



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 105-2017

ESPLANADE RIEL PEDESTRIAN BRIDGE 2017 MAINTENANCE WORKS

TABLE OF CONTENTS

PART A - BID SUBMISSION

Form A: Bid	1
Form B: Prices	3

PART B - BIDDING PROCEDURES

B1. Contract Title	1
B2. Submission Deadline	1
B3. Site Investigation	1
B4. Enquiries	1
B5. Confidentiality	1
B6. Addenda	2
B7. Substitutes	2
B8. Bid Components	3
B9. Bid	4
B10. Prices	4
B11. Disclosure	5
B12. Qualification	5
B13. Opening of Bids and Release of Information	6
B14. Irrevocable Bid	6
B15. Withdrawal of Bids	6
B16. Evaluation of Bids	7
B17. Award of Contract	7

PART C - GENERAL CONDITIONS

C0. General Conditions	1
------------------------	---

PART D - SUPPLEMENTAL CONDITIONS

General

D1. General Conditions	1
D2. Scope of Work	1
D3. Contract Administrator	1
D4. Contractor's Supervisor	1
D5. Ownership of Information, Confidentiality and Non Disclosure	2
D6. Notices	2

Submissions

D7. Authority to Carry on Business	2
D8. Safe Work Plan	3
D9. Insurance	3
D10. Performance Security	3
D11. Subcontractor List	4
D12. Detailed Work Schedule	4

Schedule of Work

D13. Commencement	4
D14. Substantial Performance	4
D15. Total Performance	5
D16. Liquidated Damages	5

Control of Work

D17. Job Meetings	5
D18. Prime Contractor – The Workplace Safety and Health Act (Manitoba)	6
D19. The Workplace Safety and Health Act (Manitoba) – Qualifications	6

Measurement and Payment

D20. Payment	6
--------------	---

Warranty

D21. Warranty	6
Form H1: Performance Bond	7
Form H2: Irrevocable Standby Letter of Credit	9
Form J: Subcontractor List	11

PART E - SPECIFICATIONS

General

E1. Applicable Specifications and Drawings	1
E2. Mobilization and Demobilization	1
E3. Pedestrian Traffic Control	2
E4. Protection of Existing Utilities	3
E5. Miscellaneous Concrete Repairs	3
E6. Cracks Evaluation and Repairs	5
E7. Painting of Concrete Surfaces	7
E8. Sidewalk Slabs Replacements and Miscellaneous Repairs	9

APPENDIX A – SCOPE OF WORK

PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 ESPLANADE RIEL PEDESTRIAN BRIDGE 2017 MAINTENANCE WORKS

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, February 28, 2017.

B2.2 Bids determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.

B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. SITE INVESTIGATION

B3.1 Further to C3.1, the Bidder may view the Site without making an appointment.

B3.2 The Bidder is advised that the Scope of Work as shown in Appendix A is to the best knowledge of the Contract Administrator. The Bidder should visit the Site to confirm the extent of the Work under the Contract and price it accordingly.

B4. ENQUIRIES

B4.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.

B4.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.

B4.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Bidders by issuing an addendum.

B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.

B4.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

B5. CONFIDENTIALITY

B5.1 Information provided to a Bidder by the City or acquired by a Bidder by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:

- (a) was known to the Bidder before receipt hereof; or
- (b) becomes publicly known other than through the Bidder; or
- (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.

B5.2 The Bidder shall not make any statement of fact or opinion regarding any aspect of the Bid Opportunity to the media or any member of the public without the prior written authorization of the Contract Administrator.

B6. ADDENDA

- B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.
- B6.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B6.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>
- B6.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.2.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B7. SUBSTITUTES

- B7.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B7.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B7.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.

- B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B16.
- B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B8. BID COMPONENTS

- B8.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
- B8.2 Further to B8.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B7.
- B8.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B8.4 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B8.5 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:
- The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg, MB R3B 1J1
- B8.5.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B8.6 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.
- B8.7 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B16.1(a).
- B8.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to 204 949-1178.
- B8.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.

B8.8.2 Bids submitted by internet electronic mail (e-mail) will not be accepted.

B9. BID

B9.1 The Bidder shall complete Form A: Bid, making all required entries.

B9.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
- (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
- (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
- (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.

B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.

B9.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.

B9.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;
- (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers;
- (d) if the Bidder is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

B9.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.

B9.4.2 All signatures shall be original.

B9.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B10. PRICES

B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

B10.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.

B10.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B11. DISCLOSURE

B11.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.

B11.2 The Persons are:

- (a) N/A.

B12. QUALIFICATION

B12.1 The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
- (b) be financially capable of carrying out the terms of the Contract; and
- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

B12.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/debar.stm>

B12.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) have successfully carried out work similar in nature, scope and value to the Work; and
- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
- (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);

B12.4 Further to B12.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractors has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (b) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (c) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).

B12.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B12.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B13. OPENING OF BIDS AND RELEASE OF INFORMATION

B13.1 Bids will not be opened publicly.

B13.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>

B13.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B13.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B14. IRREVOCABLE BID

B14.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.

B14.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work for the time period specified in Paragraph 9 of Form A: Bid.

B15. WITHDRAWAL OF BIDS

B15.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B15.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.

B15.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.

