

WESTERN BRIDGE AND STEEL FABRICATORS LTD.
VANCOUVER, B.C.

BILL OF MATERIAL

MATERIAL FOR GOVT. OF BRITISH COLUMBIA
TAPPEN OVERHEAD CROSSING

BILL No. 5A
CONT. No. 2607
W.O. 2
DATE MARCH 8/55
MADE BY J.K.K.
CHECKED BY D.J.M.

MATERIAL REQUIRED FOR DRAWING No. 5							SHIPPER'S COLUMN					
LINE	NO. PIECES	SHAPE	SIZE	LENGTH	ASSEMBLING MARKS	REMARKS	WEIGHT	ITEM NO. STOCK	NO. PIECES	MARK	WEIGHT	SHIPPING DIVISION
1	8	W	27x145	40'-0"			44400					
2	8	A	6 1/2 x 1/2	-8	a.5		60					
3	8	S	6 1/2 x 1/2	-8	a.4		60					
4	16	F.B.	3 1/2 x 1/2	1-1 1/2	g.4		103					
5	16	F.B.	3 1/2 x 1/2	1-10 1/2	g.4		173					
6	16	Bar	3 x 3	1-2	f.4	Mach.	593					
7	16	F.B.	3 1/2 x 1/2	1-5 1/2	n.4		139					
8												
9						Welding	90					
10						INTERM. STRINGERS			4	A5	23800	
11						Do			4	B5	23800	
12	4	W	27x145	40'-0"			23200					
13	4	A	6 1/2 x 1/2	-8	a.4		30					
14	8	F.B.	3 1/2 x 1/2	1-10 1/2	g.4		88					
15	8	Bar	3 x 3	1-2	f.4	Mach.	286					
16	4	F.B.	3 1/2 x 1/2	1-5 1/2	n.4		25					
17	8	F.B.	3 1/2 x 1/2	1-0	m.4	Temp.	48					
18						Welding	32					
19						OUTER STRINGER			1	C5R	5930	
20						Do			1	D5R	5930	
21						Do			1	C5L	5930	
22						Do			1	D5L	5929	
23	8	W	27x145	40'-0"			44400					
24	8	A	6 1/2 x 1/2	-8	a.4		60					
25	8	S	6 1/2 x 1/2	-8	a.5		60					
26	16	F.B.	3 1/2 x 1/2	1-1 1/2	g.4		103					
27	16	S	3 1/2 x 1/2	1-10 1/2	g.4		173					
28	16	Bar	3 x 3	1-2	f.4	Mach.	593					
29	16	F.B.	3 1/2 x 1/2	1-5 1/2	n.4		139					
30												
31						Welding	90					
32												
33						INTERM. STRINGERS			4	E5	23800	
34						Do			4	F5	23800	
35												TOTAL 118919
36												
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54218

RIVETS 3/4" UNLESS NOTED
OPEN HOLES 1/2" UNLESS NOTED
PAINT 2" - Red Lead or Aluminum
Except as noted.

Western Bridge and Steel Fabricators Ltd.
VANCOUVER - CANADA



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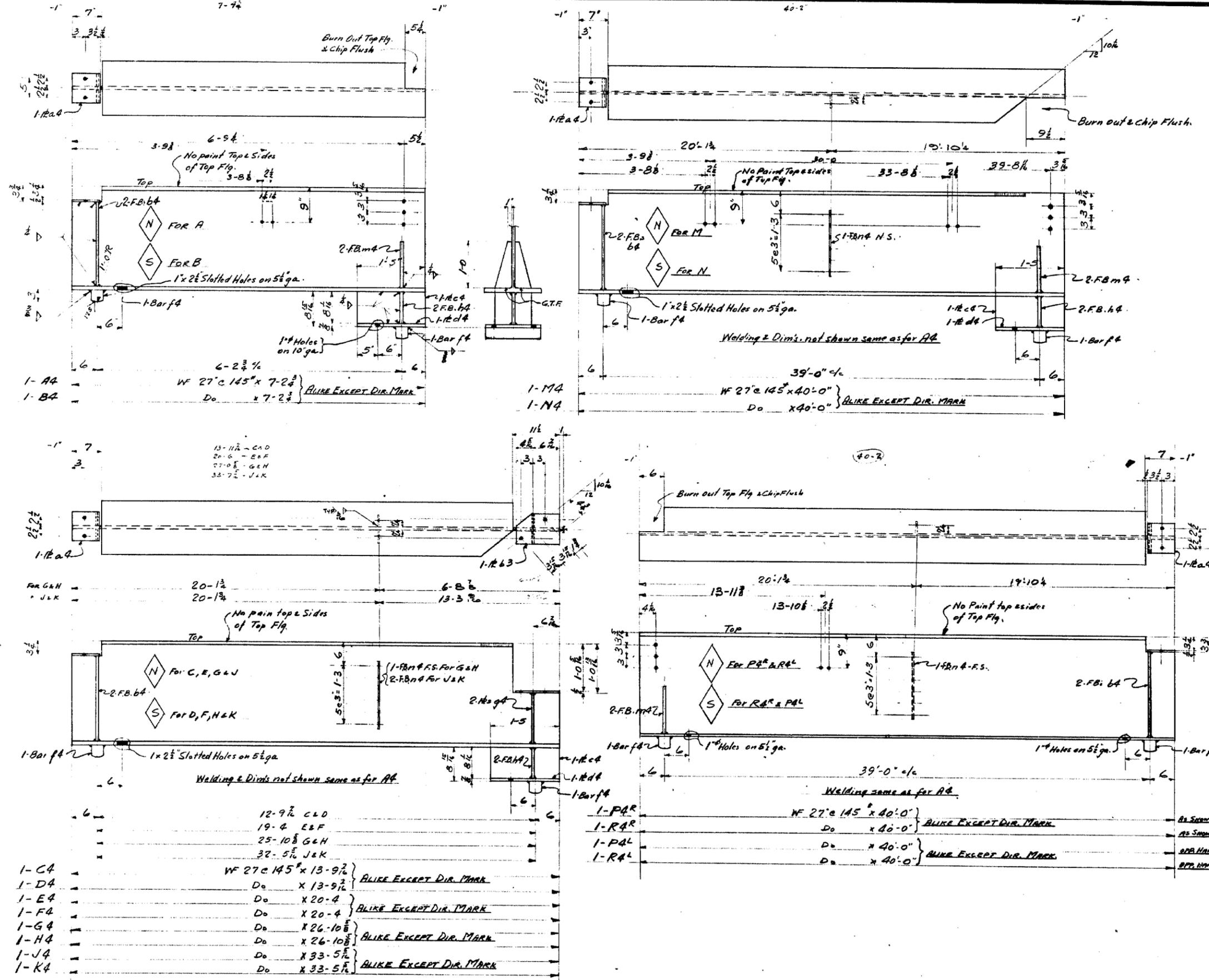
CUSTOMER GOVT. OF BRITISH COLUMBIA
NAME OF STRUCTURE TAPPEN OVERHEAD CROSSING
LOCATION TAPPEN, B.C. (Mile 493.7 TRANS-CANADA HIGHWAY)
TITLE OF DRAWING DETAIL - STRINGERS
MADE BY J.K.K. CHECKED BY D.J.M. DATE MARCH 8/55
CONTRACT 2607 W.O. 2 DRWG. No. 5

BILL OF MATERIAL

MATERIAL FOR GOVT. OF BRITISH COLUMBIA
TAPPEN OVERHEAD CROSSING

BILL No. 49
CONT. No. 2607
W.D. 2
DATE MARCH 8/55
MADE BY J.A.K.
CHECKED BY D.J.M.

MATERIAL REQ. FOR DRAWING No. 4										SHIPPER'S COLUMN		SHIPPING
LINE	NO.	SHAPE	SIZE	LENGTH	ASSEMBLING MARKS	REMARKS	WEIGHT	ITEM No. OR STOCK	NO. PIECES	MARK	WEIGHT	DIVISION
1	2	WF	27c 145	7-2 1/2			2097					
2	2	RF	6 1/2 x 1/2	- 8	a 9		15					
3	4	FB	3 1/2 x 1/2	1-10 1/2	b 4		44					
4	2	RF	8 1/2 x 1/2	1-5	c 4		44					
5	2	RF	14 x 1/2	1-5	d 4		120					
6	4	Bars	3 x 3	1-2	f 4	Mach.	143					
7	4	FB	3 1/2 x 1/2	1-0	m 4	Temp	24					
8	4	FB	3 1/2 x 1/2	- 8 1/2	h 4		16					
9						Welding	18					
10						OUTSIDE STRINGER						
11						Do			1 RA	1259		
12	2	WF	27c 145	40-0			11600					
13	2	RF	6 1/2 x 1/2	- 8	a 9		15					
14	4	FB	3 1/2 x 1/2	1-10 1/2	b 4		44					
15	2	RF	8 1/2 x 1/2	1-5	c 4		44					
16	2	RF	14 x 1/2	1-5	d 4		120					
17	4	Bars	3 x 3	1-2	f 4	Mach.	143					
18	2	FB	3 1/2 x 1/2	1-5 1/2	n 4		17					
19	4	FB	3 1/2 x 1/2	1-0	m 4	Temp	24					
20	4	FB	3 1/2 x 1/2	- 8 1/2	h 4		16					
21						WELDING	19					
22						OUTSIDE STRINGER						
23	2	WF	27c 145	13-9 1/2		As C 20	3996					
24	2			20-4		" E 4 F	5896					
25	2			26-10 1/2		" G 4 H	7796					
26	2			33-5 1/2		" J 4 K	9696					
27	8	RF	7 1/2 x 1/2	- 10 1/2	b 3	Temp	92					
28	8	RF	6 1/2 x 1/2	- 8	a 3		60					
29	8	RF	8 1/2 x 1/2	1-5	c 4		120					
30	8	RF	14 x 1/2	1-5	d 4		479					
31	16	FB	3 1/2 x 1/2	1-1 1/2	g 2		103					
32	16	FB	3 1/2 x 1/2	- 8 1/2	h 4		64					
33	16	Bars	3 x 3	1-2	f 4		573					
34	16	FB	3 1/2 x 1/2	1-10 1/2	b 4		175					
35	6			1-5 1/2	n 4	As G, H, J, K	56					
36						WELDING	163					
37						INTERM. STRINGER						
38						Do			1 CA	2231		
39						Do			1 DA	2231		
40						Do			1 EA	3181		
41						Do			1 FA	3181		
42						Do			1 GA	4145		
43						Do			1 HA	4145		
44						Do			1 JA	5096		
45						Do			1 KA	5096		
46	4	WF	27c 145	40-0			23200					
47	4	RF	6 1/2 x 1/2	- 8	a 9		30					
48	8	FB	3 1/2 x 1/2	1-10 1/2	b 4		84					
49	8	Bars	3 x 3	1-2	f 4		286					
50	8	FB	3 1/2 x 1/2	1-0	m 4	Temp	41					
51	4	FB	3 1/2 x 1/2	1-5 1/2	n 4		25					
52						Welding	20					
53						OUTER STRINGER						
54						Do			1 PA	5979		
55						Do			1 RA	5979		
56						Do			1 PA	5979		
57						Do			1 RA	5979		
58									TOTAL	61576		
59						C 2607						
60												



- 1-A4
- 1-B4
- 1-C4
- 1-D4
- 1-E4
- 1-F4
- 1-G4
- 1-H4
- 1-J4
- 1-K4

54249

RIVETS $\frac{3}{8}$ " UNLESS NOTED
OPEN HOLES $\frac{13}{16}$ " UNLESS NOTED
PAINT 200 # Red Lead #2
Except as noted.

