



976-2016 ADDENDUM 7

SOUTH END SEWAGE TREATMENT PLANT (SEWPCC) UPGRADING / EXPANSION PROJECT - CONTRACT 4 – SITEWIDE MECHANICAL, ELECTRICAL, CONCRETE AND SITE WORKS

URGENT

**PLEASE FORWARD THIS DOCUMENT TO
WHOEVER IS IN POSSESSION OF THE BID
OPPORTUNITY**

ISSUED: July 21, 2017
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TELEPHONE NO. (204) 488-2214 x 73059

**THIS ADDENDUM SHALL BE INCORPORATED
INTO THE BID OPPORTUNITY AND SHALL
FORM A PART OF THE CONTRACT
DOCUMENTS**

Template Version: A20150806

Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Bid Opportunity, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 10 of Form A: Bid may render your Bid non-responsive.

GENERAL

1. Drawings:

976-2016_Addendum_7_Information_Drawing_1-0102U-S0005-001-02
976-2016_Addendum_7_Information_Drawing_1-0102U-S0006-001-02
976-2016_Addendum_7_Information_Drawing_1-0102U-S0007-001-03
976-2016_Addendum_7_Information_Drawing_1-0102U-S0008-001-02
976-2016_Addendum_7_Information_Drawing_1-0102U-S0009-001-02
976-2016_Addendum_7_Information_Drawing_1-0102U-S0010-001-02

have been included for information only to help answer Question 38 in the Q&A section located at the end of this addendum.

PART A – BID SUBMISSION

Replace: 976-2016 Addendum 5 - Bid Submission with 976-2016 Addendum 7 – Bid Submission. The following is a summary of changes incorporated in the replacement Bid Submission

Form B (R4): Revised Items 2.7, 4.8, 5.14, 7.5, 8.5, 10.8, 11.8

Form B (R4): Add Items 4.19, 4.20, 15.4

Form B (R4): Delete Item 12.7

Page numbering on some forms may be changed as a result.

PART E – SPECIFICATIONS

Revise

E24.2 to read: The non-conductive security fencing shall consist of 3.65 metre tall, 4.57m long sections of pre-cast concrete panel walls. Non-conductive security fencing shall be constructed in accordance with the following material specifications:

- (a) Shall be pre-cast concrete wall at a minimum height without top guard of 3.65 meters.
- (b) Spans of concrete panels shall be no more than 4.57 meters between supporting posts.
- (c) Non-conductive security fencing shall have a top guard consisting of a 600mm tall fibreglass outriggers at 45 degrees, secured to the concrete wall, with a 0.5 inch thick fibreglass mesh panel cap sheet affixed to the outriggers. Top guard product shall be Amico non-conductive fibreglass ANC Capsheet Arms (for outriggers) and ANC fibreglass mesh, or equivalent products as approved by the Contract Administrator. Non-conductive top guard materials shall be installed in accordance with the manufacturer's specifications.
- (d) Posts between panels may consist of galvanized steel embedded in concrete support piles below grade, as recommended by the manufacturer. If steel posts are used between panels, they must consist of hot-dipped galvanized steel.
- (e) Post hole depths shall be as required by the manufacturer.
- (f) Fence Signage shall be placed every 30 meters on the exterior of the fence.

E24.3 to read: Non-conductive concrete wall security fencing shall be measured on a linear measure basis and paid for at the Contract Unit Price per metre for "Non-conductive Concrete Wall Permanent Security Fencing", which price shall be payment in full for all materials, labour and equipment required to supply and install the fence, including the non-conductive fibreglass top guard.

Add: **E41. HAZARDOUS MATERIALS**

E41.1 General

- a. The areas identified to contain ACM's are referenced from the 976-2016 Appendix-M-2015 Asbestos Bulk Sampling Report.
- b. Should any additional or suspected AMC's be encountered during the performance of the Work, the Contractor shall notify Contract Administrator immediately prior to demolition.
- c. Ensure any existing identified ACM's are not disturbed while performing work immediately adjacent to ACM's. If modification or disturbance of known ACM's are unavoidable to complete adjacent work, Contractor shall notify Contract Administrator.

