

TO:	GENERAL COMMITTEE
SUBJECT:	BIG BAY POINT RAIL BRIDGE MODIFICATION AGREEMENT WITH METROLINX
WARD:	ALL
PREPARED BY AND KEY CONTACT:	B. GRATRIX, P. ENG., INFRASTRUCTURE PLANNING ENGINEER EXT. 5117
SUBMITTED BY:	B. ARANIYASUNDARAN, P. ENG, DIRECTOR OF ENGINEERING
GENERAL MANAGER APPROVAL:	A. MILLER, GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT
CHIEF ADMINISTRATIVE OFFICER APPROVAL:	M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RECOMMENDED MOTION

- 1. That the General Manager of Infrastructure and Growth Management be authorized to complete a Bridge Modification Agreement with Metrolinx for the purposes of affixing Metrolinx infrastructure to the Big Bay Point Road Bridge.
- 2. That the Mayor and City Clerk be authorized to execute a Bridge Modification Agreement, which shall be substantially the form attached as Appendix "A" to Staff Report ENG017-19.

PURPOSE & BACKGROUND

- 3. The purpose of this Staff Report is to seek Council's approval to authorize the completion and execution of a Bridge Modification Agreement with Metrolinx in order to allow the attachment of electrification infrastructure to the Big Bay Point Road Bridge.
- 4. Metrolinx is planning to electrify the majority of the GO Rail Network in order to increase commuter train service, and reduce greenhouse gas emissions. This will require the construction of overhead wires to supply electricity to the trains. Where the rail corridor crosses under a bridge, as is the case on Big Bay Point Road east of Yonge Street, Metrolinx requires bridge modifications to support the overhead wire system.
- 5. Metrolinx requires the following modification to the Big Bay Point Road Bridge:
 - a) Bridge deck supports for the overhead wire system attached to the underside of the bridge deck; and
 - b) Bridge parapet pedestrian safety barriers (to prevent pedestrians from contacting the overhead wire system) attached to the bridge parapets.
- 6. Metrolinx is presently undertaking procurement to secure a design-build-finance-operate-maintain consortium to undertake the overall electrification project, which includes the bridge modifications. This work is anticipated to be awarded in late 2021. Metrolinx is anticipating construction to commence in 2022 and be completed in 2028.



ANALYSIS

- 7. Metrolinx's efforts to electrify the Barrie GO Line and accompanying increased commuter train service is of strategic importance to the City. This initiative will provide increased convenience to transit users travelling to the Greater Toronto Area and also support the City's intensification objectives as an increase in commuter train service is anticipated to support demand for higher density development surrounding the train stations (Allandale-Waterfront and Barrie South).
- 8. Metrolinx will be responsible for the design, construction and maintenance of the bridge modifications and will own the infrastructure they install. The City will maintain ownership of the bridge.
- 9. Metrolinx will be responsible to ensure the bridge can structurally accommodate the bridge modifications and undertake any remedial improvements if required.
- 10. Metrolinx will be responsible for coordinating maintenance windows and removing/de-energizing the overhead wires to allow the City to undertake minor and major maintenance works on the bridge.
- 11. When the Big Bay Point Bridge reaches the end of its service life and must be replaced, the City will not be responsible for costs associated with the removal and subsequent replacement/ re-attachment of Metrolinx's bridge modifications.
- 12. Metrolinx has consulted with the City of Barrie Engineering Department and Roads, Parks and Fleet Department regarding the bridge modifications. Staff are satisfied with Metrolinx's proposed work plan, specifically assessing the bridge to ensure the bridge can structurally support the proposed modifications and that the modifications do not harm the bridge.
- 13. Although Metrolinx has made reasonable efforts to mitigate impacts to the City resulting from the bridge modifications, it is anticipated that costs to perform maintenance will increase due to scheduling limitations as well as encumbrances associated with the electrification infrastructure.
- 14. To minimize encumbrances and additional costs in the near term, the City is advancing bridge maintenance prior to the bridge modifications being constructed. This will reduce near term maintenance requirements and allow Metrolinx time to develop specific access and procedural protocols that can be incorporated into future maintenance contracts.

