



712-2013 ADDENDUM 2

PLESSIS ROAD TWINNING AND GRADE SEPARATION AT CN REDDITT SUBDIVISION: PLESSIS ROAD RECONSTRUCTION, UNDERPASS STRUCTURES, PUMPING STATION, LAND DRAINAGE SEWER AND MISCELLANEOUS UNDERGROUND AND LANDSCAPING WORKS

ISSUED: December 13, 2013
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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: A20131129

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: 712-2013 Bid Submission with 712-2013 Addendum 2 - Bid Submission. The following is a summary of changes incorporated in the replacement Bid Submission:

Form B (R1): Numerous changes

Replace Form B Excel with Form B (R1) Excel.

PART B – BIDDING PROCEDURES

Revise: B2.1 to read: The Submission Deadline is 12:00 noon Winnipeg time, January 17, 2014.

PART D – SUPPLEMENTAL CONDITIONS

Add: D11.1(c)(vi) The Contractor shall be responsible for deductibles up to \$50,000 maximum of any one loss.

Revise: D19.3.1 to read: Work on 1164 Plessis Road and work on properties north of Kernaghan Avenue, (1225 and 1249 Plessis Road) shall not commence until the Contract Administrator confirms that arrangements have been made for access and/or possession. The City of Winnipeg is anticipating agreements will be in place by January 30, 2014.

Revise: D19.4 to read: The City intends to award this Contract by January 31, 2014.

Revise: D22.1(e) to read: Imperial Oil Limited – Relocation/protection of existing lines north of the valve station. Work has commenced on the relocation of the Imperial Oil line north of the valve station with an anticipated completion date of August 22, 2014;

Revise: D23.1.7(a) to read: Stage C2 – Underpass Roadway Reconstruction

Page numbering on some forms may be changed as a result.

PART E – SPECIFICATIONS

Revise: E3.2.6 to read: Submit electronic copies of Shop Drawings in Adobe PDF format. The Contract Administrator will return one (1) electronic copy to the Contractor.

- Revise: E5.6.2(a) to read: The Contractor's site supervisor(s) are required to carry, at all times, a cellular telephone, with voice mail.
- Revise: E5.7.1(b) to read: During construction 60%, as determined by the Contract Administrator.
- Revise: E6.5 to read: No separate measurement and payment shall be made for "Office Facilities". This Item of Work will be paid for at the Contract Lump Sum Price for the "Mobilization and Demobilization", which price shall be payment in full for supplying all materials and for completing all operations herein described and all other items incidental to the work included in this Specification, and accepted by the Contract Administrator.
- Add: E12.2 No separate measurement and payment shall be made for "Traffic Management".
- Add: E10.2 The Contractor will assume responsibility for the existing concrete barriers on-site upon mobilization. The Contractor will return the concrete barriers to the City of Winnipeg yard in accordance with E83 once Plessis Road is open to traffic.
- Revise: E17.2.2 to read: On a daily basis the designated Contractor's employee will discuss the days' equipment movement over the crossing with the Protecting Foreman.
- Revise: E17.4.2 to read: Protecting Foreman must have qualifications that meet CN requirements and are required to provide proof of such with a copy of record provided to the Contract Administrator prior to the start of any works. Payment for flag protection will be as outlined in E53.
- Revise: E17.5.2 to read: The Contractor shall give CN a minimum of three (3) Business Days notice to locate cables.
- Add: E20.1.5 The Contractor shall commence demolition of the homes on-site slated for demolition within fourteen (14) days of receiving the go ahead from the Contract Administrator.
- Add: E20.3.2 The Contractor shall provide and erect all protective barricades as required for demolition of houses on Plessis in accordance with the requirements of the employment safety regulations under the Workplace Safety and Health Act, Employment Safety Act and Winnipeg By-Law No. 1481/77 pertaining to erection of barricades for protection. The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site.
- Add: E20.3.3 The Contractor shall also provide additional temporary barricades or rope off temporary demolition zones in the street right of way as may be necessary for any dangerous demolition operation in order to keep the public away from the Site. Such temporary barricades shall be removed as soon as possible in order to prevent unnecessary interruption of traffic.
- Add: E20.3.4 The Contractor shall be responsible for maintaining all protective barricades, including gates, walks, lights, etc. in a good operating condition for the entire period of the demolition to the satisfaction of the Contract Administrator.
- Add: E20.4.1 (d) The Contractor shall arrange for and pay for all permits required for the demolition of the three (3) houses on Plessis Road.
- Add: E20.4.2 (b) The Contractor shall arrange and pay for the appropriate utility to disconnect and seal off from the Site, all service lines, pipes or conduits that service the building(s) to be demolished.
- Add: E20.4.2 (c) The Contractor shall disconnect and seal off all sewer and water service connections. If the Contractor is unable, or not licensed to complete this work, the Contractor shall subcontract the work to a subcontractor licensed by the City to do such work on behalf of the Contractor.

