

September 18, 2015  
(As amended and restated to incorporate Addenda 1-24)

# **ALBERTA TRANSPORTATION REQUEST FOR PROPOSALS**

**FOR THE  
DESIGN, BUILD, FINANCE, OPERATE  
OF  
SOUTHWEST CALGARY RING ROAD  
CITY OF CALGARY, ALBERTA, CANADA**

**VOLUME 1 of 2**

**INSTRUCTIONS TO PROPONENTS (ITP)**

**Government of Alberta** ■  
Transportation

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## Introduction

Alberta Transportation (the “**Department**”) is pleased to invite the Proponents to respond to this Request for Proposals (“**RFP**”) for the Southwest Calgary Ring Road project. This RFP consists of the following two volumes:

- 1) **Volume 1: Instructions To Proponents (“ITP”)**, which summarizes the DBFO’s scope and objectives, presents information relating to the selection process, and lists the Submission Requirements including the required forms; and
- 2) **Volume 2: DBFO Agreement (including Schedules 1-18 (Schedule 18 sets out the technical requirements for the DBFO))**, which constitute the draft version of the DBFO Agreement that Proponents may comment upon prior to re-issuance in final form. The final form of the DBFO Agreement will be executed by the Successful Proponent and the Department. There shall be no post-selection negotiations on the final form of the DBFO Agreement.

The RFP and any supporting information from the Electronic Data Room or otherwise provided by the Department are being made available only to Respondents who have been short-listed and have subsequently been invited to submit their Proposals for the DBFO. Such information is made available on the condition that it is to be used in connection with the DBFO and for no other purpose whatsoever. Information contained herein or otherwise made available to Proponents must be treated as confidential. However, for greater certainty, such information may be shared with Proponents’ advisors, with potential lenders, and with potential lenders’ advisors, provided that Proponents ensure that these parties treat all such information as confidential as well.

Proponents are referred to Section 6 (Other Matters) of the ITP which contains a comprehensive exclusion of liability on the part of the Government of Alberta, the Department, and its advisors in respect of the RFP. Each Proponent must make its own independent assessment of the DBFO and determine its interest in the DBFO and the content of its Proposal.

# Section 1

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## General



## 1.0 General

### 1.1 Background

On July 8, 2015, the Department issued a Request for Qualifications (“**RFQ**”) for the design, build, financing, operation, maintenance, and rehabilitation of the Southwest Calgary Ring Road. Five submissions to the RFQ were received by the deadline of August 12, 2015. A short-list of three Respondents was determined and announced on September 16, 2015 by the Minister of Transportation. The three Proponents are (in alphabetical order):

- Mountain View Partners;
- Southwest Connect; and
- Valley Link Partners.

This RFP is being issued to invite detailed Proposals from the three Proponents. Details with respect to the process for the selection of the Preferred Proponent, including the schedule, Submission Requirements and Proposal evaluation are provided in Section 5 of this ITP.

### 1.2 Project and O&M Overview

The Project involves the design and construction of the Southwest Calgary Ring Road in the City of Calgary, Alberta, Canada (the “**New Infrastructure**”). The New Infrastructure consists of approximately 31 kilometres of a new six- and eight-lane divided freeway, plus additional basic and auxiliary lanes, and includes 14 interchanges, river crossing structures at the Elbow River, a creek crossing structure at Fish Creek, a culvert at Cullen Creek, three watercourse realignments and additional pre-grading for future interchanges. This Project will advance the completion of the Calgary Ring Road, with the remaining West Calgary Ring Road as the final segment to be completed.

The New Infrastructure is divided into two distinct parts in this RFP. The priority New Infrastructure (the “**Priority New Infrastructure**” or the “**PNI**”) is that portion of the New Infrastructure to be located on lands recently acquired from the Tsuut’ina Nation (the “**TTN**”), as further described in the draft DBFO Agreement, see also Section 1.13 below. The remaining New Infrastructure (the “**Remaining New Infrastructure**” or the “**RNI**”) is that portion of the New Infrastructure which is not the Priority New Infrastructure, as further described in the draft DBFO Agreement. The Priority New Infrastructure and Remaining New Infrastructure have different target dates for opening to traffic and separate payment streams from the Province, among other differences, as further described in this RFP (including Volume 2, the draft DBFO Agreement).

The Successful Proponent will be responsible for the operation and maintenance (including rehabilitation) of the New Infrastructure.

In addition, the Successful Proponent will be responsible for the operation and maintenance (but not rehabilitation) of certain segments of highway (the “**Existing Infrastructure**”), which have been constructed by the Department. The Existing Infrastructure includes the bridge structures that are adjacent to or connected with the New Infrastructure that carry the future Calgary Ring Road northbound over Fish Creek and carry eastbound Highway 8 over the Elbow River.

The New Infrastructure and the Existing Infrastructure are shown in drawings forming Appendix A to Schedule 18 to the DBFO Agreement. More detailed descriptions of the New Infrastructure and the Existing Infrastructure are provided in the DBFO Agreement, the Technical Requirements and the Electronic Data Room.

### 1.3 DBFO Overview

It is the Department’s intention to enter into a DBFO Agreement with the Successful Proponent for the implementation of the DBFO.

Key elements of the transaction include:

- Design, construction, and financing of the New Infrastructure
- Operation and maintenance (including rehabilitation) of the New Infrastructure
- Operation and maintenance (but excluding rehabilitation) of the Existing Infrastructure
- An approximately four-year construction period for the Priority New Infrastructure
- An approximately five-year construction period for the Remaining New Infrastructure
- An approximately thirty-year Operating Period for the New Infrastructure
- Construction progress payments in an amount that is between 50% and 70% of the capital costs of the New Infrastructure, payable to the Successful Proponent by the Province during the Construction Period. The actual amount will be determined in the future and confirmed by an addendum to this RFP
- Payments to the Successful Proponent over the PNI Operating Period and Operating Period consisting of:
  - Constant fixed payments for the remaining capital costs of the New Infrastructure not covered by construction progress payments
  - Indexed payments for the costs associated with the operation, maintenance, and rehabilitation of the New Infrastructure
  - Indexed payments for the costs associated with the operation and maintenance of the Existing Infrastructure
- Performance-based and other adjustments to the above payments

- Handback of the Infrastructure at the end of the Operating Period in accordance with pre-determined conditions

Further details are provided in the remainder of this ITP and in the DBFO Agreement, including the Technical Requirements.

## **1.4 Project Timing**

The Priority New Infrastructure must be opened to traffic as a paved multi-lane, divided roadway on October 1, 2020. The Remaining New Infrastructure must be opened to traffic as a paved multi-lane, divided roadway on October 1, 2021. The New Infrastructure may be opened to traffic earlier provided that it has met the relevant requirements in the DBFO Agreement; however, payments under the DBFO Agreement will not begin in respect of the PNI or the RNI prior to October 1<sup>st</sup> of 2020 and 2021, respectively. Only minor works, not affecting the safe use of the roadway, may remain outstanding on Traffic Availability.

Responsibilities for the operation and maintenance of the Existing Infrastructure will be transferred to the Successful Proponent two months after execution of the DBFO Agreement.

## **1.5 DBFO Objectives**

The Department has structured the DBFO to meet the following specific objectives, which are listed in no particular order:

- to expeditiously complete the procurement process;
- to complete construction of the PNI Project so that it achieves Traffic Availability on October 1, 2020;
- to complete construction of the RNI Project so that it achieves Traffic Availability on October 1, 2021;
- to achieve “value for money”, that is, optimal value over the Term;
- to ensure that the Project is designed, built and operated in an environmentally sound manner and in a manner that ensures the safety of the traveling public; and
- to ensure that the highway infrastructure is “handed back” to the Department in the required specified condition at the end of the Term.

## **1.6 DBFO Scope – New Infrastructure**

The Successful Proponent will assume the responsibility for design, construction, financing, operation, maintenance, and rehabilitation of the New Infrastructure. The following provides an overview of the New Infrastructure and the scope of work related to it.

### 1.6.1 Design and Construction of New Infrastructure

This work includes the design and construction of approximately 31 kilometres of a new six- and eight-lane divided freeway (and related appurtenances such as drainage works, street lighting, traffic signals, signage and roadside barriers) on the Calgary Ring Road from Highway 8 to east of Macleod Trail. Other components of the New Infrastructure include:

Interchanges:

- 69 Street Interchange;
- Westhills Way Interchange;
- Sarcee Trail/Glenmore Trail Systems Interchange;
- 37 Street/Glenmore Trail Interchange;
- Strathcona Street Interchange;
- 90 Avenue Interchange;
- Anderson Road Systems Interchange;
- 130 Avenue Interchange;
- 146 Avenue/Fish Creek Boulevard Interchange;
- 162 Avenue Interchange;
- Highway 22X Systems Interchange;
- James McKeivitt Road/Spruce Meadows Way Interchange;
- 6 Street/Sheriff King Street Interchange; and
- Macleod Trail Systems Interchange.

Grade separations at:

- Railway grade separation at Macleod Trail SE;
- Grade separation at Weaselhead Road;
- Pedestrian grade separation north of Anderson Road;
- Crossings at Elbow River (two locations);
- Creek crossing at Fish Creek; and
- Bridge-sized culvert at Cullen Creek.

Watercourse realignments at:

- Elbow River (two locations);

- Fish Creek;
- Cullen Creek.

Existing infrastructure:

Existing roadways, existing grading, and related appurtenances (such as drainage works, lighting, and signage) located within certain portions of the Road Right of Way shall form part of the New Infrastructure. This includes but is not limited to the existing roadway on Highway 8/Glenmore Trail from west of the Calgary Ring Road to east of 37 Street SW, 37 Street SW from Anderson Road to 146 Avenue/Fish Creek Boulevard and Highway 22X from west of 69 Street SW to east of Macleod Trail SE within the Project Limits, and all existing crossing roads within the Project Limits.

Notwithstanding the preceding statement, the existing bridge structure carrying the future Calgary Ring Road northbound over Fish Creek and the existing bridge structure carrying eastbound Highway 8 over the Elbow River will be considered part of the Existing Infrastructure.

A detailed description of the New Infrastructure is provided in the DBFO Agreement and the Technical Requirements.

#### **1.6.2 Operation, Maintenance, and Rehabilitation of New Infrastructure (the “New O&M”)**

The New O&M activities will include but not be limited to the following:

- Inspection
- Routine and emergency maintenance
- Pavement surface maintenance
- Pavement rehabilitation
- Bridge structure maintenance and rehabilitation (including, bridge structural and operational repairs)
- Snow clearing and ice control
- Sign and landscape maintenance
- Drainage maintenance
- Lighting and signal control operation and maintenance

#### **1.6.3 Financing of New Infrastructure**

The financing component of the DBFO obliges the Successful Proponent to arrange all financing (other than the Provincial Funding) required for the development of the New Infrastructure and to be responsible for the overall financial management of the DBFO for the term of the DBFO Agreement.

## 1.7 DBFO Scope — Existing Infrastructure

The Successful Proponent will assume the responsibility of operation and maintenance of the Existing Infrastructure. The following provides an overview of the Existing Infrastructure and the scope of work relating to it.

### 1.7.1 Overview of Existing Infrastructure

The Existing Infrastructure includes:

**Existing Infrastructure already completed as of September 18, 2015:**

- Bridge structure carrying the future Calgary Ring Road northbound over Fish Creek;
- Bridge Structure carrying Highway 8 over the Elbow River.

A detailed description of the Existing Infrastructure is provided in the DBFO Agreement and the Electronic Data Room.

### 1.7.2 Operation and Maintenance of Existing Infrastructure (the “Existing O&M”)

The Existing O&M activities will include but not be limited to the following (the Successful Proponent will not be responsible for the rehabilitation of the Existing Infrastructure):

- Inspection
- Routine and emergency maintenance
- Pavement surface maintenance
- Bridge structure maintenance
- Snow clearing and ice control
- Sign and landscape maintenance
- Drainage maintenance
- Lighting and signal control operation and maintenance

## 1.8 Collaboration

The Department has entered into various collaboration arrangements with its service suppliers in the private sector on major projects (including maintenance projects) for a number of years. These arrangements have been successful and beneficial through the use of a co-operative approach to deliver common objectives. This DBFO provides an excellent opportunity for the Department to continue building strong relationships and taking advantage of the private sector’s developed skills and invested knowledge.

Successful collaboration will require considerable efforts by the parties, especially in the initial stages when it may be necessary for the Successful Proponent to employ facilitators at various stages to assist in developing a positive and productive relationship.

Proponents are required to submit their detailed collaboration strategy pursuant to the Submission Requirements (Appendix 1 to this ITP), on how collaboration with the Department and other parties will be successfully introduced, and the extent to which parties such as the various Team Members of the Preferred Proponent and any specialist advisors, relevant authorities, and municipalities are to be involved.

## **1.9 Safety Management**

Safety is of the utmost importance to the Department. It will be the Successful Proponent's responsibility to design, construct, operate, and maintain the Infrastructure such that it is safe for the motoring public, the general public, and for all personnel employed directly or indirectly by the Successful Proponent for the Project and the O&M.

Proponents are to provide a Safety Plan in their proposals as specified in the Submission Requirements. The Safety Plan is to outline details with respect to the Successful Proponent's policies, safety plans, training programs and work site control plans to ensure the health and safety of all workers, and policies and safety plans to ensure the safety of the public during the Construction Period and the Operating Period.

In addition, Proponents are to devise a Traffic Management Plan in accordance with the Submission Requirements. The Traffic Management Plan is to include details of the traffic accommodation strategies to be employed by the Successful Proponent over the term of the DBFO Agreement.

## **1.10 Environmental Management**

It will be the Successful Proponent's responsibility to ensure compliance with all environmental requirements. As well, the DBFO Agreement requires the Successful Proponent to meet specific environmental mitigation obligations and to indemnify the Department from any related environmental liability.

Environmental assessment studies and an environmental evaluation have been undertaken as part of the functional planning process and are available to Proponents in the Electronic Data Room. The recommendations contained in the Functional Plan with respect to environmental impact and updated through the assessment studies and evaluations mentioned above are to be considered "best practices" to minimize the environmental impact of the Project and O&M. The environmental assessment studies and environmental evaluation findings are provided for information only and it is the responsibility of the Proponents to obtain any additional environmental information, including field surveys that may be required in order to support applications for any required environmental approvals, authorizations, or permits. The Successful Proponent will be responsible for obtaining, complying with and maintaining the validity of all required environmental approvals, authorizations, and permits.

The Successful Proponent will be required to develop and implement an Environmental Management System (“**EMS**”) during the entire term of the DBFO Agreement, in accordance with the DBFO Agreement. Proposals are to include details relating to an EMS in accordance with the Submission Requirements. The EMS shall be consistent with all of the requirements of the ISO 14001:2015.

### **1.11 Quality Management**

The Successful Proponent will be responsible for carrying out all quality control and quality assurance functions on the Project and the O&M and will be required to develop and implement a Quality Management System (“**QMS**”) during the entire term of the DBFO Agreement, in accordance with the DBFO Agreement. The QMS shall be consistent with all the requirements of the ISO 9001:2015. Proposals are to include details relating to a QMS in accordance with the Submission Requirements. The Successful Proponent will be required to monitor, update, and manage the QMS on an ongoing basis.

The Department, at its discretion, may at any time review the conformance of any aspect of the Project and the O&M to the DBFO Agreement. The Successful Proponent shall be responsible for bringing any components found to be in non-conformance back into conformance with the DBFO Agreement.

### **1.12 Risk Allocation**

The Department has developed a risk allocation for the Project and the O&M which in its view is likely to meet the Department’s objectives.

Some of the certain key features of the risk allocation for the Project and the O&M are highlighted below:

- The Successful Proponent will be responsible for all elements of design, construction, partial financing, and New O&M for the New Infrastructure and for meeting the performance and handback requirements, except as otherwise explicitly specified.
- The Successful Proponent will be responsible for the Existing O&M. The Department will retain certain risks relating to asset condition of the Existing Infrastructure on handover to the Successful Proponent and on handback to the Department.
- The Department will assume the risk of actual traffic exceeding the capacity of the New Infrastructure. Future expansion and the related operating expenses will be the responsibility of the Department. Within the New Infrastructure, the Successful Proponent will be responsible for operational improvements (e.g., signalization) to accommodate increased traffic at ramps and at-grade intersections.
- The Department will share in the risk of incremental operating expenses if traffic volume exceeds volume thresholds specified in the Technical Requirements.
- The Department will assume inflation risk (based on the Index Factor) on the payments associated with the New O&M and the Existing O&M.



- The Successful Proponent will be responsible for the partial financing of the New Infrastructure. With respect to financing costs, the Department will offer to share the risk of changes in base market interest rates between the time of Financial Offer submission and the date of execution of the DBFO Agreement.
- The risk of changes in published engineering standards relating to the design and construction of the New Infrastructure and safety or environmental requirements after the deadline of the technical submission (SR Package 2) will be assumed by the Department. The risk of changes in the Province's highway-related standards will also be assumed by the Department.

### 1.13 Tsuut'ina Nation

The Southwest Calgary Ring Road alignment partially lies within land that was formerly designated as reserve for the TTN. The Province and TTN reached agreement for purchase of the land needed for the Southwest Calgary Ring Road and it was formerly transferred to the Province on May 22, 2015. Included in the land purchase agreement is a commitment to construct the Priority New Infrastructure in its entirety within seven years of formal transfer to the Province.

The Province is committed to facilitating the TTN's participation in the Project and O&M, and encourages the Proponents to consider hiring TTN members and/or companies to provide services, products and/or equipment.

The following is a list of industry sectors covered by the TTN, and services and products that may be available from the TTN.

#### **Industry Sector:**

Energy and utilities construction	Food and beverage
Environmental Services	Information and communication technologies
Professional services and trade	

#### **Services:**

Civil engineering	Earth works
Construction services	Trucking
Heavy equipment	Road construction
Asbestos removal	Dust control
Temporary laydown areas	Street cleaning
24/7 security	Safety services and training
Landscaping	Mobile mechanical repair services

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Construction lighting	Food truck and catering
Vegetation clearing	Unexploded ordnance (UXO) clearance
Boundary fencing	Local land and cultural consultation
Qualified construction staffing	Local land and cultural consultation

**Products:**

Aggregate materials (Sarcee Gravel Products Ltd)
Asphalt production
Construction site storage and off-side staging locations
Fuel and lube (Chief David Crowchild Gas Stop, diesel and petroleum

For further clarification or information on the services or products, please contract Kim Opheim via email at [kopheim@tsuutina.com](mailto:kopheim@tsuutina.com) or by phone at (403) 258-4335.

In addition, the following contact at the TTN can be contacted to discuss details of the services and/or products the TTN is able to provide for the Project and O&M:

Darrell Crowchild  
9911 Chiila Boulevard  
Tsuut'ina Nation, Alberta  
T2W 6H6  
Phone: (780) 281-4455  
[darrellcc@tsuutina.com](mailto:darrellcc@tsuutina.com)

## Section 2

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### Design and Construction

## 2.0 Design and Construction

### 2.1 General

The Successful Proponent must design and construct the New Infrastructure to meet the relevant requirements in:

- The DBFO Agreement
- The Technical Requirements
- The Functional Plan

The Department encourages innovation by Proponents in their design and construction of the New Infrastructure, subject to the requirements above. To assist Proponents, the Department has provided Proponents with design work already completed and other pertinent information in the Electronic Data Room.

In particular, the Electronic Data Room contains illustrative design and construction specifications and standards, which contain design and construction standards, specifications, and related material that in the Department's view may satisfy the Technical Requirements when appropriately applied. Proponents are required to submit their proposed project construction standards and specifications in accordance with the Submission Requirements.

Portions of the Preferred Proponent's Proposal will be incorporated as schedules to the DBFO Agreement and will form part of the DBFO Agreement to be executed.

The information presented in this section is for guidance to Proponents only and provides an overview of key design and construction facets of the New Infrastructure. Proponents are directed to the DBFO Agreement and the Technical Requirements for the details.

### 2.2 Design

The Successful Proponent will cause independent design checks to be conducted and provide signed documentation, for both design and construction in accordance with the Technical Requirements. This will permit the Department to confirm compliance with stated requirements.

### 2.3 Functional Plan

The following studies prepared for the Department constitute the “**Functional Plan**” (and have been included in the Electronic Data Room):

- Southwest Calgary Ring Road (Highway 201) Functional Planning Study – Glenmore Trail/Stoney Trail Interchange to Highway 22X/Sarcee Trail Interchange dated August 2008 prepared by Focus Corporation;
- South Calgary Ring Road Functional Planning Study – Macleod Trail SE to 85 Street SW dated August 2011 prepared by Focus Corporation; and
- West Calgary Ring Road Stoney Trail – Functional Planning Study – 69 Street SW to Highway 1 (Trans-Canada Highway) dated June 2010 prepared by Focus Corporation.

The development of the Functional Plan included the investigation of several options and the determination of a feasible solution that meets the functionality requirements for the Southwest Calgary Ring Road, including demand from projected traffic volumes, access/egress locations, roadway classification and the Department's standards for the New Infrastructure. The functionality requirements specific for the New Infrastructure and the potential solutions or options that may fulfil these functionality requirements are presented in the Technical Requirements. The Successful Proponent will be required to design the New Infrastructure with flyovers, accesses, intersections, and interchanges at or near the locations identified in the Functional Plan as further defined in the Technical Requirements. Additional roadway accesses will not be permitted.

Proponents may adopt the solutions in the Functional Plan or develop their own solutions. However, departures from the permissible solutions that result from compliance with the Technical Requirements are to be submitted pursuant to the Optional Innovation Submission and the Submission Requirements, and sufficient information and details should be provided to show that future plans and improvements described in the functionality requirements are not compromised. Additionally, the information should explain in detail how such departures would impact road user costs, levels of service, safety and noise, the environment, and other transportation planning considerations. Regardless of whether Proponents choose to adopt the Functional Plan's solutions or not, the functionality requirements developed in the Functional Plan and further defined in the Technical Requirements must be met.

## **2.4 Accommodation of Design Traffic**

The Department has prepared a traffic model to estimate traffic and traffic growth for the New Infrastructure over the term of the DBFO Agreement. This model is the basis and part of the functionality requirements of the Functional Plan.

The Functional Plan identifies facilities that are expected to meet projected traffic demand in a thirty-year timeframe. It is recognized that certain components of the New Infrastructure may not be needed in the early part of the Operating Period. The specific timing and the applicable design criteria for such facilities is described in the Project Specifics section of the Technical Requirements.

In general, capacity of the New Infrastructure for accommodating actual traffic volume is at the Department's risk. However, operational improvements required as a result of increased traffic at ramps or at-grade intersections are the responsibility of the Successful Proponent.

Other expansions to the New Infrastructure including additional improvements including interchanges, mainline lanes, collector-distributor (“C-D”) lanes, and ramps are the responsibility of the Department.

It will be the Successful Proponent’s obligation to provide the New Infrastructure that accommodates all traffic types. This includes traffic carrying authorized overloads (oversized or overweight) and any unauthorized overloads. The impact of increased legal load limits in the future will fall with the Department.

## 2.5 Road Right of Way

The Province owns the property referred to as the Transportation/Utility Corridor (the “TUC”) and rights-of-way for Highway 8 and Highway 22X, in which lies the Road Right of Way upon which the New Infrastructure is to be constructed. Any properties not already owned by the Province will be acquired by the Province by December 31, 2015, except as otherwise expressly specified in the DBFO Agreement.

Where the New Infrastructure is to be constructed within the TUC, the land allotted for the Project will be only a portion of the TUC. Under legislation, the TUC is under the direction and control of the Province’s Minister of Infrastructure.

The portion of the land dedicated for the New Infrastructure is the “Road Right of Way” as defined in Schedule 12 (Lands) to the DBFO Agreement. The right-of-way available should be sufficient to construct the roadway. However, Proponents are to satisfy themselves of the adequacy of the right-of-way for their design.

In the unlikely event that additional right-of-way is required for the Successful Proponent’s construction of the New Infrastructure, the Successful Proponent will be responsible for obtaining any additional right-of-way necessary for its design. The process for obtaining additional right-of-way within the TUC is described in Alberta Infrastructure’s *Transportation/Utility Corridor (TUC) Program Policy* which can be found at Alberta Infrastructure’s website (specifically at <http://www.infrastructure.alberta.ca/991.htm>). The Successful Proponent negotiates access and requests additional right-of-way from Alberta Infrastructure. If accepted, a Ministerial Consent will be required to grant the right of access to the right-of-way. This right, once granted, is typically free of charge. The Successful Proponent will assume timing and other risks with respect to the request for additional right-of-way.

Any additional lands acquired outside of the TUC by the Successful Proponent for use in the construction of the New Infrastructure will, at the option of the Province, become the property of the Province at the end of the Operating Period for a nominal sum.

## 2.6 Development in Road Right of Way

The Road Right of Way for the New Infrastructure is provided to the Successful Proponent for highway purposes only. No commercial development or other uses are allowed.

The Successful Proponent will be responsible for arranging its own maintenance yard and other support facilities outside the Road Right of Way and TUC that may be required for its responsibilities.

## **2.7 Environmental, Historical Resources and First Nation Consultation**

The Successful Proponent will be responsible for conducting all work for the Project and the O&M in accordance with all applicable federal and provincial legislation and regulations and municipal bylaws concerning environmental and historical resources protection.

As part of the Functional Plan, approvals for the Road Right of Way have been obtained by the Department for “Historical Resources Impact Assessment Clearance”.

The Successful Proponent will be responsible to work with the TTN with respect to discovered burial sites or historical resources, as further set out in the Technical Requirements, to ensure that any alteration or removal of burial sites or historical resources occurs in a culturally sensitive manner.

The Department has completed consultation with all “Treaty 7” first nations in respect of the Calgary Ring Road. The Successful Proponent will not be required to engage in further consultations. Any enquiries from a first nation the Successful Proponent may receive in respect of the Project or O&M shall be forwarded to the Department’s representative identified in the DBFO Agreement.

## **2.8 Municipalities**

The Successful Proponent will coordinate and interface its work with infrastructure owned and operated by local municipalities, including The City of Calgary, Municipal District of Foothills No. 31 and Rocky View County. Proponents should clearly understand all requirements of the relevant municipalities.

## **2.9 Utilities**

The Department encourages very early attention on the part of the Successful Proponent to the negotiation and coordination of utility re-location and protection, in part given that the utility companies themselves may wish to undertake their own re-location and protection according to their own schedules.

The TUC contains a significant number of utilities and pipelines and the location and permitting of such are controlled by Alberta Infrastructure. The utilities are generally located beyond the Road Right of Way and within the utility corridor of the TUC. However, various utilities cross, or are located within, the Road Right of Way and may be impacted by the Project, resulting in a need for protection or relocation. Available known information about utilities, utility standards and specifications supplied by the utility companies and existing agreements with utility companies are provided in the Electronic Data Room.

The Successful Proponent must meet all requirements, obligations and conditions specified in such agreements with respect to work to be performed on, over, under, or in close proximity to existing utilities located within the TUC, and negotiate its own agreements where such agreements do not exist.

The Successful Proponent will be responsible for the coordination and liaison with utility companies for the re-location and protection of any utilities. The Successful Proponent will be responsible for costs

associated with utility re-location and protection, with the Province sharing some costs over certain thresholds, as provided for in the DBFO Agreement.

## **2.10 Work by Others**

Other Province approved construction projects may be underway in the vicinity of the Project during the Construction Period. Where it is necessary that work proceed on the Project in areas common to both the Successful Proponent and the forces of others, the Successful Proponent shall coordinate its operations with those of the other forces. Due to the close proximity of construction area, the Successful Proponent and the other forces carrying out their respective work may be required to use common accesses to their respective worksites. It is essential that the Successful Proponent and the other forces maintain close liaison and coordinate their activities in order to minimize operational conflicts.

## **2.11 Elbow River, Fish Creek & Cullen Creek Crossings**

Bridge structures are required to carry the Calgary Ring Road over the Elbow River (two locations), Fish Creek and Cullen Creek (bridge-sized culvert). The Successful Proponent will be responsible for the design, construction, maintenance and operation of these bridge structures. The construction of the Calgary Ring Road will require the Successful Proponent to re-align the Elbow River, Fish Creek and Cullen Creek. The bridge structures are required to span the re-aligned Elbow River and Fish Creek. The Department has undertaken preliminary work with the intent of facilitating discussions between the Contractor and regulatory agencies, Fisheries and Oceans Canada (“**FAOC**”), Transport Canada’s Navigation Protection Program (“**NPP**”) and Alberta Environment and Parks (“**Alberta Environment**”). The requirements listed in SR 2.18, Appendix 1 (Submission Requirements) are consistent with the application and authorization/approval processes required by FAOC, NPP and Alberta Environment. It is the Department’s belief that the Successful Proponent may use the information developed for its SR2B submission in their application for Alberta Environment approval and if required, FAOC authorization and NPP approval.

The information provided during the SR2 submission phase will be reviewed by the FAOC, NPP and Alberta Environment for feedback specifically related to the respective agency’s regulatory authorizations and approval requirements. Feedback from FAOC, NPP and Alberta Environment may provide Proponents with an opportunity to refine their plans to facilitate the Successful Proponent’s eventual acquisition of relevant regulatory authorizations and approvals. Proponents are encouraged to provide sufficient detail in their SR 2.18 submission to allow FAOC, NPP and Alberta Environment to review the Proponent’s plans and provide meaningful feedback. Information exchanges during the SR2 phase between the Proponents and FAOC, NPP and the Alberta Environment will be facilitated by the Department. Responses from FAOC, NPP or Alberta Environment are not binding on the Department nor on the FAOC, NPP or Alberta Environment and are not to be construed as authorization or approval by the FAOC, NPP or Alberta Environment. Proponents may seek to meet with FAOC, NPP and Alberta Environment outside the process outlined above. Timely acquisition of all relevant approvals and authorizations from the FAOC, NPP and Alberta Environment are the sole responsibility of the Successful Proponent.



The applicant in the submissions to FAOC, NPP and Alberta Environment will be the Successful Proponent on behalf of the Province. The Successful Proponent will be required to perform the obligations and comply with the terms and conditions of all authorizations and approvals on behalf of the Province.

## **2.12 Potential Unexploded Ordnance**

Part of the Road Right of Way lies within an area formerly used by the federal Department of National Defense (“**DND**”) as a training facility. On lands south of Sarcee Trail, barracks and a test firing range were present. Several studies have been conducted to identify the probability of any unexploded explosive ordnance (“**UXO**”) present in the area. In many areas, clearance was performed to 45 cm, and in some instances to 1 m, using various scientific technologies. DND has indicated that they view the potential to encounter UXO during road construction as very low. The available studies have been posted to the Electronic Data Room for information. Currently, the Department is performing gap analysis and compiling information on historical testing uses; the results of which will be provided to Proponents.

The Successful Proponent will need to be able to perform construction activities in an area where UXO may be encountered. As a minimum, the Successful Proponent will be required to attend UXO “awareness training” and ensure its subcontracted construction workforce does the same. The Department is currently evaluating the required response protocol should UXO be encountered during construction, and will provide an update to Proponents during the RFP period (including by additions to the ITP and draft DBFO Agreement by addendum).

## Section 3

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### Operation and Maintenance

## 3.0 Operation and Maintenance

### 3.1 General

In this ITP, the New O&M refers to the operation, maintenance and rehabilitation of the New Infrastructure whereas the Existing O&M refers to the operation and maintenance of the Existing Infrastructure.

The Successful Proponent will be required to carry out the New O&M in the Operating Period and the Existing O&M in the Construction Period and the Operating Period in accordance with the DBFO Agreement, including the Technical Requirements.

In addition, the Successful Proponent will be responsible for certain operation and maintenance of certain portions of current roads that are required to remain in-service during the Construction Period (the “**In-Service Roads**”) in accordance with the DBFO Agreement, including the Technical Requirements.

Proponents are required to submit details of their operation and maintenance plans for the Construction Period and the Operating Period in their Proposals pursuant to the Submission Requirements.

The information presented in this Section 3 is for guidance to Proponents only and provides an overview of key operation and maintenance facets of the New Infrastructure, the Existing Infrastructure, and the In-Service Roads. Proponents are directed to the DBFO Agreement including the Technical Requirements for further details.

### 3.2 Operation and Maintenance

The Successful Proponent will be responsible for the New O&M during the PNI Operating Period and the Operating Period, the Existing O&M during the Construction Period and the Operating Period, and certain operation and maintenance of the In-Service Roads during the Construction Period in accordance with the DBFO Agreement including the Technical Requirements.

#### 3.2.1 Existing O&M during the Construction Period and the Operating Period

The Existing O&M activities will include but not be limited to:

- Inspection
- Emergency maintenance
- General pavement maintenance
- Pavement performance (e.g., pothole repairs, crack sealing)
- Bridge structures maintenance and inspection

- Maintenance of other roadway components including pavement marking, signs, delineators, illumination and signal control, barriers and guardrails, curb and gutter, sidewalks, drainage system, and fencing
- Litter clean up and graffiti removal
- Snow and ice control

### **3.2.2 New O&M during the PNI Operating Period and the Operating Period**

The New O&M activities will include but not be limited to:

- Inspection
- Emergency maintenance
- General pavement maintenance
- Pavement performance (e.g., pothole repairs, crack sealing, smoothness, width, cross-slope, skid resistance, rutting)
- Bridge structures maintenance, inspection, and rehabilitation
- Maintenance of other roadway components including pavement markings, signs, delineators, illumination and signal control, barriers and guardrails, curb and gutter, sidewalks, drainage system, and fencing
- Grass cutting, weed control, and landscape maintenance
- Litter clean up and graffiti removal
- Snow and ice control
- Life cycle asset management and rehabilitation
- Road traffic noise mitigation
- Maintaining re-vegetation rates in areas of watercourse realignment
- On-going environmental monitoring/reporting

### **3.2.3 Operation and Maintenance of the In-Service Roads during Construction Period**

The operation and maintenance activities for the In-Service Roads during the Construction Period will include but not be limited to:

- Inspection
- Emergency maintenance

- General pavement maintenance (e.g., localized deficiency repairs, localized roughness repairs, crack sealing, etc.)
- Bridge structures maintenance
- Maintenance of other roadway components including pavement marking, signs, delineators, illumination and signal control, barriers and guardrails, curb and gutter, sidewalks, drainage system, and fencing
- Grass cutting, weed control, and landscape maintenance
- Litter clean up and graffiti removal
- Snow and ice control

### 3.3 Compliance

The Successful Proponent will be required to have plans, systems, and processes, that meet the Technical Requirements, in order to measure, monitor, and audit its own performance. The Department will undertake inspections over the term of the DBFO Agreement to ensure that the Successful Proponent is meeting its obligations.

If the Successful Proponent is not meeting its obligations, performance-based adjustments to payments as specified in the DBFO Agreement, including the Technical Requirements, and other remedies will apply.

### 3.4 Handback

On the expiry of the DBFO Agreement, the New Infrastructure and the Existing Infrastructure must satisfy their respective handback requirements, which are specified in the DBFO Agreement including the Technical Requirements.

Handback inspections will be conducted over approximately the last five years of the Operating Period in accordance with the DBFO Agreement. The Successful Proponent is expected to demonstrate to the Department that it has met the handback requirements when the responsibility for O&M of the Infrastructure reverts back to the Department.

For the Existing Infrastructure, the handback requirements will be generally of an operating nature. The Successful Proponent must undertake operation and maintenance as specified in the Technical Requirements and these performance requirements must be met at handback.

## Section 4

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### Business Arrangements

## 4.0 Business Arrangements

### 4.1 Business Model

The Department has selected a business model in which the Successful Proponent will be responsible for the O&M of the Infrastructure over the term of the DBFO Agreement. In return, the Successful Proponent will receive pre-defined payments from the Department over the term of the DBFO Agreement.

Beyond the construction progress payments to be made by the Province, the raising of financing will be the sole responsibility of the Successful Proponent. The Province will not guarantee any debt incurred by the Successful Proponent.

It is the intention of the Department to enter into the DBFO Agreement with a legal entity to be proposed by the Preferred Proponent. Flexibility is given to Proponents to structure the legal entity in order to deliver the best value to the Department.

### 4.2 Timing

The Priority New Infrastructure must be opened to traffic as a paved multi-lane, divided roadway on October 1, 2020. The Remaining New Infrastructure must be opened to traffic as a paved multi-lane, divided roadway on October 1, 2021. The New Infrastructure may be opened to traffic earlier provided that it has met the relevant requirements in the DBFO Agreement; however, payments under the DBFO Agreement will not begin in respect of the PNI or the RNI prior to October 1, 2020 and October 1, 2021, respectively. Only minor works, not affecting the safe use of the roadway, may remain outstanding on Traffic Availability.

The Successful Proponent will be responsible for the New O&M during the PNI Operating Period and the Operating Period. Regardless of when the PNI and the RNI respectively achieve Traffic Availability, the Operating Period will end September 30, 2051. Further details are provided in the DBFO Agreement.

The Existing Infrastructure already completed is operated and maintained as follows:

- The bridge structures carrying the future Calgary Ring Road northbound over Fish Creek is currently operated and maintained by The City of Calgary; and
- The Bridge Structure carrying Highway 8 over the Elbow River.

Two months following execution of the DBFO Agreement, the operation and maintenance of all Existing Infrastructure will be transferred to the Successful Proponent.

### 4.3 Payments

Payments by the Department to the Successful Proponent will consist of the following components:

- **Construction Progress Payments** in an amount that is between 50% and 70% of the capital costs of the New Infrastructure, payable to the Successful Proponent by the Province during the Construction Period. The actual amount will be determined in the future and confirmed by an addendum to this RFP. The construction progress payments will be payable quarterly on fixed dates and the Successful Proponent's entitlement to payment will be linked to construction progress of the Priority New Infrastructure. Further details are provided in Schedule 9 (Provincial Funding Progress Payments) of the DBFO Agreement;
- **Capital Payments** for the remaining capital costs of the New Infrastructure will be made in constant fixed monthly amounts over the PNI Operating Period and the Operating Period. The Capital Payment will be comprised of two payment streams, one each for the PNI and the RNI. The amount of the PNI Capital Payment must reflect that the PNI comprises approximately 65% of the total capital value of the Project. PNI Capital Payments (and PNI New O&M Payments and PNI Major Rehabilitation Payments) are at risk if the Successful Proponent does not achieve PNI Traffic Availability by the PNI Traffic Availability Target Date. Late RNI Traffic Availability will shorten the Operating Period and reduce the number of payments. The monthly amount payable will be the amount stated in the Financial Offer of the Preferred Proponent, subject to the Capital Payment adjustment for interest rate changes as set out in Form G2 in Appendix 2 and credit spread changes as set out in Form G3 of Appendix 2, if so elected by the Preferred Proponent;

In order to provide a degree of protection to Proponents against certain interest rate changes between the time of submission of the Financial Offer and execution of the DBFO Agreement, the Department is offering a price adjustment to the Capital Payments presented in the Proponent's Financial Offer as set out in Form G2 in Appendix 2. Proponents may elect to accept or decline the price adjustment formula. If a Proponent accepts the price adjustment, the Capital Payments as stated in the Proponent's Financial Offer will be adjusted for incorporation into the DBFO Agreement. If a Proponent declines the price adjustment, the Capital Payments as stated in the Proponent's Financial Offer will be incorporated into the DBFO Agreement without adjustment (but subject to adjustment resulting from a Proponent electing the price adjustment pursuant to Form G3). Whether a Proponent accepts or declines the price adjustment, the Proponent must provide its Weighted Average Cost of Capital as required in Form G2;

In order to provide a degree of protection to Proponents against general market changes in credit spreads above base interest rates on their long-term debt financing between the time of submission of the Financial Offer and execution of the DBFO Agreement, the Department is offering a price adjustment to the Capital Payments presented in the Proponent's Financial Offer as set out in Form G3 in Appendix 2. Proponents may elect to accept or decline the price adjustment formula. If a Proponent accepts the price adjustment, the Capital Payments as stated in the Proponent's Financial Offer will be adjusted for incorporation into the DBFO Agreement. If a Proponent declines the price adjustment, the Capital Payments as stated in the Proponent's Financial Offer will be incorporated into the DBFO Agreement without adjustment (but subject to adjustment resulting from a Proponent electing the price adjustment pursuant to Form G2);

- **Major Rehabilitation Payments** for the New Infrastructure will be made over the PNI Operating Period and the Operating Period (once the New Infrastructure has reached PNI Traffic Availability



and RNI Traffic Availability, respectively). The monthly amount will be the amount indicated by the Preferred Proponent in the Financial Offer for each month of the PNI Operating Period and the Operating Period, multiplied by an Index Factor to account for inflation;

- **New O&M Payments** for the New O&M will be made over the PNI Operating Period and the Operating Period. The New O&M Payment will be comprised of two payment streams, one each for the PNI and the RNI. The amount of the PNI New O&M Payment must reflect that the PNI comprises approximately 65% of the New Infrastructure. The monthly amount will be the amount indicated by the Preferred Proponent in the Financial Offer for each month of the PNI Operating Period and the Operating Period, multiplied by an Index Factor to account for inflation. The Index Factor will be calculated once annually in advance and will incorporate the price changes of a basket of items including, labour wages, diesel fuel, consumer goods, and non-residential construction;
- **Existing O&M Payments** for the Existing O&M will be made over the Operating Period (once the Remaining New Infrastructure has reached Traffic Availability). Similar to the New O&M Payments, the monthly amount will be the amount indicated by the Preferred Proponent in the Financial Offer for each month of the Operating Period, multiplied by the Index Factor;
- **Performance-based payment adjustments** and holdbacks may be made to amounts otherwise payable. Examples of incidents leading to performance-based adjustments include but are not limited to:
  - deviations from design or specifications;
  - failure to provide service within specified time frames; and
  - lane closures (other than for incidents outside the control of the Successful Proponent such as accidents).

The DBFO Agreement, including the Technical Requirements, contains the triggers for and amounts of adjustments to the payments otherwise payable to the Successful Proponent; and

- **Special Adjustments** to New O&M and Existing O&M Payments for certain pre-defined events are designed to assist the Successful Proponent in the incremental cost of operation and maintenance due to certain limited, pre-defined events. Such events include actual traffic volume exceeding certain threshold volumes and changes in environmental regulations that require the elimination or changes in the use of salt and other chemicals.

#### 4.4 Holdbacks and Other Performance Security

In addition to the performance-based adjustments described above, there are a number of other performance-related and offset provisions in the DBFO Agreement, including:

- Construction completion holdback following Traffic Availability
- Holdbacks or alternate security for work identified as required through the handback inspections

Details of these provisions are provided in the DBFO Agreement.

## 4.5 Ownership of Real Estate

It is the Province's intention to retain ownership of the Road Right of Way and grant a right of access and use to the Successful Proponent as part of the DBFO Agreement.

Details of ownership and right of access and use are included in the DBFO Agreement. Proponents may provide comments on the DBFO Agreement (as explained in Section 5 of this ITP) with respect to alternative real estate arrangements for consideration by the Province, including a leasing arrangement. However, such alternatives should not change the fundamental commercial parameters as set out in the DBFO Agreement.

## 4.6 Tax

Each Proponent should satisfy itself as to the tax consequences of entering into the DBFO Agreement, including but not limited to, the goods and services tax under Part IX of the *Excise Tax Act* (Canada) and income tax under the *Income Tax Act* (Canada).

## 4.7 Insurance Requirements

The Successful Proponent is required to maintain certain mandatory insurance coverage. The insurance forms and amounts for the Construction Period and the Operating Period in the DBFO Agreement are minimum mandatory requirements that the Successful Proponent must provide, without limiting its obligation or liabilities. The insurance coverage must comply with the *Insurance Act* (Alberta). The Successful Proponent is responsible for determining its own insurance needs beyond the specified requirements. Proponents are to provide details of insurance in accordance with the Submission Requirements.

## 4.8 Optional Early Works Agreement

Following notification of the Preferred Proponent, the Preferred Proponent may, by notice in writing to the Department elect to enter the "Early Works Agreement" with the Province in the final form made available to Proponents in the Electronic Data Room, without further negotiation or amendment, except for limited customization related to specifying the legal entities entering the agreement (such legal entities to be proposed in writing by the Preferred Proponent to the Department for the Department's approval, acting reasonably).