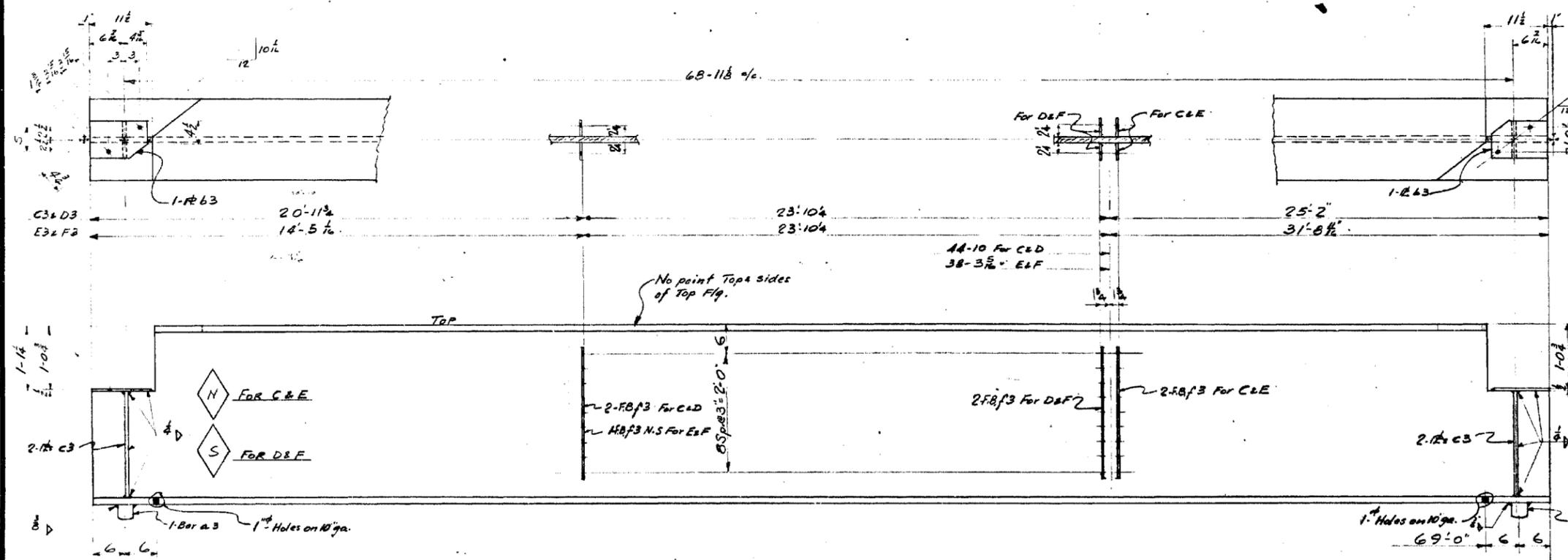
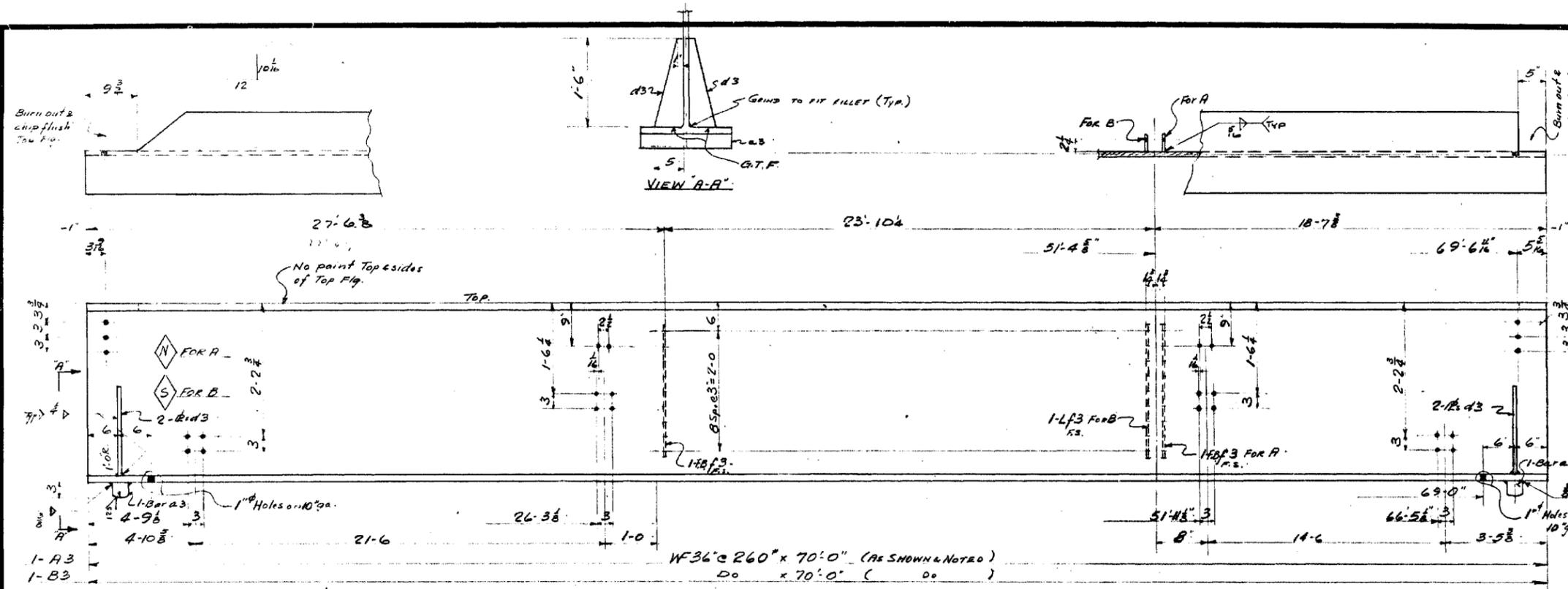
Western Bridge and Steel Fabricators Ltd.
VANCOUVER - CANADA

CUSTOMER GOVT. OF BRITISH COLUMBIA
NAME OF STRUCTURE TAPPEN OVERHEAD CROSSING
LOCATION TAPPEN, B.C. (Mile 40.27 Trans-Canada Highway)
TITLE OF DRAWING DETAIL - STRINGERS
MADE BY J.A.K. CHECKED BY D.J.M. DATE MARCH 8/55
CONTRACT 2607 W.D. 2 DRWG No. 4

BILL OF MATERIAL

MATERIAL FOR GOVERNMENT OF BRITISH COLUMBIA
TAPPEN OVERHEAD CROSSING

MATERIAL REQUIRED FOR DRAWING No. 3							SHIPPER'S COLUMN					
LINE	NO.	SHAPE	SIZE	LENGTH	ASSEMBLING MARKS	REMARKS	WEIGHT	ITEM NO. ON STOCK	NO. PIECES	MARK	WEIGHT	SHIPPING DIVISION
1	2	WF	36" x 260" x 70'-0"	70'-0"			36400					
2	4	Bar	3 x 3	1-4 1/2	a 3	Mach.	168					
3	4	FB	3/2 x 2	2-2 1/2	f 3		52					
4	3	Bar	5 x 1/2	1-6	d 3	Temp.	102					
5			WELDING				18					
6						OUTSIDE STRINGER			1	A3	18377	
7						Do			1	B3	18370	
8	4	WF	36" x 260" x 70'-0"	70'-0"			72800					
9	8	Bar	7 1/2 x 1/2	-10 1/2	b 3	Temp.	92					
10	16	FB	3/2 x 1/2	1-9 1/2	c 3		158					
11	8	Bar	3 x 3	1-4 1/2	a 3	Mach.	336					
12	14	FB	3/2 x 2	2-2 1/2	f 3		184					
13												
14						Welding	25					
15						INTERM. STRINGER			1	D3	18399	
16						Do			1	E3	18399	
17						Do			1	F3	18399	
18						Do			1	C3	18398	
19												
20												
21												
22												
23												
24												
25												
26												
27						TOTAL					110335	
28												
29												
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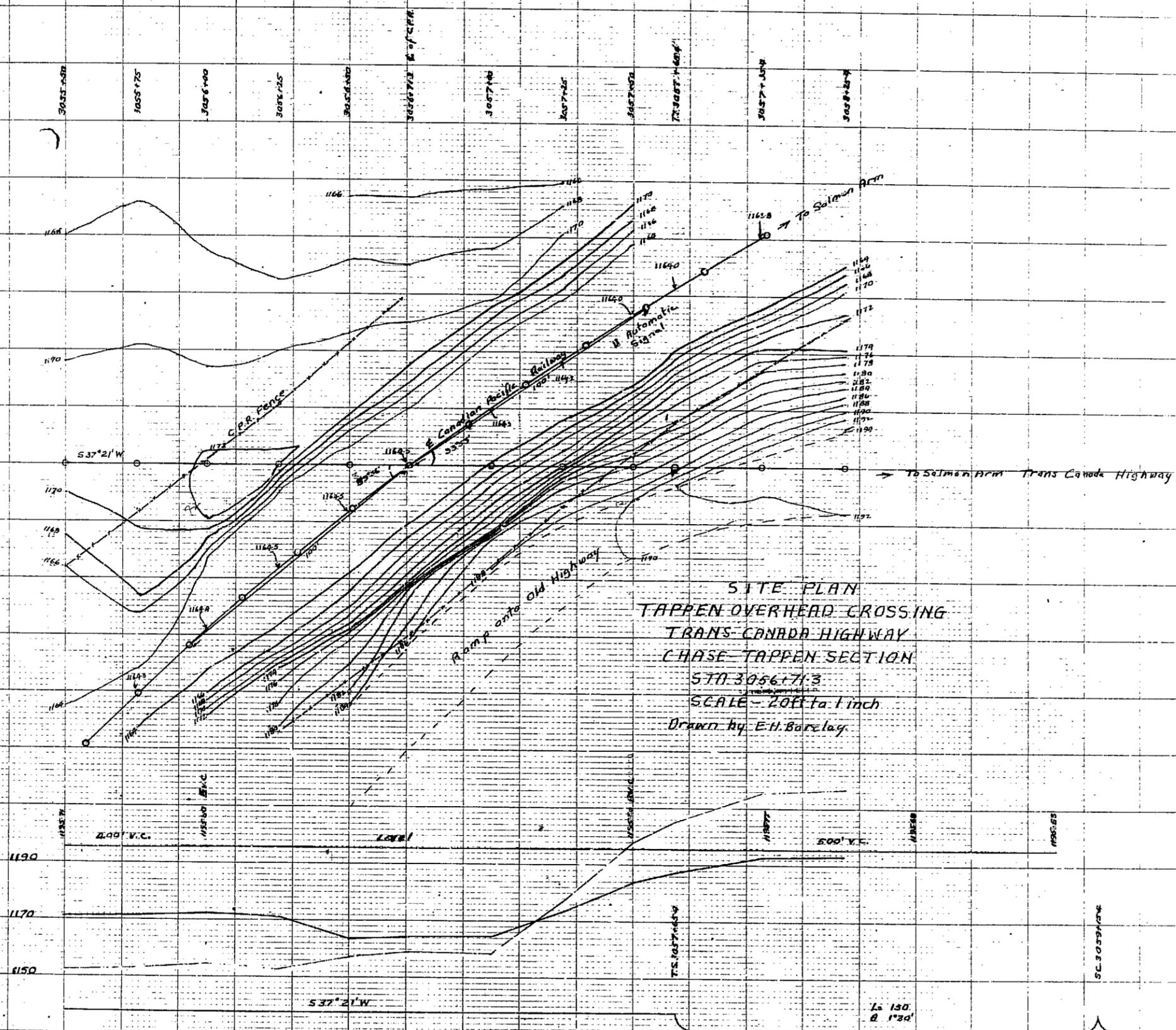
1-C3	1	WF	36" C 260" x 70'-0"	(As shown & noted)
1-D3	1	Do	x 70'-0"	(Do)
1-E3	1	Do	x 70'-0"	(Do)
1-F3	1	Do	x 70'-0"	(Do)