ENVIRONMENTAL AND CLIMATE CHANGE IMPACT MATTERS

15. There are no environmental and climate change impact matters related to the recommendation.

ALTERNATIVES

- 16. The following alternative is available for consideration by General Committee:
 - <u>Alternative #1</u> General Committee could choose not to authorize staff to finalize and arrange for the execution of the Bridge Modification Agreement.

This alternative is not recommended as Metrolinx has taken reasonable efforts to mitigate negative impacts to the City's structure.



FINANCIAL

17. Metrolinx will be responsible for costs associated with the design, construction and future maintenance / replacement of the bridge modifications.

LINKAGE TO 2018-2022 COUNCIL STRATEGIC PLAN

- 18. The recommendation included in this Staff Report support the following goals identified in the 2018-2022 City Council Strategic Plan:
 - Sector Fostering a Safe and Healthy City
 - Improving the Ability to Get Around
- 19. Supporting Metrolinx's efforts to electrify the Barrie GO Line aligns with the City's efforts to build a greener Barrie through the provision of an emissions free commuter train service.
- 20. Electrification of the Barrie GO Line will bring increased commuter train service to the residents of Barrie increasing accessibility and connectivity to the Greater Toronto Area.



Appendix "A"

TERM SHEET RE. MODIFICATIONS TO BRIDGES LOCATED IN THE CITY OF BARRIE

TERM SHEET RE. MODIFICATIONS TO BRIDGES LOCATED IN THE CITY OF BARRIE

This term sheet (**Term Sheet**) sets forth the terms of the agreement between Metrolinx and the Corporation of the City of Barrie regarding, among other matters, design, construction and maintenance obligations in connection with the modification of those "Bridges" outlined in Schedule "A" attached hereto (as such schedule may be amended, restated or otherwise modified from time to time), whereby such modifications are required in order to accommodate the GO Expansion Program.

	SUBJECT	DESCRIPTION	
1.	Parties	Metrolinx (MLX) The Corporation of the City of Barrie (the Road Authority)	
2.	Term	This Term Sheet commences on the date it is executed by MLX and the Road Authority, and will terminate on the earlier of: (i) the date upon which all Bridges have been fully replaced and separate agreements that supersede this Term Sheet relating to such replacement have been entered into by MLX and the Road Authority, and (ii) the date upon which the Bridges are no longer required by MLX for the purpose of affixing the Electrification Infrastructure (the Term).	
		In the event that an individual Bridge is replaced as described in (i) above or no longer required as described in (ii) above, such individual Bridge will be deleted from Schedule "A" and the rights and obligations of the parties hereto with respect to such Bridge will cease.	
3.	Modifications to Bridges	MLX will construct, install and attach all Electrification Infrastructure and any ancillary or incidental works that MLX may deem necessary thereto, in its sole discretion (collectively, the Construction Work) in accordance with the Design Documents and Road Authority Work Permits applicable thereto.	
		The Road Authority grants MLX permission to perform the Construction Work, and to operate and maintain the Electrification Infrastructure thereafter, provided that MLX (i) complies with the terms contained in Section 11 herein, and (ii) is otherwise not in default of the terms contained in this Term Sheet and related schedules.	
4.	Design of Construction Work	MLX will design the bridge modifications and ancillary works (the Design and together with the Construction Work, collectively, the Work) and will perform the Construction Work in accordance with (i) the Design, (ii) the general terms of reference applicable to each of the Bridges, as set out in the Terms of Reference – General Schedule attached hereto as Schedule "B" (the Terms of Reference – General), and (iii) the specific terms of reference applicable to a particular Bridge, as set out in the Terms of Reference – Specific Schedule attached hereto as Schedule "C" (the Terms of Reference – Specific, and together with the Terms of Reference – General, collectively the Terms of Reference).	
		MLX will submit all plans, specifications, conceptual and detailed designs	



