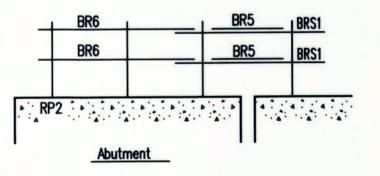


RAILS	SLEEVES		
BR4	BRS2		
4	4		

PIER



RAILS		SLEEVES	RALP	RALPOSTS	
BR5	BR6	BRS1	RP1	RP2	
4	4	4	4	2	

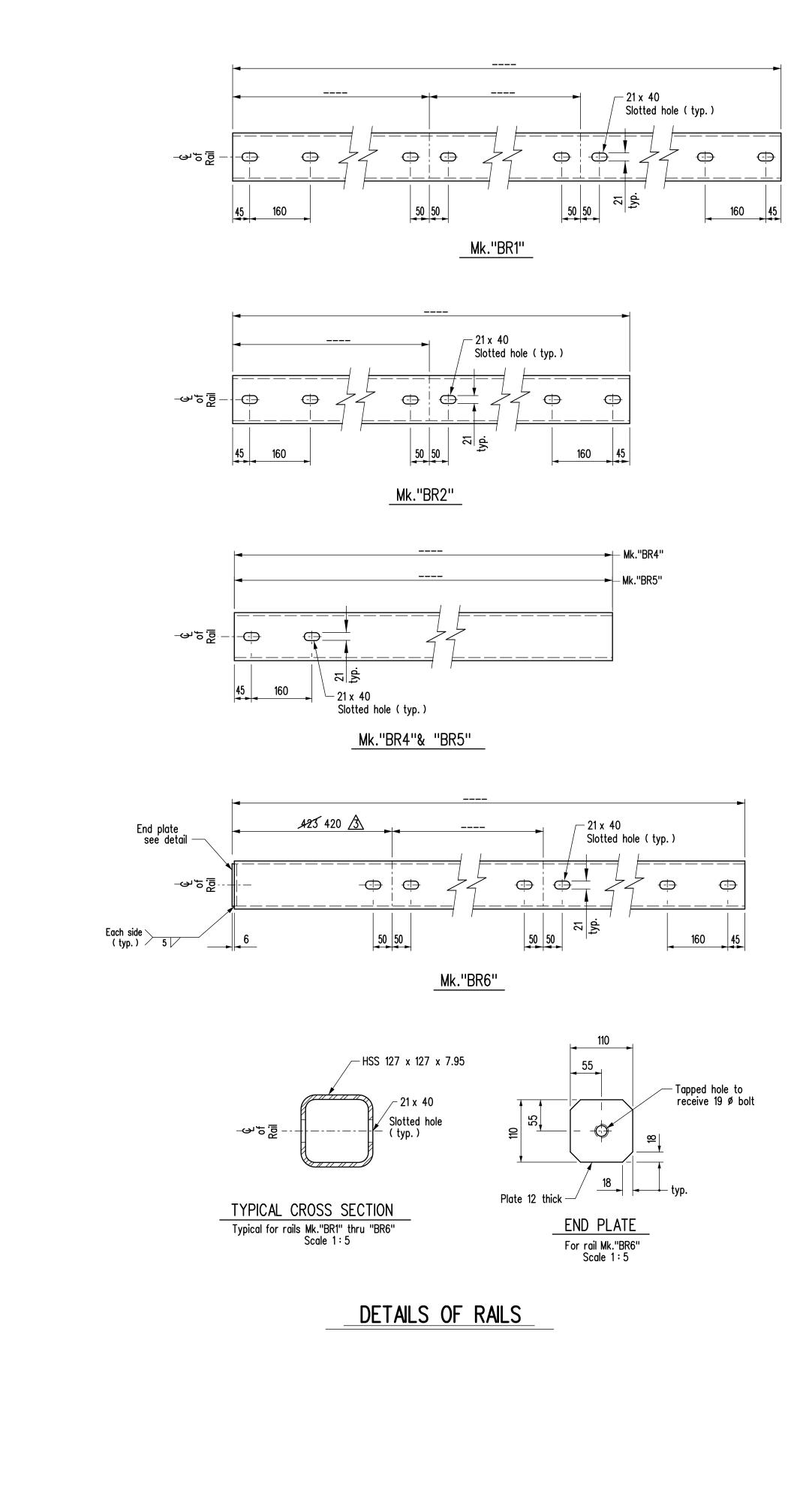
ABUTMENT

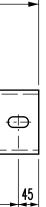
NOTES :