- Add: E20.4.2 (d) The Contractor shall provide each utility and the City's Water and Waste Department with adequate prior notification as to when they will require these disconnection and sealing off services.
- Revise: E20.4.4 (b) to read Upon being notified by the City, the Contractor shall promptly seal all potential entry points to the building. The Contractor shall maintain the building(s) in a boarded up state.
- Revise: E20.4.4 (c) to read The Contractor shall demolish the existing buildings, structures, fences, sidewalks, etc. on the Site as directed by the Contract Administrator. The Contractor shall completely demolish all buildings and structures/foundations that are above and below ground and remove all debris and rubbish from the Site. The Contractor shall not store or permit debris or rubbish to accumulate on the Site for more than one Working Day. The Contractor shall completely clear the Site except for any existing trees, which the Contractor shall protect from damage.
- Add: E20.4.4 (d) At the end of each day's Work, leave Work in safe condition so that no part is in danger of toppling or failing.
- Add: E20.4.4 (e) The Contractor shall keep the exposed basement areas of the Site free of water until it has been backfilled to the satisfaction of the Contract Administrator. All equipment, pumps and appurtenances as may be required to keep these areas free of water shall be provided and maintained by the Contractor.
- Add: E20.4.4 (f) The Contractor shall not burn debris or other material on the Site.
- Add: E20.4.4 (g) The Contractor shall fill the area below the existing ground exposed by the demolition with clean earth to a depth of 300 mm above the surface of the existing ground at the Site of the building.
- Add: E20.4.4 (h) The clean earth fill shall be free of debris and rubbish of any kind and be approved by the Contract Administrator. The Contractor shall not place backfill material until the Contract Administrator has inspected the excavation. Should any backfill be placed before the permission of the Contract Administrator has been obtained, the excavation shall be re-opened by the Contractor, at his expense.
- Add: E20.4.4 (i) The Contractor shall control dust from the demolition operations by suitable means to prevent harm to the work crews and the public to the satisfaction of the Contract Administrator. The Contractor shall utilize rubbish chutes to carry down all rubbish from the building under demolition.
- Add: E20.4.4 (j) The Contractor shall ensure that the demolition operation be conducted with the minimum interference with streets, sidewalks, etc. No salvage material shall be placed or stored on streets, sidewalks, etc. within or surrounding the Site.
- Add: E20.4.4 (k) The Contractor shall protect all existing trees located on the Site or within the street right-of-way from damage during the demolition operation. The Contractor shall not remove existing trees without the written consent of the Contract Administrator.
- Add: E20.4.5 (c) If asbestos or other hazardous materials are encountered during the Work of the Contract, the Contractor shall stop all work and notify the Contract Administrator immediately. Removal of hazardous materials shall be dealt with by the City and the Contractor shall await further instructions by the Contract Administrator.
- Add: E20.4.5 (d) The Contractor will be responsible for the tipping fees for all demolition material.
- Add: E20.4.6 Landscaping
- Add: E20.4.6 (a) The lot shall be properly graded to drain away from adjacent properties.
- Add: E20.4.6 (b) Landscaping shall be consistent with adjacent project landscaping works as shown on the Drawings.

