

Village of Lions Bay
Water Storage Facilities Replacement

March 14, 2018

ADDENDUM # 2

This Addendum forms part of the Contract Documents and is to be read, interpreted and coordinated with all other parts. The cost of all work contained herein shall be included in the Contract Sum. The following revisions supersede the information contained in the original drawings and specifications issued for the above named project to the extent referenced and shall become part thereof.

Contract Documents

TENDER CLOSING TIME

1. Tenderers are advised that the **Tender Closing Time has changed.**

Section 00 21 13 - Instructions to Tenderers.

REPLACE:

“Tenders must be addressed to Andreea Irimia, Civil Engineer (the “Engineer”) and received at the AECOM Canada Ltd., on the Fourth Floor of Suite 330-3292 Production Way, Burnaby, BC V2A 4R4 not later than **3:00 p.m., local time** on

Wednesday, March 21, 2018

(the “**Tender Closing Time**”).

WITH:

“Tenders must be addressed to Andreea Irimia, Civil Engineer (the “Engineer”) and received at the AECOM Canada Ltd., on the Fourth Floor of Suite 330-3292 Production Way, Burnaby, BC V2A 4R4 not later than **3:00 p.m., local time** on

Wednesday, March 28, 2018

(the “**Tender Closing Time**”).

SPECIFICATIONS

1. Section 00 21 13 – Instructions to Tenderers

REPLACE Item 1.26.1 with:

“For scheduling purposes, the intent of the Municipality of the Village of Lions Bay is to issue the **Notice of Award of the Contract on April 11, 2018**. The Tenderer shall use this date when preparing the construction schedule. If the date of the Notice of Award changes from that listed above, the Tenderer’s schedule shall be extended by the equivalent length of time after that date.”

2. Section 00 73 00 – Supplementary General Condition

REPLACE:

“1.3 commence the *Work* within the time required under GC 3.1.4, and attain *Substantial Performance* of the *Work* by October 1, 2018 and *Total Completion* of the *Work* by December 1, 2018, subject to adjustment of the *Contract Time* as provided for in the *Contract Documents*.”

WITH:

“1.3 commence the *Work* within the time required under GC 3.1.4, and attain *Substantial Performance* of the *Work* by **November 15, 2018** and *Total Completion* of the *Work* by **December 15, 2018**, subject to adjustment of the *Contract Time* as provided for in the *Contract Documents*.”

DRAWINGS

1. Drawing E-010 – Chlorine Analyzer Detail

ADD 1 (one) Fluid-O-Tech 3/8” Stainless Steel Rotary Vane Pump (34 GPH Max Flow). 1 (one) 3/8” NPT Brass Ball Valve. 1 (one) weatherproof GFCI 125V, 15A duplex receptacle. Connect to spare 15A breaker in panel board using Teck90 cable.

2. Drawing S-001

DELETE drawing in its entirety and REPLACE with drawing S-001 REV 1 Issued for Addendum 2.

3. Drawing S-002

DELETE drawing in its entirety and REPLACE with drawing S-002 REV 1 Issued for Addendum 2.

Requests for Clarification

Question 1. Drawing S-110 roof plan includes a note showing the requirement for 4 roof downspouts. Typically downspouts are installed when there is a roof edge curb that would otherwise limit the roof from draining water, however there are no roof obstructions shown on the drawings. Please review and confirm that roof downspouts are not required.

Answer 1: Roof downspouts are NOT required.

Question 2. Drawing S-001 General Note 13 indicates a formliner shall be required for interior tank surfaces. Please review and confirm that formliners are not required when prefabricated steel faced forms are used in accordance with Specification Section 03 10 00, paragraph 2.1.6.1.

Answer 2: The liner is for cast-in-place tank option only, not for pre-stressed post tensioned tank.

