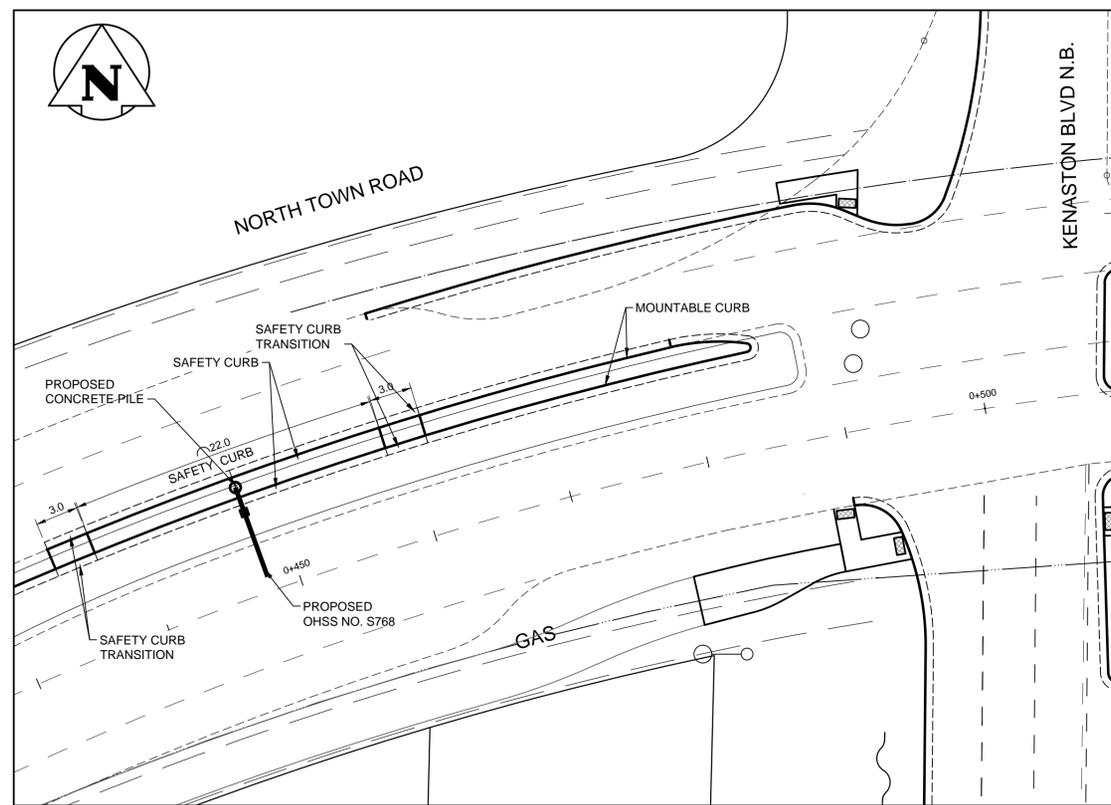
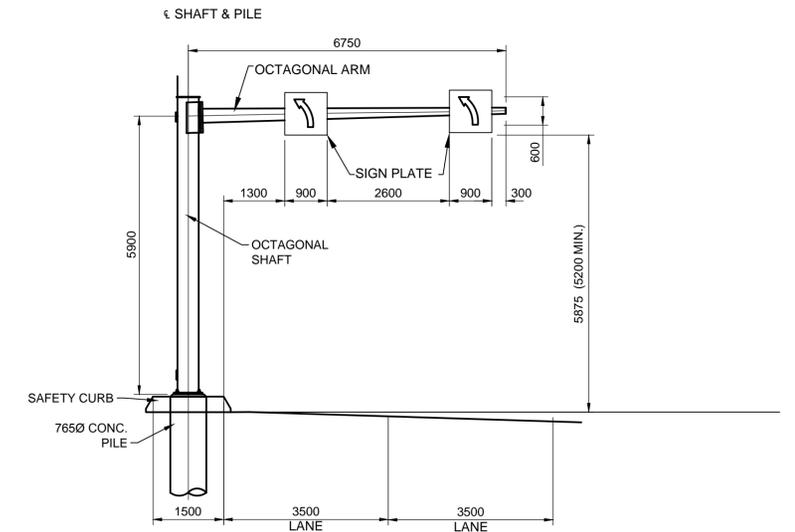


