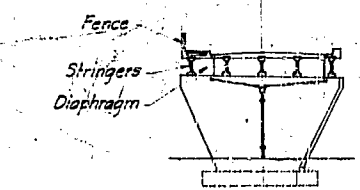
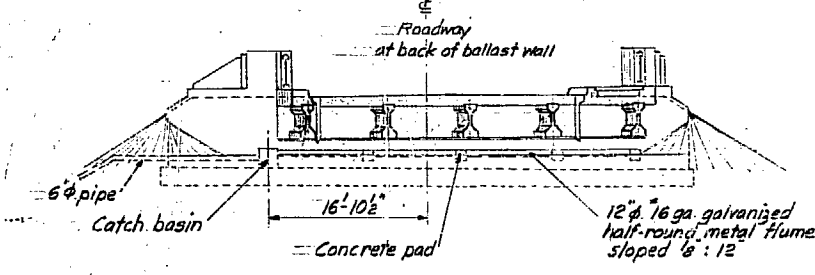
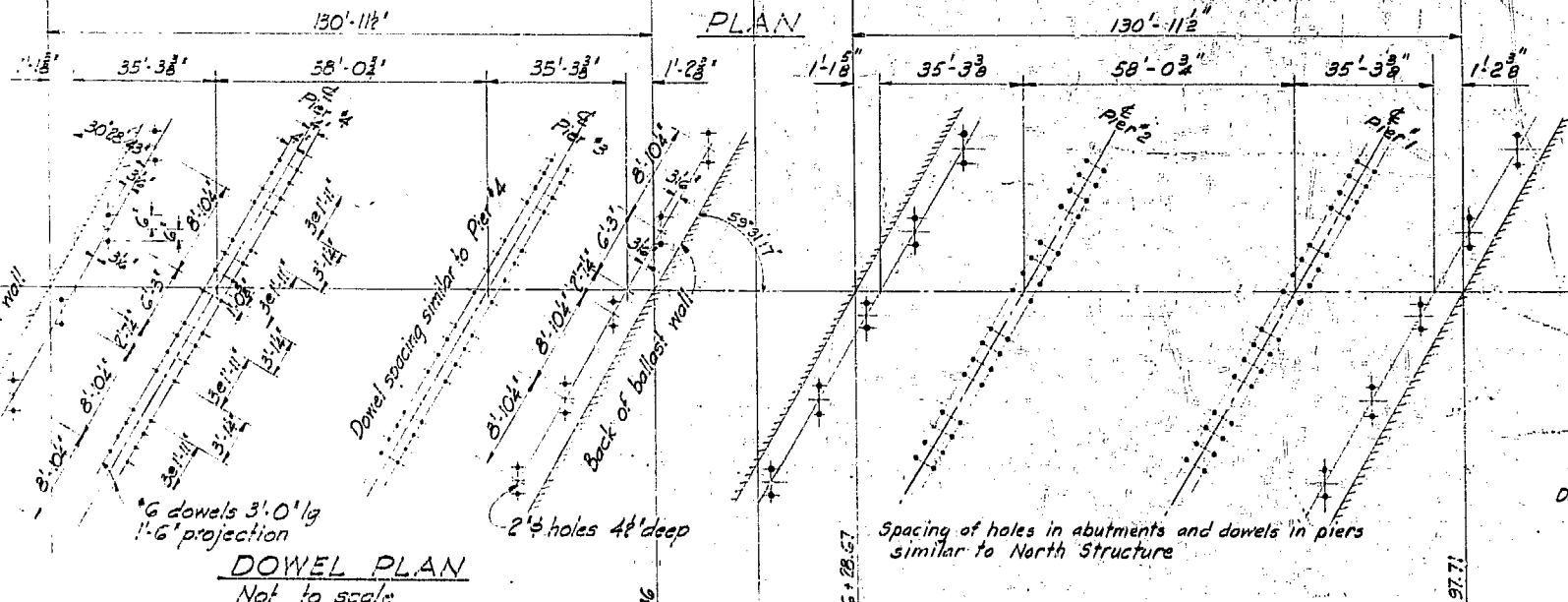


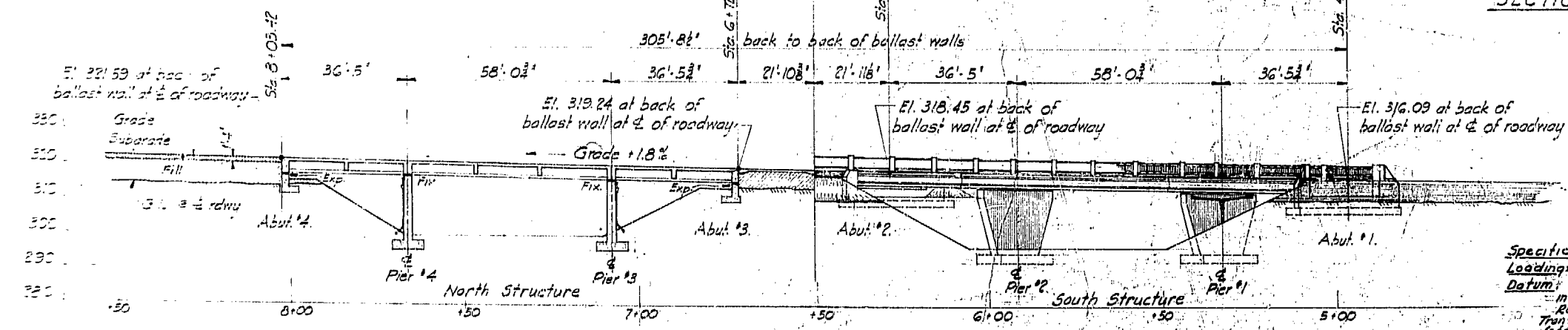
TEST HOLE DATA

ELEVATION	TEST HOLE NO			
	NO 1	NO 2	NO 3	NO 4
	MATERIAL PEN	MATERIAL PEN	MATERIAL PEN	MATERIAL PEN
300				
290	Sandy Silt 107	Sandy Silt 160		Sandy Silt 83 Silty Sand 128
280		Clayey Silt 73		
270	Clayey Silty Silt 61		Clayey Silt 71	Clayey Silt 115
260		Silty Sand 58		
250				
240		Clayey Silt 21		
230				



LIST OF DRAWINGS

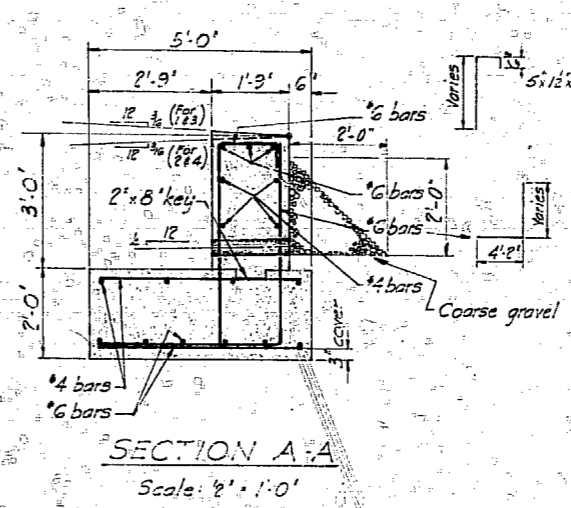
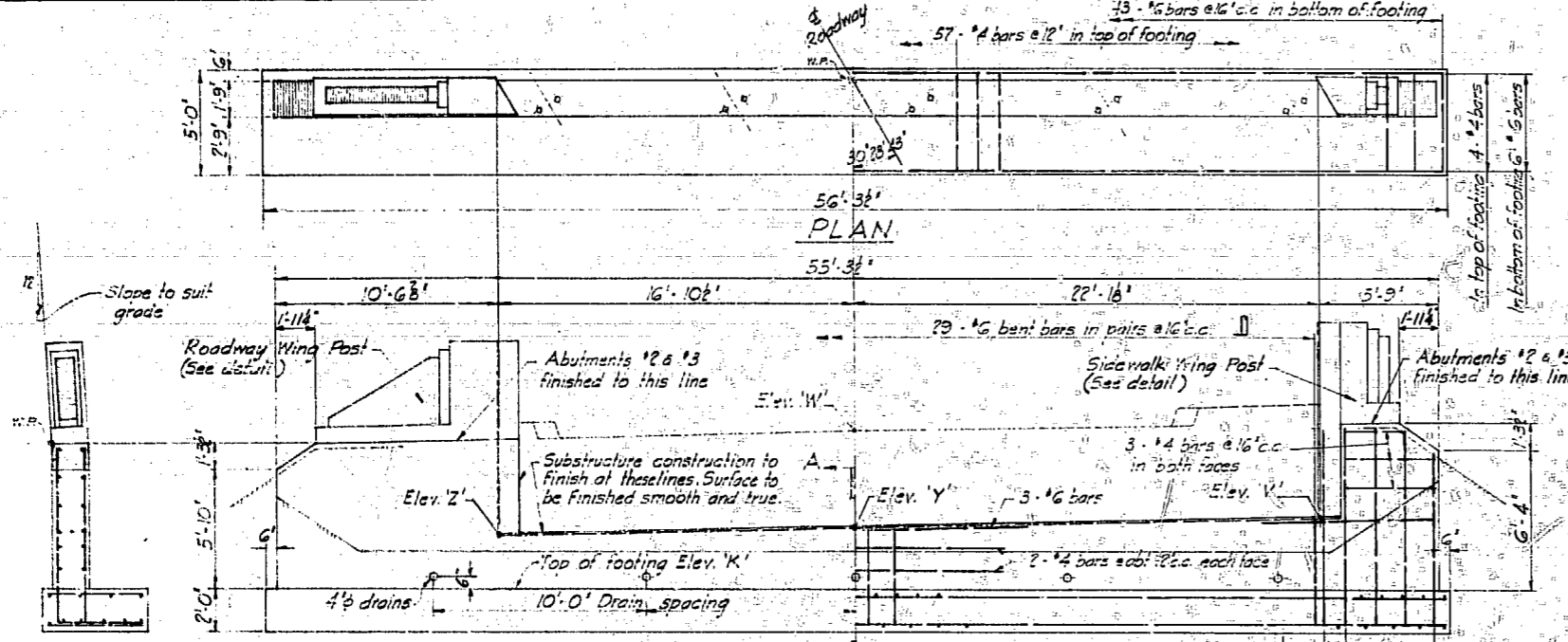
DRWG. NO	TITLE
1562-3	Layout, Dowel Plan, and Key Map
4	Piers and Abutments
5	Prestressed Concrete Stringers
6	Gutters and Downpipes
7	Deck Details
Misc. 587-7E	Standard Roadway Fence
SK 235-A-1	Approach Curb
SK 236-A-1A	Catch Basin



