

## **ADDENDUM 5 BID OPPORTUNITY 792-2006**

### **WINNIPEG WATER TREATMENT PROGRAM – CONSTRUCTION OF SODIUM HYPOCHLORITE AND CHEMICAL STORAGE BUILDINGS**

#### **URGENT**

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

ISSUED: April 13, 2007  
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**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 10 of Form A: Bid may render your Bid non-responsive.**

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#### **PART D – SUPPLEMENTAL CONDITIONS**

Revise: D2.2(f) to read: Cleaning of all City Supplied Equipment in accordance with the technical Specifications and with the Supply Contractor's instructions. This includes, but is not limited to, cleaning of the hypochlorite generation equipment in accordance with 792-2006\_Addendum\_5-NMS\_Section\_Cleaning\_Instruction-R0.pdf.

#### **PART E – SPECIFICATIONS**

##### **Section - Cleaning Instruction**

NMS Section "Cleaning Instruction" has been added and forms part of this Addendum. It includes the Acid Wash Guide for CT 450+ LBS/Day Series Models and the Procedural Guide for Neutralization of Dilute (1:10) Spent Muriatic Acid.

##### **Section 03200**

Revise: 1.4.5 to read: Detail lap lengths to RSIC Reinforcing Steel Manual of Standard Practice using Class B Tension Lap Splices for top bars, unless otherwise shown on the Drawings.

##### **Section 05500**

Revise: 1.1.2 to read: All metal fabrications shall be hot dipped galvanized, except elements fabricated from stainless steel, and special metal fabrication elements. Special metal fabrication elements, which are located in the secondary containment areas, include, but are not limited to stair stringers, framing, posts, supports plates, and stiffeners. These elements shall receive specialty coatings as per Section 09985 from main floor elevation 237.750 and below. Special metal fabrication elements do not include galvanized steel gratings (both buildings) and galvanized stair treads (Sodium Hypochlorite Building); in case of conflicting information on Drawings, this clause governs.

##### **Section 07400**

Revise: 2.1.1 to read: Roll Formed Metal Cladding and Link/Bridge Soffit Panel: Sheet steel coil coated to ASTM A755, galvanized by the hot dip process to ASTM A653M, Z275. Prefinish sheet to meet or exceed requirements of Baycoat Metallic Series, colour to match UC55028XL Bright Silver Metallic by PPG, apply colour on top side only. CL7040 by Vic-West.

**Section 08110**

Revise: 2.1.1 to read: Metallic Coated Sheet Steel: ASTM A653/A653M, Commercial Steel (CS), Type B, with minimum ZF180/A60 zinc-iron alloy (gavannealed) coating designation.

**Section 09870**

Add: 3.1.2 Teflon (PTFE) lined pipes shall be applied in accordance with ASTM F1545.

Add: 3.8.5 Teflon Lined Pipe

Add: 3.8.5.1 Interior surface preparation shall be in accordance with the liner manufacturer's recommendations and shall be clean and free of mold burrs, rust, scale, or other protrusions, which may affect the integrity or performance of the lining.

Add: 3.8.5.2 Resin type shall conform to ASTM D1457, D4894, or D4895.

Add: 3.8.5.3 The minimum liner wall thickness shall be 3.18mm (0.125 inches).

**Section 09985**

Revise: 2.10 to read: Coatings shall be applied in secondary containment areas (including sump pits) to all concrete and all steel elements and portions of steel elements below main floor elevation 237.750 except surfaces of galvanized steel gratings (both buildings) and galvanized stair treads (Sodium Hypochlorite Building).

Revise: 3.7.3 to read: Field paint surfaces which are accessible before erection but which are not to be accessible after erection; leave underside of base plates in contact with grout unpainted.

**Section 11251**

Revise: 2.2.10 to read: Each storage tank shall be MEKP post-cured and in accordance with the resin Manufacturer's recommendation.

Revise: 3.2.3 to read: Clean and dry all tanks, pickle and passivate before acceptance by the City for filling with chemical. Tanks pickled and passivated by the Manufacturer prior to delivery shall not require re-pickling and re-passivation.

**Section 15085**

Replace Section 15085 with Section 15085(R1).

Revisions include, but are not limited to: added specifications for insulation to refrigerant piping (3.5.10), general revisions to ductwork insulation (3.6), added 3.7.6 and added Field Quality Control (3.8).

**Section 15100-00**

Revise: 3.3.4 to read: Water system balancing: Provide a qualified firm specializing in testing and balancing to adjust and balance the recirculating hot water loops.