- Add: E20.4.6 (c) Landscape maintenance shall be included for the duration of the maintenance period.
- Revise: E22.3.3 to read: All other drain pipes, fittings, and other accessories and appurtenances shall conform to the requirement of Standard Construction Specification CW 2130-R11 and CW3120-R4.
- Revise: E22.8.1 to read: The Subdrain Systems will not be measured. This Item of Work will be paid for at the Contract Lump Sum Price for the "Excavation and Backfilling", which price shall be payment in full for supplying all materials and for completing all operations herein described and all other items incidental to the work included in this Specification, and accepted by the Contract Administrator.
- Revise: E23.7.4 to read: The Contractor shall excavate only material that is necessary for the expeditious construction of the structure or as set out by the Contract Administrator in the field. If the Contract Administrator permits the excavation of existing stock piles, or trenches within the right-of-way, the Contractor shall, on completion of the Work, backfill the trenches to the elevation of the original ground existing at the time of excavation and compact the backfill material, all at his own expense and as directed by the Contract Administrator.
- Add: E23.7.8 During construction the Contractor may be required to dewater excavations. Dewatering of excavations to be completed in accordance with E42. Discharge of the excess groundwater shall be to the existing 525 mm land drainage sewer located on the east side of the Plessis Road right-of-way pending City approvals. No measurement and payment of dewatering of excavation will be made and shall be considered incidental to the Work.
- Revise: E24.15.3 to read: The Contractor shall install rock sockets using core barrels to diameters indicated on drawings. The sockets shall be advanced into sound bedrock to the depth indicated on drawings or as determined by the Contract Administrator. Ensure loose material is removed and the caisson is free of foreign material. Any water or material removed from the caisson holes shall be collected, removed from site and properly disposed of at Contractor's own expense.
- Revise: E25.2.1 to read: Supplying and placing structural concrete for abutments, including pile cap, bearing seat, backwall, and wingwalls;
- Revise: E25.2.3 to read: Supplying and placing structural concrete for shoulder and median traffic barriers, footings and caps (not including roadway shoulder slabs);
- Add: E25.2.9 Supplying and placing concrete for Rock-Socketed Caissons.
- Revise: E25.3.2(b) to read: The Supplier shall submit directly, in confidence, to the City of Winnipeg, the concrete mix designs for each of the concrete types specified herein. The purpose of this confidential submission will be for record keeping purposes and may be used as information related to supplementary testing and investigation of suspected defective concrete. The City of Winnipeg will advise the Supplier if the information needs to be released to third parties. The concrete mix design shall contain a description of the constituents and proportions, and at the minimum the following:
- i) Cementitious content in kilograms per cubic metre or equivalent units, and type of cementitious materials;
 - ii) Designated size, or sizes, of aggregates, and the gradation;
 - iii) Aggregate source location(s);
 - iv) Weights of aggregates in kilograms per cubic metre or equivalent units. Mass of aggregates is saturated surface dry basis;
 - v) Maximum allowable water content in kilograms per cubic metre or equivalent units and the water/cementitious ratio;
 - vi) The limits for slump;
 - vii) The limits for air content;
 - viii) Quantity of other admixtures;

- ix) Certification that all concrete constituents are compatible; and
- x) Certification that the concrete mix(es) will meet the specified concrete performance criteria requirements.

Revise: E25.3.6 (b) to read: Mock-ups to be constructed at the construction site at a location as directed by the Contract Administrator. Panels shall be cast in the same conditions as the proposed construction, including upright with batter.

Replace Table E25.1

TABLE E25.1 REQUIREMENTS FOR HARDENED CONCRETE							
Type of Concrete	Location	Nominal Compressive Strength [MPa]	Class of Exposure	Air Content Category	Max Aggregate Size	Special Requirements	Post Residual Cracking Index
Type 1	Caissons	35 @ 28 Days	S-1	1	20 mm	-	-
Type 2	Abutments	35 @ 28 Days	C-1	1	20 mm	Min 25% Fly Ash	-
Type 3	Pier Cap	35 @ 28 Days	C-1	1	20 mm	-	-
Type 4	Sidewalk / ATP Slabs; Retaining Wall Caps/ Cladding; Shoulder and Median Traffic Barriers, Footings and Caps	35 @ 28 Days	C-1	1	20 mm	Corrosion Inhibitor and Synthetic Fibres	0.15
Type 5	Structural Concrete for Pumping Station	35 @ 28 Days	S1	1	20 mm	Meet C1 Test Requirements	
Type 6	Masonry Fill	20 @ 28 Days	N	-	10mm	Max Slump 150mm	-

Add: E25.8.3 (e) Blast furnace slag coarse aggregate will not be permitted.

