

PROJECT AGREEMENT

for the Tłıchq All Season Road Project

The Government of the Northwest Territories
(the “**Authority**”)

And

North Star Infrastructure GP
(“**Project Co**”)

Dated: **February 13, 2019**

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PROJECT AGREEMENT

THIS AGREEMENT dated as of February 13, 2019 is entered into:

BETWEEN:

The Government of the Northwest Territories
(the “**Authority**”)

AND:

North Star Infrastructure GP
(“**Project Co**”)

WHEREAS:

A. pursuant to a request for proposals dated December 4, 2017 and the competitive selection process provided for therein, the Authority has selected Project Co to design, build, finance, operate, maintain and perform life cycle rehabilitation on the Tłı̄ch̄q ASR; and

B. the rights and obligations between the parties will be governed by the terms and conditions set out in this Agreement.

NOW THEREFORE THIS AGREEMENT WITNESSES THAT, in consideration of the mutual covenants herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby expressly acknowledged by each of the parties hereto, the parties hereto agree as follows:

1. INTERPRETATION

1.1 Definitions

In this Agreement, unless the context otherwise requires, the capitalized terms will have the meanings set out in Schedule 1 [Definitions and Interpretation]. Certain words and expressions are defined within the schedules hereto and such definitions will apply, unless the context otherwise requires, in all other parts of this Agreement whether or not Schedule 1 [Definitions and Interpretation] contains a cross-reference to such definitions.

1.2 Interpretation

This Agreement will be interpreted and construed in accordance with the provisions set out in Schedule 1 [Definitions and Interpretation].

1.3 Schedules

The schedules hereto and the terms set out therein will be deemed fully a part of this Agreement.

2. GENERAL PROJECT TERMS

2.1 Term and Termination

The term of this Agreement (the “**Term**”) will commence on the Effective Date and will continue to the Expiry Date unless earlier terminated:

- (a) by the Authority at any time in its discretion, and at the convenience of the Authority, by notice stating that termination is for convenience pursuant to this Section 2.1(a);

Project Agreement
Tłı̄ch̄q All Season Road Project Agreement – Execution Version

- (b) by the Authority pursuant to Section 6.6 if the Authority elects not to re-instate the Project after receipt of a Reinstatement Plan;
- (c) by either party pursuant to Section 6.7 in connection with insufficient insurance;
- (d) by Project Co pursuant to Section 6.8 in connection with the economic reinstatement test during Construction;
- (e) by either party pursuant to Section 6.9 in connection with uncollectible Insurance Receivables;
- (f) by the Authority pursuant to Section 6.15(a) or 6.15(c)(ii) in connection with a Principal Insured Risk becoming Uninsurable;
- (g) by either party pursuant to Section 8.4(c) or 8.4(e) in connection with a Relief Event;
- (h) by either party pursuant to Section 8.7(c) or 8.7(d) in connection with a Force Majeure Event;
- (i) by the Authority pursuant to Section 13.4 in connection with a Project Co Event of Default; or
- (j) by Project Co pursuant to Section 14.3 in connection with an Authority Event of Default.

Unless otherwise specified, the Termination Date for such earlier terminations will be the date notice of termination is given by one party to the other party in accordance with this Agreement. Except as referred to in this Section 2.1, neither party will have the right to terminate this Agreement.

2.2 Document Deliveries

Concurrent with the execution and delivery of this Agreement:

- (a) Project Co will deliver to the Authority the documents described in Article 2 of Schedule 18 [Completion Documents]; and
- (b) the Authority will deliver to Project Co the documents described in Article 3 of Schedule 18 [Completion Documents].

For greater clarity, the parties shall provide one another with sufficient time to review draft forms of the documents referred to in this Section 2.2.

2.3 Assumption of Risk

Except to the extent expressly allocated to the Authority or otherwise provided for under this Agreement, all risks, costs and expenses in relation to the performance by Project Co of its obligations under this Agreement are allocated to, and accepted by, Project Co as its entire and exclusive responsibility.

2.4 Opportunities

Except as expressly provided in this Agreement, or as may be specifically agreed in writing between the Authority and Project Co during the Term, the Authority reserves the right to all commercial and other opportunities for, or related to, the Project and the Lands.

2.5 General Duty of Project Co to Mitigate

- (a) In all cases where Project Co is entitled to receive from the Authority any compensation in addition to the payments described in Section 3.1(a), costs, damages or extensions of time, Project Co will use all reasonable efforts to mitigate such amount required to be paid by the Authority to Project Co under this Agreement, or the length of the extension of time. Upon request from the Authority, Project Co will promptly submit a detailed description, supported by all such documentation as the Authority may reasonably require, of the measures and steps taken by Project Co to mitigate and meet its obligations under this Section 2.5.
- (b) Project Co will require all Project Contractors to assume and carry out the same duty to mitigate as is required of Project Co under Section 2.5(a).
- (c) Project Co will not be entitled to receive those parts of any compensation, costs, damages or other Direct Losses incurred by Project Co or those parts of any extensions of time or other relief from performance that Project Co could have mitigated against, reduced or otherwise avoided by the exercise of all reasonable efforts to the extent of the duty of Project Co to do so in accordance with Section 2.5(a).
- (d) The Authority will not be liable for any compensation, costs, damages or other Direct Losses to the extent suffered or incurred as a result of any Project Contractor failing to mitigate to the same standard as is required of Project Co under Section 2.5(a).

2.6 General Duty of Authority to Mitigate

- (a) In all cases where the Authority is entitled to receive from Project Co any compensation, costs or damages, but not in any other case, the Authority will use all reasonable efforts to mitigate such amount required to be paid by Project Co to the Authority under this Agreement, provided that such obligation will not require the Authority to:
 - (i) take any action which is contrary to the public interest, as determined by the Authority in its discretion;
 - (ii) undertake any mitigation measure that might be available arising out of its status as a public body, but which measure would not normally be available to a private commercial party; or
 - (iii) alter the amount of any Failure Points it is entitled to assign in accordance with Schedule 8 [Payments].
- (b) The Authority will not be entitled to receive those parts of any compensation, costs, damages or other Direct Losses incurred by the Authority or those parts of any extensions of time or other relief from performance that the Authority could have mitigated against, reduced or otherwise avoided by the exercise of all reasonable efforts to the extent of the duty of the Authority to do so in accordance with Section 2.6(a).
- (c) The Authority will have no obligation to mitigate, implied or otherwise, except as set out in this Section 2.6 or as otherwise expressly set out in this Agreement. Upon request from Project Co, the Authority will promptly submit a detailed description, supported by all such documentation as Project Co may reasonably require, of the measures and steps taken by the Authority to mitigate and meet its obligations under this Section 2.6.

2.7 Representatives

- (a) With respect to the Authority's Representatives:
- (i) Within 5 Business Days of the Effective Date, the Authority will designate in writing a person (the "**Authority Design and Construction Representative**") to be the Authority's single point of contact with respect to the Design and the Construction. The Authority Design and Construction Representative will have full authority to act on behalf of and bind the Authority with respect to Design and Construction, except the Authority Design and Construction Representative shall not, except as otherwise provided in this Agreement, be entitled to modify or waive any provision of this Agreement or to authorize a Change. The Authority Design and Construction Representative's rights of review, acceptance, approval or confirmation of compliance with respect to any aspect of the Design or the Construction will be for the Authority's benefit only, and no review, acceptance, approval or confirmation of compliance by the Authority Design and Construction Representative or any other representative of the Authority will in any way relieve Project Co of its obligations for all aspects of the Design and the Construction of the Tıjchq ASR except as may be expressly set out in this Agreement. The Authority's Design and Construction Representative may also be the Authority's Operating Period Representative.
 - (ii) Not less than one year before the Target Substantial Completion Date, the Authority will designate in writing a person (the "**Authority Operating Period Representative**") to be the Authority's single point of contact with respect to OMR and Handback. The Authority Operating Period Representative will have full authority to act on behalf of and bind the Authority with respect to OMR and Handback, except the Authority Operating Period Representative shall not, except as otherwise provided in this Agreement, be entitled to modify or waive any provision of this Agreement or to authorize a Change. The Authority Operating Period Representative's rights of review, acceptance, approval or confirmation of compliance with respect to any aspect of OMR or Handback will be for the Authority's benefit only, and no review, acceptance, approval or confirmation of compliance by the Authority Operating Period Representative or any other representative of the Authority will in any way relieve Project Co of its obligation for all aspects of OMR and Handback Works except as may be expressly set out in this Agreement.
 - (iii) From time to time, the Authority may by notice in writing to Project Co change the signing authority of any or all of the Authority Representatives and appoint or remove one or more other persons having signing authority.
- (b) With respect to Project Co's Representatives:
- (i) Within 5 Business Days of the Effective Date, Project Co will designate in writing a person (the "**Project Co Design and Construction Representative**") to be Project Co's single point of contact with respect to the Design and the Construction. The Project Co Design and Construction Representative shall be a Key Individual and will have full authority to act on behalf of and bind Project Co with respect to the Design and the Construction, except the Project Co Design and Construction Representative shall not, except as otherwise provided in this Agreement, be entitled to modify or waive any provision of this Agreement. Project Co's Design and Construction Representative may also be Project Co's Operating Period Representative.

- (ii) Not less than one year before the Target Substantial Completion Date, Project Co will designate in writing a person (the “**Project Co Operating Period Representative**”) to be Project Co’s single point of contact with respect to the Operating Period, OMR and Handback Works. The Project Co Operating Period Representative shall be a Key Individual and will have full authority to act on behalf of and bind Project Co with respect to OMR and Handback, except the Project Co Operating Period Representative shall not, except as otherwise provided in this Agreement, be entitled to modify or waive any provision of this Agreement.
- (c) Subject to Section 2.8 and Schedule 17 [Key Individuals] in respect of Key Individuals, a party may at any time and in its own discretion by notice to the other party change the person appointed as the party’s Design and Construction Representative and/or Operating Period Representative. If for any reason a party’s Design and Construction Representative and/or Operating Period Representative is unable or unwilling to continue then the party will immediately appoint a replacement Design and Construction Representative and/or Operating Period Representative, as applicable. If at any time a party objects to a Design and Construction Representative and/or Operating Period Representative of the other party, then the other party will give reasonable consideration to replacing the Design and Construction Representative and/or Operating Period Representative, as applicable, with a person reasonably acceptable to the objecting party.
- (d) Except as otherwise set out in this Agreement, all costs or expenses incurred by or with respect to a party’s Representative(s) will be for the account of that party.

2.8 Key Individuals

- (a) Schedule 17 [Key Individuals] sets out a list of individuals with specific duties (the “**Key Individuals**”) that Project Co will utilize in undertaking the Project Work.
- (b) With respect to each of the Key Individuals:
 - (i) Project Co will use all reasonable efforts to retain each Key Individual to perform his or her duties for the periods described in Schedule 17 [Key Individuals];
 - (ii) if for any reason a Key Individual becomes Unavailable, then Project Co will use all reasonable efforts to retain a replacement with similar expertise and experience to the Unavailable Key Individual, satisfactory to the Authority acting reasonably, and Project Co will not replace such Key Individual without the Authority’s consent, acting reasonably; and
 - (iii) if it is necessary to replace a Key Individual, Project Co will follow the replacement process set out in Schedule 17 [Key Individuals].
- (c) Project Co acknowledges that the success of the Project is dependent on the availability and retention of the Key Individuals and that Project Co may therefore be subject to Compliance Failure Points for failures related to availability, retention and timely replacement of Key Individuals, as set out in Schedule 17 [Key Individuals].

2.9 Naming

The Authority will have the exclusive right to name the Tłıchq ASR and any parts thereof.

2.10 Signs

Project Co will not erect or maintain any signs on the Lands or on the Tłı̨ch̨o ASR without the written consent of the Authority. Project Co acknowledges that the Authority will generally require that signage on the Lands and/or related to the Tłı̨ch̨o ASR after the Substantial Completion Date display only the name and logo of the Authority, and, where appropriate, the name and logo of the Tłı̨ch̨o Government, and that it is unlikely that the Authority will consent to any signage containing the name of Project Co or any Project Contractor or Sub-Contractor after the Substantial Completion Date.

2.11 Coordination with NorthwesTel

In the event that the Authority determines any NorthwesTel Work is required at any time during the Term,

- (a) Project Co shall:
 - (i) arrange and carry out all coordination of the NorthwesTel Work directly with NorthwesTel;
 - (ii) assume overall responsibility for compliance with all aspects of applicable Law relating to health and safety on the Lands, in accordance with Project Co's Project Safety Plan;
 - (iii) participate with the Authority and NorthwesTel in reviewing the work schedule of NorthwesTel, when directed to do so by the Authority; and
 - (iv) if part of the Project Works is affected by or depends upon, for its proper execution, the NorthwesTel Work, promptly report to the Authority in writing and prior to proceeding with that part of the Project Works any readily apparent deficiencies in the NorthwesTel Work. Failure by Project Co to so report shall invalidate any claims against the Authority by reason of such readily apparent deficiencies; and
- (b) the Authority shall:
 - (i) direct NorthwesTel to perform the NorthwesTel Work; and
 - (ii) instruct NorthwesTel, in performing the NorthwesTel Work, to comply with the instructions of Project Co relating to matters of health and safety on the Lands and coordination and scheduling of the NorthwesTel Work with the Project Works.

2.12 Appointment of Independent Certifier

The Authority and Project Co shall work together to appoint an Independent Certifier, and to enter into an Independent Certifier Agreement substantially in the form of Appendix 3A [Independent Certifier Agreement], within 30 days of Financial Close.

3. AUTHORITY'S GENERAL OBLIGATIONS

3.1 Payments

Subject to Project Co meeting the requirements for payment set out in this Agreement, the Authority will pay Project Co amounts expressly provided for herein, including:

- (a) the Substantial Completion Payment as set out in Schedule 8 [Payments];

- (b) the Service Payments as set out in Schedule 8 [Payments];
- (c) the Termination Payments as set out in Schedule 9 [Compensation on Termination];
- (d) amounts owing under Article 6 (Insurance, Damage and Destruction);
- (e) amounts owing under Article 7 (Changes, Minor Works and Innovation Proposals);
- (f) amounts owing under Article 8 (Supervening Events);
- (g) amounts owing under Article 9 (Indemnities and Limits on Liabilities and Remedies); and
- (h) amounts owing pursuant to the final resolution of a Dispute in accordance with the Dispute Resolution Procedure set out in Schedule 13 [Dispute Resolution Procedure],

in accordance with the provisions of this Agreement and all applicable Laws.

3.2 Limitation on Payments

Other than the payments expressly provided for herein, Project Co will have no right to any further payment from the Authority in connection with the Project Work or otherwise in connection with the Project.

3.3 Provision of Lands

The Authority will make the Lands available for the Project in accordance with Schedule 7 [Lands] and the parties' rights and obligations in respect of the Lands are set out in such Schedule.

3.4 Authority Permits

- (a) The Authority shall, at its own cost and risk:
 - (i) obtain (in accordance with the Project Schedule), maintain, and, as applicable, renew certain Permits as set out in Appendix 3B [Permits] (the "**Authority Permits**"); and
 - (ii) comply with all Permits in accordance with their terms.
- (b) The Authority shall, at its own cost, provide or cause to be provided such information, documentation, and administrative assistance as Project Co may request and as the Authority may reasonably be able to provide, and shall execute such applications as are required to be in its name, to enable Project Co to obtain, maintain or renew any Project Co Permit or to demonstrate compliance with any Permit. The Authority shall provide or cause to be provided such information, documentation and assistance and/or execute such applications pursuant to this Section 3.4(b) within 10 Business Days of receipt of Project Co's request. Subject to Section 3.4(a), the Authority shall not be responsible for obtaining or for any delay in obtaining or for the failure of Project Co to obtain any Project Co Permit, unless such delay or failure is caused by any act or omission of the Authority. For greater certainty, the Authority shall not be obligated to:
 - (i) exercise any other of its legal rights in order to avoid or eliminate the requirement to obtain any Permit; or
 - (ii) automatically grant to Project Co any Permit for which it is authorizing entity.

The Authority, where it is acting in its capacity as the authorizing entity, will apply its usual procedures and criteria in considering applications from Project Co for any Permit. For greater certainty, nothing in this Agreement shall fetter the Authority's discretion in considering any application by Project Co for a Permit for which the Authority is the authorizing entity.

3.5 Representations and Warranties

The Authority represents and warrants to Project Co, as of the Effective Date, that:

- (a) the Authority has full power and capacity to enter into, carry out the transactions contemplated by and duly observe and perform all its obligations contained in this Agreement and all other documents, instruments and agreements required to be executed and delivered by the Authority pursuant to this Agreement;
- (b) the execution and delivery of this Agreement and all documents, instruments and agreements required to be executed and delivered by the Authority pursuant to this Agreement, and the completion of the transactions contemplated by this Agreement, have been duly authorized by all necessary corporate action on the part of the Authority, and this Agreement has been duly executed and delivered by the Authority and constitutes a legal, valid and binding obligation of the Authority enforceable in accordance with its terms, subject to limitations on account of bankruptcy, insolvency, liquidation, reorganization, reconstruction and other similar laws of general application affecting the enforceability of remedies and rights of creditors and subject to availability of equitable remedies such as specific performance and injunction that are in the discretion of a court;
- (c) all required third party consents to the execution by the Authority of, and performance of its obligations under, this Agreement have been received;
- (d) the Authority has the rights and interest in and to the Lands, in each case free and clear of all encumbrances, restrictions or limitations except the Encumbrances and any encumbrances which do not adversely affect, financially or otherwise, the Licence and the ability of Project Co to conduct the Project Work as contemplated by this Agreement;
- (e) the parcels or interests comprising the Lands permit the grant of the Licence by the Authority and the conduct by Project Co of the Project Work as contemplated by this Agreement;
- (f) to the extent the Authority Has Knowledge through the Chief Officers, there are no facts or information relating to the Project or Disclosed Data which the Authority has intentionally not disclosed to Project Co and which, if learned by Project Co, would reasonably be expected to materially affect Project Co's evaluation of the risks Project Co is assuming pursuant to this Agreement; and
- (g) no injunction or restraining order or other decision, ruling or order of a court or administrative tribunal of competent jurisdiction is in effect which prohibits, restrains, limits or imposes conditions on the ability of the Authority to perform its obligations under this Agreement.

3.6 Authority Persons

The Authority will, as between itself and Project Co, be responsible for, and not relieved of its obligations hereunder by, the acts, omissions, breaches, defaults, non-compliance, negligence and wilful misconduct of each Authority Person and all references in this Agreement to any act, omission, breach, default, non-

compliance, negligence or wilful misconduct of the Authority will be construed accordingly to include any such act, omission, breach, default, non-compliance, negligence or wilful misconduct committed by an Authority Person.

3.7 Duty to Cooperate – Criminal Proceedings Information

The Authority agrees, subject to its obligations under applicable Laws, including the *Access to Information and Protection of Privacy Act* (Northwest Territories), to work with other Governmental Authorities to attempt to allow Project Co to access information regarding criminal proceedings against members of the public who cause damage to the Tłı̄ch̄o ASR, for the purpose of informing insurance claims by Project Co related to such damage.

4. PROJECT CO'S GENERAL OBLIGATIONS

4.1 General Project Obligations

Project Co will carry out the Project Work subject to and in accordance with the provisions of this Agreement, Good Industry Practice, and all applicable Laws and Permits.

4.2 Records and Reports

Project Co will, at its own cost and expense, retain and maintain the records and reports referred to in Schedule 14 [Records and Reports] in accordance with such Schedule and in a form that is capable of audit by the Authority. Project Co will:

- (a) make all such records available to the Authority for inspection and copying (at the Authority's expense) during normal business hours upon reasonable notice; and
- (b) upon request from the Authority, provide the Authority with electronic copies of any such records as soon as reasonably practicable.

4.3 No Other Business

Project Co will not engage in any business or activity other than the business or activities conducted for the purpose of the Project or otherwise expressly permitted hereunder.

4.4 Project Co Persons

Project Co will, as between itself and the Authority, be responsible for, and not relieved of its obligations hereunder by, the acts, omissions, breaches, defaults, non-compliance, negligence and wilful misconduct of each Project Co Person and all references in this Agreement to any act, omission, breach, default, non-compliance, negligence or wilful misconduct of Project Co will be construed accordingly to include any such act, omission, breach, default, non-compliance, negligence or wilful misconduct committed by a Project Co Person.

4.5 Use of Sub-Contractors

Without limiting Section 4.4, the Authority acknowledges that Project Co may carry out the Project Work by contracting such obligations to Project Contractors who in turn may contract all or part of their obligations under any Project Contract to one or more Sub-Contractors. In respect of the Project, Project Co will not contract with, nor allow any of its Project Contractors or any Sub-Contractors to contract with, any Person that is a Restricted Person. Notwithstanding the use of Project Contractors or Sub-Contractors, Project Co:

- (a) will not be relieved or excused from any of its obligations or liabilities under this Agreement; and
- (b) will remain principally liable to the Authority for the due observance and performance of all the covenants, obligations, agreements and conditions of this Agreement that are to be observed and performed by Project Co.