E41.2 Asbestos has been identified in the following areas that are related to the Work:

1) Administration Building

- a) Removal and replacement of materials, finishes, plumbing & HVAC piping, ductwork and equipment as shown in Drawings: 1-0102-MGAD-MD50, 1-0102-MGAD-MD52, SEP-524.
 - i) Components identified to contain asbestos in Pinchin HMIS Report:
 1. Fumehood; Material: Transite - Confirmed Asbestos – Non-Friable. Location(s): Main Floor Laboratory

b) Removal and replacement of finishes, plumbing & HVAC materials and equipment as described in the Drawings: 1-0102-BGAD-MD50, 1-0102-MGAD-MD51, 1-0102-MGAD-MD53.

i) Components identified to contain asbestos in Pinchin HMIS Report:

1. Heating Water Return Pipe Fittings; Material: Parging over Fibreglass – Confirmed Asbestos – Friable. Location(s): Basement Stairwell, Basement Hallway, Basement Men's Locker Room, Women's Locker Room, Basement Storage Room, Basement Mechanical Room.
2. Air Handling Unit; Material: Fibreglass with parging - Confirmed Asbestos – Friable. Location(s): Basement Mechanical Room

2) Headworks

a) Demolition of building/structural components associated with connections to new building construction as shown in Drawings: 1-0102-BGAD-GD50, 1-0102-SGAD-GD50, 1-0102-SGAD-GD51, 1-0102-SGAD-GD52, 1-0102-BGAD-GD51, 1-0102-BGAD-GD52, 1-0102-BGAD-BD50.

i) Components identified to contain asbestos in Pinchin HMIS Report:

1. Exterior Walls; Material: Plaster Base – Confirmed Asbestos – Non-Friable. Location(s): Various
2. Structure Beam, Deck; Material: Texture Coat - Confirmed Asbestos – Friable. Location(s): Pump and Screen Viewing Gallery, Pump and Screen Motor Room
3. Ceiling; Material: Plaster - Confirmed Asbestos – Non-Friable. Location(s): Pump and Screen Washroom

b) Removal and replacement of process, plumbing & HVAC piping, ductwork and equipment as shown in Drawings: 1-0102-PGAD-GD50, 1-0102-PGAD-GD51, 1-0102-MGAD-GD50, 1-0102-MGAD-GD51, 1-0102-MGAD-GD54, 1-0102-MGAD-GD55, 1-0102-MGAD-G602, 1-0102-MGAD-G609, 1-0102-MGAD-G610.

i) Components identified to contain asbestos in Pinchin HMIS Report:

1. Heating Water Fittings Insulation; Material: Parging over Fibreglass – Confirmed Asbestos – Friable. Location(s): Pump and Screen Storage, Pump and Screen Mechanical Room, Pump and Screen Storage Truck Loading, Pump and Screen Storage Stairwell, Pump and Screen Storage Hallway, Pump and Screen Storage Blower Room, Basement Gallery, Grit Building No.1 & No.3.
2. Air Handling Unit; Material: Fibreglass with parging - Confirmed Asbestos – Friable. Location(s): Pump and Screen Mechanical Room
3. Exhaust Air Duct; Material: Fibreglass with parging - Confirmed Asbestos – Friable. Location(s): Pump and Screen Screen Room
4. Supply Air Duct; Material: Overspray - Confirmed Asbestos – Friable. Location(s): Pump and Screen Viewing Gallery
5. Supply Air Duct; Material: Parging over fibreglass - Confirmed Asbestos – Friable. Location(s): Grit Building Blower Room

ii) Wet Well not tested by due to H2S. Perform testing prior to demolition to confirm.

iii) Foul Odour Exhaust Stack ducting (roof) not tested. Contractor to assume insulation contains asbestos.

c) Removal and replacement of plumbing & HVAC piping, ductwork and equipment as shown in Drawings: 1-0102-MGAD-GD52, 1-0102-MGAD-GD53, SEP-897.

i) Components identified to contain asbestos in Pinchin HMIS Report:

1. Heating Water Supply and Return Pipe Fittings Insulation; Material: Parging over Fibreglass – Confirmed Asbestos – Friable. Location(s): Service Building Mechanical Room, Boiler Room, Stairwell, Workshop, Storage Room, Generator Room.
2. Fresh Air Intake Ductwork Insulation; Material: Fibreglass with parging – Presumed Asbestos – Friable. Location(s): Service Building Mechanical Room
3. Supply Air Ductwork Insulation; Material: Fibreglass with parging – Confirmed Asbestos – Friable. Location(s): Service Building Mezzanine Storage Room, Workshop, Boiler Room.
4. Air Handling Unit Ductwork Insulation; Material: Fibreglass with parging - Presumed Asbestos – Friable. Location(s): Service Building Workshop

