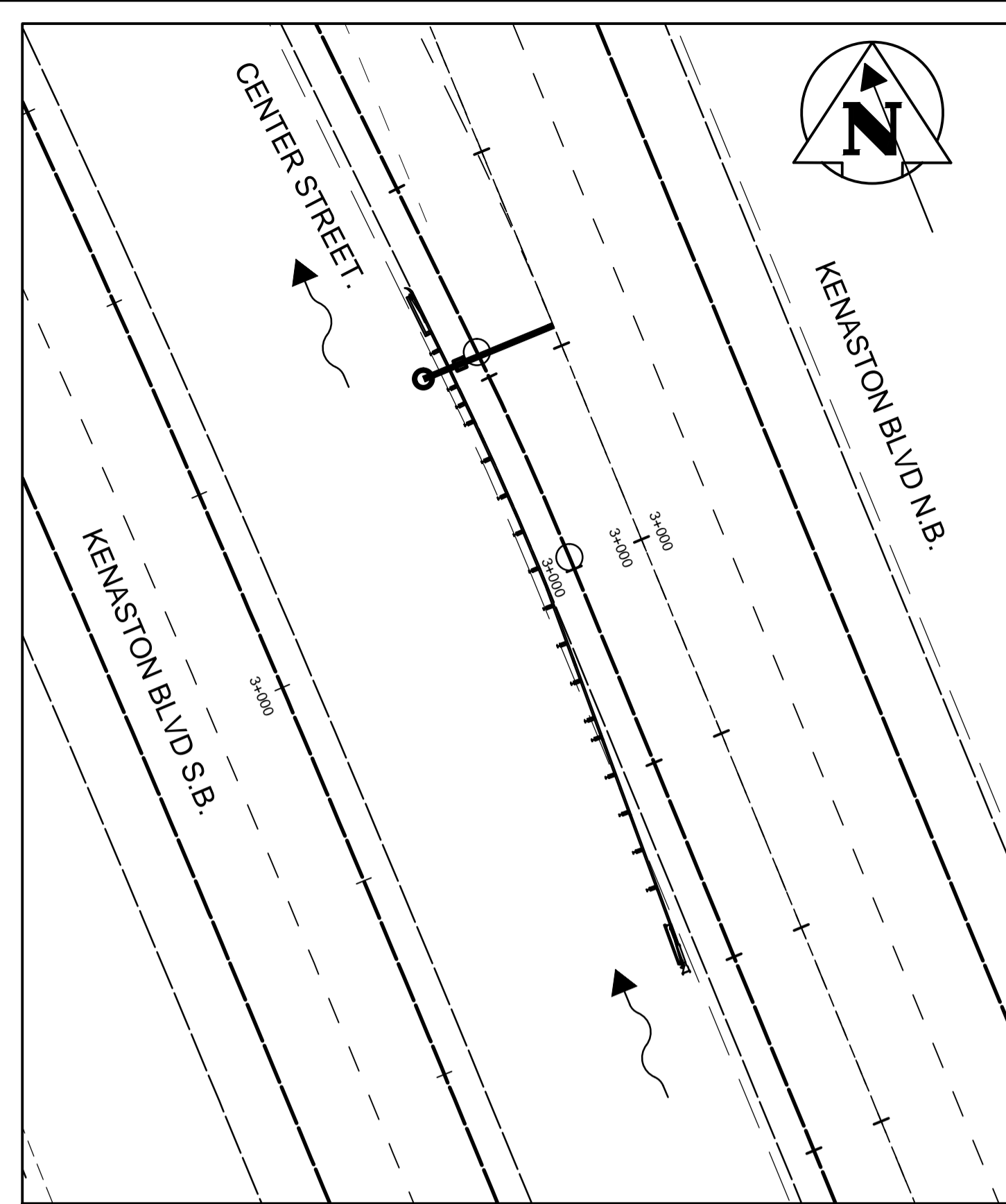
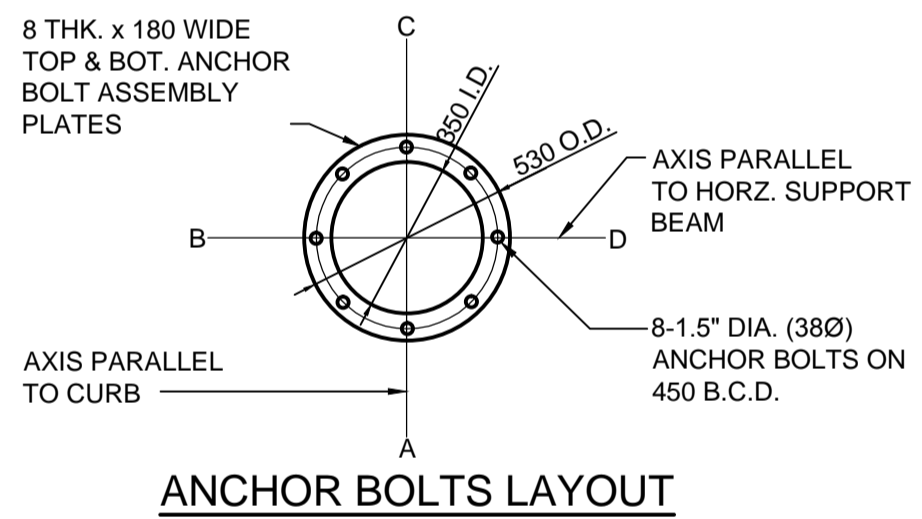




