

May 29, 2018

Dear Sir:

Attached is Addendum No. 4 dated May 29, 2018 to the Specifications for The Manitoba Water Services Board Contract No. M.W.S.B. 1413, City of Selkirk Wastewater Treatment Plant. Please verify receipt of this Addendum for our records by fax to (204) 726-6290.



**ACKNOWLEDGEMENT OF RECEIPT OF ALL ADDENDUMS
MUST BE INCLUDED IN THE TENDER SUBMISSION.**

Failure to include acknowledgement shall cause the tender to be rejected. If Tender is submitted before Addendum is issued, the Board will accept a faxed acknowledgement prior to the tender closing.

Yours truly,

R. Lytle
Construction Manager

The Manitoba Water Services Board
Unit #1A - 2010 Currie Blvd.
Brandon, MB R7B 4E7

Dear Sir:

We have received Addendum No. 4 dated May 29, 2018 to the Specifications for The Manitoba Water Services Board Contract No. M.W.S.B. 1413, City of Selkirk Wastewater Treatment Plant.

Yours truly,

Company

Per

THE MANITOBA WATER SERVICES BOARD

CONTRACT NO. M.W.S.B. 1413

City of Selkirk Wastewater Treatment Plant

ADDENDUM NO. 4

To the tender documents for:

May 29, 2018

1) **PRECEDENCE**

This addendum forms an integral part of the specifications describing all aspects of the work and is to be read in conjunction therewith.

2) **SCOPE**

The purpose of this addendum is to amend the following sections of the Tender Documents:

1. General Information

- 1.1 The City of Selkirk is responsible for building permit.
- 1.2 Lagoon Lift Station in all Drawings and Specifications shall read as “Equalization Pond Lift Station”.
- 1.3 Request for equals and other inquiries will not be answered after **11:00 a.m. prevailing Winnipeg time on June 1, 2018.**

2. Front End

- 2.1 MWSB 3A:
 - o Revise the submission deadline in Tender Form MWSB.3A to read as follows:

**Submission
Deadline**

Date: June 8, 2018
Time: Before 11:00 a.m. prevailing Brandon time

3. Specifications:

- 3.1 **Clarification on Section 03100-Concrete Formwork:**
 - o Formliner is required in both interior and exterior wall surfaces as per the specifications.
- 3.2 **Clarification on Section 03300-Cast In Place Concrete:**
 - o Concrete mix shall meet the all exposure classes mentioned under each mix type. These concrete types are exposed to more than one exposure class.
- 3.3 **Section 07210-Batt Insulation and Vapour Barrier:**

- Add to Clause 2.1.1.1:
 - .4 Roxul Safe 55 (approved for walls only, not roof).
 - .5 Rockwook Plus MB (approved for walls only, not roof).

- 3.4 Section 07610-Sheet Metal Roofing:
 - Clause 3.4.1 shall read as:
 - .1 Provide a two (2) year warranty for the sheet metal roofing in accordance with the Canadian Roofing Contractors Association (CRCA) for covering material, roof leaks, and installation workmanship.

- 3.5 Section 08362-Sectional Metal Overhead Doors:
 - Add to Clause 2.1.1.1:
 - .4 G5000 Insulated Sectional Overhead Door by Garaga.

- 3.6 Section 09970-Concrete and Masonry Coatings:
 - Add to Clause 2.1.4:
 - .4 Membrane tanks beneath the grating in the Membrane room: Formula 20.
 - .5 Headworks channels in the screen room: Formula 20.
 - Add to Clause 2.1.5.1.1: the acceptable products for the Formula 10 coating system: Allcure 200HS.
 - Add to Clause 2.1.5.1.4: the acceptable products for the Formula 10 infilled: ERezRok 105.
 - Add to Clause 2.1.5.2.2: the acceptable products for the Formula 20 coating system primer: Polyspec 100EX.
 - Add to Clause 2.1.5.2.2: the acceptable products for the Formula 20 coating system intermediate and finish coats: NovoRex 370.
 - Add to Clause 2.1.5.2.4: the acceptable products for the Formula 20 infilled: ERezRok 105.

- 3.7 Section 11050-Process Piping:
 - Clause 1.7.2.2 shall read as:
 - .2 Have radiographic test firm evaluate welds in accordance with ANSI/ASME B31.3 Process Piping Code Normal Service and prepare report summarizing results.

