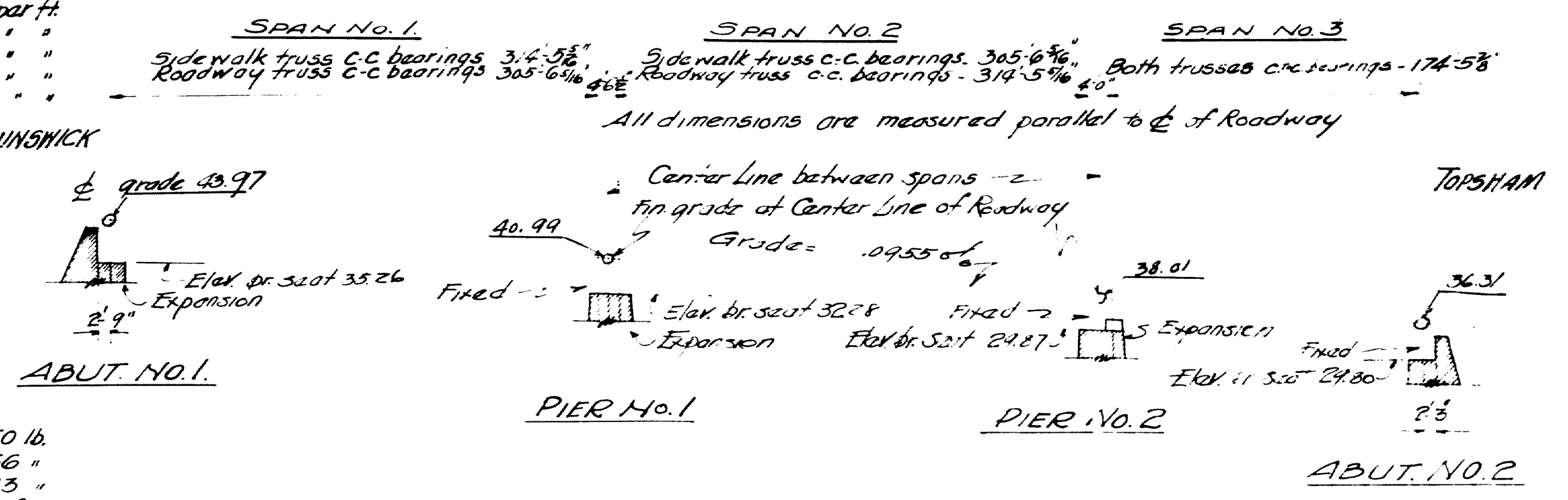
SIDEWALK STRINGERS CONTINUED No 2 span Panel No 2



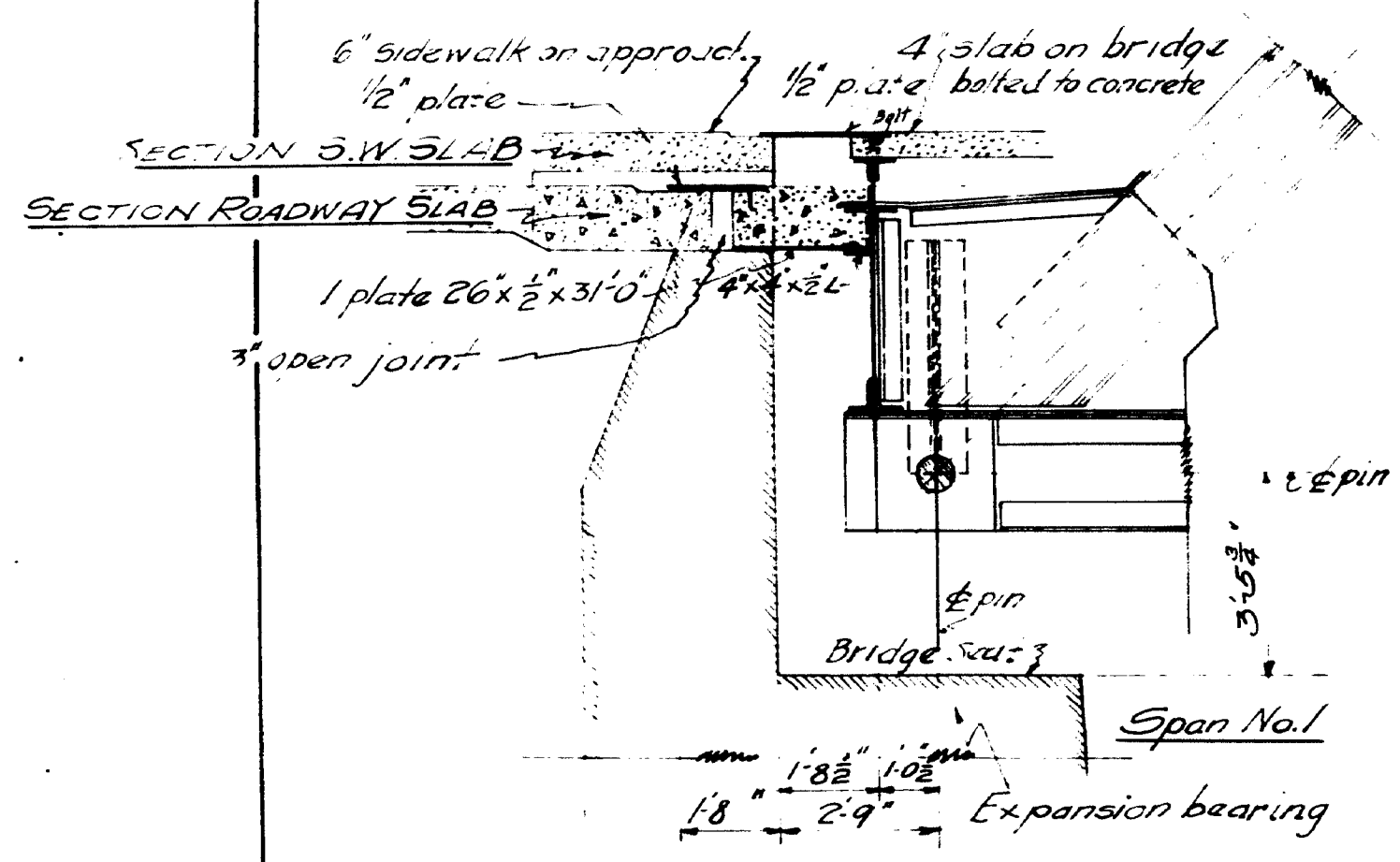
ROADWAY STRINGERS CONTINUED No 2 span Roadway Stringers Panel No 2



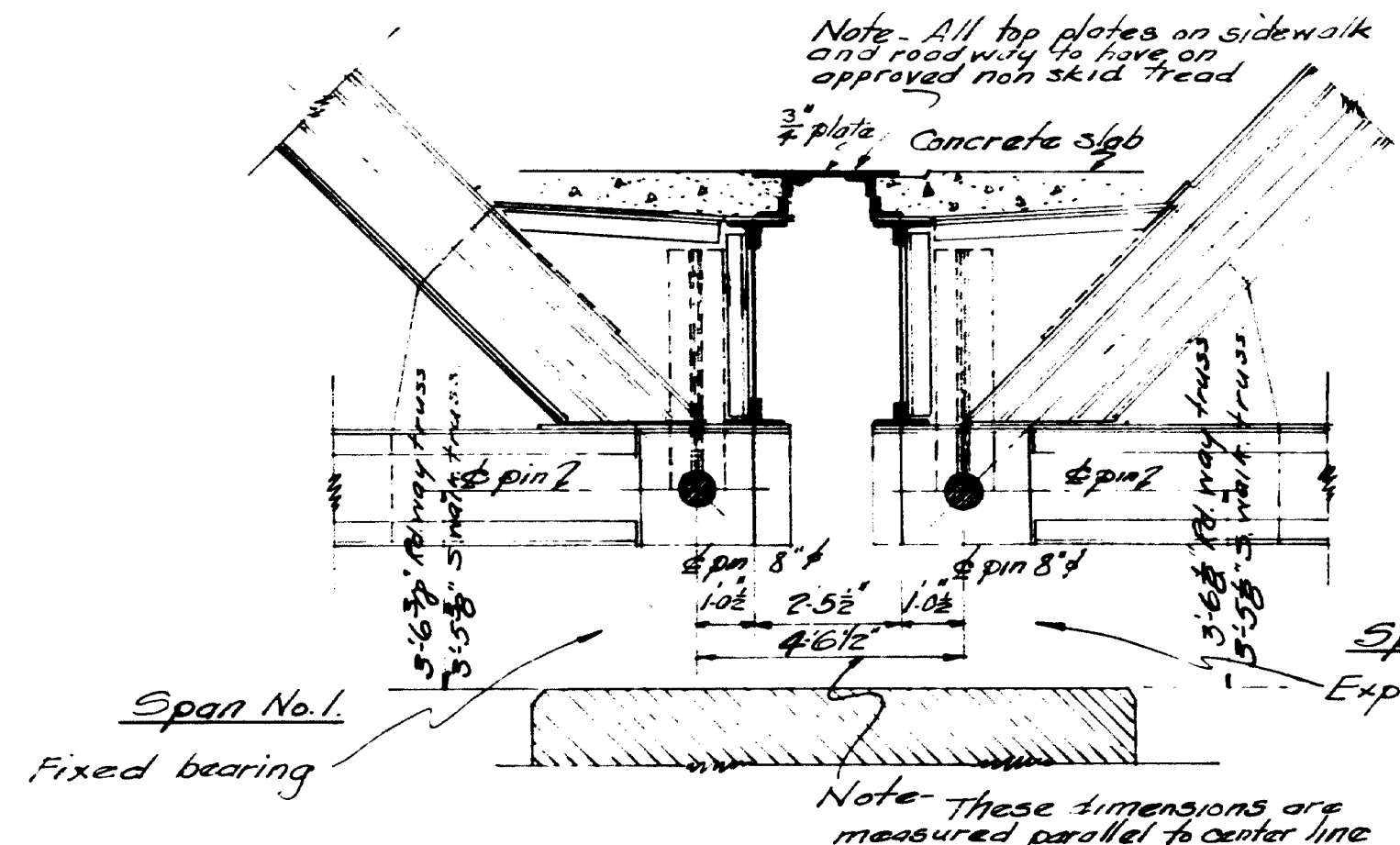
DETAILS



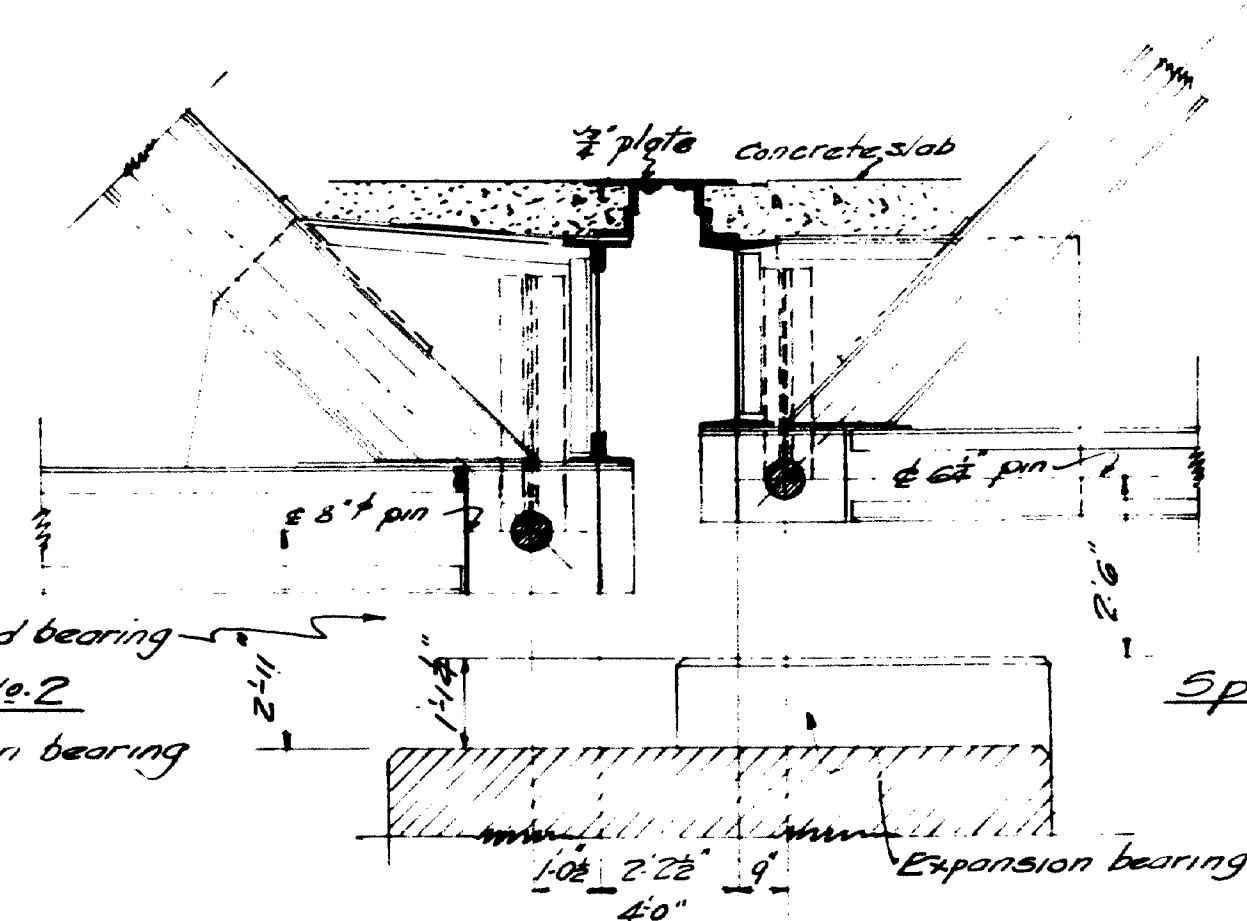
GENERAL ELEVATION



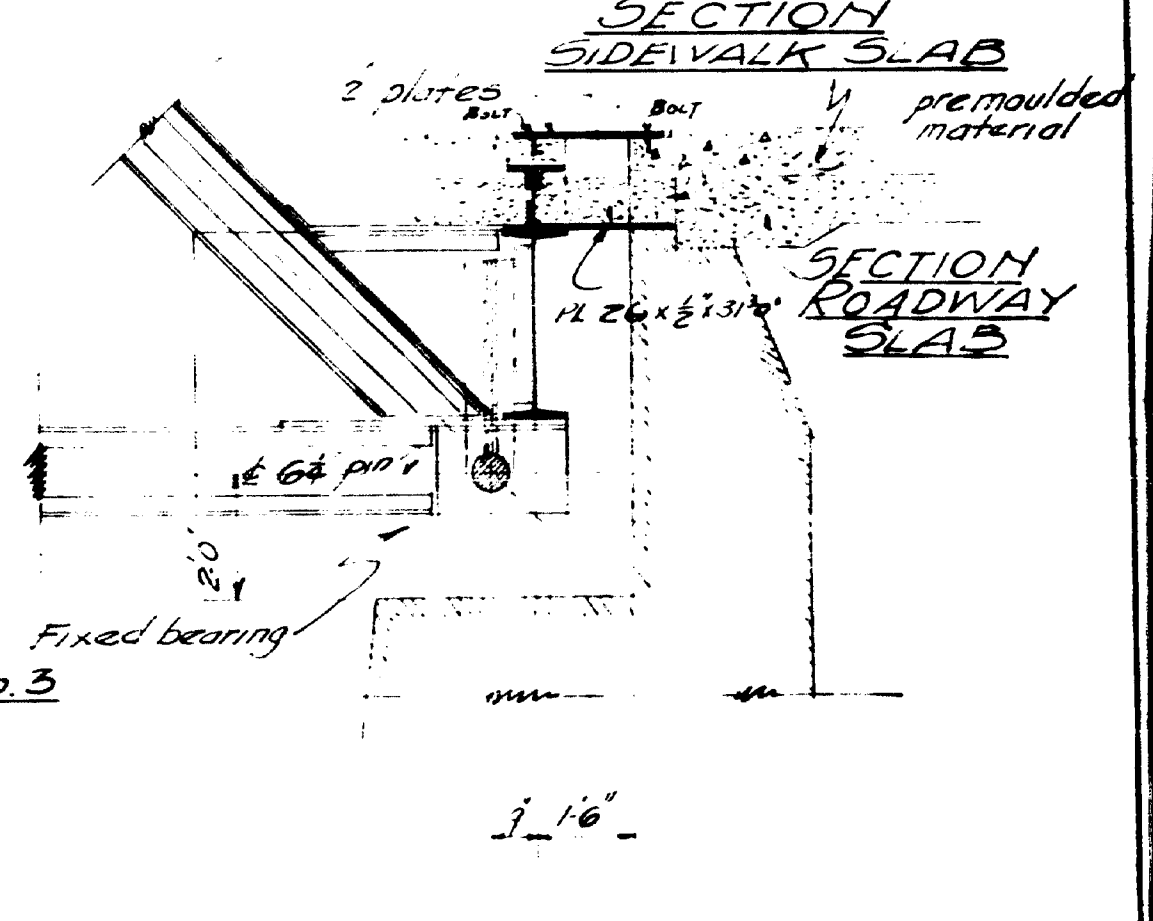
ABUTMENT No.1



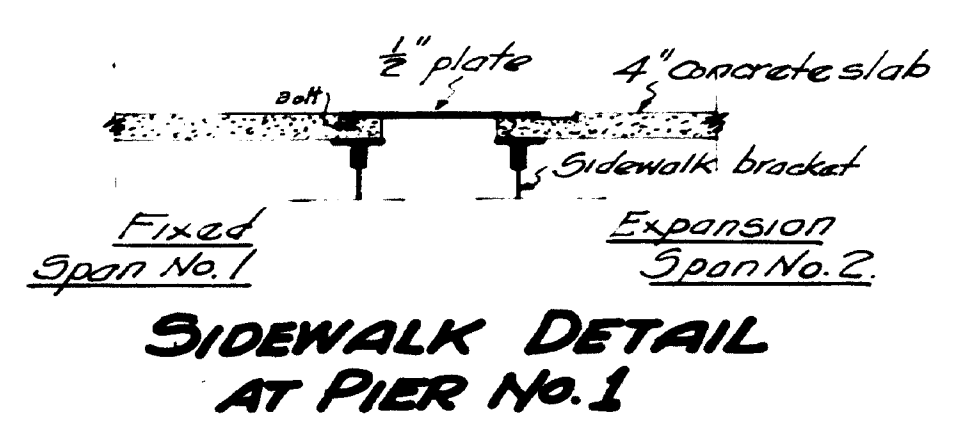
PIER No.1
Skewed end panels over this pier



PIER No.2



ABUTMENT No.2

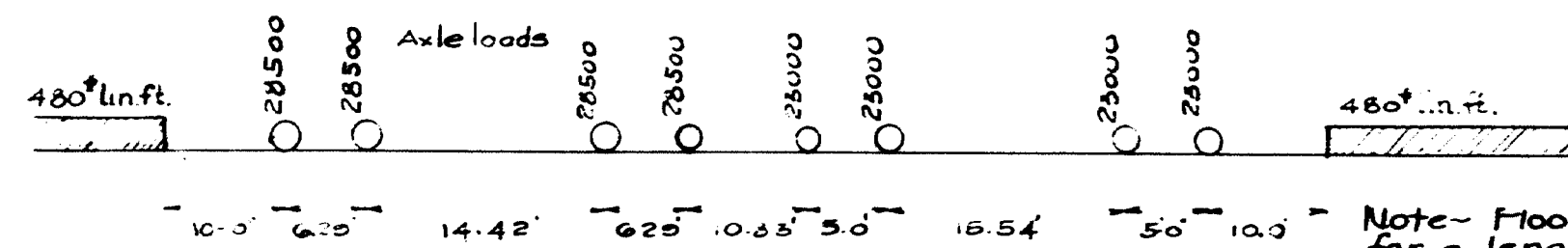


Note: Method of expansion for sidewalk same as at pier No.1. between spans 1 and 2.

Drawn by H.A.E.
Traced by H.A.E.
Checked by G.D.

LOADING

Floor System and Hangers Two 15 Ton Trucks and Electric Train



ELECTRIC TRAIN LOADING

TRUSSES:-

Total moving uniform load of 469* per linear ft. 13200* concentration for moment and 19100* concentration for shear

IMPACT COEFFICIENT OF LIVE LOAD STRESS

$$I = \frac{50}{L+125} \text{ Where } L = \text{Load length of Span in feet}$$

SIDEWALK LOADING

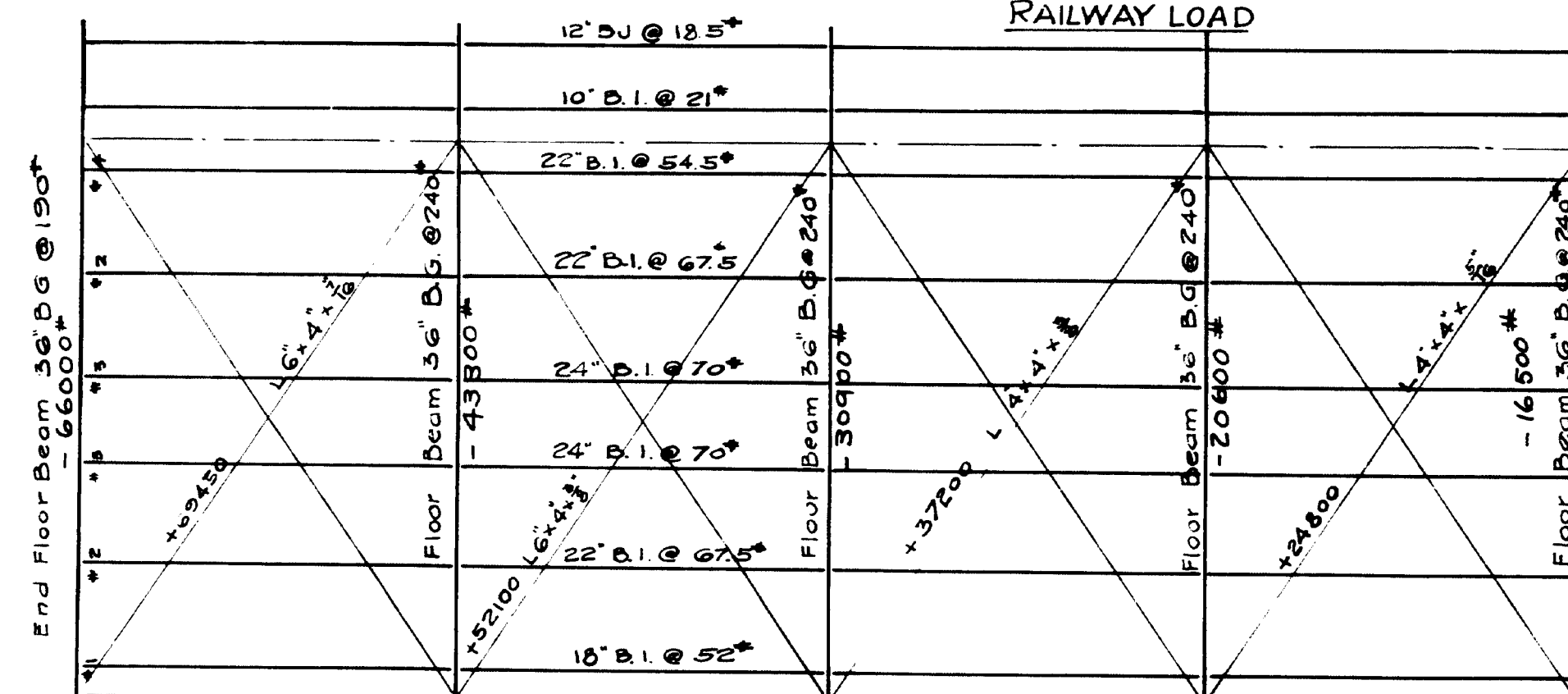
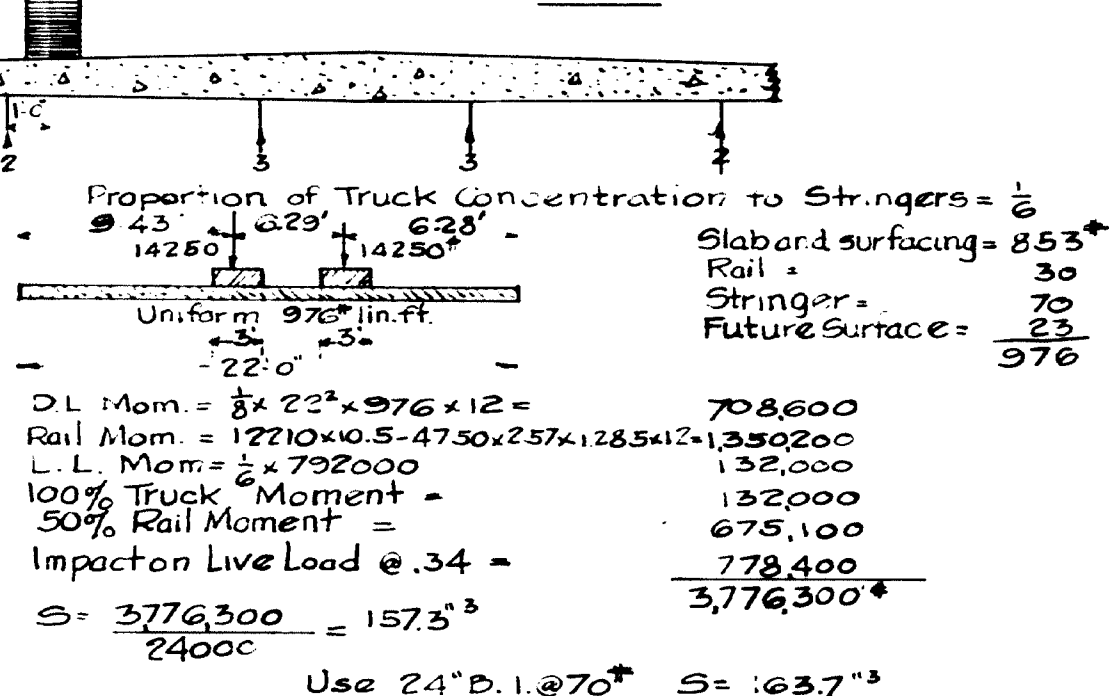
Stringers and brackets - 100* per sq. ft. Sidewalk Truss $p = (40 + \frac{3000}{L}) (55 \cdot W)$

P = Live Load in lbs. per sq. ft. of Sidewalk area but not to exceed 100* per sq. ft. L = Loaded length of Sidewalk in feet W = Width of Sidewalk in feet

W.I.D. LOADING

50* per sq. ft. on 12 times the projected area of Windward Truss including floor, stringers, etc. and considered as a moving load.