## Section 5

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### Proposal Submission and Selection Process

## 5.0 Proposal Submission and Selection Process

### 5.1 Process Overview and Schedule

The selection process is based on the evaluation of the submissions and the ranking of the Financial Offers. The Proponent whose submission has met all the technical and financial requirements and that provides the Financial Offer with the lowest total cost on a net present value basis may be selected as the Preferred Proponent. The legal entity selected by the Preferred Proponent and as approved in advance and in writing by the Department acting reasonably shall be the Successful Proponent, and shall be required to deliver the Financing and Initial Performance Letter of Credit and execute the DBFO Agreement in its final form.

The selection process will consist of four mandatory submissions (SR Packages 1, 2, 2B, and 3) due in stages. Additionally, Proponents are invited to submit comments on the draft DBFO Agreement. Proponents are also invited but not required to participate in an Optional Innovation Submission and feedback process.

An overview of the various submissions is provided below:

- **SR Package 1** requires Proponent information.
- **SR Package 2** requires a management plan, detailed technical plans and detailed designs.
- **SR Package 2B** requires blacklined and clean restated (with required clarifications) specified components from SR Package 2 and Indicative Financial Model and Indicative Financing Plan.
- **SR Package 3** requires a Final Financial Model, a Final Financing Plan, a Financial Offer, the Proposal Deposit, and the Preferred Proponent Deposit.
- Proponents are invited but not required to submit an Optional Innovation Submission. The Optional Innovation Submission would include non-binding information on innovative solutions being considered and identify departures from the permissible solutions that result from compliance with the Technical Requirements. Proponents that choose to pursue innovative solutions proposed through the Optional Innovation Submission and feedback from the Department must integrate those solutions into their overall DBFO solution and reflect those solutions in their SR2 and SR2B submissions. The final acceptability of the innovative solutions will be contingent on further details submitted in subsequent SR Packages. Proponents may choose to abandon pursuit of innovative solutions proposed through the Optional Innovation Submission and in that case Proponents are not required to include the innovative solutions in subsequent SR Packages.
- Proponents are also invited but not required to submit comments on the draft DBFO Agreement. The Department anticipates two rounds of comments and meetings. Upon consideration of these comments and meetings, the Department will issue the DBFO Agreement in final form in advance of the deadline for SR Package 3. There shall be no post-selection negotiations on the DBFO Agreement.

- Proponents are also invited to attend two rounds of engineering/construction meetings with the Department.
- **Execution of the DBFO Agreement** by the Successful Proponent is expected to occur within the two month period following notification to the Preferred Proponent, but in any event no later than the date indicated in the table below.

The detailed schedule for the selection process for this procurement as currently anticipated is presented in the table below. The Department reserves the right to amend this schedule at any time.

<b>Milestones</b>	<b>Timing</b>
Issuance of RFP	September 18, 2015
Proponents' Information Meeting	September 24, 2015
SR Package 1 Submission Deadline	October 19, 2015
Meeting with Utility Companies and Municipalities	October 26, 2015
Meeting with FAOC/Transport Canada/Alberta Environment/DND	October 26, 2015
Deadline for 1 <sup>st</sup> Round Comments on the 1 <sup>st</sup> Draft DBFO Agreement	October 28, 2015
Notification of SR1 Results and Provision of Feedback (if any) on SR Package 1	November 2, 2015
Engineering Meetings (1 <sup>st</sup> Round)	November 4-6, 2015
Optional Innovation Submission Deadline	December 1, 2015
Meetings with Proponents on 1 <sup>st</sup> Round Comments on the 1 <sup>st</sup> Draft DBFO Agreement	November 18-20, 2015
Notification of Evaluation Results of Optional Innovation Submissions	December 22, 2015
Issuance of 2 <sup>nd</sup> Draft DBFO Agreement	December 16, 2015
Engineering Meetings (2 <sup>nd</sup> Round)	December 16-18, 2015
Deadline for 2 <sup>nd</sup> Round Comments on the 2 <sup>nd</sup> Draft DBFO Agreement	January 26, 2016
SR Package 2 Submission Deadline	February 3, 2016
Meetings with Proponents on 2 <sup>nd</sup> Round Comments on the 2 <sup>nd</sup> Draft DBFO Agreement	February 10-12, 2016
Issuance of 3 <sup>rd</sup> draft of the DBFO Agreement	March 4, 2016
Deadline for comments on the 3 <sup>rd</sup> draft of the DBFO Agreement	March 11, 2016
Meetings with Proponents on 3 <sup>rd</sup> Round Comments on the 3 <sup>rd</sup> Draft DBFO Agreement	March 14-15, 2016
Issuance of penultimate draft of the DBFO Agreement	April 4, 2016
Deadline for comments on the penultimate draft of the DBFO Agreement	April 20, 2016
Notification of Evaluation Results of SR Package 2	May 4, 2016
Issuance of Final Form of the DBFO Agreement	May 4, 2016
SR Package 2B Submission Deadline	May 18, 2016

Milestones	Timing
Notification of Evaluation Results of SR Package 2B	June 1, 2016
Notification of Discount and Inflation Rates	June 8, 2016
SR Package 3 Submission Deadline	June 10, 2016
Notification of Preferred Proponent	June 24, 2016
Execution of DBFO Agreement	<b>No Later than September 13, 2016</b>

Timing relating to deadlines for questions from Proponents is presented in Section 5.8.1 of this ITP.

**Subject to the September 13, 2016 deadline, the Preferred Proponent shall provide the Department with a minimum of two weeks written notice of the date that the Successful Proponent will be prepared to execute the DBFO Agreement.**

## 5.2 Department Representative

The Department Representative for this RFP is:

Mr. Tom Loo  
Executive Director, Strategic Partnerships Office  
Alberta Infrastructure  
Suite 310, Twin Atria Building  
4999 – 98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

Email: [tom.loo@gov.ab.ca](mailto:tom.loo@gov.ab.ca)  
Phone: (780) 415-4876  
Fax: (780) 415-0475

All correspondence or contact by Proponents with the Department in respect of this RFP must be directly and only with the Department Representative. Failure to restrict correspondence and contact to the Department Representative may result in the rejection of the Proponent's SR Packages and the termination of the Proponent's right to continue in the procurement process.

## 5.3 Information Meeting

An information meeting will be held with all Proponents as a group. The purpose of this meeting is to provide an overview of the selection process and to respond to questions and comments that Proponents may have. All Proponents are required to attend.

The information meeting will be held as follows:

Date: September 24, 2015  
Time: 10:00 a.m. (Alberta Time)  
Location: Calgary Marriot Downtown Hotel  
110 9<sup>th</sup> Avenue SE  
Calgary, Alberta, Canada

#### **5.4 Meeting with Utility Companies, Railways, Municipalities, TTN & Regulatory Authorities**

An information meeting will be held with some, but not necessarily all, utility companies and municipalities and all Proponents as a group. The purpose of this meeting is to provide Proponents with an opportunity to ask questions related to utility relocation and protection and municipal issues. The utility companies and municipalities that may participate are as follows:

- Axia
- The City of Calgary
- Rocky View County
- Municipal District of Foothills No. 31
- TTN
- Alberta Energy Regulator
- AltaLink
- ATCO Gas
- ATCO Pipelines
- Canadian Pacific Railway Company
- ENMAX
- TransAlta
- TELUS Communications Inc.

In addition, some, but not necessarily all, regulatory agencies and DND, have agreed to meet with all Proponents as a group. The purpose of this meeting is to provide Proponents with an opportunity to ask questions related to the river crossing. The regulatory agencies that may participate are as follows:

- Fisheries and Oceans Canada
- Transport Canada – Navigable Waters

■ Alberta Environment

Department of National Defense may also participate.

As the above mentioned parties may have limited availability for direct contact with Proponents over the course of the procurement, Proponents are strongly encouraged to attend.

The information meeting will be held as follows:

Date:	October 26, 2015
Time:	9:30 a.m. (Alberta Time)
Location:	John J. Bowlen Building, Room 11A 620 – 7 <sup>th</sup> Avenue S.W. Calgary, Alberta, Canada

The Department makes no warranties or representations with respect to the completeness or accuracy of information provided by the utility companies, municipalities, railway companies, TTN, DND or regulatory agencies during or arising from the meetings.

## 5.5 Electronic Data Room

DBFO-related information will be available to Proponents in an electronic data room and/or in hard copy, depending on the information. Upon issuance of this RFP, the Department will send an e-mail to the Contact Organization for each Proponent with access instructions to the electronic data room (the “**Electronic Data Room**”). A catalogue for the Electronic Data Room as at the date of issuance of this RFP is provided in the Electronic Data Room. Updates and additions to this catalogue will be provided in the Electronic Data Room as they become available, and Proponents will be notified.

## 5.6 Investigations, Surveys and Studies by Proponents

Proponents are required to conduct their own due diligence in relation to all aspects of the DBFO. Proponents are responsible for carrying out any independent investigations, surveys, and studies which they consider necessary or appropriate in connection with satisfying their due diligence responsibilities, at their own cost.

## 5.7 Site Access

Proponents may access the site to conduct site investigations. Prior to being granted access, Proponents shall enter into an agreement with Alberta Infrastructure (a separate department) that will include but not be limited to the following terms and conditions as provided in Alberta Infrastructure’s *Transportation/Utility Corridor (TUC) Program Policy*, which can be found at Alberta Infrastructure’s website (specifically at <http://www.infrastructure.alberta.ca/991.htm>).



Alberta Infrastructure is responsible for authorizing access to land within the TUC required for the Project to Proponents who request such access to conduct site investigations. To do so, Proponents are to provide a written plan that outlines what tests or investigations are to be performed at least five Business Days before access is sought. Requests for access shall be directed to the Department Representative, who will engage Alberta Infrastructure to commence the approval process. Subject to the Proponent satisfying the requirements below, Alberta Infrastructure will authorize access and will attempt to authorize such access on the day or days sought by the Proponent. Proponents are cautioned that the time to obtain the required approvals from Alberta Infrastructure will vary with the nature of the tests or investigations sought to be performed by Proponents, and as such, they are cautioned to plan for and request site access as early as possible.

Prior to being granted access, Proponents shall enter into a right of entry agreement with Alberta Infrastructure that will include but not be limited to the following terms and conditions:

- Proponents will be responsible for any damage to any of the land.
- Proponents will agree to indemnify and hold harmless the Province from and against any claims or actions arising out of the Proponent's access to the land or Alberta Infrastructure's authorization of such access.
- Proponents will carry out their work in a reasonable and prudent manner and in such a way as to cause the least amount of disturbance to the land.
- Proponents will identify any existing TUC stakeholders that may be affected by the Proponent's investigation activities and if there are such existing TUC stakeholders, pre-negotiate any compensation that may be due to such existing TUC stakeholders as a consequence of the Proponent's investigation activities.
- Proponents will describe and follow in detail the timing, duration and the type of work that it intends to carry out on the land.
- Proponents will advise Alberta Infrastructure and any affected utilities and seek all such parties' prior permission in each specific instance should it wish to drill or otherwise disturb soil.
- Proponents will provide evidence of the applicable insurance as specified in the right of entry agreement.
- Proponents will provide and implement traffic accommodation plans during site access, where necessary, in accordance with the Department's *Traffic Accommodation in Work Zones 2008* manual where requested.
- Proponents will obtain any other necessary permissions or approvals associated with their proposed investigation activities.

Any Proponents seeking access to the site will be required to purchase and maintain in full force, or cause to be purchased and maintained in full force, at all times during the RFP period up to the signing of the DBFO Agreement, insurance to protect itself, all of their Team Members, sub-contractors and sub-consultants, the Province, any lender(s), all of their successors and assigns, and their respective directors,

officers, employees, agents, servants and officials involved in the Project during the RFP period. The evidence of insurances shall be delivered to Alberta Infrastructure prior to access to the site. The insurance required during this period need not be dedicated to the Project.

The following insurance will be required:

- General Liability Insurance in an amount of no less than five million dollars (\$5,000,000) inclusive per occurrence against bodily injury and property damage, including loss of use thereof. The Province is to be added as an additional insured under this policy for any and all claims arising out of the Proponent's activities. Such insurance shall include but not be limited to:
  - Products and completed operations liability;
  - Owner's and contractor's protective liability;
  - Blanket written contractual liability;
  - Contingent employer's liability;
  - Personal injury liability;
  - Non-owned automobile liability;
  - Cross liability with respect to additional insureds;
  - Employees as additional insureds;
  - Broad form property damage endorsement;
  - Operation of attached machinery;
  - Sudden and accidental pollution;and where such further risk exists:
  - Geotechnical drilling;
  - Elevator and hoist liability; and
  - Towing/on hook coverage.
- Automobile liability on all vehicles owned, operated or licensed in the name of the Proponent or its Team Members in an amount not less than five million dollars (\$5,000,000).

## 5.8 Clarifications, Questions and Addenda

### 5.8.1 Proponent Inquiries

Proponents who wish to ask the Department questions regarding this RFP must submit their questions in writing to the Department Representative. Proponents are strongly encouraged to use the designated form in MS Word format for submitting a question as posted by the Department in the Electronic Data Room.

In order to ensure a response by the Department Representative, Proponent questions with respect to a particular component of the Submission must be received by the Department Representative by 4:00 pm Alberta Time on or before the tenth (10th) Business Day prior to the applicable deadline for that component of the Submission (the “**Question Deadline**”). Questions submitted after the Question

Deadline may be responded to by the Department Representative at the sole discretion of the Department. The Department intends to issue all responses and their corresponding questions to all Proponents. However, the Department reserves the right to issue particular responses only to a particular Proponent depending on whether the question is confidential, or not to issue a response at all.

Should a Proponent wish to ask a question that it considers to be confidential (i.e., the response is to be directed only to the Proponent that asks the question), the Proponent may request such a question be kept confidential provided it sets out with such request an explanation as to why it believes the question to be confidential. If the Department considers that the question is in fact confidential, it will direct the response only to the Proponent that has asked the question, and not to the other Proponents. If the Department considers that the question is not confidential, it will advise the Proponent of its view, and the Proponent can decide whether to withdraw the question, re-submit the question as non-confidential or revise the question to remove what the Proponent views as the confidential elements and resubmit the question as non-confidential. The Department reserves the right in its sole discretion to determine whether a question is confidential or not, and anticipates that only in exceptional circumstances will it determine a question to be confidential.

Written instructions or clarifications in the form of addenda to this RFP will be issued if deemed necessary by the Department. Addenda will supersede and amend the specified portions of the RFP.

Verbal responses to inquiries are not binding on the Department.

#### **5.8.2 Clarification and Additional Information**

The Department may in its sole discretion request additional information or clarification from any Proponent after any Submission has been received. Proponents are to submit the additional information or clarification to the Department Representative within the time limit as specified by the Department.

Any revision of the text portion of the Proponent's SR2 or SR2B Submission as a result of a request for additional information or clarification shall be submitted in blackline format.

Any revision to drawings included in the Proponent's SR2 or SR2B Submission as a result of a request for additional information or clarification shall include revision triangles and clouds to identify the revised elements of the affected drawings.

#### **5.8.3 Proponent Meetings and Interviews**

The Department may require Proponents to meet with representatives of the Department on one or more occasions to provide further explanation and clarification of their Submission or to provide feedback to Proponents. The Department is not required to have such meetings or interviews with any or all Proponents. No information provided or statement made in any meetings or interviews will be binding on the Department unless it is confirmed by a written addendum or clarified in writing by the Department Representative.

## 5.9 Optional Innovation Submission

### 5.9.1 General

In order to facilitate innovation, the Department invites but does not require Proponents to participate in an Optional Innovation Submission and feedback process. An innovation may be a solution not contemplated in the Functional Plan or Technical Requirements and meets all of the functionality requirements but does not meet (or the Proponent is not sure it meets) the Technical Requirements.

Proponents may choose to submit an Optional Innovation Submission for consideration by the Department. In response to such submissions, the Department will attempt to provide written feedback separately to each participating Proponent, within four weeks from the deadline for the Optional Innovation Submission. The first engineering meeting will be held prior to the submission deadline for the Optional Innovation Submission.

Proponents do not need to submit an Optional Innovation Submission to proceed to make a SR Package 2 submission. If the Department considers the timing or nature of a proposed innovation to require significant additional review efforts to evaluate, or causes the overall procurement schedule to be at risk, the proposed innovation may be declined. It is strongly encouraged to get feedback early in the process and prior to the allocation of significant design effort.

In their Optional Innovation Submissions, Proponents are to provide non-binding information on the innovative solutions they are considering and identify the departures of these innovative solutions from the permissible solutions that result from compliance with the Technical Requirements. Such innovative solutions are still required to meet the functionality requirements. Proponents are requested to expressly reference sections of the Technical Requirements from which they are considering to depart. The information provided should be in sufficient detail to allow the Department to understand how the Proponent's innovative solutions depart from the permissible solutions that result from compliance with the Technical Requirements and how the Proponent's innovative solutions nevertheless satisfy the functionality requirements.

Written feedback will be provided to Proponents with respect to the likely acceptability of their innovative solutions on the part of the Department based on whether the proposed innovative solutions meet the functionality requirements and the DBFO's objectives. Proponents that choose to pursue innovative solutions proposed through the Optional Innovation Submission and feedback from the Department must integrate those solutions into their overall DBFO solution and reflect those solutions in their SR2 and SR2B submissions. The final acceptability of the innovative solutions will be contingent on further details submitted in subsequent SR Packages. Proponents may choose to abandon pursuit of innovative solutions proposed through the Optional Innovation Submission and feedback from the Department and in that case Proponents are not required to include the innovative solutions in subsequent SR Packages.

Should the Department choose to hold individual meetings with Proponents following the provision of written feedback, the discussion will be limited to the contents of the Optional Innovation Submissions insofar as they relate to innovations, and to the content of the written feedback.

The Department will not share the contents of the Optional Innovation Submissions or of the corresponding feedback with any other Proponent. However, the Department reserves the right to issue an addendum or otherwise amend any aspect of this RFP on the basis of information it receives through the Optional Innovation Submission process.

Proponents are cautioned as to the potential need for public consultation at the cost and risk of the Proponent in the event that deviations from the Functional Plan are proposed.

In instances that the Optional Innovation Submissions include solutions not contemplated by the Technical Requirements, Proponents should to the extent possible submit along with their Optional Innovation Submission proposed specifications, published standards, and any other details that are relevant to the innovative solutions that are not contemplated by the Technical Requirements.

### **5.9.2 Preliminary Design Reports**

Proponents that choose to participate in the Optional Innovation Submission are required to submit, as part of the Optional Innovation Submission, both a roadway preliminary design report and a bridge structures preliminary design report. The preliminary design reports must identify all significant variations from the solutions presented in the Drawings in Appendix A to Schedule 18 and provide proposed specifications that are relevant to the innovative solutions but not included in the Technical Requirements. Changes in roadway and bridge design layout shall indicate impacts on other design elements, including, but not limited to:

- Level of service;
- Roadway layout;
- Bridge structure layout;
- Additional land requirements;
- Railway infrastructure;
- Utility infrastructure;
- User functionality and user safety;
- Accommodation of ultimate phases of construction;
- Public/municipal acceptability issues and potential strategies; and
- Others elements, as required.

#### **Roadway Preliminary Design**

The roadway preliminary design report shall contain information on the concepts and strategic direction of the proposed roadway infrastructure, including the following (if applicable):

- A basic horizontal (1:5000) plan showing the following:
  - Beginning and end of all horizontal roadway curves;

- Details of radius, spirals and super elevation for all horizontal roadway curves; and
- Gore locations and weave locations and lengths, including tapers at all ramp locations;
- A basic vertical plan (V: 1:200; H: 1:5000) showing:
  - Beginning and end of all vertical curves;
  - K value of vertical curves; and
  - Longitudinal grades;
- Identification of basic intersection types for all intersections;
- A basic strategy for provision of “ultimate stages” for all roadways, including provision of minimum bridge span lengths and clearances;
- Surfacing design;
- Typical cross-sections showing:
  - Cross-slopes;
  - Lane and shoulder widths;
  - “Ultimate” section relationships; and
  - Median widths;
- Roadside Design:
  - Clear zones for mainline and other roadways; and
  - Decision sight distance;
- Traffic Engineering Design:
  - Traffic Modelling;
  - Signage;
  - Signals; and
- Environmental requirements.

***Bridge Structures Preliminary Design***

The bridge structures preliminary design report shall contain information on the concepts and strategic direction of the proposed bridge structures including the following (if applicable):

- Strategy for meeting any environmental requirements that affect the bridge design;
- Graseline profiles, including existing ground lines, for over-passing roadway and under-passing roadway(s), railway(s) or water course(s);

- Overall roadway horizontal and vertical alignment plans showing each bridge in context with the roadway alignment;
- Strategy for accommodation of additional structures or widening as identified in the Technical Requirements;
- A basic strategy for provision of “ultimate stages” for all roadways, including provision of minimum bridge span lengths and clearances;
- Elevation view showing the following:
  - Over-passing roadway gradeline;
  - Required length of bridge opening for initial stage, ultimate stage and outer ring road. Show locations of under-passing traffic lanes, shoulders, railway tracks, ditches, etc.;
  - Bridge headslopes, including any retaining structures and ground improvement measures;
  - Existing ground lines;
  - High water mark and 1:100 freeboard;
  - Required horizontal clearance box and possible substructure locations that provide adequate horizontal clearances for clear recovery zone and sight distance requirements;
  - Required vertical clearance box and available structure depths; and
  - Wildlife corridors with vertical and horizontal clearances.
- Site plan showing the following:
  - The horizontal alignment and width of the over-passing roadway(s), under-passing roadway(s), railway(s) or water course(s) (if applicable), including skew angles and chainage equations. Show locations of traffic lanes, shoulders, sidewalks, bikeways, railway tracks, etc.;
  - The footprints of the approach fills, including any retaining structures and ground improvement measures;
  - Any potential conflicts between the bridge foundations and existing utilities; and
  - Foundation proximity to watercourse realignment.
- Cross-sections showing the initial and ultimate widths of bridge clear roadways (including traffic lanes and shoulders), sidewalks, bikeways, medians, etc.; and
- Details and extent of water course protection works required to prevent erosion and/or scour, if applicable, and rationale for their design.

Bridge planning and preliminary information is not required for proposed overhead and cantilevered sign structures.

## 5.10 Comments on DBFO Agreement

In order to achieve an optimal DBFO Agreement, the Department is inviting comments from Proponents on the draft DBFO Agreement. Proponents may also comment on the triggers for and amounts of performance-based adjustments in the Technical Requirements. The Department does not expect to make changes to the Technical Requirements and other performance standards, although the Department reserves the right to do so.

Proponents are invited to suggest modifications to the DBFO Agreement and Technical Requirements, by way of blacklining and providing supplemental commentary sufficient to explain the reason for the modifications, including how the modifications provide enhanced value for money to the Department. Proponents are invited to do so through a table as follows:

Item No.	Document Section Reference	Text with proposed revision	Commentary

The Department reserves the right in its sole discretion to accept or reject such modifications in whole or in part. The Department will conduct two rounds of comments (and one final call for written comments) and hold two sets of one-on-one meeting(s) with individual Proponents to discuss their comments.

Proponents should involve their financial advisors and their proposed lenders and equity investors in reviewing and commenting on the draft DBFO Agreement.

Timing related to deadlines to submit comments on the draft DBFO Agreement and the releases of the draft and final DBFO Agreements is presented in Section 5.1 of this ITP. It is the Department's intention to issue the final form of the DBFO Agreement to Proponents prior to the submission deadline for SR Package 3.

## 5.11 Submission Procedure

The submission procedure applies to all of the following Submissions for this RFP:

- Optional Innovative Submission
- Optional Comments on draft DBFO Agreement
- SR Package 1
- SR Package 2
- SR Package 2B
- SR Package 3



Proponents shall submit ten bound copies and one unbound copy of each Submission with the exception of the Optional Comments on draft DBFO Agreement, SR Package 2 Envelope B, SR Package 2B, and SR Package 3. For the Optional Comments on draft DBFO Agreement, an electronic PDF version submitted via e-mail to the Department Representative is sufficient. For the SR Package 2 Envelope B, SR Package 2B (except the Indicative Financial Model required by SR 2B.7) and the SR Package 3 (except the Final Financial Model required by SR 3.1), Proponents shall submit three bound copies and one unbound copy. The requirements for the Indicative Financial Model and the Final Financial Model are set out in SR 2B.7 and SR 3.1, respectively. All drawings submitted as part of SR Package 2 Envelope A and SR Package 2B Envelope A shall be 11” x 17” paper and in three-ring binders. Each SR Package must be accompanied by an authorized declaration. The forms of the declaration are provided in Appendix 2 to this ITP – Required Forms.

The Optional Innovation Submission, SR2, SR2B and SR3 shall also include an identical electronic version of the written document in PDF and Microsoft Word formats on a CD or USB data storage device. SR2B and SR3 shall include a working financial model on the same CD or USB data storage device. SR Package 3 shall include the Financial Offer Form (Form G1) submitted electronically in the form of a Microsoft Excel spreadsheet populated with the Form G1 Table 1 values (to the cent) on the same CD or USB data storage device. Proponents should note that Forms G1, G2 and G3 are provided in a separate document. This additional spreadsheet shall be independent of the financial model, shall be submitted as a separate Microsoft Excel file with no external links to the financial model, and shall be with cells containing only numeric values (no formulas) with a precision of two decimal places (that is, to the cent).

In the event of any discrepancy between the printed and electronic versions of a Submission, the printed version shall prevail.

Each Submission (including any amendment to a Submission) must be received no later than 4:00 pm Alberta Time, **except for the submission of SR Package 3 (including any amendment) which must be received no later than 2:00 pm Alberta Time**, on the applicable day specified in Section 5.1 of this ITP at:

Attention: Mr. Tom Loo, P.Eng.  
Executive Director, Strategic Partnerships Office

Location: Alberta Transportation  
Tender Administration  
Tender Deposit Centre  
Main Floor, Twin Atria Building  
4999-98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

E-mail: [tom.loo@gov.ab.ca](mailto:tom.loo@gov.ab.ca)

Proponents should clearly label each Submission package with their name and with “**RFP Submission Southwest Calgary Ring Road Project**”. Proponents should also clearly label which submission it is

providing (i.e., Optional Innovation Submission, Comments on draft DBFO Agreement, or any of the SR Packages). Except as expressly noted otherwise above, submission via fax or electronic mail will not be accepted.

SR Package 2B and SR Package 3, together, will be a stand-alone binding comprehensive final submission by each Proponent incorporating earlier Submissions and that Proponent's responses to the Department's clarification questions. SR Package 2B must include a clean restated re-submission of SR Packages 1 and 2 (incorporating changes resulting from the Department's clarification questions or required by addenda to the RFP but with **NO OTHER CHANGES**). In addition, SR Package 2B must include a blackline of all changes from the original submission of SR Package 2. Specific Submission Requirements for the SR Package 2B Submission are set out in Appendix 1 to this ITP.

SR Package 2B and SR Package 3, including the Financial Offer, shall be irrevocable and valid and binding for the period from the submission deadline for SR Package 3 through to the deadline for Execution of the DBFO Agreement as set out in Section 5.1.

**SINCE PORTIONS OF THE PREFERRED PROPONENT'S SR PACKAGE SUBMISSIONS WILL BE INCORPORATED INTO THE DBFO AGREEMENT'S SCHEDULES, WHEN PREPARING SR PACKAGE 2, SR PACKAGE 2B AND SR PACKAGE 3, PROPONENTS MUST USE, WHERE APPROPRIATE, THE DEFINED TERMS USED IN THE DBFO AGREEMENT, INCLUDING SCHEDULE 18.**

## **5.12 Proposal Deposit and Preferred Proponent Deposit**

Each Proponent must deliver to the Department with its SR Package 3 an irrevocable, unconditional, on sight letter of credit in the amount of \$1 million (the "**Proposal Deposit**") expiring no earlier than 120 days from the submission deadline for SR Package 3 and substantially in the form of the sample form of letter of credit attached as Form F1 of Appendix 2, presentable at a bank in Canada and issued by a bank authorized under the *Bank Act* (Canada) to do business in Canada (or issued by such other financial institution approved in advance for the purposes of this Section by the Department, who may grant or decline such approval in its absolute discretion), and having a senior, unsecured long-term credit rating of not less than A mid (with not less than a stable outlook) or equivalent from one of (and no rating less than A mid (with not less than a stable outlook) or equivalent from any other of) Standard & Poor's, DBRS (formerly known as Dominion Bond Rating Service) or Fitch Ratings (or any other major credit rating agency approved for the purposes of this Section by the Province, who may grant or decline such approval in its absolute discretion).

The Proposal Deposit must be maintained in effect by the Proponent until either of the following events has occurred:

- the Successful Proponent has executed the DBFO Agreement and provided the Financing and Initial Performance Letter of Credit; or
- the Department has notified Proponents that the Department has decided not to select and notify a Preferred Proponent,

and upon either of such events, the Department shall surrender the Proposal Deposit to the Proponent within 14 Business Days. Notwithstanding the foregoing, the Province shall surrender the Proposal Deposit to the Preferred Proponent within 14 Business Days of that Proponent being notified it is the Preferred Proponent.

The Department may present the Proposal Deposit for payment and retain the proceeds therefrom as liquidated damages, only if an unsuccessful Proponent is subsequently notified it is the Preferred Proponent and fails to provide a new Preferred Proponent Deposit within seven Business Days of being so notified.

Each Proponent must deliver to the Department with its SR Package 3 an irrevocable, unconditional, on sight letter of credit in the amount of \$20 million (the “**Preferred Proponent Deposit**”) expiring no earlier than 120 days from the submission deadline for SR Package 3 and substantially in the form of the sample form of letter of credit attached as Form F2 of Appendix 2, presentable at a bank in Canada and issued by a bank authorized under the *Bank Act* (Canada) to do business in Canada (or issued by such other financial institution approved in advance for the purposes of this Section by the Department, who may grant or decline such approval in its absolute discretion), and having a senior, unsecured long-term credit rating of not less than A mid (with not less than a stable outlook) or equivalent from one of (and no rating less than A mid (with not less than a stable outlook) or equivalent from any other of) Standard & Poor’s, DBRS (formerly known as Dominion Bond Rating Service) or Fitch Ratings (or any other major credit rating agency approved for the purposes of this Section by the Province, who may grant or decline such approval in its absolute discretion). Notwithstanding the foregoing sentence, a Proponent’s Preferred Proponent Deposit may have an expiry date no earlier than 21 days from the submission deadline for SR Package 3, provided that in the event that Proponent is notified it is the Preferred Proponent, the Province may present the Preferred Proponent Deposit for payment if that Proponent fails to deliver a renewal of the Preferred Proponent Deposit (expiring no earlier than 120 days from the submission deadline for SR Package 3) at least 7 days before the expiry date specified in the original Preferred Proponent Deposit.

**The Department shall surrender the Preferred Proponent Deposit to each of the Proponents that were not notified that they were the Preferred Proponent within seven Business Days of Notification of Preferred Proponent.**

The Preferred Proponent Deposit must be maintained in effect by the Preferred Proponent until the Successful Proponent has executed the DBFO Agreement and provided to the Department the Financing and Initial Performance Letter of Credit and upon such event, the Department shall surrender the Preferred Proponent Deposit to the Preferred Proponent within 14 Business Days of such event.

The Province may present the Preferred Proponent’s Preferred Proponent Deposit for payment if any of the senior, unsecured long-term credit ratings of the issuer of the Preferred Proponent Deposit becomes less than A mid (with a stable outlook) or equivalent and the Preferred Proponent fails to deliver a replacement of the Preferred Proponent Deposit no later than 21 days after being so requested by the Province.

The Department may present the Preferred Proponent Deposit for payment and retain the proceeds therefrom as liquidated damages, only if the Successful Proponent fails to execute the DBFO Agreement

in accordance with this RFP or fails to provide to the Department the Financing and Initial Performance Letter of Credit in accordance with the DBFO Agreement.

Failure to provide the Preferred Proponent Deposit in accordance with the RFP may result in disqualification of the Preferred Proponent from the RFP process.

A Proponent may satisfy the above requirements for the Proposal Deposit and Preferred Proponent Deposit with more than one letter of credit provided each is clearly provided “on behalf of” the Proponent, as applicable, as set out in Form F1 and Form F2.

### **5.13 Financing and Initial Performance Letter of Credit**

In order to secure the financial and initial performance commitments of the Successful Proponent, the Department will require the Successful Proponent to provide a Financing and Initial Performance Letter of Credit in the amount of \$40 million in accordance with the DBFO Agreement in the form of an unconditional irrevocable letter of credit substantially in the form of the sample form of letter of credit attached as Form F3 of Appendix 2.

Details with respect to the release of the Financing and Initial Performance Letter of Credit are provided in the DBFO Agreement. Failure to provide or cause to be provided the Financing and Initial Performance Letter of Credit in accordance with the RFP may result in disqualification of the Preferred Proponent from the RFP process.

The Successful Proponent may satisfy the above requirements for the Financing and Initial Performance Letter of Credit with more than one letter of credit provided each is clearly provided “on behalf of” the Contractor, as applicable, as set out in Form F3.

### **5.14 Proposal Content and Evaluation**

This Section outlines the requirements of the SR Packages. Further details of the requirements for each of the SR Packages are included in the Submission Requirements (Appendix 1 of this ITP).

SR Packages will be reviewed to ensure that they are complete and address the Submission Requirements according to the following steps:

- Assessment of whether a substantially complete submission has been provided.
- Determination of acceptability of required forms.
- Assessment of acceptability of each component in the SR Packages on a pass/fail basis as applicable (some components of SR Packages are for information only and are not evaluated; such components are subject to clarification under Section 5.8.2).

The Department will set up technical and financial evaluation teams with the requisite expertise to evaluate the submissions.

The following is an overview of the components of the SR Packages and how each component will be evaluated by the Department.

### ***SR Package 1***

The SR Package 1 consists of the following components:

- SR 1.1 – General/Proponent information (pass/fail evaluation)

### ***SR Package 2***

The SR Package 2 consists of the following components:

- SR 2.1 – General/Proponent information (pass/fail evaluation)
- Envelope A (all pass/fail evaluation except for SR 2.18 as expressly noted below):
  - SR 2.1A – Management plan
  - SR 2.2 – Roadway design report
  - SR 2.3 – Pavement design report
  - SR 2.4 – Noise attenuation strategy
  - SR 2.5 – Bridge structures design report
  - SR 2.6 – Drainage design report
  - SR 2.7 – Safety audit report
  - SR 2.8 – Construction management plan
  - SR 2.9 – Operation and maintenance plan
  - SR 2.10 – Infrastructure wholelife management plan
  - SR 2.11 – Traffic management plan
  - SR 2.12 – Quality management system
  - SR 2.13 – Environmental management system
  - SR 2.14 – Safety plan
  - SR 2.15 – Public communications strategies
  - SR 2.16 – Collaboration strategy
  - SR 2.17 – Project Schedule (pass/fail evaluation)
  - SR 2.18 – Elbow River, Fish Creek and Cullen Creek Crossings (no pass/fail evaluation; for information and feedback only)
- Envelope B (pass/fail evaluation):

- SR 2.19 – Insurance

All the components within Envelope A will be evaluated against the DBFO Agreement, including the Technical Requirements. Proponents must demonstrate that their technical submissions meet the DBFO Agreement, including the Technical Requirements. The Elbow River, Fish Creek Crossings and Cullen Creek (SR 2.18) is intended to help get the Proponent started on the preliminary work necessary to meet the regulatory requirements under the *Fisheries Act* (Canada), *Water Act* (Alberta), the *Public Lands Act* (Alberta) and the *Navigation Protection Act* (Canada). SR 2.18 is for information only and will not be evaluated, although the Department reserves the right to ask clarification questions of Proponents.

### ***SR Package 2B***

The SR Package 2B consists of the following items:

- SR 2B.1 – General/Proponent information (pass/fail evaluation)
- Envelope A (all pass/fail evaluation)
  - SR 2B.2 – [INTENTIONALLY DELETED]
  - SR 2B.3 – SR Package 2 Envelope A – all components as clarified
- Envelope B (pass/fail evaluation)
  - SR 2B.4 – Insurance – SR 2.19 as clarified
  - SR 2B.5 – Financial Capacity
- Envelope C (no pass/fail or feedback; for information only)
  - SR 2B.6 – Indicative Financing Plan
  - SR 2B.7 – Indicative Financial Model

SR Package 2B is intended as the consolidated and clarified submission from Proponents (i.e. incorporating changes resulting from the Department's clarification questions or as required by addenda to the RFP, but with NO OTHER CHANGES). Portions of SR Package 2B will be incorporated into the DBFO Agreement.

The Indicative Financing Plan (SR 2B.6) is intended to provide the Department with an indication of the likely final form of the Proponent's financing plan in order to expedite the review of the Final Financing Plan in SR Package 3. The Indicative Financing Plan is for information only and will not be evaluated although the Department reserves the right to ask clarification questions of Proponents.

The Indicative Financial Model (SR 2B.7) is intended to provide the Department with an early indication of the Proponent's financial model in order to expedite the review of the financial model in SR Package 3. The Indicative Financial Model is for information only and will not be evaluated although the Department reserves the right to ask clarification questions of Proponents.

***SR Package 3***

The SR Package 3 consists of the following items:

- Envelope A (no pass/fail or feedback; for information only)
  - SR 3.1 – Final Financial Model
  - SR 3.2 – Final Financing Plan
- Envelope B
  - SR 3.3 – Financial Offer in accordance with Form G1 in Appendix 2 of this ITP and Forms G2 and G3 in Appendix 2 of this ITP; Proponents should note that Forms G1, G2 and G3 are provided in a separate document
  - SR 3.4 – Proposal Deposit and the Preferred Proponent Deposit (pass/fail evaluation)

***Evaluation Process***

The Department will use specific evaluation criteria for evaluation purposes. Subject to the requirements of law, no evaluation or rankings will be released to any person for any reason.

A Proponent will fail with respect to any SR Package if that Package, after clarification, is materially incomplete or determined by the Department to be unacceptable having regard to the requirements of this RFP.

The Department will notify Proponents of the evaluation results of SR Package 2 and SR Package 2B, respectively, no later than 4:00 pm Alberta Time on the applicable day specified in Section 5.1 of this ITP.

Proponents who fail on any SR Package will not be permitted to submit subsequent SR Packages or to otherwise further participate in this RFP. Proponents who pass an SR Package will be permitted to submit subsequent SR Packages (if any), subject to the Department's right to obtain additional clarifications.

From among the Proposals that are compliant, the Preferred Proponent, if selected, will be the Proponent whose Financial Offer presents the lowest total cost on a net present value basis. The net present value will be calculated to the SR Package 3 Submission Deadline by discounting the Financial Offer using a discount rate to be determined by the Department and based on the Province's borrowing costs as estimated by Alberta Treasury Board and Finance two Business Days prior to the SR Package 3 Submission Deadline based on Initial Yields of the Benchmark Bonds (as described in Appendix 2, Form G2) and capital market indications of Government of Alberta credit spreads for newly issued bonds. The total cost on a net present value basis will be calculated by taking the sum of the net present values of the following in the Financial Offer:

- a. the Capital Payments (comprised of the PNI Capital Payment and the RNI Capital Payment) set out in Table 1 of Form G1;

- b. the O&M Payments (including the New O&M Payment which is comprised of the PNI New O&M Payment and the RNI New O&M Payment) set out in Table 1 of Form G1 adjusted in accordance with Note 4 in Table 1 of Form G1; and
- c. the Provincial Funding as determined by the Department in accordance with the description in Form G1 and with the timing of the progress payments of the Provincial Funding assumed as set out below (and applied equally to each Proponent's Financial Offer):

October 1, 2018:	32 % of the Provincial Funding
November 1, 2018:	3.0 % of the Provincial Funding
February 1, 2019:	3.0 % of the Provincial Funding
May 1, 2019:	3.0 % of the Provincial Funding
August 1, 2019:	9.0 % of the Provincial Funding
November 1, 2019:	9.0 % of the Provincial Funding
February 1, 2020:	3.0 % of the Provincial Funding
May 1, 2020:	3.0 % of the Provincial Funding
August 1, 2020:	9.0 % of the Provincial Funding
October 1, 2020:	6.0 % of the Provincial Funding
October 1, 2021:	20.0% of the Provincial Funding.

### 5.15 Honorarium

The Department will pay an honorarium in the amount of \$1,500,000 (the “**Honorarium**”) to each Proponent that submitted a compliant SR Package 3 and was not selected as the Preferred Proponent. The Preferred Proponent shall not be entitled to the Honorarium. The payment of honoraria will be made 21 Business Days after the execution of the DBFO Agreement and delivery to the Department of the Financing and Initial Performance Letter of Credit by the Successful Proponent. If the Department elects not to select a Preferred Proponent, the Department will pay the Honorarium to each Proponent that submitted a compliant SR Package 3 and in such event payment of the honoraria will be made 21 Business Days after the Department advises the Proponents that the Department has elected not to select and notify a Preferred Proponent. The Honorarium shall be paid to the order of the Contact Organization unless otherwise directed by a written notice from the Contact Organization.

### 5.16 Fairness Auditor

The Department has retained the Fairness Auditor to oversee and report upon the RFP process.

Proponents may seek a fairness opinion from the Fairness Auditor on matters relating to the RFP process by sending to the Department Representative a package labelled with the Proponent's name and with “**Request for Fairness Opinion**”, which package will include a letter of request for a fairness opinion



addressed to the Fairness Auditor.

The Department intends that the Fairness Auditor will respond, by providing to the Department Representative the requested fairness opinion, to requests for fairness opinions on or before the fifth (5th) Business Day after receipt of the request by the Department Representative. The Department intends to issue fairness opinions and their corresponding requests to all Proponents. However, the Department reserves the right to issue particular fairness opinions only to a particular Proponent depending on whether the request is confidential, or not to issue a fairness opinion at all.

Should a Proponent wish to seek a fairness opinion on a matter that it considers confidential (i.e., the fairness opinion is to be directed only to the Proponent that submits the request), the Proponent may request such a fairness opinion be kept confidential provided it sets out with such request an explanation as to why it believes the request confidential. If the Department considers that the request is in fact confidential, it will direct the fairness opinion only to the Proponent that has made the request, and not to the other Proponents. If the Department considers that the request is not confidential, it will advise the Proponent of its view, and the Proponent can decide whether to withdraw the request for a fairness opinion. The Department reserves the right in its sole discretion to determine whether a request is confidential or not, and anticipates that only in exceptional circumstances will it determine a request to be confidential.

### **5.17 Execution of DBFO Agreement**

Concurrently with executing the DBFO Agreement, the Successful Proponent's legal counsel shall provide the legal opinion or opinions that confirm the accuracy of the Contractor's representations in clauses (a) through (c) of section 14.1 of the DBFO Agreement and the shareholdings (or other applicable ownership interests) in the Contractor and in the Contractor's ultimate parent disclosed to the Province under clause (d) of that section, which legal opinion or opinions may be subject only to such qualifications and limitations as are reasonably appropriate and customarily accepted in third party legal opinions in commercial transactions. The Department's legal counsel shall provide the legal opinion in support of the Province's representations in section 15.1 (a) and (b) of the DBFO Agreement in the form attached as Form H in Appendix 2 to this RFP. This opinion will be delivered when the DBFO Agreement becomes unconditional in accordance with section 3.3 of the DBFO Agreement.

Once issued in final form, the DBFO Agreement is to be executed by the Successful Proponent no later than 5:00 p.m. Alberta Time on the deadline date set out in Section 5.1 without further negotiation or amendment, except for limited customization to incorporate specific portions of the Preferred Proponent's Proposal. The Preferred Proponent cannot qualify the acceptance of the final form of the DBFO Agreement. If the Successful Proponent does not execute the DBFO Agreement in its final form no later than 5:00 p.m. Alberta Time on the deadline date set out in Section 5.1, in addition to any other remedy available to the Department, the Department may retain the Preferred Proponent Deposit of \$20 million, and, in the sole discretion of the Department, may designate the Proponent with the Financial Offer with the next lowest total cost (on a net present value basis) as the Preferred Proponent.

The Preferred Proponent may, within seven Business Days of being notified that it is the Preferred Proponent, elect in lieu of sections 18.7 and 18.8 as set out in the final form DBFO Agreement the

replacement Sections numbered for identification as 18.7A and 18.8A that follow sections 18.7 and 18.8 in the final form DBFO Agreement; failing which election within such seven Business Day period, sections 18.7 and 18.8 shall apply.

