



## 204-2018 ADDENDUM No. 1

### REPLACEMENT OF ROOF TOP UNITS SERVING LAP POOL AT PAN AM POOL – 25 POSEIDON BAY

#### **URGENT**

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

ISSUED: 04 April 2018  
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TELEPHONE NO. 204 896-1209

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

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**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 8 of Form A: Bid may render your Bid non-responsive.**

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#### **PART E – SPECIFICATIONS**

##### **DIVISION 01:**

##### **Section 01 00 10 - General Requirements**

- Add: 9.2 The Contractor shall have 24 hours per day 7 days a week access to the facility during the shutdown period identified in D13.5. Provide multiple shifts, if required, to meet the Critical Stages identified in D14.
- Add: 11.4 Service shutdowns that impact the normal operation of the facility shall be limited to after hour shifts not exceeding 8 hours. All services shall be restored prior to opening of the facility next day. The dates of shutdowns shall be co-ordinated with the Contract Administrator.
- Add: 11.5 Protect landscaping from damage due to construction activities. Restore any damages caused by construction activities to original condition.

##### **Section 01 52 00 - Construction Facilities**

- Add: 1.9.2 The Contractor shall provide sanitary facilities for workers. (The Contractor may use existing sanitary facilities designated by Contract Administrator during the shutdown period identified in D13.5 provided the facilities are kept clean.)

##### **DIVISION 23:**

##### **Section 23 05 05 - Installation of Pipework**

- Add: 3.13.3 Drain and re-fill existing hydronic heating system as required to facilitate tie ins. Conform to Section 23 08 02.

##### **Section 23 07 13 - Duct Insulation**

- Revise: 2.3.3.2 Thickness: 0.81 mm sheet.

Add: 2.3.3.5 Refer to drawing DWG\_204-2018\_Addendum\_1\_Drawing\_M09-R1 for duct cladding detail.

### **Section 23 21 13.02 - Hydronic Piping Systems**

Add: 2.2.7 Grooved (Victaulic) connections are not permitted.

Add: 2.4.4.3 NPS 2 and under:

Threaded bronze body construction, brass ball, TFE seat rings c/w memory stop, and differential pressure readout ports.

Acceptable Product: "Bell & Gossett" model CB or approved equivalent in accordance with B7.

Add: 2.4.4.4 The following product(s) have been approved as equal: (Balancing Valves) - Bell & Gossett.

Add: 2.4.7 Butterfly Valves: to MSS-SP-67:

NPS 2 1/2 and over: Lug type:

Pressure rating for tight shut-off at temperatures up to maximum for seat material: 200 psig. Minimum seat temperature ratings to 135 degrees C.

Application: on-off operation.

Operators: handles capable of locking in any of ten (10) positions - 0 degrees to 90 degrees. Handle and release trigger - ductile iron. Return spring and hinge pin: carbon steel. Latch plate and mounting hardware: cadmium plated carbon steel. Standard coating: black laquer.

Compatible with ANSI Class 125/Class 150 flanges.

Materials of Construction: Ductile iron body, aluminum bronze disc, EPDM seat and o-ring, 316 stainless steel shaft and taper pin, luberized bronze bushings.

Acceptable Product: "Bray" Series 31 or approved equivalent in accordance with B7.

Add: 2.4.8 Relief Valve:

2,225 kW (7,600,000 BTUH) relief capacity, 50mm (2") size, diaphragm isolated spring chamber, corrosion resistance construction, ASTM B584 bronze body and cap, plated alloy steel spring, silicone seat, ASME Section IV Certified, Canadian Registration Number. Can be pre-set to any pressure ranging from 1 to 11 bar (15 to 160 PSIG), 121°C (250°F) maximum operating temperature. Valve capacity shall exceed the full heating capacity of the system it is being installed in. Dimensions (HxW): 356 mm x 183 mm. Weight: 10.6 kg.

Acceptable Product: "Apollo Valves" model RVW60 (10608) or approved equivalent in accordance with B7.

Add: 2.5 **FLEXIBLE CONNECTOR**

316 Stainless steel hose and braid, fixed flanged ends, diameter as indicated on drawings, 600 mm (24") length. 1800 kPa working pressure at 200°F. CSA B51 certified.

Acceptable Product: "Flex-Hose" Industrial Metal Hose or approved equivalent in accordance with B7.

### **Section 23 21 14 - Hydronic Specialties**

Add: 2.1.4 The following product(s) have been approved as equal: (Expansion Tank) - Taco, Expanflex.

Add: 2.2.3 The following product(s) have been approved as equal: (Air Vents) - Bell & Gossett, Taco.

Add: 2.3.4 The following product(s) have been approved as equal: (Air Separator) - Bell & Gossett, Taco.

Add: 2.5 **CHEMICAL POT FEEDER**

7.6 L (2 gal) pressure vessel volume. 19 mm (3/4") NPT connections. System shall include carbon steel chemical bypass feeder, and 600 mL polyethylene graduated funnel with integral 20 mesh strainer. 1.14 MPa (165 PSI) maximum pressure.

Acceptable Product: "Axiom" model CBF-2 or approved equivalent in accordance with B7.

Add: 2.6 **SIDESTREAM FILTER PACKAGE**

System shall include filter, sight flow indicator, ball valve, balancing valve, and nipples. Suitable for flow rates from 0-38 L/s (0-10 USGPM).