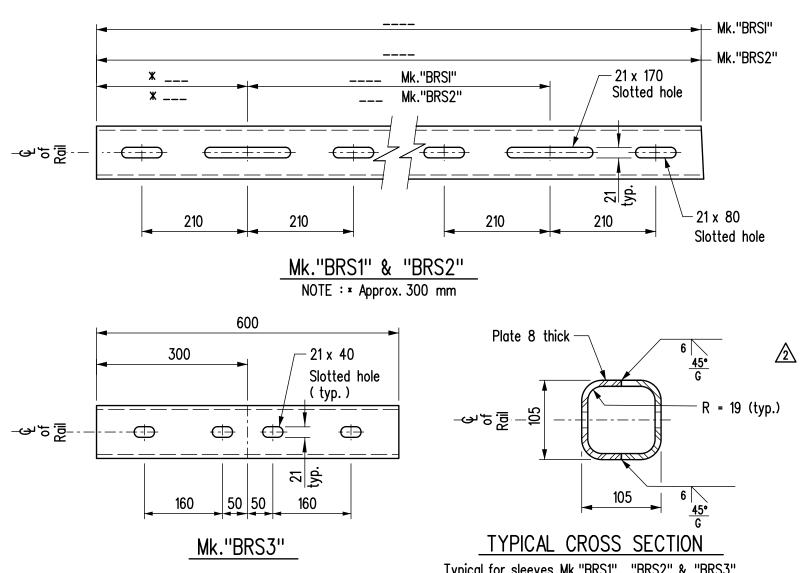
~

- 1. All railposts shall be Mk."RP1" unless noted otherwise
- 2. Maximum allowable space between railposts shall be 3 050 .
- 3. Spacing between railposts shall be rounded to the nearest 20 millimetres .
- Approximate distance from end of abutment to railpost shall be 450 approximately
 Approximate distance from end of abutment to railpost Mk."RP2" shall be 400 .
- All layouts of rails are per span , per abutment or per pier .
 This Standard to be read in conjunction with 2000TL42 to 2000TL44 .

		B. L. Lau, P. Eng., Sept. 21, 200 ntrol and Structures_Branch.	00.			
	RE	VISIONS	_	GUARDRAIL	LAYOUT	
13 A.H		ck updated 2000TL41				
E B Esign	Y N SEAL	DESCRIPTION RECORD SEAL	Infra	astructure and Transportation Vater Management and Structures	RELEASED FO	
			DESIGN	ву: <u>B. L. L</u>	SCALE:	N AND CONSTRUCTION BRANCH
		-	DETAILS	ву: <u>N.J</u> снескед: _ <u>B. L. L</u>	<u>Not to scale</u>	







