



ADDENDUM 2 BID OPPORTUNITY 219-2006

WINNIPEG WATER TREATMENT PROGRAM – PROVINCIAL ROAD #207 UPGRADE

URGENT

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

ISSUED: June 15, 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

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: 219-2006-Bid_Submission with 219-2006_Addendum_2-Bid_Submission. Form G2 has been replaced by Form G2(R1).

PART D – SUPPLEMENTAL CONDITIONS

- Revise: D2.2(c) to read: Transport, offload and install precast piles.
- Revise: D13.1(a) to read: Complete aqueduct bridge and re-open PR 207 to through traffic forty-five (45) Calendar Days after July 20, 2006 or Contract Award Date, whichever is later.
- Add: D19.3 Contract Administrator has arranged the following to accommodate the Work:
- (a) Temporary closure of PR 207 beginning 6:00 a.m. July 20, 2006.
 - (b) Temporary outage of transmission line to facilitate installation of piles July 22, 2006 and July 23, 2006.

PART E – SPECIFICATIONS

Add: E2.2 **1. Initial Pavement Acceptance**

The City will accept the as-built bituminous pavement based on adherence to the standards and on quality control test results supplied to the City and meeting the specifications of the Contract.

Where required, the Contractor shall provide quality control test results from an independent certified test lab that has been approved by the City. The independent test lab providing the quality control results shall not be the same lab providing quality assurance test results to the project.

The quality control results will be provided to the City on the following basis (weekly or production rate):

TEST	STANDARD REFERENCE	MINIMUM FREQUENCY	ACCEPTANCE LOT SIZE
BITUMINOUS MIXTURE			
Marshall Mix Design of Bit Mix	ASTM D6926 ASTM 6927 AASHTO T245	One complete mix design for each set of materials	N/A
Sampling of Bituminous Mix	ASTM D979 AASHTO T168	One complete set of tests per lane per 500 m (minimum 3 sets of tests per day)	Per test
Washed sieve analysis	ASTM D5444		
Moisture Content	STM D1461		
Asphalt Content	ASTM D2172 ASTM D6307		
Bulk Density of Compacted Bit Mix	ASTM D2726 ASTM D3203 AASHTO T166		
Maximum theoretical Specific Gravity & Density of Bit Mix	ASTM D2041 AASHTO T209 AASHTO R-30		
Marshall Stability & Flow of Bit Mix	ASTM D6927 AASHTO T245		
Field Density Nuclear densometer Cores		One complete set of tests per lane per 100 m - all lifts. Cores to be taken upon initial asphalt placement and as deemed necessary thereafter	Per km
VMA & Air Voids		One complete set of tests per lane per 500 m (minimum 3 sets of tests per day)	Per set
Bituminous Aggregate & Base Aggregate Gradation LA Abrasion Deleterious Materials Crush Count		One complete set of tests per 1000 tonnes	Per 1000 tonnes
CONVENTIONAL ASPHALT CEMENT			
Field samples	ASTM D140	One complete set of tests for each truck delivered to project (minimum one sample per day)	Effect of "out of spec" asphalt on pavement performance will be assessed on both the initial and final acceptance
Specific Gravity	ASTM D70		
Kinematic Viscosity	ASTM 2170		
Absolute Viscosity	ASTM D2171		
Penetration	ASTM D5		
Flash Point	ASTM D92		
Thin Film Oven Test	ASTM D1754		
Solubility in Trichloroethylene	ASTM D2042		
Ductility	ASTM D113		
Viscosity Ratio			
PG GRADES			
Original Binder		One complete set of tests for each truck delivered to project (minimum one sample per day)	Effect of "out of spec" asphalt on pavement performance will be assessed on both the initial and final acceptance
Flash Point Temp.	T48		
Viscosity	ASTM D4402		
Dynamic Shear	ASTM D4 Proposal P246 (TP5)		
Rolling Thin Film Oven Dynamic Shear	TP5		
Pressure Aging Vessel Dynamic Shear	TP5		
Physical Hardening			
Low Temp, Stiffness	TP1		

TEST	STANDARD REFERENCE	MINIMUM FREQUENCY	ACCEPTANCE LOT SIZE
Low Temp, Direct Tension	TP3		
EMULSIONS			
Residue & Oil Distribution	ASTM D244	One complete set of tests per day (maximum five samples per project)	Effect of "out of spec" asphalt on pavement performance will be assessed on both the initial and final acceptance
Demulsibility	ASTM D244		
Density	ASTM D244		
Sieve Analysis	ASTM D244		
Apparent Viscosity	ASTM D4957 ASTM D2171		
Storage Stability	ASTM 244		
Analysis of High-Float Emulsion Mixtures	Basic Asphalt Emulsion Manual		
Penetration	ASTM D5		

2. Final Acceptance

Surface Defects that are due to the Contractor's operation shall include, but shall not be limited to:

Defect Criteria	Rejection level	Type of Repair
Bituminous Mix Properties	Outside the following Ranges: VMA 14 – 16% In place air voids 3.5 – 5%	Remove and replace
Segregation Minor to severe	As per definition: >10% 100m of one lane pavement	Chip seal or Microsurfacing the entire 100 m one lane width Final lift only
Surface Defects	Areas containing excess or insufficient asphalt	Remove and replace
	Improper matching of longitudinal and transverse joints on final lift of asphalt concrete	Remove and replace joint
	Roller marks on final lift of asphalt concrete	Seal coat
	Cracking or tearing	Remove and replace
	Contamination by diesel, hydraulic fluids, detergent or other harmful product	Remove and replace
	Foreign objects or materials that are detrimental to the asphalt concrete; and Clay balls or oversized materials	Remove and replace
Density	<95% of Marshall Density	Mill (Remove) and Overlay
Smoothness	>20PrI	Mill (Remove) and Overlay

The Contractor will also provide the City with bituminous quality control results when requested.

Where a pavement section is rejected for non-conformance to the specification, the Contractor may be required to repair the section as outlined in Section 2 - Final Acceptance to a condition acceptable to the City.

The Contractor will provide a 1-year performance warranty against workmanship and materials quality of the bituminous pavement against defects and deficiencies. The City will accept the bituminous pavement after the 1-year period, based on an acceptable assessment of the performance. The final acceptance will be based on the absence of any surface defects caused by workmanship or poor material quality of the bituminous pavement.

Revise: E13.1.1(a) to read: Contractor shall install only precast concrete piles supplied by others. Contractor shall arrange for pick up of the precast piles located at the Lafarge plant, 185 Dawson Road, Winnipeg and deliver these piles to the Work.

Revise: E13.1.2 (a) to read: At each pile location, the piles shall be prebored to a maximum of 10 metres from grade. The diameter of the prebore shall be the same as that of the precast pile.