Corporate Finance Department
Materials Management Branch

601-2005
ADDENDUM 2

KENASTON UNDERPASS PROJECT
KENASTON BLVD. / CN RIVERS SUBDIVISION MILE 5.18 RAILWAY BRIDGE CONSTRUCTION

ISSUED: November 15 2005
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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

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: 601-2005 Bid Submission with 601-2005 Addendum 2 – Bid Submission. The following is a summary of changes incorporated in the replacement Bid Submission:

Form B (R1): Revise Items No. 4, 6ii, 12ii, 13.

Form G(2) (R1): Revise expiry date on Page 2 of 2.

PART D – SUPPLEMENTAL CONDITIONS

Revise: D3.1 to read: When used in this Bid Opportunity

"CN" means Canadian National
"GT" means Group Telecom

Revise: D9.1.3 to read: The City of Winnipeg will carry such insurance to cover all parties engaged in the Work in this Contract including The City of Winnipeg, The Province of Manitoba, The Federal Government of Canada and their ministers, officers, employees and agents, The Department of National Defence, Canadian National Railway, and the Contract Administrator as additional insureds. Provision of this insurance by the City of Winnipeg is not intended in any way to relieve the Contractor from his obligations under the terms of the Contract. Specifically, losses relating to deductibles for insurance, as well as losses in excess of limits of coverage and any risk of loss that is not covered under the terms of the insurance provided by the City of Winnipeg remains with the Contractor.

Revise: D12.3 to read: The requirements apply to any person visiting the Site.

Revise: D15.4 to read: The City intends to award this Contract December 12, 2005.

Revise: D18.1 to read: The Contractor shall achieve Substantial Performance by May 22, 2006.

Revise: D19.1 to read: The Contractor shall achieve Total Performance by May 29, 2006.

Revise: D23.3 (a) to read: As part of the Works adjacent to CN's operating tracks, the Contractor is responsible for providing Flagpersons for the protection of the CN plant and equipment, when required. Rail Traffic Protection is required if it is possible, for any reason, any machinery, equipment, materials or the like may topple over, rotate, etc. and encroach within the

area 4m from nearest track. All costs associated with Rail Traffic Protection shall be borne by the Contractor for their scope of work.

Revise: D23.4 (f) to read: Metal measuring tapes, appliances, equipment or tools are not to come into contact with the rail or tracks.

Revise: D23.4 (m) to read: During which times that construction is not in progress in any particular work area, the Contractor shall leave the area free from any debris or obstructions which would disrupt operations of CN.

Revise: D24.9 (vi) to read: Fuels, lubricants, and other potentially hazardous materials as defined in The Dangerous Good Handling and Transportation Act and Regulations shall be stored and handled within the approved storage areas.

PART E – SPECIFICATIONS

Replace: E4.4 with Work Site Construction Fence

Work site construction fence shall be placed as indicated on the Drawings. The fence shall be chain link, snow fence, safety fence or other type as approved by the Contract Administrator. The work site construction fence shall have a lockable gate. The gate shall be chain link fence and shall be the only access point to the Site.

The Contractor shall be responsible for supplying, installing, maintaining and removing the work site construction fence.

Add: E4.5 Measurement and Payment

E4.5.1 Method of Measurement

Site work, as defined in this Specification, is a lump sum pay item. No measurement will be made for this work.

E4.5.2 Basis of Payment

Site work shall be paid for at the Contract Lump Sum Price for “Site Work”, which price shall be payment in full for performing all operations herein described including the cost of furnishing all necessary labour, materials and all other items incidental to the work included in this Specification.

The Contract Administrator may at his discretion recommend partial payment if Site Work is not complete.

Add: E5.3.2(g): Determine the Potential Expansivity of Aggregates due to Alkali-Aggregate Reaction. The Contractor shall perform tests, or provide documentation, in accordance with CSA A32.2-14A-2000 to confirm the proposed aggregate is acceptable for use in this project. A report shall be provided for all tests performed.