## Section 6

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### Other Matters

## 6.0 Other Matters

### 6.1 Eligibility

As a result of their involvement with the Department on this DBFO, the following individuals, companies and their affiliates are not eligible to be a Proponent, participate as Team Members of a Proponent, or act as advisors to a Proponent or its Team Members in the development and preparation of Proposals for this DBFO, or otherwise participate in the development and preparation of Proposals for this DBFO:

Engineering Consultants:

- CH2M Hill Canada Limited
- ISL Engineering and Land Services Ltd.
- Thurber Engineering Ltd.
- D.E.S. Engineering Limited
- CH2M Hill Energy Canada, Ltd.
- JHoad Consulting
- Wim M. Veldman, M.Sc., FEIC, P. Eng.
- Canadian Highways Institute Ltd.

Financial and Process Consultant:

- Deloitte LLP

Fairness Auditor:

- Gary G. Campbell, Q.C. and GGC Consultants Inc.

A Proponent may be disqualified if any of the above-noted ineligible persons participate in the development and preparation of the Proponent's Proposal for this DBFO.

### 6.2 Contact Organization and Contact Individual

A Proponent shall maintain the same Contact Organization and Contact Individual for the RFP as for the RFQ. The Contact Organization will be the contact for all communications with the Department regarding this RFP, and the Contact Individual shall be responsible for all such communications on behalf of that organization. The Department shall be entitled to rely on any communication from the Contact Individual as having been duly authorized by the Contact Organization and as being duly given on behalf of the Proponent and its Team Members.

A Proponent may change its Contact Organization only by providing notice from the previous Contact Organization. The Contact Organization may substitute a new Contact Individual only by a written notice to the Department signed either by the previous Contact Individual or by an officer of the Contact Organization whose authority to do so is affirmed to the satisfaction of the Department.

### 6.3 Changes to Proponents' Team Structure

It is recognized that Proponents may seek to change the roles of Team Members or Key Individuals, replace, remove or change Team Members and Key Individuals, or change entities from “under consideration” to confirmed Team Members. If any such change is sought, Proponents shall forthwith inform the Department Representative of the proposed change and submit all the applicable RFQ information, if not already submitted. The Department will re-evaluate the change in accordance with the RFQ criteria and determine if the change is acceptable. The Department reserves the right to either accept or reject the requested change and to change the short-listed status of the Proponent accordingly. Breach of this provision may result in disqualification of the Proponent from the RFP process.

### 6.4 Conflict of Interest

Proponents must not include among their Team Members or Key Individuals any business entity or individual who is, is associated with or is in any way likely to create a conflict of interest or a perception of conflict of interest with any of the following:

- Any consultant retained by the Department in relation to the DBFO, including but not limited to consultants providing engineering, process, finance or financial capacity advice (see also Section 6.1) including any former employee or contractor of such consultant who worked on the DBFO for such consultant;
- The Fairness Auditor (see also Section 6.1);
- Any member of the Legislative Assembly of Alberta or any associated person as set out in the *Conflicts of Interest Act* (Alberta); or
- Any former or current employee of the Province, who through his/her employment (past or present) has had involvement with the DBFO.

If a Proponent considers that a particular relationship or association does not create a conflict of interest or will not create a conflict of interest, but is concerned that the Department could arrive at a different conclusion, the Proponent should fully disclose the circumstances to the Department at the earliest possible date, and request that the Department provide an advance interpretation as to whether the relationship or association will be likely to create a conflict of interest or a perception of conflict of interest.

Failure to comply with this provision may result in disqualification of the Proponent from the RFP process.

## 6.5 Proponents' Expenses

Except as otherwise expressly provided in this RFP, Proponents and their Team Members are solely responsible for all costs incurred in the preparation and submission of their responses to this RFP, for any presentations or interviews related to the Proposal, and for submitting any additional information requested by the Department. The Department shall not be liable to any Proponent or its Team Members or Key Individuals for any costs and expenses incurred in responding to this RFP.

## 6.6 Ownership of Documents and Intellectual Property

### 6.6.1 Documents

All documents submitted by Proponents shall become the property of the Department upon their being presented, submitted, or forwarded to the Department. Should any documents be submitted electronically, notwithstanding the prohibition on same contained elsewhere in this RFP, then their content and the media in which they are contained shall also become the property of the Department upon their being presented, submitted or forwarded to the Department.

### 6.6.2 Use of Documents, Drawings and Ideas

Notwithstanding anything contained in this RFP as to the purpose for the submission of Proposals, the Department may use the concepts, ideas, suggestions and directions contained within the documents, drawings, plans, written descriptions and other materials contained in the Proposals and in any communication surrounding the Proposals provided by the Proponents or their agents, for any purpose whatsoever including but not limited to use of portions of the Proposals or of ideas, information, enhancements and designs contained therein in other Department projects and in the development and negotiation of future DBFO relationships. For clarity, the confidentiality obligations set out at Section 6.10 which apply to the Department's use of information herein shall not interfere with the Department's rights to use concepts, ideas, suggestions and directions as herein described.

### 6.6.3 Assignment of Copyrights

The Proponents and their Lead Team Members and Project Lead (if not otherwise a Lead Team Member) must, via Forms A1 and A2 (Attachment to Declaration for SR Package 1), state as follows (or as modified in Forms A1 and A2):

“By submitting the Proposal or otherwise communicating to the Department matters relating to the RFP, and for good and valuable consideration receipt of which is acknowledged, this Proponent transfers and assigns unto the Department any and all Copyrights. This Proponent ensures the Department that it has become the owner of Copyrights as they have arisen from time to time and accordingly it has become qualified to make this Copyright assignment(s) in favour of the Department. This Proponent has also ensured that the first owners of Copyrights have waived their copyright moral rights in written documents. Copies of assignments of copyrights from first authors and waivers shall be provided to the Department at no cost and the originals shall be available for inspection by the Department and its agents on reasonable terms. The Proponent

agrees to assist the Department in understanding, documenting and in applying for registration for copyright(s) for any works; including executing such documentation as is reasonable and proper and within a reasonable time thereafter.”

#### **6.6.4 Assignment of New Technology**

The Proponents and their Lead Team Members and Project Lead (if not otherwise a Lead Team Member) must, via Forms A1 and A2 (Attachment to Declaration for SR Package 1), state as follows (or as modified in Forms A1 and A2):

“Unless otherwise agreed to in writing, all New Technology shall be owned by the Department. For good and valuable consideration, receipt of which is acknowledged, all New Technology is hereby transferred to the Department. For greater certainty the rights of the Department hereunder include, but are not limited to, providing the Department with the right to design, construct, operate and maintain the Infrastructure using New Technology without obtaining the further consent of the Proponent. The Proponent agrees to assist the Department in understanding, documenting, and in applying for registration for patent(s) for any New Technology, including executing such documentation as is reasonable and proper and within a reasonable time thereafter.”

#### **6.6.5 Royalty Free License Back**

The Department shall agree upon request to provide a royalty-free, perpetual license back to the Proponent which has created Copyrights and New Technology for its unfettered use in incorporating same into future or other projects and in licensing to its clients as required in other projects. This license does not carry any obligations on the Department whatsoever and does not require it to register or enforce registered rights in regard to Copyrights and New Technology.

#### **6.6.6 Indemnity for Infringement**

The Proponents agree, by submitting a Proposal, that the Proponent indemnifies the Department and its related parties including but not limited to its elected officials, officers, employees, and agents and agrees to hold them harmless against all claims, suits, proceedings, demands and actions arising out of or in any way connected with copyright, patent or other intellectual property infringement rights asserted by others against the Department, including for all damages, judgments, costs, fees and expenses (including legal fees on a solicitor and his own client basis) as a result of the Department owning, using or benefiting from the use of the Proposal and the New Technology or from designing, building, operating and maintaining the Infrastructure that is contained in the Proposal.

### **6.7 No Collusion or Common Ownership**

Proponents must ensure that their participation in this RFP is conducted without collusion or fraud on their part or any of their Team Members or Key Individuals. Proponents and their Team Members and Key Individuals shall not engage in discussions or other communications with any other Proponents or their Team Members and Key Individuals regarding the preparation or submission of their responses to

this RFP. Breach of this provision may result in disqualification of the Proponent from the RFP process. Notwithstanding the foregoing, Proponents may use the same firm or firms to obtain geotechnical, topographical, or other information about the site.

Common ownership between Team Members on different Proponents (“**Common Ownership**”) that may reduce, or be perceived to reduce, the competition between the applicable Proposals (“**Competition Reduction**”) may result in disqualification of the Proponent from the RFP process. If a Proponent considers that a particular Common Ownership should not be determined to be Competition Reduction, but is concerned that the Department could arrive at a different conclusion, the Proponent should fully disclose the circumstances to the Department at the earliest possible date, and request that the Department provide an advance interpretation as to whether the particular Common Ownership would be determined to be Competition Reduction. If the Department determines a particular Common Ownership to be Competition Reduction, then the Department may disqualify all but one of the Proponents involved in the Common Ownership (the “**Commonly-Owned Proponents**”) from the RFP process.

The Department may determine the Proponent involved in the Common Ownership that is not removed based upon the Proponent involved in the Common Ownership with the highest evaluation score pursuant to section 8 (RFQ Evaluation) of the RFQ. If there is a tie among the highest evaluation scores among two or more Commonly-Owned Proponents, the Department may determine the Proponent involved in the Common Ownership that is not removed based upon a random draw among the Commonly-Owned Proponents with the tied highest evaluation scores.

Whether the Department determines that there is Competition Reduction is fact specific and depends upon a number of factors, including without limitation some of the following:

- the nature of the role the commonly-owned Team Members play with their respective Proponent, including without limitation whether the commonly-owned Team Members are Lead Team Members with their respective Proponent;
- the size of the role the commonly-owned Team Members play in terms of the Project or the O&M;
- the anticipated public perception should the non-commonly-owned Proponent drop out of the RFP process for whatever reason leaving only the two Commonly-Owned Proponents. In such case, would the nature and degree of Common Ownership be such that the public may perceive competition to be lessened;
- whether the nature of the Common Ownership is indirect such as a Team Member’s pension plan holds units in a fund and that fund holds shares in a Team Member with another Proponent;
- given similar facts, what have other jurisdictions in Canada and around the world done. Have other jurisdictions allowed the Commonly-Owned Proponents to be proponents under a request for proposals;
- would the Commonly-Owned Proponents be considered related, associated, or at non-arm’s length under the *Income Tax Act* (Canada) and case law;



- any measures the Commonly-Owned Proponents propose to implement to give the Department comfort that there are no communications (express or implied) between the commonly-owned Team Members in respect of the RFP process;
- the number of Proponents participating in the RFP process; and
- whether the commonly-owned Team Members provide specialized services which can only commercially reasonably be provided by a very limited number of entities.

## 6.8 No Lobbying

Proponents and their Team Members and Key Individuals are strictly prohibited from engaging in any form of political or other lobbying whatsoever in relation to the DBFO or with a view to influencing the outcome of this RFP process. Failure to comply with this provision may result in disqualification of the Proponent from the RFP process. All correspondence or contact by Proponents with the Department must be directly and only with the Department Representative or as otherwise provided for in this RFP.

## 6.9 No Publicity

No press release shall be issued by any Proponents or their Team Members or Key Individuals, nor allowed to be issued by any entity not at arm's length with a Proponent or its Team Members or Key Individuals, in relation to the DBFO without first obtaining the prior written consent of the Department. Breach of this provision may result in disqualification of the Proponent from the RFP process.

## 6.10 Confidentiality of Submissions and the Collection of Personal Information

Except as otherwise expressly indicated by Proponents, submissions in response to this RFP will be considered to have been submitted in confidence and, subject to Section 6.6 of this RFP and subject to section 19.6 of the DBFO Agreement, will not be disclosed by the Department or its consultants except as required by the *Freedom of Information and Protection of Privacy Act* (Alberta) (“**FOIP**”) or any other law.

The Proponent must advise, and must ensure Team Members advise, Key Individuals and other affected employees that all personal information (as defined in FOIP) provided to the Department in conjunction with the RFP process is being collected for the purpose of evaluating the Proponent's Proposal, pursuant to the *Government Organization Act* (Alberta). The Key Individuals and other affected employees must also be given the name and contact information of the Department Representative who may answer any questions they may have regarding this collection. It is the Proponent's responsibility to obtain Key Individuals' and other affected employees' authorization to include such personal information in the Proposal and authorization for the Department to do reference checks. Proponents must, if so requested by the Department, supply evidence demonstrating that such authorizations have been properly obtained in accordance with this Section.

## 6.11 Amendments to or Cancellation of Process

### **Amendment of Process:**

The Department may at any time before or after the SR Package 3 submission deadline, by addendum issued to Proponents, amend any aspect of this RFP. Each such addendum shall be issued by the Department in writing and shall be expressly identified as an addendum to this RFP.

Proponents are responsible for assessing the impacts of such addenda to their Proposals, including updating (showing all changes) and resubmitting relevant portions to the Department as necessary.

### **Rejection of Proposal:**

The Department may in its discretion reject any Proposal that does not meet all of the requirements set out in this RFP. If any Submission contains a defect or irregularity such that it fails in some way to comply with any requirement of this RFP, which defect or irregularity, in the sole opinion of the Department, can be remedied without providing an unfair advantage to one or more Proponents, the Department may request clarification from the Proponent under Section 5.8.2 of this RFP. Upon receipt of appropriate clarification, the Department may waive the defect or irregularity and accept the Submission. Failure by a Proponent to provide, within the time specified in the request for clarification, a written response that properly clarifies its Submission and rectifies the defect or irregularity, may result in disqualification from the RFP process.

### **Cancellation of Process:**

The Department is not bound to accept any Proposal. Although it is the current intention of the Department to select a Preferred Proponent and to enter into a DBFO Agreement, the Department may in its sole discretion, at any time prior to the execution of the DBFO Agreement, terminate the procurement process. The Department may in that event either cancel the Project and the O&M or proceed with the Project and the O&M on different terms or proceed with the Project and the O&M as a traditional design-bid-build, design-build or other procurement model.

In the event that the Department cancels this RFP but proceeds with the Project or with the Project and the O&M, the Department may issue a new request for proposals for any or all parts of the DBFO. In that event, the Department may proceed with any or all parts of the DBFO in such manner as the Department in its discretion considers appropriate, including by using some or all of the Proponents' ideas and concepts. Further in that event, the Department shall be at liberty to contract directly with one or more Proponent Team Members or with any one or more of the contractors, sub-contractors, consultants, advisors and others engaged by or through any Proponent or any Proponent Team Member or with any other person or persons, for any matter related to all of any part of the DBFO.

### **Non-recourse:**

No course of action or inaction by the Department that is permitted by this Section 6.11 shall create any obligation or liability to any Proponent or its Team Members or its Key Individuals or any other person or create a right of recourse against or entitlement to compensation from the Department, other than the Honorarium detailed elsewhere in this RFP.

## **6.12 Accuracy of Information**

While the information in the RFP and any other information have been prepared in good faith, the Department does not represent such information to be accurate, comprehensive or to have been independently verified. Neither the Department nor any of its elected officials, officers, employees, agents, or advisors accept any liability or responsibility for the adequacy, accuracy or completeness of, or makes any representation or warranty, express or implied, with respect to the information contained in the RFP or otherwise made available to Proponents. Any liability therefore is hereby expressly disclaimed.

Each Proponent shall be solely responsible for examining the complete RFP, including any addenda and any other information, and for independently informing and satisfying itself with respect to any and all information contained therein, and any and all conditions which may in any way affect its Proposal.

Each Proponent shall be deemed to have satisfied itself as to the nature and extent of the risks it will be assuming.

Each Proponent shall be deemed to have gathered all information necessary to perform its obligations under this RFP and any other obligations assumed or arising thereafter.

In connection with the foregoing, each Proponent shall review all of the RFP and shall promptly report or request clarification of any discrepancy, deficiency, ambiguity, error, inconsistency or omission contained therein. Any such report or request must be submitted to the Department Representative immediately.

The Proponent shall not be entitled to claim against the Department or its elected officials, officers, employees, agents or advisors on the grounds that any information, whether obtained from the Department or otherwise (including information gained from other departments of the Province or their elected officials, officers, employees, agents or advisors regardless of the manner or forum in which the information is provided) is incorrect or insufficient. Proponents shall be responsible for conducting their own due diligence on data and information upon which their Proposal is based.

## **6.13 Debriefing**

If requested, the Department will debrief Proponents, separately, after the execution of the DBFO Agreement.

During such debriefing, the evaluation, scoring, ranking and content of any Proposals will not be disclosed. Only the strengths and weaknesses of the Proponent's Proposal relative to the evaluation criteria will be disclosed and discussed.

## **6.14 Limitation of Damages**

The Proponent and its Team Members, by submitting any or all of a Proposal including any or all of the Optional Innovation Submission and the SR Packages, agrees that it will not claim damages, for whatever reason, in respect of the procurement of the design, build, finance, or operate of Southwest Calgary Ring Road, in excess of an amount equivalent to the reasonable costs incurred by the Proponent and its Team Members in preparing its Proposal minus the Honorarium (as defined in Section 5.15) if applicable.

## **6.15 Governing Law**

This RFP shall be construed, and the relations between the Department and the Proponents and their Team Members determined, in accordance with the laws in force in the Province of Alberta and the courts of the Province of Alberta shall have exclusive jurisdiction with respect to all matters relating to or arising out of the RFP.

## **6.16 Time**

Time is of the essence.

# Appendix 1

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## Submission Requirements

## Appendix 1 – Submission Requirements

### **SR 1.0      Submission Requirement Package 1**

The SR Package 1 consists of the following items to be provided by each Proponent:

SR 1.1 – General/Proponent information (including Forms A1 and A2)

The SR Package 1 is to be submitted in a single sealed envelope.

#### **SR 1.1      General/Proponent Information**

Provide the following items:

- A description of changes, if any, to the composition of the Proponent since its response to the RFQ, together with the same information solicited in the RFQ with respect to any additions to the Proponent.
- The names, titles, and employers of the individuals on the Proponent's team who are responsible for preparing the Proponent's SR Package 1.
- Declaration letters in the form of Form A1 and Form A2 in Appendix 2 from the Contact Organization and each Lead Team Member and the Project Lead (if not otherwise a Lead Team Member).

## SR 2.0 Submission Requirement Package 2

**SINCE PORTIONS OF THE PREFERRED PROPONENT'S SR PACKAGE SUBMISSIONS WILL BE INCORPORATED INTO THE DBFO AGREEMENT'S SCHEDULES, WHEN PREPARING SR PACKAGE 2, PROPONENTS MUST USE, WHERE APPROPRIATE, THE DEFINED TERMS USED IN THE DBFO AGREEMENT, INCLUDING SCHEDULE 18.**

The SR Package 2 consists of the following items to be provided by each Proponent:

- SR 2.1 – General/Proponent information (including Form B)
- Envelope A:
  - SR 2.1A – Management Plan
  - SR 2.2 – Roadway design report
  - SR 2.3 – Pavement design report
  - SR 2.4 – Noise attenuation strategy
  - SR 2.5 – Bridge structures design report
  - SR 2.6 – Drainage design report
  - SR 2.7 – Safety audit plan
  - SR 2.8 – Construction management plan
  - SR 2.9 – Operation and maintenance plan
  - SR 2.10 – Infrastructure wholelife management plan
  - SR 2.11 – Traffic management plan
  - SR 2.12 – Quality Management System
  - SR 2.13 – Environmental Management System
  - SR 2.14 – Safety plan
  - SR 2.15 – Public communications strategies
  - SR 2.16 – Collaboration strategy
  - SR 2.17 – Project schedule
  - SR 2.18 – Elbow River, Fish Creek & Cullen Creek Crossings
- Envelope B:
  - SR 2.19 – Insurance (including Form E)

The SR Package 2 Submission is to be submitted in two separate, sealed envelopes as described above

plus the SR 2.1 General/Proponent information.

### **SR 2.1           General/Proponent Information**

Provide the following items (most of which was provided as part of SR 1.1 and can be resubmitted unless there are changes since SR 1.1):

- A confirmation of the composition of the Proponent as provided in its response to the RFQ;
- A description of changes, if any, to the composition of the Proponent since its response to the RFQ, together with the same information solicited in the RFQ with respect to any additions to the Proponent;
- A description of the intended business form of the Successful Proponent, and the anticipated legal relationship among the Successful Proponent and the Team Members with respect to the relevant elements of the DBFO. Material provisions of any agreements which will be entered into between the Successful Proponent and the Team Member with respect to the DBFO are to be described;
- A list of the individuals or companies who will or do hold a major or controlling interest in the Successful Proponent and in each Lead Team Member and Project Lead (if not otherwise a Lead Team Member);
- Letter of intent for the procurement of services and of future key management employees, future key partners, future key sub-contractors, and future key sub-consultants;
- The names, titles, and employers of the individuals on the Proponent's team who are responsible for preparing the Proponent's SR Package 2; and
- Declaration in the form of Form B in Appendix 2 from the Contact Organization.

## **Envelope A**

### **SR 2.1A           Management Plan**

Address the functions required to satisfy the Proponent's obligations, duties, and responsibilities for the entire DBFO in a management plan. The management plan should include, but not be limited to, the following:

#### **SR 2.1A.1           Organization Structure**

Provide a comprehensive description of the Successful Proponent's organization structure for the DBFO in terms of organizational positions and the names of the designated individuals for those positions, identifying their roles, reporting relationships, responsibilities, and levels of authority. In so doing, provide an overall organization chart illustrating the key functions of the proposed DBFO organization, supplemented by additional organizational charts sufficient to present and describe all key functions through all phases of the DBFO, including:

- management group, including executive officers;



- design and construction group;
- environmental management group;
- public communications group;
- quality management group;
- operations and maintenance group(s); and
- financing group.

**SR 2.1A.2      *Proposed Key Personnel and Time Commitment***

For each of the key personnel identified above, provide a brief and concise summary in a resume of no more than two pages listing his or her most relevant qualifications to support the nomination to the identified organizational positions. Confirm the availability of these individuals to take part in the DBFO and the duration of that availability by providing letters of commitment signed by these individuals including the percentage of time they will provide to the DBFO.

**SR 2.1A.3      *Relationship Between the Department and the Successful Proponent***

Describe the nature and extent of the interfacing and interaction envisaged between the Successful Proponent and the Department over the course of the DBFO, and the measures proposed to ensure a high level of communications and cooperation.

**SR 2.2      Roadway Design Report**

Provide a roadway design report that identifies the safety features included in the design and how they relate to the Technical Requirements, where applicable. The roadway design report should also include, but not be limited to, the following:

**SR 2.2.1      *Design - Plans and Profiles***

Provide plans that display:

- All significant horizontal alignment geometric design data;
- All elements on the roadway plan in terms of their functional classification and design speed;
- The approximate limits of anticipated construction, including cut lines for clearing and any additional right-of-way requirements beyond that provided in the Road Right of Way. Provide justification for additional right-of-way (if any);
- Stationing and labels for horizontal curve ends;
- Profile and gore locations for all roadways, including Service Roads; and
- Basic dimensions including C-D road offsets, decisions sight distance on profile drawings, cut/fill lines for all roadways and cross sections for all roadway retaining walls at locations with restricted clearances.

Clearly identify specific measures that need to be implemented to permit the construction of the New Infrastructure. Identify details of mitigation. The mitigation measures to be identified include but are not limited to:

- Retaining walls (provide maximum height and extent of walls), stabilized slope techniques and other geotechnical features;
- Underground drainage facilities, other than cross-roadway culverts;
- Permanent erosion control features;
- Side slopes steeper than 3:1 slope;
- Barrier locations and types being used for protection of traffic against hazards;
- Measures taken to preserve sight distances at intersections; and
- Details of tie-ins with municipal and other infrastructure, present and planned in the future.

#### **SR 2.2.2      *Design Cross-Sections***

For all homogenous sections of roadway within the New Infrastructure, provide typical cross-sections which include, but are not limited to, the following detail:

- Summary of relevant geotechnical information, including stability analysis, settlements, groundwater horizons, borrow sources, etc.;
- Graded top width;
- Finished base top width;
- Pavement top width after each successive pavement rehabilitation for the duration of the PNI Operating Period and the Operating Period;
- Sideslopes; and
- Accommodation of the ultimate phase of the New Infrastructure, as shown on the Functional Plan and/or the Project specifics.

Identify the strategy for maintenance of minimum roadway top width and minimum side slope requirements throughout the PNI Operating Period and the Operating Period.

#### **SR 2.2.3      *Designs – Appurtenances***

Provide the design standards to be applied to the New Infrastructure in the following areas:

- Mitigations of hazards;
- Roadside and median barrier systems including longitudinal transitions to bridge structures, median treatments and end treatments;
- Pavement markings at every stage of the New Infrastructure;

- Delineators;
- Measures to reduce conflicts with wildlife;
- Lighting systems including details of pole structures and offsets;
- Signals;
- Signage; and
- Other traffic devices and/or features within the roadway.

#### ***SR 2.2.4      Signing***

Describe the overall signing strategy for the New Infrastructure including all overhead sign installations, and a proposed approach for verifying the wording of sign messages. The location of the overhead signs only needs to be shown on the Proponent's roadway design report.

Identify the standards for sign installation, in particular with respect to:

- Sign post installation;
- Breakaway sign posts;
- Sign standards for materials, fonts, colour, layout, and reflectivity; and
- Offset standards.

#### ***SR 2.2.5      Roadside Hazard Report***

Provide details of the following:

- Approximate location of barriers, of all types;
- The standards of each type of barrier to be used; and
- Standard of typical installation and layout drawings for barriers and other roadside hazards, within an offset less than the appropriate clear zone guideline as per the Department's *Highway Geometric Design Guide* and *Design Bulletins*.

#### ***SR 2.2.6      Traffic Modelling***

Provide the following in electronic form on CD or USB data storage device:

- Synchro files (.syn and .sim files) in Version 9 format and SIDRA files (.sip6 file) in Version 6 format that are in accordance with sections 200.2.1 and 300.4.1.2.1 of Schedule 18 (Technical Requirements).

#### ***SR 2.2.7      Railway Crossings***

Provide details of the following:

- Vertical and horizontal geometry of all proposed and future railway tracks crossing the New Infrastructure;
- Accommodation of railway appurtenances including but not limited to off track roadway, switching facilities, yard drainage, team track access, loading ramp access requirements; and
- Railway shooflies.

Proponents shall note that the design and construction of any railway infrastructure and related appurtenances is completely subject to the review and prior written approval of the relevant railway company.

### **SR 2.3          Pavement Design Report**

Provide a pavement design report that presents the Proponent's preliminary pavement design for the New Infrastructure's mainline, interchange ramps and cross roadways. The approach to be employed in designing the pavement structure(s) shall be in compliance with in the Technical Requirements. The pavement design report is to include and address, but not be limited to, the following matters:

#### ***SR 2.3.1          Geotechnical Information***

Provide a geotechnical report with sufficient information to assess the anticipated soil and groundwater conditions. The geotechnical report is to contain, but not be limited to, the following:

- Soil stratigraphies;
- Moisture contents;
- Plasticity;
- Estimated standard proctor optimum moisture content;
- Erodability;
- Frost susceptibility; and
- Anticipated subgrade support values.

#### ***SR 2.3.2          Design Methodology Adopted and Application***

Name and describe the design methods adopted in developing the pavement design(s) and discuss the rationale for their selection for use for the New Infrastructure. Describe how the design methodology would be applied for developing the pavement design(s).

Provide the design parameters and factors used in determining the pavement design(s). These must include at least the following:

- Equivalent Single Axle Loads (“**ESAL**”);
- Lane distribution;

- Annual projected growth rate over the PNI Operating Period and the Operating Period;
- Percentage heavy vehicles;
- Pavement material strength factors; and
- Pavement design life.

#### **SR 2.3.3      *Roadway Construction Specifications***

Submit the proposed roadway construction specifications which are fully compliant with the Technical Requirements. Only specifications that differ from the Department's *Standard Specifications for Highway Construction* need be identified.

#### **SR 2.4      *Noise Attenuation Strategy***

In the event that noise attenuation may be required in order to meet the Technical Requirements, indicate the Proponent's strategy to control noise in accordance with those requirements throughout the PNI Operating Period and the Operating Period.

Show a cross-section(s) and other design details that demonstrate how the Proponent is planning to mitigate sound generation to satisfy the Technical Requirements, including noise generated at intersections and interchanges in the New Infrastructure.

#### **SR 2.5      *Bridge Structures Design Report***

Submit a Bridge Structures Design Report to illustrate the concepts and strategic direction of the proposed bridge structures. The report shall contain a geotechnical summary, a bridge design parameters summary, a bridge materials summary, an overhead sign structure summary, site specific bridge drawings for each bridge and bridge size culvert, and typical drawings for overhead sign structures. Typical bridge drawings that are common to more than one bridge site may also be included. Additional details of the above requirements are listed below.

##### **SR 2.5.1      *Geotechnical Summary:***

Provide a summary of geotechnical investigation of bridge sites including:

- Approach fill borrow sources including test hole logs, plans and laboratory testing information;
- Stability analysis for approach fills and retaining structures, including any required ground improvements (e.g. staged construction, reinforcement or drainage measures) and geotechnical instrumentation required to confirm stability; and
- Anticipated approach fill settlements including any geotechnical instrumentation required to confirm settlements.

##### **SR 2.5.2      *Bridge Design Parameters Summary***

Provide a summary of the bridge design parameters as listed in the table entitled "Bridge Design Parameters Summary", preferably in the tabular format set out below under the heading "Summary Reports".

**SR 2.5.3      *Bridge Materials Summary***

Provide a summary of the bridge materials as listed in the table entitled “Bridge Materials Summary”, preferably in the tabular format set out below under the heading “Summary Reports”. Describe any other proposed materials for bridge components with sufficient detail and supplier product information to demonstrate conformance with the Technical Requirements.

**SR 2.5.4      *Overhead Sign Structure Data Summary***

Provide a summary of the overhead sign structure data as listed in the table entitled “Overhead Sign Structure Data Summary”, preferably in the tabular format set out below under the heading “Summary Reports”.

**SR 2.5.5      *Site Specific Bridge Drawings***

Provide site specific bridge drawings for all bridges and bridge size culverts (greater than or equal to 1.5 metres in diameter) as follows.

**For each bridge site drawing include:**

Cross references to the Department’s Standard Drawings as set out in Appendix B to Schedule 18 (Technical Requirements) to the DBFO Agreement, typical bridge drawings (see SR 2.5.6), or other drawings in the Submission package.

The required drawing content and preferred drawing organization are indicated below. Sample drawings of the preferred bridge drawing organization are provided in the Electronic Data Room.

**For each bridge include:****General Layout Sheets:***Interchange Key Plan including:*

- A simplified plan view of the interchange showing the location of the bridge in the context of the whole interchange and adjacent structures; and
- Label roadway(s), railway(s), water course(s) (if applicable) and the relevant bridge.

*Plan including:*

- Structure layout, including locations of any retaining walls, ground improvement measures and footprints of the approach fills;
- Horizontal alignment of the over-passing roadway(s)/railway(s), under-passing roadway(s)/railway(s) or water course(s) (if applicable), including skew angles, control line offsets from centerline of median, and chainage equations. Show and dimension traffic lanes, shoulders, sidewalks, bikeways, railway tracks, etc. Show Ultimate Stage geometry for the under-passing roadway(s)/railway(s) and Stage 1 geometry for the over-passing roadway(s)/railway(s);
- Extent of any Ultimate Stage bridge widening or additional structures as indicated in the Functional Plan - shown using distinct line type (e.g. dashed lines);
- Location of minimum vertical clearance points;

- Minimum horizontal distances for clear recovery zones indicated at the point of critical clearance for each substructure element;
- Minimum horizontal sight distances indicated at the point of obstruction (where applicable);
- Wingwall orientation and lengths;
- Utilities within and adjacent to the structure footprint, identifying potential conflicts between the bridge foundations and existing utilities;
- Bridge and site drainage including locations of any drainage related items including deck drains, catch basins, drain troughs, swales, culverts, etc., identifying how the bridge drainage ties in with the site drainage, and global drainage through or around the site;
- Concrete slope protection; and
- Locations of water course protection works (where applicable).

*Elevation including:*

- The geometry of the under-passing roadway/railway and required bridge opening for both Stage 1 and the Ultimate Stage. For Stage 1 and Ultimate Stage show and dimension (on square) all traffic lanes, shoulders, sidewalks, bikeways, swales, railway tracks, water courses (if applicable), etc.;
- Minimum vertical clearances indicated at the point of critical clearance for each span;
- Existing ground lines;
- Span lengths;
- Station, elevation, and road grade (%) for the over-passing roadway at the centerline of each substructure element, and at tops of fills;
- Headslopes, including any retaining walls, slope protection, and ground improvement measures;
- Bridge components including abutment, pier and wingwall types;
- Bridge barrier transition type and standard drawings;
- Superstructure articulation system including identification of expansion and fixed bearings;
- Girder continuity including the location of any required girder field splices;
- Foundation types and depths;
- Minimum horizontal clearances from piers and foundations to watercourse realignments, if applicable;
- Hydrotechnical information (if applicable) such as design high water elevation, historic high water mark, freeboard, ice loading and general and local scour;
- Details of water course protection works, if applicable; and
- Wildlife corridor information, if applicable.

*Notes including:*

- List any deviations from the general Bridge Design Parameters Summary and the Bridge Materials Summary;
- Identification of potential environmental issues at the bridge site and proposed mitigation;
- Identification of utility conflicts and proposed resolution;
- Identification of potential settlement issues and proposed mitigation;
- Design speeds on over-passing and under-passing roadways; and
- Parameters for calculation of each clearzone used at the bridge site.

**Bridge Detail Sheets:**

*Superstructure Detail including:*

- Control line;
- Stage 1 and Ultimate Stage widths of bridge clear roadway. Show Ultimate Stage widening using a distinct line type (e.g. dashed line);
- Stage 1 fill adjacent to structure identifying rural or urban section;
- Deck and wearing surface type and thickness;
- Curb/barrier type and heights;
- Girder type, size, spacing, and depth; and
- Girder bracing types and spacing.

*Pier Details including:*

- Elevation and section view showing pier type and dimensions;
- Any future bridge widening or provisions for additional structures as indicated in the Functional Plan - shown using distinct line type (e.g. dashed lines);
- Pier diaphragm, bearing type and lateral restraint system; and
- Typical pier shaft cross-section.

*Abutment Details including:*

- Elevation and section view showing abutment type and dimensions;
- Any future bridge widening or provisions for additional structures required as indicated in the Functional Plan - shown using distinct line type (e.g. dashed lines);
- Abutment diaphragm, bearing type and lateral restraint system;
- Retaining wall type and dimensions, if applicable;
- Deck and/or cycle control joint types;
- Approach slab and/or roof slab, including approach slab length;
- Abutment deck joint plumbing and deck wick drain termination; and
- Abutment drainage and backfill details.

**Profile Sheets:***Roadway Profiles including:*

- Overall roadway vertical alignment showing each bridge in context with the roadway alignment including centreline of finished crown stations; and
- Gradeline profiles, including existing ground lines, for over-passing and under-passing roadway(s)/ railway(s).

**For Each Bridge Size Culvert (greater than or equal to 1.5 metres in diameter):***General Layout drawing showing:*

- Longitudinal and transverse sections;
- Invert elevations;
- Roadway elevations;
- Invert length;
- Hydrotechnical information including normal water levels at inlet and outlet, high water levels for culvert headwater and tail water, and freeboard;
- Backfill details;



- End treatment details;
- Erosion and/or scour protection details;
- Barrier/guardrail details; and
- Any special details.

**For Each Type of Cantilever or Overhead Bridge Sign Structure:**

*Typical General Layout drawing showing:*

- Framing type (single arm, double arm, truss etc.);
- Vertical and horizontal clearance from roadway;
- Foundation type;
- Barrier/guardrail details, deflection allowance and zone of intrusion set back requirements in non barrier-free locations; and
- Summary table containing span lengths for all structures.

**SR 2.5.6      *Typical Bridge Drawings***

Proponents are encouraged to use typical drawings to provide information on bridge elements that are common in form across multiple bridge sites. Information that is not shown on typical drawings must be shown on site specific drawings. A list of required and preferred typical drawings is given below.

**Required Typical Drawings:**

- Depiction of how the aesthetic principles of the Technical Requirements and the Department's *Bridge Aesthetics Study* have been incorporated into the bridges and their components;
- Utility and lighting accommodation on bridges, showing attachment of lighting to bridge, details of power supply entry location to pier and ducting routing on bridge. Also showing pole locations together with zones of intrusion and set-backs where applicable;
- Typical sections for all abutment types (e.g. conventional, integral, semi-integral) for headslopes and/or MSE walls when applicable, showing:
  - General structural arrangement, backfill details, wingwall embedment, and drainage system for joints and backfill;
  - Bridgerail to approach barrier/guardrail transitions, with relative locations of posts, drains and utility ducts in this area;
  - Surface drainage, and termination details of deck wick drains;
  - The extent of any MSE wall soil reinforcing;
  - Details at top of headslope, including minimum bench dimensions and treatment of bench ends, flashing, and minimum abutment embedment below top of headslope; and
- Transitions on bridge approaches between an urban cross section with curb and gutter and a bridge section with barriers or guardrail.

**Preferred Typical Drawings:**

- Retaining wall sections for various types; and
- Barrier sections for any site specific barriers not covered by the Department's standard barriers.

## Summary Reports:

<b>Bridge Design Parameters Summary</b> (List all deviations to this summary on site specific bridge drawings, and include the relevant drawing numbers in the table below)		
Item	Description	Drawings with Deviations
Design Code		
Design Life (Bridge / MSE Wall/Culvert)		
Design Live Load		
Reference Wind Pressure (100yr / 50yr / 25yr)		
Design Mean Daily Temperature Range (max/min)		
Design Fatigue Stress Cycles (Highway Class)		
Design Seismic Load Parameters		
Design Vehicle Collision Load		
Ice Parameters (effective ice strength / thickness)		
Other		

<b>Bridge Materials Summary</b> (List all deviations to this summary on site specific bridge drawings, and include the relevant drawing numbers in the table below)		
Item	Concrete Class and/or 28-day Compressive Strength	Drawings with Deviations
Prestressed and post-tensioned concrete girders		
Cast-in-place decks, curbs, bridge barriers, sidewalks, medians, abutment and pier diaphragms, deck joint blockouts, tops of abutment backwalls, abutment roof slabs, approach slabs and sleeper slabs		
Precast partial depth deck panels		
MSE wall precast wall panels and MSE wall coping		
Splash zone surfaces		
Pilecaps, substructure elements and monolithic concrete protection barriers other than splash zone surfaces		
Sign structure foundations		
Drilled concrete caissons above the frost line		
Concrete slope protection and concrete drain troughs		
MSE wall levelling pads		
Pipe pile in-fill concrete and drilled caissons below the frost line		
Grout (base plates)		
Grout (post-tensioning ducts)		
Other		

<b>Bridge Materials Summary (continued)</b> (List all deviations to this summary on site specific bridge drawings, and include the relevant drawing numbers in the table below)		
<b>Item</b>	<b>Steel Grade and Category or Bar Type</b>	<b>Drawing Number</b>
Steel girders and all materials welded to them		
Steel diaphragms for steel bridges		
Steel diaphragms for concrete bridges		
Steel H-piles		
Steel pipe piles		
Deck joints		
Bearings		
High strength bolts, nuts and washers		
Anchor rods for bearings in contact with black steel		
Anchor rods for bearings in contact with galvanized steel only		
High strength anchor rods (including bridgerail post anchors)		
Reinforcing steel in bridge decks, curbs and barriers above the deck/wingwall construction joint, projecting dowels embedded in the deck pour, sidewalks, medians, deck joint blockouts, approach slabs, sleeper slabs, abutment roof slabs, dowels connecting approach slabs to abutment corbels, concrete within 300 mm of the tops of abutment backwalls, diaphragms, corbels, wingwalls, and within 300 mm of Splash Zone Surfaces		
Reinforcing steel stirrups projecting from precast girders into deck slabs.		
Reinforcing steel in MSE wall panels		
Reinforcing steel in precast girders other than steel stirrups projecting into deck slabs		
Reinforcing steel in piles		
Reinforcing steel in precast girders other than steel stirrups projecting into deck slabs		
Pre-tensioning strand		
Post-tensioning strand		
Other		

<b>Overhead Sign Structure Data Summary</b> (List all deviations to this summary on site specific bridge drawings, and include the relevant drawing numbers in the table below)		
<b>Item</b>	<b>Description</b>	<b>Drawings with Deviations</b>
Design Code		
Maximum cantilever span		
Sign structure material, grade and category		
Foundation concrete class		
Design Fatigue Category		

#### **SR 2.5.7      *Bridge Structure Specifications***

Submit proposed specifications for the construction of bridge structures that are fully compliant with the Technical Requirements. Only specifications that differ from or are not included in the Technical Requirements or the Department's *Specifications for Bridge Construction* need to be identified.

#### **SR 2.6          *Drainage Design Report***

Provide a drainage design report that includes standards, specifications, design methods, decisions and assumptions that will be implemented during the design and construction of the New Infrastructure with respect to proposed drainage facilities.

Specific items to be addressed include but are not limited to:

- Stormwater management facilities;
- Outlet control facilities;
- Storm sewers;
- Open ditches;
- Check dams;
- Canals;
- Catch basins;
- Third-party drainage arrangements planned;
- Sub-drainage;
- Erosion control features;
- An area wide drainage plan, with pre and post roadway and railway construction drainage patterns identified; and
- All drainage connections that tie into local municipal master drainage plans.

Identify and provide details for all off-site drainage arrangements that relate directly or indirectly to the New Infrastructure. This includes joint use or shared facilities within the Road Right of Way, within the TUC, or off-site.

Describe the methodology and approach employed for the preliminary design of the drainage facilities required for the New Infrastructure. Describe the quantity control, water quality treatment and spill containment features of the New Infrastructure.

Provide the factors, parameters and assumptions used in the derivation of the design flows and other drainage analyses.

The Department understands that stormwater ponds that are larger than 30,000 m<sup>3</sup> in volume and 2.5 m in height above the natural ground elevation will require Alberta Environment (dam safety branch) approval. The Successful Proponent will be required to submit all information required to obtain the applicable approval from Alberta Environment, including but not limited to, the information referenced in “List A” and/or “List B” in Alberta Environment’s *Dam and Canal Safety Guidelines*.

Confirm expected drainage from external areas, and how it is to be managed with the New Infrastructure.

Provide design information on the outlet piping and pond sizing and measures to ensure water quality guideline maintenance for ponds discharging directly into watercourses, including but not limited to the Elbow River and Fish Creek.

## **SR 2.7            Safety Audit Plan**

Provide a safety audit plan that identifies a strategy for the following items:

- Selection of the safety auditor and schedule for execution of the safety audits;
- The process for review of the results of the safety audits; and
- A process for implementation of changes, identified by the safety auditor.

## **SR 2.8            Construction Management Plan**

Provide a construction management plan that contains the following information related to the Proponent’s proposed construction:

### **SR 2.8.1            Municipal and Railway Issues**

Identify the Proponent’s overall strategy for liaison with local authorities and railway companies during the Construction Period. Include all items that are anticipated to arise during construction, including but not limited to:

- Haul roads;
- Detour roads;
- Shooflies;

- Access roads;
- Noise during construction;
- Dates of construction;
- Hours of construction activities;
- Dust during construction;
- Temporary drainage arrangements;
- Construction access;
- Over-dimensional loads into the site;
- Overweight loads into the site;
- Weed/vegetation control during construction, within the TUC;
- Watercourse realignments; and
- Closure of existing roads.

