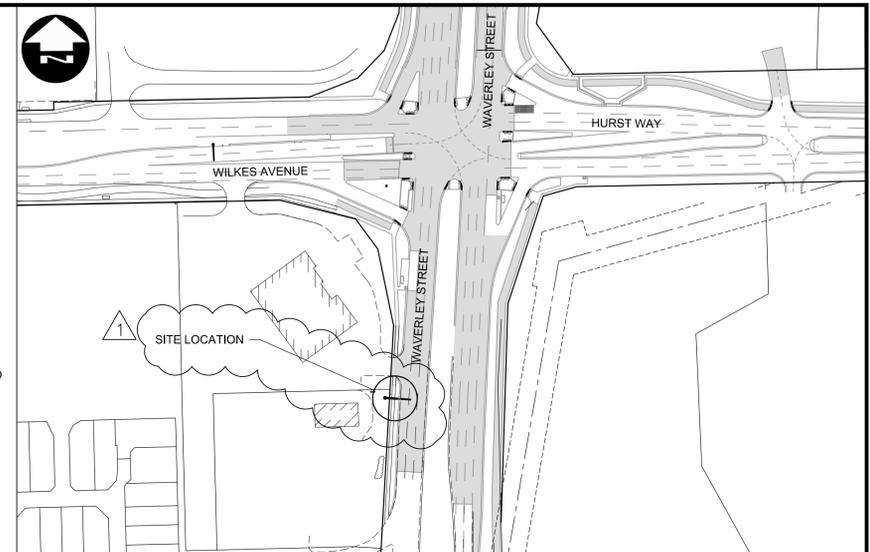
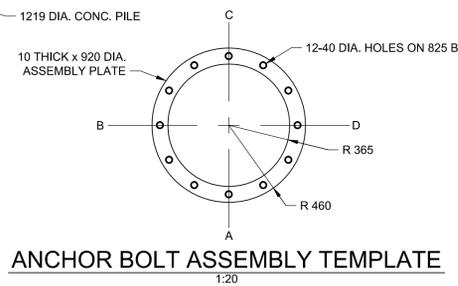
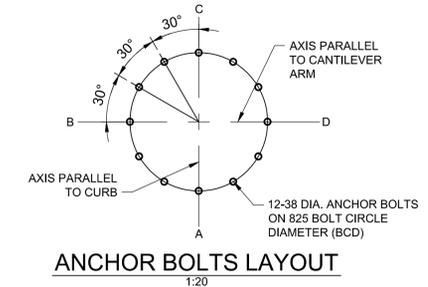
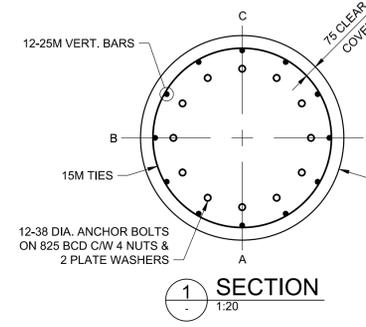
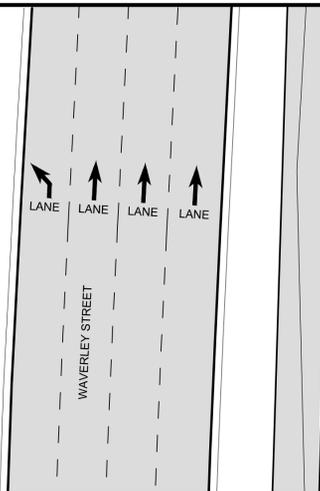
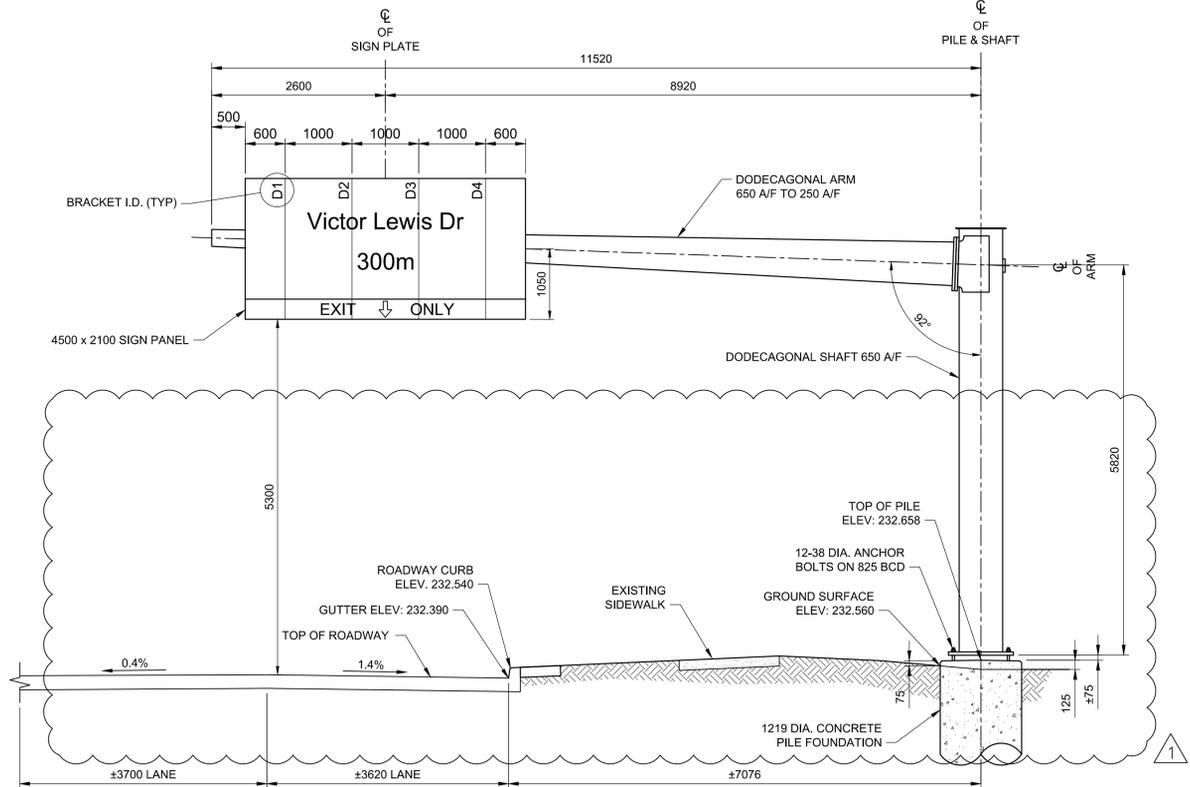