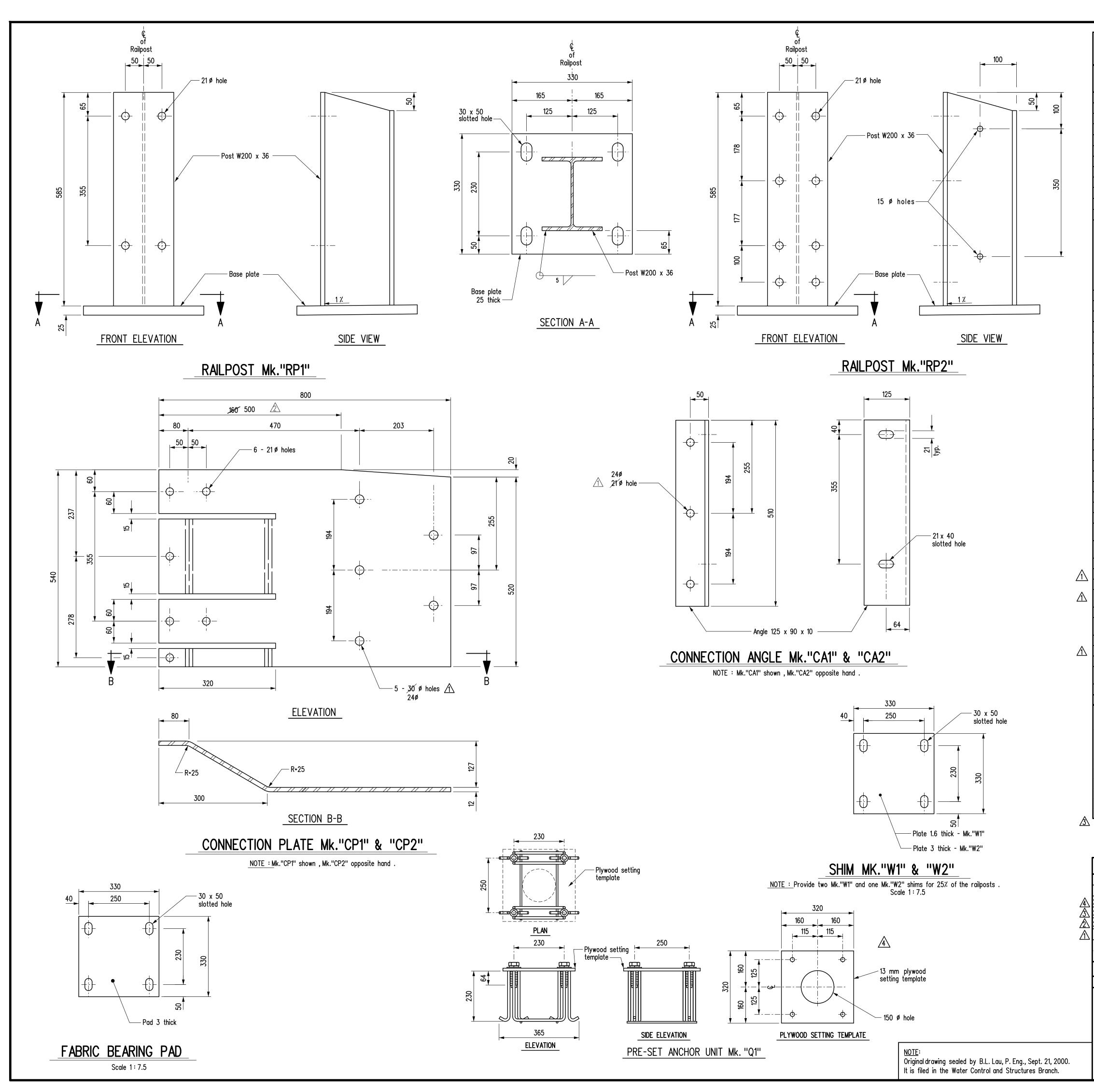
DETAILS OF SLEEVES

NOTES :

- 1. It is imperative that all rail and sleeve holes in each pair of holes be opposite each other .
- 2. The length of slotted holes shall not be less than shown .
- 3. The width and height of the sleeves shall not exceed the dimensions shown . 4. All dimensions are in millimetres (mm).

Typical for sleeves Mk."BRS1" , "BRS2" & "BRS3" Scale 1:5

			. Lau, P. Eng., Sept. 21, 2000 I and Structures Branch.					
REVISIONS					RAILING DETAILS			
				-				
0000 (07 (45		<u>.</u>						
2022/03/15 A.H.P. Dimension changed to 420 2015/05/21 A.H.P. Welding updated				-				
Jan. 10/13	A.H.P. T	itle block u	pdated					
STD 2000TL42			00TL42					
DATE	BY	D	ESCRIPTION				OR CONSTRUCTION	
DESI	GN SI	EAL	RECORD SEAL		anitoba 🐆	BY:		
		Transportation and Infrastructure Bridges and Highway Structures						
			DESIGN	ву: <u>В. L. L.</u>	DATE			
					CHECKED:	SCALE:		
					ву: _ R. <u>W.</u>			
			DETAILS	CHECKED: . B. L. L	<u>As_Shown</u>	_ SITE No		