**SR 2.8.2      *Construction Staging***

Describe in detail the approach to construction staging and how the staging relates to the proposed construction schedule and traffic management. Provide sketches to illustrate the extent and positioning of proposed mainline, crossroad and ramp detours in relation to the construction work site requirements for each stage. Issues to be addressed include, but are not limited to, the following:

- A detailed description and sketches of the construction staging for the delivery of the New Infrastructure with specific reference to segments (including Service Roads as defined in the DBFO Agreement) to be opened to traffic in advance of Traffic Availability;
- The construction staging for the delivery of any major water course crossings and realignments;
- The construction staging for the delivery of the 69 Street interchange;
- The construction staging for the delivery of the Sarcee Trail interchange;
- The construction staging for the delivery of the Glenmore Trail/37 Street SW interchange;
- The construction staging for the delivery of Weaselhead Road bridge;
- The construction staging for the delivery of the Anderson Road interchange;
- The construction staging for the delivery of the 130 Avenue SW interchange;
- The construction staging for the delivery of the 146 Avenue SW interchange;
- The construction staging for the delivery of the Highway 22X interchange;

- The construction staging for the delivery of the James McKeivitt Road SW/Spruce Meadows Way interchange;
- The construction staging for the delivery of the 6 Street SW/Sheriff King Street interchange;
- The construction staging for the delivery of the Macleod Trail interchange;
- The construction staging for the delivery of the highway segments to be tied into existing infrastructure;
- The approach to providing safe and continuous access through or along the Infrastructure, including details of the Successful Proponent's plans for accommodating traffic (with particular emphasis on peak traffic hours) as it relates to construction staging at key conflict locations including but not limited to interchange and flyover locations;
- The approach to providing safe and continuous access to the Spruce Meadows facilities, including details of the Successful Proponent's plans for accommodating traffic during major public events;
- The identified traffic levels proposed to be maintained during construction in accordance with the proposed construction staging, including locations and duration;
- The construction staging for the delivery of the highway segments to be tied into infrastructure yet to be built; and
- The strategy for construction, operation and removal of temporary detours and shooflies.

#### ***SR 2.8.3      Coordination with Other Projects***

Identify the strategy for coordination with the construction of other projects, at either terminus and other intersecting or adjacent roadways of the New Infrastructure. Details shall include but not be limited to:

- A time schedule and anticipated coordination with other contractors in the area;
- A traffic accommodation strategy and anticipated coordination with the other contractors in the area, identifying the required access arrangements to all areas of the New Infrastructure; and
- Maps showing the traffic accommodation routes for the duration of construction.

#### ***SR 2.8.4      Stakeholder Issues***

Identify the Proponent's strategy for issues that arise with all relevant stakeholders during construction, specifically but not limited to:

- Site security, including all off-road vehicles and **unsafe situations for children**;
- Access to private parcels;
- Borrow pit arrangements;
- Crossing of equipment and material across existing roadways and railways;



- Potential impacts to railway operations, including train scheduling, slow orders, flagging requirements, and temporary clearance box requirements;
- All major haul road routes and the arrangements for them;
- Environmental issues; and
- Construction complaints.

**SR 2.8.5      *Transportation and Utility Corridor Issues***

Identify the Proponent's strategy and process for administration of issues in the TUC. Include in the strategy details regarding the communication of information among the Successful Proponent, the Department, Alberta Infrastructure, and affected utility companies.

The strategy is to include, but not be limited to, the following:

- A process for approval of new utilities and municipal services prior to and during the Construction Period;
- An approach to accommodation of existing utilities and municipal services during the Construction Period;
- A communication strategy for dealing with affected utility companies, agencies, and municipalities during the Construction Period; and
- A communication strategy for dealing with affected utility companies, agencies, and municipalities during the PNI Operating Period and the Operating Period.

Proponents are to include:

- A listing of existing utilities and municipal services and identification of which ones will require action related to design and construction of the New Infrastructure;
- Identification of utilities or municipal services having significant requirements for regulatory approvals and consultation with key stakeholders;
- Typical sections showing minimum clearance for above and below ground utilities;
- Definition of an approach for handling new utility requirements on, under or above lands to which rights have been granted to utility companies; and
- Demonstration of an understanding of the unique TUC administration requirements related to utilities.

**SR 2.8.6      *Third-Party Claims***

Identify the Proponent's strategy for the management and process of all claims, including claims from subcontractors, consultants, subconsultants and other internal parties, for the Construction Period and the Operating Period. Provide separate discussion on the administration of small damage claims made by the

public. Clearly separate strategies for the administration of minor claims from those for the administration of larger claims.

**SR 2.8.7      *Incident Management***

Identify the Proponent’s strategy for management and administration of the following during the Construction Period:

- Construction zone accidents and traffic management;
- Encountering possible UXO;
- Fire calls within the construction zones; and
- Incident management within the construction zones.

**SR 2.8.8      *Construction Quality***

Identify the Proponent’s strategy in the following areas:

- Overall construction inspection and documentation;
- Ensuring that the most currently reviewed version of “issued for construction” design drawings and documentation are provided to the construction team and are accessible to the Department’s representatives at the applicable work site; and
- Differentiating between quality control and quality assurance.

**SR 2.8.9      *As-Built Construction Reports***

Identify the Proponent’s strategy for obtaining and recording as-built information and final details and providing as-built construction reports to the Department.

**SR 2.9      *Operation and Maintenance Plan***

Provide an operation and maintenance plan that addresses all the work required to be performed to satisfy the Proponent’s obligation to operate, maintain and rehabilitate the New Infrastructure throughout the PNI Operating Period and the Operating Period, to operate and maintain the Existing Infrastructure throughout the Construction Period and the Operating Period, to be responsible for certain operation and maintenance activities of certain portions of current roads that are required to remain in-service during the Construction Period (the “**In-Service Roads**”). The plans should reflect the requirements set out below.

**SR 2.9.1      *Inspections***

Include a schedule and basic definitions and scope for the inspections. The plan is to include, but not be limited to:

- How the Technical Requirements for inspections and monitoring will be achieved;
- What basic information will be provided; and

- How and when this inspection information will be reported for the purpose of advising on issues relating to the general safety of the DBFO.

#### **SR 2.9.2      *Roadway Maintenance***

Address, at a minimum, each of the following issues relevant to the overall operation and maintenance:

##### **2.9.2.1      Overall Maintenance Strategy**

Address the following items:

- The strategy for providing maintenance during the Construction Period, in accordance with section 200.3.10 of Schedule 18 (Technical Requirements) to the DBFO Agreement, on roadways open to traffic and how these activities will be delivered;
- The key activities of the maintenance program during the PNI Operating Period and the Operating Period and how these activities will be delivered;
- Details of the Successful Proponent's plan for monitoring the Infrastructure for hazards and physical condition in general;
- Core staffing and shift arrangements envisioned during summer operations;
- Vehicles and equipment for the summer maintenance program;
- Communications systems to be employed by the Successful Proponent to call in staff and coordinate operations between the supervisor and contractors and operators;
- A schedule and strategy for roadway and bridge surface sweeping and/or cleaning including, without limitation, spring sweeping and cleaning;
- A plan to ensure full operational reliability of all traffic signals, include timely maintenance of signals, and a strategy with respect to coordination of signals with local authorities;
- A plan for the delivery of a reliable lighting system for, and as part of, the New Infrastructure that addresses strategies of repair and maintenance of lighting infrastructure and repair due to accidents, and planned arrangements in regard to procurement of electrical energy for overhead lighting and electrical signals of all types;
- A strategy for maintenance of lighting and signalization poles to meet the Technical Requirements;
- A plan to address operations and maintenance requirements for temporary railway infrastructure constructed for the Project. It may be determined that this responsibility rests with the railway companies however the Successful Proponent must verify this to be the case;
- A plan outlining the warranty inspection criteria for the permanent railway infrastructure constructed for the Project as required by the railway companies;
- A plan outlining monitoring to meet ongoing regulatory authority approval requirements; and

- A plan outlining contamination monitoring in environmentally sensitive areas, including but not limited to the Elbow River and Fish Creek.

#### **2.9.2.2 Scheduled or Periodic Maintenance**

Provide a description of the scheduled or periodic maintenance work to be carried out in the following areas:

- A process to identify, schedule, and undertake periodic maintenance activities;
- A comprehensive list of periodic maintenance activities planned to be undertaken during the Construction Period, the PNI Operating Period and the Operating Period;
- A process for communication of the periodic maintenance activity schedule with the Department;
- A preventative maintenance plan to ensure that reliable and maintained lighting and signal systems are in service for the Infrastructure;
- A plan to ensure that signs meet the Technical Requirements, and are clean and visible, including but not limited to:
  - Straightening and cleaning of signs;
  - Sign repair and base repair;
  - Sign replacement as required;
  - Repair/replacement of signs after accident damage; and
  - Repair/replacement of lighting facilities for illuminated signs;
- Identification of strategies for the storm water drainage system elements, including culverts, ditches, underground piping, and storm water management facilities; and
- Identification of strategies in the following areas:
  - Road Right of Way mowing schedules;
  - Control of noxious weed within the TUC during the Construction Period;
  - Control of noxious weeds within the Road Right of Way and related drainage system;
  - Maintenance of the Road Right of Way and related drainage system in a clean manner to achieve an aesthetically pleasing appearance; and
  - Maintaining adequate re-vegetation rates and monitoring for sediment and erosion control.

#### **2.9.2.3 Bridge Structures Preventative Maintenance**

Submit a bridge structures preventative maintenance program for the duration of the PNI Operating Period and the Operating Period that outlines what actions are to be completed and when.

#### **2.9.2.4 Winter Maintenance Operations**

Provide a comprehensive plan for winter maintenance operations including, but not limited to, the following:

- Reporting winter road conditions, including reporting to the media and 511 Alberta;
- Details of the winter ice control materials that will be used including how they are to be used as part of a pro-active strategy to ensure “bare pavement” conditions;
- Details of winter snow clearing and ice control equipment that will be used, including a map of proposed equipment storage locations and access routes;
- A description of the staff organization and training of staff that will be used, including supervisory staff who will supervise winter snow clearing and ice activities during and after winter storms of all kinds and types;
- Details of shift availability during the winter season;
- Details of normal response time for winter storms on and off regular shift periods;
- Details of the proactive strategy that will be put in place to prevent preferential bridge deck icing;
- A commitment to minimize response time for reaction to emergency winter storm conditions;
- Details of the availability during the winter season of winter staff and equipment, and details as to the availability of winter snow and ice control equipment and materials outside the winter season;
- Details of the method or methods of communication that will be available to staff;
- Details of the communication links between snow and ice control equipment, supervisory staff, other key personnel, and emergency agencies; and
- A policy for administration of optional Department Road Weather Information System (“**RWIS**”) station information and utilization for winter maintenance activities.

#### **2.9.2.5 Emergency Response**

Present a complete emergency response plan that details the manner and timing of reaction to emergencies to ensure public safety and the protection of property. The following items should be addressed:

- An activation process for mobilizing crews on short notice in the event of emergencies such as traffic accidents, flooding, dangerous goods spills and road surface failures;
- A contingency plan in the event that primary staff cannot be reached;
- Training to be given staff with respect to emergency response and procedures;
- Communication strategies with the Department, the public, the media, local authorities, utility companies, railway companies, police, and fire department;

- An administrative process for making all reasonable first efforts for collection of costs from accidents from the responsible party;
- A strategy in regard to practices and procedures for prompt replacement and repair of Infrastructure due to accidents;
- A strategy with respect to administration of fire calls from local fire departments;
- A strategy with respect to the practice and administration of debris removal and abandoned vehicles; and
- Description of the main components of the emergency preparedness and response plan that meets the requirements for such a plan set out in ISO 14001:2015-4.4.7.

## **SR 2.10      Infrastructure Wholelife Management Plan**

Provide an infrastructure wholelife management plan that addresses all the work required to be performed to satisfy the Successful Proponent's obligations, duties and responsibilities for the New O&M.

Identify the overall strategies of the Successful Proponent to meet its DBFO Agreement obligations, including the Technical Requirements for each infrastructure element, with a detailed schedule for all major infrastructure elements, including the following:

### **SR 2.10.1      *Bridge Structures Rehabilitation***

Submit a bridge structures rehabilitation plan (encompassing the full life-cycle of the bridge structures, i.e., beyond the Operating Period) based on realistic and technically sound information that outlines the type and approximate timing of actions and interventions for bridge components expected to have a maintenance free service life of no less than 75 years. The plan should describe the criteria or testing used for determining the timing of the proposed rehabilitation actions and for verifying that the Technical Requirements are met.

### **SR 2.10.2      *Pavement Rehabilitation***

Submit a pavement rehabilitation plan for the duration of the PNI Operating Period and the Operating Period that addresses the measurement of pavement condition and the criteria for planning and implementing any rehabilitation measures.

### **SR 2.10.3      *Rehabilitation Work Plan***

Provide a rehabilitation work plan including, but not limited to, the following:

- An approach for scheduling and organizing upcoming work activities;
- A communication plan to distribute upcoming work activities and schedules with local authorities and the Department; and
- A process for coordination of work schedules with other parties that may also be affected by the work, which other parties may include the following:

- the Department;
- Local authorities;
- Adjacent land owners;
- Railway companies; and
- Utility companies.

### **SR 2.11      Traffic Management Plan**

Provide a traffic management plan that describes in detail the Proponent’s approach to:

- Providing safe and efficient passage of the travelling public throughout the Infrastructure during the construction phase to the extent the roadway is open to public traffic; and
- Ongoing traffic management on the Infrastructure throughout the Construction Period and the Operating Period.

#### **SR 2.11.1      *Traffic Management Plan for Infrastructure Improvements***

Identify the Successful Proponent’s strategy with respect to infrastructure capital improvements and the process for identification and implementation necessary to improve overall traffic management. This strategy is to include:

- Access management;
- Adjustment to traffic signals;
- Minor intersection improvements;
- Lane marking and painting;
- Signing improvements and instructions to drivers;
- Taper and ramp improvements;
- Signal coordination with local authorities;
- Temporary signalized at-grade intersections during the Construction Period (if any);
- Temporary signal control for local police and emergency service agencies; and
- The means by which public traffic will be safely separated from construction activities.

#### **SR 2.11.2      *Coordination with Police and Other Emergency Agencies***

It is important that communications and resources are “in-place” to promptly respond to emergency situations that arise. Indicate the Successful Proponent’s strategy in the following areas of emergency response:

- Communication processes within the Successful Proponent’s organization;
- Communication processes with police and other emergency agencies;
- Coordination of public communications plans with police and local authorities in emergency situations;
- Provision of detour signs and emergency site signing (to accommodate emergency traffic accommodation); and
- The notice procedure to the Department.

**SR 2.11.3      *Hazardous Goods Spills, Incident Management, and Accidents***

Identify the strategy for management and administration of sites/incidents and accidents involving dangerous goods and hazardous goods. Specific items to cover are:

- The strategy for the preservation of public safety;
- The emergency response plan;
- Communication strategies; and
- Dangerous and hazardous goods training for employees and subcontracting staff.

Provide a plan indicating how the Successful Proponent’s incident management is to be conducted, including who is functionally responsible for incident management situations and what the basic procedures are.

**SR 2.11.4      *Accommodation of Over-Dimensional and Over-Weight Loading***

Provide a methodology to accommodate and manage over-dimensional and/or over-weight vehicles that come onto the Infrastructure.

**SR 2.12      *Quality Management System***

**SR 2.12.1      *Introduction***

The Successful Proponent shall develop a Quality Management System (“QMS”), satisfying the Technical Requirements, and that is consistent with all of the requirements of the ISO 9001:2015 (and subsequent revisions) that covers all activities, products and services related to the DBFO prior to the execution of those activities, products and services. The QMS shall address all stages of the DBFO, specifically:

- Design;
- Construction;
- Operations;
- Maintenance; and



- Rehabilitation.

The QMS shall provide guidance to ensure compliance with the DBFO Agreement, including the Technical Requirements as well as compliance with the intent of the Technical Requirements. The Successful Proponent is required to monitor, update and manage their QMS on an ongoing basis.

#### ***SR 2.12.2      Scope***

The Proponent shall provide in its SR Package 2 a description of the QMS for each phase of the DBFO (design, construction and operations, including maintenance/rehabilitation) and demonstrate a clear understanding and commitment by the Successful Proponent to follow the ISO 9001 (and subsequent revisions) QMS standard for this DBFO. The Proponent's QMS shall include names, qualifications and relevant prior experience for the proposed project quality manager, design quality manager and construction quality manager. The Proponent's QMS shall also include, without limitation, procedures to achieve the following:

- Designate quality managers for design, construction, and the overall project;
- Ensure documentation and drawings are consistent with the Department's expectations;
- Produce design documents and drawings with required internal reviews and checks;
- Produce record drawings with required authentication;
- Perform materials testing and fabrication inspection; and

Notify the Department of upcoming concrete pours.

#### **Quality Manual**

The Successful Proponent shall establish and maintain a quality manual that satisfies the Technical Requirements and includes:

- The scope of the QMS, including details of and justification for any exclusions;
- The documented procedures established for the QMS, or reference to them; and
- A description of the interaction between the processes of the QMS.

#### **Documented Procedures**

The Proponent shall illustrate in its SR Package 2 an understanding and strategy for the following detailed documented procedures that will be implemented by the Successful Proponent to address the following elements of ISO 9001:

- Control of Documents (element 4.2.3)

The Successful Proponent will define the documentation, including the relevant records, needed to establish, implement and maintain the QMS and to support an effective and efficient operation of the proposed processes.

■ Customer Related Processes (element 7.2)

The Successful Proponent will have a controlled process in place to determine and review the requirements related to the service/product rendered. The review will be conducted prior to the Successful Proponent's commitment to supply the product/service (e.g. submission of tenders, acceptance of contracts or orders, acceptance of changes to contracts or orders) and will ensure that service/product requirements are defined and that the Successful Proponent has the ability to meet defined requirements.

■ Design and Development (element 7.3)

The Successful Proponent will define, implement and maintain the necessary design and development processes to respond effectively and efficiently to the needs and expectations of its clients and other interested parties. The following requirements should be identified and their records maintained:

- Design and development planning – the Successful Proponent will determine the design and development stages and the roles, responsibilities, and authorities of the design team through all phases of the DBFO.
- Design and development input – all input requirements such as functional and performance requirements, applicable statutory and regulatory requirements, and other requirements essential for the design and development are reviewed for adequacy.
- Design and development outputs – the outputs of the design and development will be provided in a form that enables verification against the input requirements (contain or reference product/service acceptance criteria) and will be approved prior to release.
- Design and development review – at suitable stages, systematic reviews of the design and development will be performed to evaluate the ability of the results to meet requirements and to identify any problems and propose necessary actions.
- Design and development verification – to ensure that the output meets the input requirements.
- Design and development validation – to ensure that the resulting product/service is capable of meeting the requirements for the specified application or intended use, where known.
- Control of design and development changes – the changes will be reviewed, verified, and validated, as appropriate, and approved prior to implementation. The effect of changes on product/services already delivered will also be evaluated.

■ Purchasing (element 7.4)

The Successful Proponent will ensure that purchased product/services conform to specified requirements. The Successful Proponent will evaluate and select suppliers based on their ability to supply product/services in accordance with the Successful Proponent's requirements. The Successful Proponent will ensure that purchased product/service are inspected and meet specified purchase requirements.

- Internal Audit (element 8.2.2)

The Successful Proponent will ensure the establishment of an effective and efficient internal audit process to assess the strengths and weaknesses of the QMS in order to ensure its effective implementation and maintenance. The approach to QMS auditing will include auditor qualifications, audit scope, audit methods, and audit frequency (each element to be audited at least once per year).

- Monitoring and Measurement of Product (element 8.2.4)

The Successful Proponent will monitor and measure the characteristics of the product/service to verify that product/service requirements have been met. This will be carried out at appropriate stages of the DBFO. Final inspection to confirm that verification and validation activities have been completed and accepted is a requirement. Evidence of conformity with the acceptance criteria (identifying the person authorizing the release of the product/service) shall be maintained.

- Control of Non-conforming Product (element 8.3)

The Successful Proponent will identify the process by which all types of quality system non-conformances are treated. The process must include how it will address the concerns in a responsible and timely manner. Any product/service that does not conform to specifications is identified and controlled to prevent its unintended use or delivery.

- Corrective Action (element 8.5.2)

The Successful Proponent will take action to eliminate the cause of non-conformances in order to prevent recurrence. The Successful Proponent should incorporate root-cause analysis, as appropriate, into the corrective action process.

- Preventative Action (element 8.5.3)

The Successful Proponent will take action to eliminate the cause of potential non-conformances in order to prevent their occurrence.

Prior to undertaking any construction, the Successful Proponent shall augment the above information with the following:

- Detailed quality system procedures addressing all the remaining elements of ISO 9001:2015; and
- Quality plans for all components of the DBFO including but not limited to: development, design, construction, operation, management, maintenance, rehabilitation, traffic management, public communications, environmental management, and so forth, following ISO 9001:2015.

The Successful Proponent's QMS shall include the following provisions:

- If required, revise the quality manual and/or procedures within seven calendar days of receipt of notice of non-compliance from the Department; and
- Operate the quality system in accordance with the quality manual and detailed procedures.

**SR 2.13 Environmental Management System****SR 2.13.1 Introduction**

The Successful Proponent shall develop an Environmental Management System (“**EMS**”) that is fully compliant with all of the requirements of the ISO 14001:2015 and that addresses all activities, products and services related to the DBFO prior to the execution of these activities, products and services. The EMS shall address all stages of the DBFO, specifically:

- Design;
- Construction;
- Operation;
- Post-construction monitoring;
- Maintenance; and
- Rehabilitation.

The EMS shall provide documentation to ensure compliance with the applicable environmental federal, provincial and municipal approvals and legislation, and the DBFO Agreement, including the Technical Requirements as well as compliance with the intent of the Technical Requirements. The Successful Proponent is required to monitor, update, and manage its EMS during the Construction Period and the Operating Period. The EMS shall include:

- Environmental Construction Operations (“**ECO**”) Plan(s) consistent with *Environmental Construction Operations (ECO) Plan Framework - Alberta Transportation/The City Of Edmonton/The City Of Calgary* - 2014 Edition; and
- A road salt management plan consistent with the *Environment Canada – Code of Practice for the Environmental Management of Road Salts* (2004), including identification of vulnerable areas (Annex B).

**SR 2.13.2 Environment Management System**

The Proponent shall provide in its SR Package 2 a commitment by the Successful Proponent to follow, and be fully compliant with, ISO 14001:2015 for all phases of the DBFO throughout the Construction Period and the Operating Period.

**Documented Procedures**

The Proponent shall provide in its SR Package 2 the following detailed documented procedures, for the construction and O&M phases of the DBFO, which will form the basis of the EMS to be implemented by the Successful Proponent:

- Copies of the Successful Proponent’s corporate environmental policy or policies (ISO 14001:2015-4.2);

- 
- A description of the procedure that identifies environmental aspects for the construction and O&M phases and determines which of those aspects have or can have significant impacts on the environment. Identification of the environmental aspects for those activities in SR2.13.3 (Environmental Procedures and/or Mitigative Measures) (ISO 14001:2015- 4.3.1);
  - List of all environmental regulatory requirements that pertain to the construction and O&M phases (ISO 14001:2015- 4.3.2);
  - Statement of goals, objectives and/or targets of the EMS that are consistent with the environmental procedures identified in SR 2.13.3 (ISO 14001:2015- 4.3.3);
  - Description of the roles, responsibilities, and authorities of the Successful Proponent's environmental team for the construction and O&M phases. This includes a clear description and illustration of the organizational and administrative framework to be employed in the implementation and execution of the EMS. The framework must demonstrate an effective functional relationship with other components of the Proponent's organization, with regulatory agencies, and with independent environmental monitors and/or auditors (ISO 14001:2015- 4.4.1);
  - A firm commitment that ensures that any person(s) performing tasks for the Successful Proponent or on its behalf that have the potential to cause environmental impacts are competent on the basis of appropriate education, training or experience, together with demonstration of an intent to retain these records (ISO 14001:2015- 4.4.2);
  - Description of a communications plan that includes internal communications processes and a process for receiving, documenting, and responding to external stakeholders (ISO 14001:2015 - 4.4.3);
  - Description of the types of documentation to be included in the EMS and how the documents will be controlled (ISO 14001:2015- 4.4.4/4.4.5);
  - Listing of the operational controls that the Successful Proponent will have in place for the Construction Period, the PNI Operating Period and the Operating Period. These operational controls are to include an ECO Plan(s), a road salt management plan, and those that address the Environmental Procedures as identified in SR 2.13.3 (ISO 14001:2015- 4.4.6);
  - Description of the main components of the emergency preparedness and response plan that meets the requirements for an EMS (ISO 14001:2015- 4.4.7);
  - A detailed description of the approach for monitoring the key characteristics of the Project and the O&M that can have a significant environmental impact and how the Successful Proponent proposes to communicate these results with the Department and the regulatory authorities (ISO 14001:2015 - 4.5.1);
  - A detailed description of the approach to the evaluation of compliance with environmental legislation (ISO 14001:2015- 4.5.2);
  - A detailed description of the actions required to properly mitigate any potential effects of DBFO activities on the environment (ISO 14001:2015- 4.5.3);

- A commitment to establish and maintain environmental records to demonstrate conformity to ISO 14001:2015- 4.5.4;
- The approach to the internal audit (ISO 14001:2015- 4.5.5); this would include auditor qualifications, audit scope, audit objectives and audit scheduling;
- Identify the process by which all types of environmental non-conformances will be treated. The process must include how it will address the concerns in a responsible and timely manner (ISO 14001:2015- 4.5.3);
- A description of the Successful Proponent's approach to management review with respect to the EMS through all phases of the DBFO (ISO 14001:2015- 4.6).

**SR 2.13.3      *Environmental Procedures and/or Mitigative Measures***

The Proponent shall provide in its SR Package 2 a commitment to develop, implement, and maintain environmental procedures in all areas where the following activities are required:

- Compliance with environmental regulatory requirements;
- Topsoil handling and conservation including storage and replacement, and rutting and compaction prevention;
- Contaminated soils and groundwater handling;
- Dust control;
- Noise management during construction;
- Historical resources;
- Temporary and permanent erosion and sediment control measures;
- Wildlife mitigation measures and movement corridors;
- Vegetation clearing, management (including salvage, procurement/propagation, installation, after-care weed control) and monitoring for re-establishment success;
- Project water course crossing sites, including instream activities and timing; and
- Watercourse realignments and water management.

The Proponent shall also provide in its SR Package 2 a commitment to develop, implement, and maintain an ECO Plan(s) for the Project as part of the Proponent's EMS. The ECO Plan(s) shall be consistent with all the requirements of the *Environmental Construction Operations (ECO) Plan Framework - Alberta Transportation/The City Of Edmonton/The City Of Calgary - 2014 Edition*.

The Proponent shall also provide in its SR Package 2 a commitment to develop, implement, and maintain risk management plans for areas where soil remediation will not be conducted as part of the Proponent's EMS. The risk management plans shall mitigate exposures (human and ecological) to, and migration of, residual soil and groundwater contamination not disturbed by the construction activities, but located within

the TUC. The risk management plans shall be consistent with all the requirements of Alberta Environment.

The Proponent shall provide in its SR Package 2, as part of the Proponent's EMS, a commitment to develop, implement and maintain the following environmental plans as part of the Proponent's EMS:

- A spill management plan;
- A road salt management plan consistent with the *Environment Canada – Code Of Practice for the Environmental Management of Road Salts* (2004);
- An animal-vehicle collision monitoring plan;
- An erosion and sediment control plan;
- A wildlife monitoring plan;
- A vegetation monitoring plan;
- An aquatic monitoring plan;
- A risk management plan and/or remedial action plan for contaminated soil sites; and
- Dam safety monitoring plan (if required).

#### **SR 2.14      Safety Plan**

Provide an outline of a Safety Plan, that details the Successful Proponent's policies, safety plans, Certification of Recognition ("COR") approach, subcontractor and consultants training program policy, and the work site control plan, to ensure the health and safety of personnel involved in the Project and the O&M and the public. The plan is to address the following areas:

##### **SR 2.14.1      Corporate Policy and Procedures**

Describe corporate strategy for safety, including safety policy and the fundamental philosophy for safety management.

##### **SR 2.14.2      Work Zone Management Strategy**

Outline the overall corporate strategy for work zone safety, including guiding principles and standards or work zone plans that are planned to be used. Provide a generic safe work procedures system or minimum standards for procedures yet to be developed.

##### **SR 2.14.3      Investigation and Reporting Strategy**

Provide processes for the following safety components:

- An accident reporting and investigation process as defined in the *Occupational Health and Safety Act* (Alberta);
- The system for reporting of accidents to the Department;

- A policy for work place health and safety meetings and inspections;
- Health and safety committee provisions; and
- The system for reporting accident summaries as shown below:
  - Monthly;
  - Calendar summary, compiled on December 31 of each year; and
  - The Department fiscal year summary, compiled on March 31 of each year.

**SR 2.14.4      *Training of Employees and Subcontractors***

Provide information with respect to the following items:

- Employee training for job-specific methods and specific equipment instructions;
- The Successful Proponent's strategy for subcontractor safety accreditation and COR status;
- Procedures in place for responding to violations identified by Occupational Health and Safety and by The Workers' Compensation Board;
- Equipment preventative maintenance training and equipment operation training to staff;
- Training systems to certify traffic control persons; and
- Integration of safety plan with other stakeholders' safety plans such as those of utility companies and railway companies.

**SR 2.15      Public Communications Strategies**

Provide public communications strategies that develop and implement a comprehensive public communications plan, particularly media relations, spanning the time from the identification of the Preferred Proponent to the end of the Operating Period. The public communications strategies are to address at a minimum the following:

- Management and staffing: names of key persons, their qualifications, and time committed to the public communications function;
- The type of information (including but not limited to construction schedule and materials, innovations, construction issues, environmental issues, traffic accommodation, and maintenance and rehabilitation information) and level of detail in information to be exchanged between the Successful Proponent and the public (including but not limited to maintenance of a high level of communication by the Successful Proponent among media, 511 Alberta, local authorities, emergency agencies, adjacent landowners, local community, interest groups, and other interested stakeholder agencies and environmental stakeholder groups) during all phases of the DBFO, and the communications tools (examples include 1-800 information line, website, newsletters, construction update open houses, site signs) that will be used to achieve this including the identification of personnel who will be involved;



- The relationship of the public information and consultation process for environmental management and planning to the overall communication plan for the DBFO;
- Involvement with stakeholder groups with particular reference to environmental, local community, and general construction impact issues;
- Maintenance of a high level of communication by the Successful Proponent among media, local authorities, emergency agencies, adjacent landowners, interest groups, and other interested stakeholder agencies;
- Public relations guidelines for the staff of the Successful Proponent and agents for communication with the public;
- Maintenance of communication records for submission to the Department;
- Assistance and support for responding to questions from the public to the Department; and
- Other methods of dispensing information to and interacting with the public.

#### **SR 2.16      Collaboration Strategy**

Provide a collaboration strategy that details the Proponent's overall strategy for collaborating with the Department. This strategy is to include, but not be limited to, the following items:

- The Proponent's understanding of the benefits that such collaborating will bring to the DBFO;
- The extent of the Proponent's commitment to such collaborating;
- The steps needed to implement such collaborating;
- The extent to which the various parties, such as members of the Proponent, any specialist advisors, relevant authorities, and municipalities are to be involved;
- A commitment that the Proponent will be responsible for the costs of collaborating in accordance with the DBFO Agreement; and
- A strategy to continue collaborating at the field supervisor's level for the Construction Period and the Operating Period.

The Successful Proponent shall be responsible for the costs of the venue (to be in the municipality in which the Project is located unless otherwise agreed to in advance by the Department) for any proposed collaborating sessions, for the costs of facilitation, and for the costs of its own attendees. The Department will attend at no cost to the Successful Proponent.

The adoption of this collaborating approach will not change the legal relationship between the parties nor relieve any party from its obligations under the DBFO Agreement.

#### **SR 2.17      Project Schedule**

Provide the overview and simplified schedule described in SR 2.17.1 below and the comprehensive information and detailed schedule described in SR 2.17.2 below.

**SR 2.17.1      *General Approach to Implementing the Project***

Provide an overview, accompanied by a simplified time schedule, of the Proponent's proposed approach for implementing the DBFO from the date of execution of the DBFO Agreement through the Construction Period and the Operating Period for both the Priority New Infrastructure and Remaining New Infrastructure. Describe in that overview the Proponent's plan to integrate its activities with consultant and subcontracted activities into scheduling and reporting systems for all phases of the DBFO. Include a description of how the Successful Proponent will approach re-scheduling if required to achieve recovery of the Project schedule, including coordination (and, if necessary, enforcement) with consultants and subcontractors.

**SR 2.17.2      *Detailed Schedule***

Provide a comprehensive description, accompanied by a detailed time schedule, of the Proponent's proposed approach for achieving Traffic Availability for both the Priority New Infrastructure and Remaining New Infrastructure by the PNI Traffic Availability Target Date and RNI Traffic Availability Target Date, respectively, and for opening the Service Roads by the dates required by the Project Requirements. The comprehensive description should identify and concisely describe the major activities, key tasks and milestones to be undertaken in connection with the DBFO from the date of execution of the DBFO Agreement through the Construction Period, the PNI Operating Period and the Operating Period.

For the Construction Period, provide a preliminary design and plan submission schedule that identifies all key tasks and milestones related to the major design components, and address any related studies, investigations, surveys, consultation with key stakeholders, public communication tasks, and environmental and other approvals and permits to be obtained during the Construction Period. The schedule should be consistent with SR 2.8.2 (Construction Staging). In anticipation that the Department may have comments on the Successful Proponent's submissions, the preliminary design and plan submission schedule should reflect that more than one submission and review cycle will likely be required for each design package. The preliminary design and plan submission schedule should also illustrate that the design and plan submissions are reasonably spread over the entire design period and that the preliminary schedule is reasonable to achieve.

Show all key milestones related to the construction and staging of both the Priority New Infrastructure and Remaining New Infrastructure, including separate descriptions for, but not limited to, the following:

- Roadway construction;
- Interchanges, including grade separations;
- Flyovers;
- Utilities (e.g., relocation and protection);
- Railway crossings and any staging infrastructure such as railway detours, including critical dates for obtaining agreements between the Successful Proponent and the railway companies during the design and construction phases;

- Watercourse crossings;
- Major stormwater features, including major pipes and ponds; and
- Other significant structures.

Also identify timelines for design reviews by the Department, utility companies, railway companies, affected municipalities, and other stakeholders.

For the PNI Operating Period and the Operating Period, specifically address inspection, maintenance and rehabilitation, and any anticipated environmental and public communication requirements.

### **SR 2.18      Elbow River, Fish Creek and Cullen Creek Crossings (for feedback and information only)**

Responding to this SR 2.18 is optional.

The Department recommends that Proponents provide information for preliminary review by the Fisheries and Oceans Canada (“**FAOC**”), Transport Canada Navigation Protection Program (“**NPP**”) and Alberta Environment and Parks (“**Alberta Environment**”) in order to provide timely feedback regarding the *Fisheries Act* (Canada), *Navigation Protection Act* (Canada) (“**NPA**”) *Water Act* (Alberta), *Public Lands Act* (Alberta) and requirements that the Contractor must comply with after execution of the DBFO Agreement. Any information related to the Elbow River bridge construction (two locations), the Fish Creek bridge construction, the Cullen Creek culvert construction and the water course realignment work as required in SR 2.1 to SR 2.17 should be submitted under the applicable headings for review and feedback by the Department. The SR 2.18 submissions will not be evaluated; however, FAOC, the NPP and Alberta Environment have agreed to provide feedback on the Proponents’ submissions. Proponents are encouraged to follow the instructions and requirements in SR 2.18.1 and SR 2.18.2 in order to facilitate FAOC’s, the NPP’s and Alberta Environment’s review of the submissions.

In addition to the provision of bridge information in accordance with the requirements set forth under SR 2.5 (Bridge Structures Design Report), the Proponents may provide information as follows:

#### **2.18.1      Navigation Protection Act (“NPA”)**

Under the NPA, the Elbow River, Fish Creek and Cullen Creek are not listed as scheduled navigable waters. The NPP has indicated that it considers the Elbow River, Fish Creek and Cullen Creek to be non-scheduled navigable water. However, it is the Proponent’s responsibility to determine the requirements under the NPA for the Elbow River, Fish Creek and Cullen Creek. At the Successful Proponent’s request, the NPP can provide a formal review of the Elbow River, Fish Creek and Cullen Creek in order to make a final determination regarding navigability on these water courses.

Under the NPA, the Successful Proponent can request, from the NPP, to opt-in to the NPA regime regarding non-scheduled navigable waters. The NPP may choose to review the activity as though the Elbow River, Fish Creek and/or Cullen Creek were scheduled waterbodies. The decision to opt-in to the NPA regime is at the sole discretion of the Successful Proponent. While it is optional to make a request to opt-in to the NPA, Proponents may wish to have their work reviewed in order to proceed with the added

assurance that the work's interference with navigation is sanctioned under the NPA. Applications to the NPP are typically processed within a 90-day period.

The requirements listed in this SR 2.18 are consistent with best management practices for the protection of navigation. The Successful Proponent is encouraged to contact the NPP to discuss NPA provision and relevant mitigations that protect navigational resources (i.e. common law right to navigation) during the instream construction period. The Successful Proponent may wish to utilize the information sessions to facilitate this discussion with NPP.

It is also recommended that the Proponent develop a strategy that includes design and construction methodology, a navigational safety plan and a communications plan.

#### **2.18.1.1 Design and Construction Plan**

The Proponents may provide a design and construction plan for the Elbow River bridges (two locations), the Fish Creek bridge, the Cullen Creek bridge-sized culvert and the water course realignments which includes the following information:

1. A navigation drawing for the proposed work identifying, as a recommended minimum, the following information:
  - An engineering plan, profile, and cross section drawings of the proposed structures. Details shall include grade line, pier locations, span arrangement and channel relocation;
  - The ordinary high water mark (“**OHWM**”) and the associated discharge;
  - The 1:2 year return discharge ( $Q_2$ ) and the associated water level;
  - The design discharge and the associated water level;
  - The minimum vertical clearance from the  $Q_2$  water level; and
  - Thalweg location on plan view.
2. A construction plan for duration of the instream construction period including drawings and, as a recommended minimum, the following information:
  - Sequencing and timing of the instream works including cross sections of any proposed isolation work;
  - Methodologies and materials to be employed during the construction of the works; and
  - Methodologies and materials to be employed for restoration of the bed and banks for the existing and new channels.

#### **2.18.1.2 Navigational Safety Plan**

The Proponents may provide a navigational safety plan including written procedures and drawings illustrating the safety features to be implemented to protect navigation during the Construction Period and the Operating Period. The navigational safety plan should include details and strategies consistent with all of the following:

1. For non-scheduled navigable waters the Proponent must ensure that the public right to navigation is maintained during all periods of open water. The Proponent's activities cannot change a vessel's passage in a significant way or make it more dangerous to navigate. The Contractor is

required to maintain safe passage of navigation through that portion of the watercourse that is subject to work activity. The mitigation measure implemented by the Contractor must ensure ongoing passage based on known vessel usage is maintained at all times during open water.

2. Clearly illustrate the portions of the Elbow River, Fish Creek and Cullen Creek that are to remain open for navigation throughout the different phases of construction. These drawings shall also identify the safety features to be implemented to protect both upstream and downstream navigation during the Construction Period and the Operating Period.
3. The Contractor shall not permit any tools, equipment, vehicles, temporary structures or parts thereof used or maintained for the purpose of building or placing the bridge structures in the water to remain after the completion of the instream construction period.
4. Where the work or a portion of the work is being constructed or maintained in the water that causes material to be placed or debris to accumulate on the bed or on the surface of the water, the Contractor shall remove all debris or other materials (e.g. rock used for berm protection).
5. The Contractor shall conduct pre- and post-construction surveys of the bed(s) in order to verify that the streambed(s) has been restored and that post-construction streambed profiles do not create additional navigational hazards when compared to the pre-existing condition.
6. During the instream construction period the Contractor shall ensure that warnings signs are placed adjacent to the work site and shall meet the following criteria:
  - Signs shall be located in a visible location 250 m upstream and 250 m downstream of the bridge structures until completion of the instream bridge construction period.
  - Signs measuring 4' x 8' shall include the message "CAUTION BRIDGE CONSTRUCTION AHEAD" and shall be oriented to warn approaching river traffic of the construction site.
  - Lettering shall be Arial font and letter sizing shall be as large as possible to fit on the sign panel.
  - Black lettering shall be displayed on a reflective yellow background with sheeting meeting ASTM D4956 Type III or IV retro-reflectivity requirements.
  - Signs shall be maintained in the proper location and kept clear of debris throughout all periods of open water.
7. Identify the potential for any required coordination with other projects where navigational conflicts may occur during the instream construction period. Details include identification of other contractors in the area and maps showing the adjacent works sites in relation to the river crossing construction site.
8. Identify the strategy to address issues that arise with stakeholders during the instream construction period including, but not limited to, site security and public complaints. Any complaints received from boating public shall be forwarded to the NPP.
9. Include the scope and schedule/frequency for monitoring, inspecting and reporting on all components of the navigational safety plan during the instream construction period. This

includes the types of information to be collected and method and timing that the inspection information will be reported to the Department.

10. During the PNI Operating Period and the Operating Period the Contractor is required to remove any debris that may cause a hazard to navigational safety. If the debris is a pre-existing condition the debris shall be removed immediately if it has the ability to interfere with navigation.
11. It is expected that the navigational safety plan will become a condition of the NPA approval should the contractor choose to opt-in.
12. Include detailed instream fisheries habitat enhancement measures, as required by the *Fisheries Act* (Canada) authorization and *Water Act* (Alberta).

#### **2.18.1.3 NPP Communications Plan**

The Proponents may provide a NPP communications plan. The NPP communications plan should identify the Proponent's overall strategy for liaison with NPP authorities. Details of the strategy should include the following:

- Changes to the design and construction plan and navigational safety plan subsequent to execution of the DBFO Agreement.
- Coordination with other regulatory agencies including any in-water compensation as required under the provisions of the *Fisheries Act* (Canada) and the *Water Act* (Alberta).
- Contact information for the primary and secondary contacts including name, address, phone number, and email address.
- The Contractor is to notify both the NPP and the Department in writing 14 Business Days prior to the commencement of any instream works.
- Any additional communication requirements indicated by an NPP approval, if issued.

#### **2.18.1.4 NPP Application Requirements**

The NPP has indicated that to facilitate the (opt-in) NPA request/approval process, the Successful Proponent's application for approval shall:

- Be complete at the time of submission to NPP;
- Include CAD drawings in either .dwg or .dgn format;
- Include a design and construction plan which minimizes the instream construction footprint and duration as reasonably practicable;
- Consider that the preservation of navigation is not required throughout frozen conditions (i.e. winter months when the river is not navigable by boat) and therefore, items related to the navigational safety plan do not apply during this time;
- Consider that temporary bridging is permitted with sufficient horizontal and vertical clearance. If temporary bridging is part of the construction plan, a navigational drawing for the temporary

bridging is required and shall illustrate that all requirements identified in SR2.18.1.1 (Design and Construction Plan) are satisfied. The navigational drawing for the temporary bridging shall also show the locations of booms and warning signs that ensure the safety of the boating public; and

- Include detailed instream habitat compensation measures, as required by the *Fisheries Act* (Canada) authorization or *Water Act* (Alberta) approval, which shall be reviewed by an NPP officer prior to issuance of an NPA approval.

#### **2.18.2 Department of Fisheries and Oceans (FAOC)**

FAOC has verified that the river realignments proposed at Fish Creek, Elbow River (both locations) and Cullen Creek have the potential to cause serious harm to fish during the Construction Period and the Operating Period. Proper implementation of the proposed conceptual plans and mitigation measures may negate the need for FAOC authorization; however, a serious harm determination will not be made until the final design is reviewed by FAOC. This does not preclude the Successful Proponent from developing additional or different plans and/or mitigation measures for submission to FAOC. FAOC will participate in the review of the Proponent's SR Package 2 Submission and will provide feedback regarding the Proponent's plans and mitigations. The Proponents may provide a strategy for obtaining Federal regulatory approval under the *Fisheries Act* (Canada). The strategy should address the design and construction of channel realignment, river bridges, bridge sized culverts, the habitat offsetting measures and a communications plan.

Based on the level of detail provided in the Proponent's SR Package 2 Submission, FAOC will review the Project in order to determine whether an authorization is required for the Project. If FAOC determines that there is likely to be serious harm to fish after the application of avoidance and mitigation measures, an authorization may be required in which case the Successful Proponent must undertake offsetting measures to address the residual serious harm to fish.

The Proponents may provide a strategy for avoiding serious harm to fish that meet the requirements of the *Fisheries Act* (Canada). If avoidance of serious harm is not possible an "offsetting plan" will be required to outline the steps and actions required to secure suitable offsetting for the project. FAOC has acknowledged that any authorizations issued for the Project will be in the Successful Proponent's name.

The strategy should include a "Design and Construction Plan", a "Fisheries Mitigation Plan", a "Conceptual Offsetting Plan" and a "Communications Plan".