4.6 Material Contracts

Project Co will not:

- (a) terminate, or agree to or permit the termination of, all or any material part of any Material Contract except:
 - (i) as required to do so by the Authority pursuant to the provisions of this Agreement;
 - (ii) if there is an event of default under a Material Contract and Project Co terminates it in order to prevent or cure a Project Co Event of Default; or
 - (iii) where the termination occurs automatically as a result of the bankruptcy or insolvency of the Material Contract Party pursuant to the terms of the Material Contract;
- (b) make, or agree to or permit the making of:
 - (i) any material amendment of any Material Contract, other than amendments (whether made by Change Certificate or otherwise) that are the direct and reasonable consequence of a Change; or
 - (ii) any departure by any party from any material provision of any Material Contract;
- (c) permit any Material Contract Party to assign or transfer to any Person any of such Material Contract Party's rights or obligations under a Material Contract other than by way of a Sub-Contract that is not a subcontract of all or substantially all of the obligations under the Material Contract or by way of assignment by way of security by a Material Contract Party; or
- (d) enter into, or permit the entering into of, any Material Contract other than those entered into on or before the Effective Date,

unless Project Co has, at its earliest practicable opportunity, submitted to the Authority notice of the proposed course of action (and any relevant documentation) and the Authority has consented to such course of action, such consent not to be unreasonably withheld or delayed. The Authority will give or deny such consent within: (i) 10 Business Days of receipt of such notice and all relevant documentation, if Project Co is seeking to terminate a Material Contract and such Material Contract may, in accordance with its terms, be terminated immediately; and (ii) 30 Business Days of receipt of such notice and all relevant documentation in all other cases, and if the Authority fails to give or deny its consent within such time periods it will be deemed to have given its consent. In determining whether to provide such consent and without limiting the Authority's discretion, it will be reasonable for the Authority to refuse its consent to the proposed course of action if:

- (e) the proposed assignee, transferee or party entering into any Material Contract, or any of its Affiliates, is a Restricted Person; or

- (f) the proposed course of action could, in the reasonable opinion of the Authority, have a material adverse effect on the Authority or the Project.

4.7 Costs of Request for Consent

If Project Co requests consent to a proposed course of action pursuant to Section 4.6, Project Co will pay, without duplication, the Authority's reasonable internal administrative and personnel costs and all reasonable out-of-pocket costs in connection with considering any such request.

4.8 Replacement Material Contract

If any Material Contract at any time lapses, terminates, or otherwise ceases to be in full force and effect (whether by reason of expiry or otherwise), unless the goods, services or rights which were the subject matter of such Material Contract are no longer reasonably required for the Project:

- (a) Project Co will forthwith enter into, or cause to be entered into, a replacement contract or contracts upon the same or substantially similar terms as the contract so replaced (to the extent reasonably practicable); and
- (b) if the Authority and the relevant Material Contract Party had entered into a Material Project Contractor Collateral Agreement with respect to the replaced Material Contract, Project Co will forthwith enter into, or cause the replacement Material Contract Party to enter into, a Material Project Contractor Collateral Agreement.

4.9 Delivery of Amended Material Contracts

If at any time any amendment is made to any Material Contract, or a replacement Material Contract (or any agreement which materially affects the interpretation or application of any Material Contract) is entered into, Project Co will deliver to the Authority a copy of each such amendment or agreement within 10 Business Days of the date of its execution or creation, certified as a true copy by an officer of Project Co.

4.10 Project Co Permitting Obligations

- (a) Project Co shall, at its own cost and risk:
 - (i) obtain (in accordance with the Project Schedule), maintain, and, as applicable, renew all Permits (other than Authority Permits) that are required for the performance of the Project, including but not limited to those Permits that Project Co is responsible to obtain in accordance with Appendix 3B [Permits] (the "**Project Co Permits**"); and
 - (ii) comply with all Permits in accordance with their terms.
- (b) Project Co will:
 - (i) keep the Authority's Design and Construction Representative informed of the details of all discussions and negotiations with Governmental Authorities with respect to all Project Co Permits;
 - (ii) upon request from the Authority's Design and Construction Representative, provide to the Authority copies of all documentation and correspondence with a Government Authority relating to such Project Co Permits; and

- (iii) provide reasonable advance notice to the Authority of any meetings with the Governmental Authorities with respect to Project Co Permits (where practicable), and upon request by the Authority, to the extent the relevant Governmental Authority consents, permit a representative of the Authority to attend any such meetings.
- (c) Subject to the Authority's obligations pursuant to Section 3.4(b), Project Co assumes all risk and costs arising in relation to Project Co Permits, including delays to the Project Schedule arising from delays in obtaining Project Co Permits or inability to obtain Project Co Permits, conditions of obtaining Project Co Permits, or amendments to Project Co Permits as may be required. The Authority will provide Project Co with such information within the Authority's possession, and co-operate with Project Co, as Project Co may reasonably require in relation to all Project Co Permits.
- (d) Subject to the Authority's obligations pursuant to Section 3.4(b), where a Project Co Permit has requirements that may impose any conditions, liabilities or obligations on the Authority or any Authority Person, Project Co shall not obtain, amend or renew (other than upon the same terms and conditions) such Project Co Permit without the prior written consent of the Authority, not to be unreasonably withheld or delayed, provided that, subject to Section 3.4(a), the Authority shall not be responsible for obtaining or for the failure of Project Co to obtain any Project Co Permit. The Authority shall comply, or shall require compliance, with any conditions, liabilities or obligations as are imposed on the Authority or any Authority Person by the requirements of any Project Co Permit obtained with the Authority's consent under this Section 4.10(d).
- (e) Subject to the Authority's obligations pursuant to Section 3.4(b), Project Co shall, at its own cost, provide or cause to be provided such information, documentation, and administrative assistance as the Authority may request and as Project Co may reasonably be able to provide to enable the Authority to obtain, maintain or renew any Authority Permit or to demonstrate compliance with any Permit. Project Co shall provide or cause to be provided such information, documentation and assistance pursuant to this Section 4.10(e) within 10 Business Days of receipt of the Authority's request. Subject to Section 4.10(a), Project Co shall not be responsible for obtaining or for any delay in obtaining or for the failure of the Authority to obtain any Authority Permit, unless such delay is caused by any act or omission of Project Co.

4.11 Project Co's Representations and Warranties

Project Co represents and warrants to the Authority that:

- (a) Project Co is a general partnership duly created and validly existing under the laws of Ontario and has full power and capacity to enter into, carry out the transactions contemplated by and duly observe and perform all its obligations contained in this Agreement and all other documents, instruments and agreements required to be executed and delivered by Project Co pursuant to this Agreement;
- (b) the information set out in Schedule 12 [Project Co's Ownership Information] is true and correct and there is, as at the date of this Agreement, no outstanding offer, agreement or other arrangement pursuant to which:
 - (i) any Person is obligated to subscribe for or take by means of transfer or by conversion any form of investment, security or voting rights in Project Co; or
 - (ii) the partnership agreement governing Project Co will be amended or otherwise altered;

- (c) none of Project Co, Persons who control Project Co or any Affiliates of Persons who control Project Co and the Project Contractors are Restricted Persons;
- (d) the execution and delivery of this Agreement and all other documents, instruments and agreements required to be executed and delivered by Project Co pursuant to this Agreement, and the completion of the transactions contemplated by this Agreement, have been duly authorized by all necessary partnership and corporate action, as applicable, on the part of Project Co, and this Agreement has been duly executed and delivered by Project Co and constitutes a legal, valid and binding obligation of Project Co enforceable in accordance with its terms, subject to limitations on account of bankruptcy, insolvency, liquidation, reorganization, reconstruction and other similar laws of general application affecting the enforceability of remedies and rights of creditors and subject to availability of equitable remedies such as specific performance and injunction that are in the discretion of a court;
- (e) all required third party consents to the execution by Project Co of, and performance of its obligations under, this Agreement have been received, other than any Permits and other approvals contemplated herein to be obtained after the Effective Date in connection with the Project;
- (f) it has carefully reviewed the whole of this Agreement, including the Design and Construction Requirements, the OMR Requirements and all applicable Laws, and has taken all steps it considers necessary to satisfy itself that nothing contained herein inhibits or prevents Project Co from performing and completing the Project Work in accordance with this Agreement in a good and safe manner in accordance with Good Industry Practice so that Project Co achieves and satisfies the requirements of this Agreement; and
- (g) no injunction or restraining order or other decision, ruling or order of a court or administrative tribunal of competent jurisdiction is in effect that prohibits, restrains, limits or imposes conditions on the ability of Project Co to perform its obligations under this Agreement.

The representation and warranty of Project Co in Section 4.11(f) is included only for the purpose of allowing the Authority to rely on it for the purpose of defending or contesting any action brought against the Authority pursuant to this Agreement or any claim by Project Co for damages, extensions of time, additional compensation or any other relief arising pursuant to this Agreement and the Authority may not rely on such representation and warranty for the purpose of bringing any action against Project Co or for the purposes of terminating this Agreement.

Project Co hereby acknowledges receipt of notice of Section 97 of the *Financial Administration Act* (Northwest Territories).

4.12 Disclosed Data

It is Project Co's responsibility to have conducted its own analysis and review of the Project as of the date of execution of this Agreement and, as of such date, to have taken all steps it considers necessary to satisfy itself as to the accuracy, completeness, sufficiency and applicability of any Disclosed Data upon which it places reliance and to assess all risks related to the Project. Subject to Sections (e), (h), (r) and (t) of the definition of Compensation Event, Project Co releases the Authority from and will not be entitled to make, and will not make, and will ensure that no Project Co Contractor or Subcontractor makes, any claim against the Authority or any Authority Indemnified Persons, whether in contract, tort or otherwise, including any claim for compensation, for damages, for extensions of time or for additional payments under this Agreement on the grounds:

- (a) of any misunderstanding or misapprehension in respect of the Disclosed Data;
- (b) that the Disclosed Data was incorrect or insufficient; or
- (c) that incorrect or insufficient information relating to the Disclosed Data was given to it by any Person other than the Authority,

nor will Project Co be relieved from any liability or obligation imposed on or undertaken by it under this Agreement on any such ground.

4.13 Responses to Authority Inquiries

Unless otherwise specified in this Agreement, Project Co will respond in writing to all written inquiries received from the Authority as soon as reasonably practicable and in any event within 10 Business Days of receipt of such inquiry or such longer period as the circumstances and content of the inquiry may reasonably require.

4.14 Corporate Social Responsibility

Project Co shall, in the performance of the Project and its obligations under this Agreement, comply, and shall cause all Project Contractors and Sub-Contractors to comply, with the following:

- (a) the principles outlined in the Authority's Harassment Free and Respectful Workplace Policy;
- (b) the occupational health and safety requirements applicable to the Project Site in accordance with the Project Agreement and Project Co's approved Project Safety Plan;
- (c) the requirements of Schedule 19 [Environmental Obligations] relating to the protection of the environment; and
- (d) the requirements of Schedule 20 [Local Content Requirements], to the extent applicable.

5. FINANCING OF THE PROJECT

5.1 Compliance with Senior Financing Agreements

Project Co will keep the Senior Financing Agreements in good standing and will ensure that none of the terms and conditions of the Senior Financing Agreements will prevent Project Co from performing its obligations under this Agreement. If at any time Project Co receives a notice that an "event of default", any event entitling the Senior Lenders to enforce any security or any other similar event has occurred under the Senior Financing Agreements, Project Co will forthwith deliver to the Authority a copy of such notice.

5.2 Changes to Senior Financing Agreements

Project Co will not, without the written consent of the Authority, not to be unreasonably withheld or delayed, terminate, amend, assign or otherwise modify the Senior Financing Agreements, or waive or exercise any of its rights under the Senior Financing Agreements or enter into any replacement Senior Financing Agreement or any agreement which affects the interpretation or application of any Senior Financing Agreements if such action would:

- (a) adversely affect Project Co's ability to perform its obligations under this Agreement; or

- (b) have the effect of increasing any liability or potential liability of the Authority other than as contemplated in the Financial Model.

If at any time any amendment is made to any Senior Financing Agreement or Project Co enters into any replacement Senior Financing Agreement (or any agreement which affects the interpretation or application of any Senior Financing Agreement), Project Co will deliver to the Authority a copy of each such amendment or agreement within 5 Business Days of the date of its execution or creation, certified as a true copy by an officer of Project Co.

5.3 Consent Required for Refinancing

Except for an Exempt Refinancing, Project Co will not enter into any Refinancing without the written consent of the Authority, not to be unreasonably withheld or delayed. Without limitation, it will be reasonable for the Authority to withhold consent if such Refinancing occurs before the Substantial Completion Date, has a material adverse effect on Project Co's ability to perform its obligations under this Agreement, increases any liability or potential liability of the Authority (unless the Authority is specifically compensated for such liability or potential liability) or is with a Restricted Person.

5.4 Refinancing Process

If Project Co intends to undertake a Qualifying Refinancing, Project Co will notify the Authority of such intention at least 80 Business Days (or such later date agreed by the Authority, acting reasonably) before the anticipated completion date of such Refinancing and will include with such notice all applicable information then available to Project Co (including any of the information set out below in this Section 5.4 if and to the extent available to Project Co at that time). Project Co will keep the Authority informed of the progress of the proposed Refinancing, will provide the Authority with additional information as it is available, and will consult with and reasonably take into account the views of the Authority during the Refinancing process. Without limiting the foregoing, as soon as reasonably available, and in any event no later than 20 Business Days (or such later date agreed by the Authority, acting reasonably) before the anticipated completion date of such Refinancing, Project Co will provide to the Authority (not necessarily all at the same time):

- (a) all proposed revisions to the Senior Financing Agreements;
- (b) a copy of the proposed updated Financial Model both before and after the Refinancing;
- (c) the basis for the assumptions and calculations used in the proposed updated Financial Model;
- (d) particulars of:
 - (i) any increase in the principal amount of all funding for the Project committed under the Senior Financing Agreements that will result from the proposed Refinancing;
 - (ii) the nature (and estimated amount if reasonably capable of being calculated or estimated) of any other potential increase in the liability of the Authority, including on early termination of this Agreement, that would be reasonably likely to arise from the proposed Refinancing;
 - (iii) any effect on Project Co's ability to perform its obligations under this Agreement;
 - (iv) the terms of the proposed Refinancing;

- (v) the lenders and other parties proposed to be involved in the proposed Refinancing; and
- (vi) the financing instruments to be used to carry out the proposed Refinancing and their key attributes (especially as to those attributes that would or could affect the liability of the Authority on any early termination of this Agreement);
- (e) a statement setting out Project Co's estimate of the resulting Refinancing Gain, including the Authority's share thereof expressed in terms of:
 - (i) the payment described in Section 5.6(a) (including the estimated timing of receipt thereof by the Authority); and
 - (ii) the reduction of Service Payments described in Section 5.6(b); and
- (f) a schedule for implementation of the proposed Refinancing including the principal milestones and proposed dates for the achievement of such milestones (including the estimated date for closing of the proposed Refinancing).

Project Co will promptly provide all other documents and information related to the proposed Refinancing as the Authority may reasonably request. If any change is proposed to the information provided to the Authority pursuant to the above, including information referred to in Sections 5.4(a) to 5.4(f), Project Co will promptly (and in any event not less than 10 Business Days before the completion date of the proposed Refinancing) provide the Authority with full details of the change. Project Co will only proceed with a Qualifying Refinancing in accordance with the information provided to the Authority in accordance with this Section 5.4 and in compliance with the other applicable provisions of this Article 5.

5.5 The Authority's Share of Refinancing Gain

The Authority will be entitled to receive a 50% share of any Refinancing Gain arising from a Qualifying Refinancing. The Authority's share will be calculated as at the time of each Qualifying Refinancing.

5.6 Payment to the Authority

The Authority may elect to receive its share of any Refinancing Gain as:

- (a) a single payment, in accordance with Section 10.1, in an amount no greater than any Distribution made by Project Co arising as a result of the Refinancing;
- (b) a reduction, in accordance with Section 10.3, in the Service Payments over the remainder of the Term; or
- (c) a combination of (a) and (b).

5.7 Calculation of Refinancing Gain

The Authority and Project Co will negotiate in good faith the basis and method of calculation of the Refinancing Gain and payment of the Authority's share of the Refinancing Gain, taking into account how the Authority has elected to receive its share of the Refinancing Gain pursuant to Section 5.6 and the profile of the Refinancing Gain. The Refinancing Gain will be calculated after taking into account the reasonable and proper professional costs that Project Co directly incurs in relation to the Refinancing and, if applicable, the Authority's costs that Project Co pays pursuant to Section 5.8. If the Authority and Project Co are unable to agree on the basis and method of calculation of the Refinancing Gain or the payment of the Authority's share, the Dispute will be determined in accordance with the Dispute Resolution Procedure.

5.8 The Authority's Expenses

Project Co will pay the Authority's reasonable internal administrative and personnel costs and all reasonable out-of-pocket costs in connection with a consent under Section 5.2 or 5.3. The amounts payable under this Article 5 are payable even if the Refinancing Gain is determined to be zero.

5.9 Audit Rights

The Authority will have unrestricted rights of audit at any time (whether before or after the applicable event) over any proposed Financial Model, books, records and other documentation (including any aspect of the calculation of any Refinancing Gain) used in connection with any Refinancing or any other matter for which Project Co requires consent from the Authority under this Article 5.

6. INSURANCE, DAMAGE AND DESTRUCTION

6.1 Insurance Coverage

Subject to Section 6.15(b), Project Co will take out, maintain in force, pay for and renew, or cause to be taken out, maintained in force, paid for and renewed, insurance for the Project as set out in Schedule 5 [Insurance Requirements].

6.2 Agreement Not Affected by Damage or Destruction

Except as otherwise expressly provided, the partial destruction or damage or complete destruction by any event causing damage to the Tłıçhǫ ASR will not permit either party to terminate this Agreement or entitle Project Co to surrender possession of the Tłıçhǫ ASR or to demand any increase in any amounts payable to Project Co under this Agreement and all of the provisions of this Agreement, including Article 8 (Supervening Events) will continue to apply.

6.3 Project Co's Obligations - Damage or Destruction

Subject to Section 6.4, and without prejudice to Article 8 (Supervening Events), if all or any part of the Tłıçhǫ ASR is damaged or destroyed, Project Co will repair, replace or restore the part of the Tłıçhǫ ASR so damaged or destroyed in accordance with the Design and Construction Requirements subject only to:

- (a) applicable Laws; and
- (b) the Authority agreeing to pay to Project Co:
 - (i) the amount, if any, by which the cost of such repair, replacement or restoration exceeds the maximum amount of insurance coverage required under this Agreement for such risk (which for greater certainty is the maximum amount of coverage prior to any deductibles for which Project Co is responsible pursuant to Schedule 5 [Insurance Requirements]); or
 - (ii) if no insurance coverage is required under this Agreement for such risk, an amount equal to the total costs of such repair, replacement or restoration,

and if the Authority agrees, the Authority will pay such amounts within 30 calendar days of receipt of one or more invoices from Project Co indicating that such amounts are due and payable by Project Co in connection with such repair, replacement or restoration.

For the purposes of this Section 6.3, the maximum amount of insurance coverage is in respect of insurance required to be obtained by Project Co, the full amount of coverage required under this

Agreement for such risk prior to any deductibles for which Project Co is responsible pursuant to Schedule 5 [Insurance Requirements].

6.4 Project Co's Obligations - Material Damage or Destruction

If the T1çhç ASR suffers damage or destruction that is likely to cost more than \$5 million (Index Linked) to repair, replace or restore:

- (a) Project Co will, as soon as practicable and in any event within 20 Business Days of such damage or destruction, and before undertaking any material remedial work (other than any emergency work required to stabilize other parts of the T1çhç ASR or to facilitate the continued provision of the OMR to other parts of the T1çhç ASR), provide the Authority with a draft plan (the "**Draft Reinstatement Plan**") for the carrying out of the works necessary (the "**Reinstatement Works**") to repair, replace or restore the damaged or destroyed portions of the T1çhç ASR and related assets, and containing to the extent possible the details required to be included in the Reinstatement Plan under (d) below;
- (b) as soon as reasonably practicable and in any event within 20 Business Days after the delivery of the Draft Reinstatement Plan, the Authority:
 - (i) will provide Project Co with any comments it may have on the Draft Reinstatement Plan; and
 - (ii) if it has decided that the T1çhç ASR is not required to be reinstated in the same form as prior to the damage or destruction, will issue a Preliminary Change Instruction to that effect;
- (c) as soon as reasonably practicable and in any event within 10 Business Days after receipt of the Authority's comments pursuant to Section 6.4(b)(i), Project Co will deliver to the Authority a revised plan (the "**Reinstatement Plan**") amending the Draft Reinstatement Plan to reasonably take into account the comments received from the Authority and those changes to the Draft Reinstatement Plan necessary to reflect the contractual terms agreed (as negotiated and finalised) with the person effecting the Reinstatement Works; and
- (d) the Reinstatement Plan will set out in as much detail as is reasonable in the circumstances:
 - (i) the identity of the person, or (if Project Co is seeking competitive tenders) persons intended, to carry out the Reinstatement Works;
 - (ii) the terms and timetable or (if not then established) the reasonably anticipated terms and timetable upon which the Reinstatement Works are to be effected (including the date upon which the T1çhç ASR is reasonably expected to become fully operational again and the OMR to be fully provided);
 - (iii) the impact that implementation of the Reinstatement Plan will have on the revenues of Project Co under this Agreement and on the payment obligations of Project Co under the Project Contracts, including in respect of OMR Requirements;
 - (iv) the total cost or (if not then established) the reasonably anticipated total cost of the Reinstatement Works; and

- (v) the impact of any Change requested by the Authority as part of the reinstatement.

