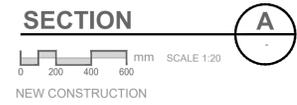
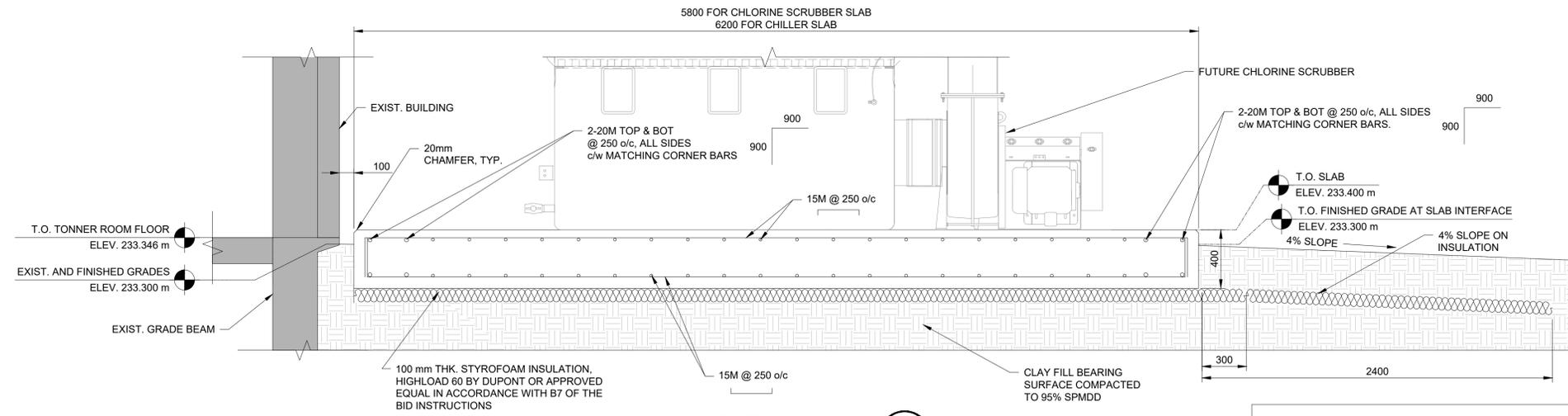


**CHILLER AND CHLORINE SCRUBBER PAD PLAN** 1



**ENGINEERS**  
**SCIENTISTS**  
**MANITOBA**  
 Certificate of Authorization  
 AECOM Canada Ltd.  
 No. 4671 Date: 2023/03/20

- GENERAL NOTES**
1. READ THE STRUCTURAL DRAWINGS IN CONJUNCTION WITH ALL OTHER PERTINENT CONTRACT DOCUMENTS.
  2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL VERIFY DIMENSIONS BEFORE BEGINNING CONSTRUCTION AND REPORT DISCREPANCIES TO THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE DRAWINGS.
  3. THE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA 2010, ITS SUPPLEMENTS AND THE LATEST EDITIONS OF REFERENCED CODES AND STANDARDS THEREIN, UNLESS NOTED OTHERWISE.
  4. CONTRACTOR TO CONFIRM DIMENSIONS, WEIGHTS AND ALL OTHER CRITICAL DETAILS PRIOR TO CONSTRUCTION. REPORT DISCREPANCIES TO THE CONTRACT ADMINISTRATOR AND OBTAIN AUTHORIZATION IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION.
  5. VERIFY LOCATION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCING CONSTRUCTION AND BE RESPONSIBLE FOR DISRUPTIONS.
  6. ALL WORK SHALL CONFORM TO ALL APPLICABLE LOCAL BYLAWS AND CODES.
  7. ALL REFERENCED CODES SHALL BE OF THE LATEST EDITIONS.
  8. BUILDING CONTROL LINES, REFERENCE LINES, GRID LINES, AND TEMPORARY BENCH MARKS TO BE CLEARLY IDENTIFIED AND MAINTAINED DURING THE ENTIRE CONSTRUCTION.