		OF MISCELLA	NEOUS	METAL				Site No
		DGE KAILING	CORROSION PROTECTION	SIZE	LENGTH	REMARKS	MASS PER UNIT	TOTAL MASS
RP1		Railpost	Hot dip galvanized				UNIT	0.0
		Each unit to be fabricated fror						
		1 - Post		W200 x 36	585	As detailed	20.068	
		1 - Base plate		PL25 thick x 330	330	As detailed	20.410	
						Total	40.478	
RP2		Railpost	Hot dip galvanized					0.0
		Each unit to be fabricated from	1 0					
		1 - Post		W200 x 36	585	As detailed	20.068	
		1 - Base plate		PL25 thick x 330	330	As detailed	20.410	
					550	Total	40.478	
							40.470	
Q1		Pre-set anchor unit	Hot dip galvanized			Acrow Richmond, type DGR-2 (modified as shown) or equivalent, c/w 4 - 25 dia. ASTM A325 bolts, 100 long, 8 - plastic cap plugs, plate and lock washers and plywood setting template - as detailed	8.165	0.0
10/4		Chimee	Llot din golyonized	DI 1.6 thick x 220	220	As detailed	1 202	0.0
W1		Shims	Hot dip galvanized		330	As detailed	1.302	
W2		do.	Hot dip galvanized	PL3 thick x 330	330	As detailed	2.442	0.0
BR1		Bridge rail	Hot dip galvanized			As detailed	220.537	0.0
BR2		do.	Hot dip galvanized		5 190	As detailed	146.872	0.0
BR3		do.	Hot dip galvanized	do.	1 470	As detailed	41.573	0.0
BR4		do.	Hot dip galvanized	do.	1 945	As detailed	55.063	0.0
BR5		do.	Hot dip galvanized	do.	1 615	As detailed	45.691	0.0
BR6		do.	Hot dip galvanized	do.	2 318	As detailed	66.565	0.0
RS1		Sleeve	Hot dip galvanized		2 095	As detailed	44.819	0.0
RS2		do.	Hot dip galvanized		2 570	As detailed	55.260	0.0
RS3		do.	Hot dip galvanized		600	As detailed	12.839	0.0
RS4		do.	Hot dip galvanized		2 240	As detailed	48.007	0.0
CP1	2	Connection plate	Hot dip galvanized			As detailed	38.770	77.5
CP2	2	do.	Hot dip galvanized			As detailed	38.770	77.5
CA1	2	Connection angle	Hot dip galvanized	L127 x 89 x 9.5	510	As detailed	7.750	15.5
CA2	2	do.	Hot dip galvanized	do.	510	As detailed	7.750	15.5
C1		Bolts	Hot dip galvanized	19 dia.	165	Round head square neck bolt	0.413	0.0
•			Thet alp garranized		100	c/w self locking hex. nut	01110	0.0
C2	16	do.	Hot dip galvanized	19 dia.	190	Hex bolt c/w self locking hex nut	0.522	8.3
C3	8	do.	Hot dip galvanized	19 dia.	65	do.	0.249	1.9
C4	8	do.	Hot dip galvanized		50	do.	0.243	2.4
C5	8	do.	Hot dip galvanized		38	Hexbolt no nut	0.145	
						Hex bolt c/w self locking hex		
C6	12	do.	Hot dip galvanized	22 dia.	65	nut	0.346	4.1
	32	Flat washers	Hot dip galvanized	for 19 dia. bolts		1 per bolts Mk. C1, C2, C3 & C5	0.045	1.4
	8	Lock washers	Hot dip galvanized	for 19 dia. bolts		1 per bolt Mk. C5	0.019	0.1
	20	Flatwashers	Hot dip galvanized	for 22 dia. bolts		1 per bolts Mk. C4 & C6	0.052	1.0
		Fabric bearing pad				As detailed - Fabreeka SA-47 pad or equivalent		
	1		1		I			I

NOTES:

All material <u>NOTED</u> in the above Bill shall be hot dip galvanized after fabrication in accordance with ASTMA123, A153 & A43 for a minimum net retention of 610 g/m² unless otherwise stated in the specified material ASTM standards. The fabricator and galvanizer shall safeguard against embrittlement using recommended practices from applicable standards. No punching, drilling, cutting or welding will be permitted after galvanizing.
 HSS rail shall conform to CAN/CSA-G40.21 Grade 350W.

