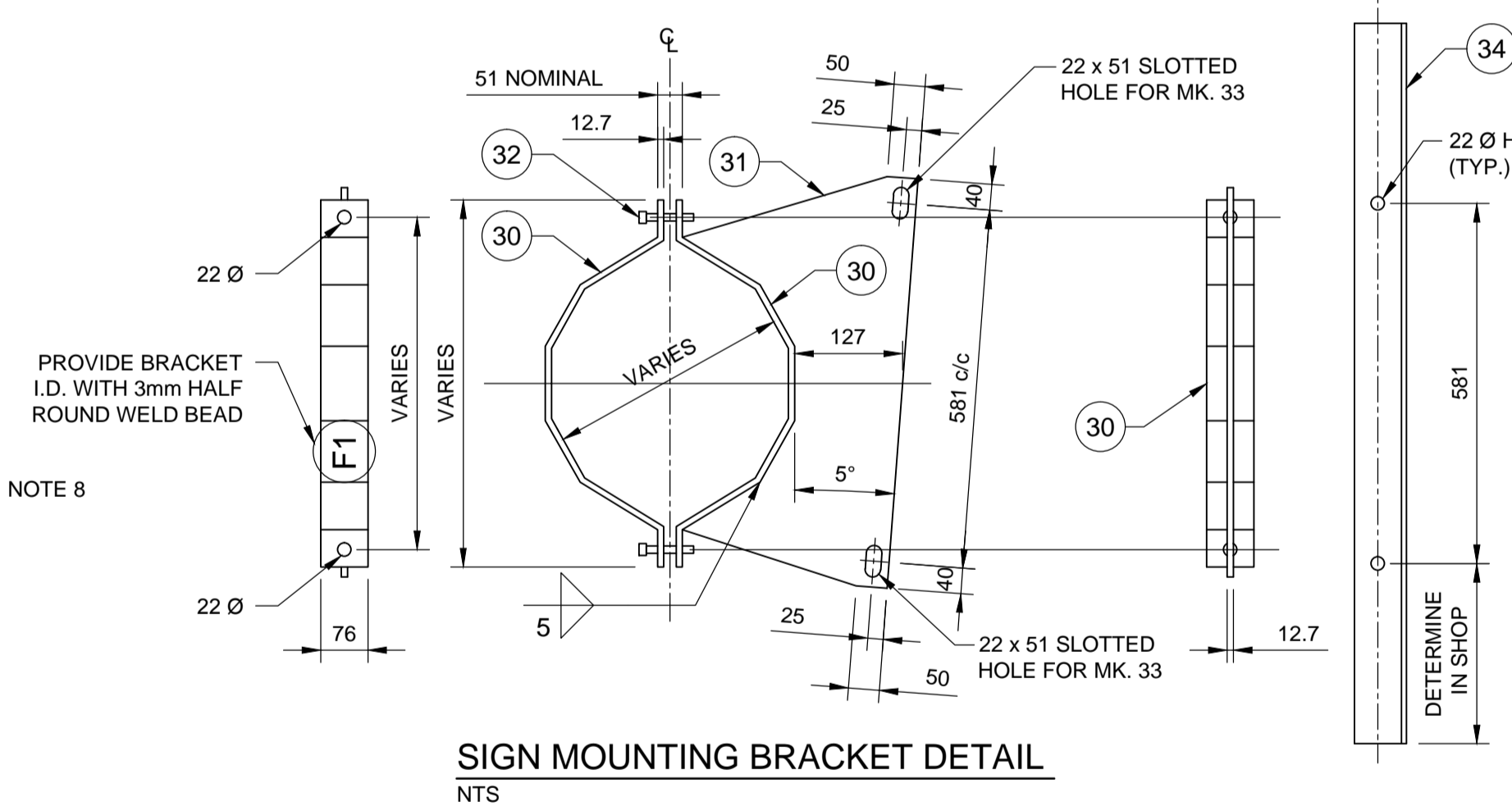