RIVETS 3/4" UNLESS NOTED
OPEN HOLES 1 1/2" UNLESS NOTED
PAINT 200 - Red Lead
PAINT 200 - Aluminum #2
Except as noted.

Western Bridge and Steel Fabricators Ltd.
VANCOUVER - CANADA

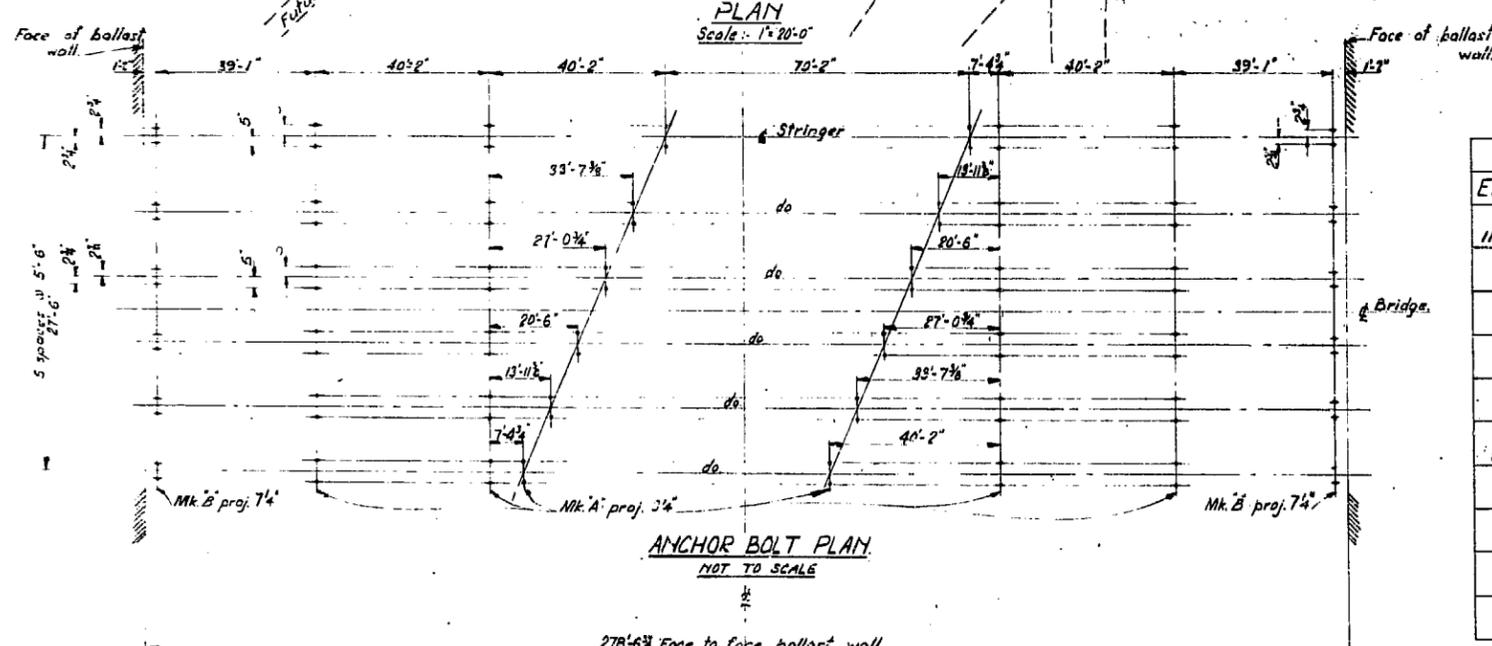
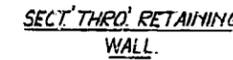
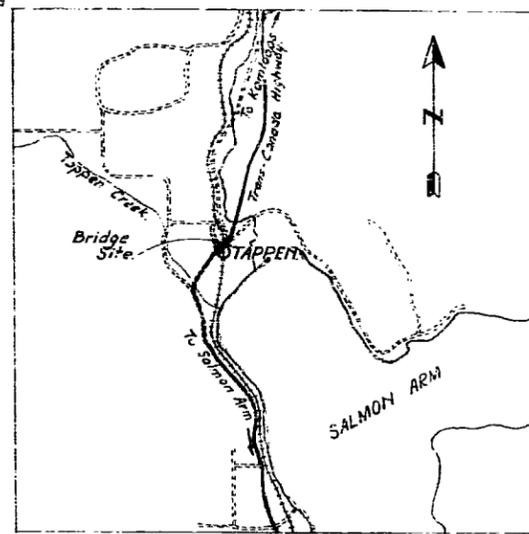
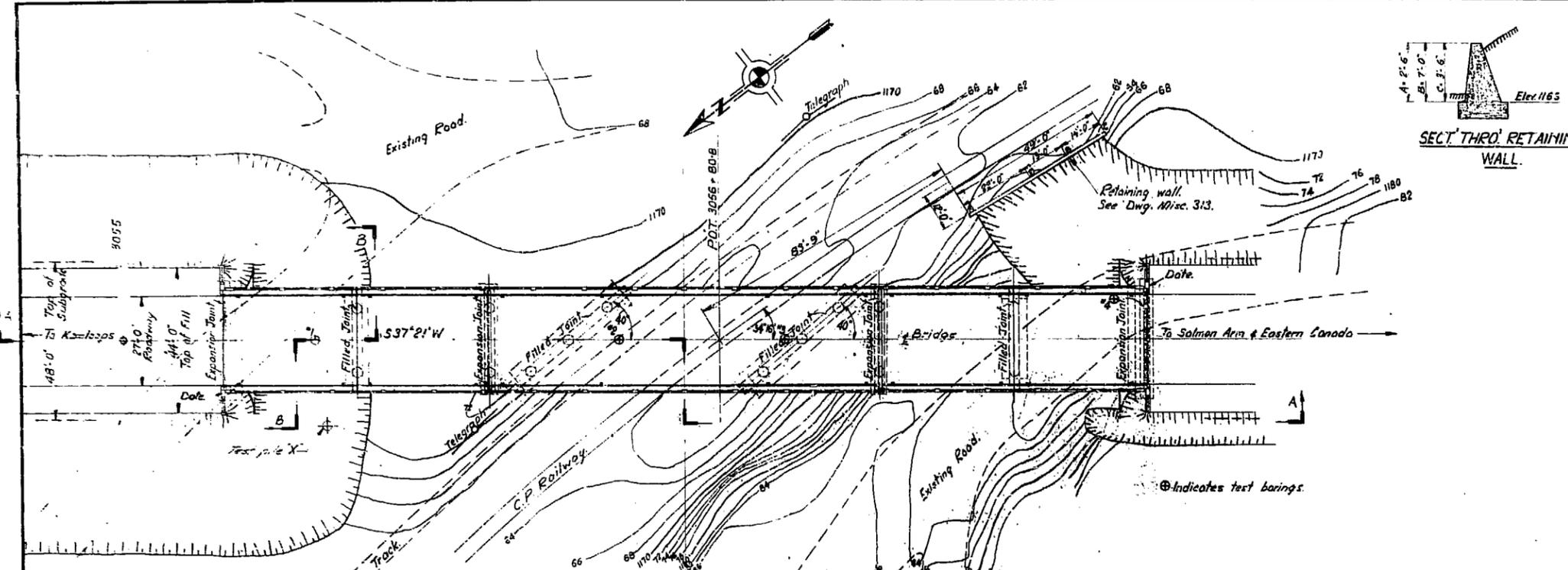
CUSTOMER: GOVT. OF BRITISH COLUMBIA
NAME OF STRUCTURE: TAPPEN OVERHEAD CROSSING
LOCATION: TAPPEN, B.C. (MILE 402.7 TRANS-CANADIAN HWY.)
TITLE OF DRAWING: DETAIL - STRINGERS
MADE BY: J.H.K. CHECKED BY: D.J.M. DATE: MARCH 7/55
CONTRACT: 2607 W.O. 2 DRWG. No. 3

Equation
3046+00 Ahead
=3044+88.8 back



SITE PLAN
 TAPPEN OVERHEAD CROSSING
 TRANS-CANADA HIGHWAY
 CHASE-TAPPEN SECTION
 STA 3056+71.3
 SCALE - 20ft to 1 inch
 Drawn by E.H. Barclay