NOTES  
 Specifications: Department of Highways  
 Loadings: Live load: H-20, S16  
 Datum: Geodetic, L.B.M. #261 spike  
 in 2nd power pole on Mi. Lehman  
 Rd. from intersection of existing  
 Trans-Canada Highway, 380 ft.  
 left of Sta. 315+12. Elev. 307.67  
 Survey: Location Branch

CHILLIWACK DISTRICT  
 TRANS-CANADA HIGHWAY MILE 107.40  
 MI. LEHMAN UNDERPASS  
 LAYOUT, DOWEL PLAN AND KEY MAP  
 SCALE: 1" = 20'-0"

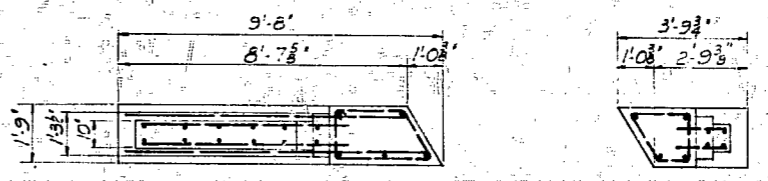
REVISIONS			GOVT. OF BRITISH COLUMBIA DEPT. OF HIGHWAYS	
No.	Particulars	Date	BRIDGE ENGINEER'S OFFICE	
			Made by	M.C.M. Mar. 3/59
			Checked by	N.W. Dec. 1957
			Approved by	[Signature]
			DRAWING NO.	1562-3



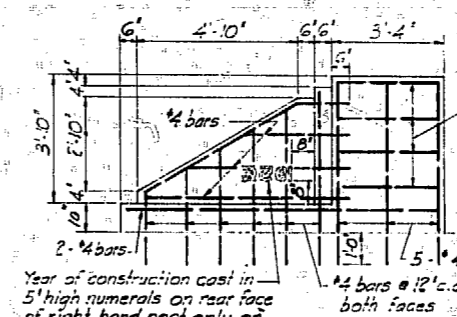
DETAIL OF BEARING AT ABUTMENTS  
Scale: 2" = 1'-0"

END VIEW  
Note: Elevations taken at back of ballast wall.

ELEVATION ABUTMENT #1 - AS SHOWN  
ABUTMENT #3 - SIMILAR TO #1 (Except as noted)  
ABUTMENT #4 - OPPOSITE TO #1 (Except as noted)  
ABUTMENT #2 - SIMILAR TO #4 (Except as noted)



SIDEWALK WING POST

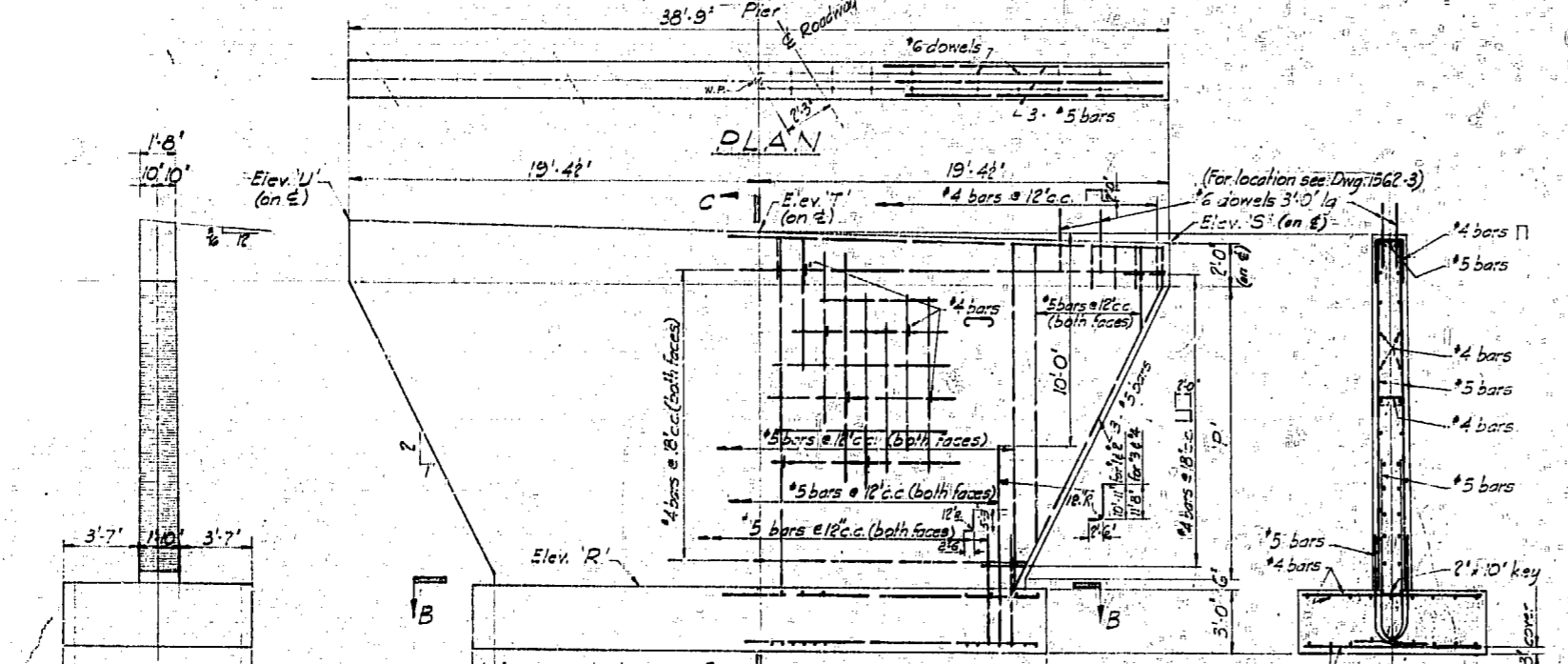


ROADWAY WING POST  
Scale: 3/4" = 1'-0"

- NOTES:
1. Concrete to be class 'A' throughout.
  2. Exposed edges to be chamfered 1" except where noted otherwise.
  3. Reinforcing steel to have 2" cover except where noted otherwise.
  4. Reinforcing steel to be structural grade.
  5. Reinforcing: Min. diam. of pins to be used for bending bars including hooks to be 2xd for stirrups & ties, 6xd for 18 bars and under. Extensions of free ends on hooks to be 4xd. Lap bars for splices 40xd.
  6. Continuous horizontal drainings course as shown on this drawing to be provided at drain holes.
  7. Open holes in abutments for bearings to be filled with sand cement grout and bearings to be placed immediately prior to placing of stringers.

TABLE OF DIMENSIONS

	SOUTH STRUCTURE		NORTH STRUCTURE	
Elev.	Abut. #1	Abut. #2	Abut. #3	Abut. #4
'W'	316.09	318.45	319.24	321.59
'Y'	311.59	313.95	314.74	317.09
'Z'	311.44	313.80	314.59	316.94
'V'	311.79	314.15	314.94	317.29
'K'	308.53	310.95	311.74	314.09
Elev. Pier	Pier #1	Pier #2	Pier #3	Pier #4
'T'	312.35	313.39	315.49	316.54
'U'	312.52	313.57	315.67	316.71
'S'	312.17	313.21	315.31	316.36
'R'	294.17	295.21	296.56	297.61
Dim.				
'P'	15'-6"	15'-6"	16'-3"	16'-3"
'N'	11'-7 1/2"	11'-7 1/2"	11'-3"	11'-3"
'M'	25'-3"	25'-5"	24'-6"	24'-6"



SECTION B-B  
PIERS Nos 1, 2, 3 & 4

ESTIMATED QUANTITIES

	Concrete	Reinforcing
South Struct.		
Abut. #1	38	2400
Abut. #2	36	2250
Pier #1	62	4540
Pier #2	62	4540
North Struct.		
Abut. #3	36	2250
Abut. #4	36	2400
Pier #3	63	4640
Pier #4	63	4640
Total	398 cu. yds.	27,600 lbs.

CHILLIWACK DISTRICT  
TRANS-CANADA HIGHWAY MILE 107.40  
MT LEHMAN UNDERPASS  
PIERS AND ABUTMENTS  
SCALE: 1/4" = 1'-0" AND AS NOTED

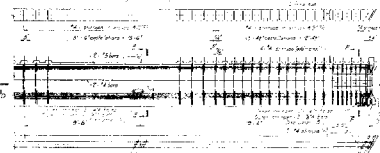
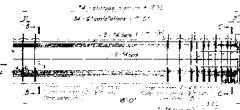
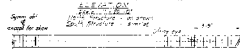
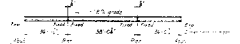
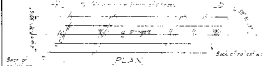
REVISIONS

No.	Particulars	Date	By

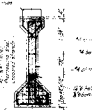
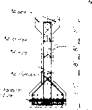
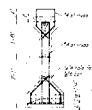
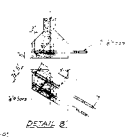
GOVT. OF BRITISH COLUMBIA  
DEPT. OF HIGHWAYS  
BRIDGE ENGINEER'S OFFICE

Drawn by: M.C.M. Mar 50  
Checked by: P.L.D. Dec 50  
Scale: 1/4" = 1'-0"

1562-4



SECTION D-D  
2" OF STRINGER  
Inner stringer as shown  
Outer stringer similar except as noted



SECTION E-E  
SECTION F-F  
SECTION G-G  
SECTION H-H



- NOTES
1. Reinforcement to be 5/8" dia. bars.
  2. Spacing of bars to be 12" c/c.
  3. Bars to be lap jointed at least 40 c/c.
  4. Bars to be lap jointed at least 40 c/c.
  5. Bars to be lap jointed at least 40 c/c.
  6. Bars to be lap jointed at least 40 c/c.