**Section 15410**

Revise: 2.5.3 to read: Emergency Shower/Eyewash Combination, Indoor (EES-S752A, EES-S754A, EES-S755A, EES-S757A, EES-H872, EES-H873, EES-H874).

**Section 15440**

Replace Section 15440 with Section 15440(R1).

Revise 2.1.1 to read: General: complete packaged triplex (2 duty, 1 standby) booster pump system, including constant volume pumps, hydromatic tank, controls, control panel, piping, valves, and appurtenances, factory assembled, skid mounted, prewired, and tested.

**Section 15640**

Replace Section 15640 with Section 15640(R1).

Revisions include, but are not limited to: additional Part 2 specifications.

**Section 15720**

Replace Section 15720 with Section 15720(R1).

**Section 15810**

Add: 3.1.5.5 Assist and coordinate with the fire alarm Subcontractor, the installation of smoke detection to the return air duct of air handling units.

**Section 15901**

Delete: 2.7.5

**Section 15930**

Replace Section 15930 with Section 15930(R1).

**Section 15940**

Revise: 3.1.3 to read: A hardwire interlock shall initiate the shutdown of all ventilation systems (MAUs, AHUs and exhaust fans) and boilers in the event of a fire alarm activation. The Contractor shall Supply and Install keyed override switches to allow for each area to be ventilated individually by the attending Fire Officer. Upon an override signal from the keyed switch, the system that is energized shall operate in maximum capacity and with maximum outside air unless otherwise specified. Switches shall be installed adjacent to the fire alarm annunciation panel and identified as to function with engraved lamacoids. The ventilation equipment Manufacturers shall coordinate the override function with the fire alarm system Manufacturer.

Add: 3.1.4 Upon activation of the unit in hand mode the unit will start following the sequences indicated herein and run with the VFD's at 100% on the supply and extract. The DCS shall maintain control of the heating valve.

**Section 15999**

Replace Section 15999 with Section 15999(R1).

Revisions include, but are not limited to: entering and leaving air temperatures for air-to-air heat exchangers in the Makeup Air Unit Schedule, tag number revisions in the Air Compressor Schedule, tag number and general revisions in the Air Dryer Schedule, tag number revisions in the Tank Schedule, pressure drop revisions in the Plate Heat Exchanger Schedule, general revisions in the Fan Coil Unit Schedule, added MD-H842 MD-H880 MD-H881 and MD-H882 to the Motorized Damper Schedule.

Clarification: References to "recirculation damper" for MAU-H850A, MAU-H851A, MAU-H852A, MAU-H800A, MAU-H801A, MAU-H802A, MAU-H804A are not applicable. These units have no recirculation.

### **Section 16141**

Revise: 2.5.1 to read: Crouse-Hinds WSRD63542, 600V, 60A, 3 wire, Style 2. Interlocked receptacle and disconnect switch.

### **Section 16722**

Delete: 1.3.3

Revise: 2.2.5 to read: Actuation of any alarm initiating device shall cause air handling units, makeup air units, boilers and all associated equipment to be shut down by signal from the FACP to each associated LCP.

Add: 2.1.2.4 Duct Mounted Ionization Detection:

Add: 2.1.2.4.1 Supply and install duct smoke detectors for air handling units, number and location as shown on Drawings.

Add: 2.1.2.4.2 Type: Ionization detector, duct mounted, suitable for airstream sensing.

Add: 2.1.2.4.3 Supply and install with remote reset button or key switch.

Add: 2.1.2.4.4 Include mounting bracket for installation on the ductwork.

Add: 2.1.2.4.5 Coordinate with other trades to accomplish specified Automatic Smoke Detection shutoff control sequence.

### **Section 17600A(R1)**

Replace Section 17600A(R1) with Section 17600A(R2).

### **Section 17700A(R1)**

Replace Section 17700A(R1) with Section 17700A(R2).

### **DRAWINGS**

Clarification: With reference to drawing WH-A0104: The operator workstations will be located within 3m of the panels from which they are served.

Clarification: With reference to drawing WH-A0104: Cable C-CP-H30A-C02 shall run to panel H30A in the WTP. The cable shall be placed in the cable tray that starts near the intersection of B18 and BA on drawing WF-E0122. Panel H30A and the cable tray that starts near the intersection of B18 and BA on drawing WF-E0122 will be supplied and installed by others.

Clarification: With reference to all "WJ-" drawings, where the drawings state "Vendor Package", this shall mean City Supplied Equipment.