2° CL
 @ 7' 59"
 @ 4' 59"
 Arc

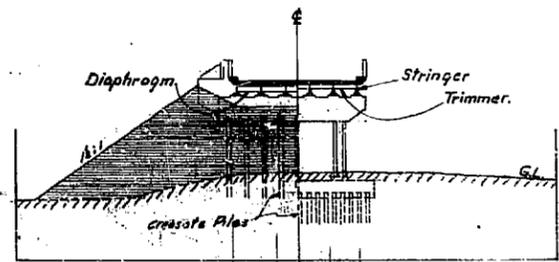
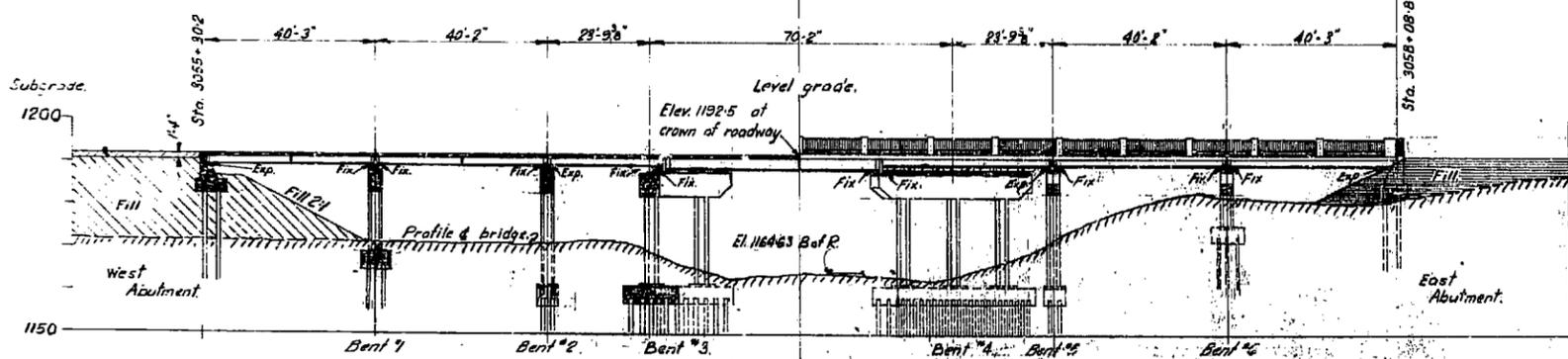


TEST HOLES				
Elev.	#1	#2	#3	#4
1190				
80				
70				light brown silty sand.
60	light brown clayey silty sand.		light brown clayey silty sand.	grey sandy clayey silt.
50	greyish clay sandy silt.	light brown clayey silty sand.	light brown clayey silty sand.	grey sandy clayey silt.
40	grey clayey sandy silt and minerals.	light brown clayey silty sand.	grey sandy clayey silt.	grey clayey sandy silt.
30	grey clayey silty sand some minerals.	grey clayey silty sand.	grey clayey silty sand.	grey clayey silty sand.
20	grey clayey silty sand some minerals.	grey clayey silty sand.	grey clayey silty sand.	grey clayey silty sand.
10	No rocks.	grey clayey silty sand.	grey clayey silty sand.	grey clayey silty sand.
00	No rocks.	grey clayey silty sand.	grey clayey silty sand.	grey clayey silty sand.

TEST PILE DATA
