

Ministry of Transportation

DESIGN-BUILD MAJOR REQUEST FOR PROPOSALS

< Notes to Draft:

- *Formatting and editing of the document have been restricted.*
- *Contact CPPO Team Member for support and if you require changes to restricted areas of the document.*

All **Notes to Draft** shall be deleted from the final document.> |

<Project Title> |

<Region> |

DB Contract Number: 20##-#### |

Date Issued: <Month day, year>

Summary of Key Information

RFP Title and Contract Number	<p>The title of this RFP is: <Project Title>, Design-Build Project</p> <p>The Contract Number is: 20##-####</p> <p>Use this title and number on all correspondence to the Ministry.</p>
Deadline for submitting Stage 1 - Alternative Technical Concepts	<p>< Month day, year > 1:30:00 PM Local (Toronto) Time <i>< Notes to Draft: Refer to DB Scheduling Planner and DB RFP Section 1.14 for key milestone dates related to ATC Stage 1></i></p>
Deadline for submitting Stage 2 - Alternative Technical Concepts	<p>< Month day, year > 1:30:00 PM Local (Toronto) Time <i>< Notes to Draft: Refer to DB Scheduling Planner and DB RFP Section 1.14 for key milestone dates related to ATC Stage 2.></i></p>
Deadline for Submitting RFP Enquiries	<p>All RFP enquiries shall be submitted by: <Month day, year> 3:00:00 PM Local (Toronto) Time using the bid enquiry function on the RAQS/MERX website: www.raqs.merx.com <i>< Notes to Draft: Recommend date one week before RFP Closing></i></p>
Tender Registration Form Submission Deadline	<p>< Month day, year > 12:00:00 Noon Local (Toronto) Time <i>< Notes to Draft: Date entered is Friday before RFP Closing></i></p>
RFP Closing	<p>The RFP Closing date and time is: < Month day, year > #:##:## PM Local (Toronto) Time <i>< Notes to Draft: Refer to DB Scheduling Planner. Typically 12 - 16 weeks after issuing RFP></i></p>
Anticipated Award Date	<p>Within 90 Days after RFP Closing</p>
Price Proposal Submission	<p>Proponents shall submit their price proposal, by electronic submission only to: www.raqs.merx.com</p>
Technical Proposal Submission	<p>Proponents shall submit their technical proposal, by electronic submission only to: www.raqs.merx.com</p>

<p>Rating</p>	<p>Necessary available financial rating is: \$ #,###,### in <Category></p> <p>Necessary available maximum workload rating is: \$ #,###,### <i>< Notes to Draft: value in line with the estimated value of the contract; Consult with Contract Tendering Section to determine values and category.</i></p> <p><i>Submit Design-Build Contract Package Submission Form – Contact CRO / CTS for latest version.></i></p>
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< Notes to Draft: Refer to DB Scheduling Planner for guidance on Procurement Schedule and ATC Milestones >

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< **Notes to Draft:** When the RFP Document is finalized, ensure that the page numbers in the Table of Contents are updated.> |

Chapter 1: Instructions to Proponents

1.0 Introduction

The Ontario Ministry of Transportation (the “Ministry”), is conducting a two phase Design-Build procurement to select a Design-Builder to design and construct the <project title>, Design-Build Project described in this Request for Proposals (RFP). During the first phase of the procurement, the Ministry determined the short-list of Proponents for the Project based on submissions received in response to Design-Build Expression of Interest (DB-EOI), dated <DB-EOI date issued>. Only those Proponents short-listed at the DB-EOI phase are eligible to participate as Proponents in regard to this RFP and submit technical proposals and price proposals in response to this RFP. This RFP is being issued as the second phase of the procurement to invite the submission of proposals according to the terms of this RFP for the design and construction of the Project. Subject to the terms of this RFP, the Ministry intends to select the Preferred Proponent with the intention of entering into a Contract with that Preferred Proponent.

All Proponents shall confirm that by submitting a proposal in response to this RFP that they shall be required to meet all commitments identified in their DB-EOI submissions including but not limited to the key personnel identified.

Companies or joint ventures submitting a proposal for this RFP shall be responsible for all professional and technical services, supervision, materials, labour and equipment and performing all duties and obligations necessary to design and construct this Project.

Throughout this document reference is made to the Proponent as the entity preparing the response to the RFP. The term "Design-Builder" is used to represent the Preferred Proponent and the context in which it is used relates to Work to be performed once the Agreement is signed with the Preferred Proponent.

1.1 Definitions

For the purposes of this DB-RFP, the following definitions apply:

Alternative Technical Concept (ATC): means an alternative or innovative concept proposed by a Proponent that modifies the requirements of the Contract Documents and results in equal or better quality or effect for the Project.

Bid or Tender: can be used interchangeably and means the offer submitted by a Bidder to perform the Work at the prices set out in the offer, which offer shall be set out in the forms approved by the Ministry and in accordance with the procedures more particularly described in these Instructions to Proponents. More particularly, the forms shall include, among other things, the Summary Bid Submission Form and the Itemized Bid and Evaluation Form.

Bidder: means a person, sole proprietorship, firm, partnership, corporation, or any other business/joint venture that submits a Bid to the Ministry.

Compliant Submission: means proposals submitted by Proponents that meet the mandatory and minimum requirements to be set out in the Request for Proposal.

Confidential Information: means confidential information of the Crown (other than confidential information which is disclosed to Proponents in the normal course of this RFP); the Confidential Information is relevant to the Work required by the RFP, the pricing of the Work or the RFP evaluation process; and the disclosure of which could result in prejudice to the Crown or any unfair advantage to the Design-Builder.

Design-Build (DB): means the delivery model in which an Owner contracts with a single entity to provide both design and construction services.

Design-Builder: means the person, partnership, or corporation designated by the Owner to complete the Work, and also means Contractor.

Design-Build Expression of Interest, DB-Expression of Interest, DB-EOI: means the expression of interest, including any and all appendices and any and all Addenda that may be issued by the Ministry from time to time, as it may be amended from time to time by the Ministry.

Design-Build Request for Proposals, DB-RFP: means this document.

Innovation, Innovative: means the use of alternative type of material, design change or method change that supports achieving the Project Goals, addressing the Project Key Issues, and results in equal or better quality or effect for the Project.

Late Bid Submission: means a Bid received by the Ministry's Service Provider after the Tender Closing.

Late Bid Notification: is a statement sent by the Ministry's Service Provider to a Bidder notifying the Bidder that their Bid is a Late Bid and will not be considered and is rejected.

Lump Sum: means the total amount, as documented in the Design-Builder's Bid, payable to the Design-Builder for completion of the Work according to the Contract Documents.

MERX: means the company engaged by the Ministry to provide electronic tendering services in respect of this Bid, which is a subsidiary of Mediagrif Interactive Technologies Inc.

Ministry, MTO: means the ministry of the Province known as the Ontario Ministry of Transportation as that ministry may, from time to time, be reorganized, replaced, or renamed.

No Bid Statement: means a 'No Bid' selection on a Summary Bid Submission Form submitted to the Ministry's Service Provider from a Bidder who has an approved Tender

Registration Form, but who does not intend on submitting a Summary Bid Submission Form containing a summary Bid prior to the Tender Closing, or intends to withdraw a summary Bid submitted on a Summary Bid Submission Form submitted to the Ministry prior to Tender Opening.

Non-Resident Contractor: means any contractor residing outside of the Province of Ontario and with respect to a corporate contractor, not being incorporated pursuant to the laws of Ontario and who has not maintained a permanent place of business in Ontario continuously for twelve months prior to Tender Closing.

Preferred Proponent: means the Proponent with the lowest evaluated bid.

Project: means the objectives and Work described in this DB-RFP.

Qualification Procedures for Contractors: means the administrative routine established by the Ministry to determine that contractors have the financial, managerial, and technical capability to perform the work in accordance with the contract.

Qualified Contract: means a contract that is tendered in accordance with the Ministry's Qualification Procedures for Contractors.

RAQS: is an abbreviation for Registry Appraisal and Qualification System.

Rated Contractor: means a contractor who has been granted a basic financial rating or maximum workload rating in accordance with the Ministry's Qualification Procedures for Contractors.

Service Provider: means the person appointed by the Ministry to provide electronic tendering services on behalf of the Ministry.

Statutory Bonds: means the surety bonds executed by the Contractor and its Surety and required to be furnished by Part XI.1 of the Construction Act, R.S.O. 1990, c.30, as amended.

Summary Bid Submission Form: means the electronic form obtained from the Ministry's Service Provider prior to RFP Closing that the Bidder is to use to summarize the Lump Sum offer to perform the Work.

Tender Closing or Tender Opening or DB RFP Closing: can be used interchangeably and mean the last date and time that the Ministry shall receive Bids as specified in the Summary of Key Information of this DB-RFP.

Tender Registration Form (TRF): means the Ministry approved form supplied by the Ministry, completed by Bidders, to pre-qualify for Qualified Contracts in accordance with the procedures set out in the Qualification Procedures for Contractors.

Unbalanced Price Proposal: means a Bid containing a lump sum or unit prices, which does not reflect reasonable actual costs to do the work as described in the tender

documents, plus a reasonable proportionate share of the Bidder's anticipated profit, overhead costs, and other indirect costs which are anticipated for the performance of the work.

1.2 Compliance With Instructions

Proponents must comply with these instructions to Proponents and those failing to do so shall have their proposal rejected, unless otherwise stated.

1.3 RFP Documents

1.3.1 RFP Structure

The RFP document consists of the following:

Chapter 1: Instructions to Proponents

Describes the project, general roles and responsibilities, and the RFP process to be followed and the proposal submission and evaluation requirements

Chapter 2: Project Requirements

Describes the general roles and responsibilities and project specific requirements for the design and construction and warranty phases of the Project.

Chapter 3: Specifications

Outlines the mandatory standards that shall be utilized for design and construction including the performance requirements of the Design-Builder.

Chapter 4: General Conditions of Contract

Describes amendments to OPSS.PROV 100, November 2016, MTO General Conditions of Contract that pertain to the Contract to be signed by the Ministry and the Design-Builder.

Appendix A: Submission Forms

Conflict of Interest – Certification Part 1 (submit with technical proposal)
Conflict of interest – Disclosure Part 2 (submit with technical proposal)
Form of Offer (submit with technical proposal)
Itemized Bid and Evaluation Form (submit within 24 hours of RFP Closing)

Appendix B: Draft Agreement and Design-Build Guarantee

Draft Agreement (completed by the Ministry and the Preferred Proponent)

Design-Build Guarantee (submitted by the Preferred Proponent prior to award)

Appendix C: Ministry Supplied Information

Provides a list of information supplied by the Ministry.

Appendix D: Certificate of Design and Construction

Provides a form for use by the Design-Builder when applying for Contract Completion.

All the documents described in Section 1.3 collectively constitute the RFP.

1.3.2 Examination of Documents

Each Proponent shall be solely responsible for examining all the RFP documents, including any Addenda issued during the RFP advertising period, and for independently informing itself with respect to any and all information contained therein, and any and all conditions which may in any way affect the Proponents proposal. The Proponent shall be deemed to have satisfied itself of the correctness and sufficiency of their Lump Sum price.

1.4 The Project

<Insert general description of the project and the project area>

<Insert brief description of the Class EA classification, stage completed and requirements>

<Insert map of project area> |

The full scope of Work for the Project and final contract deliverables are set out in Chapter 2: Project Requirements and Chapter 3: Specifications of this RFP.

1.5 Project Goals

< **Notes to Draft:** Key goals for the Project were identified in the DB-EOI. The same Project Goals shall be inserted here. Identified Project goals shall be reflected in the evaluation process and weighting > |

1.6 Project Risk Allocation

In Design-Build, each risk area is typically allocated to the party that is best able to manage that risk. The Risk Allocation Matrix below provides a general summary of the allocation of risks in respect to the Project. Such risk allocation is intended to meet the Ministry's goals for the Project. Proponents are advised that the commercial and legal consequences of such risk allocation and the corresponding responsibilities of the Ministry and the Design-Builder for such risks are set forth in the Contract Documents.

The Risk Allocation Matrix below serves only as a summary for the Proponent’s reference. It is not intended to be a comprehensive description or allocation of the Project’s risks. For greater certainty, if there is a conflict between the Risk Allocation Matrix and the provisions of the Contract Documents, the latter shall govern.

< **Notes to Draft:** The allocation matrix below is a guide only. Individual Projects shall have a risk & responsibility template completed based on the individual Project risk assessment, in alignment with Project goals and also with a view to who is the party best able to manage the risks to achieve the desired outcome. Whenever possible, shared responsibilities should be limited.>

KEY CONSIDERATIONS WHEN TRANSFERRING/ALLOCATING RISK

- Allocate risks to the party best able to manage them
- Allocate in alignment with the Project goals
- Share risk when appropriate to accomplish Project goals
- Risk sharing shall be by exception only. When sharing risks you shall clearly define each party’s responsibility - responsibility for each shared risk needs to be defined in Chapter 2 or covered in the appropriate specifications.>

Table 1: Risk Allocation Matrix

Risk Category	Responsibility	
	Ministry	Design-Builder
Design/Engineering		
Project scope definition/design requirements criteria	X	
Errors/omissions/ changes in design		X
Geotechnical/Foundation investigation – as provided in the RFP subject to Design-Builder’s confirmation timeframe	X	
Geotechnical/Foundation investigation – to complete the design		X
Changes in scope	X	
Changes associated with Alternative Technical Concepts		X
Environmental		
Fines, penalties and any costs associated with non-compliance with environmental legislation, regulations and permits		X
Corrective actions to address any non-compliance with environmental legislation, regulations, permits and approvals, any non-conformance with MTO Environmental Standards and Practices or environmental requirements in the Contract Documents		X
Compliance with existing environmental conditions and requirements for protection and mitigation		X

Risk Category	Responsibility	
	Ministry	Design-Builder
Unforeseen existing environmental conditions and subsequent requirements for protection and mitigation	X	
Changes to Environmental Approvals and permits triggered by Design-Builder's design changes		X
Obtain/advance environmental approvals/ permits required beyond what is provided in the RFP		X
Excess Materials Management		X
Compliance with all aspects of the Class EA		X
Completing a TESR / DCR (including responding to questions during public review period) that is reflective of the proposed design and requirements of the DB RFP		X
Completing an ESD that is reflective of the proposed design and requirements of the DB RFP		X
Property		
Establish property limits	X	
Property acquisition based on reference concept design	X	
Property Access Based on Design-Builder's design		X
Third Party Relations		
Identification of initial third party impacts	X	
Establish mitigation measures to address third party impacts		X
Design-Builder initiated modifications to existing third party permits		X
First Nations and Metis Issues (beyond what is identified in the RFP)	X	
Delays by Third Party/Other attributed to the Design-Builder		X
Public Relations/Communications during Design & Construction	X	
Utilities		
Utility locates if included in Contract		X
Relocation of Utilities prior to contract	X	
Damage to Utilities during construction		X
Coordination of changes to Utility locations based on final design		X
Coordination with Utility relocation efforts during Contract		X
Railway		
Obtain initial agreement (Board Order) based on preliminary design	X	

Risk Category	Responsibility	
	Ministry	Design-Builder
Coordination with railway under agreement during design/construction		X
Construction		
Construction quality/ workmanship/ material quality		X
Schedule		X
Safety		X
Traffic Management/Control/Staging		X
Road Closures/Local Road Detours		X
Completion and Warranty		
Conformance to Performance Requirements during construction, at completion and during Warranty		X
Warranty Repairs		X

1.7 Roles and Responsibilities

1.7.1 Of the Ministry

The role of the Ministry in the execution of the Project shall be to monitor the Work for conformance to the Contract Documents and to ensure that the interests of the Ministry and the public are maintained. Deviations from the Contract Documents may result in a stoppage of the affected elements of the Work until the Design-Builder remedies such a deficiency or a change to the Contract is approved. There is no obligation on the Ministry to compensate for delay or impact costs.

1.7.2 Of the Design-Builder

Under the Contract the Design-Builder shall be solely responsible for, without limitation:

- a) All engineering, design, construction, environmental protection, quality management, administration, commissioning and related services required to complete the Project according to the requirements of the Contract Documents;
- b) All required consultation with all authorities having jurisdiction, unless noted otherwise in the Contract Documents; and,
- c) Obtaining all permits and approvals required for the Project from authorities or agencies having jurisdiction, unless noted otherwise in the Contract Documents.

1.8 Enquiries

Each Proponent shall review all RFP documents, and shall promptly report and request clarification of any discrepancy, deficiency, ambiguity, error, inconsistency or omission

contained therein. All enquiries shall be directed in writing by using the RAQS/MERX website: www.raqs.merx.com. Unless otherwise noted in the RFP, all enquiries shall be submitted to the Ministry by the date and time identified in the Summary of Key Information. Enquiries received after this date and time may not be responded to.

Enquiries related to a Proponents' Alternative Technical Concept submission shall state the Proponents name and the Alternative Technical Concept number to which the enquiry relates.

Where an enquiry results in a change to the requirements of this RFP, the Ministry shall prepare and issue an Addendum to this RFP. The Ministry reserves the right to distribute copies of any or all questions and responses to all Proponents. Unless addressed through an Addendum, all responses to enquiries shall not be incorporated as part of the Contract or in any way change the Contract.

Proponents shall not make verbal enquiries of Ministry staff. Information given orally by Ministry staff shall not be binding on the Ministry, nor shall it be construed as a factor in the evaluation of the proposals. Any attempt on the part of any Proponent or any of its employees, agents, contractors or representatives to contact any member of the Ontario Public Service with respect to this RFP other than as described above in this section may lead to disqualification.

1.9 Addenda

The Ministry reserves the right to revise the RFP up to the RFP Closing. Any such revisions shall be included in an Addendum to the RFP that shall be posted on the Ministry's RAQS/MERX website under the contract number for this Project. All parties that obtained a copy of the RFP (plan takers), shall be notified electronically when an Addendum or change is entered on the system.

The RFP Closing set for submitting proposals may be changed by the Ministry if in its opinion more time is necessary to enable the proponents to prepare/revise their proposals. Any change to the RFP Closing shall be issued by an Addendum.

1.10 Ministry Supplied Information

This RFP may not contain all of the information that proponents might need in order to submit a proposal. Proponents shall be responsible for obtaining any additional information that may be required.

The Ministry supplied information listed in Appendix C of this RFP is provided solely for information purposes. The Ministry warrants that information provided can be relied upon for accuracy at the time and location that it was obtained but does not warrant any omissions, interpretations of data, opinions, or recommendations in the information provided.

Any "reference concepts" or "preliminary designs" included in Appendix C are for information purposes only. It is the Design-Builder's responsibility to generate

alternatives and develop the design for the preferred alternative. The Design-Builder shall be responsible for all aspects of the design and construction for the preferred alternative.

Each Proponent shall satisfy itself as to the sufficiency of the information presented and obtain any updated or additional information, and perform any studies, analysis or investigations the Proponent deems necessary in order to deliver the requirements of this Project. Proponents shall inform the Ministry of any inaccurate information identified.

All requirements, designs, documentation, plans and information viewed or obtained by the Proponent in connection with this RFP are the property of the Ministry and shall be treated as confidential and not used for any purpose other than replying to this RFP and the fulfillment of any resulting Contract. Upon request of the Ministry, all such designs, documents, plans and information shall be returned to the Ministry.

1.11 Site Access

1.11.1 Overview

The Ministry shall allow each Proponent to have access to the site, for purposes of conducting additional surveying, testing or investigations prior to the RFP Closing. As access shall be approved by the Ministry, the Proponents shall submit a request for site access in writing using the bid enquiry function, according to Section 1.8 Enquiries. Proponents shall give the Ministry as much advanced notice as possible in order to secure requested access dates; notice shall be a minimum of 10 Business Days prior to the requested site visit date stating the purpose of the request.

As part of the site access request, the Proponents shall include the following:

- an encroachment permit application number,
- a plan illustrating the testing location,
- type of testing and purpose of testing,
- and the preferred date(s)

Each Proponent shall be given access to the site for a maximum one-week period. The Ministry shall control the schedule based on order the request is received (first come-first served basis) to ensure access to all Proponents. Traffic control for all site investigations shall be completed according to Book 7 of the Ontario Traffic Manual. The Proponent is responsible for Utility locates prior to site access.

< **Notes to Draft:** *If there is a strong likelihood of all Proponents requesting site access as above, the duration of the tendering period shall be maximized and consideration given to extending the period of time between ATC Stage 1 submission deadline and ATC Stage 2 submission deadline (e.g.: ATC Stage 2 submission date 4 to 6 weeks after Stage 1 submission)*>

Encroachment permit applications are available online at:

<https://www.hcms.mto.gov.on.ca/PermitWizard/ApplicationProcessDescription?permitType=Encroachment>

Following completion of any site investigations, the Proponent shall provide to the Ministry a listing of the investigations completed and their locations (including GPS coordinates according to DB RFP Section 2.4.9) certified by the parties completing the investigations.

< **Notes to Draft:** *Ensure the section reference is correct or alternatively, specify the correct GPS coordinate system to be used* >

Proponents shall make their own arrangements with property owners prior to entering any portions of the site not owned or controlled by the Ministry. Copies of any releases obtained with property owners shall be provided to the Ministry. As a condition of entering any portion of the site, including without limitation as part of any briefing conducted pursuant to this RFP, the Proponent irrevocably accepts full liability for any and all events arising from or in connection with any site access, and the Proponent indemnifies the Province, including its servants, agents, representatives, and employees, for any loss or damages suffered by the Proponent, the Ministry, including its servants, agents, representatives and employees, or any third party arising, either directly or indirectly, in contract or in tort, from or in connection with any acts or omissions of the Proponent or its servants, employees, agents and representatives.

1.11.2 Licenses and Permits

The Proponent assumes full responsibility for obtaining and holding any and all rights, permits, licences, consents, approvals and authorities issued by any governmental agency or authority or other person required to carry out its investigations regarding the Work.

1.11.3 Decommissioning of Pavement/Foundation Explorations Undertaken by Proponents

All aspects of implementation of geotechnical/foundations test holes (including, but not limited to, planning, licensing, construction, maintenance, abandonment, and reporting), shall be according to O.Reg. 903 and its Amendments (the water/well regulation under the OWRA).

Explorations shall be constructed, maintained and abandoned, or otherwise restored, to ensure the safety and environmental integrity of the site. Test pits shall be backfilled with suitable material and re-vegetated or otherwise protected from erosion. Temporary open holes shall be adequately covered. Holes in roads shall be backfilled as required to prevent future settlement and acceptably patched where pavement surfaces have been damaged. If a problem occurs with the backfilled test holes following the investigation (i.e. subsidence resulting in a surface cavity), the Proponent shall return to the site and repair the test hole to the Ministry's satisfaction.

1.12 Changes to Proponent Team

The Ministry is under no obligation to consider or accept any substitutions for the key personnel named in the Proponent's DB-EOI response. Proposed personnel substitutions by a Proponent shall require written approval from the Ministry prior to any such change. Updated Conflict of Interest - Certification Part 1 and Disclosure Part 2 forms (found in Appendix A) shall be provided to support any proposed personnel substitution.

1.12.1 During Procurement

If a Proponent wishes to make any addition, deletion or other change to the key firms or key personnel or any other material change to information provided in their DB-EOI Response, the Proponent shall notify the Ministry in writing, using the bid enquiry function on the RAQS/MERX website: www.rags.merx.com, as to the proposed change. The Proponent shall identify a substitution, and the reasons for the change and substitution. The Proponent shall provide sufficient documentation to enable the Ministry to consider, evaluate and determine the implications of the proposed change and substitution pursuant to the terms of this RFP. The Proponent shall demonstrate to the satisfaction of the Ministry that the proposed substitute meets the requirements identified by the Ministry. If the Proponent fails to provide a change acceptable to the Ministry, the Ministry reserves the right to disqualify the Proponent.

Changes, including substitutions, made to Proponent key firms or key personnel without the consent of the Ministry, may result in disqualification of a Proponent.

1.12.2 Following Award

If the Design-Builder wishes to make any addition, deletion or other change to the key firms or key personnel provided in their proposal after award, the Design-Builder shall notify the Ministry in writing as to the proposed change. The Design-Builder shall identify a substitution and the reasons for the change and substitution. The Design-Builder shall provide sufficient documentation to enable the Ministry to consider, evaluate and determine the implications of the proposed change and substitution pursuant to the terms of this RFP. The Design-Builder shall demonstrate to the satisfaction of the Ministry that the proposed substitute has equal or better qualifications, experience and ability when compared as a whole to the original named entity or person and is otherwise suitable for the particular position.

If the Design-Builder fails to provide a change acceptable to the Ministry, the Design-Builder shall either retain the previously accepted team or resubmit an acceptable alternative team member. Any work or deliverables related to the affected discipline shall not be submitted until an acceptable team change is proposed. The Design-Builder shall be responsible for all impacts related to this team change, including schedule.

1.13 Restricted Parties

Any firm currently under direct contract with the Ministry for this Project is not eligible to advise any Proponent, directly or indirectly, or participate in any way as an employee, advisor, consultant, member, or otherwise in connection with any Proponent in relation to the Project. The Ministry may, in its sole discretion, disqualify a Proponent or impose such conditions on its continued participation in the RFP process as the Ministry may, in its sole discretion, consider to be in the public interest, consider to be required to satisfy itself that any actual or potential conflict or the impact of any existing relationship has been appropriately managed, mitigated and minimized, or consider otherwise appropriate.

The following parties are restricted:

<Insert>

*< **Notes to Draft:** List any parties that are currently under direct contract with the Ministry for this project at the time of procurement e.g. an Owner's Engineer OR insert "Not applicable". Firms are restricted from participating as part of a Design-Build team and working directly for the Ministry at the same time for the same contract.>*

Firms identified as being restricted should be notified prior to advertising.>

In addition, a firm under direct contract with the Design-Builder for this Project is restricted from providing Contract Administration services for this Project.

1.14 Alternative Technical Concepts

1.14.1 Overview

To encourage Proponents to propose Alternative Technical Concepts (ATCs) or Innovations in the Project, the Ministry invites, but does not require, the Proponents to participate in an Alternative Technical Concepts submission and feedback process. A Proponent may submit ATCs that deviate from requirements in the Contract Documents for consideration by the Ministry.

A Proponent is not required to submit an ATC in order to submit its technical proposal.

ATCs shall include non-binding information on technical or innovative concepts that a Proponent requests the Ministry to consider. ATCs shall identify modifications to the requirements in the Contract Documents the Ministry has presented that shall result in equal or better quality or effect as determined by the Ministry. The Proponent shall identify the differences of such technical or innovative concepts from the information presented in the Contract requirements. Such concepts are required to meet the functionality requirements set forth in Chapter 2 Project Requirements and Chapter 3 Specifications. In this regard, the Proponent shall make specific reference to the element of the Contract that is impacted by its technical or innovative concepts.

Proponents may propose up to (##) ATCs. Rejected ATCs and submitted ATCs that are deemed by the Ministry to not qualify as an ATC are included in the maximum number of ATCs allowed.

1.14.2 ATC Submittal

A Proponent may include an ATC in its proposal only if it has been received by the Ministry by the ATC submission deadlines identified in the Summary of Key Information and it has been identified as suitable for inclusion in the proposal by the Ministry for the specific project and element. Inclusion of ATCs not deemed suitable by the Ministry may result in disqualification of the Proponent's proposal.

Each ATC shall include the Proponent's name, and shall be numbered sequentially, beginning with one. ATCs shall be submitted in a two stage process. All ATCs shall be received by the Ministry, according to the deadlines outlined in the Summary of Key Information in order to be considered. ATCs not received in advance of the deadlines shall not be considered.

ATC Stage 1

In stage one a brief summary of the ATC shall be submitted electronically in "read only" Adobe (PDF) format using the bid enquiry function, according to Section 1.8 Enquiries, and shall include a general description of the key benefits, risks and magnitude of functionality impacts (three page maximum). The Ministry shall review the ATC Stage 1 Submission and provide notification within 10 business days of the ATC Stage 1 Submission Deadline (see Summary of Key Information) whether the Ministry is prepared to consider the ATC further.