- 3.8 Section 11105-Detailed Valve Specification:
 - Bray VAAS Series 940 is an approved equal to Knife Gate valves.

- 3.9 Section 11300-Process Pumps General Requirements:
 - Clause 2.8.1 shall read as:
 - .1 For each pump size, provide for one (1) spare mechanical seal or packing kit (as applicable) and one (1) set of pump bearings.

- 3.10 Section 11506-Mechanically Cleaned Travelling Rake Bar Screen:
 - Add to Section 2.2:

- .4 WTP Equipment Corp.
- 3.11 Section 11508-In Channel Rotating Drum Fine Screens:
 - o Add to Section 2.9:
 - .3 WTP Equipment Corp.
- 3.12 Section 11606-Screenings Washer, Compactor, Conveyor:
 - o Add to Section 2.1:
 - .4 WTP Equipment Corp.
- 3.13 Section 11608-Shaftless screw conveyor:
 - o Add to Section 2.11:
 - .3 WTP Equipment Corp.
- 3.14 Section 15010-General Mechanical Provisions
 - o Revise Clause 1.27.4 to include:
 - .3 Air Handling Units-Indoor Add: Daikin
 - .19 Fans-FRP/Plastic Add: IPF, Twin City*
 - .28 Heat Recovery Ventilators - Fixed Core Type Add: Nu-Air
 - .32 Makeup Air Units – Electric Electric Heat Add: Daikin / Haakon, York
 - .58 Condensing Unit Add: Daikin / Aeon
 - .59 Heat Recovery Ventilators – Heat Pipe Type Add: Tempeff / Haakon
- 3.15 Section 15800-Indoor Premanufactured Air Handling Units (AHU-30-810)
 - o Add Clause 2.1.1.8:
 - .8 Activated carbon filter frame.
 - o Add Clause 2.8.7:
 - .3 Provide secondary filter position complete with disposable 50 mm impregnated carbon filter and differential pressure sensor downstream of primary filter.
- 3.16 Section 15830-Ductwork
 - o Clause 2.1.4.3 shall read as:
 - .3 Thixotropic resin paste sealed and fibreglass cloth and resin overwrapped bell and spigot joints for round ducts, air-tight gasketed flanged joints with type 316 stainless steel bolts, lock washers and nuts for rectangular ducts. Round ducts

may use flanged joints with neoprene gaskets and stainless steel hardware provided support is provided on either side of each joint.

- Clause 2.1.5.2: Revise finish to be 2B.
- Clause 2.1.5.5: Delete welding requirement.
- Delete Clause 3.3.19 requiring the welding of all stainless steel ductwork.

3.17 Section 16016-Submittals:

- Add to the list:

| | | | | |
|----|-------|------------------------|---------------|------------------------------------|
| 30 | 16432 | Low Voltage Switchgear | Shop Drawings | 7 days prior to planned order date |
|----|-------|------------------------|---------------|------------------------------------|

3.18 Section 16225-Motor Control Centres:

- Clause 2.4.10 shall read as:
 .10 Motor control shall be Modbus/TCP over Ethernet compatible with all cabling systems and devices certified in accordance with CiA standards. System shall be designed by manufacturer to operate at 500 kbps. Each motor control compartment and individual motor starter shall have CANopen control and monitoring capabilities with quick plug-in connectivity to wireway installed CANopen trunk cables and connectors.
- Remove reference to CANopen. Change protocol to Modbus/TCP.

3.19 Section 16238-Power Generation Diesel:

- Add to Section 2.12:
 .13 Space for the generator is limited. Space for walk-in enclosures may not be available. Contractor to confirm that offering with weatherproof enclosure can fit within the space shown prior to order placement.