 Test pile driven in location X in bottom of excavation 25' deep. Ground elevation (top of excavation) 1167. Pile 6" dia, 16' long, 18 1/2" tip. Hammer 5500 lbs. Driving fairly stiff all the way. Penetration 15" per blow. Average test 10 blows (12' full): 7 1/2 per blow. Pile driven to Elev. 1105.0

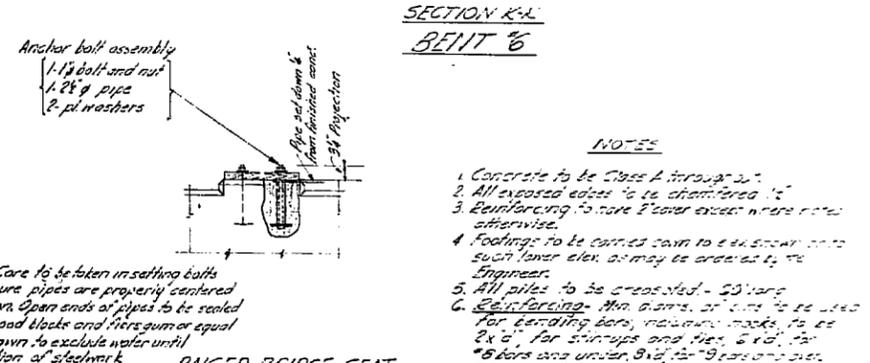
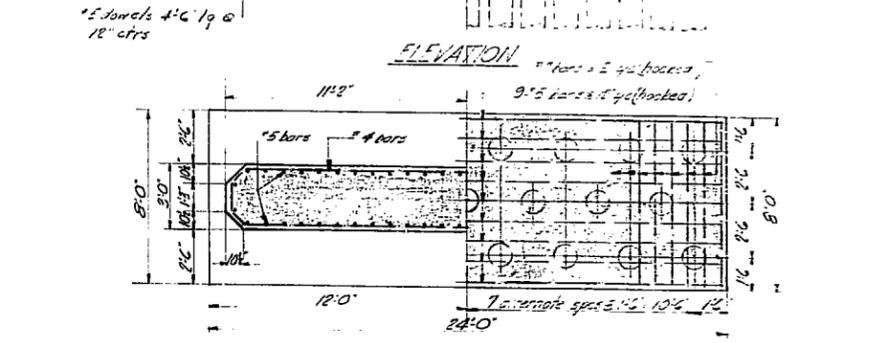
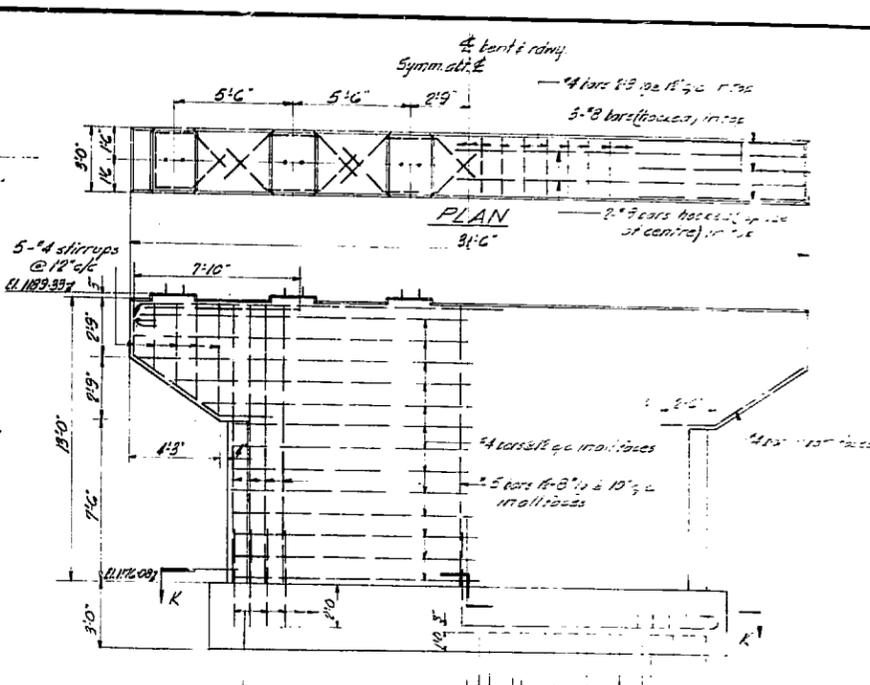
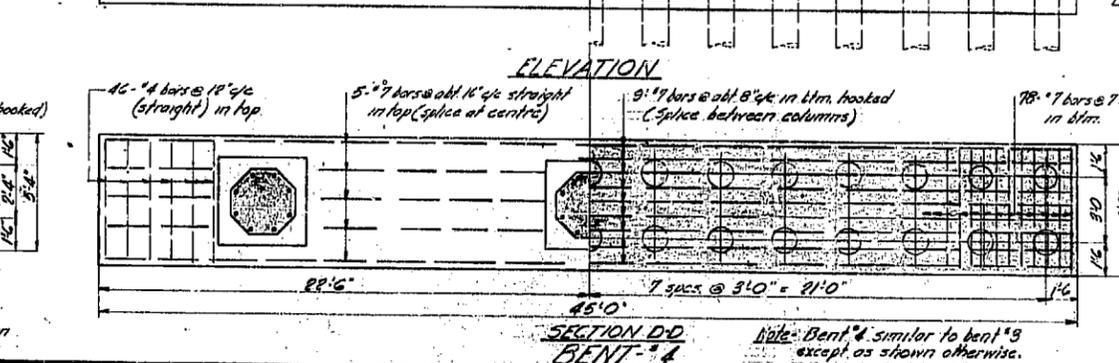
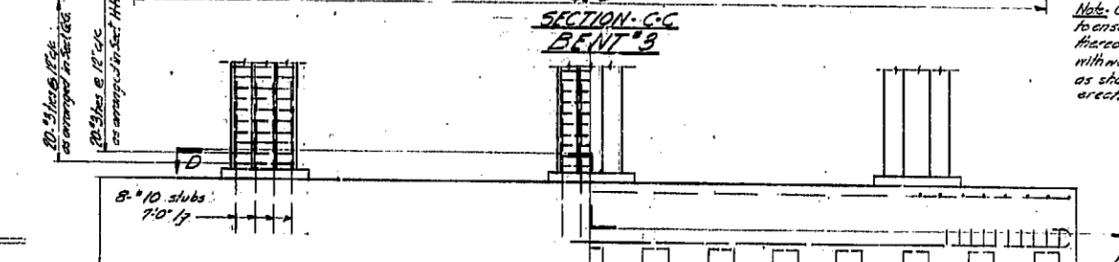
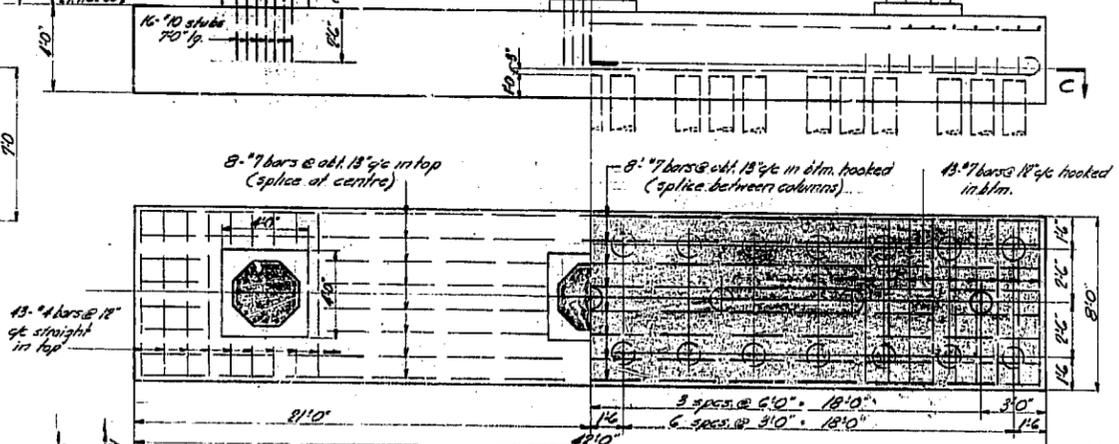
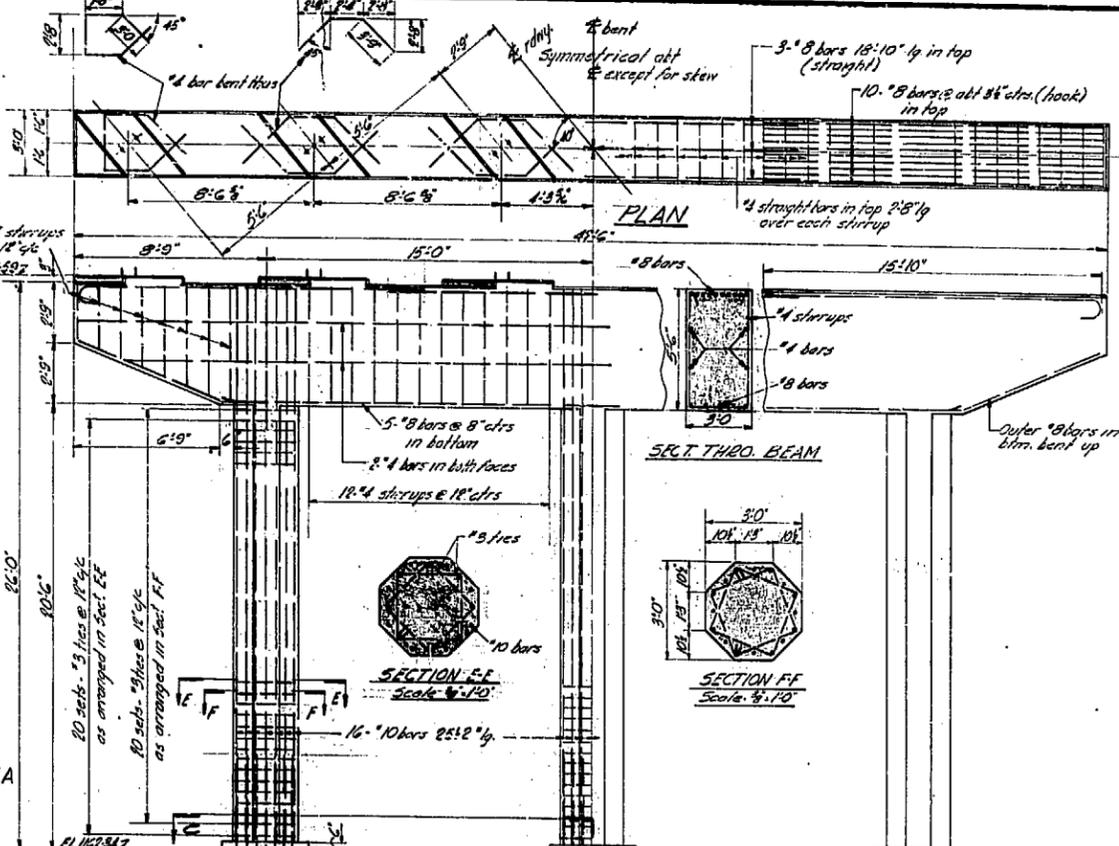
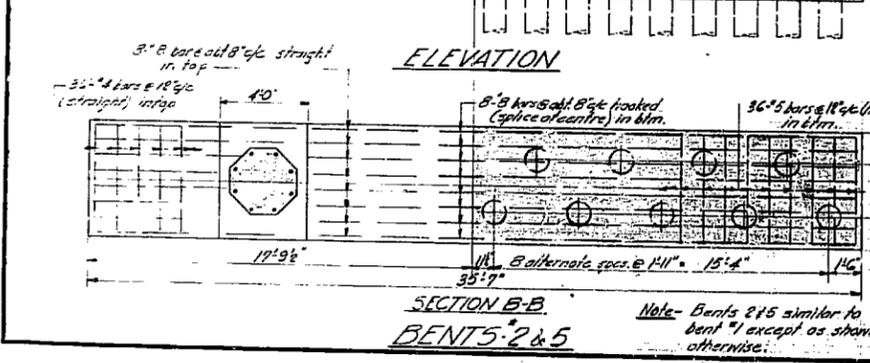
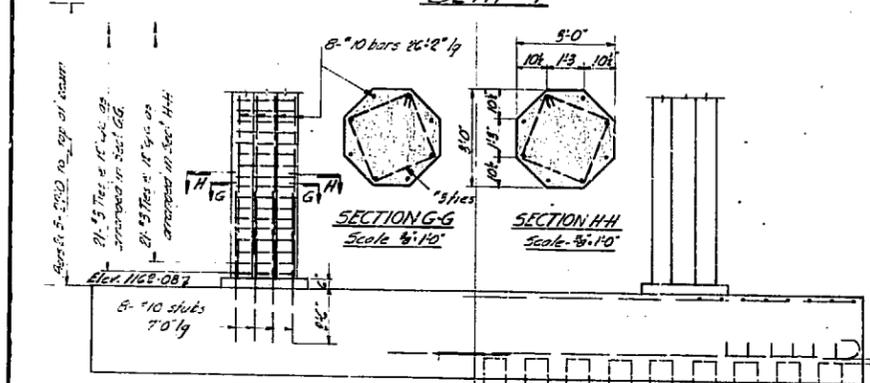
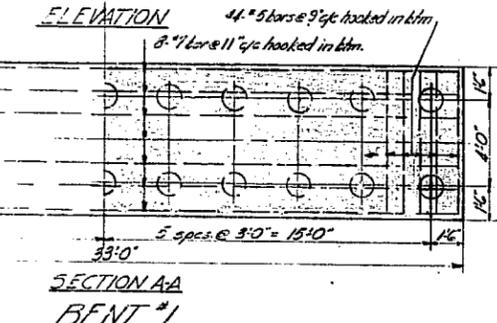
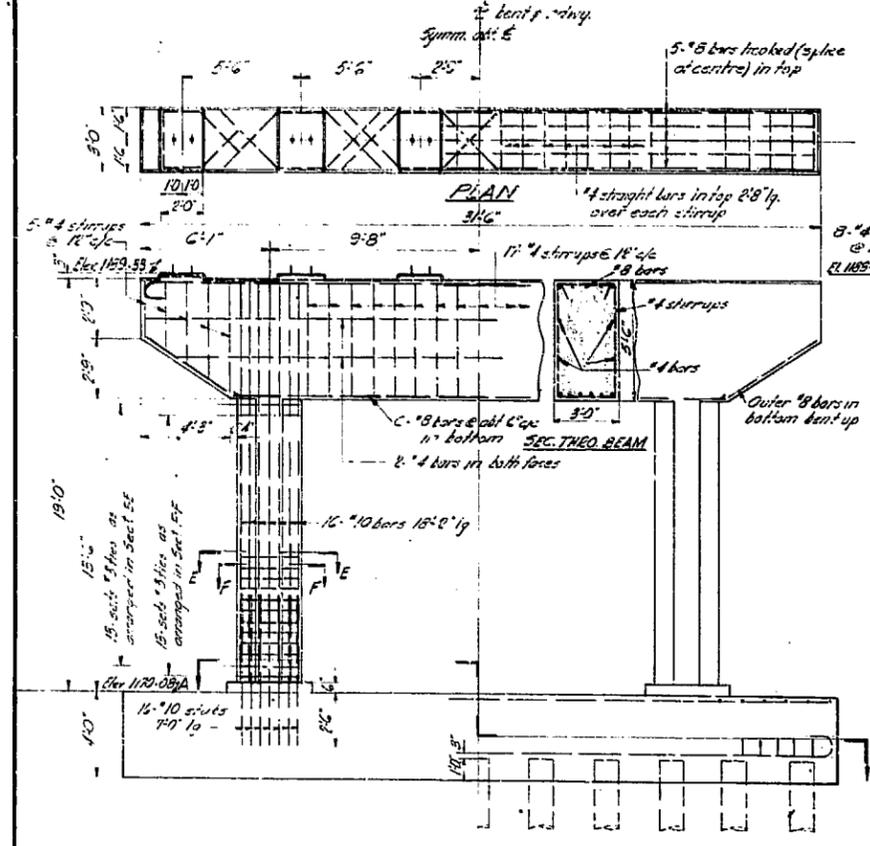
LIST OF DRAWINGS.	
DWG. No.	TITLE.
1883-6A	Layout, Anchor Bolt Plan & Key Map.
-7A	Bents.
-8A	Abutments.
-9	Steelwork.
-10A	Deck.
-11	Anchor bolt assemblies.
1810-7A	Std. Roadway Fence.
587-7A	Std. Roadway Fence.