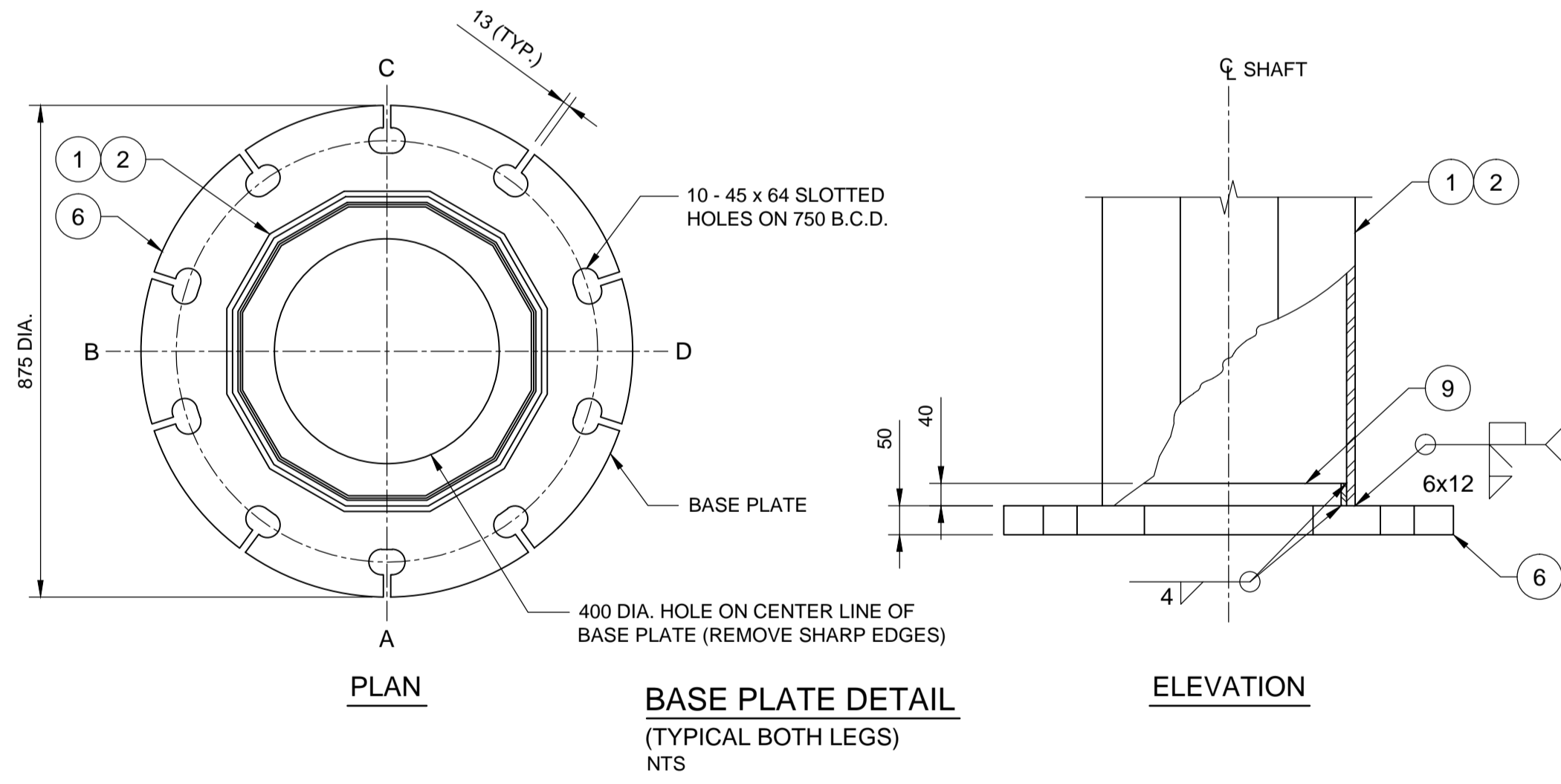