ATC Stage 2

If the ATC is to be considered further, in stage two of the process the Proponent shall provide a detailed ATC submission submitted electronically in "read only" Adobe (PDF) format using the bid enquiry function, according to Section 1.8 Enquiries. The ATC Stage 2 Submission shall include a transmittal letter which details the complete name and address of the Proponent and its specialists (sub-contractors and designers) which shall perform ATC work and the following:

- a) **Description.** A detailed description and schematic drawings of the configuration of the ATC or other appropriate descriptive information (including, if appropriate, product details [i.e., specifications, construction tolerances, special provisions] and a traffic operational analysis);
- b) **Usage.** Where and how the ATC would be used on the Project;
- c) **Deviations.** References to requirements of the RFP documents that are inconsistent with the proposed ATC, an explanation of the nature of the deviations from said requirements, and a request for Approval of such deviations;

- d) **Analysis.** An analysis justifying use of the ATC and why the deviations from the requirements of the RFP documents shall be allowed;
- e) **Impacts and Mitigation.** Discussion of potential impacts as applicable on vehicular traffic, environmental impacts including EA process and associated permits and approvals, community impact, safety and life-cycle Project impacts, and infrastructure costs (including impacts on the cost of future repair and maintenance), and identify what measures shall be introduced to mitigate potential impacts;
- f) **History.** A detailed description of other projects where the ATC has been used, the success of such usage, and names and telephone numbers of project owners that can confirm such statements;
- g) **Risks.** A description of added risks to the Ministry and other parties associated with implementing the ATC (e.g. maintenance, impacts to other design elements, etc.);
- h) **Time.** Estimated Project schedule implications.

The information provided shall be in such sufficient detail so that the Ministry can determine how the Proponent's innovative concepts differ from the requirements in the Contract Documents and how such concepts nevertheless satisfy the functionality requirements.

The Ministry shall review the ATC Stage 2 Submission and provide notification within 10 business days of the ATC Stage 2 Submission Deadline (See Summary of Key Information) regarding the suitability of including the ATC into their Technical Proposal. The response shall be with respect to its suitability based on whether the proposed innovative concepts meet the functionality requirements and the Project's goals. This response is specific to the ATC in question and cannot be used as approval for deviations to Contract requirements elsewhere.

The Ministry shall respond to the Proponent with one of the following determinations:

1. The ATC is suitable for inclusion in the Proponent's proposal
2. The ATC is not suitable for inclusion in the Proponent's proposal.
3. The ATC is not suitable for inclusion in the Proponent's proposal in its present form, but may be suitable upon satisfaction, in the Ministry's sole judgment, of certain identified conditions that shall be met or certain clarifications or modifications that shall be made (Conditionally Suitable).
4. The submittal does not qualify as an ATC but may be included in the Proponents proposal without an ATC (i.e., the concept complies with the baseline RFP requirements).

5. The submittal does not qualify as an ATC and may not be included in the Proponent’s proposal.

As part of the ATC review process, the Ministry may, in its sole discretion, request written clarifications from the Proponent. Unless otherwise specified in the written request, any Proponent requested to provide clarification shall have 24 hours to deliver the requested clarification electronically in “read only” Adobe (PDF) format using the bid enquiry, according to Section 1.8 Enquiries. The response received by the Ministry from a Proponent shall, if determined as suitable by the Ministry, form an integral part of that Proponent's ATC.

The Ministry reserves the right to interview any or all Proponents to obtain information about or clarification of their ATCs.

Provided that an ATC has been determined as suitable by the Ministry, the Proponent ultimately has the option to determine whether or not it shall incorporate such ATC into its proposal. If a Proponent chooses to pursue suitable ATCs, it shall incorporate those proposed concepts into its technical proposal in response to the RFP, provided however that its’ ATC complies with all other requirements in the Contract Documents. Final determination of the suitability of a Proponent’s ATC shall be at the sole discretion of the Ministry and shall be dependent on such further details that are submitted in its technical proposal. Proponents shall clearly identify which ATCs are being included in their technical proposal.

The Ministry shall hold the Proponent’s ATCs and the corresponding Ministry response in strict confidence.

1.15 Proposal Submission Requirements

Technical assistance with proposal submissions can be obtained by contacting the RAQS/MERX help desk: <mailto:raqs@merx.com>.

1.15.1 General

Proposals in response to this RFP shall contain two separate parts and shall be submitted according to the instructions in this Section.

Part 1:	Technical Proposal
Part 2:	Price Proposal

All Proponents must have a valid user ID and password to access the RAQS/MERX website and must have a Ministry approved contractor rating form and a Ministry approved TRF for Qualified Contracts for the submission of a proposal in respect of this RFP. Failure to obtain an approved TRF will disallow the Proponent from submitting a proposal on the basis of failing to comply with the Instructions to Proponents without any consideration by the Ministry.

The Proponent's TRF shall be received by the Ministry in accordance with the Summary of Key Information.

1.15.2 Statutory Bonds

If the price proposal is \$500,000.00 or more the Contractor shall furnish the Ministry with the Statutory Bonds in the prescribed form that satisfies the requirements of the Construction Act, R.S.O. 1990, c.30, as amended. In this regard, the Contractor shall deliver and maintain a labour and material payment bond using Form 31 and a performance bond using Form 32 prescribed by the Construction Act from a surety company that is an insurer licensed under the Insurance Act to write surety and fidelity insurance. Such bonds shall name Her Majesty the Queen in right of the Province of Ontario as represented by the Minister of Transportation as an obligee. Each such bond shall have a coverage limit of at least 50 per cent of the tender price.

1.15.3 Proposal Submission Procedures

1.15.3.1 Technical Proposal Submission

Technical proposals shall be received by the Ministry according to the Summary of Key Information. The format and content of the technical proposal shall be in conformance with the requirements in Sections 1.16 Technical Proposal Format and 1.17 Technical Proposal Content of the RFP.

Any technical proposal that is not received by the Ministry in advance of the RFP Closing identified in the Summary of Key Information shall result in automatic disqualification of the Proponent's proposal. All technical proposals shall be time and date stamped upon receipt. A technical proposal received with a time and date stamp later than the RFP Closing shall be returned to the Proponent unopened. No fax transmissions shall be accepted.

Proponents may submit a revised technical proposal up until RFP Closing. The Ministry shall consider only the last technical proposal received by the Ministry prior to RFP Closing.

Each Proponent shall examine all instructions, terms and conditions, forms and information in the RFP documents and the responses to prospective Proponent questions; and in a clear, concise and legible manner, complete and submit all documentation and information required by this RFP. Incomplete submissions may result in disqualification of the Proponent's proposal.

1.15.3.2 Price Proposal Submission (Electronic Submission)

Electronic price proposals shall be received by the Ministry according to the Summary of Key Information. Any price proposal that is not received in advance of the RFP Closing identified in the Summary of Key Information shall result in automatic disqualification of the Proponent's proposal.

Note: In the Ministry's electronic bidding system on the RAQS/MERX website the terms "Tender Opening", "Tender Closing" shall have the same meaning as "RFP Closing" and "Proposal Due Date" which is the last date and time the Ministry shall accept bids and proposals. Similarly the terms "Tender", "Bid" and "price proposal" also have the same meaning and represent the Lump Sum price submitted electronically to the Ministry.

Each Proponent shall submit an electronic bid by completing an on-line Summary Bid Submission Form in the RAQS/MERX website. Only a Proponent with an approved Tender Registration Form (TRF) is allowed to complete and submit a Summary Bid Submission Form to the Ministry.

Proponents may submit a revised on-line Summary Bid Submission Form until RFP Closing. The Ministry shall consider only the last Summary Bid Submission Form received by the Ministry prior to RFP Closing.

Upon successfully submitting an on-line Summary Bid Submission Form, Proponents shall receive an on-line notification for information purposes that the Ministry has received their Summary Bid Submission Form.

Within 24 hours of RFP Closing Proponents shall be required to submit a detailed Itemized Bid and Evaluation Form (sample provided in Appendix A) electronically by email in a "read only" Adobe (PDF) format to contracttendering@ontario.ca. This form is required for contract administration and evaluation of the bid, and is available for download in Microsoft Excel format on the RAQS/MERX website.

Upon successfully submitting an Itemized Bid and Evaluation Form, Proponents shall receive an on-line notification for information purposes that the Ministry has received their Itemized Bid and Evaluation Form.

Upon completion of the evaluation of the technical proposals, the Itemized Bid and Evaluation Form shall be opened and used for evaluation of value and assessed for unbalanced bidding.

No bid prices shall be published until after the award process has been completed. Once an award has been completed, the Ministry shall post on the RAQS/MERX website the Preferred Proponent's Bid price and the names of the other Proponents with compliant proposals in order of their ranking in the evaluation.

1.15.4 Computer System Failure

The Ministry shall only accept price proposals submitted electronically on the RAQS/MERX website. Any price proposal received through any other format shall not be considered and is deemed rejected without further consideration.

The Ministry accepts no responsibility for any reason whatsoever, including computer system failures of either the Proponent or the Ministry service provider, if the Proponent is unable to submit its price proposal before RFP Closing. The Proponent agrees that

the Ministry shall have no liability, for delays caused by internet/network traffic, degraded operation or failure of any computer system element, including, but not limited to: any computer system, power supply, telephone or data connection or system or software or browser of any type whatsoever.

It is the sole responsibility of the Proponent to ensure that it can access and exchange data with computer systems electronically and that it allows sufficient time to successfully access and share data with computer systems, having regard to the possibility of delays caused by internet/network traffic. Proponents are solely responsible to ensure that they plan their access to computer/servers so that the Proponents can reach the computers/servers before RFP Closing.

1.15.5 Unbalanced Price Proposal and Discrepancies

Proponents that submit an Itemized Bid and Evaluation Form that contains prices that appear to represent an unbalanced price proposal may be referred to the Ministry's Qualification Committee and any price proposals that are so unbalanced that they may adversely affect the interests of the Ministry may be rejected.

The Ministry shall not allow any Proponent to adjust the Lump Sum provided in their price proposal after RFP Closing.

In the event of a mathematical error or discrepancy in the Itemized Bid and Evaluation Form, the Ministry may request the Proponent to resubmit the Itemized Bid and Evaluation Form without changing the Lump Sum price.

1.15.6 No Collusion

No Proponent shall discuss or communicate with any other Proponent or prime team member of any other Proponent (or any employee, representative or agent thereof) about the preparation of the proposal. Each Proponent's proposal shall be submitted without any connection, knowledge, comparison of information or arrangement with any other Proponent or prime team member of any other Proponent (or any employee, representative or agent thereof) and each Proponent shall be responsible to ensure that its participation in this RFP process is conducted fairly and without collusion or fraud.

1.15.7 Ownership of Responses

All documents, including proposals, submitted in response to this RFP become the property of the Ministry. Documents shall be held in confidence by the Ministry, subject to any and all applicable laws, including the Freedom of Information and Protection of Privacy Act.

1.15.8 Stipend

The Design-Builder shall, subject to the terms of this RFP, pay a stipend of #### Thousand Dollars (\$#####) to each Proponent that, in the sole opinion of the Ministry,

meets the following conditions: *< **Notes to Draft:** contact CPPO to determine appropriate stipend value >*

- a) Proponent submits a proposal that, at the sole discretion of the Ministry, substantially complies with this RFP, including meeting the minimum scores required in the evaluation of the technical proposal as identified in Section 1.18.2 Technical Proposal Evaluation;
- b) Proponent is not selected as the Preferred Proponent.

The Ministry anticipates a maximum of three Proponents for this proposal. In the event that one or both of the unsuccessful Proponents either don't submit a proposal or submit a proposal that is determined to be non-compliant with the RFP requirements, the Ministry shall reduce the Lump Sum payable to the Design-Builder by the amount of the stipend(s) that are not being paid.

The Ministry shall not assume ownership of technical concepts submitted by unsuccessful Proponents whether or not a stipend is paid.

1.16 Technical Proposal Format

Each Proponent shall submit a technical proposal according to the Summary of Key Information. The technical proposal shall be in the following format:

- a) One "read only" Adobe (PDF) version (maximum file size 75 MB)

One copy of the file(s) used to prepare the technical proposal in the original file format (e.g. MS Word/Excel, AutoCAD drawing files, scheduling files, etc.) shall be provided to the Ministry upon request.

File names for electronic documents shall also include the Proponent's name, title of document, and Contract number.

Six identical bound hard copies. In the case of a discrepancy between the hard copy and the electronic copy, the hard copy version shall take precedence.;

*< **Notes to Draft:** If hard copies are not required, delete above paragraph. Otherwise, modify number of copies required as appropriate. CMO retains one copy of the proposal >*

- b) The technical proposal shall be marked on the outside with the RFP Title and Contract Number identified in the Summary of Key Information along with the Proponent's name and address. Each technical proposal and each appendix (if applicable) shall include a header or footer that includes the RFP Title and Contract Number identified in the Summary of Key Information along with the Proponent's name.

- c) Technical proposals shall be structured according to the requirements of Section 1.17 Technical Proposal Content. The maximum allowable number of pages in the technical proposal shall not exceed 45 pages. The following items are not included in the page count:
- i. Mandatory Submission Requirements documents detailed in Section 1.17.2
 - ii. Schedules (Gantt Charts)
 - iii. Drawings

Any additional information or appendices provided by the Proponent beyond the specified page limit shall not be reviewed or evaluated by the Ministry.

< **Notes to Draft:** *modify the maximum allowable number of pages taking into account the complexity of the project and the extent of the technical plans required.*>

- d) Technical proposals shall contain a table of contents. Use of appendices shall be limited and would typically consist of plan sheets or other illustrative information and should not include narrative text except if specifically required by this RFP.
- e) Technical proposals shall be printed on 8.5" x 11". Diagrams may be formatted on 11" x 17" pages and will count as one page each. Schedules (Gantt Charts) and drawings may be formatted on 11" x 17" pages. The font type shall be "Arial" – No other font type shall be used. "Arial Narrow" is not permitted. Minimum font size shall be 12 point. All margins shall be a minimum of 2.5 cm.
- f) Technical proposals shall not include links to external information.

1.17 Technical Proposal Content

1.17.1 Overview

All technical proposals submitted by Proponents shall include all the information included in Section 1.17 Technical Proposal Content and shall describe in detail how the Proponent shall meet or exceed the requirements of this RFP, including the project goals.

Technical Proposal Requirements

Mandatory Submission Requirements
Transmittal Letter (according to section 1.17.2.1) Conflict of Interest – Certification Part 1 (according to section 1.17.2.2) Conflict of Interest – Disclosure Part 2 (according to section 1.17.2.2) Form of Offer (according to section 1.17.2.3)
Rated Requirements
Project Management Plan (according to section 1.17.3.1) Co-ordination of Work Collaboration with Ministry Schedule
Quality Management Plan (according to section 1.17.3.2)
Environmental Management Plan (according to section 1.17.3.3)
Technical Plans (according to section 1.17.3.4) Roadway/Traffic Design Drainage Design Geotechnical/Foundation Design Pavement Design Structural Design Electrical Design Geomatics < Notes to Draft: insert others as required by Project. Adjust to match Sections in 1.17.3.4 Technical Plans >
Construction Management Plan (according to section 1.17.3.5) Construction Staging Plan Traffic Management Plan Safety Management Plan

1.17.2 Mandatory Submission Requirements

1.17.2.1 Transmittal Letter

Each Proponent shall submit a transmittal letter identifying the complete name and address of the Proponent which shall have responsibility for performing the Project as well as the name, title, telephone number, and email address of that principal of the Proponent who shall serve as point of contact regarding this Project.

1.17.2.2 Conflict of Interest Confirmations

Each Proponent shall include in its proposal, confirmation that:

- a) The Proponent does not and shall not have any conflict of interest (actual or potential) in submitting its proposal or, if selected, with the contractual obligations of the Proponent as Design-Builder under the Contract. Where applicable, the Proponent shall declare in its proposal any situation that may be a conflict of interest in submitting its proposal or if selected, with the contractual obligations of the Proponent as Design-Builder under the Contract; and
- b) The Proponent neither has nor had access to any Confidential Information.

The form for the confirmation above is provided in Appendix A: Submission Forms, and titled “Conflict of Interest – Certification Part 1”. The signed and completed form shall be submitted as part of the Proponent’s technical proposal.

In addition, each proposal shall include the following information:

- a) A list of the names, addresses and telephone numbers of the persons who participated in the development of the proposal; and
- b) A list of the names of any former employees of the Ontario Public Service, their job classifications and the particular ministries where these individuals were working immediately prior to their leaving the Crown

The form for this information is provided in Appendix A: Submission Forms, and is titled “Conflict of Interest – Disclosure Part 2”. This form shall be signed and completed and submitted as part of the Proponent’s technical proposal.

The proposal of any Proponent may be disqualified where the Proponent fails to provide confirmation of the foregoing or makes misrepresentations regarding any of the above. Further, the Minister shall have the right to rescind any Contract with the Preferred Proponent in the event that the Minister in his/her sole discretion determines that the Preferred Proponent has made a misrepresentation regarding any of the above, in addition to or in lieu of any other remedies that the Minister has in law or in equity.

1.17.2.3 Form of Offer

Each technical proposal shall include a Form of Offer (Appendix A: Submission Forms) completed and signed by the Proponent.

The Ministry, in addition to any other remedies it may have in law or in equity, shall have the right to rescind any Contract awarded to a Proponent in the event that the Ministry determines that the Proponent made a misrepresentation or submitted any inaccurate or incomplete information in the Form of Offer.

Other than inserting the information requested and signing the Form of Offer, a Proponent may not make any changes to or qualify the Form of Offer in its technical proposal. A technical proposal that includes conditions, options, variations or contingent statements that are contrary to or inconsistent with the terms set out in the RFP may be disqualified. If a technical proposal is not disqualified despite such changes or qualifications, the provisions of the Form of Offer as set out in this RFP shall prevail over any such changes or qualifications in or to the Form of Offer provided in the technical proposal.

1.17.3 Rated Requirements

1.17.3.1 Project Management Plan

The project management plan shall, at a minimum, describe how the Proponent proposes to organize and control the Work anticipated by the Proponent's technical plans and project plans in a manner likely to result in a finished Project that shall meet or exceed the Ministry's Project goals and in a manner that is acceptable and desirable to the Province.

1.17.3.1.1 Co-ordination of Work

The project management plan shall provide the following:

- a) The Proponent's acknowledgement that they shall need to co-ordinate their Work and co-operate with those performing adjacent work.
- b) A description of the Proponent's intended approach to coordination and scheduling of the Work with affected Utilities, railway, and the <insert municipality if applicable>.
- c) The Proponent's approach to re-scheduling of its own activities to achieve recovery of the schedule if the Work lags behind the schedule.
- d) A summary description of key foreseeable risks on this Project and a summary description of mitigation measures that may be undertaken by the Proponent.
- e) The Proponent's approach to coordinating design and construction, ensuring internal design and constructability input, review and quality control.
- f) The Proponent's approach to fulfilling all requirements in the Contract Documents and required sign-offs by an Engineer.
- g) The Proponent's approach to manage design changes during construction.

1.17.3.1.2 Collaboration with Ministry

Provide a summary of the Proponent's overall strategy for collaborating with the Ministry at all levels throughout the life of the Contract. This strategy shall include the following items:

- a) The extent of the Proponent's commitment to such collaboration;
- b) The steps needed to implement such collaboration;
- c) The extent to which the various parties, such as members of the Proponent, any specialist advisors, relevant authorities, and municipalities shall be involved;

1.17.3.1.3 Schedule

The Project Management Plan shall include a preliminary schedule that, at a minimum, depicts the Work (including the design and construction phases) from project commencement to demobilization in a Gantt chart format. The schedule shall include all major elements of design and construction showing logical interdependencies between tasks and key milestones, anticipated start dates and anticipated completion dates for all major tasks and critical path items including but not necessarily limited to the following:

- a) Environmental management plan submissions;
- b) Design Submissions;
- c) Construction mobilization;
- d) Construction of temporary or off-site facilities;
- e) Significant on-site construction milestones;
- f) Significant off-site material fabrication and construction;
- g) Coordination of work by others;
- h) Utility relocation and protection;
- i) Traffic staging;
- j) Site remediation, demobilization and post construction environmental monitoring and reporting requirements;
- k) Substantial Performance Date; and
- l) Contract Completion Date (the final completion date shown on the Proponent's project schedule shall comply with the completion date set out in Section 2.1.5

Schedule of the RFP or the Proponent's proposal shall be disqualified from further evaluation).

The Project Schedule submitted as part of the Technical Proposal Submission is independent of the Critical Path Schedule submission.

The Gantt Chart shall not count towards the page limit.

1.17.3.2 Quality Management

The quality management submission shall outline the Proponent's understanding, commitment and ability to manage quality processes, during the entire life of the contract, including specifications requirements related to the design and construction of the Project.

As a minimum, the submission shall demonstrate the Proponent's approach to:

- a) How its quality management processes ensure design and construction integration and continuity during all phases of the Work.
- b) Manage design changes during construction and any required amendments to the Contract Documents, including Issued for Construction Drawings.
- c) Issue the Certificate of Design and Construction as provided in Appendix D
- d) Document conformance with the requirements in the Contract Documents, including conformances related to specifications;
- e) Addressing Quality Control (QC) non-conformances (design and construction); including communication to the ministry, proposing remedial action prior to implementation, and improving processes to prevent future occurrences; and
- f) Address quality related checking, verifications, validations, inspections and testing activities to be conducted during all phases of the Project including design, construction and commissioning

1.17.3.3 Environmental Management Plan

The Proponent's Environmental Management Plan shall demonstrate the Proponent's understanding, commitment and ability to manage environmental issues relating to the Work, and ensuring compliance with environmental requirements described in the RFP. The plan shall contain the following information as a minimum:

- a) A description of the detailed Environmental Management System that the Proponent shall put in place to ensure the delivery of the Work according to the environmental protection requirements set out in the RFP, the EA

documentation, and any additional commitments and approvals secured for this Project. This description shall include all processes, procedures, resources, monitoring and sequence of tasks that the Proponent shall use in the delivery of the Work to address environmental issues.

- b) A description of how the Proponent shall undertake and complete the detail design and Class EA process, if applicable, for the detail design project stage to ensure “Environmental Clearance – Construction Start” is met before construction begins. The Environmental Management Plan shall include a description and schedule for the consultation plan, environmental assessment process and approvals/clearances (provincial and federal), documentation and reports, and how the Proponent shall effectively manage the acquisition of all required environmental permits and approvals.

< **Notes to Draft:** Add any additional requirements the Proponent would need to respond to >

1.17.3.4 Technical Plans

1.17.3.4.1 General

The Proponent shall describe in detail how they shall meet the requirements of the DB RFP while meeting the Project goals. In this section, the Proponent shall also describe where they can meet or exceed the requirements of the DB RFP through their approach to the detail design of the Project.

< **Notes to Draft:** This Section will need to be modified for each project and may require additional Sections e.g. traffic engineering, electrical engineering, ATMS etc. Contact CPPO for assistance >

1.17.3.4.2 Roadway/Traffic Design

The Proponent shall provide a design plan associated with the design of all roadway / traffic elements at an appropriate level of detail, as set out in or otherwise referenced in the DB RFP and shall include the following:

- a) Detail the proposed design elements including:
 - i. cross-section elements (including lane widths, shoulder widths, cross-fall/superelevations, etc.);
 - ii. horizontal alignment (including spiral and curve data tables);
 - iii. vertical alignment (including curve data tables);
 - iv. freeway interchange and access point geometrics; and
 - v. service road/municipal road intersection geometrics (including all stop controlled, signal controlled and roundabout intersections).
- b) Proposed drawings illustrating the Proponent’s proposed design concept including, but not limited to, the following:

- i. New construction drawings, (scale 1:1000 (11x17)) including standard dimensioning of all horizontal alignment elements:
 - proposed horizontal alignment of freeway, service roads, municipal roads, interchange ramps/access points and service road intersections;
 - locations of all structural elements including roadway bridges/tunnels, trail bridges/tunnels, retaining walls and guiderail;
 - location of all drainage elements including culverts, storm water management ponds and municipal drains;
 - locations of known Utility corridors;
 - limits of grading;
 - property limits; and
 - environmental features
- ii. Profiles of all roads (scale 1:1000 H/1:100 V (11" X 17")):
 - vertical profile for freeway, service roads, municipal roads and interchange ramps/access points;
 - original ground line, ditching, sewers, top of pavement;
 - locations of all structural elements including Highway bridges and Highway tunnels;
- iii. Locations of all drainage elements including culvert and municipal drain crossings; and location of known Utility crossings.
- iv. Typical sections for the freeway, interchange ramps and municipal road alterations
- v. Details on the following specific elements:
 - *< Notes to Draft: Include project specific list >*

1.17.3.4.3 Drainage Design

The Proponent shall provide a design plan associated with the design of all drainage elements including new elements and modifications to existing elements.

The plan shall cover all storm sewers, roadside ditches, storm water management facilities, stream protection and restoration for natural water courses and municipal drains, culverts and bridges.

As a minimum, the plan shall demonstrate the following:

- a) Describe the design criteria, design standards, and hydrologic and hydraulic method to be used for each drainage element type. Include rationale and applicability to the project.

- b) Data requirements for design and decision making, identifying any additional data that shall continue to be collected and how it shall be used to support the design process.
- c) For XXX element, the following is to be outlined:
- i. Description of the drainage infrastructure;
 - ii. Provide plans and profiles (as applicable)
 - iii. Identify risks and approach to addressing the risks;
 - iv. impacts and approach to existing municipal drains;
 - v. key constraints and conflicts associated with the design, construction, operation and maintenance; and
 - vi. special design requirements.
- < **Notes to Draft:** modify as appropriate for Project >
- d) A description of drainage issues at the different locations, including the plan and approach of how they are to be addressed in design. These include, but are not limited to, issues regarding groundwater and fisheries as they pertain to storm water management, spills, flooding, and other environmental impacts (fisheries, endangered species, migratory birds etc.).
- < **Notes to Draft:** Add project specific list of drainage issues / features the Region expects Proponents to respond to in the Technical Proposal >
- e) A description of potential issues and approach in meeting requirements from different jurisdictions.

1.17.3.4.4 Geotechnical/Foundation Design

The Proponent shall provide a plan as to how they will address geotechnical/foundation issues for detail design and construction to satisfy the requirements of this RFP.

The plan shall include a description demonstrating a clear understanding of key issues and challenges related to geotechnical and foundation design. The report shall include, at a minimum:

- a) The approach to detailed design of structures (e.g. bridges, structural culverts, retaining walls) that addresses:
- i. shallow and deep foundation design;
 - ii. integral and semi-integral abutment designs;
 - iii. shoring alternatives;
 - iv. roadway protection;
 - v. stability analysis and recommendations for slope geometry;
 - vi. settlement (including preload/surcharging, soil improvement, wick drains, lightweight fill);
 - vii. associated approach embankments;

- viii. dewatering/unwatering (including Permits To Take Water) and
- ix. lateral earth pressures.

b) The approach to detailed design of deep cuts and high fills that addresses:

- i. stability analysis and foundation recommendations for slope geometry;
- ii. settlement analysis;
- iii. requirements for drainage, run-off, erosion protection; and
- iv. applicability of staged construction, wick drains, lightweight fill, geosynthetic reinforcement and/or retained soil system.

c) A discussion of the critical issues and potential construction challenges, in particular, those relating to:

- i. stability of excavations and embankments during and following construction;
- ii. groundwater control, artesian conditions;
- iii. management (re-use or disposal) of excavated materials;
- iv. mobilization of heavy construction equipment and traffic on-site;
- v. sloping bedrock; and
- vi. boulders.

d) A work plan for site investigation (including consideration of environmental requirements, constraints and permits, including but not limited to in-water timing restrictions, timing windows for tree removals, species at risk, archaeology, etc.) and laboratory testing of sufficient scope to verify design assumptions and to provide adequate geotechnical and groundwater information and descriptions to plan the construction of all foundation elements.

e) Plan and approach to instrumentation and monitoring.

< **Notes to Draft:** Add project specific list of foundation engineering issues / features the Region expects Proponents to respond to in the Technical Proposal

1.17.3.4.5 Pavement Design

The Proponent shall provide a plan as to how they will address pavement issues for detail design and construction to satisfy the requirements of this RFP.

