CITY OF HAMILTON

REQUEST FOR QUOTATIONS – CONSTRUCTION

BRIDGE 054 – GREEN MOUNTAIN ROAD EAST
TL-1 RAILING INSTALLATION

Contract Number: n/a

Closes: January 4th, 2019

Capital Rehabilitation & technical Operations Section
Public Works Department

Request for Quotations – Construction

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REQUEST FOR QUOTATIONS - CONSTRUCTION
BRIDGE 054 – GREEN MOUNTAIN ROAD EAST
TL-1 RAILING INSTALLATION

Instructions to All Bidders

Notice to prospective bidders: The Instructions set out herein define your obligations and limit your rights. Failure to follow the instructions may result in the disqualification of your Bid. Read carefully.

1. Communication

All questions related to this Request for Quotations - Construction (RFQ) or for clarification of completing the Form of Quotation - Construction are to be directed to:

Rafael G. Sandoval, P.Eng. PMP
Public Works Department / Roads & Traffic Division / CRTO Section
Tel: (905) 546-2424 x 2508
E-mail: Rafael.Sandoval@hamilton.ca

2. Accommodations for Bidders with Disabilities

In accordance with the Ontario Human Rights Code, Ontarians with Disabilities Act, 2001 (ODA) and Accessibility for Ontarians with Disabilities Act, 2005 (AODA), the City will accommodate for a disability, ensuring full and equitable participation throughout the bid process.

If a bidder requires this RFQ in a different format to accommodate a disability, the bidder must contact the contact person named above as soon as possible and in any event prior to the closing time. The RFQ in the different format will be issued only to the requesting bidder and all addenda will be issued in such different format only to the requesting bidder.

3. Request for Quotations – Construction Not Binding

The process described in this RFQ is not intended to create and shall not create a formal legally binding bidding process and as such, shall not give rise to any legally binding “Contract A” based tendering law duties or give any of the parties a cause of action against the other. However, a binding Contract shall come into effect upon award of the RFQ to the Successful Bidder.

4. Definitions

Capitalized words and phrases used in this Request for Quotations - Construction shall have the following meanings, unless expressly stated otherwise:

(a) "Base Bid Price" means the amount stated in the Form of Quotation - Construction by the bidder, for the Work and includes all Provisional Items and Provisional Prices (if any);

(b) "Bid" means a submission made by a bidder in response to the Request for Quotations – Construction;

(c) "City" means the City of Hamilton, and where an authority or discretion is conferred upon the City under the Request for Quotations - Construction, means the appropriate official of the City as designated or appointed under its governing by-laws, resolutions or policies from time to time;

(d) "Contract" means the agreement by purchase order issued by the City, to perform the Work, including the supply and delivery of all labour, goods, services, equipment and incidentals necessary for the proper and satisfactory execution of the Work, and the fulfillment of all other contractual obligations and undertakings, all in accordance with the Request for Quotations - Construction;

(e) "Contract Price" means the Base Bid Price, as adjusted in accordance with the provisions of the Contract Documents;

(f) "Consultant" means the architect, engineer or entity licensed to practice in the Province of Ontario that is engaged by the City, or where none is engaged by the City, then shall mean the City;

(g) "Contract Documents" shall mean those documents set out in section 1 of the General Contract Terms and Conditions to the RFQ;

(h) "Contractor" shall have the same meaning as Successful Bidder;

(i) "General Manager" means the City's General Manager or designate of the relevant department requesting the Work;

(j) "Lump Sum Price" means an all inclusive one price that applies to a single item, or specific service as set out on the Form of Quotation- Construction;

(k) "Owner" means the City or the person or entity identified as such in the RFQ, Contract or Contract Documents. The term Owner means Owner or the Owner's authorized agent or representative as designated by the City, but does not include the Successful Bidder;

(l) "Provisional Item" means Work or a portion of Work the City may wish to have performed but which may be removed, at no additional cost to the City from the scope of the Work at any time. Where such item is removed, the City will deduct the relevant Provisional Price from the Base Bid Price after the award of the Contract;

(m) "Provisional Price" means the amount stipulated by the bidder for a Provisional Item which is to be included in the Base Bid Price;

(n) "Request for Quotations – Construction" or "RFQ" shall mean the Request for Quotations – Construction of which these instructions form a part;

(o) **"**Specifications**"** means all written or printed requirements and standards forming part of the Request for Quotations - Construction and pertaining to the method and the manner of performing the Work or service, to the scope of Work and to the quality of a good to be furnished under the Contract;

(p) "Successful Bidder" means the bidder to whom the City has awarded the Contract;

(q) "Unit Price" means any component price as set out on the Form of Quotation – Construction;

(r) "Value Added Taxes" means such sum as shall be levied upon the Base Bid Price by the Federal or Provincial or Territorial Government and is computed as a percentage of the Base Bid Price and includes the Goods and Services Tax, the Ontario Retail Sales Tax, the Quebec Sales Tax, the Harmonized Sales Tax, and any similar tax, the collection and payment of which have been imposed on the bidder by the tax legislation; and

(s) "Work" means the whole of the Work, the supply and delivery of a good, the delivery and performance of any services, the total construction and related services, material, matters and things required to be completed, supplied, mentioned or referred to in performing or executing the Work in full in accordance with the requirements set out in the Contract Documents and the Specifications.

5. Bid Submissions

Bids are to be forwarded to the attention of the City staff named in section one of these instructions by fax or email.

Bids are requested by end of day **January 4th, 2019**. Despite the closing date and time for this RFQ, the City reserves the right; to receive a Bid submitted after the closing date should a sufficient number of Bids not be received on or before the closing date.

6. Confidentiality

(a) A bidder should be aware that all information submitted is being collected under the authority of the *Municipal Act, 2001,* and may be used in the City's review of Bids and in the Contract that is entered into with the Successful Bidder.

(b) All such information is also subject to collection in accordance with the Municipal Freedom of Information and Protection of Privacy Act ("MFIPPA") and Personal Health Information Protection Act ("PHIPA") and City policies and procedures related to the collection and administration of such records. For greater particularity and direction regarding how issues of confidentiality will be handled and may affect a bidder's rights, the bidder should reference the City's policies related to Freedom of Information on the City's website under the Office of the City Clerk at hamilton.ca.

(c) After the award of the RFQ, the City will make available upon request, the award information for each compliant Bid received.

7. Conflict of Interest

The City may reject any Bid submitted where a bidder is in contravention of the City's Procurement Policy with respect to conflict of interest.

8. Time Open For Acceptance

(a) A Bid shall be irrevocable (i.e. open for acceptance by the City of Hamilton) for a period of 60 calendar days after the date of the submission of the Bid. The City may, at any time within the above 60 calendar day period, accept a Bid whether or not any other Bid had been previously accepted.

(b) The City reserves the right at any time prior to the award of the RFQ;
(i) to withdraw or cancel the RFQ;
(ii) to extend the time for the submission of Bids; or
(iii) to modify the RFQ;

by the issuance of an addendum or other notice, and the City shall not be liable for any expense, cost, loss or damage incurred or suffered by any bidder (or any other person) as a result of its so doing.

9. Price

(a) Where the bidder is instructed to price the Work on a stipulated price basis only, no corrections to the Base Bid Price shall be made by the City. Only extensions, subtotals or totals shall be corrected, where required to be submitted on the Form of Quotation - Construction. No modification to individual prices, either Unit Price or Lump Sum Price, shall be made by the City.

(b) The Base Bid Price must be quoted on an all-in basis and include the provision and delivery of all necessary labour, goods, materials, warranty and maintenance requirements, services, tools, equipment, supplies, utilities, levies and duties and other incidentals, and for performing all the Work and providing all services contemplated under the Contract.

(c) The Base Bid Price must be quoted exclusive of Value Added Taxes.

10. Award of the Contract

Subject to the City's reserved rights and privileges set out in this RFQ, the City intends to award the Contract resulting from this RFQ to the compliant Bid with the lowest Base Bid Price.

11. Reserved Privileges of the City

The City shall have the following reserved privileges, which may be exercised or waived in its absolute discretion:

(a) the City may reject any Bid, the lowest Bid or all Bids, or may cancel the RFQ and require the submission of new Bids;

(b) where in the view of the City, an insufficient number of Bids have been received in response to this RFQ, the City may publish a further such request (on the same or revised terms from the original request);

(c) the City reserves the ability to exercise the rights, privileges and authority contained in the Procurement Policy and procedures thereunder with respect to the RFQ. The City of Hamilton Procurement Policy can be found at:

hamilton.ca/buying-selling-city/bids-tenders/procurement-policy-by-law

12. Review of Bids by City

At its discretion, the City may not consider any Bid that does not substantially comply with the stated requirements of the RFQ. Where a minimum of three Bids are not received, the City reserves the right to request the bidder(s) to correct any deficiency contained in their Bid(s).

13. Bidder's Responsibilities

(a) The Contract shall only be between the City and the Successful Bidder. Neither the City nor its Consultant shall be construed to have any contractual relationship with the Successful Bidder's employees, subcontractors or material suppliers, or their respective employees or suppliers.

(b) Each bidder shall be responsible for:

(i) ensuring that it has conducted a thorough inspection of the site, has investigated and examined the Request for Quotations - Construction and any other document made available to the bidder by the City and has delivered to the City any request for information in respect of all questions arising out of the foregoing inspections, investigations and examinations in respect to the site;

(ii) reviewing all drawings, reports, tests and other documents with respect to site, subsurface or otherwise concealed physical conditions which have been provided or made available to the bidder by the City in relation to the Request for Quotations - Construction and shall be responsible for any site, subsurface or otherwise concealed physical condition set out in or inferable from any such report; and

(iii) ensuring that they have conducted a sufficient and appropriate scope of inquiry into the manner, method(s) and magnitude of the Work that is proposed in the Request for Quotations - Construction such that they have established a clear and full understanding of the Work being undertaken and are able to fully appreciate the consequences of that Work in preparing their Bid.

(c) The cost of any Work which results from encountering any condition that is described in or properly inferable from the information referred to in subsection (b) above shall be included in the bidder's Base Bid Price.

14. Notice to Proceed and Start Date

(a) The City may issue a written notice to proceed to the Successful Bidder.

