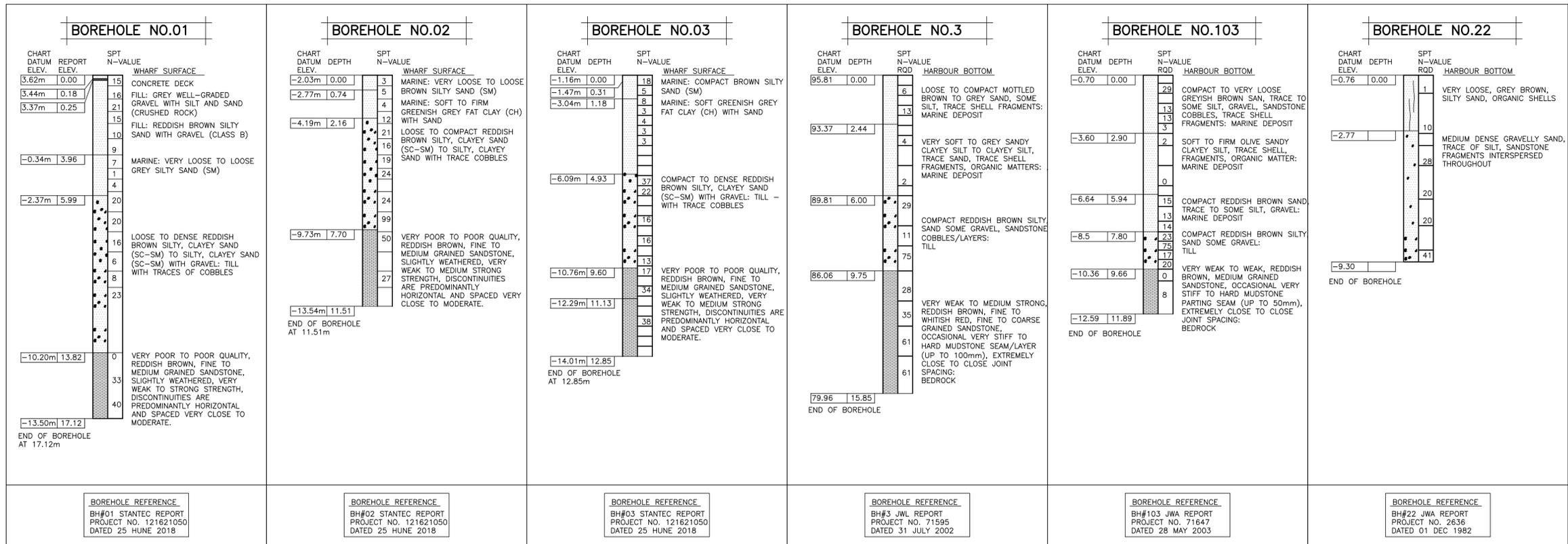




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CONCRETE NOTES:

- ALL CONCRETE WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH LATEST CSA A23.1 AND NBCC.
- ALL CONCRETE MATERIAL SHALL CONFORM TO:
 - a. CEMENT: CAN/CSA-A5-TYPE 10
 - b. AGGREGATES: CSA A23.1
 - c. AIR ENTRAINMENT: CSA CAN3-A266.1
 - d. CHEMICAL ADMIXTURES: CSA CAN3-266.2
 - e. DESIGN MIX: CSA A23.1
- MIX DESIGN: TYPE 10 PORTLAND CEMENT.
- EXTERIOR CONCRETE & SLABS:
 - f. COMPRESSIVE STRENGTH (28D): 35MPa (5000psi)
 - g. CLASS OF EXPOSURE: C-1
 - h. NOMINAL AGGREGATE SIZE: 20mm (3/4")
 - i. SLUMP: 80mm (3-1/4") ±20mm (3/4")
 - j. AIR CONTENT: 5-8%
 - k. WATER CEMENT RATIO: 0.40 MAX
- USE OF CALCIUM CHLORIDE IS NOT PERMITTED.
- NO CONCRETE SHALL BE POURED WITHOUT THE PRIOR KNOWLEDGE AND APPROVAL OF DEPARTMENTAL REPRESENTATIVE.
- ALL CONCRETE SHALL BE TESTED, TESTING SHALL CONFORM TO CSA A23.2. DEPARTMENTAL REPRESENTATIVE WILL RETAIN THE SERVICES OF INDEPENDENT TESTING FIRM.
- ALL CONCRETE SHALL BE VIBRATED USING HIGH FREQUENCY VIBRATORS. VIBRATION PRACTICES TO BE IN ACCORDANCE WITH ACI 309R.
- COLD WEATHER CONCRETE SHALL BE PLACED & PROTECTED IN ACCORDANCE WITH THE REQUIREMENTS OF CSA A23.1 & TO THE REQUIREMENTS OF ACI-306R. PROVIDE HEATED ENCLOSURES AND/OR INSULATED TARPS AS REQUIRED TO MAINTAIN MINIMUM 10°C CONCRETE SURFACE TEMPERATURE FOR A PERIOD OF 5 DAYS FOLLOWING CONCRETE PLACEMENT. PROVIDE CONTROLLED COOL DOWN PERIOD TO PREVENT SURFACE CRACKING AT END OF PROTECTION PERIOD. ENSURE THAT NO CONCRETE IS PLACED ON OR AGAINST FROZEN SUB-GRADE, FORMWORK, OR REINFORCING STEEL.

