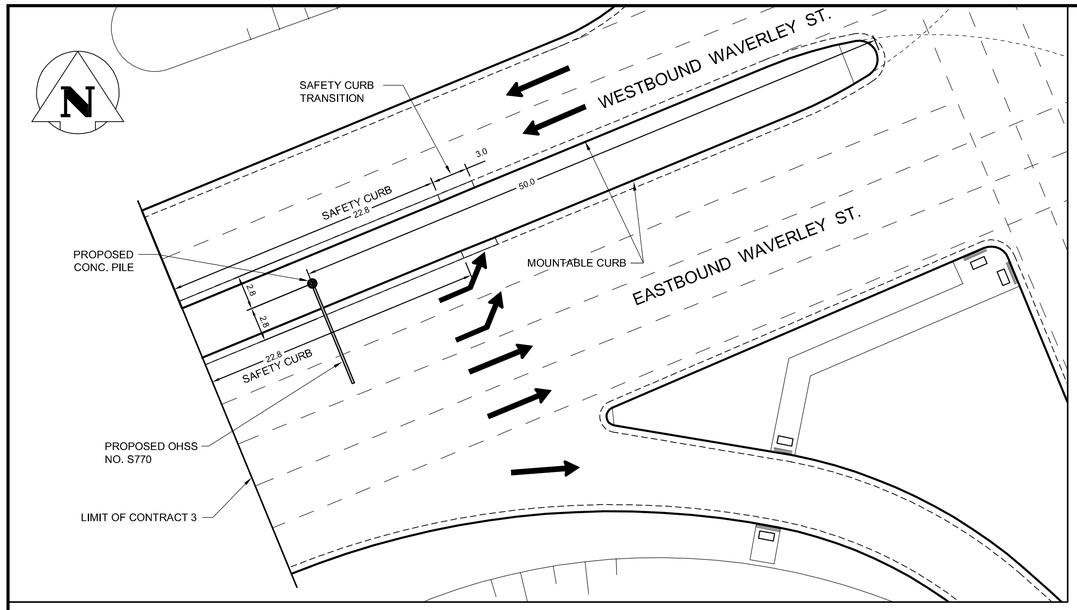
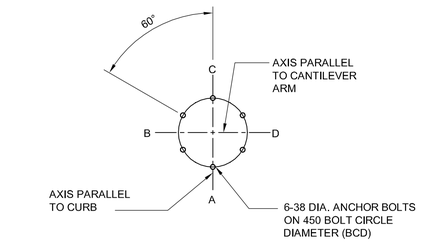
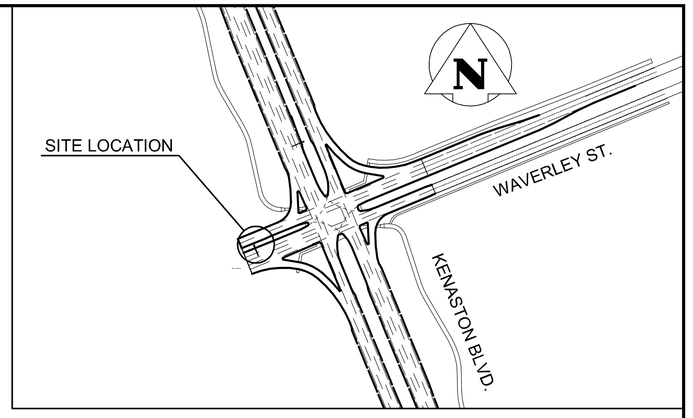


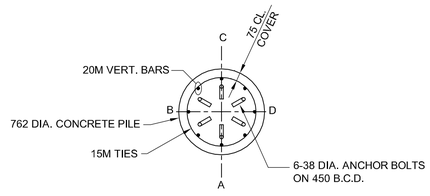
SITE PLAN
1:250



ANCHOR BOLTS LAYOUT



KEY PLAN



1 SECTION
1:20

PILE CONSTRUCTION NOTES

1. REINFORCING STEEL
   - CSA G30.18 GR. 400W
   - VERTICAL BARS FULL LENGTH OF PILE
   - HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A767

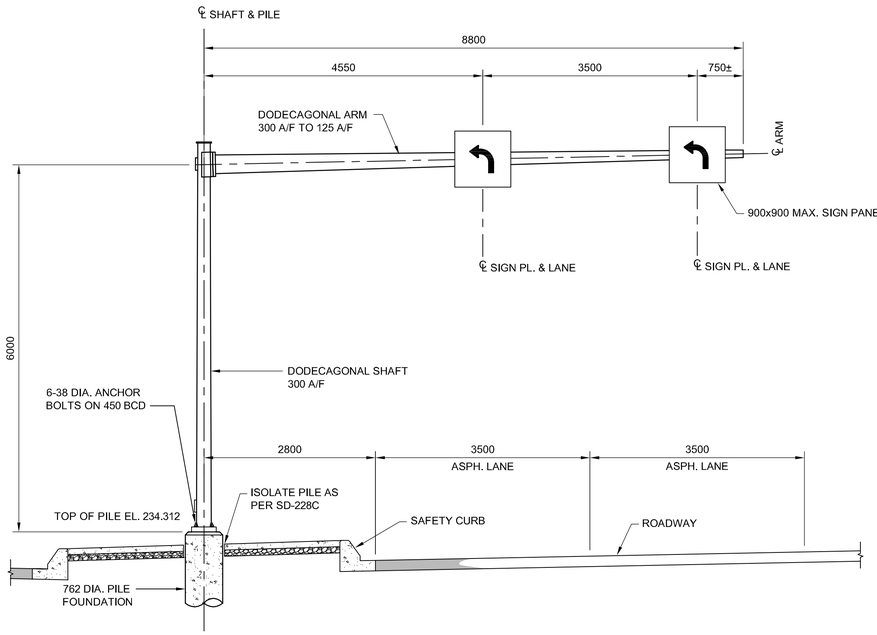
2. ANCHOR BOLTS
   - ASTM F1554 GR.55 (380 MPa)
   - 6-38 (1-1/2") DIA. x 1500 LONG + 150 HOOK
   - EACH BOLT C/W 2 NUTS & 2 WASHERS
   - TOP 300 THREADED
   - HOT DIP GALVANIZED FULL LENGTH
   - BCD = BOLT CIRCLE DIAMETER TO CENTRE OF BOLT GROUP
   - ANCHOR BOLTS SHALL BE ALIGNED WITH A TEMPORARY STEEL 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 UPPER ANCHOR NUTS TO A SNUG-TIGHT CONDITION, FOLLOWED BY 1/3 NUT ROTATION (+20°/-0°) OF THE UPPER ANCHOR NUTS.