(b) Work shall commence on the start date specified in the notice to proceed, unless otherwise agreed by the Successful Bidder and the City.

15. Proposed Timeline

Event	Anticipated Date
RFQ closing date	January 4th, 2019
Anticipated award date	January 4th, 2019
Commencement of Work ***	**2 weeks from award date**
Completion of Work	**No later than May 31th, 2019**

****** No concrete work shall be started prior May 1st, 2019***

16. Policies, Regulations and Guidelines

The Successful Bidder shall be aware of and adhere to all of the applicable laws, and City policies set out on the City of Hamilton website at: **hamilton.ca**

17. Addenda and Clarification of the Request for Quotations - Construction

(a) The City may notify prospective bidders of any Addendum by any method it deems appropriate, including email, telephone, fax, courier, hand-delivery or by personal delivery. The need for additional notification and the method(s) to be used shall be in the absolute discretion of the City and notification shall be to the co-ordinates provided by the bidder to the City at the time it obtained the Request for Quotations - Construction from the City.

(b) It is the sole responsibility of each bidder to ensure that it has received any and all addenda issued by the City. Bidders shall confirm in the Form of Quotation - Construction that they have received, examined and provided for all addenda issued under the Request for Quotations - Construction. Bidders may in writing, seek confirmation of the number of addenda issued under the Request for Quotations - Construction from the City Contact as identified in Item 1.

18. Governing Law

(a) The City shall not be liable, in any way to the bidder for any delays, or costs associated with delays, in the RFQ process.

(b) The RFQ process shall be governed by and construed in accordance with the laws of the Province of Ontario and the federal laws of Canada applicable therein.

19. DECLARATION OF BIDDER COMPLIANCE WITH CITY BY-LAWS

Should the bidder's declaration in its Form of Quotation – Construction that it is in compliance with all City of Hamilton by-laws be untrue or incorrect, the City shall be entitled at its sole discretion to reject the bidder's Bid.

FORM OF QUOTATION - CONSTRUCTION

To: Rafael G. Sandoval, P.Eng. PMP
Public Works Department / Roads & Traffic Division / CRTO Section
Tel: (905) 546-2424 x 2508
E-mail: Rafael.Sandoval@hamilton.ca
(the "City")

BRIDGE 054 – GREEN MOUNTAIN ROAD EAST
TL-1 RAILING INSTALLATION

Business structure of bidder (check one):

☐ corporation – specify where incorporated: _____

☐ partnership

☐ sole proprietorship

☐ other – specify: _____

Registered business name of bidder (if applicable): _____

The City of Hamilton reserves the right to verify the business name and structure of the bidder, whether or not this section is completed, to ensure that the bidder is an existing legal entity. If the bidder is not an existing legal entity, the Bid will be rejected.

Legal Name of bidder: _____
(this name must exactly match the name on all documentation required of the Successful Bidder
eg; insurance certificate, WSIB certificate)

Business Address: _____
(include street, city, province and postal code)

Head Office Address: _____
(if different than above, include street, city, province and postal code)

GST/HST Registration Number: _____

Telephone Number: _____

Fax Number: _____

Email Address: _____

Date: _____

1. Submission of Bid

I/We the undersigned bidder, having examined the locality and site of the Work as well as all the Request for Quotations - Construction Documents, hereby submits a Bid and offers to furnish all material, labour, service, equipment, scaffolding and all incidentals, and to render all services and pay all applicable taxes (other than any Value Added Taxes) and all other charges as specified and/or as necessary for performance and completion of the above referred to Work, all in full accordance with the Request for Quotations - Construction Documents provided to the bidder by the City (receipt of which is hereby acknowledged) for the Base Bid Price of the following:

Base Bid Price **$** _____

(in figures)

- **Canadian funds**
- **Not including Value Added Taxes**

2. Addenda

I/We have made any necessary inquiries with respect to addenda issued by the City and have ensured that I/we have received, examined and provided for all addenda to the Request for Quotations - Construction in this Bid.

3. Commencement and Contract

If awarded the contract, I/we, the bidder, acknowledge and agree:

(a) to provide all necessary documents required as set forth prior to the commencement of the Work;
(b) that a binding contract shall come into being upon the award of this Request for Quotations – Construction to the Successful Bidder;
(c) that the Work must be conducted in a safe manner. Accordingly, I/we confirm that I/we and all subcontractors used on the Work for the City will comply with all applicable laws, regulations and by-laws of Canada, the Province of Ontario and the City of Hamilton, including but not limited to the *Occupational Health and Safety Act*, and all applicable regulations thereunder. Further, without limiting any of the foregoing, I/we confirm that I/we have both a written occupational health and safety policy and program to implement that policy, and that all of our employees, subcontractors and any other persons performing the Work are appropriately trained, licensed and certified, as required to perform the Work;
(d) that this Bid is irrevocable and is to continue open to acceptance by the City for a period of 60 calendar days after the date of Bid submission.

4. No Collusion / Conflict of Interest

I/we hereby declare that no person, firm or corporation other than me/us has any interest in this Bid or in the proposed Contract(s) for which this Bid is made. I/we further declare that this Bid is made without any connection to, comparison of figures, arrangements with or knowledge of, any other corporation, firm or persons making a Bid for the same Work and is in all respects fair and without fraud or collusion.

I/we declare that no member of the City of Hamilton, and no officer, employee or agent of the City of Hamilton has or will have an interest indirectly or directly as a contracting party, partner, shareholder, surety or otherwise in the performance of the Contract(s), or in the supply, Work or business to which they relate or in any portion of the profits thereof, or in any of the monies to be derived there from.

5. Interpretation

I/we confirm that I/we have received no oral information, instruction or advice from any officer, employee, agent or consultant of the City which changes the content of this Request for Quotations - Construction and all addenda thereto.

I/we acknowledge and agree that I/we have not assumed that any information concerning our operations, business or personnel or any other information required to
be provided by me/us when submitting our Bid is known to the City, regardless of whether such information may be actually previously known to the City or not. Further, I/we acknowledge and agree that all information to be provided by me/us is to be complete and full and in such detail as required.

6. Accessibility for Ontarians with Disabilities Act, 2005

I/We confirm that I/we and all subcontractors used on the Work for the City will comply with all applicable accessibility laws, regulations and by-laws of Canada, the Province of Ontario and the City of Hamilton, including but not limited to the Ontarians with Disabilities Act, 2001 (ODA), the Accessibility for Ontarians with Disabilities Act, 2005 (AODA), Ontario Regulation 429/07 (Accessibility Standards for Customer Service) and Ontario Regulation 191/11 (Integrated Accessibility Standards), throughout the term of the Contract. Without limiting the generality of the foregoing, I/we shall provide to the City, prior to commencing Work, a Statement of Acknowledgement that I/we have read and understand the City's AODA Customer Service Standard Handbook (the "Handbook"), that I/we have provided the training required by the Handbook, and that I/we will comply with the requirements of the Handbook and applicable accessibility laws, regulations and by-laws. See City of Hamilton's AODA Customer Service Standard Handbook at: hamilton.ca/government-information/accessibility-services/accessibility-standards.

7. Compliance with City of Hamilton By-Laws

I/We declare that I/we are in compliance with all municipal by-laws as they pertain to the City of Hamilton in respect of the operation of my/our business and in respect of the Work described in the Request for Quotations - Construction. I/We understand and

agree that if this statement is untrue or incorrect, the City of Hamilton shall be entitled at its sole discretion to reject this Bid, or if such untruth or incorrectness comes to light after this Bid is accepted, to terminate or refuse to enter into, as applicable, any Contract and to pursue any other legal recourse the City deems appropriate, and that such untruth or incorrectness shall be a default under the Contract.

8. Procurement Policy

In submitting a Bid in response to the RFQ, I/we agree and acknowledge that I/we have read and will be bound by the terms and conditions of the City's Procurement Policy. I/We understand that the City's Procurement Policy can be viewed on the City's website at: hamilton.ca/buying-selling-city/bids-tenders/procurement-policy-by-law.

9. Schedule of Quantities & Prices

All Unit Prices must be filled in: not completing the Form of Quote in its entirely will cause the Bid to be disqualified.

ITEM NO.	DESCRIPTION	SPECS / DRAWING	UNIT	ESTIMATED QUANTITY	UNIT PRICE*	EXTENDED AMOUNT
1	Traffic Control	SP 706	LUMP SUM			$
2	Environmental Protection	DWG 18-BR-02	LUMP SUM			$
3	Remove and Dispose Existing Earth Berms	DWG 18-BR-02	LUMP SUM			$
4	Scarifying Max. Depth = 30 mm	OPSS.MUNI 928	Square Metre	26	$	$
5	Reinforcing Steel Bar	OPSS.MUNI 905	LUMP SUM			$
6	Dowels Into Concrete HILTI HIT-RE 500 V3	OPSS.MUNI 904	Each	48	$	$
7	Concrete in Deck	OPSS.MUNI 904	Cubic Metre	5.00	$	$
8	TL-1 Railing System	SP 908	LUMP SUM			$
9	Single Rail SBGR Includes M20 Steel Posts & Transition to Type M	OPSS.MUNI 721	LUMP SUM			$
10	MASH Sequential Kinking Terminal System	OPSS.MUNI 732	Each	4	$	$
					BASE BID PRICE	$

***only insert dollar amounts or Bid will be rejected**

per: _____
(Signature)

_____
(Please print name and title)

I have the authority to bind the Bidder

GENERAL CONTRACT TERMS AND CONDITIONS

In addition to any other terms and conditions contained elsewhere in this RFQ, the following terms and conditions form part of any Contract(s) entered into between the Owner and any Successful Bidder(s) (the "Contractor") and are deemed to be incorporated into any purchase order(s) issued in connection with this RFQ.

1. Contract Documents

The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all.

The intent of the Contract Documents is to include the labour, products and services necessary for the performance of the Work in accordance with these documents.

The Contract Documents consist of the award letter, Contractor's Bid, Contract, these General Contract Terms and Conditions, any Supplementary Contract Terms and Conditions, other documents, or parts thereof, contained in the Specifications which have application during performance of the Contract, the Specifications, shop drawings, schedules, and such other documents as may be identified as Contract Documents, and including amendments thereto made in accordance with provisions of the Contract.