The plan shall include a description demonstrating a clear understanding of key issues and challenges related to pavement design. The plan shall include, at a minimum:

a) The approach to pavement design including:

- i. methodology that shall be used for pavement design;
- ii. preliminary thickness design and material selection for all pavement structures;
- iii. excavations, staging, methods, quality control, and inspections;

- iv. design service life; and
 - v. location specific pavement designs, as required
- b) A work plan for site investigation (including consideration of environmental requirements, constraints and permits, including but not limited to in-water timing restrictions, timing windows for tree removals, species at risk, archaeology, etc.) and laboratory testing of sufficient scope to verify design assumptions and to provide adequate geotechnical and groundwater information and descriptions to plan the construction of all foundation elements

< **Notes to Draft:** Add project specific list of pavement issues / features the Region expects Proponents to respond to in the Technical Proposal

1.17.3.4.6 Structural Design

< **Notes to Draft:** Modify this section dependent on whether any structural work is included. If there is none in the Project, keep the title and insert "Not used.">

The Proponent shall provide a completed structure proposal plan, which shall be used to finalize the Structural Design Report after award, for <specify applicable structures>, consistent with MTO's Structural Planning Guidelines and shall include at a minimum the following:

- a) A description of the proposed undertaking such as the type of structure and proposed span arrangement and length, structural depth, vertical and horizontal clearances and justification for selection of the type of structure
- b) Details of "horizontal alignments" and "vertical profiles", their geometric configuration, for both Highway carrying the structure and the roadway below
- c) Working point chainages, elevations, and description of control lines
- d) Co-ordinates on NAD 83 MTM Zone 11 grid system < **Notes to Draft:** Confirm appropriate coordinate system with Regional Geomatics section>
- e) Cross-sections of the deck and roadway below. Include lane widths, shoulder widths, widths of sidewalk (as applicable), barrier type, etc.
- f) A description of traffic over and under the bridge
- g) The need for maintenance of traffic during construction and anticipated staging and detour requirements
- h) The need for temporary illumination for traffic safety during construction
- i) A description of foundation recommendations and proposed design

- j) A description of environmental requirements (fisheries, endangered species, migratory birds etc.) related to design and construction of the proposed structure(s)
- k) A description of limitations or challenges anticipated during construction
- l) A description of miscellaneous items relevant to the design and construction of the proposed structure(s) (e.g. Utilities, removals etc.)
- m) Description of the proposed construction staging, including site access
- n) A description and elevation drawing showing the proposed aesthetic scheme of the bridge
- o) An updated general arrangement drawing

< **Notes to Draft:** the following paragraph and list can be deleted if no structural culvert replacement/installation is anticipated >

In addition, a completed culvert proposal plan shall be provided for <list structural culverts identified for replacement> or additional structural culverts (greater than 3 metre span) identified during detail design, according to the MTO Culvert Planning Guidelines. This plan shall include the above listed requirements as well as the following:

- a) Provide replacement options based on the findings and the information obtained from the site investigations.
- b) A discussion of hydrologic and hydraulic design and the required opening size of the culvert
- c) A description of proposed innovative demolition and construction techniques to accelerate construction and limit impacts to traffic
- d) A description of proposed temporary flow passage system
- e) Describe how the structural work, including site access and temporary flow passage system (and its construction), will function within the available property.
- f) A proposed general arrangement drawing

1.17.3.4.7 Electrical Design

< **Notes to Draft:** Modify this section dependent on whether any electrical work is included. If there is none in the Project, keep the title and insert "Not used." >

The Proponent shall provide a plan detailing their approach to the following, in accordance with the MTO's Electrical Engineering Guidelines and the requirements of this RFP:

- a) A description of the proposed undertaking such as lighting type and which standards shall be followed.
- b) The need for maintenance of traffic during construction and anticipated staging and detour requirements.
- c) The need for temporary illumination for traffic safety during construction.
- d) Description of limitations or challenges anticipated during construction.
- e) Description of "Vehicle Classification Stations" on all entrance and exit ramps and/or any vehicle classification stations on Highway XX that may be impacted by construction.
- f) Description of miscellaneous items relevant to the design and construction of the proposed lighting(s) (e.g. Utilities, removals, etc.).
- g) The following attachments shall be provided at the end of the plan:
 - i. General arrangement drawing for proposed new lighting also indicating electrical utility connection points.
 - ii. Design criteria and lighting calculations.
 - iii. Underpass lighting design criteria.
 - iv. Adaptability for future expansion (e.g. Future traffic signals and/or additional ramps).

1.17.3.4.8 Geomatics

< **Notes to Draft:** Include project specific requirements for Proponents to respond to in the Technical Proposal if there are unique Geomatics needs on the project, otherwise note as N/A >

The Proponent shall outline their approach, methodology and work plan for delivering the final deliverables (described in Section 2.4.12) in the requested formats.

In the event that additional engineering survey coverage is deemed necessary during the course of the Design-Build assignment, the Proponent shall outline their procedures and methodology for the field survey data collection and office processing to integrate the newly acquired data with the MTO provided information.

1.17.3.5 Construction Management Plan

1.17.3.5.1 General

The Construction Management Plan shall, at a minimum, describe how the construction of the design described in the technical plans portion of the technical proposal shall be carried out in a safe, effective manner while demonstrating that the Proponent has the ability to comply with all of the Design-Builder's obligations addressed in this RFP, including the ability to achieve Project completion. The Proponent shall address, as a minimum, the items in Sections 1.17.3.5.2 to 1.17.3.5.4.

1.17.3.5.2 Construction Staging Plan

The construction staging plan shall describe the Proponent's approach to construction staging and how that approach is coordinated with the Project schedule to meet the Project requirements. The key issues and constraints affecting construction shall be identified and discussed. The construction staging plan shall demonstrate at a conceptual level how and when the Proponent intends to:

- a) Carry out the required construction including identification of all associated major milestones, which shall also appear in the Project schedule;
- b) Coordinate the Work with the Traffic Management Plan while maintaining adequate access to private and commercial entrances at each stage;
- c) Complete the Work according to environmental requirements (including permits, approvals, exemptions, timing restrictions etc.) and construction sensitive periods;
- d) Construct, replace, widen or extend drainage works;
- e) Relocate / protect Utilities, both overhead and underground (including maintaining continuous water and sanitary services);
- f) Construct the new bridge structure(s);
- g) Stage the excavation of the existing Highway while maintaining efficient traffic flow and maintaining stable temporary slopes;
- h) Construct temporary roadwork, roadway protection and detours, if required;
- i) Account for seasonal considerations.

< **Notes to Draft:** Customize above list to align with project scope. Add project specific requirements for Proponents to respond to in the Technical Proposal >

1.17.3.5.3 Traffic Management Plan

The Proponent shall submit an outline of their traffic management plan. This part of the technical proposal shall demonstrate that the Proponent has a strategy for ensuring the Work can be carried out according to the Project schedule in a manner that is fully compliant with the traffic management criteria of the RFP. The traffic management plan outline shall, at a minimum, include:

- a) A description of anticipated actual closure/delay durations and frequencies required to execute the Traffic Management Plan and construction;
- b) A description of the entrances or intersections affected by the work zone and provision to maintain access at each stage;
- c) How the Proponent shall make the public and all stakeholders aware of foreseeable traffic impacts; and
- d) Confirmation that the schedule shall be achieved while complying with the traffic management criteria.

< **Notes to Draft:** Add project specific requirements for Proponents to respond to in the Technical Proposal >

1.17.3.5.4 Safety Management Plan

The Proponent shall confirm their commitment to delivering and adhering to a safety plan prior to commencing any Work on site. The Proponent shall provide a safety plan specific to the Project which describes the measures the Proponent shall follow to provide a safe work site for all persons on site and for the travelling public.

< **Notes to Draft:** Add project specific requirements for Proponents to respond to in the Technical Proposal >

1.18 Proposal Evaluation and Award

1.18.1 Evaluation Approach

Based on the evaluation of the responses to this RFP, the Ministry goal is to select a Design-Builder based on the proposal that provides the best value to the Ministry for the successful completion of the Project according to the Project goals.

Each technical proposal shall initially be screened to determine if it meets the format, page limit and mandatory submission requirement criteria according to Sections 1.16 Technical Proposal Format and 1.17 Technical Proposal Content of this RFP.

Proposals which do not comply with all of the submission requirements may, subject to the express and implied rights of the Ministry, be disqualified and not evaluated further. Technical proposals compliant with the format, page limit and mandatory submission

requirements shall proceed to the evaluation of the rated requirements according to Section 1.18.2 Technical Proposal Evaluation.

1.18.2 Technical Proposal Evaluation

RFP responses shall be evaluated based on how well the technical proposals meet with the Project requirements outlined in Chapter 2 of this RFP and how the Proponent shall ensure the Work shall conform to the Specifications outlined in Chapter 3. The Ministry shall consider compliance as well as general feasibility when evaluating proposals. The weightings provided in the table Evaluation Criteria Weighting shall be used when scoring the technical proposal.

Required minimum scores of 60% for each of the rated requirements and an overall total score of at least 70% of the available points shall be achieved for the technical proposal. Failure to achieve the minimum score for any requirement or in total shall result in the technical proposal being deemed non-compliant and will be disqualified from further evaluation.

In addition, regardless of the overall score for the project management plan, if the Contract completion date shown in the schedule submitted with the proposal is not on or earlier than the completion date set out in Section 2.1.5 Schedule of the RFP the Proponents proposal shall be deemed non-compliant and disqualified from further evaluation.

The scores from the Proponents' DB-EOI evaluation shall be carried forward and included with the scores from their RFP technical proposal. The DB-EOI component represents 10% of the total score.

*< **Notes to Draft:** weightings may vary based on the goals of the Project. The Required Minimum Score for each category is set at a default level of 60% but the overall minimum score is still 70% and the Required Minimum Score as well as the Total Available Points for each category can be adjusted to suit the goals of the Project. Minimum scores for subcategories may also be considered. Available Points for subcategories shall add up to the Total Available Points for the Category they are in.>*

Table 2: Evaluation Criteria Weighting

Mandatory Submission Requirements	Submitted	
Transmittal Letter	(yes/no)	
Conflict of Interest – Certification	(yes/no)	
Conflict of Interest – Disclosure	(yes/no)	
Form of Offer	(yes/no)	
Rated Requirements	Total Available Points	Required Minimum Score
Project Management Plan	15	9

Co-ordination of Work	TBD	
Collaboration with Ministry	TBD	
Schedule	TBD	
Quality Management Plan	10	6
Environmental Management Plan	10	6
Technical Plans	35	21
Roadway/Traffic Design	TBD	
Drainage Design	TBD	
Geotechnical/Foundations Design	TBD	
Pavement Design	TBD	
Structural Design	TBD	
Electrical Design	TBD	
Geomatics	TBD	
< Notes to Draft: insert others or delete as required by Project. Adjust to match Table in 1.17.1 and sections outlined in 1.17.3.4 above >	TBD	
Construction Management Plan	20	12
Construction Staging Plan	TBD	
Traffic Management Plan	TBD	
Safety Management Plan	TBD	
Rated Requirement Points Available	90	
EOI Points Earned (Prorated Score from DB-EOI phase carried forward)	10	
Total Points Available / Overall Minimum Required	100	70

1.18.2.1 Technical Evaluation Scoring

To ensure consistency in the scoring process the evaluation team shall use the rating system identified in the table Rating Descriptors as a guide when scoring all technical proposals.

Table 3: Rating Descriptors

Rating Descriptors	Evaluation Plan Definition	Point Score Range %
Excellent	The proposal demonstrates an approach that is considered to significantly exceed the RFP	90-100

	requirements/objectives in a beneficial way (providing advantages, benefits, or added value to the Project) and provides a consistently outstanding level of quality. In order for the proposal to meet the minimum criteria to be considered to be excellent, it shall be determined to have a significant strength and/or a number of strengths and no weaknesses.	
Very Good	The proposal demonstrates an approach that is considered to exceed the RFP requirements/objectives in a beneficial way (providing advantages, benefits, or added value to the Project) and offers a generally better than acceptable quality. In order for the proposal to meet the minimum criteria to be considered to be very good, it shall be determined to have strengths and no weaknesses.	80-89
Good	The proposal demonstrates an approach that is considered to meet the RFP requirements/objectives and offers an acceptable level of quality. In order for the proposal to meet the minimum criteria to be considered to be good, it shall be determined to have strength(s), even though minor weaknesses exist.	70-79
Marginal	The proposal demonstrates an approach that is considered to meet most of the RFP requirements/objectives and offers a minimal level of quality. The proposal demonstrates an approach that contains minor weaknesses and/or some significant weaknesses with few offsetting strengths.	60-69
Unacceptable	The proposal demonstrates an approach that contains significant weaknesses and few or no strengths. The proposal does not meet the RFP requirements and is unacceptable.	0-59

The term weakness(es) as used in the table Rating Descriptors above, means any flaw in the DB-EOI or proposal that increases the risk of unsuccessful Contract performance.

1.18.3 Clarification

As part of the evaluation process, the Ministry may, in its sole discretion, request written clarifications from any Proponent after the RFP Closing. Unless otherwise specified in the written request, any Proponent requested to provide clarification shall have 24 hours to deliver the requested clarification electronically by e-mail, in “read only” Adobe (PDF) format, to contracttendering@ontario.ca.

The Ministry reserves the right to accept or reject any written clarification(s) submitted by a Proponent. Altering the content of the original submission and/or altering the Lump Sum price is not the purpose of clarification(s) and shall not be acceptable. The

response received by the Ministry from a Proponent shall, if accepted by the Ministry, form an integral part of that Proponent's proposal.

In the event that the Ministry receives information at any stage of the evaluation process which results in earlier information provided by the Proponent being deemed by the Ministry to be inaccurate, incomplete or misleading, the Ministry reserves the right to re-evaluate the Proponent's compliance with the rated requirements and adjust the scoring of the technical proposal accordingly.

The Ministry reserves the right to interview any or all Proponents to obtain information about or clarification of their proposals.

1.18.4 Price Proposal Evaluation

Upon completion of the evaluation of the technical proposals, the Proponent's price proposal shall be retrieved from the Electronic Bidding System and evaluated for compliance with the terms and conditions of the RFP.

1.18.5 Best Value Award

The Ministry shall determine the Preferred Proponent using an evaluated bid formula where the bid price is divided by the technical score divided by 100. The Proponent with the lowest evaluated bid shall be the Preferred Proponent. The evaluated bid is used for award purposes only and does not change the actual bid price that shall be used for payment purposes. An example of the evaluated bid algorithm is presented below, in which Proponent B would represent the Preferred Proponent.

Proponent	Bid Price	Technical Score ÷ 100	Evaluated Bid
A	\$1,200,000	0.85	\$1,411,765
B	\$1,250,000	0.95	\$1,315,789

Bid Price ÷ (Technical Score ÷ 100) = Evaluated Bid;
Lowest Evaluated Bid = Preferred Proponent

Final selection of the Preferred Proponent is subject to required Ministry approvals. It is anticipated that the acceptance of a proposal and the notification of award shall be made in writing within approximately 90 Days of the RFP Closing.

1.18.6 Execution of Contract

Upon conclusion of the evaluation process and required Ministry approvals, the Ministry shall provide the Preferred Proponent with two copies of the Agreement to be executed. Within seven Business Days of the Preferred Proponent's receipt of these documents, the Preferred Proponent shall return them to the Ministry fully executed, together with the required insurance policies and statutory bonds.

Following receipt of all properly executed forms and documentation, the Preferred Proponent will receive written authority to proceed with the work.

In the case that a Contract is not successfully executed within seven Business Days of delivery of the executable form of the Agreement to the Preferred Proponent, the Ministry may at its sole discretion disqualify that Proponent and offer award to the Proponent with the next lowest evaluated bid and the defaulting Proponent shall be liable for all losses, damages, costs and expenses (including consequential losses and damages, and legal fees on a solicitor-and-his-own-client basis) suffered or incurred by the Ministry as a direct or indirect result thereof, including but not limited to any increase in the price of performance over the price submitted by the defaulting Proponent in its proposal.

If the Preferred Proponent fails to return the applicable documents as directed in the notification of acceptance of Tender, within seven Business days of receipt of such notification, the Ministry may reject the proposal on written notice to the Preferred Proponent and refer the matter to the Ministry's Qualification Committee without prejudice to any right or remedy the Ministry may have in law.

If the Preferred Proponent fails for any reason to enter into the contract within the specified time, then it shall not be allowed to work on the contract as a subcontractor or be allowed to supply any material, equipment or labour to the contract and the matter shall be referred to the Ministry's Qualification Committee without prejudice to any right or remedy the Ministry may have in law.

1.18.7 Debriefing

Any Proponent may request in writing by email to contracttendering@ontario.ca, a confidential debriefing with the Ministry. A request for debriefing shall be made within 10 Days of Contract Award. Any requests for debriefing received more than 10 Days after contract award shall not be considered.

1.19 Additional Terms and Conditions of the RFP

By submitting the proposal, the Proponent acknowledges and agrees with the following terms and conditions:

- a) The Ministry reserves the right, as it may determine in its sole and absolute discretion, to:
 - i. reject any or all proposals;
 - ii. accept any proposal;
 - iii. if only one proposal is received in response to this RFP, elect to reject it;
 - iv. withdraw this RFP at any time and for any reason;
 - v. alter the schedule, proposal call process or procedures or objectives, or any other aspect of this RFP.

- b) Proposals submitted are irrevocable and shall remain in effect and open for acceptance by the Ministry for a period of 90 Days after the RFP Closing in the Summary of Key Information.
- c) The Ministry does not bind itself to accept any proposal and may proceed as, in its sole and absolute discretion, it determines, following receipt of the proposals. The Ministry reserves the right to amend or modify any term of this RFP or otherwise revise the RFP. The Ministry may invalidate the RFP and may issue a second RFP.
- d) All costs and expenses incurred by Proponents relating to their proposals shall be borne by the Proponents except as otherwise indicated elsewhere in the RFP. The Ministry is not liable to pay such costs and expenses or to reimburse or compensate Proponents, or persons connected with the Proponent, under any circumstances, including the rejection of any or all proposals, the cancellation of the RFP, or the failure to negotiate a contract with a Proponent.
- e) The Ministry shall not accept responsibility for any delays or cost associated with any reviews or approval processes.
- f) The Ministry may, if deemed necessary, verify any information provided in any proposal.
- g) It is clearly understood that if there is any evidence of misleading or false information having been given, the Ministry may, in its sole discretion, reject the proposal.
- h) The acceptance of a proposal shall be made in writing. There shall not be a binding Contract for the Work unless and until the Ministry and the Preferred Proponent have entered into the Contract contemplated in this RFP.
- i) The Design-Builder shall be required to ensure that there is no change in effective control of the Design-Builder within the first 12 months of the Contract. If there is a change in effective control, the Ministry reserves the right, at its sole and absolute discretion to cancel the Contract and to issue a new Request for Proposal or approve the change in control or to approve the change in control subject to conditions imposed by the Ministry.
- j) This RFP does not constitute an offer of any nature or kind whatsoever to the Proponents, or persons connected with the Proponents.

Chapter 2: Project Requirements

2.0 General Project Requirements

The scope of Work includes the provision of the full and complete design and all materials and performance of all Work necessary to construct the Project as provided in the Contract Documents. The design and construction shall not negatively impact future maintenance or future construction.

*< **Notes to Draft:** Insert wording to describe the Project, its length and location (including limits)>*

*< **Notes to Draft:** Consult with CPPO prior to changing any contract requirements.>*

The Work shall be completed in accordance with all applicable laws, standards, and specifications including but not limited to the most recent version (as of the RFP Closing date listed in the Summary of Key Information) of the documents listed under Chapter 2 and Chapter 3.

Project Principles

The following principles shall apply at all times with respect to a determination of the requirements of Chapter 2, provided that in the event of an ambiguity, conflict or inconsistency between or among any of the provisions of Chapter 2, such principles shall apply in the order set out below, but only to the extent necessary, to resolve the ambiguity, conflict or inconsistency:

- a) A provision or requirement for a higher standard of safety, reliability, durability, performance or service shall take precedence over a provision or requirement for a lower standard of safety, reliability, durability, performance or service; and
- b) In the event of a discrepancy between any parts of Chapter 2 in which one requirement would, in the opinion of the Ministry, provide the Ministry a lower quality of a material, equipment, fixture or feature than another requirement listed within Chapter 2 then the Ministry will accept only the higher quality instead of the lower quality noted; and
- c) To support a specification focused on performance, if Chapter 2 or a specification describes Component A and C of a system that also requires a Component B to be functional then Component B must also be provided by the Design-Builder to provide a fully functional A-B-C system; and
- d) To support a specification focused on performance, if Chapter 2 or a specification describes an installation of a system that also requires specific reviews by authorities, permits, pre- installation services, and commissioning in order for the installation to be functional then those specific reviews by authorities, permits,

pre- installation services, and commissioning must also be provided by the Design-Builder to provide a fully functional system and a fully functional road.

Commitments Report

Proponents have the ability, but are not required, to propose commitments that exceed or are in addition to the RFP requirements as part of their technical proposals. These additional commitments become part of the Contract.

The Ministry commonly hires a third party to undertake Contract Administration duties. The Ministry is committed to protecting the integrity and confidentiality of individual Proponent's technical proposals. As such, the Ministry shall not share the entirety of the Design-Builder's technical proposal with the Contract Administrator without the express written consent of the Design-Builder, which consent shall not be unreasonably withheld.

Within seven (7) Business Days following the execution of the Contract, the Design-Builder shall either:

- a) Provide a release clearly indicating that the Ministry may share the Design-Builder's entire technical proposal, and project personnel commitments submitted according to Section 3.3.4 Key Personnel of the DB-EOI, with the Contract Administrator; or
- b) Submit a Commitments Report containing the following:
 - i. Project personnel commitments according to Section 3.3.4 Key Personnel submitted for the DB-EOI (including an organization chart); and
 - ii. Commitments in the Design-Builder's proposal that exceed or are in addition to the RFP requirements.

The Ministry will provide the Commitments Report to the Contract Administrator in lieu of the Design-Builder's technical proposal.

The Design-Builder shall not be permitted to start Work until a release, or a Commitments Report, conforming to the requirements listed above, is received by the Contract Administrator.

Any delays to the Project caused by the Design-Builder's inability to satisfy the requirements listed above shall not constitute an extension to the Contract Time.

MTO Technical Publications Website

MTO's Technical Publications can be found at the following link:

<https://www.library.mto.gov.on.ca/SydneyPLUS/TechPubs/Portal/tp/TechnicalPublications.aspx>

2.1 Project Management Requirements

2.1.1 Communications

The Design-Builder shall include the ministry and Contract Administrator in any and all issues with stakeholders. As deemed appropriate by the Contract Administrator or the ministry, messaging shall be reviewed by the ministry prior to responding

The Ministry shall be the sole point of contact for any media enquiries (i.e. newspaper, radio, TV). The Design-Builder is the first point of contact for all other communications. Recognizing that communications may be a shared responsibility, the Design-Builder and the Ministry shall work collaboratively to determine an appropriate and timely approach for addressing any issues.

The Design-Builder shall ensure that any temporary horizontal or vertical restrictions at bridge sites are reported to the Contract Administrator when and as specified in Regional Memo #XXXX-XX, "Procedure for Reporting on Temporary Restrictions for Vehicular Traffic" for the Ontario Structure Clearance and Load Information System (OSCLIS). Regional Memo #XXXX-XX is provided in Appendix C. |

< **Notes to Draft:** Consult with regional Structural Office on applicability.> |

2.1.2 Meeting / Presentation Requirements

All meetings related to Design shall be held at the MTO Regional Office in <xxxx>. All meetings related to Construction shall be held within xx km of the Project site. All meetings that include both Design and Construction related items shall be held at the MTO Regional Office. |

All meetings shall be scheduled such that all issues are adequately covered and discussed between 9:00 a.m. and 4:00 p.m. Any cost of the venue for all meetings shall be paid by the Design-Builder.

All meetings shall be arranged and chaired by the Design-Builder.

Attendance at Meetings

The following Design-Build Team members shall attend all meetings (in person or as directed by the Contract Administrator):

- a) Project Manager
- b) Design Manager

c) Construction Manager

Remaining Design-Build Team Members shall attend meetings (in person or remotely) as required based on the agenda items to be discussed.

Invitations shall be sent to each member of the Ministry's Project Team. An agenda and a copy of the documents and plans to be discussed shall be supplied to each invitee a minimum of five (5) Business Days prior to the meeting.

All material submitted to the Ministry for all meetings shall be in accordance to the requirements in this Contract and subject to PERF 1075.

Minutes shall be prepared by the Design-Builder for all meetings (including teleconferences, on-site, and ad-hoc meetings) within five (5) Business Days and distributed by e-mail to all invitees. The Design-Builder shall make the appropriate changes, additions and deletions to the minutes as requested by the Ministry within five (5) Business Days.

The Design-Builder shall organize and provide all necessary meeting details (teleconference number, platform information (MS Teams, Skype, etc), location/venue details, etc.) to all invitees.

Third parties (Emergency Services, OPP, MOL, etc.) shall be invited at the Ministry's discretion to the start-up and presentation meetings.

During the construction phase a key representative of the Design-Builder's design team shall participate in the construction start-up and all progress meetings.

The Design-Builder shall schedule the following meetings/presentations:

< **Notes to Draft:** Insert any additional "Special Meeting" requirements. Modify to suit Project requirements.>

a) Collaboration Session < **Notes to Draft:** PM to determine if this is required>

b) Contract Start-up Meeting

c) Design Meetings:

i. Presentations / Progress Meetings - < **Notes to Draft:** Include frequency (i.e. monthly)>

ii. Presentation of Final Design(s)

iii. Any other meetings (including on-site and ad-hoc meetings) necessary to ensure the success of the Project).

iv. Utility Coordination / Relocation Meeting(s)

- d) Construction Meetings:
- i. Construction Start-up Meeting
 - ii. Presentations / Progress Meetings - < **Notes to Draft:** Include frequency (i.e. monthly)>
 - iii. Pre-Paving Meeting
 - iv. Pre-Start Meeting for Concrete
 - v. Pre-Placement Meeting(s) for Concrete
 - vi. Pre-Fabrication Meeting for Precast Concrete Elements
 - vii. Pre-Start Meeting for Electrical
 - viii. Pre-Seasonal Shutdown Meeting(s)
 - ix. Highway Commissioning Meeting(s)
 - x. Final Completion Meeting
 - xi. Any other meetings (including on-site and ad-hoc meetings) necessary to ensure the success of the Project.

Collaboration Session

< **Notes to Draft:** If a collaboration session is anticipated or desirable include the paragraph below (insert location and modify requirements as required); otherwise delete this section.>

The Design-Builder shall host a collaboration session and shall be responsible for the costs of the venue to be in <location> for any collaboration session, for the costs of facilitation, and for the costs of its own attendees. The Ministry shall attend at no cost to the Design-Builder.

Contract Start-Up Meeting

The following agenda items shall be discussed as a minimum:

- a) Project Team Introductions
- b) Design-Builder Organization Chart
- c) Roles and Responsibilities
- d) Contract Requirements
 - i. Highlights of DB RFP
 - ii. Highlights of Proponent's Technical Proposal
- e) Project Schedule (Design Phase, Construction Phase)
- f) Progress Meetings
- g) Environmental Management (including Class EA)
- h) Quality Management System
 - i. Design Phase
 - ii. Construction Phase
 - iii. PERF 1075
 - iv. SP 199S66

- i) Communication Protocol
 - i. Single Point of Contact
 - ii. INCs
- j) Contractor Performance (B-Forms and CPR)
- k) Occupational Health & Safety

The Design-Builder shall submit a project schedule prior to the meeting and be prepared to discuss how this project schedule complies with the DB RFP.

Attendees (in person or as directed by the Contract Administrator) shall include:

- 1. Design-Build Project Team
- 2. MTO Project Team

Presentation / Progress Meetings

The Design-Builder shall present to the Ministry the following (as a minimum):

- a) Update on the project schedule
- b) Present findings of technical reports (At the request of the Contract Administrator, the author of a technical submission / report shall present the findings).
- c) Update on the Environmental Assessment process including status of consultations, result of impact assessments
- d) Update on design activities including status of deliverables
- e) Update on construction activities

The presentation shall be in PowerPoint format.