Thereafter, unless a party elects to terminate this Agreement (in accordance with the provisions of Section 6.6, 6.7 or 6.8 or otherwise), subject to 6.3, Project Co will repair, replace or restore the T1çhç ASR, subject to applicable Laws.

6.5 Financial Model Update

Upon delivery of the Reinstatement Plan, Project Co will amend the Financial Model based on the following assumptions:

- (a) that the Reinstatement Plan will be effected in accordance with its terms;
- (b) that the payments under the Senior Financing Agreements (including any amendments agreed between Project Co and the Senior Lenders in connection with the Reinstatement Plan in respect of which a consent request has been submitted to the Authority) to be paid during the period of the Reinstatement Plan will be met without any rescheduling; and
- (c) that payments in respect of any Change comprised in the Reinstatement Plan will be determined in accordance with Schedule 6 [Changes, Minor Works and Innovation Proposals],

and will deliver the updated Financial Model to the Authority for its approval, not to be unreasonably withheld or delayed.

6.6 Authority Election Not to Reinstat

The Authority may, by notice to Project Co within 20 Business Days after receipt of the Reinstatement Plan, at its discretion elect not to reinstate the T1çhç ASR, terminate this Agreement and pay compensation to Project Co in accordance with Article 2 of Schedule 9 [Compensation on Termination].

6.7 Insufficient Insurance

If:

- (a) the T1çhç ASR is completely or substantially destroyed;
- (b) the cost to repair, replace or restore the T1çhç ASR exceeds the maximum amount of insurance coverage (which for greater certainty is the maximum amount of coverage prior to any deductibles for which Project Co is responsible pursuant to Schedule 5 [Insurance Requirements]) required under this Agreement for the risk that caused the destruction; and
- (c) neither the Authority nor Project Co has agreed to pay the amount by which the cost to repair, replace or restore the T1çhç ASR exceeds the Insurance Proceeds and Insurance Receivables with respect to such destruction,

at any time on or after 20 Business Days after delivery of the Reinstatement Plan to the Authority, either party may, by notice to the other party, terminate this Agreement, in which case the Authority will pay compensation to Project Co in accordance with Article 5 of Schedule 9 [Compensation on Termination].

6.8 Economic Reinstatement Test During Construction

Project Co may, by notice to the Authority, terminate this Agreement if:

- (a) prior to the Substantial Completion Date, Project Co undertakes a Refinancing with a new third-party lender (the “**OMR Lender**”), which involves Debt, other than Junior Debt, that will remain available to Project Co throughout the majority of the Operating Period;
- (b) prior to the Substantial Completion Date the Project suffers damage or destruction that is likely to cost more than \$5 million (Index Linked) to repair, replace or restore; and
- (c) on the date determined (in accordance with this Agreement) to be the revised Substantial Completion Date following such reinstatement (the “Forecast Substantial Completion Date”) the Project Reinstatement Ratio (as defined below) would be less than 1.10.

If this Agreement is terminated in accordance with this Section 6.8, the Authority will pay compensation to Project Co in accordance with Article 5 of Schedule 9 (Compensation on Termination).

In this Section 6.8, “Project Reinstatement Ratio” means the quotient of:

- (d) the sum of:
 - (i) the present value as at the Forecast Substantial Completion Date of the projected free cash flow from the Forecast Substantial Completion Date to and including the maturity date of the loan provided by the OMR Lender, calculated by discounting such free cash flow back to the Forecast Substantial Completion Date using a discount rate equal to the annual interest rate set out in the relevant OMR Lender’s financing documents; and
 - (ii) the Equity Commitment (as defined in the Equity Contribution Agreement)divided by:
- (e) the amount outstanding on the loan provided by the OMR Lender as at the Forecast Substantial Completion Date.

6.9 Uncollectible Insurance Receivables

If at any time while Project Co is relieved of its obligations under Sections 6.3 or 6.4 by reason of the Relief Event described in Section (f) of the definition of Relief Event in Schedule 1 [Definitions and Interpretation]:

- (a) Project Co has complied with its obligations hereunder with respect to such Relief Event; and
- (b) notwithstanding such compliance by Project Co collection of the applicable Insurance Receivables is not possible using all reasonable efforts,

either party may, by notice to the other party, terminate this Agreement, in which case the Authority will pay compensation to Project Co in accordance with Article 5 of Schedule 9 [Compensation on Termination].

6.10 Application of Insurance Proceeds If No Termination

Unless a party has terminated this Agreement (including pursuant to Section 6.6, 6.7 or 6.8), Project Co will cause all:

- (a) applicable Insurance Proceeds which Project Co has received;
- (b) applicable Insurance Receivables due, to the extent applicable;
- (c) amounts which the Authority has agreed to pay as contemplated in Section 6.3(b); and
- (d) amounts which Project Co has agreed to pay to cover the amount by which the cost to repair, replace or restore the Tłıçhǫ ASR exceeds the Insurance Proceeds and Insurance Receivables with respect to complete or substantial destruction,

to be applied to the reinstatement of the Tłıçhǫ ASR in accordance with the terms of this Agreement and any Insurance Trust Agreement.

6.11 Application of Insurance Proceeds In Case of Termination

If a party has terminated this Agreement pursuant to Section 6.6 or 6.7:

- (a) any Insurance Proceeds received prior to the Termination Payment Date by Project Co in respect of damage to the Tłıçhǫ ASR and not already applied to the repair of such damage will first be applied towards the Termination Payment and any Insurance Proceeds remaining after such application, less the amount of any deductible for which Project Co is responsible pursuant to Schedule 5 [Insurance Requirements] for the risk which caused the destruction (which, for clarity, may be retained by Project Co), will be paid to the Authority; and
- (b) on the Termination Payment Date, Project Co will assign to the Authority the benefit of all Insurance Receivables which have been taken into account in calculating the Termination Payment.

6.12 Standards of Replacement, Repair or Reconstruction

Any replacement, repair, or reconstruction of the Tłıçhǫ ASR or any part thereof pursuant to the provisions of Sections 6.3 or 6.4 will be made or done in compliance with the Design and Construction Requirements, subject to any agreement made between the Authority and Project Co to revise the Design and Construction Requirements as they pertain to any replaced, repaired or reconstructed Tłıçhǫ ASR.

6.13 Mitigation

Project Co and the Authority will take all reasonable steps to mitigate the effects of any risks or claims covered by this Article 6 (including minimizing the amount of any costs and expenses which might result).

6.14 Risks Becoming Uninsurable

Each party will, forthwith upon Having Knowledge, notify the other (such notice being, a “**Notice of Uninsurable Risk**”) if a Principal Insured Risk becomes or is expected to become Uninsurable (the “**Uninsurable Risk**”). If both parties agree or it is determined in accordance with the Dispute Resolution Procedure that the relevant Principal Insured Risk is or is about to become Uninsurable and that the Principal Insured Risk being Uninsurable is not and will not be caused by the actions or omissions of Project Co or any Project Co Person or the Authority or any Authority Person contrary to Schedule 5 [Insurance Requirements], then the parties together with their respective insurance advisors will meet to

discuss the means by which such Principal Insured Risk should be managed (including considering the feasibility of self-insurance by either or all parties).

6.15 Consequences of Risks Becoming Uninsurable

If the requirements of Section 6.14 are satisfied but the parties cannot agree within 20 Business Days following the issuance of a Notice of Uninsurable Risk on how to manage the Uninsurable Risk:

- (a) if the Uninsurable Risk is third party liability, if and for so long as the Uninsurable Risk is Uninsurable, the Authority may by notice to Project Co terminate this Agreement whereupon Project Co will be entitled to compensation on termination as provided in Article 5 of Schedule 9 [Compensation on Termination];
- (b) if the Uninsurable Risk is not third party liability or if (and for as long as) the Authority has not terminated this Agreement under Section 6.15(a), then this Agreement will continue, but neither Project Co nor the Authority will be obligated by this Agreement to maintain insurance in respect of the Uninsurable Risk and references in this Agreement to the insurance required by this Article 6 or Schedule 5 [Insurance Requirements] will be construed accordingly. In such event the Service Payments will thereafter be adjusted in accordance with Section 10.3 by agreement of the parties acting reasonably or, failing such agreement, by the Dispute Resolution Procedure, from the date upon which the Uninsurable Risk became Uninsurable, to reflect any savings in Project Co's insurance cost as a result of Project Co not having to insure against the Uninsurable Risk; and
- (c) subject to Section 6.16, on the occurrence of the Uninsurable Risk the Authority will either:
 - (i) pay to Project Co an amount equal to the insurance proceeds that would have been payable directly to Project Co under the relevant policies in respect of the Uninsurable Risk had the relevant insurance continued to be available and in effect, and this Agreement will continue; or
 - (ii) by notice to Project Co, terminate this Agreement whereupon Project Co will be entitled to compensation on termination as provided in Article 5 of Schedule 9 [Compensation on Termination],

except that the Authority may not in any such case terminate this Agreement pursuant to Section 6.15(c)(ii) if Project Co releases the Authority from all obligations under Section 6.15(c)(i) and deposits into the Insurance Trust Account an amount equal, in the reasonable opinion of the Authority, to the insurance proceeds, and all amounts in respect of deductibles and waiting periods that would have been the responsibility of Project Co under Section 5.7 of Schedule 5 [Insurance Requirements], that would have been payable in respect of the Uninsurable Risk that occurred had the relevant insurance continued to be available and in effect.

6.16 Third Party Liability Insurance as an Uninsurable Risk

If this Agreement is terminated pursuant to Section 6.15(c)(ii) and at the date of such termination third party liability is an Uninsurable Risk, and if:

- (a) there is an outstanding third party claim against Project Co at the Termination Date; or
- (b) following the Termination Date a third party claim is subsequently made against Project Co in respect of an event or circumstance that occurred before the Termination Date,

which in either case would have been covered by the third party liability insurance that either the Authority or Project Co would have been required to carry had that risk not been an Uninsurable Risk, then the Authority will pay to Project Co the amount for which Project Co becomes liable in respect of such claim in addition to the compensation payable pursuant to Section 6.15(c)(ii).

6.17 Subrogation

If the Authority makes any payment to Project Co pursuant to Section 6.15(c)(i) or Section 6.16, then the Authority, to the extent of the amount paid, will be subrogated to Project Co's rights against any third party in respect of the occurrence or claim as a result of which the payment was made, other than any third party that was an insured under the last policy of insurance to cover the Uninsurable Risk before it became Uninsurable, to the extent the insurers did not have a right of subrogation against such third party.

6.18 Continuing Attempts to Insure Uninsurable Risks

When there is an Uninsurable Risk for which Project Co is responsible to obtain insurance under Schedule 5 [Insurance Requirements], Project Co will approach the insurance market on a regular basis and in any event at regular intervals of no longer than six months to establish whether the Uninsurable Risks remain Uninsurable.

6.19 Uninsurable Risks Becoming Insurable

Where a risk that was previously an Uninsurable Risk ceases to be so and Project Co becomes aware or is informed by another party that this is the case, Project Co will forthwith take out, maintain and pay for or cause to be taken out, maintained and paid for insurance in accordance with the requirements of this Agreement in respect of the risk, and in any case:

- (a) Sections 6.14, 6.15, 6.16 and 6.18 will no longer apply to the risk so long as it is not an Uninsurable Risk; and
- (b) the Service Payments will be adjusted pursuant to Section 10.3 by agreement of the parties acting reasonably or, failing such agreement, by the Dispute Resolution Procedure, from the date upon which the Uninsurable Risk became insurable, to reflect any increase in Project Co's insurance cost as a result of having to insure the risk that ceased to be an Uninsurable Risk.

7. CHANGES, MINOR WORKS AND INNOVATION PROPOSALS

7.1 Changes Required by the Authority

The Authority may require Changes in accordance with Schedule 6 [Changes, Minor Works and Innovation Proposals].

7.2 Innovation and Value Engineering

Project Co may submit an Innovation Proposal for consideration by the Authority in accordance with Schedule 6 [Changes, Minor Works and Innovation Proposals].

7.3 Minor Works

The Authority may require Minor Works in accordance with Schedule 6 [Changes, Minor Works and Innovation Proposals].

8. SUPERVENING EVENTS

8.1 Supervening Events

If:

- (a) a Compensation Event, Relief Event, Excusing Event or Climate Change Event (insofar as Project Co claims for Retrospective CC Relief) occurs, Project Co may; or
- (b) a Force Majeure Event or Eligible Change in Law Event occurs, either party may,

apply for relief from its obligations, extensions of time, claim compensation or claim a termination right under this Agreement to the extent provided in this Article 8. The “**Applicant**” means the party making such application.

8.2 Procedures Upon the Occurrence of a Supervening Event

The following procedure will apply if a Supervening Event occurs:

- (a) subject to Section 8.2(b), the Applicant shall, as soon as practicable, and in any event within 5 Business Days after the Applicant Has Knowledge that the Supervening Event has caused, or is reasonably likely to cause, an entitlement under this Article 8, the Applicant will give to the other party a notice (“**Supervening Event Notice**”) identifying the particular Supervening Event and summarizing, to the extent the Applicant Has Knowledge, the consequences and the nature of the Applicant’s claim;
- (b) in the case of a Climate Change Event, the Applicant shall provide a Supervening Event Notice within the timelines set out in Sections 3.1(b) and Article 5 of Schedule 22 [Climate Change Risk-Sharing Regime], as applicable,
- (c) within 10 Business Days after delivery by the Applicant of a Supervening Event Notice, to the extent the Applicant Has Knowledge, the Applicant will give to the other party:
 - (i) additional details, including available supporting documentation, in support of its claim; and
 - (ii) if applicable, a detailed breakdown of all Direct Losses incurred or which will be incurred or other compensation or relief sought by Project Co, if it is the Applicant, as a result of the Supervening Event;
- (d) from time to time thereafter the Applicant will promptly notify the other party if at any time it receives or becomes aware of any further information relating to the Supervening Event, giving details of that information to the extent that such information is new or renders information previously submitted materially inaccurate or misleading. In particular, a party claiming relief as a result of a Force Majeure Event will notify the other as soon as the Force Majeure Event has ceased and of the time when performance of its affected obligations can be resumed;
- (e) a party may make multiple but not duplicative claims in respect of a Supervening Event and both parties may make claims in respect of the same Supervening Event;
- (f) where the Authority is claiming the benefit of an Eligible Change in Law Event, Project Co will provide the Authority information reasonably requested in order to make its claim;
- (g) the Applicant must demonstrate:

- (i) it could not have avoided such occurrence or the consequences of the Supervening Event by steps which it might reasonably be expected to have taken provided that, in the case of the Authority, the Authority is not required to take any steps that are referred to in Sections 2.6(a)(i), 2.6(a)(ii) or 2.6(a)(iii);
 - (ii) if applicable, the Supervening Event caused or will cause the Applicant to incur a Direct Loss, a delay in the Project Schedule or the need for relief from other obligations under this Agreement; and
 - (iii) in the case of Project Co, it has complied with its mitigation obligations pursuant to Section 2.5 and in the case of the Authority, it has complied with its mitigation obligations pursuant to Section 2.6;
- (h) the Applicant will advise whether, in the Applicant's opinion, any amendments should be considered to this Agreement, any Material Contract or any Senior Financing Agreement as a result of the Supervening Event; and
- (i) the parties will meet within 10 Business Days of delivery of additional information pursuant to Section 8.2(b) (or, if the Applicant provides the information required pursuant to Section 8.2(b) at the same time it provides a Supervening Event Notice, within 10 Business Days of the Applicant's delivery of the Supervening Event Notice) to consult and seek to agree to the effect of the Supervening Event and, in the case of an asserted Climate Change Event (insofar as Project Co claims for Retrospective CC Relief), to consult and seek to agree to the effect of a claim made under Section 3.1 or Article 5 of Schedule 22 [Climate Change Risk-Sharing Regime], as applicable, and Section 8.6 of this Agreement. If the parties, within 10 Business Days following the meeting, have not agreed to the occurrence or the effect of the Supervening Event, either party may refer the question of whether a Supervening Event has occurred, whether the conditions in Section 8.2(g) above have been satisfied or the extent of relief or compensation to which the affected party is entitled, for resolution in accordance with the Dispute Resolution Procedure.

8.3 Project Co's Entitlements Upon Occurrence of a Compensation Event

Subject to Section 8.13 and, if applicable, Section 2.11, if at any time a Compensation Event has occurred and Project Co has given the Authority a Supervening Event Notice related thereto:

- (a) Project Co is relieved from any liability or consequence (including termination by the Authority) under this Agreement arising from any delay or failure in performing any of its obligations under or in connection with this Agreement;
- (b) the Service Payments will be calculated as if the Compensation Event had not occurred based on the Reasonably Expected Performance of Project Co, except that Avoidable Costs and applicable Insurance Proceeds of Project Co and all Project Co Persons contemplated in paragraph (b) of the definition of "Project Co Person" and insurance proceeds which Project Co would have recovered as a result of the Compensation Event, if it had complied with the requirements of this Agreement or any policy of insurance maintained or required to be maintained under this Agreement, will be deducted therefrom;
- (c) the Authority will pay to Project Co compensation in respect of a Compensation Event calculated on the basis that Project Co will be placed in no better or worse position than it would have been in had a Compensation Event not occurred and taking into consideration the following (without duplication):

- (i) any Direct Losses (including the amount of any applicable insurance deductibles and calculated without netting out Insurance Receivables) resulting from the Compensation Event;
- (ii) any net increase or decrease in the costs of Project Co performing its obligations under this Agreement resulting from the Compensation Event; and
- (iii) the Service Payments payable to Project Co, taking into account the deductions pursuant to Section 8.3(b) above;

except that:

- (iv) Avoidable Costs and applicable Insurance Proceeds and insurance proceeds which Project Co would have recovered as a result of the Compensation Event if it had complied with the requirements of this Agreement or any policy of insurance maintained or required to be maintained under this Agreement will be deducted therefrom; and
 - (v) no Indirect Losses will be taken into consideration;
- (d) concurrent with the first payment of any compensation by the Authority under Section 8.3(c), Project Co will assign to the Authority its rights to all applicable Insurance Receivables (whether or not Project Co has made a claim); and
 - (e) if the Compensation Event occurs prior to the Substantial Completion Date, the Project Schedule will be amended and the Target Substantial Completion Date, the Target Total Completion Date and the Longstop Date will be postponed by such time as is reasonable in the circumstances to take account of the effect of the delay caused by the Compensation Event, but the Expiry Date will not be extended.

8.4 Project Co's Entitlements Upon Occurrence of a Relief Event

Subject to Section 8.13, if at any time a Relief Event has occurred and Project Co has given the Authority a Supervening Event Notice related thereto:

- (a) Project Co is relieved from any liability or consequence (including termination by the Authority, except as provided for in this Section 8.4) under this Agreement arising from any delay or failure in performing any of its obligations under this Agreement, except that, with respect to a Relief Event occurring after the Substantial Completion Date, nothing will affect any entitlement of the Authority to assign Failure Points and the Authority will only be obligated to make Service Payments to the extent that the performance or other criteria for Service Payments are met in accordance with the applicable provisions of this Agreement notwithstanding the Relief Event;
- (b) if the Relief Event occurs prior to the Substantial Completion Date:
 - (i) the Project Schedule will be amended and the Target Substantial Completion Date, the Target Total Completion Date and the Longstop Date will be postponed by such time as is reasonable in the circumstances to take account of the effect of the delay caused by the Relief Event, but the Expiry Date will not be extended;
 - (ii) for the period that the Substantial Completion Date is delayed to a date after the Target Substantial Completion Date (as it was prior to having been postponed pursuant to Section 8.4(b)(i)) as a result of one or more of the Relief Events described in (b), (c), (d) or (h) of the definition of Relief Event, the Authority will

pay to Project Co an amount equal to the Senior Debt Service Amount for such period less applicable Insurance Proceeds and insurance proceeds which Project Co would have recovered as a result of the Relief Event if it had complied with the requirements of this Agreement or any policy of insurance maintained or required to be maintained under this Agreement; and

- (iii) concurrent with the first payment of any amount by the Authority pursuant to Section 8.4(b)(ii), Project Co will assign to the Authority its rights to all applicable Insurance Receivables (whether or not Project Co has made a claim);
- (c) if the Relief Event, or its effects, persists or is likely to persist for more than 180 days after the date a Supervening Event Notice is delivered by the Applicant, either party may at any time so long as such Relief Event is, or such effect is, continuing and subject to Section 15.2, terminate this Agreement by notice to the other party;
- (d) if the Authority gives notice to Project Co under Section 8.4(c) terminating this Agreement, Project Co will have the option either to accept such notice or to respond in writing on or before the date falling 10 Business Days after the date of receipt of such notice stating that it requires this Agreement to continue, in which case Project Co's rights to relief under this Section 8.4 in respect of the Relief Event will cease as of the date of the Authority's termination notice and the Authority's termination notice will be deemed null and void;
- (e) if Project Co gives notice to the Authority under Section 8.4(c) terminating this Agreement, the Authority will have the option either to accept such notice or to respond in writing on or before the date falling 10 Business Days after the date of receipt of such notice stating that it requires this Agreement to continue. If the Authority gives Project Co such response then:
 - (i) Project Co's termination notice will be deemed null and void and Project Co, insofar as it is able to do so, will continue to perform its obligations in accordance with the provisions of this Agreement;
 - (ii) the Relief Event will be deemed to constitute a Compensation Event occurring as of the date on which the Relief Event first occurred;
 - (iii) at any time so long as the Supervening Event referred to in Section 8.4(e)(ii) is continuing, the Authority may terminate this Agreement by notice to Project Co; and
 - (iv) Project Co may at any time so long as the Supervening Event referred to in Section 8.4(e)(ii) is continuing after a further period of 180 days after the date on which Project Co delivered the termination notice pursuant to Section 8.4(c) terminate this Agreement by notice to the Authority;
- (f) if this Agreement is terminated pursuant to this Section 8.4, Project Co will be entitled to compensation on such termination in accordance with Article 5 of Schedule 9 [Compensation on Termination]; and
- (g) Failure Points assigned while Project Co is entitled to relief under this Section 8.4 will not be counted for the purposes of Sections 11.1, 12.1(b) or 13.1(h).

