



# ADDENDUM 5 BID OPPORTUNITY 583-2005

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

### **URGENT**

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

ISSUED: March 24, 2006  
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**THIS ADDENDUM SHALL BE INCORPORATED  
INTO THE BID OPPORTUNITY AND SHALL  
FORM A PART OF THE CONTRACT  
DOCUMENTS**

Template Version: A20050506

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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**

#### **D2.2 Scope of Work**

Revise: D2.2(g)(iv) to read: The location of all mechanical and electrical embeds shall be generally as shown on the Drawings, however, final locations of all mechanical and electrical embeds shall be determined based on pipe placement shop drawings prepared by the Supply Contractors. The Contractor shall identify in the Contract Work Schedule each concrete placement that requires pipe placement shop drawings and the Contract Administrator will provide the necessary pipe placement shop drawings a minimum of five (5) Business Days prior to the start of the formwork for each concrete placement so identified in the Contract Work Schedule.

### **PART E – SPECIFICATIONS**

Add: E26.2.4 Concrete for bridge decks shall be suitable for C-1 exposure in accordance with CAN/CSA A23.1-04 with 5%-8% air entrainment. All bridge components shall use Type HS Portland cement conforming to CAS-A3000-03.

#### **Section 03100:**

##### **3.8 Form Removal**

Add: 3.8.7 All tubular forms shall be removed once the concrete has reached sufficient strength in accordance with the requirements of this Section including the forms used in the perforated walls in the Ozonation Area and Flocculation/DAF Areas.

#### **Section 03300:**

##### **1.3 Performance Requirements**

Revise: 1.3.4.1 to read: Comply with CAN/CSA A23.1-04, clause 6.4, unless noted otherwise.

## 2.2 Concrete Materials

- Revise: 2.2.1 to read: Cement: Type GU and Type HS Portland Cement conforming to CAS-A3000-03. Type HS shall be used for all base slabs and for elevations below 237m for all exterior/perimeter walls.
- Revise: 2.2.2 to read: Fine Aggregate: Conforming to Normal-Density Fine Aggregate, CAN/CSA A23.1-04. If requested by the Contract Administrator, submit evidence at least two (2) weeks before use in concrete mix showing conformance to Normal-Density Fine Aggregate, CAN/CSA A23.1-04, Table 10 and Table 12
- Revise: 2.2.3 to read: Coarse Aggregate: Conforming to Normal-Density Coarse Aggregate, CAN/CSA A23.1-04, Group I, 20-5 millimetres, and 10 to 2.5 millimetres. If requested by the Contract Administrator, submit evidence at least two (2) weeks before use in concrete mix showing conformance to Normal-Density Coarse Aggregate, CAN/CSA A23.1-04, Table 11 and Table 12. Group II may be used for special requirements such as gap grading, pumping, or for blending two (2) or more sizes to produce Group I gradings.

## 2.5 Concrete Mixes

- Revise: 2.5.2 to read: Provide concrete mixed in accordance with requirements of CAN/CSA A23.1-04, clause 4.3.
- Revise: 2.5.6 to read: All admixtures must be compatible within the mix. Concrete with freezing and thawing exposure must satisfy the durability requirements of CAN/CSA A23.1-04, clause 4.1.1. The previous sentence notwithstanding, design concrete Type A and Type B mixes with 4%-7% air entrainment for all concrete (excluding slab areas requiring a dry shake hardener). Concrete with less air entrainment may also be required at specifically predetermined concrete placement times. When so directed, adjust air entrainment in the concrete mix design to the satisfaction of the Contract Administrator.

## 3.3 Hot Weather Concreting

- Revise: 3.3.5.3.1 to read: The monograph, Figure D1, Annex D of CAN/CSA A23.1-04 shall be used to estimate surface moisture evaporation rates.

## 3.6 Finishing Slab Surfaces

- Revise: 3.6.2 to read: Finish all slab surfaces conforming to CAN/CSA A23.1-04, clause 7.5 and as specified below.

## 3.8 Curing and Protection

- Revise: 3.8.1 to read: Cure and protect freshly placed concrete in accordance with clause 7.4 of CAN/CSA A23.1-04.