The Design-Builder shall distribute hard copies of all relevant meeting materials, Project Status Report, and Agenda to the above attendees a minimum of 5 business days prior to the meeting with a cover letter.

For regular Presentation Meetings, in addition to new items, the following shall be standard agenda items:

- a) Review Minutes of Last Meeting
- b) Project Status Report
- c) Environmental Status (Consultation, status of impact assessment, documentation, technical reports, Class EA)
- d) Design Related Issues
- e) Construction Related Issues
- f) Schedule & Cost Forecasts
- g) Quality Management (Design / Construction / Materials) including conformance to SP 199S66
- h) Environmental Management
- i) Traffic Management

- j) Communication
- k) Change Orders
- l) Occupational Health & Safety
- m) Contractor Performance Rating (B-Forms)

Project Status Report

The Project Status Report shall be a detailed summary (in writing) of the status of the Project with the following headings:

- a) Design and Construction Status
- b) Environmental Status – The Design-Builder shall provide a detailed summary of the following items:
 - i. Environmental schedule
 - ii. Status of field investigations and data gathering
 - iii. Status of environmental permits and approvals
 - iv. Consultation with regulatory agencies
 - v. Design and impact assessment
 - vi. Environmental technical reports
 - vii. Consultation undertaken to date including comments / concerns and commitments, as well as any outstanding / unresolved issues
 - viii. Status of the environmental assessment process and adherence to the MTO Class EA
- c) Design Schedule - The Design-Builder shall provide an updated design schedule. This schedule shall identify the required submission date as stipulated in the DB RFP contract and the Design-Builder's scheduled date for each submission in this Contract.
- d) Construction Schedule

Presentation of Final Design(s)

[Notes to Draft: *Include this section if required; Modify accordingly.]*

The Design-Builder shall present the following:

- a) **< Notes to Draft:** *List items for Design-Builder to present. (examples include: final GA Drawing, final SDR, hydrology reports, FIDR, construction methodology/staging, site access, etc.)>*

The meeting shall be held at the regional MTO Office in **<insert MTO Office location>**.

The list of ministry team members to be invited will be provided by the Contract Administrator.

The presentation shall be in PowerPoint format and shall be a maximum of 10 minutes. The remainder of the time shall be used for the Design-Builder to respond to questions from MTO.

A copy of the final presentation shall be submitted to the Contract Administrator a minimum of 10 business days prior to this meeting.

The Presentation of Final Design(s) shall be held prior to submitting the Issued for Construction Drawings.

The Design-Builder shall distribute hard copies of all relevant meeting materials to the attendees a minimum of 7 business days prior to the meeting with a cover letter. |

2.1.3 Changes to the Design Submission – During Design Phase

Changes to any submissions from the Design-Builder during the design phase shall require the Design-Builder to follow the process outlined below.

The Design-Builder shall immediately notify, in writing (e-mail), the Contract Administrator of the following for review.

- a) Identify and describe the change
- b) Provide justification on why the original design cannot be completed
- c) Provide a plan and schedule for developing a revised design to resolve the issue

Following the initial review, upon significant changes as determined by the Contract Administrator, the Design-Builder shall submit a technical memorandum to the Contract Administrator within 2 business days detailing the following:

- a) Description of the change
- b) Why the change is required
- c) Why this was not captured in the original submission and what countermeasures will be implemented to prevent future occurrences
- d) Impact to the Class EA Process
- e) Impacts to schedule
- f) Impacts to other components of the Project

The Technical Memorandum shall be signed and sealed by Professional Engineer(s).

The Design-Builder shall submit an addendum to all affected technical reports and drawings within 3 business days of submitting the technical memorandum. These

submissions shall be subject to the requirements detailed elsewhere in this Contract including being signed and sealed by Professional Engineer(s).

At the discretion of the Ministry and the Contract Administrator, a face-to-face meeting may be held to have the Design-Builder explain the items described above. At this meeting, the Engineer(s) who stamped the original design, the Design Manager, and the Project Manager shall be present (in person). The meeting shall be held at the Ministry's regional office (to be determined by the Ministry).

The Design-Builder shall be responsible for all aspects of the change, including all associated costs.

The Completion Date shall remain as indicated in Section 2.1.5.

2.1.4 Changes to the Design Submission – During Construction Phase

Changes to the Issued for Construction (IFC) Drawings during the construction phase shall require the Design-Builder to follow the process outlined below.

The Design-Builder shall immediately notify, in writing (e-mail), the Contract Administrator of the following:

- a) Identify and describe the issue
- b) Provide justification on why the original design cannot be constructed
- c) Provide a plan and schedule for developing a revised design to resolve the issue
- d) Confirm the Design-Builder's design team has been contacted and are reviewing the issue
- e) Include relevant photos

Following the initial review, and at the discretion of the Ministry and the Contract Administrator, the Design-Builder shall be required to submit a technical memorandum to the Contract Administrator within 2 business days detailing the following:

- a) Identify and describe the issue
- b) Provide justification on why the original design cannot be constructed
- c) Provide details on the proposed revised design to resolve the issue. This shall include the following:
 - i. Details of the designer's logic and decision making process to arrive at the proposed revised design. The proposed revised design shall be in accordance to requirements detailed within this Contract, be defensible and based on sound engineering principles.
 - ii. Impact to the Class EA Process.
 - iii. Reference to design standards, Ministry guidelines and standards used
 - iv. Relevant plans, profiles, cross-sections, quantity sheets, flow charts, etc.
 - v. Technical report(s) shall be included that support the proposed revised design (signed and sealed by Professional Engineer(s)).

- d) Provide details on why this was not captured in the original design and what countermeasures will be implemented to prevent future occurrences
- e) Provide schedule to implement
- f) Describe impacts to other components of the Project and to overall construction schedule

The technical memorandum shall be signed and sealed an Engineer(s).

If the Design-Builder cannot demonstrate the change complies with the requirements of the agreement, the Design-Builder shall construct a compliant design at no additional cost.

Following the ministry's review and comments on the proposed change(s), the Design-Builder shall implement (construct) the proposed changes.

At the discretion of the Ministry and the Contract Administrator, a face-to-face meeting may be held to have the Design-Builder explain the items described above. At this meeting, the design Engineer(s), the Design Manager, Construction Manager and the Project Manager shall be present (in person). The meeting shall be held at the Ministry's regional office (to be determined by the Ministry).

The Design-Builder shall be responsible for all aspects of the change, including all associated design, consultation, and construction costs. Unless approved as per Section 1.12 of this RFP, the Engineer(s) signing and stamping the proposed revised design shall be the same who signed and stamped the original design.

The Completion Date shall remain as indicated in Section 2.1.5.

2.1.5 Schedule

Time shall be the essence of this Contract.

The Design-Builder shall complete this Contract in its entirety by **<Month day, year>**.

If this time limit above specified is not sufficient to permit completion of the Work by the Design-Builder working a normal number of hours each Day or week on a single daylight/night shift basis, it is expected that additional and/or augmented daylight and night shifts shall be required throughout the life of the Contract to the extent deemed necessary by the Design-Builder to ensure that the Work shall be completed within the time limit specified. Any additional costs occasioned by compliance with these provisions shall be considered to be included in the prices bid for the various items of work and no additional compensation shall be allowed therefore.

Liquidated Damages

It is agreed by the parties to the Contract that in case all the Work called for under the Contract is not finished or completed within the date of completion specified aforementioned or as extended according to subsection GC3.06, Extension of Contract Time or Interim Completion Dates, of OPSS.PROV 100, November 2016, MTO General Conditions of Contract, a loss or damage shall be sustained by the Owner. Since it is and shall be impracticable and extremely difficult to ascertain and determine the actual loss or damage which the Owner shall suffer in the event of and by reason of such delay, the parties hereto agree that the Design-Builder shall pay to the Owner the sum of \$_____ as liquidated damages for each and every Day of delay in finishing the work beyond the date of completion prescribed. It is agreed that this amount is an estimate of the actual loss or damage to the Owner which shall accrue during the period in excess of the prescribed date of completion.

< **Notes to Draft:** Value of Liquidated Damages to be determined in consultation with the Regional Construction Management Office.> |

The Design-Builder shall incur interest on Liquidated Damages and pay such interest according to GC 7.19. For greater certainty, the Owner may also retain interest charges from monies owing to the Design-Builder under GC 8.02.04.11 (Owner's Set-Off).

2.1.6 Quality Management System

In addition to any quality management submissions and requirements as part of MTO's Contractor registration and pre-qualification, design firm's generic or core quality control plans, and other quality requirements specified elsewhere in the RFP, Ontario Provincial Standards, MTO Special Provisions, Design-Build Special Provisions and Performance Specifications part of this agreement, the Design-Builder shall develop, implement and maintain a project-specific Quality Management System (QMS) to manage its own processes and those of the contractors, subcontractors, consultants or subconsultants engaged by the Design-Builder for the purposes of undertaking the Work, in accordance with the requirements of this Agreement throughout the life of this contract.

The Design-Builder's Quality Management System shall include all necessary Quality Management Plans (Design Quality Management Plan, Construction Management Plan, etc) and, as a minimum, shall document the processes and activities that the Design-Builder shall follow during the life of the contract to:

- a) Ensure design and construction integration and continuity during all phases of the Work;
- b) Manage design changes during construction and any required amendments to the Contract Documents, including Issued for Construction Drawings;
- c) Issue the Certificate of Design and Construction as provided in Appendix D, including the identification and organization of the personnel responsible for verifying compliance with the Contract Documents to enable an Engineer member

- of the lead design firm to sign and seal the certificate and a Contractor representative to sign the certificate;
- d) Document conformances and non-conformances with the requirements in the Contract Documents;
 - e) Address Quality Control (QC) non-conformances (design and construction); including communication to the ministry, proposing remedial action prior to implementation, and improving processes to prevent future occurrences;
 - f) Address quality related checking, verifications, validations, inspections and testing activities to be conducted during all phases of the Work including design, construction and commissioning

The Design-Builder shall develop and implement all necessary Quality Management Plans associated with its Quality Management System prior to initiating any design and construction activities.

Upon request, the Design-Builder shall provide a copy of the Design-Builder's Quality Management Plans to the Ministry and/or Contract Administrator within two business days of the request for auditing purposes.

2.1.7 Other Work in the Area

The Design-Builder shall coordinate the Work with other contractors working within and/or adjacent to the Project limits to ensure that they do not perform work in the same area at the same time, or adversely affect each other's work. The Design-Builder shall provide written confirmation that time and distance separation of contractors is maintained between the operations included in this Contract and work within and/or adjacent to this Project completed by others. The Design-Builder shall be required to place, cover, relocate, and remove their construction signing as required to prevent any overlap with the construction signing on adjacent Projects.

GWP XXXX-XX-XX – Highway XX, From X to Y
Brief description of field work planned
Estimated timeframe / completion of field work
MTO Contact Information: Name, Phone Number, E-mail

Contract XXXX-XXXX – Highway XX, From X to Y
Brief description of work planned
Estimated timeframe / completion of contract
MTO Contact Information: Name, Phone Number, E-mail

< **Notes to Draft:** Describe Projects in the vicinity and any special requirements or insert "Not applicable">.

2.2 Design Work

2.2.1 General

The Design-Builder shall:

- a) Validate or obtain all field data necessary for detail design and perform any required investigations, studies, and tests required in addition to the Ministry supplied information provided in Appendix C to complete the Work as described in the Contract Documents. Traffic control for all field Work shall be completed according to Book 7 of the Ontario Traffic Manual. The Design-Builder shall have ## Days from the issuance of PH-CC-700 - Permission to Start Work to confirm the accuracy of information provided by the Ministry and identify any errors or omissions. The onus is on the Design-Builder to provide fact based evidence, in writing to the Contract Administrator, that any information provided by the Ministry is inaccurate for the proper performance of the Work. After this time period, the Design Builder shall be deemed to have waived the right to claim additional Contract Time and / or compensation associated with the accuracy of the information provided by the Ministry.

< Notes to Draft: insert appropriate number of Days considering extent (volume / type) of field data, date of award (seasonal conditions), accessibility, other project specific constraints, etc - usually 30, 60 or 90 days >

- b) Perform all design required in Chapter 2 of the RFP according to the Specifications defined in Chapter 3 and be solely responsible for design adequacy, accuracy, constructability, appropriateness regarding environmental requirements and conformance to all requirements of the Work;
- c) Perform all work required to secure any required approval(s) resulting from the Design-Builder's design;
- d) Confirm locations of all Utilities and provide all required documents to the Contract Administrator for any required Utility relocations arising from the Design-Builder's design. The Design-Builder is responsible for managing all scheduling impacts arising from Utility relocations arising from the Design-Builder's design or those identified in the Contract;
- e) Ensure that all final design, design reports, drawings and calculations are sealed and signed by an Engineer.

Ensure that all final Structural or Foundations drawings and design reports are sealed and signed by two Engineers.

Ensure that all design work under the Contract is covered by appropriate Professional Liability insurance;

- f) Ensure that all Working Drawings and procedures are prepared in consultation with the Engineer that signed the Issued For Construction Drawings.
- g) Submit to the Ministry the final version of all relevant design submissions noted in Section 2.2.2 Design Submissions, 10 Business Days, unless specified elsewhere in this RFP, prior to construction of that portion of the Work. The Ministry shall not be approving the design submissions.

Under no circumstances shall construction start or continue in the absence of Issued for Construction Drawings for that element of the Work.

If, in the sole opinion of the Ministry, design submissions are not in conformance, or contain significant errors, then the Design-Builder shall be required to correct the Work so that it conforms to the Contract Documents.

Contract Preparation System

The Contract Preparation System is a ministry program that provides guidance and assists Designers in building a standard ministry construction package. This includes a database of master item lists, ministry approved specifications and drawings, etc.

CPS includes the Contract Design, Estimating and Documentation (CDED) Manuals that provides standard methods to document items and quantities.

The Design-Builder shall use Contract Preparation System to develop the Issued for Construction Drawing submission.

If the Design-Builder does not currently have access to Contract Preparation System, the Design-Builder shall submit a request for access to the Ministry via the Contract Administrator at the Start-Up Meeting – Design Phase. The Design-Builder is advised that it may take up to 3 months to provide a new user access to Contract Preparation System. The Design-Builder shall be responsible for any impacts, including schedule, related to securing Contract Preparation System access for this Project.

2.2.2 Design Submissions

The following design submissions are based on the Project requirements and may include, but are not limited to, the following – Refer to Section 2.4 and other guidelines for applicable submissions:

< **Notes to Draft:** modify lists below according to Project requirements > |

a) Issued for Construction Drawing submission shall include:

i. **Transmittal Letter**

- Confirming Technical Report recommendations are incorporated in the IFC Package
- Letter shall be stamped by the Design Manager
- Attach all permits and approvals secured (Transport Canada, Class EA, etc.)

ii. **Specification Document**

- Summary of Standard and Non-Standard Items specified in the design (include the Item Code)
- Complete listing of specifications to be used, including all OPSS, OPSD, SSD, MTOD, and Special Provisions.
- Special Provisions with fill-ins shall be completed (i.e. the entire SP shall be provided with the fill-in portion highlighted)

iii. **Drawings** – Including, but not limited to, the following:

- Removals
- New Construction
- Profiles
- Typical sections
- < **Notes to Draft:** Customize list as needed >

iv. **Quantity Sheets** - Estimated quantities with sufficient details to enable contract administration and payment in accordance with the CDED Manuals.

b) Highway Engineering Design

i. Highway and geometric design

ii. Horizontal and vertical control sheets

iii. Roadside safety devices (permanent and temporary)

iv. Material management plan

v. Utility conflict plan

vi. Utility relocation plan

vii. InRoads Cross-Sections

- Format: Cross-sections shall be in AutoCAD, Adobe (PDF) or other Ministry approved viewing format
- Locations: < **Notes to Draft:** Specify highways / roads / entrances where cross-sections are required; (note required interval (i.e. every 25 m, other) >

ii. Grading Reports

c) Structural Engineering Design

- i. Structural Design Report(s) – one for each structure
 - ii. General Arrangement Drawings
 - iii. Relevant Drawings and Details
 - iv. Aesthetic Drawings
- d) Electrical Design
- e) Environmental Design
 - i. Environmental protection / mitigation measures
 - ii. Environmental Management Plan (including revisions / updates)
 - iii. Landscape design
 - iv. Fish and Fish Habitat Impact Assessment Report
 - v. Terrestrial Impact Assessment Report
 - vi. Archaeology Report
 - vii. Transportation Environmental Study Report (TESR)
 - viii. Design and Construction Report (DCR)
 - ix. Environmental Screening Document (ESD)
- f) Drainage Design
 - i. Culvert / Storm Sewer Inspection Report
 - ii. Drainage / Stormwater Management Report
 - iii. Culvert / Storm Sewer Design
- g) Traffic Engineering Design
 - i. Sign Inventory
 - ii. Permanent sign plan
 - iii. Temporary sign plan (include sign details for temporary construction signs)
 - iv. Pavement marking plan
 - v. Staging Plans / Design
 - Detours
 - Road closures
 - Pavement marking details
 - Construction access/egress
 - vi. Traffic signal layout (PHM 125) (each temporary and permanent locations)
 - < **Notes to Draft:** if PHM-125 is a requirement of the Project this form shall be completed by Design-Builder and signed off by the Ministry and specific instructions shall be provided in the Scope of Work or PERF >
- h) Pavement & Foundation Design
 - i. Pavement Design Report(s)
 - ii. Foundation Investigation and Design Report(s)

- iii. Geotechnical / Foundation Instrumentation Monitoring Report(s)
 - iv. Groundwater Assessment Report(s)
- i) Construction Material Design
 - i. Construction material mix designs and supporting data
 - j) All design notes and computations

All design submissions to the Ministry shall be in the following format:

a) Plans and Drawings

- i. All digital drawings shall be prepared using AutoCAD (Ministry approved version)
- ii. Five (5) 11" x 17" hard copy sets appropriately scaled, titled, numbered, dated, and indexed
- iii. Digital copies in AutoCAD and Adobe (PDF) format
- iv. Six (6) Hard Copies - PHM 125 Drawings for each permanent and temporary traffic signal location on Size D Paper (22" x 34") and scaled 1:500 (if applicable)

b) Design Notes and Computations

- i. 8 ½" x 11" hard copy sheets appropriately titled, numbered, dated, and indexed
- ii. Computer output forms and other oversized sheets shall be folded or legibly reduced to 8 ½" x 11" size
- iii. Digital copies of the design notes/reports and computations in Adobe (PDF) format

c) Reports

- i. Five (5) 8 ½" x 11" hard copy sets appropriately titled, numbered, dated, and indexed
- ii. Digital copies in Adobe (PDF) format

d) Technical Submission Cover Page

For every submission, the Design-Builder shall include a cover page / transmittal with the following information:

Submission Title	
Date of Submission	
Date of Submission Compliance (as per RFP)	(absolute date)

Version (acknowledge if supersedes another version)	
Content Compliance 1. Reference contract requirements 2. List ministry standards, guidelines, directives, policies being used	
Executive Summary	

2.3 Construction Work

2.3.1 General

The Design-Builder shall:

- a) Perform all construction work according to the Contract Documents, and be solely responsible for all requirements of the Work during construction and throughout the warranty period;
- b) Ensure Issued for Construction Drawings are submitted prior to construction of that element of Work.
- c) Coordinate required Utility relocations (temporary and permanent);
- d) As part of the application for Contract Completion, the Design-Builder’s Engineer shall provide a signed and sealed Certificate of Design and Construction (see Appendix D).
- e) Upon request, the Design-Builder shall provide the Ministry access to the Work, and any associated production facilities, for any testing, investigation, audit, and access to all inspection records, test results and testing facilities to enable the Ministry to audit the Design-Builder's adherence to the Contract Documents. By conducting testing, investigation, and/or audits the Ministry shall not thereby be considered to have waived compliance with any duties or obligations, or liability, of the Design-Builder under this Contract.
- f) The Design-Builder shall stop construction of the Work that is not in conformance with the Contract Documents or any Work which may impede the correction of Work that is not in conformance with the Contract Documents, until such time as the Design-Builder corrects the Work so that it conforms to the Contract Documents at no cost to the Ministry.
- g) The Design-Builder shall identify design changes during construction to the Contract Administrator and manage changes according to the Design-Builder’s quality management plan and all other Contract requirements.

2.3.2 Record Drawings and Documentation

The Design-Builder shall prepare and submit to the Ministry one complete set of drawings and documents, including any changes from previous submissions. The preparation cost of such drawings and documents shall be included in the Lump Sum price. The information is also to be provided in digital format with drawings in AutoCAD “.DWG” format (Ministry approved version) and other documents in Adobe (PDF) format.

The Record Drawings and Documentation submissions shall include but not be limited to the following:

< **Notes to Draft:** *modify list according to Project requirements*>

- a) Drawings prepared to Ministry standards at a scale of 1:1000, with co-ordinate grids showing the alignment, profiles and all roadside appurtenances, drainage systems and other ground features;
- b) Drawing detail shall include, but is not limited to, existing and new construction features, all drainage information, bridge soffit clearances and all Utilities.

< **Notes to Draft:** *modify according to requirements*>

Drawing detail shall include, but is not limited to, existing and new construction features, all drainage information, bridge soffit clearances and all Utilities.

2.3.2.1 Record Drawing Deliverables

< **Notes to Draft:** *Modify/delete the information below as applicable for the Project*>

Digital Terrain Model (DTM)

The final deliverables do not require a DTM.

Plans – General

B & C Plans (plan & profile) shall be created and shall be to a horizontal scale of 1:1000 when plotted full size (22” x 34”).

B-Plans for Record Drawings

The Design-Builder shall provide B-Plans within the Project limits.

ETR plate(s) drawings (11x17) shall be created.

C-Plans for Record Drawings

The Design-Builder shall provide Record Drawings with profiles for all new exit/entrance ramps, Highway xxx (CL median, EBL, WBL) and <insert other Roads as applicable> (centreline).

All profiles shall show applicable drainage features (CB, MH, DI, Crossing Culverts, etc.) and new bridge structures.

Site Plans

The Design-Builder shall determine whether site plans are required for this Project. |

2.3.2.2 Survey Deliverables

< **Notes to Draft:** *Modify/delete the information below as applicable for the Project*> |

Survey Deliverables shall be submitted as Record Drawings as described in Section 2.3.2 Record Drawings and Documentation.

All submissions shall be in metric.

All projects shall be submitted on CD-ROM and a hard copy shall be supplied for all digital plans, profiles, reports and Horizontal and Vertical Control (H&V) spreadsheets.

All submissions shall be hand delivered or sent by courier to the Contract Administrator.

Submissions shall include, but are not limited to, the following:

- a) Digital copy of XML schema 1.2 alignment files for all newly constructed portions of the work
- b) XML or plain ASCII text file of horizontal and vertical control survey monuments points with point number, coordinates, field code and description
- c) Digital copies of plan and profile drawings in AutoCAD “.DWG” format
- d) A report detailing any problems or contentious issues encountered during the survey

Record Drawings, as listed above, of municipal infrastructure shall be provided to <insert City/Municipality if applicable>. |

2.4 Project Specific Requirements

< **Notes to Draft:** *consider allowing Proponents the opportunity for innovation in their responses for all functional requirements. Limit restrictive requirements to those elements only when necessary.*>

< **Notes to Draft:** *Provide a Key Plan, Drawing, Design Criteria in the Ministry Supplied Information (Appendix C) where available and include Project specific requirements for all disciplines (Road Design, Geotech, Structural, Drainage etc. in this section.)*>

< **Notes to Draft:** all potential “fill-in” SPs and NSPs shall be reviewed by the Designer and ensure that fill-in requirements are included under the appropriate section below. **Do not duplicate requirements** that are already included in Specifications, SPs and PERFs specified in Chapter 3 >

< **Notes to Draft:** consider and list any Project specific usage or management requirements related to excess materials as necessary >

For work identified within this RFP that is not included within the PERFs provided, the Ministry’s traditional design policy and procedure shall apply and all work associated with these non-PERF items shall be designed and constructed according to the applicable Ministry standard. See Chapter 3 for more information.

Design Criteria

Any proposed deviation from the approved Design Criteria shall be submitted by the Design-Builder in writing to the Contract Administrator. A copy of the approved Design Criteria can be found in Appendix C.

The Design-Builder shall submit all required information requested by the ministry in order to generate a Design Criteria (DC) Addenda. No work deviating from the Design Criteria shall be carried out prior to the Design-Builder receiving an approved Design Criteria Addendum for the proposed work from the Ministry. Approvals for DC Addenda may take up to six weeks.

List of Designated Substances

In accordance with the Occupational Health and Safety Act, R.S.O. 1990, c. 0.1, the Contractor is advised of the presence of the following Designated Substance(s):

< **Notes to Draft:** Complete table below with information collected in Preliminary Design / DB Ready regarding known presence of designated substances within the Project Limit.>

Substance	Location
Silica	Present throughout the working area including, but not limited to, asphalt, concrete and granular materials.

HSB DCSO 2014-05 provides guidance for Designated Substances.

Aggregate Source List (ASL)

<< **Notes to Draft:** Insert Project Specific wording>

Prior to December 31 for each calendar year and as part of the application for Contract Completion, the Design-Builder shall submit form PH-D-046 Pit and Quarry After Use Report for all sources used on the contract for both non-commercial and commercial sources. Any tonnages derived from ROW production of aggregates shall also be reported. |

2.4.1 Highway Engineering

| Highway <XX>, within the Project Limits, is classified as a <insert highway classification> - King's Highway at a design speed of <XX> km/h.
|

Order of Precedence

The design and implementation of all aspects of Highway Engineering shall be in accordance with the criteria contained in Section 2.4.1, and the reference documents (most recent edition) identified below. If there is any conflict between the criteria contained in Section 2.4.1 and any of the reference documents below, the criteria in Section 2.4.1 shall take precedence. If there is any conflict between the reference documents, the provisions set out in Section 2, Project Principles, shall also apply:

- a) The approved project-specific Design Criteria;
- b) MTO Provincial Engineering Memorandums, Design Bulletins and Directives;
- c) MTO Roadside Design Manual;
- d) MTO Design Supplement for the Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads;
- e) Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads;
- f) MTO Drawings (MTOD);
- g) Ontario Provincial Standards, Specifications and Drawings (PROV and COMM);
- h) Ontario Traffic Manuals (OTM).

| < **Notes to Draft:** Project team shall identify any additional mandatory design references and include in above list sorted by precedence > |

2.4.1.1 Horizontal Alignment

| The Highway <xxx> horizontal alignment shall be constructed to meet the following parameters:

< **Notes to Draft:** Define MANDATORY parameters / requirements for the horizontal alignment. Parameters to include may be:

- Design Speed
- Tie-in points
- Prescriptive areas based on commitments (including EA)
- Prescriptive areas based on constraints>

2.4.1.2 Vertical Alignment

The Highway <xxx> vertical alignment shall be constructed to meet the following parameters:

< **Notes to Draft:** Define MANDATORY parameters / requirements for the vertical alignment. Parameters to include may be:

- Design Speed
- Tie-in points
- Prescriptive areas based on commitments (including EA)
- Prescriptive areas based on constraints>

2.4.1.3 Cross Section

< **Notes to Draft:** Select and or modify below statements as necessary>

The required cross section for the section of Highway <xxx> that shall be reconstructed shall match the existing cross section with the addition of <insert any additional requirements such as speed change lanes for new ramps>.

< **Notes to Draft:** Include necessary parameters from the Design Criteria here as required.

- Lane width
- Shoulder width
- Rounding width
- Side slopes and back slopes
- Median widths
- Multi-use pathways
- Pavement widening on curves (include vehicle type)
- Etc. >

A minimum side clearance on <intersecting road> under the structure from the through lane edge of pavement to the abutment wall shall comply with the minimum clear zone width of x m for a design speed of xx km/h.]

Crossfall and Superelevation

< **Notes to Draft:** *Modify statements below as required for the Project.*>

The crossfall shall be designed and constructed to meet current standards.

The superelevation shall be designed and constructed to meet current standards. |

Sidewalks

< **Notes to Draft:** *Modify the requirements below as applicable for the Project or insert "N/A">*

All existing sidewalks within the Project Limits shall be replaced. In addition to Ministry requirements, all sidewalks constructed under this Contract (permanent and temporary) shall be designed and constructed to meet all requirements for Accessibility for Ontarians with Disabilities Act (AODA). All permanent sidewalks shall be concrete.

