Corporate Finance Department
Materials Management Branch

ADDENDUM 1
BID OPPORTUNITY 583-2005

WINNIPEG WATER TREATMENT PROGRAM – WATER TREATMENT PLANT FOUNDATIONS AND CONCRETE STRUCTURES

ISSUED: February 17, 2006
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URGENT

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

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.

PART A – BID SUBMISSION

Replace: 583-2005-Bid_Submission with 583-2005_Addendum_1-Bid_Submission. Form G2 has been replaced by Form G2(R1).

PART B – BIDDING PROCEDURES

Revise: B2.1 to read: The Submission Deadline is 12:00 noon, Winnipeg time, March 24, 2006.

Revise: B3.1 to read: Further to GC:3.1, the Contract Administrator or an authorized representative will be available at the Site from 11:00 a.m. to 12:00 noon on February 28, 2006 to provide Bidders access to the Site.

PART E – SPECIFICATIONS

Revise: E14.3 to read: Prior to achieving Total Performance, the Contractor shall submit the Record Drawings prepared pursuant to E14.1 to the Contract Administrator for his review and use. If, in the opinion of the Contract Administrator, the Record Drawings are incomplete or inaccurate, the Record Drawings will be returned to the Contractor and the Contractor shall revise and resubmit the Record Drawings at his cost.

Revise: E14.4 to read: Total Performance cannot be achieved without the submission of Record Drawings as specified in E14.1 and that are acceptable to the Contract Administrator.

Section 02223

1.1 Work Included

Revise: 1.1.1.2 to read: Shoring, bracing and sheetpiling where indicated on Drawings, and as required by construction methods.

1.2 Reference Standards

Revise: 1.2.1 to read: Conform to requirements of the National Building Code (NBC) and the Canadian Construction Safety Code.

1.3 Design of Shoring, Bracing and Sheet Piling

Revise: 1.3.2 to read: Design documentation, including shop drawings, shall be signed and sealed by a Professional Engineer registered in the Province of Manitoba.

3.5 Backfilling, Fill, and Compaction

Revise: 3.5.3.2 to read: Type 3 pit run sand for the leveling layer shall be spread on the subgrade in the required minimum compacted thickness (50 mm) to attain smooth surfaces and required elevations indicated on the Drawings for the placement of the voidform under the footings and base slabs.

Section 02451

3.5 Driving

Revise: 3.5.1 to read: Drive precast piles only when concrete has attained strength of 35 MPa as determined by related concrete compression testing in accordance with CAN/CSA A23.2-04. Use driving caps and cushions to protect piles. Reinforce pile heads as required by Contract Administrator. Piles with damaged heads as determined by Contract Administrator will be rejected.

Section 02468

In this Section, replace all occurrences of “CSA-A23.1-00” with “CAN/CSA A23.1-04”, all occurrences of “CSA-A23.2-00” with “CAN/CSA A23.2-04”, and all occurrences of “CSA-A23.4-00” with “CAN/CSA A23.4-00”.

2.1 Materials

Revise: 2.1.2 to read: Reinforcing steel: to CAN/CSA G30.18-M92(R2002).

2.2 Concrete Mixes

Revise: 2.2.1.1 to read: Use Type HS Portland Cement.

3.1 Fabrication

Add: 3.1.1.6 Strand projection: Strands shall be cut-off flush or slightly below pile head surface.

Section 02620

2.1 Material

Revise: 2.1.2.2 to read: Minimum tensile strength: 800 N to ASTM D4632 Grab Test or CAN/CGSB-4.2 9.2-M90

Revise: 2.1.2.3 to read: Minimum trapezoid tear: 330 N to ASTM D4533 or CAN/CGSB-4.2 11.2-M89

Revise: 2.1.4.1 to read: Manholes and manhole covers to allow access to the subdrain pipes as shown on the Drawings shall conform to CW 2130-R9.

3.5 Perforated and Solid PVC Pipe

Revise: 3.5.7 to read: Backfill of the solid PVC pipe and all interconnections to the existing manholes shall conform to CW 2130-R9.

3.6 Manholes

Revise: 3.6.1 to read: The manholes complete with manhole covers shall be installed to the dimensions and at the grades as shown on the Drawings, in accordance with CW 2130-R9, and as accepted by the Contract Administrator.