Question 3. Drawing S-001 Pre-Stressed Tank General Note 2 lists the minimum required concrete strength and water cement ratio for the various parts of the proposed prestressed concrete tank. Please note that these values differ from the values given in section 33 16 13.16.2.1.5 and 2.1.6 of the project specifications. In order to avoid potential confusion, please confirm that the minimum strength and water cement ratio values noted in the project specifications should be used.

Answer 3: For cast-in-place concrete, the compressive strength listed in on drawing S-001 and the compressive strength listed in the specifications is meant to be consistent. It should be same for post tensioned concrete. Drawing S-001 has been re-issued as part of this addendum.

Question 4. The Contract Documents state a Substantial Performance date of October 1, 2018 and a Total Completion date of December 1. Given the work that needs to be completed before the Substantial Performance date, we request that 19 days be moved from the Total Completion period to the Substantial Performance period. This would not increase the overall schedule, and still allow for enough construction time to meet the Substantial Performance deadline. Please confirm changing the Substantial Completion date of October 20 is acceptable

Answer 4: The Substantial Performance and Total Completion dates have changed as indicated above.

Question 5. Please clarify whether any variances can be obtained to the Village of Lions Bay Noise Bylaw.

Answer 5: The Village of Lions Bay will work with the successful Contractor to obtain variances to the Village of Lions Bay Noise Bylaw. Consideration may be given for evening and/or night work activities, particularly those which do not generate significant noise or those which provide cost or schedule advantages. All exemptions and variances will be subject to approval by Village of Lions Bay Council.

End of Addendum #2

GENERAL NOTES

- 1. ALL WORK SHALL MEET OR EXCEED MINIMUM REQUIREMENTS OF THE CURRENT EDITION OF THE BRITISH COLUMBIA BUILDING CODE 2012...
2. CONFIRM SIZE AND LOCATIONS OF OPENINGS WITH MECHANICAL AND ELECTRICAL CONTRACTORS...

DESIGN CRITERIA

- 1. DESIGN STANDARDS: BRITISH COLUMBIA BUILDING CODE, 2012
CONCRETE: LIQUID RETAINING STRUCTURES: ACI 350M-06...
STEEL: CAN/CSA S16
2. DESIGN LOADS: IMPORTANCE CATEGORY: POST-DISASTER
LOCATION: SQUAMISH, BC.
DEAD LOADS: WEIGHT OF MATERIALS OF CONSTRUCTION
SNOW LOADS: IMPORTANCE FACTOR: Is = 1.25 (ULS)...

EXCAVATION AND BACKFILL

- 1. REFER TO SPECIFICATION 31 23 02 - EXCAVATION AND BACKFILL FOR STRUCTURES.
2. EXCAVATIONS SHALL BE IN ACCORDANCE WITH WORKSAFE B.C. GUIDELINES...
3. ALL EXCAVATIONS GREATER THAN 1.5 METRES IN DEPTH SHALL BE SLOPED OR SHORED.
4. SHALLOW EXCAVATIONS UP TO 3.0 METRES IN DEPTH SHALL BE CUT BACK WITH SIDE SLOPES OF 1 HORIZONTAL TO 1 VERTICAL...

PRE-STRESSED TANK GENERAL NOTES:

- 1. REFER TO SPECIFICATION SECTION 33 16 13.16 STRAND-WOUND-PRESTRESSED CONCRETE TANK.
2. BUCKLING CRITERIA OF WALL DESIGN
a. THE INTEGRITY OF THE WALL SHOWN ON THESE DRAWINGS IS STRICTLY PREDICATED ON THE FOLLOWING CONDITIONS:
- THE STRICT CONFORMANCE TO THE CLOSE STRESS-TOLERANCE AND OTHER REQUIREMENTS OF THE CIRCUMFERENTIAL PRESTRESSING APPLICATION INDICATED IN THE CIRCUMFERENTIAL PRESTRESSING NOTES ON DRAWING 3 AND ON OTHER PARTS OF THESE DRAWINGS AND IN THE TECHNICAL SPECIFICATIONS.