B15.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:

- (a) retain the Bid until after the Submission Deadline has elapsed;
- (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
- (c) if the notice has been given by any one of the persons specified in B15.1.3(b), declare the Bid withdrawn.

B15.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B14.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B16. EVALUATION OF BIDS

- B16.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity or acceptable deviation there from (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B12 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B7.
- B16.2 Further to B16.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B16.3 Further to B16.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.
- B16.4 Further to B16.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B16.4.1 Further to B16.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

B17. AWARD OF CONTRACT

- B17.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B17.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B17.2.1 Without limiting the generality of B17.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
 - (d) only one Bid is received; or
 - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B17.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B16.
- B17.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.
- B17.4 Notwithstanding C4, the City may issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B17.5 The Contract, as defined in C1.1, in its entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that it is not necessarily attached to or accompany said Purchase Order.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Construction*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

D1.1 In addition to the *General Conditions for Construction*, these Supplemental Conditions are applicable to the Work of the Contract.

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of a maintenance work on the Esplanade Riel Pedestrian Bridge and the East and West stairs, ramps and landing areas.

D2.2 The major components of the Work are as follows:

(a) Bridge Works

- (i) Providing pedestrian traffic control for all maintenance works.
- (ii) Evaluation of all existing cracks on the bridge concrete surfaces (including deck, curbs, cable anchor blocks, sloping surfaces, and ring beams inside and behind the restaurant); the bridge underside (deck soffit) is not included.
- (iii) Carry out appropriate crack remediation as per Specifications.
- (iv) Carry out concrete repairs of all delaminated areas, as identified by the City.
- (v) Removal of existing paint and placement of new paint on all superstructure concrete surfaces (including curbs, cable anchor blocks, sloping surfaces and ring beam behind the restaurant). The bridge deck top and underside (deck soffit) surfaces are not included.

(b) Landscaping Works

- (i) Remediation of all deficiencies as outlined on the Drawings along both the East and West stairs, ramps and landing areas.
- (ii) Carry out partial depth repair on all delaminated areas.
- (iii) Replacement of severely cracked/delaminated sidewalk slabs as identified by the City.
- (iv) Grinding of all unlevelled sidewalk slabs where needed and as identified by the City.
- (v) Paving stones re-leveling as identified by the City.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is:

Mohamed Mady, Ph.D., P.Eng.
Bridge Maintenance Engineer

Telephone No. 204 986-4046

Email Address Mmady@Winnipeg.ca

D3.2 At the pre-construction meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D3.3 Bids Submissions must be submitted to the address in B8.

D4. CONTRACTOR'S SUPERVISOR

D4.1 At the pre-construction meeting, the Contractor shall identify his/her designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D5. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

- D5.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.
- D5.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.
- D5.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator;
- (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
 - (b) the Contract, all deliverables produced or developed; and
 - (c) any statement of fact or opinion regarding any aspect of the Contract.
- D5.4 A Contractor who violates any provision of D5 may be determined to be in breach of Contract.

D6. NOTICES

- D6.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.
- D6.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D6.3, D6.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D3.1.
- D6.3 Notwithstanding C21., all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:
- The City of Winnipeg
Chief Financial Officer
Facsimile No.: 204 949-1174
- D6.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:
- The City of Winnipeg
Legal Services Department
Attn: Director of Legal Services
Facsimile No.: 204 947-9155
- D6.5 Bids Submissions must not be submitted to the above facsimile numbers. Bids must be submitted in accordance with B8.**

SUBMISSIONS

D7. AUTHORITY TO CARRY ON BUSINESS

- D7.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on

business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D8. SAFE WORK PLAN

D8.1 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 but in no event later than the date specified in C4.1 for the return of the executed Contract.

D8.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

D9. INSURANCE

D9.1 The Contractor shall provide and maintain the following insurance coverage:

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
- (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
- (c) all risks installation floater, carrying adequate limits to cover all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.

D9.2 Deductibles shall be borne by the Contractor.

D9.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than seven (7) Calendar Days from notification of the award of Contract by Purchase Order.

D9.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D10. PERFORMANCE SECURITY

D10.1 If the Contract Price exceeds twenty-five thousand dollars (\$25,000.00), the Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
- (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or
- (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.

D10.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.

D10.2 The Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of Purchase Order and prior to the commencement of any Work on the Site.

D11. SUBCONTRACTOR LIST

D11.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than seven (7) Calendar Days from notification of the award of Contract.

D12. DETAILED WORK SCHEDULE

D12.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least Five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D12.2 The detailed work schedule shall consist of the following:

- (a) a critical path method (C.P.M.) schedule for the Work;
- (b) a Gantt chart for the Work based on the C.P.M. schedule;

all acceptable to the Contract Administrator.

SCHEDULE OF WORK

D13. COMMENCEMENT

D13.1 The Contractor shall not commence any Work until he/she is in receipt of a Purchase Order from the Award Authority authorizing the commencement of the Work.

D13.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D7;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D8;
 - (iv) evidence of the insurance specified in D9;
 - (v) the performance security specified in D10;
 - (vi) the Subcontractor list specified in D11; and
 - (vii) the detailed work schedule specified in D12.
- (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.