##### **2.18.2.1 Design and Construction Plan**

The Proponents may provide a design and construction plan including the following information:

1. Drawings of the proposed instream construction activity identifying, as a recommended minimum, the following information for the Elbow River, Fish Creek and Cullen Creek:
  - Engineering plans of the proposed structures and realignments, including an elevation and plan view;
  - The ordinary high water mark ("OHWM") and the associated discharge;
  - The design discharge and the associated water level;
  - High ice elevation and thickness; and

- Mean monthly water levels and associated discharges at the site (in table format).
2. A construction plan for the instream works including drawings and, as a recommended minimum, the following information:
- Schedule showing sequencing and timing of the construction, specifically highlighting instream and channel realignment works;
  - Construction methodologies, equipment and materials to be used during the construction and decommissioning of instream works;
  - Methodologies, equipment and materials to be employed for restoration of the bed and banks to the preconstruction state at the realignment connection points;
  - Mitigation techniques to be applied during construction and restoration, including but not limited to: fish entrapment within coffer dams, fish passage through the construction site, release of sediment during construction, and introduction of deleterious substances (e.g. hydrocarbon releases);
  - Proposed frequency and method for monitoring of construction methods for impacts to fish and fish habitat; and
  - Erosion and sediment control plans for each phase of construction, including reasonable foreseeable contingencies.

#### **2.18.2.2 Fisheries Mitigation Plan**

The Fisheries Mitigation Plan should identify those detailed plans and mitigation measures to be implemented that will assist in minimizing serious harm to fish. The mitigation measures should address the instream construction period associated with the bridge/culvert structures as well as the channel realignment activity. The Proponent may submit a Fisheries Mitigation Plan including as a recommended minimum, the following information:

- The total amount and type(s) of fish habitat predicted to be altered or impacted as a result of the design and construction;
- The proposed plans and mitigation measures to avoid serious harm to fish habitat resulting from design and construction activities;
- A timeline indicating when the stages of the instream construction activity would be completed; and
- Proposed monitoring and reporting mechanism and frequency/schedule of the proposed mitigation works.

#### **2.18.2.3 Fisheries and Oceans Canada Communications Plan**

Identify the Proponent's overall strategy for liaison with FAOC staff throughout the Project. Details of the strategy should include, but not be limited to, the following:

- Changes to the design and construction plan subsequent to execution of the DBFO Agreement;
- Monitoring and reporting frequency of inspection activities during instream construction;
- Coordination with other regulatory agencies, in particular review of any instream compensation works by the NPP and Alberta Environment;
- Contact information ensuring the proper name, address, phone number, and email information for both a primary and a secondary contact; and



- Any additional communication requirements indicated by a FAOC authorization, if issued.

#### **2.18.2.4 Fisheries and Oceans Canada Application Requirements**

Should FAOC determine that an authorization for the instream construction period is required, FAOC has indicated that in order to facilitate their approval process, the Successful Proponent's application for authorizations must:

- Be complete at the time of submission to FAOC;
- Include a design and construction plan which minimizes the instream construction footprint and duration as reasonably practicable;
- Consider the information contained within section 5.1.7 of the Environmental Assessment (being the environmental assessment defined as “EA” in section 200.2.13 of Schedule 18 (Technical Requirements) to the DBFO Agreement);
- Meet the requirements of FAOC's *An Applicant's Guide to Submitting an Application for Authorization under Paragraph 35(2)(b) of the Fisheries Act*; and
- Include an Offsetting Plan pursuant to FAOC's *Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting* (November 2013).

#### **2.18.3 Alberta Environment**

The Proponents may provide a strategy for obtaining Provincial regulatory approval under the *Water Act* (Alberta) for the realignments of the Elbow River (two locations), Fish Creek and Cullen Creek. The strategy should address design and construction methodology, fisheries mitigation and a communications plan.

##### **2.18.3.1 Design and Construction Plan**

The Proponents may provide a design and construction plan including the following information:

1. Drawings identifying, as a recommended minimum, the following information:
  - Engineering plans of the realignment, including an elevation and plan view;
  - The ordinary high water mark (“OHWM”) and the associated discharge;
  - The design discharge and the associated water level;
  - High ice elevation and thickness; and
  - Mean monthly water levels and associated discharges on the Elbow River at the site (in table format).
2. A construction plan for the instream works including drawings and, as a recommended minimum, the following information:
  - Schedule showing sequencing and timing of the construction of the river realignment, specifically highlighting instream works;

- Construction methodologies, equipment and materials to be used during the construction and decommissioning of instream works;
- Methodologies, equipment and materials to be employed for restoration of the bed and banks to the preconstruction state;
- Mitigation techniques to be applied during construction and restoration, including but not limited to: fish entrapment within coffer dams, fish passage through the construction site, release of sediment during construction, and introduction of deleterious substances (e.g. hydrocarbon releases);
- Proposed frequency and method for monitoring of construction methods for impacts to fish and fish habitat; and
- Erosion and sediment control plans for each phase of construction, including reasonable foreseeable contingencies.

#### **2.18.3.2 Fisheries Mitigation Plan**

The Successful Proponent is responsible for the development of a Fisheries Mitigation Plan as part of the application for *Water Act* (Alberta) approval. The Proponent may submit a Fisheries Mitigation Plan including as a recommended minimum, the following information:

- The total amount and type(s) of fish habitat predicted to be altered or impacted as a result of the design and construction;
- The proposed fish mitigation measures to address impacts to fish habitat resulting from design and construction activities;
- If applicable, drawings of the proposed mitigation works including plan and elevation views and details of the works;
- A timeline indicating when the stages of the mitigation would be completed; and
- Proposed monitoring and reporting mechanism and frequency/schedule of the proposed mitigation works.

#### **2.18.3.3 Alberta Environment Communications Plan**

Identify the Proponent's overall strategy for liaison with Alberta Environment staff throughout the Project, from acquisition of approval through to monitoring of the fish mitigation works. Details of the strategy should include, but not be limited to, the following:

- Monitoring and reporting frequency of inspection activities during instream construction;
- Coordination with other regulatory agencies, in particular review of any instream offsetting works by FAOC and NPP;
- Contact information ensuring the proper name, address, phone number, and email information for both a primary and a secondary contact; and
- Any additional communication requirements indicated by Alberta Environment approvals, if issued.

#### **2.18.3.4 Alberta Environment Application Requirements**

*Environmental Protection and Enhancement Act (Alberta)*

The Successful Proponent shall submit any required applications under the *Environmental Protection and Enhancement Act* (Alberta) concurrently with the applications under the *Water Act* (Alberta) and *Public Lands Act* (Alberta).

#### ***Water Act***

Alberta Environment has indicated that the Project falls under the Interim Policy as field work for the Project started prior to June 1, 2015.

Alberta Environment has indicated that in order to facilitate their approval process, the Successful Proponent's application for *Water Act* (Alberta) approval should be complete at the time of submission to Alberta Environment and include the following:

- for wetlands:
  - area of wetland (including the flooded portion of the wetland and transition zone);
  - hydrological assessment;
  - statement of wetland benefits (i.e., hydrological, ecological, economical);
  - classification of wetland based on either the Cowardin Wetland Classification System or the Stewart and Kantrud Wetland Classification System;
  - flora and fauna observed at the sites including the presence of any rare or endangered species;
  - type of wetland margin and average width of wetland margin;
  - surrounding upland use (e.g., cropping, natural, etc.);
  - contributing drainage area for the wetland;
  - historical aerial photographs;
  - reference photographs showing wetland area, margin and adjacent upland area; and
- report describing existing wetland site and proposed development, including a statement (and supporting technical information) indicating why the wetland impact cannot be avoided or reduced for watercourse realignments:
  - area of watercourse prior to construction and the area following construction (including the riparian area);
  - fish habitat assessment of the existing channel prior to construction including the quantity and quality of habitat based on the methodology outlined in the Fish Habitat Manual: Guidelines and Procedures for Watercourse Crossings in Alberta (Alberta Transportation 2009);
  - a fish habitat assessment following construction which includes the quality and quantity of habitat based on the above methodology;

- a list of any fish habitat deficiencies in the constructed channel along with a plan to remediate the habitat;
- an inventory of species expected to be present at or near the project site during construction including federally or provincially listed species;
- a comprehensive list of mitigation measures to minimize the impacts to fish and fish habitat;
- identify any adverse effects to the aquatic ecosystem as a result of the works;
- results of any hydrological, hydraulic or hydrogeological analyses conducted;
- a water management plan; and
- a description (including drawings), timing and duration of construction activities and structures.

### ***Dam and Canal Safety Guidelines***

All stormwater ponds that are larger than 30,000 m<sup>3</sup> in capacity and 2.5 m in height above the natural ground elevation will require approval by Alberta Environment's Dam Safety branch. The Successful Proponent will be required to submit all required information for obtaining approval including but not limited to those provided in List A and/or List B in the Dam and Canal Safety Guidelines.

### ***Public Lands Act***

The Successful Proponent will be required to submit the required applications under the *Public Lands Act* (Alberta) for watercourse realignments concurrently with the *Water Act* (Alberta) applications for the same realignments.

In addition, the Successful Proponent will be required to determine the ownership (i.e., provincially-owned or private) of affected wetlands and submit any required *Public Lands Act* (Alberta) applications for affected wetlands concurrently with the corresponding *Water Act* (Alberta) application. A wetland may be claimable by the Province if the wetland has defined bed and banks, is naturally occurring and is more permanent in nature (i.e., water levels present throughout most or all of the year as determined by a permanency assessment of the wetlands as per the *Guide for Assessing Permanence of Wetland Basins* (Alberta Government, 2014). A request for determination of wetland ownership for potentially province-claimable wetlands will be submitted to Alberta Environment, including historical aerial photographs and supporting data showing why the wetlands may be considered for provincial ownership. The Successful Proponent should be aware that receiving a response to a wetland ownership determination request may require up to one year. Wetlands within the Road Right of Way are under the administration of the Minister of Transportation and therefore do not require a permanence determination under the *Public Lands Act* (Alberta).

## Envelope B

### SR 2.19 Insurance

The general insurance documentation to be produced by the Proponent must meet the minimum requirements of section 11 of the DBFO Agreement and Schedule 11 (Insurance Requirements) to the DBFO Agreement.

Provide details of proposed insurance program in compliance with section 11 of the DBFO Agreement and Schedule 11 to the DBFO Agreement, which the Proponent will put in place for the DBFO. While the Proponents may choose to obtain types of insurance coverage beyond the minimum requirements of the DBFO Agreement, information for such additional insurance is not to be included in the Proponent's submission. Required details of insurance include:

- Type of insurance including limits, endorsements and coverage terms are specified in section 11 of the DBFO Agreement and Schedule 11 to the DBFO Agreement;
- Confirmation that the insurance policies will comply with the requirements in section 11 of the DBFO Agreement and Schedule 11 to the DBFO Agreement;
- Confirmation that insurance policies will be in compliance with the *Insurance Act* (Alberta);
- Confirmation that the insurance policies will include endorsements to provide the Province with 30 days advance written notice of: (i) material change restricting coverage; or (ii) cancellation;
- A letter from the Proponent's insurance broker confirming that the insurance requirements can be satisfied in a form acceptable to the Department and similar to Form E in Appendix 2; and
- Provisions for insurance costs should be identifiable in the Indicative Financial Model.

The Proponent's insurance program must meet or exceed the mandatory requirements, as required under the DBFO Agreement. Identify the insurance broker or brokers for each portion of the DBFO. If the Proponent has appointed more than one insurance broker, with each broker responsible for a portion of the insurance program, each of the brokers must produce a letter meeting the above requirements. Each of these letters should clearly identify the elements of the Construction Period, the PNI Operating Period and the Operating Period and the relating insurance program that have been assigned to the respective broker. If more than one insurance broker has been appointed by the Proponent, with both brokers collaborating on the same portions of the DBFO Agreement, then both brokers should produce substantially the same letter.

## **SR 2B.o Submission Requirement Package 2B**

**SINCE PORTIONS OF THE PREFERRED PROPONENT’S SR PACKAGE SUBMISSIONS WILL BE INCORPORATED INTO THE DBFO AGREEMENT’S SCHEDULES, WHEN PREPARING SR PACKAGE 2B, PROPONENTS MUST USE, WHERE APPROPRIATE, THE DEFINED TERMS USED IN THE DBFO AGREEMENT, INCLUDING SCHEDULE 18.**

The SR Package 2B consists of the following items to be provided by each Proponent:

- SR 2B.1 – Completed and signed Forms C1 and C2 in Appendix 2
  - Envelope A
    - SR 2B.2 – [INTENTIONALLY DELETED]
    - SR 2B.3 – SR Package 2 Envelope A as clarified
  - Envelope B
    - SR 2B.4 – Insurance (including Form E) – SR Package 2 Envelope B as clarified
    - SR 2B.5 – Financial Capacity (Form D)
  - Envelope C
    - SR 2B.6 – Indicative Financing Plan
    - SR 2B.7 – Indicative Financial Model

### **SR 2B.1 Forms C1 and C2**

Declaration letters in the form of Form C1 and Form C2 in Appendix 2 from the Contact Organization and each Lead Team Member and the Project Lead (if not otherwise a Lead Team Member).

### **Envelope A**

#### **SR 2B.2 [INTENTIONALLY DELETED]**

#### **SR 2B.3 SR Package 2 Envelope A as Clarified**

Re-submit all components in SR Package 2 Envelope A (i.e., SR 2.1A to SR 2.18) with changes resulting from the Department’s clarification questions or required by addenda to the RFP but with **NO OTHER CHANGES** incorporated. Proponents are required to submit a clean restated version and a separate version identifying changes made to the original SR Package 2 Envelope A via blacklining.

## Envelope B

### SR 2B.4 Insurance

Re-submit insurance related items in SR Package 2 Envelope B with changes resulting from the Department's clarification questions or required by addenda to the RFP but with **NO OTHER CHANGES** incorporated. Proponents are required to submit a clean restated version and a separate version identifying changes made to the original insurance related items in SR Package 2 Envelope B via blacklining.

### SR 2B.5 Financial Capacity

Confirm the financial capacity of the Proponents and their Team Members. To do so, the Proponent should provide a Certificate of No Material Adverse Change (Form D in Appendix 2) relative to the RFQ response for each of the Lead Team Members or Project Lead or other entities for which financial information was submitted in the Proponent's RFQ response, signed by the Chief Financial Officer or other authorized officer of each respective entity. The Department reserves the right to request further evidence of financial capacity in its sole discretion.

## Envelope C

### SR 2B.6 Indicative Financing Plan (for information only)

Provide the Proponent's Indicative Financing Plan for the DBFO which reflects the financing plan the Proponent currently (i.e. at the time of SR 2B submission) intends to implement for the DBFO and/or any alternatives under consideration. The Indicative Financing Plan is expected to be subject only to relatively minor changes reflecting final details of pricing and final arrangements with lenders for the alternative ultimately selected. The Proponent should show that it has planned sufficient financing for the DBFO for the Construction Period and the Operating Period, including all design, construction, operation, maintenance, and rehabilitation, showing the timing of required funds for design, construction, operation, maintenance and rehabilitation.

Include details of the financial structure and instruments proposed. The sources of financing should match the applications of funds throughout the Construction Period and the Operating Period. Proponents are encouraged to include in their Indicative Financing Plan the following:

- A monthly or quarterly capital cost and financing plan schedule with attribution to the PNI Project and RNI Project;
- Details on the ownership and financing of the DBFO through the Construction Period including the terms of each source of financing identified in the Indicative Financing Plan:
  - With respect to funding provided by the Proponent's Team Members:
    - Identity and credit status of each investor;

- 
- Amounts to be provided by each investor;
  - The status of the commitment of each investor;
  - The timing of injection;
  - The terms and conditions of subscription, including returns or yields;
  - Dividend rights;
  - Voting rights; and
  - The conditions if any on which funds would be committed; and
  - With respect to each class of debt or other funding sources (including leases), for each arranger or underwriter, and for each alternative under consideration a summary of:
    - The identity of the arranger or underwriter;
    - The amount of financing proposed or committed;
    - The status of the commitment of the financing;
    - The drawdown schedule;
    - Amortization, repayment or redemption schedules and maturity dates;
    - Security, insurance, bonding or guarantee requirements (from either parents or third parties);
    - Interest rates and margins including any ratchet mechanism;
    - Indication of likely conditions precedent;
    - Indication of likely due diligence requirements; and
    - Indication of any other restrictions, requirements or conditions that may materially impact the Proponent's ability to raise financing or draw down on committed financing after closing; and
  - To the extent that risk is to be managed or mitigated through subcontracting the Proponent's responsibilities to its members or others, additional financial measures that may be required from those subcontractors should be provided. This is particularly important during the Construction Period in relation to the supply of civil construction services, equipment and integration services, but may also apply during the PNI Operating Period and the Operating Period. Proponents should set out their subcontracting strategy for the DBFO that includes the structure of any subcontracting arrangements and summary details of the mechanisms and/or standby arrangements that would be put in place to give comfort to the Department and lenders.

## **SR 2B.7      Indicative Financial Model (for information only)**

Submit an Indicative Financial Model in electronic form (both the native spreadsheet plus a PDF of the full model reflecting the requirements outlined below in this SR 2B.7) and a hard copy of either the entire model or, at a minimum, the required inputs and outputs, assumptions book and the instruction manual as outlined below in SR 2B.7.2 to SR 2B.7.4, respectively. If alternative financing structures are under consideration, one Indicative Financial Model reflecting the Proponent's most likely alternative may be submitted. The Indicative Financial Model should be supported by:



- An assumptions book; and
- An instruction manual to assist the Department in changing inputs and running sensitivities.

**SR 2B.7.1      *Structure of the Indicative Financial Model***

The Indicative Financial Model should be consistent with the assumptions and be structured as follows:

- It should be well constructed and professional in appearance;
- It should be produced in Microsoft Excel 2003 or later versions;
- It should extend for the Construction Period and the Operating Period;
- It should be presented in millions of Canadian dollars with three (3) decimal places, or in thousands of Canadian dollars with no decimal places;
- No sheets or cells should be hidden or password protected;
- Calculations should flow down and to the right;
- Calculations should be sufficiently disaggregated so that they can be followed logically on screen (without examining the contents of cells) or on paper;
- Use of nested “if” statements should be limited;
- Cells containing hard-coded entry should be coloured blue;
- All sheets should be set up to print clearly and legibly on either 8½” x 11” or 11” x 17” paper;
- If the calculation is circular, circularities should be solved. If circularities are included, a description of where and why these occur should be included;
- The model start date should be June 1, 2016 ; and

**SR 2B.7.2      *Required Inputs and Outputs***

The Indicative Financial Model should, at a minimum, have the following input and output sheets:

**Inputs:**

- Time-based assumptions (those that change over time);
- Static assumptions (those that do not change over time);
- Capital and operating costs assumptions for each of the PNI Project and the RNI Project;
- Taxation assumptions;
- Payment mechanism assumptions clearly identifying construction progress payments, PNI Capital Payments, RNI Capital Payments, PNI Major Rehabilitation Payments, RNI Major Rehabilitation Payments, PNI New O&M Payments and RNI New O&M Payments and Existing O&M Payments; and

- A scenario control sheet.

**Outputs:**

- Summary outputs;
- Sources and uses of funding in the Construction Period, including the expected timing and amount of progress payments;
- Sources and uses of funding in the PNI Operating Period and the Operating Period, including the expected timing and amount of payments similar in format to Form G1;
- Financial statements (income statement, cash flow statement, and balance sheet) presented in accordance with Canadian generally accepted accounting principles;
- A cash flow statement that reflects the priority of access to cash based on the investor covenants and requirements set out in the Financing Plan;
- Financial ratios as required by investors as appropriate to the capital structure set out in the Financing Plan; and
- Calculation of the Weighted Average Cost of Capital clearly showing the cash flows used to calculate it.

**Sensitivities:**

The Indicative Financial Model should allow sensitivities to be run in the following areas by changing the contents of input cells:

- Changes in inflation rates;
- Changes to interest rates;
- Changes to capital and operating costs;
- Delays in completion;
- Level of private financing; and
- Relative weight of debt and equity.

**SR 2B.7.3      *Assumptions Book***

Provide sufficient detail in an assumptions book for a duplicate Financial Model to be constructed. The assumptions book should cover the following areas:

- A summary of the Indicative Financing Plan, including a breakdown of all fees and costs of the financing;
- Capital and operating cost schedules;
- Macro-economic assumptions;

- Taxation assumptions;
- Accounting policies and depreciation rates;
- Proposal development costs; and
- All other assumptions required to construct the Indicative Financial Model.

The assumptions book should reconcile with the Indicative Financial Model. If the assumptions detailed in the assumptions book are not consistent with the assumptions in the Indicative Financial Model, the Department may require the Proponent to change the Indicative Financial Model to reflect the assumptions book.

**SR 2B.7.4      *Instruction Manual***

The instruction manual should explain the functionality of the Indicative Financial Model and how it is structured. It should provide sufficient details to allow the Department to change inputs and run sensitivities in the areas set out in Section SR 2B.7.2 above. If macros are used in the model, the purpose of each should be clearly explained, and instructions for the use of each should be provided.

### **SR 3.0 Submission Requirement Package 3**

**SINCE PORTIONS OF THE PREFERRED PROPONENT'S SR PACKAGE SUBMISSIONS WILL BE INCORPORATED INTO THE DBFO AGREEMENT'S SCHEDULES, WHEN PREPARING SR PACKAGE 3, PROPONENTS MUST USE, WHERE APPROPRIATE, THE DEFINED TERMS USED IN THE DBFO AGREEMENT, INCLUDING SCHEDULE 18.**

The SR Package 3 consists of the following items to be provided by each Proponent:

- Envelope A
  - SR 3.1 – Final Financial Model
  - SR 3.2 – Final Financing Plan
- Envelope B
  - SR 3.3 – Financial Offer (Forms G1, G2 and G3) and Forms C3 and C4
  - SR 3.4 – Proposal Deposit (Sample Form of Letter of Credit in Form F1) and the Preferred Proponent Deposit (Sample Form of Letter of Credit in Form F2)

The SR Package 3 is submitted in two separate, sealed envelopes as described above.

### **Envelope A**

#### **SR 3.1 Final Financial Model (for information only)**

The Submission Requirements in respect of the Final Financial Model for SR Package 3 are identical to those for the Indicative Financial Model for SR Package 2 except that:

- The Final Financial Model and its assumption book should reflect the Final Financing Plan;
- All elements of the Final Financial Model should now reflect the firm and binding Financial Offer to the Province;
- The Final Financial Model should be substantially consistent with the Financial Offer, such that the cash inflows in the model reconcile with the Capital Payments, O&M Payments and Provincial Funding on Form G1; and
- If the Final Financial Model contains scenarios, it should present the scenario that is consistent with the Financial Offer by default when the model is opened.

#### **SR 3.2 Final Financing Plan (for information only)**

Provide the Proponent's Final Financing Plan for the DBFO which reflects the firm and binding Financial Offer to the Province and which is substantially consistent with the Financial Offer.

The Proponent should show that it has planned sufficient financing for the DBFO for the Construction Period and the Operating Period, including all design, construction, operation, maintenance, and

rehabilitation, showing the timing of required funds for design, construction, operation, maintenance and rehabilitation.

Include details of the financial structure and instruments to be utilized. The sources of financing should match the applications of funds throughout the Construction Period and the Operating Period. Proponents are encouraged to include in their Final Financing Plan the following:

- A monthly or quarterly capital cost and financing plan schedule with attribution to the PNI Project and RNI Project;
- Details on the ownership and financing of the DBFO through the Construction Period including the terms of each source of financing identified in the Final Financing Plan:
  - With respect to funding provided by the Proponent’s Team Members:
    - Identity and credit status of each investor;
    - Amounts to be provided by each investor;
    - The status of the commitment of each investor;
    - The timing of injection;
    - The terms and conditions of subscription, including returns or yields;
    - Dividend rights;
    - Voting rights; and
    - The conditions if any on which funds would be committed; and
  - With respect to each class of debt or other funding sources (including leases), for each arranger or underwriter, in the form of a term sheet:
    - The identity of the arranger or underwriter;
    - The amount of financing proposed or committed;
    - The status of the commitment of the financing;
    - The drawdown schedule;
    - Details of grace periods, including duration and contingency;
    - Amortization, repayment or redemption schedules, maturity dates and prepayment terms (including make-whole clauses);
    - Security, insurance, bonding or guarantee requirements and costs (from either parents or third parties);
    - Arrangement/underwriting, commitment, agency and all other fees;
    - Interest rates and margins including any ratchet mechanism;
    - Derivative or other hedging strategies;
    - Terms and conditions including material covenants, undertakings and other restrictions/requirements;
    - Governance provisions;
    - Requirements for reserve accounts;

- Events of default and other similar arrangements;
  - Step-in arrangements;
  - Indication of likely conditions precedent;
  - Indication of likely due diligence requirements; and
  - Indication of any other restrictions, requirements or conditions that may materially impact the Proponent's ability to raise financing or draw down on committed financing after closing; and
- To the extent that risk is to be managed or mitigated through subcontracting the Proponent's responsibilities to its members or others, additional financial measures that may be required from those subcontractors should be provided. This is particularly important during the Construction Period in relation to the supply of civil construction services, equipment and integration services, but may also apply during the PNI Operating Period and the Operating Period. Proponents should set out their subcontracting strategy for the DBFO that includes the structure of any subcontracting arrangements and summary details of the mechanisms and/or standby arrangements that would be put in place to give comfort to the Department and lenders.

In addition, provide an explanation of any significant differences between the Indicative Financing Plan and Final Financing Plan.

## Envelope B

### SR 3.3 Financial Offer

Provide a firm and binding Financial Offer. The Proponent is to submit a Financial Offer in the form of Form G1 (Financial Offer) in Appendix 2. Provide Form G2 (Capital Payment Price Adjustment Election Form) in Appendix 2. Provide Form G3 (Credit Spread Price Adjustment to Capital Payment Election Form) in Appendix 2.

The Financial Offer must respect the following guidelines:

- All payments are to be stated in Canadian Dollars to the cent;
- Capital Payments are to be divided into two streams: 1) the PNI Capital Payment; and 2) the RNI Capital Payment. The monthly PNI Capital Payment is to be constant throughout the PNI Operating Period and expressed in nominal dollars. The monthly RNI Capital Payment is to be constant throughout the Operating Period and expressed in nominal dollars. The PNI Capital Payment must reflect that the PNI comprises approximately 65% of the total capital value of the Project; and
- O&M Payments (comprising PNI Major Rehabilitation Payments, RNI Major Rehabilitation Payments, New O&M Payments, and Existing O&M Payments) are to be stated in constant 2016 dollars. The New O&M Payments are to be divided into two streams: 1) The PNI New O&M Payment; and 2) the RNI New O&M Payment.

Proponents must ensure that their proposed Capital Payments and O&M Payments (comprising PNI Major Rehabilitation Payments, RNI Major Rehabilitation Payments, New O&M Payments, and Existing O&M Payments) are consistent with their estimated costs for the corresponding underlying activities.

**SR 3.4      Proposal Deposit and Preferred Proponent Deposit**

Provide a Proposal Deposit and a Preferred Proponent Deposit.

## Appendix 2

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### Required Forms



## Appendix 2 – Required Forms

### Form A1 – Declaration for SR Package 1 for the Proponent

Alberta Infrastructure  
Suite 310, Twin Atria Building  
4999-98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

[Date]

Attention: Mr. Tom Loo, P.Eng.  
Executive Director, Strategic Partnerships Office

Dear Sir:

Re: Request for Proposals (“**RFP**”) for the design, build, finance, operate of Southwest Calgary Ring Road, Calgary dated September 18, 2015 – [name of Proponent] (the “**Proponent**”)

---

Capitalized terms used in this form have the same meanings as set out in the RFP, unless expressly stated otherwise.

We as Contact Organization, hereby confirm that the Proponent has read and understands the RFP and agrees to be bound by all requirements of the RFP (including those relating to ownership of documents and intellectual property, conflict of interest, collusion/common ownership, lobbying, publicity, confidentiality/collection of personal information and accuracy of information as set out in Section 6 of the ITP) and that the SR Package 1 provided with this declaration is made on behalf of the Proponent, including all Team Members.

We confirm that the Proponent is aware of and agrees to the Assignment of Intellectual Property outlined in the Attachment to this Declaration.

Yours truly,  
[name of Contact Organization]

Per: \_\_\_\_\_  
(Contact Individual)

Name: \_\_\_\_\_

Position:

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Telephone:

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### Attachment to Declaration (Form A1) for SR Package 1 – Assignment of Intellectual Property

By submitting the Proposal or otherwise communicating to the Department on matters relating to the RFP, and for good and valuable consideration receipt of which is acknowledged, this Proponent transfers and assigns unto the Department any and all Copyrights. This Proponent ensures the Department that it has become the owner of Copyrights as they have arisen from time to time and accordingly it has become qualified to make this Copyright assignment(s) in favour of the Department. This Proponent has also ensured that the first owners of Copyrights have waived their copyright moral rights in written documents. Copies of assignments of copyrights from first authors and waivers shall be provided to the Department at no cost and the original shall be available for inspection by the Department and its agents on reasonable terms. The Proponent agrees to assist the Department in understanding, documenting, and in applying for registration for copyright(s) for any works, including executing such documentation as is reasonable and proper and within a reasonable time thereafter.

Unless otherwise agreed to in writing, all New Technology shall be owned by the Department. For good and valuable consideration receipt of which is acknowledged, all New Technology is hereby transferred to the Department. For greater certainty the rights of the Department hereunder include, but are not limited to, providing the Department with the right to design, construct, operate and maintain the Infrastructure using New Technology without obtaining the further consent of this Proponent.

The Proponent agrees to assist the Department in understanding, documenting and applying for registration for patent(s) for any New Technology, including executing such documentation as is reasonable and proper and within reasonable time thereafter.

Notwithstanding anything contained in the RFP as to the purpose for the submission of Proposals, the Department may use the concepts, ideas, suggestions and directions contained within the documents, drawings, plans, written descriptions and other materials contained in the Proposal and in any communication surrounding the Proposal provided by the Proponent or its agents, for any purpose whatsoever including but not limited to use of portions of ideas, information, enhancements to the evaluation criteria and designs contained therein in other provincial projects and in the development and negotiation of future contractual relationships. For clarity, the Department has the rights to use concepts, ideas, suggestions and directions contained in any and all Proposals submitted.

The Department agrees, upon request, to provide a royalty-free, perpetual license back to the Proponent, which has created Copyrights and New Technology, for its unfettered use in incorporating same into future or other projects and in licensing to its clients as required in other projects. This license does not carry any obligations on the Department whatsoever and does not require it to register or enforce registered rights in regard to Copyrights and New Technology.

This Proponent hereby indemnifies the Province and its related parties including but not limited to its elected officials, officers, employees, agents and advisors, and hereby agrees to hold them harmless against all claims, suits, proceedings, demands and actions arising out of or in any way connected with copyrights, patent or other intellectual property infringement rights asserted by others against the Province, including for all damages, judgements, costs, fees and expenses (including legal fees on a solicitor and his own client basis) as a result of the Province owning, using or benefiting from the use of the Proposal or from designing, building, operating and maintaining the Infrastructure that is contained in the Proposal.

## Form A2 – Declaration for SR Package 1 for Lead Team Members and Project Lead

Alberta Infrastructure  
Suite 310, Twin Atria Building  
4999-98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

**[Date]**

Attention: Mr. Tom Loo, P.Eng.  
Executive Director, Strategic Partnerships Office

Dear Sir:

Re: Request for Proposals (“**RFP**”) for the design, build, finance, operate of Southwest Calgary Ring Road, Calgary dated September 18, 2015  
**[name of Proponent]** (the “**Proponent**”)  
**[name of Contact Organization]** (the “**Contact Organization**”)  
**[name of Lead Team Member or Project Lead (if not otherwise a Lead Team Member)]** (the “**Lead**”)

---

Capitalized terms used in this form have the same meanings as set out in the RFP, unless expressly stated otherwise.

I, **[name of authorized representative]**, am an authorized representative of the Lead, and confirm that the Lead has authorized the Contact Organization to make all submissions on behalf of the Proponent, including the Lead.

I confirm that the Lead is aware of and agrees to its inclusion in this submission, has read and understands the RFP, agrees to be bound by all requirements of the RFP (including those relating to ownership of documents and intellectual property, conflict of interest, collusion/common ownership, lobbying, publicity, confidentiality/collection of personal information and accuracy of information as set out in Section 6 of the ITP).

I confirm that the Lead is aware of and agrees to the Assignment of Intellectual Property outlined in the Attachment to this Declaration.

I confirm that the Lead has no financial or other interest that would cause or appear to cause a conflict of interest in carrying out the DBFO.

Yours truly,

---

(Authorized Representative)

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Company: \_\_\_\_\_

Telephone: \_\_\_\_\_

### Attachment to Declaration (Form A2) for SR Package 1 – Assignment of Intellectual Property

By submitting the Proposal or otherwise communicating to the Department on matters relating to the RFP, and for good and valuable consideration receipt of which is acknowledged, the Proponent is authorized to transfer and assign unto the Department any and all Copyrights. The Proponent is able to ensure the Department that it has become the owner of Copyrights as they have arisen from time to time and accordingly it is authorized to transfer and assign unto the Department any and all Copyrights. The Proponent has also ensured that the first owners of Copyrights have waived their copyright moral rights in written documents. Copies of assignments of copyrights from first authors and waivers shall be provided to the Department at no cost and the original shall be available for inspection by the Department and its agents on reasonable terms. The Proponent is authorized to agree to assist the Department in understanding, documenting, and in applying for registration for copyright(s) for any works, including executing such documentation as is reasonable and proper and within a reasonable time thereafter.

Unless otherwise agreed to in writing, all New Technology shall be owned by the Department. For good and valuable consideration, receipt of which is acknowledged, all New Technology is hereby transferred to the Department. For greater certainty the rights of the Department hereunder include, but are not limited to, providing the Department with the right to design, construct, operate and maintain the Infrastructure using New Technology without obtaining the further consent of the Proponent.

The Proponent is authorized to agree to assist the Department in understanding, documenting and applying for registration for patent(s) for any New Technology, including executing such documentation as is reasonable and proper and within reasonable time thereafter.

Notwithstanding anything contained in the RFP as to the purpose for the submission of Proposals, the Department may use the concepts, ideas, suggestions and directions contained within the documents, drawings, plans, written descriptions and other materials contained in the Proposal and in any communication surrounding the Proposal provided by the Proponent or its agents, for any purpose whatsoever including but not limited to use of portions of ideas, information, enhancements to the evaluation criteria and designs contained therein in other provincial projects and in the development and negotiation of future contractual relationships. For clarity, the Department has the rights to use concepts, ideas, suggestions and directions contained in any and all Proposals submitted.

The Department agrees, upon request, to provide a royalty-free, perpetual license back to the Proponent, which has created Copyrights and New Technology, for its unfettered use in incorporating same into future or other projects and in licensing to its clients as required in other projects. This license does not carry any obligations on the Department whatsoever and does not require it to register or enforce registered rights in regard to Copyrights and New Technology.

The Lead hereby indemnifies the Province and its related parties including but not limited to its elected officials, officers, employees, agents and advisors, and hereby agrees to hold them harmless against all claims, suits, proceedings, demands and actions arising out of or in any way connected with copyrights, patent or other intellectual property infringement rights asserted by others against the Province, including for all damages, judgements, costs, fees and expenses (including legal fees on a solicitor and his own client basis) as a result of the Province owning, using or benefiting from the use of the Proposal or from designing, building, operating and maintaining the Infrastructure that is contained in the Proposal.

**Form B – Declaration for SR Package 2**

Alberta Infrastructure  
Suite 310, Twin Atria Building  
4999-98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

**[Date]**

Attention: Mr. Tom Loo, P.Eng.  
Executive Director, Strategic Partnerships Office

Dear Sir:

Re: Request for Proposals (“**RFP**”) for the design, build, finance, operate of Southwest Calgary Ring Road, Calgary dated September 18, 2015 – **[name of Proponent]** (the “**Proponent**”)

---

Capitalized terms used in this form have the same meanings as set out in the RFP, unless expressly stated otherwise.

We hereby confirm that the SR Package 2 provided with this declaration is made on behalf of the Proponent, including all Team Members.

Yours truly,

**[name of Contact Organization]**

Per: \_\_\_\_\_  
(Contact Individual)

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Telephone: \_\_\_\_\_

**Form C1 – Declaration for SR Package 2B for the Proponent**

Alberta Infrastructure  
Suite 310, Twin Atria Building  
4999-98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

**[Date]**

Attention: Mr. Tom Loo, P.Eng.  
Executive Director, Strategic Partnerships Office

Dear Sir:

Re: Request for Proposals (“**RFP**”) for the design, build, finance, operate of Southwest Calgary Ring Road, Calgary dated September 18, 2015 – [name of Proponent] (the “Proponent”)

Capitalized terms used in this form have the same meanings as set out in the RFP, unless expressly stated otherwise.

We hereby confirm that the SR Package 2B, provided with this declaration is made on behalf of the Proponent, including all Team Members.

We confirm that the Successful Proponent will execute the DBFO Agreement in its final form with the elements of SR Package 2B provided with this declaration incorporated in accordance with the RFP.

Yours truly,

**[name of Contact Organization]**

Per: \_\_\_\_\_  
(Contact Individual)

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Telephone: \_\_\_\_\_



## Form C2 – Declaration for SR Package 2B for Lead Team Members and Project Lead

Alberta Infrastructure  
Suite 310, Twin Atria Building  
4999-98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

[Date]

Attention: Mr. Tom Loo, P.Eng.  
Executive Director, Strategic Partnerships Office

Dear Sir:

Re: Request for Proposals (“**RFP**”) for the design, build, finance, operate of Southwest Calgary Ring Road, Calgary dated September 18, 2015  
[name of Proponent] (the “**Proponent**”)  
[name of Lead Team Member or Project Lead (if not otherwise a Lead Team Member)] (the “**Lead**”)

---

Capitalized terms used in this form have the same meanings as set out in the RFP, unless expressly stated otherwise.

I, [name of authorized representative], am an authorized representative of the Lead, and confirm that the SR Package 2B, provided with this declaration is made on behalf of the Proponent, including the Lead.

Yours truly,

---

(Authorized Representative)

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Company: \_\_\_\_\_

Telephone: \_\_\_\_\_

## Form C3 – Declaration for SR Package 3 for the Proponent

Alberta Infrastructure  
Suite 310, Twin Atria Building  
4999-98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

**[Date]**

Attention: Mr. Tom Loo, P.Eng.  
Executive Director, Strategic Partnerships Office

Dear Sir:

Re: Request for Proposals (“**RFP**”) for the design, build, finance, operate of Southwest Calgary Ring Road, Calgary dated September 18, 2015 – **[name of Proponent]** (the “**Proponent**”)

---

Capitalized terms used in this form have the same meanings as set out in the RFP, unless expressly stated otherwise.

We hereby confirm that the SR Package 3, including the Financial Offer, provided with this declaration is made on behalf of the Proponent, including all Team Members.

We confirm that the Successful Proponent will execute the DBFO Agreement in its final form as provided without negotiation or amendment, and at a fixed price as outlined in the Financial Offer, subject only to price adjustments and other provisions detailed in the RFP that affect the total compensation payable over the term of the DBFO Agreement.

We confirm that we have authorized our insurers and insurance brokers to cooperate with the Province’s insurance advisors between the date of our notification of being named Preferred Proponent, if at all, and the date when all of the insurance requirements of the DBFO Agreement have been met. We acknowledge that this cooperation is beneficial in order to allow the Province to clarify and confirm the required insurance coverages prior to the execution of the DBFO Agreement.

Yours truly,

**[name of Contact Organization]**

Per: \_\_\_\_\_  
(Contact Individual)

Name: \_\_\_\_\_

Position:

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Telephone:

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## Form C<sub>4</sub> – Declaration for SR Package 3 for Lead Team Members and Project Lead

Alberta Infrastructure  
Suite 310, Twin Atria Building  
4999-98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

**[Date]**

Attention: Mr. Tom Loo, P.Eng.  
Executive Director, Strategic Partnerships Office

Dear Sir:

Re: Request for Proposals (“**RFP**”) for the design, build, finance, operate of Southwest Calgary Ring Road, Calgary dated September 18, 2015  
**[name of Proponent]** (the “**Proponent**”)  
**[name of Lead Team Member or Project Lead (if not otherwise a Lead Team Member)]** (the “**Lead**”)

---

Capitalized terms used in this form have the same meanings as set out in the RFP, unless expressly stated otherwise.

I, **[name of authorized representative]**, am an authorized representative of the Lead, and confirm that the SR Package 3, including the Financial Offer, provided with this declaration is made on behalf of the Proponent, including the Lead.

Yours truly,

---

(Authorized Representative)

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Company: \_\_\_\_\_

Telephone: \_\_\_\_\_

## Form D – Certificate of No Material Adverse Change

### Note: For use in SR Package 2B

Alberta Infrastructure  
Suite 310, Twin Atria Building  
4999-98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

### [Date]

Attention: Mr. Tom Loo, P.Eng.  
Executive Director, Strategic Partnerships Office

Dear Sir:

Re: Request for Proposals (“**RFP**”) for the design, build, finance, operate of Southwest Calgary Ring Road, Calgary dated September 18, 2015

---

Capitalized terms used in this form have the same meanings as set out in the RFP, unless expressly stated otherwise.

To the best of our knowledge, information and belief, we certify that from the date of our most recent financial statements disclosed to you in our response to the RFQ to \_\_\_\_\_ **[insert date which is no more than five Business Days before the deadline for SR Package 2B], [except as set forth below,]** no events have occurred which have had a material adverse effect on our financial position and which should be disclosed to keep those statements from being misleading.

With respect to our financial statements disclosed to you, we certify to the best of our knowledge, information and belief that:

- a) the preparation of our most recent financial statements disclosed to you have been prepared in accordance with generally accepted accounting principles and practices **[, except as set forth below];**
- b) such financial statements present fairly the information purported to be shown thereby;
- c) no material adjustment of such financial statements is required and no adjustments other than those necessary for fair presentation of the results for those periods have been reflected therein; and
- d) no events have occurred which have a material adverse effect on our financial statements disclosed to you which should be disclosed in order to keep those statements from being misleading.

Should we, subsequent to this date, become aware of any events having a material adverse effect on our most recent financial statements that should be disclosed to you in order to keep those statements from being misleading, we will immediately disclose these events to the Department.

Name: \_\_\_\_\_

---

Yours truly,

\_\_\_\_\_  
(Contact Individual or Authorized Representative)

Position: \_\_\_\_\_

Company: \_\_\_\_\_

Telephone: \_\_\_\_\_

## Form E – Sample Insurance Broker’s Letter

Note: For use in SR Package 2 and 2B

Alberta Infrastructure  
Suite 310, Twin Atria Building  
4999-98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

**[Date]**

Attention: Mr. Tom Loo, P.Eng.  
Executive Director, Strategic Partnerships Office

Dear Sir:

Re: Request for Proposals (“**RFP**”) for the design, build, finance, operate of Southwest Calgary Ring Road, Calgary dated September 18, 2015 – Insurance – **[name of Proponent]** (the “**Proponent**”)

---

**[Insurance Broker(s)]** confirms that it has been appointed by the Proponent as its insurance broker(s) with respect to the insurances required under the RFP.

**[Insurance Broker(s)]** has examined the RFP documents, including the DBFO Agreement and the insurance requirements stipulated in section 11 of the DBFO Agreement and Schedule 11 (Insurance Requirements) to the DBFO Agreement, and confirms that the relevant requirements have been included in the insurance program to be arranged on behalf of the Proponent if its Proposal is accepted [, **except the following items,**].

In the opinion of **[Insurance Broker(s)]**, if the Proposal submitted by the Proponent is accepted, we are highly confident that we have arranged or can arrange insurances on behalf of the Proponent that meet the insurance requirements established by the RFP, including section 11 of the DBFO Agreement and Schedule 11 to the DBFO Agreement, and we know of no impediment as of the date of this letter to our producing insurance certificates meeting all of the insurance requirements stipulated in the RFP documents, including the DBFO Agreement, except for those exceptions identified above, with coverage to take effect not later than the date of execution of the DBFO Agreement (or later, as provided for therein), and to continue throughout **[the Construction Period and Operating Period]**.

I have signed this Insurance Broker’s Letter in my capacity as an authorized representative of **[Insurance Broker(s)]**.