3) Primary Clarifiers

- a) Demolition of building/structural components associated with connections to new building construction as shown in Drawings: 1-0102-SGAD-PD50, 1-0102-BGAD-PD51, 1-0102-BGAD-PD52, SEP-242, SEP-244.
 - i) Components identified to contain asbestos in Pinchin HMIS Report:
 - (1) Exterior Walls; Material: Plaster Base – Confirmed Asbestos – Non-Friable. Location(s): Various
- b) Removal and replacement of plumbing & HVAC piping, ductwork and equipment as shown in Drawings: 1-0102-PGAD-PD51, 1-0102-MGAD-PD51, 1-0102-MGAD-PD52, 1-0102-MGAD-PD53, SEP-260, SEP-267, SEP-271, 1-0102-MGAD-PD53, 1-0102-MGAD-P601, 1-0102-MGAD-P602.
 - i) Components identified to contain asbestos in Pinchin HMIS Report:
 - 1. Heating Water Supply and Return Fittings Insulation; Material: Parging over Fibreglass – Confirmed Asbestos – Friable. Location(s): Primary Clarifier Storage Room, East Walkway, Gallery No.3, Stairwell
 - 2. Exchanger; Material: Parging over Fibreglass – Confirmed Asbestos – Friable. Location(s): Primary Clarifier East Walkway
 - 3. Exhaust Ductwork Insulation; Material: Fibreglass with Parging – Confirmed Asbestos – Friable. Location(s): Primary Clarifier Service Area
 - 4. High and Low Pressure Steam Fitting Insulation; Material: Parging over Fibreglass – Confirmed Asbestos – Friable. Location(s): Primary Clarifier Gallery No.3, Gallery No.5

4) Fermenters & Thickeners

- a) Demolition of building/structural components associated with new building construction as shown in Drawings: 1-0102-BGAD-DD51, SEP-338.
 - i) Components identified to contain asbestos in Pinchin HMIS Report:
 - 1. Exterior Walls; Material: Plaster Base – Confirmed Asbestos – Non-Friable. Location(s): Various
 - 2. Ceiling; Material: Texture Coat - Confirmed Asbestos – Friable. Location(s): Unox Equipment Room
- b) Removal and replacement of process, plumbing & HVAC piping, ductwork and equipment as shown in Drawings: 1-0102-MGAD-DD50, SEP-373, SEP-374, SEP-376, SEP-377.
 - i) Components identified to contain asbestos in Pinchin HMIS Report:
 - 1. Heating Water Supply and Return Fittings Insulation; Material: Parging over Fibreglass – Confirmed Asbestos – Friable. Location(s): Gallery No.3, Unox Equipment Room, Garage Truck Bay
 - 2. High and Low Pressure Steam Fittings Insulation; Material: Parging over Fibreglass – Confirmed Asbestos – Friable. Location(s): Gallery No.3
 - 3. Supply Air Ductwork Insulation; Material: Fibreglass with Parging – Confirmed Asbestos – Friable. Location(s): Unox Equipment Room

5) Secondary Clarifiers

- a) Demolition of building/structural components associated with connections to new building construction as shown in Drawings: SEP-400, SEP-408.
 - i) Components identified to contain asbestos in Pinchin HMIS Report:
 - 1. Exterior Walls; Material: Plaster Base – Confirmed Asbestos – Non-Friable. Location(s): Various
- b) Removal and replacement of process, plumbing & HVAC piping, ductwork and equipment as shown in Drawings: 1-0102-PGAD-SD50, 1-0102-PGAD-SD51.
 - i) Components identified to contain asbestos in Pinchin HMIS Report:
 - 1. Heating Water Return Fittings Insulation; Material: Parging over Fibreglass, VSF and Mastic Adhesive – Confirmed Asbestos – Friable. Location(s): Pump Room, Scrubber Room, Truck Bay