Section 03100

1.2 Design Standards

Revise: 1.2.1 to read: Design and detail forms and supporting falsework in accordance with the NBC, Canadian Standards Association CAN/CSA A23.1-04, CSA S269.1-1975(R2003), CAN/CSA S269.3-M92(R2003), ACI 347R, and applicable provincial and federal construction safety regulations.

1.3 Quality Assurance

Revise: 1.3.1 to read: Construct and erect concrete formwork in accordance with CAN/CSA-A23.1-04, CAN/CSA S269.3-M92(R2003), ACI 347R, and all applicable provincial and federal construction safety regulations for the place of Work.

2.3 Wood Materials

Revise: 2.3.1 to read: Plywood: Douglas fir, conforming to CSA O121-M1978(R2003) solid one side, sheathing grade. Sound undamaged sheets with clean true edges. Use only new material for exposed surfaces.

Revise: 2.3.2 to read: Lumber: conforming to CAN/CSA O141-05.

Revise: 2.3.3 to read: Nails, Spikes and Staples: galvanized; conforming to CSA B111-1974(R2003).

2.4 Prefabricated Forms

Revise: 2.4.3.1 to read: Expanded polystyrene structurally sufficient to support weight of reinforcing steel, wet concrete mix, and a construction live load allowance until set. The final thickness will be determined after review by the Contract Administrator.

Add: 2.4.3.2 The installed thickness shown below for each of the building areas is an estimate for tendering purposes.

Revise: 2.4.3.3 to read: Side protection for Void Form shall be one (1) 19 mm thick pressure treated spruce plywood sheeting extending vertically 300 mm below the underside of the Void Form.

2.5 Accessories

Revise: 2.5.3 to read: Form ties: removable snap-off metal type, galvanized, fixed length, minimum working strength of 13 kN when assembled. For water retaining structures, use form ties that leave a minimum cutback of 50 mm. Form ties shall have a metal waterstop. Form tie systems using plastic or steel sleeves to be left in place are not acceptable for water retaining structures. For non-water retaining structures, use minimum 25 mm deep plastic cone snap type or screw type on exposed surfaces. Wire ties are not permitted.

3.8 Form Removal

Revise: 3.8.3 to read: Clause 3.8.2 not withstanding, do not remove forms and falsework until concrete has gained sufficient strength to carry its own weight, plus construction and design loads which are likely to be imposed. Verify strength of concrete by compression tests to satisfaction of the Contract Administrator.

Section 03200

In this Section, replace all occurrences of “CAN/CSA-A23.1-00” with “CAN/CSA A23.1-04” and “CAN/CSA-A23.3-00” with “CSA A23.3-04”.

2.1 Reinforcing Materials

Revise: 2.1.1 to read: Reinforcing steel: 400R and 400W as shown on the Drawings; deformed billet steel bars conforming to CAN/CSA G30.18-M92(R2002); plain finish.

Section 03250

2.2 Materials

Revise: 2.2.1.1 to read: Sealants for all joints shall be non-sag two part polysulphide to CAN/CGSB-19.24-M90, NSF approved for contact with potable water, Thiokol 2235M by PolySpec or accepted alternate.

Revise: 2.2.3.1 to read: PVC waterstops shall conform to CGSB 41-GP-35M, size indicated on Drawings. Acceptable products: Wirestop CR-9380 by Paul Murphy; Greenstreak waterstops #732 and #735, with grommets or hog rings, with characteristics equal to Paul Murphy waterstops.

Revise: 2.2.10 to read: Fasteners: fasteners (all nuts, bolts, washers, screws, etc.) stainless steel for all aluminum items, conforming to AISI 316, sizes and locations as required by item manufacturer.

Section 03300

In this Section, replace all occurrences of “CAN/CSA-A23.1-00” with “CAN/CSA A23.1-04” and replace all occurrences of “CAN/CSA-A23.2-00” with “CAN/CSA-A23.2-04”

1.3 Performance Requirements

Revise: 1.3.1.1 to read: Provide watertight concrete structures for all Type A concrete in accordance with ACI Standard 350.1. No visible leaks will be permitted.

2.2 Concrete Materials

Revise: 2.2.1 to read: Cement: Type GU and Type HS Portland Cement conforming to CAN/CSA A3000-03.