- 2 -

		for the Electrification Infrastructure (collectively, the Design Documents)
		to the Road Authority at 30% design and again at 100% final design.
		The Road Authority will, within 20 days of receipt of such Design Documents, provide comments to MLX as to the compliance of the Design Documents with the Terms of Reference.
		MLX agrees to review and respond to the Road Authority's comments (if any) within a reasonable time period and will exercise commercially reasonable efforts to address such comments, having regard to impact on overall costs and schedule.
5.	Completion of Barrier Work	MLX will provide the Road Authority 30 days' prior written notice of the expected completion date of the Construction Work pertaining to the electrification protective barriers only (the Barrier Work), and the Road Authority will have the right to attend with MLX at an inspection of the Barrier Work. If the Road Authority notifies MLX that the Barrier Work has not been constructed substantially in accordance with the Terms of Reference – Specific, the Road Authority shall provide detailed particulars of any such alleged non-compliance within fourteen (14) days of such inspection (the Notification Period). MLX will review and consider any comments provided by the Road Authority within the Notification Period, and will cause appropriate changes to be made to the Barrier Work, if necessary, to ensure construction in compliance with the Terms of Reference – Specific. In the event the Road Authority does not provide MLX with any comments within the Notification Period, the Barrier Work shall be deemed to have been constructed in accordance with the Terms of Reference – Specific.
		has been achieved, no further consent or approval of the Road Authority is required.
6.	Cost of the Work	MLX will pay all costs relating to the Work, including without limitation, any and all costs relating to obtaining Third Party Permits and Approvals and utility relocations (if any), provided however, in the event the Road Authority requests that there be any changes to the Terms of Reference, then, if MLX agrees to such change (having regard to impact on costs and scheduling), the Road Authority will pay any incremental costs relating to the completion of any changes, including any incremental costs to MLX associated with any delay, compensation or any other claims made by any of MLX's contractor(s).
7.	Maintenance Obligations re. the Electrification Infrastructure	For the purposes of this Term Sheet, the following capitalized terms will have the meanings ascribed as follows:
		"Electrification Infrastructure" means (i) any attachment(s) to a Bridge that is or are required to electrify the rail corridor including, without limitation, electrification protective barriers, fencing, grounding and bonding, overhead contact system supports and flash plate attachments, and (ii) any other infrastructure, attached or non-attached to a Bridge, that is



- 3 -

		ancillary to the overhead contact system; and
		"Maintenance" means, collectively, inspection, maintenance, repair, minor and major rehabilitation and partial reconstruction and replacement, but excludes, for greater certainty, full replacement.
		MLX will be responsible, at its sole cost, for the Maintenance of the Electrification Infrastructure. Such Maintenance will be performed in accordance with any required Road Authority Work Permits and Third Party Permits and Approvals.
		MLX and the Road Authority will coordinate the scheduling of any Maintenance either party is responsible for that may interfere with road or rail operations, as the case may be, or that will require access to the rail corridor in order to perform such Maintenance.
		Subject to the notice requirements in Section 8 below, if the Road Authority needs to perform any Maintenance to a Bridge where the Electrification Infrastructure interferes (not insignificantly) with such Maintenance, MLX agrees to temporarily detach the Electrification Infrastructure, at its sole cost, for a reasonable amount of time based on the specifications of such Maintenance, as determined by MLX acting reasonably, in order for the Road Authority to perform such Maintenance.
8.	Notice Requirements re. Maintenance	In the future, MLX will deliver to the Road Authority an access plan (the Access Plan), which will be developed in accordance with the requirements set out in Schedule "F" attached hereto. The Access Plan will provide the Road Authority reasonable access to MLX's rail corridors in order for the Road Authority to perform certain Maintenance, and will cover items such as visual and detailed bridge inspections (in both energized and de- energized environments), maintenance, repair and minor and major bridge rehabilitation.
		The Road Authority must perform any of its Maintenance that could impact the rail corridor, including the operation thereof, and/or the Electrification Infrastructure, in accordance with the Access Plan. If the Road Authority wishes to conduct Maintenance that is not contemplated in the Access Plan, it must notify MLX reasonably in advance. For greater certainty, the Road Authority will not be permitted to conduct any Maintenance that could impact the rail corridor, including the operations thereof, and/or the Electrification Infrastructure, outside of the access set forth in the Access Plan.
		Notwithstanding the foregoing, emergency events are not subject to the provisions set out in this Section 8, but will be governed by the emergency protocol established pursuant to Section 10 below.
9.	Work Permits	The parties will coordinate construction and Maintenance activities affecting the other party's rail or road operations, as the case may be, so to (i) enable timely performance of the Construction Work and/or Maintenance, and (ii) minimally interfere with the rail and road operations,