RAILWAY STRINGERS NO. 3



HALF PLAN- LOWER LATERAL SYSTEM

STRINGER NO. 1

Proportion of truck concentration to Stringer No 1 = 1/2

D.L. Mom. = $\frac{1}{8} \times 22' \times 611 \times 12 = 443,600$
L.L. Mom. = $\frac{1}{8} \times 792,000 = 660,000$
100% Live Load Mom. = 660,000
Impact on Live Load @ .34 = 448,800
S = $\frac{22,2400}{24,000} = 92.2$
Use 18 D.I. @ 52" S = 94.3

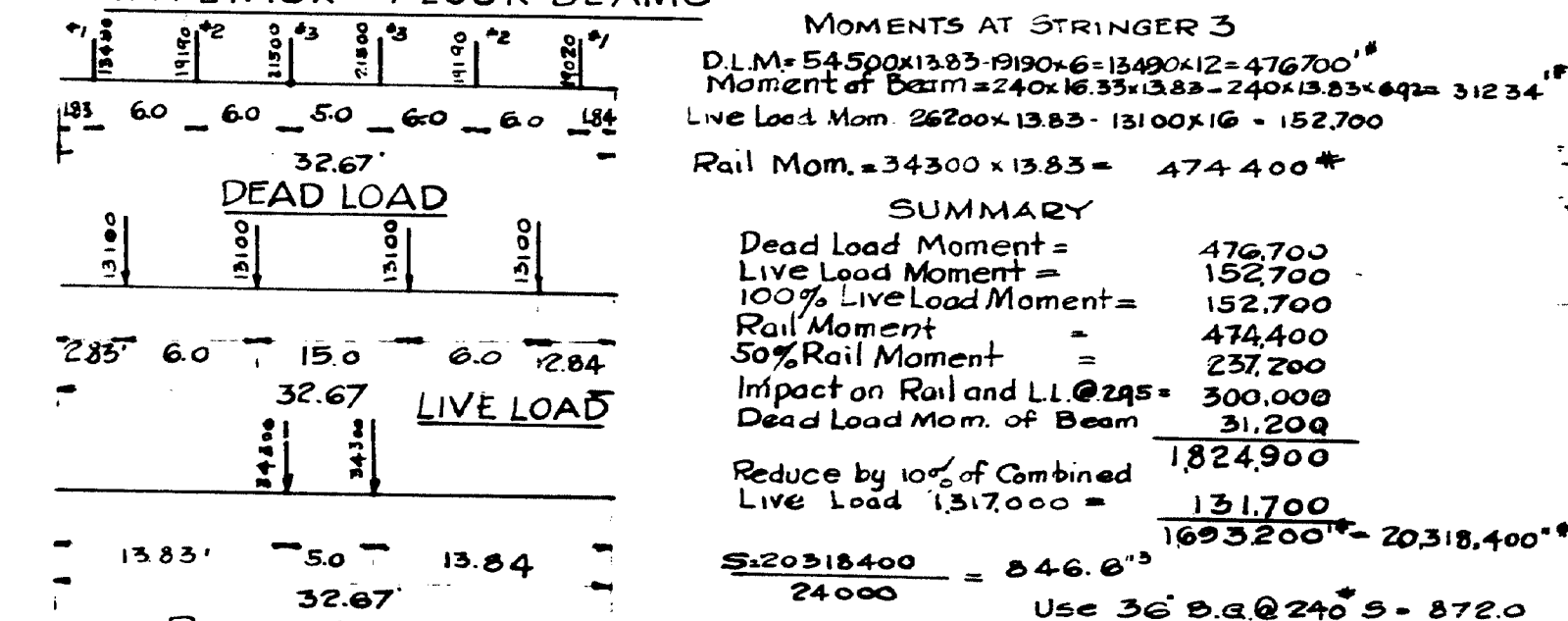
STRINGER NO. 2

Proportion of truck concentration to Stringer No 2 = 1/2
D.L. Moment = $\frac{1}{8} \times 22' \times 869.3 \times 12 = 631,300$
L.L. Mom. = $\frac{1}{8} \times 792,000 = 660,000$
100% Live Load = 660,000
Impact on Live Load @ .34 = 718,100
S = $\frac{3,461,400}{24,000} = 144.2$
Use 22" B.I. @ 67.5" S = 148.1

STRINGER NO. 4

Proportion of truck concentration to Stringer No 4 = 1/2
D.L. Moment = $\frac{1}{8} \times 22' \times 869.3 \times 12 = 631,300$
L.L. Mom. = $\frac{1}{8} \times 792,000 = 660,000$
100% L.L. Moment = 660,000
Impact on L.L. @ .34 = 448,800
S = $\frac{2,344,600}{24,000} = 97.7$
Use 22" B.I. @ 54.5" S = 113.3

INTERIOR FLOOR BEAMS



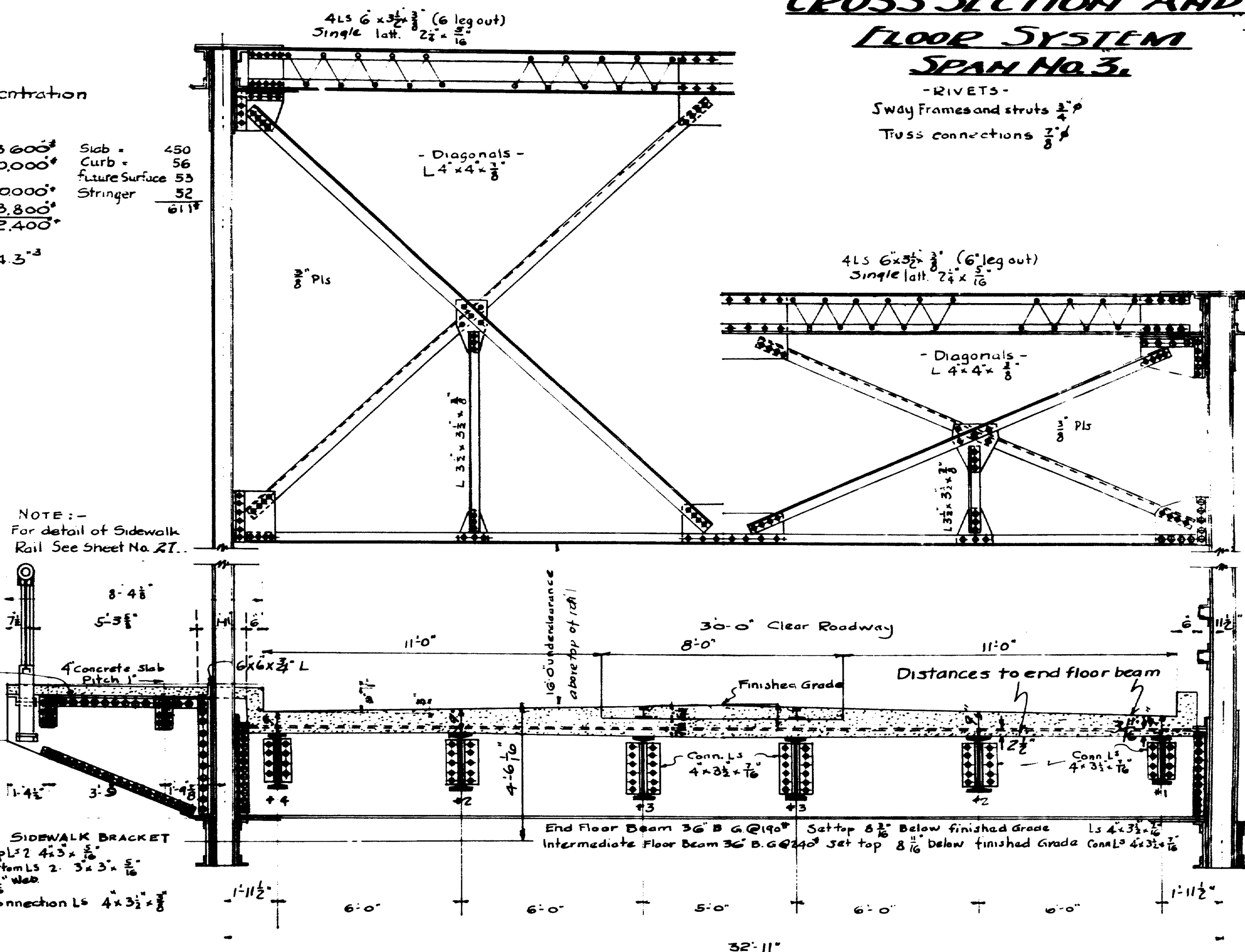
RAILWAY LOAD

HALF PLAN- UPPER LATERAL SYSTEM

All Wind Stresses increased 50%

CROSS SECTION AND FLOOR SYSTEM SPAN NO. 3

- RIVETS -
Sway Frames and struts 3/4"
Truss connections 3/4"



END FLOOR BEAMS

Dead load Moment = 1/2 of that for interior Beams
Live Load is the same as that for interior Beams for 1:15

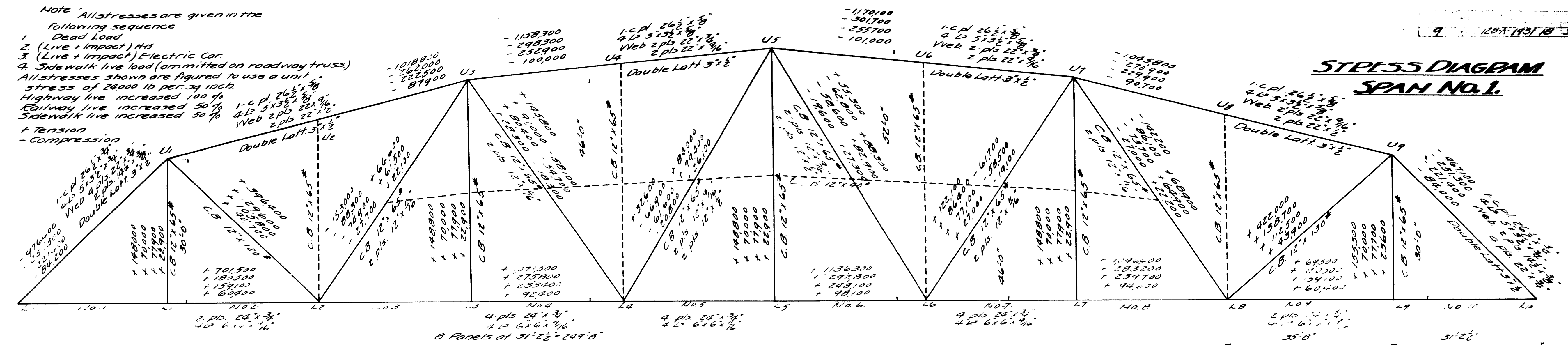
INTERIOR S.W. STRINGER
Slab = 100*
12 L.L. = 13.5
Stringer = 21
666
M = $\frac{1}{8} \times 66' \times 22' \times 12 = 21,120$
Rail Moment = 25,800 x 13.83 = 3,499,000
D.L. Mom. of Beam = 190 x 16.33 x 13.83 = 42,240
SUMMARY
Dead Load Moment = 238,400
Live Load Moment = 152,700
100% Live Load Moment = 152,700
Rail Moment = 3,499,000
50% Rail Moment = 1,749,500
Impact on Rail and live load .34 = 282,300
Dead Load Moment of Beams = 247,000
Reduce by 10% of Combined Rail and Live Load 1,112,600 = 1,001,300
S = $\frac{1,517,280}{24,000} = 63.2$
Use 36" B.G. @ 190" S = 659.9

EXTERIOR S.W. STRINGER
Slab = 160.
12 L.L. = 393.
Stringer = 183.
571.
M = $\frac{1}{8} \times 57.5' \times 22' \times 12 = 18,825$
S = $\frac{4,4300}{24,000} = 1.8$
Use 12" B.I. @ 18" S = 20.2

DESIGNED BY G. D. TH. CHECKED BY G. D. G. APPROVED BY G. D.

Note: All stresses are given in the following sequence.

- Following sequence:
1. Dead Load
 2. (Live + Impact) HHS
 3. (Live + Impact) Electric Car
 4. Sidewalk live load (permitted on roadway truss)
- All stresses shown are figured to use a unit stress of 20,000 lb per sq inch
- | | |
|-----------------------------|----------------|
| Highway live increased 100% | 1-c. Pl. 26.7% |
| Railway live increased 50% | 1-c. Pl. 5.3% |
| Sidewalk live increased 50% | 4-lb. 2.0% |

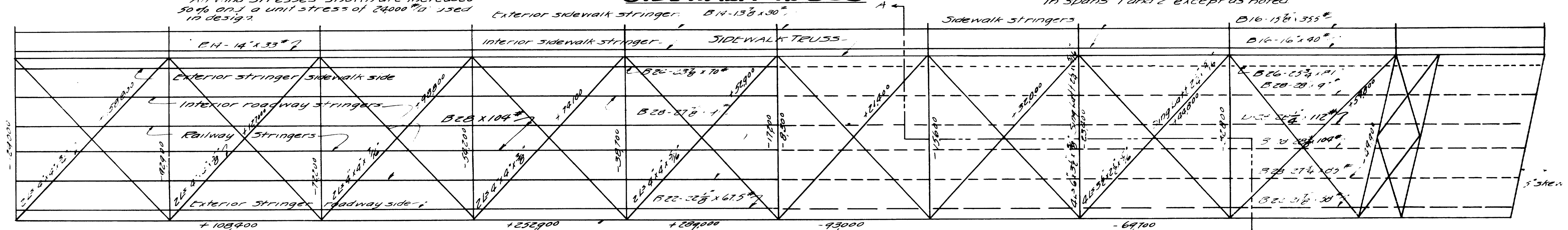


Center to Center of Pins $314'5\frac{1}{2}"$
Center to Center of End Floorbeams $316'6\frac{1}{2}"$

SIDEWALK TRUSS

All wind stresses shown are increased 50% and a unit stress of 24,000 psi used in design.

All floorbeams and stringers are similar in spans 1 and 2 except as noted.



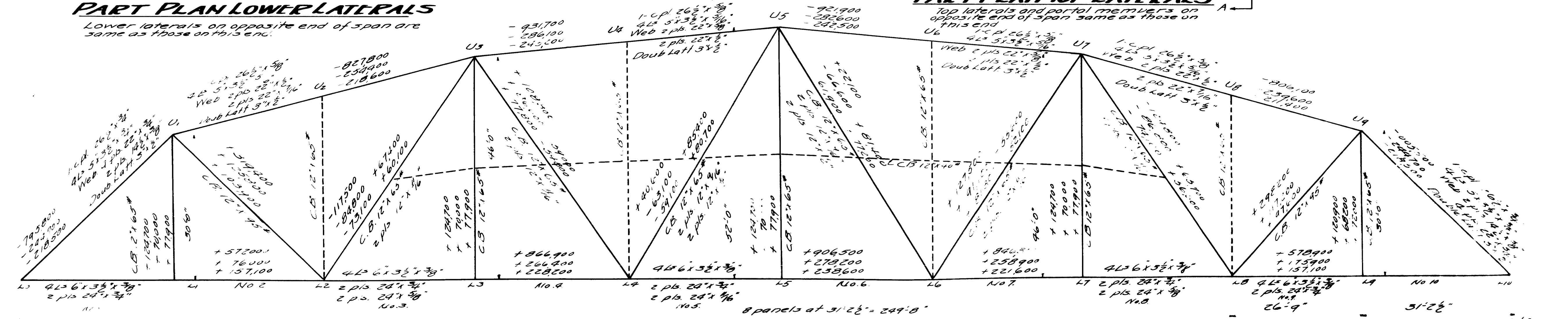
PART PLAN LOWER LATERALS

Lower laterals on opposite end of span are same as those on this end.

ROADWAY TRUSS

PART PLAN TOP LATERALS

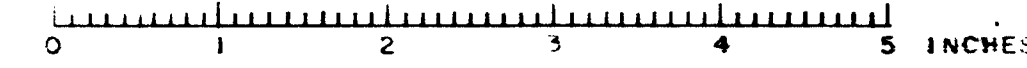
Top laterals and portal members on opposite end of span same as those on this end.



Center to center of bearings $305'-6\frac{1}{2}"$
Center to center of end floor beams $307'-7\frac{1}{2}"$

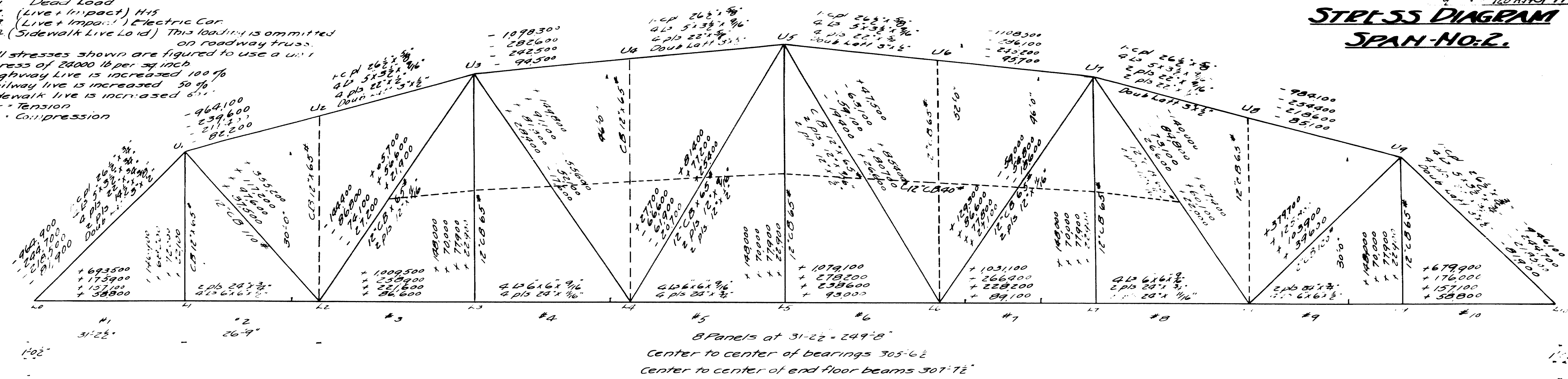
ROADWAY TRUSS

Revised 4-3-54 E. Vby-GJ

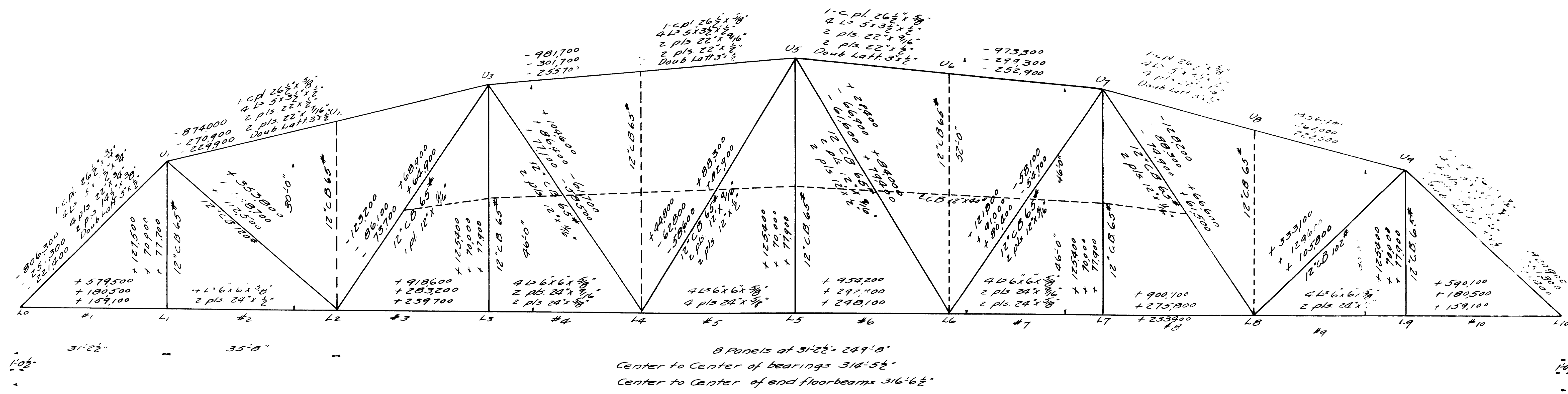


Note: All stresses are given in the following sequence:
1. Dead Load
2. (Live + Impact) H-15
3. (Live + Impact) Electric Car
4. (Sidewalk Live Load) This loading is omitted on roadway truss.
All stresses shown are figured to use a unit stress of 24000 lbs per sq inch
Highway live is increased 100%
Railway live is increased 50%
Sidewalk live is increased 6%
+ = Tension
- = Compression

STRESS DIAGRAM SPAN NO. 2.



SIDEWALK TRUSS



ROADWAY TRUSS

Designed by M.E.S.
Checked by J.C.B.

S.P. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	#2016	1	8

STATE OF MAINE STATE HIGHWAY COMMISSION



ANDROSCOGGIN RIVER BRIDGE BETWEEN THE TOWN OF BRUNSWICK CUMBERLAND COUNTY AND THE TOWN OF TOPSHAM SAGadahoc COUNTY MAINE STATE PROJECT NO. 2016

CONVENTIONAL SIGNS

COUNTY LINES	-----	TRAVELLED WAY - PROPOSED	=====
TOWN LINES	-----	UNDERGROUND UTILITIES - EXISTING	-----
PROPERTY LINES	-----	UNDERGROUND UTILITIES - PROPOSED	-----
R/W LINES - EXISTING	=====	RAILROAD - SINGLE TRACK	-----
R/W LINES - NEW - ACCESS CONTROL	=====	RAILROAD - DOUBLE TRACK	=====
R/W LINES - NEW - NO ACCESS CONTROL	=====	UTILITY POLE - EXISTING	-----
CULVERT - EXISTING	-----	UTILITY POLE - JOINT OCCUPANCY	-----
CULVERT - PROPOSED	-----	PROPOSED UTILITY POLE - TEMPORARY	-----
CURBING - EXISTING	=====	PROPOSED UTILITY POLE - PERMANENT	-----
CURBING - PROPOSED	=====	TREES	-----
TRAVELLED WAY - EXISTING	=====	WOODS	-----

GENERAL NOTES

All work contemplated under this contract shall be governed by, and in conformity with, the Standard Specifications (Revision of June 1968) and supplements thereto, except as modified on the plans and in the Special Provisions.

All dimensions shown on the following plans must be verified by the Contractor before the grid floor and its supports are installed, because actual field conditions may vary from those shown on these plans.

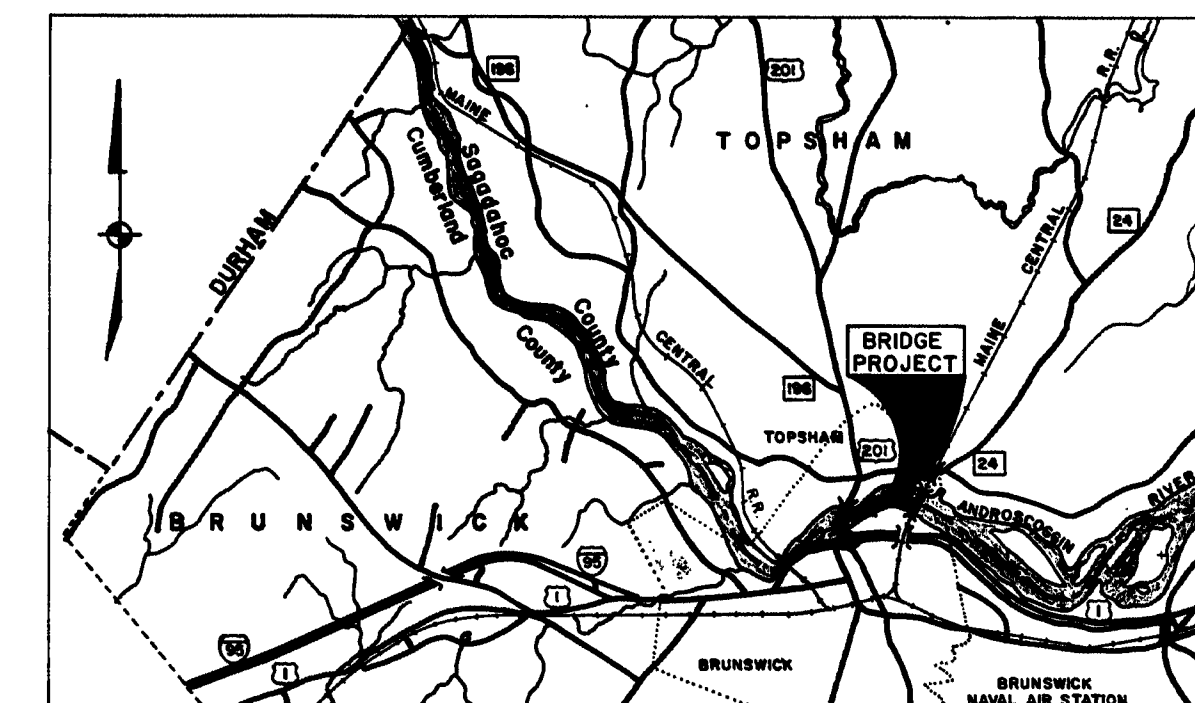
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
604.75	REFLOORING ANDROSCOGGIN RIVER BRIDGE	1	LUMP SUM
628.05	LABOR, STRAIGHT TIME	50	M. Hrs.
631.10	AIR COMPRESSOR (INC. OPERATOR)	10	Hrs.
631.11	AIR TOOL (INC. OPERATOR)	10	Hrs.
631.17	TRUCK - SMALL (INC. OPERATOR)	10	Hrs.
631.22	FRONT END LOADER (INC. OPERATOR)	10	Hrs.
632.06	WARNING LIGHTS	2	Group
633.10	PORTABLE BARRICADE with FLASHING LIGHTS	2	Each
639.09	FIELD OFFICE, TYPE "B"	1	Each

APPROXIMATE EXISTING CONCRETE TO BE REMOVED = 875 Cu. Yds.
APPROXIMATE EXISTING WEARING SURFACE TO BE REMOVED = 300 Cu. Yds.