Clarification: With reference to drawing WJ-E0112: the panel shown as LCP-J101A shall be renumbered LCP-J11A. This change applies to all references to LCP-J101A in the Contract Documents such as in the Motor Schedule (WJ-E0541).

Clarification: With reference to drawing WJ-E0112: the panel shown as CP-J100 shall be renumbered CP-J11. This change applies to all references to CP-J100 in the Contract Documents, such as in the Motor Schedule (WJ-E0541) or panel schedule DJ-J11 on drawing WJ-E0521.

Clarification: With reference to drawing WJ-E0112: the panel shown as LCP-J101 shall be renumbered LCP-J12. This change applies to all references to LCP-J101 in the Contract Documents, such as in the Motor Schedule (WJ-E0541) or panel schedule LP-J12 on drawing WJ-E0522.

- Clarification: With reference to drawing WJ-E0121: Revise the tag number for the fan shown near the intersection of J2 and JG from CF-H895 to CF-H859.
- Clarification: With reference to drawings WJ-H0501 and WJ-H0503: The VFDs shown are not intended to be part of the Vendor Package shown on these particular drawings. However, the VFDs are specified as part of the MCC on drawing WJ-E0511.
- Clarification: With reference to drawing WJ-P0007: The valve shown in the Sodium Hypochlorite building containment manhole as FV-J665A shall be renumbered to FV-J666A (This supersedes the clarification to this drawing that was issued in Addendum 4).
- Clarification: With reference to drawing WS-E0122: Add panel LCP-S11 to the southernmost end of the MCC.-12 as shown on WS-E0505.
- Clarification: With reference to drawing WS-E0122: Add panel LCP-S11A to the north wall of the Control Room approximately 3m north of gridline SD and just west of the voice/data outlet between gridlines S3 and S4.
- Clarification: With reference to drawing WS-H0110: WS-S701A and WS-S701B are the water softener vessels specified in clause 2.3.5 of Section 15640(R1) and TNK-S701A is the brine tank specified in clause 2.3.5 of Section 15640(R1).
- Clarification: With reference to drawings WS-H0513, WS-H0514, WS-H0515, WS-H0516 and WS-H0517: The VFDs shown are not intended to be part of the Vendor Package shown on these particular drawings, however, the VFDs are specified as part of the MCC on drawing WS-E0504.
- Clarification: With reference to drawings WS-S0301 and WS-S0302: all HSS114x114x113 bracing members can be replaced by HSS102x102x9.5.

The following Drawings have been added for information only and form part of this Addendum:

<u>Consultant Drawing No.</u>	<u>City Drawing No.</u>	<u>Drawing Name/Title</u>
WC-E0111	1-0601C-A-E0111-001-03D	ELECTRICAL – CHEMICAL AREA – FIRST FLOOR FACILITY PLAN
WC-E0122	1-0601F-A-E0122-001-02D	ELECTRICAL – FILTRATION AREA 2 – SECOND FLOOR FACILITY PLAN (AREA 2)
WC-E0131	1-0601C-A-E0131-001-03D	ELECTRICAL – CHEMICAL AREA – THIRD FLOOR FACILITY PLAN

The following Drawings have been added and form part of this Addendum:

<u>Consultant Drawing No.</u>	<u>City Drawing No.</u>	<u>Drawing Name/Title</u>
WH-A0101	1-0601H-C-A0101-001-01D	AUTOMATION / I&C – PLANT COMMUNICATION NETWORK – FIRBRE OPTIC CABLE ROUTING DIAGRAM
WH-A0102	1-0601H-E-A0102-001-03D	AUTOMATION / I&C – PLANT COMMUNICATION NETWORK – BLOCK DIAGRAM

- Clarification: Drawing WS-S0405 has been re-issued in this Addendum to show the correct revision number. It had been previously revised in Addendum 3. No other information has changed on this drawing.