---

(Authorized Signature)

## Form F1 – Sample Form of Letter of Credit for Proposal Deposit

**Note: For use in SR Package 3**

**Beneficiary:** Her Majesty the Queen in right of Alberta, as represented by the Minister of Transportation  
Alberta Transportation  
3<sup>rd</sup> Floor, Twin Atria Building  
4999-98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

[Date]

[Name of bank or other financial institution meeting requirements of Section 5.12 of the ITP]

**Applicant:** [(name of Proponent) or (name of Applicant “on behalf of” name of Proponent)]

1. We hereby authorize you to draw on [name of bank or other financial institution meeting requirements of Section 5.12 of the ITP, as above, and branch address] for the account of [(name of Proponent) or (name of Applicant “on behalf of” name of Proponent)] (“our customer”) up to an aggregate amount [\$1,000,000 (One Million)] Canadian dollars.

2. Pursuant to the request of our customer, we hereby establish and give you an Irrevocable Letter of Credit in your favour in the total amount [\$1,000,000 (One Million)] Canadian dollars in accordance with the Request for Proposals dated September 18, 2015 issued by Alberta Transportation (the “Department”) for the Southwest Calgary Ring Road Project (the “Project”), as same may be amended and supplemented from time to time (the “RFP”) which may be drawn on by you at any time and from time to time upon written demand for payment made upon us by you which demand we shall honour without inquiring further whether you have a right as between yourself and our customer to make such demand, and without recognizing any claim of our customer and, subject to paragraph 3 hereof, upon delivery of a written certificate of the Deputy Minister of the Department certifying that the Department is entitled to draw upon this Irrevocable Letter of Credit pursuant to the RFP.

3. This Irrevocable Letter of Credit will continue until [insert a date that is no earlier than 120 days from the submission deadline for SR Package 3] and will expire at our counters on that date and you may call for payment of the full amount outstanding under this Irrevocable Letter of Credit at any time up to the close of business on that date should this Irrevocable Letter of Credit not be renewed.

This Irrevocable Letter of Credit is subject to Uniform Customs and Practices for Documentary Credits (2007 revision) International Chamber of Commerce Publication No. 600.

[Name of bank or other financial institution meeting requirements of Section 5.12 of the ITP]



---

(Authorized Signature)

---

(Authorized Signature)

## Form F2 – Sample Form of Letter of Credit for Preferred Proponent Deposit

**Beneficiary:** Her Majesty the Queen in right of Alberta, as represented by the Minister of Transportation  
Alberta Transportation  
3<sup>rd</sup> Floor, Twin Atria Building  
4999-98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

[Date]

[Name bank or other financial institution meeting requirements of Section 5.12 of the ITP]]

**Applicant:** [(name of Proponent) or (name of Applicant “on behalf of” name of Proponent)]

1. We hereby authorize you to draw on [name of bank or other financial institution meeting requirements of Section 5.12 of the ITP, as above, and branch address] for the account of [(name of Proponent) or (name of Applicant “on behalf of” name of Proponent)] (“our customer”) up to an aggregate amount [\$20,000,000 (Twenty Million)] Canadian dollars.

2. Pursuant to the request of our customer, we hereby establish and give you an Irrevocable Letter of Credit in your favour in the total amount [\$20,000,000 (Twenty Million)] Canadian dollars in accordance with the Request for Proposals dated September 18, 2015 issued by Alberta Transportation (the “Department”) for the Southwest Calgary Ring Road Project (the “Project”), as same may be amended and supplemented from time to time (the “RFP”) which may be drawn on by you at any time and from time to time upon written demand for payment made upon us by you which demand we shall honour without inquiring further whether you have a right as between yourself and our customer to make such demand, and without recognizing any claim of our customer and, subject to paragraph 3 hereof, upon delivery of a written certificate of the Deputy Minister of the Department certifying that the Department is entitled to draw upon this Irrevocable Letter of Credit pursuant to the RFP.

3. This Irrevocable Letter of Credit will continue until [subject to the second sentence of the fourth paragraph of Section 5.12 (Proposal Deposit and Preferred Proponent Deposit) of the ITP insert a date that is no earlier than 120 days from the submission deadline for SR Package 3] and will expire at our counters on that date and you may call for payment of the full amount outstanding under this Irrevocable Letter of Credit at any time up to the close of business on that date should this Irrevocable Letter of Credit not be renewed.

This Irrevocable Letter of Credit is subject to Uniform Customs and Practices for Documentary Credits (2007 revision) International Chamber of Commerce Publication No. 600.

**requirements of Section 5.12 of the ITP]** **[Name of bank or other financial institution meeting**

---

(Authorized Signature)

---

(Authorized Signature)

## Form F3 – Sample Form of Letter of Credit for the Financing and Initial Performance Letter of Credit

**Beneficiary:** Her Majesty the Queen in right of Alberta, as represented by the Minister of Transportation  
Alberta Transportation  
3<sup>rd</sup> Floor, Twin Atria Building  
4999-98 Avenue  
Edmonton, Alberta, Canada  
T6B 2X3

[Date]

[Name of bank or other financial institution meeting requirements of the DBFO Agreement]

**Applicant:** [(Name of DBFO Contractor) or (name of Applicant “on behalf of” name of DBFO Contractor)]

1. We hereby authorize you to draw on [name of bank or other financial institution meeting requirements of the DBFO Agreement, as above, and branch address] for the account of [(name of and address of DBFO Contractor) or (name of and address of Applicant “on behalf of” name of DBFO Contractor)] (“our customer”) up to an aggregate amount [\$40,000,000 (Forty Million)] Canadian dollars.

2. Pursuant to the request of our customer, we hereby establish and give you an Irrevocable Letter of Credit in your favour in the total amount [\$40,000,000 (Forty Million)] Canadian dollars in accordance with the Agreement to Design, Build, Finance and Operate Southwest Calgary Ring Road, Calgary, Alberta dated ●, 2016 entered into by Her Majesty the Queen in right of Alberta, as represented by the Minister of Transportation and the Minister of Infrastructure (the “Department”) and [name of DBFO Contractor], as same may be amended and supplemented from time to time (the “DBFO Agreement”), which may be drawn on by you at any time and from time to time upon written demand for payment made upon us by you which demand we shall honour without inquiring further whether you have a right as between yourself and our customer to make such demand, and without recognizing any claim of our customer and, subject to paragraph 4 hereof, upon delivery of a written certificate of the Deputy Minister of the Department certifying that the Department is entitled to draw upon this Irrevocable Letter of Credit pursuant to the DBFO Agreement.

3. The amount outstanding under this Irrevocable Letter of Credit (being the maximum amount that can be drawn hereunder) shall be reduced upon delivery to us of a written certificate in the form attached as Appendix 1 sealed and signed by both of the Executive Director Major Capital Projects and the Executive Director Finance / Senior Financial Officer of Alberta Transportation certifying the amount of the reduction applicable to this Irrevocable Letter of Credit pursuant to section 3.5 of the DBFO Agreement. Upon each reduction pursuant to the foregoing sentence we shall forthwith send a notice confirming such reduction to the Department by facsimile at [insert number] and by courier to the address of the Department set out above. Also a copy of the said notice will be sent by us by courier to our customer. *[NOTE TO DRAFT: THIS PARAGRAPH AND APPENDIX 1 FACILITATES THE*

***STAGED REDUCTION OF THE FINANCING AND INITIAL PERFORMANCE LETTER OF CREDIT AS SET OUT IN SECTION 3.5 OF THE DBFO AGREEMENT WITHOUT THE PARTIES HAVING TO EXCHANGE FURTHER LETTERS OF CREDIT. THE PROCEDURE SET OUT HERE IS OPTIONAL.]***

4. This Irrevocable Letter of Credit will continue until **[insert a date that is no earlier than one year from the date of this Irrevocable Letter of Credit]** and will expire at our counters on that date and you may call for payment of the full amount outstanding under this Irrevocable Letter of Credit at any time up to the close of business on that date should this Irrevocable Letter of Credit not be renewed.

This Irrevocable Letter of Credit is subject to Uniform Customs and Practices for Documentary Credits (2007 revision) International Chamber of Commerce Publication No. 600.

**[Name of bank or other financial institution meeting requirements of the DBFO Agreement]**

\_\_\_\_\_  
(Authorized Signature)

\_\_\_\_\_  
(Authorized Signature)

## **APPENDIX 1**

### **REDUCTION NOTICE**

**TO: [(name of and address of DBFO Contractor) or (name of and address of Applicant “on behalf of” name of DBFO Contractor)]**

**TO: [name of bank or other financial institution as above]**

**DATE:** \_\_\_\_\_

**RE:** Financing and Initial Performance Letter of Credit **[Insert reference to specific number and date of Irrevocable Letter of Credit]** issued in favour of Her Majesty the Queen in right of Alberta, as represented by the Minister of Transportation (the “Beneficiary”) for a maximum aggregate amount of **[\$40,000,000 (Forty Million)]** Canadian dollars (the “Letter of Credit”)

Whereas the Letter of Credit was issued in connection with the Agreement to design, build, finance and operate Southwest Calgary Ring Road between Her Majesty the Queen in right of Alberta and **[name of Contractor]** (the “DBFO Agreement”) and all capitalized words and phrases defined herein shall have the same meaning specified in the Letter of Credit.

In accordance with section 3.5 of the DBFO Agreement, we hereby give you notice that the reduction amount for the purposes of this notice is **[insert amount of reduction in words and figures]**. Therefore, the new amount outstanding in respect of the Letter of Credit now stands at **[insert amount outstanding in words and figures]**.

Yours Truly,

Her Majesty the Queen in right of Alberta, as represented by the Minister of Transportation

**[signed by both of the Executive Director Major Capital Projects and the Executive Director Finance / Senior Financial Officer of Alberta Transportation]**

(seal)

(seal)

---

(Authorized Signature)

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(Authorized Signature)



## Form H – The Department's Legal Counsel's Opinion

[on Alberta Justice Letterhead]

[Insert date]

[ADDRESSES OF THE CONTRACTOR,  
ITS LENDER (AS DEFINED IN  
SCHEDULE 6 TO THE DBFO  
AGREEMENT) AND THEIR  
SOLICITORS]

[PLEASE NOTE THAT REQUESTS TO ADD ADDRESSEES TO THE OPINION OTHER THAN THE ADDRESSEES NOTED ABOVE WILL BE CONSIDERED BY ALBERTA JUSTICE AT ITS DISCRETION AND REQUESTS TO ADD ADDRESSEES THAT ARE NOT EXACTLY IDENTIFIABLE AS AT THE DATE OF THE OPINION WILL MOST LIKELY BE DENIED BY ALBERTA JUSTICE.]

Dear Sirs:

**Re: Design, Build, Finance and Operate Agreement dated ●, 2016 (the "DBFO Agreement") and Direct Lender Agreement dated ●, 2016 (the "Direct Lender Agreement")**

We have acted as legal advisors for Her Majesty the Queen in right of Alberta (the "**Province**") in connection with the DBFO Agreement between the Province and [insert name of contractor] (the "**Contractor**") and in connection with the Direct Lender Agreement between the Province, the Contractor, and [insert name of lender(s), trustee, or other representative] in respect of Southwest Calgary Ring Road in Calgary (the "**Project**").

Except as otherwise set out herein, all capitalized terms have the respective meanings given to them in the DBFO Agreement.

For the purposes of this opinion, we have examined the following:

- (a) an executed copy of the DBFO Agreement;
- (b) an executed copy of the Direct Lender Agreement; and
- (c) such other documents and matters of law as we have considered necessary or appropriate for the purpose of this opinion.

Other than with respect to the execution of the DBFO Agreement and the Direct Lender Agreement by the Province, we have assumed the genuineness of all signatures and the conformity with originals of all



documents submitted to us as photocopies, by facsimile transmission or by Portable Document Format (“PDF”). In addition, we have assumed that the DBFO Agreement and the Direct Lender Agreement are within the capacity and powers of, have been validly authorized, executed and delivered by, and constitute legal, valid and binding obligations of, the other parties thereto enforceable against the other parties thereto in accordance with their terms.

This opinion is rendered solely with respect to the laws of Alberta and the federal laws of Canada applicable in Alberta in effect on the date of this opinion.

Based upon and subject to the foregoing, and subject to the assumptions, limitations and qualifications set forth herein, we are of the opinion that:

1. The execution and delivery by the Province of the DBFO Agreement and the Direct Lender Agreement and the performance by the Province of its obligations thereunder have been duly authorized by all necessary legislative, administrative, executive and other governmental action. The Province had full power, capacity and authority to execute and deliver the DBFO Agreement and the Direct Lender Agreement and to perform and observe its obligations thereunder.
2. All authorizations, approvals and other actions by, and all notices to and filings, registrations or recordings with, any governmental authority or regulatory body of the Province of Alberta required for the due execution, delivery or performance by the Province of the DBFO Agreement and the Direct Lender Agreement (in each case, including the making of payments thereunder) or to ensure the legality, validity and binding nature of the DBFO Agreement and the Direct Lender Agreement (in each case, including the making of payments thereunder) have been obtained.
3. The DBFO Agreement and the Direct Lender Agreement have been duly executed and delivered by the Province and constitute legal, valid and binding obligations of the Province enforceable against the Province in accordance with their terms.
4. Subject to Section 21.4 of the DBFO Agreement and Section 4.6 of the Direct Lender Agreement regarding the Dispute Resolution Procedure, neither the federal laws of Canada nor the laws of Alberta require the consent of any public official or authority to the commencement or prosecution of any action, suit or proceeding against the Province arising out of or relating to its obligations under the DBFO Agreement or the Direct Lender Agreement. Neither immunity from jurisdiction nor any defence based on the status of the Province is available to the Province in any such action, suit or proceeding in the Courts of Alberta under the federal laws of Canada or the laws of Alberta up to final judgment, except as provided in this opinion.

This opinion is subject to the following qualifications:

- a) general equitable principles may limit the enforceability of the DBFO Agreement or the Direct Lender Agreement against the Province, whether such enforcement is considered in a proceeding in equity or at law;
- b) the remedies of injunction and specific performance are not available against the Province; and

- c) judgments obtained against the Province may not, by virtue of the *Proceedings Against the Crown Act* (Alberta), be enforced by execution, attachment or process of that nature, but the *Proceedings Against the Crown Act* (Alberta) does provide that upon the receipt of a certificate of the proper officer of the court, in the event of a money judgment or an order for costs, or both, against the Province, the Minister of Finance shall pay out of the General Revenue Fund to the person entitled, or to the person's order, the amount appearing by the certificate to be due, together with the interest, if any, lawfully due.

This opinion is solely for the benefit of those persons to whom it is addressed and in connection with the transaction to which it relates and may not be used or relied upon by any other person or for any other purpose, or quoted or made public in any other way without our prior written consent. We expressly disclaim any undertaking or obligation to modify this opinion to reflect changes in facts or developments in the law which may occur after the date hereof.

Yours very truly,

DEPARTMENT OF JUSTICE, PROVINCE OF ALBERTA

Per: \_\_\_\_\_

**[Name]**

Barrister and Solicitor

# Appendix 3

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## Definitions

## Appendix 3 – Definitions

### 3.1 Defined Terms

“**Alberta Environment**” means Alberta Environment and Parks or the applicable successor department by the then applicable name.

“**Alberta Infrastructure**” means the Land Planning or the Property Management work unit of the Properties Division of the Province’s Ministry of Infrastructure; Jason Ness (780) 664-1241 is the main contact for the DBFO.

“**Alberta Time**” means the time in the Province of Alberta in accordance with the *Daylight Saving Time Act* (Alberta).

“**Business Day**” means Monday to Friday except for holidays observed by the Province.

“**Construction Period**” means the time between Execution of this Agreement and RNI Traffic Availability (as defined in the DBFO Agreement), but excluding the day when RNI Traffic Availability is achieved.

“**Construction Team**” means the Proponent’s Team Members who are responsible for the construction of the New Infrastructure.

“**Consultants**” means Department consultants who assist in the preparation of the RFQ and RFP and in the evaluation of responses to the RFQ and Proposals, and who may or may not assist throughout the term of the DBFO Agreement.

“**Contact Individual**” has the meaning as set out in Section 6.2.

“**Contact Organization**” has the meaning as set out in Section 6.2.

“**Contractor**” means the legal entity that has entered into the DBFO Agreement with the Province.

“**Copyrights**” means all copyright rights created by virtue of the common law or the provisions of the *Copyright Act* (Canada), in and to any and all literary, artistic, architectural, photographic, or any other works (including but not limited to written descriptions, plans, designs, layouts, renderings, dimensions, strategies, and technical information) contained in the Proposals or in the communications surrounding the development and presentation of the Proposals.

“**DBFO**” means the design, build, financing and operation/rehabilitation of Southwest Calgary Ring Road and the operation of the Existing Infrastructure, all in accordance with the DBFO Agreement.

“**DBFO Agreement**” means the agreement into which the Province and the Contractor will enter with respect to the DBFO, which is (in draft form) Volume 2 of this RFP.

“**Department**” means Her Majesty the Queen in right of Alberta, as represented by the Minister of Transportation.

**“Department Representative”** means the sole individual appointed by the Department that all information in respect of this procurement is to be issued to or received from.

**“Design Team”** means the Proponent’s Team Members who are responsible for the design of the New Infrastructure.

**“Electronic Data Room”** has the meaning as set out in Section 5.5.

**“EMS”** means environmental management system.

**“Existing Infrastructure”** is a generally described in Section 1.7.1 and is detailed in the DBFO Agreement, and upon which the Successful Proponent will perform Existing O&M.

**“Existing O&M”** means the operation and maintenance of the Existing Infrastructure.

**“Fairness Auditor”** is Mr. Gary G. Campbell, Q.C. of GGC Consultants Inc.

**“FAOC”** means the Federal Department of Fisheries and Oceans.

**“Final Financial Model”** means the financial model supplied by Proponents in SR Package 3.

**“Final Financing Plan”** means the financing plan supplied by Proponents in SR Package 3.

**“Financial Offer”** means the financial offer supplied by a Proponent in SR Package 3 in the form provided in this ITP that is binding on that Proponent.

**“Financing and Initial Performance Letter of Credit”** means the letter of credit in the amount of \$40 million that the Successful Proponent is required to provide to the Department in accordance with the DBFO Agreement.

**“Financing Team”** means the Proponent’s Team Members who are responsible for the financing and the financial management of the DBFO.

**“Functional Plan”** has the meaning as set out in Section 2.3.

**“Government of Alberta”** means Her Majesty the Queen in right of Alberta.

**“Honorarium”** means the honorarium discussed in Section 5.15 of this ITP.

**“Index Factor”** means the basis for adjusting the O&M Payments for inflation as set out in Schedule 10 (Index Factor) to the DBFO Agreement.

**“Indicative Financial Model”** means the financial model supplied by Proponents in SR Package 2B.

**“Indicative Financing Plan”** means the financing plan supplied by Proponents in SR Package 2B.

**“Infrastructure”** means the combination of the New Infrastructure and the Existing Infrastructure.

**“ITP”** means the Instructions to Proponents (including the Submission Requirements), which constitutes Volume 1 of this RFP.

**“Key Individuals”** means the individuals that will play a lead role on behalf of a particular Team Member.

**“Lead Team Member”** means the Team Member in each of the Proponent’s Design Team/Construction Team, O&M Team, or Financing Team, that will direct and coordinate the activity of the other Team Members in each of these Teams respectively.

**“Lenders”** means the entities that provide financing to the Contractor for the DBFO.

**“New Infrastructure”** means the Southwest Calgary Ring Road in Calgary, Alberta comprising approximately 31 kilometres of a new six- and eight- lane divided freeway (and related appurtenances such as drainage works, street lighting, traffic signals, signage and roadside barriers) on Calgary Ring Road from Highway 8 to east of Macleod Trail SE; and includes, without limitation, the existing infrastructure as generally set out in Section 1.6.1 and as detailed in the DBFO Agreement. For greater clarity, the New Infrastructure is comprised of the PNI and the RNI.

**“New O&M”** means the operation, maintenance, and rehabilitation of the New Infrastructure.

**“New Technology”** means all discoveries, inventions, or ideas related to, and improvements to, processes, methods or devices or any combination thereof (“Improvements”) which the Proponents, or the Proponents and the Department, or their employees, agents, or contractors devise, conceive, invent or otherwise develop which Improvements are incorporated into the Proposal or are part of the communication surrounding the development and presentation of the Proposal, and may be required to be practiced by the further design, construction, operation and maintenance of the Infrastructure under the Proposal.

**“O&M”** means the New O&M and the Existing O&M.

**“Operating Period”** means the time from RNI Traffic Availability (including the day RNI Traffic Availability (as defined in the DBFO Agreement) is achieved) until the end of the Term.

**“Operation and Maintenance Team”** or **“O&M Team”** means the Proponent’s Team Members who are responsible for the operation, maintenance and rehabilitation of the Infrastructure.

**“Optional Innovation Submission”** means the optional submission set out in Section 5.9.

**“PNI Operating Period”** means the time from PNI Traffic Availability (including the day PNI Traffic Availability is achieved) until RNI Traffic Availability (but excluding the day when RNI Traffic Availability is achieved).

**“Preferred Proponent”** means the Proponent that receives notification from the Department that it has submitted a compliant Proposal with the Financial Offer having the lowest total cost on a net present value basis.

**“Preferred Proponent Deposit”** has the meaning as set out in Section 5.12.

**“Priority New Infrastructure”** or the **“PNI”** means that portion of the New Infrastructure to be located on lands recently acquired from the TTN, as further described in the draft DBFO Agreement.

**“Project”** means the design and construction of the New Infrastructure.

**“Project Lead”** means the Team Member or combination of Team Members, and Key Individual or Key Individuals that are the directing mind and will of the Proponent.

**“Project Specifics”** means the section within the Technical Requirements or Schedule 18 to the DBFO Agreement that describes certain specific parameters and requirements for this DBFO.

**“Proponent”** means the Respondents that have been short-listed to proceed to the RFP stage.

**“Proposal”** means any or all of a Proponent’s Optional Innovation Submission, SR Package 1, SR Package 2, SR Package 2B, and SR Package 3.

**“Proposal Deposit”** has the meaning as set out in Section 5.12.

**“Province”** means Her Majesty the Queen in right of Alberta.

**“QMS”** means quality management system.

**“Remaining New Infrastructure”** or the **“RNI”** means that portion of the New Infrastructure which is not the Priority New Infrastructure, as further described in the draft DBFO Agreement.

**“Respondent”** means any team of private sector participants that has submitted a submission in response to the RFQ.

**“RFP”** means the Request for Proposals for the DBFO, and includes the ITP, the DBFO Agreement, and the Technical Requirements.

**“RFQ”** means the Request for Qualifications for the DBFO issued July 8, 2015.

**“Road Right of Way”** means the lands described in Schedule 12 (Lands) to the DBFO Agreement as the Road Right of Way.

**“SR”** means Submission Requirement.

**“Submission”** means a response to the RFP, including the Optional Innovation Submission, comments on the draft DBFO Agreement, SR Package 1, SR Package 2, SR Package 2B, and SR Package 3.

**“Submission Requirements”** means Appendix 1 to the ITP (Volume 1 of the RFP).

**“Successful Proponent”** means the legal entity, as selected by the Preferred Proponent and as approved in advance and in writing by the Department acting reasonably, that will enter into the DBFO Agreement.

**“Team Member”** means the key business entities forming a particular Proponent.

**“Technical Requirements”** means the performance and other requirements for the DBFO, which is Schedule 18 to the DBFO Agreement.

**“Term”** means the period from and including the day RNI Traffic Availability (as defined in the DBFO Agreement) is achieved to and including the day immediately preceding 30 years from the RNI Traffic Availability Target Date.

“**Traffic Availability**” means the date when the New Infrastructure can safely be opened to the public for use by vehicular traffic, and subject to section 5.15 of the DBFO Agreement, is the date of certification under section 5.14 of the DBFO Agreement.

“**TTN**” means the Tsuut’ina Nation.

“**TUC**” means Transportation/Utility Corridor around The City of Calgary owned by Alberta Infrastructure.

“**UXO**” means unexploded ordinance.

“**Weighted Average Cost of Capital**” or “**WACC**” means the discount rate that when used to determine the sum of the present value of all capital (debt and pre-tax equity) inflows and outflows results in a value of zero.

### 3.2 Interpretation

Other capitalized terms have the meaning assigned to them in the DBFO Agreement or within the text of the RFP.

References to the RFP or the DBFO Agreement, or to the documents which make up the appendices or schedules to the RFP or the DBFO Agreement, or to any part of the documents, shall be deemed to be references to the most current version of those documents, including all modifications, amendments and addenda thereto made and issued by the Department to Proponents.

References to a section, article or volume, without a further reference to another document or to a specific appendix to the RFP, shall be deemed to be references to that section, article or volume of the RFP, exclusive of appendices, unless the context otherwise expressly requires. References to a section or article of the RFP within a volume of the RFP shall be deemed to refer to the section or article within such volume of the RFP.

References to an appendix or volume by number in the RFP or in an appendix or volume to the RFP shall be deemed to be a reference to an appendix or volume (as applicable) of the RFP unless the context otherwise expressly indicates.

References to a statute include the statute as amended from time to time, and in the event that statute is repealed includes any successor legislation thereto including amendments to the successor legislation, and includes all regulations, by-laws and codes enacted thereunder as such regulations or by-laws or codes may be amended from time to time.

The terms “include”, “includes”, “including” and others of like import shall not be deemed limited by the specific enumeration of items but shall be deemed to be without limitation and interpreted as if the term was “including without limitation”.

Where a section, clause, paragraph or other part of any document includes a list of items, whether or not enumerated, the list of items will be construed and interpreted conjunctively as if each was connected to



the other by the word “and”, unless the context specifically indicates the terms are to be construed and interpreted disjunctively by the use of the word “or” at the end of each item of the list.

Unless otherwise specified, all currency amounts are in Canadian dollars.

**Form G<sub>1</sub> – Financial Offer Form (as Amended and Restated May 16, 2016)****Note: For use in SR Package 3****Provincial Funding Calculation**

The Department will be calculating the Provincial Funding as the sum of:

- (a) the product of one full month's PNI Capital Payment from Column B of Table 1 multiplied by 258; plus
- (b) the product of one full month's RNI Capital Payment from Column C of Table 1 multiplied by 255

Please complete the following Financial Offer Form.

**Table 1 – Capital and O&M Payments**

In completing the Financial Offer, Proponents must demonstrate that their proposed Capital Payments, O&M Payments (including Major Rehabilitation Payments, New O&M Payments and Existing O&M Payments) are consistent with their estimated costs for the corresponding underlying activities. For example, Proponents should not plan for using Capital Payments to fund New O&M or Existing O&M activities and vice versa.

Please note the following regarding the Form of Table 1:

- 1** PNI Capital Payments in Column B are to be identical throughout the PNI Operating Period and the Operating Period expressed in nominal dollars. The PNI Capital Payment must reflect that the Priority New Infrastructure comprises approximately 65% of the total capital value of the Project.
- 2** RNI Capital Payments in Column C are to be identical throughout the Operating Period expressed in nominal dollars.
- 3** PNI Major Rehabilitation Payments (Column E), PNI New O&M Payments (Column F), RNI Major Rehabilitation Payments (Column H), RNI New O&M Payments (Column I), and Existing O&M Payments (Column J) are to be stated in constant 2016 dollars.
- 4** PNI O&M Payments (Column D) are to be the sum of PNI Major Rehabilitation Payments (Column E) and PNI New O&M Payments (Column F) for the corresponding month periods in Column A.
- 5** RNI O&M Payments (Column G) are to be the sum of RNI Major Rehabilitation Payments (Column H), RNI New O&M Payments (Column I), and Existing O&M Payments (Column J) for the corresponding month periods in Column A.
- 6** The PNI O&M Payments (Column D) and RNI O&M Payments (Column G) stated in constant 2016 dollars will be converted to nominal dollars for the purpose of comparison of Financial Offers by multiplying the figures in Columns D and G by a fixed estimated inflation rate from 2016. The estimated inflation rate will be calculated using the yields of Government of Canada bonds determined two Business Days prior to the deadline of SR Package 3 as per the following formula:

$$\text{Inflation Estimate} = \left[ \frac{1 + Y}{1 + R} \right] - 1$$

where:  $Y$  = the yield to maturity of the Government of Canada 3.50% December 2045 bond  
 $R$  = the yield to maturity of the Government of Canada 1.50% December 2044 real return bond

For greater clarity and illustration, the actual PNI O&M Payment in nominal dollars to be made to the Successful Proponent in each month period will be calculated by multiplying the figure in constant 2016 dollars in Column D and the actual Index Factor applicable for that particular month, and the actual RNI O&M Payment in nominal dollars to be made to the Successful Proponent in each month period will be calculated by multiplying the figure in constant 2016 dollars in Column G and the actual Index Factor applicable for that particular month. The Index Factor will be determined annually for each calendar year according to the DBFO Agreement.

TABLE 1		CAPITAL		PNI O&M		RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
Month	PNI Capital Payments (nominal dollars) <sup>1</sup>	RNI Capital Payments (nominal dollars) <sup>2</sup>	PNI O&M Payments <sup>3,4,6</sup>	PNI Major Rehabilitation Payments <sup>3,4</sup>	PNI New O&M Payments <sup>3,4</sup>	RNI O&M Payments <sup>3,5,6</sup>	RNI Major Rehabilitation Payments <sup>3,5</sup>	RNI New O&M Payments <sup>3,5</sup>	Existing O&M Payments <sup>3,5</sup>
Oct 1 - 31 2020		No payment				No payment	No payment	No payment	No payment
Nov 1 - 30 2020		No payment				No payment	No payment	No payment	No payment
Dec 1 - 31 2020		No payment				No payment	No payment	No payment	No payment
Jan 1 - 31 2021		No payment				No payment	No payment	No payment	No payment
Feb 1 - 28 2021		No payment				No payment	No payment	No payment	No payment
Mar 1 - 31 2021		No payment				No payment	No payment	No payment	No payment
Apr 1 - 30 2021		No payment				No payment	No payment	No payment	No payment
May 1 - 31 2021		No payment				No payment	No payment	No payment	No payment
Jun 1 - 30 2021		No payment				No payment	No payment	No payment	No payment
Jul 1 - 31 2021		No payment				No payment	No payment	No payment	No payment
Aug 1 - 31 2021		No payment				No payment	No payment	No payment	No payment
Sep 1 - 30 2021		No payment				No payment	No payment	No payment	No payment
Oct 1 - 31 2021									
Nov 1 - 30 2021									
Dec 1 - 31 2021									
Jan 1 - 31 2022									
Feb 1 - 28 2022									
Mar 1 - 31 2022									
Apr 1 - 30 2022									
May 1 - 31 2022									
Jun 1 - 30 2022									
Jul 1 - 31 2022									
Aug 1 - 31 2022									
Sep 1 - 30 2022									
Oct 1 - 31 2022									

TABLE 1		CAPITAL		PNI O&M		RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
Month	PNI Capital Payments (nominal dollars) <sup>1</sup>	RNI Capital Payments (nominal dollars) <sup>2</sup>	PNI O&M Payments <sup>3,4,6</sup>	PNI Major Rehabilitation Payments <sup>3,4</sup>	PNI New O&M Payments <sup>3,4</sup>	RNI O&M Payments <sup>3,5,6</sup>	RNI Major Rehabilitation Payments <sup>3,5</sup>	RNI New O&M Payments <sup>3,5</sup>	Existing O&M Payments <sup>3,5</sup>
Nov 1 - 30 2022									
Dec 1 - 31 2022									
Jan 1 - 31 2023									
Feb 1 - 28 2023									
Mar 1 - 31 2023									
Apr 1 - 30 2023									
May 1 - 31 2023									
Jun 1 - 30 2023									
Jul 1 - 31 2023									
Aug 1 - 31 2023									
Sep 1 - 30 2023									
Oct 1 - 31 2023									
Nov 1 - 30 2023									
Dec 1 - 31 2023									
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May 1 - 31 2024									
Jun 1 - 30 2024									
Jul 1 - 31 2024									
Aug 1 - 31 2024									
Sep 1 - 30 2024									
Oct 1 - 31 2024									
Nov 1 - 30 2024									

TABLE 1		CAPITAL		PNI O&M		RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
Month	PNI Capital Payments (nominal dollars) <sup>1</sup>	RNI Capital Payments (nominal dollars) <sup>2</sup>	PNI O&M Payments <sup>3,4,6</sup>	PNI Major Rehabilitation Payments <sup>3,4</sup>	PNI New O&M Payments <sup>3,4</sup>	RNI O&M Payments <sup>3,5,6</sup>	RNI Major Rehabilitation Payments <sup>3,5</sup>	RNI New O&M Payments <sup>3,5</sup>	Existing O&M Payments <sup>3,5</sup>
Dec 1 - 31 2024									
Jan 1 - 31 2025									
Feb 1 - 28 2025									
Mar 1 - 31 2025									
Apr 1 - 30 2025									
May 1 - 31 2025									
Jun 1 - 30 2025									
Jul 1 - 31 2025									
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Aug 1 - 31 2026									
Sep 1 - 30 2026									
Oct 1 - 31 2026									
Nov 1 - 30 2026									
Dec 1 - 31 2026									

TABLE 1									
CAPITAL			PNI O&M			RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
Month	PNI Capital Payments (nominal dollars) <sup>1</sup>	RNI Capital Payments (nominal dollars) <sup>2</sup>	PNI O&M Payments <sup>3,4,6</sup>	PNI Major Rehabilitation Payments <sup>3,4</sup>	PNI New O&M Payments <sup>3,4</sup>	RNI O&M Payments <sup>3,5,6</sup>	RNI Major Rehabilitation Payments <sup>3,5</sup>	RNI New O&M Payments <sup>3,5</sup>	Existing O&M Payments <sup>3,5</sup>
Jan 1 - 31 2027									
Feb 1 - 28 2027									
Mar 1 - 31 2027									
Apr 1 - 30 2027									
May 1 - 31 2027									
Jun 1 - 30 2027									
Jul 1 - 31 2027									
Aug 1 - 31 2027									
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May 1 - 31 2028									
Jun 1 - 30 2028									
Jul 1 - 31 2028									
Aug 1 - 31 2028									
Sep 1 - 30 2028									
Oct 1 - 31 2028									
Nov 1 - 30 2028									
Dec 1 - 31 2028									
Jan 1 - 31 2029									

TABLE 1									
CAPITAL		PNI O&M				RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
Month	PNI Capital Payments (nominal dollars) <sup>1</sup>	RNI Capital Payments (nominal dollars) <sup>2</sup>	PNI O&M Payments <sup>3,4,6</sup>	PNI Major Rehabilitation Payments <sup>3,4</sup>	PNI New O&M Payments <sup>3,4</sup>	RNI O&M Payments <sup>3,5,6</sup>	RNI Major Rehabilitation Payments <sup>3,5</sup>	RNI New O&M Payments <sup>3,5</sup>	Existing O&M Payments <sup>3,5</sup>
Feb 1 - 28 2029									
Mar 1 - 31 2029									
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May 1 - 31 2029									
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Sep 1 - 30 2030									
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Nov 1 - 30 2030									
Dec 1 - 31 2030									
Jan 1 - 31 2031									
Feb 1 - 28 2031									



TABLE 1	CAPITAL		PNI O&M			RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
Month	PNI Capital Payments (nominal dollars) <sup>1</sup>	RNI Capital Payments (nominal dollars) <sup>2</sup>	PNI O&M Payments <sup>3,4,6</sup>	PNI Major Rehabilitation Payments <sup>3,4</sup>	PNI New O&M Payments <sup>3,4</sup>	RNI O&M Payments <sup>3,5,6</sup>	RNI Major Rehabilitation Payments <sup>3,5</sup>	RNI New O&M Payments <sup>3,5</sup>	Existing O&M Payments <sup>3,5</sup>
Mar 1 - 31 2031									
Apr 1 - 30 2031									
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Aug 1 - 31 2031									
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Feb 1 - 28 2033									
Mar 1 - 31 2033									

TABLE 1									
CAPITAL		PNI O&M				RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
Month	PNI Capital Payments (nominal dollars) <sup>1</sup>	RNI Capital Payments (nominal dollars) <sup>2</sup>	PNI O&M Payments <sup>3,4,6</sup>	PNI Major Rehabilitation Payments <sup>3,4</sup>	PNI New O&M Payments <sup>3,4</sup>	RNI O&M Payments <sup>3,5,6</sup>	RNI Major Rehabilitation Payments <sup>3,5</sup>	RNI New O&M Payments <sup>3,5</sup>	Existing O&M Payments <sup>3,5</sup>
Apr 1 - 30 2033									
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TABLE 1		CAPITAL		PNI O&M		RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
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May 1 - 31 2035									
Jun 1 - 30 2035									
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Oct 1 - 31 2035									
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Feb 1 - 28 2037									
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Apr 1 - 30 2037									
May 1 - 31 2037									

TABLE 1									
CAPITAL			PNI O&M			RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
Month	PNI Capital Payments (nominal dollars) <sup>1</sup>	RNI Capital Payments (nominal dollars) <sup>2</sup>	PNI O&M Payments <sup>3,4,6</sup>	PNI Major Rehabilitation Payments <sup>3,4</sup>	PNI New O&M Payments <sup>3,4</sup>	RNI O&M Payments <sup>3,5,6</sup>	RNI Major Rehabilitation Payments <sup>3,5</sup>	RNI New O&M Payments <sup>3,5</sup>	Existing O&M Payments <sup>3,5</sup>
Jun 1 - 30 2037									
Jul 1 - 31 2037									
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Nov 1 - 30 2037									
Dec 1 - 31 2037									
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May 1 - 31 2039									
Jun 1 - 30 2039									

TABLE 1		CAPITAL		PNI O&M		RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
Month	PNI Capital Payments (nominal dollars) <sup>1</sup>	RNI Capital Payments (nominal dollars) <sup>2</sup>	PNI O&M Payments <sup>3,4,6</sup>	PNI Major Rehabilitation Payments <sup>3,4</sup>	PNI New O&M Payments <sup>3,4</sup>	RNI O&M Payments <sup>3,5,6</sup>	RNI Major Rehabilitation Payments <sup>3,5</sup>	RNI New O&M Payments <sup>3,5</sup>	Existing O&M Payments <sup>3,5</sup>
Jul 1 - 31 2039									
Aug 1 - 31 2039									
Sep 1 - 30 2039									
Oct 1 - 31 2039									
Nov 1 - 30 2039									
Dec 1 - 31 2039									
Jan 1 - 31 2040									
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Dec 1 - 31 2040									
Jan 1 - 31 2041									
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Mar 1 - 31 2041									
Apr 1 - 30 2041									
May 1 - 31 2041									
Jun 1 - 30 2041									
Jul 1 - 31 2041									

TABLE 1		CAPITAL		PNI O&M		RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
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Aug 1 - 31 2041									
Sep 1 - 30 2041									
Oct 1 - 31 2041									
Nov 1 - 30 2041									
Dec 1 - 31 2041									
Jan 1 - 31 2042									
Feb 1 - 28 2042									
Mar 1 - 31 2042									
Apr 1 - 30 2042									
May 1 - 31 2042									
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Jul 1 - 31 2043									
Aug 1 - 31 2043									

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CAPITAL			PNI O&M			RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
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Sep 1 - 30 2043									
Oct 1 - 31 2043									
Nov 1 - 30 2043									
Dec 1 - 31 2043									
Jan 1 - 31 2044									
Feb 1 - 29 2044									
Mar 1 - 31 2044									
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Jun 1 - 30 2045									
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Aug 1 - 31 2045									
Sep 1 - 30 2045									

TABLE 1		CAPITAL		PNI O&M		RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
Month	PNI Capital Payments (nominal dollars) <sup>1</sup>	RNI Capital Payments (nominal dollars) <sup>2</sup>	PNI O&M Payments <sup>3,4,6</sup>	PNI Major Rehabilitation Payments <sup>3,4</sup>	PNI New O&M Payments <sup>3,4</sup>	RNI O&M Payments <sup>3,5,6</sup>	RNI Major Rehabilitation Payments <sup>3,5</sup>	RNI New O&M Payments <sup>3,5</sup>	Existing O&M Payments <sup>3,5</sup>
Oct 1 - 31 2045									
Nov 1 - 30 2045									
Dec 1 - 31 2045									
Jan 1 - 31 2046									
Feb 1 - 28 2046									
Mar 1 - 31 2046									
Apr 1 - 30 2046									
May 1 - 31 2046									
Jun 1 - 30 2046									
Jul 1 - 31 2046									
Aug 1 - 31 2046									
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Nov 1 - 30 2046									
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Jul 1 - 31 2047									
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Sep 1 - 30 2047									
Oct 1 - 31 2047									



TABLE 1		CAPITAL		PNI O&M		RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
Month	PNI Capital Payments (nominal dollars) <sup>1</sup>	RNI Capital Payments (nominal dollars) <sup>2</sup>	PNI O&M Payments <sup>3,4,6</sup>	PNI Major Rehabilitation Payments <sup>3,4</sup>	PNI New O&M Payments <sup>3,4</sup>	RNI O&M Payments <sup>3,5,6</sup>	RNI Major Rehabilitation Payments <sup>3,5</sup>	RNI New O&M Payments <sup>3,5</sup>	Existing O&M Payments <sup>3,5</sup>
Nov 1 - 30 2047									
Dec 1 - 31 2047									
Jan 1 - 31 2048									
Feb 1 - 29 2048									
Mar 1 - 31 2048									
Apr 1 - 30 2048									
May 1 - 31 2048									
Jun 1 - 30 2048									
Jul 1 - 31 2048									
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May 1 - 31 2049									
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Oct 1 - 31 2049									
Nov 1 - 30 2049									

TABLE 1									
CAPITAL			PNI O&M			RNI O&M			
Column A	Column B	Column C	Column D (Column E+F)	Column E	Column F	Column G (Column H+I+J)	Column H	Column I	Column J
Month	PNI Capital Payments (nominal dollars) <sup>1</sup>	RNI Capital Payments (nominal dollars) <sup>2</sup>	PNI O&M Payments <sup>3,4,6</sup>	PNI Major Rehabilitation Payments <sup>3,4</sup>	PNI New O&M Payments <sup>3,4</sup>	RNI O&M Payments <sup>3,5,6</sup>	RNI Major Rehabilitation Payments <sup>3,5</sup>	RNI New O&M Payments <sup>3,5</sup>	Existing O&M Payments <sup>3,5</sup>
Dec 1 - 31 2049									
Jan 1 - 31 2050									
Feb 1 - 28 2050									
Mar 1 - 31 2050									
Apr 1 - 30 2050									
May 1 - 31 2050									
Jun 1 - 30 2050									
Jul 1 - 31 2050									
Aug 1 - 31 2050									
Sep 1 - 30 2050									
Oct 1 - 31 2050									
Nov 1 - 30 2050									
Dec 1 - 31 2050									
Jan 1 - 31 2051									
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Mar 1 - 31 2051									
Apr 1 - 30 2051									
May 1 - 31 2051									
Jun 1 - 30 2051									
Jul 1 - 31 2051									
Aug 1 - 31 2051									
Sep 1 - 30 2051									

## Form G2 – Capital Payment Price Adjustment Election Form (as Amended and Restated May 16, 2016)

**THE FOLLOWING EXPLAINS THE CAPITAL PAYMENT PRICE ADJUSTMENT ELECTION FORM (FORM G2) AND ENDS WITH THE ACTUAL FORM G2 TO BE COMPLETED AND SUBMITTED WITH SR PACKAGE 3.**

Further to the credit spread protection provided in Form G3, in order to provide a degree of protection to Proponents against changes in the general level of interest rates, the Province is offering a price adjustment to the PNI Capital Payment and the RNI Capital Payment components of the Proponent's Financial Offer, details of which are described below. As a general overview, the Capital Payment Price Adjustment Process allows Proponents to identify exposures of the Capital Payment portion of their bid to a basket of Government of Canada bonds and/or a basket of Benchmark Swaps. Changes in interest rates on the Benchmark Bonds and the Benchmark Swaps and the exposures to these bonds and swaps identified by the Proponents will be used to calculate the economic impact of the changes in interest rates and, ultimately, the amount of the adjustment to the proposed PNI Capital Payment and the RNI Capital Payment.

If a Proponent accepts the price adjustment, the PNI Capital Payment and the RNI Capital as stated in the Proponent's Financial Offer will be adjusted, negatively or positively depending on the change in interest rates, based on this process for incorporation into the DBFO Agreement. If a Proponent declines the price adjustment, the PNI Capital Payment and the RNI Capital Payment as stated in the Proponent's Financial Offer will be incorporated into the DBFO Agreement without adjustment (but subject to adjustment in accordance with Form G3 if elected).