Revise: E25.10.3 to read: Should the Contractor choose to include fly ash in the concrete mix design, the fly ash shall be Class C1 or F and the substitution shall not exceed 30% by mass of cement. A minimum of 25% percent fly ash is required for the abutment concrete.

Delete: E25.16.2

Delete: E25.18.2

Revise: E25.28 to read: Low and High Density Styrofoam

Add: E25.28.2: High density Styrofoam shall be expanded polystyrene with a minimum compressive stress of 207 kPa at 10% percent deformation.

Add: E25.37.7 The Contract Administrator will undertake a cover meter survey of the exposed face of the traffic barriers. Concrete areas not within the specified tolerances will be rejected.

Revise: E25.47.3 (f) to read: A record of the actual proportions used for each concrete placement shall be kept by the Supplier and a copy of this record shall be submitted to the Contract Administrator upon request.

Add: E25.61.4 Supplying and placing of structural concrete for the Rock-Socketed Caissons will be measured and paid for in accordance with E24 and E43.

Revise E26.1.1 (a) to read: Stainless steel reinforcing bars for the sidewalk/ATP slabs, retaining wall caps, retaining wall cladding, traffic barriers, shoulder traffic barrier footings and caps;

- Revise E26.1.1 (b) to read: Hot dipped galvanized reinforcing steel for pier cap and pier caissons and;
- Revise E26.1.1 (c) to read: Plain reinforcing for the abutments, median traffic barrier footing, abutment and Pumping Station caissons, Pumping Station substructure and curbs.
- Add: E26.8.3 (f) The reinforcing shall be a minimum of 10°C prior to bending and galvanizing operations, regardless of ambient temperatures in the plant. Where ambient temperatures fall below 10°C, bending and galvanizing in a facility that is not enclosed and temperature controlled will not be permitted.
- Add: E26.8.3 (g) The Contractor is responsible to ensure that accelerated strain-embrittlement does not occur during the manufacturing, bending practices and galvanizing of the reinforcing steel. The Contractor shall submit to the Contract Administrator the following:
- i) Reinforcing Supplier standards of practice for working of reinforcing steel. This shall include bending practices as per ASTM A767-latest edition and temperature requirements during fabrication (bending) of reinforcing. This is to be submitted with the Certificated of Compliance from the Manufacturer as specified in E26.5.1(b);
 - ii) Contractor is to carry out a Quality Control Testing Program following the requirements as per ASTM A143/A143M-latest edition. This will include but is not limited to random bent bars to be tested after galvanizing, photos of items before and after testing, and a report submitted to the Contract Administrator for each trailer load received on-site. Testing criteria shall be submitted for review and approval to the Contract Administrator at least ten (10) Business days prior to manufacturing of reinforcing.
- Revise: E26.10.3 to read: The measurement excludes the mass of bar accessories, which are incidental to the Works.
- Add: E26.10.4 Supplying and Placing Reinforcing Steel for the Rock-Socketed Caissons will be measured and paid for in accordance with E24 and E43.
- Revise: E27.8.1 (a) to read: Custom Form Liner to generally match design motif on Drawings. Details are to be included on the Shop Drawings.
- Revise: E27.8.1 (b) to read: Design of form liners to be approved by Contract Administrator prior to manufacturing of form liners.
- Revise: E27.11 to read: Form Liners and Accessories used for creating the pattern and texture in the cast-in-place concrete retaining walls will be incidental to "Supply and Place Structural Concrete, Retaining Wall Cladding and Mock-Up Panels".
- Revise: E28.1.1 (a) to read: Design, supply, fabrication, delivery and installation of self-lubricating bronze spherical bearing assemblies complete with anchor bolt assemblies, top plates, sole plates, bronze plates, bed plates, base plates, and incidental components and fasteners.
- Revise: E28.2.1 (a) to read: E30 Supply and Installation of Structural Steel for Bridge
- Revise: E28.4.3 to read: Bronze Plate
- (a) Bronze Bearing metal shall meet the requirements of A.S.T.M Specification B22-13, Copper Alloy UNS No. C86300 as specified in the Drawings.
- Revise: E28.8 to read: Design, supply, fabrication, delivery and installation of spherical bearings
- Revise: E28.8.1 to read: The design, supply, fabrication, and delivery of spherical bearings will be measured on a unit basis and paid for at the Contract Unit Price per each for the "Items of Work" listed here below, which price shall be payment in full for supplying all materials and for completing all operations herein described and all other items incidental to the Work included in this Specification, accepted and measured by the Contract Administrator.