SITE PLAN
SCALE 1:250

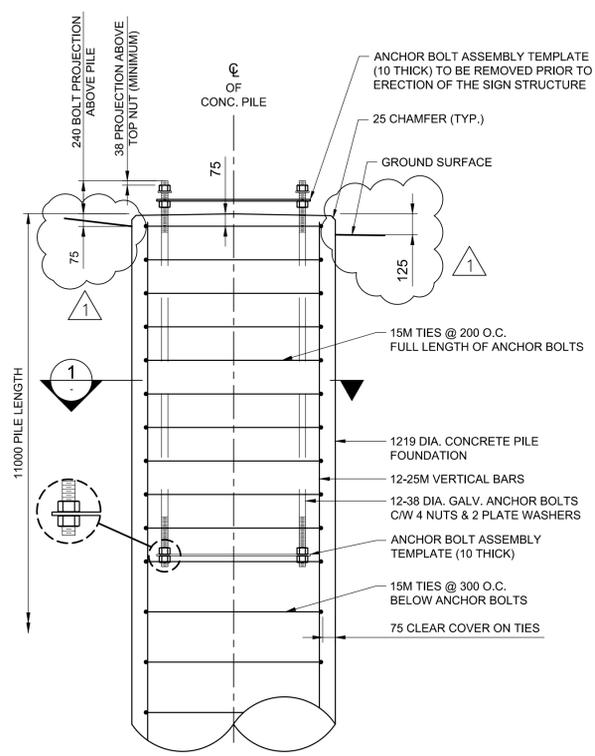


KEY PLAN
SCALE 1:1500

NOTE:
OHSS S784 CONCRETE PILE FOUNDATION ON PRIVATE PROPERTY TO BE ACQUIRED BY THE CITY. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL OF SUCCESSFUL PROPERTY ACQUISITION PRIOR TO COMMENCING ANY WORKS ON OHSS S784.