Capitalized terms used in this Form G2 that are the same as the capitalized terms used in Appendix 3 to this ITP or the DBFO Agreement, have the definitions as set out in Appendix 3 to this ITP or the DBFO Agreement. The following capitalized terms used in this Form G2 have the following meanings (and where applicable their plurals have corresponding meanings):

### **Definitions for Payment Adjustment Calculation**

**“Adjusted Weighted Average Cost of Capital”** means the Weighted Average Cost of Capital adjusted for changes in interest rates from the Start Date to the End Date as calculated by the following formula:

$$\text{Adjusted Weighted Average Cost of Capital} = W + \frac{\sum_{i=1}^{18} (FY_i - IY_i) \times |HA_i| \times \frac{IP_i}{100} + \sum_{i=1}^{15} (FR_i - IR_i) \times |SH_i|}{\sum_{i=1}^{18} |HA_i| \times \frac{IP_i}{100} + \sum_{i=1}^{15} |SH_i|}$$

where: W = Weighted Average Cost of Capital  
 FY<sub>i</sub> = Final Bond Yield for Benchmark Bond *i*  
 IY<sub>i</sub> = Initial Bond Yield for Benchmark Bond *i*  
 HA<sub>i</sub> = Bond Hedge Amount for Benchmark Bond *i*  
 IP<sub>i</sub> = Initial Bond Price for Benchmark Bond *i*

$FR_i$  = Final Annualized Swap Rate for Benchmark Swap  $i$   
 $IR_i$  = Initial Annualized Swap Rate for Benchmark Swap  $i$   
 $SH_i$  = Swap Hedge Amount for Benchmark Swap  $i$

“**Benchmark Bonds**” refer to the Government of Canada bonds used as benchmark bonds to measure changes in interest rates and to provide interest rate risk protection. The Benchmark Bonds are:

Government of Canada 1.50% March 1, 2017  
 Government of Canada 0.25% November 1, 2017  
 Government of Canada 1.25% February 1, 2018  
 Government of Canada 1.25% September 1, 2018  
 Government of Canada 1.75% September 1, 2019  
 Government of Canada 0.75% September 1, 2020  
 Government of Canada 3.25% June 1, 2021  
 Government of Canada 2.75% June 1, 2022  
 Government of Canada 1.50% June 1, 2023  
 Government of Canada 2.50% June 1, 2024  
 Government of Canada 2.25% June 1, 2025  
 Government of Canada 1.50% June 1, 2026  
 Government of Canada 5.75% June 1, 2029  
 Government of Canada 5.75% June 1, 2033  
 Government of Canada 5.00% June 1, 2037  
 Government of Canada 4.00% June 1, 2041  
 Government of Canada 3.50% December 1, 2045  
 Government of Canada 2.75% December 1, 2048

“**Benchmark Swaps**” refer to the notional interest rate swaps used to measure changes in swap interest rates and to provide interest rate protection against movements in Canadian dollar swap rates. Benchmark Swap maturities and the terms of the Benchmark Swaps used in the calculation of Initial Swap Rates and Final Swap Rates are listed below.

Maturity dates	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 20, 25 and 30 years after the effective date, respectively
Payment frequency	Annual for the one-year swap; semi-annual for all other swaps
Floating leg basis	3 Month Bankers’ Acceptance Rates (CDOR)
Floating rate spread	Flat
Floating rate reset frequency	Quarterly, compounded at CDOR flat
Notional structure	Constant notional
Day count convention	Actual/365
Business day convention	Modified following Toronto Business Day

“**Bond Hedge Amount**” means the PNI Bond Hedge Amount or the RNI Bond Hedge Amount, as applicable depending upon whether the PNI Capital Payment or the RNI Capital Payment is being adjusted.

“**End Date**” means the earlier of (i) the date the DBFO Agreement has been signed by both parties to it and (ii) the Target End Date or such later date as the Province signs and delivers the DBFO Agreement for signature by the Contractor.

“**Final Annualized Swap Rate**” equals the Final Swap Rate converted to an effective annual interest rate.

**“Final Bond Price”** means the bid side spot price per \$100 of par value for each of the respective Benchmark Bonds on the End Date. Final Bond Prices will be the average of bid side spot prices received from a survey of three independent financial institutions active in the Canadian bond market. This survey will be taken at 9:00 a.m. Alberta Time on the End Date and will be delivered via email to the Successful Proponent immediately thereafter. *(Note: spot prices are based on two settlement days for Government of Canada bonds with maturities of less than three years and three settlement days for Government of Canada bonds with maturities greater than or equal to three years.)*

**“Final Bond Settlement Date”** means the later of: (i) the Initial Bond Settlement Date; and (ii) the second Toronto Business Day after the End Date for Benchmark Bonds with less than three years to maturity and the third Toronto Business Day after the End Date for all other Benchmark Bonds.

**“Final Bond Yield”** means the effective annual yield for each of the respective Benchmark Bonds corresponding to each bond’s Final Bond Price. *(Note: Canadian bond yields are typically quoted on a semi-annual basis. Final Bond Yields will be calculated as an effective annual yield for this process.)*

**“Final Bonds Market Value”** means the sum of the respective Final Bond Prices divided by 100 multiplied by the respective Bond Hedge Amounts.

$$\text{Final Bonds' Market Value} = \sum_{i=1}^{18} HA_i \times FP_i \div 100$$

where:  $HA_i$  = Bond Hedge Amount for Benchmark Bond  $i$   
 $FP_i$  = Final Bond Price for Benchmark Bond  $i$

**“Final PNI Capital Payment”** means the PNI Capital Payment to be incorporated into the DBFO Agreement, after the Form G2 Capital Payment adjustment process (if elected) and after the Form G3 Capital Payment adjustment process (if elected), as further detailed under the heading “Final Capital Payments Adjustment Amount” below.

**“Final RNI Capital Payment”** means the RNI Capital Payment to be incorporated into the DBFO Agreement, after the Form G2 Capital Payment adjustment process (if elected) and after the Form G3 Capital Payment adjustment process (if elected), as further detailed under the heading “Final Capital Payments Adjustment Amount” below.

**“Final Swap Effective Date”** means the later of the Target End Date and the End Date.

**“Final Swap Rate”** means the interest rate on the fixed leg for each of the respective Benchmark Swaps on the End Date. Final Swap Rates will be the average of mid rates received from a survey of three independent financial institutions active in Canadian dollar swap markets. The effective date for calculation of Final Swap Rates will be the Final Swap Effective Date. This survey will be taken at 9:00 a.m. Alberta Time on the End Date and will be delivered via email to the Successful Proponent immediately thereafter. *(Note: Swap rates in Canada are typically quoted on a semi-annual payment basis, except for one-year swaps which are quoted on an annual payment basis.)*

**“Final Swap Value”** means the market value per \$1 of notional amount calculated using the Bloomberg SWPM function calculated on the End Date, calculated to six decimal places, for each respective Benchmark Swap. The change in the market value of the swaps caused by movements in swap rates will be calculated using the following process:

1. The swap curve (found in the “**Curves**” tab of the function) will be populated using the Final Swap Rates for all terms of two years and greater. Interest rates for terms of one year and shorter will be taken from the mid rates of Bloomberg Canadian dollar swap curve (swap curve #4). The interpolation method used for curve calculation purposes will be set to “Piecewise Linear (Simple)”.

2. For each swap term, the following terms will be entered:

Fixed pay or receive	Pay fixed
Fixed coupon	Initial Swap Rate for each Benchmark Swap, respectively
Currency	CAD
Calculation basis	Money market
Effective date	Final Swap Effective Date
Maturity	Final Swap Effective Date plus the swap term for each Benchmark Swap, respectively
Fixed payment frequency	Annual for the one-year swap; semi-annual for all other swaps
Fixed day count	Actual/365
Fixed discount curve	4 / Mid
Index	CDOR03
Floating payment frequency	Annual for the one-year swap; semi-annual for all other swaps
Floating reset frequency	Quarterly
Floating day count	Actual/365
Floating discount curve	Curve #4 / Mid
Floating forward curve	Curve #4 / Mid
Curve date	End Date
Valuation date	End Date
Calculate	Premium

3. The Final Swap Value is calculated using the formula below where the Bloomberg SWPM function is used to determine the value of the fixed leg of each respective Benchmark Swap, assuming for this purpose that the notional amount of the swap is \$1,000,000. (*Note: The NPV of the fixed leg of the swap will be a negative number as it represents the pay leg of the swap.*)

$$Final\ Swap\ Value_i = \frac{1,000,000 + FL_i}{1,000,000}$$

where:  $FL_i$  = NPV of the fixed leg for Benchmark Swap  $i$  calculated assuming a notional amount of \$1,000,000 in the SWPM calculator

“**Final Swaps Market Value**” means the sum of the Final Swap Value multiplied by the Swap Hedge Amount for each of the respective Benchmark Swaps.

$$Final\ Swaps\ Market\ Value = \sum_{i=1}^{15} SH_i \times FP_i$$

where:  $SH_i$  = Swap Hedge Amount for Benchmark Swap  $i$   
 $FP_i$  = Final Swap Value for Benchmark Swap  $i$

“**Hedge Gain/Loss**” means the PNI Hedge Gain/Loss or the RNI Hedge Gain/Loss, as applicable depending upon whether the PNI Capital Payment or the RNI Capital Payment is being adjusted.

**“Initial Annualized Swap Rate”** equals the Initial Swap Rate converted to an effective annual interest rate.

**“Initial Bond Price”** means the bid side price per \$100 of par value for each of the respective Benchmark Bonds on the Start Date for settlement on the Initial Bond Settlement Date. Initial Bond Prices will be the average of bid side prices received from a survey of three independent financial institutions active in the Canadian bond market. This survey will be taken at 9:00 a.m. Alberta Time on the Start Date and will be delivered via email to each Proponent immediately thereafter.

**“Initial Bond Settlement Date”** means the Target End Date plus two business days for Benchmark Bonds with less than three years to maturity (measured from the Target End Date) and the Target End Date plus three business days for all other Benchmark Bonds.

**“Initial Bond Yield”** means the effective annual yield for each of the respective Benchmark Bonds corresponding to such bond’s respective Initial Bond Price. *(Note: Canadian bond yields are typically quoted on a semi-annual basis. Initial Bond Yields will be calculated as an effective annual yield for this process.)*

**“Initial Bonds Market Value”** means the sum of the Initial Bond Price for each of the respective Benchmark Bonds divided by 100 multiplied by the respective Bond Hedge Amounts.

$$\text{Initial Bonds' Market Value} = \sum_{i=1}^{18} HA_i \times IP_i \div 100$$

where:  $HA_i$  = Bond Hedge Amount for Benchmark Bond  $i$   
 $IP_i$  = Initial Bond Price for Benchmark Bond  $i$

**“Initial Swap Rate”** means the interest rate on the fixed leg for each of the respective Benchmark Swaps on the Start Date. Initial Swap Rates will be the average of mid rates received from a survey of three independent financial institutions active in Canadian dollar swap markets. The effective date for the Benchmark Swaps for calculating Initial Swap Rates will be the Target End Date. This survey will be taken at 9:00 a.m. Alberta Time on the Start Date and will be delivered via email to each Proponent immediately thereafter. *(Note: Swap rates in Canada are typically quoted on a semi-annual payment basis, except for one-year swaps which are quoted on an annual payment basis.)*

**“Payment Adjustment Amount”** means the Payment Adjustment Amount for PNI Capital Payments or the Payment Adjustment Amount for RNI Capital Payments, as applicable depending upon whether the PNI Capital Payment or the RNI Capital Payment is being adjusted.

**“Payment Adjustment Amount for PNI Capital Payments”** means the dollar amount that the PNI Capital Payment Offer will be adjusted by as a result of interest rate and swap rate changes to determine the Final PNI Capital Payment. The Payment Adjustment Amount for PNI Capital Payments will be determined by the formula below.

$$\text{Payment Adjustment Amount for PNI Capital Payments} = \frac{H \times (1 + A)^T \times I}{1 - \frac{1}{(1 + I)^{372}}}$$

$$I = (1 + A)^{1/12} - 1$$

where: H = PNI Hedge Gain/Loss

T = The number of years between the PNI Traffic Availability Target Date (October 1, 2020) and the End Date, calculated as the number of days between the PNI Traffic Availability Target Date and the End Date divided by 365

A = Adjusted Weighted Average Cost of Capital

I = Effective monthly Adjusted Weighted Average Cost of Capital

**“Payment Adjustment Amount for RNI Capital Payments”** means the dollar amount that the RNI Capital Payment Offer will be adjusted by as a result of interest rate and swap rate changes to determine the Final RNI Capital Payment. The Payment Adjustment Amount for RNI Capital Payments will be determined by the formula below.

$$\text{Payment Adjustment Amount for RNI Capital Payments} = \frac{H \times (1 + A)^T \times I}{1 - \frac{1}{(1 + I)^{360}}}$$
$$I = (1 + A)^{1/12} - 1$$

where: H = RNI Hedge Gain/Loss

T = The number of years between the RNI Traffic Availability Target Date (October 1, 2021) and the End Date, calculated as the number of days between the RNI Traffic Availability Target Date and the End Date divided by 365

A = Adjusted Weighted Average Cost of Capital

I = Effective monthly Adjusted Weighted Average Cost of Capital

**“PNI Bond Hedge Amount”** means the par value amounts identified by the Proponent in the Form G2 submitted by the Proponent in SR Package 3.

**“PNI Capital Payment Offer”** means the fixed monthly PNI Capital Payment as stated in the Financial Offer (Form G1) submitted by the Proponent in SR Package 3.

**“PNI Hedge Gain/Loss”** means the Initial Bonds Market Value less the Final Bonds Market Value plus the Final Swaps Market Value, all three values using the PNI Bond Hedge Amount and the PNI Swap Hedge Amount, as applicable. (Note: if the PNI Hedge Gain/Loss is positive the Payment Adjustment Amount for PNI Capital Payments will be positive; if the PNI Hedge Gain/Loss is negative, the Payment Adjustment Amount for the PNI Capital Payments will be negative.).

**“PNI Swap Hedge Amount”** means the swap notional amounts for each of the respective Benchmark Swaps identified by the Proponent in the Form G2 submitted by the Proponent in SR Package 3.

**“RNI Bond Hedge Amount”** means the par value amounts identified by the Proponent in the Form G2 submitted by the Proponent in SR Package 3.

**“RNI Capital Payment Offer”** means the fixed monthly RNI Capital Payment as stated in the Financial Offer (Form G1) submitted by the Proponent in SR Package 3.

**“RNI Hedge Gain/Loss”** means the Initial Bonds Market Value less the Final Bonds Market Value plus the Final Swaps Market Value, all three values using the RNI Bond Hedge Amount and the RNI Swap



Hedge Amount, as applicable (Note: if the RNI Hedge Gain/Loss is positive the Payment Adjustment Amount for RNI Capital Payments will be positive, if the RNI Hedge Gain/Loss is negative, the Payment Adjustment Amount for the RNI Capital Payments will be negative.).

**“RNI Swap Hedge Amount”** means the swap notional amounts for each of the respective Benchmark Swaps identified by the Proponent in the Form G2 submitted by the Proponent in SR Package 3.

**“Start Date”** means June 8, 2016 (*two Business Days prior to the submission of Submission Requirement Package 3*).

**“Swap Hedge Amount”** means the PNI Swap Hedge Amount or the RNI Swap Hedge Amount, as applicable depending on whether the PNI Capital Payment or the RNI Capital Payment is being adjusted.

**“Target End Date”** means September 13, 2016 (*the expected date for execution of the DBFO Agreement*).

**“Toronto Business Day”** means a day other than a Saturday, Sunday, or statutory holiday in the province of Ontario.

**“Weighted Average Cost of Capital”** means the Proponent’s effective annual weighted average cost of capital, as disclosed in Form G2 and accepted by the Department acting reasonably, and having regard to the weighted average cost of capital, as shown in the Final Financial Model submitted in SR Package 3.

### **Final Capital Payments Adjustment Amount**

If the Proponent accepts the Form G2 capital payment adjustment process and the Form G3 capital payment adjustment process:

- a) the Final PNI Capital Payment equals the PNI Capital Payment Offer plus the Payment Adjustment Amount for PNI Capital Payments from this Form G2 plus the PNI Credit Spread Capital Payment Adjustment Amount from Form G3; and
- b) the Final RNI Capital Payment equals the RNI Capital Payment Offer plus the Payment Adjustment Amount for RNI Capital Payments from this Form G2 plus the RNI Credit Spread Capital Payment Adjustment Amount from Form G3.

If the Proponent accepts only the Form G2 capital payment adjustment process:

- a) the Final PNI Capital Payment equals the PNI Capital Payment Offer plus the Payment Adjustment Amount for PNI Capital Payments from this Form G2; and
- b) the Final RNI Capital Payment equals the RNI Capital Payment Offer plus the Payment Adjustment Amount for RNI Capital Payments from this Form G2.

If the Proponent accepts only the Form G3 capital payment adjustment process:

- a) the Final PNI Capital Payment equals the PNI Capital Payment Offer plus the PNI Credit Spread Capital Payment Adjustment Amount from Form G3; and

- b) the Final RNI Capital Payment equals the RNI Capital Payment Offer plus the RNI Credit Spread Capital Payment Adjustment Amount from Form G3.

### **Payment Adjustment Amount for RNI Capital Payments Calculation Example**

*Note that all rates and amounts shown in this example are intended for illustration purposes only and numbers shown have been rounded as shown to calculate the example. The actual calculation to be done to adjust the PNI Capital Payment and the RNI Capital Payment will not use rounded numbers. For this example, the Payment Adjustment Amount for RNI Capital Payments will be shown.*

#### **1. Initial Bond Prices, Initial Bond Yields and Initial Swap Rates**

To determine the Initial Bond Prices, Initial Bond Yields, and Initial Swap Rates, the Province will conduct a survey of three independent financial institutions active in the Canadian bond market. This survey will be taken at 9:00 a.m. Alberta Time on the Start Date and will be delivered via email to each Proponent as soon as practicable thereafter.

Benchmark Bond	Initial Bond Price*	Semi- Annual Yield	Initial Bond Yield**
Canada 1.50% March 1, 2017	100.428	0.569%	0.570%
Canada 0.25% November 1, 2017	99.611	0.597%	0.598%
Canada 1.25% February 1, 2018	100.877	0.610%	0.611%
Canada 1.25% September 1, 2018	101.189	0.639%	0.640%
Canada 1.75% September 1, 2019	102.840	0.778%	0.780%
Canada 0.75% September 1, 2020	99.256	0.942%	0.944%
Canada 3.25% June 1, 2021	110.020	1.062%	1.065%
Canada 2.75% June 1, 2022	108.312	1.237%	1.241%
Canada 1.50% June 1, 2023	100.522	1.418%	1.423%
Canada 2.50% June 1, 2024	107.041	1.528%	1.534%
Canada 2.25% June 1, 2025	105.013	1.630%	1.637%
Canada 1.50% June 1, 2026	97.574	1.773%	1.781%
Canada 5.75% June 1, 2029	141.548	2.025%	2.035%
Canada 5.75% June 1, 2033	149.208	2.211%	2.223%
Canada 5.00% June 1, 2037	143.475	2.339%	2.353%
Canada 4.00% June 1, 2041	130.193	2.377%	2.391%
Canada 3.50% June 1, 2045	123.911	2.362%	2.376%
Canada 2.75% December 1, 2048	108.100	2.388%	2.402%

\*Bond prices reflect forward settlement: two business days after the Target End Date for bonds with maturities less than three years (September 15, 2016) and three business days after the Target End Date for all other bonds (September 16, 2016).

\*\*The semi-annual yield is converted to an effective annual rate to arrive at the Initial Bond Yield for each Benchmark Bond.

Benchmark Swap	Initial Swap Rate *	Initial Annualized Swap Rate **
1 Year	0.850%	0.850%

2 Year	1.063%	1.066%
3 Year	1.192%	1.196%
4 Year	1.347%	1.351%
5 Year	1.514%	1.519%
6 Year	1.683%	1.690%
7 Year	1.850%	1.859%
8 Year	2.007%	2.017%
9 Year	2.147%	2.158%
10 Year	2.265%	2.278%
12 Year	2.467%	2.483%
15 Year	2.666%	2.684%
20 Year	2.801%	2.820%
25 Year	2.805%	2.825%
30 Year	2.795%	2.815%

*\*Based on the swap terms listed in the definitions, including an effective date equal to the Target End Date (September 13, 2016).*

*\*\*Calculated by converting the swap rates from the survey from a semi-annual rate to an effective annual rate, except for the one year swap which is stated on an effective annual basis by market convention.*

## 2. Bond Hedge Amounts, Swap Hedge Amounts and Weighted Average Cost of Capital

Benchmark Bond	Bond Hedge Amount
Canada 1.50% March 1, 2017	(5,000,000)
Canada 0.25% November 1, 2017	(5,000,000)
Canada 1.25% February 1, 2018	(5,000,000)
Canada 1.25% September 1, 2018	12,500,000
Canada 1.75% September 1, 2019	12,500,000
Canada 0.75% September 1, 2020	12,500,000
Canada 3.25% June 1, 2021	12,500,000
Canada 2.75% June 1, 2022	12,500,000
Canada 1.50% June 1, 2023	12,500,000
Canada 2.50% June 1, 2024	12,500,000
Canada 2.25% June 1, 2025	12,500,000
Canada 1.50% June 1, 2026	12,500,000
Canada 5.75% June 1, 2029	12,500,000
Canada 5.75% June 1, 2033	12,500,000
Canada 5.00% June 1, 2037	12,500,000
Canada 4.00% June 1, 2041	12,500,000
Canada 3.50% June 1, 2045	12,500,000
Canada 2.75% December 1, 2048	12,500,000

Benchmark Swap	Swap Hedge Amount
1 Year	(5,000,000)
2 Year	(5,000,000)
3 Year	(5,000,000)
4 Year	12,500,000
5 Year	12,500,000
6 Year	12,500,000

7 Year	12,500,000
8 Year	12,500,000
9 Year	12,500,000
10 Year	12,500,000
12 Year	12,500,000
15 Year	12,500,000
20 Year	12,500,000
25 Year	12,500,000
30 Year	12,500,000
<hr/>	
Weighted Average Cost of Capital	6.500%

### 3. Calculation of Initial Bonds Market Value

Benchmark Bond	Initial Bond Price	RNI Bond Hedge Amounts	Initial Market Value
Canada 1.50% March 1, 2017	100.428	(5,000,000)	(5,021,400)
Canada 0.25% November 1, 2017	99.611	(5,000,000)	(4,980,550)
Canada 1.25% February 1, 2018	100.877	(5,000,000)	(5,043,850)
Canada 1.25% September 1, 2018	101.189	12,500,000	12,648,625
Canada 1.75% September 1, 2019	102.840	12,500,000	12,855,000
Canada 0.75% September 1, 2020	99.256	12,500,000	12,407,000
Canada 3.25% June 1, 2021	110.020	12,500,000	13,752,500
Canada 2.75% June 1, 2022	108.312	12,500,000	13,539,000
Canada 1.50% June 1, 2023	100.522	12,500,000	12,565,250
Canada 2.50% June 1, 2024	107.041	12,500,000	13,380,125
Canada 2.25% June 1, 2025	105.013	12,500,000	13,126,625
Canada 1.50% June 1, 2026	97.574	12,500,000	12,196,750
Canada 5.75% June 1, 2029	141.548	12,500,000	17,693,500
Canada 5.75% June 1, 2033	149.208	12,500,000	18,651,000
Canada 5.00% June 1, 2037	143.475	12,500,000	17,934,375
Canada 4.00% June 1, 2041	130.193	12,500,000	16,274,125
Canada 3.50% June 1, 2045	123.911	12,500,000	15,488,875
Canada 2.75% December 1, 2048	108.100	12,500,000	13,512,500
<b>Initial Bonds Market Value</b>			<b>200,979,450</b>

### 4. Final Bond Prices, Final Bond Yields and Final Swap Rates

- Final Bond Prices, Final Bond Yields, and Final Swap Rates will be determined through a survey of three financial institutions on the End Date (assumed to be September 13, 2016 for this example) and emailed to the Preferred Proponent as soon as practicable thereafter.

Benchmark Bond	Final Bond Price <sup>*</sup>	Semi-Annual Yield	Final Bond Yield <sup>**</sup>
Canada 1.50% March 1, 2017	100.313	0.819%	0.821%
Canada 0.25% November 1, 2017	99.331	0.847%	0.849%
Canada 1.25% February 1, 2018	100.533	0.860%	0.862%
Canada 1.25% September 1, 2018	100.699	0.889%	0.891%
Canada 1.75% September 1, 2019	102.098	1.028%	1.031%
Canada 0.75% September 1, 2020	98.296	1.192%	1.196%

Canada 3.25% June 1, 2021	108.818	1.312%	1.316%
Canada 2.75% June 1, 2022	106.886	1.487%	1.493%
Canada 1.50% June 1, 2023	98.937	1.668%	1.675%
Canada 2.50% June 1, 2024	105.178	1.778%	1.786%
Canada 2.25% June 1, 2025	102.958	1.880%	1.889%
Canada 1.50% June 1, 2026	95.410	2.023%	2.033%
Canada 5.75% June 1, 2029	138.158	2.275%	2.288%
Canada 5.75% June 1, 2033	144.829	2.461%	2.476%
Canada 5.00% June 1, 2037	138.454	2.589%	2.606%
Canada 4.00% June 1, 2041	124.836	2.627%	2.644%
Canada 3.50% June 1, 2045	118.063	2.612%	2.629%
Canada 2.75% December 1, 2048	102.418	2.638%	2.655%

*\*The End Date is assumed to be September 13, 2016 for this example. Bond prices reflect settlement data as per the Final Bond Settlement Date definition: two days after the End Date for bonds with maturities less than three years (September 15, 2016) and three days for all other bonds (September 16, 2016).*

*\*\*The semi-annual yield is converted to an effective annual rate to arrive at the Final Bond Yield for each Benchmark Bond.*

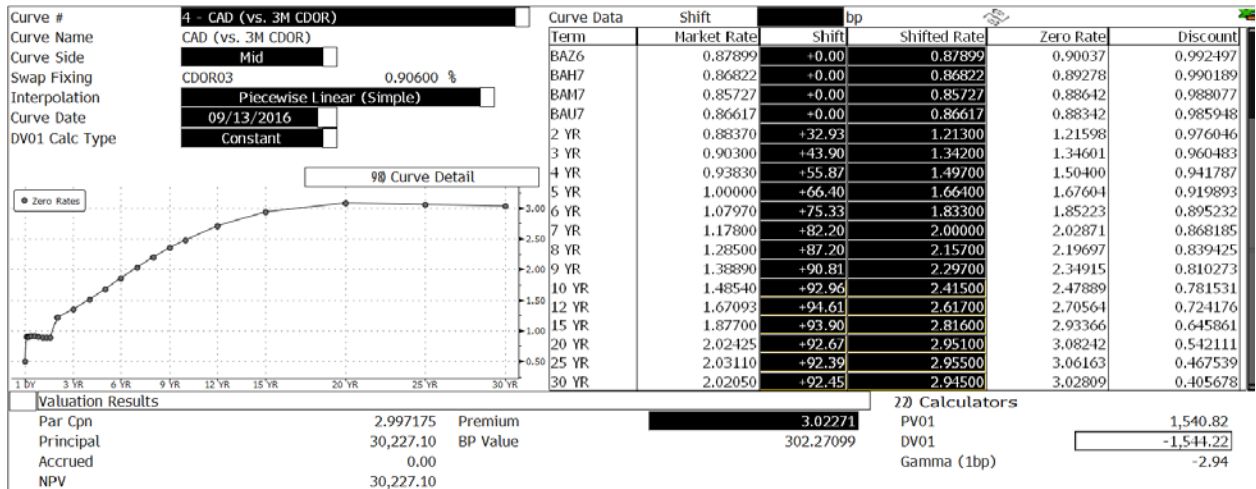
Benchmark Swap	Final Swap Rate *	Final Annualized Swap Rate **
1 Year	1.000%	1.000%
2 Year	1.213%	1.217%
3 Year	1.342%	1.347%
4 Year	1.497%	1.502%
5 Year	1.664%	1.670%
6 Year	1.833%	1.841%
7 Year	2.000%	2.010%
8 Year	2.157%	2.169%
9 Year	2.297%	2.310%
10 Year	2.415%	2.430%
12 Year	2.617%	2.635%
15 Year	2.816%	2.836%
20 Year	2.951%	2.972%
25 Year	2.955%	2.977%
30 Year	2.945%	2.967%

*\*Based on the swap terms listed in the definitions. The Final Swap Effective Date is assumed to be September 13, 2016.*

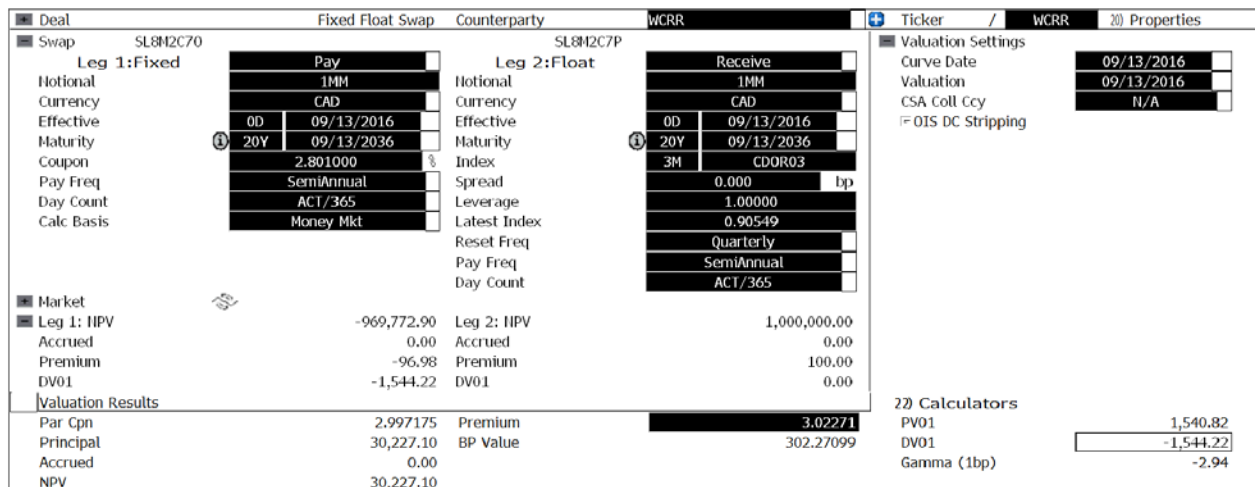
*\*\*Calculated by converting the swap rates from the survey from a semi-annual rate to an effective annual rate, except for the one year swap which is stated on an effective annual basis by market convention.*

## 5. Calculation of Final Swap Values

Calculation of Final Swap Values is made using the SWPM function in Bloomberg. The first step is to construct the swap curve using the Final Swap Rates for terms of two years and greater and from Bloomberg Curve #4 for terms of less than two years as shown in the diagram.



- The second step is to value each of the Benchmark Swaps via the Main SWPM screen using the Initial Swap Rate as the fixed rate for the fixed leg of each respective Benchmark Swap. Each Benchmark Swap is set up with the same basic features as described in the definitions and shown in the diagram that follows, which displays the example calculation for the 20-year swap.
- In the diagram, the Final Swap Value is calculated as the sum of the notional amount (1,000,000) and the NPV of the fixed leg as calculated by SWPM (-969,772.90); and divided by the notional amount (1,000,000) to determine the Final Swap Value (0.030227).



- Using the SWPM calculator, the Final Swap Value for each of the respective Benchmark Swaps is listed below.

Benchmark Swap	Swap Fixed Rate	Final Swap Value*
1 Year	0.850%	0.000307
2 Year	1.063%	0.005024
3 Year	1.192%	0.007619
4 Year	1.347%	0.010306
5 Year	1.514%	0.012811
6 Year	1.683%	0.015226
7 Year	1.850%	0.017343

8 Year	2.007%	0.019130
9 Year	2.147%	0.020662
10 Year	2.265%	0.022127
12 Year	2.467%	0.024303
15 Year	2.666%	0.026747
20 Year	2.801%	0.030227
25 Year	2.805%	0.033760
30 Year	2.795%	0.035682

#### 6. Calculation of Final Bonds Market Value and Final Swaps Market Value

Benchmark Bond	Final Bond Price	Bond Hedge Amount	Final Market Value
Canada 1.50% March 1, 2017	100.313	(5,000,000)	(5,015,650)
Canada 0.25% November 1, 2017	99.331	(5,000,000)	(4,966,550)
Canada 1.25% February 1, 2018	100.533	(5,000,000)	(5,026,650)
Canada 1.25% September 1, 2018	100.699	12,500,000	12,587,375
Canada 1.75% September 1, 2019	102.098	12,500,000	12,762,250
Canada 0.75% September 1, 2020	98.296	12,500,000	12,287,000
Canada 3.25% June 1, 2021	108.818	12,500,000	13,602,250
Canada 2.75% June 1, 2022	106.886	12,500,000	13,360,750
Canada 1.50% June 1, 2023	98.937	12,500,000	12,367,125
Canada 2.50% June 1, 2024	105.178	12,500,000	13,147,250
Canada 2.25% June 1, 2025	102.958	12,500,000	12,869,750
Canada 1.50% June 1, 2026	95.410	12,500,000	11,926,250
Canada 5.75% June 1, 2029	138.158	12,500,000	17,269,750
Canada 5.75% June 1, 2033	144.829	12,500,000	18,103,625
Canada 5.00% June 1, 2037	138.454	12,500,000	17,306,750
Canada 4.00% June 1, 2041	124.836	12,500,000	15,604,500
Canada 3.50% June 1, 2045	118.063	12,500,000	14,757,875
Canada 2.75% December 1, 2048	102.418	12,500,000	12,802,250
<b>Final Bonds Market Value</b>			<b>195,745,900</b>

Benchmark Swap	Swap Hedge Amount	Final Swap Value	Final Swap Market Value
1 Year	(5,000,000)	0.000307	(1,534)
2 Year	(5,000,000)	0.005024	(25,121)
3 Year	(5,000,000)	0.007619	(38,093)
4 Year	12,500,000	0.010306	128,822
5 Year	12,500,000	0.012811	160,136
6 Year	12,500,000	0.015226	190,331
7 Year	12,500,000	0.017343	216,786
8 Year	12,500,000	0.019130	239,122
9 Year	12,500,000	0.020662	258,274
10 Year	12,500,000	0.022127	276,583
12 Year	12,500,000	0.024303	303,790
15 Year	12,500,000	0.026747	334,333
20 Year	12,500,000	0.030227	377,839

25 Year	12,500,000	0.033760	421,998
30 Year	12,500,000	0.035682	446,027
<b>Final Swaps' Market Value</b>			<b>3,289,293</b>

#### 7. Calculation of Hedge Gain/Loss

Initial Bonds Market Value	200,979,450
Less: Final Bonds Market Value	195,745,900
Plus: Final Swaps Market Value	3,289,293
<b>RNI Hedge Gain/Loss</b>	<b>8,522,843</b>

#### 8. Calculation of Adjusted Weighted Average Cost of Capital

Benchmark Bond	Final Bond Yield	Initial Bond Yield	Change in Yield
Canada 1.50% March 1, 2017	0.821%	0.570%	0.251%
Canada 0.25% November 1, 2017	0.849%	0.598%	0.251%
Canada 1.25% February 1, 2018	0.862%	0.611%	0.251%
Canada 1.25% September 1, 2018	0.891%	0.640%	0.251%
Canada 1.75% September 1, 2019	1.031%	0.780%	0.251%
Canada 0.75% September 1, 2020	1.196%	0.944%	0.252%
Canada 3.25% June 1, 2021	1.316%	1.065%	0.251%
Canada 2.75% June 1, 2022	1.493%	1.241%	0.252%
Canada 1.50% June 1, 2023	1.675%	1.423%	0.252%
Canada 2.50% June 1, 2024	1.786%	1.534%	0.252%
Canada 2.25% June 1, 2025	1.889%	1.637%	0.252%
Canada 1.50% June 1, 2026	2.033%	1.781%	0.252%
Canada 5.75% June 1, 2029	2.288%	2.035%	0.253%
Canada 5.75% June 1, 2033	2.476%	2.223%	0.253%
Canada 5.00% June 1, 2037	2.606%	2.353%	0.253%
Canada 4.00% June 1, 2041	2.644%	2.391%	0.253%
Canada 3.50% June 1, 2045	2.629%	2.376%	0.253%
Canada 2.75% December 1, 2048	2.655%	2.402%	0.253%

Benchmark Bond	Bond Hedge Amount	Initial Bond Price	Absolute Initial Market Value	Calculation *
Canada 1.50% March 1, 2017	(5,000,000)	100.428	5,021,400	12,604
Canada 0.25% November 1, 2017	(5,000,000)	99.611	4,980,550	12,501
Canada 1.25% February 1, 2018	(5,000,000)	100.877	5,043,850	12,660
Canada 1.25% September 1, 2018	12,500,000	101.189	12,648,625	31,748
Canada 1.75% September 1, 2019	12,500,000	102.840	12,855,000	32,266
Canada 0.75% September 1, 2020	12,500,000	99.256	12,407,000	31,266
Canada 3.25% June 1, 2021	12,500,000	110.020	13,752,500	34,519
Canada 2.75% June 1, 2022	12,500,000	108.312	13,539,000	34,118
Canada 1.50% June 1, 2023	12,500,000	100.522	12,565,250	31,664



Canada 2.50% June 1, 2024	12,500,000	107.041	13,380,125	33,718
Canada 2.25% June 1, 2025	12,500,000	105.013	13,126,625	33,079
Canada 1.50% June 1, 2026	12,500,000	97.574	12,196,750	30,736
Canada 5.75% June 1, 2029	12,500,000	141.548	17,693,500	44,765
Canada 5.75% June 1, 2033	12,500,000	149.208	18,651,000	47,187
Canada 5.00% June 1, 2037	12,500,000	143.475	17,934,375	45,374
Canada 4.00% June 1, 2041	12,500,000	130.193	16,274,125	41,174
Canada 3.50% June 1, 2045	12,500,000	123.911	15,488,875	39,187
Canada 2.75% December 1, 2048	12,500,000	108.100	13,512,500	34,187
Totals			<b>231,071,050</b>	<b>582,752</b>
			(B)	(Y)

\* Change in Yield multiplied by the Absolute Initial Bonds Market Value for each respective Benchmark Bond

Benchmark Swap	Final Annualized Swap Rate	Initial Annualized Swap Rate	Change in Rate
1 Year	1.000%	0.850%	0.150%
2 Year	1.217%	1.066%	0.151%
3 Year	1.347%	1.196%	0.151%
4 Year	1.502%	1.351%	0.151%
5 Year	1.670%	1.519%	0.151%
6 Year	1.841%	1.690%	0.151%
7 Year	2.010%	1.859%	0.151%
8 Year	2.169%	2.017%	0.152%
9 Year	2.310%	2.158%	0.152%
10 Year	2.430%	2.278%	0.152%
12 Year	2.635%	2.483%	0.152%
15 Year	2.836%	2.684%	0.152%
20 Year	2.972%	2.820%	0.152%
25 Year	2.977%	2.825%	0.152%
30 Year	2.967%	2.815%	0.152%

Benchmark Swap	Swap Hedge Amount	Absolute Swap Hedge Amount	Calculation*
1 Year	(5,000,000)	5,000,000	7,500
2 Year	(5,000,000)	5,000,000	7,550
3 Year	(5,000,000)	5,000,000	7,550
4 Year	12,500,000	12,500,000	18,875
5 Year	12,500,000	12,500,000	18,875
6 Year	12,500,000	12,500,000	18,875
7 Year	12,500,000	12,500,000	18,875
8 Year	12,500,000	12,500,000	19,000

9 Year	12,500,000	12,500,000	19,000
10 Year	12,500,000	12,500,000	19,000
12 Year	12,500,000	12,500,000	19,000
15 Year	12,500,000	12,500,000	19,000
20 Year	12,500,000	12,500,000	19,000
25 Year	12,500,000	12,500,000	19,000
30 Year	12,500,000	12,500,000	19,000
Totals	<b>165,000,000</b>	<b>250,100</b>	
	(S)	(R)	

\* Change in Rate multiplied by the Absolute Swap Hedge Amount for each respective Benchmark Swap

W = Weighted Average Cost of Capital  
= 6.50%

Y = Sum of Weighted Bond Yield Changes  

$$= \sum_{i=1}^{18} (FY_i - IY_i) \times |HA_i| \times \frac{IP_i}{100}$$
where:  $FY_i$  = Final Bond Yield for each Benchmark Bond i  
 $IY_i$  = Initial Bond Yield for each Benchmark Bond i  
 $HA_i$  = RNI Bond Hedge Amount for each Benchmark Bond i  
 $IP_i$  = Initial Bond Price for each Benchmark Bond i  
= 582,752

R = Sum of Weighted Swap Rate Changes  

$$= \sum_{i=1}^{15} (FR_i - IR_i) \times |SH_i|$$
where:  $FR_i$  = Final Annualized Swap Rate for each Benchmark Swap i  
 $IR_i$  = Initial Annualized Swap Rate for each Benchmark Swap i  
 $SH_i$  = RNI Swap Hedge Amount for each Benchmark Swap i  
= 250,100

B = Sum of Absolute Initial Bond Market Values  

$$= \sum_{i=1}^{18} |HA_i| \times \frac{IP_i}{100}$$
where:  $HA_i$  = RNI Bond Hedge Amount for each Benchmark Bond i  
 $IP_i$  = Initial Bond Price for each Benchmark Bond i  
= 231,071,050

S = Sum of Absolute Swap Hedge Amounts  

$$= \sum_{i=1}^{15} |SH_i|$$
where:  $SH_i$  = RNI Swap Hedge Amount for each Benchmark Swap i  
= 165,000,000

$$\begin{aligned}
 \text{Adjusted Weighted Average Cost of Capital} &= W + \frac{Y + R}{B + S} \\
 &= 6.50\% + \frac{582,752 + 250,100}{231,071,050 + 165,000,000} \\
 &= 6.710\%
 \end{aligned}$$

<b>Adjusted Weighted Average Cost of Capital</b>	<b>6.710%</b>
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**9. Calculation of Payment Adjustment Amount for RNI Capital Payments**

$$\begin{aligned} H &= \text{RNI Hedge Gain/Loss} \\ &= 8,522,843 \\ A &= \text{Adjusted Weighted Average Cost of Capital} \\ &= 6.710\% \\ I &= \text{Effective Monthly Adjusted Weighted Average Cost of Capital} \\ &= (1 + A)^{1/12} - 1 \\ &= (1 + 0.06710)^{1/12} - 1 \\ &= 0.54269\% \\ T &= (\text{RNI Traffic Availability Target Date} - \text{End Date}) \div 365 \\ &= (\text{October 1, 2021} - \text{September 13, 2016}) \div 365 \\ &= 5.0521 \end{aligned}$$

**Payment Adjustment Amount for RNI Capital Payments**

**74,886.77**

$$\begin{aligned} \text{Payment Adjustment Amount for RNI Capital Payments} &= \frac{H \times (1 + A)^T \times I}{1 - \frac{1}{(1 + I)^{360}}} \\ &= \frac{8,522,843 \times (1 + 0.06710)^{5.0521} \times 0.0054269}{1 - \frac{1}{(1 + 0.0054269)^{360}}} \\ &= 74,886.77 \end{aligned}$$

As this example is for the Payment Adjustment Amount for RNI Capital Payments, the Payment Adjustment Amount for RNI Capital Payments above would be applied to the RNI Capital Payments.

**Payment Adjustment Amount Calculation Process**

The administrative process for actually calculating the Payment Adjustment Amount and the replacement of Appendix 1 to Schedule 14 with a revised Table 1 of Form G1 shall be carried out by the Province in accordance with this Form G2 and as the process may be further detailed and clarified by the Province, acting reasonably (the “**Overall Process**”). The Overall Process shall be completed no later than 3:00 p.m. Alberta Time on the End Date. The Overall Process shall include:

- (a) the preparation of a revised Table 1 of Form G1 from SR3 to the RFP which would entail taking Table 1 of Form G1 from the Preferred Proponent’s SR Package 3 and applying the Payment Adjustment Amount to the PNI and RNI Capital Payments;

- (b) circulating the revised Table 1 of Form G1 to the Contact Individual and the Department Representative for review and approval, with both parties acting reasonably; and
- (c) the replacement of Appendix 1 to Schedule 14 with the revised Table 1 of Form G1 as approved.