- 4 -

		as the case may be, to the extent reasonably possible.
		Prior to the commencement of any Maintenance by the Road Authority which could interfere with or impact rail operations or that requires access to the rail corridor, the Road Authority (and all of its contractors performing such Maintenance) must execute any work permit(s), which MLX (and/or its contractors) requires (the MLX Work Permit).
		Prior to the commencement of any Construction Work and/or Maintenance of the Electrification Infrastructure by MLX which could interfere with or impact road operations or that requires access to lands owned by the Road Authority, MLX (and all of its contractors performing such Construction Work and/or Maintenance) must execute the standard Road Authority work permits, which the Road Authority requires from all third parties prior to such third parties carrying out work on lands owned by the Road Authority (the Road Authority Work Permits).
10.	Emergency Protocol	MLX will develop a protocol for third party access, including the Road Authority, to MLX's property in and around a Bridge in the event of an emergency. The Road Authority will be consulted during the development of such protocol.
11.	Third Party Permits/ Applicable Laws / Standards	MLX will, in the performance of any Construction Work and/or Maintenance of the Electrification Infrastructure: (i) comply with all laws binding on it (Applicable Laws), the Road Authority Work Permits, any required permits and approvals required from any third party having an interest in a Bridge or lands and/or railway (the Third Party Permits and Approvals) and those standards and codes applicable to MLX outlined in Schedule "D" attached hereto (the Work Standards), (ii) be responsible for obtaining any and all approvals, permits, permissions to enter or other authorizations required in connection with same, (iii) perform such Construction Work in a good and workmanlike manner, and (iv) promptly attend and report to the Road Authority the discharge of any lien or security interest registered against the Road Authority's property claimed in connection with the Construction Work. Upon MLX's request, the Road Authority will use commercially reasonable efforts to assist MLX in obtaining any such approvals, permits, permissions to enter or other authorizations, at no cost to the Road Authority.
		The Road Authority (and its contractors) will, in the performance of any Maintenance which could interfere with or impact rail operations or that requires access to the rail corridor, comply with all Applicable Laws, the MLX Work Permit and any Work Standards applicable to the Road Authority.
12.	Access re. Work and Maintenance	Each party grants the other party a non-exclusive license to enter onto its lands for the purposes of performing the Construction Work and/or the Maintenance, as the case may be, in accordance with the terms of this Term Sheet, including the requirements to obtain a work permit pursuant to Section 9.