2. Document Priority

The order of priority of documents, from highest to lowest, shall be

- change orders and/or change directives
- the Contract between the Owner and the Contractor
- the Form of Quotation as approved and accepted by the Owner
- Addenda, as issued
- Supplementary Contract Terms and Conditions
- the General Contract Terms and Conditions
- Instruction to Bidders
- the Specifications
- Drawings

3. Compliance with Laws

The Contractor will be required to comply with all federal, provincial and municipal laws and regulations in providing the goods and services including, without limitation, the *Occupational Health and Safety Act* and the *Workplace Safety and Insurance Act, 1997*, or any successor legislation, as applicable, and to provide to the Owner, upon request, periodic reports confirming such compliance.

The Contractor shall apply and pay for necessary permits or licences required for execution of the Work.

The Contract shall be governed by the laws of the Province of Ontario and the laws of Canada applicable therein.

The Contractor shall comply with all municipal by-laws as they pertain to the City of Hamilton in respect of the operation of the Contractor's business and the Work. Further,

the Contractor shall, at all times that the Contract is in effect and upon request of the Owner, provide proof of compliance satisfactory to the Owner, at the Contractor's own cost. If the Contractor fails to do any of the foregoing, the Contractor shall be considered to be in default of the Contract the Owner shall be entitled at its sole discretion to terminate the Contract and to pursue any other legal recourse the Owner deems appropriate.

4. Non-Exclusivity

The awarding of a contract to a Contractor shall not be a guarantee of exclusivity.

5. Confidentiality

The Contractor shall treat as confidential all information of any kind which comes to the attention of the Contractor in the course of providing the goods and services and shall not disseminate such information for any reason without the express written permission of the Owner.

6. Conflict of Interest

The Contractor shall disclose to the Owner, in writing, without delay any actual or potential situation that may be reasonably interpreted as either a conflict of interest or a potential conflict of interest, including the retention of any subcontractor or supplier that is directly or indirectly affiliated with or related to the Contractor.

The Contractor covenants and agrees that it will not hire or retain the services of any employee or previous employee of the Owner where to do so constitutes a breach by such employee or previous employee of the Owner's conflict of interest policy, as it may be amended from time to time.

A breach of this section by the Contractor, any of the subcontractors, or any of their respective advisors, partners, directors, officers, employees, agents, and volunteers shall entitle the Owner to terminate the Contract, in addition to any other rights and remedies that the Owner has in the Contract, in law, or in equity.

7. Indemnities

The Contractor shall indemnify, defend and save harmless the Owner, its elected officials, officers, employees, and agents from and against any losses, liens, charges, claims, demands, suits, proceedings, recoveries and judgements (including legal fees and costs) arising from or related to the Contractor's performance or non-performance of its obligations, including payment obligations to its approved subcontractors and suppliers and others, and including breach of any confidentiality obligations under the Contract or infringement, actual or alleged of any copyright, moral right, trade-mark, patent, trade secret or other thing with respect to which a right in the nature of intellectual/industrial property exists.

Upon assuming the defence of any action covered under this sub-article the Contractor shall keep the Owner reasonably informed of the status of the matter, and the Contractor shall make no admission of liability or fault on Owner's part without the Owner's written permission.

8. Rights and Remedies

Except as expressly provided in the Contract Documents, the duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

No action or failure to act by the Owner or the Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

9. Protection of Work and Property

The Contractor shall take all reasonable precautions necessary to protect the Work and the Owner's property (including property adjacent to the place of the work) from damage during performance of the contract and shall make good any damage to the Work or to Owner property caused by the Contractor or any of its subcontractors.

10. Use of Premises (Place of the Work)

The Contractor shall confine construction machinery and equipment, the storage of products, and the operations of workers to the place of the work and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by regulatory requirements, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with products or construction machinery and equipment.

11. Temporary Facilities and Controls

a) Operations considered by the Owner to generate vibrations, noise or safety concerns include, but are not limited to, the following: jack hammering; shotblasting; sandblasting; cutting and coring of concrete; and use of powder actuated fastners.
b) The Contractor shall do the following when work generating vibration, noise or safety concerns may affect user or user operations: coordinate with the Owner representative; schedule and coordinate hours of work with the Owner; and stop operations generating vibration, noise or safety concerns when instructed verbally or in writing by the Owner. The Contractor shall not resume such operations until authorized by the Owner.

12. Project Meetings

a) Prior to the start of any work, a pre-construction meeting shall be held by the Owner and the Contractor to examine and discuss the Work of the Contract.
b) The Contractors shall schedule regular construction progress meetings, at the site, every two weeks for the duration of the Contract, or as otherwise directed by the Owner.

13. Cleaning

The Contractor shall keep site free from unsightly or hazardous accumulations of waste material and shall leave site in a neat and tidy condition at completion of Work.

14. Waste Management

The Contractor shall ensure that Work is completed in an environmentally friendly manner using best practices that mitigate harmful environmental impacts. Waste materials resulting from the Contractor's activities under this contract must be disposed of as per provincially regulated recycling programs should they apply.

15. No Assignment

The Contractor shall not assign any part of the Contract nor any interest therein without the prior written consent of the Owner, which consent shall not be unreasonably withheld.

16. Subcontractors

The Contractor shall be solely responsible for the payment of every subcontractor employed, engaged, or retained by it for the purpose of assisting it in the performance of its obligations under the contract. The Contractor shall coordinate the provision of the goods and services by its subcontractors in a manner acceptable to the Owner, and ensure that they comply with all the relevant requirements of the Contract.

The Contractor shall be liable to the Owner for all costs or damages arising from acts, omissions, negligence or willful misconduct of its subcontractors.

17. Personnel and Performance

The Contractor must make available appropriately skilled workers, consultants or subcontractors, as appropriate, and must be able to provide the necessary materials, tools, machinery and supplies to fulfill its obligations under the Contract.

The Contractor shall be responsible for its own staff resources and for the staff resources of any subcontractors and third-party service providers.

The Contractor will ensure that its personnel (including those of approved subcontractors), when using any Owner buildings, premises, equipment, hardware or software shall comply with all security policies, regulations or directives relating to those buildings, premises, equipment, hardware or software.

Personnel assigned by the Contractor to provide the goods and services (including those of approved subcontractors) may, in the sole discretion of the Owner, be required to sign non-disclosure agreement(s) satisfactory to the Owner.

18. Supervision

The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the place of the work while the Work is being performed.

The superintendent shall be satisfactory to the Owner and shall not be changed except for good reason and only then after consultation with the Owner.

The superintendent shall be the Contractor's representative at the place of the work and shall have authority to act on behalf of the Contractor. All communications given to the superintendent shall be as binding as if given to the Contractor.

19. Independent Contractor

The relationship of the Owner and the Contractor is one of owner and independent contractor and not one of employer-employee. Neither is there any intention to create a partnership, joint venture or joint enterprise between the Contractor and the Owner.

20. Warranties and Covenants

The Contractor represents, warrants and covenants to the Owner (and acknowledges that the Owner is relying thereon) that any deliverable resulting from or to be supplied or developed under the Contract will be in accordance with the Owner's functional and technical requirements in the Specifications (as set out in the RFQ) and, if applicable, will function or otherwise perform in accordance with such requirements.

21. Defective Work

Defective work is work that has been rejected by the Owner or the Consultant as failing to conform to the Contract Documents. The Contractor shall promptly correct defective work, as required to conform to the Contract Documents, with no change in Contract Price.

22. Reporting of Conflicts, Errors and Discrepancies

If, during the performance of the Work, the Contractor finds a conflict, error or discrepancy in the Contract Documents, the Contractor shall so report to the Owner in writing at once and, before proceeding with the Work affected thereby, shall obtain a written interpretation or clarification from the Owner.

23. Warranty

Neither the final payment, nor any provisions in the Contract Document shall relieve the Contractor from responsibility for faulty materials or workmanship which appear within a period of one year from the date of acceptance of the Work, or such other warranty periods as may be specified for parts of the Work, and the Contractor shall remedy any defect due thereto and pay for any damage to other work resulting therefrom which appear within such warranty periods.

The Contractor will be responsible for extended warranty periods on equipment and materials as outlined in the Specifications. Warranties shall be provided for all-inclusive replacement including all costs for labour and materials upon failure.

Any extended warranties required beyond the one year warranty period shall be as specified in the Contract Documents. Extended warranties shall be issued by the warrantor to the benefit of the Owner. The Contractor's responsibilities with respect to extended warranties shall be limited to obtaining any such extended warranties from the warrantor.

24. Changes in the Work

The Owner, without invalidating the Contract, may make changes in the Work consisting of additions, deletions or other modifications, the Contract Price and Contract time being adjusted if required. Changes in the Work shall be authorized by written order from the Owner, such as change orders and change directives.

The Contractor is not entitled to any compensation for loss or loss of anticipated profit as a result of the deletion of any major item or major part of an item.

25. Valuation of Changes

In cases of extra work to be paid for under section 24 the Contractor shall keep and present in such form as the Owner may direct, a correct account of the actual cost of labour, materials, and equipment, together with vouchers. The Owner shall certify as to the amount due the Contractor.

On extra work authorized by the Owner, and to be paid for under section 24, the allowance for overhead and profit shall be based on the following schedule:

The cost to the Owner shall be the actual cost of the extra work plus a percentage covering overhead and profit, after all credits included in the change resulting from the extra work have been deducted. An allowance covering overhead and profit shall be calculated as follows:

(1) 10% on Work performed by the Contractor's own forces,
(2) 5% on Work performed by subcontractors, and
(3) 5% on products supplied by suppliers.

No other overhead charges will be permitted.

If a change results in a decrease in cost, the amount of credit to be given to the Owner by the Contractor shall be the amount of the actual decrease without overhead and profit.

If a change involves both extras and credits and results in an increase in cost, overhead and profit shall be allowed on the increase only.

The Contractor shall include in its proposal for change a statement as to the effect the proposed change will have on the Contract time.

26. Contingency Allowance

The Contractor shall have no right to draw upon any contingency allowance for payment unless specifically authorized to do so by way of change order.