INDEX OF SHEETS

1. TITLE SHEET
2. PLANS AND SECTIONS
3. NEEDLE BEAM LAYOUTS
4. GRID FLOOR LAYOUT
5. BRACKET DETAILS
6. ARMORED JOINTS AND CURB DETAILS
7. AUGUST 1969 (11) BARRICADES, ETC.
8. AUGUST 1969 (12) FIELD OFFICES



LOCATION MAP

SPECIFICATIONS

CONTRACT: State of Maine, State Highway Commission, Standard Specifications, Highways & Bridges, Revision of June 1968.

MATERIALS

CONCRETE: All concrete - Class "Y".
REINFORCING STEEL: A.S.T.M. A615 Grade 60.
STRUCTURAL STEEL: A.S.T.M. A36

BASIC ALLOWABLE STRESSES

CONCRETE: $f_c = 1200$ p.s.i. $n = 10$.
REINFORCING STEEL: $f_s = 24,000$ p.s.i.
STRUCTURAL STEEL: A36 - $f_s = 20,000$ p.s.i.

TRAFFIC DATA

A.D.T.	16,280 - 1972
A.D.T.	26,140 - 1992
D.H.V.	2,614
T. (%)	5
D. (%)	50

*TRAFFIC SHOWN IS WITH I-95 COMPLETED

APPROVED:

MAINE STATE HIGHWAY COMMISSION

DATE

David H. Stevens
CHAIRMAN

FEB. 1972

Steven D. Shaw
CHIEF ENGINEER

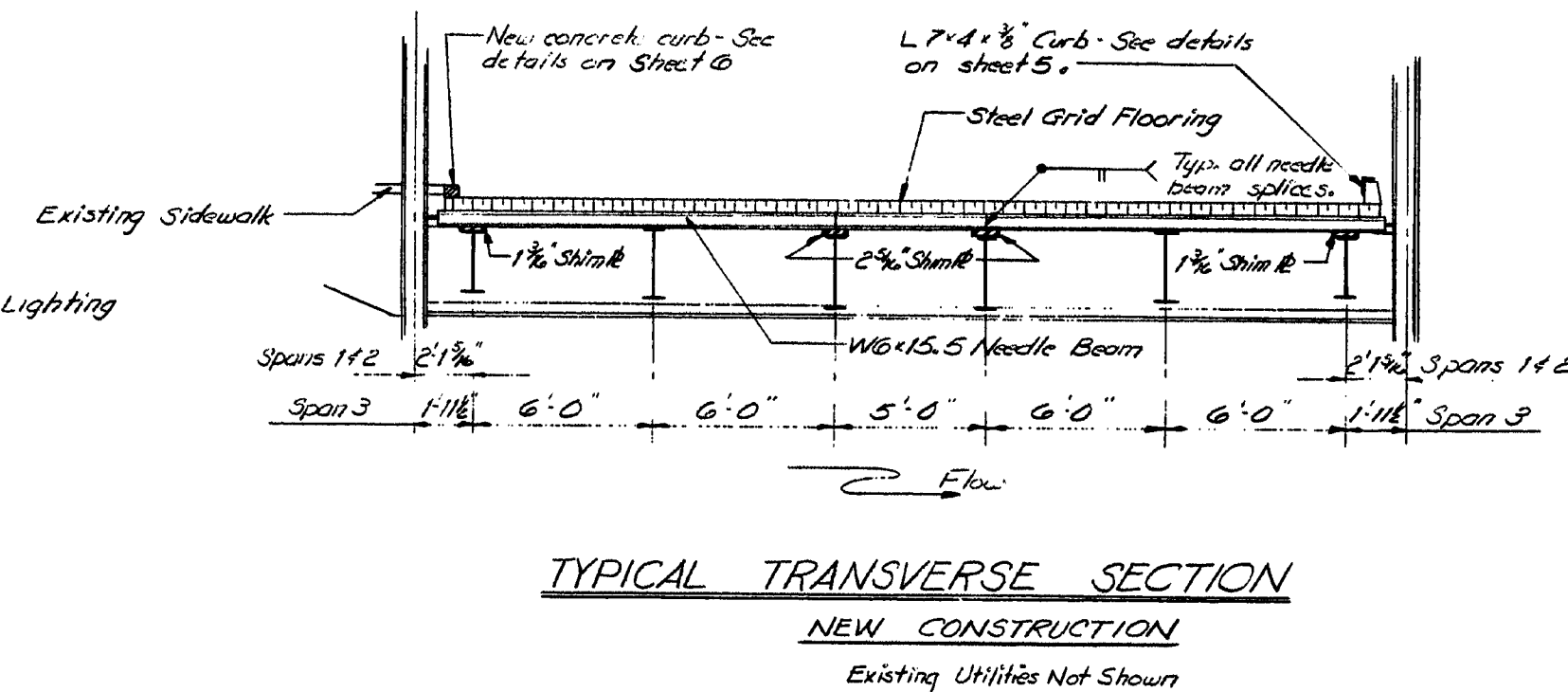
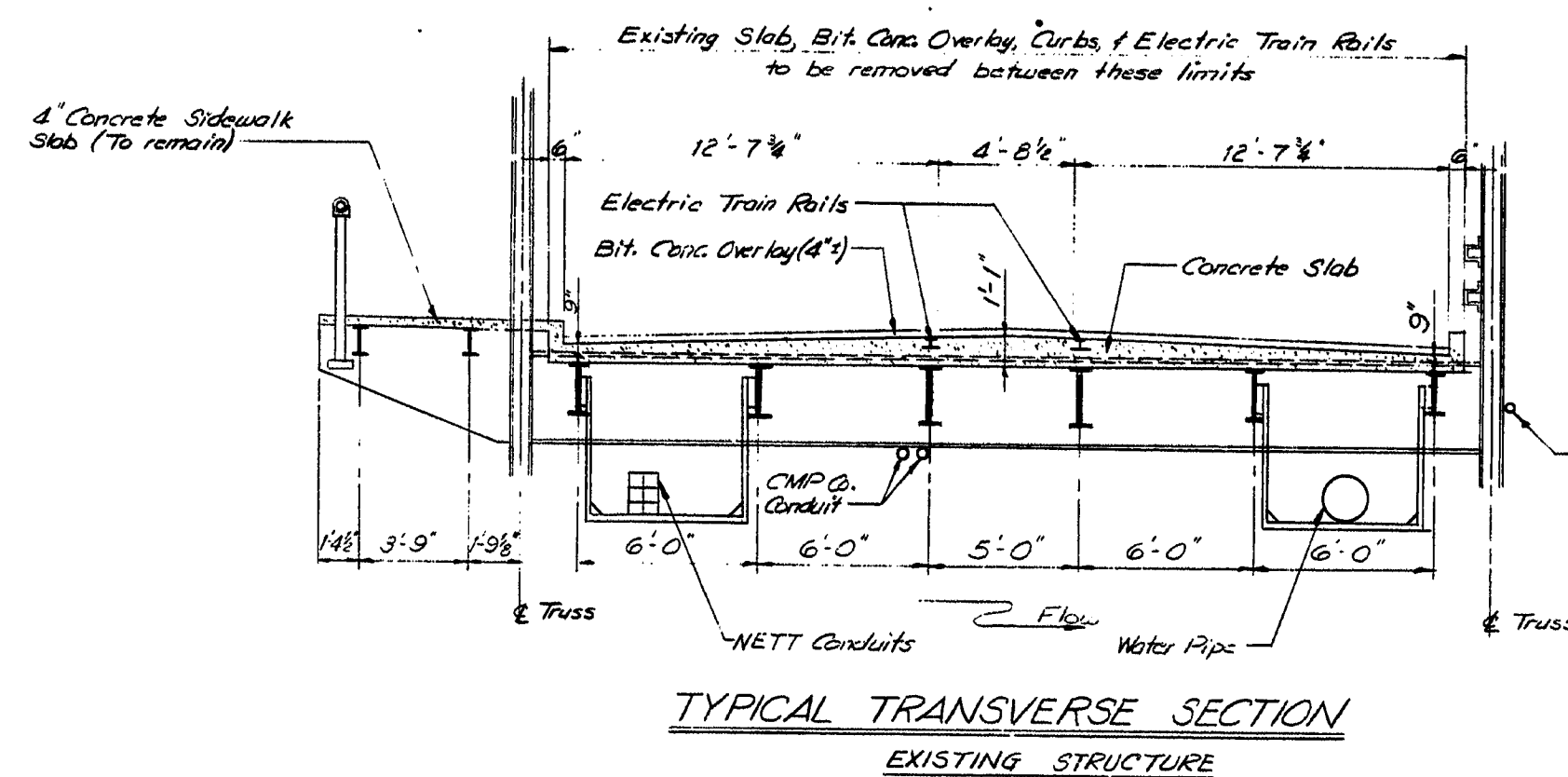
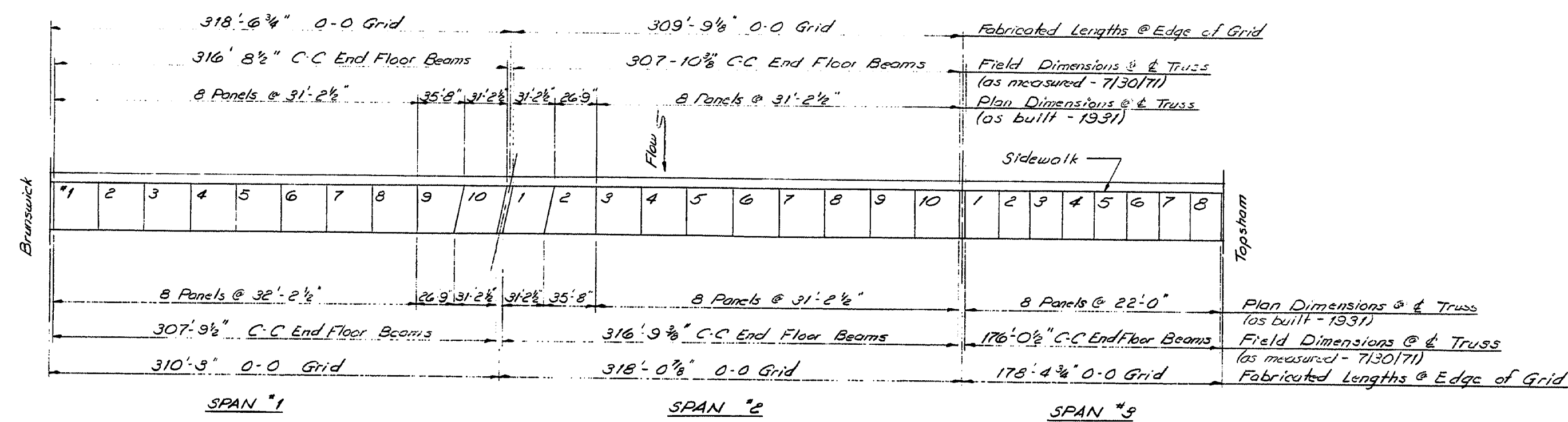
FEB. 1972

Sylvester E. Brown
CHIEF ENGINEER

FEB. 1972

143-179

DESIGN - DETAILED	DATE
BY	1/4/72
REVISIONS	2/72
FIELD CHANGES	
PLANS	



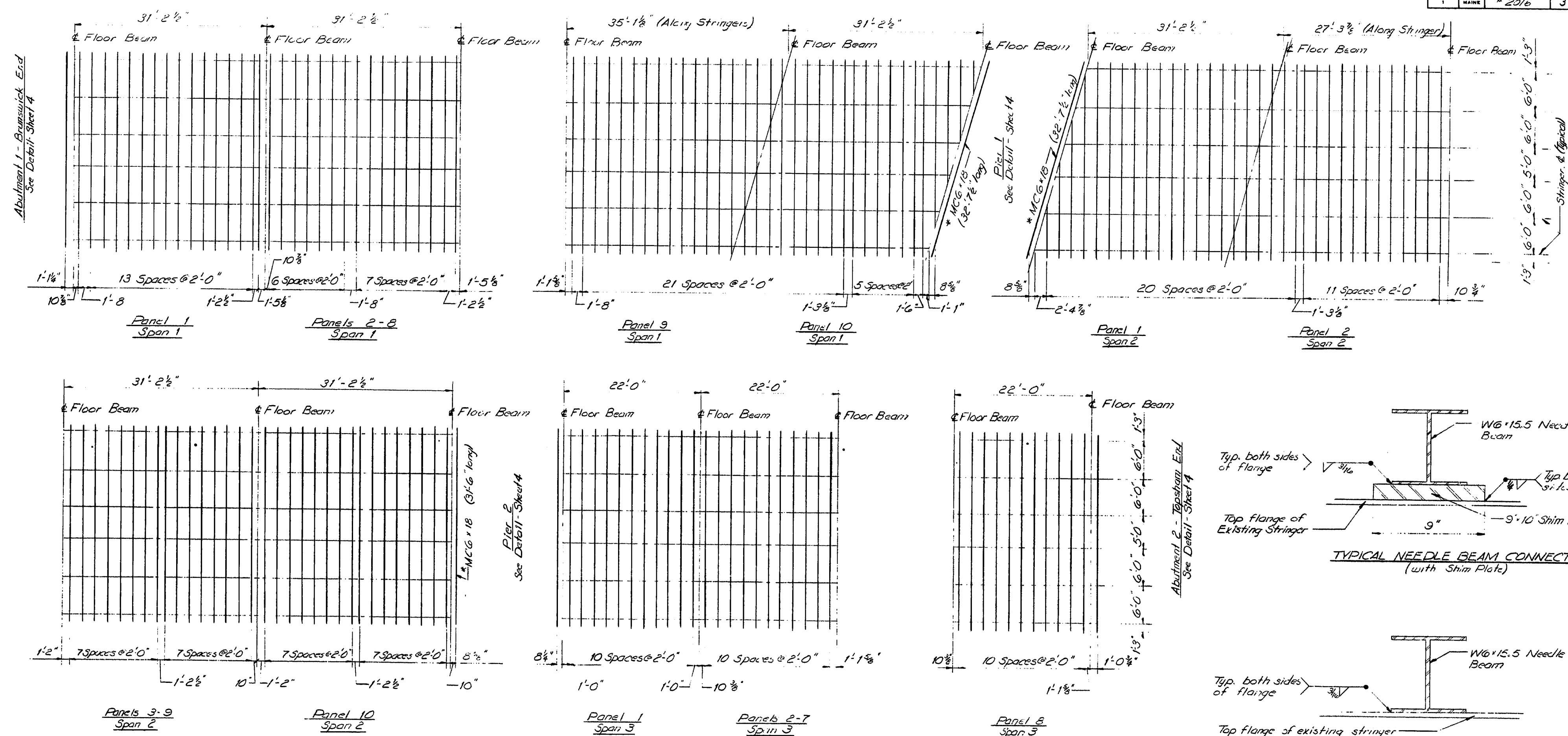
STATE HIGHWAY COMMISSION
ANDROSCOGGIN RIVER BRIDGE
BETWEEN THE TOWN OF
BRUNSWICK
CUMBERLAND COUNTY
AND THE TOWN OF
TOPSHAM - SAGadahoc COUNTY
PLAN & SECTIONS

SHEET 2 OF 8 AUGUSTA, MAINE FEB. 1972

143-180

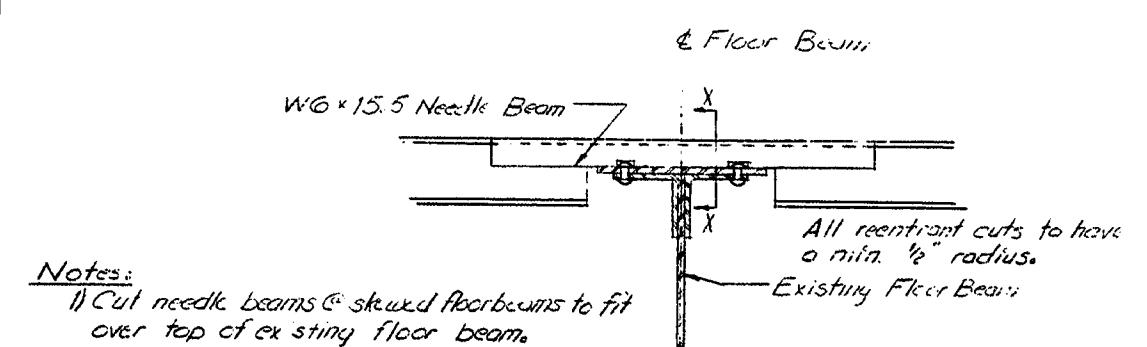
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	# 2016	3	8

DATE	BY	DESIGN - DETAILED	REVISIONS	FIELD CHANGES
7/12	14.11.23			
7/12				
7/12				
7/12				

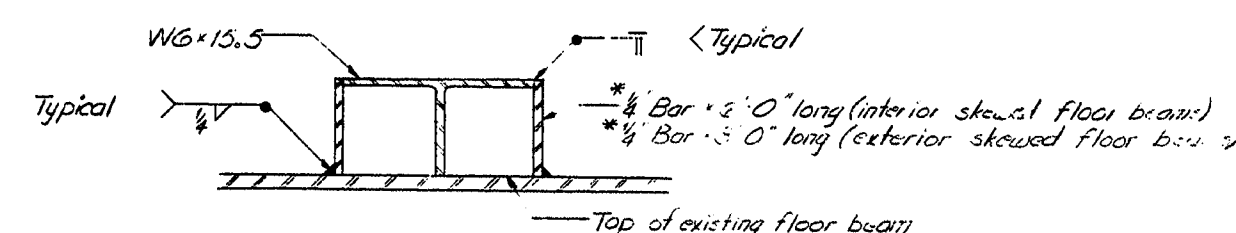


NEEDLE BEAM LAYOUTS

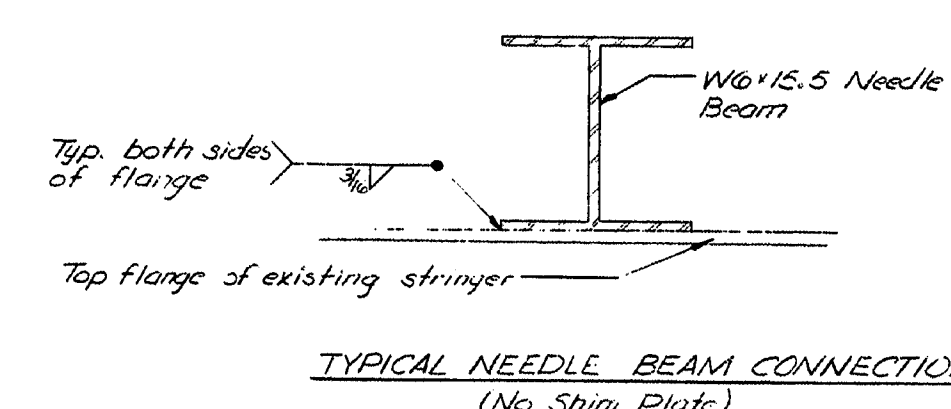
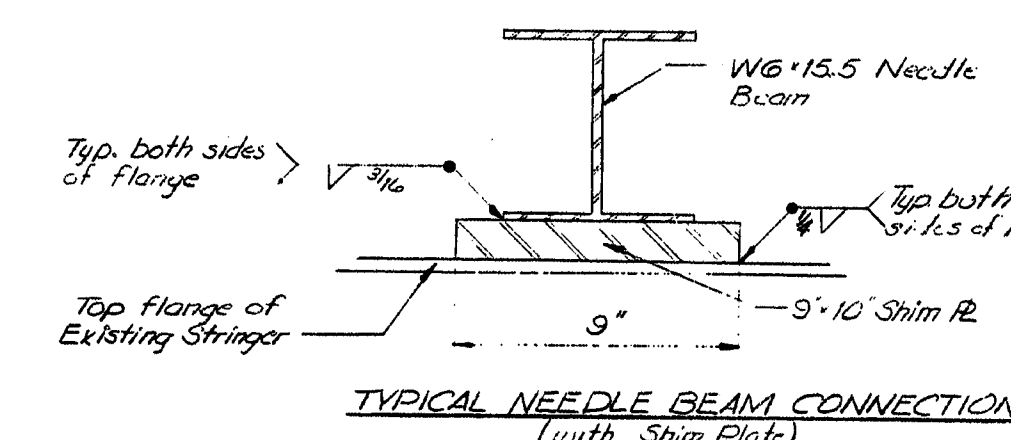
*Structural Steel to be furnished by Contractor under Item 504.75.



TYPICAL NEEDLE BEAM TO FLOOR BEAM CONNECTION



SECTION X-X

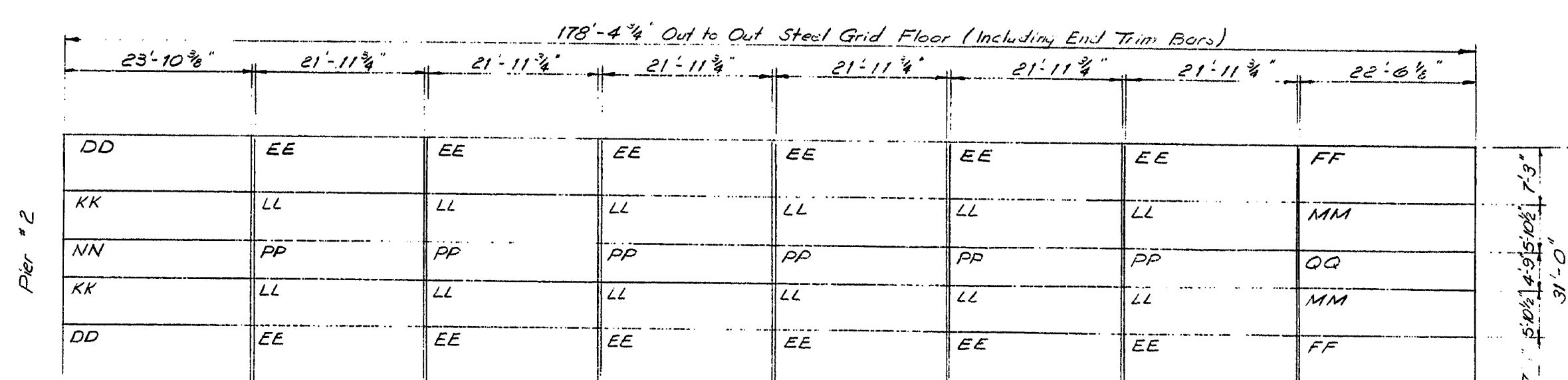
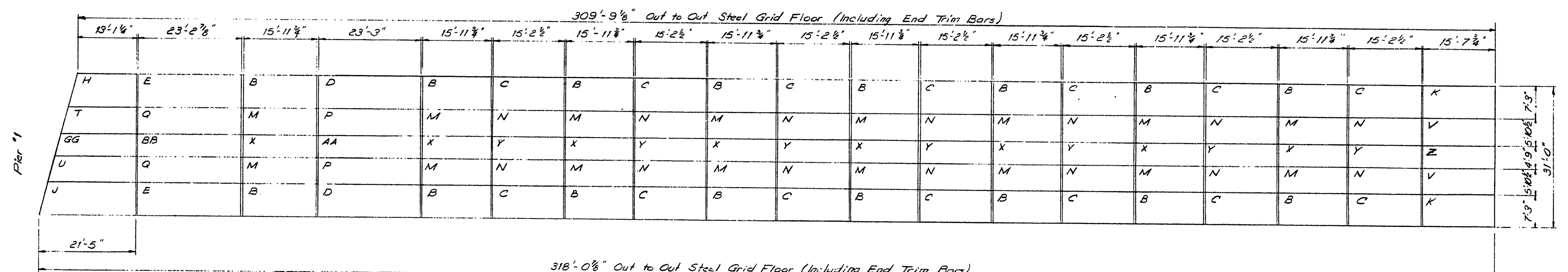


NOTE: When both sides of needle beam flange or shim plate cannot be welded as shown in the above details, a 3/8" fillet weld across the bottom of the bottom flange of shim plate shall be used in lieu of the welds shown in the above details.