FOR 45 P.P.T. STRIPS  
SEE SHOP DRAWING

25. 25.0' Perimeter of strip 1000 sq ft  
25. 25.0' Perimeter of strip 1000 sq ft

REVISIONS			DATE	BY	CHECKED BY
No.	Description	Date			

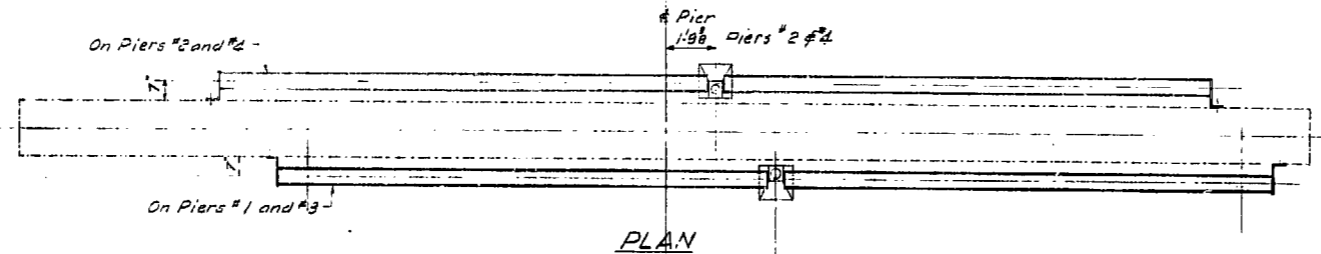
GOVT. OF PUNJAB  
DEPT. OF HIGHWAYS  
ENGINEERING OFFICE  
LUDHIANA

SCALE: 1" = 10'-0"

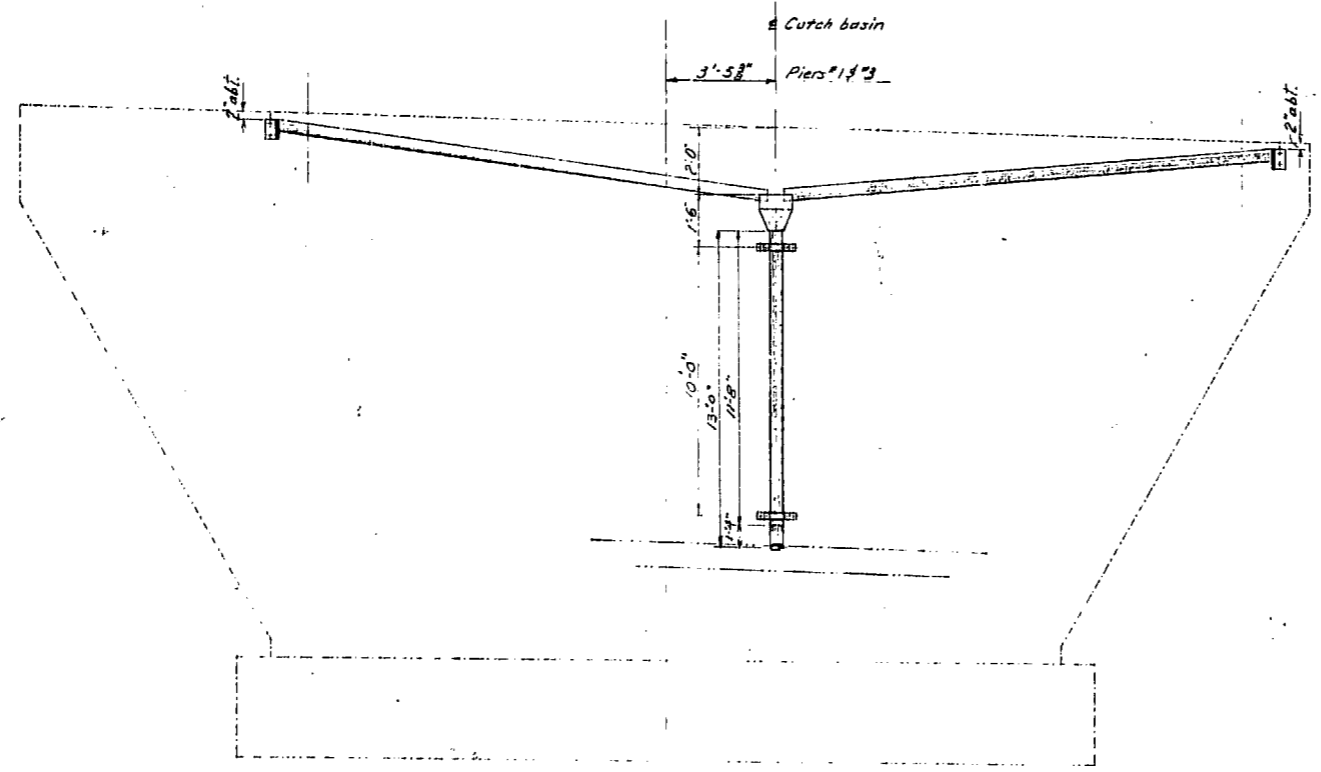
DATE: 10/10/50

BY: [Signature]

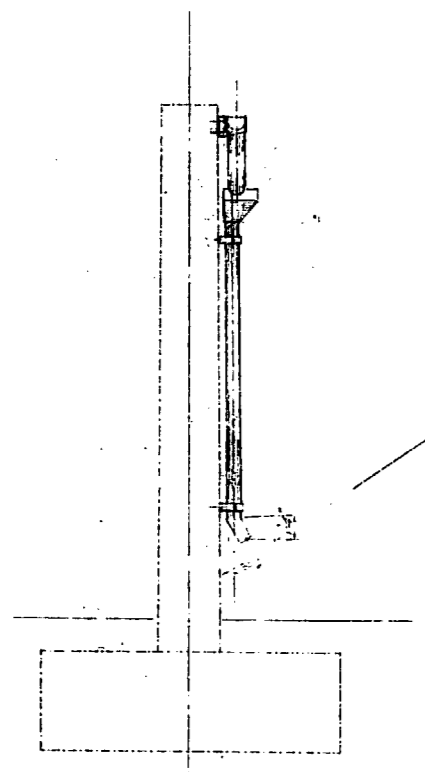
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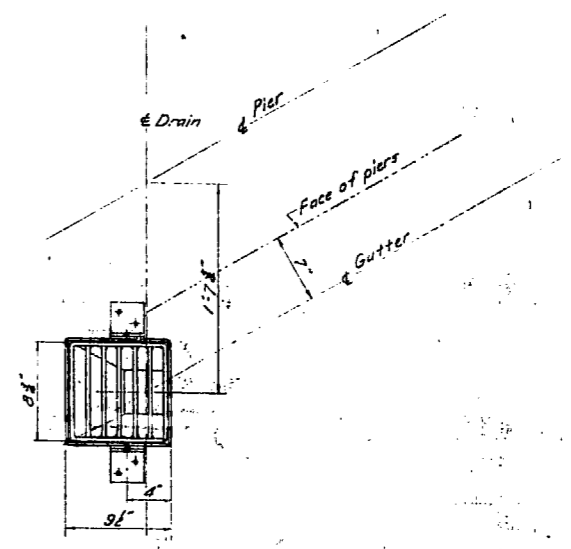
PLAN



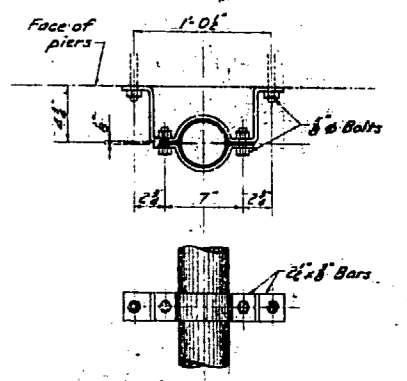
ELEVATION (LOOKING NORTH)



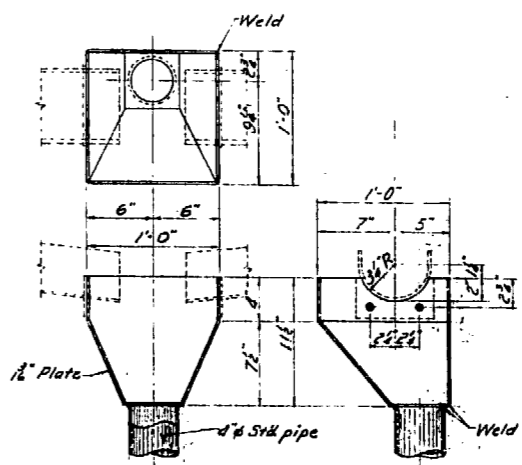
END VIEW  
(Typical)