In the absence of a contingency allowance being shown on the Contract Documents, the Contractor is not to assume that there is one in place. The disclosure of any contingency allowances is at the discretion of the Owner.

27. Contract Time

Time and all time limits stated in the Contract Documents are of the essence of the Contract. Contractor shall perform work expeditiously and with adequate forces to complete Work of the Contract within time specified in the contract.

28. Construction Schedule

The Contractor shall:

a) prior to the first application for payment, prepare and submit to the Owner for its review and acceptance, a construction schedule that indicates the timing of the activities of the Work and provides sufficient detail of the critical events and their inter-relationship to demonstrate the Work will be performed in conformity with the Contract Time and in accordance with the Contract Documents. The Contractor shall employ construction scheduling software, where required by the Specifications, that permits the progress of the Work to be monitored in relation to the critical path established in the schedule. The Contractor shall provide the schedule and any successor or revised schedules in both electronic format and paper copy. Once accepted by the Owner and the Consultant, the construction schedule submitted by the Contractor shall become the baseline construction schedule;

b) provide the expertise and resources, such resources including manpower and equipment, as are necessary to maintain progress under the accepted baseline construction schedule or any successor or revised schedule accepted by the Owner; and

c) monitor the progress of the Work on a weekly basis relative to the baseline construction schedule, or any successor or revised schedule accepted by the Owner, update the schedule on a monthly basis and advise the Owner in writing of any variation from the baseline or slippage in the schedule.

29. Ownership of Project Documentation

All information, data, plans, specifications, reports, estimates, summaries, photographs and all other documentation prepared by the Contractor in the connection with the provision of the goods and services under the Contract, whether they be in draft or final format, shall be the property of the Owner.

30. Submittals

Prior to the start of work, the Contractor shall submit a schedule indicating scheduled start and completion dates for each construction activity. The Contractor shall also submit three copies of shop drawings and product data required by the Contract Documents and for such other items as the Owner may reasonably request. The Contractor shall not proceed with work until the related submission has been reviewed and accepted by the Owner and the Consultant (if applicable).

31. Shop Drawings

As the Work progresses, the Contractor shall keep a complete and accurate record of all changes or deviations from the Contract Documents and shop drawings, indicating the Work as actually installed. At the completion of the Work, the Contractor shall certify by endorsement thereof, that each of the revised prints of the Drawings and Specifications are complete and accurate. Prior to the Contractor's application for final payment, the record Drawings and Specifications, arranged in proper order, indexed and endorsed, and in the following form, shall be delivered to the Owner, namely:

a) one complete set of reproducible final versions of the As-Built Drawings; and

b) the final version of the As-Built Drawings stored on AutoCAD (latest version).

32. Contract Close-Out

a) The Contractor shall submit project record drawings indicating deviations from Contract Documents resulting from changed site conditions and changes ordered by the Owner.
b) The Contractor shall submit three copies of operation and maintenance data required by the Contract Documents and for such other items as the Owner may reasonably request.
c) The Contractor shall leave maintenance materials required by the Contract Documents where directed by the Owner and shall clearly label all items.

33. Termination Provisions

Upon giving the Contractor not less than 30 days' prior written notice, the Owner may, at any time and without cause, cancel the Contract, in whole or in part. In the event of such cancellation, the Owner shall not incur any liability to the Contractor apart from the payment for the goods, material, articles, equipment, work or services that have been satisfactorily delivered or performed by the Contractor at the time of cancellation.

Failure of the Contractor to perform its obligations under the Contract shall entitle the Owner to terminate the Contract upon 10 calendar days' written notice to the Contractor if a breach which is remediable is not rectified in that time. In the event of such termination, the Owner shall not incur any liability to the Contractor apart from the payment for the goods, material, articles, equipment, work or services that have been satisfactorily delivered or performed by the Contractor at the time of termination.

All rights and remedies of the Owner for any breach of the Contractor's obligations under the contract shall be cumulative and not exclusive or mutually exclusive alternatives and may be exercised singularly, jointly or in combination and shall not be deemed to be in exclusion of any other rights or remedies available to the Owner under the contract or otherwise at law.

No delay or omission by the Owner in exercising any right or remedy shall operate as a waiver of them or of any other right or remedy, and no single or partial exercise of a right or remedy shall preclude any other or further exercise of them or the exercise of any other right or remedy.

34. Application for Progress Payment

The Contractor must provide with each application after the first, a Statutory Declaration (latest CCDC 9A form), certifying that all accounts for all subcontract, construction machinery and equipment, materials, products, labour and other indebtedness which may have been incurred by the Contractor and for which the Owner might in any way be held responsible have been paid in full or will be paid with the proceeds from such application for payment, except for amounts properly retained as holdback or as an identified amount in dispute.

After the first application for payment and with each subsequent application for payment the Contractor shall submit evidence of compliance with the applicable worker's compensation legislation at the place of the work, including payments due thereunder.

Subject to the *Construction Act* and all other applicable laws, the Owner will pay to the Contractor ninety percent (90%) of the amount shown on such certificates, less previous payments, less the amount of any liens or any written notice of a lien of which the Owner has notice.

All progress payments are not conclusive as to the value or quality of Work performed, and are subject to reopening and readjustment, until and including the date that the Owner releases the holdback for finishing work under the *Construction Act.*

35. Final Payment

When the Contractor considers that the Work is completed, the Contractor shall submit an application for final payment. The Contractor's application for final payment shall be accompanied by any documents or materials not yet delivered pursuant to the Contract Documents. The Work shall be deemed not to be performed until all of the aforementioned documents have been delivered.

Prior to the release of the holdback for finishing work under the *Construction Act*, the Contractor shall submit: Contractor's written request for release of the holdback, including a statement that no written notices of lien have been received by it; a Statutory Declaration (latest CCDC 9A form); and a final Workplace Safety & Insurance Board Clearance Certificate.

36. Payment by EFT

The term "EFT" refers to electronic funds transfer and may also include the payment information transfer.

a) All payments by the Owner under the Contract shall be made by EFT as a direct deposit to a Canadian chartered bank, save and except where:
   .1 the funds payable under the terms of the Contract are only payable in a single lump sum and not payable by installments or progress payments or otherwise than a single lump sum payment; or
   .2 the Owner is unable to release one or more payments by EFT, in which case the Contractor agrees to either:
      (1) accept payment by cheque or some other mutually agreeable method of payment; or
      (2) request the Owner to extend payment due dates until such time as the Owner makes payment by EFT, subject to paragraph (c).

b) Mandatory Submission of the Contractor's EFT Information
   .1 The Contractor is required to provide the Owner with the information required for the Owner to make payment by EFT. A purchase order may not be issued to the Contractor without this requisite information.
   .2 In the event that the EFT information changes, the Contractor shall be responsible for providing forthwith the updated information to the Owner.
   .3 Where the Contractor provides changes to the EFT information more than once in a calendar year, the Contractor shall also pay any fee approved by the Council of the City of Hamilton for each additional change.

c) Suspension of Payment
   .1 The Owner is not required to make any payment under the Contract until its designated officer has received the correct EFT payment information from the

Contractor. Until receipt of the correct EFT information, any invoice or contract payment request shall be deemed not to be a proper invoice or valid request for the purpose of payment under the Contract. No interest or any other manner of claim whatsoever for delayed or non-payment shall be permitted as a result of incorrect EFT information or improper delivery of EFT payment information.

.2 If the EFT information changes after submission of correct EFT information, the Owner shall have 30 calendar days within which to update the changed EFT information after its receipt by the designated officer to the extent payment is made by EFT. However, the Contractor may request that no further payments be made until the updated EFT information is implemented by the Owner's payment office. If such suspension would result in a late payment under any payment terms of the Contract, the Contractor's request for suspension shall extend the due date for payment by the number of days of the suspension.

d) Liability for Uncompleted or Erroneous Transfers

.1 If an uncompleted or erroneous transfer occurs because the Owner used the Contractor's EFT information incorrectly, the Owner remains responsible for making a correct payment.

.2 If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 calendar days of the Owner's release of the EFT payment transaction instruction, and

.3 Funds are no longer under the control of the Owner's payment office, the Owner is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

.4 If the funds remain under the control of the Owner's payment office, the Owner shall not make payment and the provisions of paragraph (c) shall apply.

e) EFT and Timely Payment

A payment shall be deemed to have been made in a timely manner in accordance with the payment terms of the Contract if, in the Owner's EFT payment transaction instruction released to its bank, the date specified for settlement of the payment is on or before the last date for due payment under the terms of the Contract, provided the specified payment date is a valid date when the Owner's bank is open for business.

f) Liability for Change of EFT Information by Financial Agent

The Owner is not liable for errors resulting from changes to EFT information provided by the Contractor's financial agent.

37. Construction Liens

(a) In the event that a construction lien arising from the performance of the work is registered against the Owner lands, the Contractor shall, within ten calendar days, at its sole expense, vacate or discharge the lien from title to the premises. If the lien is merely vacated, the Contractor shall, if requested, undertake the Owner's defence of any subsequent lawsuit commenced in respect of the lien at the Contractor's sole expense.

(b) In the event that the Contractor fails or refuses to vacate or discharge a construction lien within ten (10) calendar days of receiving notice, the Owner shall, at its option, be entitled to take all steps necessary to vacate and/or discharge the lien, and all costs and expenses incurred by the Owner in so doing

(including, without limitation, legal fees on a solicitor and client basis and any payment which may ultimately be made out of or pursuant to security posted to vacate the lien) shall be for the account of the Contractor and the Owner may deduct such amounts from amounts otherwise due or owing to the Contractor. If the Owner vacates the lien, it shall be entitled to retain all amounts it would be required to retain pursuant to the Construction Act (Ontario) if the lien had not been vacated.

(c) Without limiting any of the foregoing, the Contractor shall indemnify the Owner for all costs (including, without limitation, legal fees on a solicitor and client basis) it may incur in connection with the claim for lien or subsequent lawsuit brought in connection with the lien, or in connection with any other claim or lawsuit brought against the Owner by any person that provided services or materials to the project lands which constituted a part of the work.

(d) This section does not apply to construction liens claimed by the Contractor.