The minimum width of the sidewalk shall be 1.5 m. The width of the sidewalk shall not include any part of a curb and gutter or boulevard.

A temporary sidewalk shall be constructed and maintained on the temporary detour. The surface of this temporary sidewalk shall be asphalt or concrete. |

Fully Paved Shoulders

< **Notes to Draft:** *identify the needs for fully paved shoulders for this project (including potential cycling considerations). Provide design parameters.> |*

2.4.1.4 Roadside Design

The design and construction of all roadside and median barrier systems shall be according to the criteria contained in this Section and Section 2.4.1.

All roadside (including median) barrier hardware shall be installed as shown in the MTO standard drawings and shall not be modified.

Any modifications to ministry standards or consideration of any non-standard system shall be subject to the Change Proposal process as outlined in OPSS 100. A minimum of 4 months shall be provided for ministry review and response. The Design-Builder shall also submit all documentation that confirms the proposed modification or non-standard system has been successfully tested in accordance with the American Association of State Highway Transportation Officials Manual For Assessing Safety Hardware (AASHTO MASH) 2016.

Roadside barriers and sign support systems shall be reviewed together to ensure compatibility and compliance with appropriate safety standards (refer to Section 2.4.8 of the Roadside Design Manual).

All sign support systems shall be in accordance with the Roadside Design Manual, MTO Sign Support Manual, and applicable OTM Books.

2.4.1.4.1 Existing Barrier Systems

Mounting Height

The Design-Builder shall review all existing barrier systems, in conjunction with the proposed pavement strategy, and identify barrier systems that require adjustment to the mounting height of the rail or cable to ensure compliance for the existing barrier system type.

All barrier systems identified as requiring adjustment to the mounting height of the rail or cable shall be completed. Terminals and end treatments affected by mounting height adjustments shall be replaced with a system meeting current ministry standards.

For existing barrier systems that cannot accommodate the mounting height adjustment, the barrier system shall be replaced with a system meeting current ministry standards.

Conflicts with Proposed Works

< Notes to Draft:

Review impacts to existing barrier systems (including grading at terminals) during Preliminary Design / DB Ready to determine the scope of work.

Consult with DSSO for non-standard treatment options based on the affected cross-section.

Customize for project needs / scope.>

Existing barrier systems, terminals and end treatments affected (in whole or in part) as a result of the Design-Builder's design (i.e. culvert replacement requiring barrier system removal, staging, detour, temporary access, pavement strategy, etc.) shall be replaced to meet current ministry standards. Where an appropriate transition between two barrier systems does not exist or is not permitted by the current ministry standards, the entire barrier system shall be replaced with a system meeting the current ministry standards.

Additional Requirements

All cable guide rail shall have the proper cable tensioning at all times.

2.4.1.4.2 Barrier Systems – Treatment

< **Notes to Draft:**

Resource: Guide Rail Evaluation Report (From Preliminary Design / DB Ready)

OPSD reference to help identify whether existing system is NCHRP 350 or AASHTO MASH. Consult Design Standards and Specifications Office (DSSO) for assistance if required.

Identify if non-standard drawings (i.e. transitions) may be required, consult DSSO for appropriate DSSO Drawings to be included in the contract (add text reference in Chapter 2 and include DSSOD in Appendix C),

Identify treatments to barrier systems. May include:

- NEW - Installation of barrier system at a new location
- REPLACE - Installation of an upgraded barrier system at an existing location
- REMOVE - Removal of an existing barrier system (no barrier system warranted)
- EXTEND – Include extension length (in metres)

MTO PM to secure approvals for this work before issuing DB RFP. Retain Approval Documentation in Project Files.

For highway rehabilitations, consider the following:>

The following table summarizes treatments to barrier systems in addition to the requirements described under Section 2.4.1.4.1. Replacement, new, and extension of barrier systems including terminals and end treatments for these barrier systems shall be systems that meet current standards.

Location		Existing Barrier System Type	Treatment Category
Approx. Sta.	LT / RT		

Grading requirements for the barrier system, terminals and end treatments shall be designed and constructed in accordance with the Roadside Design Manual guidelines and ministry standards.

< **Notes to Draft:** For new alignment / re-alignment whereby new barrier systems would be required, consider the following and/or develop scope to suit the project.>

All barrier systems, terminals, and end treatments on the new alignment shall meet current ministry standards. This shall include all grading and cross-sectional requirements to facilitate proper function of the systems.

Removal of all existing barrier systems, terminals, and end treatments shall occur only after the new alignment is open to traffic.

The following elements shall be salvaged and delivered to the address identified below:

< **Notes to Draft:** *Identify elements to be salvaged. Identify destination address*>

Barrier Design Report

A Barrier Design Report shall be completed in accordance with the Roadside Design Manual guidelines and include design decisions with rationale pertaining to:

- all proposed permanent installations
- all adjustments to existing barrier systems (mounting height, tensions, etc.)

This report shall be submitted a minimum of three (3) months prior to the Presentation of Final Design submission.

< **Notes to Draft:** *Adjust above timelines according to scope*>

Timelines need to account for:

- *Consider the state of the Design-Builder's design (MTO estimated project schedule) – Would the Design-Builder have sufficient design information to complete this Report?*
- *Risk for needing support from DSSO for non-standard treatments (MTO internal timelines – account for possible jurisdictional review / search for compatible treatment) >*

2.4.2 Utilities

Available utility plans and executed utility relocation plans are included in Appendix C.

The Design-Builder shall undertake design and coordinate construction work with existing Utilities or Utilities identified in this RFP to be relocated.

Utility relocation required due to the Design-Builder's design shall be completed by the Design-Builder at the Design-Builder's cost. The Design-Builder shall be required to secure all necessary arrangements, with respect to Utility relocations, and account for the relocations in the Project schedule. The Design-Builder shall initiate Utility relocation

procedures according to the “Ministry's Utility Relocation Guidelines January 28, 2010” document. This document has been prepared to provide a consistent approach in dealings between major Utility companies (i.e. Bell Canada, Ontario Hydro, Enbridge Gas and Union Gas), Ministry staff and its Consultants.

For other Utility owners, similar processes and procedures shall apply. Individual Utility companies shall be contacted by the Design-Builder to determine the time requirements associated with any relocation. Utility Company contacts shall be provided to the Design-Builder.

The “Ministry's Utility Relocation Guidelines January 28, 2010” is available online at:

<http://www.mto.gov.on.ca/phmpmbp/Reference Materials/Utilies-UtilityRelocationGuidelines.pdf>

< **Notes to Draft:** Add or modify as applicable for Utility companies above >

< **Notes to Draft:** If there is a Region specific relocation process, identify in sentence below. Otherwise, adjust following sentence accordingly: >

The Design-Builder shall work closely with MTO Engineering Program Delivery Office staff and follow the <xxxxxx insert Region> Region Utility Relocation Process.

The Design-Builder shall identify existing Utility alignment and elevation during the design phase. The Design-Builder shall verify/obtain all existing and proposed Utility information from Utility owners, arrange for and complete test pits, and attend any on-site meetings with Utility companies as necessary to complete the Work.

The Design-Builder, in conjunction with the Utility owners, shall prepare a composite plan illustrating all existing Utilities within the Project area based on information provided by the Utility owners and the results of field investigations. The Design-Builder shall develop Utility relocation plans in conjunction with the Utility owners and the Ministry. Underground utilities shall be mapped according to CSA S250-11, *Mapping of underground utility infrastructure*, to accuracy level 3 or better.

The Design-Builder shall submit to the Ministry the following information:

- a) The composite plan (digital and hard copy);
- b) The plan of proposed relocations (digital and hard copy)
- c) A letter stating that the Design-Builder has reviewed the proposed relocation in conjunction with the detailed design, and that the proposal shall not conflict with the proposed construction; and
- d) A written request for EA clearance for Utility relocation with the final Utility relocation plans attached.

The Design-Builder shall be responsible for:

- a) Protecting, isolating and/or relocating Utilities as required to carry out the work, including coordinating the work with Utility owners;
- b) Utility test pits are required when work is within 1m of an underground Utility;
- c) Maintaining separation from primary power lines as specified by Utility owners;
- d) Coordinating and scheduling the physical relocation of all Utilities.

MTO Engineering Program Delivery Office and Construction Management Office staff shall be invited to attend all meetings with the Utility companies and be copied on all correspondence and minutes of Utility meetings.

The relocation work shall not commence until the written request for EA clearance for Utility relocations has been issued by the Ministry. The relocation work shall be scheduled and carried out such that proper separation from the construction work is provided to avoid any Constructor issues.

The Ministry shall be responsible for:

- a) Preparing a modified Letter 4 to the Utility Companies identifying the Design-Builder for this Project.
- b) Processing of the Moving of Utility order(s) and processing of payments to Utility owners for relocation work shall be the responsibility of the Ministry. Any payments required for Utility relocation required due to the Design-Builder's design, shall be deducted from the Design-Builder's payment certificate.

< **Notes to Draft:** The MTO PM shall provide all available Utility Plans (this includes municipal and MTO (ATMS & electrical)) in Appendix C. This will provide Proponents information on the location of utilities to inform them of the risks they may be taking on.>

2.4.3 Property

Property has been acquired based on a Property Request plan provided in Appendix C (if applicable). The Design-Builder shall design and construct the Work to fit within the available property limits. Permanent works shall not be constructed within the areas identified as Temporary Limited Interest.

< **Notes to Draft:** MTO to provide REDACTED Property Request Plan (PR Plan). This provides Proponents information on the available property for the Work. Do NOT include PR Form / Summary.>

The Ministry takes possession of the lands required for the Project on <Month day, 20xx>. The Design-Builder has access to the site after this date.

The Design-Builder shall be responsible for installing Highway fence (MTOD 971.101) along the new Project right-of-way.

< **Notes to Draft:** *Modify the above based on Project scope. Add in detailed Project specific requirements if applicable*>.

Property Agreement Commitments

< **Notes to Draft:** *Provide details of ministry commitments as part of the Property Agreements with the property owner (if any). Consult with Property Section to ensure this is accurate.*

2.4.4 Electrical

< **Notes to Draft:** *delete content below and insert NA if not applicable or modify below as necessary* >

Order of Precedence

The design and implementation of all aspects of Electrical, lighting, traffic signals, and systems shall be in accordance with the criteria contained in Section 2.4.4, and the reference documents (most recent edition) identified below. If there is any conflict between the criteria contained in Section 2.4.4 and any of the reference documents below, the criteria in Section 2.4.4 shall take precedence. If there is any conflict between the reference documents, the provisions set out in Section 2, Project Principles, shall also apply:

- a) Ontario Electrical Safety Code
- b) Accessibility for Ontarians with Disabilities Act (AODA) and Ontario Regulation 413/12
- c) MTO Electrical and Traffic Directives / Policy Memos / Design Bulletins
- d) MTO Draft Light Spill Policy 2007-09
- e) Special Provisions
- f) Ontario Provincial Standard Specifications
- g) MTO Standard Drawings
- h) Ontario Provincial Standard Drawings

- i) Accepted Luminaire Photometrics List, MTO
- j) Designated Sources for Materials (DSM) List, MTO
- k) Electrical Engineering Manual, MTO
- l) ANSI/IES RP-8-18 – Recommended Practice for Design and Maintenance of Roadway and Parking Facility Lighting
- m) Ontario Traffic Manual (OTM) Suite

< **Notes to Draft:** Project team shall identify any additional mandatory design references and include in above list sorted by precedence >

2.4.4.1 Electrical Requirements

The intensity of existing illumination shall remain until the permanent illumination is operational.

Where required, the replacement of power supply equipment and the lighting system shall be done to Ministry Standards. Mercury vapour luminaires, where installed, shall be replaced with HPS luminaires of the acceptable voltage and wattage.

The Design-Builder shall reinstall any traffic loop detectors removed during construction or those that require realignment. Traffic loop detectors are present at the following approximate locations:

Station XX
 Station XX
 Etc.

In addition to reinstating all existing traffic loop detectors, the Design-Builder shall install new <classification type traffic counting stations (MTOD 2901.021 and MTOD 2901.530)> at the following locations and according to the current Ministry Standards:

Station XX
 Station XX

The Design-Builder shall verify the location for each station with the Ministry prior to completion of the design.

The Design-Builder shall undertake electrical detail design as follows:

< **Notes to Draft:** Add bullets describing the electrical scope that has been “approved” by MTO. Potential information source: Preliminary Design Report / DB Ready Reports.

Ensure MTO decisions on scope are included in project file and the approved Design Criteria.>

- a) Partial Illumination at all decision points on <insert applicable interchange and intersection locations>
- b) Overpass Illumination at <insert applicable location>
- c) Electrical embedded work in the structure shall be considered and designed accordingly if required
- d) The Design-Builder shall ensure existing field conditions are accurately documented in the drawings
- e) In the interest of energy conservation and reduced maintenance costs, LED luminaires, or Ministry approved equivalent, shall be used for all illumination

The Design-Builder shall identify, analyze and design for locations within the Project limits which warrant illumination (partial, full, or temporary). This may include:

- a) upgrading existing illumination
- b) installation at additional locations to achieve partial or full illumination
- c) Temporary illumination for staging, detour, traffic management, and construction access, if required

The Design-Builder shall submit to the Ministry detail design drawings and calculations (as applicable) for:

- a) full and/or partial illumination upgrades
- b) future full and/or partial illumination
- c) illumination at lane transitions, future signals, etc.
- d) temporary illumination for traffic staging, if required

2.4.5 Traffic Management

Order of Precedence

The design and implementation of all aspects of Traffic Management/Staging shall be in accordance with the criteria contained in Section 2.4.5, and the reference documents (most recent edition) identified below. If there is any conflict between the criteria contained in Section 2.4.5 and any of the reference documents below, the criteria in

Section 2.4.5 shall take precedence. If there is any conflict between the reference documents, the provisions set out in Section 2, Project Principles, shall also apply:

- a) Ontario Health and Safety Act
- b) Ontario Traffic Manual Book
- c) Approved project specific Design Criteria
- d) MTO Provincial Engineering Memorandums, Design Bulletins and Directives
- e) MTO Roadside Design Manual
- f) Temporary Conditions Traffic Management; Advance Notification; Advance Warning; and Alternate Route Signing for Ontario Highways
- g) MTO Design Supplement for the Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads
- h) Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads
- i) MTO Full Road Closure Policy

< **Notes to Draft:** Project team shall identify any additional mandatory design references and include in above list sorted by precedence > |

2.4.5.1 Traffic Management Requirements

The Design-Builder shall be responsible for all construction vehicle access/egress to the work site. Design of access/egress points shall provide sufficient distance for construction vehicles to safely merge with Highway traffic. Construction vehicles shall not be permitted to cross the Highway without properly merging with traffic.

A Regulatory Speed reduction shall not be supported by MTO throughout the construction zone.

< **Notes to Draft:** remove above statement if a speed reduction shall be supported. Process is covered in PERF1077.04.06> |

The Design-Builder shall be responsible for determining any staging/detouring requirements throughout the Project.

If detours are required, the following information shall be supplied to the Contract Administrator prior to using the detour:

- a) Detour route plans on 1:1000 scale drawings;
- b) Written approval from the appropriate road authorities for the use of their roads if detours direct traffic onto or affect existing traffic on those roads and notification to appropriate emergency response organizations.

MTO PHM-125 Legal Drawings

- a) The Design Builder shall prepare and submit 6 copies of temporary PHM-125 legal drawings to the Contract Administrator a minimum of <xx> Business Days prior to implementation of each stage of construction where physical changes occur (i.e., geometric changes, signals hardware modification, etc.).

< **Notes to Draft:** Set number of Business Days based on anticipated volume of submittal(s), design/ construction schedule, complexity of the traffic signals, and approval requirements. Recommend a minimum of 30 days to allow for Ministry comments to be resolved by the Design Builder >

- b) The Design Builder shall prepare and submit 6 copies of permanent PHM-125 legal drawings to the Contract Administrator a minimum of <xx> Business Days prior to implementation.

< **Notes to Draft:** Set number of Business Days based on anticipated volume of submittal(s), design/ construction schedule, complexity of the traffic signals, and approval requirements. Recommend a minimum of 60 days to allow for Ministry comments to be resolved by the Design Builder >

- c) All design and temporary PHM-125 drawings must be accepted by the Ministry prior to signal activation or implementation of physical changes.
- d) All design and temporary PHM-125 drawings shall be signed and sealed by the responsible Engineer, with experience in the appropriate discipline.
- e) The Design Builder shall conform to and complete the 'PHM-125 Drawing check list for permanent signals installation' as per Provincial Engineering Memorandum Traffic Office #2017-05.

< **Notes to Draft:** Remove above statements if traffic signals are not required on this project. If PERF 1077 is included, review above requirements against PERF 1077. >

Prior to implementation, the Design-Builder shall design and submit to the Contract Administrator a construction staging plan that meets the following requirements:

Highway XX

Element	Value
Minimum Design Speed (staging / detours)	

Minimum Design Speed (temporary lane shifts)	
Minimum Lane Width	
Minimum Left Shoulder	
Minimum Right Shoulder	

a) Hwy/Road maximum closure durations as follows:

Highway/Roadway	Maximum Duration of Full Closure
Hwy xxx	Full closure shall not be permitted
Xxxxx Road	xx weeks

- b) Maintain at least one lane in each direction on Highway xxx at all times
- c) Temporary raised pavement markings shall be used
- d) Advance notification, warning, alternate route TC-64 signing plan
- e) All temporary lane shifts or lane detour shall be designed to accommodate off-tracking characteristics of vehicles on curves
- f) Temporary construction barrier shall be used to protect and delineate opposing temporary traffic flows on Hwy xxx.
- g) All temporary condition signing shall be according to OTM Book 7 requirements and Temporary Conditions Traffic Management; Advance Notification, Advance Warning, and Alternate Route Signing for Ontario Highways
- h) All temporary pavement markings shall be according to OTM Book 11 requirements
- i) Traffic shall not be permitted to travel on or across rumble strips at any time
- j) Rumble strips removed during staging shall be re-established
- k) < **Notes to Draft:** For projects that require anti-glare screening on temporary construction barriers, consult with Traffic Office and DSSO for appropriate scope & contract language.>
- l) Temporary lane shifts, detours or roadside diversions exceeding five Days in duration shall require temporary pavement markings according to OTM Book 11 to provide adequate guidance and delineation
- m) Maintain pedestrian access, including crossing the XXX River, at all times. All access shall comply with Accessibility for Ontarians with Disabilities Act (AODA).

The alignment and cross sections of the staging shall be determined based on safety, effectiveness, and cost. The construction staging plan shall detail the proposed alignment(s), cross-section(s) and any impacts including property, Utilities, environment, delay and disruption to traffic.

All staging options, including construction access/egress, shall comply with clear zone requirements at all times.

Traffic & Mobility Management PERF1077, July 8, 2010 is amended to exclude the mobility performance requirement MATT (Max Allowable Travel Time), 1077.05.01 MOBILITY, and any item associated to the MATT Performance Requirement within the Performance Specification. < **Notes to Draft:** use above by exception only. Discuss with CPPO> |

< **Notes to Draft:** Include applicable regional NSSPs for seasonal shutdown into Chapter 3.> |

2.4.6 Drainage

Order of Precedence

The design and implementation of all aspects of Drainage shall be in accordance with the criteria contained in Section 2.4.6, and the reference documents (most recent edition) identified below. If there is any conflict between the criteria contained in Section 2.4.6 and any of the reference documents below, the criteria in Section 2.4.6 shall take precedence. If there is any conflict between the reference documents, the provisions set out in Section 2, Project Principles, shall also apply:

- a) MTO Drainage Management Manual
- b) MTO Drainage Design Standards
- c) MTO Gravity Pipe Design Guidelines
- d) MTO IDF Curve Lookup online application
- e) Provincial Engineering Memoranda:
 - i. Implementing the New Unified Ontario Flood Method
 - ii. Implementation of the Ministry's Climate Change Consideration in the Design of Highway Drainage Infrastructure Policy
 - iii. Implementing new Gravity Pipe Trenchless Technologies Design Guides and Gravity Pipe Design Approvals
- f) All other applicable reports, manuals, directives, guidelines, standards, and relevant publications

< **Notes to Draft:** Project team shall identify any additional mandatory design references and include in above list sorted by precedence >

Any exceptions to any applicable MTO manual, report, memo, or guideline shall be clearly justified, documented, and approved as appropriate.

Applicable design software used in design shall be as reviewed and documented in the MTO Evaluation of Drainage Management Software online manual. The use of any other software not reviewed by MTO shall be clearly justified and documented.

If there is any conflict between the criteria contained in this Section and any of the reference documents above, the criteria in this Section shall take precedence. If there is any conflict between the reference documents, MTO Drainage reference documents shall take precedence, in the order as outlined in the MTO Drainage reference documents.

2.4.6.1 Drainage Design and Construction

< **Notes to Draft:** modify below according to Project requirements >

Cured In-Place Liners

< **Notes to Draft:** Confirm if moratorium on CIPP remains in place >

The use of Cured-In-Place Pipe technique (Thermostat Liner) is not permitted on this Contract.

< **Notes to Draft:** Suggest adding the following sub-headings:

- Centreline Culverts
- Entrance / Side Road Culverts
- Gravity Pipe Design
- Ditch Clean-Out
- Water Taking & ESAR Requirements >

This Project includes the hydrological analysis and design of a drainage system to convey the flows <insert impacted areas, from/to>. The new drainage system shall convey runoff and flows to the drainage system which currently exists along Highway XXX.

The drainage system shall incorporate open ditches, enclosed systems, curb and gutter and inlet structures as necessary to meet MTO drainage Standards. Curb and gutter

shall be incorporated into the Work where needed for drainage, to protect slopes from erosion, and to provide positive guidance to motorists (delineation).

The drainage design shall also address water quality and quantity, and erosion targets identified within <insert applicable studies, etc. for specific watershed areas>.

The Design-Builder shall be responsible for undertaking the hydraulic analysis for <insert Project specific culvert identification> and all culverts associated with the interchange ramps and side roads, and completing the detail design and construction of all culverts.

Culverts not being replaced during this Contract shall be cleaned out.

The following Municipal drains occur within the Project limits: <insert Project specific information and any required treatments>

The following underground drainage systems occur within the Project limits: <insert Project specific information and any required treatments>. The Design-Builder shall include the existing underground drainage systems in their design and, if necessary, re-design and construct the drainage systems to accommodate <insert Project specific information>.

The Design-Builder shall provide complete drainage information, referenced by station and offset to a calculated alignment, within the survey limits in a digital report (in tabular format for elevation information) for the following features:

- a) Top of grate elevations for all catch basins, ditch inlets catch basins and manhole elevations.
- b) All above ground inlet/outlet structures and elevations.
- c) All invert and pipe sizes for storm sewers, culverts, manholes and catch basins. Provide hard copy sketches of the features with the location of the features cross-referenced on the 2D Base Plans.
- d) Sketch the drainage system including the direction of flow.
- e) All existing and proposed drainage information shall be stored in a Land Development Desktop database and shall have a proper description. All CBs, MHs shall be coordinated at the centre of the structures, DIs at both the top and bottom and the CSPs at the centre/top of opening and concrete culverts shall be coordinated at the centre/top of openings.
- f) All drainage features including shoulder drains within the contract limits shall be surveyed and the size and length of all CSPs or any other culverts shall be verified.

The Design-Builder shall submit all drainage/stormwater related drawings (plans, profiles, cross sections), design calculations, analysis and modeling including detail drawings and calculations for stormwater management ponds (inlet and outlet features) and enhanced swales showing the size, type, inverts, etc. for all new and existing catchbasins, manholes and ditch inlets within the Project limits

2.4.7 Pavement

Order of Precedence

The design and implementation of all aspects of Pavements shall be in accordance with the criteria contained in Section 2.4.7, and the reference documents (most recent edition) identified below. If there is any conflict between the criteria contained in Section 2.4.7 and any of the reference documents below, the criteria in Section 2.4.7 shall take precedence. If there is any conflict between the reference documents, the provisions set out in Section 2, Project Principles, shall also apply:

- a) MTO Directives/ Policy Memos/ Design Bulletins, including, but not limited to, the following:
 - i. MTO Directive PHM-C-001 The Use of Surface Course Types on Provincial Highways
- b) Designated Sources for Materials (DSM)
- c) MTO Laboratory Testing Manual
- d) MTO Pavement Design and Rehabilitation Manual
- e) Other MTO or MTO adopted manuals and guidelines as listed in Appendix C,
- f) ASTM International Standards
- g) AASHTO Materials Specifications and Standard

< **Notes to Draft:** Project team shall identify any additional mandatory design references and include in above list sorted by precedence >

2.4.7.1 Pavement Design and Construction

< **Notes to Draft:** Designer/Geotech to provide design ESAL calculations for each Highway or road segment on the Project (if not already provided in PERF). Where ESAL

information is not available (such as interchange ramps) the Ministry shall define minimum pavement structure requirements to achieve long term performance>

< **Notes to Draft:** *Geotechnical shall indicate if traffic can travel on gravel surfaces*> |

2.4.8 Structures

| < **Notes to Draft:** *delete content below and insert NA if not applicable or modify below as necessary* > |

Order of Precedence

The design and implementation of all aspects of Structures shall be in accordance with the criteria contained in Section 2.4.8, and the reference documents (most recent edition) identified below. If there is any conflict between the criteria contained in Section 2.4.8 and any of the reference documents below, the criteria in Section 2.4.8 shall take precedence. If there is any conflict between the reference documents, the provisions set out in Section 2, Project Principles, shall also apply:

- a) MTO Structural Standards & Specifications Office Policy Memos/Design Bulletins
- b) MTO Structural Manual - Division 1 Exceptions to the Canadian Highway Bridge Design Code
- c) Canadian Highway Bridge Design Code CSA-S6
- d) MTO Structural Manual
- e) Sign Support Manual
- f) Concrete Culvert Design and Detailing Manual
- g) Structural Planning Guidelines
- h) Structure Rehabilitation Manual
- i) Structural Steel Coating Manual
- j) Other MTO manuals, guidelines and reports as listed in Appendix C

| < **Notes to Draft:** *Project team shall identify any additional mandatory design references and include in above list sorted by precedence* >

2.4.8.1 Bridge Design and Construction

The Design-Builder shall complete detail design and construction of the <insert structure name and number>.

Installation of Site Number and Date Figures are required by the Design-Builder. The Ministry shall supply Site Number and Date Figures.

The barrier wall shall be according to Structural Standard Drawing <insert drawing number and title>.

< **Notes to Draft:** MTO Structural to provide mandatory scope / parameters for each structure. Avoid directly referencing Structural Design Reports from Preliminary Design / DB Ready.>

The <structure name> shall meet the following requirements:

- a) The new structures shall have a maximum skew angle of xx°
- b) The new structures shall have <Sleeper Slabs with Type C Strip Seal according to SS113-36 – “Type C” Strip Seal Expansion Joint and Sleeper Slab for Integral and Semi-Integral Abutment Bridges”>
- c) The riding surface shall have a thickness of xx mm, composed of a 10 mm waterproofing membrane and an asphalt pavement

< **Notes to Draft:** Consult with MTO Geotechnical on specifying surface course type here>

- d) Semi-integral abutment type
- e) The minimum vertical clearance is xxxx mm
- f) The barrier wall shall be according to Structural Standard Drawing <insert drawing number and title>
- g) Approach slabs are required
- h) Deck drains are not permitted

The Design-Builder shall submit all final structural design drawings, Working Drawings, schematics of actual deck concrete removals, mill certificates and design check notes and calculations

2.4.8.2 Corrosion Protection

Reinforcing in reinforced concrete shall be designed according to the Corrosion Protection Strategies as stipulated in the MTO Structural Manual.

===

< **Notes to Draft:** MTO Structural to identify if EXCEPTIONS to the Structural Manual is required. If so, include the following: >

Exceptions to the Structural Manual is summarized in the table below:

		Type of Reinforcement		
Element	Location	Stainless Steel	GFRP	Black Steel

===

2.4.8.3 Culvert Design and Construction

< **Notes to Draft:** modify below according to Project requirements or insert “N/A” and delete all>

The existing crossing on Highway xxx at Station xx+xxx± shall require replacement and shall be extended to accommodate the final design.