D13.3 The City intends to award this Contract by March 30, 2017

D13.3.1 If the actual date of award is later than the intended date, the dates specified for Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

D14. SUBSTANTIAL PERFORMANCE

D14.1 The Contractor shall achieve Substantial Performance by June 16, 2017.

D14.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D14.3 The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

D15. TOTAL PERFORMANCE

D15.1 The Contractor shall achieve Total Performance by June 30, 2017.

D15.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D15.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D15.4 In order to account for Canada Day for the year 2017, no work is permitted during the day of July 1, 2017. In case Substantial or Total Performance is not reached by then, in addition to the assessed liquidated damages, the Contractor is responsible for all demobilization by June 30, 2017 and remobilization starting July 2, 2017, and shall bear all costs associated with that work.

D15.5 In order to account for Canada Summer Games for the year 2017, no work is permitted during the time period from July 20 to August 16, 2017. In case Substantial or Total Performance is not reached by then, in addition to the assessed liquidated damages, the Contractor is responsible for all demobilization by July 19, 2017 and remobilization starting August 17, 2017, and shall bear all costs associated with that work.

D16. LIQUIDATED DAMAGES

D16.1 If the Contractor fails to achieve Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:

- (a) Substantial Performance - Four Hundred dollars (\$400.00);
- (b) Total Performance – One Hundred dollars (\$100.00).

D16.2 The amounts specified for liquidated damages in D16.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Substantial Performance or Total Performance by the days fixed herein for same.

D16.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

CONTROL OF WORK

D17. JOB MEETINGS

D17.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and

one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.

D17.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

D18. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D18.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

D19. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D19.1 Further to B12.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B12.4.

MEASUREMENT AND PAYMENT

D20. PAYMENT

D20.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D21. WARRANTY

D21.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire two (2) years thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

FORM H1: PERFORMANCE BOND

(See D10)

KNOW ALL MEN BY THESE PRESENTS THAT

_____ (hereinafter called the "Principal"), and

_____, (hereinafter called the "Surety"), are held and firmly bound unto **THE CITY OF WINNIPEG** (hereinafter called the "Obligee"), in the sum of

_____ dollars (\$_____)

of lawful money of Canada to be paid to the Obligee, or its successors or assigns, for the payment of which sum the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has entered into a written contract with the Obligee for

BID OPPORTUNITY NO. 105-2017

ESPLANADE RIEL PEDESTRIAN BRIDGE 2017 MAINTENANCE WORKS

which is by reference made part hereof and is hereinafter referred to as the "Contract".

NOW THEREFORE the condition of the above obligation is such that if the Principal shall:

- (a) carry out and perform the Contract and every part thereof in the manner and within the times set forth in the Contract and in accordance with the terms and conditions specified in the Contract;
- (b) perform the Work in a good, proper, workmanlike manner;
- (c) make all the payments whether to the Obligee or to others as therein provided;
- (d) in every other respect comply with the conditions and perform the covenants contained in the Contract; and
- (e) indemnify and save harmless the Obligee against and from all loss, costs, damages, claims, and demands of every description as set forth in the Contract, and from all penalties, assessments, claims, actions for loss, damages or compensation whether arising under "The Workers Compensation Act", or any other Act or otherwise arising out of or in any way connected with the performance or non-performance of the Contract or any part thereof during the term of the Contract and the warranty period provided for therein;

THEN THIS OBLIGATION SHALL BE VOID, but otherwise shall remain in full force and effect. The Surety shall not, however, be liable for a greater sum than the sum specified above.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable as Principal, and that nothing of any kind or matter whatsoever that will not discharge the Principal shall operate as a discharge or release of liability of the Surety, any law or usage relating to the liability of Sureties to the contrary notwithstanding.

IN WITNESS WHEREOF the Principal and Surety have signed and sealed this bond the

_____ day of _____, 20_____.

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

By: _____ (Seal)
(Attorney-in-Fact)

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT
(PERFORMANCE SECURITY)**
(See D10)

(Date)

The City of Winnipeg
Legal Services Department
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 105-2017
ESPLANADE RIEL PEDESTRIAN BRIDGE 2017 MAINTENANCE WORKS

Pursuant to the request of and for the account of our customer,

(Name of Contractor)

(Address of Contractor)

WE HEREBY ESTABLISH in your favour our irrevocable Standby Letter of Credit for a sum not exceeding in the aggregate

Canadian dollars.

This Standby Letter of Credit may be drawn on by you at any time and from time to time upon written demand for payment made upon us by you. It is understood that we are obligated under this Standby Letter of Credit for the payment of monies only and we hereby agree that we shall honour your demand for payment without inquiring whether you have a right as between yourself and our customer to make such demand and without recognizing any claim of our customer or objection by the customer to payment by us.

The amount of this Standby Letter of Credit may be reduced from time to time only by amounts drawn upon it by you or by formal notice in writing given to us by you if you desire such reduction or are willing that it be made.

Partial drawings are permitted.

We engage with you that all demands for payment made within the terms and currency of this Standby Letter of Credit will be duly honoured if presented to us at:

(Address)

and we confirm and hereby undertake to ensure that all demands for payment will be duly honoured by us.

All demands for payment shall specifically state that they are drawn under this Standby Letter of Credit.