The following Drawings have been revised and form part of this Addendum:

<u>Consultant Drawing No.</u>	<u>City Drawing No.</u>	<u>Drawing Title</u>
WB-A0461	1-0601B-H-A0461-001-04B	AUTOMATION / I&C - TYPICAL MCC STARTER - INSTRUMENTATION LOOP DIAGRAM
WB-A0463	1-0601B-H-A0463-001-04B	AUTOMATION / I&C - TYPICAL DISCRETE INPUT - INSTRUMENTATION LOOP DIAGRAM
WB-A0464	1-0601B-H-A0464-001-04B	AUTOMATION / I&C - TYPICAL VALVE LIMIT SWITCH - INSTRUMENTATION LOOP DIAGRAM

<b><u>Consultant Drawing No.</u></b>	<b><u>City Drawing No.</u></b>	<b><u>Drawing Title</u></b>
WB-A0465	1-0601B-H-A0465-001-04B	AUTOMATION / I&C - TYPICAL LOOP POWERED ANALOGUE INPUT - INSTRUMENTATION LOOP DIAGRAM
WB-A0466	1-0601B-H-A0466-001-04B	AUTOMATION / I&C - TYPICAL 3 WIRE RTD - INSTRUMENTATION LOOP DIAGRAM
WH-A0701	1-0601H-K-A0701-001-10B	AUTOMATION / I&C - PLANT COMMUNICATION CABLES - CABLE LIST
WH-A0702	1-0601H-K-A0702-001-10B	AUTOMATION / I&C - PLANT COMMUNICATION CABLES - CABLE LIST
WH-A0703	1-0601H-K-A0703-001-10B	AUTOMATION / I&C - PLANT COMMUNICATION CABLES - CABLE LIST
WH-A0704	1-0601H-K-A0704-001-10B	AUTOMATION / I&C - PLANT COMMUNICATION CABLES - CABLE LIST
WH-A0705	1-0601H-K-A0705-001-10B	AUTOMATION / I&C - PLANT COMMUNICATION CABLES - CABLE LIST
WH-A0706	1-0601H-K-A0706-001-10B	AUTOMATION / I&C - PLANT COMMUNICATION CABLES - CABLE LIST
WH-A0707	1-0601H-K-A0707-001-10B	AUTOMATION / I&C - PLANT COMMUNICATION CABLES - CABLE LIST
WH-A0708	1-0601H-K-A0708-001-10B	AUTOMATION / I&C - PLANT COMMUNICATION CABLES - CABLE LIST
WH-A0709	1-0601H-K-A0709-001-10B	AUTOMATION / I&C - PLANT COMMUNICATION CABLES - CABLE LIST
WH-A0710	1-0601H-K-A0710-001-10B	AUTOMATION / I&C - PLANT COMMUNICATION CABLES - CABLE LIST
WH-A0711	1-0601H-K-A0711-001-10B	AUTOMATION / I&C - PLANT COMMUNICATION CABLES - CABLE LIST
WJ-B0130	1-0601J-A-B0130-001-02D	ARCHITECTURAL - ROOF PLAN
WJ-B0401	1-0601J-A-B0401-001-03D	ARCHITECTURAL - DETAILS
WJ-E0111	1-0601J-A-E0111-001-01D	ELECTRICAL - GROUND FLOOR FACILITY PLAN
WJ-E0113	1-0601J-A-E0113-001-01D	ELECTRICAL - GROUND FLOOR POWER AND LIGHTING PLAN
WJ-E0121	1-0601J-A-E0121-001-01D	ELECTRICAL - MEZZANINE FACILITY PLAN
WJ-E0123	1-0601J-A-E0123-001-01D	ELECTRICAL - MEZZANINE POWER AND LIGHTING PLAN
WJ-E0131	1-0601J-A-E0131-001-01D	ELECTRICAL - UPPER LEVEL FACILITY PLAN
WJ-E0401	1-0601J-A-E0401-001-01D	ELECTRICAL - SKYWAY BRIDGE DETAILS
WJ-E0511	1-0601J-F-E0511-001-01D	ELECTRICAL - SODIUM HYPOCHLORITE BUILDING - 600V SINGLE LINE DIAGRAM
WJ-E0522	1-0601J-D-E0522-001-01D	ELECTRICAL - PANEL SCHEDULE
WJ-H0111	1-0601J-A-H0111-001-01D	HVAC AND PLUMBING - GROUND FLOOR PLAN
WJ-M0402	1-0601J-A-M0402-001-03D	PROCESS MECHANICAL - DETAILS
WJ-S0111	1-0601J-A-S0111-001-01D	STRUCTURAL - GROUND AND MEZZANINE FLOOR PLANS
WJ-S0112	1-0601J-A-S0112-001-01D	STRUCTURAL - LINK WAY PLANS AND SECTIONS
WJ-S0121	1-0601J-A-S0121-001-01D	STRUCTURAL - HIGH AND LOW ROOF PLANS
WJ-S0201	1-0601J-A-S0201-001-02D	STRUCTURAL - SECTIONS AND DETAILS
WJ-S0402	1-0601J-A-S0402-001-02D	STRUCTURAL - SKYWAY BRIDGE DETAILS
WS-A0110	1-0601S-A-A0110-001-01D	AUTOMATION / I&C - INSTRUMENT LOCATION PLAN - LOWER LEVEL
WS-A0125	1-0601S-A-A0125-001-01D	AUTOMATION / I&C - INSTRUMENT LOCATION PLAN - UPPER LEVEL
WS-A0451	1-0601S-H-A0451-001-01B	AUTOMATION / I&C - TYPICAL MOTORIZED VALVE OPEN/CLOSE - INSTRUMENTATION LOOP DIAGRAM