Filter shall be constructed of 304 stainless steel filter housing with brass head and shall include two EPDM o-rings, brass drain valve with barb fitting and cap, and filter cartridge shall be a cotton wound filter cartridge with stainless steel core (25 micron). Filter housing length shall be 250 mm (10"). 1.5 L (0.4 gal) vessel volume.

Sight flow indicator has brass body and shall include EPDM o-rings, two tempered borosilicate glass windows, 304 stainless steel cage, TPX ball, and cork washers (non-wetted part).

Ball valve shall be of brass construction.

Manual balancing valve shall be of brass construction and comes with an integral air vent, memory stop, and shall be able to provide flow metering, flow balancing, and filter cartridge isolation.

Three brass nipples shall each be 75 mm (3") in length.

19 mm (3/4") FNPT connections. 860 kPa (125 PSI) maximum pressure, 93°C (200°F) maximum temperature. Compatible with water and propylene glycol in concentrations up to 50%.

Acceptable Product: "Axiom" model SFP-20-25M or approved equivalent in accordance with B7.

### Section 23 57 00 - Heat Exchangers for HVAC

Add: 2.1.9 Dimensions (HxWxL): 1194 mm x 521 mm x 1166 mm.

### Section 23 73 11 - Air Handling Units - Packaged

Add: 2.1.9 Heating Coil Schedules:

<b>Coil Tag</b>	PHC (Pre-Heat Coil)
<b>Tube Size (Outside Diameter) (mm / in.)</b>	16 / 5/8
<b>Fin Surface</b>	Corrugated - 0.0065"
<b>Coil Size (mm / in.) (HxLxRxFPI)</b>	1520 x 1220 x 3 / 12

	60 x 48 x 3 /12
<b>Pass-Circ-Blank</b>	6 - 20 - 0
<b>Header Size (mm / in.)</b>	50 / 2
<b>Total Capacity (kW / BTUH)</b>	205.2 / 700.4
<b>Sensible Capacity (kW / BTUH)</b>	205.2 / 700.4
<b>Airflow (L/s / CFM)</b>	3,115 / 6,600
<b>Air EDBT (°C / °F)</b>	-34.4 / -30
<b>Air LDBT (°C / °F)</b>	20.1 / 68.3
<b>Leaving Coil Velocity (m/s / FPM)</b>	1.72 / 338
<b>Coil Pressure Drop (Pa / in.w.c.)</b>	41.5 / 0.17
<b>Fluid</b>	50% Propylene Glycol
<b>Entering Temperature (°C / °F)</b>	60.0 / 140
<b>Leaving Temperature (°C / °F)</b>	39.2 / 102.6
<b>Flow Rate (L/s / GPM)</b>	2.65 / 42.0
<b>Fouling factor allowance</b>	0.0001
<b>Tube Velocity (m/s / FPS)</b>	0.70 / 2.3
<b>Pressure Drop (kPa / ft.w.c.)</b>	10.3 / 3.4
<b>Notes:</b>	Fluid inlet and outlet connections are located on the same end.

<b>Coil Tag</b>	HC (Heating Coil)
<b>Tube Size (Outside Diameter) (mm / in.)</b>	16 / 5/8
<b>Fin Surface</b>	Corrugated - 0.0065"
<b>Coil Size (mm / in.) (HxLxRxFPI)</b>	1520 x 2185 x 4 / 12 60 x 86 x 4 /12
<b>Pass-Circ-Blank</b>	8 - 20 - 0
<b>Header Size (mm / in.)</b>	50 / 2
<b>Total Capacity (kW / BTUH)</b>	189.4 / 646.4
<b>Sensible Capacity (kW / BTUH)</b>	189.4 / 646.4
<b>Airflow (L/s / CFM)</b>	7,552 / 16,000

<b>Air EDBT (°C / °F)</b>	20.0 / 68.0
<b>Air LDBT (°C / °F)</b>	40.8 / 105.4
<b>Leaving Coil Velocity (m/s / FPM)</b>	2.48 / 489
<b>Coil Pressure Drop (Pa / in.w.c.)</b>	103.7 / 0.42
<b>Fluid</b>	50% Propylene Glycol
<b>Entering Temperature (°C / °F)</b>	60.0 / 140.0
<b>Leaving Temperature (°C / °F)</b>	39.9 / 103.8
<b>Flow Rate (L/s / GPM)</b>	2.52 / 40.0
<b>Fouling factor allowance</b>	0.0001
<b>Tube Velocity (m/s / FPS)</b>	0.67 / 2.2
<b>Pressure Drop (kPa / ft.w.c.)</b>	15.2 / 5.1
<b>Notes:</b>	Fluid inlet and outlet connections are located on the same end.

**DIVISION 26:**

**Section 26 05 00 – Common Work Electrical**

Add: 3.1.9 The Electrical Subcontractor shall relocate lighting and electrical wiring interfering with the installation of the new hydronic piping. Where required luminaires shall be relocated and/or lowered to suit the new mechanical piping layout. Extend the existing wiring as required. Coordinate the exact requirements with the Mechanical Subcontractor prior to Bid.

**DRAWINGS:**

Replace: DWG\_204-2018\_Drawing\_S02-R0 with DWG\_204-2018\_Addendum\_1\_Drawing\_S02-R1

Replace: DWG\_204-2018\_Drawing\_M09-R0 with DWG\_204-2018\_Addendum\_1\_Drawing\_M09-R1

END OF ADDENDUM 1