Subject to the condition hereinafter set forth, this Standby Letter of Credit will expire on

(Date)

It is a condition of this Standby Letter of Credit that it shall be deemed to be automatically extended from year to year without amendment from the present or any future expiry date, unless at least 30 days prior to the present or any future expiry date, we notify you in writing that we elect not to consider this Standby Letter of Credit to be renewable for any additional period.

This Standby Letter of Credit may not be revoked or amended without your prior written approval.

This credit is subject to the Uniform Customs and Practice for Documentary Credit (2007 Revision), International Chamber of Commerce Publication Number 600.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Spec/Default.stm>
- E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.3 Further to C2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 The following are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
REF-B231-02-005-R3	General Arrangement – Plan and Elevation
REF-B231-02-017-R2	West Abutment Plaza - Plan, Pile Layout and Schedule
REF-B231-02-018-R2	West Abutment Plaza - Elevations and Sections
REF-B231-02-035-R3	Centre Plaza Beam Layout – Plan, Sections and Details
REF-B231-02-054-R4	Centre Plaza Main Walkway Girder – Plan, Sections and Details
REF-B231-02-075-R2	East Plaza Aluminum Pedestrian Handrail - Panel Layout and Elevations
REF-B231-02-125-R1	East Landing - Pile Layout and Details
REF-B231-02-126-R1	Plan - East Landing
REF-B231-02-127-R1	East Landing - Stair and Landing Elevations
REF-B231-02-128-R1	East Landing - Elevations, Sections and Details
REF-B231-02-129-R1	East Landing - Elevations, Sections and Details
REF-B231-02-133-R1	East Landing - Concrete Sidewalk to East Abutment Door
REF-B231-02-134-R3	East Landing - Plan
REF-B231-02-136-R4	East Landing - Enlarged Layout Plan
REF-B231-02-137-R4	East Landing - Grading Plan
REF-B231-02-138-R3	East Landing - Details

Refer to **APPENDIX A – Scope of Work** for additional photos of observed defects.

E2. MOBILIZATION AND DEMOBILIZATION

- E2.1 Description
- This Specification shall cover all operations relating to the mobilization and demobilization of the Contractor to the Site, as specified herein.
 - The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all Work as hereinafter specified.
- E2.2 Materials
- The Contractor shall be responsible for the supply, safe storage and handling of all Materials as set forth in this Specification.
- E2.3 Construction Methods

- (a) The City obtained consent from the restaurant on the bridge (Mon Ami Louis) to complete the concrete repairs inside the restaurant, as specified here in and shown on the Drawings. The Contractor shall inform the restaurant manager prior to the commencement of any work inside/outside the restaurant.
- (b) A construction fence shall be set-up and maintained around the perimeter of the Site to separate the Work area from public spaces and existing restaurant. An orange snow-fence with regularly spaced posts is acceptable.
- (c) The Contractor's Site supervisor is required to carry, at all times, a cellular telephone with voice mail.
- (d) The Work to be done by the Contractor under this Specification shall also include travel and accommodation, set-up and demobilization of site offices, storage conveniences and other temporary facilities, construction plans, and other items not required to form part of the permanent Work and not covered by other prices.

E2.4 Measurement and Payment

- (a) Mobilization and Demobilization will be paid for on a Lump Sum basis under "Mobilization and Demobilization," for supplying all Materials and performing all operations herein described and all other items incidental to the Work included in this Specification and as accepted by the Contract Administrator.
- (b) Mobilization and demobilization will be paid for at a percentage of the Contract Lump Sum Price for "Mobilization and Demobilization" specified as follows:
 - (i) 30% when the Contract Administrator is satisfied that construction has commenced.
 - (ii) 70% when Total Performance has been met.

E3. PEDESTRIAN TRAFFIC CONTROL

E3.1 Description:

- E3.1.1 The Work set out in this Bid Opportunity will take place on the Esplanade Riel Pedestrian Bridge over the Red River, along the East and West stairs, ramps and landing areas.
 - E3.1.2 This Specification shall cover all operations relating to the provision of safe access for pedestrians and cyclists around the construction site and on stairs, ramps and landing areas on each side of Red River, as specified herein.
 - E3.1.3 Pedestrian bridge closures shall only be undertaken if necessary and as approved by the Contract Administrator. Bridge closures shall only be allowed outside the working hours for the restaurant on the bridge.
 - E3.1.4 Before proceeding with Mobilization to Site or any bridge closures, the Contractor must submit a proposed Pedestrian Access Management plan (Drawing or Sketch) to the Contract Administrator for review and approval at least three (3) business days prior to closures and adjustments. The Pedestrian Access Management Plan shall indicate how pedestrians will access the bridge, ramps and crossings between both the East and West approaches.
- E3.2 The Contractor shall secure or remove all of his machinery and equipment at the end of each day from the immediate work site. The Contractor will not be permitted to store machinery, equipment, or materials in public spaces overnight.
- #### E3.3 Measurement and Payment
- (a) The Work associated with closures, signage, access management, and supplying and performing all operations herein described in accordance with this Specification shall be paid for at a Lump Sum price under "Pedestrian Traffic Control", as accepted by the Contract Administrator. No separate measurement or payment shall be made for this Work.

