



NOTE:
ANCHOR BOLTS TO BE STAINLESS STEEL

NOTE:
ANCHOR BOLTS TO BE STAINLESS STEEL

NOTE:
50# GALVANIZED WASHER WITH 16# HOLE (TYP.) TO BE CAST INTO CONCRETE

NOTE:
50# GALVANIZED WASHER WITH 16# HOLE (TYP.) TO BE CAST INTO CONCRETE

NO.	REVISIONS	DATE	BY
1	ISSUED FOR ADDENDUM 1	07.12.13	K.S.A.
0	ISSUED FOR TENDER	07.12.03	K.S.A.

- NOTES:**
- THE 4-19mm HOLES IN THE BARRIER POST AND RAIL PLATES ARE DESIGNED TO ACCOMMODATE 16mm RAIL POST ANCHOR BOLTS AS DETAILED. SUPPLY WITH EACH ANCHOR BOLT: ONE STAINLESS STEEL PLAIN WASHER, ONE STAINLESS STEEL LOCK WASHER, ONE STAINLESS STEEL HEX. NUT AND ONE 50# GALVANIZED PLATE WASHER.
 - A COMBINATION OF 1.5, 3.0 AND/OR 6.0mm THK. ALUMINUM RAIL POST OR PLATE SHIMS ARE TO BE USED AS REQUIRED TO SET THE BARRIER RAIL TO THE SPECIFIED HEIGHT (MINIMUM 3.0mm SHIM REQUIRED AT EACH POST OR PLATE).
 - ALL EDGES AND CORNERS OF THE BARRIER POST PLATES AND EXTRUSIONS SHALL BE ROUNDED IN THE SHOP, TO A SMOOTH 2mm RADIUS TO THE SATISFACTION OF THE ENGINEER.
 - BOTTOM SURFACE OF THE SHIM (SURFACE IN CONTACT WITH CONCRETE) IS TO BE PAINTED WITH 2 COATS OF ALKALI RESISTANT BITUMINOUS PAINT, EACH COAT BEING 1mm IN THICKNESS.

- SPECIFICATIONS:**
- EXTRUDED ALUMINUM SHAPES AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. B221, ALLOY 6061-T6 OR ALLOY 6351-T5 (MINIMUM ELONGATION 10%)
 - THE STAINLESS STEEL HEX. HEAD AND SOCKET HEAD CAP SCREWS SHALL MEET THE REQUIREMENTS OF A.S.T.M. A276 TYPE 430 AND THE DIMENSIONAL REQUIREMENTS OF A.N.S.I. B18.3.
 - DIMENSIONAL TOLERANCES NOT SHOWN OR IMPLIED ARE INTENDED TO BE THOSE CONSISTENT WITH THE PROPER FUNCTIONING OF THE PART, INCLUDING ITS APPEARANCE AND ACCEPTED MANUFACTURING PRACTICES.
 - THE BARRIER POST SHAFT SHALL BE FABRICATED FROM A SINGLE CHANNEL-SHAPE EXTRUSION WELDED TO A PLATE SHAPE. THE BARRIER POST PLATE AND BARRIER POST SHAFT SHALL THEN BE WELDED TOGETHER.
 - WELDING SHALL CONFORM TO THE REQUIREMENTS OF CSA STANDARDS S224-1969, WELDING ALUMINUM DESIGN AND WORKMANSHIP AND W47.2-1987, ALUMINUM WELDING QUALIFICATION CODE. ALUMINUM FILLER ALLOY SHALL BE ONE OF THE FOLLOWING: ER4043, ER5183, ER5554, ER5556 AND ER5654.
 - THE CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS CONSISTING OF THREE PRINTS AND ONE REPRODUCIBLE SPIA TO THE CONTRACT ADMINISTRATOR FOR APPROVAL PRIOR TO FABRICATION OF ALUMINUM TRAFFIC BARRIER COMPONENTS.
 - ANTI-SEIZE COATING TO BE APPLIED TO ALL THREADED COMPONENTS WHEN BEING ASSEMBLED, I.E. LPS-3 MANUFACTURED BY HOLT-LLOYD (CANADA) LTD. MARKHAM, ONTARIO L3R 2Z3.

LOCATION APPROVED UNDERGROUND STRUCTURES SUPV. U/G STRUCTURES COMMITTEE DATE		Stantec Consulting Ltd. 905 Waverley Street, Winnipeg, Manitoba Tel 204-489-5900 Fax 204-453-9012		ENGINEER'S SEAL ORIGINAL SEALED BY K.S. AMY P. ENGS. 07.12.03	
NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONTRIBUTION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.		DESIGNED BY: K.S.A. CHECKED BY: B.J.W. DRAWN BY: J.M.B. APPROVED BY: K.S.A. AUTHORIZED BY: DATE BILL EBENSPANGER DEC. 6, 2007 B. EBENSPANGER, P. ENG. BRIDGE PROJECTS ENGINEER		THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT TRANSPORTATION ENGINEERING DIVISION ACCESS BRIDGE TO 330 AND 334 BONNER AVENUE SHEET 9 OF 9 CAD FILE DRAWING NUMBER 31410s 701-682.dwg CITY DRAWING NUMBER B176-08-09	
APEGN Certificate of Authorization Stantec Consulting Ltd. No. 1301 Expiry: April 30, 2008		HOR. SCALE: AS SHOWN VERTICAL: AS SHOWN DATE OCT. 20, 2007		CONSULTANT DRAWING NO. SJ701-682 ALUMINUM BRIDGE GUARDRAIL DETAILS SECTIONS & DETAILS	

I:\Projects\11771\11771.dwg (P. ENGS.) 07.12.13 11:07AM
 2013-12-13 11:07AM P. ENGS.