(a) Items of Work:

- i. Design, supply, fabrication, and delivery of spherical bearings
 - ◆ Fixed Bearings
 - ◆ Expansion Bearings

Revise: E30.2.1 (g) to read: ASTM A500/A500M-13 – Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes

Revise: E30.2.1 (h) to read: ASTM A325-10, Type 3 – Structural Bolts, Steel, Heat Treated, 120-/105 ksi Minimum Tensile Strength

Delete: E30.2.1 (n)

Add: E30.2.1 (u) CN Guidelines for Design of Railway Bridges (2006)

Add: E30.2.1 (v) CN Standard Details – S1, S2, S3, S4, S5, S6, S7, S8, S10

Add: E30.2.1 (w) CN Drawings TD-05-L1 – Location for Bridge Name

Revise: E30.2.1 (o) to read: ASTM B833-13 – Zinc and Zinc Alloy Wire for Thermal Spraying (Metallizing) for the Corrosion Protection of Steel

Revise: E30.5.1 to read: Steel shall be in accordance with CSA G40.21-13 or ASTM A709, A588 and A572.

Revise: E30.5.2 to read: Grade and Types, Fracture Critical Members:

- (a) CSA-G40.21-13 Grade 350AT Category 5, A709 Grade 50WF3:
 - i. plate girder webs and flanges
 - ii. end bearing stiffener plates
 - iii. diaphragms, floor beams and jacking beams (made from steel plate)
- (b) CSA-G40.21-13 Grade 350AT Category 3, A709 Grade 50WF3:
 - i. diaphragms and floor beams (from rolled sections)
 - ii. diaphragms and floor beam connection angles

Revise: E30.5.3 to read: Grade and Types, Non-Fracture Critical Members:

- (a) CSA-G40.21-13 Grade 350A, (A588 and A709 with minimum actual yield strength of 50 ksi)
 - i. bracing
 - ii. struts
 - iii. intermediate and horizontal stiffeners
 - iv. knee bracing
 - v. deck and ballast plates
 - vi. walkway brackets
 - vii. columns/posts
 - viii. jacking beams when used solely for jacking and not part of a floor system
 - ix. gusset plates
 - x. all other miscellaneous components
- (b) CSA-G40.21-13 Grade 300W (A572 Grade 42)
 - i. secondary members to be galvanized

Delete: E30.10.1

Revise: E30.11.1 to read: All steel except anchor bolts, where called for on the drawing as being hot-dip galvanized shall be executed after fabrication of the element and shall be in accordance with CSA Standard G164 "Hot Dip Galvanizing of Irregularly Shaped Objects" (ASTM A123) and shall have a minimum mass of zinc coating of 610 g/m^2 (2 oz/ft²).