E4. PROTECTION OF EXISTING UTILITIES

- E4.1 In accordance with and further to CW1120, the Contractor shall protect and maintain all existing utilities that may be affected by the Work. The Contractor shall identify and locate utilities, as may be required by utility agencies or the Contract Administrator.
- E4.2 The protection of existing utilities shall be considered incidental to the Work and no separate measurement or payment will be made.

E5. MISCELLANEOUS CONCRETE REPAIRS

E5.1 Description

- (a) This Specification shall cover all operations relating to the repair of areas of the bridge deck, approaches, the ring beam inside the restaurant, East and West stairs, ramps and landing areas, as specified herein and as shown in Appendix A and as directed by the Contract Administrator.
- (b) The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and everything necessary for and incidental to the satisfactory performance and completion of all Work as hereinafter specified.

E5.2 Submittals

- (a) The Contractor shall submit to the Contract Administrator for review and approval, at least ten (10) Business Days prior to the commencement of any scheduled Work on the Site, a proposed schedule, including methods and sequence of operations.
- (b) The Contractor shall submit to the Contract Administrator for review and approval, at least ten (10) Business Days prior to the commencement of any Work on Site, the proposed approved materials to be used.

E5.3 Materials

E5.3.1 General

- (a) All materials supplied under this Specification shall be of a type approved by the Contract Administrator, and shall be subject to inspection and testing by the Contract Administrator.
- (b) The Contractor shall be responsible for the supply, safe storage and handling of all materials as set forth in this Specification. All materials shall be handled in a careful and workmanlike manner, to the satisfaction of the Contract Administrator.

E5.3.2 Materials for Concrete Repairs

- (a) General
- (i) Concrete repairs materials may be either one or a combination of concrete repair mortars or conventional concrete.
- (b) Concrete Repair Mortar
- (i) The concrete repair mortar shall be a shrinkage compensated, fibre reinforced product suitable for application by hand trowelling, or spraying, or form and pour, or pump. The mortar product shall be EMACO S88 CI for trowelling or spraying or EMACO S66 CI for form and pour or pump by Masterbuilders or equivalent as approved by the Contract Administrator. Mix in accordance with Manufacturer's Specifications, including addition of aggregate for deep repairs.
- (c) Conventional Concrete
- (i) Conventional concrete shall be in accordance with the requirements of Type 1 Concrete as specified in Table E5.1.

TABLE E5.1 REQUIREMENTS FOR HARDENED CONCRETE						
Type of Concrete	Location	Nominal Compressive Strength MPa	Class of Exposure	Air Content Category	Max Aggregate Size	Special Requirements
Type 1	Miscellaneous Repairs	35 @ 28 Days	C-1	1	20 mm	-
Type 2	Sidewalk Slabs	30 @ 28 Days	C-2	1	20 mm	Minimum Cementitious Content = 300 kg/m ³

E5.4 Equipment

E5.4.1 General

- (a) All equipment shall be of a type acceptable to the Contract Administrator and shall be kept in good working order.

E5.5 Construction Methods

E5.5.1 Debris and Cleanup

- (a) The Contractor shall be required to pick up and remove from the Site all debris created by the repair procedures to the satisfaction of the Contract Administrator.

E5.5.2 Preparation

- (a) Remove all loose and deteriorated concrete to sound concrete from the surface concrete areas which are to receive new concrete. The Contractor to assume that only 25% of demolitions within this contract will need to extend at least 50 mm behind all exposed rebar and more as required to clean rebar from rust. Otherwise, removals shall stop at the face of the internal reinforcing.
- (b) The deteriorated concrete shall be removed using a chipping hammer no heavier than 40 lbs, so as not to damage the reinforcing steel.
- (c) Following the completion of concrete removals, the Contractor shall notify the Contract Administrator to inspect the Work. All resulting concrete and reinforcing steel surfaces shall be thoroughly cleaned by gritblasting. All gritblast materials shall be blown out of the repair area, cleaned up, and removed off and away from the Site.
- (d) All rusted steel shall be chased until rust is not evident on reinforcing steel. Once the limits of each repair area is identified, saw cut a square perimeter around the patch to a minimum edge depth of 25 mm. Do not cut or damage existing reinforcing steel.
- (e) If recommended by the mortar/grout Manufacturer's directions, pre-wet the patched surfaces for the duration recommended.

E5.5.3 Repair Miscellaneous Areas of Concrete

- (a) Minimum ambient air temperatures during repair work shall be 5°C.
- (b) The surface temperature of the concrete and reinforcing steel shall be above 5°C during repair.
- (c) Place concrete repair mortar or standard concrete if minimum formed dimensions permit.
- (d) The Contractor is responsible to create a bond between the new mortar/concrete and the existing substrates. This may be done by either the application of a suitable

bonding agent or grout or by using a self-bonding mortar or concrete. Place mortar or concrete by trowelling, pumping, spraying, or into forms ensuring that all entrapped air is removed.

- (e) The Contract Administrator shall inspect all repaired areas for bond using a hammer "sounding" method after form removal.