8.5 Project Co's Entitlements Upon Occurrence of an Excusing Event

Subject to Section 8.13, if during the Operating Period an Excusing Event has occurred and Project Co has given the Authority a Supervening Event Notice related thereto:

- (a) Project Co is relieved from any liability or consequence (including termination by the Authority) under this Agreement arising from any delay or failure in performing any of its obligations; and
- (b) the Service Payments will be calculated as if the Excusing Event had not occurred based on the Reasonably Expected Performance of Project Co, except that Avoidable Costs and applicable Insurance Proceeds and Insurance Receivables and insurance proceeds which Project Co would have recovered if it had complied with the requirements of this Agreement or any policy of insurance maintained or required to be maintained under this Agreement will be deducted therefrom.

8.6 Project Co's Retrospective Entitlement Upon Occurrence of a Climate Change Event

Subject to Section 8.13 and articles 4 and 5 of Schedule 22 [Climate Change Risk-Sharing Regime], if at any time a Climate Change Event has occurred and, within 12 months of such occurrence, Project Co has given the Authority a Supervening Event Notice for Retrospective CC Relief pursuant to section 3.1 of Schedule 22 [Climate Change Risk-Sharing Regime]:

- (a) subject to Section 8.6(b), the Authority will pay to Project Co:
 - (i) any Direct Losses previously incurred (calculated without netting out Insurance Receivables, if applicable) resulting exclusively from the Climate Change Event; and
 - (ii) any net increase in the costs of Project Co performing the OMR previously incurred resulting exclusively from the Climate Change Event;

except that:

- (iii) Avoidable Costs and applicable Insurance Proceeds, if applicable, which Project Co would have recovered if it had complied with the requirements of this Agreement, or any policy of insurance maintained or required to be maintained under this Agreement, will be deducted therefrom; and
 - (iv) no Indirect Losses will be taken into consideration,

and concurrent with the first payment of any compensation by the Authority under this Section 8.6(a), Project Co will assign to the Authority its rights to all applicable Insurance Receivables, if applicable (whether or not Project Co has made a claim); and
- (b) the reimbursement of any such Direct Losses previously incurred shall be subject to the terms of Schedule 22 [Climate Change Risk-Sharing Regime].

8.7 Parties' Entitlements Upon Occurrence of a Force Majeure Event

Subject to Section 8.13, if at any time a Force Majeure Event has occurred and the Applicant has given the other party a Supervening Event Notice related thereto:

- (a) the Applicant is relieved from any liability or consequence (including termination by the Authority except as provided for in this Section 8.7) under this Agreement arising from

any delay or failure in performing any of its obligations under this Agreement, except that nothing will affect any entitlement of the Authority to assign Failure Points and the Authority will only be obligated to make Service Payments to the extent that the performance or other criteria for Service Payments are met notwithstanding the Force Majeure Event;

- (b) if the Applicant is Project Co and the Force Majeure Event occurs prior to the Substantial Completion Date, the Project Schedule will be amended and the Target Substantial Completion Date, the Target Total Completion Date and the Longstop Date will be postponed by such time as is reasonable in the circumstances to take account of the effect of the delay caused by the Force Majeure Event, but the Expiry Date will not be extended;
- (c) if a Force Majeure Event occurs and it, or its effects, persists or is likely to persist for more than 180 days after the date a Supervening Event Notice is delivered by the Applicant, either party may at any time so long as such Force Majeure Event is, or such effect is, continuing, terminate this Agreement by notice to the other party;
- (d) if Project Co gives notice to the Authority under Section 8.7(c) terminating this Agreement, the Authority will have the option either to accept such notice or to respond in writing on or before the date falling 10 Business Days after the date of receipt of such notice stating that it requires this Agreement to continue. If the Authority gives Project Co such response then:
 - (i) Project Co's termination notice will be deemed null and void and Project Co, insofar as it is able to do so, will continue to perform its obligations in accordance with the provisions of this Agreement;
 - (ii) the Force Majeure Event will be deemed to constitute a Compensation Event occurring as of the date the Force Majeure Event first occurred;
 - (iii) at any time so long as the Compensation Event referred to in Section 8.7(d)(ii) is continuing, the Authority may terminate this Agreement by notice to Project Co; and
 - (iv) Project Co may at any time so long as the Compensation Event referred to in Section 8.7(d)(ii) is continuing after a further period of 180 days after the date on which Project Co delivered the termination notice pursuant to Section 8.7(c), terminate this Agreement by notice to the Authority;
- (e) if this Agreement is terminated pursuant to Section 8.7(c) or Sections 8.7(d)(iii) or 8.7(d)(iv), Project Co will be entitled to compensation on such termination in accordance with Article 5 of Schedule 9 [Compensation on Termination]; and
- (f) Failure Points assigned while Project Co is entitled to relief under this Section 8.7 will not be counted for the purposes of Sections 11.1, 12.1(b) or 13.1(h).

8.8 Parties' Entitlements Upon Occurrence of an Eligible Change in Law Event

Subject to Section 8.13, if at any time an Eligible Change in Law Event has occurred and the Applicant has given the other party a Supervening Event Notice related thereto:

- (a) subject to Section 8.8(c), in the case of a Relevant Change in Law Project Co will be entitled to compensation for Direct Losses and the Service Payments will be increased or

decreased to compensate for any increase or decrease (as the case may be) in the net cost to Project Co of performing the OMR;

- (b) subject to Section 8.8(c), in the case of a Discriminatory Change in Tax Law Project Co or the Authority will be entitled to compensation for any revenue loss or revenue gain for Project Co and any Partner (as the case may be) and the Service Payments will be increased or decreased to compensate for any increase or decrease (as the case may be) in the net cost to Project Co of performing the OMR;
- (c) subject to Section 8.8(d) with respect to Recoverable Expenditure and to Section 8.8(e), any compensation payable or increase or decrease in the Service Payments in respect of an Eligible Change in Law Event will be calculated on the basis that Project Co will be placed in no better or worse position than it would have been in had such Eligible Change in Law Event not occurred and taking into consideration the following (without duplication):
 - (i) any Direct Losses (calculated without netting out Insurance Receivables) resulting from the Eligible Change in Law Event;
 - (ii) any net increase or decrease in the costs of Project Co performing the OMR resulting from the Eligible Change in Law Event; and
 - (iii) the Service Payments payable to Project Co,

except that:

- (iv) Avoidable Costs and applicable Insurance Proceeds and insurance proceeds which Project Co would have recovered if it had complied with the requirements of this Agreement or any policy of insurance maintained or required to be maintained under this Agreement will be deducted therefrom; and
- (v) no Indirect Losses will be taken into consideration other than as set out in Section 8.8(b) above,

and concurrent with the first payment of any compensation by the Authority under this Section 8.8(c), Project Co will assign to the Authority its rights to all applicable Insurance Receivables (whether or not Project Co has made a claim);

- (d) in the case of a Relevant Works Change in Law:
 - (i) subject to Section 8.8(c), the Service Payments will be increased or decreased to compensate for any increase or decrease (as the case may be) in the net cost to Project Co of performing the OMR as a direct result of the Recoverable Expenditure in respect of such Relevant Works Change in Law; and
 - (ii) Project Co will be entitled to compensation from the Authority in an amount equal to the Recoverable Expenditure; and
- (e) in the case of an Input Tax Recoverability Change in Law:
 - (i) the Authority will pay Project Co, and Project Co will be entitled to, any Additional Irrecoverable Tax resulting from the Input Tax Recoverability Change in Law; and

- (ii) Project Co will pay the Authority, and the Authority will be entitled to, any Additional Recoverable Tax resulting from the Input Tax Recoverability Change in Law,

but in each case only to the extent necessary to leave Project Co in no better or worse position than before the Input Tax Recoverability Change in Law, provided however that Section 8.8(c) will not apply to an Input Tax Recoverability Change in Law.

8.9 Parties' Entitlements Upon Occurrence of a Change in Law

Without limiting Section 8.4, Section 8.5, Section 8.6 or Section 8.8:

- (a) if compliance by Project Co with a Change in Law is outside the scope of, or inconsistent with, Project Co's obligations under this Agreement, or would mean a change in Project Co's obligations under this Agreement or a change in the scope or manner of carrying out the Project, such Change in Law will be deemed to constitute a Change having effect from the time that such Change in Law takes effect, except that Project Co will not be entitled to any payment or other compensation other than as set out in Section 8.4, Section 8.5, Section 8.6 or Section 8.8;
- (b) except as otherwise provided in this Agreement, including in Section 8.4, Section 8.5, Section 8.6 or Section 8.8, Project Co will not be entitled to any other payment or compensation or relief in respect of any Change in Law or the consequences thereof; and
- (c) nothing in Section 8.4, Section 8.5, Section 8.6 or Section 8.8 will be interpreted as relieving Project Co of its obligation, following any and all Changes in Law, to perform its obligations under this Agreement in compliance with all Laws.

8.10 Labour Disputes

If Project Co Has Knowledge of an actual or potential labour dispute that may affect the Project Work, Project Co will promptly:

- (a) give notice thereof to the Authority, including all relevant information related to the dispute of which Project Co Has Knowledge; and
- (b) take all reasonable steps to mitigate the effects of such labour dispute on the performance of the Project Work, including by applying for relief to appropriate tribunals or courts.

Project Co acknowledges that if the labour dispute involves workers of a Project Contractor or Sub-Contractor, or of anyone employed by or through them, the Authority will not be required to provide any facilities, space or assistance at the Tłı̄ch̄o ASR or on the Lands for the purposes of such workers or any applicable union.

8.11 Payments in Respect of Supervening Events

Payments between the parties and any adjustments to Service Payments in respect of Supervening Events will be made in accordance with Article 10 (Lump Sum Payments and Service Payment Adjustments).

8.12 Supervening Events Mitigated by Change

Nothing in this Agreement will limit the right of the Authority to perform or mitigate its obligations in respect of Supervening Events or the consequences of a Supervening Event by requiring a Change or Changes.

8.13 Delay in Notification

If the Supervening Event Notice or any required information is provided by an Applicant to the other party after the dates referred to in Section 8.2, then without prejudice to any other rights or remedies of the other party under this Agreement:

- (a) the Applicant will not be entitled to any compensation, extension of time or relief from its obligations under this Agreement to the extent that the amount thereof was increased or the ability to mitigate was adversely affected as a result of such delay in providing such notice or information; and
- (b) if the period of delay is 6 months or more beyond the dates referred to in Section 8.2, the rights of the Applicant with respect to the applicable Supervening Event will be of no further force or effect.

8.14 Equivalent Project Relief

The parties acknowledge that Project Co will share with the Project Contractors, who will in turn share with Sub-Contractors, in accordance with the Project Contracts, certain benefits to Project Co derived from the rights of Project Co under, and subject to the obligations and limitations under, this Agreement including rights of Project Co under this Article 8 (such rights, as qualified by such obligations and limitations, are in this Section collectively "**Project Co's Rights**"). Accordingly:

- (a) any circumstance affecting a Project Contractor or a Sub-Contractor which, if such circumstance had affected Project Co directly would have given rise to a claim by Project Co pursuant to Project Co's Rights will, for the purpose of this Agreement, be deemed to be a circumstance affecting Project Co in respect of which Project Co may claim under and subject to Project Co's Rights; and
- (b) amounts claimed by the Project Contractor or Sub-Contractor against Project Co in respect of any circumstance referred to in Section 8.14(a) above may be claimed by Project Co against the Authority under and subject to Project Co's Rights, but whether or not the Authority is liable for such amounts will be determined under this Agreement as if the circumstance had affected Project Co directly,

provided that:

- (c) all such claims will be made and administered by Project Co and no Project Contractor or Sub-Contractor will have any rights against the Authority, including under this Section 8.14;
- (d) in no event will the liability of the Authority under this Section 8.14 be greater than it would have been if Project Co had been directly affected by the circumstance referred to in Section 8.14(a) above; and
- (e) in no event will the Authority be liable under this Section 8.14 for any Direct Losses or other compensation that the Authority would not have been liable for if Project Co had been directly affected by the circumstance referred to in Section 8.14(a) above.

9. INDEMNITIES AND LIMITS ON LIABILITIES AND REMEDIES

9.1 Project Co's Obligation to Indemnify

Project Co will indemnify and keep the Authority indemnified at all times from and against all Direct Losses that the Authority and each Authority Indemnified Person may sustain in connection with:

- (a) a failure by Project Co to achieve Substantial Completion by the Target Substantial Completion Date, which Direct Losses shall include the additional out-of-pocket costs which the Authority or any Authority Indemnified Person reasonably incurs in connection with the preparation and/or maintenance of any winter roads (including, but not limited to, additional costs associated with shipping goods, such as diesel, to Tłı̄chq communities by air while such winter roads are being constructed) to the extent such out-of-pocket costs would not be required had Project Co achieved Substantial Completion by the Target Substantial Completion Date;
- (b) any loss of or physical damage to property or assets of the Authority or any Authority Indemnified Person, or any claim made by one or more third parties (including for loss of or physical damage to property or assets), or any claim for, or in respect of, the death, personal injury, disease or illness of any Person, including any Authority Indemnified Person, arising by reason of any:
 - (i) negligent act or omission of Project Co or any Project Co Person;
 - (ii) wilful misconduct of Project Co or any Project Co Person; or
 - (iii) non-compliance by Project Co or any Project Co Person with any of the provisions of this Agreement or any document, instrument or agreement delivered to the Authority as required under this Agreement;
- (c) breach of any representation or warranty by Project Co under this Agreement;
- (d) any Project Co Hazardous Substances;
- (e) breach by Project Co of, or non-compliance by Project Co with, Permits or Laws;
- (f) a failure by Project Co to obtain and maintain all Project Co Permits; or
- (g) any infringement or misappropriation of Intellectual Property rights of any Person by Project Co,

except to the extent caused, or contributed to, by non-compliance by the Authority with any provision of this Agreement or any document, instrument or agreement delivered to Project Co as required under this Agreement or any negligent act or omission, or any wilful misconduct, of the Authority or any Authority Person. For greater certainty, Section 4.4 applies to this Section 9.1. This Section 9.1 may be not be relied upon by the Authority Indemnified Persons for the purpose of enforcing a contractual indemnity claim directly by any one of them against Project Co.

With respect to the Direct Losses specified in Section 9.1(a), provided that the Authority receives notice from Project Co on or before July 31st of the applicable year in which Substantial Completion was anticipated to occur advising the Authority that Project Co will fail to achieve Substantial Completion by the Target Substantial Completion Date, the Authority shall provide Project Co with a first right of opportunity, which must be exercised by Project Co within 10 Business Days following receipt of notice from the Authority, to construct and/or maintain the Whati Winter Road, which for greater certainty, shall be constructed and/or maintained at all times in accordance with the Winter Road Output Specifications.

9.2 Conduct of Third Person Claims

This Section 9.2 will apply to the conduct of claims made by a third Person against a party having or claiming to have with respect to such third Person claim, the benefit of an indemnity or a right to compensation under this Agreement. The party having, or claiming to have, the benefit of the indemnity or right to compensation is referred to as the “**Beneficiary**” and the party from whom the indemnity or compensation is sought is referred to as the “**Indemnifier**”. Accordingly, subject to the requirements of any insurer who may have an obligation to provide an indemnity in respect of any liability arising under this Agreement:

- (a) if the Beneficiary receives any notice, demand, letter or other document concerning any claim for which it appears that the Beneficiary is, or may become entitled to, indemnification or compensation under this Agreement in respect of the entire claim, the Beneficiary will give notice in writing to the Indemnifier as soon as reasonably practicable and in any event within 10 Business Days of receipt thereof;
- (b) the Indemnifier will be entitled to dispute the claim in the name of the Beneficiary at the Indemnifier’s own expense and take conduct of any defence, dispute, compromise, or appeal of the claim and of any incidental negotiations. The Beneficiary will give the Indemnifier all reasonable co-operation, access and assistance for the purposes of considering and resisting such claim;
- (c) in defending any claim described in Section 9.2(b) in which there is a conflict of interest between the Indemnifier and the Beneficiary, the Beneficiary may appoint independent legal counsel in respect of such claim and, if it is determined that the Beneficiary is entitled to indemnification by or compensation from the Indemnifier, all reasonable costs and expenses incurred by the Beneficiary in so doing will be included in the indemnity or compensation from the Indemnifier;
- (d) with respect to any claim conducted by the Indemnifier pursuant to Section 9.2(b) the Indemnifier will:
 - (i) keep the Beneficiary fully informed and consult with it about material elements of the conduct of the claim;
 - (ii) demonstrate to the Beneficiary, at the reasonable request of the Beneficiary, that the Indemnifier has sufficient means to pay all costs and expenses that it may incur by reason of conducting the claim; and
 - (iii) not pay or settle such claims without the consent of the Beneficiary, such consent not to be unreasonably withheld or delayed;
- (e) the Beneficiary may take conduct of any defence, dispute, compromise or appeal of the claim and of any incidental negotiations if:
 - (i) the Indemnifier is not entitled to take conduct of the claim in accordance with Section 9.2(b); or
 - (ii) the Indemnifier fails to notify the Beneficiary of its intention to take conduct of the relevant claim within 10 Business Days of the notice from the Beneficiary under Section 9.2(a) or notifies the Beneficiary that it does not intend to take conduct of the claim; or
 - (iii) the Indemnifier fails to comply in any material respect with Section 9.2(d) above.

In the case of (iii) above the Beneficiary may pay or settle any claim on such terms as it thinks fit (provided such settlement is in monetary terms only) and without prejudice to its rights and remedies under this Agreement. Otherwise the Beneficiary will not pay or settle such claims without the consent of the Indemnifier, such consent not to be unreasonably withheld or delayed;

- (f) the Beneficiary may at any time give notice to the Indemnifier that it is retaining or taking over, as the case may be, the conduct of any defence, dispute, compromise, settlement or appeal of any claim, or of any incidental negotiations, to which Section 9.2(b) above applies. On receipt of such notice the Indemnifier will promptly take all steps necessary to transfer the conduct of such claim to the Beneficiary, and will provide to the Beneficiary all reasonable co-operation, access and assistance for the purposes of considering and resisting such claim. If the Beneficiary gives any notice pursuant to this Section 9.2(f) (for the sake of clarity, for reasons other than as provided in Sections 9.2(e)(ii) or 9.2(e)(iii)), then the Indemnifier will be released from any liability under its indemnity under Section 9.1 or its obligation to provide compensation, as the case may be; and
- (g) in response to any claim of infringement or misappropriation or alleged infringement or misappropriation of the Intellectual Property rights of any Person, Project Co may modify or replace such infringing or allegedly infringing item provided that:
 - (i) the modification or replacement is performed without additional cost to the Authority; and
 - (ii) the modification or replacement has at least equal quality performance capabilities when used in conjunction with the T1çhç ASR.

9.3 General Obligation to Pursue Third Person Recovery

If a party (the “**Paying Party**”) has paid to the other party (the “**Receiving Party**”) an amount in respect of any indemnity, Supervening Event or other liability hereunder (a “**Liability Payment**”), and the Receiving Party has a *bona fide* claim for recovery of any such Liability Payment from a third Person or under any insurance required pursuant to this Agreement, the Receiving Party will:

- (a) as directed by the Paying Party either:
 - (i) promptly make all reasonable efforts to pursue and recover such claim and provide evidence of such efforts to the Paying Party; or
 - (ii) assign to the Paying Party the right to pursue and recover such claim and, at the Paying Party’s cost, provide reasonable cooperation in connection with the pursuit and recovery of such claim; and
- (b) if it subsequently recovers, or the Paying Party makes recovery on its behalf, (whether by payment, discount, credit, saving, relief or other benefit or otherwise) an amount which is directly referable to the fact, matter, event or circumstances giving rise to the payment of the Liability Payment, forthwith repay to the Paying Party an amount equal to the lesser of:
 - (i) an amount equal to the sum recovered (or of the value of the recovery whether by discount, credit, saving, relief or otherwise) less any out-of-pocket costs and expenses properly incurred by the Receiving Party in recovering such sum; and
 - (ii) the Liability Payment,

provided that the Paying Party will be repaid only to the extent that the amount of such recovery plus the Liability Payment exceeds the total loss or liability of the Receiving Party in respect of the fact, matter or circumstance giving rise to the Liability Payment.