Revise: E5.3.6 to read: Concrete Mix Requirements

Mix design shall conform to the following:

Structural Component	Agg. Size (mm)	Minimum Concrete Strength MPa (28 days)	Slump (mm)	Cement Type	%Air Entrainment

Abutments	20	35	80 ± 20	50	5 – 8
Pier Pile Caps	20	35	80 ± 20	10	5 – 8
Caissons	20	40	100 ± 30	50	4 – 6
Trainman's Walkway	20	35	80 ± 20	10	5 – 8

Revise: E5.4.5 (c) to read: Type 3 Finish – Unformed Bearing Surfaces

All unformed bearing surfaces and walking surfaces for the trainman's walkway shall be finished as outline hereinafter.

Broom finish of all unformed bearing surfaces and walking surfaces for the trainman's walkway to a minimum amplitude of 2 mm and a maximum amplitude of 5 mm.

Revise: E5.4.9 Paragraph 1 to read:

The requirements of this section shall be applied to all concreting operations during cold weather; if the temperature falls below 5°C during placing or curing.

Revise: E5.4.9 Paragraph 7 to read:

When the temperature may fall below 5°C, a complete housing of the Work shall be provided together with supplementary heat.

Revise: E7.3.5 Paragraph 1 to read:

Reinforcing steel shall be placed accurately in the positions shown on the plans, and shall be retained in such positions by means of bar accessories and wires so that the bars shall not be moved out of alignment, during or after the deposition of concrete. Bar accessories shall be galvanized or shall be made from non-rusting material. Bar chairs shall be PVC. Galvanized chairs shall not be accepted.

Revise: E7.4.2 Paragraph 1 to read: Temporary Works

A Professional Engineer Registered in the Province of Manitoba shall design erection bracing, transportation bracing, and lateral stability bracing if required for erection of prestressed precast concrete members. The Contractor shall be responsible for the design of such works.

Revise: E7.6 to read:

Installation of Precast Box Girder shall include transportation to Site, placement of the box girders, lateral post-tensioning, pressure grouting of the post-tensioning ducts and lateral connections. Installation procedures sealed by a Professional Engineer Registered in the Province of Manitoba shall be submitted to the Contract Administrator a minimum of seven (7) days prior to transportation of the box girders to the Site.

Revise: E8.7.1 to read: Method of Measurement

Items of work within "Supply and Install Joints" shall be measured as follows:

(a) "Expansion Joints"

Supply and install expansion joints shall be measured per linear metre.

(b) "Fixed Joints"

Supply and install fixed joints shall be measured per linear metre.

Revise: E8.7.2 to read: Basis of Payment

Items of work within "Supply and Install Joints" shall be paid as follows:

(a) Expansion Joints

Supply and install of expansion joints shall include the supply and installation of the expansion seals at SU2, SU3 and SU4. Payment shall be made as per the unit price for "Expansion Joints" and shall include material supply, fabrication, transportation and installation as shown on the Drawings. The submission of

shop drawings detailing the expansion joint and installation procedure shall be included herein this pay item.

The linear metres to be paid shall be the total length of expansion joints supplied and installed in accordance with this Specification and accepted by the Contract Administrator, as computed from Drawing dimensions.

(b) Fixed Joints

The supply and placement of fixed joints shall include the supply and installation of the expansion seals at SU1 and SU5. Payment shall be made as per the unit price for "Fixed Joints" and shall include material supply, fabrication, transportation and installation as shown on the contract drawings. The submission of shop drawings detailing the expansion joint and installation procedure shall be included herein this pay item.

The linear metres to be paid shall be the total length of fixed joints supplied and installed in accordance with this Specification and accepted by the Contract Administrator, as computed from Drawing dimensions.

Revise: E9.4 to read: Fabrication

Shop drawings showing details of bearings, complete with laminated bearing pads and steel bearing plates shall be provided to the Contract Administrator for approval. Submission of shop drawings to the Contract Administrator in no way relieves the Contractor of his responsibility for the fabrication quality and accuracy and proper installation of the bearing pads as indicated herein this Specification and on the Drawings.

Revise: E9.8.2 to read: Basis of Payment

(a) Girder Expansion Bearing Pad

Supply and install girder expansion bearing pads shall include material supply, fabrication, transportation and installation as shown on the Drawings. Payment shall be made at the Contract Unit Price for "Supply and Install Girder Expansion Bearing Pads" in accordance with this Specification and accepted by the Contract Administrator, as computed from the Drawings. The submission of Shop Drawings shall be included herein this pay item.