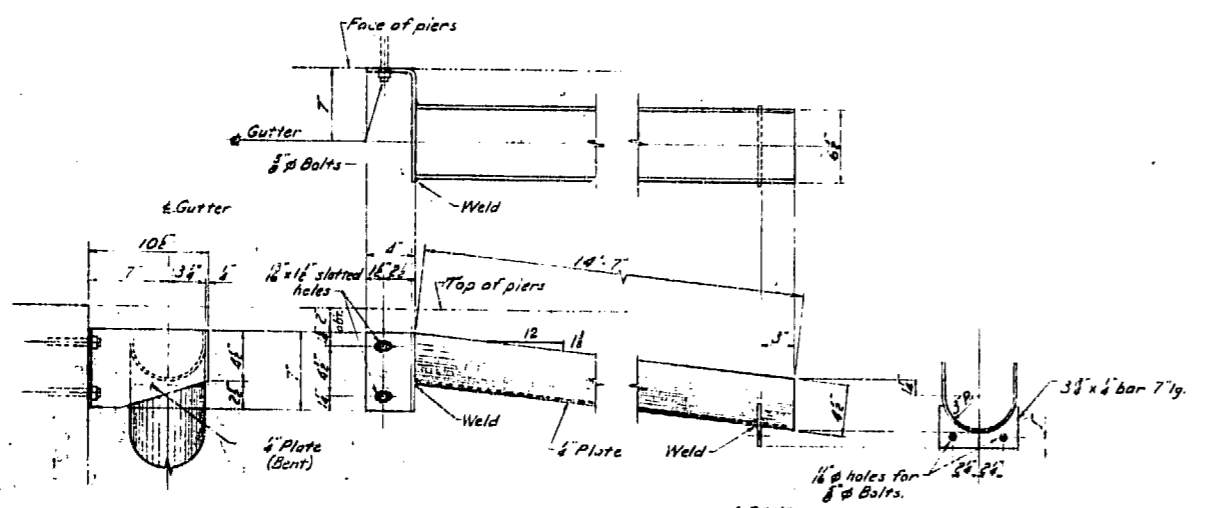
SETTING OF DECK DRAINS



4\"/>



CATCH BASIN DETAILS - 4 REQ'D  
(Galvanized after fabrication)  
Scale: 1/2\"/>



GUTTER DETAILS - 4 REQ'D - AS SHOWN  
4 REQ'D - OPPOSITE HAND  
(Galvanized after fabrication)  
Scale: 1/2\"/>

Estimated weight of steelwork 7927 lbs.

CHILLIWACK DISTRICT  
TRANS-CANADA HIGHWAY MILE 107.40  
MT LEHMAN UNDERPASS  
GUTTERS AND DOWNPIPES  
SCALE: 1/2\"/>

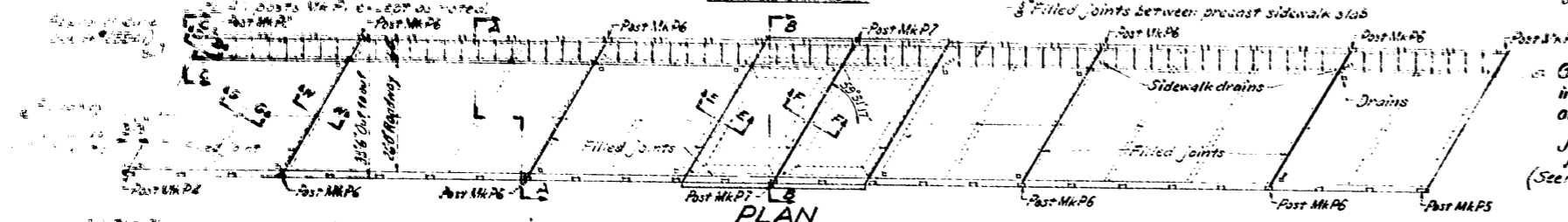
REVISIONS			
No.	Particulars	Date	By

GOVT. OF BRITISH COLUMBIA  
DEPT. OF HIGHWAYS  
BRIDGE ENGINEER'S OFFICE

Made by: J.T.W. for U.S.  
Checked by: R.P. Dec 9/59  
Approved: [Signature]  
DRAWING NO. 15626

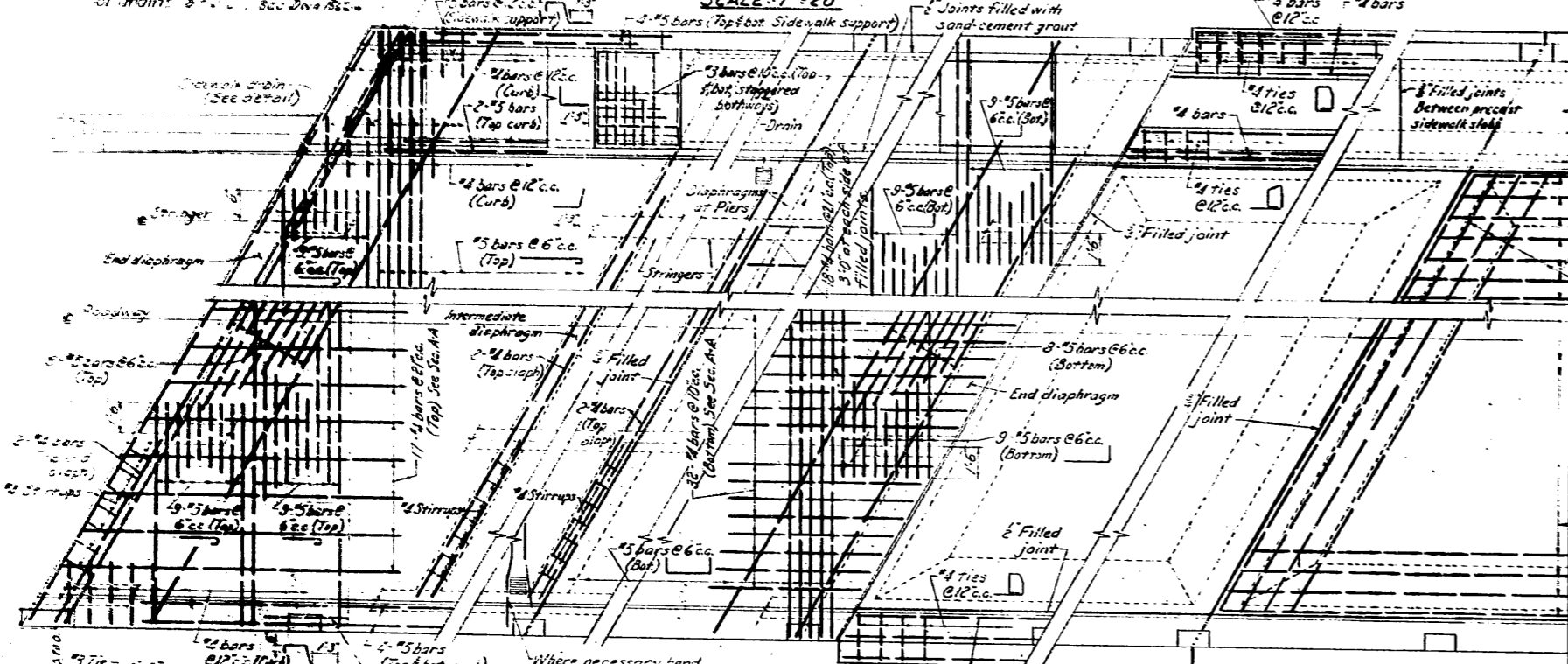
**ELEVATION**

North



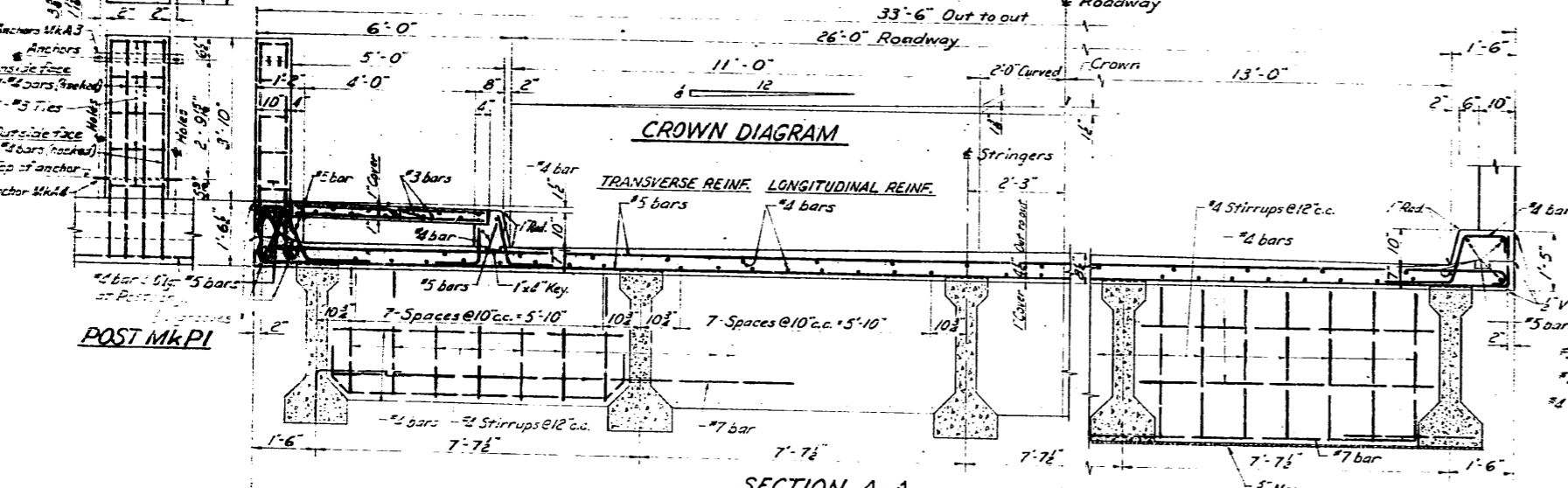
**PLAN**

SCALE: 1" = 20'