- 5 -

13.	Ownership	Notwithstanding any contribution by any party to the cost of the Works or
13.	Ownership	Maintenance, or any degree of affixation of any improvements to the lands owned by either party, MLX and the Road Authority agree that MLX is the sole owner of the Electrification Infrastructure.
14.	Indemnity	MLX hereby indemnifies and holds the Road Authority, and it's employees, agents, contractors and invitees, harmless from and against any loss, cost and expense incurred by the Road Authority because of any demand, action or claim brought against the Road Authority as a result of any breach of this Term Sheet by MLX (or anyone for whom in law MLX is responsible), or the loss of or damage to property, personal injury or death, or any other direct losses or damages, howsoever and whatsoever incurred, suffered or sustained by the Road Authority as a result of any act or omission of MLX (or anyone for whom in law MLX is responsible) in the performance of the Works and/or any Maintenance, save and except for those losses or damages which have been caused or contributed to by any negligence, negligent misrepresentation or breach of statutory duty on the part of the Road Authority (or on the part of anyone for whom the Road Authority is in law responsible), and the breach of any of the provisions of this Term Sheet by the Road Authority (or by anyone for whom in law the Road Authority is responsible), including, but not limited to, any negligent act, willful misconduct or omission of the Road Authority (or by anyone for whom in law the Road Authority is responsible), which causes or contributes to any such injury, damage or loss. The Road Authority is liable for and responsible to MLX for any breach of any terms of this Term Sheet and any damage to the Electrification Infrastructure caused by acts or omissions of the Road Authority (or by anyone for whom in law the Road Authority is responsible), and hereby indemnifies MLX, and it's employees, agents, contractors and invitees, from and against any loss, cost and expense incurred by the MLX because of any demand, action or claim brought against MLX pertaining to such breach or damage caused.
15.	Future Replacement	If at any time during the Term a Bridge is replaced, the terms associated therewith will be agreed to by the parties in a separate agreement, which agreement will then supersede this agreement per Section 2 herein. The Road Authority will notify MLX at least three (3) years in advance of such replacement. Notwithstanding the foregoing, the Road Authority agrees that MLX will
		be permitted to construct, install and attach the Electrification Infrastructure on such replaced Bridge.
16.	Agreement	MLX and the Road Authority acknowledge and agree that this Term Sheet constitutes a legal, valid and binding agreement between MLX and the Road Authority, enforceable against both parties in accordance with the terms and conditions contained herein.
		This Term Sheet will enure to the benefit of, and be binding upon, the parties hereto and their respective successors and permitted assigns.



- 6 -

	r	
17.	Assignment	Subject to the following paragraph, neither MLX nor the Road Authority shall be entitled to assign this Term Sheet, in whole or in part, without the prior written consent of the other party, which consent will not be unreasonably withheld or delayed.
		MLX may, in its sole discretion, and without prior consent of the Road Authority, (i) assign any or all of MLX's rights and obligations under this Term Sheet to the Government of Ontario or to a Crown Agency (as defined in the <i>Crown Agencies Act</i> (Ontario)) or to any third party contractor or sub-contractor of MLX (each, an "Assignee"); and (ii) require the Assignee to fully perform the obligations of MLX under the Term Sheet and to be fully liable to the Road Authority in all respects for all liabilities and obligations of MLX (including, for clarity, payment obligations) under the Term Sheet. The Road Authority shall, within a timeframe prescribed by MLX, acting reasonably, enter into any agreement that may be required by MLX to give effect to any assignment and assumption or novation contemplated under this paragraph, including any agreement with MLX and the Assignee that requires the Road Authority to consent to the applicable assignment and assumption or novation and to release MLX from the applicable obligations and liabilities under the Term Sheet.
18.	Governing Law	This Term Sheet will be governed by and interpreted in accordance with the laws of the Province of Ontario and the federal laws applicable therein.
19.	Counterparts	This Term Sheet may be executed in one or more counterparts, and any single counterpart or a set of counterparts executed, in either case, by all parties will constitute a full, original and binding agreement for all purposes. Counterparts may be executed either in original or electronic form, provided that the party providing its signature in electronic form will promptly forward to the other party an original signed copy of this Term Sheet which was so sent electronically.
20.	Dispute Resolution	Any dispute between the parties with respect to any matter arising out of this Term Sheet will be referred to dispute resolution in accordance with Schedule "E" attached hereto.
21.	References to a Party	For the purposes of this Term Sheet, all rights granted to a party hereunder will extend to that party's contractor(s), and any obligation that a party is responsible for hereunder may be satisfied by that party's contractor(s), provided that each of the Road Authority and MLX shall remain liable for its obligations contained hereunder.
SCI	HEDULES TO TERM SHEET	DESCRIPTION
Sch	edule "A"	List of Bridges
10000 000010	edule "B"	Terms of Reference – General
	edule "C"	Terms of Reference – Specific
Sch	edule 'D"	Work Standards