2. Heating Water Supply Fittings Insulation; Material: VSF and Mastic Adhesive – Confirmed Asbestos – Non-Friable. Location(s): Scrubber Room
3. Supply Air Ductwork Insulation; Material: Fibreglass with Parging – Confirmed Asbestos – Friable. Location(s): Blower Room, Pump Room, Equipment Handling Room, North Walkway
4. High and Low Pressure Steam Fittings Insulation; Material: Parging over Fibreglass – Confirmed Asbestos – Friable. Location(s): Basement Area Pump Room
5. Air Handling Unit Ductwork Insulation; Material: Fibreglass with Parging – Confirmed Asbestos – Friable. Location(s): Equipment Handling Room, S685 adjacent to tank near Electrical Room, Secondary Clarifier adjacent to tank near Equipment Handling, Secondary Clarifier adjacent to tank near NW side of Hallway, Secondary Clarifier adjacent to tank near SW side of Hallway

Add: **E42. GRIT AND SLUDGE REMOVAL AND DISPOSAL**

- E42.1 As necessary to perform the work the contractor shall remove and dispose of residual grit and sludge buildup and any remaining wastewater in, but not limited to the wetwell, the screen and grit channels, grit tanks 3&4, and the HPO tanks. Disposal shall be at the Brady Road Landfill. The contractor shall be responsible for the Brady Road Landfill tipping fee.
- E42.2 The contractor shall provide a unit rate per tonne on Bid Form B for Item 15.4 for all costs associated with this work.

Measurement and Payment

- E42.3 The contractor shall submit to the Contract Administrator the original weigh scale receipts, as issued by the Brady Road Landfill, for the disposal of the associated material. Payment will be made based on the weight indicated on the scale receipt(s) and the Bid Form B Item 15.4 rate.

DIVISION 05 – METALS

SECTION 05 52 00

ALUMINUM GUARDS AND HANDRAILS

Revise

- 2.4 E.15. to read: Aluminum toe-board 125 mm high, 6.0 mm thick aluminum plate. Provide with expansion connecting plates as follows:
- a. Expansion Plate: Same material, height and thickness of toeboard. Length to suite, with slotted bolt holes to accommodate for expansion/contraction, to connect horizontal running toeboards.
 - b. Locations: Locate expansion plate at:
 - 1) Building expansion joints.
 - 2) 6000 mm o.c. maximum spacing at exterior application.
 - 3) 8000 mm o.c. maximum spacing at interior application.
 - c. Locate expansion plate within 300 mm of railing post.

DRAWINGS

M – Administration Building and Septage Facility

Replace:	976-2016_Drawing_1-0102- BGAD-MD50-R00.pdf	with	976-2016_Addendum_7_Drawing_1-0102- BGAD-MD50-R01.pdf
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G – Headworks

Replace:	976-2016_Drawing_1-0102-BGAD-BD50-R00.pdf	with	976-2016_Addendum_7_Drawing_1-0102-BGAD-BD50-R01.pdf
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P – Primary Clarifiers

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D – Fermenters and Thickeners

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S - Secondary Clarifiers

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Replace:	976-2016_Drawing_SEP-408-R02.pdf	with	976-2016_Addendum_7_Drawing_SEP-408-R03.pdf

QUESTIONS AND ANSWERS

- Q1 : Spec 05 50 10 – 2 1.4 A. Specifies SLACAN Industries as the approved equipment manufacturer of the A-Frame substation structures. SLACAN is moving away from substations and will not supply this item. Nor will their distributor – Anixter Power Solutions. Can an approved equal please be provided?
- A1 : Yes, we have advised via Addendum 6.
- Q2 : See section 01 35 13 Special Project Procedures, item 1.5 regarding additional dewatering and removal of settled deposits. It is not possible to quantify the amount of liquid or settled deposits that will remain in the wells, tanks and channels once they are drained by the City. How is this to be quantified at time of tender? It may be beneficial for this work to be covered by a Cash Allowance.
- A2 : Estimated quantities are provided in this addendum.
- Q3 : Drawing 1-0102-BGAD-R017 Detail 1 shows wall type A2 extending south of the control room into the stair core. Please confirm that the wall type in the stair core should read wall type B only as per the room finish schedule.
- A3 : Wall assembly in the stair is type A & B as indicated in the finish schedule. Drawing will be revised by addendum.