3. FORM TOP OF PILE WITH A TUBULAR FORM (SONOTUBE):
   - 1m FOR DRILLED SHAFTS
   - 1.5m FOR HYDRO-EXCAVATED SHAFTS

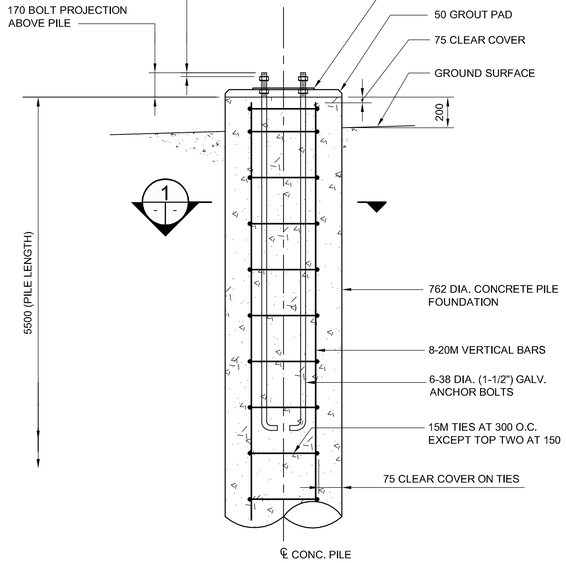
4. CONTRACTOR SHALL REMOVE THE ANCHOR BOLT SETTING TEMPLATE, NUTS AND FORM, FOLLOWING A MINIMUM 24 HOUR CONCRETE CURING PERIOD.

5. 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:
- i) CLASS OF EXPOSURE: S-1
- ii) MINIMUM COMPRESSIVE STRENGTH AT 56 DAYS = 35 MPa
- iii) MAXIMUM WATER/CEMENT RATIO = 0.40
- iv) AIR CONTENT: CATEGORY 2 PER TABLE 4 OF CSA A23.1-09 (4-7%)
- v) CEMENT IN ACCORDANCE WITH CSA A23.1-09



SITE ELEVATION - LOOKING EAST
1:50 OVERHEAD SIGN SUPPORT STRUCTURE NO. S770



CONCRETE PILE FOUNDATION DETAIL
1:20

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:

1. NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
2. TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.
3. OBTAIN EXCAVATION PERMITS PRIOR TO CONSTRUCTION.

APEGM
Certificate of Authorization
Dillon Consulting Limited (MB)
No. 1789 **Date:** 2013-04-05

150 WM	WATERMAIN	150 WM	MTS	M.T.S.	MTS	150 mm W.M.	WATERMAIN	150 mm W.M.
⊙	HYDRANT	●		CONCRETE			HYDRANT	
⊗	VALVE	⊗		ASPHALT			VALVE	
300 LDS	LAND DRAINAGE SEWER	300 LDS		PLANING		300 mm L.D.S.	LAND DRAINAGE SEWER	300 mm L.D.S.
250 WWS	WASTE WATER SEWER	250 WWS		SIDEWALK		250 mm W.W.S.	WASTE WATER SEWER	250 mm W.W.S.
○	MANHOLE	●		PAVING STONES			℄ PROFILE	
□	CATCH BASIN	■		PROPERTY LINE			NORTH/WEST GUTTER	
▽	CURB INLET	▼		SURVEY BAR			SOUTH/EAST GUTTER	
⊙	TEST HOLES			CURB RAMP			NORTH/WEST T/LANE	
	CULVERT			DITCH			SOUTH/EAST T/LANE	
100 GAS	GAS	100 GAS		SWALE				
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. 654008 N: 5515764.610 E: 633359.697
ELEV. 232.463 m

NO.	REVISIONS	DATE	BY
1	ISSUED FOR TENDER	13-04-05	MRD
0	ISSUED FOR 90% REVIEW	13-02-22	MRD

DESIGNED BY	CDW
DRAWN BY	JD
CHECKED BY	SSR
APPROVED BY	DPK
HOR. SCALE	AS NOTED
VERTICAL	AS NOTED
DATE	2013-04-05

DESIGN TEAM
DILLON CONSULTING
RELEASED FOR CONSTRUCTION
DATE

ENGINEER'S SEAL
PROVINCE OF MANITOBA
ORIGINAL STAMPED BY
S.S. RIHAL
2013-04-05
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT PROJECT NUMBER
12-6606

Winnipeg
THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT

WWARP III - KENASTON BLVD EXTENSION
CONTRACT 3

CITY DRAWING NUMBER: S770-2013-01
SHEET 22 OF 23

S770 - WAVERLEY ST. E.B. WEST OF KENASTON BLVD.
LOCATION AND DETAILS

CONSULTANT DRAWING NUMBER

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