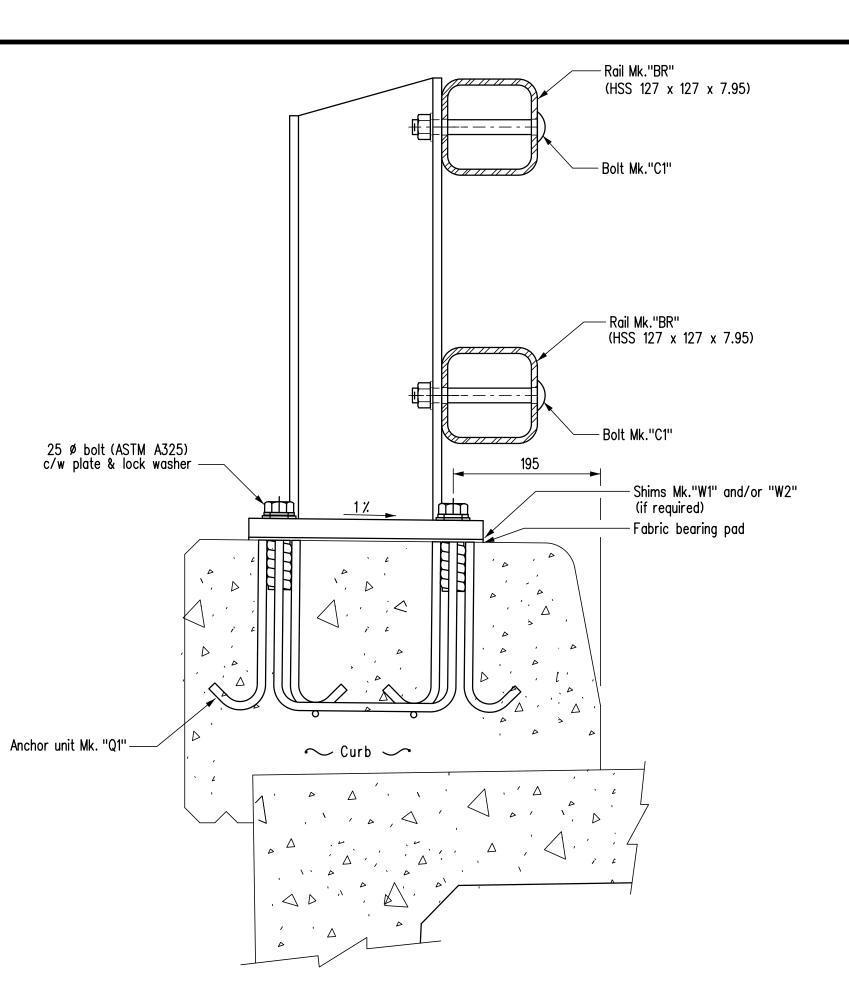
3. All steel plates, including sleeve material, shall conform to the requirements of CAN/CSA-G40.21 Grade 300W.