- 7 -

Schedule "E"	Dispute Resolution
Schedule 'F''	Access Plan Requirements

[signature page follows]



- 8 -

IN WITNESS WHEREOF this Term Sheet has been duly executed by the parties hereto as of the ______ day of ______, 2019.

The Corporation of the City of Barrie

Per:

Name:

Title:

Per:

Name: Title:

I/We have the authority to bind the corporation.

METROLINX

Per:

Name: Title:

Per:

Name:

Title:

I/We have the authority to bind the corporation.



-9-

SCHEDULE "A" LIST OF BRIDGES TO BE MODIFIED

Bridge ID	Rail Corridor	Mileage	Description of Location	Description of Bridge
	Barrie	60.30	Big Bay Point Rd	Overhead Bridge



STAFF REPORT ENG017-19 November 18, 2019

- 10 -

SCHEDULE "B" TERMS OF REFERENCE – GENERAL

With respect to the Works to be performed by MLX in accordance with this Term Sheet, MLX will:

- a) with respect to the Design Work:
- validate or obtain all field data necessary for detailed design and perform any investigations, studies, tests and the like required in addition to the information supplied by the bridge owner or MLX to complete the Work associated with and as described in Schedule "C" (Terms of Reference – Specific) to the Term Sheet;
- 2. perform all design required in accordance with the design specifications defined in this Term Sheet and project specifications;
- 3. perform all work required to secure approval of any deviations from the requirements specified in this Term Sheet;
- 4. confirm locations of all utilities and be responsible for managing all scheduling impacts arising from utilities relocations. Any utility relocations shall be performed in accordance with a separate agreement with the appropriate utility company;
- 5. ensure that all final design, design reports, drawings, and calculations are sealed and signed by a professional engineer licensed to practice in the Province of Ontario. All final structural reports, structural drawings and foundation design reports shall be signed and sealed by two (2) professional engineer(s), licensed to practice in the province of Ontario, one (1) who performs the design and the other who checks such design; and
- 6. submit to the Road Authority the design submittals as listed in item 4 of the Term Sheet, and will follow the Road Authority's typical design review process. Such submittals will be made prior to construction the relevant portion of the work
- b) with respect to the Construction Work:
- 7. be responsible for all construction means, methods, techniques and provisions for all aspects of the Work, including without limitation, labour, plant, equipment and materials required to undertake the Work;
- 8. ensure structural integrity and safety during all stages of construction and for the rehabilitated structure;
- 9. complete the work in accordance with Ontario Provincial Standard Specifications (OPSS), the project specifications and all government and agency authorizations and approval without outstanding infractions of laws and regulations;
- 10. comply with all quality inspection and testing of the work in accordance with the Project Quality Management Plan and project documents;
- 11. upon request, provide the Road Authority access to the Work, in accordance with the terms of the project agreement, for applicable testing, investigation, audit and the like and access to associated inspection records, test results and testing facilities;
- 12. ensure all the foundations and substructures of the Bridges are adequate to support the proposed modifications;
- 13. ensure that all products used for the Work are in accordance with the Road Authority requirements and has a minimum of 75 years' service life;
- 14. provide products, materials, and associated submittals (shop drawings, certifications, etc.) as typically required by the Road Authority, and follow the Road Authority's typical review process, in accordance with applicable codes, specifications and standards articulated by the Road Authority;
- 15. ensure the following specifications are applied to each of the electrification protective barriers:
 - a. Solid-faced;
 - b. minimum height of two (2) metres above standing surface (including bridge railings); and



- 11 -

- c. extends horizontally (i) a minimum of three (3) metres beyond the overhead contact system electrified wires located under the Bridges and (ii) a minimum of five (5) metres beyond centerline of the electrified rail tracks, each being measured perpendicular to the wire/track; and
- 16. provide the Road Authority with 'Record' drawings following completion of the Construction Work.