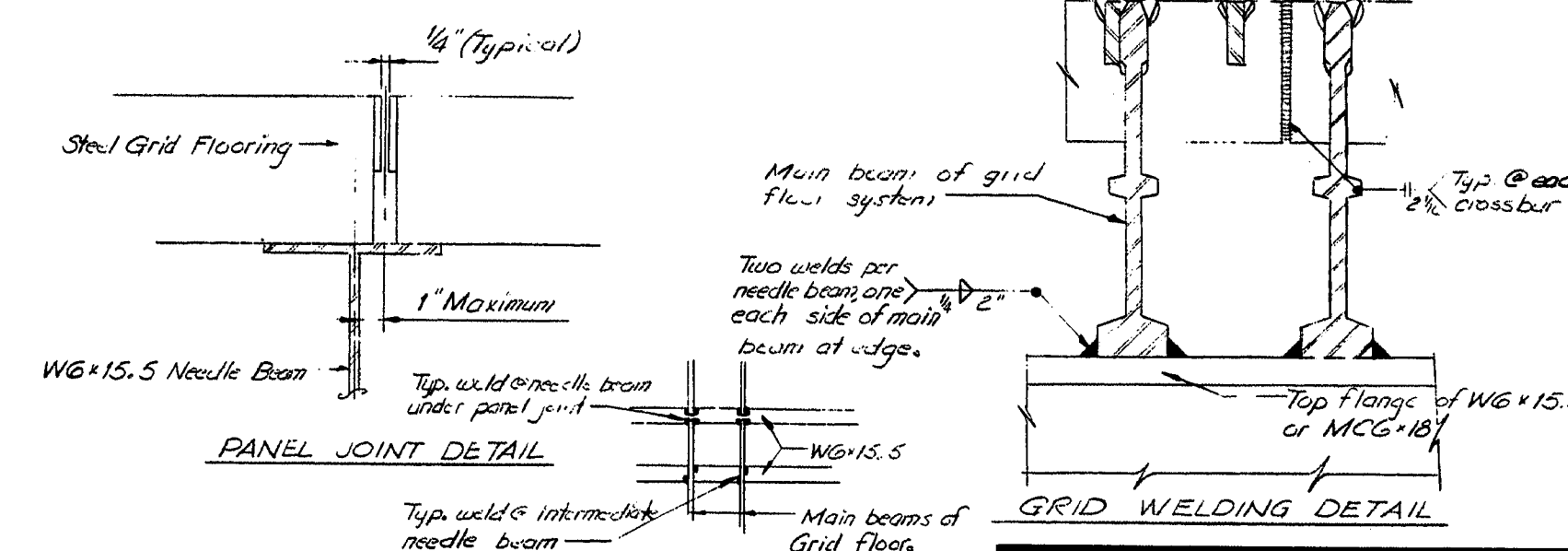
NOTE: 1) Spacing of the needle beams may be varied to provide a needle beam within 1' of each panel joint centerline. See detail on Sheet 4. 2) It is the contractor's responsibility to verify all dimensions in the field.

STATE HIGHWAY COMMISSION
ANDROSCOGGIN RIVER BRIDGE
BETWEEN THE TOWN OF
BRUNSWICK
CUMBERLAND COUNTY
AND THE TOWN OF
TOPSHAM - SAGADAHOC COUNTY
NEEDLE BEAM LAYOUT & DETAILS
SHEET 3 OF 8 AUGUSTA, MAINE FEB. 1972

PLANS	DESIGN - DETAILED	BY	DATE
	CHECKED	A. M. B.	2/72
	REVISIONS	11	2/72
	FIELD CHANGES		



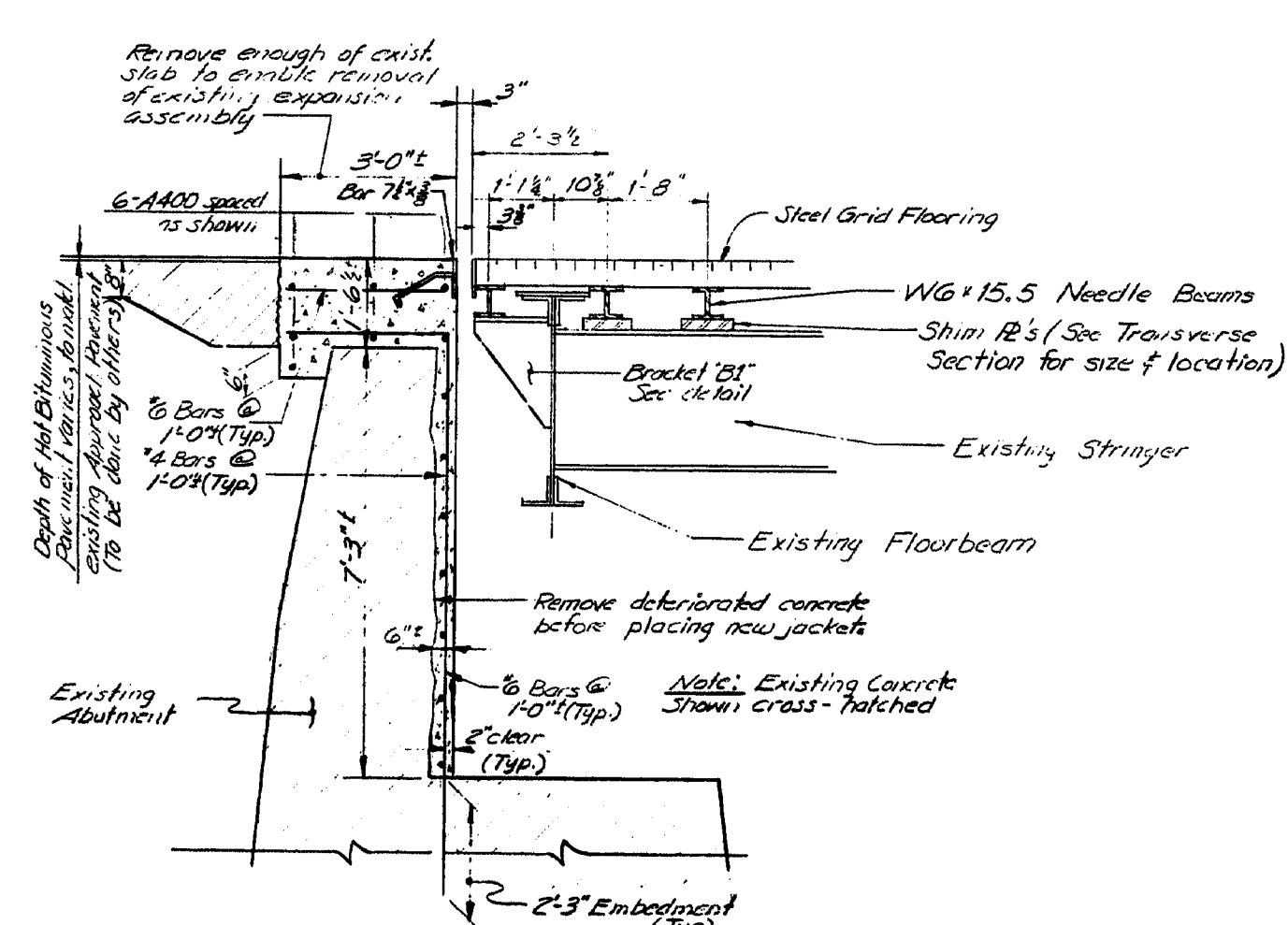
10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846.



NOTE: All panels having erection marks with identical letter prefixes are identical & interchangeable regardless of number suffixes (e.g., panel B1 is interchangeable with panel B2, etc.). Typical for all spans.

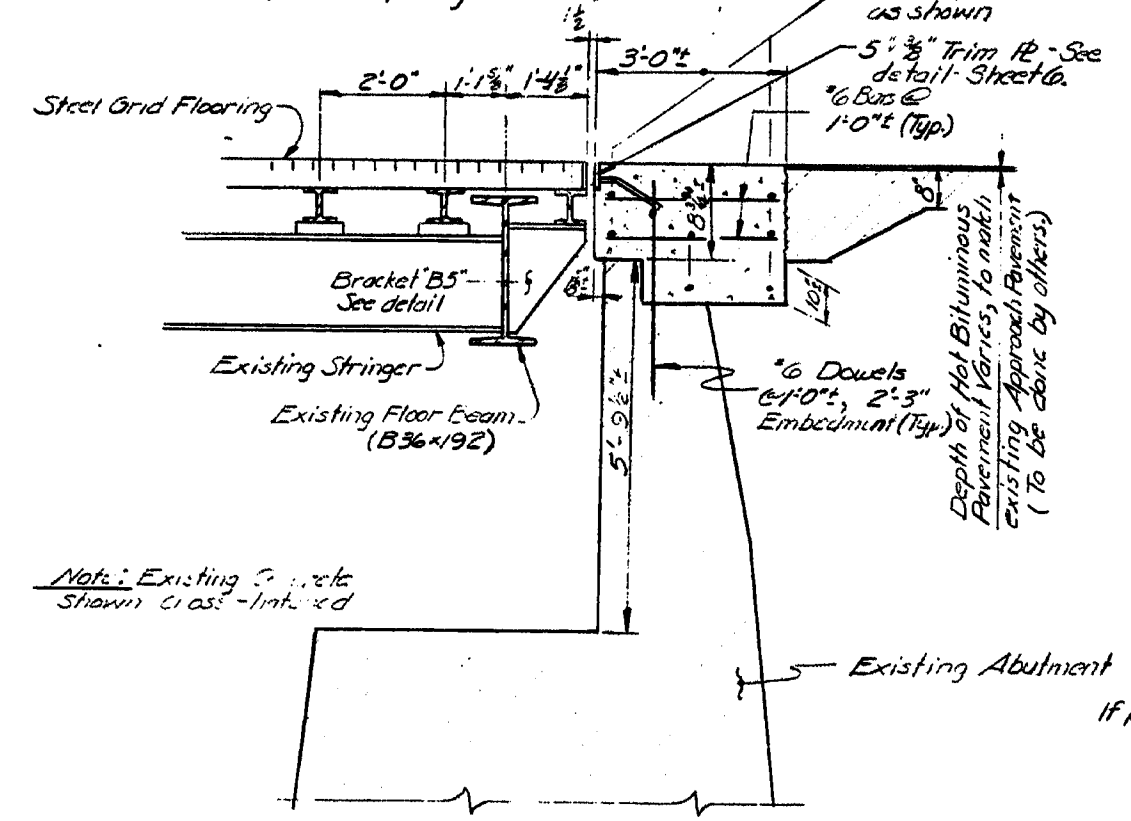
STATE HIGHWAY COMMISSION
ANDROSCOGGIN RIVER BRIDGE
BETWEEN THE TOWN OF
BRUNSWICK
CUMBERLAND COUNTY
AND THE TOWN OF
TOPSHAM - SAGADAHOC COUNTY
GRID FLOOR LAYOUT
SHEET 4 OF 5 AUGUSTA, MAINE FEB. 1972

| DATE | STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|------|-------|----------------|-----------|--------------|
| 1 | MAINE | #2016 | 5 | 8 |

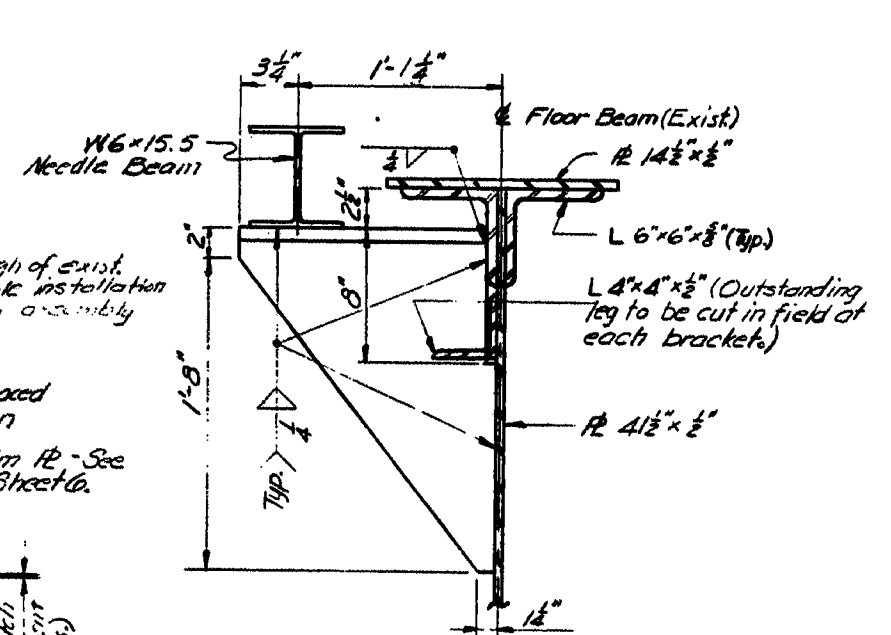


ABUTMENT #1 BRUNSWICK END

NOTE: When removing exist. concrete slab at Abutment #1 & 2, do not remove any existing reinforcement steel. Provide opening in new concrete slab for existing utilities. Place jacket & backfill cap after grid floor is completed on adjacent span in order to maintain expansion opening.

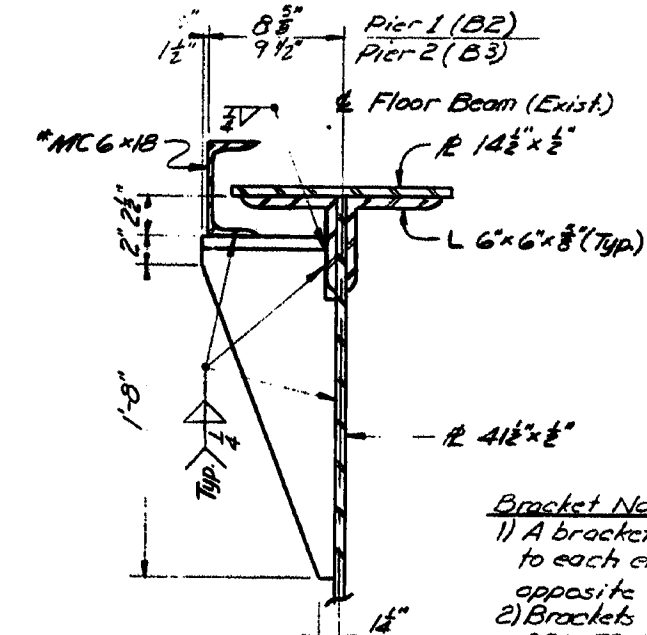


ABUTMENT #2 TOPSHAM END



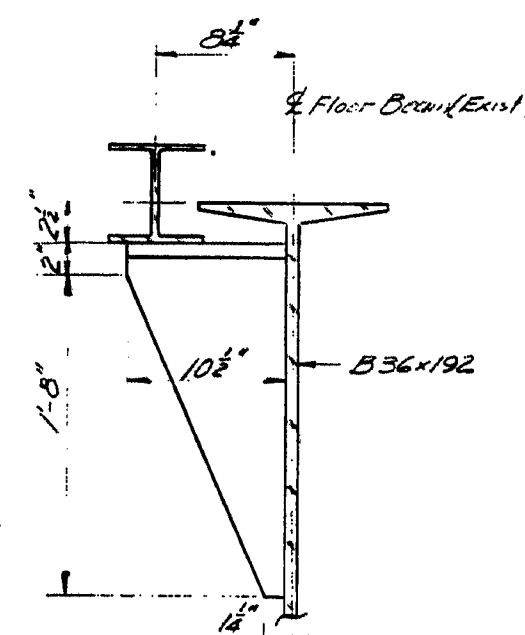
BRACKET "B1"

Abutment 1



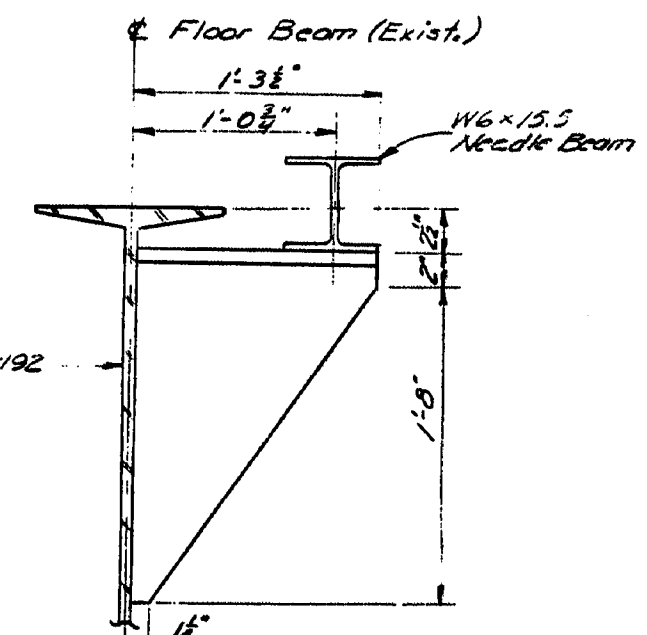
BRACKET "B2 & B3"

Piers 1 & 2



BRACKET "B4"

Pier 2



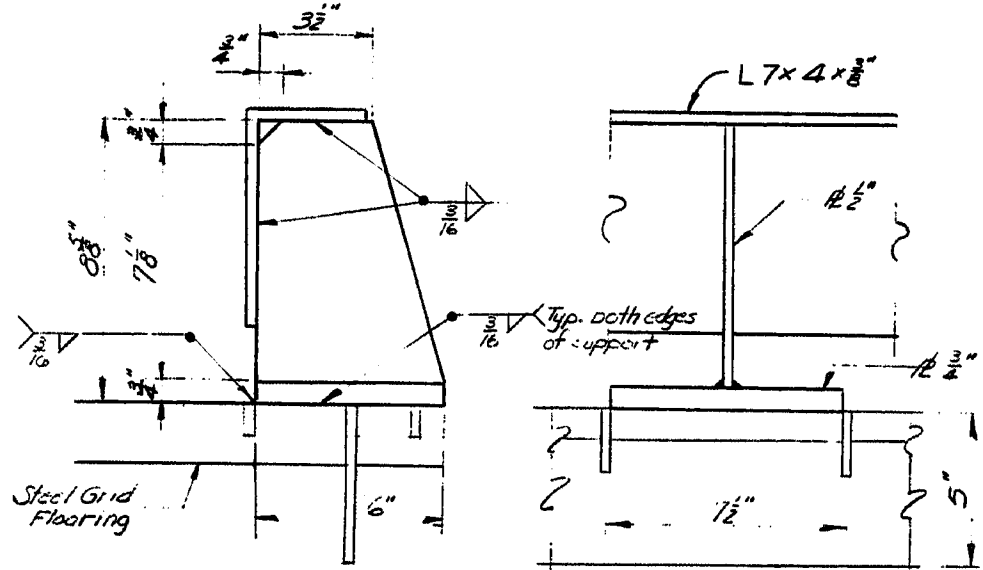
BRACKET "B5"

Abutment 2

Bracket Notes:
1) A bracket shall be welded to each end floor beam opposite each stringer.
2) Brackets were cut from S84 x 79.9 sections.
3) Brackets B1, B2 & B3 are to be notched to clear rivets.

* Structural Steel to be furnished by Contractor under Item 504.75.

Curb Notes:
1) Curb angles will be provided in 20:1 sections. Cut in field to fit.
2) Provide a 2" open expansion joint at piers and adjacent to concrete curbs.
3) Curb angle supports shall be spaced at 3'-10". A support shall be used within 1' of expansion joints & concrete curbs.
4) 30" angle sections shall be built welded to form a unit, using angle between expansion joints.

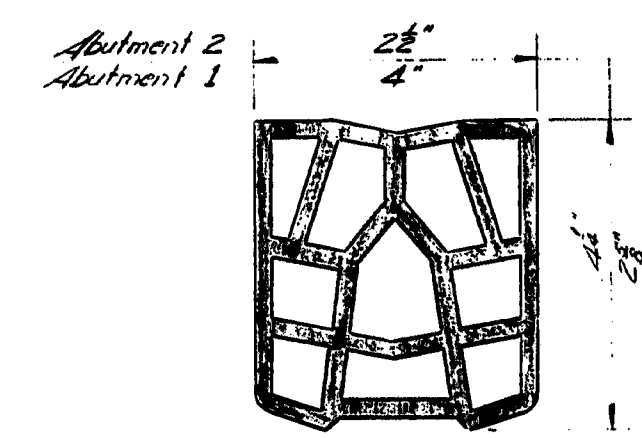
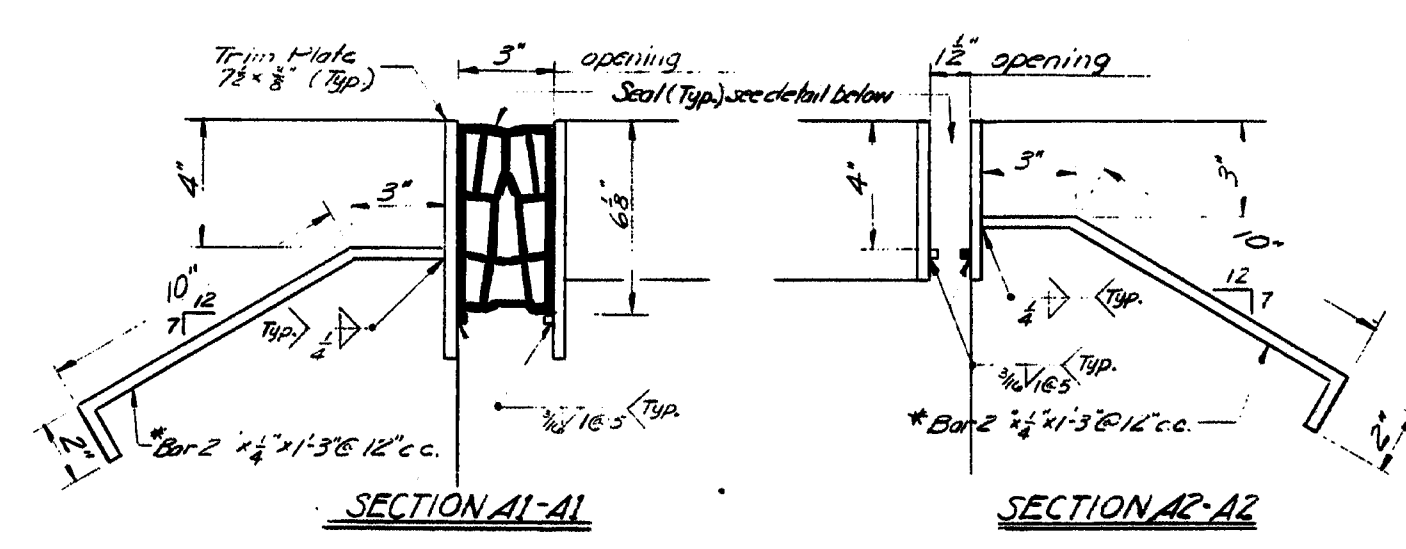
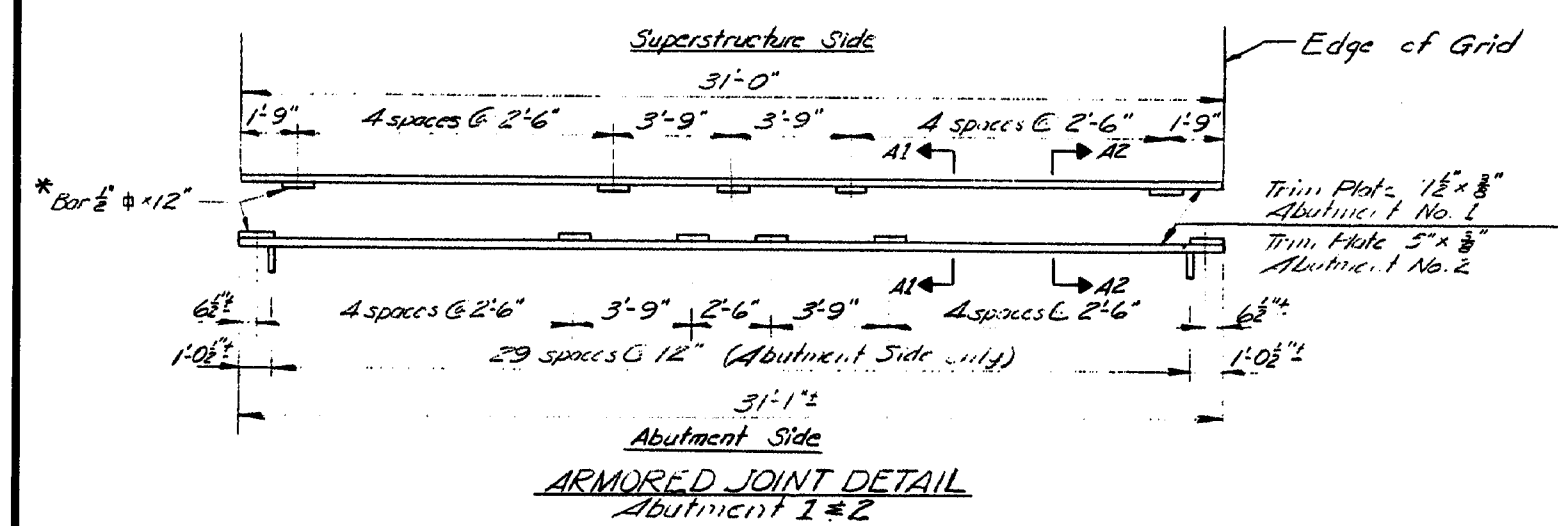


CURB-ANGLE SUPPORT

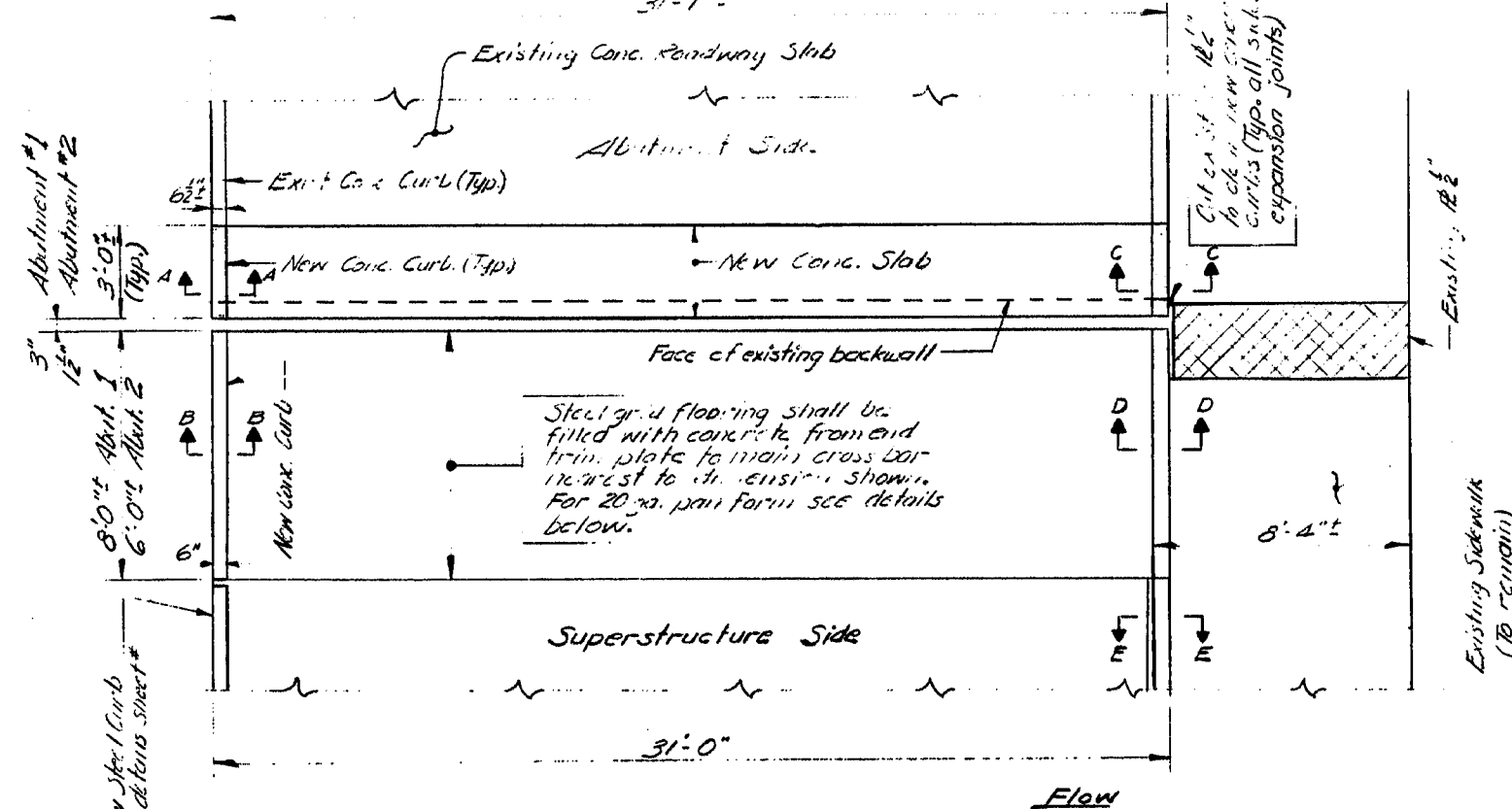
STATE HIGHWAY COMMISSION
ANDROSCOGGIN RIVER BRIDGE
BETWEEN THE TOWN OF
BRUNSWICK
CUMBERLAND COUNTY
AND THE TOWN OF
TOPSHAM - SAGadahoc COUNTY
BRACKET DETAILS
SHEET 5 OF 6 AUGUSTA, MAINE FEB. 1972

143-183

| R.P.R. | STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|--------|-------|----------------|-----------|--------------|
| 1 | MAINE | #2016 | 6 | 8 |

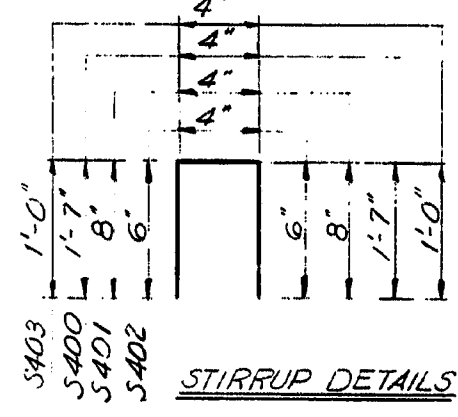


NOTE: The configuration of the preformed elastic joint sealer shall be as shown on the drawing. It shall be installed in the joint between the bridge deck and the abutment. The sealer shall be installed in the joint between the bridge deck and the abutment. The sealer shall be installed in the joint between the bridge deck and the abutment.