The new culvert shall be a <insert culvert type if known/mandatory>. It has been determined that this culvert has met the navigability criteria of a Minor Watercourse, therefore no Navigable Water Protection Act applications are required.

The Design-Builder shall install Site Number and Date Figures. The Ministry shall supply Site Number and Date Figures.

Table of Existing Structural Culverts

Hwy	Station	Township	Structure Name Structure Type Site #	Size

The Design-Builder shall provide the following services for the replacement of the culvert:

- a) Complete detailed design, including a hydrology report, and construction of the new culvert
- b) Waterproof entire top surface of culvert

2.4.8.4 Aesthetics

< **Notes to Draft:** modify below according to Project requirements or insert “N/A” and delete all>

Bridges shall be designed according to the Aesthetic Guidelines for Bridges using a “Level X – XXXXX” classification.

2.4.8.5 Navigable Waters

The Design-Builder shall be responsible for all work required to secure a Permit as required by the Navigational Protection Program (NPP).

< **Notes to Draft:** Provide information as per the Navigable Waters Guidelines (Chapter 3) for each culvert / bridge requiring work. This analysis should be completed during Preliminary Design or Design-Build Ready Stage.>

Project Specific Information

Structure Name	<Insert Structure Name> <Insert Site Number>
Waterbody Name	<Insert name of waterbody> <Identify if a Scheduled Waterway>
Navigability	<Is it currently navigable?>
Work Type	<Is the proposed work classed “Minor Works” or “Major Works” or “Works”>
Course of Action	<Detail required action under the NPP> <Application for Approval> Deposit Information Publish Notices at a minimum of X locations and as directed by Transport Canada.

Documentation Required

Navigational Protection Program (NPP) Information Package

The Design-Builder shall submit an NPP Information Package with the required information as described in the MTO Navigable Waters Guidelines - Section 5.2 with the addition of the following, as a minimum, for each structure:

*< **Notes to Draft:** Include the following if there is specific info the Design-Builder needs to include for a specific structure. For example, is there commitment(s) described in EA documentation from Preliminary Design? – For this, consult Environmental Planner.>*

<Insert Name of Structure 1>
<Include details / required information>

<Insert Name of Structure 2>
<Include details / required information>

Upon submitting a complete NPP Information Package to Transport Canada, the Design Builder shall provide a copy of the NPP Information Package to the Contract Administrator.

NPP Publishing Plan

The Design-Builder shall submit a NPP Publishing Plan for the Project. This Plan shall include the following for each structure classified as navigable:

- a) Completed Public Notice
 - i. **Owner – Individual or Company Name** is the <Design-Builder's Name> on behalf of MTO
 - ii. **Owner Contact Information** is the Design-Builder's contact information and the Ministry's contact information
- b) Proposed locations to post public notice. For each location, provide the following:
 - i. Location name / type
 - ii. Location full mailing address
 - iii. Contact information of posting location / site
 - iv. Map illustrating structure location and proposed public notice locations
 - v. Rationale on the selected location

Public notices through media (TV, radio, etc.) shall be subject to ministry review prior to implementing. The Design-Builder shall address any ministry comments provided.

The NPP Publishing Plan shall be submitted a minimum of two weeks prior to publishing the notice(s).

Application Process

The Design-Builder shall be responsible for all information, including the NPP Information Package, required for the application for a permit from Transport Canada. For more information on the application process, refer to Transport Canada's website at: <https://www.tc.gc.ca/en/transport-canada.html>

Application for Approval & Deposit Information

Application for Approval, Voluntary Application for Approval, and online depositing of information shall be completed at:

<https://wwwapps.tc.gc.ca/Prog/3/NWAR-RLEN-E/>

< **Notes to Draft:** *Test hyperlink to ensure it functions correctly*>

Application Fee

All associated permit fees shall be considered included in the Lump Sum price for the Work.

< **Notes to Draft:** *Application fee details are not yet available from Transport Canada. Refer to Transport Canada's website for fee schedule.* >

Publish Notice

The date that notices are published shall coincide with the date of publication of the deposited information on the Common Project Search function.

A 30-day public comment period is required. The comment period begins when notices are published (date of publication).

The Design-Builder shall draft responses to public comments for ministry review / comment prior to issuing. Draft responses that are incomplete or inaccurate are subject to PERF 1075.

< **Notes to Draft:** *Discuss with MTO Project Team the strategy for confirming Notices have been published (administration)*>

Application Timelines

It is expected that a Permit through Transport Canada will take approximately XX days after the 30-day public comment period has been completed.

< **Notes to Draft:** *Expect an additional 60 days after public comment period. Adjust # days to suit your project. Factors that may influence the time to secure the permit may include:*

- *Project scope (# structures)*
- *Project complexity*
- *Project / structure is contentious >*

2.4.9 Foundations Engineering

The Design-Builder shall undertake a detailed Foundation investigation, design and construction of <specify structure or area>, including all deep cut areas and foundations for the new bridge structure(s)(<insert site numbers>), retaining walls, and structural culvert replacement (<insert site numbers>). Foundation investigation and design reports shall be submitted to the Ministry for information as specified in Section 2.2.2 Design Submissions.

Order of Precedence

The design and implementation of all aspects of Foundations Engineering shall be in accordance with the criteria contained in Section 2.4.9, and the reference documents (most recent edition) identified below. If there is any conflict between the criteria contained in Section 2.4.9 and any of the reference documents below, the criteria in Section 2.4.9 shall take precedence. If there is any conflict between the reference documents, the provisions set out in Section 2, Project Principles, shall also apply:

- a) MTO Structural Manual - Division 1 Exceptions to the Canadian Highway Bridge Design Code
- b) Canadian Highway Bridge Design Code CSA-S6
- c) Canadian Foundation Engineering Manual (CFEM);
- d) MTO Special Provisions
- e) OPSS
- f) Ontario Ministry of Transportation (MTO) Guideline for Foundation Engineering Services
- g) Guidelines for Foundation Engineering – Tunneling Specialty for Corridor Encroachment Permit Application
- h) MTO Laboratory Testing Manual
- i) Integral Abutment Guidelines and Semi-Integral Abutment Guidelines, MTO
- j) MTO RSS Design Guidelines;

- k) Guidelines for the Design of High Mast Pole Foundations
- l) MTO Sign Support Manual
- m) MTO Embankment Settlement Criteria for Design;
- n) MTO Guideline for Rock Fill Settlement and Rock Fill Quantity Estimates
- o) Designated Sources of Materials (DSM) List;
- p) Canadian Foundation Engineering Manual (CFEM);
- q) Guideline for Professional Engineers Providing Geotechnical Engineering Services, published by Professional Engineers of Ontario (PEO); and
- r) ASTM Standards.

< **Notes to Draft:** Project team shall identify any additional mandatory design references and include in above list sorted by precedence >

2.4.9.1 General Requirements

The Design-Builder shall be responsible for the detail design and construction of all foundations for this Project.

Available subsurface information at this site is provided in Appendix C. The Design-Builder shall undertake any additional foundation investigations in order to complete detail design and construction of all foundation elements for this Project.

2.4.9.2 Subsurface Investigations and Testing Prior to Construction

- a) Results of all subsurface investigations shall be provided to the Ministry for information purposes within the Foundation Investigation Reports required in Section 2.2.1, including a Geocres number for the MTO Foundations Database.
- b) The locations and elevations of all boreholes, test pits and soundings shall be surveyed and referred to fixed reference points and data. Location horizontal datum shall be identified by:

North American Datum 1983 (NAD 83 CSRS)
 6 Degree Universal
 Transversal Mercator
 UTM Grid Coordinates, UTM Zone XXXX.

The vertical accuracy of survey readings shall be within 0.1 m. Horizontal accuracy shall be within 0.5 m.

- c) All aspects of implementation of geotechnical test holes (including, but not limited to, planning, licensing, construction, maintenance, abandonment, and reporting) shall be according to Ontario Ministry of the Environment (MOE) Regulation 903 (Wells) and its amendments under the Ontario Water Resources Act.
- d) Existing groundwater observation wells and piezometers installed by MTO, as identified in Appendix C, shall be decommissioned by the Design-Builder according to applicable law following the initial works.

2.4.9.3 Structure and Utility Protection

The Design-Builder shall be responsible for the protection of all structures and Utilities that may be affected by the Work and the repair of any structures and Utilities damaged by the Design-Builder's operations.

2.4.9.4 Foundation Design and Construction

For structures (bridges, retaining walls, and culverts), foundation engineering investigation and design for shallow and deep foundations shall be carried out according to the reference documents listed above.

Foundations for the semi-integral abutments shall be designed according to MTO Semi-Integral Abutment Guidelines.

Foundation design and construction shall consider existing Utilities, buildings and structures. Excessive settlement affecting the serviceability of existing Utilities, buildings and structures shall be prevented.

2.4.9.5 Permanent Retaining Walls / Structures

Retaining Structures shall be designed for durability and shall satisfy sliding, bearing resistance, overturning and global stability according to the reference documents listed above.

Reinforced soil slopes shall be considered as Retaining Walls according to the MTO RSS Design Guidelines.

Proprietary retaining systems, if used, shall be designed and constructed according to the MTO RSS Design Guidelines and applicable Special Provisions. Walls required to retain Bridge embankments adjacent to Bridge Foundations are considered abutment walls. RSS walls shall not be used as True Abutments, as defined in the MTO RSS Design Guidelines. The Performance and Appearance rating for the site is XXX.

< Notes to Draft: Performance and Appearance rating shall be determined based on project specific requirements >

Design of all permanent retaining structures and barriers shall allow for full-depth replacement of Pavements.

Design of all permanent retaining structures shall accommodate or eliminate pressures generated by frost action.

2.4.9.6 Permanent Cut and Fill Slopes

Permanent cut and fill slopes shall be designed to:

- a) Provide global stability;
- b) Be protected against surficial erosion and shallow surface failures;
- c) Control discharge of surface water and subsurface seepage; and
- d) Allow for regular maintenance of the slope surface.

The design slope configuration shall also be checked for short-term stability during construction.

According to the requirements of Chapter 3 and independent of stability analyses:

- a) Fill slopes for embankment earth fills equal to or greater than XX metres in height shall incorporate horizontal benches for surficial stability at maximum XX metre intervals.
- b) For rock fills equal to or greater than XX m in height, rock fill slopes shall incorporate horizontal benches at maximum XX m intervals. Slopes shall be constructed according to the requirements in Chapter 3.
- c) Horizontal benches shall be provided for surficial stability for cut slopes deeper than XX metres and shall be provided at maximum XX metre intervals.

Permanent cut and fill slopes shall be designed and constructed to avoid tension cracks, toe bulging, slumping or sloughing of embankment or cut slopes.

2.4.9.7 Embankments

Measures to ensure stability of embankments adjacent to culverts, including protection against surficial erosion and shallow surface failures, shall be provided.

The Design-Builder shall comply with the maximum differential settlement criteria according to the MTO Embankment Settlement Criteria for Design between Substantial Performance and the end of the Warranty Period.

2.4.9.8 Temporary Slopes and Retaining Structures

The performance of each Temporary Work shall be sufficient for its expected service life. All Temporary Works shall comply with the OHSA and the applicable construction projects regulation thereunder current at the time of construction excavation and the additional criteria identified below:

- a) Temporary retaining structures shall be designed and constructed to meet OPSS 539 Construction Specification for Protection Systems and Section 2.4.8 Structures.
- b) Where temporary retaining structures are required to retain the right-of-way or tracks of railways, temporary retaining structures shall be designed to meet the requirements of AREMA.

2.4.9.9 Earthworks

All Lightweight Fills shall be adequately protected from wheel load, groundwater, road salts, weather, fire, flotation under flood conditions and fuel spills.

2.4.9.10 Instrumentation and Monitoring

< Notes to Draft: insert requirements for instrumentation and monitoring as necessary during the warranty period ... suggested wording below, adjust as necessary >

The Design-Builder shall develop and submit plans and procedures to the Ministry for instrumentation and monitoring at least three months prior to commencement of monitoring of completed Work.

Monitoring before, during and after construction is required to:

- a) Check the safety of the Work;
- b) Assess the effects of construction on the surrounding ground and existing facilities;
- c) Identify likely causes and distribution of ground movements;
- d) Evaluate design assumptions and refine estimates of future performance; and
- e) Check compliance with performance specifications.

As needed, the monitoring shall address movements, vibrations, pressures, loads and strains in the ground, on adjacent facilities and structures, and on temporary and permanent works. The Design-Builder shall be responsible for designing and implementing the program, obtaining baseline survey data, organizing, evaluating and preserving the data, submitting it to the Ministry for information and undertaking corrective actions, if and as needed.

Stable benchmarks shall be established along the length of the alignment. Coordinates and elevations shall be established at least three months prior to monitoring with repeat baseline survey readings taken during this time. The number of reference benchmarks established shall be sufficient to provide adequate sight distances to permit monitoring as specified in this Chapter 2. Benchmark coordinates and elevations shall thereafter be resurveyed annually. Data shall be submitted to the Ministry for information.

Measurements of differential settlements between abutments and abutment approaches shall be taken at months 3, 6, 12, 18 and 24 of the General Warranty period. Measurement data shall be provided to the Ministry.

Immediately following paving, elevations at the centre line of each lane shall be measured at all Bridge abutments and at distances of 20 m, 50 m, 75 m, and 100 m from the abutments.

2.4.9.11 Groundwater Control – Dewatering / Unwatering

Discharge of water extracted during dewatering or groundwater pressure control activities shall be completed in compliance with all applicable federal, provincial, and municipal requirements for water quality and flow rates. Extraction of groundwater for the purposes of construction dewatering is subject to the Ontario Water Resources Act and the Water Taking regulation thereunder that requires a Permit to Take Water (PTTW) for extracting more than a total of 50,000 litres per Day (cumulative from all wells, well points, educators, etc.). The Design-Builder shall obtain a Permit to Take Water as applicable for any dewatering or groundwater pressure reduction activities.

The Design-Builder shall address the impact of any deep cut section on the existing groundwater table, including the need for groundwater control (pumping) during construction and any long-term drainage requirements.

2.4.9.12 Milestone Submissions

- a) Final Foundations Investigation and Design Reports
- b) Geotechnical / Foundations Instrumentation Monitoring Reports

*< **Notes to Draft:** insert NA under any sub-section that is not applicable. List structure(s) and locations and the Work required. Provide a brief description of each existing structure and foundation requirements >*

2.4.10 Signing and Pavement Markings

*< **Notes to Draft:** Identify Project specific considerations that apply to the Project not covered in the Traffic or Pavement Marking PERFs >*

2.4.10.1 Permanent/Temporary Pavement Markings

Order of Precedence

The design and implementation of all aspects of Permanent/Temporary Pavement Markings shall be in accordance with the criteria contained in Section 2.4.10.1, and the reference documents (most recent edition) identified below. If there is any conflict between the criteria contained in Section 2.4.10.1 and any of the reference documents below, the criteria in Section 2.4.10.1 shall take precedence. If there is any conflict between the reference documents, the provisions set out in Section 2, Project Principles, shall also apply:

- a) Ontario Traffic Manuals

< **Notes to Draft:** Project team shall identify any additional mandatory design references and include in above list sorted by precedence > |

2.4.10.1.1 Permanent / Temporary Pavement Markings

The Design Builder shall be responsible for the supply, installation, and maintenance of all permanent and temporary pavement markings.

Pavement markings shall be applied within the Project Limits of the work as described elsewhere in this Contract. The Design Builder shall ensure that there are no breaks in new and existing pavement markings

All pavement markings shall conform to Traffic & Mobility Management and Pavement Marking PERFs.

All pavement markings (temporary and permanent) shall be placed by September 30th, unless otherwise directed by the Contract Administrator.

Throughout the design and construction phase of this Contract, the Design-Builder shall apply pavement markings (including edge lines, centrelines, and stop blocks) to ensure safety and positive guidance is maintained or as directed by the Contract Administrator. Application and re-application of pavement markings shall be at no additional cost to the Ministry.

The Design Builder shall submit a pavement marking layout drawing to the Ministry for review and comments a minimum of three (3) weeks prior to construction.

< **Notes to Draft:** Include Project Specific requirements for Pavement Markings (Temporary / Permanent)> |

2.4.10.2 Signing

Order of Precedence

The design and implementation of all aspects of Permanent Signing shall be in accordance with the criteria contained in Section 2.4.10.2, and the reference documents (most recent edition) identified below. If there is any conflict between the criteria contained in Section 2.4.10.2 and any of the reference documents below, the criteria in Section 2.4.10.2 shall take precedence. If there is any conflict between the reference documents, the provisions set out in Section 2, Project Principles, shall also apply:

- a) Ontario Traffic Manuals

< **Notes to Draft:** Project team shall identify any additional mandatory design references and include in above list sorted by precedence > |

The design and implementation of all aspects of Temporary Signing shall be in accordance with the criteria contained in Section 2.4.10.2, and the reference documents (most recent edition) identified below. If there is any conflict between the criteria contained in Section 2.4.10.2 and any of the reference documents below, the criteria in Section 2.4.10.2 shall take precedence. If there is any conflict between the reference documents, the provisions set out in Section 2, Project Principles, shall also apply:

- a) Ontario Traffic Manual Book 7
- b) Temporary Conditions Traffic Management; Advance Notification; Advance Warning; and Alternate Route Signing for Ontario Highways

< **Notes to Draft:** Project team shall identify any additional mandatory design references and include in above list sorted by precedence > |

2.4.10.2.1 Temporary and Permanent Signing

The Design-Builder shall secure approval of the Ministry for wording on all signs.

Temporary Signs

The Design-Builder shall be responsible for the manufacture, installation, and removal of all temporary signs including all sign supports and footings.

The Design-Builder shall supply and place Contractors Identification Signs (TC-75) indicating the Design-Builder's name and contact number.

The Design-Builder shall provide the manufacturing and message details for each TC-64 sign to the Contract Administrator a minimum of 2 weeks in advance of production of the

sign. If any changes to message details are required during the construction period, they shall be completed by the Design-Builder. All TC-64's shall conform to the guidelines specified. Guidelines for the standard of reflectivity, size and fonts can be obtained from the Contract Administrator.

The Design-Builder shall submit a Temporary Construction Sign Layout as part of the IFC submission.

Sign Inventory

The Design-Builder shall provide a detailed sign inventory of all existing signing within the Project limits. The Design-Builder shall contact the Contract Administrator to arrange a site meeting to review and identify which signs shall be replaced or which signs shall be salvaged and reinstalled based on their condition. The Design-Builder shall not rely solely on the existing inventory provided by the Contract Administrator but shall field confirm the information. The detailed sign information shall include, but is not limited to:

- Sign attributes (size, reference code)
- Location (chainage and offset)
- Message
- Condition of sign and support (appropriate for re-use)
- Support type with dimensions

Civic Address Signs

The Design-Builder shall contact the appropriate municipal road authorities to confirm, in writing, the official local road names and the civic address ('911') signing requirements. If the information received indicates a road name and/or civic address change, the Design-Builder shall obtain the Municipal Bylaw, Council Resolution or written direction in this regard and forward a copy to the Regional Traffic Section for their records. < **Notes to Draft:** delete this paragraph if not applicable >

Permanent Signs

All existing permanent signs shall be maintained in their current location or temporarily relocated to an effective location according to Ministry Standards.

The Design-Builder shall complete the following:

- a) Identify the impacts to all existing signs.
- b) Identify the need and provide justification for additional permanent signing requirements.

- c) Determine the signage for consistency (i.e. sign size, language, location, etc.) .
- d) Determine compliance with the French Language Services Act (FLSA).
- e) Identify and determine impacts to Canadian Tourist-Oriented Directional Signs (TODS) / LOGO Signing.
- f) Provide treatment (new install, relocation, replacement, removal) and rationale for all permanent signs throughout the Project limits.

The Design-Builder shall prepare and submit the following <include timeline>:

- a) Permanent Sign Layout Drawings and Table.
- b) rationale for the Permanent Signs.

The Ministry will supply all permanent signs as detailed in the Permanent Sign Table.

The Design-Builder shall be responsible for installing all permanent signs (including the supply of all hardware, sign supports and footings).

Canadian Tourism-Oriented Directional Signs (CTODS)

The Design-Builder shall contact the CTODS representative, in writing, to ensure the affected stakeholders are informed of the change in alignment and any changes to access for the businesses.

CTODS contact information:

Canadian TODS Ltd.
120 Whitmore Rd.
Unit 8
Woodbridge, ON
L4L 6A3

Phone Toll Free: 1-888-263-9333
Phone in Toronto Area: 905-851-1322
Fax: 905-851-4724

Aluminum Extruded Signs

Aluminum Extruded signboard for advance and turn off guide signs:

< **Notes to Draft:** Provide sign list with message details, sign code, size details or delete if not applicable >

Aluminum extruded sign boards shall be designed, manufactured, and supplied by the Ministry.

The Design-Builder shall be responsible for the installation of all aluminum extruded signs including the design and installation of all sign supports and footings.

< **Notes to Draft:** *Discuss with Structural and Foundations to include ToR for these signs*>

Contract Information Signs

< **Notes to Draft:** *Traffic Section to determine whether MCIS is applicable or use TC-81s – Revise section accordingly*>

The MCIS shall be supplied by the Ministry. MCIS shall be installed, maintained, and removed by the Design-Builder. The Design-Builder shall provide all materials required to install these signs.

In order for the MCIS signs to be fabricated, the Design-Builder shall determine the appropriate number of MCIS required, and work with the Contract Administrator to determine appropriate messaging.

The number of signs and the information shall be provided in writing to the Contract Administrator a minimum of three weeks prior to the commencement of any construction activities.

< **Notes to Draft:** *Adjust timing to allow enough time for ministry fabrication and delivery prior to construction start.*

The Major Contract Information Signs shall be available for pickup by the Design-Builder at the location noted above by providing the Contract Administrator two weeks advance notice of the need for the MCIS.

Example MCIS Information:

Highway Improvements
Next XX.XX km
Completion Fall 20XX

The MCIS remain the property of the Ministry. Upon Contract Completion, the MCIS shall be removed and delivered by the Design-Builder to the address detailed under the “Ministry Supplied Signs” sub-section with 48 hours advance notice to the Contract Administrator.

TC-81s shall be supplied, installed, maintained, and removed by the Design-Builder. The Design-Builder shall provide all materials required to install these signs.

< **Notes to Draft:** Update PERF 1077 for use of CIS or TC-81.>

Ministry Supplied Signs

The Design-Builder shall be responsible for picking up all ministry supplied signs at the following location and delivering to the project site:

< **Notes to Draft:** Insert appropriate address for sign pickup based on Project location. Ministry Supplied Signs include:

- Permanent Signs
- Aluminum Extruded Signs
- MCIS>

< **Notes to Draft:** Insert appropriate return address for MCIS.>

MCIS shall be returned to the ministry at the following location:

2.4.11 Environmental Requirements

< **Notes to Draft:** Identify specific environmental considerations that apply to the Project e.g. Species at risk, Fisheries Data, etc.>

2.4.11.1 General

The Design-Builder shall meet all Environmental Assessment requirements of the Ontario *Environmental Assessment Act*, the *Canadian Environmental Assessment Act (2012)*, and MTO's *Class Environmental Assessment for Provincial Transportation Facilities* (as amended, July 14, 2000). In addition, the Design-Builder shall meet all requirements of applicable provincial and federal environmental legislation and regulations, permits, approvals and authorizations.

If the Design-Builder chooses to make significant changes to the original concept of the Project as described in the Transportation Environmental Study Report (TESR), or modifications that might change the Project classification, the Design-Builder shall comply with the process outlined in the MTO Class EA. The Design-Builder assumes all risks associated with initiating and implementing changes to the original design concept including but not limited to: cost increases, Project delays, Part II order (bump-up) requests and other challenges that may result from the amendments or re-classification. If the amendment or re-classification process is unsuccessful, then the Design-Builder shall adhere to the information and commitments made according to the original concept of the Project as described in the TESR.

2.4.11.2 Project Specific Environmental Information

< **Notes to Draft:** *Planners to review documentation completed and documentation required and modify content below as appropriate*>

Project Specific environmental information and commitments are provided below.

This Project is classified as a Group **A or B** Project under the “Class Environmental Assessment for Provincial Transportation Facilities (2000)” at the time of Project initiation, based on the Project specific information and commitments identified in this Section, the Transportation Environmental Study Report (TESR) and Design-Build Ready Report (PDR).

The Transportation Environmental Study Report (TESR) documenting the Preliminary Design for Highway XXX from XXX (copy provided) was written by XXX. The 30 Day public review period ended XXX and no Part II Order (bump-up) requests were received. (or summarize the MOE decision/outcome regarding a Part II Order request)

The TESR, and all associated documents prepared as part of the Preliminary Design by XXX or their sub-consultants is provided to the Design-Builder as follows:

< **Notes to Draft:** *List the known/available Project-specific environmental references, such as Transportation Environmental Study Report, factor-specific environmental technical reports, etc.*>

“Environmental Clearance – Utility Relocation” and “Environmental Clearance – Construction Start” shall be issued by the Ministry before Utility relocations and/or construction can begin and following receipt of a memo/letter from the Design-Builder indicating the Project is Eligible for “Environmental Clearance – Utility Relocation” and “Environmental Clearance – Construction Start”, and the Ministry is satisfied that the requirements of the Class EA have been met

The environmental assessment process documentation that shall be prepared during this Project is:

- a) A Design and Construction Report (DCR)
- b) <list others as applicable to Project>

In addition to the environmental assessment process documentation, the following environmental technical reports are required, as detailed in the Environmental Reference for Highway Design (ERD) (2009) as may be amended:

< **Notes to Draft:** *Select Reports required and delete those not required*>

- a) A Fish and Fish Habitat Assessment Report, according to Section 3.1 of the ERD. The consultant shall consult with MNR and DFO as required to obtain approvals for fisheries mitigation and/or compensation measures required in relation to the proposed work, and obtain any Authorizations required for this work. Perform all

activities as required under the MTO/DFO/MNR Protocol for Protecting Fish and Fish Habitat on Provincial Transportation Undertakings, including compiling a 'fish file' and delivering this to the MTO Environmental Planner.

- b) A Terrestrial Ecosystems Assessment Report, according to Section 3.2 of the ERD, and in compliance with the Ontario Endangered Species Act;
- c) < **Notes to Draft**: In consultation with MTO Environmental Planner, may use the following paragraph in lieu of above two bullets:> Provide a technical memo to update the natural sciences reports completed in the Preliminary Design (i.e. Migratory Bird Nesting Review, Fisheries and Aquatic Habitat Assessment Report and Terrestrial Assessment Report, Vegetative Assessment report), to identify any species covered by the new Endangered Species Act.
- d) A Groundwater Assessment Report, according to Section 3.3 of the ERD; (to support the Permit To Take Water application) and establish a pre-construction water well survey and well monitoring program (prior, during and post-construction);
- e) A Noise Report, according to Section 3.4 of the ERD;
- f) A Land Use Factors Report, according to Section 3.5 of the ERD;
- g) A Contamination Overview Study Report, according to Section 3.6 of the ERD;
- h) A Cultural Heritage Resource Assessment Report, according to Section 3.7 of the ERD;
- i) A Cultural Heritage Evaluation Report (CHER), according to Section 3.7 of the ERD;
- j) A Stage 1 and 2 Archaeological Assessment Report, according to Section 3.8 of the ERD;
- k) A Landscape Composition Report, according to Section 3.9 of the ERD;
- l) An Air Quality Report, according to Section 3.10 of the ERD;
- m) Surface Water - Hydrology Reports for Water Crossings, according to Section 3.11 of the ERD;
- n) Surface Water - Existing Conditions Drainage Mosaic, according to Section 3.11 of the ERD;
- o) Surface Water - Existing Conditions Brief, according to Section 3.11 of the ERD; Note – this includes an Existing Conditions Drainage Mosaic;

- p) Surface Water - Drainage and Storm Water Management Report, according to Section 3.11 of the ERD; Note – this includes an Existing Conditions Brief;
- q) A Designated Areas Report, according to Section 3.12 of the ERD. The Project limits are within the Greenbelt, Oak Ridges Moraine, Niagara Escarpment and therefore, the reports above shall reflect the additional work required, as detailed in the ERD Section 3.12. In addition, the Design-Builder shall consult with the Ministry of Municipal Affairs and Housing and other relevant authorities;
- r) Erosion and Sediment - An Erosion and Sediment Overview Risk Assessment Report, according to Section 3.13 of the ERD;
- s) Erosion and Sediment - Best Management Practices (BMPs), according to Section 3.13 of the ERD;
- t) Erosion and Sediment - An Erosion and Sediment Control Plan (ESCP), according to Section 3.13 of the ERD; and
- u) Erosion and Sediment - A Two-Part ESCP – Main & Supplemental, according to Section 3.13 of the ERD.