- 12 -

Bridge Data				
Bridge Name	Big Bay Point Road Bridge			
Bridge Type	Concrete			
Rail Corridor	Barrie	Barrie		
Subdivision	Newmarket			
Mileage	60.3			
Bridge Owner	City of Barrie			
Bridge ID	N/A			
Bridge Barrier Aesthetics	1			
Physical Element	Specific Requirement			
Panels (type)	Opaque			
Frame color – top and bookends	Light Grey colour			
Frame color – bottom bar and saddle plates	Light Grey colour			
Major fin color – structural supports	Light Grey colour			
Minor fin color – intermediate	Light Grey colour			
Medallion (design)	None			
New Bridge Attachments				
Item	Specific Requirement	Comments		
Protective Barrier	Yes			
OCS	As required			
Flash plate	Yes	One (1) per track running the entire structure width		
Bonding and Grounding	As required			
Rehabilitation Work				
1. Design 2019 + Construc	ction 2020			



- 13 -

SCHEDULE "D" WORK STANDARDS AND CODES

- Project Specific Output Specifications (PSOS)
- Metrolinx, General Guidelines for Design of Railway Bridges and Structures
- Structures subjected to roadway loading (Overhead Structures):
 - a. Canadian Highway Bridge Design Code, CAN/CSA-S6-14 (Reprinted July 2017)
 - b. Ministry of Transportation, Ontario, Bridge Design Manuals, latest edition:
 - i. Structural Manual, MTO
 - ii. Ontario Structure Inspection Manual, MTO
 - iii. Structural Rehabilitation Manual, MTO
 - iv. Structural Steel Coating Manual, MTO
 - v. All other applicable Bridge Standards, Guidelines, Memorandums and Manuals, MTO
- Structures subjected to railway loading (Subway Structures):
 - a. CN Engineering Specifications for Industrial Tracks
 - b. CP Requirements for the Design of Steel and Concrete Bridges Carrying Railway Traffic in Canada
 - c. AREMA American Railway Engineering of Maintenance-of Way Association, Manual for Railway Engineering 2018
- Other Structures:
 - a. Ontario Building Code (OBC), Building Code Act: O Reg. 332 Building Code
 - b. National Building Code of Canada (NBC) 2015
 - c. CAN/CSA-A23.3 Design of Concrete Structures
 - d. CAN/CSA-S16 Design of Steel Structures
- Ontario Provincial Specifications for Roads and Public Works, OPS Municipal, Provincial Common and Provincial-oriented
- Structures subjected to various types of loadings shall be designed in accordance with all relevant codes and standards requirements
- Geometric Design Guide for Canadian Roads, June 2017
- Transport Canada, Guideline for Bridge Safety Management, February 2012



STAFF REPORT ENG017-19 November 18, 2019 Page: 17 File: Pending #:

- 14 -

SCHEDULE "E" DISPUTE RESOLUTION¹

- 1. Upon the written notice of a party, senior representatives of the Road Authority and Metrolinx being the Director of Engineering of the Road Authority and the Director, Electrification, RER, Capital Projects Group of Metrolinx shall meet to discuss and resolve the dispute set forth in the notice.
- 2. If the Director of Engineering of the Road Authority and the Director, Electrification, RER, Capital Projects Group of Metrolinx do not resolve the dispute within fifteen (15) business days after such written notice, the parties shall further attempt to resolve their dispute informally, as follows:
 - (a) the dispute shall be promptly referred for resolution to Metrolinx's Vice President, RER, Implementation and the Road Authority's Director of Engineering;
 - (b) Metrolinx's Vice President, RER, Implementation and the Road Authority's Director of Engineering shall meet as often as the parties reasonably deem necessary in order to gather and furnish to the other all information with respect to the matter in issue which the parties believe to be appropriate and germane in connection with its resolution and upon which the parties intend to rely in resolving the dispute in question. Metrolinx's Vice President, RER, Implementation and the Road Authority's Director of Engineering shall discuss the problem and negotiate in good faith in an effort to resolve the dispute without the necessity of any formal proceeding;
 - (c) during the course of such discussions, all reasonable requests made by one party to the other for non-privileged information, reasonably related to the issue in dispute under this Term Sheet, shall be honored in order that each of the parties may be fully advised of the other's position; and
 - (d) the specific format for the discussions shall be left to the discretion of Metrolinx's Vice President, RER, Implementation and the Road Authority's Director of Engineering, but may include the preparation of agreed-upon statements of fact or written statements of position.
- 3. If the dispute cannot be resolved by Metrolinx's Vice President, RER, Implementation and the Road Authority's Director of Engineering pursuant to Section 2(b) within fifteen (15) business days or such other time period as has been agreed, then the matter shall be referred to the Chief Capital Officer of Metrolinx and the Road Authority's General Manager of Infrastructure and Growth Management for dispute resolution substantially in accordance with the foregoing.
- 4. If the Chief Capital Officer of Metrolinx and the Road Authority's General Manager of Infrastructure and Growth Management are not able to resolve the dispute within fifteen (15) business days or such other time period as has been agreed, then upon agreement between the Chief Capital Officer of Metrolinx and Road Authority's General Manager of Infrastructure and Growth Management, the matter shall be submitted to arbitration conducted in accordance with

¹ NTD: Schedule "E" is tentative. It may be updated during the procurement process.



- 15 -

the Arbitration Act, 1991 (Ontario) (as amended from time to time, the "Arbitration Act") in the City of Barrie by a single arbitrator with suitable expertise, to be agreed upon by the parties within fifteen (15) calendar days of the matter being submitted to arbitration (the "Arbitrator Election Period"). If the parties are not able to agree on a single arbitrator before the expiration of the Arbitrator Election Period, then either party shall be entitled to make application to the Superior Court of Ontario pursuant to the Arbitration Act for selection of the arbitrator, and the provisions of such Act shall govern such selection. In the event of the failure, refusal or inability of the arbitrator to act, or continue to act, a new arbitrator shall be appointed in his or her stead, which appointment shall be made in the same manner as hereinbefore provided. The decision of the arbitrator shall be final and binding on the parties and not subject to appeal or challenge, except such limited relief provided under Section 45(1) (appeal on a question of law, with leave) or Section 46 (setting aside award) of the Arbitration Act.

- 5. None of the provisions in this Schedule "E" shall be construed so as to prevent a party from instituting (and a party is authorized to institute) litigation in a court of competent jurisdiction for equitable relief, but only if a party makes a good faith determination that the damages to such party (or to third parties) resulting from such continued non-resolution of the dispute in question shall be so immediate, so large or so severe, and so incapable of adequate redress after the fact, that a temporary restraining order or other immediate injunctive relief is the only adequate remedy. To the extent any such litigation is instituted the parties agree that Section 7 of the Arbitration Act shall not apply to such litigation, but only in respect of a claim for equitable relief.
- 6. Each party agrees to continue performing its obligations under the Term Sheet while any dispute is being resolved, to the extent performance is feasible prior to resolution of the dispute, unless and until such obligations are terminated by the termination or expiration of this Term Sheet. Any such performance by the parties shall be without prejudice to their positions in the dispute.



Page: 19 File: Pending #:

- 16 -

SCHEDULE "F" ACCESS PLAN REQUIREMENTS

[To come]