- DESIGN LOADS:**
- THE FOLLOWING LOADS ARE SERVICE LOADS:
1. DEAD LOADS:
    - 1) SELF WEIGHT W = 94 kN (21,000 lbs)
    - 2) CHLORINE SCRUBBER W = 51 kN (11,400 lbs)
    - 3) CHILLER
  2. LIVE LOADS:
    - 1) GROUND SNOW LOAD - S<sub>s</sub> = 1.9 kPa
    - 2) WIND LOAD S<sub>r</sub> = 0.2 kPa
    - q(1:50) 0.45 kPa

- FOUNDATION NOTES**
1. GEOTECHNICAL REPORT IS AVAILABLE AS REFERENCED IN THE CONTRACT SPECIFICATIONS.
  2. CONTRACTOR TO HAVE OWN GEOTECHNICAL ENGINEER TO REVIEW THE BEARING SURFACES PREPARATION UNDER THE FOUNDATION PADS. GEOTECHNICAL ENGINEER TO SUBMIT HIS REVIEW REPORTS FOR OWNER REVIEW PRIOR TO PLACING CONCRETE.
  3. BEARING CAPACITIES USED AS PER THE TREK GEOTECHNICAL REPORTS DATED FEBRUARY 2, 2022:
    - FACTORED ULS BEARING RESISTANCE: 100 kPa
    - FACTORED SLS BEARING RESISTANCE: 70 kPa
  4. BEARING SURFACES SHALL BE PREPARED AS PER THE RECOMMENDATIONS FROM TREK GEOTECHNICAL THAT ARE OUTLINED IN THEIR INVESTIGATION REPORT DATED FEBRUARY 2, 2022.
  5. PROTECT BEARING SURFACES. DO NOT PLACE CONCRETE ON FROZEN SOIL.
  6. PREVENT SUBGRADE FROM FREEZING AFTER CASTING CONCRETE WORKS UNTIL CONSTRUCTION IS COMPLETE AND STRUCTURES ARE IN SERVICE.
  7. DO NOT UNDERMINE THE EXISTING ADJACENT BUILDING.
  8. CONTRACTOR TO HIRE AND PAY FOR GEOTECHNICAL ENGINEER TO VERIFY SUBGRADE AND BASE MATERIAL BY PERFORMING COMPACTION TESTS. TESTING FREQUENCY SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER.
  9. MINIMIZE DISTURBANCE OF CLAY SUBGRADE DURING EXCAVATIONS ON SITE. DISTURBED SUBGRADE MATERIALS SHALL BE BACKFILLED IN LIFTS NOT EXCEEDING 150 mm AND RECOMPACTED TO 95% SPMD.

- CONCRETE NOTES**
1. PROVIDE CONCRETE AND PERFORM WORK TO CSA A23.1. THE CONTRACTOR SHALL HAVE A COPY OF THIS STANDARD ON SITE AT ALL TIMES.
  2. TEST CONCRETE IN ACCORDANCE WITH CSA A23.2.
  3. CONCRETE REQUIREMENTS:
 

STRENGTH	EXPOSURE CLASS	MIX TYPE
35 MPa	C-1	GU/GUb
  4. CONCRETE COVER:
 

TOP:	BOTTOM:
60mm	75mm

- CONCRETE REINFORCEMENT**
1. DEFORMED BARS CONFORMING TO CSA-G30.18 GRADE 400W.
  2. REINFORCING WORK SHALL BE IN ACCORDANCE WITH CSA A23.1 AND CSA A23.3.
  3. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST EDITION OF THE RSIC "REINFORCING STEEL MANUAL OF STANDARD PRACTICE".
  4. DOWELS AND ANCHOR BOLTS SHALL BE SECURED IN POSITION BY MEANS OF TEMPLATES BEFORE CONCRETE IS CAST.

- SHOP DRAWING SUBMISSIONS**
1. CONCRETE MIX DESIGN AS PER CSA A23.1, SIGNED & SEALED BY MIX DESIGN ENGINEER, REGISTERED IN THE PROVINCE OF MANITOBA.
  2. CONCRETE REINFORCEMENT SHOP DRAWING.

		ENGINEER'S SEAL	
DESIGNED BY: AI	CHECKED BY: JV	CITY DRAWING NUMBER <b>1-0650A-S0001-001</b>	
DRAWN BY: AI	APPROVED BY: MH		
SCALE: AS NOTED	RELEASED FOR CONSTRUCTION BY:	SHEET REV. SIZE <b>001 PA A1</b>	
DATE: 2023-03-20	DATE:		
PA ISSUED FOR TENDER	2023/03/20	AI	MH
NO. REVISIONS	DATE	DESIGN	CHECK
CONSULTANT NO.: 60664207		DATE: 2023-03-20	

1-0650A-C0004-001	CIVIL-EQUIPMENT PADS SITE PLAN
1-0650M-S0005-001	STRUCTURAL-PUMP STATION CRAWLSPACE MODIFICATIONS, PARTIAL PLANS AND SECTIONS
1-0650M-S0006-001	STRUCTURAL-PUMP STATION CRAWLSPACE MODIFICATIONS, SECTIONS AND DETAILS
DRAWING NUMBER	REFERENCE DRAWINGS