38. Occupational Health and Safety

a) The Contractor shall comply with all federal, provincial or municipal occupational health and safety legislative requirements, including, and without limitation, the Occupational Health and Safety *Act*, R.S.O., 1990 c.0.1 and all regulations thereunder, as amended from time to time (collectively the "OHSA").

b) Nothing in this section shall be construed as making the Owner the "employer" (as defined in the OHSA) of any workers employed or engaged by the Contractor for the Work, either instead of or jointly with the Contractor.

c) The Contractor agrees that it will ensure that all subcontractors engaged by it are qualified to perform the Work and that the employees of subcontractors are trained in the health and safety hazards expected to be encountered in the Work.

d) The Contractor acknowledges and represents that:

i) The workers employed to carry out the Work have been provided with training in the hazards of the Work to be performed and possess the knowledge and skills to allow them to work safely;

ii) The Contractor has provided, and will provide during the course of the agreement, all necessary personal protective equipment for the protection of workers;

iii) The Contractor’s supervisory employees are competent, as defined in the OHSA, and will carry out their duties in a diligent and responsible manner with due consideration for the health and safety of workers;

iv) The Contractor has in place an occupational health and safety policy in accordance with the OHSA; and

v) The Contractor has a process in place to ensure that health and safety issues are identified and addressed and a process in place for reporting work-related injuries and illnesses.

e) The Contractor shall provide, at the request of the General Manager or designate, the following as proof of the representations made in paragraph d(i) and d(iv):

i) documentation regarding the training programs provided or to be provided during the Work (i.e. types of training, frequency of training and re-training); and

ii) the occupational health and safety policy.

f) The Contractor shall immediately advise the General Manager or designate in the event of any of the following:

i) A critical injury that arises out of Work that is the subject of the Contract;

ii) An order(s) is issued to the Contractor by the Ministry of Labour arising out of the Work that is the subject of this agreement;

iii) A charge is laid or a conviction is entered arising out of the Work that is the subject of the Contract, including but not limited to a charge or conviction under the OHSA, the Criminal Code, R.S.C 1985, c. C-46, as amended and the Workplace Safety and Insurance Act, 1997, S.O. 1997, c. 16, Sched. A, as amended.

iv) The Contractor shall be responsible for any delay in the progress of the Work as a result of any violation or alleged violation of any federal, provincial or municipal health and safety requirement by the Contractor, it being understood that no such delay shall be a force majeure or uncontrollable circumstance for the purposes of extending the time for performance of the Work or entitling the Contractor to additional compensation, and the Contractor shall take all necessary steps to avoid delay in the final completion of the Work without additional cost to the Owner.

g) The Contractor shall be solely responsible for construction safety at the place of the work and for compliance with the rules, regulations, and practices required by the applicable construction health and safety legislation and shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Work.

39. Toxic and Hazardous Substances

a) If the Contractor:
.1 encounters toxic or hazardous substances at the place of the work, or
.2 has reasonable grounds to believe that toxic or hazardous substances are present at the place of work, which were not brought to the place of work by the Contractor or anyone whom the Contractor is responsible and which were not disclosed by the Owner, the Contractor shall

.3 take all necessary steps, including stopping the Work, to ensure that no person;s exposure exceeds any applicable time weighted levels prescribed by applicable law, and

.4 immediately report the situation to the Owner and the Consultant.

b) If the Owner and Contractor do not agree on the existence, significance of, or whether the toxic or hazardous substances were brought onto the place of the work by the Contractor or anyone for whom the Contractor is responsible, or whether any toxic or hazardous substances or materials already at the place of the work (and which were then harmless or stored, contained or otherwise dealt with in accordance with legal and regulatory requirements) were dealt with by the Contractor or anyone for whom the Contractor is responsible in a manner which does not comply with legal and regulatory requirements, or which threatens human health and safety or the environment, or material damage to the property of the Owner or others, the Owner shall retain and pay for an independent qualified expert to investigate and determine such matters. The expert's report shall be delivered to the Owner and the Contractor.

c) If the Owner and Contractor agree or if the expert referred to in paragraph (b) determines that the toxic or hazardous substances were brought onto the place of the work by the Contractor or anyone for whom the Contractor is responsible OR that any toxic or hazardous substances or materials already at the place of the work (and which were then harmless or stored, contained or otherwise dealt with in accordance with legal and regulatory requirements) were dealt with by the Contractor or anyone for whom the Contractor is responsible in a manner which does not comply with legal and regulatory requirements, or which threatens human health and safety or the environment, or material damage to the property of the Owner or others, the Contractor shall promptly at the Contractor's own expense:

.1 take all necessary steps, in accordance with applicable legislation in force at the place of the work, to safely remove and dispose the toxic or hazardous substances;

.2 make good any damage to the work, the Owner's property or property adjacent to the place of the work;

.3 reimburse the Owner for reasonable costs incurred under paragraph (a) and as a result of the delay; and

.4 indemnify the Owner as required by this Contract.

40. Workplace Safety and Insurance Board

a) The Contractor shall be in good standing with the Workplace Safety and Insurance Board (“WSIB”) throughout the term of the Contract. If requested by the General Manager or designate, the Contractor shall produce certificates issued by the WSIB to the effect that they have paid in full their assessment based on a true statement of the amount of payrolls. If the Contractor is exempt from WSIB coverage, the Contractor shall provide evidence of such exemption satisfactory to the General Manager or designate;
and

b) The Contractor shall provide such evidence prior to commencing the Work, subsequently with each application for progress payment, and at any time during the term of the Contract when requested by the General Manager or designate.

41. Ontarians with Disabilities Act, 2001 (ODA) and the Accessibility for Ontarians with Disabilities Act, 2005 (AODA)

The Successful Bidder shall ensure that all of its employees, agents, volunteers and any subcontractors comply with all applicable accessibility laws, regulations and by-laws, including but not limited to the Ontarians with Disabilities Act, 2001 (ODA), the Accessibility for Ontarians with Disabilities Act, 2005 (AODA), Ontario Regulation 429/07 (Accessibility Standards for Customer Service) and Ontario Regulation 191/11 (Integrated Accessibility Standards), during the term of the Contract.

Without limiting the generality of the foregoing, the Successful Bidder shall ensure that all of its employees, agents, volunteers and any subcontractors who, as part of the Contract:

(a) deal with members of the public or other third parties, or
(b) participate in developing policies, practices and procedures governing the provision of goods or services to members of the public or other third parties,

receive training about the provision of its goods or services to persons with disabilities. The Successful Bidder shall ensure that such training includes, without limitation, a review of the purposes of the AODA and the requirements of Ontario Regulation 429/07.

Prior to commencing Work, the Successful Bidder shall provide a Statement of Acknowledgement to the City that it has read and understands the City's AODA Customer Service Standard Handbook; that it has provided the training required by said Handbook; and that it will comply with the requirements of said Handbook and applicable accessibility laws, regulations and by-laws.

The City reserves the right to inspect the Successful Bidder's training records relating to Ontario Regulation 429/07 and Ontario Regulation 191/11, which must describe its training policy and summarize the training, including to whom the training has been given and when the training was given. The City also reserves the right to require the Successful Bidder to amend its training policies, practices and procedures if the City deems the training is not compliant with the requirements of Ontario Regulation 429/07 and Ontario Regulation 191/11.

See City of Hamilton's AODA Customer Service Standard Handbook at:
hamilton.ca/government-information/accessibility-services/accessibility-standards

42. Set-off

(a) The parties agree that the Owner has the contractual right to set-off against any amounts owing by the Owner to the Contractor under this Contract, any amount

owed to the Owner by the Contractor, whether such amount arises from this Contract or under any other contract between the Owner and the Contractor, irrespective of whether or not those contracts are related or arise at equity or law. This right of set-off shall be subject to the Construction Act, as applicable.

(b) The costs to the Owner of sending or publishing any notice or document required by the Construction Act shall constitute damages to the Owner and may be retained by the Owner in accordance with its set-off rights.

SUPPLEMENTARY CONTRACT TERMS AND CONDITIONS

In addition to any other terms and conditions contained elsewhere in this RFQ, the following terms and conditions form part of any contract(s) entered into between the Owner and any Successful Bidder(s) (the "Contractor") and are deemed to be incorporated into any purchase order(s) issued in connection with this RFQ.

1. Insurance

Throughout the term of the Contract the Contractor shall obtain and maintain at its own expense, including the cost of any applicable deductible, the following policies of insurance:

a) Commercial General Liability Insurance, written on IBC Form 2100 or its equivalent, including but not limited to bodily and personal injury liability, property damage, and having an inclusive limit of not less than $2,000,000 per occurrence and $4,000,000 in the aggregate and endorsed to include the City of Hamilton ~~Owner~~ as additional insured; and

b) Standard Form Automobile Liability Insurance that complies with all requirements of the current legislation of the Province of Ontario, having an inclusive limit of not less than) $2,000,000 per occurrence for Third Party Liability, in respect of the use or operation of vehicles owned, operated or leased by the Contractor for the provision of services.

(c) Non-Owned Automobile Liability Insurance in standard form having an inclusive limit of not less than $2,000,000 per occurrence in respect of vehicles not owned by the Contractor, that are used or operated on its behalf for the provision of services under the Contract;

The Contractor shall deliver to the Owner certificates of insurance originally signed by authorized insurance representatives, or, if required by the Owner, certified copies of such policies at the time of execution of the Contract or in any event prior to commencing the Work, and thereafter during the term of the Contract no later than 20 business days prior to the renewal date of each applicable policy. Such policies shall also require at least 30 days' written prior notice of any change to or amendment, cancellation, expiration or termination of the coverage under such policies to be given to the Owner.