4. All bolts shall conform to the requirements of ASTM A307 except where noted otherwise.

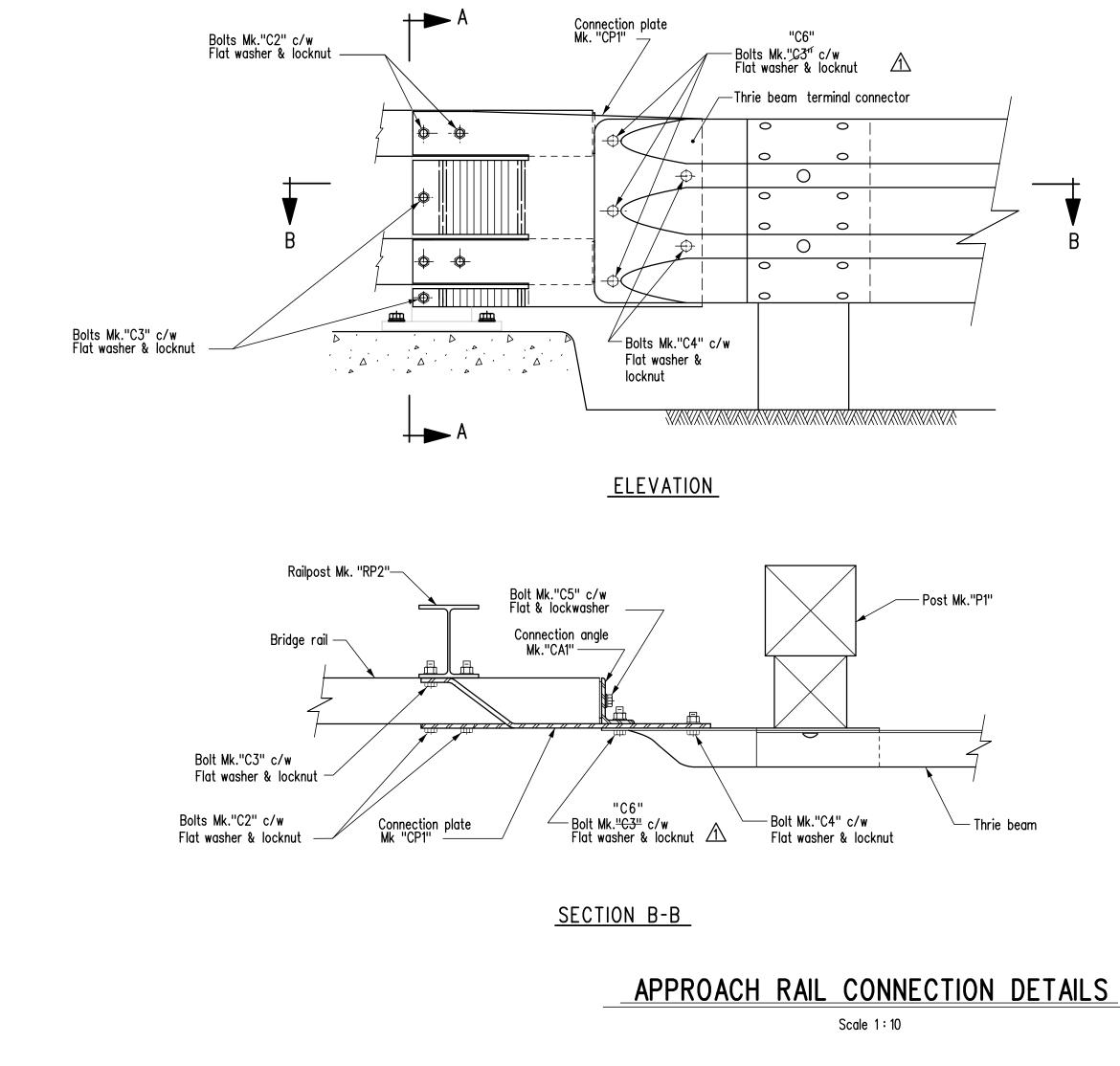
5. Welding shall meet the current requirements of the American Welding Society, Bridge Welding Code ANSI/AASHTO/AWS D1.5.