REINFORCING STEEL NOTES:

- ALL REINFORCING STEEL SHALL BE NEW BILLET AND SHALL CONFORM TO CSA G30.18.
- MINIMUM REINFORCING STEEL YIELD STRENGTH SHALL BE 400 MPa.
- REINFORCING STEEL SHALL BE DETAILED, CUT, BENT, FABRICATED AND PLACED IN ACCORDANCE WITH REINFORCING MANUAL OF STANDARD PRACTICE (REINFORCING STEEL INSTITUTE OF CANADA); CAN3-A23.3 AND CSA-A23.1.
- THE GENERAL CONTRACTOR SHALL INSPECT ALL THE REINFORCING STEEL BEFORE PLACEMENT OF THE CONCRETE.
- THE GENERAL CONTRACTOR SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE 24 HOURS PRIOR TO THE PLACEMENT OF THE CONCRETE.
- THE POSITION OF ALL REINFORCING STEEL SHALL BE MAINTAINED DURING THE POURING OPERATION BY DIRECT SUPERVISION OF THE REINFORCING STEEL CONTRACTOR.
- SHOP DRAWINGS: SUBMIT SHOP DRAWINGS STAMPED BY AN ENGINEER LICENSED TO PRACTICE IN PEI FOR REVIEW PRIOR TO FABRICATING REINFORCING STEEL. CLEARLY INDICATE BAR SIZES, SPACING, LOCATION, QUANTITY, CHAIRS, SPACERS, ETC WITH IDENTIFYING CODE MARKS TO PERMIT PLACEMENT.
- CONCRETE COVER (UNLESS NOTED OTHERWISE):
 - a) POURED AGAINST THE GROUND 75mm (3")
 - b) FORMED SURFACE EXPOSED TO MARINE WEATHER 75mm (3")
- USE SPACERS, PLASTIC CHAIRS ONLY. TEMPLATES AND DIRECT SUPERVISION OF THE REINFORCING STEEL CONTRACTOR TO ACCURATELY LOCATE & SUPPORT REINFORCING STEEL & SECURE IN POSITION TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT.

SLAB ON GRADE NOTES:

- LOCATION OF SLAB CONSTRUCTION JOINTS TO BE APPROVED BY DEPARTMENTAL REPRESENTATIVE BEFORE CONCRETE IS PLACED.
- EXTERIOR CONCRETE SLAB TO HAVE A BROOM ANTI-SLIP FINISH.
- WET CURE SLAB-ON-GRADE FOR A MINIMUM OF 7 DAYS AFTER PLACEMENT OR APPLY APPROVED WATER BASED CURING COMPOUND SUITABLE FOR THE SITE CONDITIONS IMMEDIATELY AFTER COMPLETION OF SLAB FINISHING.
- PROVIDE CONTROL JOINTS WITH ULTRA-LOW MODULUS, ONE COMPONENT, NONSAG, NEUTRAL CURE AND ELASTOMERIC SILICON JOINT FILLER SUITABLE FOR HIGHWAY TRAFFIC & MARINE ENVIRONMENT.
- PROVIDE WEATHER PROTECTION TO CONCRETE SLAB AND ALL CONCRETE WORK IN CONFORMANCE WITH REQUIREMENTS OF A23.1

STRUCTURAL STEEL NOTES:

- ALL BEAMS, CHANNELS, COLUMNS, ANGLES, ETC. SHALL CONFORM TO THE LATEST ISSUE OF CSA G40.21 WITH A MIN YIELD STRENGTH OF 350MPa.
- ALL STEEL SECTIONS SHALL BE CUT FROM FULL LENGTH STOCK. NO SPLICES. ALL SUBSTITUTIONS SHALL BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
- DESIGN AND DETAILING OF ALL STRUCTURAL STEEL TO CSA-S16.1 (LATEST REV)
- WELDING TO CSA W48 AND CSA W59 (LATEST REV) BY CERTIFIED WELDERS TO CSA W47.
- THE STEEL ERECTOR SHALL BE RESPONSIBLE FOR THE SUPPLYING, ERECTING AND REMOVING ALL TEMPORARY SUPPORTS AND BRACING.
- STEEL SHOP DRAWINGS STAMPED BY A PROFESSIONAL ENGINEER REGISTERED ON PEI SHALL BE SUBMITTED PRIOR TO START OF WORK.
- ALL EXPOSED STEEL SHALL BE HOT DIPPED GALVANIZED TO CAN/CSA G164, MINIMUM ZINC COATING OF 760 G/M2. ITEMS TO BE EXCLUDED ARE H PILES & MISCELLANEOUS STEEL SECTIONS EMBEDDED OR CAST INTO CONCRETE.

revisions	date
0	ISSUED FOR 33% REVIEW 25/11 2018
0	ISSUED FOR 66% REVIEW 08/02 2019
0	ISSUED FOR 99% REVIEW 30/07 2019
0	ISSUED FOR TENDER 02/08 2019

project
HARBOUR STRUCTURES 304, 305, & 306 RECONSTRUCTION GRAHAM'S POND HARBOUR, KINGS CO., PEI
 drawing
BOREHOLE DATA & NOTES
 design

designed N.L., P. ENG. conq
 date 02 August 2019
 drawn N.L. dessin
 date 02 Aug 2019
 approved approved
 date
 Tender Submission
 PWSC Project Manager Administrateur de projets TPSGC
 project number no. du projet
R.094628.001
 drawing no. no. du dessin
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