Specifications - Department of Public Works & Trans Canada Highway
 Live Load - H20-516.
 Datum - Mean Sea Level (Geodetic).
 Survey by - Location Branch 1853.



C.P.R. Mile 70-85
 Shuswap Subdivision.
 SALMON ARM DISTRICT
 TRANSCANADA HIGHWAY - MILE 4027
TAPPEN OVERHEAD CROSSING
 LAYOUT, ANCHOR BOLT PLAN & KEY MAP
 SCALE: 1"=20'-0" & AS NOTED.

REVISIONS				GOVT. OF BRITISH COLUMBIA DEPT. OF PUBLIC WORKS BRIDGE ENGINEER'S OFFICE			
No.	Particulars	Init.	Date	Init.	Date	DRAWING NO.	
A	Bents changed from Pile Bents to Frame Bents	R.L.D.	Jan 1954	AT	13-6-54	1383-6	
B	Anchor Bolt Plan Dimensions	R.L.D.	Jan 1954	AT	13-6-54	BRIDGES	
C	Anchor Bolt Plan Bent 314	R.L.D.	Jan 1954	AT	13-6-54	BRIDGES	
D	Anchor Bolt Plan removed	R.L.D.	Jan 1954	AT	13-6-54	BRIDGES	



ESTIMATED QUANTITIES

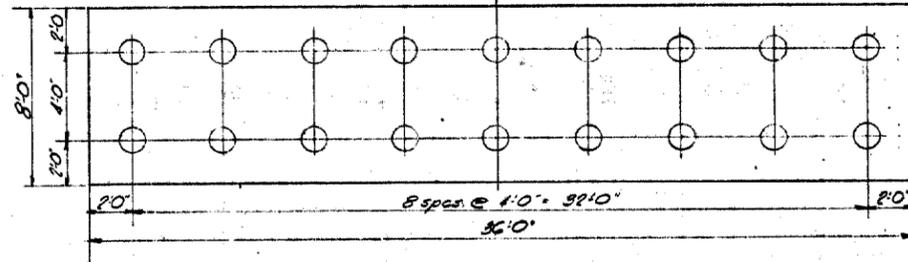
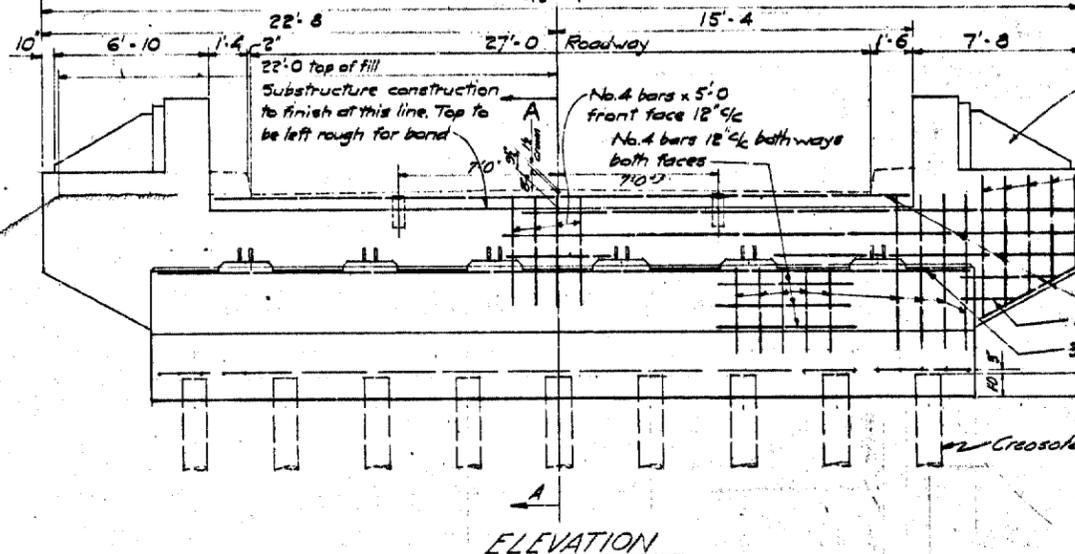
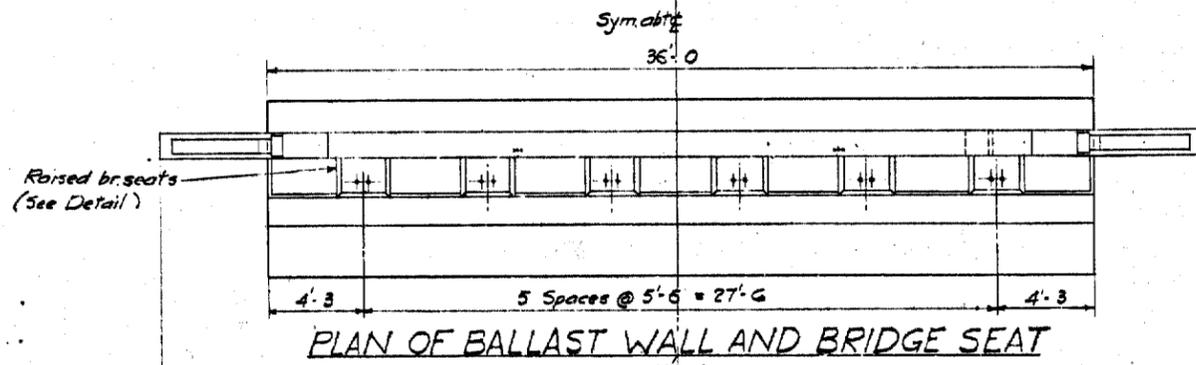
PART	CONCRETE	REINFORCING	EST.
Bent #1	59 cu. yds.	6560 lbs.	11
Bent #3	118 cu. yds.	11,500	22
Bent #4	94 cu. yds.	10,200	18
Bent #6	84 cu. yds.	9,500	16
Bent #5	87 cu. yds.	9,500	16
Total	422 cu. yds.	47,260 lbs.	83

SALMON ARM DISTRICT
TRANS-CANADA HIGHWAY - MILE 108.7
TAPPEN OVERHEAD CROSSING
BENTS
SCALE: 1/4" = 1'-0" & AS NOTED

REVISIONS			
No.	Particulars	Init.	Date
A	Pile bents changed to frame bents	AL	11-10-54

GOVT. OF BRITISH COLUMBIA
DEPT. OF PUBLIC WORKS
BRIDGE ENGINEER'S OFFICE

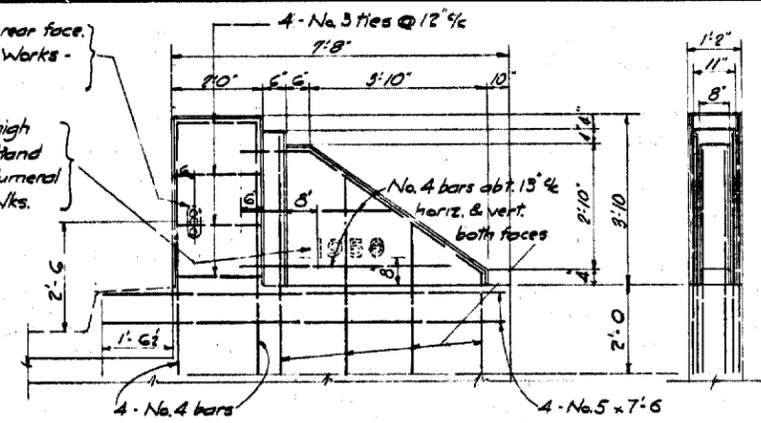
Made by: AL 11-10-54
Checked by: JMC 1-11-54
Drawn by: JTB
No. 1383-7



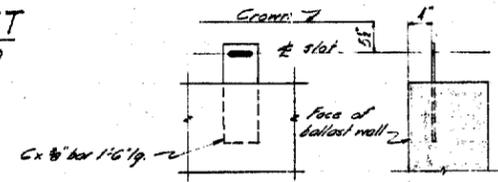
Traffic reflector and anchor on rear face. Furnished by Dept. of Public Works - Set in Post by Contractor

Year of construction cast in 5' high numerals on rear face of right hand post only on each abutment. Numeral forms loaned by Dept. of Public Wks.

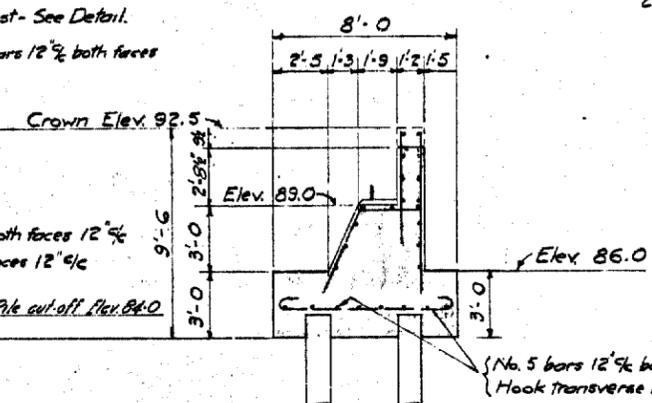
Min. reinf. steel cover 1 1/2" Chamfer edges 1/4" where shown



WING POST
Scale: 1/2" = 1'-0"

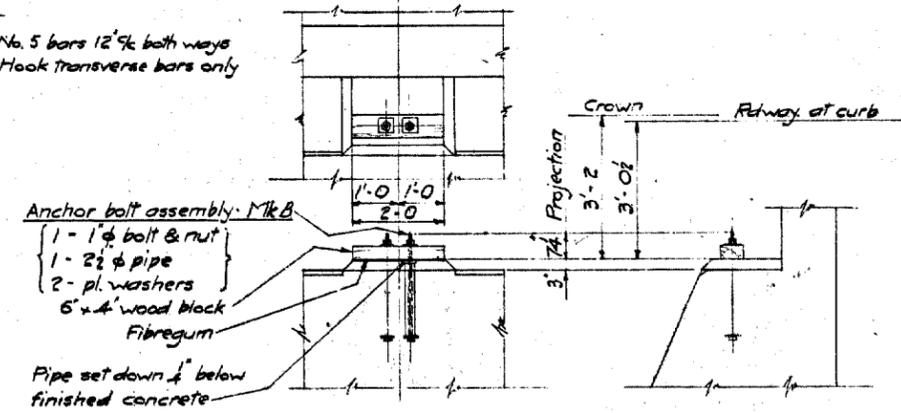


PROTECTION ANGLE ANCHOR SETTING
Scale: 3/4" = 1'-0"



SECT. A-A

Care to be taken in setting bolts to ensure pipes are properly centered thereon. Open ends of pipes to be sealed with wood blocks and fibre-gum, or equal, as shown to exclude water until erection of steelwork.



RAISED BRIDGE SEAT
Scale: 1/2" = 1'-0"