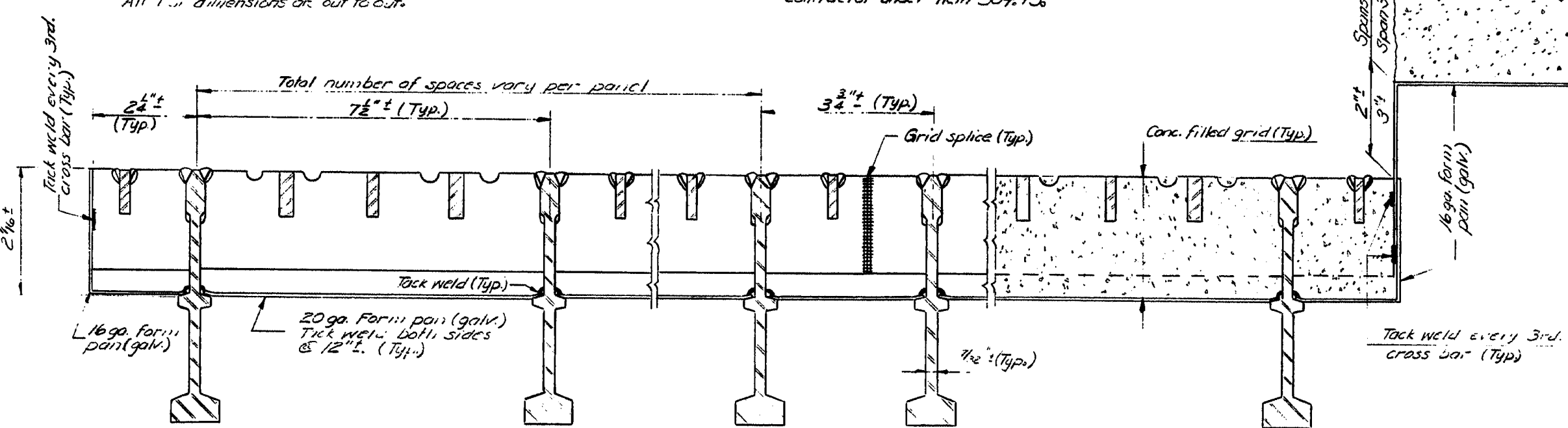


PLAN - ABUTMENT NO. 1
Abutment 1 typical except as noted

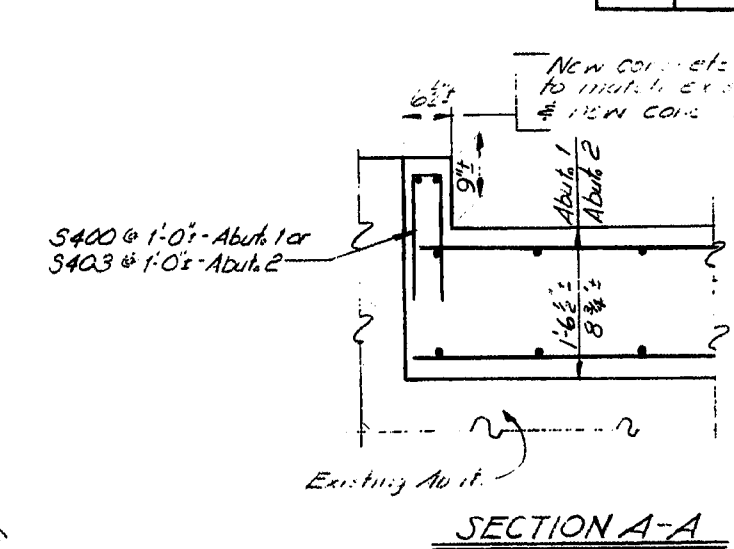
NOTES
New curb contraction joints are to be spaced to match existing joints in concrete roadway slab.
New reinforcing bars for curbs to be cut in the field except curb stirrups which may be placed in the field.
All new & existing curb faces to be in alignment.
Apply Protective Coating for Concrete Surfaces to all exposed new concrete.
Initial cut for concrete curb removal to be made with a diamond blade saw or other tool that leaves a straight smooth cut.
All reinforcing steel to have 2" clear cover unless noted otherwise.



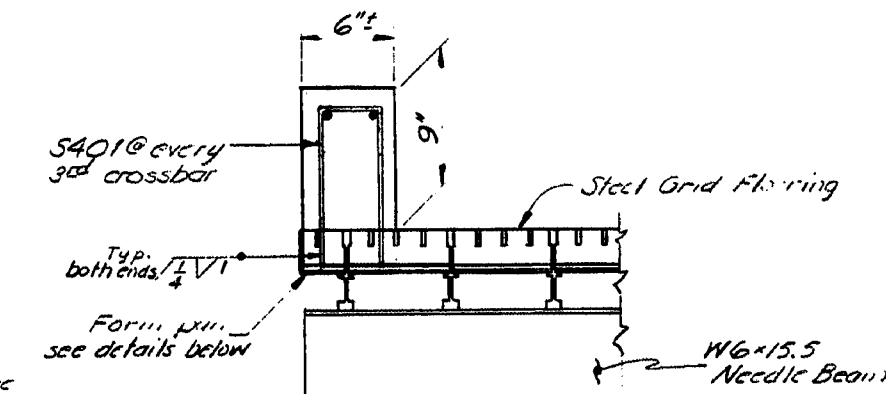
All stirrups are to be fabricated from #4 bars.
All 1" dimensions are out to out.



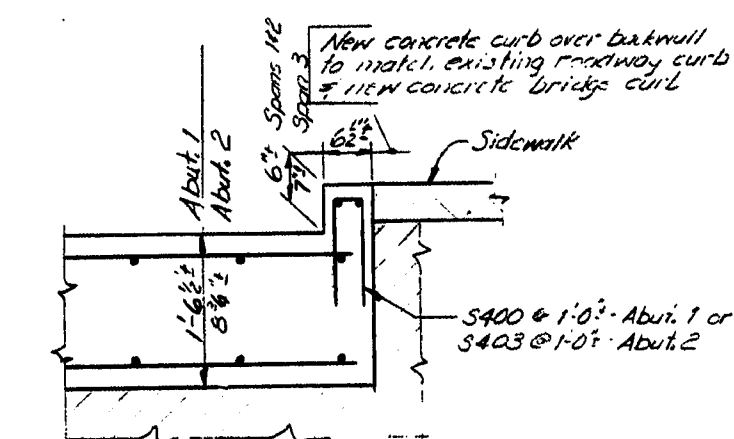
GRID FORM PAN DETAILS



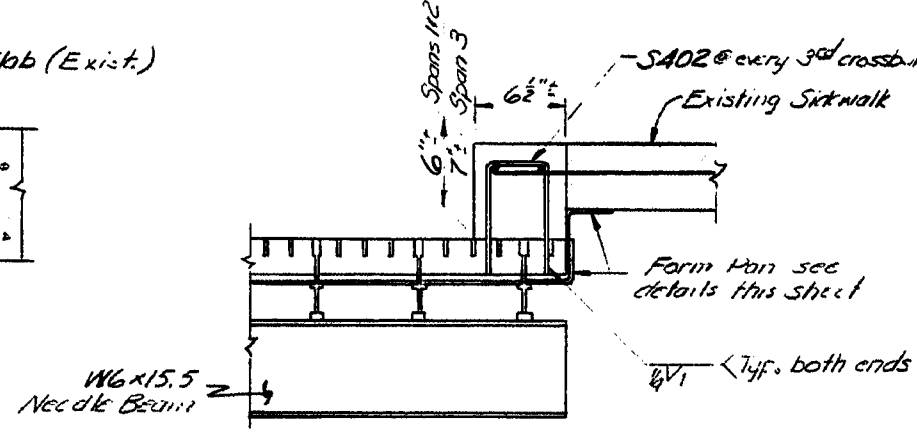
SECTION A-A



SECTION B-B

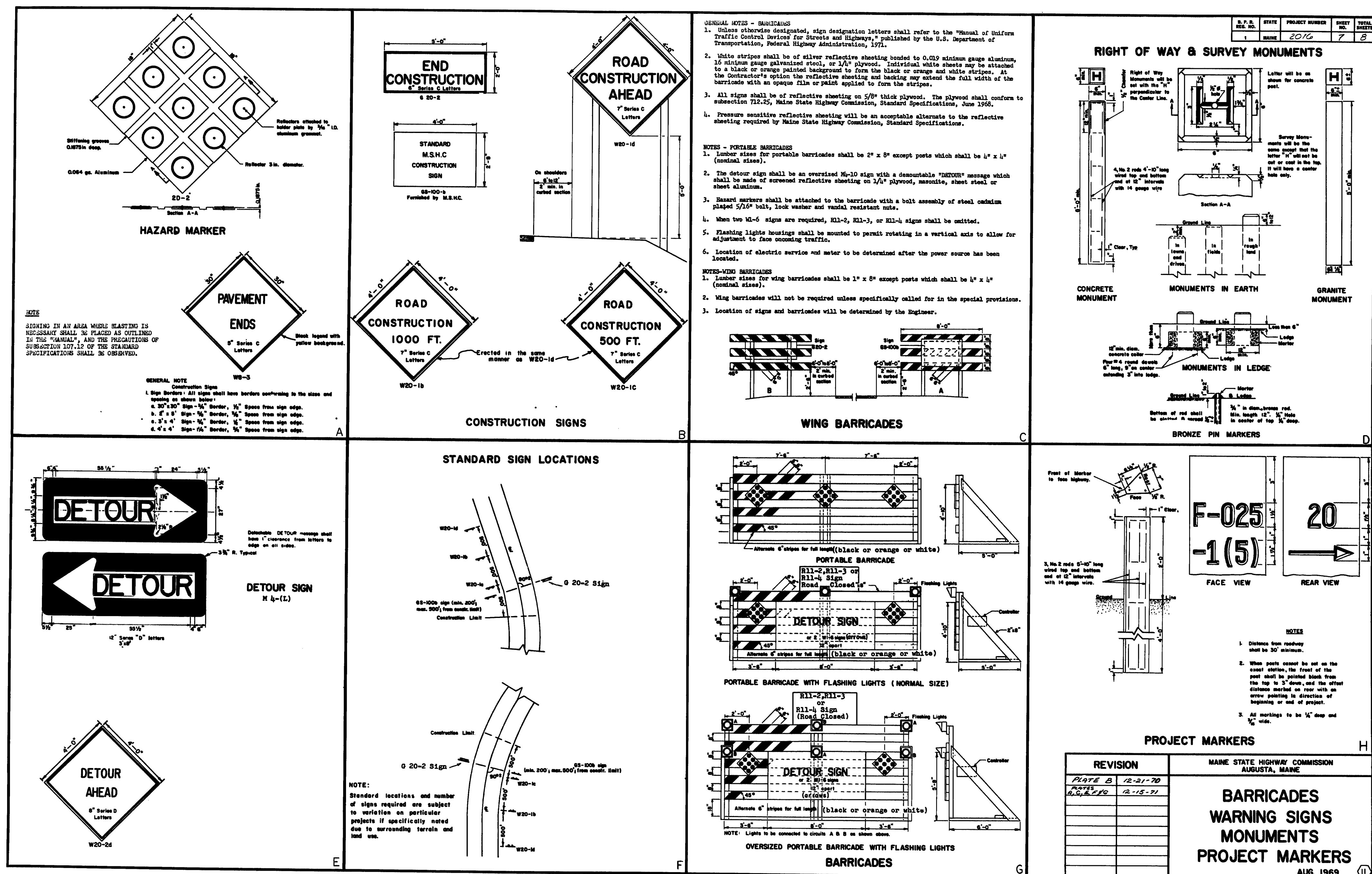


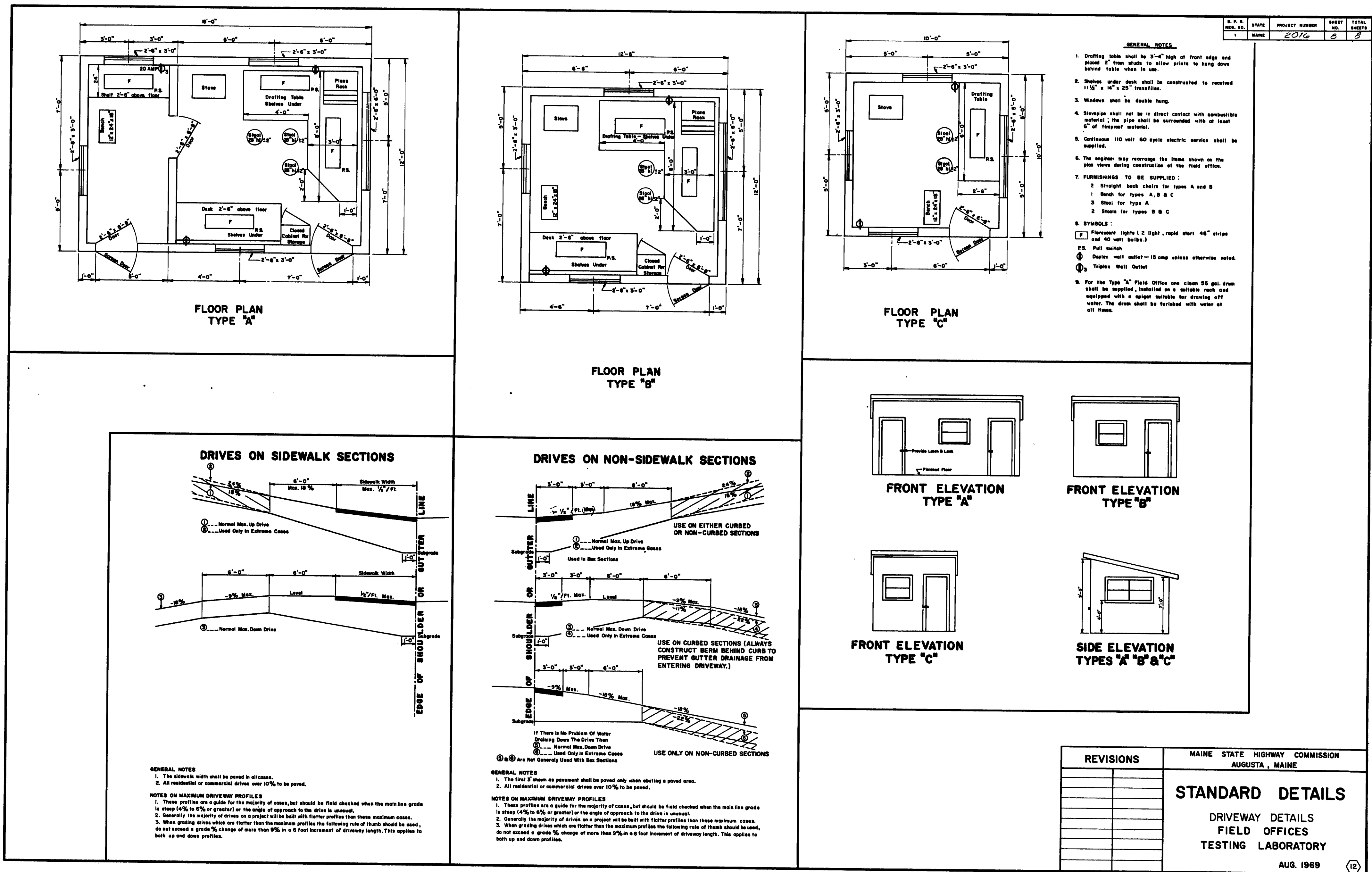
SECTION C-C



SECTION D-D

STATE HIGHWAY COMMISSION
ANDROSCOGGIN RIVER BRIDGE
BETWEEN THE TOWN OF
BRUNSWICK
CUMBERLAND COUNTY
AND THE TOWN OF
TOPSHAM - SAGadahoc COUNTY
ARMORED JOINTS AND
CURB DETAILS
SHEET 6 OF 6 AUGUSTA, MAINE FEB. 1972





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



PLANS
BUREAU OF HIGHWAYS
REHABILITATION
OF THE BRIDGE DECK

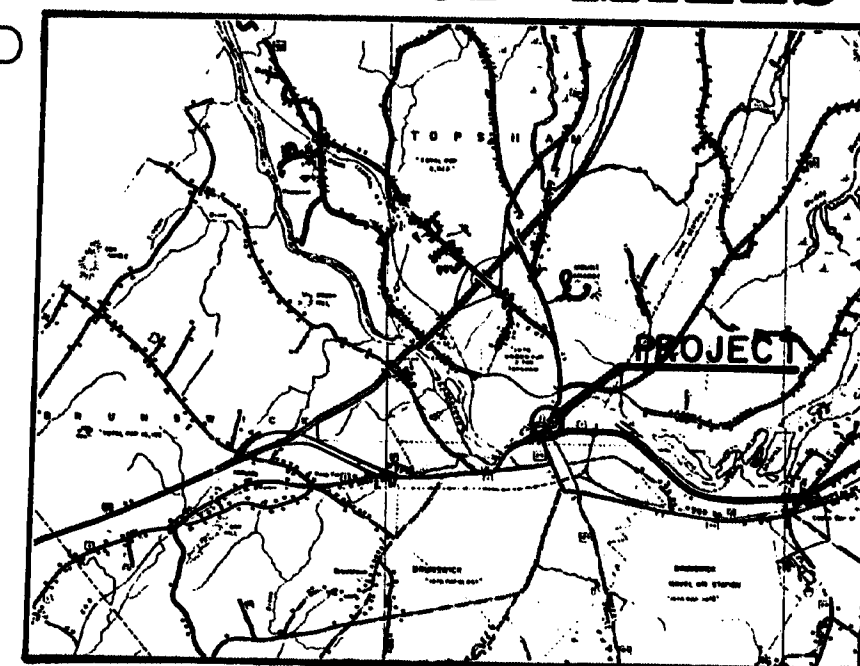
ON THE
ANDROSCOGGIN RIVER BRIDGE
OVER

ANDROSCOGGIN RIVER
BETWEEN THE TOWNS OF
BRUNSWICK-CUMBERLAND COUNTY
TOPSHAM - SAGADAHOC COUNTY

PROJECT NO. F-017-11531

PROJECT LENGTH 0.162 MILES

PROJECT COMPLETED
1986



Scale
1" = 1/4" MILE

LOCATION MAP

NOTE

All work contemplated under this contract to be governed by and in conformity with the STANDARD SPECIFICATIONS (revision of January 1984) and supplements thereto, except as modified on the plans and in the special provisions.

ESTIMATED QUANTITIES

| ITEM NO. | DESCRIPTION | QUANT. | UNIT |
|----------|--|--------|------|
| 403.08 | Hot Bituminous Pavement, Grading C | 270 | Tons |
| 410.15 | Emulsified Asphalt, Applied | 250 | Gal |
| 502.39 | Concrete Fill for Steel Grid | 369 | C.Y. |
| 506.142 | Field Painting Existing Structural Steel | 1 | L.S. |
| 506.16 | Surface Preparation of Existing Structural Steel | 1000 | M.H. |
| 514.06 | Curing Box for Concrete Cylinders | 1 | Each |
| 520.25 | Bridge Joint Modifications | 1 | LS |
| 523.25 | Expansion Bearing Modifications | 1 | LS |
| 526.301 | Temporary Concrete Barrier, Type I | 1 | LS |
| 527.31 | Energy Absorbing Unit - Temporary | 4 | Each |
| 627.61 | 4 Inch Solid White Pavement Marking Line | 1650 | LF |
| 627.63 | 4 Inch Solid Yellow Pavement Marking Line | 1650 | LF |
| 627.68 | Temp 4 Inch Painted Pavement Marking Line, Yellow or White | 5000 | LF |
| 629.05 | Hand Labor, Straight Time | 40 | MH |
| 631.10 | Air Compressor (Including Operator) | 210 | HR |
| 631.11 | Air Tool (Including Operator) | 10 | HR |
| 631.30 | Cutting Torch (Including Operator) | 20 | MH |
| 631.33 | Welding Machine (Including Operator) | 200 | MH |
| 631.34 | Grinder (Including Operator) | 50 | MH |
| 631.35 | Sand Blaster (Including Operator) | 200 | MH |
| 631.19 | Field Office Type B | 1 | Each |
| 652.31 | Type I Barricade | 25 | Each |
| 652.33 | Drum | 35 | Each |
| 652.34 | Cone | 30 | Each |
| 652.35 | Construction Signs | 250 | S.F. |
| 652.361 | Maintenance of Traffic Control Devices | 1 | L.S. |
| 652.37 | Warning Lights | 2 | GRP. |
| 652.38 | Flagger | 700 | MH. |
| 659.10 | Mobilization | 1 | L.S. |

| CONVENTIONAL SIGNS | |
|-------------------------------------|-----|
| COUNTY LINES | --- |
| TOWN LINES | --- |
| PROPERTY LINES | --- |
| R/W LINES - EXISTING | --- |
| R/W LINES - NEW - ACCESS CONTROL | --- |
| R/W LINES - NEW - NO ACCESS CONTROL | --- |
| CULVERT - EXISTING | --- |
| CULVERT - PROPOSED | --- |
| CURBING - EXISTING | --- |
| CURBING - PROPOSED | --- |
| TRAVELLED WAY - EXISTING | --- |
| TRAVELLED WAY - PROPOSED | --- |
| UNDERGROUND UTILITIES - EXISTING | --- |
| UNDERGROUND UTILITIES - PROPOSED | --- |
| RAILROAD - SINGLE TRACK | --- |
| RAILROAD - DOUBLE TRACK | --- |
| UTILITY POLE - EXISTING | --- |
| UTILITY POLE - JOINT OCCUPANCY | --- |
| PROPOSED UTILITY POLE - TEMPORARY | --- |
| PROPOSED UTILITY POLE - PERMANENT | --- |
| TREES | --- |
| WOODS | --- |

INDEX OF SHEETS

| DESCRIPTION | SHEET NO. |
|------------------------|-----------|
| TITLE SHEET | 1 |
| FLOOR MODIFICATION | 2 8 3 |
| BEARING DETAILS | 4 |
| MAINTENANCE OF TRAFFIC | 5 - 7 |

SPECIFICATIONS

DESIGN: LOAD FACTOR DESIGN PER AASHTO STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES 1983

CONTRACT: STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, REVISION OF JANUARY 1984.