- Q4 : Addendum 4 added tender form items for the concrete repair in the fermenter and secondary clarifier sections, but not in the biofilter section. Will the biofilter repair work be added to the tender form in a future addendum?
- A4 : Quantities shown in fermenter area include the biofilter repair work.
- Q5 : Specification 09 90 00 Painting and Coatings stipulates that all building galvanized steel and cast iron is to receive a coating, however this requirement is not reproduced in the metals notes or specifications implying that these items are to be prepared and painted on site. Typically, these items are shop-prepared/painted and touched-up after installation as the requisite surface preparation (blast cleaning) is very costly to perform in the field. If it is not the intent to have the preparation and coating performed in the field, the metals specification (details) should be revised to include this work accordingly.
- A5 : Galvanized steel and cast iron are only subjected to receive painting / coating where called out for such in the contract document.
- Q6 : We request clarity on item D32.2 – What is the intent on holding an additional 3% on all bid items? Is it in addition to holdback and the required performance security? Based on the long duration of this project, we would request that this does not apply to early scopes of work.
- A6 : Please refer to Addendum 5.
- Q7 : Is the City of Winnipeg open to negotiating contract terms with the successful bidder? Items that we would like to discuss include, but are not limited to: Indemnification, Warranty, Changes in Work, Default and Termination.
- A7 : No.
- Q8 : Detail 1 on addendum 4 Drawing 1-0102-BDTL-D004-R00 shows an 8mm thick SST plate for openings of maximum 300mm width. Said detail is referenced for several openings on drawing SEP-373-R01. The openings shown on SEP-373-R01 are of greater than 300mm width. What is the roof penetration repair detail for these openings of greater than 300mm?
- A8 : This detail pertains to small pipe openings only. Refer to drawing SGAD-D008 for repairs to larger openings.
- Q9 : It was noticed on our recent site visit that the Contract 3 Contractor was tied in to the SEWPCC facility for temporary power (electricity) despite the tender documents for Contract 3 reading that no electrical connections will be provided by the City. Is it reasonable to assume that the same concession will be provided to the Contract 4 Contractor?
- A9 : No. Please assume power is as defined in Bid-op 976-2016.
- Q10: We have been receiving feedback from the Abatement contractors (which are down to one or two) that there is insufficient information in the tender documents to properly price the abatement scope of work and that they will likely not bid unless further clarification on quantities is provided. Is it possible for this scope of work to be included as a cash allowance?
- A10: No. A cash allowance will not be implemented; however, clarifications to drawings and scope of work have been provided in this addendum. It is expected that the demolition contractor will work with the asbestos abatement contractor in identifying asbestos abatement requirements.
- Q11: Reference Addendum #3, revised Form B (R1): PRICES, pages 5 & 6, added items 4.13, 4.14, 4.15, 4.16, 4.17, 4.18: Please confirm that the removal of 50mm unsound concrete per corresponding specification sections should also be included in these items?
- A11: Yes, these are the line items for the removal of 50 mm unsound concrete.
- Q12: Reference Addendum #3, revised Form B (R1): PRICES, page 9, added item 10.15: Please confirm that the removal of 25mm unsound concrete per the corresponding specification section should also be included in this item?
- A12: Yes, this is the line item for the removal of 25 mm unsound concrete.
- Q13: Reference NAC RFI #1, item 14, regarding Specification Section 03-64-24-1, Crack Repair Polyurethane Injection Grouting: In the Consultant's response it was noted that a future addendum would add 100m of Crack Repair in Form B. Please clarify if this item will be added in Form B in a future addendum indicating location/ locations. In addition would you, please, clarify size of cracks and building component it would apply to: i.e. walls, ceiling or floors.