1 SIGN LOCATION KEY PLAN
1:2000



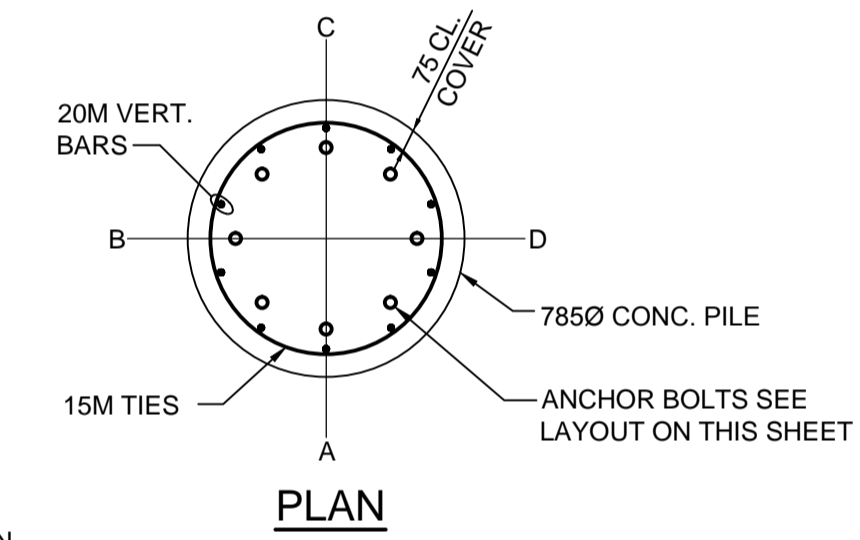
2 OVERHEAD SIGN @ STA 3+011 (KENASTON BLVD. N.B. CONTROL)
1:250 OVERHEAD SIGN SUPPORT STRUCTURE NO. S767