MATERIALS

STRUCTURAL STEEL: ASTM A36
CONCRETE: CLASS AA(H.E.)

BASIC ALLOWABLE STRESS

STRUCTURAL STEEL F_y 36,000 psi
CONCRETE f'_c 4000 psi

DESIGN LOADING

LIVE LOAD HS 20

Plans of the existing bridge are available for the contractor's reference at the Bridge Design Office in Augusta. The plans are reproductions of original drawings as prepared for the construction of the bridge and it is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.

TRAFFIC DATA

A.D.T. 1984-23450
A.D.T. 2004-32980
D.H.V. 3298
T.(%) 7
D.(%) 54
V. _____
P.S.D.(%) _____
18 KIPS P2.5422

APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

5-22-85

Richard Cramon
CHIEF ENGINEER

5-22-85

Revised AS BUILTS 3-1-90

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

REGION 1

APPROVED: 99-394

DIVISION ADMINISTRATOR DATE

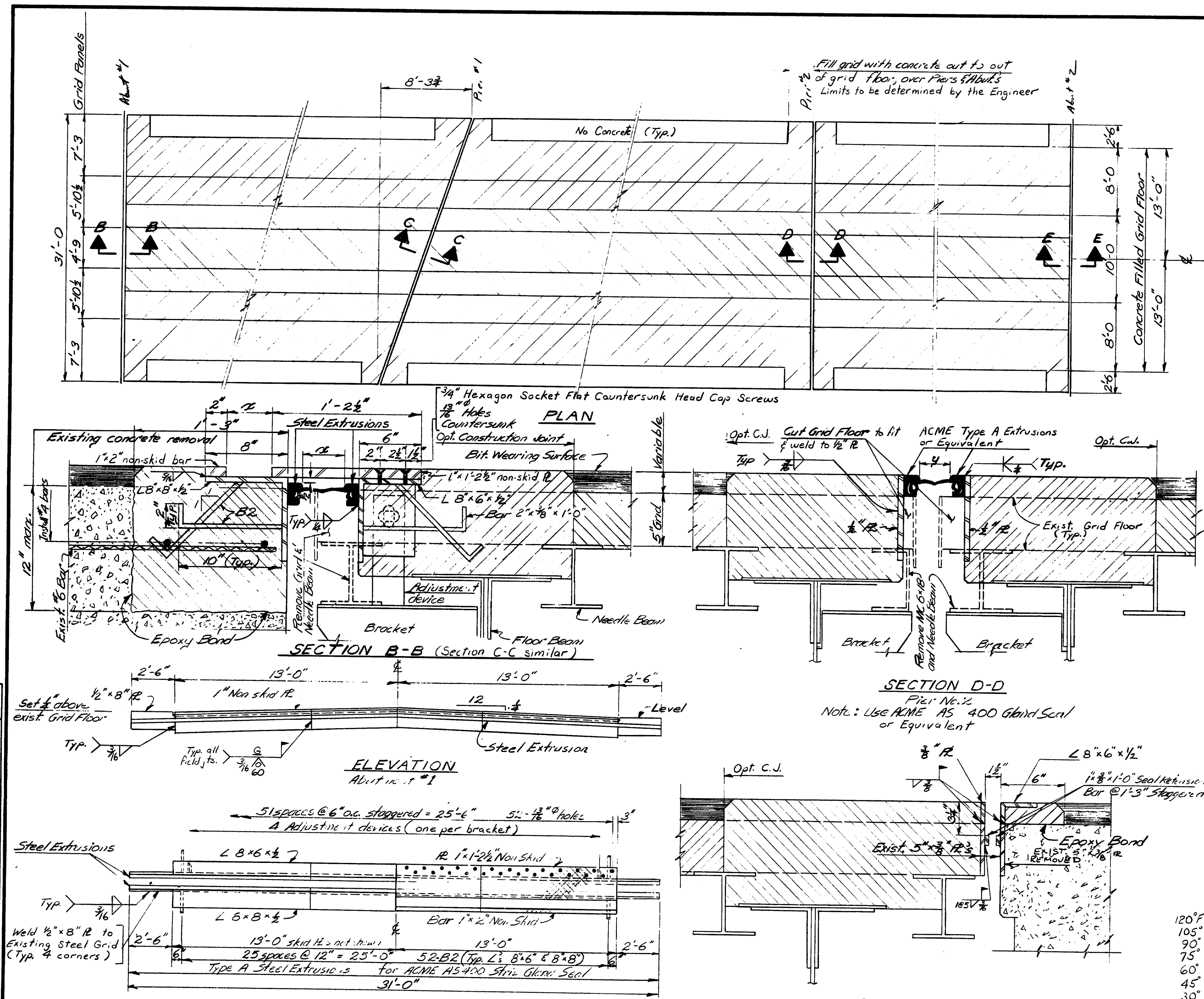
[illegible]

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ANDROSCOGGIN RIVER BRIDGE
OVER
ANDROSCOGGIN RIVER
BETWEEN THE TOWNS OF
BRUNSWICK - CUMBERLAND CO.
AND
TOPSHAM - SAGadahoc CO.
FLOOR MODIFICATION
AUGUSTA, MAINE May 1985

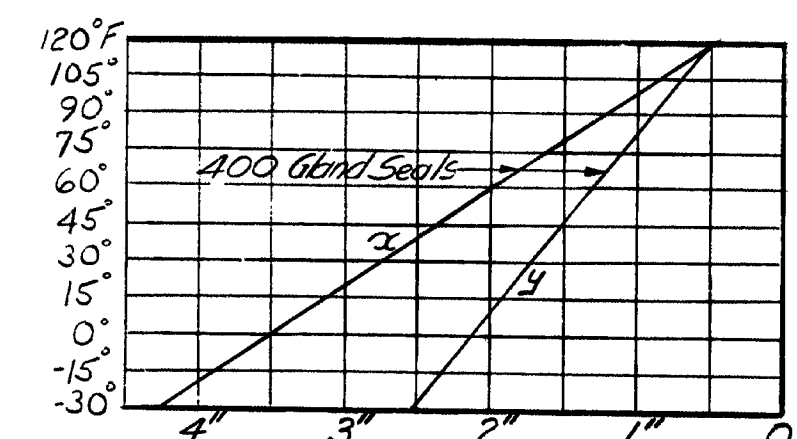
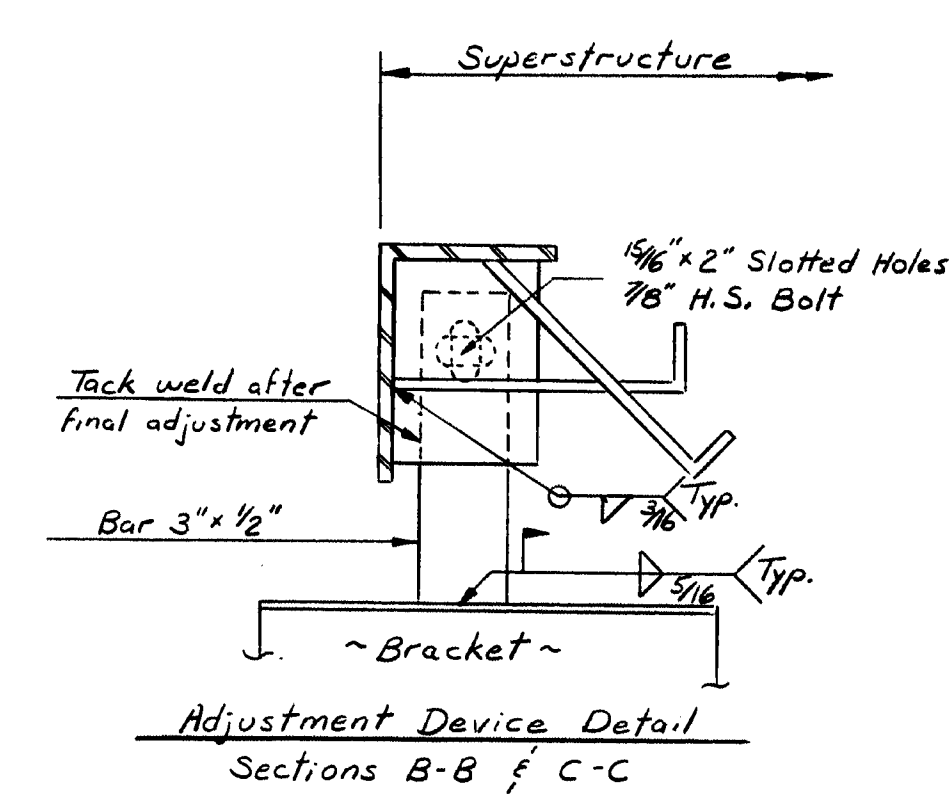
- ## CONSTRUCTION SEQUENCE
- STAGE 1 - Close a 10 foot lane (6 p.m. to 6 a.m.)
Modify the expansion bearings
Modify the bridge joints
Repairing and cleaning the grid floor,
erecting forms and placing concrete can be
done before, after or concurrently with
the bearing and joint work.
 - STAGE 2 - Close the second 10 foot lane and proceed as
in Stage 1.
 - STAGE 3 - Close the remaining 10 foot lane and proceed
as in Stage 1.
 - STAGE 4 - Install gland seals and the compression seal, and
pave the 26 foot roadway.
- incidental or related contract items.
- 10.- Shim 25 feet of approaches at each end of the bridge to
transition the existing roadway to the new bridge template
as directed by the Engineer. Payment for all work and
materials will be paid for under Items 403.08 and 410.15.
 - 11.- Both expansion bearings of a span must be in their
final position before the expansion joints are installed.
 - 12.- An alternate construction sequence may be used if
previously approved by the Engineer.
 - 13.- Dimensions shown shall be verified in the field prior
to any fabrication of structural steel.
- Utilities: Central Maine Power Co,
New England Telephone
Brunswick and Topsham Water Co.
Cassco Cable, T.V.

| F.R.A. | STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|--------|-------|----------------|-----------|--------------|
| 1 | MAINE | F017-1153 | 3 | 7 |



BRIDGE JOINT NOTES

1. Remove sections of the steel grid as required to clear the expansion joint anchors and adjustment devices as directed by the Engineer.
2. Payment for all work and materials indicated on this sheet and related to the installation of the bridge joints shall be paid for under the lump sum Item 520.25, Bridge Joint Modifications, except as noted below.
3. The dimensions shown on the plan shall be verified in the field before fabricating the steel plates.
4. All new concrete shall be bonded to the existing concrete with an epoxy resin material specifically designed to bond fresh concrete to hardened concrete. The surface of the existing concrete shall be cleaned and prepared in accordance with the manufacturers recommendations. Payment for all work and materials shall be considered incidental to related contract items.
5. Payment for all work and materials for the installation of the #4 reinf. bars in Abutment #1 (See Section B-B) and the replacement of any reinforcing steel damaged during the removal of concrete shall be considered incidental to related contract items. Reinforcing steel shall conform to ASTM A615 Grade 60.
6. Payment for all concrete related to the installation of the bridge joints shall be paid for under Item 502.39, Concrete Fill for Steel Grid.



Revised AS BUILT'S M&B 3-1-90

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ANDROSCOGGIN RIVER BRIDGE
OVER
ANDROSCOGGIN RIVER
BETWEEN THE TOWNS OF
BRUNSWICK - CUMBERLAND CO.
AND
TOPSHAM - SAGadahoc CO.
FLOOR MODIFICATION
AUGUSTA, MAINE May 1985

| PROJECT DESIGN ENGINEER | DATE |
|-------------------------|------|
| DESIGN - DETAILED | 5/25 |
| CHECKED | 6/26 |
| FIELD CHANGES | |

BRUNSWICK 44-132 407101

SECTION E-E
Abut. No. 2
Note: Use ACME J-250 Seal or Equivalent.

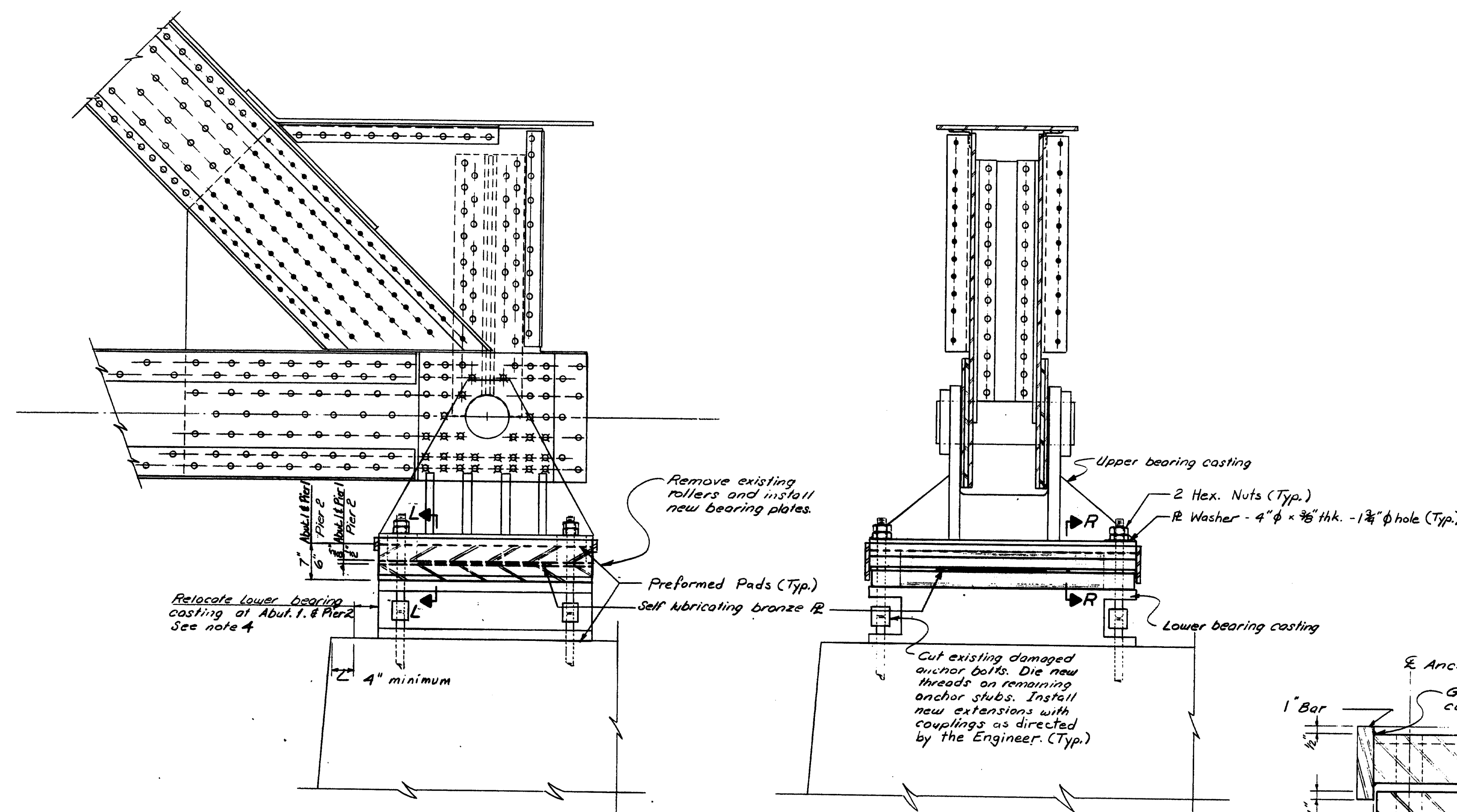
PLAN AT ABUTMENT #1
Pier No. 1 similar (Skewed)
Note: Use ACME AS 400 Strip Gland Seal for Abut. #1 & Pier #1 or Equivalent

99-396

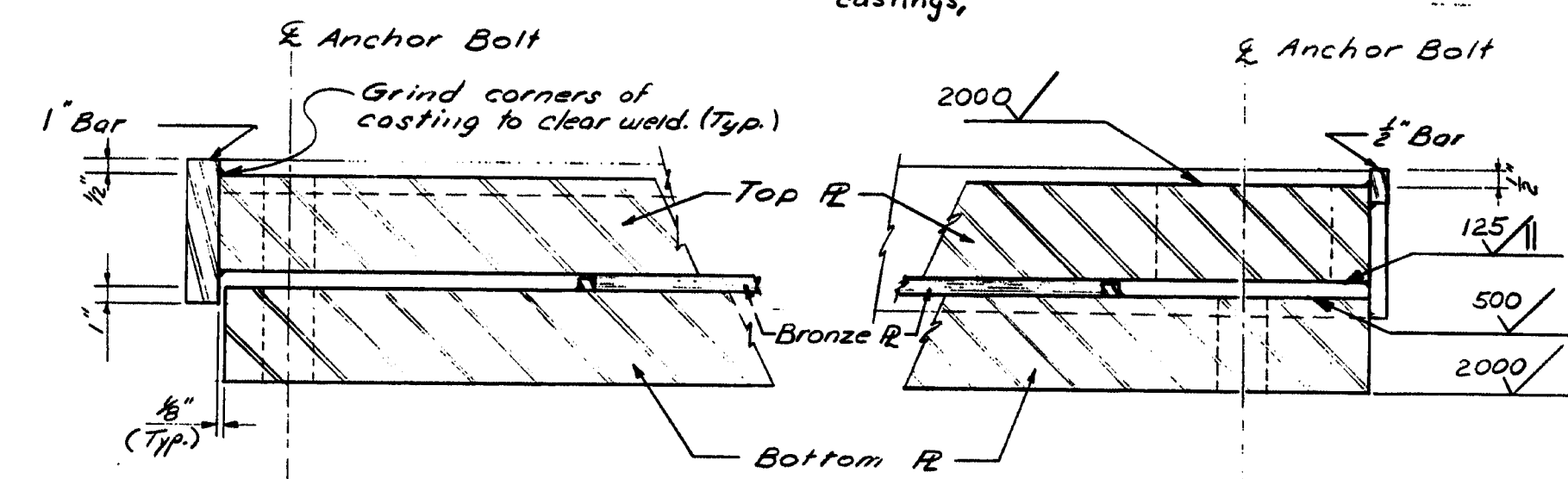
| REV. NO. | DATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|----------|------|----------------|-----------|--------------|
| 1 | | F-017-1(53) | 4 | 7 |

BEARING NOTES

1. A jacking proposal shall be submitted to the Engineer for approval before any jacking is done. A temporary stiffening system shall be designed to adequately distribute the stresses introduced into the truss members due to jacking. Jacking shall be limited to a maximum of $\frac{1}{2}$ unless otherwise directed by the Engineer.
2. Remove rollers and the lower bearing castings and clean castings by sand blasting. Machine the top bearing surface of the lower bearing castings and shim the upper bearing castings to assure the proper alignment of the new plates with the castings as directed by the Engineer. At the contractor's option, the lower bearing castings may be replaced with new steel plates or reinforced concrete pedestals. The method of replacing the lower bearing castings shall be submitted to the Engineer for approval before any jacking is done.
3. The concrete bearing area will be checked prior to reassembly of the bearings and an approved levelling epoxy grout shall be used to dress the area, if required, as determined by the Engineer.
4. The lower bearing castings on Abut. 1 & Pier 2 shall be moved so that the respective bearings of the upper and lower bearing castings are aligned at 45° F. Use the chart on sheet 3 to determine the proper relative adjustment between the castings. In no case shall the lower casting be set closer than 4" to the face of the abutment.
5. Drill and grout new anchor bolts for the relocated bearings of abutment 1 & pier 2. Supply $\frac{1}{2}$ " anchor bolts, hex. nuts and washers and provide 1'-3" of embedment.
6. Payment for all work and materials indicated on this sheet shall be paid for under the lump sum Item 523.25, Expansion Bearing Modifications.
7. The dimensions shown on the plan shall be verified in the field before fabricating the top and bottom plates to ensure a proper fit with the existing castings.

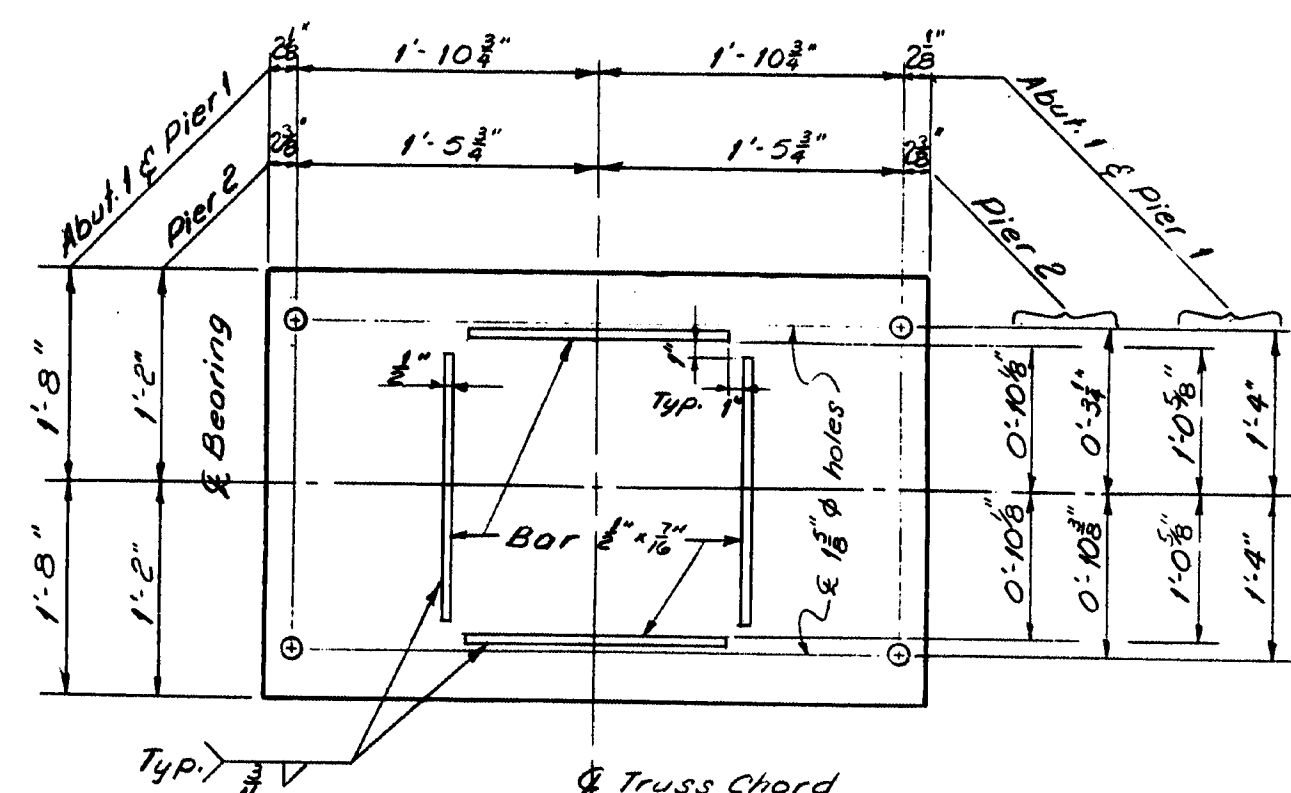


BEARING REHABILITATION DETAILS



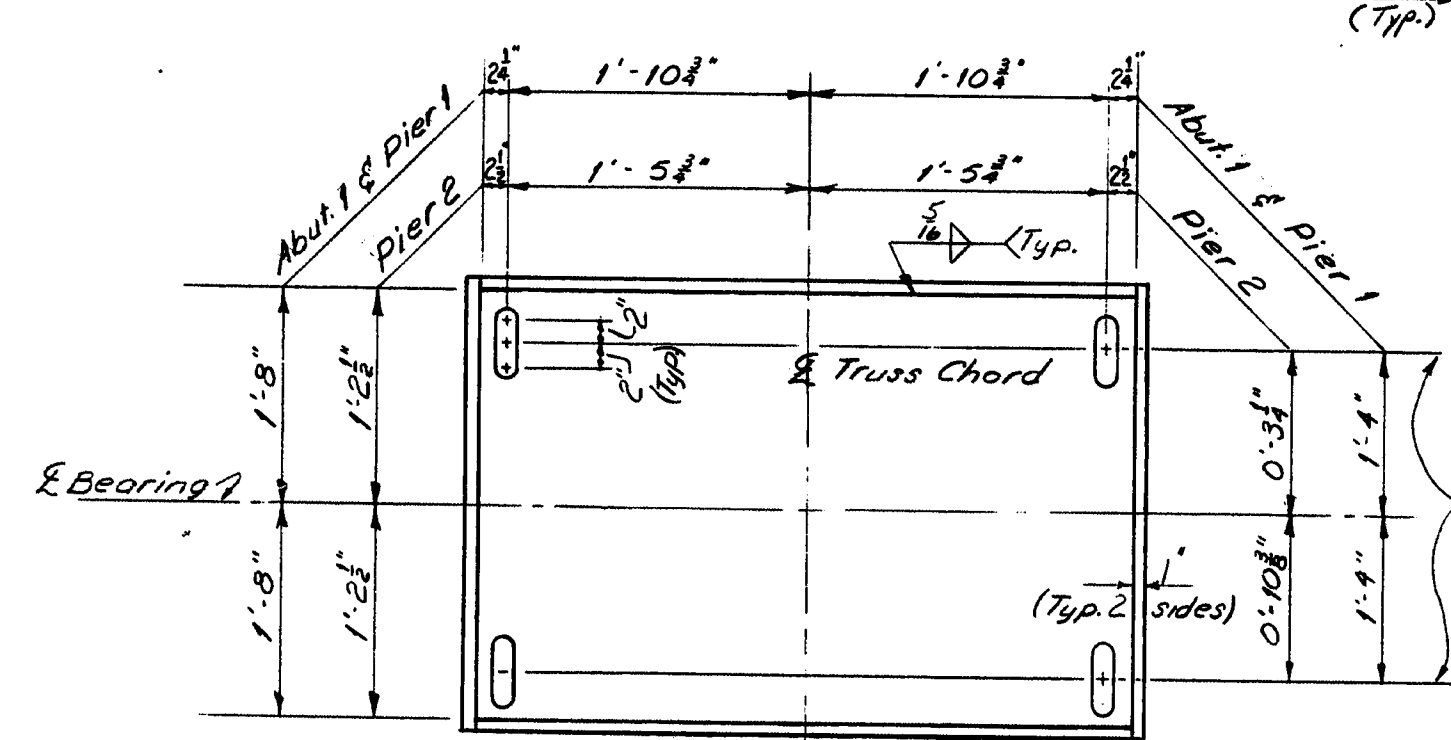
SECTION L-L

SECTION R-R



BOTTOM PLATE
 Abut. 1 & Pier 1 - 4 req. $\frac{3}{8}$ " R Thickness
 Pier 2 - 2 req. $\frac{3}{8}$ " R Thickness

Self Lubricating Bronze Rs
 6 required
 4 - 25" x 25" x $\frac{3}{8}$ " Abut. 1 & Pier 1
 2 - 20" x 20" x $\frac{3}{8}$ " Pier 2



TOP PLATE
 Abut. 1 & Pier 1 - 4 req. $\frac{3}{8}$ " R Thickness
 Pier 2 - 2 req. $\frac{3}{8}$ " R Thickness

A.S.T.M. STEEL CLASSIFICATION
 Charpy V-Notch tests are not required for steel used in bearing pedestals.