- *NOTES ON BILL OF MATERIALS:**
- MARK NO. 33 C/W NUT, 2 WASHERS AND 1 LOCKWASHER
 - MARK NO. 24 & 29 C/W 8-DIA. PUNCHED 10 N.C. TAPPED AT THE CENTER OF PLATE.
 - MARK NO. 25 C/W CUP WASHER.
 - MARK NO. 26 C/W 2-10 DIA. HEX NUT, 2-TERMINAL WASHER & 1-LOCKWASHER.

BILL OF MATERIALS		
MK.	QTY.	DESCRIPTION
1	1	DODECAGONAL SHAFT 550 A/F TO 400 A/F x 6.35
2	1	DODECAGONAL SHAFT 550 A/F TO 400 A/F x 6.35
3	1	DODECAGONAL CROSSBEAM 400 A/F TO 550 A/F x 6.35
4	1	DODECAGONAL CROSSBEAM 400 A/F TO 550 A/F x 6.35
5	1	DODECAGONAL CROSSBEAM 550 A/F x 6.35
6	2	BASE PLATE 875 DIA. x 51 THICK
7	2	TOP PLATE 500 O.D. x 145 I.D. x 38 THICK
8	2	SOLID ROUND PIN 143 DIA. x 600 LONG
9	4	BACKUP STRIP 4.76 x 40
10	4	GUSSET PLATE 600 x 245 x 19 THICK
11	2	6" SCH. 80 PIPE (168 O.D.) 480 LONG
12	2	PIN PLATE 168 O.D. 19 THICK
13	2	HEX HEAD BOLT 32 DIA. SAE GRADE 5 GALV.
14	4	BACK-UP STRIP 6 x 40 (FOR CROSSBEAM)
15	4	SPLICE PLATE 765 DIA. x 44 THICK (GR. 300W)
16	32	32 DIA. BOLTS C/W NUT & 2 WASHERS (ASTM A325 TYPE 1, GALV)
17	2	BACKING BAR 6.35 x 40 x 600 LONG
18	2	FLANGE PLATE 600 SQ. x 44 THICK
19	2	END PLATE 19 THICK
20	4	HALF COUPLING (1 1/2" NOMINAL) ASTM A105 3000 lb
21	40	PLATE WASHER 12 THICK
		HANDHOLE MARK H1 (2 REQUIRED)
22	1	COVER PLATE 11 GA. x 160 x 340 (ASTM A569)
23	1	REINFORCING RING 8 x 65 x 830
24	2	CLAMP BAR 6 x 40 x 180
25	2	10 DIA. x 140 BOLT S/S (TYPE 316)
26	1	GROUND STUD ASSEMBLY 10 DIA. x 40
		HANDHOLE MARK H2 (2 REQUIRED)
27	1	COVER PLATE 11 GA. x 130 x 220 (ASTM A569)
28	1	REINFORCING RING 8 x 65 x 555
29	1	CLAMP BAR 6 x 40 x 150
30	2	10 DIA. x 140 BOLT S/S (TYPE 316)
31	1	GROUND STUD ASSEMBLY 10 DIA. x 40
		SIGN MOUNTING BRACKET (11 REQUIRED)
32	1	CLAMP BAR 12 x 76 (LENGTH TO SUIT)
33	2	19 DIA. BOLT C/W NUT & 2 WASHERS (ASTM A325)
34	1	ALUMINUM T-BAR 6061-T6 ASTM B221 102 x 76 x 8 LENGTH TO SUIT SIGN PANEL HEIGHT