(b) Girder Fixed Bearing Pad

Supply and install girder fixed bearing pads shall include material supply, fabrication, transportation and installation as shown on the Drawings. Payment shall be made at the Contract Unit Price for "Supply and Install Girder Fixed Bearing Pads" in accordance with this Specification and accepted by the Contract Administrator, as computed from the Drawings. The submission of Shop Drawings shall be included herein this pay item.

Revise: E10.6.1 to read: Method of Measurement

Supply Precast Concrete Piles shall be measured per linear metre. The number of linear metres to be measured shall be the total number of linear metres acceptably supplied and installed in accordance with this Specification and accepted by the Contract Administrator.

Drive Precast Concrete Piles shall be measured per linear metre. The total number of linear metres measured for this pay item shall be the total linear metres acceptably supplied and installed less fifty (50) percent of the number of linear metres of piling cut-off after driving, except where piles are driven to their final elevation without the requirement for a cut-off.

Revise: E11.3.3 Paragraph 2 to read:

All materials shall be approved by the Contract Administrator at least seven (7) days before any construction is undertaken. If, in the opinion of the Contract Administrator, such materials, in whole or in part, do not conform to the specification detailed herein or are found to be defective in manufacture or have become damaged in transit, storage or handling operations, then such material shall be rejected by the Contract Administrator and replaced by the Contractor at his own expense.

Revise: E11.5.2 to read: Cut-off of Steel Casings

The casings shall be set to the elevations shown on the Contract Drawings or as directed by the Contract Administrator.

All costs associated with the casing cut-offs shall be incidental to this item of work as outline in this Specification and on the Drawings.

Revise: E11.5.3 to read: Dewatering

Any water present within the caisson holes shall be pumped out and removed from site.

The caisson hole shall be dewatered and made safe to facilitate inspection by the Contract Administrator.

All costs associated with the dewatering shall be incidental to this item of work as outlined in this Specification and on the Drawings.

Revise: E11.5.4 Paragraph 3 to read: The Contractor shall construct sockets into bedrock by coring. The sockets shall be advanced a minimum of 3500 mm into sound bedrock as determined by the Contract Administrator. The Contract Administrator may require extension of the rock sockets if, in the opinion of the Contract Administrator, it is necessary in order to reach a suitable layer of bedrock.

Revise: E11.6.2.2.2 Increase Caisson Length

(i) 1067 dia. Caisson Length Increase (including casing)

1067 dia. Caisson Length Increase (including casing) shall be paid at the Contract Unit Price for the provisional item “1067 dia. Caisson Length Increase (including casing)”, which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification.

The 1067 dia. Caisson Length Increase (including steel casing) provisional item shall be activated when the maximum specified caisson depth, as indicated on the Drawings, is exceeded as directed, in writing, by the Contract Administrator.

(ii) 914 dia. Caisson Length Increase

914 dia. caisson length increase shall be paid at the Contract Unit Price for the provisional item “914 dia. Caisson Length Increase” which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification.

The 914 dia. caisson length increase provisional item shall be activated when the maximum specified caisson depth, as indicated on the Drawings, is exceeded as directed, in writing, by the Contract Administrator.

(iii) 760 dia. Rock-Socket Length Increase

760 dia. rock-socket length increase shall be paid at the Contract Unit Price for the provisional item “760 dia. Rock-Socket Length Increase”, which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification.

The Length of Rock Socket provisional item shall be activated when the minimum specified socket length, as indicated on the Drawings, is exceeded, as directed, in writing, by the Contract Administrator.

Revise: E12.4 (a) and (b) to read: Construction Methods

For the purpose of this Bid Opportunity three types of drain pipe systems are to be constructed:

(a) Drain pipes located on the superstructure precast prestressed concrete girders shall include the drain pipe, all required fittings, drain pipe fill material, and filter fabric.

The Contractor is to coordinate this work with installation of Deck Waterproofing as described in Specification E13 to meet time restrictions for the installation of ballast by CN.

(b) Drain pipe located in excavations for other works. This includes the perforated drain pipe behind the bridge abutments and wingwalls. This item of work shall include the drain pipe, all required fittings, drain pipe fill materials, and the filter fabric.