For greater certainty, the above reference to a “third Person” will not include, in the case where the Authority is the Paying Party, Project Co and Project Co Persons and their respective employees, directors, officers and agents and will not include, in the case where Project Co is the Paying Party, the Authority and the Authority Indemnified Persons.

9.4 Waiver of Remedies

No failure to exercise, and no delay in exercising, any right or remedy under this Agreement will be deemed to be a waiver of that right or remedy. No waiver of any breach of any provision of this Agreement will be deemed to be a waiver of any subsequent breach of that provision or of any similar provision.

9.5 Remedies Cumulative

Subject to Sections 9.6, 9.7 and 9.8:

- (a) the rights and remedies of the parties under this Agreement are cumulative and are in addition to and not in substitution for any other rights and remedies available at law or in equity or otherwise;
- (b) a party will not be prevented from enforcing a right or remedy on the basis that another right or remedy hereunder deals with the same or similar subject matter; and
- (c) no single or partial exercise by a party of any right or remedy precludes or otherwise affects the exercise of any other right or remedy to which that party may be entitled.

9.6 Limitation on Authority’s Remedies

The Authority’s remedies in respect of any failure by Project Co:

- (a) to achieve Substantial Completion by the Target Substantial Completion Date or the Longstop Date will be limited to the Authority’s rights pursuant to Section 13.4;
- (b) to achieve Total Completion by the Target Total Completion Date will be limited to the Authority’s rights pursuant to Section 2.3 of Schedule 8 [Payments];
- (b1) to perform the Design and Construction in accordance with this Agreement will be limited to the assignment of Compliance Failure Points in accordance with Schedule 8 [Payments], or as provided in Sections 9.6(a) and 9.6(b);
- (c) to perform the OMR in accordance with this Agreement will be limited to the assignment of Failure Points in accordance with Schedule 8 [Payments]; and
- (d) to satisfy the minimum Local Content Requirements (other than Tłı̄ch̄o Training Requirements) described in Schedule 20 [Local Content Requirements] will be limited to the assignment of Compliance Failure Points in accordance with Schedule 8 [Payments],

provided that nothing in this Section 9.6 will limit the Authority’s right to:

- (e) claim, on or after a termination of this Agreement, costs, losses, damages and expenses suffered or incurred by the Authority as a result of rectifying or mitigating the effects of

any breach of this Agreement by Project Co except to the extent recovered by the Authority under this Agreement or taken into account to reduce any compensation payable by the Authority pursuant to Schedule 9 [Compensation on Termination];

- (f) make a claim for indemnification pursuant to Section 9.1;
- (g) deliver to Project Co a Dispute Notice or a notice of default or termination pursuant to Article 13 (Project Co Events of Default) and pursue all remedies in respect thereof; or
- (h) pursue any other express remedy available to the Authority under this Agreement or any equitable remedy, including injunctive relief and specific performance.

9.7 Limitation on Project Co's Remedies

To the extent Project Co has claimed for relief or compensation for a Supervening Event pursuant to Article 8 (Supervening Events), Project Co may not make any further claim against the Authority for costs, losses, damages or expenses incurred by Project Co, or for any other relief, in respect of any such events provided that nothing in this Section 9.7 will limit Project Co's right to:

- (a) deliver to the Authority a Dispute Notice or a notice of default or termination pursuant to Article 14 (Authority Events of Default) and pursue all remedies in respect thereof; or
- (b) pursue any other express remedy available to Project Co under this Agreement or any equitable remedy, including injunctive relief and specific performance.

9.8 Limits on Monetary Compensation

Every right to claim compensation or indemnification or reimbursement under this Agreement will be construed so that recovery is without duplication to any other amount recoverable under this Agreement. Neither party will be entitled to make any claim against the other party for compensation, indemnification or reimbursement other than as provided under this Agreement.

9.9 No Liability for Indirect Losses

Unless specifically allowed in this Agreement, neither party to this Agreement will be liable to the other party, whether in contract or in tort or on any other basis whatsoever, for any Indirect Losses suffered or incurred by that other party.

9.10 Authority's Right of Set Off

The Authority may set off any amounts owing by Project Co to the Authority under this Agreement against payments due by the Authority to Project Co under this Agreement provided that in respect of Termination Payments payable under Articles 2 or 5 of Schedule 9 [Compensation on Termination] such set off will be only to the extent that after any such amount has been set off, such Termination Payment made would be an amount not less than the Senior Debt Termination Amount.

9.11 Project Co's Right of Set Off

Project Co may set off any amounts owing by the Authority to Project Co under this Agreement against any payments due by Project Co to the Authority under this Agreement.

9.12 Undisputed Amounts and Interest on Disputed Amounts

A party will pay any undisputed portion of any disputed amount payable to the other party in accordance with this Agreement, but any disputed portion or amount will not be payable until the Dispute is resolved in accordance with the Dispute Resolution Procedure.

If payment of any amount payable under this Agreement is delayed while the matter is in Dispute, upon resolution of the Dispute, interest will be payable on any amount determined payable pursuant to the Dispute Resolution Procedure and will be calculated at the Prime Rate compounded monthly from the time such amount became payable under this Agreement until paid.

9.13 Interest on Overdue Amounts

If payment of any amount payable under this Agreement is not made when due (including Termination Payments payable pursuant to Schedule 9 [Compensation on Termination]), interest will be payable on such amount at the Default Rate and will be calculated from the date due under this Agreement until paid, compounded monthly. The party to whom payment is owed and overdue will notify the other party at least monthly of the overdue amount and the accrued interest on that amount.

9.14 Maximum Liability

- (a) Inclusive of any liability under Section 9.14(b), the maximum aggregate liability of each party in respect of all claims under Article 9 (Indemnities and Limits on Liabilities and Remedies) shall not exceed \$10,000,000 (Index Linked). This limit shall be exclusive of any insurance proceeds received or which will be received pursuant to policies maintained in accordance with the insurance requirements set out in Schedule 5 [Insurance Requirements]. This limit shall not apply in cases of willful misconduct or deliberate acts of wrongdoing.
- (b) Project Co's maximum aggregate liability in respect of all claims under Section 9.1(a) shall not exceed \$5,000,000 (Index Linked). This limit shall be exclusive of any insurance proceeds received or which will be received pursuant to policies maintained in accordance with the insurance requirements set out in Schedule 5 [Insurance Requirements]. This limit shall not apply in cases of willful misconduct or deliberate acts of wrongdoing.
- (c) Nothing in this Section 9.14 shall restrict, limit, prejudice or in any other way impair the rights and/or remedies of the parties under any other provision of this Project Agreement.

For clarity, the maximum aggregate liability of Project Co referenced in Section 9.14(b) shall be a sub limit of the maximum aggregate liability as specified in Section 9.14(a).

10. LUMP SUM PAYMENTS AND SERVICE PAYMENT ADJUSTMENTS

10.1 Lump Sum Payments

To the extent a party:

- (a) is entitled to payment from the other party under this Agreement, including in respect of a Change under Article 7 (Changes, Minor Works and Innovation Proposals), a Supervening Event under Article 8 (Supervening Events) or an indemnification claim under Article 9 (Indemnities and Limits on Liabilities and Remedies); or
- (b) is entitled to share in a benefit and to receive payment from the other party under this Agreement, including in respect of a Refinancing Gain under Article 5 (Financing of the

Project), Innovation Proposal under Article 7 (Changes, Minor Works and Innovation Proposals) or Eligible Change in Law Event under Article 8 (Supervening Events),

the affected or entitled party may make written demand for such payments from time to time after being entitled to payment and (i) in respect of any Direct Losses, after such Direct Losses have been incurred, and (ii) in respect of any shared benefit, after receipt by the other party of the shared benefit, and payment will be made in accordance with this Article 10.

If the Authority is obligated to compensate, reimburse or otherwise pay Project Co, the Authority may in its discretion make such payment by lump sum payment or by payments that reasonably match the cash outlays of Project Co.

If Project Co is obligated to compensate, reimburse or otherwise pay the Authority, the Authority may in its discretion, require Project Co to make such payment:

- (c) by a lump sum payment, up to a maximum lump sum payment of \$500,000 (Index Linked) without the consent of Project Co, and any greater amount with the consent of Project Co, acting reasonably; or
- (d) by payments that reasonably match the cash inflows to Project Co or the averted cash outlays.

Lump sum payments and payments that reasonably match cash inflows, cash outlays or averted cash outlays will be due and payable within 30 calendar days of delivery of written demand supported by all relevant information.

The parties may agree to any other basis for payment.

10.2 Financing of Lump Sum Payment Amounts

If the Authority is obligated to compensate, reimburse or otherwise pay Project Co and exercises its discretion to do so by a lump sum payment in accordance with Section 10.1, at the Authority's request Project Co will use all reasonable efforts to obtain the financing required to make such payment on the best terms reasonably available and, to the extent that Project Co is able to obtain such financing, there will be a corresponding increase made to the Service Payments in accordance with Section 10.3. The Authority will:

- (a) pay to Project Co within 30 calendar days of receipt of the relevant invoice an amount equal to the reasonable out-of-pocket expenses incurred by Project Co in seeking such financing provided that the Authority approved such expenses prior to Project Co incurring them; and
- (b) provide concurrent interim financing of any expenditures and costs to be incurred by Project Co until the earlier of the date on which such financing is obtained or payment is made pursuant to Section 10.1.

The Authority acknowledges that the Senior Lenders have no obligation to provide the financing referred to in this Section 10.2 or to subordinate or share their security.

10.3 Adjustments to Service Payments

Subject to the Authority's discretion for the basis of payment under Section 10.1 or the parties' agreement to another basis for payment under Section 10.1, if either party gives notice to the other party that it wishes the parties to consider whether an entitlement to payment under this Agreement is more efficiently

effected by adjustments (both increases and decreases) to Service Payments, or if this Agreement requires that an entitlement be effected by such adjustments:

- (a) within 10 Business Days after such notice or after the determination that Service Payments are required to be adjusted, Project Co will give notice to the Authority of the proposed adjustments to be made to the Service Payments to achieve the objectives and outputs set out in Section 10.3(b). Such proposed adjustments will be ascertained by entering the relevant cost adjustments and losses into the Financial Model with effect from the relevant date determined in accordance with Section 10.3(c);
- (b) the adjustments to the calculation of the Service Payments will be determined so that upon comparing the output of the Financial Model as at the adjustment date (after updating the Financial Model to reflect actual performance to date) before and after the proposed adjustments to Service Payments, and taking into account the impact of such adjustments on the economics of the Project as reflected in the Financial Model, the timing of liability for taxation and the time when the adjustments to the Service Payments will take effect, such comparison of the output from such Financial Model shows that:
 - (i) the Equity IRR in respect of equity subscribed in and Junior Debt advanced to Project Co in accordance with the Financial Model prior to the Service Payment adjustment will be unchanged except to the extent required to reflect:
 - (A) any material change in the risk profile of the Project arising in connection with the circumstance giving rise to the adjustment; or
 - (B) any benefit to the parties including in connection with a Refinancing Gain or Innovation Proposal; and
 - (ii) Project Co would not, by reason of the effect of the occurrence of the adjustment or the consequential change in cash flow during the Term as shown in the Financial Model (as adjusted), be placed, in respect of any of the Senior Financing Agreements, in a position worse than it would have been in if the change had not occurred;
- (c) the relevant date for adjustments to the Service Payments is:
 - (i) in the case of an adjustment occurring before the Substantial Completion Date, the Substantial Completion Date, unless otherwise agreed or specified in Schedule 6 [Changes, Minor Works and Innovation Proposals]; or
 - (ii) in the case of an adjustment occurring on or after the Substantial Completion Date, the start of the next Payment Period;
- (d) if within 10 Business Days after Project Co gives notice of the proposed adjustments the parties agree that the entitlement to payment should be effected by adjustments to the Service Payments, or if this Agreement requires that the entitlement be effected by such adjustments, the parties will implement such adjustments and update the Financial Model accordingly; and
- (e) if completion or implementation of the adjustments is delayed beyond the scheduled date for completion or implementation by reference to which the Financial Model has been re-run in accordance with this Section 10.3 other than delay resulting from an audit under Section 10.4, the date of adjustment to the Service Payments payable by the Authority will be delayed by a period equal to the delay in the completion or implementation of the required adjustments.

10.4 Audit of Financial Model

Prior to implementing any adjustments to the Service Payments contemplated in Section 10.3, the Authority may, at its own expense, review and audit the revised Financial Model prepared by Project Co and Project Co will provide such information as is reasonably required by the Authority to conduct such audit.

11. PERFORMANCE MONITORING

11.1 Increased Monitoring

If:

- (a) Project Co accumulates:
 - (i) during the Construction Period, in any 12 consecutive month period:
 - (A) 400 or more Compliance Failure Points, excluding Compliance Failure Points in respect of Local Content Requirements; or
 - (B) 750 or more Compliance Failure Points in respect of Local Content Requirements; or
 - (ii) during the Operating Period:
 - (A) in any 1 month period, 150 or more Failure Points, excluding Compliance Failure Points in respect of Local Content Requirements; or
 - (B) in any 12 consecutive month period, 100 or more Compliance Failure Points in respect of Local Content Requirements; or
- (b) a Reporting Error (whether related to the same type of Reporting Error or not) occurs on more than three occasions in any 12 consecutive month period,

the Authority may increase its monitoring of the performance by Project Co under this Agreement and carry out any inspections and audits which it reasonably requires for a period of up to 90 days. Project Co shall reimburse the Authority for all reasonable costs and expenses incurred by the Authority in carrying out such additional monitoring, inspections and audits within 5 Business Days after the Authority delivers an invoice to Project Co for such amounts.

12. AUTHORITY'S STEP-IN RIGHTS

12.1 Authority's Step-in Rights

If:

- (a) the Authority reasonably considers that a breach by Project Co of any obligation under this Agreement or an event:
 - (i) is likely to create an immediate and serious threat to the health or safety of any user of the Tłı̄ch̄o ASR, any property, or the environment;
 - (ii) is likely to compromise
 - (A) the reputation or integrity of the Authority;

- (B) the Tłı̄chǔ ASR, so as to affect public confidence in the Tłı̄chǔ ASR or any operations related to the Tłı̄chǔ ASR; or
- (C) the nature of the transportation system in the Northwest Territories, so as to affect public confidence in that system; or
- (iii) is prejudicial to the ability to carry on Authority Activities and/or the Intended Use to a material degree; or
- (b) Project Co accumulates, during the Operating Period:
 - (A) in any 1 month period, 250 or more Failure Points, excluding Compliance Failure Points in respect of Local Content Requirements; or
 - (B) in any consecutive 6 month period, 600 or more Failure Points, excluding Compliance Failure Points in respect of Local Content Requirements;

then the Authority, acting reasonably, may either:

- (c) if it considers that there is sufficient time and that it is likely that Project Co will be willing and able to provide assistance, require Project Co by notice to take such steps as are necessary or expedient to mitigate or rectify such state of affairs including, if applicable due to breach of any Project Contract or Sub-Contract, suspension of the Project Contractor or Sub-Contractor, and Project Co will use all reasonable efforts to comply with the Authority's requirements as soon as reasonably practicable; or
- (d) if it considers there is not sufficient time, or that Project Co is not likely to be willing and able to take the necessary steps, take such steps as it considers are appropriate (either itself or by engaging others) to mitigate or rectify such state of affairs and to ensure performance of the relevant Project Work to the standards required by this Agreement (or as close as possible to those standards as the circumstances permit). The Authority will carry out such steps as quickly as is practicable, and in such manner as will minimize interference with Project Co's performance of its obligations under this Agreement.

Project Co will ensure that the provisions contained in all applicable Sub-Contracts will not prevent or inhibit the Authority from exercising its rights under this Article 12.

12.2 Authority's Rectification Rights

If the Authority gives notice to Project Co under Section 12.1(c) and Project Co either:

- (a) does not confirm, within 5 Business Days of such notice, or such shorter period as is appropriate in the case of an emergency, that it is willing to take such steps as are required in such notice or present an alternative plan to the Authority to mitigate, rectify and protect against such circumstances that the Authority may, within a further 5 Business Days, accept or reject, acting reasonably; or
- (b) fails to take the steps as are referred to or required in such notice or accepted alternate plan within such time as set out in such notice or accepted alternate plan or within such time as the Authority, acting reasonably, will stipulate,

then the Authority may take such steps as it considers necessary or expedient to mitigate, rectify or protect against such circumstances either itself or by engaging others to take any such steps. Such steps may include the partial or total suspension of the right and obligation of Project Co to provide the relevant Project Work, but only for so long as the circumstances referred to in Section 12.1(a) subsist. If the

circumstances referred to in Section 12.1(a) no longer subsist or Project Co has proposed a plan acceptable to the Authority, acting reasonably, for mitigating, rectifying and protecting against the circumstances that caused the Failure Point thresholds set out in Section 12.1(b) to have been reached, any suspension of the right and obligation of Project Co to provide any Project Work will cease and such right and obligation will once again be in full force and effect.

12.3 Notice of Works Change

The Authority will notify Project Co of any Works Change which the Authority intends to make pursuant to the exercise of the Authority's rights under Section 12.1(d) or Section 12.2 and provide Project Co a reasonable opportunity, taking into account all the circumstances, to comment on the proposed Works Change. In making such Works Change, the Authority will reasonably consider comments received in a timely manner from Project Co on the proposed Works Change.

12.4 No Effect on Project Co's Design and Construction Responsibility

The exercise by the Authority of any of its rights under this Article 12 will not reduce or affect in any way Project Co's responsibility under Section 2.1 of Schedule 3 [Design and Construction].

12.5 Allocation of Costs for Authority Actions

To the extent that any of the circumstances set out in Section 12.1 arise as a result of any breach by Project Co of its obligations under this Agreement, then Project Co will pay the Authority the amount of all direct costs and expenses reasonably incurred by the Authority in exercising its rights under Section 12.1 or Section 12.2 and an additional mark-up of 20% of such costs and expenses in respect of indirect costs and overhead not otherwise directly attributable to the exercise of such rights. In all other cases, any actions of the Authority under Sections 12.1 and 12.2 will constitute a Compensation Event.

13. PROJECT CO EVENTS OF DEFAULT

13.1 Project Co Events of Default

For the purposes of this Agreement, "**Project Co Event of Default**" means any of the following events or circumstances:

- (a) the occurrence of a Project Co Material Breach that is not remedied in accordance with Section 13.3 including in accordance with the program for remediation under that Section, or the occurrence of a Project Co Material Breach for which a program for remediation has not been produced by Project Co in accordance with Section 13.3;
- (b) the occurrence of a Project Co Insolvency Event;
- (c) Project Co abandons the Project, other than pursuant to its right to suspend performance under Section 14.3 or due to a Supervening Event;
- (d) Substantial Completion does not occur on or before the Longstop Date;
- (e) at any time after the date that is 12 months prior to the Longstop Date it is finally determined pursuant to the Dispute Resolution Procedure that Substantial Completion is not reasonably expected to occur on or before the Longstop Date;
- (f) Project Co breaches Section 17.1 or a Change in Control occurs which is prohibited by Section 17.2;

- (g) at any time after the Substantial Completion Date, Project Co breaches its obligations under this Agreement (other than as a consequence of a breach by the Authority of its obligations under this Agreement) which results in a criminal conviction that is of concern to the Authority, acting reasonably, due to a potential negative impact on the Project, the reputation and/or potential liability of the Authority, and/or the security of the Lands (a "**Criminal Conviction**") or a conviction under the *Safety Act* (Northwest Territories) or the *Workers' Compensation Act* (Northwest Territories) against Project Co or any Project Co Person or the Authority (an "**H&S Conviction**") except that:
- (i) a Criminal Conviction or an H&S Conviction, as applicable, of Project Co, a Project Co Person or the Authority will not constitute a Project Co Event of Default if, within 60 Business Days from the date of the Criminal Conviction or the H&S Conviction, as applicable (whether or not the Criminal Conviction or the H&S Conviction, as applicable, is subject to an appeal or any further judicial process), the involvement in the Project of each relevant Project Co Person is terminated or Project Co takes such other action against each such Project Co Person as is acceptable to the Authority acting reasonably; and
 - (ii) in determining whether to exercise any right of termination for a Project Co Event of Default pursuant to this Section 13.1(g), the Authority will:
 - (A) act in a reasonable and proportionate manner having regard to such matters as the gravity of the offence and the identity of the person committing the act leading to the Criminal Conviction or the H&S Conviction, as applicable; and
 - (B) give all due consideration, where appropriate, to action other than termination of this Agreement;
- (h) Project Co accumulates:
- (i) during the Construction Period, in any 12 consecutive month period, 1,000 or more Compliance Failure Points, excluding Compliance Failure Points in respect of Local Content Requirements; or
 - (ii) in any 12 consecutive months during the Operating Period, an aggregate of 1,500 or more Failure Points, excluding Compliance Failure Points in respect of Local Content Requirements;
- (i) Project Co makes a representation or warranty herein that is false or misleading when made, and that
- (i) has or will have at any time a material adverse effect on the performance of the Project or the Project Work; and
 - (ii) in the case of a false or misleading representation or warranty that is capable of being remedied or the effects of which are capable of being remedied, Project Co has not remedied such breach and/or its effects, as applicable, within 20 Business Days following notice from the Authority; or

- (j) if such consent is required under Section 5.3, Project Co carries out a Refinancing without the Authority's consent,

unless caused by non-compliance by the Authority with any provision of this Agreement or any document, instrument or agreement delivered to Project Co as required under this Agreement or any negligent act or omission, or any wilful misconduct, of the Authority or any Authority Person.