Certificate Holder will be addressed as the City of Hamilton, and certificates shall be mailed to City Hall, 71 Main Street West, Hamilton, Ontario L8P 4Y5 Attention: **Project Manager – Structures, Public Works Department / Roads & Traffic Division.**

2. Construction Schedule

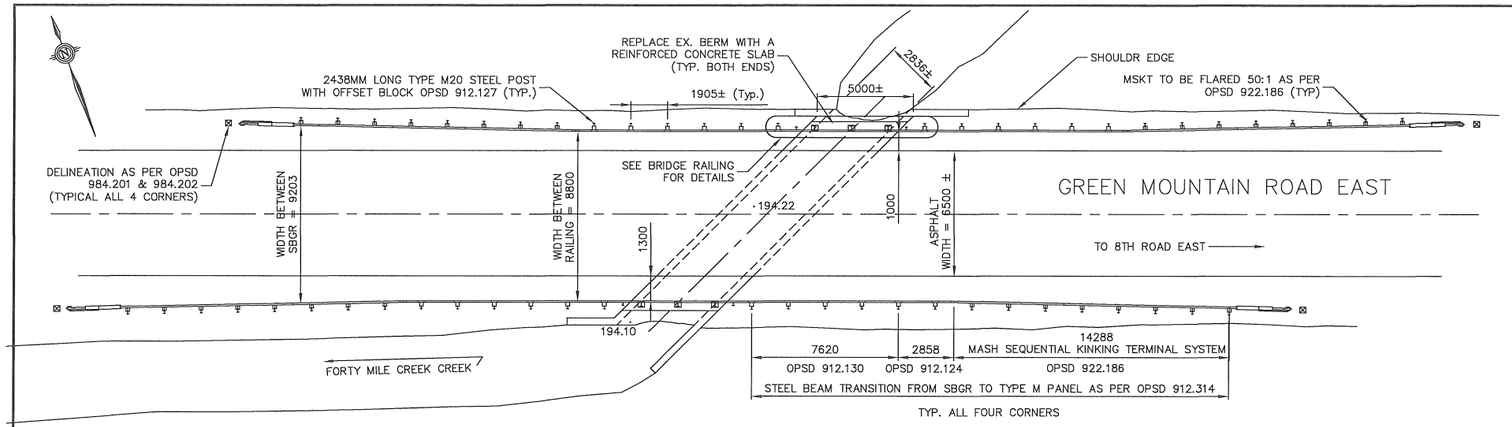
The Work under this Contract must be substantially performed by **May 31th, 2019**.

Due to the time constraints regarding the Work, the Contractor shall maintain rigorous control of all elements of the Work for which the deadlines are indicated in the Contract Documents.

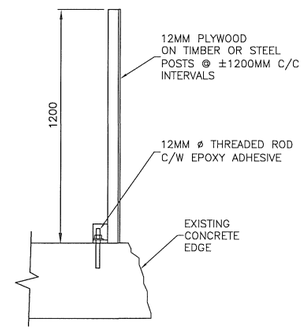
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CONTRACT No.
DRAWING No. 18-BR-02

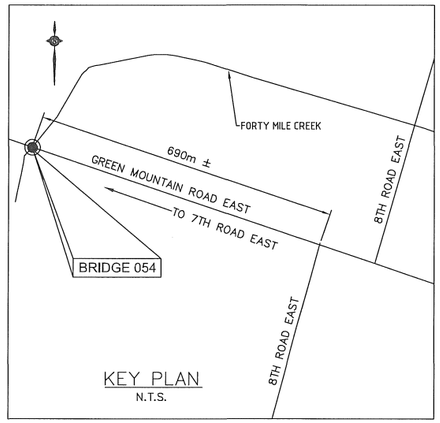
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1 OF 1



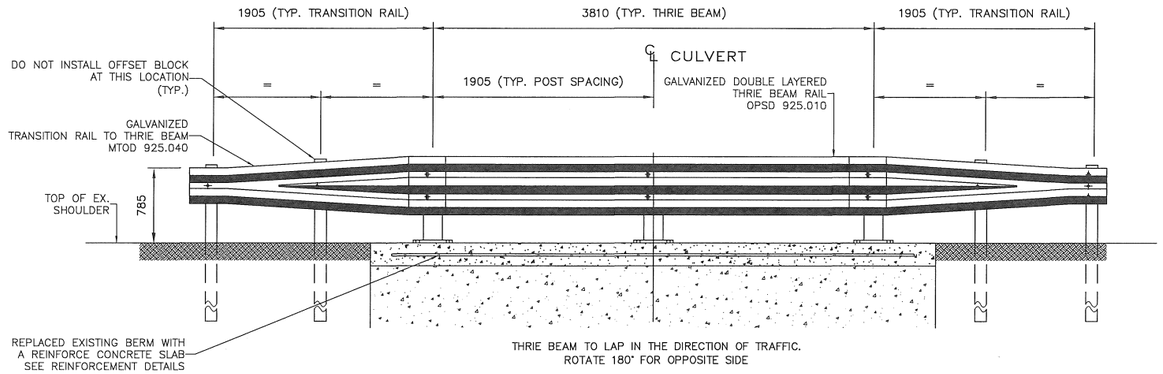
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N.T.S.



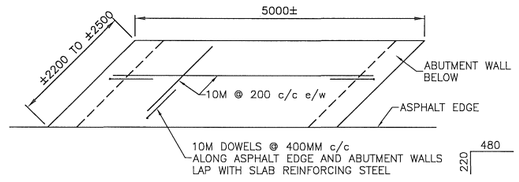
SOLID SILT FENCE
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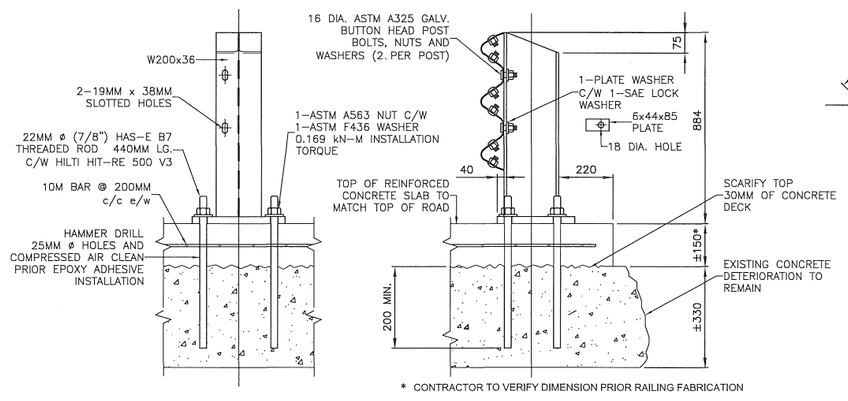
KEY PLAN
N.T.S.



PROPOSED BRIDGE RAILING
N.T.S.

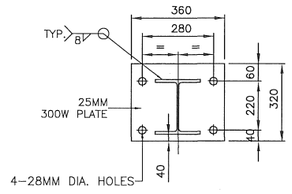


SLAB REINFORCING DETAILS
N.T.S.



* CONTRACTOR TO VERIFY DIMENSION PRIOR RAILING FABRICATION

THRIE BEAM POST DETAILS (12 REQ.)
N.T.S.



BASE PLATE DETAILS
N.T.S.

GENERAL NOTES

1. CONFORM TO GENERAL CONDITIONS AND SPECIFICATIONS OF THE RFQ. READ SPECIFICATIONS IN CONJUNCTION WITH THESE DRAWINGS. READ DRAWINGS IN CONJUNCTION TO EACH OTHER.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN HIGHWAY BRIDGE DESIGN CODE CAN/CSA S6-06.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE ONTARIO OCCUPATIONAL HEALTH AND SAFETY ACT AND MOL SAFETY REGULATION FOR CONSTRUCTION PROJECTS.
4. CONTRACTOR SHALL EXAMINE THE SITE AND FAMILIARIZE HIM/HER SELF WITH ALL EXISTING CONDITIONS INCLUDING EQUIPMENT, MATERIALS AND ACCESS TO THE SITE. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL EXISTING CONDITIONS THAT AFFECT THE WORK, INCLUDING MAINTAINING OWNERS' OPERATIONS DURING CONSTRUCTION WORKS.
5. FIELD CHECK ALL DIMENSION PRIOR ANY WORK AND REPORT ANY INCONSISTENCIES TO THE PROJECT MANAGER OR THE INSPECTOR PRIOR COMMENCING OF WORKS.
6. CONTRACTOR MUST PROCURE THE MOL NOTICE OF PROJECT AND UTILITY CLEARANCES BEFORE MOBILIZATION. UTILITY CLEARANCE CERTIFICATES AND NOTICE OF PROJECT DOCUMENTS MUST BE AVAILABLE ON SITE ALL TIMES.

SCOPE OF WORK

THE SCOPE OF WORK RELATED TO THE MAINTENANCE REPAIRS FOR THE SUBJECT BRIDGE AS INDICATED ON THE DRAWINGS INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

1. PROVIDE TRAFFIC CONTROL ACCOMODATIONS.
2. INSTALL DUST AND DEBRIS SCREENS AT THE ENDS OF THE CULVERT TO PREVENT ENTERING OF DEBRIS INTO THE WATER BODY.
3. REMOVE THE EXISTING BERMS, SCARIFY THE TOP 30 MM OF THE CONCRETE DECK AND PLACE A REINFORCE CONCRETE SLAB AS PER CONTRACT DRAWINGS .
4. FABRICATE, DELIVER TO THE SITE AND ERECT NEW THRIE BEAM RAILING SYSTEMS AS PER CONTRACT DRAWINGS.
5. SUPPLY AND INSTALL NEW ROADSIDE PROTECTION (SBGR AND SBEATS) AT ALL FOUR CORNERS OF THE BRIDGE.
6. REMOVE ALL EXCESS OF MATERIALS, DEBRIS AND EQUIPMENT FROM THE SITE ON COMPLETION OF THE WORK.

TRAFFIC CONTROL

1. TRAFFIC CONTROL PLAN (TCP) SHALL BE PREPARED AS PER THE LATEST EDITION OF THE ONTARIO TRAFFIC MANUAL - BOOK 7 (JANUARY 2014). TCP SHALL BE SUBMITTED TO THE CITY FOR GENERAL CONFORMANCE REVIEW.
2. MAINTAIN TRAFFIC IN BOTH DIRECTIONS AT ALL TIMES.

ENVIRIONMENTAL PROTECTION

1. CONTRACTOR SHALL DESIGN. SUPPLY AND INSTALL SOLID SILT FENCES ON THE DECK COMPLETE WITH EIGHT (8) METRES OF OPSD 219.110 LIGHT DUTY SILT FENCE AT EACH CORNER TO PREVENT CONSTRUCTION DEBRIS FROM FALLING IN THE WATERBODY.