<b><u>Consultant Drawing No.</u></b>	<b><u>City Drawing No.</u></b>	<b><u>Drawing Title</u></b>
WS-A0452	1-0601S-H-A0452-001-01B	AUTOMATION / I&C - TYPICAL MOTORIZED VALVE MODULATING - INSTRUMENTATION LOOP DIAGRAM
WS-A0454	1-0601S-H-A0454-001-02B	AUTOMATION / I&C - MOTORIZED VALVE OPEN/CLOSE WITH LOCAL CONTROL STATION - INSTRUMENTATION LOOP DIAGRAM
WS-A0455	1-0601S-H-A0455-001-02B	AUTOMATION / I&C - MOTORIZED VALVE OPEN/CLOSE - INSTRUMENTATION LOOP DIAGRAM
WS-B0110	1-0601S-A-B0110-001-02D	ARCHITECTURAL - MAIN FLOOR PLAN
WS-B0115	1-0601S-A-B0115-001-02D	ARCHITECTURAL - SECOND FLOOR PLAN
WS-B0120	1-0601S-A-B0120-001-02D	ARCHITECTURAL - CATWALK LEVEL
WS-B0130	1-0601S-A-B0130-001-02D	ARCHITECTURAL - ROOF PLAN
WS-B0202	1-0601S-A-B0202-001-02D	ARCHITECTURAL - BUILDING SECTIONS
WS-E0112	1-0601S-A-E0112-001-03D	ELECTRICAL - MAIN FLOOR POWER PLAN
WS-E0122	1-0601S-A-E0122-001-02D	ELECTRICAL - SECOND FLOOR POWER PLAN
WS-E0123	1-0601S-A-E0123-001-03D	ELECTRICAL - SECOND FLOOR LIFE SAFETY
WS-E0506	1-0601S-A-E0506-001-04D	ELECTRICAL - SCHEDULES
WS-E0512	1-0601S-H-E0512-001-01D	ELECTRICAL - FANS TYPICAL STARTER SCHEMATIC
WS-P0003	1-0601S-G-P0003-001-01D	PROCESS - SULPHURIC ACID FEED SYSTEM 2 OF 2 - PROCESS AND INSTRUMENTATION DIAGRAM
WS-P0007	1-0601S-G-P0007-001-01D	PROCESS - FERRIC CHLORIDE FEED SYSTEM 3 OF 3 - PROCESS AND INSTRUMENTATION DIAGRAM
WS-P0014	1-0601S-G-P0014-001-01D	PROCESS - AMMONIA FEED SYSTEM - PROCESS AND INSTRUMENTATION DIAGRAM
WS-S0001	1-0601S-A-S0001-001-02D	STRUCTURAL - GENERAL NOTES
WS-S0110	1-0601S-A-S0110-001-03D	STRUCTURAL - MAIN FLOOR FRAMING PLAN
WS-S0125	1-0601S-A-S0125-001-03D	STRUCTURAL - CATWALK FRAMING PLAN
WS-S0201	1-0601S-A-S0201-001-03D	STRUCTURAL - BUILDING SECTIONS
WS-S0202	1-0601S-A-S0202-001-03D	STRUCTURAL - BUILDING SECTIONS
WS-S0203	1-0601S-A-S0203-001-02D	STRUCTURAL - BUILDING SECTIONS
WS-S0407	1-0601S-A-S0407-001-02D	STRUCTURAL - BUILDING SECTIONS AND DETAILS
WS-S0408	1-0601S-A-S0408-001-02D	STRUCTURAL - BUILDING SECTIONS AND DETAILS
WS-S0410	1-0601S-A-S0410-001-03D	STRUCTURAL - BUILDING SECTIONS AND DETAILS
WS-S0501	1-0601S-A-S0501-001-02D	STRUCTURAL - SCHEDULES
WS-S0502	1-0601S-B-S0502-001-03D	STRUCTURAL - PILE SCHEDULES