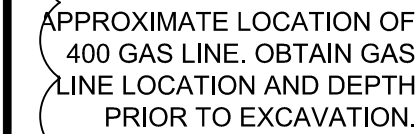


SITE PLAN
SCALE 1:250



S783 ELEVATION - LOOKING EAST

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

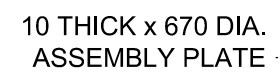
#8 - 1/2" LONG SS SELF-TAPPING SCREW
C/W SS WASHER AT 200 O/C, FULL
CIRCUMFERENCE OF BASE PLATE -

#8 - 5/8" LONG SS SELF-TAPPING SCREW
C/W SS NUT, 2 FLAT SS WASHERS,
AND SS LOCK WASHER AT BOTTOM
OF RODENT SCREEN SPLICE LAP

1/2" - 18F STAINLESS STEEL RODENT SCREEN
FASTENED WITH SELF TAPPING SCREWS.
SEE SPECIFICATIONS FOR DETAILS.

PILE TOP DETAIL

CENTRE OF PILE LAYOUT TABLE				
STRUCTURE	STATION	O/S	NORTHING	EASTING
S783	1+091.584	8.74	5523198.353	630785.411



1:20



1:20



KEY PLAN
SCALE 1:1500

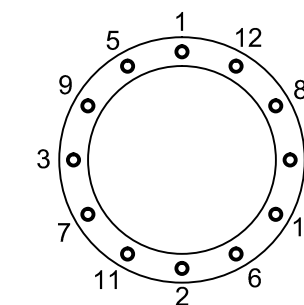
PILE CONSTRUCTION NOTES

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)
- 3-8 DIA. ANCHOR BOLTS 2.0m LONG
- EACH BOLT C/W 4 NUTS & 2 PLATE WASHERS (SEE DETAIL 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.
- CONCRETE CURING PERIOD TO 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.



3. FORM TOP OF PILE WITH A TUBULAR FORM (SONOTUBE)

- 1.5m FOR HYDRO-EXCAVATED SHAFTS

4. 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 = 0.40
- AIR CONTENT: CATEGORY 2 PER TABLE 4.3 OF CSA A23.1-14 (4-7%)
- CEMENT IN ACCORDANCE WITH TABLE 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:

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.

						 DILLON CONSULTING		ENGINEER'S SEAL  CONSULTANT PROJECT NUMBER 16-3353		 THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT			
						DESIGNED BY DRA		CHECKED BY SSR		WAVERLEY STREET UNDERPASS AT CN MILE 3.89 RIVERS SUB CONTRACT 2: UNDERPASS STRUCTURE, RAILWORKS, ROADWORKS, LAND DRAINAGE SEWER, PUMPING STATION AND LANDSCAPING WORKS			
						DRAWN BY MDG		APPROVED BY DBW					
						HOR. SCALE AS SHOWN		RELEASED FOR CONSTRUCTION		CITY DRAWING NUMBER U-239-2016-C2-CS-074			
1 ADDENDUM #6 17/03/13 DA						VERTICAL AS SHOWN				SHEET OF 074 085			
0 ISSUED FOR TENDER 17/01/09 DA										CONSULTANT DRAWING NUMBER C2-CS-074			
NO.		REVISIONS		DATE		BY		DATE					