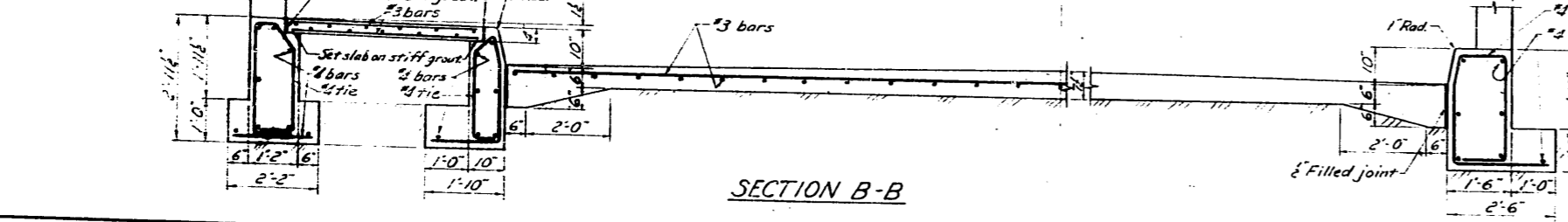


**PART PLAN**

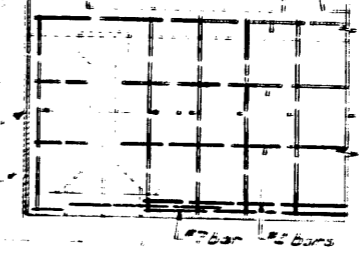
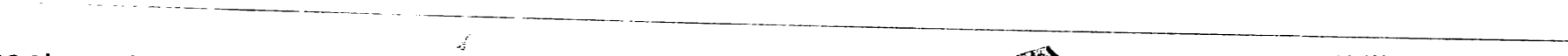
SCALE: 1/4" = 1'-0"



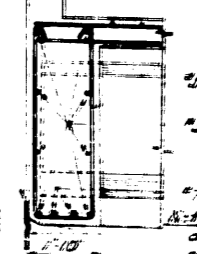
**SECTION A-A**



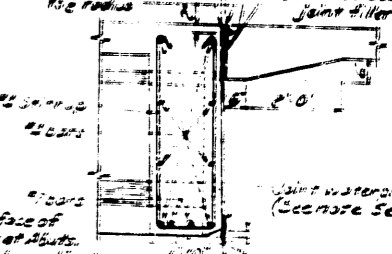
**SECTION B-B**



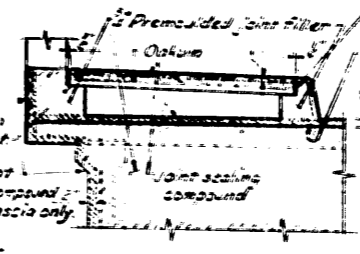
**SECTION C-C**



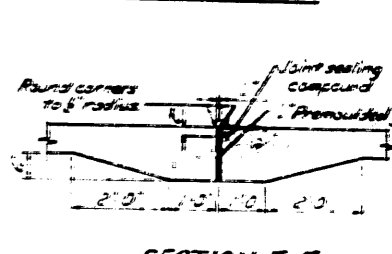
**SECTION D-D**



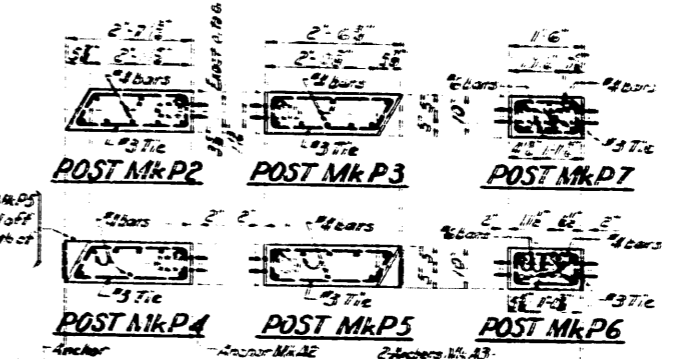
**SECTION E-E**



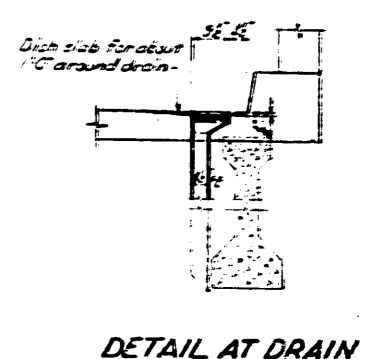
**SECTIONS AT FILLED JOINTS**



**SECTION F-F**



**DETAILS OF FENCE POSTS**



**DETAIL AT DRAIN**

- NOTES:**
- All concrete to be Class 'A'.
  - Each span to be poured in one continuous operation.
  - Cure and sidewalks to be formed and poured after roadway slab is set.
  - All exposed edges to have 1/2" chamfer unless noted otherwise.
  - All diaphragms to be placed and have attained a cylinder strength of 2000 p.s.i. prior to the pouring of deck slab.
  - Screeds for deck concrete shall be set to provide a uniform grade from end to end of the bridge and to accommodate the hogging of the stringers, to be measured in the field, and also a dead load deflection of 1/2" at midspan for 33'-0" span and 3/4" at midspan for 36'-0" span.
  - All reinforcing steel to be structural grade.
  - Reinforcing steel to have 1/2" cover unless noted otherwise.
  - Minimum diam. of pins to be used for bending bars, including hooks, to be 2x dia. for ties or stirrups and 5x for #3 bars and under. Extension of ends on hooks to be 4x dia. Laps of bars for splices to be 42x dia. Splices to be staggered.

**ESTIMATED QUANTITIES (including contractor's profit)**

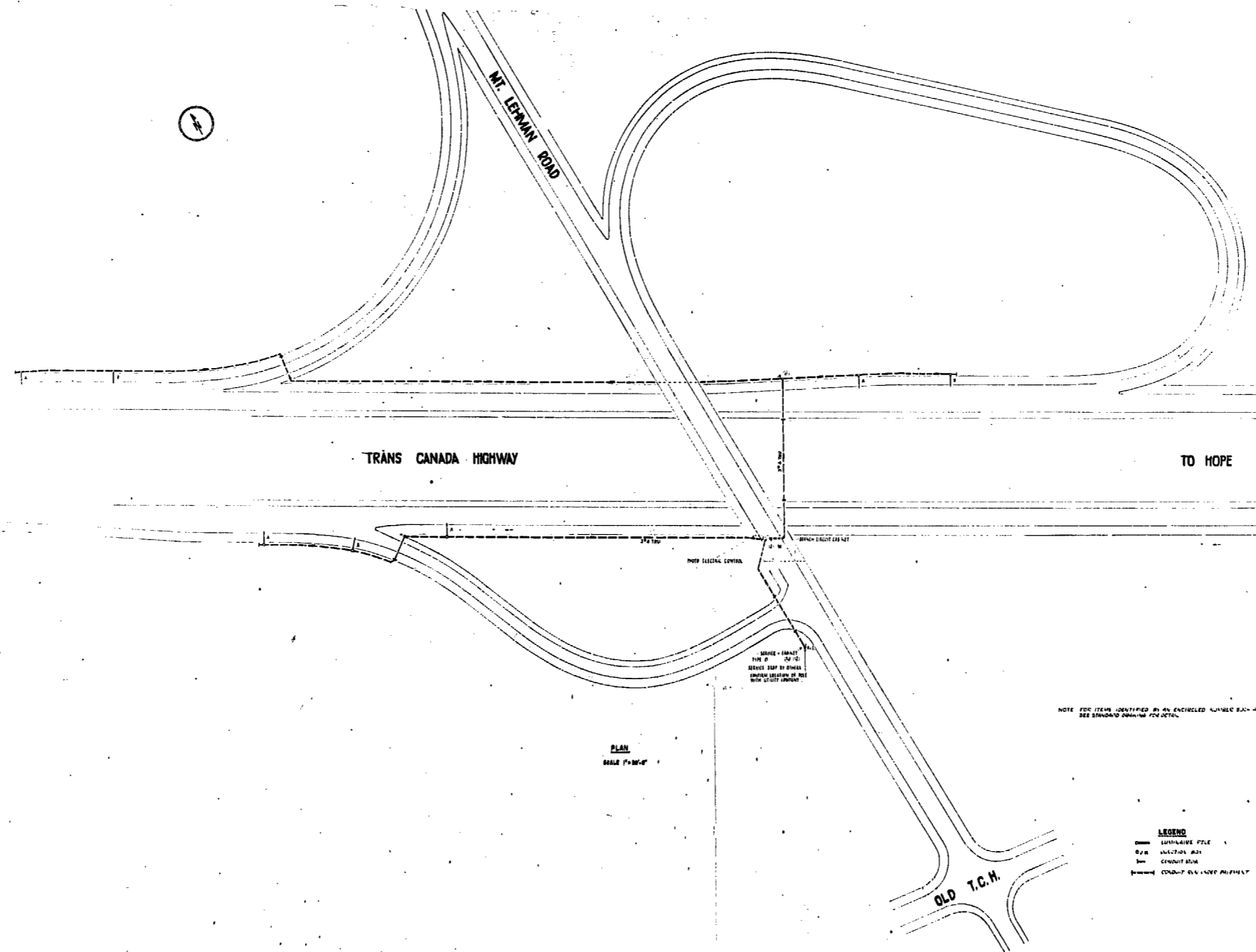
Concrete	226 cu yds
Reinforcing steel	25,400 lbs

**CHILLIWACK DISTRICT  
TRANS-CANADA HIGHWAY MILE 107.40  
MOUNT LEHMAN ROAD UNDERPASS  
DECK DETAILS  
SCALE: 1/2" = 1'-0" AND AS NOTED**

REVISIONS			GOVT. OF BRITISH COLUMBIA DEPT. OF HIGHWAYS BRIDGE ENGINEER'S OFFICE	
Particulars	Iss.	Date	By	Date

Drawn by: J. S. ...  
Checked by: ...  
15627

TO VANCOUVER

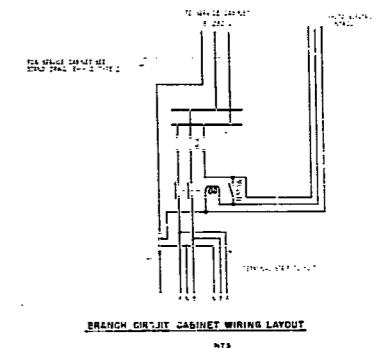


PLAN  
SCALE 1"=50'-0"

NOTE FOR ITEMS IDENTIFIED BY AN ENCLOSED NUMBER SEE-45  
SEE STANDARD DRAWING FOR DETAIL.