13.2 Notification

Project Co will notify the Authority of the occurrence, and details, of any Project Co Event of Default and of any event or circumstance which is likely, with the passage of time or otherwise, to constitute or give rise to a Project Co Event of Default, in either case promptly when Project Co Has Knowledge of its occurrence.

13.3 Project Co Material Breach Cure and Remedial Program

After the occurrence of a Project Co Material Breach and while it is subsisting, the Authority may serve a notice on Project Co specifying in reasonable detail the type and nature of the Project Co Material Breach and:

- (a) Project Co will remedy such Project Co Material Breach referred to in such notice (if it is continuing) within 20 Business Days of such notice; or
- (b) if either the Authority (as set out in its notice) or Project Co reasonably considers that a Project Co Material Breach cannot reasonably be remedied within 20 Business Days of such notice, Project Co will deliver to the Authority within 10 Business Days of such notice a reasonable program (set out, if appropriate, in stages) for remedying the Project Co Material Breach. The program will specify in reasonable detail the manner in, and the latest date by, which the Project Co Material Breach is proposed to be remedied.

If Project Co puts forward a program in accordance with Section 13.3(b), the Authority will have 10 Business Days from receipt of the program within which to notify Project Co that the Authority, acting reasonably, does not accept the program, failing which the Authority will be deemed to have accepted the program. If the Authority notifies Project Co that it does not accept the program as being reasonable, the parties will use all reasonable efforts within the following 5 Business Days to agree to any necessary amendments to the program put forward. In the absence of an agreement within such 5 Business Days, the question of whether the program (as it may have been amended by agreement) will remedy such Project Co Material Breach in a reasonable manner and within a reasonable time period (and, if not, what would be a reasonable program) may be referred by either party for resolution in accordance with the Dispute Resolution Procedure.

13.4 Authority Termination Right

If:

- (a) a Project Co Material Breach is not remedied before the expiry of the period referred to in Section 13.3(a) and no program has been put forward by Project Co under Section 13.3(b);
- (b) Project Co puts forward a program pursuant to Section 13.3(b) which has been accepted by the Authority (including after agreement under Section 13.3 to amendments to the program) or has been determined to be reasonable pursuant to the Dispute Resolution Procedure and Project Co fails to achieve any material element of the program or the end date for the program, as the case may be;

- (c) any program put forward by Project Co pursuant to Section 13.3(b) is rejected by the Authority as not being reasonable, and, if such rejection is disputed by Project Co, the Dispute Resolution Procedure does not find against that rejection; or
- (d) any Project Co Event of Default other than a Project Co Material Breach occurs,

then the Authority may (if the Project Co Event of Default continues unwaived and unremedied), subject to the terms of the Lenders' Remedies Agreement, terminate this Agreement by notice to Project Co. The right of the Authority to terminate this Agreement under this Section 13.4 is in addition, and without prejudice, to any other right which the Authority may have in connection with Project Co's defaults hereunder.

For the purposes of Section 13.4(b), if Project Co's performance of the program is adversely affected by the occurrence of a Supervening Event or a breach by the Authority of its obligations under this Agreement, then, subject to Project Co complying with the mitigation and other requirements in this Agreement concerning such events, the time for performance of the program or any relevant element of it will be deemed to be extended by a period equal to the delay caused by such events which is agreed by the parties or determined in accordance with the Dispute Resolution Procedure.

13.5 Replacement of Non-Performing Service Provider

- (a) As an alternative to termination of this Agreement pursuant to Section 13.4, if:
 - (i) the Authority has a right to terminate this Agreement due to a Project Co Event of Default that was caused, or contributed to, by the Service Provider; and
 - (ii) the actions of the Service Provider constitute a breach under the Services Contract that entitles Project Co to terminate the Service Provider,

the Authority may, acting reasonably, require Project Co to terminate the Service Provider and ensure that a replacement Service Provider is appointed to provide the OMR within 40 Business Days.

- (b) If the Authority exercises its rights under this Section 13.5, Project Co shall, within 10 Business Days, put forward a proposal for the interim management or provision of the OMR until such time as a replacement Service Provider can be engaged by Project Co. If:
 - (i) Project Co fails to submit a proposal for the interim management or provision of the OMR, or the Authority is of the opinion, acting reasonably, that Project Co's proposal is not reasonably likely to result in adequate provision of the OMR; and
 - (ii) the parties cannot agree within a further 3 Business Days to a plan for the interim management or provision of the OMR,

then, without prejudice to the other rights of the Authority under this Section 13.5,

- (iii) the Authority itself may perform, or engage others (including a third party) to perform, the OMR;
- (iv) Project Co will pay the Authority the amount of all direct costs and expenses reasonably incurred by the Authority in exercising its rights pursuant to Section 13.5(b)(iii) and an additional mark-up of 20% of such costs and expenses in respect of indirect costs and overhead not otherwise directly attributable to the exercise of such rights; and

- (v) Project Co shall not be assigned Failure Points in respect of those aspects of OMR that are being performed by the Authority or a third party appointed by the Authority pursuant to Section 13.5(b)(iii) to the extent and for the duration of time that Project Co is not performing those aspects of OMR.

Any Dispute in respect of the interim management or provision of the OMR will be determined in accordance with the Dispute Resolution Procedure.

- (c) Project Co's appointment of a replacement Service Provider pursuant to this Section 13.5 shall be subject to the following:
 - (i) the Authority's prior written consent, acting reasonably, as to the suitability of the replacement; and
 - (ii) the replacement Service Provider entering into:
 - (A) a contract with Project Co upon the same or substantially similar terms as the person so replaced; and
 - (B) a Material Project Contractor Collateral Agreement with the Authority and Project Co on the same terms as the Material Project Contractor Collateral Agreement entered into by the person so replaced,unless any material variations are approved by the Authority, acting reasonably.
- (d) If Project Co fails to terminate the Service Provider and to secure a replacement Service Provider in accordance with this Section 13.5, the Authority shall be entitled to exercise its termination rights in accordance with Section 13.4.

13.6 The Authority's Costs

Project Co will reimburse the Authority for all reasonable costs incurred by the Authority in exercising any of its rights (including any relevant increased administrative expenses and actual legal expenses) under this Article 13 (Project Co Events of Default).

14. AUTHORITY EVENTS OF DEFAULT

14.1 Authority Events of Default

For the purposes of this Agreement, "**Authority Event of Default**" means any of the following events or circumstances:

- (a) a failure by the Authority to pay any amount due and owing to Project Co under this Agreement on the due date (which amount is not being disputed in good faith) and the Authority has not remedied such failure to pay within 10 Business Days of notice from Project Co;
- (b) except as provided for in Section 14.1(a), a breach, or series of breaches, by the Authority of any term, covenant or undertaking to Project Co, or any representation or warranty made by the Authority to Project Co in this Agreement is incorrect when made, the consequence of which:
 - (i) has an adverse effect on the performance of the Design, the Construction or the OMR; or

- (ii) results in any provision of this Agreement being unenforceable against the Authority,

and as a result thereof Project Co is reasonably likely to be materially deprived of the benefit of this Agreement;

- (c) if any material part of the Tłı̨ch̨o ASR, the portion of the Lands on which the Tłı̨ch̨o ASR is situated, or any interest in Project Co or any Partner is expropriated by any Governmental Authority and as a result thereof Project Co is reasonably likely to be materially deprived of the benefit of this Agreement; or
- (d) the Authority breaches Section 17.4.

14.2 Notification

The Authority will notify Project Co of the occurrence, and details, of any Authority Event of Default and of any event or circumstance which is likely, with the passage of time or otherwise, to constitute or give rise to an Authority Event of Default, in either case promptly on the Authority Having Knowledge of its occurrence.

14.3 Project Co's Options

After the occurrence of an Authority Event of Default and while an Authority Event of Default is continuing, Project Co may, at its option exercise one or more of the following, as applicable:

- (a) in respect of the Design and the Construction prior to the Substantial Completion Date, suspend performance by it of its Design and Construction obligations under this Agreement until such time as the Authority has demonstrated to the reasonable satisfaction of Project Co that it will perform and is capable of performing its obligations under this Agreement and the Target Substantial Completion Date and the Longstop Date will be extended by the time such suspension is in effect;
- (b) in the case of an Authority Event of Default under Section 14.1(a), suspend performance by it of its obligations under this Agreement until the Authority has remedied such Authority Event of Default and the Target Substantial Completion Date and the Longstop Date will be extended by the time such suspension is in effect and such additional time as may be reasonably required to return to normal operations following such suspension;
- (c) in the case of an Authority Event of Default under Sections 14.1(a), 14.1(b) or 14.1(c), serve notice on the Authority of the occurrence specifying details of such Authority Event of Default and if the relevant matter or circumstance has not been rectified or remedied by the Authority or otherwise within 20 Business Days of such notice (or in the case of an Authority Event of Default under Section 14.1(b) or 14.1(c) such longer period as is reasonably required for the Authority to rectify or remedy such Authority Event of Default as long as the Authority is diligently pursuing such rectification or remedy), Project Co may serve a further notice on the Authority terminating this Agreement with immediate effect; or
- (d) in the case of an Authority Event of Default under Section 14.1(d), terminate this Agreement by notice to the Authority.

14.4 Project Co's Costs

The Authority will reimburse Project Co for all reasonable costs incurred by Project Co in exercising any of its rights (including any relevant increased administrative expenses, interest expenses during Construction and actual legal and other expenses) under this Article 14.

15. PROCEDURE ON TERMINATION

15.1 Compensation on Termination

If this Agreement is terminated pursuant to its terms, the Authority will pay compensation to Project Co in accordance with Schedule 9 [Compensation on Termination].

15.2 Transfer to the Authority of Assets, Contracts, etc.

On or promptly after the Termination Date:

- (a) if prior to the Total Completion Date:
 - (i) in so far as any transfer will be necessary to fully and effectively transfer property to the Authority, Project Co will transfer to, and there will vest in, the Authority (or any New Project Co as may be appointed by the Authority) free from all financial encumbrances:
 - (A) such part of the Tłı̄chų ASR as has been constructed on or has become affixed to the Lands; and
 - (B) all construction materials on-hand to be affixed to the Lands or otherwise used in respect of the Tłı̄chų ASR; and
 - (ii) if the Authority so elects:
 - (A) the construction plant, materials and equipment will remain available to the Authority or the New Project Co for the purposes of completing the Design and Construction; and
 - (B) all other Project related plant and all materials and equipment related solely to the Project and located on or near the Project Site will remain available to the Authority or the New Project Co for the purposes of completing the Design and Construction,

subject to payment by the Authority of the Design-Builder's reasonable charges, and
- (b) if the Authority so elects, Project Co will cause any or all of the Project Contracts to be novated or assigned to the Authority, provided that:
 - (i) Project Co will not be obligated to assign to the Authority any of Project Co's rights to claim against the applicable Project Contractor that arose under such Project Contract prior to the date of such novation or assignment; and
 - (ii) if termination occurs under Section 14.3 the consent of the applicable Project Contractor will be required;

- (c) Project Co will, or will cause any Material Contract Party to, offer to sell to the Authority at the Fair Market Value, free from any security interest all or any part of the stocks of material and other assets, vehicles, spare parts and other moveable property owned by Project Co or any Material Contract Party and reasonably required by the Authority in connection with the operation of the Tłıchq ASR or the provision of the OMR;
- (d) Project Co will deliver to the Authority (to the extent not already delivered to the Authority):
 - (i) all existing designs, plans and other documents produced in connection with the Tłıchq ASR and in the control of Project Co;
 - (ii) one complete set of existing “as built drawings” showing all alterations made to the Tłıchq ASR, if applicable; and
 - (iii) one complete set of existing up to date maintenance, operation and training manuals for the Tłıchq ASR,subject to reasonable generally applicable third party licensing terms;
- (e) Project Co will use all reasonable efforts to ensure that the benefit of existing Project Intellectual Property and all warranties in respect of equipment used or made available by Project Co under this Agreement and included in the Tłıchq ASR but not previously assigned or licensed to the Authority are assigned, licensed or otherwise transferred to the Authority;
- (f) to the extent permitted by Law, Project Co will assign to the Authority (or any New Project Co as may be appointed by the Authority) all Project Co Permits;
- (g) Project Co will deliver to the Authority all records required to be kept by Project Co hereunder (Project Co having the right to retain copies thereof) unless such documents are:
 - (i) required by Law to be retained by Project Co or a Project Contractor or Sub-Contractor, in which case complete copies will be delivered to the Authority; or
 - (ii) privileged from production pending resolution of any outstanding Dispute, in which case such records will be delivered forthwith upon resolution of such Dispute, provided that any records that are necessary for the performance of the Project Work will be delivered to the Authority no later than the Termination Payment Date; and
- (h) return to the Authority all Confidential Information of the Authority within the possession or control of Project Co or any Project Contractor or Sub-Contractor.

Project Co will ensure that provision is made in all applicable contracts to ensure that the Authority will be in a position to exercise its rights, and Project Co will be in a position to comply with its obligations, under this Section 15.2 without additional payment or compensation to any Person.

15.3 Transition Out Arrangements

At the expiry of the Term, Project Co will:

- (a) on request by the Authority, for a period not to exceed 6 months after the Termination Date:

- (i) co-operate fully with the Authority and any successor providing to the Authority services in the nature of any of the OMR or any part of the OMR to achieve a timely, safe, orderly, effective and efficient transition of the performance of services in the nature of the OMR and to avoid or mitigate in so far as reasonably practicable any inconvenience to or any risk to the health and safety of users of the Tłıchq ASR; and
- (ii) continue to provide the OMR or any part of the OMR required by the Authority and the Authority will pay to Project Co a reasonable price for such services determined with reference to Project Co's price for such OMR prior to the Termination Date;
- (b) subject to Section 15.3(a), as soon as practicable following the Termination Date remove from the Lands all property of Project Co or any Project Co Person that is not acquired by the Authority pursuant to Section 15.2 (or not belonging to the Authority) and if it has not done so within 20 Business Days after any notice from the Authority requiring it to do so the Authority may (without being responsible for any loss, damage, costs or expenses) remove and sell any such property and will hold any proceeds less all costs incurred to the credit and direction of Project Co;
- (c) subject to Section 15.3(a), on the Termination Date deliver to the Authority:
 - (i) all keys, access codes and/or other devices required to operate the Tłıchq ASR in the control of Project Co; and
 - (ii) any Project Intellectual Property required to be delivered by Project Co pursuant to Section 15.2(e);
- (d) subject to Section 15.3(a), as soon as practicable after the Termination Date, vacate, and cause the Project Co Persons to vacate, those parts of the Tłıchq ASR and the Lands over which Project Co has control and occupation and will leave such parts of the Tłıchq ASR and the Lands in a safe, clean and orderly condition; and
- (e) comply with all requirements of Part 3 of Schedule 4 [OMR and Handback] and all requirements of Appendix 4C [Handback Specification].

15.4 Project Co to Cooperate

If the Authority wishes to conduct a competition prior to the Expiry Date with a view to entering into an agreement for the provision of services (which may or may not be the same as, or similar to, the OMR or any of them) following the expiry of this Agreement, Project Co will prior to the Expiry Date co-operate with the Authority fully in such competition process including by:

- (a) providing any information in Project Co's control or possession which the Authority may reasonably require to conduct such competition except that information which is commercially sensitive to Project Co or a Project Co Person (and, for such purpose commercially sensitive means information which would if disclosed to a competitor of Project Co or a Project Co Person give that competitor a competitive advantage over Project Co or the Project Co Person and thereby prejudice the business of Project Co or the Project Co Person); and
- (b) assisting the Authority by providing any participants in such competition process with access to the Project Site and the Tłıchq ASR provided such access does not affect the OMR in a way that results in any reduction in Service Payments.

Project Co will be entitled to reimbursement for all reasonable out of pocket expenses and internal costs incurred in connection with the foregoing services.

15.5 Project Co Materials

In connection with all information, records, documents, data and other materials delivered by Project Co to the Authority as required pursuant to this Article 15 (collectively, the "**Project Co Materials**"), Project Co shall deliver to the Authority a certificate of an officer of Project Co addressed to the Authority in form and substance satisfactory to the Authority, certifying, among other things:

- (a) all Project Co Materials delivered to the Authority are true, accurate and complete copies of the originals of all such Project Co Materials;
- (b) with respect to Project Co Materials that (A) constitute agreements, understandings, indentures, contracts, leases, deeds of trust, licences, options, instruments or other commitments between Project Co and any persons; and (B) do not expire or terminate as of the Termination Date:
 - (i) to the best of the signing officer's knowledge for and on behalf of Project Co, all are in good standing and in full force and effect with no amendments and Project Co is entitled to all rights and benefits thereunder;
 - (ii) Project Co has complied with all terms thereof, has paid all amounts due thereunder, has not waived any rights thereunder and no default or breach exists in respect thereof on the part of Project Co or to the best of the signing officer's knowledge for and on behalf of Project Co, any of the parties thereto and no event has occurred which, after the giving of notice or the lapse of time or both, would constitute such a default or breach; and
 - (iii) to the best of the signing officer's knowledge for and on behalf of Project Co, all are valid and binding obligations of the parties thereto enforceable in accordance with their respective terms; and
- (c) other than Project Co Materials there no other material agreements, understandings, indentures, contracts, leases, deeds of trust, licences, options, instruments or other commitments relating to the Project.

15.6 Continued Performance

Subject to Project Co's rights of suspension under Sections 14.3(a) and 14.3(b) and subject to the provisions of this Article 15, the parties will continue to perform their obligations under this Agreement (including the Authority continuing to make Service Payments) notwithstanding the giving of any notice of default or notice of termination.

16. DISPUTE RESOLUTION

16.1 Procedure

Except as otherwise provided in this Agreement, any Dispute will be resolved in accordance with, and the parties will comply with, the Dispute Resolution Procedure set out in Schedule 13 [Dispute Resolution Procedure].

16.2 Undisputed Amounts

A party will pay any undisputed portion of any disputed amount to the other party in accordance with this Agreement but any disputed portion or amount will not be payable until the Dispute is resolved as aforesaid.

17. ASSIGNMENT/CHANGE IN CONTROL

17.1 Limitations on Assignment of Project by Project Co

Project Co will not assign, transfer or otherwise dispose of any interest in this Agreement or a Project Contract except:

- (a) as security, substantially in a form approved by the Authority, acting reasonably, prior to its grant for any loan made to Project Co under any Senior Financing Agreement and provided the Senior Lenders enter into the Lenders' Remedies Agreement;
- (b) in connection with the exercise of rights of the Senior Lenders under the Senior Financing Agreements in accordance with the Lenders' Remedies Agreement; or
- (c) otherwise:
 - (i) prior to the day (the "**Transfer Restriction Date**") that is one year after the Substantial Completion Date, with the written consent of the Authority, which may be given or withheld in the Authority's discretion, and
 - (ii) after the Transfer Restriction Date, with the written consent of the Authority, which will not be unreasonably withheld or delayed,

provided that in the case of an assignment under 17.1(b) or 17.1(c) above the assignee:

- (d) is not a Restricted Person; and
- (e) assumes all the obligations of Project Co under this Agreement.

17.2 Limitations on Change in Control

No Change in Control of Project Co will be permitted (whether by Project Co or otherwise) to occur except:

- (a) in connection with the exercise of rights of the Senior Lenders under the Senior Financing Agreements in accordance with the Lenders' Remedies Agreement, provided that such Change in Control does not result in a Restricted Person obtaining control of Project Co;
- (b) arising from any *bona fide* open market transaction in any shares or other securities of Project Co or of any Person having an ownership interest in Project Co effected on a recognized public stock exchange; or
- (c) otherwise:
 - (i) prior to the Transfer Restriction Date, with the written consent of the Authority, which may be given or withheld in the Authority's discretion; and
 - (ii) after the Transfer Restriction Date, with the written consent of the Authority, which will not be unreasonably withheld or delayed.

Notwithstanding any other provision of this Agreement:

- (d) Project Co will not be, nor will it become at any time, a Restricted Person; and
- (e) except as a result of a transaction referred to in Section 17.2(b) above, a Person who is a Restricted Person will not acquire any ownership interest (whether directly or indirectly) in Project Co or in any Person that has control of Project Co.

17.3 Factors Authority May Consider

In determining whether to provide its consent under Section 17.1(c) or 17.2(c), and without limiting the Authority's discretion thereunder, it will be reasonable for the Authority to refuse its consent if:

- (a) the proposed assignee or the new party in control of Project Co, as the case may be, or any of their Affiliates, is a Restricted Person;
- (b) the proposed assignee or the new party in control of Project Co, as the case may be, is, in the reasonable opinion of the Authority, not sufficiently creditworthy or having sufficient financial capacity, taking into account the nature of the obligations under this Agreement; or
- (c) the assignment or Change in Control could, in the reasonable opinion of the Authority, have a material adverse effect on the Authority or the Project.