CONCRETE REEMOVALS

1. FOR LIMITS OF REMOVALS REFER TO THE DRAWINGS. REMOVALS (SCARIFYING) SHALL BE IN COMPLIANCE WITH OPSS.MUNI 928.
2. CONTRACTOR SHALL CARRY OUT REMOVAL OPERATIONS WITH UP.MOST CARE TO ENSURE THAT EXISTING REINFORCING STEEL REMAINS UNDAMAGED.
3. KEEP NOISE, DUST AND INCONVENIENCE TO TRAFFIC AND LOCAL RESIDENTS TO A MINIMUM.

CONCRETE

1. CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF CAN / CSA A23.1 AND A23.2 RESPECTIVELY.
2. ALL CONCRETE SHALL HAVE THE FOLLOWING MINIMUM 28 DAY COMPRESSIVE STRENGHT AND SPECIFICATION: i) 30 MPa STRENGTH; ii) 19 MM MAXIMUM SIZE AGGREGATE; iii) C1 EXPOSURE.
3. CONCRETE BONDING AGENT BETWEEN NEW AND EXISTING SURFACES SHALL BE SIKATOP ARMATEC 110 BY SIKA LTD.
4. NO CONCRETE SHALL BE POURED IN COLD WEATHER (I.E. LESS THAN 5°C) UNLESS THE CONTRACTOR TAKES APPROPIATE PRECAUTIONS TO PROTECT THE POUR PRIOR, DURING AND AFTER CONCRETE PLACEMENT AS PER TABLE 3 OF OPSS.MUNI 904.

REINFORCING STEEL

1. REINFORCING STEEL SHALL BE GRADE 400W (BLACK) UNLESS OTHERWISE SPECIFIED.
2. WHERE REINFORCING STELL IS TO BE INSTALLED BY DRILLING AND BONDING (DOWELS), THE CONTRACTOR SHALL USE HILTI HIT-RE 500 V3 IN STRICT COMPLIANCE WITH THE MANUFACTURER RECOMMENDATIONS.
3. THE CLEAR COVER TO REINFORCING STEEL SHALL BE 70±20 MM.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL SHALL CONFORM TO CAN / CSA G40.20/G40.21.
2. STEEL SECTIONS SHALL BE GRADE 350W. ROLLED SECTIONS SHALL CONFORM TO CAN / CSA G40.21. STEEL PLATES SHALL BE GRADE 300W OR 350W.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND MILL CERTIFICATES PRIOR FABRICATION FOR GENERAL REVIEW.
4. ALL WELD SHALL BE SHOP WELD CONFORMING TO CAN/CAS W59.
5. ALL STEEL COMPONENTS INCLUDING BOLTS ASSEMBLIES SHALL BE GALVANIZED IN ACCORDANCE TO CAN/CSA G164M. GALVANIZING MUST BE DONE AFTER FABRICATION. ANY GALVANIZED SURFACE DAMAGED DURING SHIPPING AND OR ERECTION SHALL BE GIVEN TWO COATS OF ZINC RICH PAINT.
6. ALL BOLT ASSEMBLIES SHALL MEET THE REQUIREMENTS OF ASTM A325.
7. STRUCTURAL STEEL SECTIONS MUST BE FABRICATED, DELIVERED AND ERECTED AS PER OPSS.MUNI 906.

BRIDGE 054 - GREEN MOUNTAIN ROAD EAST - RAILING INSTALLATION

18-BR-02 (1)

No.	REVISIONS	INITIAL	DATE

DRAWN BY: R.G.S. DATE: DECEMBER 2018

REFERENCE MATERIAL:

OPSD 912.124	OPSD 912.314	OPSD 984.202
OPSD 912.127	OPSD 922.186	MTOD 925.040
OPSD 912.130	OPSD 925.010	
OPSD 912.186	OPSD 984.201	

Geodetic Bench Mark Index No. Elevation=
Borehole Report –

SCALE
NOT TO SCALE

Project Manager - Structures
Rafael Sandoval, P. Eng.
Manager of Capital Rehabilitation & Tech. Ops.
Robert Marques (A)

CITY OF HAMILTON
Public Works Department

BRIDGE 054
GREEN MOUNTAIN ROAD EAST
TL-1 RAILING INSTALLATION
GENERAL ARRANGEMENT

C:\pwxm_local\rsandova\d0290510\18-BR-02 – Green Mountain Rd E – Railing Installation.dwg Plan 4-Dec-18 3:36:51 PM

CONSTRUCTION SPECIFICATION FOR TRAFFIC CONTROL SIGNING

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706.10 BASIS OF PAYMENT

706.1 SCOPE

This Work consists of accommodating traffic through and/or around Work areas and the installation, maintenance and removal of temporary signing and barriers which are specifically related to construction and/or maintenance operations and which are generally removed when the Work is completed or the situation returns to normal.

706.2 REFERENCES

This Special Provision refers to the following Standards, Specifications or publications:

Canadian General Standards Board (CGSB)

CGSB 62-GP-11M, May 1978 - Marking Material, Retroreflective Enclosed Lens, Adhesive Backing

Authority Publications - Ministry of Transportation of Ontario:

Traffic Control Manual for Roadway Work Operations - Field Edition

Manual of Uniform Traffic Control Devices, M.U.T.C.D.

706.3 DEFINITIONS

For the purpose of this Special Provision, the following definitions apply:

Construction Signs means all traffic control signs and associated devices identified in Part A, Division 5, Temporary Conditions, M.U.T.C.D. Manual, including vehicles and sign trailers, required to support signs and equipment to supply sign lighting, excluding the contract identification sign and highway number markers.

Manual means the "Traffic Control Manual for Roadway Work Operations", Field Edition and the Manual of Uniform Traffic Control Devices, M.U.T.C.D.

706.5 DESIGN AND SUBMISSION REQUIREMENTS

706.5.1 Design

The Contractor shall implement traffic accommodation controls on all aspects of the Work to ensure the safety of the workers and the travelling public as per the 2014 Ontario Traffic Manual, Book 7 – Temporary Conditions (Field Edition / Office Edition).

The Contractor shall provide, install, maintain and protect traffic control devices such as signs barriers, barricades, fences, lights, and such other methods, including the use of Traffic Control Persons (TCPs) or Flag persons and make suitable provisions to accommodate all vehicular and pedestrian traffic safely with a minimum of inconvenience through or around the Work area.

Construction Zone Advisory Signing for Long Duration (LD) work lasting 24 hours or longer shall follow Book 7 TL-1 and TL-2 Traffic Layouts. The Contractor shall procure at his/her own expense traffic volumes (counts) with the City's Traffic Operations and Engineering Services Division.

The Contractor shall maintain traffic in both directions at all times.

706.5.2 Submission Requirements

Upon request, the Contractor shall provide proof of Book 7 Traffic Work Zone Safety training for all staff performing the Work.

Traffic Control Plans shall be prepared by a qualified person trained in Book 7 and submitted to the City for review at least one week prior mobilization for general conformance review and coordination.

706.6 MATERIALS

706.6.1 Reflective Surfaces

Reflective materials and surfaces shall conform to M.U.T.C.D.

706.6.2 Signs

All details with respect to materials, dimensions and other requirements except reflectivity shall conform to the M.U.T.C.D.

706.6.3 Road Sweeping

Road sweeping equipment shall be able to pick up debris close to the curb, and across its wide area. The pick up head shall be hydraulically driven and be at least 2286 mm wide. Sweeper shall be furnished with ample side brooms sufficient to provide a 3658 mm wide sweep path.

Brooms shall be able to extend or retract, and provide a powerful scrubbing action. Trailing arms shall be

able to follow road contours.

The sweeper vacuum shall be furnished with a 300 mm suction hose directly connected to the hoper. The hoper shall have a minimum capacity of 6.00 m3 in order to provide extended sweeping time. Sweeping equipment shall be furnished with a dust suppression system feed with an adequate water tank.

706.7 CONSTRUCTION

706.7.1 Traffic Control Signing

Traffic control signing shall include the work of supplying, locating, relocating, erecting, operating and maintaining construction signs, and shall conform to the Manual unless otherwise specified. The Contract identification signs shall be supplied by the City.

Signs shall be in place before work affecting traffic begins, shall be well maintained to be effective at all times, shall remain operational throughout the duration of the operation requiring signs, and shall be removed upon completion of the operation.

Ramps or roadways identified in the contract for complete closure shall be signed conforming to the M.U.T.C.D.

Roads and sidewalks shall be swept prior removal of traffic control devices.

If requested, the Contractor shall collect the Contract identification signs from the 1375 Upper Ottawa St yard. Upon mobilization, the Contractor shall erect the contract identification signs at conspicuous locations, and maintain them throughout the duration of the project.

706.7.2 Existing Signing

Any existing signs removed by the Contractor to accommodate construction shall be kept operational by placement on a temporary support and shall be reinstalled conforming to the M.U.T.C.D after the work operation is complete. Temporarily relocated existing signs shall be kept at the same height, offset and basic location from traffic as before removal.

706.7.3 Hours of Operation

All Work within the road allowance shall be performed during weekdays from 7:00 am to 5:00 pm unless otherwise approved by the Project Manager in writing.

706.7.4 Management of Excess Materials

The Contractor shall assume ownership of all construction debris and/or excess of materials and ensure their safe disposal.

706.10 BASIS OF PAYMENT

The Contractor shall include the cost of mobilization and demobilization to / from the site of work of all necessary equipment and labour force required to complete the Scope of Work of this Contract within the Unit Price Bid per “Traffic Control”.

The Contractor shall include all costs associated with the management and disposal of excess materials including labour, sweeping equipment, haulage and material disposal fees within the Unit Price Bid per “Traffic Control”.

Payment will be made at the Unit Price Bid per “Traffic Control”. This payment will be full compensation for all labour, materials, equipment, tools, and incidentals necessary to complete the Work.