Revise: 13.2.3 to read: Waterproofing Membrane System

E13.2.3.1 Waterproofing Membrane Material

The waterproofing membrane material shall be one of the following types listed herein. Waterproofing membrane material selected shall be installed in accordance with the manufacturer's specifications and to the acceptance of the Contract Administrator.

(a) One layer of 2.3 mm thick butyl rubber, secured with an approved adhesive.

(b) 4 mm, heat sealed prefabricated APP modified asphaltic membrane comprising of a non-woven minimum 180 gram polyester mesh enclosed in a bituminous sheathing membrane, in accordance with ASTM D6222-02e1, Type Armourplast Classic 40 manufactured by IKO Industries, or approved equal.

(c) Seamless spray applied system

(i) Two – component elastomer membrane such as bridge deck membrane as manufactured by Bridge Preservation.

(ii) Two – component methyl methacrylate resin membrane as manufactured by Stirling Lloyd.

E13.2.3.2 Membrane Protection

Membrane protection shall consist of asphalt planks of minimum thickness 25 mm laid in two layers. Alternates shall be submitted to the Contract Administrator for review, and must be approved in writing by CN.

Revise: E13.3.3 to read: Installation of Waterproofing Membrane Material

Installation of waterproofing membrane shall be in accordance with the manufacturers recommendations. A written installation procedure shall be submitted to the Contract Administrator seven (7) days prior to installation. The proposed installation procedure will be reviewed and discussed with the manufacturer. Installation procedure approval must be received prior to proceeding with installation. If an alternate waterproofing membrane system is proposed, the same procedure must be followed.

Revise: E13.3.4 to read: Installation of Waterproofing Membrane Protection

Asphaltic panels shall be installed with butt joints. The joint in the second layer shall be staggered to avoid coincidence with the joint in the first layer.

Joints shall be filled with hot-poured elastic type joint sealer.

Edges of membranes and vertical or steeply sloped portions of the joint shall be sealed with cold applied plastic cement.

The Contractor shall arrange for CN to place the ballast over the waterproofing membrane protection within 48 hours of installation of the membrane protection. The Contractor shall supervise ballast placement as to ensure the protection board is not damaged during ballast placement.

Revise: E16.3.4 to read: Pier Mounted Lighting Fixtures

Pier mounted lighting fixture shall be outdoor, surface mounted as indicated on the Drawings, 100W clear HPS, 347V, energy-efficient ballast, photocell control, tamper-resistant screws, vandal-resistant polycarbonate lens, lamp included. The pier mounted lighting fixtures are required to have mogul based sockets.

Holophane Wallpack II No. WL2C100HP00XX

Revise: E16.3.5 to read: Bridge Deck Mounted Lighting Fixture

Bridge deck mounted lighting fixture shall be outdoor, surface mounted as indicated on the Drawings, 100W HPS, horizontal position, 347V, energy-efficient ballast, photocell control, specular metal reflector, clear flat prismatic glass lens with clear flat polycarbonate protective cover in metal trim frame as indicated on the Drawings, lamp included. The bridge deck mounted lighting fixtures are required to have mogul based sockets.

Kirlin No. RS51290-24

Revise: E16.3.7 to read: Steel Frames

Steel frames are fabricated under Specification E17 “Miscellaneous Metal”

Revise: E17.2.7 to read: Hardware

All bolts, nuts, washers, inserts, etc., as required shall be ASTM A325, galvanized, unless noted otherwise.

Revise: E17.6.4 to read: Butt Joints

Minimize the number of butt joint by maximizing the length of plates. Details of all butt joints shall be submitted to the Contract Administrator for his review. The fabricator may submit an alternative butt joint design provided that such design has been pre-qualified by C.W.B.

Revise: E17.6.9 to read: Weld Profiles

Weld profiles shall meet the requirements of CSA Standard W59.

DRAWINGS

Replace: Drawing P-3258-126-R0 with Drawing P-3258-126-R1
Drawing P-3258-132-R0 with Drawing P-3258-132-R1
Drawing P-3258-133-R0 with Drawing P-3258-133-R1
Drawing P-3258-136-R0 with Drawing P-3258-136-R1
Drawing P-3258-138-R0 with Drawing P-3258-138-R1
Drawing P-3258-140-R0 with Drawing P-3258-140-R1