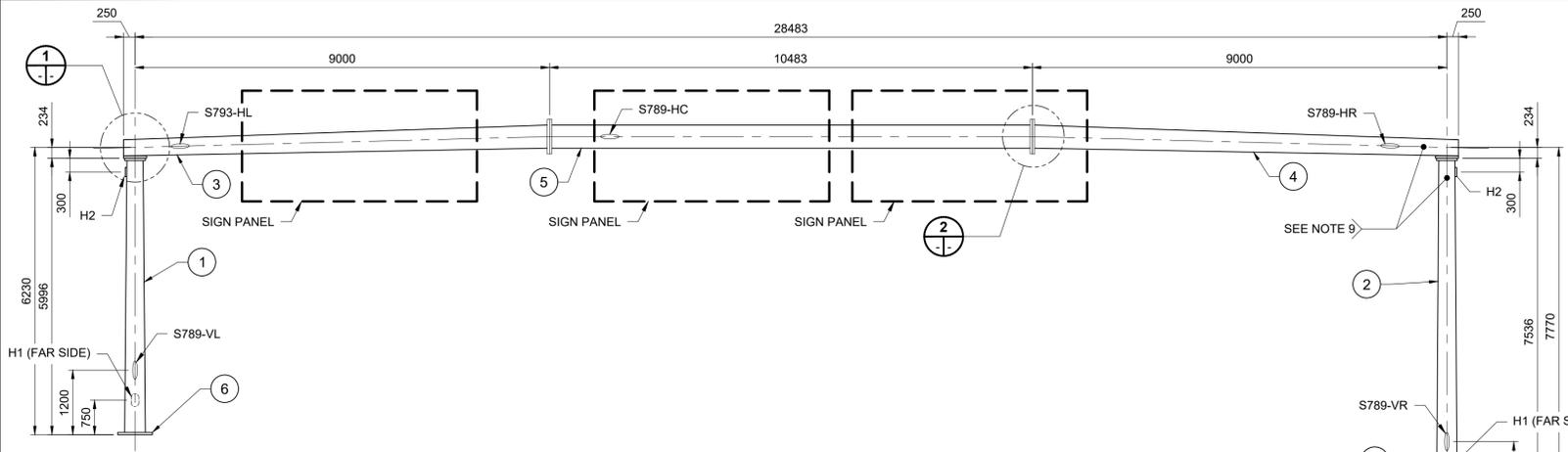
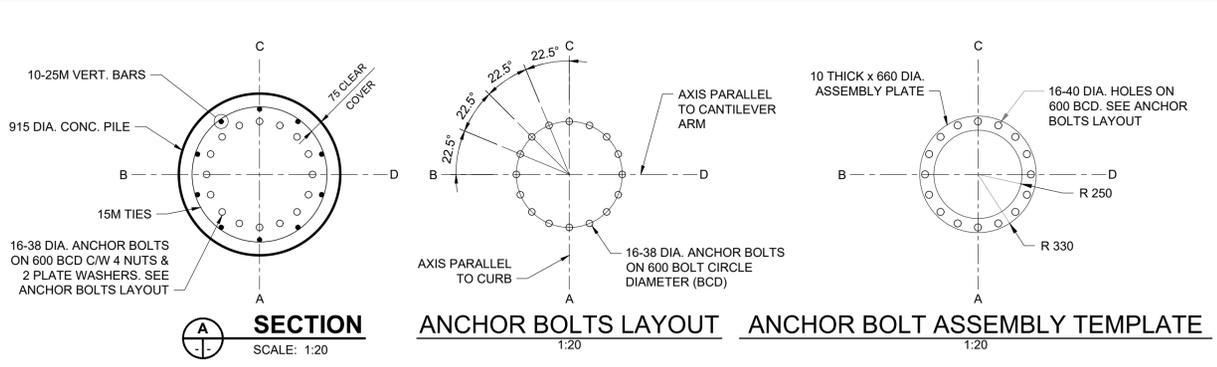


P:\2018\1804191\02-2019\2019020 Regional St Renew Fermanor08_CAD\07_Sheet1804191-54-Fermanor-04-05.dwg Last Saved: 3/11/2019 2:39 PM by zheppner Plotted: 3/22/2019 8:30 AM by Alex Hoppner