- A13: Cracks may be of varying size and at various locations. A line item has been added to Form B in this addendum.
- Q14: Reference drawing PPID-C204: Please note the route from the pumps is not indicated on the PGAD-C series. Please confirm the 25-SHC-PV01 should run via the tray and not the duct bank to PGAD-R108.
- A14: The 25-SHC-PV01 should run via the tray
- Q15: Reference drawing PGAD-U001: Please confirm the level of the existing stop log.
- A15: The existing stop-log is at the same elevation of the concrete weir wall. Refer to structural drawings.
- Q16: Reference addendum #3, Appendices: Please confirm the details, the size, quantity etc. of Microsand for the First fill.
- A16: The first fill consists of 18 big bags of 909 kg (2000 lbs) of model 135-microns microsand.
- Q17: Reference 01 35 13, item 1.5.A: It states "The Contractor shall perform additional draining of liquids and removal of settled deposits via mechanical and manual methods after this initial draining at no additional cost to the City. The Contractor shall assume additional dewatering and settled deposits removal will be required in the headworks wetwell, influent channels, screen channels, grit channels, clarifiers 1 and 2, HPO tanks, and grit tanks."
- a. The amounts of settlement are unknown, and our experienced contractors cannot assess it visually i.e. no one has seen inside the HPO tanks. To accurately estimate the state and quantity of settlement, we request the City provide a quantity to cover all unseen hard settlement to be fairly priced by all contractors.
- A17: Estimated quantities are provided in this addendum on Form B.
- Q18: Reference Supplemental Conditions D34.1: The warranty period in Bid Opportunity 976-2016 is noted as being two (2) years. The RFP's for the Standardized Products appear to have a one (1) year warranty period. Please confirm if this extended warranty has been covered under the Standardized Product agreements.
- A18: Warranty for standardized products shall be as defined in 976-2016. Contractor to carry the cost of the extended Warranty.
- Q19: Reference Bid Submission 16.0 Standardized Goods: Various components of the Standardized Goods may be provided by various subcontractors / suppliers as part of their equipment package supply. Please confirm whether it is the intent for all subcontractors / suppliers to indicate their component pricing within Bid Submission items 16.1 to 16.5.
- A19: Yes
- Q20: Reference drawing PGAD-R021 and note 2: The supplier has declined to provide mounting details to allow for easy removal from the platform. Please provide a detail for all contractors to work to.
- A20: Details are provided on the drawing in detail 1. The supplier shall confirm that the detail is adequate for their equipment and provide modification suggestion for incorporation by the contractor. The intent is to have a functional arrangement that is compatible with the equipment.
- Q21: Reference section 01 52 10, item 3.1: Due to the high (bypass pump) flows expected, please confirm the maximum and minimum flows during this period of the works from 1st November to 28th February.
- A21: Plant flows at the SEWPCC are not intended to be bypassed with a bypass pump. Please provide clarification on the RFI if more information is required.
- Q22: Reference Addendum #3, Bid Submission item 13.48 & 13.51: Please confirm if the size should be 250mm as per drawing CGAD-A003.
- A22: The size should be 300mm diameter precast concrete pipe culvert per the Bid Form. The 250mm diameter pipe culvert shown on drawing CGAD-A003-008 is a typo, and drawing to be revised and re-issued to reflect 300mm diameter precast concrete pipe.
- Q23: Reference drawing CUTY-Y001/MGAD-C511: Please confirm the specification for the buried Gas service (PD01).
- A23: The specification for the buried gas line was provided in Addendum 6.
- Q24: Reference drawing PPID-S101: Please confirm where we can find 150-ML-SS01 on the plan drawings.