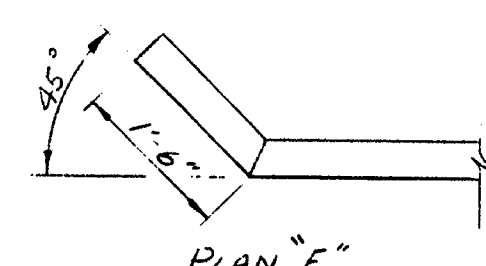
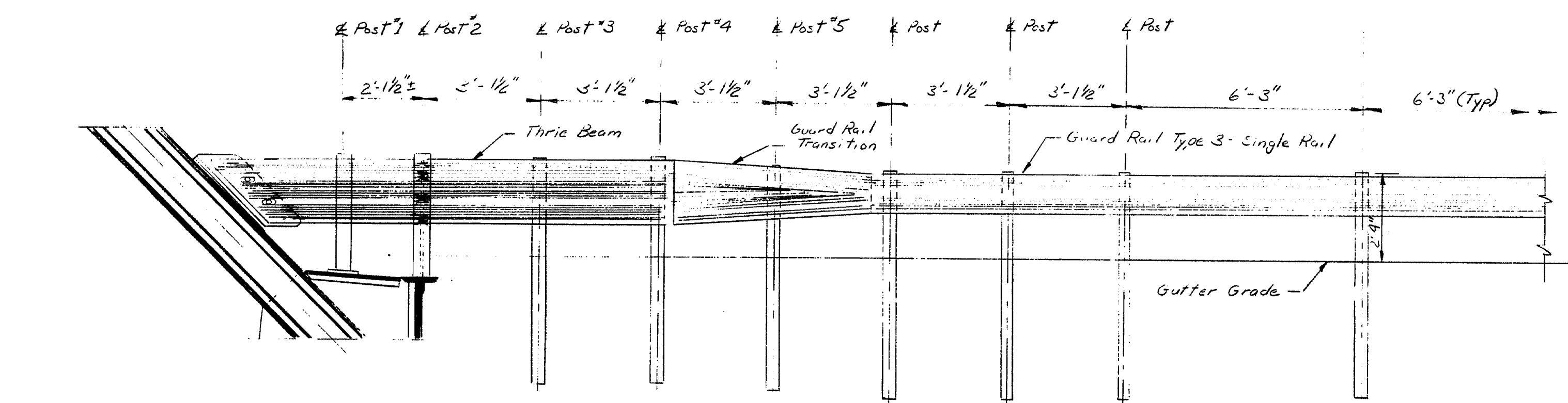
99-397

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 ANDROSCOGGIN RIVER BRIDGE
 OVER THE
 ANDROSCOGGIN RIVER
 BETWEEN THE TOWNS OF
 BRUNSWICK-CUMBERLAND CO.
 AND
 TOPSHAM - SAGadahoc CO.
 BEARING DETAILS
 AUGUSTA, MAINE May 1985

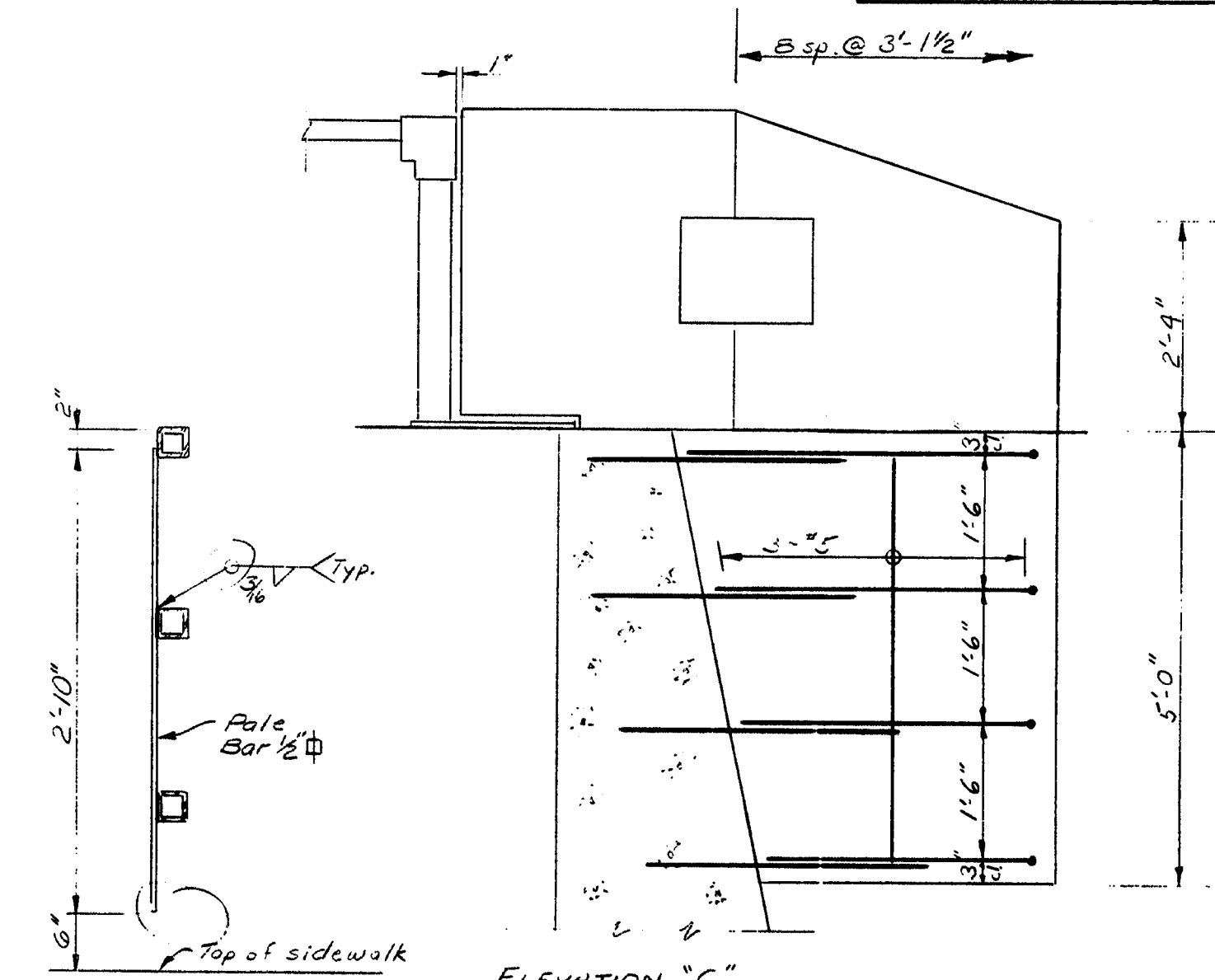
| PROJECT DESIGN ENGINEER | BY | DATE |
|-------------------------|-----|------|
| CHECKED | JAF | DMD |
| REVISIONS | JAF | |
| FIELD CHANGE | | |

BRUNSWICK 44132 20710-1

| F.R.A.
REV. NO. | STATE | PROJECT NUMBER | SHEET
NO. | TOTAL
SHEETS |
|--------------------|-------|----------------|--------------|-----------------|
| 1 | MAINE | F-017-1(53) | 1 | 4 |

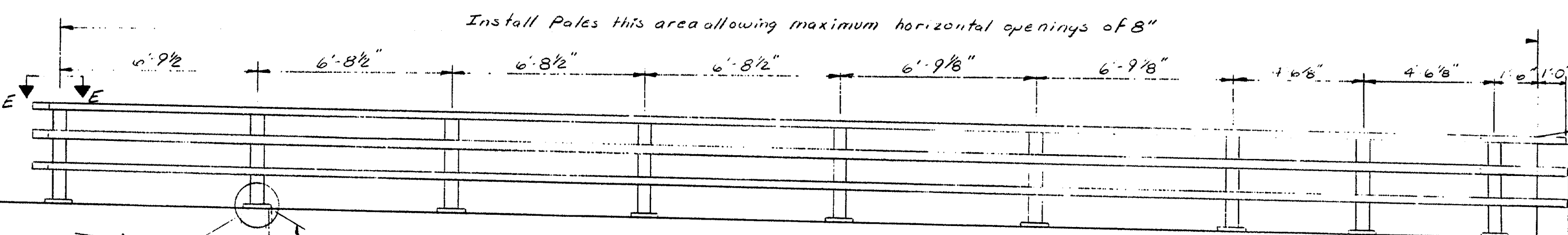


Truss-Thrie Beam-Guard Rail Elevation B-B



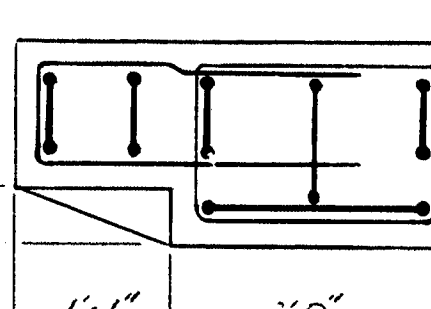
PALE DETAILS

ELEVATION 'C'

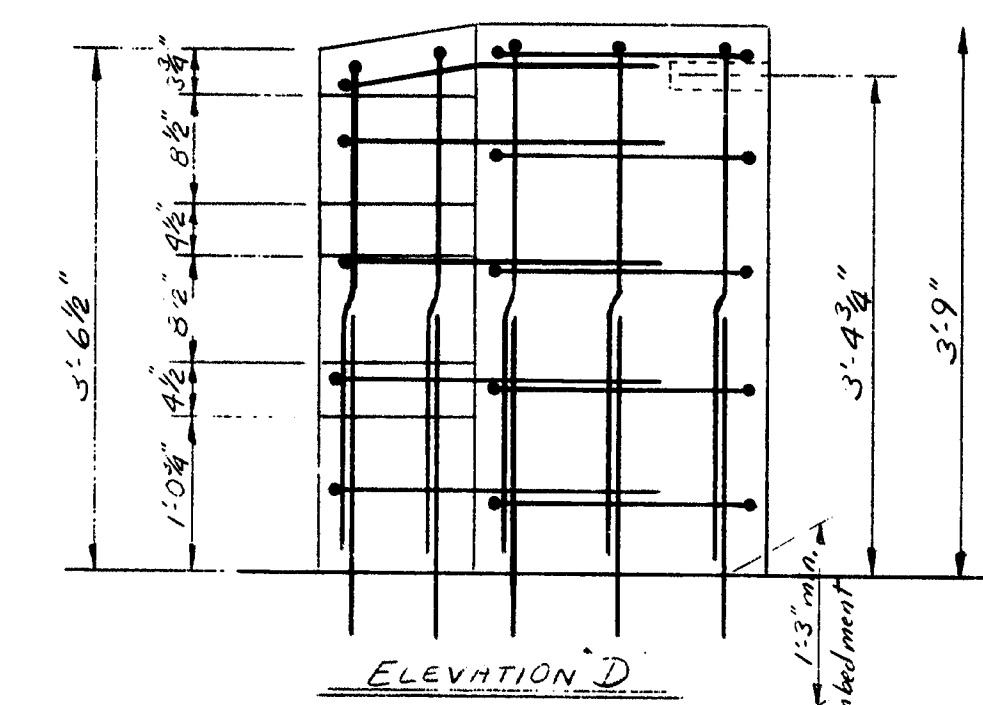


3-Bar (Tubular) Steel Bridge Railing - Elevation A-A

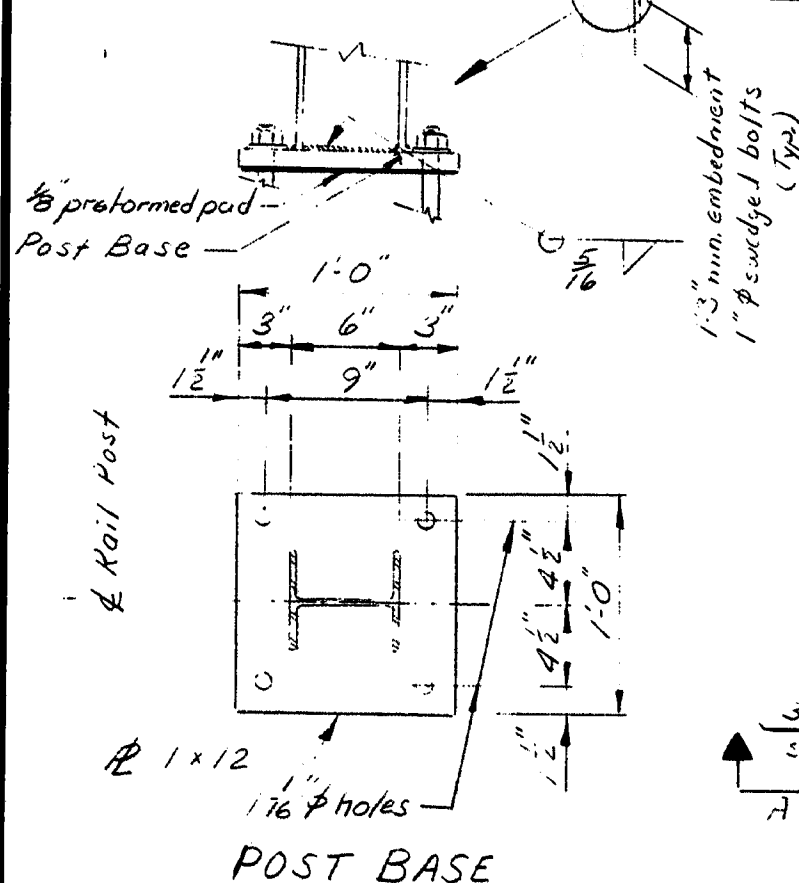
(Materials: Use ASTM A500 Gr B or ASTM A501 in place of ASTM A588 or A542 as shown in Standard Details)



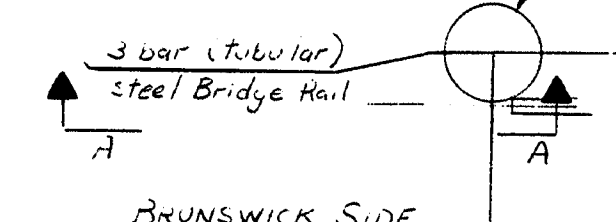
Note: Use #5 bars unless otherwise indicated in the Standard Details



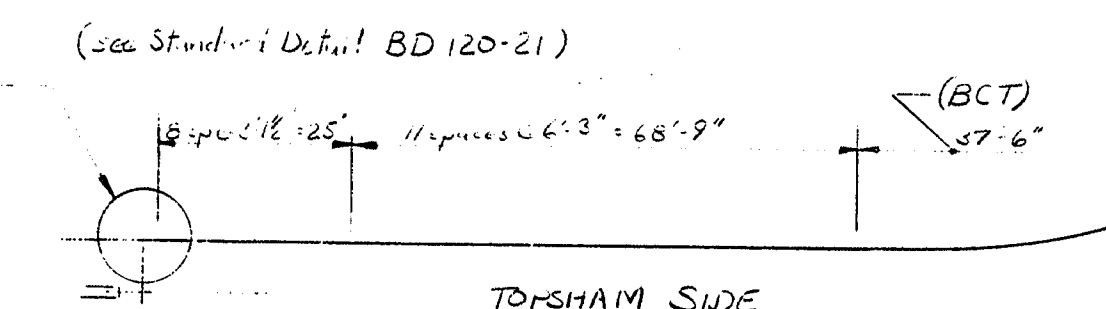
ELEVATION 'D'



POST BASE



BRUNSWICK SIDE



TORSHAM SIDE

SCOPE OF WORK

1. Remove existing approach guardrails, including the existing concrete posts and rails on the sidewalk side and Brunswick end of the bridge.
2. Perform the required grading and shoulder work to accommodate the new approach guardrails.
3. Repair the cracked wingwall on the sidewalk side at the Torsham end of the bridge and install two concrete end posts on the sidewalk side of the roadway.
4. Install new 3-bar (tubular) steel bridge railing on the sidewalk side at the Brunswick end of the bridge.
5. Install thrie beams, standard guardrails, and breakaway cable terminals.

99-398

PLAN

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

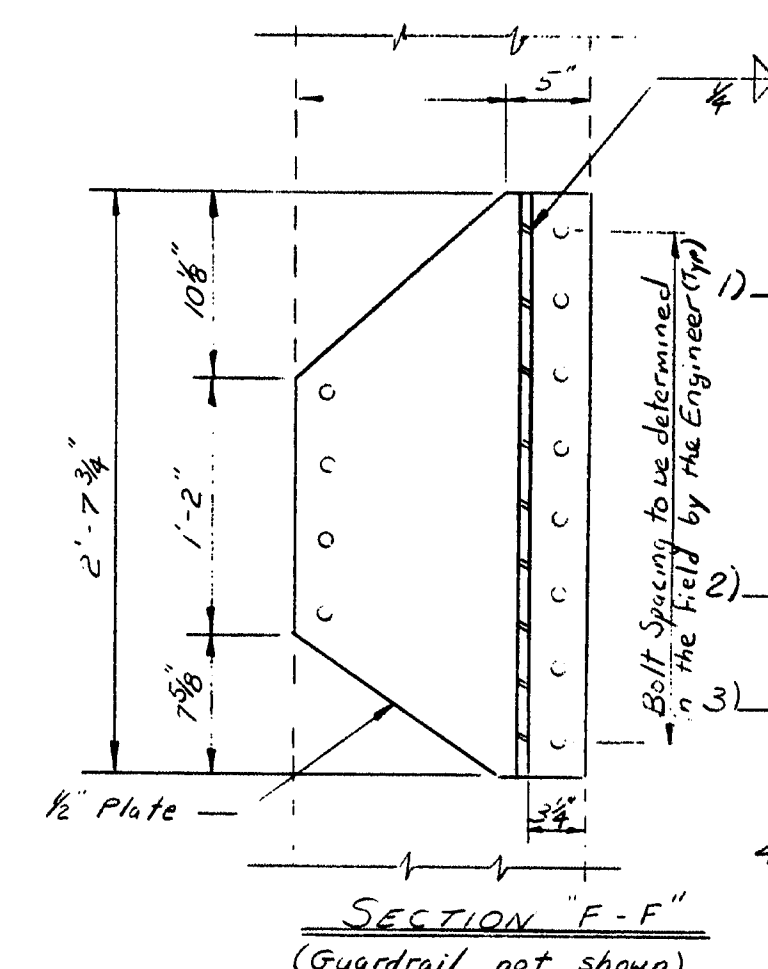
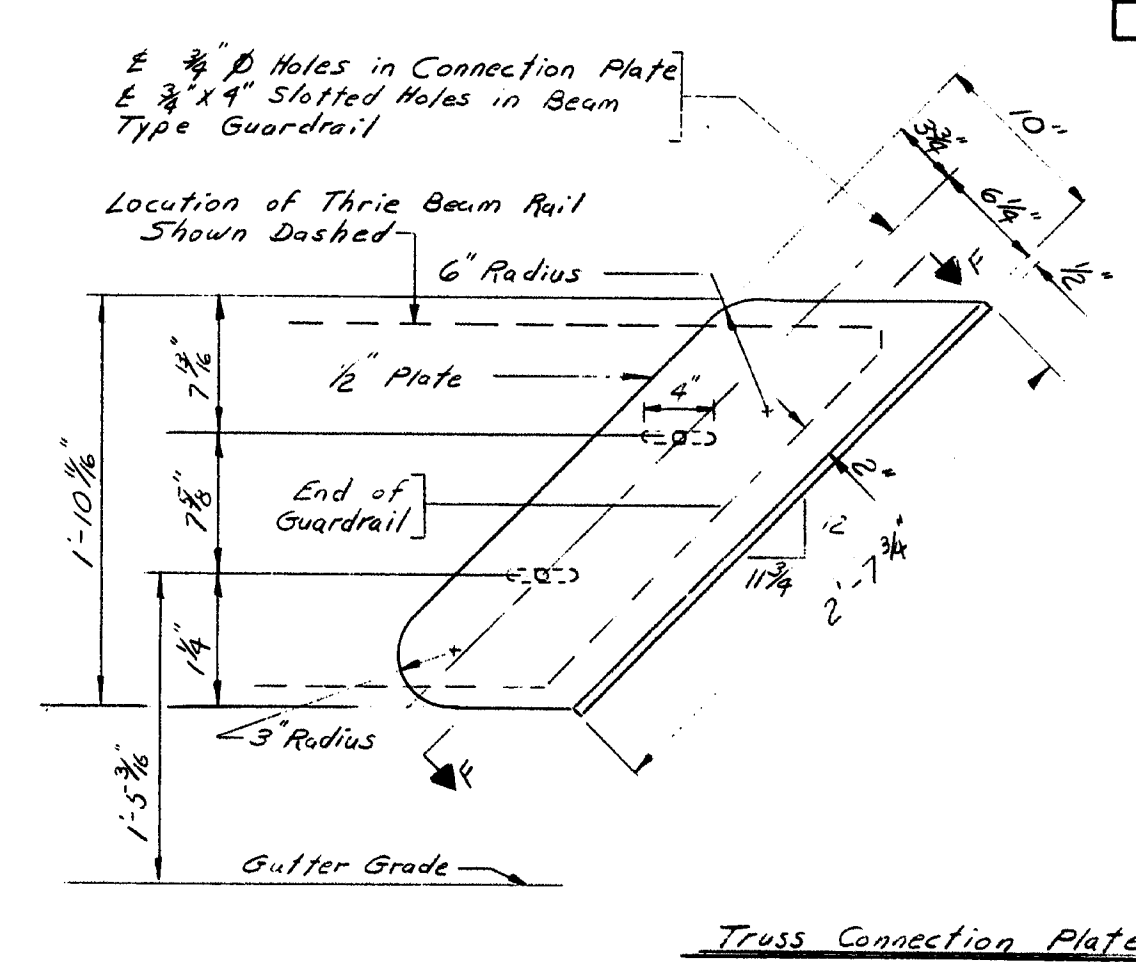
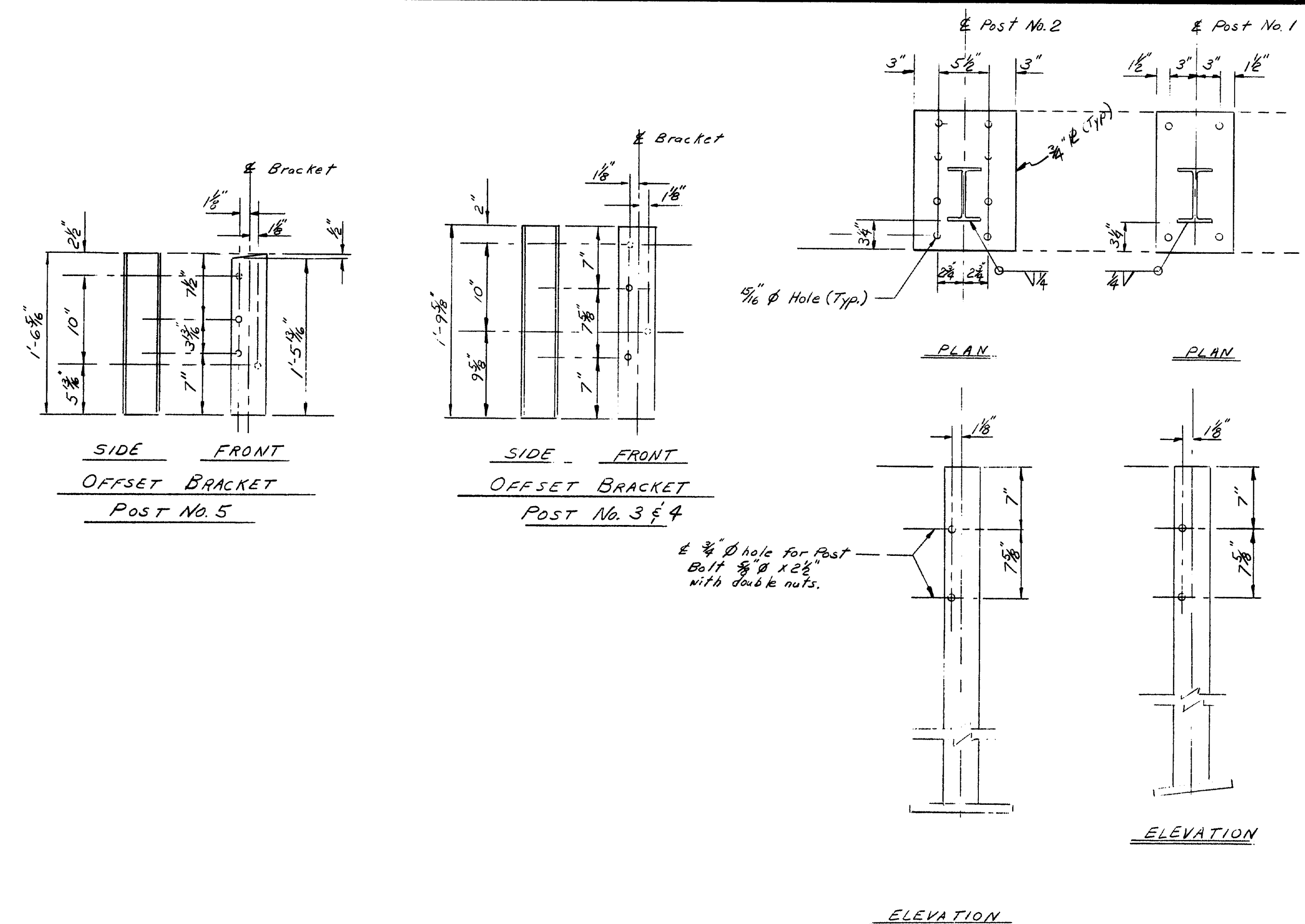
ANDROSCOGGIN RIVER BRIDGE
OVER
ANDROSCOGGIN RIVER
BETWEEN THE TOWNS OF
BRUNSWICK - CUMBERLAND CO.
AND
TOPSHAM - SAGadahoc CO.