- Revise: E30.14.1 to read: Supply and install, where shown on the Drawings, an 8" x 12" (203mm x 305mm) span identification plate. The plate shall be installed using two 1/2" (12mm) diameter stainless steel cap screws in accordance with the Drawings.
- Revise: E30.14.2 to read: The plate may be fabricated by MP Reproductions in Montreal, PQ Ph. 514-861-8541.
- Revise: E30.19.1 to read: The Contract Administrator will arrange for, and the Owner will pay for an independent inspection consultant to carry out shop inspection of the fabrication including non-destructive testing of the welds such as radiographic, ultrasonic or magnetic particle tests and any other tests deemed necessary to complete the inspection. This will be in addition to the Fabricator's Quality Control Program.
- Revise: E30.20.1 to read: Precautionary measures shall be taken to avoid damage to structural steel during handling, transit, stockpiling and erecting. The use of chains and metal cable slings for lifting is forbidden. If use of metal chains or slings cannot be avoided, adequate protections as authorized by the Contract Administrator shall be applied to the part to be lifted so as to prevent any contact between the sling and the span. Parts may not be dropped, tossed or dragged during vehicle loading and unloading. Pinholes, or other field connection holes shall not be used for lifting purposes. Special attention is directed to the shipping and storing of steel beams. The only acceptable method of shipment or storage of beams, if not uniformly supported for their entire length, is a method which allows the beams to rest on the bottom faces of the bottom flanges, at or near actual points of support in the erected position. All parts of bearing assemblies shall be separated and secured effectively before shipping in order to avoid damage in transit. Damaged parts shall not be installed in the structure and may be rejected at the discretion of the Contract Administrator.
- Revise: E30.20.4 to read: The Contractor shall submit the temporary traffic control plan in accordance to all jurisdictions and regulation procedures, as part of the handling, delivery and storage of materials. The proper advance signing must also be in place.
- Revise: E30.23.5 to read: Four (4) weeks prior to shipping, the fabricator shall provide the Contract Administrator for review and approval four (4) copies of loading and blocking scheme drawings, which shall be stamped and signed by a Professional Engineer registered in the Province of Manitoba.
- Revise: E30.25.1 (a) to read: Loading and erection of the girders shall be under the direction of a Professional Engineer registered in the Province of Manitoba. The Engineer shall be experienced in bridge girder erection and be present for all stages of girder erection including but not limited to: loading, hauling, erection and temporary bracing (during transportation and erection).
- Revise: E30.25.9 Table1: Nut Rotation* from Snug-Tight Condition to read:

Disposition of Outer Faces of Bolted Parts	Bolt Length²	Turn
Both faces normal to bolt axis or one face normal to axis and other face sloped 1:20 (bevel washer not used) ¹	Up To and Including 4 Diameters	1/3
	Over 4 Diameters and Not Exceeding 8 Diameters or 200 mm	1/2
	Exceeding 8 Diameters or 200 mm	2/3
Both faces sloped 1:20 from normal to bolt axis (bevel washers not used) ¹	For all lengths of bolts	3/4

*Nut rotation is rotation relative to bolt regardless of the element (nut or bolt) being turned.

Tolerance on rotation is 300 over or under for coarse thread heavy hex structural bolts of all sizes and lengths and heavy hex semi-finished nuts.

- (1) Bevel washers are necessary when A490 bolts are used.
- (2) Bolt length is measured from underside of head to extreme end of point.

Revise: E30.25.9 Table 2: Minimum Bolt Tension to read:

Nominal Bolt Diameter		Minimum Bolt Tension (kN)	
Inches	mm	A325	A490
½		53	67
5/8	M 16	85	107
¾	M 20	125	156
7/8	M 22	174	218
1	M 24	227	285
1 1/8	M 27	249	356
1 ¼	M 30	316	454
1 3/8	M 36	378	538
1 ½		458	658

Delete: E30.26.1 (c)

Revise: E30.26.2 (g) to read: The Contract Administrator will arrange for, and the Owner will pay for, the radiographic, ultrasonic or magnetic particle tests, except that the cost of inspection of any welding repairs entailed in the fabrication will be at the expense of the Contractor.

Revise: E30.28.2 to read: The Contract Administrator will arrange for, and the Owner will pay for, the radiographic, ultrasonic or magnetic particle tests, except that the cost of inspection of any welding repairs entailed in the fabrication will be at the expense of the Contractor.

Revise: E31.4.2 (a) to read: "Welcome to Transcona" signage, A350 steel backing installed behind the negative cut letters: Color shall be flat black as approved by the Contract Administrator.