**LEGEND**

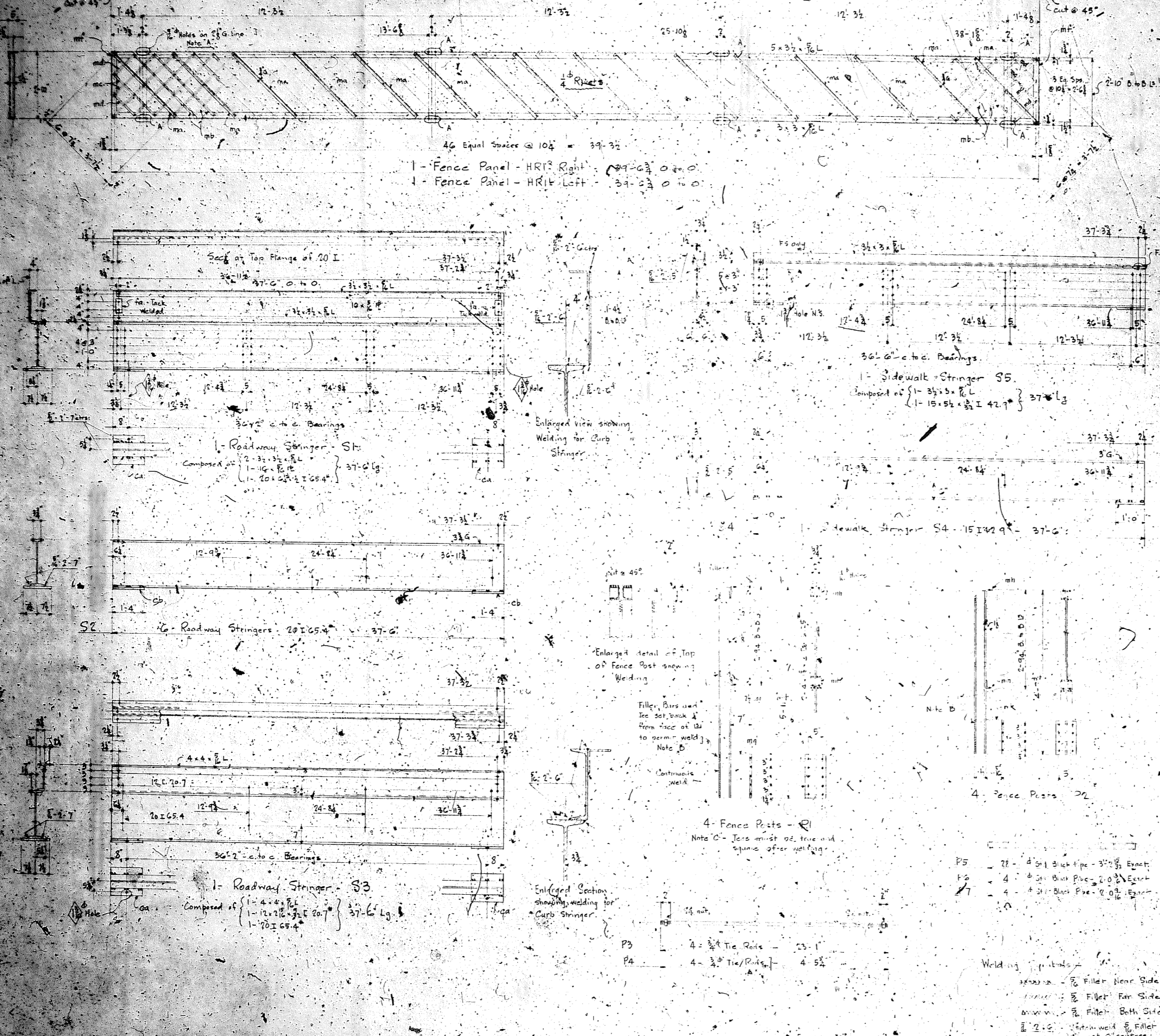
- CONDUIT
- CONDUIT WITH TRAY
- CONDUIT WITH TRAY AND RACEWAY
- CONDUIT WITH TRAY AND RACEWAY AND RACEWAY
- CONDUIT WITH TRAY AND RACEWAY AND RACEWAY AND RACEWAY



58473

TITLE OF CONTRACT		58473	
TRANS CANADA HIGHWAY			
FRASER VALLEY SECTION			
TITLE OF DRAWING		SCALE	
MT. LEHMAN RD. INTERCHANGE		AS SHOWN	
ELECTRICAL		DATE	
PRINCIPAL GOVERNMENT OF BRITISH COLUMBIA		DRAWING NO.	
DEPARTMENT OF PUBLIC WORKS		REVISED	

NO.	DATE	REVISIONS	BY	DATE



**BILL OF MATERIAL FOR: Mark Creek Bridge**

Kimberley, B.C.

Prov. of B.C. - Dept. of Public Works

Cont. V629

NO. OF PIECES	ASSEMBLY MARK	DESCRIPTION	REMARKS	PROPOSED LENGTH		QUANTITY OF MATERIAL		UNIT WEIGHT
				FT.	INCH.	FT.	INCH.	
1		1 - HR13	1 - HR14					
2		5 x 3/4" x 1/2" L		39	6 3/4	Exact		
3		3 x 3" x 1/2" L		39	6 3/4	Exact		
4	32	ma	16 x 16 x 1/2" L	5	6 3/4			
5	144	mb	1 x 3/4" Bars	3	6 3/4			
6	8	mc	1 x 3/4" Bars	2	6			
7	8	md	1 x 3/4" Bars	1	6 3/4			
8	4	mf	3 x 2 1/2" x 1/2" L	2	6 3/4			
9	652		4" Rivets					
10			1 - S1					
11			3/4 x 3/4 x 1/2" L	37	6	Exact		
12			3/4 x 3/4 x 1/2" L	37	6	Exact		
13			16' I 42.9'	37	6	Exact		
14			20' I 65.4'	37	6	Exact		
15	2	ca	15 x 1" P	1	4			
16	2	ca	2 1/2 x 3/4 Bars	1	9			
17			16 - S2					
18	6		20' I 65.4'	37	6			
19	12	cb	15 x 1" P	1	4			
20								
21			1 - S3					
22			4 x 4 x 1/2" L	37	6	Exact		
23			12 x 2 1/2 x 1/2" I 42.9'	37	6	Exact		
24			20' I 65.4'	37	6	Exact		
25	2	ca	15 x 1" P	1	4			
26								
27			1 - S4					
28			15 x 2 1/2 x 1/2" I 42.9'	37	6	Exact		
29	2	cd	17 x 1" P	1	6			
30								
31			1 - S5					
32	1		15 I 42.9'	37	6	Exact		
33	1		3/4 x 3/4 x 1/2" L	37	6	Exact		
34	2	ce	12 x 1" P	1	0			
35								
36			4 - P1					
37	8		4 x 1 1/2 x 4 ES G.25*	5	1 1/2			
38	4	mg	7 x 10 1/2 x 1/2 Tee - Cut 24 I 79.9	1	2 1/2			
39	8	mh	2 1/2 x 2 1/2 x 1/2 L	1	3 1/2			
40	8		2 x 1/2" Filler Bars	1	3 1/2			
41								
42			4 - P2					
8			4' ES G.25*	4	7 1/2			
4	mk		7 x 10 1/2 x 1/2 Tee - Cut 24 I 79.9	1 1/2				
8	mh		2 1/2 x 2 1/2 x 1/2 L	3 1/2				
8			2 x 1/2" Filler Bars	3 1/2				
4	P3		3/4" Rods - 1/2" dia 2' each end	23	1			
4	P4		3/4" Sq. nuts	4	5 1/2			
8			3/4" Rods - 1/2" dia 2' each end	4	5 1/2			
8			3/4" Sq. nuts					
28	P5		1" Std. Black pipe	3	2 1/2	Exact		
4	P6			2	0 1/2	Exact		
4	P7			2	0 1/2	Exact		

Specifications - C.E.S.A. AG-1929 for Steel Highway Bridges

Material - Structural Carbon Steel

Holes - All holes punched Full Size

Welding - All fillets 1/2" unless otherwise noted

Ref. Dwg - D.P.W. 893-4

Pur. Reqn. K 10010

**DOMINION BRIDGE COMPANY, LIMITED**

VANCOUVER, B.C.

RIVETS 1/2" in Fence Panels

HOLES 1/2" except 3/4" and 1" noted

PAINT One Coat Std Red Lead

TO BE APPLIED AS PER C. E. S. A. BUILDING SPECIFICATION.

PROPRIETOR Prov. of B.C. Dept. of Public Works

DESCRIPTION Mark Creek Bridge, Wallinger Ave., Kimberley, B.C.

PURCHASER Dept. of Public Works

DETAIL: Stringers, Fence Panels, Posts, etc.

REVISION

DATE

DRAWN R.P.N. Oct 18/32

CHECKED R.P.N. Oct 18/32

APPROVED D.P.W. Oct 22/32

SCALE 1" = 10' FOOT

DEPT. CONT. V629

97826







**GOVERNMENT OF BRITISH COLUMBIA**  
DEPARTMENT OF HIGHWAYS  
BRIDGE ENGINEER'S OFFICE

**BILL OF REINFORCING STEEL**

FOR SUBSTRUCTURE

NAME OF WORK MT LEHMAN UNDERPASS

BILL No. <u>1562-X1</u>
SHEET No. <u>1 of 1</u>
FILE No. <u>917</u>
MADE BY <u>M.C.M.</u>
DATE <u>May 29/59</u>
CHECKED BY <u>R.J.D.</u>
DATE <u>Dec. 8/59</u>

ITEM No.	No. REOL	MARK	SIZE	LENGTH	Total Length	BENDING DIMENSIONS														
						A	B	C	D	E	F	G	H	L						
1			#6	7540																
2			#5	9210																
3			#4	9910																
4			#3	250																

Total weight - 27,660 lbs.