S784 ELEVATION - LOOKING SOUTH
SCALE 1:50



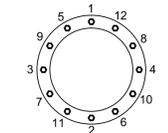
CONCRETE PILE FOUNDATION DETAIL FOR S784
SCALE 1:20

PILE CONSTRUCTION NOTES

- REINFORCING STEEL**
 - CSA G30.18 GR. 400W
 - VERTICAL BARS FULL LENGTH OF PILE
 - HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A767
- ANCHOR BOLTS**
 - ASTM F1554 GR.55 (380 MPa)
 - 12-38 DIA. ANCHOR BOLTS 2.0m LONG
 - EACH BOLT C/W 4 NUTS & 2 PLATE WASHERS (SEE PLATE WASHER DETAIL FOR MK. 14)
 - TOP 300 THREADED UNC CLASS 2A
 - BOTTOM 100 THREADED UNC CLASS 2A
 - HOT DIP GALVANIZED FULL LENGTH, IN ACCORDANCE WITH ASTM A153 CLASS C
 - B.C.D. = BOLT CIRCLE DIAMETER TO CENTRE OF BOLT GROUP
 - ANCHOR BOLTS SHALL BE ALIGNED WITH TEMPORARY STEEL TEMPLATES. PLACEMENT OF ANCHOR BOLTS AND CONCRETE WITHOUT THE TEMPLATES WILL NOT BE PERMITTED.
 - CONTRACTOR SHALL REMOVE THE TOP ANCHOR BOLT SETTING TEMPLATE, NUTS AND FORM, FOLLOWING A MINIMUM 24 HOUR CONCRETE CURING PERIOD.
 - 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.
 - ANCHOR BOLTS SHALL BE TIGHTENED USING A STAR PATTERN TIGHTENING SEQUENCE.
- FORM TOP OF PILE WITH A TUBULAR FORM (SONOTUBE):**
 - 1m FOR DRILLED SHAFTS
 - 1.5m FOR HYDRO-EXCAVATED SHAFTS
- 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 A23.1-14 (4-7%)
 - v) CEMENT IN ACCORDANCE WITH CSA A23.1-14



METRIC

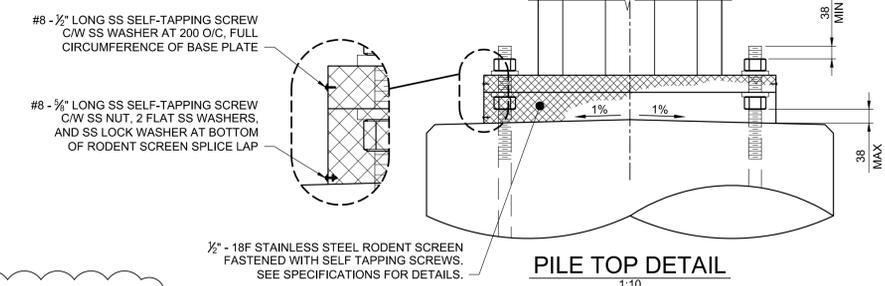
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

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.

NOTE:
ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ALL ELEVATIONS PRIOR TO INSTALLATION OF CONCRETE PILE FOUNDATION.



PILE TOP DETAIL
SCALE 1:10

CENTRE OF PILE LAYOUT TABLE

STRUCTURE	STATION	O/S	NORTHING	EASTING
S784	1+377.173	18.35	5523085.000	630862.638

APEGM
Certificate of Authorization
Dillon Consulting Limited (MB)
No. 1789 Date: 2017/01/09

NO.	REVISIONS	DATE	BY	DATE
1	ADDENDUM #6	17/03/13	DA	
0	ISSUED FOR TENDER	17/01/09	DA	

DILLON CONSULTING

DESIGNED BY: DRA CHECKED BY: SSR
DRAWN BY: MDG APPROVED BY: DBW

HR. SCALE: AS SHOWN RELEASED FOR CONSTRUCTION
VERTICAL: AS SHOWN

ENGINEER'S SEAL: D.R.C. AMORIM, Member 33215, PROFESSIONAL ENGINEER

THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT

Waverley Street Underpass at CN Mile 3.89 Rivers Sub
Contract 2: Underpass Structure, Railworks, Roadworks, Land Drainage Sewer, Pumping Station and Landscaping Works

CITY DRAWING NUMBER: U-239-2016-C2-CS-077
SHEET OF: 077 OF 085
CONSULTANT DRAWING NUMBER: C2-CS-077

CONSULTANT PROJECT NUMBER: 16-3353

S784 - SB WAVERLEY AT VICTOR LEWIS

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