Table with 3 columns: Item, f'c, MAX W/C RATIO. Includes items for tank wall, other location, shotcrete, and all concrete requirements.

PRE-STRESSED TANK GENERAL NOTES CONT:

- 3. REINFORCEMENT REQUIREMENTS
a. REINFORCING STEEL CALLED OUT AS GALVANIZED SHALL HAVE A CLASS 1 COATING IN ACCORDANCE WITH ASTM A767M.
4. EARTHWORK REQUIREMENTS
a. MINIMUM COMPACTION OF CRUSHED ROCK AND SUBGRADE UNDER AND AROUND PIPE BLOCKS AND UNDER FLOOR AND FOOTINGS SHALL EQUAL 95% OF MAX DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D1557.
5. APPURTENANCE NOTES
a. WHERE APPURTENANCES REQUIRE ANCHORS TO BE PLACED IN THE WALL EXTERIOR, DRILL AND PLACE AFTER WRAPPING AND BEFORE SHOTCRETING...

CAST-IN-PLACE CONCRETE

- 1. REFER TO SPECIFICATION SECTION 03 30 00 - CAST-IN-PLACE CONCRETE
2. CAST-IN-PLACE CONCRETE WORK SHALL BE IN ACCORDANCE WITH CAN/CSA A23.1.
3. GROUT TO BE PREMIXED, NON-SHRINK, NON-METALLIC GROUT WITH MINIMUM STRENGTH AT 4 DAYS OF 20MPa AND AT 28 DAYS OF 40 MPa.
4. PORTLAND CEMENT SHALL CONFORM TO THE REQUIREMENTS OF CSA CAN-3-A5 "PORTLAND CEMENTS".

Table with 2 columns: Type, Exposure Classification, Min. 28 Day Compressive Strength, W/C Ratio. Includes types A, B, and C for various wall and roof applications.

- 13. APPLY CONTROLLED PERMEABILITY FORMWORK LINER FOR BOTH INTERIOR AND EXTERIOR SURFACES OF WATER RETAINING STRUCTURE INCLUDING BASE SLAB, COLUMNS AND WALLS FOR CAST-IN-PLACE CONCRETE STRUCTURES ONLY.
14. REPAIR ANY VISIBLE CRACKS > 0.3mm FROM THE INSIDE SURFACE OF THE LIQUID RETAINING STRUCTURES BEFORE LEAK TEST.
15. APPLY CONCRETE SURFACE SEALERS AT WATER RETAINING STRUCTURES ROOF SLABS FOR CAST-IN-PLACE CONCRETE TANKS. SEE SPECIFICATION 03 25 00.
16. CONCRETE TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING AGENCY ACCEPTABLE TO THE CONSULTANT AND APPOINTED AND PAID FOR BY THE CONTRACTOR.
17. NOTIFY THE CONSULTANT AND TESTING AGENCY AT LEAST 24 HOURS PRIOR TO EACH CONCRETE POUR.

CONCRETE REINFORCING

- 1. REFER TO SPECIFICATION SECTION 03 20 00 - CONCRETE REINFORCING.
2. CONCRETE REINFORCING WORK SHALL BE IN ACCORDANCE WITH CAN/CSA A23.1, CAN/CSA A23.3, ACI315 AND THE RISC REINFORCING STEEL MANUAL OF STANDARD PRACTICE.
3. ALL REINFORCING TO BE CONTINUOUS. SPLICE ONLY AS DETAILED OR APPROVED BY THE ENGINEER. ALL LAP SPLICES SHALL BE CLASS B TENSION SPLICES UNLESS DETAILED OTHERWISE. SEE TABLE BELOW FOR DEVELOPMENT AND SPLICE LENGTH FOR COMPRESSIVE STRENGTH OF CONCRETE f'c = 35mPa. LENGTH IN mm.

Table with 7 columns: BAR SIZE, BARS IN COMPRESSION (DEVELOPMENT LENGTH, SPLICE LENGTH), BARS IN TENSION (DEVELOPMENT LENGTH, SPLICE LENGTH). Rows for 10M, 15M, 20M, 25M, 30M, 35M.