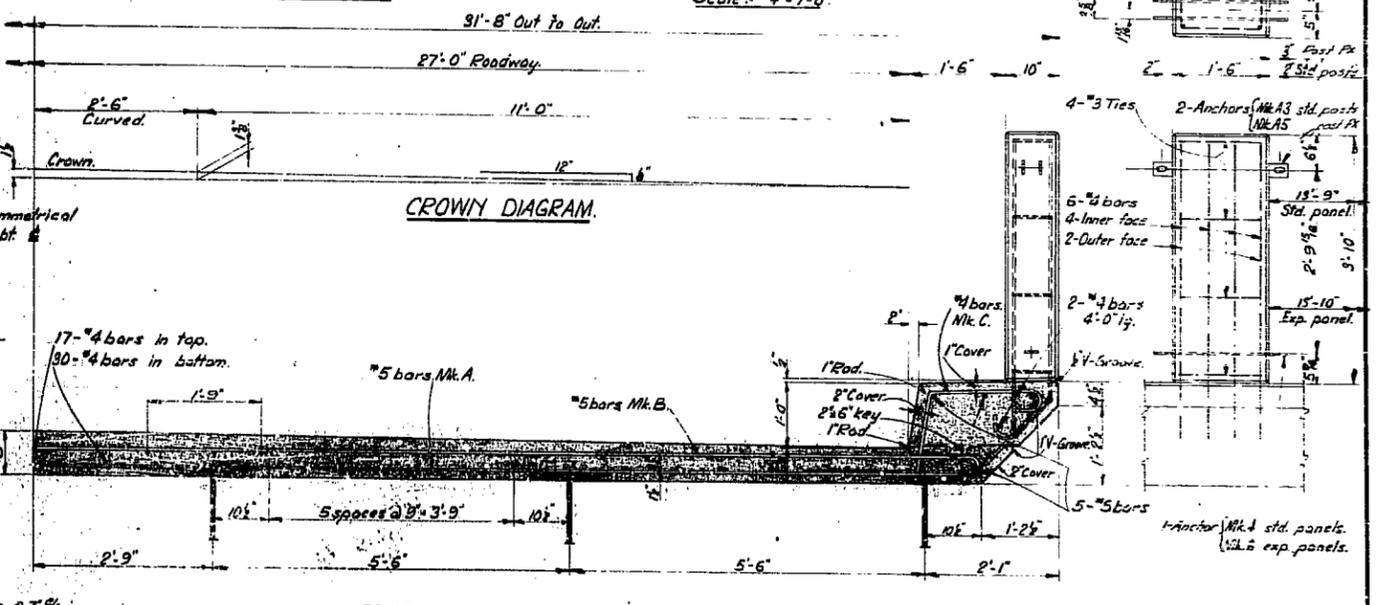
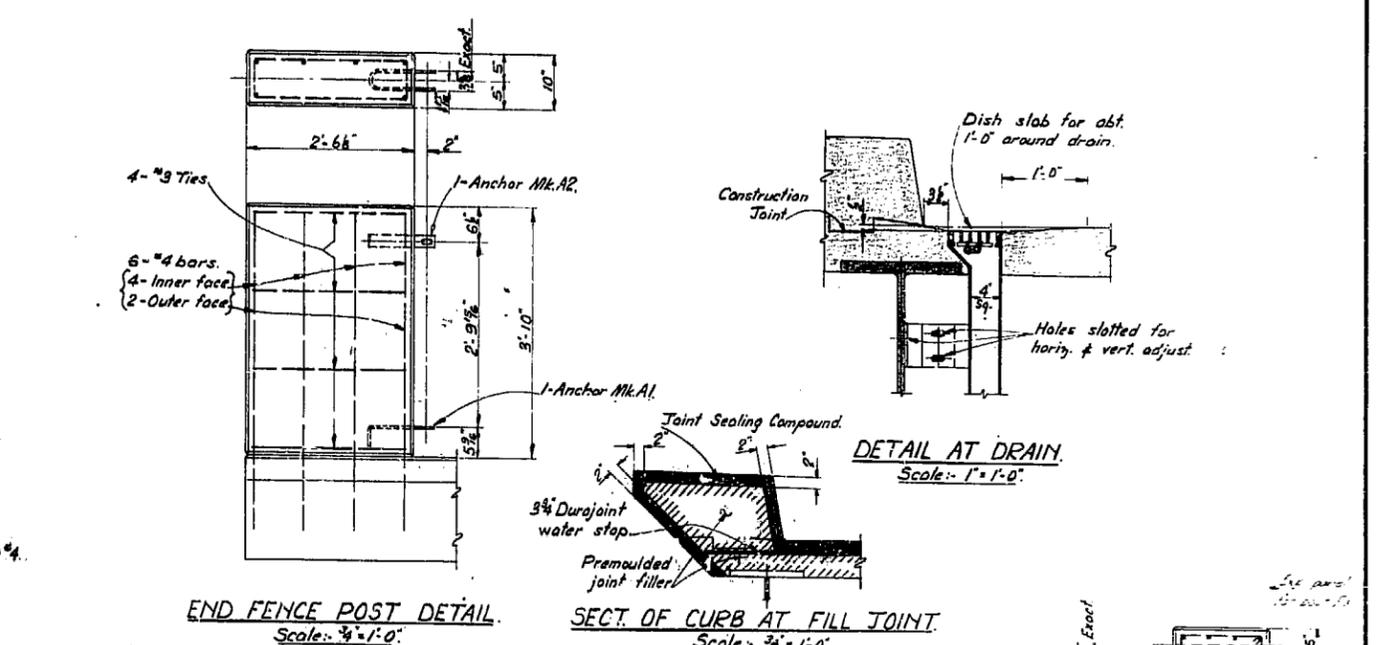
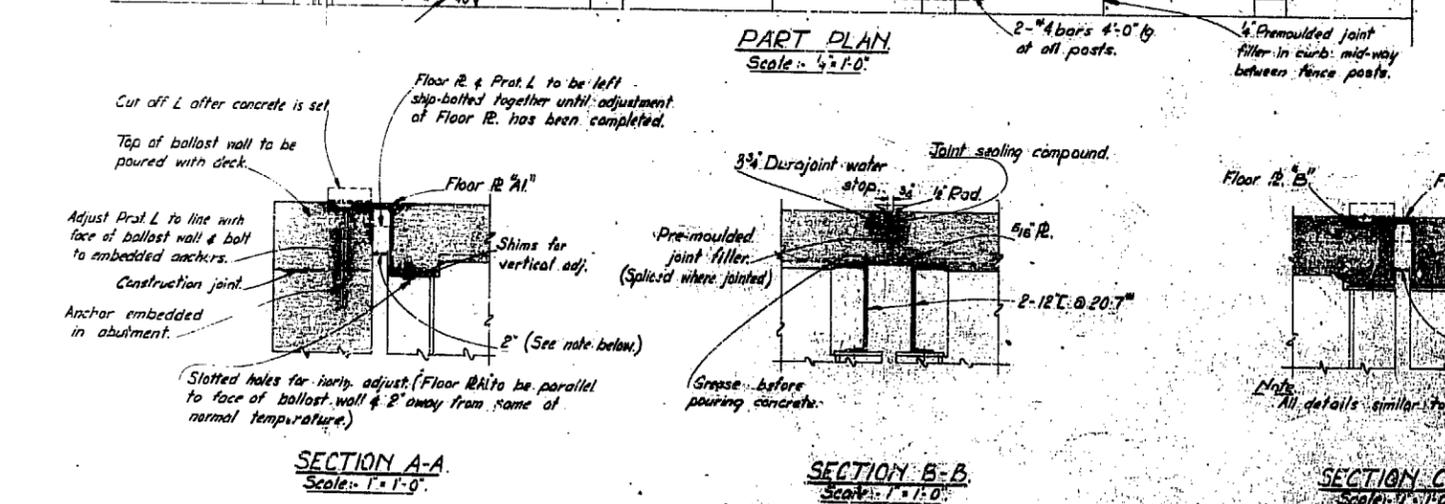
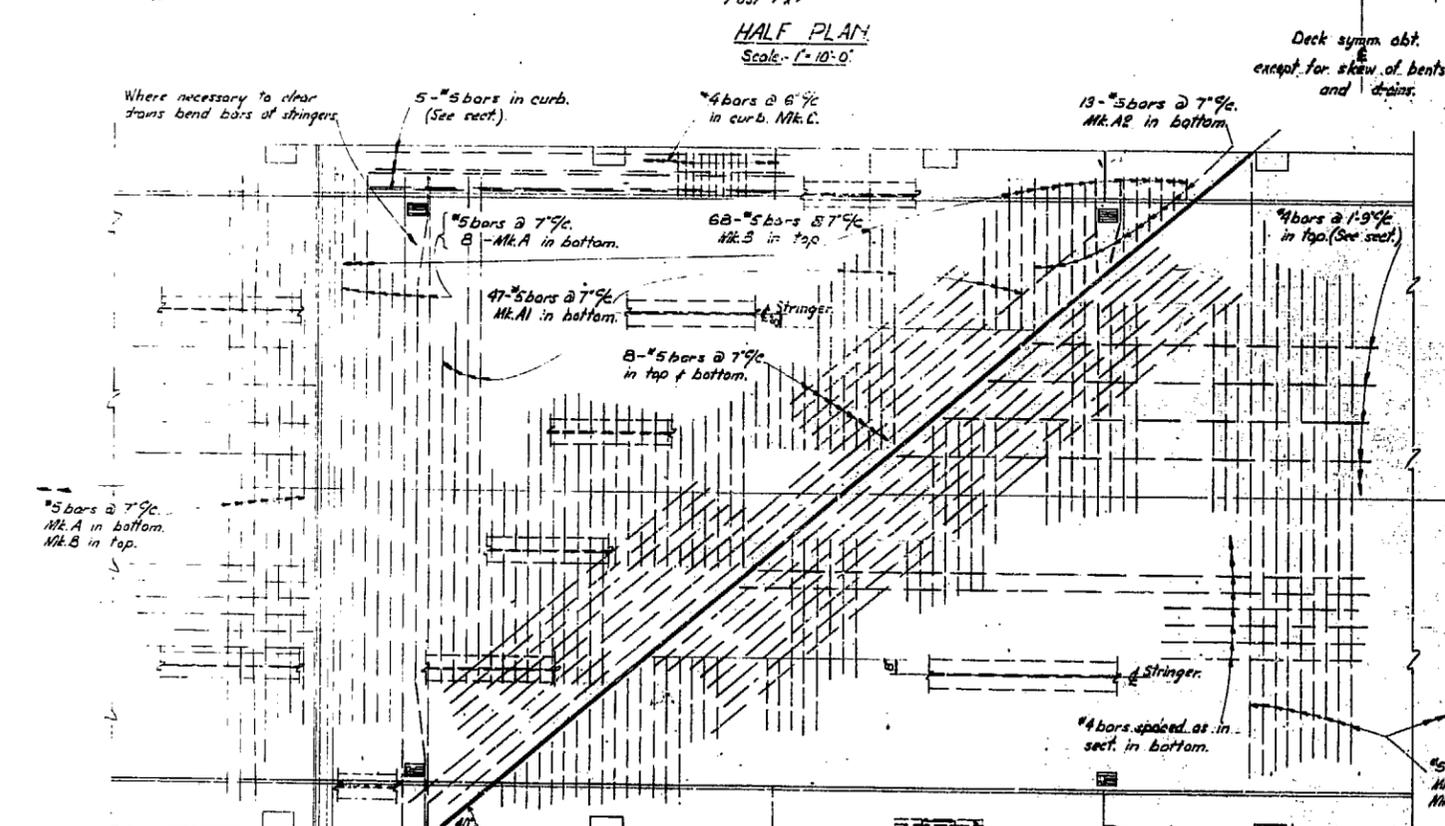
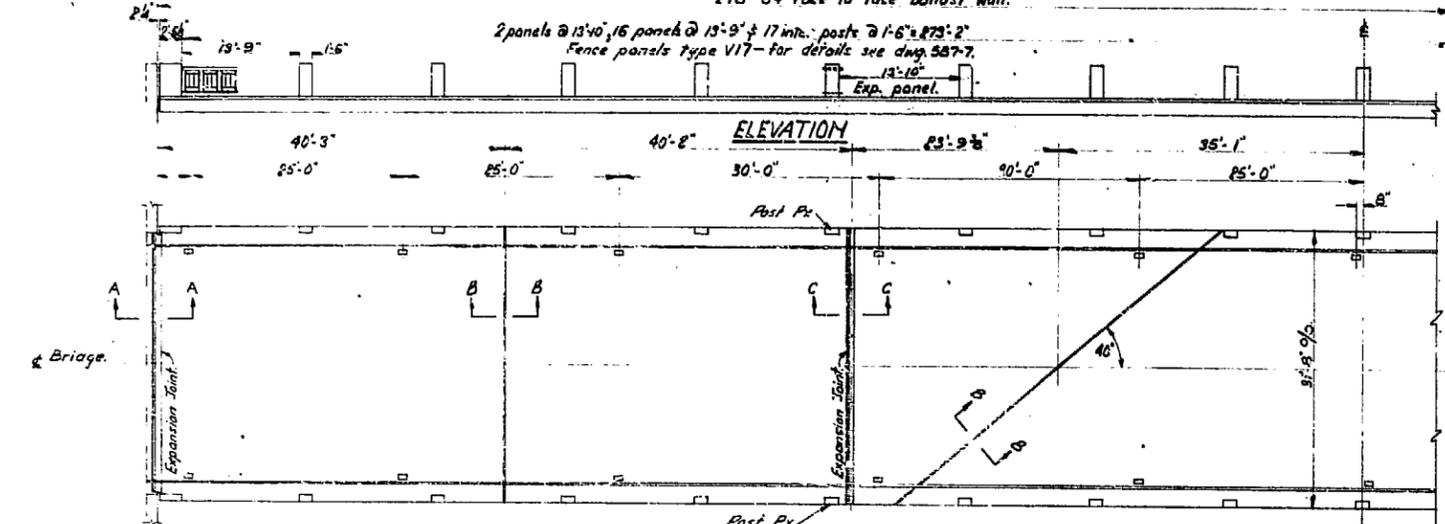
Notes
Both abutments as shown.
For General Notes see Dwg. No. 1383-7

SALMON ARM DISTRICT
TRANS-CANADA HIGHWAY MILE 402.7
TAPPEN OVERHEAD CROSSING
ABUTMENTS
SCALE: 1/4" = 1'-0" & AS NOTED

ESTIMATED QUANTITIES			
PART	CONCRETE	REINF. STEEL	PILES
Abutments, (East & West)	110 cu yds.	3950 lbs	96

REVISIONS			
Rev.	Particulars	Init.	Date
A	Concrete piles to crosssole piles	dl	18-10-54
B	Reinforcement added to Top of ballast wall and seats	dl	27-6-55
C	Wing post & Anchor bolt Mk B changed	dl	28-6-55

GOVT. OF BRITISH COLUMBIA DEPT. OF PUBLIC WORKS BRIDGE ENGINEER'S OFFICE	
Made by	B. I. 9-7-54
Checked by	ES
Approved	White Collar
DRAWING NO.	BRIDGES 1383-B



MARK.	BENDING DIAGRAM
A.	
A1.	
A2.	
B.	
C.	