CONSTRUCTION SPECIFICATION FOR METAL RAILINGS FOR STRUCTURES

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908.7 CONSTRUCTION

908.8 QUALITY ASSURANCE - Not Used

908.9 MEASUREMENT FOR PAYMENT- Not Used

908.10 BASIS OF PAYMENT

908.1 SCOPE

This Special Provision covers the requirements for metal railing for structures including posts and anchors.

908.2 REFERENCES

This Special Provision refers to the following standards, specifications, or publications:

CSA Standards

G40.20/G40.21-04 (R2009)	General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steels
G164-M92 (R2003)	Hot Dip Galvanizing of Irregularly Shaped
Articles O80-Series 08	Wood Preservation
W47.1-03 (R2008)	Certification of Companies for Fusion Welding of Steel
W47.2-M1987 (R2008)	Certification of Companies for Fusion Welding of Aluminum
W59.2-M1991 (R2008)	Welded Aluminum Construction
S6-14	Canadian Highway Bridge Design Code
G189-1966 (R2003)	Sprayed Metal Coatings for Atmospheric Corrosion Protection

ASTM International

A 27/A 27M-08	Specification for Steel Castings, Carbon, for General Application
A 307-07b	Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength
A 314-08	Specification for Stainless Steel Billets and Bars for Forging

A 325M-09	Standard Specification for Structural Bolts, Steel, Heat Treated 830 MPa Minimum Tensile Strength [Metric]
A 780/A 780M-09	Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
B 108M-08	Specification for Aluminum-Alloy Permanent Mold Castings B 117-09 Standard Practice for Operating Salt Spray (Fog) Apparatus
B 209-07	Specification for Aluminum and Aluminum-Alloy Sheet and Plate
B 221-08	Aluminum and Aluminum-Alloy Extruded Bars, Red, Wire, Shapes and Tubes
D 4541-09	Test Methods for Pull-Off Strength of Coatings Using Portable Adhesion Testers

Canadian General Standards Board (CGSB)

CAN/CGSB-1.181-99 Ready-Mixed Organic Zinc-Rich Coating

Society for Protective Coatings (SSPC)

SSPC - SP 1, November 2004 Solvent Cleaning
SSPC - SP11, November 2004 Power Tool Cleaning to Bare Metal

U.S. General Services Administration:

FED-STD-595C-Jan. 16, 2008 Colors Used in Government Procurement

908.3 DEFINITIONS

For the purpose of this specification, the following definitions apply:

Barrier Wall Railing means a metal railing that is fastened to the top of a concrete barrier wall and is part of a barrier system that has undergone the barrier appraisal requirements of CAN/CSA-S6.

Bicycle Railing means an all-metal barrier system mounted on a structure that has been designed to meet the bicycle barrier requirements of CAN/CSA-S6.

Engineer means a professional engineer licensed by the Professional Engineers Ontario to practice in the Province of Ontario.

Metal Traffic Barrier means an all-metal traffic barrier system mounted on a structure that has undergone the barrier appraisal requirements of CAN/CSA-S6.

Parapet Wall Railing means a metal railing that is fastened to the top of a concrete parapet wall and is part of a barrier system that has undergone the barrier appraisal requirements of CAN/CSA-S6.

Pedestrian Railing means an all-metal barrier system mounted on a structure that has been designed to meet the pedestrian barrier requirements of CAN/CSA-S6.

Railing means a general or generic term for railing and includes barrier wall railing, pedestrian railing, bicycle railing, parapet wall railing, or metal traffic barrier.

908.5 MATERIALS

908.5.1 Metal Traffic Barrier

Materials shall be according to the barrier as specified in the Contract Documents.

908.5.2 Barrier Wall Railing, Parapet Wall Railing, Pedestrian Railing, and Bicycle Railing

908.5.2.1 Steel Railing and Steel Posts

Steel shall be according to CSA G40.20/G40.21.

Rails and posts shall be Grade 350W or 350WT as specified in the Contract Documents.

Steel plate shall be Grade 300W or 350W as specified in the Contract Documents.

Galvanized bolts and nuts shall be according to ASTM A307 or ASTM A325M as specified in the Contract Documents.

Cast steel posts shall be according to ASTM A 27, Grade 65-35.

Setscrews shall have zinc-nickel plating applied to a thickness of 10 µm. The plating shall show no red rust after 1,000-hour exposure to salt spray according to ASTM B 117.

All steel surfaces shall be protected by hot dipped galvanizing according to CAN/CSA G164-M, providing a minimum zinc mass of 610 g\m2.

Paint shall be as specified in the Contract Documents.

908.5.2.2 Hardware - Galvanized

Bolt assemblies shall be according to ASTM A 325 and include hex nuts, flat washers, and lock washers. The assemblies shall be galvanized according to CAN/CSA G164-M.

908.5.3 Anchorage Assembly

Anchorage assemblies shall be as specified in the Contract Documents.

Epoxy adhesive anchoring systems shall be HILTI HIT-RE 500 V3.

908.5.4 Grout

Grout shall be non-staining, non-shrink cement based grout or non-staining, non-shrink epoxy based grout, and as specified in the Contract Documents.

908.5.5 Zinc Rich Paint

Zinc rich paint shall be according to CAN/CGSB-1.181.

908.7 CONSTRUCTION

908.7.1 General

Railing components shall be protected from damage and distortion during handling, transportation, storage, and installation.

Bedding grout shall not be used. Epoxy grout can be placed under post bases, as necessary, to fill the voids. The epoxy grout shall not have a thickness exceeding 3 mm. The mixing, surface preparation, installation, and curing shall be according to the manufacturer's recommendations.

908.7.2 Alignment

The railing shall be installed to the elevations and alignments as specified in the Contract Documents within a tolerance of ± 6 mm and with no kinks or other visible breaks in alignment throughout the length of the installation.

908.7.3 Anchorages

908.7.3.1 General

Anchorage assemblies shall be installed as specified in the Contract Documents.

The work shall include installation of the anchorage assemblies installed after concrete placement.

908.7.3.2 Anchorages Installed After Concrete Placement

Anchorages shall be installed after concrete placement. Holes shall be hammer drilled, anchoring grout placed, and anchors properly positioned at locations as specified in the Contract Documents. The placement of the anchoring agent and the anchors shall be according to the manufacturer's recommendations, except as modified herein. The holes shall be free of dust and debris immediately prior to placement of the anchoring agent. When the anchoring agent fails to fill the hole after insertion of the anchor, additional anchoring agent shall be immediately added to fill the hole.

The inside surface of the holes shall be roughened and dry prior to the application of the epoxy adhesive.

908.7.4 Fabrication of Railings

908.7.4.1 General

The railing system components shall be fabricated according to the details specified in the Working Drawings. Field modification shall only be done when approved by the Project Manager.

When welding is required, the fabricator shall be certified according to Division 2.1 of CSA W47.1 for steel railings or CSA W47.2 for aluminum railings.

908.7.4.2 Steel Components

Fabrication and welding shall be according to OPSS 906.

All flame cut edges shall be as smooth and regular as those produced by edge planing and shall be free of slag.

When the galvanized surface of a railing component is damaged or uncoated, the exposed steel shall be repaired if the cumulative total of the damaged and uncoated areas does not exceed 2% of the total area of each component or 0.02 m^2, whichever is less. Where the cumulative area exceeds these amounts, the damaged coating shall be stripped and the component re-galvanized according to CAN/CSA G164-M.

Damaged and uncoated areas shall be cleaned of all rust and other contaminants and repaired using one of the following methods:

a) Soldering method using zinc-tin-copper solder: The surface preparation of damaged and uncoated areas and the application of the flux and zinc-tin- copper solder shall be according to ASTM A 780 and the manufacturer's recommendations. The finished thickness of the metal coating in the repaired area shall be a minimum of 90 µm. The repaired surface shall be ground flush with the surrounding galvanized coating.

b) Metallizing: The surface preparation and application of thermal spray metal coating or metallizing shall be done according to CSA G189 to provide a minimum thickness of 100 µm, applied in two separate coats. The metal coating on the repaired areas shall have a minimum adhesion of 2.8 MPa, when tested according to ASTM D 4541.

c) Repair by epoxy zinc/epoxy/polyurethane paint system: This method of repair of galvanized coating is permitted when:

i. The individual damaged and uncoated area with exposed steel is less than 625 mm^2.
ii. The dry film thickness of the galvanized (zinc) coating of a structural member in localized areas does not meet the specification requirements but exceeds 60 µm.
iii. The number of repair spots does not exceed 6 per each 12 m section of galvanized rail bar. The number of repair spots in each galvanized rail post shall be limited to a maximum of 2.

Repair of galvanized coating defects on railings and posts shall be made with coating material from the MTO's pre-qualified products list or, when specified in the Contract Documents, the Owner's pre-qualified products list.

i. Structural coating material shall be low volatile organic compounds (VOC).
ii. All three listed coatings shall be from the same manufacturer applied in the correct order.
iii. The colour of the finish coat shall be equivalent to 17178 aluminum according to FED-STD-595C.

Surface preparation for repairing by this procedure requires hand or power tool cleaning of the damaged or uncoated area using clean equipment, scraping of the edges of metal coating to remove loose edges, and feathering of the edges of intact coatings and abrading of surface, followed by solvent cleaning according to SSPC-SP 1. Where damage has exposed base metal and the width is larger than 6 mm, the damaged area shall be cleaned according to SSPC-SP 11, prior to the application of the epoxy zinc primer.

All paint coating materials for repair shall be brush applied according to the manufacturer's product data sheets.

908.7.5 Management of Excess Material

The Contractor shall assume ownership of all construction debris and/or excess of materials and ensure their safe disposal.

908.10 BASIS OF PAYMENT

908.10.1 Metal Railing Repairs - Item

The Contractor shall include all costs associated with the fabrication, delivery to the site and installation of the TL-1 Thrie Beam Railing System depicted on drawing 18-BR-02 including its anchoring system and the Thrie Beam Transition sections to SBGR within the Unit Price Bid per "TL-1 Railing System".

Payment shall be made at the Unit Price Bid per "TL-1 Railing System ". This payment will be full compensation for all labour, equipment, tools, materials including anchoring systems, and incidentals necessary to complete the Work.

Correction of any defective workmanship and defective or damaged material shall be at no extra cost to the City.