3.20 Add Section 16431-Low Voltage Switchgear, attached.

3.21 Section 17700-Instrument List

- Add the following clarifications to the list:

| TAG | Range |
|------------|---------------------|
| PIT-30-120 | 0 psi to 20 psi |
| PIT-30-320 | 0 psi to 20 psi |
| PIT-30-760 | Future Installation |

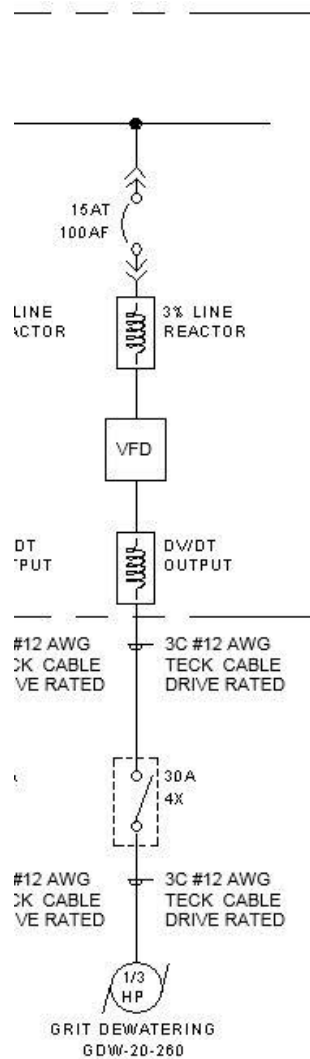
4. Drawings

4.1 Reference Drawing 00-C401:

- Clarification: the pump data sheet provided in Section 02729-Equalization Pond Lift Station shall be used for pump selection.

- 4.2 Reference Drawing B-0402:
- Detail 1 – Enlarged Plan, add note: Ceramic tile to shower stalls as shown on elevations.
 - Details 9, 12, 13, 18 – add note: Ceramic tile to shower stall areas.
- 4.3 Reference Drawing 31-D301-R1.
- Add Note 1:
 - .1 Scum baffle shall be of folded 600 mm type 316 Stainless steel construction complete with 50 mm × 50 mm × 5 mm reinforcement 316 stainless steel Angle Iron. The Contractor to provide the Shop Drawings prior to fabrication for Engineer's approval.
 - Add Note 2:
 - .2 Provide 38 mm schedule 40 type 316 stainless steel cross bracing every 400 mm for the bioreactor outlet trough. The Contractor to provide the Shop Drawings prior to fabrication for Engineer's approval.
- 4.4 Reference Drawing 05-N003-R1:
- Add Note 7:
 - .7 LCP-20-220 shall provide the required capacity to include System HOA, TeaCup HOA, TeaCup Fluidizing Solenoid HOA, TeaCup Underflow Plug Valve HOA, TeaCup Flushing Solenoid HOA, Auto Drain HOA, Grit Snail HOA, Grit Snail Rinse Solenoid HOA, Run light, Alarm light, and E-Stop.
- 4.5 Reference Drawing 20-M102R1:
- Delete drawing note 4.
- 4.6 Reference Drawing 40-M411R1:
- Clarification – Make-up Air Unit Schedule
Tag: MAU-40-810
Dimension correction:
Overall Width = 1,956 mm
Overall Length = 4,953 mm
Overall Height = 1,169 mm
- 4.7 Reference Drawing 05-E001:
- Clarification: provide and install, wire and connect (11) 120V, 1 pole, 20A breakers in distribution panel MP-204B, for control panels LCP-20-110, MCP-30-110, LCP-20-120, MCP-30-210, LCP-20-210, LCP-20-220, MCP-30-310, LCP-20-310, LCP-20-330 and LCP-20-370.
- 4.8 Reference Drawing 05-E002:
- Approved lighting manufacturers: Acuity, Aimlite, Azz, Philips, Appleton, Ecopower

- 4.9 Reference Drawing 05-E003:
- Conductors feeding panels DP-204A and DP-204B shall be 4 conductor.
- 4.10 Reference Drawing 05-E004:
- Replace Grit Removal Unit/Grit Washing GRC-20-210 circuit, with the circuit shown in Sketch 1.



Sketch 1

- 4.11 Reference Drawings 05-E004, 05-E005, 05-E006:
- Disconnects in Zone 2 rated areas shall be rated for Zone 2 installation.
- 4.12 Reference Drawing 05-E005:
- For BL-30-750 revise “Standby” to “Future”.

- 4.13 Reference Drawing 05-E010:
 - Initiating devices shall be Class A wiring.

- 4.14 Reference Drawings 20-E102, 40-E102, 40-E104:
 - Smoke detectors shown in classified areas shall be replaced with a linear heat detector.