17.4 Limitations on Assignment of Project by Authority

The Authority will not assign, transfer or otherwise dispose of any interest in this Agreement unless:

- (a) the assignment, transfer or other disposition is to a Qualified Person; and
- (b) the assignee assumes all the obligations of the Authority under this Agreement.

17.5 Costs of Request for Consent

If Project Co requests consent to an assignment, transfer or disposition pursuant to Section 17.1 or to a Change in Control pursuant to Section 17.2, Project Co will pay the Authority's reasonable internal administrative and personnel costs and all reasonable out-of-pocket costs in connection with considering any such request.

18. GENERAL

18.1 Confidentiality

- (a) Subject to Section 18.1(b), each party will hold in confidence any Confidential Information received from the other party, except that this Section 18.1 will not restrict:
 - (i) either party from disclosing or granting access to such information to its professional advisors and consultants, to the extent necessary, to enable it to perform (or to cause to be performed) or to enforce its rights or obligations under this Agreement and provided further that Project Co may, subject to obtaining confidentiality restrictions similar to those set out in this Agreement:
 - (A) provide to the Senior Lenders and other potential lenders, equity providers, underwriters, arrangers, investment dealers, monoline insurers and their respective advisors such documents and other

information as are reasonably required by them in connection with raising financing for the Project or complying with the terms of the Senior Financing Agreements or related agreements; and

- (B) provide to a Project Contractor and its advisors, or provide or cause to be provided to other third parties, Confidential Information which is necessary to enable Project Co to perform (or to cause to be performed) its obligations under this Agreement but which Confidential Information will not be used by the Project Contractor, its advisors, or other third parties, as applicable, for any other purpose; and
- (ii) the Authority from disclosing or granting access to such information to any department or ministry of GNWT or any other Governmental Authority which requires the information in relation to the Project, subject to the Authority making reasonable efforts to ensure, in the case of any other Governmental Authority, that the confidentiality restrictions set out in this Agreement be observed.
- (b) Subject to any restrictions on the Confidential Information which are imposed by a third party that may own any Confidential Information, the obligation to maintain the confidentiality of the Confidential Information does not apply to Confidential Information:
 - (i) which the party that disclosed the Confidential Information confirms in writing is not required to be treated as Confidential Information;
 - (ii) which is or comes into the public domain otherwise than through any disclosure prohibited by this Agreement;
 - (iii) to the extent any Person is required to disclose such Confidential Information by Law, including without limitation, a disclosure required under the *Access to Information and Protection of Privacy Act* (Northwest Territories);
 - (iv) to the extent consistent with any Authority policy concerning the Authority's Confidential Information, the details of which have been provided to Project Co in writing prior to the disclosure; or
 - (v) that the Authority may be entitled to receive from Project Co pursuant to this Agreement for the operation, maintenance or improvement of the Tłı̨ch̨q ASR in the event of, or following, termination of this Agreement.
- (c) Without prejudice to any other rights and remedies that the other party may have, each of the parties agrees that damages may not be an adequate remedy for a breach of Section 18.1(a) and that the other party will, in such case, be entitled to the remedies of injunction, specific performance or other equitable relief for any threatened or actual breach of Section 18.1(a).
- (d) Project Co will be fully liable for any breach of confidentiality under this Section 18.1 by any Person to whom Project Co has disclosed or granted access to Confidential Information under this Section 18.1 to the same extent as if Project Co itself breached confidentiality under this Section 18.1.
- (e) For the purposes of the Tłı̨ch̨q ASR Executive Committee, Project Co shall coordinate for its Project Co Representatives, and the Authority shall coordinate for its representatives, and shall endeavour to coordinate for the Tłı̨ch̨q Government representatives, to execute a confidentiality agreement in substantially the form set out in Appendix 20B [Tłı̨ch̨q ASR Executive Committee Confidentiality Agreement].

18.2 Personal Information

Project Co will, and will require Project Contractors and Sub-Contractors to, only collect, hold, process, use, store and disclose Personal Information:

- (a) with the prior consent of the Authority;
- (b) to the extent necessary to perform Project Co's obligations under this Agreement and in circumstances where the Authority itself could collect, hold, process, use, store and disclose Personal Information if the Authority itself performed the OMR; and
- (c) in accordance with applicable Laws, including the *Access to Information and Protection of Privacy Act* (Northwest Territories), as if the provisions of such Laws applied directly to Project Co, the Project Contracts and Sub-Contractors.

Project Co will allow the Authority on reasonable notice to inspect the measures of Project Co and its Project Contractors and Sub-Contractors to protect Personal Information.

The Authority may from time to time provide guidance to Project Co on the requirements of this Section 18.2, including the circumstances set out in Section 18.2(b). For greater certainty, the provisions of this Section 18.2 that refer to the *Access to Information and Protection of Privacy Act* (Northwest Territories) will apply to the Design-Builder, the Service Provider and their respective Sub-Contractors only to the extent necessary to fulfill the Authority's obligations under the *Access to Information and Protection of Privacy Act* (Northwest Territories).

18.3 Public Communications

Unless expressly provided in this Agreement or otherwise required by any Law (but only to that extent), neither party will make or permit to be made any public announcement or disclosure whether for publication in the press, radio, television or any other medium of any Confidential Information of the other party or any matters relating thereto, without the written consent of the other party (which will not be unreasonably withheld or delayed). The parties will comply with Schedule 16 [Communication Roles].

18.4 Law of Agreement

This Agreement will be deemed to be made pursuant to the laws of the Northwest Territories and the laws of Canada applicable therein and will be governed by and construed in accordance with such laws.

18.5 Attornment

For the purposes of any legal actions or proceedings brought by any party hereto against the other party, the parties hereby irrevocably submit to the exclusive jurisdiction of the courts of the Northwest Territories and acknowledge their competence and the convenience and propriety of the venue and agree to be bound by any judgment thereof and not to seek, and hereby waive, review of its merits by the courts of any other jurisdiction.

18.6 Entire Agreement, Waivers and Consents in Writing

This Agreement and the instruments and documents to be executed and delivered pursuant to it constitute the entire agreement between the parties, expressly superseding all prior agreements and communications (both oral and written) between any of the parties hereto with respect to all matters contained herein or therein, and except as stated herein or the instruments and documents to be executed and delivered pursuant hereto, contains all the representations and warranties of the respective parties. In addition:

- (a) no waiver of any provision of this Agreement; and
- (b) no consent required pursuant to the terms of this Agreement,

is binding or effective unless it is in writing and signed by the party providing such waiver or consent.

18.7 Notices

Any notice or communication required or permitted to be given under this Agreement will be in writing and will be considered to have been sufficiently given if delivered by hand or transmitted by electronic transmission to the address or electronic mail address of each party set out below:

if to the Authority:

[Redacted address block]

Attention: [Redacted]
E-mail: [Redacted]

if to Project Co:

[Redacted address block]

Attention: [Redacted]
Email: [Redacted]

with copy to:

[Redacted address block]

Attention: [Redacted]
Fax: [Redacted]

or to such other address or electronic mail address as any party may, from time to time, designate in the manner set out above. Any such notice or communication will be considered to have been received:

- (a) if delivered by hand during business hours (and in any event, at or before 3:00 pm local time in the place of receipt) on a Business Day, upon receipt by a responsible representative of the receiver, and if not delivered during business hours, upon the commencement of business hours on the next Business Day; and
- (b) if delivered by electronic mail during business hours (and in any event, at or before 3:00 pm local time in the place of receipt) on a Business Day, upon receipt, and if not delivered during business hours, upon the commencement of business hours on the next Business Day provided that:

- (i) the receiving party has, by electronic mail or by hand delivery, acknowledged to the notifying party that it has received such notice; or
- (ii) within 24 hours after sending the notice, the notifying party has also delivered a copy of such notice to the receiving party by hand delivery.

18.8 Further Assurances

The parties will do, execute and deliver, or will cause to be done, executed and delivered, all such further acts, documents (including certificates, declarations, affidavits, reports and opinions) and things as the other may reasonably request for the purpose of giving effect to this Agreement or for the purpose of establishing compliance with the representations, warranties and obligations of this Agreement.

18.9 Counterparts

This Agreement may be executed in any number of counterparts, each of which will be deemed to be an original, and this has the same effect as if the signatures on the counterparts were on a single copy of this Agreement so that it will not be necessary in making proof of this Agreement to produce or account for more than one such counterpart.

18.10 No Partnership, etc.

Nothing contained in this Agreement nor any action taken pursuant hereto or thereto will be deemed to constitute the Authority and Project Co a partnership, joint venture or any other similar such entity.

18.11 Survival

Notwithstanding any other provision of this Agreement, the provisions of Section 6.16, Article 8 (Supervening Events) (if and to the extent a Compensation Event relates to a claim made by a third party against Project Co after the Termination Date), Article 9 (Indemnities and Limits on Liabilities and Remedies), Article 15 (Procedure on Termination), Article 16 (Dispute Resolution), Section 18.1, Section 18.2, Part 3 of Schedule 4 [OMR and Handback], Appendix 4C [Handback Specification], Schedule 9 [Compensation on Termination] and Schedule 13 [Dispute Resolution Procedure] will survive the expiry or any earlier termination of this Agreement.

IN WITNESS WHEREOF the parties hereto have executed this Agreement as of the day and year first above written.

**THE GOVERNMENT OF THE NORTHWEST
TERRITORIES**

Per: _____
Name:
Title:

**NORTH STAR INFRASTRUCTURE GP, by its
general partners,**

**KIEWIT NORTH STAR INFRASTRUCTURE
INVESTOR INC.**

Per: _____
Name:
Title:

Per: _____
Name:
Title:

**TILI GEEKWI LIMITED PARTNERSHIP, by its
general partner TILI GEEKWI LTD.**

Per: _____
Name:
Title:

Per: _____
Name:
Title:

SCHEDULE 1

DEFINITIONS AND INTERPRETATION

1. DEFINITION

In this Agreement:

“Account Trustee” has the meaning set out in Appendix 5B [Insurance Trust Agreement];

“Additional Irrecoverable Tax” means GST incurred by Project Co in respect of the supply of any good or service to the Authority which is consumed, used or supplied, or to be consumed, used or supplied, exclusively by Project Co in the course of carrying out the Project Work to the extent that Project Co is unable to recover or be credited with input tax credits, refunds, rebates or exemptions for such GST that Project Co would have recovered or been credited with prior to the applicable Change in Law;

“Additional Recoverable Tax” means GST incurred by Project Co in respect of the supply of any good or service to the Authority which is consumed, used or supplied, or to be consumed, used or supplied, exclusively by Project Co in the course of carrying out the Project Work to the extent that Project Co is able to recover or be credited with input tax credits, refunds, rebates or exemptions for such GST that Project Co would not have recovered or been credited with prior to the applicable Change in Law;

“Administrative Agent” means [REDACTED], in its capacity as administrative agent under the Credit Agreement.

“Affiliate” in respect of a Person means any other Person that, directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such first Person where **“control”** means, with respect to the relationship between or among two or more Persons, the possession, directly or indirectly or as trustee, personal representative or executor, of the power to direct or cause the direction of the affairs or management of a Person, whether through the ownership of voting securities, as trustee, personal representative or executor, by statute, contract, credit arrangement or otherwise, including the ownership, directly or indirectly, of securities having the power to elect a majority of the board of directors or similar body governing the affairs of such Person;

“Agent” has the meaning set out in Appendix 5B [Insurance Trust Agreement];

“Agreement” or **“Project Agreement”** means this agreement including any recitals, schedules and appendices to this agreement, as amended, supplemented or restated from time to time;

“Annual Average Daily Traffic” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“Annual Tıçhçı Construction Labour Requirement” has the meaning set out in Schedule 20 [Local Content Requirements];

“Applicant” has the meaning set out in Section 8.1 (Supervening Events);

“Asset Management Plan” has the meaning set out in Appendix 4B [Asset Preservation Specification];

“Asset Preservation Performance Measures” or **“APPMs”** has the meaning set out in Schedule 4 [OMR and Handback];

“Authority” means the Government of the Northwest Territories;

“Authority Activities” means any activities related to the Project carried on or to be carried on by the Authority, or other Persons permitted by the Authority, on the Lands;

“Authority Design and Construction Representative” has the meaning set out in Section 2.7 (Representatives);

“Authority Event of Default” has the meaning set out in Section 14.1 (Authority Events of Default);

“Authority Indemnified Person” means:

- (a) any contractor or subcontractor (of any tier) of the Authority engaged in connection with the Project, other than Project Co or a Project Co Person;
- (b) any representative, agent or advisor (including legal and financial advisors) of the Authority engaged in connection with the Project or of any Person referred to in (a) above, in each case acting in such capacity; and
- (c) any director, officer or employee of the Authority or of any Person referred to in (a) or (b) above, in each case acting in such capacity;

“Authority Operating Period Representative” has the meaning set out in Section 2.7 (Representatives);

“Authority Permits” has the meaning set out in Section 3.4 (Authority Permits);

“Authority Person” means:

- (a) any director, officer, employee or agent of the Authority;
- (b) any representative, advisor (including any legal, financial or technical advisor), contractor or subcontractor (of any tier) of the Authority in any such Person's capacity as a provider of services directly or indirectly to the Authority in connection with the Project, other than Project Co, Project Contractors or Sub-Contractors; or
- (c) any invitee of the Authority or any of the Authority Persons referred to in (a) or (b) above who enters upon the Lands;

“Authority Representative” means the Authority Design and Construction Representative or the Authority Operating Period Representative, as applicable;

“Availability Failure Points” has the meaning set out in Schedule 8 [Payments];

“Avoidable Costs”, when used in relation to an event or circumstance, including any Climate Change Event, means all costs and expenditures which:

- (a) are saved or avoided as a result of the event or circumstance or its effects, including, in the case of any Climate Change Event, any costs savings realized by Project Co from the occurrence of such Climate Change Event or any other Climate Change Event within the relevant period; or
- (b) if Project Co acted reasonably and in accordance with this Agreement (including Section 2.5 and, if applicable, Section 2.11), would have been saved or avoided as a result of the event or circumstance or its effects;

“Base Case Equity IRR” means ■■■%, being the Nominal equity rate of return calculated on an after tax basis at the level of Project Co in accordance with the Financial Model as shown in Cell Outputs!D38 of the Outputs worksheet as at the time of Financial Close;

“Base Date” means September 1, 2018;

“Beneficiary” has the meaning set out in Section 9.2 (Conduct of Third Person Claims);

“Bridge Condition Index” has the meaning set out in Appendix 2B [Asset Preservation Specification];

“Bridge Engineer” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“Business Day” means a day other than a Saturday, Sunday or statutory holiday in the Northwest Territories;

“Certificate of Substantial Completion” has the meaning set out in Schedule 3 [Design and Construction];

“Certificate of Total Completion” has the meaning set out in Schedule 3 [Design and Construction];

“Change” has the meaning set out in Schedule 6 [Changes, Minor Works and Innovation Proposals];

“Change Certificate” has the meaning set out in Schedule 6 [Changes, Minor Works and Innovation Proposals];

“Change in Control” means with respect to a Person:

- (a) any direct or indirect change in the ownership or control of any legal, beneficial or equitable interest in any or all of the shares, units or equity in the Person (including the control over the exercise of voting rights conferred on equity share capital, unit interests or equity interests or the control over the right to appoint or remove directors, a general partner or other managers), including changes arising from assignment or transfer of existing shares, units or equity, issuance of new shares, units or equity or amalgamation, merger consolidation, amendment of a partnership agreement, amendment of a limited partnership certificate or other reorganization; or
- (b) any other direct or indirect change,

which results in a Person or group of Persons, other than the equity holders of the entity immediately prior to the change, directly or indirectly:

- (c) controlling the composition of the majority of the board of directors of the entity or of a general partner or manager of the entity;
- (d) controlling the decisions made by or on behalf of the Person, including by controlling the voting power of the board of directors or by controlling the voting power of any class of shareholders or equity holders of any of the entity, a general partner of the entity or a manager of the entity or otherwise;
- (e) holding equity (either beneficially or otherwise) of that entity with a subscribed value (taking into account contributions to be made in the case of a limited partnership) of more than one half of the subscribed value (taking into account contributions to be made in the case of a limited partnership) or equity (either beneficially or otherwise) of that entity with more than one half of the voting rights; or
- (f) having the ability to direct or cause the direction of the management, actions or policies of the entity;

“Change in Law” means the coming into effect in the Northwest Territories or across Canada after the Financial Submission Date of:

- (a) any new Law; or
- (b) any modification (including repeal) of any Law existing on such date,

which is binding on Project Co or the Authority, but excluding in each such case:

- (c) any lawful requirements of any Governmental Authority (unless resulting from a Change in Law);
- (d) any change in the interpretation of any legislation other than a judgment of a relevant court which changes binding precedent in the Northwest Territories;
- (e) any new Law or modification arising from or in any way connected to or having substantially the same effect as any Law which as of the Financial Submission Date:
 - (i) had been introduced as a Bill in the Legislative Assembly of the Northwest Territories or the Parliament of Canada or in a draft statutory instrument published or issued by a Governmental Authority; or
 - (ii) had been published in the Canada Gazette or in a draft bill as part of a Governmental Authority discussion or consultation paper;

“Change Report” has the meaning set out in Schedule 6 [Changes, Minor Works and Innovation Proposals];

“Charge” has the meaning set out in Schedule 7 [Lands];

“Chief Officers” means the individuals employed by the GNWT in the following positions:

- (a) North Slave Regional Superintendent;
- (b) Director of Transportation;
- (c) Director of Design and Technical Services;
- (d) Assistant Deputy Minister Asset Management; and
- (e) Deputy Secretary to the Financial Management Board;

“Climate Change Event” has the meaning set out in Schedule 22 [Climate Change Risk-Sharing Regime];

“Climate Change Impact Proposal” has the meaning set out in Schedule 6 [Changes, Minor Works and Innovation Proposals];

“Climate Change Risk-Sharing Regime” has the meaning set out in Schedule 22 [Climate Change Risk-Sharing Regime];

“Closure” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“Compensation Event” means any of the following events or circumstances if and to the extent that it interferes adversely with, or causes a failure of, the carrying out of the Design, the Construction, the OMR, any Reinstatement Works, any Handback Works, causes a Failure Event or causes Direct Losses to Project Co or any Project Co Person:

- (a) breach by the Authority of any of its obligations under this Agreement;
- (b) breach of any representation or warranty by the Authority under this Agreement;
- (c) misconduct of the Authority or an Authority Person;
- (d) a negligent act or omission of the Authority or an Authority Person;
- (e) the existence of Undisclosed Environmental Liabilities;
- (f) a Permit which is the obligation of the Authority to obtain or maintain is declared invalid or defective by a court of competent jurisdiction;
- (g) the existence as of the Effective Date of any encumbrance enforceable against or affecting the Lands or the Tłı̨ch̨o ASR other than the Encumbrances;
- (h) the discovery of any human remains, relics or other articles or structures of historical, antiquarian or archaeological interest on or adjacent to the Lands;
- (i) a claim asserting infringement of aboriginal rights (including duty to consult) or aboriginal title;
- (j) a Protest Action;

- (k) lawful or unlawful strike, lockout, work-to-rule or other dispute by public sector employees or by the employees of any contractor (other than Project Co, any Project Contractor, or any Sub-contractors) engaged by the Authority to provide services in respect of the Tłı̄ch̄o ASR;
- (l) the actions referred to in Section 12.5 (Allocation of Costs for Authority Actions) as constituting a Compensation Event;
- (m) the event referred to in Section 8.4(e)(ii) (Project Co's Entitlements Upon Occurrence of a Relief Event);
- (n) the event referred to in Section 8.7(d)(ii) (Parties' Entitlements Upon Occurrence of a Force Majeure Event);
- (o) Project Co's compliance with a direction from the Authority under Section 3.3 of Schedule 13 [Dispute Resolution Procedure] when the matter in dispute is subsequently resolved, or settled, in Project Co's favour;
- (p) the execution of works, other than usual or reasonably expected works, on the Lands or in respect of the Tłı̄ch̄o ASR and not forming part of this Agreement, by the Authority or any person permitted to execute such works by the Authority or any Authority Person;
- (q) if part of the Tłı̄ch̄o ASR or part of the portion of the Lands on which the Tłı̄ch̄o ASR is or will be situated or any interest of Project Co or any Partner is expropriated by any Governmental Authority and such expropriation is not an Authority Event of Default as set out in Section 14.1 (Authority Event of Default);
- (r) data contained in a Geotechnical Report, which Project Co or a Project Co Person has relied upon reasonably and in accordance with Good Industry Practice in the performance of the Design or the Construction, is found to be inaccurate or invalid as at the date of the Geotechnical Report;
- (s) any other event which is expressly stated in this Agreement to constitute a Compensation Event;
- (t) a requirement for Project Co to perform any alteration, addition, demolition, extension or variation in the Project Work, or to suspend or delay performance of the Project Work, upon the presence on the Lands of wildlife or plant species protected by applicable Laws, which presence was not described in or readily inferable from the Disclosed Data on the Financial Submission Date; and
- (u) any Authority Permit is not in place by September 2, 2019, other than on account of a change in Design by Project Co or action or inaction by Project Co;

except to the extent that any of such events arise or are contributed to, directly or indirectly, as a result of any wilful misconduct, negligent act or omission or non-compliance with the terms of this Agreement by Project Co or any Project Co Person;