Revise: 2.2.7 to read: Pozzolans: Type C fly ash, conforming to CAN/CSA A3000-03, source of material to be acceptable to the Contract Administrator.

3.3 Hot Weather Concreting

Revise: 3.3.3.1 to read: When the air temperature is at or above 25°C, or when there is the probability of its rising to 25°C during the placing period, facilities shall be provided for the protection of the concrete in place from the effects of hot and/or drying weather conditions. Under severe drying conditions, as defined in Clause 3.3.5.2 of this Specification Section, the formwork, reinforcement, and concreting equipment shall be protected from the direct rays of the sun or cooled by fogging and evaporation.

3.15 Watertightness Testing

Revise: 3.15.6.2 to read: Visible leaks, if any, shall be stopped by grouting or any other methods reviewed and accepted by the Contract Administrator. After all visible leaks have been stopped, the structure shall be refilled with water to the high liquid level over a period of next sixty (60) hours before beginning a test period of seventy two (72) hours. Water level shall be measured and recorded during the test period, and the exposed faces of the structure must show no signs of leakage, visible moisture or wetness. The measurements will be performed by the Contract Administrator, and witnessed by the Contractor.

Revise: 3.15.6.3 to read: If any test shows loss of water from the structure to exceed the amount estimated for evaporation plus 4 millimetres during the test period, the structure shall be emptied, carefully examined and all defects repaired by grouting, cutting out or remaking joints as reviewed and accepted by the Contract Administrator. Such tests shall be repeated at the Contractor’s cost until the leakage is less than the above stipulated amount. Complete Form 103 for each structure upon successful watertightness testing.

Section 03412

In this Section, replace all occurrences of “CSA-A23.4” with “CAN/CSA A23.4-00”.

1.3 Qualifications

Revise: 1.3.1 to read: Manufacturer is to be certified for prestressed precast concrete products under CAN/CSA A251-00.

2.1 General

Revise: 2.1.8 to read: Perform shop welding of connecting and supporting devices in accordance with requirements of CSA W59-03.

2.3 Concrete Materials

Revise: 2.3.1 to read: Cement: normal Portland cement – Type GU, conforming to CAN/CSA A3000-03.

2.4 Reinforcement

Revise: 2.4.1 to read: Reinforcing Steel: 400W MPa yield grade, deformed billet steel bars conforming to CSA G30.18-M92(R2002), galvanized finish.

Revise: 2.4.2 to read: Reinforcing Wire: 480 MPa yield grade, deformed steel wire, conforming to CAN/CSA-G12-92(R2003), galvanized finish.

Revise: 2.4.3 to read: Welded Steel Wire Fabric: plain type, galvanized finish.

2.5 Hardware

Revise: 2.5.1 to read: Connections, Supporting Devices: Type W Grade 300 steel, conforming to CSA G40.21-04, all galvanized to CAN/CSA-G164-M92(R2003). Flange connectors of double-tee panels shall be of Type 304 stainless steel.

Revise: 2.5.4 to read: Welding Materials: conforming to CAN/CSA-W48-01.

2.6 Prime Paint

Revise: 2.6.1 to read: Touch-up Primer: Quick drying alkyd type, conforming to CAN/CGSB 1.210-2003.

2.7 Fabrication

Revise: 2.7.1 to read: Maintain plant records and quality control program during the production of precast structural concrete, as required by CAN/CSA A251-00, Appendix D. Make records available to Contract Administrator upon request.

3.1 Erection

Revise: 3.1.7 to read: Perform welding of connecting and supporting devices in accordance with requirements of CSA W59-03.

Section 05500

1.2 Standards

Replace: 1.2 to read:

Standards

.1 CAN/CGSB 1.181-99 Ready-Mixed Organic Zinc-Rich Coating.
.2 CAN/CSA-S16-01 Consolidation.
.3 CAN/CSA G40.20-04 General Requirements for Rolled or Welded Structural Quality Steel.
.4 CAN/CSA G164-M92(R2003) Hot Dip Galvanizing of Irregularly Shaped Articles.
.5 CSA W47.1-03 Certification of Companies for Fusion Welding of Steel.
.6 CSA W55.3-1965(R2003) Resistance Welding Qualification Code for Fabricators of Structural Members used in Buildings.
.7 CSA W59-03 Welded Steel Construction (Metal Arc Welding).
.8 ASTM A53 Specification for Pipe, Steel, Black and Hot-Dipped, Zinc Coated, Welded and Seamless.
.9 ASTM A153 Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
.10 ASTM A167 Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
.11 ASTM A307 Specification for Carbon Steel Bolts and Studs, 60000 psi.
.12 ASTM A325 Specification for High-Strength Bolts for Structural Steel Joints.
.13 ASTM ASTM A666 Specification for Austenitic Stainless Steel, Sheet, Strip, Plate and Flat Bar for Structural Applications.
.14 ASTM F738-M Specification for Stainless Steel Metric Bolts, Screws and Studs.

.15 ASTM F1136 Specification for Chromium/Zinc Corrosion Protective Coating for Fasteners.
.16 Steel Structures Painting Council (SSPC).
.17 Local Building By-Laws
.18 Canadian Government Specification Board (CGSB)

1.3 Submittals

Revise: 1.3.5.2 to read: Comply with CSA W47.1-03 and W59-03.

2.1 Materials

Revise: 2.1.1 to read: Plate Steel and Loose Lintels: CAN/CSA G 40.21-04, Grade 300W.

Revise: 2.1.2 to read: Structural Steel: CAN/CSA G40.21-04, Grade 350W.

Revise: 2.1.7 to read: Deformed Steel Reinforcing Bars to CAN/CSA G30.18-M92(R2002), Grade 400W.

Delete: 2.1.10

Revise: 2.1.11 to read: Prime paint: CISC/CPMA 2-75 unless otherwise required for finish coating.

Revise: 2.1.12 to read: Zinc rich primer: CAN/CGSB 1.181-99, Sealtight Galvafroid Zinc-Rich Coating by W.R. Meadows Ltd.

Revise: 2.1.13 to read: Galvanizing: CAN/CSA-G164-M92(R2003).

2.2 Fabrication

Delete: 2.2.6

2.3 Surface Preparation

Revise: 2.3.4 to read: After fabrication, clean, scrape and remove rust, mill scale, grease and other extraneous material, and prepare surface in accordance to CAN/CGSB-85.100-93.

2.4 Finishes

Revise: 2.4.1.1 to read: Clean metal in accordance with surface preparation requirement of CMPA/CISC 2-75.

Revise: 2.4.1.2 to read: Apply a full smooth coat of primer to ferrous metal components to be painted accordance with CAN/CSA-S16-1. Apply primer at temperature above 7°C to a dry film thickness of 50 to 75 micrometers.

Revise: 2.4.2.1 to read: After fabrication, hot dip all ferrous metals miscellaneous parts, including bolts, nuts, washers and hangers to ASTM A123.

3.1 Installation

Delete: 3.1.8

3.2 Schedule of Components

Revise: 3.2.8 to read: Anchors for monorail beams and crane runway beams.

Revise 3.2.9 to read: Stainless steel frames for grating support.

Revise: 3.2.10 to read: Stainless steel beams for grating support.

Section 05530

1.1 Work Included

Revise: 1.1 to read: **Work Included**
.1 Supply and installation of grating and covers for access hatch frames.

1.2 Standards

Revise: 1.2.1 to read: Aluminum Work: CSA S157/S157.1-05

Revise: 1.2.2 to read: Welding: CSA W59.2-M1991(R2003)

Revise: 1.2.3 to read: Company certification: CSA W47.2-M1987(R2003)

2.1 Materials

Revise: 2.1.2 to read: Nuts, bolts, and fastening devices connecting aluminum parts to aluminum, concrete, or other materials: stainless steel AISI 316, with appropriate isolation devices.

Delete: 2.1.3

Revise: 2.1.4 to read: Aluminum Grating: acceptable Manufacturer is Fisher & Ludlow Fisholow Galok Aluminum Grating, Type 30-102M, sizes as indicated on the Drawings.

Section 07550

2.1 Materials

Delete: 2.1.1.3

Revise: 2.1.2.1 to read: Polystyrene insulation shall be 100 mm in thickness, shiplapped edges, and minimum compressive strength of 240 kPa, Foamular 400 by Owens Corning or accepted alternate.

Revise: 2.1.3.1 to read: Polyethylene Slip-Sheet shall be 0.25 mm thick.