Reinforcing bars shall be in accordance with the Canadian Standards Association Specification for Billet Steel Reinforcing Bars No G30-1938 or with the Specification for Rail Steel Reinforcing Bars No G31-1938 and subsequent revisions thereof.

141812

**GOVERNMENT OF BRITISH COLUMBIA**  
DEPARTMENT OF HIGHWAYS  
BRIDGE ENGINEER'S OFFICE

**BILL OF REINFORCING STEEL**

FOR DECK

NAME OF WORK MT LEHMAN UNDERPASS

BILL No. <u>1562-X2</u>
SHEET No. <u>1 of 1</u>
FILE No. <u>917</u>
MADE BY <u>M.C.M.</u>
DATE <u>May 29/59</u>
CHECKED BY <u>P.P.</u>
DATE <u>Dec. 7-59</u>

ITEM No.	No. REOL	MARK	SIZE	LENGTH	Total Length	BENDING DIMENSIONS														
						A	B	C	D	E	F	G	H	L						
1			#7	1400																
2			#6	120																
3			#5	39950																
4			#4	28000																
5			#3	10550																

Total weight - 68,400 lbs.

Reinforcing bars shall be in accordance with the Canadian Standards Association Specification for Billet Steel Reinforcing Bars No G30-1938 or with the Specification for Rail Steel Reinforcing Bars No G31-1938 and subsequent revisions thereof.

141812

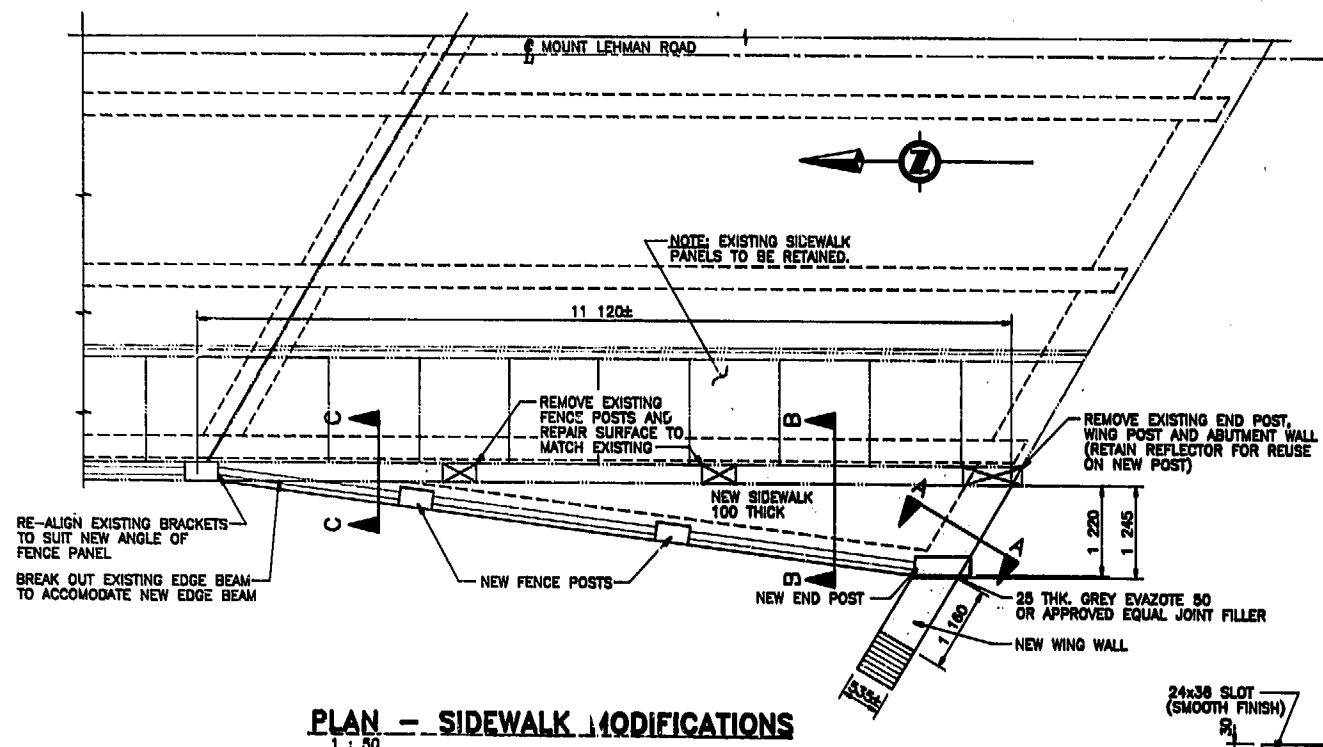
**DEPARTMENT OF HIGHWAYS**  
BRIDGE ENGINEER'S OFFICE

**SCHEDULE OF MATERIAL**

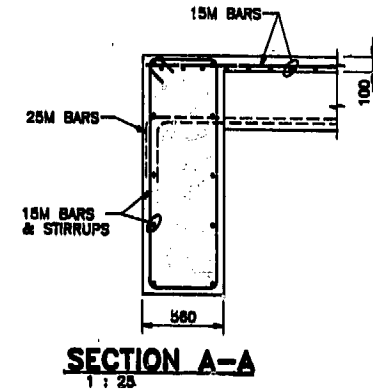
For MT LEHMAN ROAD UNDERPASS  
CHILLIWACK DISTRICT  
TRANS-CANADA HIGHWAY MILE 107.40

BILL No. <u>1562-X1</u>
SHEET No. <u>1 of 1</u>
FILE No. <u>917</u>
MADE BY <u>M.C.M.</u>
DATE <u>Nov. 24/59</u>
CHECKED BY <u>P.P.</u>
DATE <u>Dec. 8-59</u>

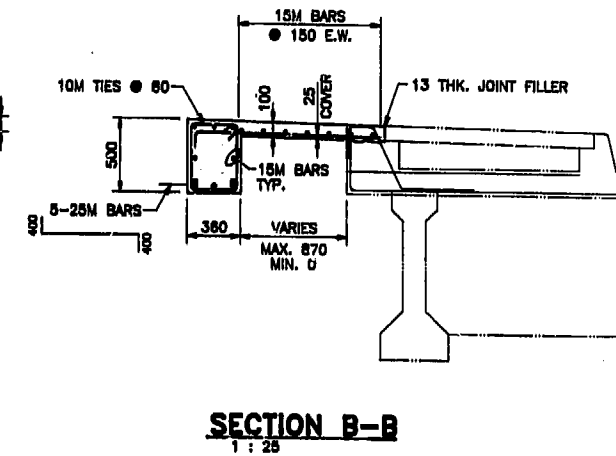
ITEM	QUANTITY	DESCRIPTION	BILL	DRAWING	WEIGHT	REQ'N
<b>SUBSTRUCTURE</b>						
1.	2786 sbs	Cement				
2.	1 Lot	Reinforcing steel	1562-X1		27,660	
3.	1 set	Date numerals				
4.	2 sets	Traffic reflectors				
5.	4 only	Traffic reflector anchors				
6.	14 gals.	Air entraining agent				
7.	3 only	Trapping hoods	Misc. 259-5			
8.	3 only	18" x 1-6" R's				71
9.	30	12 dia. 1/2 galv. half round metal flume in 10'-0" lengths				
10.	200 lin. ft.	6" dia. No-Co-Rois pipe with connectors				
<b>SUPERSTRUCTURE</b>						
Prestressed concrete stringers including sole plates:						
11.	10	58'-0" as per drawing	1562-5			
12.	20	36'-0" " " "				
13.	20	Bearings	SK 1562-8		790	
14.	310 lin. ft.	Neoprene 2' x 9'				
15.	1 Lot	Fence panels and anchors	587-7E		21,100	
16.	6 gals.	Paint: Red lead Alkyd/oil D.O.H. B.1.				
17.	6 gals.	Green Alkyd D.O.H. C.1.				
18.	1 Lot	Drains, gutter and downpipes	SK 1562-10		3425	
19.	6 only	Sidewalk drains	237 A-1		12	
<b>DECK: (Including approach curbs)</b>						
20.	2982 sbs	Cement				
21.	1 Lot	Reinforcing steel	1562-X2		68,400	
22.	14 gals.	Air entraining agent				
23.	65 lin. ft.	2' x 10' Preformed joint filler				
24.	670 lin. ft.	2' x 12' " " "				
25.	140 lin. ft.	2' x 10' " " "				
26.	50 lin. ft.	2' x 8' " " "				141812
27.	130 lin. ft.	4" Corr. rubber waterstop				
28.	1 Bale	Oakum				
29.	2 rolls	Saturated cotton fabric 36" wide x 150' lg.				
30.	5 gals.	Asphalt waterproof gurn				
31.	36 gals.	Joint sealing compound (Black)				
32.	5 gals.	" " (Grey)				



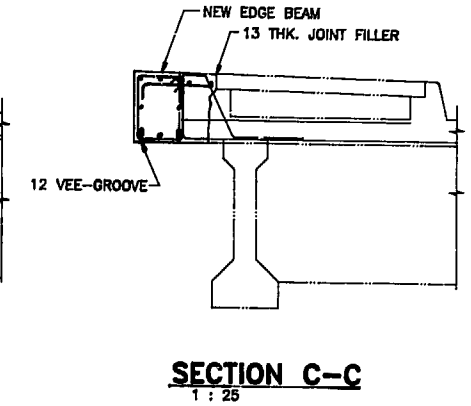
**PLAN - SIDEWALK MODIFICATIONS**  
1:50