TOP BARS : HORIZONTAL REINFORCEMENT PLACED IN SUCH A WAY MORE THAN 300mm OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE DEVELOPMENT LENGTH OR SPLICE.

REINFORCING BAR DEVELOPMENT AND SPLICE LENGTH SCHEDULE

- 4. REINFORCING STEEL SHALL, WHERE NOT OTHERWISE SHOWN, BE PROTECTED BY CONCRETE COVER AS FOLLOWS: CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 75mm
5. MATERIAL SHALL CONFORM TO THE FOLLOWING: REINFORCING STEEL : CAN/CSA G30.18, GRADE 400, PLAIN FINISH, DEFORMED BARS.
6. SHOP DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE CONSULTANT FOR REVIEW PRIOR TO FABRICATION.
7. ALL HOOKED BARS TO BE STANDARD HOOKS IN ACCORDANCE WITH CAN/CSA A23.3 UNLESS NOTED OTHERWISE.

MISCELLANEOUS METALS

- 1. REFER TO SPECIFICATION SECTION 05 50 00 - METAL FABRICATION. FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH CAN/CSA S16.
2. MATERIALS SHALL CONFORM TO THE FOLLOWING: ALUMINUM SHAPES AND PLATES: ALLOY 6061-T6 OR 6063-T6
3. STAINLESS STEEL SHAPES: INTERIOR SUBMERGED: AISI, TYPE 316 FOR WELDING: AISI, TYPE 316
4. CONNECTION BOLTS: STAINLESS STEEL MEMBERS: AISI, TYPE 316
5. WELDING SHALL BE IN ACCORDANCE WITH CAN/CSA W59 & W47.1 AND WITH AWS D1.6 FOR STAINLESS STEEL.
6. ALL METALS IN EXTERIOR USE OR INSIDE OF NON-WATER RETAINING STRUCTURES INCLUDING LADDERS, STAIRS, TREADS, HANDRAILS, GRATINGS SHALL BE ALUMINUM CONSTRUCTION.