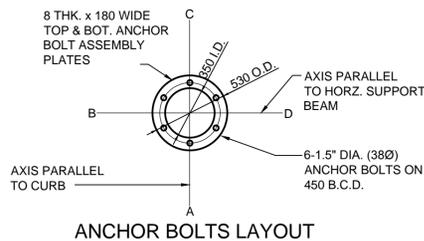
1 SIGN LOCATION KEY PLAN  
1:2000



2 OVERHEAD SIGN E.B. NORTH TOWN RD. @ STA 0+447.836  
1:250 OVERHEAD SIGN SUPPORT STRUCTURE NO. S768

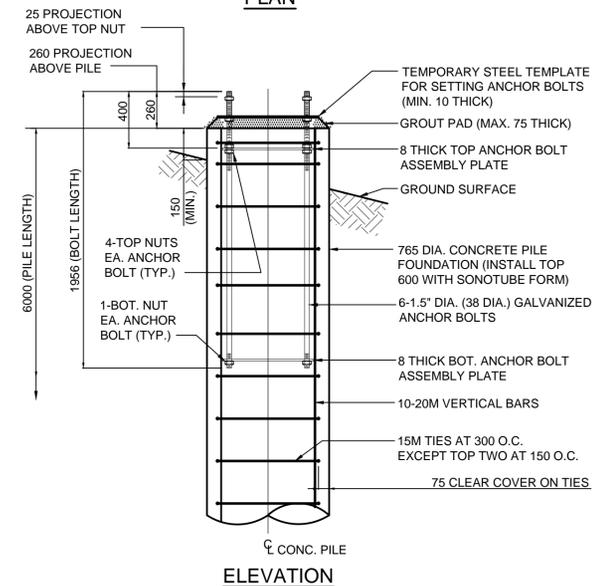
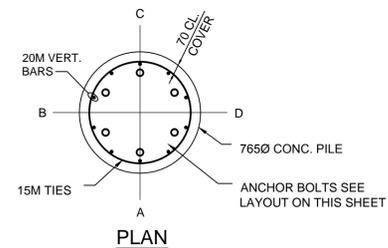


3 ELEVATION - LOOKING EAST  
1:75 OVERHEAD SIGN SUPPORT STRUCTURE NO. S768



PILE CONSTRUCTION NOTES

- REINFORCING STEEL**
  - CSA G30.12 GR. 400W
  - VERTICAL BARS FULL LENGTH OF PILE
  - HOT DIP GALVANIZED
- ANCHORS BOLTS**
  - ASTM F1554, 380MPa
  - 6-1.5" DIA. (38 DIA.) x 1956 LG. ANCHOR BOLTS THREADED BOTH ENDS (559 TOP & 102 BOT.) EACH BOLT C/W 5 NUTS AND WASHERS (1-BOT. END 4-TOP END). ANCHOR BOLTS CAGE ASSEMBLY HOT DIP GALVANIZED FULL LENGTH AFTER FABRICATION.
  - B.C.D.=BOLT CIRCLE DIAMETER TO CENTER OF BOLT GROUP.
- ANCHOR BOLTS SHALL BE ALIGNED WITH A TEMPORARY STEEL TEMPLATE. PLACEMENT OF ANCHOR BOLTS AND CONCRETE WITHOUT THE TEMPLATE WILL NOT BE PERMITTED.
- FOLLOWING INSTALLATION OF THE STEEL STRUCTURE, TIGHTEN THE LOWER LEVELING NUTS AND TOP NUTS TO A SNUG-TIGHT CONDITION, FOLLOWED BY 1/3 NUT ROTATION (+20°/0°) OF THE TOP NUTS.
- TOP 1000mm OF PILE SHALL BE FORMED WITH A TUBULAR FORM (SONOTUBE).
- CONTRACTOR SHALL REMOVE THE BASE TEMPLATE, NUTS AND FORM, FOLLOWING A MINIMUM 24 HOUR CONCRETE CURING PERIOD.
- CONCRETE MIX DESIGN**
  - PROPORTIONING OF FINE AGGREGATE, COARSE AGGREGATE, CEMENT, WATER, AND AIR ENTRAINING AGENT SHALL BE SUCH AS YIELD CONCRETE HAVING THE REQUIRED STRENGTH AND WORKABILITY AS FOLLOWS:
    - CLASS OF EXPOSURE: S-1
    - MINIMUM COMPRESSIVE STRENGTH AT 56 DAYS = 35 MPa
    - MAXIMUM WATER/CEMENT RATIO = 0.4
    - AIR CONTENT: CATEGORY 2 PER TABLE 4 OF CSA A23.1-09 (4-7%)
    - CEMENT - IN ACCORDANCE WITH CSA A23.1-09