< **Notes to Draft:** Other options to consider: >

The Design-Builder shall complete all required components of the DFO HADD/ No HADD determination package according to the MTO/DFO/MNR Fisheries Protocol and forward it to MTO for signature and distribution to DFO.

The Project is within the area defined by the Growth Plan for the Greater Golden Horseshoe, under the Places to Grow Act, 2005.

This Project is within a designated area under the French Language Services Act and therefore specific documents as described in Figure 4.1 of the ERD shall require French Language translation. |

2.4.11.3 Permits, Approvals and Commitments

< **Notes to Draft:** This section shall provide a table with a list of formal or draft environmental permits, approvals and/or commitments (include post-TESR commitments if any), or indicate that there are none.> |

Permits and Approvals

< **Notes to Draft:** Modify list below as applicable to Project> |

MTO has not obtained any permits or approvals for this Project, other than:
|

- a) Providing Environmental clearance for ROW designation and Property Expropriation on <insert date>.
- b) Receiving clearance from the Ministry of Tourism, Culture and Sport on <insert date> for the Stage 1-3 Archaeological Assessment Report.
- c) <list other > |

The Design-Builder shall identify and obtain any and all permits at their cost including Permit to Take Water from MOE as required.

Commitments

< **Notes to Draft:** Modify notes below and add other commitments as applicable to Project >

In addition to the commitments outlined in this Section, other Project specific commitments are summarized in the TESR Summary of Environmental Concerns, Mitigating Measures and Commitments to Future Work, and the PDR.

The Design-Builder shall notify affected property owners along the proposed detour routes and other stakeholders during the detailed design process and prior to implementing any detours. |

2.4.11.4 External Consultation

< **Note to MTO Planner:** List commitments for consultation. Include setting up a Project website if required, specific PIC locations etc., specific requirements for PIC summary report content >

XX Public Information Centre(s) (PIC) at **XX** venue are required for this Project. The location shall be ODA compliant and within reasonable proximity to the Project location.

The Design-Builder shall notify those on the Project mailing list of the Notice of Study Commencement, Notice of PIC and Notice of Completion, including EMS, agencies and adjacent property owners.

The Design-Builder shall publish the DCR and provide copies for public review in the same places used for the Transportation Environmental Study Report review.

Statutory Advertisements in Newspapers

Each mandatory public notice (including Notice of Study Commencement, Notice of PIC, and Notice of Completion) shall be published **in two local newspapers (one Day each)**.

< **Note to MTO Planner:** Provide details as appropriate (may want to be consistent with Notifications publications during Prelim Design). >

<Note to CR/WR MTO Planner: *If this Project lies within the Haldimand Tract; The Design-Builder shall place all public notices in the Turtle Island News and the Tekawennake.>*

Indigenous Engagement and Consultation

The Ministry of Transportation is responsible for direct Indigenous engagement and consultation. All direct correspondence with Indigenous communities shall be drafted by the Design-Builder and submitted to the **Contract Administrator for review, signature and distribution** at least **xx** weeks prior to the necessary mailing date.

< Notes to Draft: *Insert appropriate contacts and timelines according to Regional practices>*

Indigenous Engagement and Consultation – Reference: Preliminary Research - Consultation with Aboriginal Peoples (from the ENVIRONMENTAL POLICY OFFICE INFO-BULLETIN, April 2011):

Contact (Marion Burton) MTO Legal, to request information from the Aboriginal Consultation Information System (ACIS):

*“We are seeking information on treaties and assertions for a project area in the immediate vicinity of the ministry's Highway X project in the City of Y, Municipality of Z. Any information that may be available from the ACIS would be appreciated.”
Identify the First Nations that have been contacted for this Project.
Attach a map of the study area and any previous notices.*

NOTE: *In scoping the level of required background research, consideration shall be given to:*

- a. The type of MTO work proposed;*
- b. The possible "adverse" impacts of the proposed work on potential aboriginal fishing, hunting, trapping or other cultural interests;*
- c. The level of "public" consultation contemplated.*

For example, if the ministry is proposing in-water work that may affect potential fishing interests, it would be prudent to determine if there are aboriginal interests present.

< Notes to Draft: *Where any Archaeology reports are prepared by the Design-Builder, three hard copies of the final report are required for distribution by MTO to the local Indigenous communities if requested (tailor to Regional practices).>*

< Notes to Draft: *Project-Specific: Add a requirement for the Design-Builder to invite/hire monitors for any Stage 3 and/or Stage 4 archaeology field investigations as appropriate to Regional Practices.>*

2.4.12 Surveying and Plan Preparation

< **Notes to Draft:** Modify this section as applicable to Project or delete content and insert "N/A" if not applicable >

2.4.12.1 General Project Requirements

The Design-Builder is responsible for acquiring and adhering to the standards as set out in the documents below:

- a) Engineering Survey Manual – Most recent version.
- b) AutoCAD Standards Guide, Version 2004.
- c) Field Code Feature Sketches for MTO Engineering Surveys, (Addendum to the Engineering Survey Manual).
- d) AutoCAD/Civil 3D Standards for Surveys at:
<http://www.xfer.mto.gov.ca/PTASapps/index.htm>
- e) Regional Engineering Surveys Requirements Manual Version 1.1, March 2007.

Documents a) to c) are available on the Ministry Library web site at:
www.mto.gov.on.ca/english/transrd.

Additionally, hard copy distribution of Documents a) to c) can be purchased through Publications Ontario. Their web site is: <http://www.publications.gov.on.ca/>

Ministry Instructions

The survey is to reflect the existing physical (field) conditions at the time of the survey. The Design-Builder shall ensure the field data capture is of sufficient accuracy and density to comply with the Engineering Survey Manuals.

Wherever this document makes reference to AutoCAD, it shall be MTO's current AutoCAD Version. Earlier or later releases shall not be accepted unless approved by the Ministry.

2.4.12.2 Project Specific Requirements

Alignment

The Design-Builder shall supply coordinated alignments for all newly constructed portions of the Work.

All new alignments shall be provided in XML text file format (ver 1.2) and shall conform to Ministry standards and naming conventions.

Project Control

Horizontal and Vertical Project control <has been/has not been> established within the Project limits and the engineering survey data <is/is not> available upon request. The Design-Builder may be required to reset Project control for control points that have been destroyed during construction. Shall additional engineering survey data be required beyond the scope of the original supplied engineering survey, the Design-Builder may be required to set additional Project control to properly tie in the new data.

2.4.12.3 Reference Documents

Data Provided by MTO:

The Ministry has not done a field investigation to verify the Horizontal Project Control, whether benchmarks or right-of-way monuments are missing, destroyed or useable. The Design-Builder shall do a field investigation after award to determine the amount of monumentation available.

MTO information, if provided, may not be to NAD 83 and 3 degree MTM Transverse Mercator Map projection, and the Vertical datum may not be to CGVD 1928 and to the 1978 Vertical Adjustment. The Ministry shall not replace or re-establish missing or destroyed Project Control Points, benchmarks, or alignment ties previously shown on any drawings or plans.

< **Notes to Draft:** The information listed below may be included here or listed in Appendix C, Table C-2 >

The following information shall be provided to the short-listed Proponents upon request:

Note: Existing information is accurate at the date of the survey.

- a) Photogrammetric Digital Terrain Model:
The Ministry shall provide to the Proponents Digital Terrain Models from photogrammetric mapping, based on year 2006 air photos, within the Project limits.
- b) Ortho Imagery;
The Ministry shall provide to the Proponents, <2010 year based 30 cm resolution> Ortho imagery in AutoCAD format, within the Project limits.
- c) Digital Parcel Ownership Fabric;
The Ministry shall provide to the Proponents, ownership parcel data in AutoCAD format, within the Project limits. (Note: The accuracy of this data only allows it to be used for general property locations. It shall not be used to determine accurate property boundaries).
- d) Engineering (Topographic) Survey:

The Ministry shall provide to the Proponents, the following AutoCAD Engineering Surveys: <List available Engineering Surveys>

- e) Other Available Data:
- i. Copy of MTO Kardex legal plan index.
 - ii. MTO P-Plans (TIFF format) within the Project limits, as requested.
 - iii. Engineering and Title Record (ETR) plan plates (TIFF format) within the Project limits.
 - iv. Horizontal and Vertical Control (H&V) sheets for noted townships.
 - v. Existing Horizontal & Vertical Control Monument Information
 - vi. MTO Field Code Feature sketches.
 - vii. Notification of Field Work Operations Form (paper or digital).
 - viii. Pipe size dimensions chart.
 - ix. Sample B and C-plans (for presentation purposes only).
 - x. Sample of miscellaneous drawings (for presentation purposes only).
 - xi. Sample Horizontal and Vertical Control spreadsheet. |

Chapter 3: Specifications

3.0 Scope

This chapter addresses specifications and general modifications for Design-Build contracts.

Contents

- 1. Design-Build General Specification
- 2. Performance Specifications
- 3. Design-Build Special Provisions
- 4. Special Provisions
- 5. Excluded Special Provisions (currently utilized Special Provisions not applicable to this Contract)

3.1 Design-Build General Specification

The Design-Builder shall use Ontario Provincial Standard Specifications (OPSS), Ontario Provincial Standard Drawings (OPSD), MTO Drawings (MTOD), Structural Standard Drawings (SSD) and MTO Special Provisions currently utilized by the Ministry, according to the designer notes and warrant. Where designer notes make reference to tender items, it shall be understood to refer to the OPSS(s) most closely associated to the work.

All Ontario Provincial Standard Specifications, related MTO Special Provisions and Design-Build Special Provisions included in the Design-Build agreement are subject to the following exceptions and modifications:

- a) When the Specification refers to “Measurement for Payment” or to “Basis of Payment” such clauses and language do not apply with the exception of the specification listed below:.

Specification	Title	Date
DBSP 0599	Requirements for Statutory Bonds	Oct 2020

- b) When the Specification refers to “Unit Prices” such language does not apply.
- c) When the Specification refers to any bonus, incentive, penalty or price adjustment such language does not apply unless and only if addressed directly in a Performance Specification or a Design-Build Special Provision with the exception of the specification listed below:.

Specification	Title	Date

< **Notes to Draft:** Discuss with CMO if any SPs apply here (example: SP 199S60).> |

- d) When the Specification refers to “approval by Contract Administrator” shall mean approval by the Design-Builder’s Engineer, and requires that documentation of such approval shall be provided within two Business Days to the Contract Administrator, unless indicated otherwise in a Design-Build Special Provision.

The above does not apply to repair or remedial action proposals for non-conforming or deficient work or materials, Change Proposals (submitted by the Design-Builder), or anything associated with regulatory obligations/approvals of the Owner. In these situations, the Design-Builder shall obtain approval from the Contract Administrator.

- e) All reports, test data, submissions and other such documents required by a Specification or Special Provision shall be submitted to the Contract Administrator within two Business Days unless otherwise specified. Any non-conforming or rejectable material shall be removed and replaced.
- f) When the Specification refers to an Engineer, unless specifically noted as an Owner’s Engineer, shall mean an Engineer retained by the Design-Builder.
- g) The Ministry shall not make any payments for surplus crushed granular materials.
- h) All Quality Assurance samples (QA) shall be delivered according to SP 199F57. The designated QA lab shall normally be located [within xxx km of the contract.]

< **Notes to Draft:** enter the distance to the MTO designated QA lab. Contact Quality Assurance Office.> |

3.2 Performance Specifications

The following Performance Specifications shall be used for this Contract and are included at the end of Chapter 3.

PERF #	Title	Date
1075	Information Management	June 2011

< **Notes to Draft:** Attach applicable Performance Specifications (available in CPS) after Section 3.5.>

3.3 Design-Build Special Provisions

The following Design-Build Special Provisions that modify standard OPSSs and/or Special Provisions shall be used for this Contract and are included at the end of Chapter 3 and are also available in CPS under the section Non-standard Special Provisions (NSP) where Region = Head Office and Category = Design Build.

SP DB #	Title	Date

< **Notes to Draft:** List applicable Design-Build modified Special Provisions. **Ensure they are added to the end of this chapter as well.**>

3.4 MTO Special Provisions

In addition to Standard Special Provisions, the following Special Provisions shall be used for this Contract and are included at the end of Chapter 3 and are also available in CPS under the section Non-standard Special Provisions (NSP) where Region = Region or Head Office and Category = Capital, or are included in this document.

Region/Head Office/Included	SP #	Title	Date

< **Notes to Draft:** This table is for Non-Standard Specifications. Include the Region or Head Office in the first column **and ensure they are added to Table C-1 as well.** NOTE: all potential “fill-in” SP’s and NSP’s shall be reviewed by the Designer and ensure that fill-in requirements are included under the appropriate section in Chapter 2. The SP for Designated Substances (SP 101F21) with fill-in completed by the Ministry shall be included. All applicable SP’s shall be listed in the table, and include the text within the document for SP’s not available through CPS. Designers should work with the regional Contract Review Office to develop applicable SP lists.

< **Notes to Draft:** Seasonal Shutdown - Include applicable Regional NSSPs in Table in Section 3.4.>

< **Notes to Draft:** Attach ALL NSSPs after Section 3.5 > |

3.5 Excluded MTO Special Provisions

The following currently utilized Standard Special Provisions do not apply to this Contract.

SP #	Title

< **Notes to Draft:** MTO Project Teams (functional offices) are to provide an “exclusion” list of Standard SPs that should NOT apply to the DB Contract. This “exclusion list” populates the Table above.

Designers should work with the CSAs to develop this exclusion list.

If PERFs are being included, consult with the Functional Offices on which SPs should be “excluded”. >

3.6 Attached Specifications

<INSERT ALL PERFs / DBSPs / Non-Standard SPs HERE> |

Chapter 4: Amendment to MTO General Conditions of Contract

Introduction

OPSS.PROV 100, November 2016, MTO General Conditions of Contract as amended by the Special Provision included below shall form part of this Design-Build Request for Proposals.

AMENDMENT TO OPSS.PROV 100, NOVEMBER 2016, MTO GENERAL CONDITIONS OF CONTRACT

Special Provision

GC 1.02 Abbreviations

Subsection GC 1.02, Abbreviations, is amended by the addition of the following to clause 1.02.01:

DFO -	Department of Fisheries and Oceans
MNR -	Ministry of Natural Resources
MOL -	Ministry of Labour
OHSA -	Occupational Health and Safety Act

GC 1.04 Ontario Provincial Standards

Subsection GC 1.04, Ontario Provincial Standards, is amended as follows:

Paragraph .01 is deleted and replaced with the following:

.01 Regardless of the publishing date on OPSSs and OPSDs contained in the OPS manuals and on a MTO website, the Standards applicable to this Contract shall be according to chapters two and three of the Contract Documents with following exception:

- a) Reference to OPSS 127 means the version that is current at the time the work is carried out shall apply.

GC 1.07 Definitions

Subsection GC 1.07, Definitions, is amended by the modification of the existing definitions as follows:

Contract Documents means the Agreement, RFP, Design-Builder's proposal, MTO General Conditions of Contract, Standard Specifications and Drawings, Special

Provisions, Issued for Construction Drawings, Addenda incorporated into any aforementioned document, documents referenced in the aforementioned documents, and subsequent amendments to any of these documents made pursuant to the provisions of the Agreement.

Contractor - “Also means Design-Builder” is added to the end of the definition.

Issued For Construction Drawings – means drawings stamped by an Engineer as final documents to construct the Work.

Record Drawings and Documentation - means marked-up drawings and documentation prepared by the Contractor that show all differences, design changes, and deviations from the Issued for Construction Package(s). Record Drawings and Documentation shall be verified and stamped by Professional Engineer(s).

Superintendent – “Also means the Design-Builders Project Manager” is added to the end of the definition.

Work means the total services required by the Contract Documents.

SECTION GC 2.0 - CONTRACT DOCUMENTS

Section GC 2.01 Reliance on Contract Documents

GC Subsection GC 2.01, Reliance on Contract Documents, is amended by deleting paragraph .02 and replacing it with the following:

.02 The Owner does not warrant interpretations of data, omissions, recommendations or opinions expressed in any subsurface report provided by the Owner.

GC 2.02 Order of Precedence

Subsection GC 2.02, Order of Precedence, is amended by deleting paragraph .01 and replacing it with the following:

- .01 In the event of any inconsistency or conflict in the contents of the following documents, such documents shall take precedence and govern in the following order:
- .1 RFP Appendix B - Agreement
 - .2 Addenda
 - .3 RFP Chapter 2 - Project Requirements

- .4 Design-Build General Specification
- .5 Performance Specifications
- .6 Design-Build Special Provisions
- .7 Special Provisions
- .8 OPSSs
- .9 Issued for Construction (IFC) Package(s)
- .10 Standard Drawings
- .11 RFP (excluding chapters/ appendices referenced in this list)
- .12 RFP Chapter 4 - Amendment to OPSS.PROV 100, November 2016, MTO General Conditions of Contract
- .13 OPSS.PROV 100, November 2016, MTO General Conditions of Contract
- .14 Proposal
- .15 Working Drawings

Later dates shall govern within each of the above categories of documents. Notwithstanding the above, in the event that the Design-Builders proposal exceeds the requirements of the RFP, the Design-Builder shall be held to their proposal.

Section GC 2.0, CONTRACT DOCUMENTS, is further amended by the addition of the following subsection:

GC 2.03 Ownership and Copyright

- .01 The Contractor agrees that all Intellectual Property and every other right, title and interest in and to all concepts, techniques, ideas, information and materials, however recorded, (including images and data) provided by the Owner to the Contractor in the performance of the Work shall remain the sole property of Her Majesty the Queen in right of Ontario at all times.
- .02 The Contractor shall not use any insignia or logo of Her Majesty the Queen in right of Ontario except where required to provide the Work, and only if it has received the prior written permission of the Owner to do so.
- .03 The Owner shall be the sole owner of any Newly Created Intellectual Property. The Contractor irrevocably assigns to and in favour of the Owner and the Owner

accepts every right, title and interest in and to all Newly Created Intellectual Property in the Work, immediately following the creation thereof, for all time. To the extent that any of the Work includes, in whole or in part, the Contractor's Intellectual Property, the Contractor grants to the Owner a licence to use that Contractor Intellectual Property in the manner contemplated in this Article. The Contractor shall provide the Work to the Owner: (a) at the point of completion of the services; or (b) upon termination of this Contract; or (c) at any time upon the request of the Owner.

- .04 The presumption governing this Contract shall be that the Owner shall be the sole owner of any Intellectual Property in any form contained in any of the Work. If the Contractor's Intellectual Property forms any part of the Work, the Contractor shall notify the Owner as such prior to the delivery of the particular Deliverable containing any such Contractor Intellectual Property. In the absence of any such notice the presumption shall remain that the Owner is the sole owner of any Intellectual Property contained in the Work.
- .05 For those parts of the Work that are Contractor Intellectual Property, the Contractor grants to the Owner, a perpetual, world-wide, non-exclusive, irrevocable, transferable, royalty-free, fully paid-up right and licence: (a) to use, execute, display, distribute, perform and reproduce, in any form, copies of those Work and to practice and have practiced any process or method (or both) associated with such Work; and (b) to use, execute, make, have made, have used, display, distribute, perform, reproduce and prepare, in any form, Derivative Work based on those Work and to practice and have practiced any process or method (or both) associated with such Derivative Work; and (c) authorize other Persons including agents, contractors or subcontractors to do any of the former on behalf of the Owner.
- .06 The Contractor shall not incorporate into any Work anything that would restrict the right of the Owner to modify, further develop or otherwise use the Work in any way that the Owner deems necessary, or that would prevent the Owner from entering into any contract with any contractor other than the Contractor for the modification, further development of or other use of the Work.
- .07 The Contractor represents and warrants that the provision of the Work shall not infringe or induce the infringement of any Third-Party Intellectual Property rights. The Contractor further represents and warrants that it has obtained assurances with respect to any Third-Party Intellectual Property that any rights of integrity or any other moral rights associated therewith have been waived.
- .08 The Contractor shall obtain waivers of all rights of integrity and any other moral rights in relation to the Work from its employees, volunteers, agents and subcontractors and from any other party in the position to assert such rights in relation to any of the Work, which waivers may be invoked without restriction by any person authorized by the Owner to use the Work.

- .09 The Contractor shall place a copyright notice on all recorded Work it provides to the Owner under this Contract in the following form:
- “© Queen’s Printer for Ontario, 20XX”
- .10 For the purposes of the Copyright Act (Canada), the Contractor acknowledges that the copyright for all Intellectual Property shall belong to the Owner. At the request of the Owner, at any time or from time to time, the Contractor shall execute and agrees to cause anyone in the position to assert rights of integrity or any other moral right (including its employees, volunteers, agents and subcontractors) to execute a written assignment of copyright and waiver of moral rights in the applicable Deliverable to the Owner. The Contractor shall assist the Owner in preparing any Canadian copyright registration that the Owner considers appropriate. The Contractor shall obtain or execute any other document reasonably required by the Owner to protect the Intellectual Property of the Owner.
- .11 The Owner reserves the right to prescribe the specific manner in which the Contractor shall perform its obligations relating to this General Condition.
- .12 The Owner acknowledges that there shall be no implied warranty of fitness by the Contractor for any agreements, materials, studies, reports, requests, approvals, notices or other documents which:
- Have not been given or prepared by the Contractor or its subcontractors or agents;
 - Are incomplete due to early termination or suspension of this Contract;
 - Have been altered or revised without the prior participation or consent of the Contractor; and/or
 - Are used or applied for any purpose outside of the express limitations set out therein.
- .13 The Contractor may retain one copy of each such document solely for record-keeping purposes.
- .14 All software or software media (“Software”) provided to the Owner by the Contractor or vice versa, directly or by way of a third party, shall be free of software viruses. In the event that a virus is found in the Software and without prejudice to any other rights or remedies of either party the relevant party shall at its own expense either immediately remove such virus from the Software to the satisfaction of the other party and replace the infected Software and remedy the resulting damage.

With respect to any access to or use of Government Systems, as may be permitted under this Contract, the Contractor shall ensure that no software viruses are introduced to the Government Systems by the Contractor.

- .15 The obligations contained in this Article shall survive the termination or expiry of this Contract.

SECTION GC 3.0 – ADMINISTRATION OF THE CONTRACT

GC 3.01 Contract Administrator’s Authority

Subsection GC 3.01, Contract Administrator’s Authority, is amended as follows:

Paragraph .01 – 1st sentence is deleted and replaced with the following:

The Contract Administrator shall be the Owner’s representative during the Contract and until the issuance of the Release from Warranty Certificate.

Paragraph .03 is deleted and replaced with the following:

The Contract Administrator may inspect the Work for its conformity with the Contract Documents and to record the necessary data to establish payment quantities under the schedule of tender quantities and unit price or to make an assessment of the value of the work completed in the case of a lump sum price Contract.

GC 3.09 Subcontracting by the Contractor

Subsection GC 3.09, Subcontracting by the Contractor, is amended as follows:

Paragraph .01 is deleted and replaced by the following:

The Contractor may subcontract any portion of the Work.

Paragraph .05 – 1st sentence is deleted and replaced with the following:

The Contractor shall not subcontract any part of the Work to a Subcontractor that was identified as the Preferred Proponent in the RFP stage and subsequently failed to enter into a Contract with the Owner.

GC 3.11.02 Sharing of Cost Savings

Paragraph .01 a) is deleted in its entirety

SECTION GC 4.0 - OWNER'S RIGHTS AND RESPONSIBILITIES

GC 4.01 Working Area

Subsection GC 4.01, Working Area, is amended by deleted paragraph .01 and replacing it with the following:

- .01 The Owner shall acquire all property rights which are deemed necessary by the Owner for the construction of the Work, including temporary working easements, and shall indicate the full extent of the Working Area in the Contract Documents.

GC 4.02 Management of Excess Materials

Subsection GC 4.02, Management of Excess Materials, is amended by deleting paragraph .01 and replacing it with the following:

- .01 The Owner may identify in the Contract Documents the materials to be moved within or removed from the Working Area, and any characteristics of those materials which shall necessitate special materials management and disposition.

GC 4.13 Owner Audit

Subsection GC 4.13, Owner Audit, is amended by deleting paragraph .01 and replacing it with the following:

- .01 The Owner may inspect, review, and audit all Records associated with the Contract, including the Contractor's and Subcontractor's Records relating to the Work and Changes in the Work and Claims, at any time up to 12 months after the expiry of the warranty period. The Contractor shall complete and submit to the Contract Administrator, the Owner's standard form PH-CC-762, Subcontractor's Consent to Audit, for each Subcontractor employed by the Contractor.

SECTION GC 6.0 - INSURANCE, PROTECTION, AND DAMAGE

GC 6.02 Indemnification

Subsection GC 6.02, Indemnification, is amended by the addition of the following clauses:

- .06 The Contractor shall pay all copyright or patent royalties or both, if any, to any third party in respect of the use of the Contractor's Intellectual Property. The Contractor shall defend, at its own expense, in the name and on behalf of the Owner, any Claim brought against the Owner, its officers, personnel or agents, and any negotiations for their settlement, to the extent that any such Claim is based on a claim that the Contractor's Proprietary Information, or any part thereof, infringe on any patent or copyright or any other industrial or intellectual property right,

including trade secrets, provided the Contractor is notified promptly in writing and given authority, information and assistance (at the Contractor's expense) sufficient to permit the Contractor to defend same. The Contractor shall pay all damages and costs awarded against the Owner, its officers, personnel and agents, in any such suit or proceeding; but the Contractor shall not be responsible for any damages, costs or expense where a settlement has been incurred by or on behalf of the Owner without the Contractor's prior written consent or where the Owner's conduct in any way compromises the defence of such suit or proceeding.

- .07 The Contractor shall promptly discharge all settlement expenditures, if any, and all liabilities, damages, monetary awards and costs awarded against the Owner by a court or tribunal of competent jurisdiction, arising out of or in connection with such alleged infringement or misappropriation, together with all related legal fees and expenses; provided however, that the Contractor shall not be responsible for any such liabilities, damages, monetary awards, costs and expenses (including any related legal fees and expenses) where a settlement has been incurred by or on behalf of the Owner without the Contractor's prior written consent or where the Owner's conduct in any way compromises the defence of such suit or proceeding.
- .08 In the event that the Contractor's Intellectual Property or part thereof constitutes an infringement or violation and the use thereof is enjoined, the Contractor shall be in breach of this Contract and, without prejudice to such other legal rights and remedies that may be available to the Owner, the Contractor shall, at its expense:
- a) Procure for the Owner the right to continue using either the Contractor's Intellectual Property or part thereof;
 - b) Replace same with a non-infringing substitute or part thereof; or
 - c) Modify either the Contractor's Intellectual Property or part thereof to the Owner's satisfaction so it becomes non-infringing.
- .09 If the Contractor is unable to make available any of the remedies specified above, the Contractor shall, at its sole expense, promptly upon the Owner's demand de-install and remove the Contractor's Intellectual Property and refund all amounts paid by the Owner to the Contractor with respect to such Contractor's Intellectual Property without prejudice to such other legal rights and remedies as may be available to the Owner. In such event any financial obligations of the Owner with respect to further support, maintenance and services relating to the Contractor's Intellectual Property cease at the date the Owner ceases to use the Contractor's Intellectual Property.