- A24: The 150-ML-SS01 Drain pipe is not required and was deleted in addendum 6.
- Q25: Reference drawing PBDG-A001, please confirm what the abbreviations AAF, MMF, PHF etc. stand for.
- A25: AAF = average annual flow, MMF = maximum month flow, PHF = peak hourly flow, AVG = average, MM = maximum month, PKWK = peak week, BOD = biochemical oxygen demand, TSS = total suspended solids, VSS = volatile suspended solids, TN = total nitrogen, TP = total phosphorus
- Q26: Reference drawings PPID-S107, PGAD-S002, PGAD-U001 and the Hot Tap through concrete, slabs and walls, please confirm the following
- a. As the cost can be quite extensive, requiring fabricated drills etc. our specialist is requesting more information on the concrete, rebar sizing/ spacing, any mesh etc.
- b. Are we required to carry the pipe through the slab/ wall into the conduit/ chamber, if so please provide a detail for inserting/ sealing the service pipe within the core carrier pipe
- A26: Review structural drawings for concrete and reinforcement information. Site verify thickness and reinforcement spacing for existing concrete. The hot tap requires a leak tight connection and shall be carried out per the specialized hot tap contractor instructions.
- Q27: Reference drawings PPID-K102 & 201 and the 200-SNS-CS01 and Appendix G, Veolia drg 500Q214039-F11000, sheet 5 of 5, detail 4, item 11. The HRC BOM has this as a flexible skirt, where the PPID's have it as CS01, Veolia have confirmed that they are not supplying the 200-SNS-CS01, please clarify as we can see no other piping
- A27: The 200-SNS-CS01 has to be supplied and installed by the contractor.
- Q28: Reference the Stop Log Schedule, page 1, line 34, Miscellaneous, Mixed Liquor Channel, no tag (Bird Screen). This is not shown on the PPID, but drg PGAD-R006 indicates that there is a bird screen submerged within the channel, please confirm/ tag and please provide a frame and fixing detail
- A28: The bird screen is part of the project and shall be supplied channel mounted per spec and drawing PGAD-R006.
- Q29: Reference section 09 90 00, item 3.6.C and 3.12.B both which states to NOT paint PVC piping, whereas 09 90 00, schedule 3.6, has a protective painting system for PVC, please clarify which is correct and if required, if this applies to both Process and Mechanical
- A29: Items 3.6.C & 3.12.B are only related to process PVC piping. Schedule 3.6 indicated coating system for all other PVC work.
- Q30: Please reference cable schedule line item #5 section D. Please provide a detail of how existing 1200A cable bus is to be extended. SGR-C701 to MCC-D710
- A30: Provide custom modifications to existing Bus work (and special approvals / certifications of all modifications) to terminate bus work in new MCCs. If modifications to existing bus duct is not possible, then completely remove the existing bus, and provide completely new bus duct runs from power source (in secondary clarifier electrical room – SGR-S701 and SGR-S702) to both MCCs MCC-D710 and MCC-D720. Coordinate requirements with Schneider Representative.
- Q31: Reference Specification Part E24 and Specification CW-3550. No column material is specified for the non-conductive fence. If the non-conductive panel is connected to a steel column on a concrete pile, is there grounding required? Is steel reinforcement for the nonconductive panels sufficient since the steel will be encased in concrete or does GFRP need to be used?
- A31: Vertical steel columns for posts between concrete panels of the non-conductive fence do not require grounding due to large separation distance between each of them. Steel reinforcement in the concrete panels of the non-conductive security fence is sufficient since the steel will be encased in concrete.
- Q32: Regarding Section 'A' on drawing 1-0102-CUTY-Y004 for the Sewer By-Pass Pipe Chamber #7; there is a note to apply Xypex Crystalline Coating System above Concrete Benching (inside Walls and Ceiling). Also Wall Sections 1 to 4 on drawing 1-0102-BDTL-S004 indicates a Waterproof Membrane carried up Wall Face, and Walls Sections 1 to 3 on drawing 1-0102-BDTL-S007 indicates a Fluid Applied Waterproofing. Specification Section 07 16 17 Capillary Waterproofing refers to a Horizontal application of Dry Sprinkling only. Please

provide Material and Application information for Waterproofing Products that can be applied in the areas mentioned.

A32: The Xypex Crystalline Coating System specified on the 1-0102-CUTY-Y004-001 is specific to that drawing, and shall be applied in accordance with manufacturer's specifications.

Waterproofing membrane indicated on drawings 1-0102-BDTL-S004 & S007 are part component of the complete roofing assembly and shall be independent from any other water proofing system added to the concrete.

Q33: Regarding Wall Section 3 on drawing 1-0102-BDTL-S007, this Section indicates a 75mm Rigid Insulation over top of Storage Room S-B45. Drawing 1-0102-BGAD-S008 indicates a Protected Membrane Roofing Assembly Type 4 over top of the same Storage Room, which has a 300mm thick Geofoam Insulation as part of its Assembly and does not mention the 75mm thick Rigid Insulation. Please clarify if the 75mm Rigid Insulation is also required and if so to what areas.

A33: Protected membrane roofing system as indicated on drawing 1-0102-BGAD-S008.

Q34: Reference drawing 1-0102-PGAD- S001 Note 2 states "For Secondary Clarifiers 1 & 2 repair clarifier tank walls below waterline, troughs, and trough support arms per specification section 03 01 32 For bidding purpose, assume average 25mm depth of unsound concrete removal and replacement repair material." Is the intention to remove 25mm depth from inside of existing trough walls and floors too? If yes, it would be difficult to place equipment to remove unsound concrete and repair it inside such a confined space as the trough. Please clarify.

A34: Yes, removal includes all surfaces of troughs.

Q35: Reference drawing 1-0102-SGAD-C010 section E and C008 section G, can you please confirm if the 30M @ 100 in the base the slab is required at top and bottom as shown (see attachments), and to what extent? (Drawings Attached)

A35: The 30M bars shown for the base slab of the cable service room can be reduced to 25M. The slab bottom bars running in the north-south direction are 25M@200. The slab top bars running in the north-south direction are 25M@100 only above the piles at grid Dc. Refer to Note 2 on Section G for the extent of these bars .