**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED 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.

**APEGM**  
Certificate of Authorization  
Stantec Consulting Ltd.  
No. 1301

B4R635 - Lake Crest Rd. & Waverley St.,  
Tbit on top of 0.05m dia. x 2.4m iron  
pipe, 14.2m N. of S.L. of Lake Crest Rd.  
& 0.6m E. of E.L. of Waverley St.

150 WM	WATERMAIN	150 WM	MTS	M.T.S.	150 mm W.M.	WATERMAIN	150 mm W.M.
+	HYDRANT VALVE	+	MTS	CONCRETE ASPHALT PLANING SIDEWALK	+	HYDRANT VALVE	+
300 LDS	LAND DRAINAGE SEWER	300 LDS	MTS	PAVING STONES	300 mm L.D.S.	LAND DRAINAGE SEWER	300 mm L.D.S.
250 WWS	WASTE WATER SEWER	250 WWS	MTS	PROPERTY LINE SURVEY BAR	250 mm W.W.S.	WASTE WATER SEWER	250 mm W.W.S.
○	MANHOLE	●	MTS	CURB RAMP	○	NORTH/WEST GUTTER	---
□	CATCH BASIN	■	MTS	DITCH	□	SOUTH/EAST GUTTER	---
⊕	TEST HOLES	⊕	MTS	SWALE	⊕	NORTH/WEST T/LANE	---
○	CULVERT	○	MTS		○	SOUTH/EAST T/LANE	---
100 GAS	GAS	100 GAS	MTS		100 GAS		
HYDRO	HYDRO	HYDRO	MTS		HYDRO		
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE

UNDERGROUND STRUCTURES	DATE
SUPV. U/G STRUCTURES COMMITTEE	
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. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.	

B.M. 76-030	ELEV. 232.457m
DESIGNED BY	H.M.V.
DRAWN BY	T.G.
CHECKED BY	K.S.A.
APPROVED BY	K.S.A.
HOR. SCALE	RELEASED FOR CONSTRUCTION
VERTICAL	DATE
NO.	REVISIONS
DATE	BY
DATE	DATE

ISSUED FOR TENDER	3/04/08	K.S.A.
ISSUED FOR REVIEW	3/03/27	K.S.A.
ISSUED FOR 90% REVIEW	3/02/22	K.S.A.

DESIGN TEAM
Stantec

ENGINEER'S SEAL
PROVINCE OF MANITOBA REGISTERED PROFESSIONAL ENGINEER K. S. AMY MEMBER 23572
CONSULTANT PROJECT NUMBER 113705751

THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT
WWARP PART 3 - CONTRACT 1 STA 2+922.4 TO STA 5+935
S768 NORTH TOWN ROAD EB W. OF KENASTON BOULEVARD OVERHEAD SIGN LOCATION & DETAILS
CITY DRAWING NUMBER S768-2013-01
SHEET 53 OF 64
CONSULTANT DRAWING NUMBER C-505