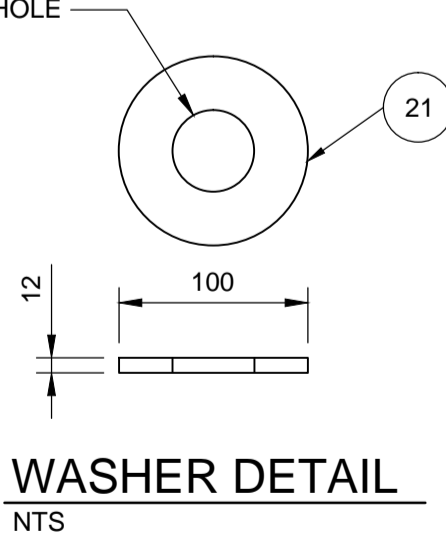
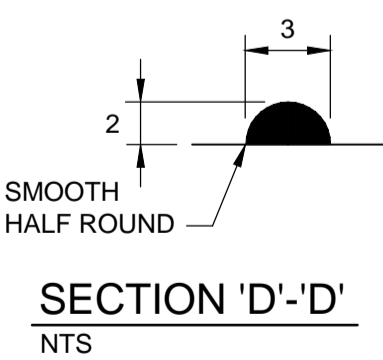
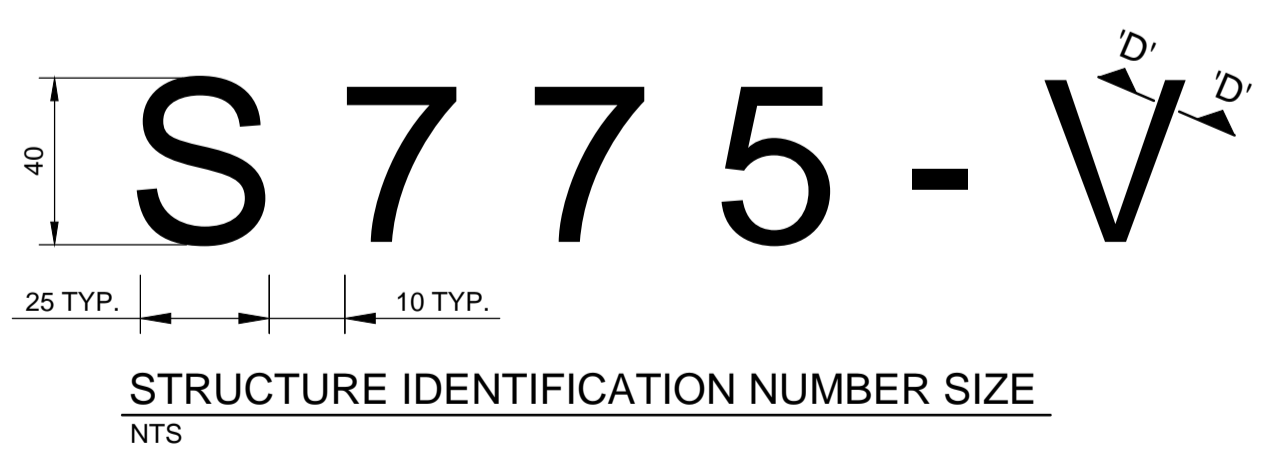
GENERAL NOTES

- DESIGN DATA**
AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 5TH EDITION, 2009, PLUS INTERIMS.
DESIGN WIND LOAD = 1.5 kPa
DESIGN ICE LOAD = 0.15 kPa
FATIGUE CATEGORY I CONSIDERING NATURAL WIND GUSTS, TRUCK INDUCED GUSTS, AND GALLOPING.
- ALL PLATE MATERIALS SHALL BE CSA G40.21 - 300W STRUCTURAL STEEL.
- ALL MATERIALS EXCEPT STAINLESS STEEL AND ALUMINUM SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 TO A MIN. NET RETENTION OF 610 g/m²
- ALL AREAS OF DAMAGED GALVANIZING SHALL BE REPAIRED WITH SPRAY-ON COATING CALLED "ZINGA".
- SIGNS**
2 SIGN PANELS, SIZE 4877 x 2134 mm & 6069 x 2134 mm SUPPLIED AND INSTALLED BY THE CITY OF WINNIPEG TRAFFIC SERVICES BRANCH.
MAXIMUM SIGNAGE FOR FUTURE INSTALLATION IN AN ALTERNATE LOCATION: 3 SIGN PANELS EACH 5000 x 2400 mm, OR EQUIVALENT AS APPROVED BY THE ENGINEER OF RECORD.
- PROVIDE "RAISED" IDENTIFICATION NO. WITH WELDING ELECTRODE FOR THE SIGN STRUCTURE.
- GRIND ALL SHARP POINTS AND EDGES.
- EXTERIOR WELD JOINING SHAFT TO TRANSVERSE PLATE SHALL BE AN UNEQUAL LEG COMPLETE PENETRATION WELD WITH THE LONG LEG OF THE WELD ALONG THE SHAFT TERMINATING AT 30° FROM THE SHAFT SURFACE.