SECTION GC 7.0 - CONTRACTOR'S RESPONSIBILITIES AND CONTROL OF THE WORK

GC 7.01.07 Critical Path Schedule

Paragraph .01 of Subsection GC 7.01.07, Critical Path Schedule, is deleted and replaced with the following:

- .01 Initial and updated critical path schedules shall be prepared and submitted as detailed below:
- a) Two paper copies and one electronic copy in the format of the scheduling software and readable by the scheduling software of the initial Work schedule shall be submitted to the Regional Construction Management Office within seven Business Days of receipt of the Notice of Selection.
 - b) One hard copy of the initial Work schedule shall also be submitted to the Contract Management Office, St. Catharines, with the executed copies of the Contract.
 - c) Where the Contractor has revised the initial Work schedule prior to the first site meeting, the revised construction schedule shall be submitted to the Contract Administrator at least three Business Days prior to the meeting.
 - d) Two paper copies and one electronic copy in the format of the scheduling software and readable by the scheduling software of an updated schedule shall be prepared and submitted to the Contract Administrator not less than three Business Days prior to all regularly scheduled site meetings. All revisions shall be highlighted on the updated schedule. Updated schedules submitted shall reflect actual progress of the Work and any additions, deletions, or revisions to the Work that have arisen since the previous update. At regularly scheduled site meetings, the Contractor shall explain the revisions and any increase or decrease in resources required to complete the Work on time. At the Contract Administrator's request, and at no additional cost to the Owner, the Contractor shall submit an updated schedule within seven Business Days of any major increase or decrease in quantities, or major change in the staging or perceived change in character of the Work.
 - e) All copies shall be legible and shall show the date the schedule was prepared.

GC 7.02 Layout

Subsection GC 7.02, Layout, is amended as follows:

Paragraphs .01 and .02 are deleted and replaced with the following:

- .01 Prior to commencement of construction, the Contractor shall locate on site those property bars and benchmarks that are necessary to delineate the Work Area and to lay out the Work.

.02 The Contractor shall be responsible for the preservation of all property bars, reference points or survey monuments while the Work is in progress, except those property bars that require removal to facilitate the Work. Any property bars disturbed, damaged, or removed by the Contractor's operations shall be replaced under the supervision of an Ontario Land Surveyor, at no cost to the Owner.

Paragraphs .06 and .09 are deleted in their entirety.

GC 7.08 Maintaining Roadways and Detours

Paragraph .02 of Subsection 7.08, Maintaining Roadways and Detours, is amended by deleting the 1st two sentences and replacing them with the following:

.02 The Contractor shall not be required to maintain a Roadway through the Working Area before the Contractor has commenced the Work, or during seasonal shutdown or within any sections of the Roadway where the general warranty period has commenced. Responsibility for maintenance shall be transferred between the Contractor and the Owner at the commencement of the Work, the start and end of each seasonal shutdown period, and the start of the general warranty period.

GC 7.10 Approvals and Permits

Subsection GC 7.10, Approvals and Permits, is amended by deleting paragraph .01 and replacing it with the following:

.01 Except as specified in paragraph GC 7.10.02, the Contractor shall obtain any permits, licenses, and certificates required for the performance of the Work that are in force at the date of RFP Closing.

GC 7.13.02 Environmental Incident Management under Legislation Protecting the Environment and Natural Resources

Clause GC 7.13.02, Environmental Incident Management under Legislation Protecting the Environment and Natural Resources, is amended by the addition of the following at the end of paragraph .01.

g) Gasoline Handling Act, RSO 1990.

GC 7.18 General Warranty

Subsection GC 7.18, General Warranty, is amended by deleting paragraph .02 and replacing it with the following:

- .02 Subject to the previous paragraph, the Contractor shall correct promptly at no cost to the Owner, defects or deficiencies in the Work that appear during the period of 24 months after the date of Contract Completion as set out in the Contract Completion Certificate or such longer periods as may be specified for certain Materials or components of the Work or longer general warranty periods specified elsewhere in the Contract Documents. The Owner shall promptly give the Contractor written notice of observed defects or deficiencies. The Contractor shall submit a comprehensive repair proposal, including traffic control measures, to the Owner within 15 Days of receiving written notification of the defects or deficiencies.

Notwithstanding the above, on Contracts lasting more than 1 construction season, the Owner shall allow the general warranty period (24 months unless otherwise specified elsewhere in the Contract Documents) to commence prior to the date of Contract Completion for complete sections of Roadways that have been completed in their entirety, have a value of greater than \$5,000,000, and are in use by public traffic. In such cases, the Contractor shall apply in writing to the Owner for approval of the start dates of the general warranty for the selected sections of completed Roadways. The written request shall be submitted to Contract Administrator no later than 10 Days prior to the proposed general warranty start dates and include details as to the limits, location, and start date requested. If a request is granted, the Contractor shall correct promptly at no cost to the Owner, defects or deficiencies in the completed section of Roadway, which appear during the warranty period.

SECTION GC 8.0 - MEASUREMENT AND PAYMENT

GC 8.01 Measurement

GC 8.01.01 Quantities

Clause GC 8.01.01, Quantities, is amended as follows:

Paragraph .02 is deleting and replaced it with the following:

- .02 Measurement of the quantities of the Work shall be by percent completion of the items.

Paragraph .03 is added to the end of the clause:

- .03 Measurement of Mobilization shall be according to the following schedule:
- a) Upon commencement of mobilization for construction, 25% of the total amount bid for mobilization or 2.5% of the total construction value (excluding mobilization), whichever is less.

- b) Upon completion of 5% of total construction value, 37.5% of the total amount bid for mobilization or 5% of the total construction value (excluding mobilization), whichever is less.
- c) Upon completion of 10% of total construction value, 37.5% of the total amount bid for mobilization or 10% of the total construction value (excluding mobilization), whichever is less.
- d) Upon substantial performance – the remaining amount of the item.

This item shall consist of all preparatory work necessary for the movement of personnel and equipment to the project site. This item shall be exclusive of all labour, equipment, and material to be paid under other items.

GC 8.02.04.01 Progress Payment Certificate

Subsection GC 8.02.04.01, Progress Payment Certificate, is amended by deleting paragraph .01 and replacing it with the following:

- .01 The Contractor shall submit an application for progress payment monthly after starting the Work on this Contract. This application for progress payment shall be for work completed at the agreed to monthly cut-off date.

Within 5 Business Days following the agreed to monthly cut-off dates, the Contractor shall submit an updated application to the Contract Administrator.

The application shall be made by supplying the Contract Administrator with an invoice detailing the progress of each item at the agreed monthly cut-off date. The invoice shall be submitted on Owner's Standard Form PH-CC-882.

- a) Subtotals shall be detailed for tender items to match the Itemized Bid Form, and a subtotal for Change Orders.
- b) The item information appearing on the invoice shall agree exactly with those as shown in the Itemized Bid and Evaluation Form.

Invoices shall be submitted in hard-copy and digital format. The Contract Administrator shall review the invoice for completeness and subsequent approval for payment within five Business Days.

The Contract Administrator shall notify the Contractor immediately if there are any discrepancies with the invoice. The Contractor shall be requested to resubmit the invoice, with any noted correction made, within three Business Days.

In the event the Contractor disagrees with the Contract Administrator's assessment, the Contractor shall notify the Contract Administrator of their disagreement within three Business Days. The Contract Administrator shall

review and provide the Contractor with a final response within five Business Days.

The Owner shall pay the approved invoice within 28 Days after the application for progress payment date or after the date of receipt of any invoice that had to be resubmitted due to deficiencies, errors, or non-compliance with the Owner's request in the preceding paragraphs.

The Owner shall not process for payment any changes less than \$1,000 from the amount shown on the previous payment certificate.

GC 8.02.04.02 Payment Adjustment for Changes in the Fuel Price Index

Clause GC 8.02.04.02, Payment Adjustment for Changes in the Fuel Price Index, is deleted in its entirety.

DESIGN-BUILD REQUEST FOR PROPOSALS

APPENDIX A - Submission Forms

Conflict of Interest - Certification

PART 1

1. a) I/We hereby confirm that there is not nor was there any actual or perceived conflict of interest in our submitting the proposal or performing the Work required by the Contract.

[strike out a) or b), whichever does not apply:]

b) The following is a list of situations, each of which may be a conflict of interest, or appears as potentially a conflict of interest in our company submitting the proposal or the contractual obligations of the Design-Builder under the Contract.

(add attachments if required)

2. a) In submitting the proposal, our company has no knowledge of or the ability to avail ourselves of confidential information of the Crown (other than confidential information which may have been disclosed by the Minister to the Proponents in the normal Request For Proposal).

[strike out a) or b), whichever does not apply:]

b) In submitting the proposal, our company has knowledge of or the ability to avail ourselves of confidential information of the Crown (other than confidential information which may have been disclosed by the Minister to the Proponents in the normal Request For Proposal) and the confidential information was relevant to the Work, its pricing or the Request For Proposal evaluation process.

Name

Proponent's Signature

Position

Date

Conflict of Interest - Disclosure

PART 2

The following people participated in the preparation of our proposal:

Name	Address	Telephone Number	Contribution or % of Work
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____

The following is a list of individuals who are former employees of the Ontario Public Service (OPS) and have ceased that employment prior to the proposal Submission Deadline:

Name	Job Classification of Last Position within OPS	Ministry/Agency of OPS Where Last Employed
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____

Name

Proponent's Signature

Position

Date

Form of Offer

1. Proponent Information

a. The full legal name of the Proponent is:

b. Any other relevant name under which the Proponent carries on business is:

c. The jurisdiction under which the Proponent is governed is:

d. The name, address, telephone, facsimile number and e-mail address of the contact person for the Proponent is:

e. Whether the Proponent is an individual, a sole proprietorship, a corporation, a partnership, a joint venture, an incorporated consortium or a consortium that is a partnership or other legally recognized entity:

2. Mandatory Submission Requirements

The Proponent encloses herewith as part of the proposal, the mandatory submissions set out below:

Mandatory Submission Requirements	Yes	Page
Technical Proposal		
Transmittal Letter		

Mandatory Submission Requirements	Yes	Page
Conflict of Interest – Certification		
Conflict of Interest – Disclosure		
Form of Offer		

3. The Proponent:

Has carefully examined the RFP documents and has a clear and comprehensive knowledge of the Deliverables required under the RFP. By submitting the proposal, the Proponent agrees and consents to the terms, conditions and provisions of the RFP, and offers to provide the Deliverables in accordance therewith at the price set out in the price proposal.

Confirms that by submitting a proposal they agree to conduct the work according to the commitments made in their DB-Expression of Interest submitted in response to the DB-EOI for this project.

Is deemed to have read and accepted all Addenda issued by the Ministry. The onus remains on Proponents to make any necessary amendments to their proposal based on the Addenda. The Proponent is requested to confirm that it has received all Addenda by listing the Addenda numbers or, if no Addenda were issued, "None":

Agrees that any information provided in this proposal, even if it is identified as being supplied in confidence, may be disclosed where required by law or if required by order of a court or tribunal. The Proponent hereby consents to the disclosure, on a confidential basis, of this proposal by the Ministry to the Ministry advisers retained for the purpose of evaluating or participating in the evaluation of this proposal.

Agrees that by signing the Form of Offer, the Proponent agrees, if selected, to provide proof of insurance coverage as required in Chapter 4 of the RFP. If selected, the Proponent shall provide proof of insurance coverage in the form of a valid certificate of insurance prior to the execution of the Agreement by the Ministry.

Understands that in the event its proposal is selected by the Ministry, in whole or in part, the Proponent agrees to finalize and execute the Agreement in the form set out in Appendix B to the RFP according to the terms of the RFP.

|

Signature of Witness

Signature of Proponent Representative

Name of Witness

Name and Title

Date:

I have authority to bind the Proponent.

Itemized Bid and Evaluation Form

Proponent Name: _____

Date: _____

Item #	Tender Item #	Description of Item	Detailed Price	Total Price
		Design Services		
1	9998-0010	Design Services		\$0.00
		General		
2	9998-0012	Project Administration/Management		\$0.00
		General Administration & Management		
		Warranty Administration		
		Performance Bond		
		Labour and Material Payment Bond		
		Warranty Repair		
		Stipend (DB Major projects ONLY)		
		Other		
		Highway/Road Construction		
3	9998-0020	General Grading		\$0.00
4	9998-0030	Pavement		\$0.00
		Concrete		
		Hot Mix		
		Granular "A"		
		Granular "B"		
		Other		
5	9998-0040	Drainage, Watermain & Utility		\$0.00
		Removals		
		New		
		Other		
6	9998-0060	Electrical		\$0.00
		Removals		
		Temporary		
		New		
		ATMS		
		Other		
7	9998-0070	Traffic Safety		\$0.00
		Temporary		
		New		
		Other		
8	9998-0080	Environmental & Landscape		\$0.00

		Temporary		
		New		
		Other		
		Structural		
9	9998-0090	Bridge Foundations		\$0.00
10	9998-0091	Bridge Substructure		\$0.00
11	9998-0092	Bridge Superstructure		\$0.00
12	9998-0093	Culverts > 3M		\$0.00
13	9998-0095	Other Structures		\$0.00
		Other		
14	9998-0014	Mobilization		\$0.00
Total				\$0.00

Notes

1. Please fill in all "Blue" areas of the sheet.
2. The Total Bid Price is the sum of all Item Prices and shall equal the Summary Bid previously submitted.
3. The Item Prices shall reflect a distribution of costs similar to what would be expected in a conventional item listing.
4. The Item Prices are to be determined by following the Item Price Guidelines attached.

Item Price Guidelines

The following definitions are provided to assist in determining the Item Prices to be entered on the Itemized Bid Form. The contents of the definitions are not intended to be an exhaustive list of all work that could be included in each item. Costs shall include removal, installation, replacement, and/or adjustment of the defined works. The definitions apply to both permanent and temporary work.

Project Administration/Management - All costs associated with the administration and/or management of the design and construction of the Work, including management of: material quality, safety, human resources, Statutory Bonds, and warranties. For DB Major projects, include the total stipend value.

Design Services - All costs associated with providing design services for the Work for the entire duration of the contract.

General Grading - All costs associated with site grading work, including: earth and rock excavation, clearing and grubbing, and ditching.

Pavement - All costs associated with the pavement structure, including: granular base and sub-base, asphalt, concrete and composite pavements, tack coating, sidewalks, curb and gutter, and surface treatment.

Drainage, Watermain and Utilities - All costs associated with sewers, watermains, and other non-electrical utilities, including: pipes and culverts, sub-drains, jacking and boring, tunnelling, structures (i.e. manholes, chambers, and maintenance holes), appurtenances

(i.e. valves, hydrants, services, and thrust blocks), bedding and backfill, and cathodic protection.

Electrical - All costs associated with electrical equipment, including: cables, ducts, grounding, poles, structures (i.e. hand holes, maintenance holes, cabinets, and chambers), traffic signals, vehicle detection equipment, and power supply equipment.

Traffic Safety - All costs associated with traffic safety, including: traffic control signing, delineation, end treatments, arrestors and roadway protection systems.

Environmental & Landscaping - All costs associated with environmental and landscaping, including: tree protection, erosion and sedimentation control measures, noise barriers, watercourse and fisheries protection, natural habitat protection, topsoil, seed and cover, and sodding.

Bridge Foundations: All costs associated with the portion of a bridge structure that transfers the weight of the bridge into the founding strata and include such elements as footings, piles, caissons etc.

Bridge Substructure: All costs associated with that part of a bridge, including abutments and piers, that support the superstructure but excluding bridge foundations.

Bridge Superstructure: All costs associated with that part of a bridge that spans water, roadway or railway or other obstruction and is supported by the substructure including main load carrying members, deck, sidewalks, barriers, light pole bases etc. Where the contract requires the replacement of certain elements of the superstructure, the costs shall be associated with these components only.

Culverts > 3.0m - All costs associated with large culverts (width, height, or diameter is greater than 3.0m), including: footings, bedding, and backfill.

Other Structures - All costs associated with structures not listed above, including: sign footings, and sign support structures.

Mobilization - All costs associated the preparatory work necessary for the movement of personnel, equipment, and supplies to the project site.

DESIGN-BUILD REQUEST FOR PROPOSALS

APPENDIX B - Agreement

Agreement

DESIGN-BUILD CONTRACT –20##-####

This Contract is made in duplicate as of the _____ day of _____, 20XX,

B E T W E E N:

Her Majesty the Queen in right of Ontario as represented by the Minister of Transportation

(the "Ministry")

- and -

[enter Design-Builder name]

(the "Design-Builder")

WHEREAS the Ministry issued a Request for Proposals for design and construction services in the [name] Area under Contract Number [enter number (s)] (the "RFP", as herein defined);

AND WHEREAS the design and construction services (the "Work", as herein defined) are required from [enter beginning and end dates]

AND WHEREAS the Design-Builder has represented that it has the knowledge, ability, and expertise to carry out the design and construction services and supervise and manage the Work as required by the Ministry and as contemplated in this Contract;

AND WHEREAS the Ministry has negotiated with the Design-Builder to provide such design and construction services in the [name of area] Area from [beginning and end dates] under the terms and conditions provided herein;

AND WHEREAS the Design-Builder shall provide a lump sum stipend in the amount of \$ [enter stipend amount] to each of the unsuccessful Proponents listed below within 30 Days following the date of this Agreement;

[enter unsuccessful Proponent Name & contact information]

[enter unsuccessful Proponent Name & contact information]

AND WHEREAS the Design-Builder shall provide the Contract services (the Work) for a Lump Sum price of \$ [enter Price proposal price]

IN CONSIDERATION OF the covenants and agreements herein contained and for other good and valuable consideration (the receipt and sufficiency of which are hereby contained and acknowledged), the parties hereto covenant and agree to carry out the terms and conditions of this Contract;

NOW THEREFORE THIS AGREEMENT WITNESSES that the parties agree as follows:

TERMS AND CONDITIONS

1.0 AGREEMENT

- 1.1 That Design-Build Contract 20##-#### (the "Contract") is comprised of the following documents:
 - (a) this Design-Build Agreement (and any future amendments made according to the RFP);
 - (b) the Request For Proposals for Contract 20##-####, including, all Appendices, Addenda [enter #1,2,3,4 as appropriate], forms and information provided therewith, and all documents referred therein, unless otherwise specified (the "RFP");
 - (c) the Design-Builder's proposal for Contract 20##-####; including any correspondence
 - (d) (if applicable) the Guarantee, as required by the DB-EOI Section 4.1.1., Joint Ventures or Joint Bids, of the RFP, herein attached as Schedule 2;
 - (e) any specifications or standards as referenced in the above documents; and
 - (f) the Design-Builder's insurance as required by Chapter 4 General Conditions
 - (g) the following ATCs: [enter ATC #'s and titles that MTO identified as suitable AND are included in the Proponent's proposal] |

1.2 The parties agree that the recitals are true and shall form part of this Contract.

IN WITNESS WHEREOF the parties hereto have executed this Contract.

Her Majesty the Queen in right of the Province of Ontario as represented by the Ministry of Transportation	[Design-Builder name] (Corporate Seal)
Name:	Name:
Title:	Title:

Signature:	Signature:
Date:	Date:

Design-Build Guarantee

1.1 Definitions

"Contract", "the Contract", "this Contract" means the Design-Build Contract for DB-20##-#### to which this Design-Build Guarantee is attached and of which this Design-Build Guarantee forms a part.

" Design-Build Guarantee", "this Design-Build Guarantee", "the Design-Build Guarantee", "whereto", "hereof", "herein", hereby", "hereunder", and similar expressions mean this guarantee of all of the undersigned of the performance by the Design-Builder of all of its obligations under the Contract.

"Guarantor" and "Guarantors" means all of the undersigned, collectively, and their respective permitted successors and assigns.

1.2 Guarantee

Each of the Guarantors, on a joint and several basis, does hereby absolutely, unconditionally and irrevocably guarantee, as a direct obligation, and as principal obligor and not as a surety, the full and prompt performance and observance by the Design-Builder of each and every covenant, agreement, undertaking and obligation of the Design-Builder contained in the Contract as same may be amended or waived according to the provisions of this Contract (collectively, the "Liabilities").

1.3 General Provisions Relating to the Guarantee

- (a) Each and every default in performance, observance or payment of any of the Liabilities by the Design-Builder shall give rise to a separate claim and cause of action hereunder, and separate claims or suits may be made and brought, as the case may be, hereunder as each such default occurs.
- (b) The Design-Build Guarantee herein provided for shall be a continuing, absolute and unconditional guarantee of performance, observance and payment as aforesaid and shall remain in full force and effect until each and all of the Liabilities shall have been fully and satisfactorily discharged according to the terms and provisions of the Contract and the Guarantors shall have fully and satisfactorily discharged all of their obligations under this Design-Build Guarantee.
- (c) The liability of the Guarantors hereunder shall remain in full force and effect irrespective of:
 - (i) the legality, validity, regularity or enforceability of the Contract and shall in no way be affected or impaired by (and no notice of the Guarantors shall be required in respect of) any compromise, waiver, renewal, extension, indulgence, amendment, addition, deletion, change or modification with

- respect to the Liabilities or any of them or any release of any security (including any other guarantee, letter of credit or bond) for or in respect of the Liabilities or any of them; or
- (ii) any failure, neglect or omission on the part of the Ministry or any other person to give the Guarantors (or any of them) notice of the occurrence of any default by the Design-Builder under or with respect to the Liabilities, or to realize upon any obligations or liabilities of the Design-Builder; or
 - (iii) any amalgamation, merger or consolidation of the Design-Builder or the Guarantors (or any of them) or any sale, lease or transfer of any of the assets of the Design-Builder or any of the Guarantors; or
 - (iv) any change in the ownership of any shares of the capital stock of the Design-Builder or the Guarantors (or any of them); or
 - (v) any other occurrence or circumstance whatsoever, whether similar or dissimilar to the foregoing and any other circumstance that might otherwise constitute a legal or equitable defense or discharge of the liabilities of a guarantor or surety that might otherwise limit recourse against the Guarantors or any of them.
- (d) The obligations and liabilities of the Guarantors hereunder shall not be impaired, diminished, abated or otherwise affected by (i) any set-off, defense or counterclaim that the Design-Builder or any of the Guarantors may have or claim to have, at any time or from time to time, or (ii) the commencement by or against the Design-Builder or any of the Guarantors of any proceedings under any bankruptcy or insolvency law or laws relating to the relief of debtors, readjustment of indebtedness, reorganizations, arrangements, compositions or extension or other similar laws.
- (e) The Ministry shall not be bound to exhaust its recourse against the Design-Builder or others or any securities (including, any letter of credit and/or bond) or other guarantees it may at any time hold before being entitled to performance of payment of the Liabilities from the Guarantors and the Guarantors renounce all benefits of discussion and division.
- (f) It is the intent and purpose hereof that the Guarantors shall not be entitled to and do hereby waive any and all defenses available to guarantors, sureties and other secondary parties at law or in equity. Without limiting the generality of the foregoing, each of the Guarantors hereby waives notice of acceptance of this Contract and of the non-performance by the Design-Builder, diligence, presentment, protest, dishonour, demand for payment from the Design-Builder and notice of non-payment or failure to perform on the part of the Design-Builder and all other notices whatsoever. The Design-Build Guarantee hereunder is a guarantee of payment, performance and compliance. In order to hold the Guarantors liable hereunder, there shall be no obligation on the part of the

Ministry at any time to demand or resort for payment of performance to the Design-Builder, its properties or assets or to any security, property or other rights or remedies whatsoever, nor shall there be any requirement that the Design-Builder be joined as a party to any proceeding for the enforcement of any provision of this Design-Build Guarantee and the Ministry shall have the right to enforce the provisions of this Design-Build Guarantee irrespective of whether or not legal proceedings or other enforcement efforts against the Design-Builder are pending, or the Ministry is seeking resort to or realization upon of from any of the foregoing. Without limiting the foregoing, it is understood that repeated and successive demands may be made and recoveries may be had hereunder as and when from time to time, the Design-Builder shall default under or with respect to any of the Liabilities, and that, notwithstanding recovery hereunder for or in respect of any such default, the guarantee herein shall remain in force and effect and shall apply to each and every subsequent default.

- (g) Without prejudice to and without releasing, discharging, limiting or otherwise affecting in whole or in part the obligations and liabilities of the Guarantors under this Design-Build Guarantee and without in any way requiring the consent of or giving notice to the Guarantors or any of them, the Ministry may grant time, renewals, extensions, indulgences, releases and discharges to and accept compositions from or otherwise deal with the Design-Builder and/or the Guarantors (or any of them) or others, including any other guarantors, as the Ministry may see fit and the Ministry may take, abstain from taking or perfecting, vary, exchange, renew, discharge, give up, realize on or otherwise deal with security and guarantees in such manner as the Ministry may see fit.
- (h) The Design-Build Guarantee hereunder shall continue to be effective, or be reinstated, as the case may be, if at any time payment, or any part thereof, of any of the obligations hereunder is rescinded or shall otherwise be restored or returned by the Ministry upon the insolvency, bankruptcy or reorganization of the Design-Builder, or otherwise, all as though such payment had not been made.
- (i) The liability of the Guarantors under the Design-Build Guarantee herein shall arise forthwith after demand has been made in writing on the Guarantors, and the liability of the Guarantors shall bear interest from the date of such demand at the Rate of Interest.
- (j) The Guarantors jointly and severally agree to pay to the Ministry any and all reasonable out-of-pocket costs and expenses, including legal fees, incurred by the Ministry in connection with enforcing any of its rights hereunder.
- (k) A waiver by the Ministry of any right or remedy hereunder on any one occasion shall not be construed as a bar to any right or remedy which the Ministry would otherwise have had on any future occasion with regard to any subsequent breach. No failure to exercise nor any delay in exercising on the part of the Ministry any right, power or privilege hereunder shall operate as a waiver thereof;

nor shall any single or partial exercise of any right, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The rights and remedies herein provided are cumulative and may be exercised singly or concurrently, and are not exclusive of any other rights and remedies provided under this Contract or otherwise by law.

(Company Name)

(Company Name)

By: _____
An Authorized Signing Officer

By: _____
An Authorized Signing Officer

Name: _____

Name: _____

Position: _____

Position: _____

Date: _____

Date: _____

Insert additional Companies as required

DESIGN-BUILD REQUEST FOR PROPOSALS

APPENDIX C - Index of Ministry Supplied Information

The following is a listing of information available to Proponents as part of this RFP.

Files listed in Table C-1 can be accessed on the RAQS/MERX website at:

www.raqs.merx.com.

Files listed in Table C-2 shall be provided separately to the short-listed Proponents. Reliance on the information is according to Section 1.10 Ministry Supplied Information.

All requirements, designs, documentation, plans and information viewed or obtained by the Proponents in connection with this RFP are the property of the Ministry and shall be treated as confidential and not used for any purpose other than replying to this RFP and the fulfillment of the Work. Upon request of the Ministry, all such designs, documents, plans and information shall be returned to the Ministry.

< **Notes to Draft:** Documents not otherwise available to Proponents, shall be provided by the Ministry.

Table C-1 includes all files that can be uploaded on the RAQS. RAQS compatible extensions are: *.txt, *.doc, *.docx, *.xls, *.xlsx, *.xlsm, *.pdf, *.wk1, *.wk3, *.wk4, *.lwp, *.wpd, *.jpg, *.jpeg, *.pps, *.ppt, *.pptx, *.dwf, *.dxf, *.gif, *.png, *.bmp, *.tif

Table C-2 is comprised of files not supported by RAQS; e.g. CAD & zip files.>

Table C-1 – Information available on RAQS/MERX

Document #	Document File Name	Document Description

Table C-2 – Information to be provided to the short-listed Proponents

Document #	Document File Name	Document Description

DESIGN-BUILD REQUEST FOR PROPOSALS

APPENDIX D – Certificate of Completion Application

Certificate of Design and Construction

<Company Letterhead>

<Date>:

<File>:

Attention: <Name>

<Company>

<Address>

<Town, Prov, Postal>

Dear <xxx>:

Reference: <Project Title>

CERTIFICATE OF DESIGN AND CONSTRUCTION

<Design-Builder name> is responsible for the design and construction of all elements of the Work (including the work of our sub-consultant(s), <xxx>). We have completed the Work in accordance with the Contract and are covered by appropriate Professional Liability insurance policies.

All government and agency authorizations and approvals have been applied for, obtained and/or complied with, as may be required. There are no outstanding infractions of laws and regulations.

All quality inspection and testing of the Work has been completed in accordance with the Design-Builder's Quality Management Plan and the Contract Documents.

<Close-off>

<Company>

<Signature>, P. Eng.

<Title>

<Contact Information>