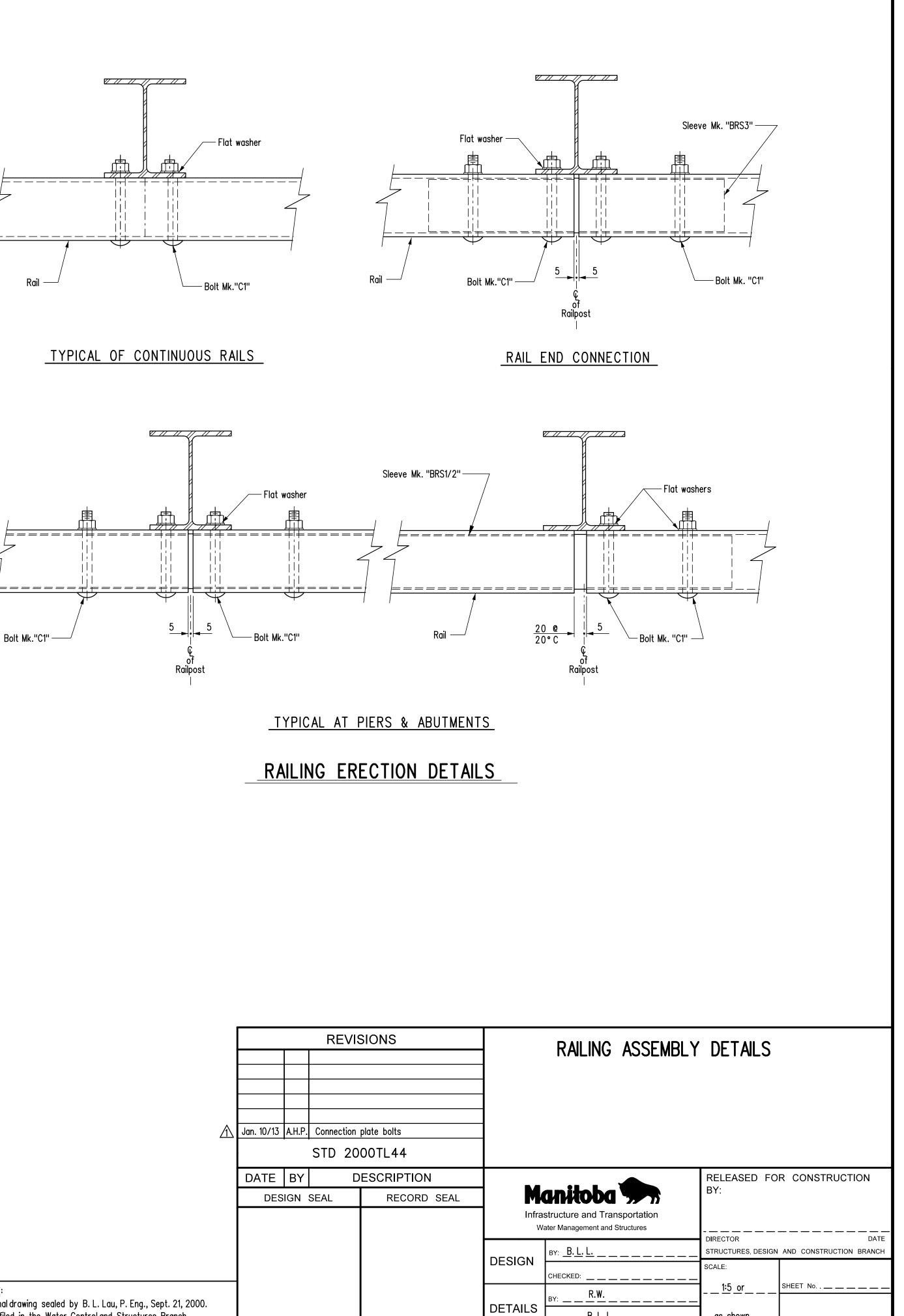
6. Seal all welds prior to galvanizing.

REVISIONS				RAILPOST DETAILS				
		,	plate size reduced by 10 mm					
2020/11/30 N.J. Updated format of Bill of Miscelleneous Metal			nat of Bill of Miscelleneous Metal					
2017/03/10 A.H.P. Connection plate dimension			plate dimension					
Jan. 10/13 A.H.P. Connection plate bolts			blate bolts					
STD 2000TL43			OTI 4.3					
			01210			-		
DATE	ΒY	D	ESCRIPTION			RELEASED FOR CONSTRUCTION		
DESI	GN	SEAL	RECORD SEAL		Manitoba Tr			
				Infrastructure Bridges and Highway Structures				
						DIRECTOR OF BRIDGES AND HIGHWAY STRUCTURES		
			BY:B.L.L		DATE			
				DESIGN		SCALE:		
				CHECKED:	1:5 or	SHEET No		
				ву:R . W.				
		DETAILS	снескеd: _B. <u>L.</u> <u>L.</u>	As Shown	SITE No			