Q36: Reference Addendum #4, page 2, Section 01 50 00 and the revised clause 2.3.H.1, please provide details of the existing pumps we are to match, i.e. make, model etc.

A36: The relevant pump functional information is indicated in the specification. It is not required to match exact make and model.

Q37: Reference Section 03 65 00 of the project specification:

a. What is the reference standard that the concrete petrographic examination (required per clause 3.3.6) should be performed to?

b. How many petrographic examination should be conducted per cell or in total? Don: we have allowed four examination (i.e. 1 per cell) in our proposal since in our experience, considering the high cost of this test, we have not found that this test provides much information which is obtained by visual review and other required tests per project specs, unless we discover an unusual condition in the structure which would require more digging. Currently, the specs requires to remove 16 cores (four per tank= 16 cores) and conduct the petrographic examination.

c. In which areas the in-situ pH test (using pH papers) and which areas the in-situ Phenolphthalein test is envisioned to be performed (referenced in clause 3.3.4 b and c) ?

d. Since the pH of concrete at various depths is required to be measured using the extracted powder samples (i.e. clause 3.3.7), is it still required to perform the in-situ test as well?

A37: A. Refer to ASTM C856, Standard Practice for Petrographic Examination of Hardened Concrete. Level of investigation to perform within ASTM C856 will be up to the discretion of the inspector.

B. Price for number of cores requested in specifications. Conditions are unknown, thus "unusual" conditions may exist.

C. Per clause 3.3.D.4, locations for pH testing are up to the discretion of the inspector.

D. Yes, it is still required to perform in-situ tests.

Q38: In order to properly quantify the temporary shoring requirements at the 6 chambers indicated on drawing CDTL-A0002, provide the as built drawings of the chambers.

A38: These have been provided in this addendum.

Q39: Given the uncertainty around an incoming Carbon Tax, confirm additional incurred cost will be subject to a Change in the Work per C7.

A39: Yes, if/when a carbon tax is instituted, the associated costs would be evaluated at that time and, if warranted, a change in work would be provided.

Q40: Reference 43 21 13.29, item 2.7: This indicates to provide VFD's, but data sheet's 1 & 2 are for constant speed. Please clarify.

A40: Variable frequency drives are required only where variable speed is indicated on the Pump Data Sheets. This was clarified in Addendum 6.

Q41: Section 40 05 15 Piping and Cable Tray Support Systems - 1.4 SUBMITTALS. This section calls for an extensive amount of engineering to be provided by the contractor with respect to pipe and cable tray supports, the majority of which are already part of the RFP. Please clarify the extent of the engineering submittals required with respect to:

a. Developing pipe and cable tray support drawings

b. The requirement for computer stress analysis

c. The requirement for the Contractor to provide engineered shop drawings for all pipe and cable tray support systems designed in accordance with the requirements of NBC for post-disaster structures.

A41: The extent of the work required is detailed in specification 40 05 15 Piping and Cable Tray Support Systems. There is no need to carry out stress analysis on piping. This has been clarified in addendum 6. Note that for the province of Manitoba complying with the requirement for post-disaster structures does not mean that lateral bracing for seismic resistance is required. Please refer to the building code as it applies to Manitoba.

Q42: Area S - Secondary Clarifier – Reference Drawing PGAD-S004. Sample Pump P-5141. Please provide a specification for this pump.

A42: This pump is not part of this project. Refer to addendum 4.

Q43: Appendix H – High Rate Clarification Demonstration Plan. Page 24/37 – Detailed Procedure for sampling and analysis. This section calls for two (2) automatic refrigerated samplers to be supplied by the installation contractor. The P&ID drawings (PPID-K101) shows the sample lines directed to local drains. Please clarify the requirement for refrigerated samplers, and if required, please provide a quantity and specification.

A43: Two refrigerated samplers are required as noted in the spec. They can be procured from HACH or equal.

Q44: Addendum No. 3 – Q&A 62 Pickling & Passivation. The pipe and fittings will be purchased pickled and passivated. After welding, the only pickling and passivation required will be on the exposed portion of the welds. Please confirm that this is correct.

A44: Yes this is correct.