S793 ELEVATION

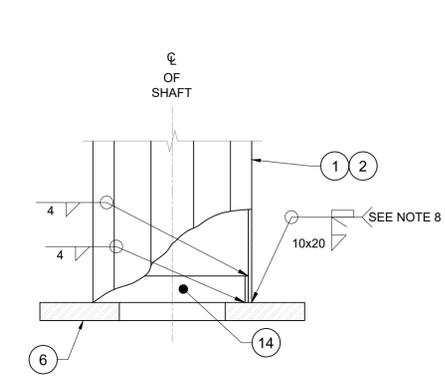
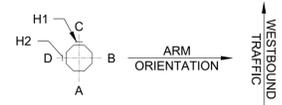
DIMENSIONS ARE SHOWN FOR LOADED CONDITION. FABRICATOR TO VERIFY UNLOADED DIMENSIONS PROVIDE DESIRED LOADED CAMBER AND ROADWAY CLEARANCE.



SECTION

ANCHOR BOLTS LAYOUT

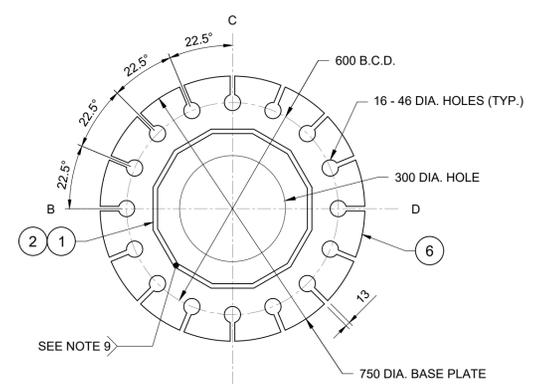
ANCHOR BOLT ASSEMBLY TEMPLATE



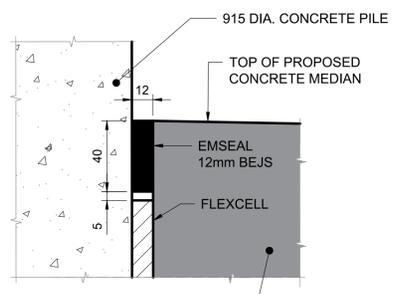
ELEVATION

BASE PLATE DETAIL

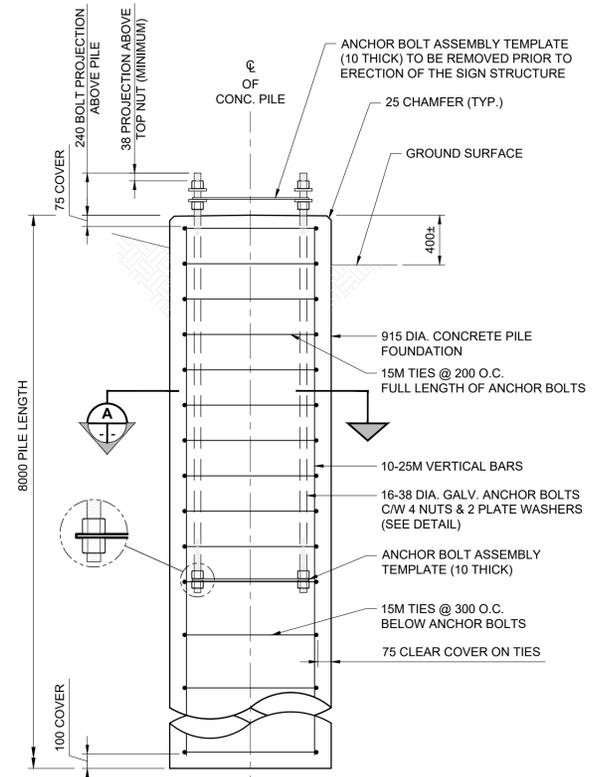
1:10 TYP. BOTH LEGS



PLAN



DETAIL 1 - PILE ISOLATION



CONCRETE PILE FOUNDATION DETAIL FOR S793 - PILE P3

1:20 PILE P4 SIMILAR TOP OF PILE P4 CL 75± ABOVE CONCRETE MEDIAN



STRUCTURE IDENTIFICATION NUMBER SIZE

NTS

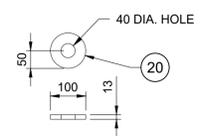
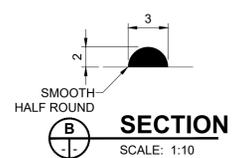