Notes

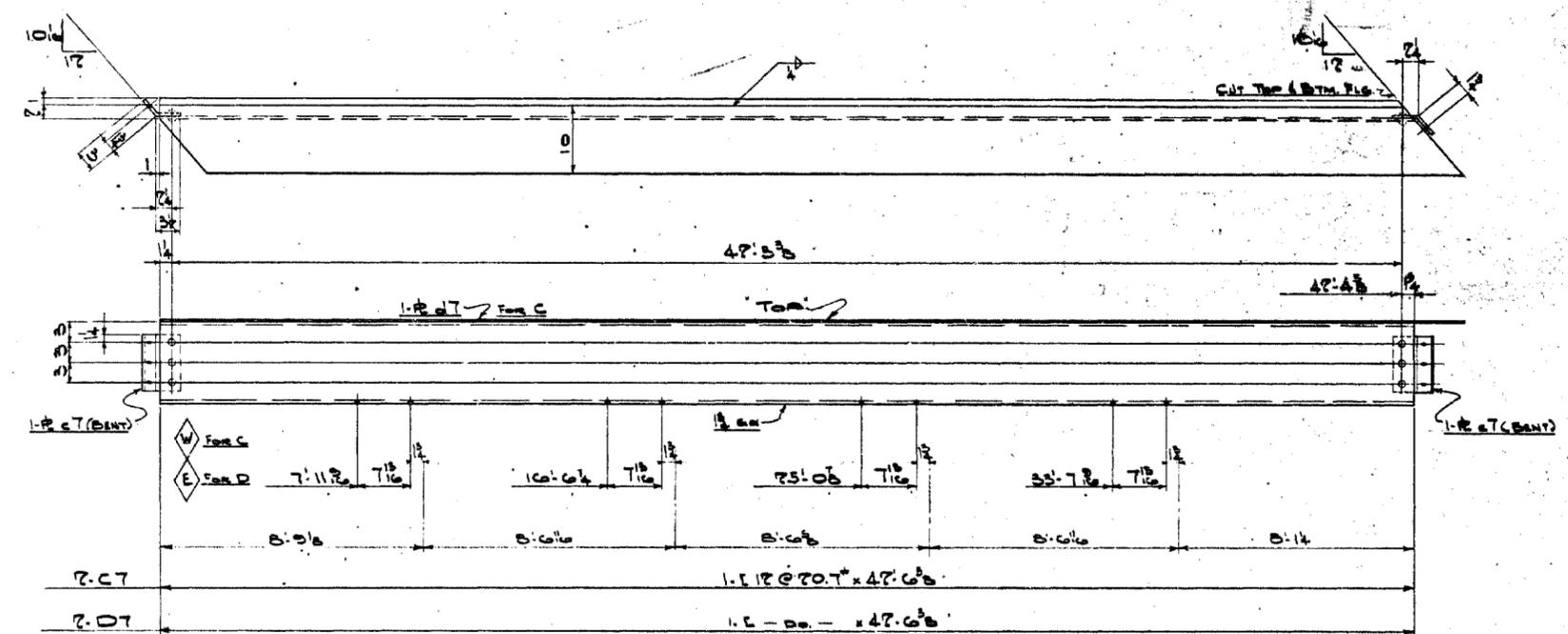
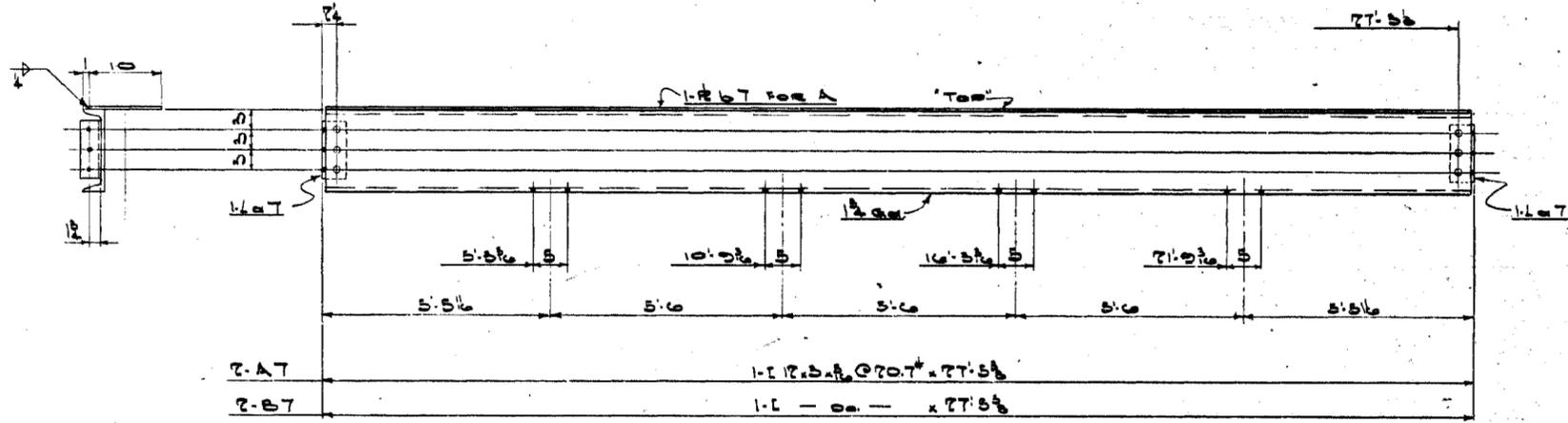
- All concrete to be class A.
- After steelwork has been erected levels are to be taken on top of all stringers at Ends & Midpoints of all spans. This data to be sent to Bridge Office for Deck spread plan.
- All exposed edges to have 1/2" chamfer unless shown otherwise.
- Reinforcing steel to have 1/2" cover except where otherwise shown.
- Reinforcing - Min. diam. of pins to be used for bending bars (including hooks) to be 2 x d' for stringers & ties, 6 x d' for #B bars & inter. B x d' for #B bars & over. Extension of free ends on hooks to be 4 x d'. Lap of bars for splices to be 40 d'.
- Curbs to be formed & poured after roadway slab is set. Top of curbs to be level throughout length of the bridge.
- Estimated wt. of reinforcing stl. = 46,900 lbs.
- Estimated quantity of concrete = 228 cu yds.

**SALMON ARM DISTRICT
TRANS-CANADA HIGHWAY MILE 402.7
TAPPEN OVERHEAD CROSSING
DECK
SCALE - AS SHOWN**

REVISIONS			
No.	Particulars	Issd.	Date
A	Post Px noted	AL	25-10-54

GOVT. OF BRITISH COLUMBIA DEPT. OF PUBLIC WORKS BRIDGE ENGINEER'S OFFICE	
Issd.	Date
Made by A.T.	21-7-54
Checked by P.S.S.	27-7-54
DRAWING NO. BRIDGES 1383-10	

18498



WESTERN BRIDGE AND STEEL FABRICATORS LTD.
VANCOUVER, B.C.
BILL OF MATERIAL
MATERIAL FOR GOVT. OF B.C. DEPT. OF PUBLIC WORKS
TAPPEN OVERHEAD CROSSING - EXPANSION JOINTS
CHECKED BY: D.J.M.

MATERIAL REQUIRED FOR DRAWING No. 7										SHIPPER'S COLUMN			SHIPPING
LINE	NO. PIECES	SHAPE	SIZE	LENGTH	AMOUNT IN STOCK	REMARKS	WEIGHT	ITEM NO. IN STOCK	NO. PIECES	MARK	WEIGHT	DIVISION	
1	4	L	12 @ 20.7	27.5			2265						
2	2	L	52 x 52	27.5			45						
3	2	R	10 x 10	27.5		FOR A	596						
4	24	RIVETS	3/8"				12						
5			WELD (FOR A)				75						
6						EXPANSION JOINTS			2	A7	1771		
7						EXPANSION JOINTS			2	B7	1175		
8													
9	4	L	12 @ 20.7	47.6		TEMP	2521						
10	2	R	10 x 10	47.6		TEMP	44						
11	2	R	10 x 10	47.6		TEMP FOR C	944						
12	24	RIVETS	3/8"				12						
13			WELD (FOR C)				45						
14						EXPANSION JOINTS			2	C7	2786		
15						EXPANSION JOINTS			2	D7	1812		
16													
17													
18	425	RIVETS	3/8"				173		425	FIELD	173		
19	110						46		110		46		
20	15						7		15		7		
21	50	BOLTS					26		50		26		
22	40					5/8" & OUT	27		40		27		
23	125					- OUT	81		125		81		
24													
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48													
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51						C-2607				TOTAL	7170		
52													
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60													

54246

RIVETS $\frac{3}{8}$ " UNLESS NOTED
OPEN HOLES $\frac{1}{2}$ " UNLESS NOTED
PAINT ONE COAT RED LEAD & ONE COAT OF ALUMINUM - EXCEPT AS NOTED

Western Bridge and Steel Fabricators Ltd.
VANCOUVER - CANADA

CUSTOMER: GOVT. OF B.C. DEPT. OF PUBLIC WORKS
NAME OF STRUCTURE: TAPPEN OVERHEAD CROSSING
LOCATION: TRANS. CANADA HIGHWAY, MILE 4087
TITLE OF DRAWING: EXPANSION JOINTS
MADE BY: MEY CHECKED BY: D.J.M. DATE: MARCH 9/55
CONTRACT: 2607 W.O. 7 DWG. NO. 7 (FINAL)