APPROACH PLAN & DETAILS
SHEET OF AUGUSTA, MAINE

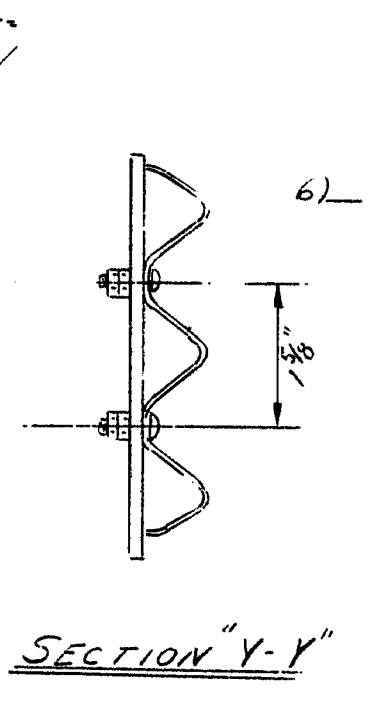
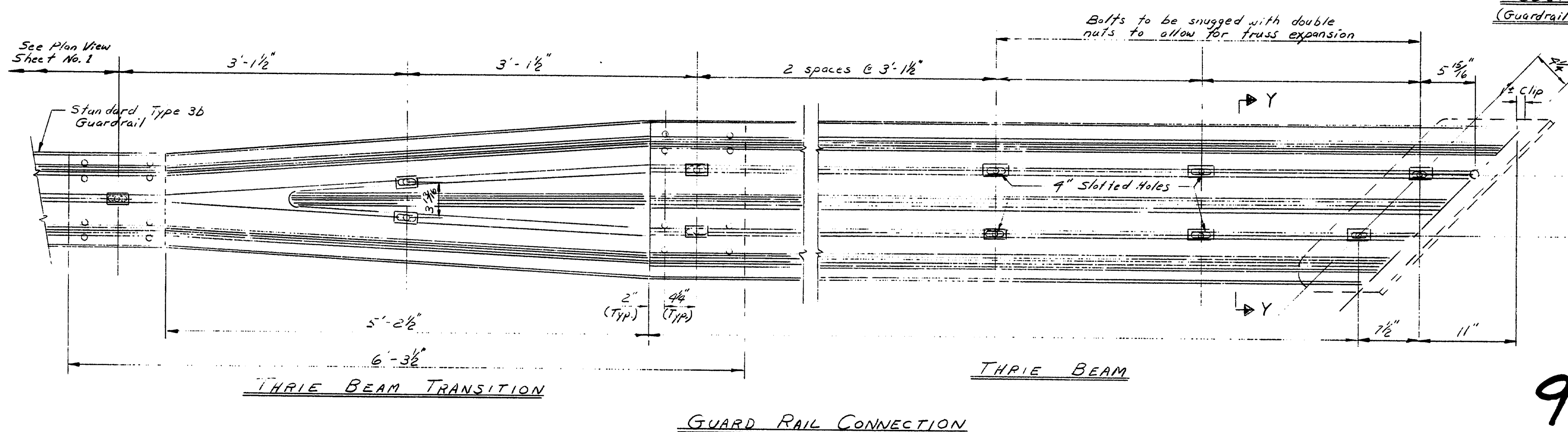
| PROJECT DESIGN ENGINEER | DATE |
|-------------------------|---------------|
| JAF | 9-85 |
| DESIGN - DETAILED | CHECKED |
| JAF | JAF |
| REVISIONS | FIELD CHANGES |
| | |

BRUNSWICK 44-132-4710-1

| F.R.E.A. | STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|----------|-------|----------------|-----------|--------------|
| 1 | MAINE | F-017-1(LS3) | 2 | 4 |



- GENERAL NOTES**
- 1) All beam rails, plates, bolts, washers, offset brackets, posts, and other metal accessories shall be galvanized in accordance with the requirements of AASHTO M11 or ASTM A153 whichever may apply. All galvanizing shall be done after fabrication.
 - 2) Replace all rivets removed with High Strength Bolts ASTM A325 Type I.
 - 3) All guard rail beams shall be 12 gauge minimum thickness, unless otherwise noted.
 - 4) One guard rail delineator post shall be installed at each guard rail end.
 - 5) Breakaway cable terminals shall be installed concurrent with the placement of each section of beam guardrail, unless other approved temporary protection has been authorized.
 - 6) Dimensions not shown shall be determined in the field.



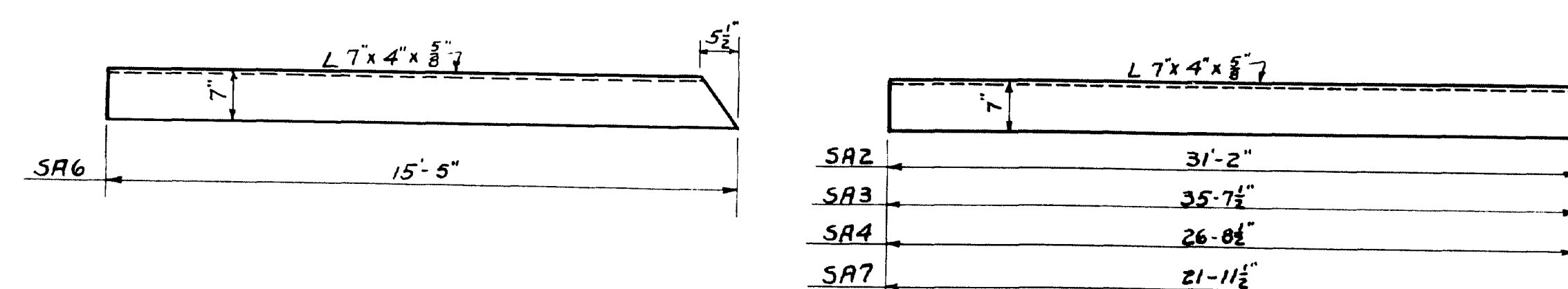
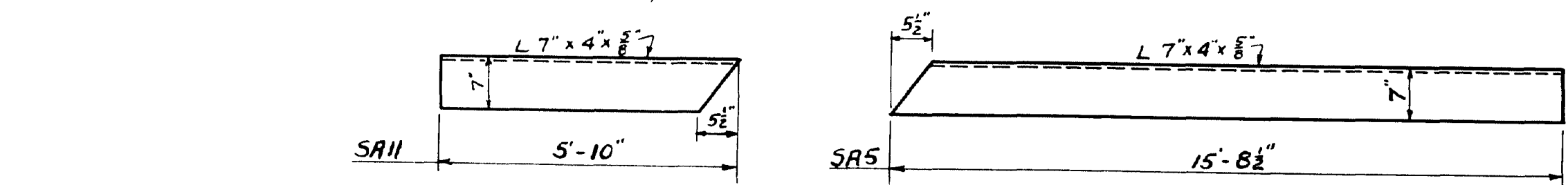
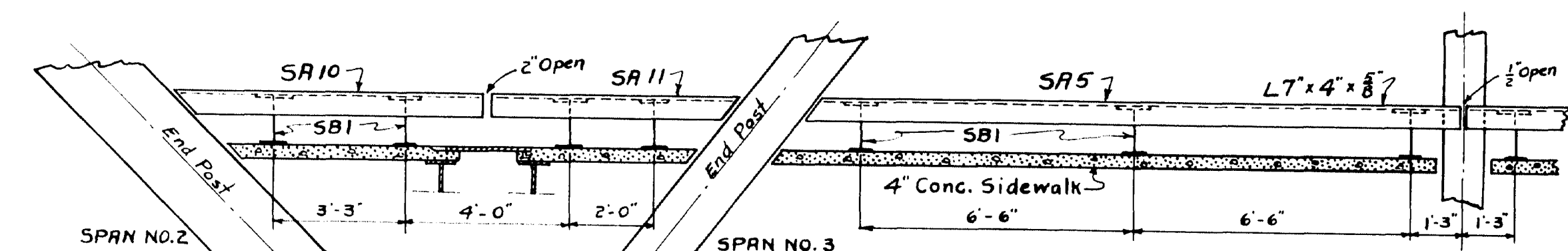
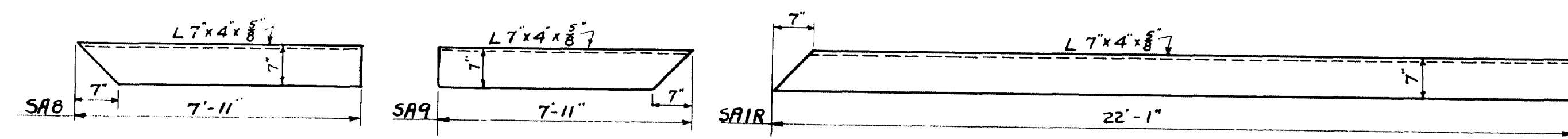
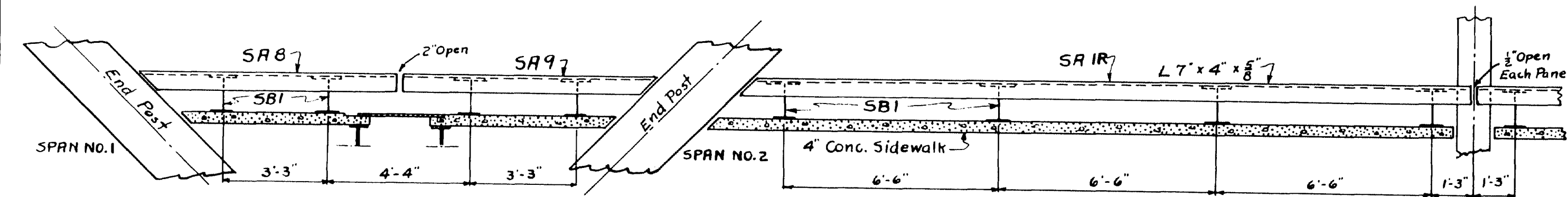
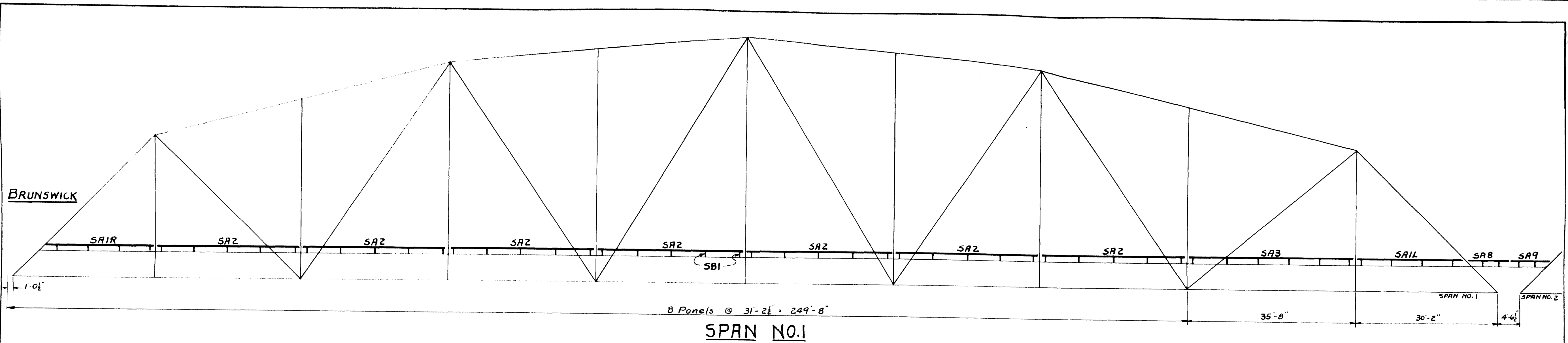
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
ANDROSCOGGIN RIVER BRIDGE
OVER
ANDROSCOGGIN RIVER
BETWEEN THE TOWNS OF
BRUNSWICK - CUMBERLAND CO.
AND
TOPSHAM - SAGadahoc CO.
THREE BEAM DETAILS
SHEET OF AUGUSTA, MAINE

99-399

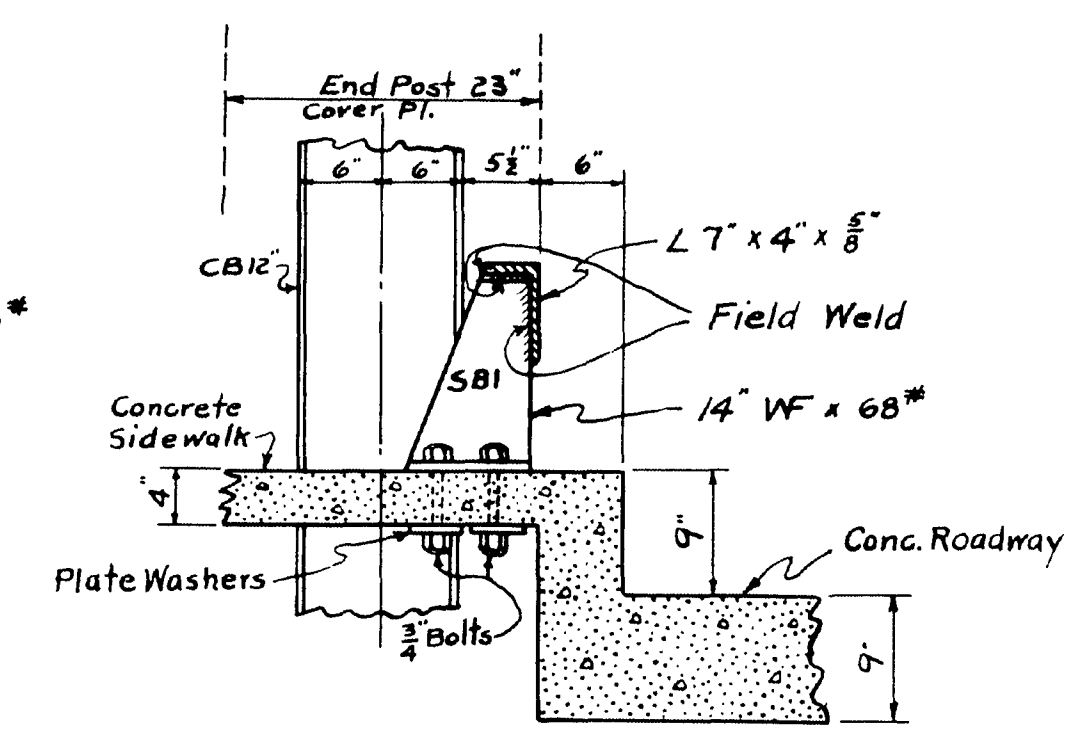
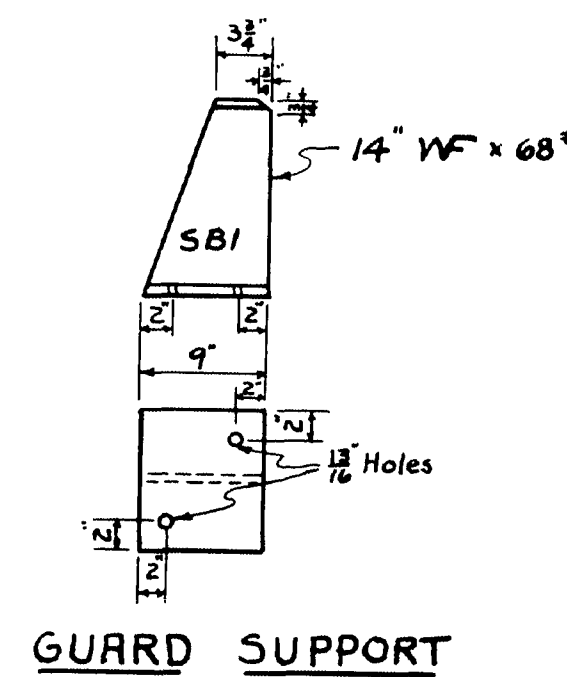
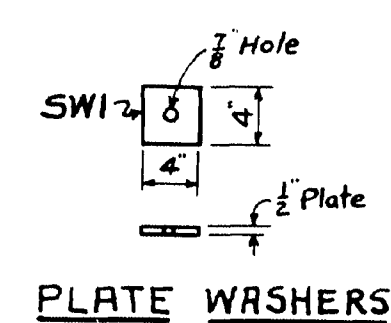
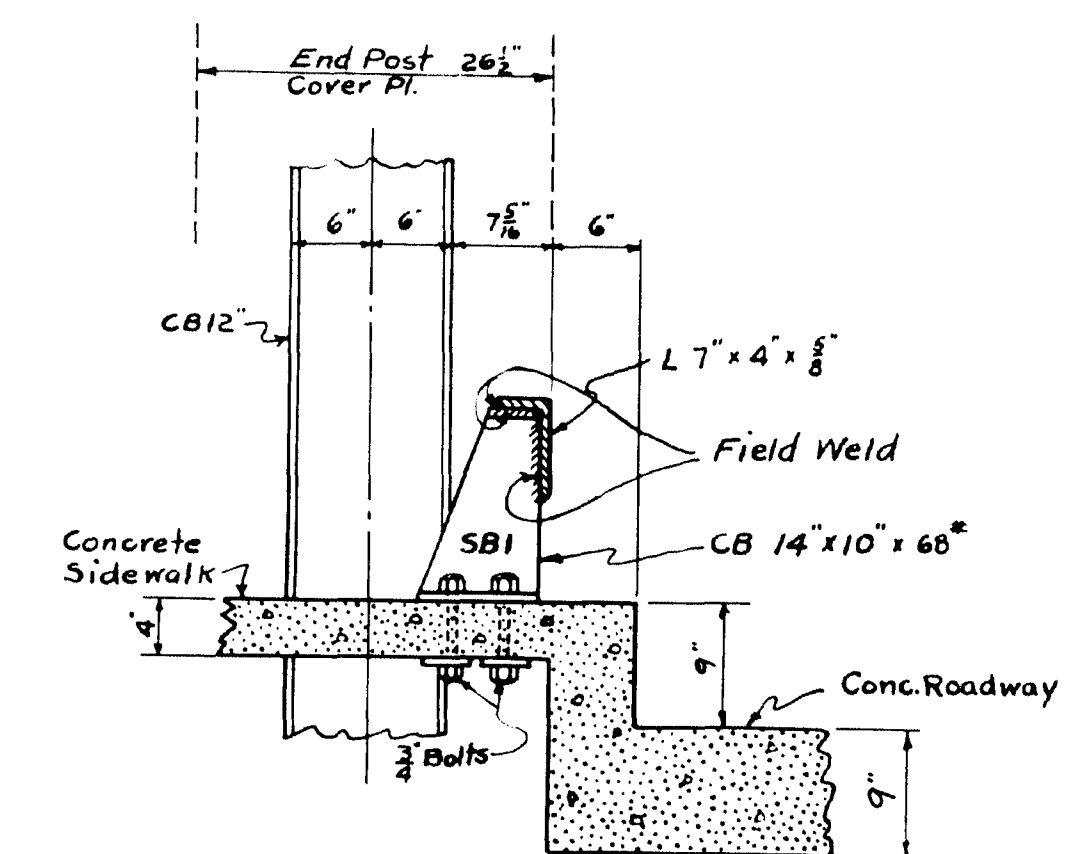
| PROJECT DESIGN ENGINEER | DATE |
|-------------------------|------|
| BY JAF | 7/85 |
| REVISIONS | DATE |
| REVISIONS | |
| FIELD CHANGES | |
| PLANS | |

BRUNING 44-132-45710-1

111-287



GUARD ANGLES



| REQUIRED LIST | | |
|---------------|----------------|--|
| No. Req'd | Mark | Description |
| 2 | SA1R | Guard Angle End panel Span 1 + 2 |
| 2 | SA1L | do opp. hand to SA1R Span 1 + 2 |
| 14 | SA2 | Guard Angle Interior panels Span 1 + 2 |
| 1 | SA3 | " " " " Span 1 |
| 1 | SA4 | " " " " Span 2 |
| 1 | SA5 | Guard Angle End panel Span 3 |
| 1 | SA6 | " " " " Span 3 |
| 6 | SA7 | Guard Angle Interior panels Span 3 |
| 2 | SA8 | " " between Span 1 + 2 + 3 |
| 1 | SA9 | " " " " Span 1 + 2 |
| 1 | SA11 | " " " " Span 2 + 3 |
| 135 | SBI | Support for Guard Angle |
| 270 | SW1 | Plate Washers |
| 270 | 6 x 3/4" Bolts | Hex. heads + nuts Am. Standard Heavy |

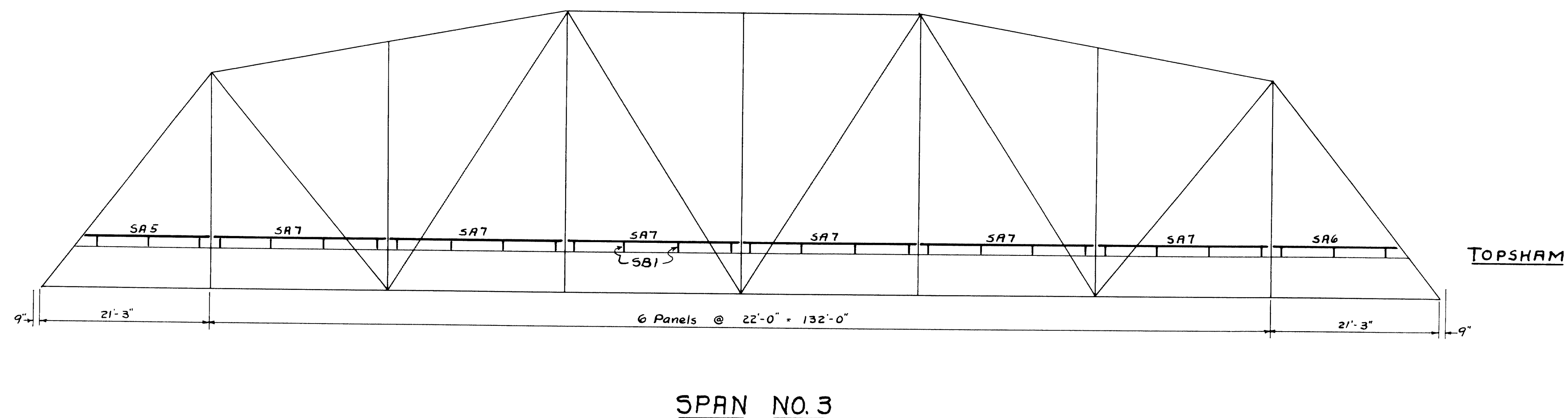
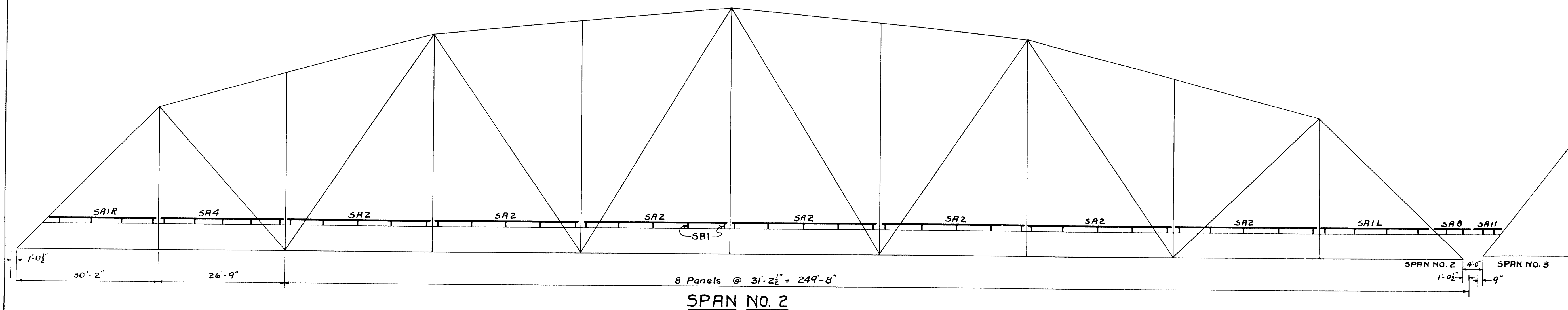
Plan GCW Town 03-03
Check J.P.B. Bridge 2016

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

ANDROSCOGGIN RIVER BRIDGE

between the towns of
BRUNSWICK AND TOPSHAM
CUMBERLAND - SAGadahoc
COUNTIES

SIDEWALK CURB GUARD DETAILS
Sheet 1 of 2 Augusta, Me. March 1945



| | |
|------------|-------------|
| Plan GCW | Town 03-03 |
| Check 7/23 | Bridge 2016 |

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ANDROSCOGGIN RIVER BRIDGE
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SIDEWALK CURB GUARD DETAILS
Sheet 2 of 2 Augusta, Me. March 1945

61-28

0 1 2 3 4 5 INCHES