Revise: E31.13.5 (a) iii) to read: Supply, Fabrication and Delivery of Structural Steel for Bridge

Revise: E32.1.1 to read: This Specification covers all operations relating to the supply and installation of the aluminum pedestrian handrails, including the bicycle handrail, specified herein and as shown on the Drawings.

Revise: E33.6.4 to read: Excavation for wale construction and backfill behind sheet piles shall be incidental to the Work in E23.

Revise: E35.3.1 to read: The Contractor shall submit the following in accordance with E3 Submittals and Shop Drawings.

Revise: E53.19.14 to read: "Removal and Stockpile of Crushed Sub-Base Material" will be paid for at the contract unit price per cubic metre of sub-base material stockpiled at a designated location on-site. This work shall include collection, loading, transportation and stockpiling of sub-base material as directed by the Contract Administrator.

Revise: E53.19.15 to read: "Removal and Stockpile Sub-Ballast Material" will be paid for at the contract unit price per cubic metre of sub-ballast material stockpiled at a designated stockpile location on-site. This work shall include collection, loading, transportation and stockpiling of sub-ballast material as directed by the Contract Administrator.

- Revise: E57.9.1 to read: Install culverts in accordance with the Drawings, CW 3610 and this Specification and CN plan number R7A-80_2 dated September 29, 2003.
- Add: E57.19 Measurement and payment for relocation of existing culverts shall be measured horizontally, at grade above the centre line of the pipe culverts, as computed by measurements made by the Contract Administrator.
- Revise: E66.1 to read: Further to CW 2110 – R11, this Specification covers all operations relating to the renewal of the 150 mm diameter privately owned forcemain in the Plessis Road right-of-way south of Dugald Road.
- Revise: E66.4 to read: Hydrostatic leakage testing shall be in accordance with CW 2125 – R4.
- Revise: E66.5 to read: Abandon existing forcemain by filling with cement-stabilized flowable fill. The Contractor to ensure entire pipe is filled with cement-stabilized flowable fill by means of filling a coffer dam to a level above the top of the pipe at the downstream end or by capping the ends of the pipe, leaving an air vent at the downstream end and filling the pipe until the flowable fill exits the air vent.
- Delete: E66.5.1
- Add: E66.10 Abandoning Existing Forcemain With Cement-Stabilized Flowable Fill
- Add: E66.10.1 Abandoning existing forcemain with cement-stabilized flowable fill will be measured for payment on a volume basis and paid for at the Contract Unit Price for “Abandoning Existing Sewers With Cement Stabilized Flowable Fill”. Volume to be paid for will be the total number of cubic metres of forcemain abandoned in accordance with this specification, accepted and measured by the Contract Administrator.
- Revise: E67 to read: Removal and Abandonment of Existing Asbestos Cement Watermains and Appurtenances
- Revise: E67.1.1 to read: This Specification covers all operations relating to the removal and abandonment of the existing 200 mm and 450 mm asbestos cement watermain.
- Revise: E67.2 to read: The Contractor shall remove and dispose of all existing asbestos cement watermains within the footprint of the underpass and new dry pond excavations. The Contractor shall follow the “job specific safe work plan” described in D18.
- Revise: E67.3 to read: Abandon existing asbestos cement watermain by filling with cement-stabilized flowable fill. The Contractor to ensure entire pipe is filled with cement-stabilized flowable fill by means of filling a coffer dam to a level above the top of the pipe at the downstream end or by capping the ends of the pipe, leaving an air vent at the downstream end and filling the pipe until the flowable fill exits the air vent.
- Add: E67.5 Abandoning existing asbestos cement watermain with cement-stabilized flowable fill will be measured for payment on a volume basis and paid for at the Contract Unit Price for “Abandoning Existing Watermain With Cement Stabilized Flowable Fill”. Volume to be paid for will be the total number of cubic metres of watermain abandoned in accordance with this specification, accepted and measured by the Contract Administrator.
- Revise: E79.1.1 to read: This Specification covers all operations relating to the crack sealing interface of curb and gutter/asphalt pavement.

Page numbering on some forms may be changed as a result.