## 3.10 Finishing Formed Surfaces

- Revise: 3.10.1.2 to read: Finish surfaces exposed to view to Smooth-Form Finish conforming to CAN/CSA A23.1-04, clause 7.7.3.6.
- Revise: 3.10.1.3 to read: Finish non-exposed surfaces to Rough-Formed Finish conforming to CAN/CSA A23.1-04, clause 7.7.3.5.
- Revise: 3.10.2.1 to read: Surfaces to receive vapour barrier, insulation, waterproofing material, or roofing material are to be finished to Smooth-Formed Finish conforming to CAN/CSA A23.1-04, clause 7.7.3.6.

Revise: 3.10.2.2 to read: Other surfaces to be finished to Rough-Formed Finish conforming to CAN/CSA A23.1-04, clause 7.7.3.5.

**Section 05500:**

**2.1 Materials**

Add: 2.1.10 Isolation coating: Bituminous paint, single-component, alkali-resistant coal-tar pitch based. Cleaner for surface preparation shall be compatible with the coating.

**Section 05530:**

**2.1 Materials**

Add: 2.1.3 Bituminous paint: Bituminous paint, single-component, alkali-resistant coal-tar pitch based. Cleaner for surface preparation shall be compatible with the coating.

**Section 15200-03:**

Replace the rows in the data sheet for Flanges and Blind Flanges with the following:

Flanges	40 mm & smaller	Forged carbon steel, ASTM A105/A105M, Grade II, ANSI B16.5 Class 150, socket-weld or threaded, 1.5 mm raised face.
	50 mm to 100	Forged carbon steel, ASTM A105/A105M, ANSI B16.5, weld neck type, bore to match pipe internal diameter, 1.5 mm raised face.  Supply and install flat-faced flanges when mating with flat-faced valves and fittings.
	150 to 550	Grooved End Adapter Flange: Malleable iron ASTM A47 or ductile iron ASTM A536. Victaulic; Grinnell.  AWWA C207, Class D, slip-on.  Supply and install flat-faced flanges when mating with flat-faced valves and fittings.
Blind Flanges	100 mm and smaller	Forged carbon steel, ASTM A105/A105M, Grade II, ANSI B16.5 Class 150, 1.5 mm raised face.
	200 to 550	Steel, AWWA C207, thickness to suit Class D unless otherwise noted.

**Section 15200-08:**

Replace the rows in the data sheet for Flanges with the following:

Flanges	25 mm & 40 mm	Forged Stainless Steel: ASTM A182/A182M, Grade F304L, ANSI B16.5 Class 150, socketweld, raised face.
	50 mm and larger	Cast Carbon Steel: ASTM A216/A216M Grade WCA, drilled, ANSI B16.5 Class 150 Van Stone Type with stainless steel stub ends, ASTM A240 Type 304L "as-welded grade", conforming to MSS-SP43, wall thickness same as pipe.

**Section 15200-09:**

Replace the rows in the data sheet for Flanges with the following:

Flanges	25 mm & 40 mm	Forged: ASTM A182/A182M Grade F316L, Class 150, socket weld, 1.5 mm raised face, ANSI B16.5 standard.
	50 mm to 100 mm	Forged: ASTM A182/A182M Grade F316L, Class 150, welding neck, 1.5 mm raised face, ANSI B16.5 standard.
	150 mm and larger	Non-Submerged Service: Cast carbon steel, ASTM A216/A216M Grade WCA, drilled, ASME B16.5 Class 150, Van Stone Type with stainless steel stub ends, ASTM A240 Type 316L, conforming to MSS SP 43, wall thickness same as pipe.  Submerged Service: Forged steel, ASTM A182/A182M Grade F316L, Class 150, welding neck or slip-on type, 1.5 mm raised face, ANSI B16.5 standard.

**DRAWINGS**

Clarification: With reference to section 2/WT-S041 on Drawing WT-S042: Free draining granular fill shown shall be Type 1 pit run.

Clarification: With reference to detail 4/WB-S0451 and 3/WB-S0451 on Drawing WB-S0451: Sealant shall be applied to both sides of exposed joints.