E5.5.4 General Curing

- (a) Unformed concrete surfaces shall be covered and kept moist by means of wet curing blankets for three (3) consecutive days immediately following finishing operations, or as otherwise approved by the Contract Administrator, and shall be maintained at above 10°C for at least three (3) consecutive days thereafter.
- (b) After wet curing, a curing compound shall be applied at the rate of not less than 4 m²/L. The compound must be applied uniformly and by roller. Spraying of the compound will not be permitted.
- (c) Formed surfaces shall receive, immediately after stripping and patching, the same application of curing compound as finished surfaces.
- (d) Unformed mortar surfaces do not require application of curing compound after the wet curing period.

E5.6 Quality Control

E5.6.1 Inspection

- (a) The Contractor shall be wholly responsible for the control of all operations incidental thereto, notwithstanding any inspection or acceptance that may have been previously given. The Contract Administrator reserves the right to reject any materials or Works, which are not in accordance with the requirements of this Specification.

E5.6.2 Access

- (a) The Contractor shall allow the Contract Administrator free access to all parts of the Work at all times. The Contractor shall supply samples to the Contract Administrator or his inspector for testing purposes as required. There will be no charge to the City for samples taken.

E5.7 Measurement and Payment

E5.7.1 Repair of Miscellaneous Areas of Concrete

- (a) Bridge Works:
 - (i) Repairing miscellaneous areas of concrete on the bridge deck, approaches, and inside the restaurant, shall be paid for at the Contract Unit Price per square metre for "Concrete Repairs", measured as specified herein, performed in accordance with this Specification and accepted by the Contract Administrator, which price shall be paid in full for supplying all materials and performing all operations herein described and all other items incidental to the Work.
- (b) Landscaping Works:
 - (i) Repairing miscellaneous areas of concrete on the East and West stairs, ramps and landing areas, shall be paid for at the Contract Unit Price per square metre for "Stairs and Ramps: Miscellaneous Concrete Repairs", measured as specified herein, performed in accordance with this Specification and accepted by the Contract Administrator, which price shall be paid in full for supplying all materials and performing all operations herein described and all other items incidental to the Work.

E6. CRACKS EVALUATION AND REPAIRS

E6.1 Description

- (a) This Specification shall cover all operations relating to evaluation and repair of all cracks to be inspected on the Esplanade Riel bridge concrete surfaces (including deck, curbs, cable anchor blocks, sloping surfaces, and the ring beams inside and outside the restaurant; bridge under side is not included) and along the East and West stairs and ramps, as shown in Appendix A and as directed by the Contract Administrator.
- (b) The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all other things necessary for and incidental to the satisfactory completion of all Work as hereinafter specified.

E6.2 Submittals

- (a) The Contractor shall submit to the Contract Administrator for review and approval, at least ten (10) Business Days prior to the commencement of any Work on Site, a Detailed Access Plan comprised of a schedule and detailed procedure clearly illustrating the method and sequence by which the Contractor proposes to access the bridge exterior concrete surfaces, sloped surfaces, cable anchor blocks, and the exterior surfaces behind the restaurant.
- (b) The Contractor shall submit to the Contract Administrator for review and approval, at least ten (10) Business Days prior to the commencement of any Work on Site, the proposed approved materials to be used.

E6.3 Scope of Work

- (a) The Work under this Specification shall involve:
 - (i) Inspection to identify all cracks located on the Esplanade Riel Bridge concrete surfaces (including deck, curbs, cable anchor blocks, sloping surfaces, and the ring beams inside and outside the restaurant; bridge under side is not included) and along the East and West stairs and ramps.
 - (ii) Evaluation and remediation of all identified cracks in accordance with this Specification and to the acceptance of the Contract Administrator.

E6.4 Materials

E6.4.1 General

- (a) The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all Work as hereinafter specified.

E6.4.2 Handling and Storage of Materials

- (a) All materials shall be handled and stored in a careful and workmanlike manner, to the satisfaction of the Contract Administrator.

E6.4.3 Crack Repairs

- (a) Cracks are to be repaired by gravity feed epoxy or by epoxy injection. The epoxy material shall be approved by the Contract Administrator prior to its usage.

E6.5 Construction Methods

- (a) Cracks shall be repaired using the following procedure:
 - (i) Blow out cracks with a jet of oil-free compressed air. The cracks are to be clean and dry.
 - (ii) For all cracks observed on bridge concrete surfaces (including deck, curbs, cable anchor blocks, sloping surfaces, and the ring beams inside and outside the restaurant; bridge under side is not included) and along the East and West stairs and ramps, that exceed 0.4 millimeters in width shall be repaired with Epoxy.
 - (iii) Any crack smaller than 0.4 millimeters in width shall not be repaired.

- (iv) Seal cracks with a gravity feed epoxy in accordance with the Manufacturer's instructions. The gravity feed epoxy shall maximize the penetration by taking into consideration the ambient temperature, the substrate temperature, the viscosity and pot life of the material being used. Gravity feed epoxy material shall be approved by the Contract Administrator prior to its usage.
- (v) Epoxy injection will be required when cracks extend to the top layer of reinforcement of any concrete surface. The epoxy material and injection procedure shall be approved by the Contract Administrator prior to its usage.

E6.6 Quality Control

E6.6.1 Inspection

- (a) All workmanship and all materials furnished and supplied under this Specification are subject to close and systematic inspection and testing by the Contract Administrator including all operations from the selection and production of materials through to final acceptance of the specified Work.
- (b) The Contractor shall be wholly responsible for the control of all operations incidental thereto, notwithstanding any inspection or acceptance that may have been previously given. The Contract Administrator reserves the right to reject any materials or Works, which are not in accordance with the requirements of this Specification.