GRATING

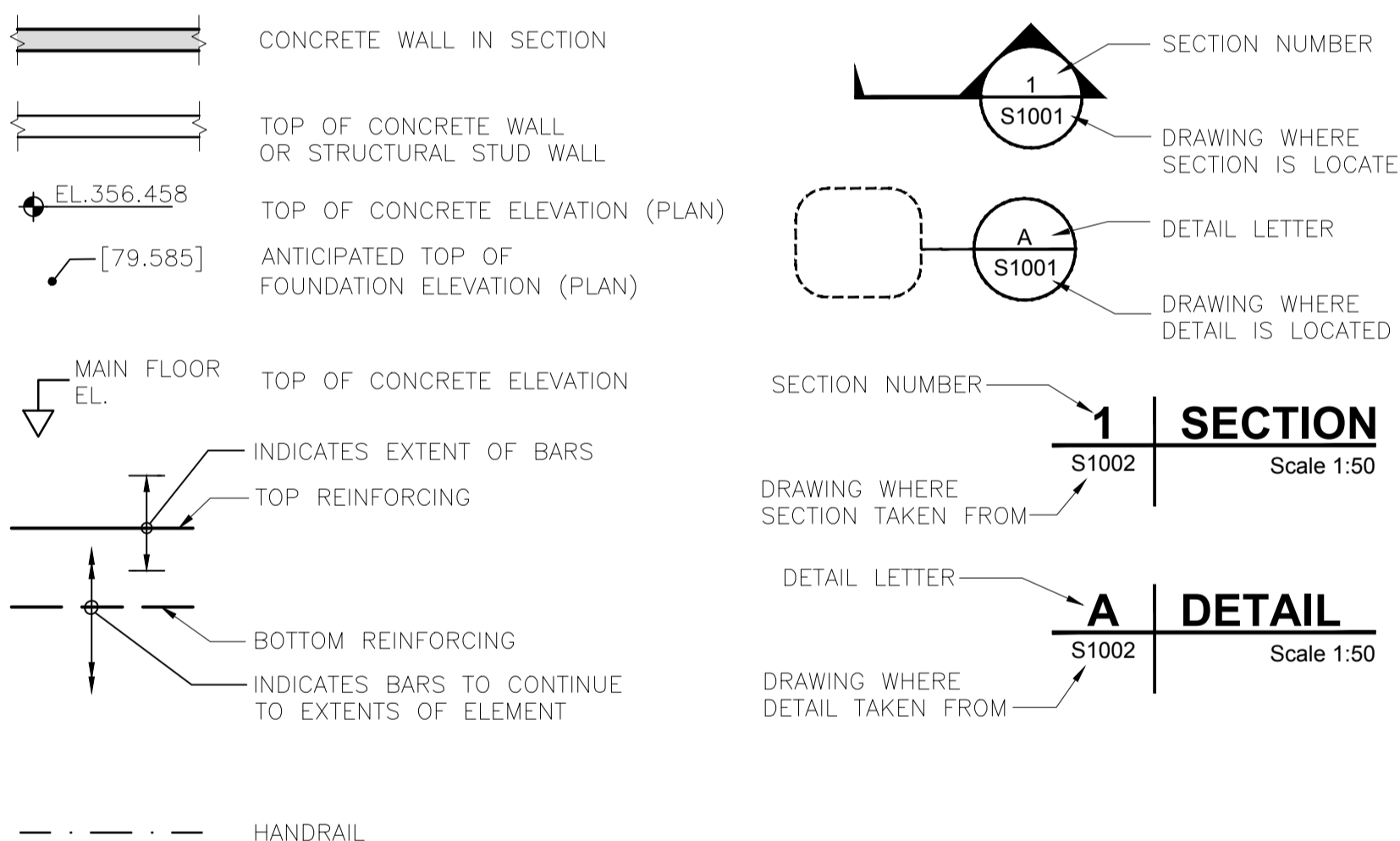
- 1. ALL GRATING TO BE DESIGNED FOR LIVE LOAD OF 4.8 kPa, UNLESS NOTED OTHERWISE.
2. GRATING MATERIAL SHALL BE STAINLESS STEEL ALLOY TYPE 316 WITHIN WATER RETAINING STRUCTURES AND ALUMINUM 6061-T6 ANYWHERE ELSE.

ABBREVIATIONS

Table of abbreviations and their meanings, including terms like AND, AT, ANCHOR BOLT, ASPHALT IMPREGNATED FIBRE BOARD, etc.

SYMBOLS

ON SMALL SCALE PLANS



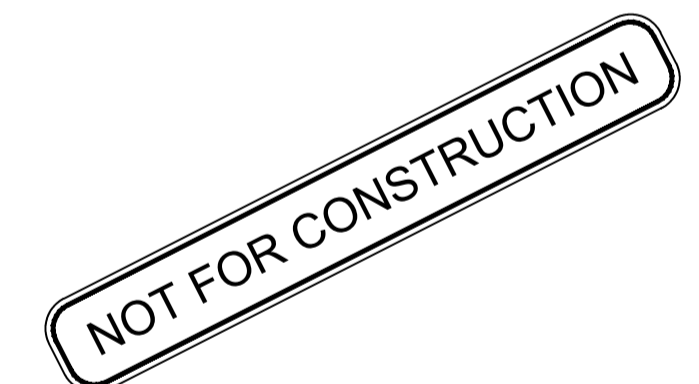
PROJECT WATER STORAGE REPLACEMENT PROJECT

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REGISTRATION



ISSUE/REVISION

Table with 3 columns: I/R, DATE, DESCRIPTION. Shows two issues for addendum and tender.

KEY PLAN

PROJECT NUMBER

60546407

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

S-001

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