The Province may approve an alternative process for determining Final Bond Prices and Final Swap Rates at a mutually acceptable time on the End Date in order to facilitate a more efficient process for the Preferred Proponent (the “**Alternate Final Bond Prices and Final Swap Rates Determination Process**”). Any Alternate Final Bond Prices and Final Swap Rates Determination Process will need to include pricing that accurately reflects current market prices and rates and is received from independent parties. All other calculations in determining the Payment Adjustment Amount will not be changed. Any Alternate Final Bond Prices and Final Swap Rates Determination Process shall:

1. ensure the Overall Process (as amended) is completed no later than 3:00 p.m. Alberta Time on the End Date; and
2. have a procedure for resolving any disagreements over the execution of the Alternate Final Bond Prices and Final Swap Rates Determination Process.

If the Alternate Final Bond Prices and Final Swap Rates Determination Process has not been agreed to by the Province and the Preferred Proponent by 5:00 p.m. Alberta Time the day before the End Date or the Alternate Final Bond Prices and Final Swap Rates Determination Process has not been completed by 1:00 p.m. Alberta Time on the End Date, the Overall Process shall be carried out by the Province.

# **CAPITAL PAYMENT PRICE ADJUSTMENT ELECTION FORM** **– FORM G2 (Actual form to be completed and submitted with SR** **Package 3)**

**Complete this table whether or not the election to use Benchmark Bonds and/or Benchmark Swaps has been made**

Weighted Average Cost of Capital	
----------------------------------	--

The Weighted Average Cost of Capital must be expressed as an effective annual rate.

## **Capital Payment Price Adjustment Process**

Proponents must select **only one** of the following:

The capital payment adjustment process is accepted ☐

The capital payment adjustment process is declined ☐

**Complete this table if the election to use the capital payment adjustment process has been made**

<b>Benchmark Bonds</b>	<b>PNI Hedge Amounts (Par Value)</b>	<b>PNI Initial Market Value</b>	<b>RNI Hedge Amounts (Par Value)</b>	<b>RNI Initial Market Value</b>
Canada 1.75% March 1, 2013				
Canada 0.75% May 1, 2014				
Canada 1.00% February 1, 2015				
Canada 2.00% June 1, 2016				
Canada 1.50% March 1, 2017				
Canada 4.25% June 1, 2018				
Canada 3.75% June 1, 2019				
Canada 3.50% June 1, 2020				
Canada 3.25% June 1, 2021				
Canada 2.75% June 1, 2022				
Canada 8.00% June 1, 2027				
Canada 5.75% June 1, 2029				
Canada 5.75% June 1, 2033				

Canada 5.00% June 1, 2037				
Canada 4.00% June 1, 2041				
Canada 3.50% December 1, 2045				

<b>Benchmark Swap</b>	<b>PNI Swap Hedge Amount (Notional Amounts)</b>	<b>RNI Swap Hedge Amount (Notional Amounts)</b>
1 Year		
2 Year		
3 Year		
4 Year		
5 Year		
6 Year		
7 Year		
8 Year		
9 Year		
10 Year		
12 Year		
15 Year		
20 Year		
25 Year		
30 Year		

Constraints:

1. *The Bond Hedge Amounts and Swap Hedge Amounts must be consistent with the Proponent's financing for the DBFO as shown in the Proponent's Final Financial Model.*
2. *Bond Hedge Amounts and Swap Hedge Amounts must only be for hedging purposes and not for speculative purposes.*

## Form G3 – Credit Spread Price Adjustment to Capital Payment Election Form

**THE FOLLOWING EXPLAINS THE CREDIT SPREAD PRICE ADJUSTMENT TO CAPITAL PAYMENT ELECTION FORM (FORM G3) AND ENDS WITH THE ACTUAL FORM G3 TO BE COMPLETED AND SUBMITTED WITH SR PACKAGE 3.**

Further to the base interest rate protection provided in Form G2, in order to provide a degree of protection to Proponents against general market changes in credit spreads above base interest rates on their proposed long-term debt financing, the Province is offering a price adjustment to the PNI Capital Payment and the RNI Capital Payment components of the Proponent's Financial Offer, details of which are provided below. As a general overview, the Credit Spread Price Adjustment to Capital Payment allows Proponents to protect against exposures of the PNI Capital Payment and the RNI Capital Payment portions of their bid to the average change in credit spreads of a basket of long-term bonds. A credit spread is calculated for each bond in the basket against a corresponding benchmark Government of Canada bond at the Credit Spread Base Date and again at the Credit Spread Final Date. The Average Change in Credit Spreads for the basket is then used to calculate the economic impact of the change in credit spreads and, ultimately, the adjustment amounts to the proposed PNI Capital Payment and RNI Capital Payment.

If a Proponent accepts this credit spread price adjustment at the time of SR3 submission, the PNI Capital Payment and the RNI Capital Payment as stated in the Proponent's Financial Offer will be adjusted, negatively or positively depending on the average change in credit spreads based on this process, for incorporation into the DBFO Agreement. If a Proponent declines this price adjustment, the PNI Capital Payment and the RNI Capital Payment as stated in the Proponent's Financial Offer will be incorporated into the DBFO Agreement without adjustment for changes in credit spreads.

The following capitalized terms are used in this Form G3, where not defined in the DBFO Agreement or Form G2, have the following meanings:

<p><b>“Adjusted Weighted Average Cost of Capital”</b> is as defined in Form G2.</p>
<p><b>“Average Change in Credit Spreads”</b> means the simple average of the Change in Credit Spreads for all Reference Bonds and any Reserve Bonds that are included in the Final Basket of Bonds.</p>
<p><b>“Average Modified Duration”</b> means the simple equally-weighted average of the Modified Duration for each of the 12 Reference Bonds in the Initial Basket of Bonds, determined as per the Basket of Bonds Selection Process (set out below).</p>
<p><b>“Benchmark GOC Bond”</b> means the on-the-run Government of Canada bond selected by the Province for use as a benchmark bond to a corresponding Reference Bond or a Reserve Bond for the purpose of calculating its credit spread.</p>
<p><b>“Change in Credit Spread”</b> means the difference between Final Credit Spread and Initial Credit Spread for a Reference Bond or Reserve Bond.</p>
<p><b>“Credit Rating Agency”</b> means any of the following credit rating agencies: DBRS (originally known as Dominion Bond Rating Service), Moody's and Standard &amp; Poor's.</p>
<p><b>“Credit Rating Event”</b> means an event for a Reference Bond in the Initial Basket of Bonds or a</p>

Reserve Bond where the Final Credit Ratings and Outlooks by any Credit Rating Agency does not match the Initial Credit Ratings and Outlooks by the same Credit Rating Agency or if such credit rating has been formally announced as being under review.

**“Credit Spread Adjusted Weighted Average Cost of Capital”** means the Adjusted Weighted Average Cost of Capital as per Form G2 plus the Average Change in Credit Spreads multiplied by 0.9.

$$\text{Credit Spread Adjusted Weighted Average Cost of Capital} = AWACC + (ACCS \times 0.9)$$

Where:

- $AWACC$  = Adjusted Weighted Average Cost of Capital
- $ACCS$  = Average Change in Credit Spreads

**“Credit Spread Base Date”** means June 8, 2016 occurring on the same day as Start Date.

**“Credit Spread Exposure”** means the Average Modified Duration multiplied by the Average Change in Credit Spreads.

**“Credit Spread Final Date”** means the day advised by the Preferred Proponent to the Province (with at least two Toronto Business Days advance notice) as the day the Preferred Proponent intends to price its long-term debt financing but not later than one Toronto Business Day prior to End Date.

**“Credit Spread Hedge Amount”** means the amount, not exceeding the Proponent’s long-term debt financing amount, identified by the Proponent in this Form G3 for hedging against credit spread risk over the period from Credit Spread Base Date to Credit Spread Final Date.

**“Credit Spread Hedge Gain/Loss”** means the Credit Spread Exposure multiplied by the Credit Spread Hedge Amount. *(Note: if the Credit Spread Hedge Gain/Loss is positive, the resulting capital payment adjustment amounts will be positive; if the Credit Spread Hedge Gain/Loss is negative, the resulting capital payment adjustment amounts will be negative.)*

**“Duration”** means the Macaulay duration for a bond with an assumed par value of \$100. Macaulay duration is the weighted average term to maturity of bond cash flows. Each period in the bond’s term to maturity is weighted by the present value of bond cash flow for that period divided by the current bond price as per the following formula:

$$\text{Duration} = \frac{\sum_{t=1}^n \frac{t \times C}{(1+y)^t} + \frac{n \times M}{(1+y)^n}}{P}$$

Where:

- $t$  = respective time period
- $C$  = periodic coupon payment
- $y$  = periodic yield
- $n$  = total number of coupon payment periods from settlement to maturity
- $M$  = maturity value
- $P$  = bond price



<p><b>“End Date”</b> is as defined in Form G2.</p>
<p><b>“Excluded Bonds”</b> means any bond or bonds in the Initial Basket of Bonds, and Reserve Bonds if applicable, determined by the Province to be excluded from the Final Basket of Bonds as set out in the example provided in this Form G3. Bonds may be excluded as outliers or due to a Credit Rating Event such as a downgrade.</p>
<p><b>“Final Basket of Bonds”</b> means the Preferred Proponent’s Initial Basket of Bonds as adjusted to eliminate any Excluded Bonds, containing one or more substitute Reserve Bonds if applicable, as determined by the Province per the Basket of Bonds Selection Process (set out below).</p>
<p><b>“Final Credit Ratings and Outlooks”</b> means the long-term credit ratings and outlooks for each Reference Bond or Reserve Bond published by the Credit Rating Agency rating such bond on the Credit Spread Final Date.</p>
<p><b>“Final Credit Spread”</b> means the Final Yield for a Reference Bond or a Reserve Bond less the Final Yield for the respective Benchmark GOC Bond on the Credit Spread Final Date.</p>
<p><b>“Final List of Bonds”</b> means the final list of bonds determined by the Province, as per the Basket of Bonds Selection Process (set out below), from which each Proponent may select its Initial Basket of Bonds and Reserve Bonds.</p>
<p><b>“Final PNI Capital Payment”</b> means the PNI Capital Payment to be incorporated into the DBFO Agreement after the Form G2 Capital Payment adjustment process (if elected) and after the Form G3 Capital Payment adjustment process (if elected).</p>
<p><b>“Final RNI Capital Payment”</b> means the RNI Capital Payment to be incorporated into the DBFO Agreement after the Form G2 Capital Payment adjustment process (if elected) and after the Form G3 Capital Payment adjustment process (if elected).</p>
<p><b>“Final Yield”</b> means, for a Reference Bond, Reserve Bond or Benchmark GOC Bond, the yield determined by the Province, acting reasonably and in good faith, having given consideration to the quoted annual bid-side market yields as at 1:00pm Toronto time collected from a survey of a minimum of three financial institutions active in the Canadian bond market on the Credit Spread Final Date.</p>
<p><b>“Initial Basket of Bonds”</b> means the 12 Reference Bonds and respective Benchmark GOC Bonds determined according to the Basket of Bonds Selection Process (set out below) for each Proponent.</p>
<p><b>“Initial Credit Ratings and Outlooks”</b> means the long-term credit ratings and outlooks for each Reference Bond or Reserve Bond published by the Credit Rating Agency rating such bond as at the Start Date.</p>
<p><b>“Initial Credit Spread”</b> means the Initial Yield for a Reference Bond or Reserve Bond less the Initial Yield on the corresponding Benchmark GOC Bond on the Start Date.</p>
<p><b>“Initial Yield”</b> means, for a Reference Bond, Reserve Bond or Benchmark GOC Bond, the yield determined by the Province, acting reasonably and in good faith, having given consideration to the quoted annual bid-side market yields as at 1:00pm Toronto time collected from a survey of a minimum of three financial institutions active in the Canadian bond market on the Credit Spread Base Date.</p>
<p><b>“List of Bonds”</b> means the list of bonds provided by the Province to all Proponents for comments,</p>

suggestions and proposed additional Reference Bonds as per Basket of Bonds Selection Process (set out below).

**“Modified Duration”** means the modified Macaulay duration for a Reference Bond with an assumed par value of \$100. This is calculated using MS Excel’s standard MDURATION function as per the following formula:

$$\text{Modified Duration} = \frac{\text{Duration}}{1 + \left( \frac{\text{yield}}{\text{frequency}} \right)}$$

Where:

- *yield* is the Initial Yield or Final Yield
- *frequency* is the number of coupon payments per year

**“PNI Capital Payment Offer”** is as defined in Form G2.

**“PNI Credit Spread Capital Payment Adjustment Amount”** or **“PNI CS Capital Payment Adjustment Amount”** means the positive or negative dollar amount that the PNI Capital Payment Offer will be adjusted by, along with any other adjustments for changes in base rates per Form G2, as a result of credit spread changes to determine the Final PNI Capital Payment. The amount will be determined by the formula below.

$$\text{PNI CS Capital Payment Adjustment Amount} = \frac{H \times (1 + A)^T \times I}{1 - \frac{1}{(1 + I)^{372}}}$$

where: *H* = PNI Credit Spread Hedge Gain/Loss Amount

*T* = The number of years between the PNI Traffic Availability Target Date and the Credit Spread Final Date, calculated as the number of days between the PNI Traffic Availability Target Date and the Credit Spread Final Date divided by 365

*A* = Credit Spread Adjusted Weighted Average Cost of Capital

*I* = Effective monthly Credit Spread Adjusted Weighted Average Cost of Capital =  $(1 + A)^{1/12} - 1$

**“PNI Credit Spread Hedge Allocation”** means the percentage ratio of a single monthly PNI Capital Payment Offer (as per Column B of Table 1 in Form G1) to the sum of a single monthly PNI Capital Payment Offer and a single monthly RNI Capital Payment Offer (as per Columns B and C of Table 1 in Form G1).

**“PNI CS Hedge Gain/Loss”** means the portion of the Credit Spread Hedge Gain/Loss allocated to the PNI and used to calculate the PNI CS Capital Payment Adjustment Amount.

**“PNI Traffic Availability Target Date”** is as defined in DBFO Agreement.

**“Reference Bond”** means a bond rated between A and BBB (or equivalent rating scale) issued by a utility corporation, infrastructure authority (Airports, Ferries, Hydro, etc...) or generally equivalent issuers as selected by the Province, but not including bonds issued specifically for a public-private partnership project.

**“Reserve Bond”** means any additional Reference Bond, and its corresponding Benchmark GOC Bond, indicated as per the Basket of Bonds Selection Process (set out below) to serve as a reserved substitute

in its order of preference in case the Final Basket of Bonds before including any Reserve Bonds contains fewer than eight Reference Bonds due to multiple credit rating event exclusions.

**“RNI Capital Payment Offer”** is as defined in Form G2.

**“RNI Credit Spread Capital Payment Adjustment Amount”** or **“RNI CS Capital Payment Adjustment Amount”** means the positive or negative dollar amount that the RNI Capital Payment Offer will be adjusted by, along with any other adjustments for changes in base rates per Form G2, as a result of credit spread changes to determine the Final RNI Capital Payment. The amount will be determined by the formula below.

$$RNI\ CS\ Capital\ Payment\ Adjustment\ Amount = \frac{H \times (1 + A)^T \times I}{1 - \frac{1}{(1 + I)^{360}}}$$

where:  $H$  = RNI Credit Spread Hedge Gain/Loss Amount

$T$  = The number of years between the RNI Traffic Availability Target Date and the Credit Spread Final Date, calculated as the number of days between the RNI Traffic Availability Target Date and the Credit Spread Final Date divided by 365

$A$  = Credit Spread Adjusted Weighted Average Cost of Capital

$I$  = Effective monthly Credit Spread Adjusted Weighted Average Cost of Capital =  $(1 + A)^{1/12} - 1$

**“RNI Credit Spread Hedge Allocation”** means the percentage ratio complement of PNI Credit Spread Hedge Allocation (i.e. 100% minus PNI Credit Spread Hedge Allocation %).

**“RNI CS Hedge Gain (Loss) Amount”** means the portion of the Credit Spread Hedge Amount allocated to the RNI and used to calculate the RNI CS Capital Payment Hedge Amount.

**“RNI Traffic Availability Target Date”** is as defined in DBFO Agreement.

**“Start Date”** is as defined in Form G2.

**“Target End Date”** is as defined in Form G2.

**“Toronto Business Day”** is as defined in Form G2.

**“Weighted Average Cost of Capital”** is as defined in Form G2.

### **Final Capital Payments Adjustment Amount**

If the Proponent accepts the Form G2 capital payment adjustment process and the Form G3 capital payment adjustment process:

- a) the Final PNI Capital Payment equals the PNI Capital Payment Offer plus the Payment Adjustment Amount for PNI Capital Payments from Form G2 plus the PNI Credit Spread Capital Payment Adjustment Amount; and
- b) the Final RNI Capital Payment equals the RNI Capital Payment Offer plus the Payment Adjustment Amount for RNI Capital Payments from Form G2 plus the RNI Credit Spread Capital Payment Adjustment Amount.

If the Proponent accepts only the Form G3 capital payment adjustment process:

- a) the Final PNI Capital Payment equals the PNI Capital Payment Offer plus the PNI Credit Spread Capital Payment Adjustment Amount; and
- b) the Final RNI Capital Payment equals the RNI Capital Payment Offer plus the RNI Credit Spread Capital Payment Adjustment Amount.

If the Proponent accepts only the Form G2 capital payment adjustment process:

- a) the Final PNI Capital Payment is as defined in Form G2; and
- b) the Final RNI Capital Payment is as defined in Form G2.

### **Basket of Bonds Selection Process**

If a Proponent elects to use this credit spread capital payment adjustment process, the administrative process for determining the Initial Basket of Bonds shall be carried out by the Province in accordance with this Form G3 and as the process may be further detailed and clarified by the Province, acting reasonably (the “**Basket of Bonds Selection Process**”). The Basket of Bonds Selection Process shall include:

- (a) The Province will assemble an initial list of Reference Bonds and corresponding Benchmark GOC Bonds (“**List of Bonds**”) that it determines are sufficiently liquid and suitable for the purpose of this Form G3;
- (b) Each proposed Reference Bond will be assigned an on-the-run Benchmark GOC Bond, as determined by the Province, that is sufficiently liquid for competitive pricing and approximately matching by maturity for the purpose of calculating its credit spread;
- (c) The Province will provide the List of Bonds to Proponents for comments, suggestions or proposed additional Reference Bonds no later than April 22, 2016;
- (d) Proponents must respond to the Province with comments, suggestions or proposed additional Reference Bonds for the Province to include at its sole discretion no later than April 29, 2016;
- (e) The Province will review all comments and suggestions, add or remove Reference Bonds at its sole discretion and communicate to Proponents the final composition of the List of Bonds no later than May 10, 2016 (“**Final List of Bonds**”);

- (f) Each Proponent will select 12 bonds from the Final List of Bonds (with a maximum one bond per issuer) for inclusion in its Initial Basket of Bonds as well as three additional bonds (from three different issuers) for reservation as substitutes in order of preference and submit same to the Province for review no later than June 2, 2016;
- (g) The Province will review each Proponent's Initial Basket of Bonds and notify each Proponent whether or not its Initial Basket of Bonds is satisfactory no later than June 3, 2016;
- (h) Each Proponent's Initial Basket of Bonds and Reserve Bonds will be used for determining Initial Credit Ratings and Outlooks and calculation of the Initial Credit Spreads, Modified Durations and the Average Modified Duration on the Credit Spread Base Date;
- (i) The Preferred Proponent's Initial Basket of Bonds and Reserve Bonds will be used for determination of Final Credit Ratings and Outlooks and calculation of Final Credit Spreads on the Credit Spread Final Date;
- (j) The Province will determine the Final Basket of Bonds based on its determination of Excluded Bonds as set out in the example below and the requirement for a minimum of eight Reference Bonds including any substitute Reserve Bonds as necessary on the Credit Spread Final Date;
- (k) The Final Basket of Bonds may contain one or more Reserve Bonds as necessary but will not contain any Excluded Bonds and will be used for calculation of the Average Change in Credit Spreads which serves as the basis for the calculation of the PNI Credit Spread Capital Payment Adjustment Amount and the RNI Credit Spread Capital Payment Adjustment Amount on the Credit Spread Final Date for the Preferred Proponent as detailed in the example below.

#### **Credit Spread Payment Adjustment Amount Implementation Process**

The administrative process for actually implementing the PNI Credit Spread Capital Payment Adjustment Amount, RNI Credit Spread Capital Payment Adjustment Amount and the replacement of Appendix 1 to Schedule 14 with a revised Table 1 of Form G1 shall be carried out by the Province in accordance with this Form G3, in addition to any other adjustments for changes in base rates per Form G2 if so elected by the Preferred Proponent, and as the process may be further detailed and clarified by the Province, acting reasonably (the "**Credit Spread Price Adjustment Process**"). The Credit Spread Price Adjustment Process shall be completed no later than 3:00 p.m. Alberta Time on the End Date. The Credit Spread Price Adjustment Process shall include:

- (a) the preparation of a revised Table 1 of Form G1 from SR3 to the RFP which would entail taking Table 1 of Form G1 from the Preferred Proponent's SR Package 3 and applying the Credit Spread Payment Adjustment Amount, along with the Payment Adjustment Amount from Form G2 if applicable, to the PNI Capital Payments and the RNI Capital Payments;
- (b) circulating the revised Table 1 of Form G1 to the Contact Individual and the Department Representative for review and approval, with both parties acting reasonably; and
- (c) the replacement of Appendix 1 to Schedule 14 with the revised Table 1 of Form G1 as approved.

The Province may approve an alternative process for determining Final Credit Spreads at a mutually acceptable time one Toronto Business Day prior to the Credit Spread Final Date in order to facilitate a more efficient process for the Preferred Proponent (the “**Alternate Final Credit Spreads Determination Process**”). Any Alternate Final Credit Spreads Determination Process will need to include verifiable pricing that accurately reflects current market conditions. All other calculations for determining the Credit Spread Payment Adjustment Amount will not be changed. Any Alternate Final Credit Spreads Determination Process shall:

1. ensure the Credit Spread Price Adjustment Process (as amended) is completed no later than 3:00 p.m. Alberta Time on the End Date; and
2. have a procedure for resolving any disagreements over the execution of the Alternate Final Credit Spreads Determination Process.

If an Alternate Final Credit Spreads Determination Process has not been agreed to by the Province and the Preferred Proponent by 5:00 p.m. Alberta Time one Toronto Business Day before the Credit Spread Final Date or the Alternate Final Credit Spreads Determination Process has not been completed by 1:00 p.m. Alberta Time on the Credit Spread Final Date, the Credit Spread Price Adjustment Process shall be carried out by the Province.

### **Credit Spread Payment Adjustment Amount Calculation Example**

*Note that all bonds, rates and amounts shown in this example are intended for illustration purposes only.*

#### **Assumptions:**

Inputs	
Credit Spread Base Date	11/25/2015
Credit Spread Final Date	2/9/2016
PNI Traffic Availability Target Date	10/01/2020
RNI Traffic Availability Target Date	10/01/2021
PNI Credit Spread Hedge Allocation (%)	65.00%
Adjusted Weighted Average Cost of Capital	4.77%
Credit Spread Hedge Amount	\$394,000,000

### **1. Initial Yields, Initial Credit Spreads and Initial Credit Ratings and Outlooks**

To assist in determining the Initial Yields and Initial Credit Ratings and Outlooks, the Province will conduct a survey of a minimum of three financial institutions on the Credit Spread Base Date. The results of the survey will be delivered via email to each Proponent as soon as practicable thereafter. Initial Yields for each Reference Bond and respective Benchmark GOC Bond in the Initial Basket of Bonds as well as for each Reserve Bond and respective Benchmark GOC Bond will be the annual bid-side market yields as at 1:00pm Toronto time on the Credit Spread Base Date. For each bond, the Initial Yield will be

determined by the Province, acting reasonably and in good faith, having given consideration to the yields and/or credit spreads collected from each financial institution participating in this survey. The Province will also record the most recent Credit Ratings and Outlooks for each Reference Bond in the Initial Basket of Bonds as well as for each Reserve Bond as indicated by the financial institutions in this survey. The Initial Credit Spread will then be calculated for each Reference Bond in the Initial Basket of Bonds, and for each Reserve Bond, as the difference between its Initial Yield and the Initial Yield of its respective Benchmark GOC Bond. The Modified Duration is calculated for each Reference Bond in the Initial Basket of Bonds and the Average Modified Duration is then determined. Yield and coupon rate percentages, as well as modified durations, are rounded to three decimal digits of precision; basis points are rounded to one decimal digit of precision.

Description	\$ Outstanding	Credit Rating	Coupon (%)	Maturity	Modified Duration	Bid-side Yld (%)	Benchmark	Bid-side Yld (%)	Spread Over Benchmark (bps)
1REFBOND 5.3 02/25/41	600,000,000	A	5.300	25-Feb-41	14.867	3.851	CAN 4 06/01/41	2.306	154.5
2REFBOND 6.47 02/02/34	567,428,000	A	6.470	2-Feb-34	11.597	3.796	CAN 5 3/4 06/01/29	1.958	183.8
3REFBOND 3.83 05/11/46	500,000,000	A	3.830	11-May-46	17.694	3.957	CAN 3 1/2 12/01/45	2.292	166.5
4REFBOND 5.63 06/07/40	400,000,000	A	5.630	7-Jun-40	14.284	3.871	CAN 5 06/01/37	2.273	159.8
5REFBOND 4.53 12/02/41	400,000,000	A	4.530	2-Dec-41	15.488	3.846	CAN 4 06/01/41	2.306	154.0
6REFBOND 3.98 09/11/52	400,000,000	A	3.980	11-Sep-52	18.915	4.067	CAN 4 06/01/41	2.306	176.1
7REFBOND 4.55 02/28/42	300,000,000	A-	4.550	28-Feb-42	15.485	4.095	CAN 4 06/01/41	2.306	178.9
8REFBOND 5.65 11/16/35	200,000,000	A-	5.650	16-Nov-35	12.667	4.131	CAN 5 3/4 06/01/29	1.958	217.3
9REFBOND 6.65 04/15/38	200,000,000	A-	6.650	15-Apr-38	13.103	4.135	CAN 5 3/4 06/01/33	2.154	198.1
10REFBOND 5 3/4 11/24/39	200,000,000	A-	5.750	24-Nov-39	14.126	4.136	CAN 5 06/01/37	2.273	186.3
11REFBOND 4.68 10/07/53	200,000,000	A	4.680	7-Oct-53	18.596	4.066	CAN 4 06/01/41	2.306	176.0
12REFBOND 3.612 05/01/45	175,000,000	BBB+	3.612	1-May-45	17.222	4.264	CAN 3 1/2 12/01/45	2.292	197.2
<b>Average Modified Duration</b>					<b>15.337</b>				

#### Reserve Bonds

1RESBOND 5.381 03/29/40	125,000,000	A-	5.381	26-Mar-40	14.358	4.108	CAN 4 06/01/41	2.306	180.0
2RESBOND 5 3/4 02/14/36	488,000,000	BBB	5.750	14-Feb-36	12.582	4.196	CAN 5 06/01/37	2.273	192.3
3RESBOND 4.2 06/02/44	250,000,000	BBB+	4.200	2-Jun-44	16.131	4.254	CAN 3 1/2 12/01/45	2.282	196.2

## 2. Final Yields, Final Credit Spreads and Final Credit Ratings and Outlooks

To assist in determining Final Yields and Final Credit Ratings and Outlooks, the Province will undertake a survey of a minimum of three financial institutions on the Credit Spread Final Date. The results of the survey will be emailed to the Preferred Proponent as soon as practicable thereafter. Final Yields for each Reference Bond and respective Benchmark GOC Bond in the Initial Basket of Bonds, as well as for each Reserve Bond and respective Benchmark GOC Bond, will be the bid-side market yields as at 1:00pm Toronto time on the Credit Spread Final Date. For each bond, the Final Yield will be determined by the Province, acting reasonably and in good faith, having given consideration to the yields and/or credit spreads collected from each financial institution participating in this survey as observed and recorded by the Province. The Province will also record the Final Credit Ratings and Outlooks for each Reference Bond in the Initial Basket of Bonds as well as for each Reserve Bond as indicated by the financial institutions in this survey. The Final Credit Spread will then be calculated for each Reference Bond in the Initial Basket of Bonds, and for each Reserve Bond, as the difference between its Final Yield and the

Final Yield of its respective Benchmark GOC Bond.

Description	\$ Outstanding	Credit Rating	Coupon (%)	Maturity	Bid-side Yld (%)	Benchmark	Bid- side Yld (%)	Spread Over Benchmark (bps)
1REFBOND 5.3 02/25/41	600,000,000	A	5.300	25-Feb-41	3.662	CAN 4 06/01/41	1.880	178.2
2REFBOND 6.47 02/02/34	567,428,000	A	6.470	2-Feb-34	3.617	CAN 5 3/4 06/01/29	1.461	215.6
3REFBOND 3.83 05/11/46	500,000,000	A	3.830	11-May-46	3.825	CAN 3 1/2 12/01/45	1.870	195.5
4REFBOND 5.63 06/07/40	400,000,000	A	5.630	7-Jun-40	3.645	CAN 5 06/01/37	1.845	180.0
5REFBOND 4.53 12/02/41	400,000,000	A	4.530	2-Dec-41	3.656	CAN 4 06/01/41	1.880	177.6
6REFBOND 3.98 09/11/52	400,000,000	A	3.980	11-Sep-52	3.869	CAN 4 06/01/41	1.880	198.9
7REFBOND 4.55 02/28/42	300,000,000	A-	4.550	28-Feb-42	4.023	CAN 4 06/01/41	1.880	214.3
8REFBOND 5.65 11/16/35	200,000,000	A-	5.650	16-Nov-35	3.911	CAN 5 3/4 06/01/29	1.461	245.0
9REFBOND 6.65 04/15/38	200,000,000	A-	6.650	15-Apr-38	3.838	CAN 5 3/4 06/01/33	1.691	214.7
10REFBOND 5 3/4 11/24/39	200,000,000	A-	5.750	24-Nov-39	3.951	CAN 5 06/01/37	1.845	210.6
11REFBOND 4.68 10/07/53	200,000,000	A-	4.680	7-Oct-53	3.846	CAN 4 06/01/41	1.880	196.6
12REFBOND 3.612 05/01/45	175,000,000	BBB+	3.612	1-May-45	3.967	CAN 3 1/2 12/01/45	1.870	209.7

*Reserve Bonds*

1RESBOND 5.381 03/26/40	125,000,000	A-	5.381	26-Mar-40	4.006	CAN 4 06/01/41	1.880	212.6
2RESBOND 5 3/4 02/14/36	488,000,000	BBB	5.750	14-Feb-36	4.120	CAN 5 06/01/37	1.845	227.6
3RESBOND 4.2 06/02/44	250,000,000	BBB+	4.200	2-Jun-44	4.274	CAN 3 1/2 12/01/45	1.870	248.4

### 3. Determination of Excluded Bonds and Final Basket of Bonds

The Change in Credit Spread is calculated as Final Credit Spread less Initial Credit Spread for each Reference Bond in the Initial Basket of Bonds and for each Reserve Bond.

Excluded Bonds are then identified as follows:

(a) Bonds with Credit Rating Events -

- o determined as the Reference Bonds, or Reserve Bonds where applicable, for which the Final Credit Ratings and Outlooks by any Credit Rating Agency does not match the Initial Credit Ratings and Outlooks by the same Credit Rating Agency or if such credit rating has been formally announced as being under review; and

(b) Outliers -

- o determined as the Reference Bonds, or Reserve Bonds where applicable, with the highest and lowest change in credit spread in the case where all changes are positive or negative in the Initial Basket of Bonds, or the highest positive and the highest negative change in credit spreads in the case where there are both positive and negative changes in credit spreads, the first bond in its order within the Initial Basket of Bonds (with Reserve Bonds following in order) is excluded if a tie emerges between two or more outlier bonds.

If, as a result of multiple Excluded Bonds, there are fewer than eight Reference Bonds remaining, one or more Reserve Bonds will be added in accordance with the Preferred Proponent's stated order of preference, but only to the extent necessary to satisfy a minimum of eight Reference / Reserve Bonds in the Final Basket of Bonds. A Reserve Bond may be included in this circumstance only where it is not



identified as an Excluded Bond. A Reserve Bond that has experienced a Credit Rating Event is no longer eligible for substitute inclusion and is therefore deemed an Excluded Bond. An added Reserve Bond is subject to outlier criteria and may be excluded as an outlier.

#### 4. Calculation of Average Change in Credit Spreads

Once Excluded Bonds are eliminated, the remaining Reference Bonds (and Reserve Bonds if applicable) in the Final Basket of Bonds are used for calculating the Average Change in Credit Spreads. Where an average figure is computed, the simple equally-weighted average is used.

<i>Description</i>	<i>Credit Spread at Base Date</i>	<i>Credit Spread at Final Date</i>	<i>Chg in Credit Spread (bps)</i>	<i>Outliers</i>	<i>Credit Rating Events</i>	<i>Use of Reserve Bonds</i>	<i>Chg in Credit Spread (bps)</i>
1 REFBOND 5.3 02/25/41	154.5	178.2	23.7				23.7
2 REFBOND 6.47 02/02/34	183.8	215.6	31.8				31.8
3 REFBOND 3.83 05/11/46	166.5	195.5	29.0				29.0
4 REFBOND 5.63 06/07/40	159.8	180.0	20.2				20.2
5 REFBOND 4.53 12/02/41	154.0	177.6	23.6				23.6
6 REFBOND 3.98 09/11/52	176.1	198.9	22.8				22.8
7 REFBOND 4.55 02/28/42	178.9	214.3	35.4	X			
8 REFBOND 5.65 11/16/35	217.3	245.0	27.7				27.7
9 REFBOND 6.65 04/15/38	198.1	214.7	16.6				16.6
10 REFBOND 5 3/4 11/24/39	186.3	210.6	24.3				24.3
11 REFBOND 4.68 10/07/53	176.0	196.6	20.6		X		
12 REFBOND 3.612 05/01/45	197.2	209.7	12.5	X			
<i>Reserve Bonds</i>							
1 RESBOND 5.381 03/26/40						No	
2 RESBOND 5.3/4 02/14/36						No	
3 RESBOND 4.2 06/02/44						No	
<b>Average</b>							<b>24.4</b>

#### 5. Calculation of Credit Spread Hedge Gain/Loss

A hedge gain or loss is determined by multiplying the Credit Spread Hedge Amount by the Credit Spread Exposure given Average Change in Credit Spreads. ( $H = CSE \times HA$ )

Credit Spread Exposure is calculated as the Average Modified Duration multiplied by the Average Change in Credit Spreads. ( $CSE = AMD \times ACS$ )

Credit Spread Exposure calculation is computed to 5 decimal digits of precision (i.e. three decimal percentage points).

Credit Spread Hedge Amount (HA)	\$394,000,000
Avg. Chg. in Credit Spreads (ACS)	24.4 bps

Avg. Modified Duration (AMD)	15.337
Credit Spread Exposure (CSE)	3.742%

<b>Credit Spread Hedge Gain/Loss (H)</b>	<b>\$14,743,480.00</b>
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#### 6. Allocation of Credit Spread Hedge Gain/Loss to PNI Capital Payment and RNI Capital Payment

The Credit Spread Hedge Gain/Loss as at the Credit Spread Final Date is allocated to each of the PNI Capital Payment and the RNI Capital Payment using the PNI Credit Spread Hedge Allocation, calculated as the percentage ratio of one PNI Capital Payment Offer to the sum of one PNI Capital Payment Offer and one RNI Capital Payment Offer. The PNI Credit Spread Hedge Allocation is assumed to be 65% in this example. Accordingly, the RNI Credit Spread Hedge Allocation is 35% (i.e. 100% minus 65%). The PNI Credit Spread Hedge Gain/Loss and the RNI Credit Spread Hedge Gain/Loss are then determined as follows:

	Allocation (%)	Credit Spread Hedge Gain / Loss at Credit Spread Final Date
PNI Credit Spread Hedge Gain/Loss	65%	\$9,583,262.00
RNI Credit Spread Hedge Gain/Loss	35%	\$5,160,218.00

#### 7. Calculation of Credit Spread Adjusted Weighted Average Cost of Capital

Once the Adjusted Weighted Average Cost of Capital is known as per Form G2, the Credit Spread Adjusted Weighted Average Cost of Capital can be calculated for Form G3 as follows:

Adjusted Weighted Average Cost of Capital (AWACC)	4.770%
Average Change in Credit Spreads (ACCS)	0.244%
<b>Credit Spread Adjusted Weighted Average Cost of Capital = AWACC + (ACCS x 0.9)</b>	<b>4.990%</b>

The Credit Spread Adjusted Weighted Average Cost of Capital is calculated to 5 decimal points of precision (i.e. three decimal percentage points).

#### 8. Calculation of PNI Credit Spread Capital Payment Adjustment Amount

The PNI Credit Spread Hedge Gain/Loss is compounded forward from Credit Spread Final Date to the PNI Traffic Availability Target Date at the Credit Spread Adjusted Weighted Average Cost of Capital. The PNI Credit Spread Capital Payment Adjustment Amount is then calculated by multiplying the future value of PNI Credit Spread Hedge Gain/Loss at the PNI Traffic Availability Target Date by an annuity payment factor assuming 372 months (i.e. 31 years).

**PNI Credit Spread Capital Payment Adjustment**

Time to Availability (T)	4.65 yrs
Monthly Credit Spread Adjusted Weighted Average Cost of Capital (I)	0.407%
FV of PNI CS Hedge Gain (Loss) Amount at Availability [FV(H)]	\$12,016,523.45
PNI Monthly Annuity Payment Factor (31 years) (MPF)	0.00522

**PNI Credit Spread Capital Payment Adjustment Amount** **+\$62,723.67**

$$\begin{aligned} H(\text{PNI}) &= \text{PNI CS Hedge Gain/Loss} \\ &= 9,583,262.00 \end{aligned}$$

$$FV(H) = (1 + A)^T \times H = 12,016,523.45$$

$$MPF = I / \{ 1 - [ 1 / (1 + I)^{372} ] \} = 0.00522$$

$$\begin{aligned} \text{CSW} &= \text{Credit Spread Adjusted Weighted Average Cost of Capital} \\ &= 4.990\% \end{aligned}$$

$$\begin{aligned} I &= \text{Effective Monthly Credit Spread Adjusted Weighted Average} \\ &\quad \text{Cost of Capital} \\ &= (1 + \text{CSW})^{1/12} - 1 \\ &= (1 + 0.04770)^{1/12} - 1 \\ &= 0.407\% \end{aligned}$$

$$\begin{aligned} T &= (\text{PNI Traffic Availability Target Date} - \text{Credit Spread Final} \\ &\quad \text{Date}) \div 365 \\ &= (\text{October 1, 2020} - \text{February 9, 2016}) \div 365 \\ &= 4.65 \text{ years} \end{aligned}$$

$$PNI \text{ CS Capital Payment Adjustment Amount} = \frac{H \times (1 + A)^T \times I}{1 - \frac{1}{(1 + I)^{372}}}$$

$$PNI \text{ CS Capital Payment Adjustment Amount} = \frac{9,583,262.00 \times (1 + 0.0499)^{4.65} \times 0.00407}{1 - \frac{1}{(1 + 0.00407)^{372}}}$$

$$PNI \text{ CS Capital Payment Adjustment Amount} = FV(H) \times MPF = \$62,723.67$$

**9. Calculation of RNI Credit Spread Capital Payment Adjustment Amount**

The RNI Credit Spread Hedge Gain/Loss is compounded forward from Credit Spread Final Date to the RNI Traffic Availability Target Date at the Credit Spread Adjusted Weighted Average Cost of Capital. The RNI Credit Spread Capital Payment Adjustment Amount is then calculated by multiplying the future value of RNI Credit Spread Hedge Gain/Loss at the RNI Traffic Availability Target Date by an annuity

payment factor assuming 360 months (i.e. 30 years).

**RNI Credit Spread Capital Payment Adjustment**

Time to Availability (T)	5.65 yrs
Monthly Credit Spread Adjusted Weighted Average Cost of Capital (I)	0.407%
FV of RNI CS Hedge Gain (Loss) at Availability [FV(H)]	\$6,793,310.45
RNI Monthly Annuity Payment Factor (30 years) (MPF)	0.00529

**PNI Credit Spread Capital Payment Adjustment Amount** **+\$35,968.84**

$$\begin{aligned} H(\text{RNI}) &= \text{RNI CS Hedge Gain/Loss} \\ &= 5,160,218.00 \end{aligned}$$

$$FV(H) = (1 + A)^T \times H = 6,793,310.45$$

$$MPF = I / \{ 1 - [ 1 / (1 + I)^{360} ] \} = 0.00529$$

$$\begin{aligned} \text{CSW} &= \text{Credit Spread Adjusted Weighted Average Cost of Capital} \\ &= 4.990\% \end{aligned}$$

$$\begin{aligned} I &= \text{Effective Monthly Credit Spread Adjusted Weighted Average} \\ &\quad \text{Cost of Capital} \\ &= (1 + \text{CSW})^{1/12} - 1 \\ &= (1 + 0.04770)^{1/12} - 1 \\ &= 0.407\% \end{aligned}$$

$$\begin{aligned} T &= (\text{RNI Traffic Availability Target Date} - \text{Credit Spread Final} \\ &\quad \text{Date}) \div 365 \\ &= (\text{October 1, 2021} - \text{February 9, 2016}) \div 365 \\ &= 5.65 \end{aligned}$$

$$RNI \text{ CS Capital Payment Adjustment Amount} = \frac{H \times (1 + A)^T \times I}{1 - \frac{1}{(1 + I)^{360}}}$$

$$RNI \text{ CS Capital Payment Adjustment Amount} = \frac{5,160,218.00 \times (1 + 0.0499)^{5.65} \times 0.00407}{1 - \frac{1}{(1 + 0.00407)^{360}}}$$

$$RNI \text{ CS Capital Payment Adjustment Amount} = FV(H) \times MPF = \$35,968.84$$

**CREDIT SPREAD PRICE ADJUSTMENT TO CAPITAL  
PAYMENT ELECTION FORM – FORM G3 (Actual form to be  
completed and submitted with SR Package 3)**

Complete this table whether or not the election to use Initial Basket of Bonds has been made

Credit Spread Hedge Amount (\$)	
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**Credit Spread Capital Payment Price Adjustment Process**

Proponents must select **only one** of the following:

The credit spread capital payment adjustment process is accepted

☐

The credit spread capital payment adjustment process is declined

☐

Complete this table if the election to use the credit spread capital payment adjustment process has been made.

**Initial Basket of Bonds:**

**Selected Reference Bonds**

**Benchmark GOC Bonds**

Reference Bond #1	Benchmark GOC Bond #1
Reference Bond #2	Benchmark GOC Bond #2
Reference Bond #3	Benchmark GOC Bond #3
Reference Bond #4	Benchmark GOC Bond #4
Reference Bond #5	Benchmark GOC Bond #5
Reference Bond #6	Benchmark GOC Bond #6
Reference Bond #7	Benchmark GOC Bond #7
Reference Bond #8	Benchmark GOC Bond #8
Reference Bond #9	Benchmark GOC Bond #9
Reference Bond #10	Benchmark GOC Bond #10
Reference Bond #11	Benchmark GOC Bond #11
Reference Bond #12	Benchmark GOC Bond #12

**Selected Reserve Bonds in Order of Preference**

**Reserve Benchmark GOC Bonds**

Reserve Bond #1	Reserve Benchmark GOC Bond #1
Reserve Bond #2	Reserve Benchmark GOC Bond #2
Reserve Bond #3	Reserve Benchmark GOC Bond #3

**Constraints:**

1. The Credit Spread Hedge Amount must not exceed the Proponent's long-term senior debt financing for the Project as shown in the Proponent's Final Financial Model.
2. Credit Spread Hedge Amount must only be for hedging purposes and not for speculative purposes.
3. The selected Reference Bonds and corresponding Benchmark GOC Bonds must be selected from the Final List of Bonds (as defined in the Basket of Bonds Selection Process).