E6.6.2 Access

- (a) The Contractor shall allow the Contract Administrator free access to all parts of the Work at all times.
- (b) The Contractor shall supply samples to the Contract Administrator or his inspector for testing purposes as required. There will be no charge to the City for samples taken.

E6.7 Measurement and Payment

E6.7.1 Cracks Evaluation and Repair

- (a) Inspection, evaluation and remediation of all cracks on the bridge concrete surfaces (including deck, curbs, cable anchor blocks, sloping surfaces, and the ring beams inside and outside the restaurant; bridge under side is not included) and along the East and West stairs and ramp, shall be paid for at the Contract Unit Price per metre for "Crack Repairs", measured as specified herein, performed in accordance with this Specification and accepted by the Contract Administrator, which price shall be paid in full for supplying all materials, submittals, and performing all operations herein described and all other items incidental to the Work.

E7. PAINTING OF CONCRETE SURFACES

E7.1 Description

- (a) This Specification shall cover all operations related to the painting of all bridge superstructure concrete surfaces and approaches; including curbs, cable anchor blocks, sloping surfaces and ring beam behind the restaurant, as shown in Appendix A and as directed by the Contract Administrator. The bridge deck top and underside (deck soffit) surfaces are not included.
- (b) The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all other things necessary for and incidental to the satisfactory completion of all Work as hereinafter specified.

E7.2 Scope of Work

- (a) The Work under this Specification shall involve:
 - (i) Removal of existing paint and cleaning of existing concrete surfaces;
 - (ii) Prepare of existing concrete surfaces to be painted; and

- (iii) Painting concrete surfaces with a matching colour.

E7.3 Submittals

- (a) The Contractor shall submit to the Contract Administrator for review and approval, at least ten (10) Business Days prior to the commencement of any Work on Site, a Detailed Access Plan comprised of a schedule and detailed procedure clearly illustrating the method and sequence by which the Contractor proposes to access the bridge exterior concrete surfaces, sloped surfaces, cable anchor blocks, and the exterior surfaces behind the restaurant.
- (b) The Contractor shall submit to the Contract Administrator for review and approval, at least ten (10) Business Days prior to the commencement of any Work on Site, the proposed approved materials to be used.

E7.4 Materials

E7.4.1 General

- (a) The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all Work as hereinafter specified.

E7.4.2 Handling and Storage of Materials

- (a) All materials shall be handled and stored in a careful and workmanlike manner, to the satisfaction of the Contract Administrator.

E7.4.3 Paint for Concrete Surfaces

- (a) Paint for concrete surfaces shall be Ecologic 7069 Series Eggshell 100% Acrylic Latex by Cloverdale, colour to match the existing concrete surface, or equivalent as approved by the Contract Administrator. Provide paint formulation code to Contract Administrator.

E7.5 Construction Methods

E7.5.1 Debris and Cleanup

- (a) The Contractor shall be required to pick up and remove from the Site all debris created by the repair procedures to the satisfaction of the Contract Administrator.

E7.5.2 Clean and Repaint Concrete Surfaces

- (a) The Contract Administrator shall identify all areas of painting.
- (b) Pressure wash existing concrete surfaces to be repainted to remove existing paint. Water does not need to be contained.
- (c) If paint is not removed by pressure washing, lightly sandblast concrete surfaces to remove all old, cracked or peeled paint, loose chalky paint, dirt, and other foreign material. Sandblast shall be contained.
- (d) Apply paint using brush, air spray, or roller. Spread evenly and work thoroughly in to all seasoning cracks, corners, and recesses.
- (e) Apply the first coat of paint and allow it to dry. Thickness to be 3.9 – 5.8 mils wet, as per manufacturer's recommendations.
- (f) Putty flush with the surface, all cracks, checks, nail holes, or other depressions and allow the surface to dry.
- (g) Apply the second coat of paint and allow it to dry. Thickness to be 3.9 – 5.8 mils wet, as per manufacturer's recommendations.
- (h) Apply paint only at an ambient temperature of 10°C or above

E7.6 Quality Control

- (a) All workmanship and all materials furnished and supplied under this Specification are subject to close and systematic inspection and testing by the Contract Administrator including all operations from the selection and production of materials through to final acceptance of the Work.
- (b) The Contractor shall be wholly responsible for the control of all operations incidental thereto, notwithstanding any inspecting or acceptance that may have been previously given. The Contract Administrator reserves the right to reject any materials or works which are not in accordance with the requirements of this Specification.

E7.6.2 Access

- (a) The Contractor shall allow the Contract Administrator free access to all parts of the Work at all times.

E7.7 Measurement and Payment

E7.7.1 Painting of Concrete Surfaces

- (a) Painting of concrete surfaces shall be paid for at the Contract Unit Price per square metre for "Painting of Concrete Surfaces", measured as specified herein, performed in accordance with this Specification and accepted by the Contract Administrator, which price shall be paid in full for supplying all materials, submittals, and for performing all operations herein described and all other items incidental to the Work.