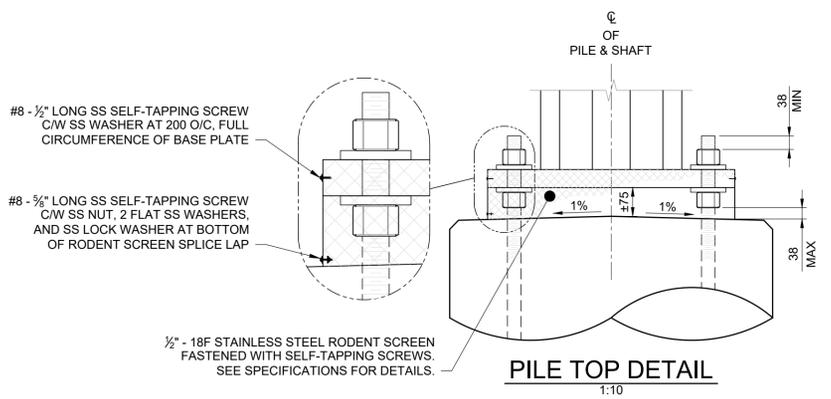
PLATE WASHER DETAIL

1:10



SECTION

SCALE: 1:10



PILE TOP DETAIL

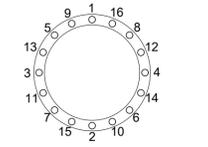
1:10

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)
 - 16-38 DIA. ANCHOR BOLTS 2.0m LONG
 - EACH BOLT C/W 4 NUTS & 2 PLATE WASHERS (SEE PLATE WASHER DETAIL FOR MK. 20)
 - 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 AND F1
 - ii) MINIMUM COMPRESSIVE STRENGTH AT 56 DAYS = 35 MPa
 - iii) MAXIMUM WATER/CEMENT RATIO = 0.40
 - iv) AIR CONTENT: CATEGORY 1 PER TABLE 4 OF CSA A23.1-14 (5-8%)
 - v) TYPE HS, HSb OR HSs CEMENT IN ACCORDANCE WITH CSA A23.1-14



LOCATION APPROVED UNDERGROUND STRUCTURES

GBM 55-015
ELEV 233.170

DESIGNED BY	TN	CHECKED BY	GQW
DRAWN BY	AH	APPROVED BY	BAP
C	ISSUED FOR TENDER	19/03/22	BAP
B	ISSUED FOR CLIENT REVIEW	19/02/15	BAP
A	N/A	-	-
No.	REVISIONS	YY/MM/DD	BY

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.

DESIGNED BY	TN	CHECKED BY	GQW
DRAWN BY	AH	APPROVED BY	BAP
RELEASED FOR CONSTRUCTION	N/A		
HOR SCALE	AS SHOWN		
VERT SCALE	AS SHOWN		
DATE	19/02/15	DATE	

MORRISON HERSHFIELD

PROFESSIONAL'S SEAL
PROVINCE OF MANITOBA
REGISTERED PROFESSIONAL ENGINEER
G.Q. WEI
Member 38723

CONSULTANT FILE NAME
1804191-54-Fermanor-04-05.dwg

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

2019/2020 REGIONAL STREET RENEWAL PROGRAM
FERMOR AVENUE
FROM LAGIMODIERE BOULEVARD
TO PLESSIS ROAD (CITY BOUNDARY)
OVERHEAD SIGN STRUCTURE
S793 FERMOR AVE. WB, EAST OF LAGIMODIERE BLVD.
FABRICATION DETAILS 1

CITY DRAWING NUMBER
P-3501-54
SHEET 54 OF 63
DRAWING No.
54

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
MORRISON HERSHFIELD
No. 1736
TENDER No.8-2019