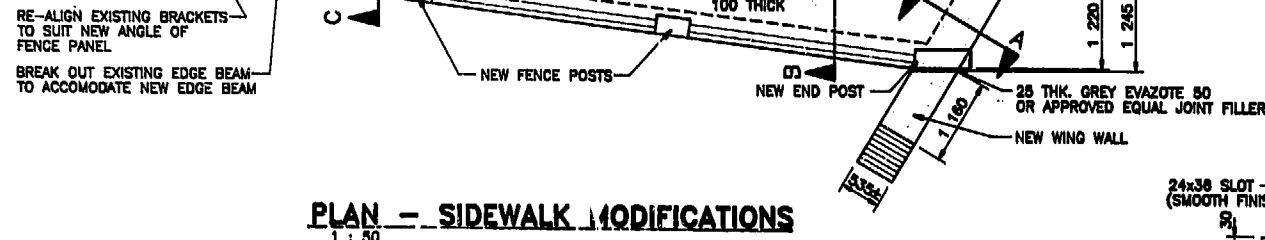
**SECTION A-A**  
1:25



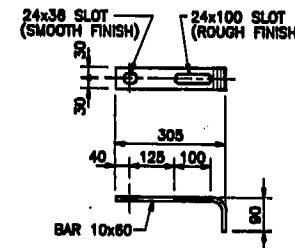
**SECTION B-B**  
1:25



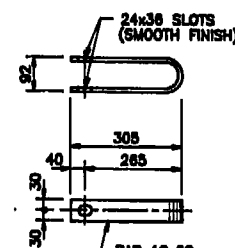
**SECTION C-C**  
1:25



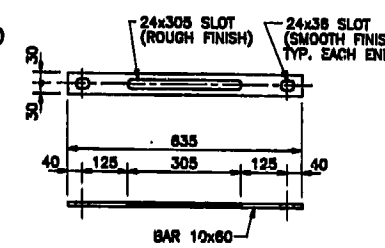
**PLAN - EDGE BEAM DETAILS**  
1:12.5



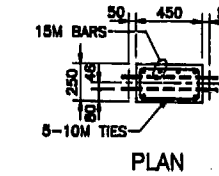
**ANCHOR MK'A1'**  
1:10 1 REQUIRED



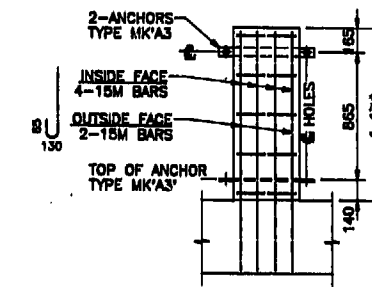
**ANCHOR MK'A2'**  
1:10 1 REQUIRED



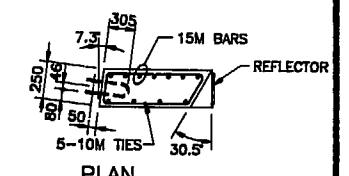
**ANCHOR MK'A3'**  
1:10 6 REQUIRED



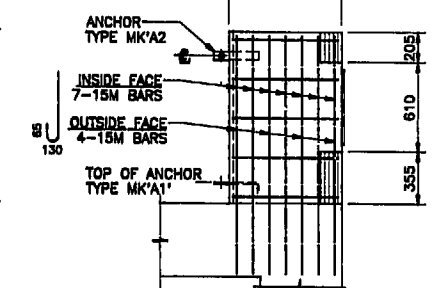
**PLAN**



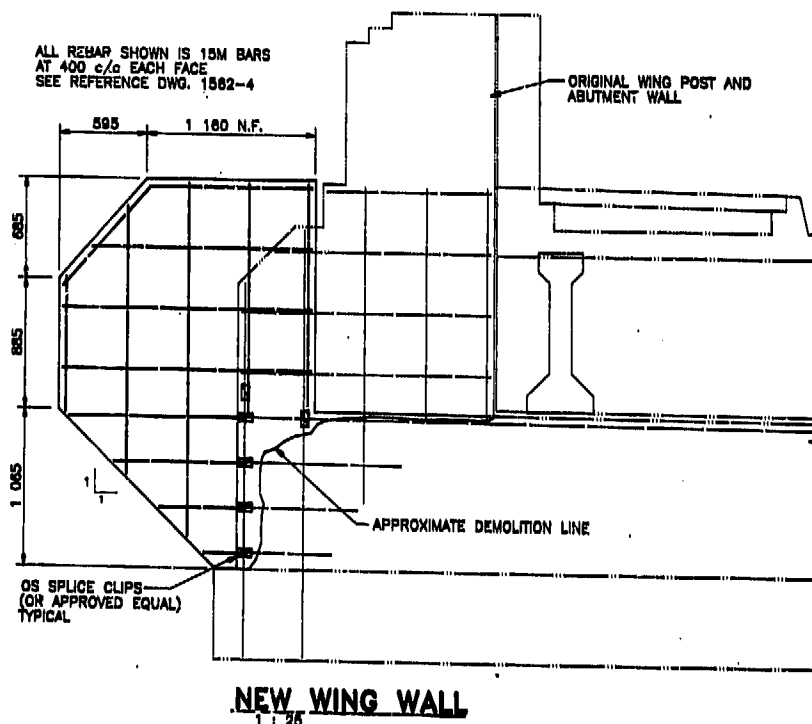
**ELEVATION**  
**TYPICAL POST**  
1:25



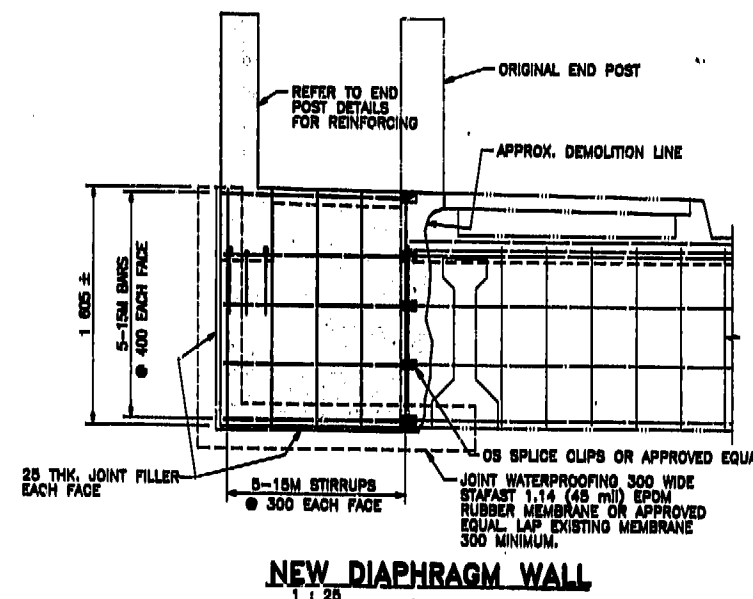
**PLAN**



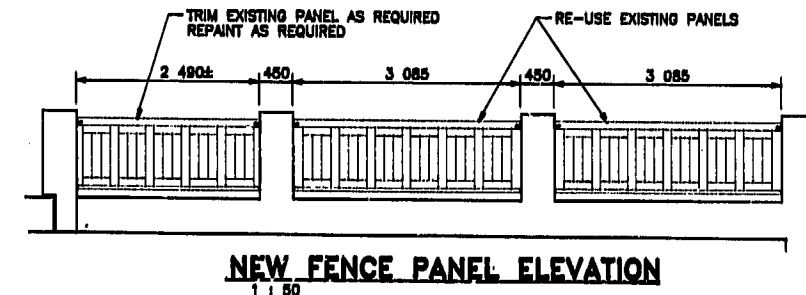
**ELEVATION**  
**END POST**  
1:25



**NEW WING WALL**  
1:25



**NEW DIAPHRAGM WALL**  
1:25



**NEW FENCE PANEL ELEVATION**  
1:50

**NOTES:**

- ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 30 MPa AT 28 DAYS EXCEPT AS NOTED.
- ALL EXPOSED EDGES OF CONCRETE TO BE CHAMFERED 20mm UNLESS NOTED OTHERWISE.
- ALL REINFORCING STEEL TO CONFORM TO C.S.A. STANDARD SPECIFICATION G30.12M DEFORMED, GRADE 400.
- ALL REINFORCING STEEL TO HAVE 50mm COVER UNLESS NOTED OTHERWISE.
- ANCHORS TO CONFORM TO C.S.A. SPECIFICATION G40.21M GRADE 300W.
- ANCHORS TO BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH C.S.A. SPECIFICATION G184 TABLE 1.
- ALL LAPS OF REINFORCING FOR SPLICES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

BAR	UNCOATED
10M	400
15M	450
25M	610

- MECHANICAL COUPLERS SHALL DEVELOP AT LEAST 125% OF THE SPECIFIED YIELD STRENGTH OF THE BAR.
- PRIOR TO CASTING IN-SITU CONCRETE, ALL ABUTTING EXISTING CONCRETE SURFACES TO BE COATED WITH AN APPROVED EPOXY BONDING AGENT.

378086

**McCall Engineering Ltd.**  
Consulting Civil and Structural Engineers  
1547 Monterey Avenue, Victoria, B.C. V8R 5V3  
Tel: (604) 598-4003



Province of British Columbia  
MINISTRY OF TRANSPORTATION AND HIGHWAYS  
BRIDGE ENGINEERING BRANCH

SCALE AS NOTED  
DESIGNED: J.G.McC. DATE 93-01  
CHECKED: J.G.McC. DATE 93-01  
DRAWN: D.R.M. DATE 93-01

FRASER VALLEY DISTRICT  
TRANS CANADA HIGHWAY No.1

**MOUNT LEHMAN ROAD UNDERPASS  
SIDEWALK MODIFICATIONS**

Rev	Date	Description	Init
A	Nov/97	ASSUMED AB. BUILT	PD

PREPARED BY	RECOMMENDED	ACCEPTED FOR CONSTRUCTION
J.G.McC.	N.W.H.	S.P.L.
DATE 93-01-11	DATE 1993-01-18	DATE JAN. 18, 1993
F.I.T. No.	NEGATIVE No.	REV. No.
		1

REVISIONS

1 1562-15