E8. SIDEWALK SLABS REPLACEMENTS AND MISCELLANEOUS REPAIRS

E8.1 Description

- (a) This Specification shall cover all operations related to the concrete sidewalk slabs replacements, grinding existing sidewalk slabs under heaving effect, and adjustment of paving stones on the East and West landing areas, as shown in Appendix A and as directed by the Contract Administrator.
- (b) The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all other things necessary for and incidental to the satisfactory completion of all Work as hereinafter specified.

E8.2 Scope of Work

- (a) The Work under this Specification shall involve:
 - (i) Replacement of concrete sidewalk slabs that have severe cracking or delamination, as directed by the Contract Administrator.
 - (ii) Grinding the sidewalk slabs under heaving effect, as directed by the Contract Administrator.
 - (iii) Re-leveling of paving stones and/or replacing the broken pavers as directed by the Contract Administrator.

E8.3 Materials

E8.3.1 New Concrete Sidewalk Slabs

- (i) New concrete sidewalk slabs shall be in accordance with the requirements of Type 2 Concrete as specified in Table E5.1 in this Specification.
- (ii) The Concrete Supplier shall modify the mix design, as required, in order to ensure that the minimum compressive strength of the concrete is 20 MPa and is achieved within the following early opening requirements:
 - 72 hours early opening after placement
- (iii) For slabs within the East and West landing circles, the Contractor is responsible for supplying and placement concrete sidewalk slab that match the existing colour of the slabs within the circles. Additional colouring additives to

the concrete Mix Design shall be accepted upon review by the Contract Administrator.

- (iv) Reinforcing Steel: All reinforcing steel shall conform to the requirements of CSA G30.18, Grade 400W.

E8.3.2 Paving Stones

- (i) Where needed, the new paving stones shall be Endicott, dark ironspot, as supplied by Alsip's Brick and Tile, Winnipeg. The supplied clay bricks shall be matched to existing paving stones.

E8.4 Construction Methods

E8.4.1 New Concrete Sidewalk Slabs

- (i) Construction method shall conform to CW 3325.
- (ii) The Contract Administrator must be notified at least twenty-four (24) hours prior to placing Concrete so that an adequate inspection may be made of the prepared Concrete substrate surface and related works. Placement without prior notification will not be allowed.
- (iii) The new sidewalk slabs shall match the existing slabs in thickness, final texture and appearance, and internal reinforcing details, if any, as shown on the Reference Drawings, and to acceptance of the Contract Administrator.

E8.4.2 Sidewalk Slabs Grinding

- (i) The Contractor is to grind unlevelled sidewalk slabs to eliminate trip hazards. Every grind should be uniform in appearance with a straight backline and few, if any, scars on the adjacent slab, and to the satisfaction of the Contract Administrator.
- (ii) The Contractor is to confirm the extent of the Work on Site through inspection and from photos of observed defects as shown in Appendix A.

E8.4.3 Paving Stones Re-leveling

- (i) Construction method shall conform to CW 3330.
- (ii) The Contractor is to confirm the extent of the Work on Site through inspection and from photos of observed defects as shown in Appendix A.

E8.5 Quality Control

- (a) All workmanship and all materials furnished and supplied under this Specification are subject to close and systematic inspection and testing by the Contract Administrator including all operations from the selection and production of materials through to final acceptance of the Work.
- (b) The Contractor shall be wholly responsible for the control of all operations incidental thereto notwithstanding any inspecting or acceptance that may have been previously given. The Contract Administrator reserves the right to reject any materials or works which are not in accordance with the requirements of this Specification.

E8.5.2 Access

- (a) The Contractor shall allow the Contract Administrator free access to all parts of the Work at all times.

E8.5.3 Testing

- (a) All materials supplied under this Specification shall be subject to inspection and testing by the Contract Administrator or by the Testing Laboratory designated by the Contract Administrator. There shall be no charge to the City for any materials taken by the Contract Administrator for testing purposes.
- (b) The Contractor shall supply samples to the Contract Administrator or his inspector for testing purposes as required. There will be no charge to the City for samples taken.

E8.6 Measurement and Payment

E8.6.1 New Concrete Sidewalk Slabs

- (a) Supply, placement and finishing of new sidewalk slabs shall be paid for at the Contract Unit Price per square metre for "Sidewalk Slabs Replacements", measured as specified herein, performed in accordance with this Specification and accepted by the Contract Administrator, which price shall be paid in full for supplying all materials and for performing all operations herein described and all other items incidental to the Work.

E8.6.2 Sidewalk Slabs Grinding

- (a) Grinding the existing sidewalk slabs under heaving effect shall be paid for at the Contract Unit Price per square metre for "Sidewalk Slabs Grinding", measured as specified herein, performed in accordance with this Specification and accepted by the Contract Administrator, which price shall be paid in full for supplying all materials and for performing all operations herein described and all other items incidental to the Work.

E8.6.3 Paving Stones Re-leveling

- (a) Adjusting the unlevelled paving stones, supply and installation of new pavers in place of damaged ones shall be paid for at the Contract Unit Price per square metre for "Paving Stones Adjustments", measured as specified herein, performed in accordance with this Specification and accepted by the Contract Administrator, which price shall be paid in full for supplying all materials and for performing all operations herein described and all other items incidental to the Work.