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMAL NUMBERS INDICATE METRES

WARNING
IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:

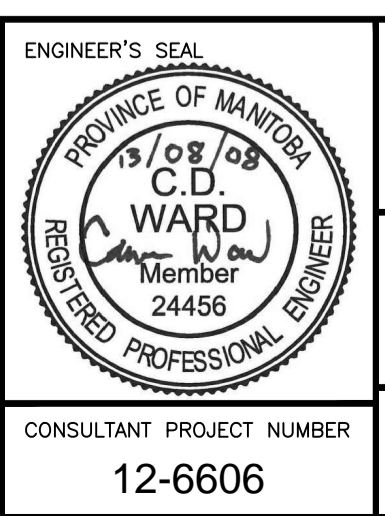
- NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
- TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.
- OBTAIN EXCAVATION PERMITS PRIOR TO CONSTRUCTION.
- A MINIMUM VERTICAL SEPARATION OF 300 mm FROM GAS MAINS AND 100 mm FROM GAS SERVICE MUST BE MAINTAINED BETWEEN ANY MANITOBA HYDRO FACILITY AND ANY NEW INSTALLATIONS.
- A MINIMUM 900 mm OF COVER SHALL BE MAINTAINED IN ALL AREAS WHERE EQUIPMENT WILL BE CROSSING, TRAVELING OR COMPACTING OVER THE HIGH PRESSURE GAS MAINS.
- IF EQUIPMENT MUST CROSS, TRAVEL, OR COMPACT OVER THE GAS MAIN WITH LESS THAN THE MINIMUM DEPTH COVER, EARTH BRIDGING OR STEEL PLATES SHALL BE PLACED OVER THE MAIN AND EXTEND A MINIMUM OF 1.0 METRE ON EITHER SIDE AT EACH CROSSING LOCATION.



G:\CAD\126606\Contract\Contract_2\Current\126606-CONTRACT_2-0HSS-124.dwg

150 W/M	WATERMAIN	150 W/M	MTS	M.T.S.	150 mm W.M.	WATERMAIN	150 mm W.M.
+	HYDRANT VALVE	+	MTS	CONCRETE	+	HYDRANT VALVE	+
+	LAND DRAINAGE SEWER	+	MTS	ASPHALT	+	LAND DRAINAGE SEWER	+
+	WASTE WATER SEWER	+	MTS	PLANNING	+	WASTE WATER SEWER	+
+	MANHOLE	+	MTS	SIDEWALK	+	MANHOLE	+
+	CATCH BASIN	+	MTS	PAVING STONES	+	CATCH BASIN	+
+	TEST HOLES	+	MTS	PROPERTY LINE	+	TEST HOLES	+
+	JUNCTIONS	+	MTS	SURVEY BAR	+	JUNCTIONS	+
+	CULVERT	+	MTS	CURB RAMP	+	CULVERT	+
+	100 GAS	+	MTS	DITCH	+	100 GAS	+
+	GAS	+	MTS	SWALE	+	GAS	+
+	EXISTING	+	MTS	LEGEND-PLAN	+	EXISTING	+
+	PROPOSED	+	MTS	LEGEND-PROFILE	+	PROPOSED	+

UNDERGROUND STRUCTURES		B.M.		DESIGNED BY		DESIGN TEAM	
NO.	REVISIONS	654008	N: 5515764.610 E: 633359.697	CDW	DESIGNED BY	CDW	DESIGN TEAM
		654210	N: 5514436.957 E: 630550.534	LFY	DRAWN BY	LFY	
				SSR	CHECKED BY	SSR	
				DPK	APPROVED BY	DPK	
				AS NOTED	HOR. SCALE	AS NOTED	
				AS NOTED	VERTICAL SCALE	AS NOTED	
				MRD	ISSUED FOR TENDER	13/08/08	
					NO.	REVISIONS	



THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT

Waverley West Arterial Roads Project (WWARP) PART 3 - CONTRACT 2
ROUTE 90 TO ROUTE 165 OVERPASS (KENASTON BLVD.) AND ASSOCIATED WORKS

CITY DRAWING NUMBER: B242-13-125
SHEET OF: 125 OF 128
CONSULTANT DRAWING NUMBER: S775-2013-02

CONSULTANT PROJECT NUMBER: 12-6606

S775 - FABRICATION DETAILS