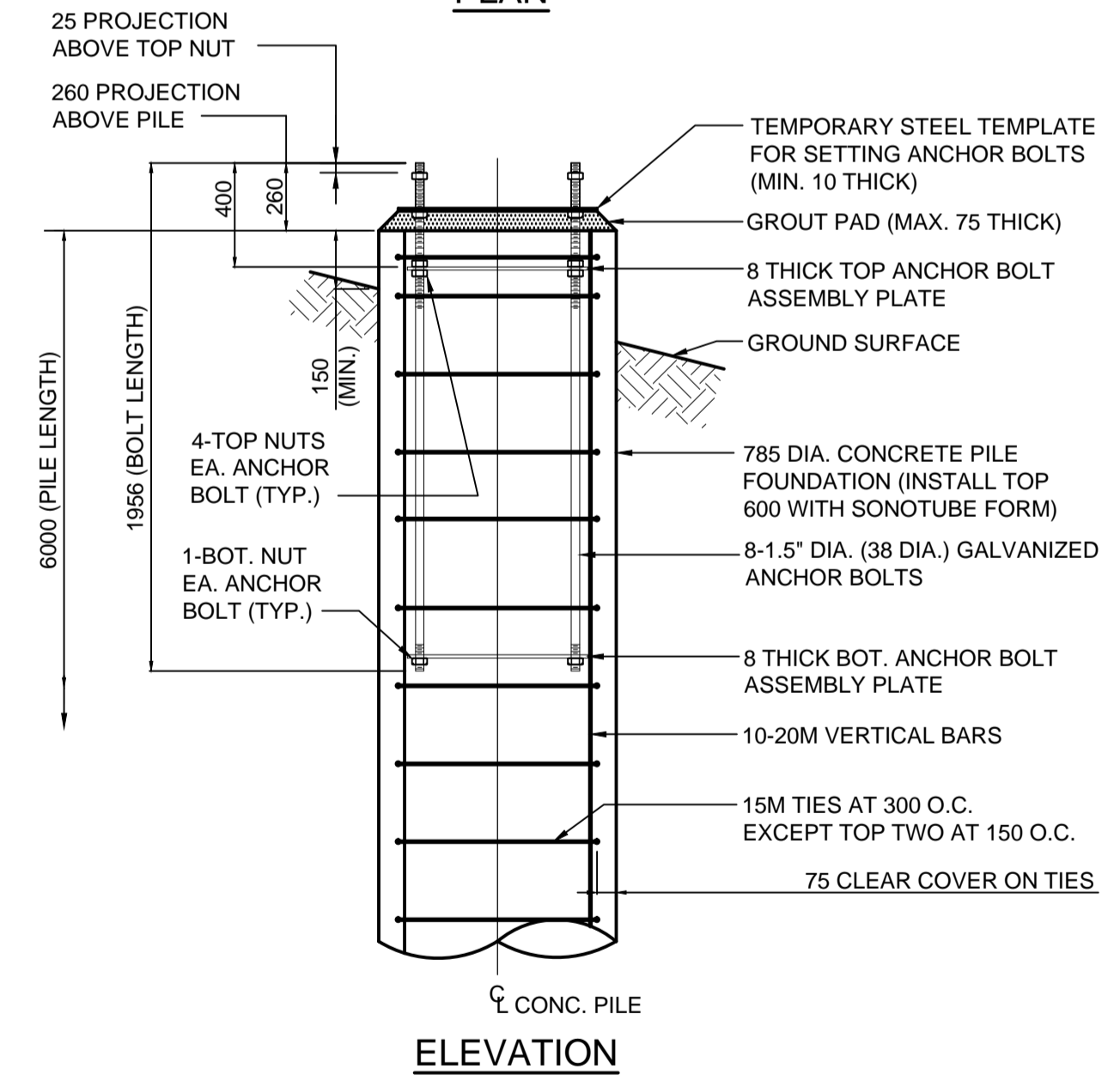
ANCHOR BOLTS LAYOUT

PILE CONSTRUCTION NOTES

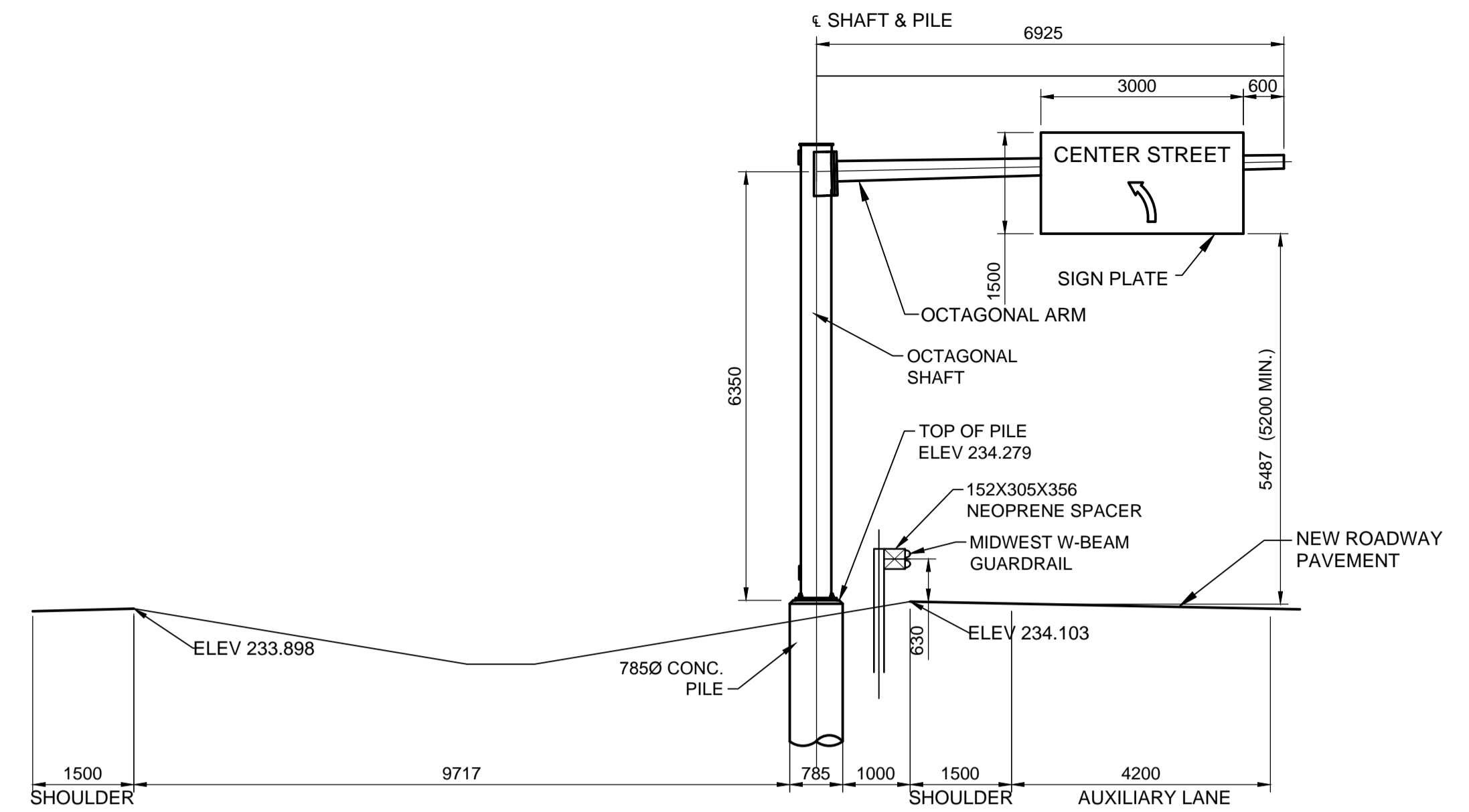
- REINFORCING STEEL**
 - CSA G30.12 GR. 400W
 - VERTICAL BARS FULL LENGTH OF PILE
 - HOT DIP GALVANIZED
- ANCHORS BOLTS**
 - ASTM F1554, 380MPa
 - 8-1.5" DIA. (51 DIA.) x 1956 LG. ANCHOR BOLTS THREADED BOTH ENDS (559 TOP & 102 BOT.)
 - EACH BOLT C/W 5 NUTS AND WASHERS (1-BOT. END 4-TOP END).
 - ANCHOR 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



PLAN



ELEVATION



3 ELEVATION - LOOKING NORTH
1:75 OVERHEAD SIGN SUPPORT STRUCTURE NO. S767

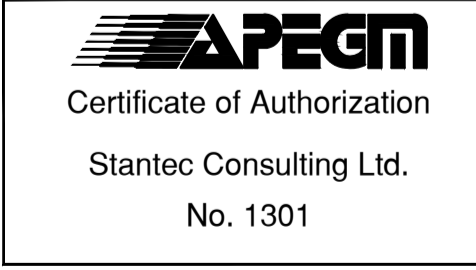
METRIC

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.



84R635 - 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.

VA 1137\vertical\113705751\drawing\404_working\sheet_files\05751c-504-signs-c1.dwg

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

UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE DATE

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	DESIGNED BY	H.M.V.	DESIGN TEAM
ELEV.	232.457m	DRAWN BY	T.G.	
		CHECKED BY	K.S.A.	
		APPROVED BY	K.S.A.	
		HOR. SCALE	AS NOTED	RELEASED FOR CONSTRUCTION
		VERTICAL		DATE
NO.	REVISIONS	DATE	BY	DATE
		09/12/12		

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.

ENGINEER'S SIGNATURE
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

S767 KENASTON BOULEVARD NB
S. OF CENTER ST. EXIT (STA 3+011)
OVERHEAD SIGN LOCATION & DETAILS

CITY DRAWING NUMBER S767-2013-01
SHEET 50 OF 64
CONSULTANT DRAWING NUMBER C-504