DIVISION 23

- Delete: 2.1.2 in Section 23 73 11

Add: 2.2.1.2.1 in Section 23 73 11: Provide "Allegis" fiberglass reinforced nylon quarter-turn lockable type door handles with UL bulb gaskets.

Replace: 2.2.5 in Section 23 73 11: Finish unit exterior with rust resistant enamel.

Add: 2.11.2.15 in Section 23 73 11: Provide Mixing Temperature Selector.

Add: 2.11.2.16 in Section 23 73 11: Provide Tamco aluminum louvers integrated into the unit casing on three sides and sized for maximum discharge velocity of 1.27 m/s.

PROCESS GAS AND LIQUID HANDLING, PURIFICATION, AND STORAGE EQUIPMENT

Replace: 2.5.1 in Section 43 21 39.02: Motors and the associated shafts, bearings, and seals shall comply with the provisions of Section 43 21 43.01

Add: 2.3.17 in Section 43 21 43.01: Pump motors shall be explosion proof and rated for a Class 1 Zone 1 environment.

DRAWINGS

Replace: 712-2013 _Drawing_U238-2014-1902-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-1902-R1

712-2013 _Drawing_U238-2014-1903-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-1903-R1

712-2013 _Drawing_U238-2014-2001-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2001-R1

712-2013 _Drawing_U238-2014-2003-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2003-R1

712-2013 _Drawing_U238-2014-2016-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2016-R1

712-2013 _Drawing_U238-2014-2020-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2020-R1

712-2013 _Drawing_U238-2014-2023-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2023-R1

712-2013 _Drawing_U238-2014-2031-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2031-R1

712-2013 _Drawing_U238-2014-2032-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2032-R1

712-2013 _Drawing_U238-2014-2034-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2034-R1

712-2013 _Drawing_U238-2014-2126-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2126-R1

712-2013 _Drawing_U238-2014-2130-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2130-R1

712-2013 _Drawing_U238-2014-2132-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2132-R1

712-2013 _Drawing_U238-2014-2135-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2135-R1

712-2013 _Drawing_U238-2014-2136-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2136-R1

712-2013 _Drawing_U238-2014-2144-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2144-R1

712-2013 _Drawing_U238-2014-2201-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2201-R1

712-2013 _Drawing_U238-2014-2202-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2202-R1

712-2013 _Drawing_U238-2014-2203-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2203-R1

712-2013 _Drawing_U238-2014-2204-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2204-R1

712-2013 _Drawing_U238-2014-2205-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2205-R1

712-2013 _Drawing_U238-2014-2206-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2206-R1
712-2013 _Drawing_U238-2014-2241-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2241-R1
712-2013 _Drawing_U238-2014-2242-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2242-R1
712-2013 _Drawing_U238-2014-2243-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2243-R1
712-2013 _Drawing_U238-2014-2313-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2313-R1
712-2013 _Drawing_U238-2014-2314-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2314-R1
712-2013 _Drawing_U238-2014-2315-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2315-R1
712-2013 _Drawing_U238-2014-2353-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2353-R1
712-2013 _Drawing_U238-2014-2354-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2354-R1
712-2013 _Drawing_U238-2014-2355-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2355-R1
712-2013 _Drawing_U238-2014-2358-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2358-R1
712-2013 _Drawing_U238-2014-2359-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2359-R1
712-2013 _Drawing_U238-2014-2374-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2374-R1
712-2013 _Drawing_U238-2014-2375-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2375-R1
712-2013 _Drawing_U238-2014-2403-R0 with 712-2013 _Addendum_2 -Drawing_U238-2014-2403-R1

Add: 712-2013 _ Addendum_2 -Drawing_ U238-2014-2271-R0
712-2013 _ Addendum_2 -Drawing_U238-2014-2272-R0
712-2013 _ Addendum_2 -Drawing_U238-2014-2273-R0
712-2013 _ Addendum_2 -Drawing_U238-2014-2274-R0
712-2013 _ Addendum_2 -Drawing_U238-2014-2275-R0
712-2013 _ Addendum_2 -Drawing_R7A-80.2
712-2013 _ Addendum_2 -Drawing_U238-2014-2360-R0