- 4.15 Reference Drawing 30-E101:
 - MTS backboard shall be located in the Mechanical/Electrical room.

- 4.16 Reference Drawing 40-E101:
 - Add Note 11:
 - 11. Provide and install, wire and connect a complete doorbell request for entry system suitable for industrial applications for exterior doors to the hypochlorite dosing room and to the citric & alum dosing room. Audible request to be heard in the managers/operators room and the lab.
 - Server rack shall be located in the manager/operators room.

- 4.17 Reference Drawing 40-E104:
 - Fire alarm panel shall be located in entrance corridor 312, near entrance.

END OF ADDENDUM

LOW-VOLTAGE SWITCHGEAR (ADDENDUM 4)

1. GENERAL

1.1 Related Sections

- .1 Section 16015 – Submittals.
- .2 Section 16010 – Common Work Results for Electrical.

1.2 Shop Drawings and Product Data

- .1 Submit Shop Drawings and product data in accordance with Section 16015 – Submittals.
- .2 Indicate on Shop Drawings.
 - .1 Anchoring method.
 - .2 Dimensioned cable entry and exit locations.
 - .3 Overall length, height and depth.
 - .4 Dimensioned layout of internal and front panel mounted components.

1.3 Maintenance Data

- .1 Provide maintenance data for service entrance board for incorporation into manual.
- .2 Submit six (6) copies of maintenance data for complete assembly including components.

2. PRODUCTS

2.1 Manufacturer

- .1 Eaton, Square D, Siemens, ABB, General Electric, Allen-Bradley.

2.2 Low-Voltage Switchgear

- .1 Rating: 600 V, 3 phase, 4 wire, copper bus, 100% rated, ampacity and short circuit with stand rating as indicated.
- .2 Cubicles: dead front, top cable entry.
- .3 Interrupting rating as indicated.
- .4 Distribution section with branch breakers.
- .5 Drip hood.
- .6 Identify phases with colour coding.

LOW-VOLTAGE SWITCHGEAR (ADDENDUM 4)

2.3 Main Circuit Breaker

- .1 Moulded case circuit breaker, frame and trip size as indicated, 100% rated.
- .2 Solid state trip unit.
- .3 Pickup, long time, short time, instantaneous, ground fault, independently and fully adjustable.
- .4 Main breaker to be complete with N.O. & N.C. auxiliary contacts to allow annunciation of breaker trip on energy management system. LSI trip and G trip are to annunciate independently.

2.4 Branch Circuit Breakers

- .1 Moulded case circuit breaker to operate automatically by means of thermal and magnetic tripping devices to provide inverse time current tripping and instantaneous tripping for short circuit protection.
- .2 Solid state trip unit.
- .3 Pickup, long time, short time, instantaneous, ground fault, independently and fully adjustable.

2.5 TVSS

- .1 Transient voltage surge suppressor – 240 kA surge capacity per phase.
- .2 L-N, L-L, L-G, N-G mode protection.
- .3 Individually fused, thermal cut-out.
- .4 Front panel alarm, enable/disable switch, push to test diagnostic.
- .5 Loss of protection, operational LED's.
- .6 Loss of protection alarm contacts.
- .7 Modular parallel transient voltage protection.

2.6 Grounding

- .1 Lugs at each end for grounding cable.
- .2 Copper ground bus not smaller than 50 mm x 6 mm extending full width of multi-cubicle switchboard and situated at bottom.

2.7 Finishes

- .1 Apply finishes in accordance with Section 16010 – Common Work Results for Electrical.

LOW-VOLTAGE SWITCHGEAR (ADDENDUM 4)

- .1 Colour: gray.

2.8 Equipment Identification

- .1 Provide equipment identification in accordance with Section 26 05 00 – Common Work Results for Electrical.
- .2 Nameplates: Size 7.

3. EXECUTION

3.1 Installation

- .1 Locate main switchboard and secure to floor.
- .2 Supply and install fibre entry/exit plates.
- .3 Connect main secondary service to line terminals of main breaker.
- .4 Connect load terminals of distribution breaker's to feeders.
- .5 Check factory made connections for mechanical security and electrical continuity.
- .6 Run grounding conductor in conduit from ground grid.

END OF SECTION