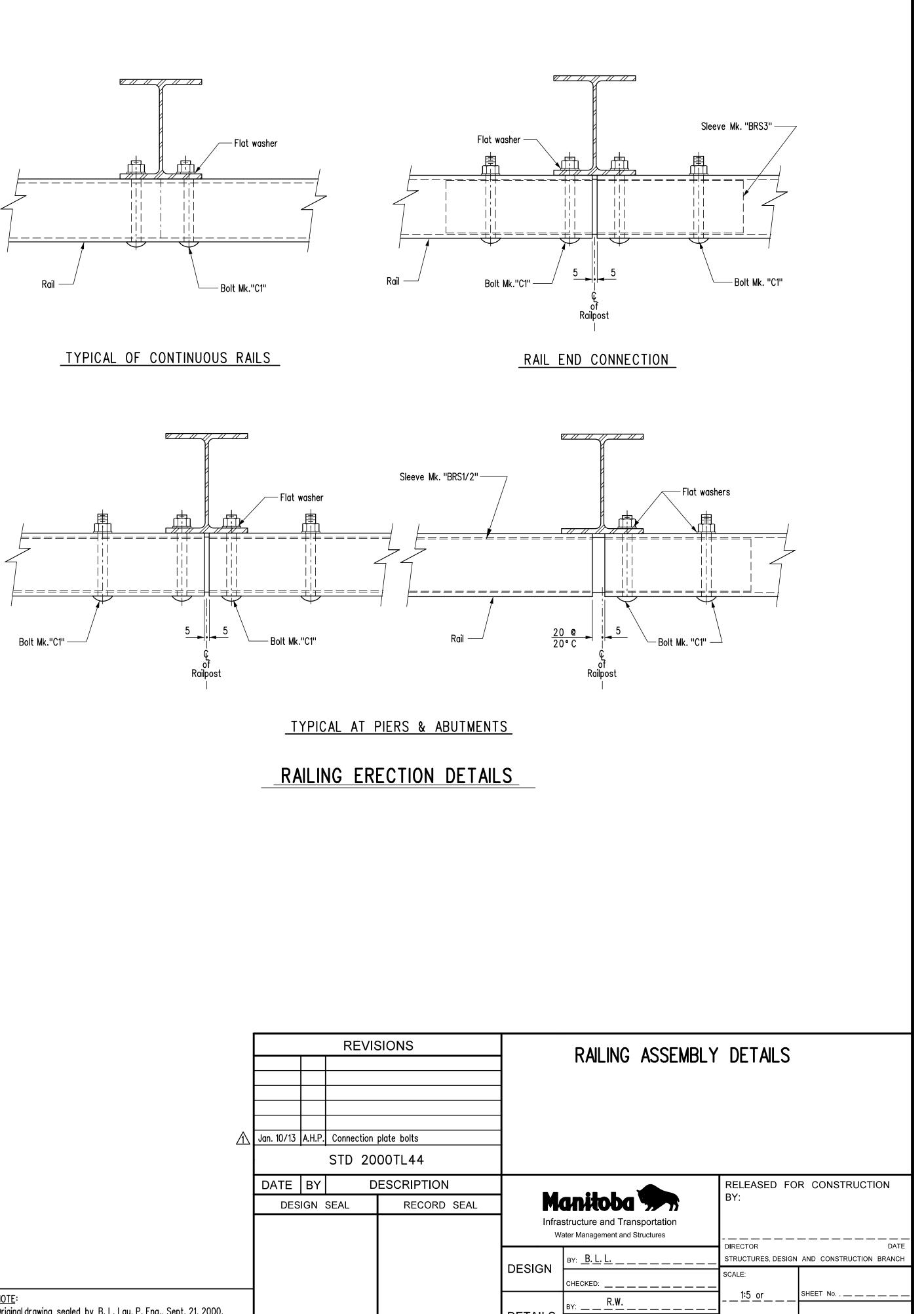


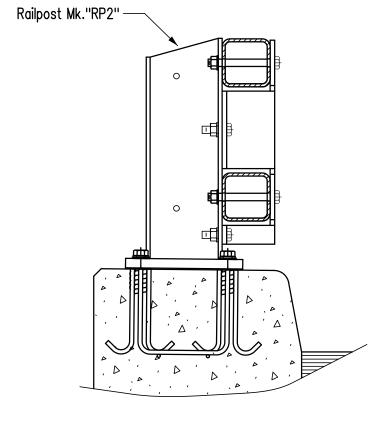




CHECKED: B.L.L.

as shown _____ SITE No. _ ____





SECTION A-A

<u>NOTE</u>: Original drawing sealed by B. L. Lau, P. Eng., Sept. 21, 2000. It is filed in the Water Control and Structures Branch.