“Compliance Failure Event” has meaning set out in Schedule 8 [Payments];

“Compliance Failure Point” or **“CFP”** has the meaning set out in Schedule 8 [Payments];

“Condition Measure” has the meaning set out in Schedule 4 [OMR and Handback];

“Confidential Information” means Personal Information, and information of a party that the party has designated as confidential at the time of disclosure and which is supplied, or to which access is granted, to or on behalf of the other party (whether before or after the Effective Date), either in writing, or in any other form, directly or indirectly pursuant to discussions with the other party and includes all analyses, compilations, studies and other documents whether prepared by or on behalf of a party which contain or otherwise reflect or are derived from such designated information;

“Construction” has the meaning set out in Schedule 3 [Design and Construction];

“Construction Certificate” has the meaning set out in Schedule 3 [Design and Construction];

“Construction Management Plan” has the meaning set out in Schedule 3 [Design and Construction];

“Construction Period” means the period commencing on the Effective Date and ending on the Substantial Completion Date;

“Construction Quality Manager” has the meaning set out in Schedule 17 [Key Individuals];

“Construction Records” has the meaning set out in Schedule 3 [Design and Construction];

“Contingent Funding Liabilities” means direct or indirect liabilities or contingent liabilities, if any, of the Partners in respect of financial obligations owed to Project Co or to any party under the Junior Debt or the Senior Lenders under the Senior Financing Agreements, such as, for example, the amount a Partner has agreed to contribute to Project Co, promissory notes, obligations to fund reserve accounts, guarantees, letters of credit in respect of deferred equity, subordinated debt or equity bridge loans;

“Contract Year” means each of:

- (a) the period from the Effective Date to the next March 31;
- (b) each subsequent period of 12 calendar months commencing on April 1; and
- (c) the period from the April 1 immediately prior to the Termination Date to and including the Termination Date;

“Credit Agreement” means the credit agreement dated on or about the date hereof between the Administrative Agent, Project Co, as borrower, Kiewit GP and T1çhç GP, as general partners, [REDACTED] and [REDACTED], as lenders, mandated lead arrangers and joint bookrunners, [REDACTED] and [REDACTED], as hedge providers, and the financial institutions as may become lenders and/or hedge providers from time to time, as the same may be amended, restated, supplemented or otherwise modified from time to time;

“Criminal Conviction” has the meaning set out in Section 13.1 (Project Co Events of Default);

“Cumulative Tłıçhǫ Construction Labour Requirement” has the meaning set out in Schedule 20 [Local Content Requirements];

“Debris” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“Debt” of any Person at any date means, without duplication:

- (a) all obligations of such Person for borrowed money;
- (b) all obligations of such person evidenced by bonds, debentures, notes or other similar instruments;
- (c) all obligations of such person to pay the deferred purchase price of property or services, except trade accounts payable arising in the ordinary course of business;
- (d) all obligations of such person under leases which are or should be, in accordance with GAAP, recorded as capital leases in respect of which such person is liable, except leases arising in the ordinary course of business;
- (e) all obligations of such Person to purchase securities (or other property) which arise out of or in connection with the sale of the same or substantially similar securities (or property);
- (f) all deferred obligations of such Person to reimburse any bank or other Person in respect of amounts paid or advanced under a letter of credit or other similar instrument;
- (g) all Debt (as otherwise defined in this definition) of others secured by a Charge on any asset of such Person, provided such Debt (as otherwise defined in this definition) is assumed by such Person; and
- (h) all Debt (as otherwise defined in this definition) of others guaranteed directly or indirectly by such Person or as to which such Person has an obligation substantially the economic equivalent of a guarantee;

“Deduction” has the meaning set out in Schedule 8 [Payments];

“Default Rate” on any day means 2% per annum over the Prime Rate;

“Deficiency” means any defect or fault, including omission, in the Tłıçhǫ ASR which occurs due to a failure by Project Co to comply with the Design and Construction obligations under this Agreement;

“Design” has the meaning set out in Schedule 3 [Design and Construction];

“Design and Certification Procedure” means the procedure set out in Schedule 3 [Design and Construction];

“Design and Construction Representative” means the Authority Design and Construction Representative or the Project Co Design and Construction Representative, as the context requires, and **“Design and Construction Representatives”** means both the Authority Design and Construction Representative and the Project Co Design and Construction Representative;

“Design and Construction Requirements” has the meaning set out in Schedule 3 [Design and Construction];

“Design Quality Manager” has the meaning set out in Schedule 17 [Key Individuals];

“Design-Build Agreement” means the design and construction agreement between Project Co and the Design-Builder, a certified copy of which has been delivered by Project Co to the Authority, as amended, supplemented or replaced from time to time in accordance with this Agreement;

“Design-Builder” means [REDACTED], or any assignee or replacement permitted under this Agreement;

“Design-Builder’s Collateral Agreement” means the agreement to be entered into between the Authority, the Design-Builder and Project Co in the form set out in Schedule 11 [Material Project Contractor Collateral Agreement], as amended, supplemented or replaced from time to time in accordance with this Agreement;

“Design Build Standard Specifications” or **“DBSS”** has the meaning set out in Schedule 3 [Design and Construction].

“Design Certificate” has the meaning set out in Schedule 3 [Design and Construction];

“Design Data” has the meaning set out in Schedule 2 [Quality Management];

“Design Development Submittals” has the meaning set out in Schedule 3 [Design and Construction];

“Design Life” has the meaning set out in Schedule 3 [Design and Construction];

“Design Management Plan” or **“DMP”** has the meaning set out in Schedule 3 [Design and Construction];

“Design Quality Management Plan” or **“DQMP”** has the meaning set out in Schedule 2 [Quality Management];

“Designer” means [REDACTED], which has been engaged by the Design-Builder to undertake the Design, or any assignee or replacement permitted under this Agreement;

“Detailed Design” has the meaning set out in Schedule 3 [Design and Construction];

“Detour Route” has the meaning set out in Schedule 3 [Design and Construction];

“Direct Losses” means in respect of a condition, event or omission, without duplication, all damages, losses, liabilities, penalties, fines, assessments, claims (including by third parties), actions, costs (including increased Recoverable Expenditure), expenses (including the reasonable cost of legal or professional

services), proceedings, demands and charges, whether arising under statute, contract or at common law, which result directly from such condition, event or omission:

- (a) net of related Insurance Proceeds and Insurance Receivables and any amount which the relevant party would have recovered (in respect of such condition, event or omission) if it had complied with the requirements of this Agreement or any policy of insurance maintained or required to be maintained under this Agreement;
- (b) excluding any Indirect Losses, except to the extent included in a third party claim; and
- (c) in the case of Project Co, without limiting the foregoing:
 - (i) including the full amount of the related loss or reduction of any Service Payments; and
 - (ii) net of Avoidable Costs related to such condition, event or omission,

and in calculating any amount of any additional Recoverable Expenditure, labour or similar cost claimed by Project Co under this definition of “Direct Losses”, Project Co will be entitled to add to such amounts the mark-ups referred to in Section 2.10 of Schedule 6 [Changes, Minor Works and Innovation Proposals];

“Disclosed Data” means any information, data and documents made available or issued to Project Co or any Project Contractor or Sub-Contractor in connection with the Project by or on behalf of the Authority, including the Geotechnical Reports and any information relating to the Lands or the requirements of any Governmental Authority, whether before or after the execution of this Agreement;

“Discriminatory Change in Tax Law” means a Change in Law which results in the imposition of Taxes or a change in Taxes which specifically apply to discriminate against:

- (a) the Project or road-related projects procured and contracted on a public-private partnership basis similar to the Project;
- (b) Project Co and its Partners or Persons that have contracted on similar road-related projects procured and contracted with the Authority or other statutory or public body on a public-private partnership basis similar to the Project;
- (c) the design, provision, operation or maintenance of road infrastructure and not to other types of infrastructure; or
- (d) Persons holding shares or other evidences of ownership in Persons whose principal business is contracting on other similar road-related projects procured and contracted on a public-private partnership basis similar to the Project and not other Persons;

“Dispute” means any disagreement, failure to agree or other dispute between the Authority and Project Co arising out of or in connection with this Agreement, including in respect of the interpretation, breach, performance, validity or termination of this Agreement, whether in the law of contract or any other area of law;

“Dispute Notice” has the meaning set out in Schedule 13 [Dispute Resolution Procedure];

“Dispute Resolution Procedure” has the meaning set out in Schedule 13 [Dispute Resolution Procedure];

“Distribution” means, without duplication or double counting:

- (a) whether in cash or in kind, any:
 - (i) distribution to Partners or other distribution in respect of equity interests in Project Co;
 - (ii) redemption or purchase of any equity interest in Project Co or reduction of partnership capital or the amount of a Partner’s contribution stated in the limited partnership certificate or any other reorganization or variation to partnership capital;
 - (iii) payment in respect of Junior Debt (whether of fees, principal, interest including capitalized interest and interest on overdue interest, breakage costs, or otherwise and whether or not such items are included or excluded from the definition of Junior Debt);
 - (iv) payment, loan, contractual arrangement, including any management agreement or payment in respect thereof, or transfer of assets or rights, in each case to the extent made or entered into after the Effective Date and not in the ordinary course of business or not on commercially reasonable terms including to any current or former Partner, or any current or former Affiliate of any current or former Partner;
 - (v) conferral of any other benefit which is not conferred and received in the ordinary course of business or is not conferred or received on commercially reasonable terms, including to any current or former Partner, any current or former Affiliate of any current or former Partner or Project Co; and
 - (vi) other payment to any current or former Partner, any current or former Affiliate of any current or former Partner or Project Co howsoever arising and whether made pursuant to the terms of an agreement or otherwise or by way of gift or in respect of any equity interest in Project Co or other securities of or interests in Project Co if, in any such case, such payment would not have been made were it not for the occurrence of any Refinancing or Change in Control; or
- (b) the early release of any reserves or any Contingent Funding Liabilities, the amount of such release being deemed to be a gain for the purposes of any calculation of Refinancing Gain,

and where any such Distribution is not in cash, the equivalent cash value of such Distribution will be calculated. A Distribution will be calculated in a manner that is consistent with the calculation of the Threshold Equity IRR in the Financial Model;

“Draft Reinstatement Plan” has the meaning set out in Section 6.4 (Project Co’s Obligations – Material Damage or Destruction);

“Drainage Appliances” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“Effective Date” means the date of this Agreement;

“Eligible Change in Law Event” means the occurrence of a:

- (a) Relevant Change in Law;
- (b) Relevant Works Change in Law;
- (c) Discriminatory Change in Tax Law; or
- (d) Input Tax Recoverability Change in Law;

“Emergency” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“Emergency Response” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“Emergency Response Plan” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“Employee Payments” means any liability that has been reasonably incurred by Project Co arising as a result of termination of this Agreement under collective agreements, employment agreements or under any other agreements with employees of Project Co, including severance (whether accrued or not), vacation pay and sick pay accrued but excluding any Distribution;

“Encumbrances” has the meaning set out in Schedule 7 [Lands];

“Engineer of Record” or **“EoR”** has the meaning set out in Schedule 3 [Design and Construction];

“ENR” means the GNWT Department of Environment and Natural Resources or any successor thereof;

“Environmental Authority” has the meaning set out in Schedule 19 [Environmental Obligations];

“Environmental Laws” has the meaning set out in Schedule 19 [Environmental Obligations];

“Environmental Lead” has the meaning set out in Schedule 17 [Key Individuals];

“Environmental Management Plan” or **“EMP”** has the meaning set out in Schedule 19 [Environmental Obligations];

“Environmental Quality Management Plan” or **“EQMP”** has the meaning set out in Schedule 2 [Quality Management];

“Equity Contribution Agreement” has the meaning set out in the Credit Agreement.

“Equity IRR” means Project Co’s Nominal equity internal rate of return of ■■■% calculated on an after tax basis at the level of Project Co in accordance with the Financial Model as shown in Cell Outputs!D38 of the Outputs worksheet, having regard to Distributions made and projected to be made;

“Equity Provider Subordinated Debt” has the meaning given in the Credit Agreement.

“Excusing Event” means any of the following events or circumstances if it occurs on or after the Substantial Completion Date and interferes adversely with, or causes a failure of, the performance of the OMR, any Reinstatement Works, the Handback Works or causes a Failure Event:

- (a) the carrying out by Project Co of Minor Works required by the Authority in accordance with this Agreement;
- (b) without limiting Project Co’s obligation to provide stand-by power facilities and back-up fuel for the Tłıçhǫ ASR in accordance with the Design and Construction Requirements and for OMR in accordance with the OMR Requirements,
 - (i) a shortage of fuel available in Yellowknife and Edmonton; or
 - (ii) the failure by any utility company, local authority or other like body to perform works or provide services required to be provided by them in a reasonably timely manner or any unreasonable interference with the OMR by any such body as a result of maintenance or other work;
- (c) compliance by Project Co with an order or direction by police, fire officials or any comparable public authority having the legal authority to make such order or give such direction;
- (d) a Change in Law; and
- (e) any other event which is expressly stated in this Agreement to constitute an Excusing Event,

except to the extent that any of such events arise or are contributed to, directly or indirectly, as a result of any wilful misconduct, negligent act or omission or non-compliance with the terms of this Agreement by Project Co or any Project Co Person;

“Exempt Refinancing” means:

- (a) a change in taxation or change in accounting treatment pursuant to changes in Laws or GAAP or International Financial Reporting Standards;
- (b) the exercise of rights, waivers, consents and similar actions which relate to day to day administrative and supervisory matters that are solely in respect of:
 - (i) breach of representations, warranties, covenants or undertakings;

- (ii) movement of monies between the Project Accounts (as defined in the Senior Financing Agreements) in accordance with the terms of the Senior Financing Agreements;
 - (iii) late or non-provision of information or consents;
 - (iv) amendments to Project Contracts;
 - (v) approval of revised technical and economic assumptions for financial model runs (to the extent required for forecasts under the Senior Financing Agreements);
 - (vi) restrictions imposed by the Senior Lenders on the dates at which the financing provided by the Senior Lenders under the Senior Financing Agreements can be advanced to Project Co under the Senior Financing Agreements, and which are given as a result of any failure by Project Co to ensure that the Design and the Construction are carried out in accordance with the Project Schedule and which are notified in writing by Project Co or the Senior Lenders to the Authority prior to being given;
 - (vii) changes to milestones for drawdown set out in the Senior Financing Agreements and which are given as a result of any failure by Project Co to ensure that the Design and the Construction are carried out in accordance with the Project Schedule and which are notified in writing by Project Co or the Senior Lenders to the Authority prior to being given;
 - (viii) failure by Project Co to obtain any consents from Governmental Authorities required by the Senior Financing Agreements; or
 - (ix) voting by the Senior Lenders and the voting arrangements between the Senior Lenders in respect of the levels of approval required by them under the Senior Financing Agreements;
- (c) an amendment, variation or supplement of an agreement approved by the Authority as part of any Change;
 - (d) a sale of Junior Debt or Units in Project Co by Partners or, in the case of Junior Debt, Affiliates of Partners or securitization of the existing rights or interests attaching to Junior Debt or Units in Project Co;
 - (e) a Qualifying Bank Transaction;
 - (f) a conversion of Units into Junior Debt or of Junior Debt into Units, provided that the total principal amount of all Junior Debt outstanding immediately following the conversion plus amounts paid to Project Co by way of subscription for Units outstanding immediately following the conversion does not exceed the total amounts paid to Project Co by way of subscription for Units outstanding immediately prior to the conversion plus the total principal amount of all Junior Debt outstanding immediately prior to the conversion; or

(g) any secondary transaction in the bond market;

“Expiry Date” means the date that is 25 years from the earlier of (i) the original Target Substantial Completion Date and (ii) the actual Substantial Completion Date;

“Failure Points” has the meaning set out in Schedule 8 [Payments];

“Fair Market Value” means the amount at which an asset or a liability would be exchanged in an arm’s length transaction between informed and willing parties, other than in a forced or liquidation sale;

“Federal Cost Contribution Agreement” means the funding agreement dated December 20th, 2017 between the Authority and the Federal Government in respect of the Tłı̨ch̨o ASR;

“Federal Government” means Her Majesty the Queen in Right of Canada, as represented by the Minister of Infrastructure and Communities and/or PPP Canada Inc.;

“Final Design” has the meaning set out in Schedule 3 [Design and Construction];

“Final Design Development Submittals” has the meaning set out in Schedule 3 [Design and Construction];

“Finance Parties” has the meaning set out in Appendix 5A [Lender Endorsements];

“Financial Close” means the time when the Project Agreement and all financing and other agreements related to the Project have been executed and delivered and all conditions to the effectiveness of the Project Agreement and the Project financing agreements have been satisfied;

“Financial Close Target Date” means February 13, 2019;

“Financial Management Board” means the GNWT Financial Management Board, established pursuant to the Financial Administration Act, 2016 (GNWT);

“Financial Model” means Project Co’s financial model for the Project attached as Schedule 15 [Financial Model], a copy of which is attached to this Agreement in electronic format, as updated or amended from time to time in accordance with the terms of this Agreement;

“Financial Submission Date” means October 10, 2018;

“Force Majeure Event” means the occurrence after the Effective Date of:

- (a) war, civil war, armed conflict or terrorism;
- (b) nuclear, radioactive, chemical or biological contamination, except to the extent that such contamination arises or is contributed to, directly or indirectly, as a result of any wilful misconduct, negligent act or omission or non-compliance with the terms of this Agreement by Project Co or a Project Co Person;
- (c) earthquake or tidal wave;

(d) flood identified by Environment Canada as a greater than 1 in 100 year flood event, except to the extent that such flood arises or is contributed to, directly or indirectly, as a result of any wilful misconduct, negligent act or omission or non-compliance with the terms of this Agreement by Project Co or a Project Co Person; or

(e) pressure waves caused by devices traveling at supersonic speeds,

which directly causes a party to be unable to comply with all or a material part of its obligations under this Agreement;

“Full Closure” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“GAAP” means generally accepted accounting principles in effect in Canada or the United States including the accounting recommendations published in the Handbook of the Canadian Institute of Chartered Accountants;

“Geotechnical Reports” means the following reports:

- (a) Tlicho All Season Road (TASR) 2017 Geotechnical Investigation of Granular & Bedrock Prospects, dated October 27, 2017, by Tetra Tech Canada Inc., as supplemented by Report Addendum, Geochemical Characterization Results for Samples Selected from Prospect 105 from the Tlicho All-Season Road (TASR) Project, dated December 7, 2017, by Tetra Tech Canada Inc.;
- (b) Geotechnical Data Report, Proposed Culvert Crossing #5, Station 16+532, dated December 2017 by Stantec Consulting Ltd.;
- (c) Geotechnical Data Report, Proposed Culvert Crossing #6, Stations 19+427 and 19+432, dated December 2017 by Stantec Consulting Ltd.;
- (d) Geotechnical Data Report, Proposed Bridge Crossing #8, Station 40+400, dated December 2017 by Stantec Consulting Ltd.;
- (e) Geotechnical Data Report, Proposed Bridge Crossing #9, Station 45+175, dated December 2017 by Stantec Consulting Ltd.;
- (f) Geotechnical Data Report, Proposed Arch Culvert Crossing #10a, Station 48+209, dated December 2017 by Stantec Consulting Ltd.;
- (g) Geotechnical Data Report, Proposed Bridge Crossing #14, Station 69+666, dated December 2017 by Stantec Consulting Ltd.;
- (h) Geotechnical Data Report, Proposed Bridge Crossing #15, Station 85+397, dated December 2017 by Stantec Consulting Ltd.;
- (i) Geotechnical Recommendation Report, Proposed Culvert Crossing #5, Station 16+532, dated December 2017 by Stantec Consulting Ltd.;

- (j) Geotechnical Recommendation Report, Proposed Culvert Crossing #6, Stations 19+427 and 19+432, dated December 2017 by Stantec Consulting Ltd.;
- (k) Geotechnical Recommendation Report, Proposed Bridge Crossing #8, Station 40+400, dated December 2017 by Stantec Consulting Ltd.;
- (l) Geotechnical Recommendation Report, Proposed Bridge Crossing #9, Station 45+175, dated December 2017 by Stantec Consulting Ltd.;
- (m) Geotechnical Recommendation Report, Proposed Arch Culvert Crossing #10a, Station 48+208, dated December 2017 by Stantec Consulting Ltd.;
- (n) Geotechnical Recommendation Report, Proposed Bridge Crossing #14, Station 69+666, dated December 2017 by Stantec Consulting Ltd.;
- (o) Geotechnical Recommendation Report, Proposed Bridge Crossing #15, Station 85+397, dated December 2017; by Stantec Consulting Ltd.;
- (p) Geotechnical Report, Road Alignment, Proposed Tlicho All-Season Road, Northwest Territories, dated November 2017 by Stantec Consulting Ltd.; and
- (q) Technical Report Geophysical Surveys, Proposed Tlicho All-Season Road, dated June 20, 2018, prepared by Aurora Geosciences Ltd.;

“**GNWT**” means the Government of the Northwest Territories;

“**GNWT Standard Specifications and Standard Drawings**” has the meaning set out in Schedule 3 [OMR and Handback];

“**Good Industry Practice**” means using standards, practices, methods and procedures to a good commercial standard, conforming to Law and exercising that degree of skill and care, diligence, prudence and foresight which would reasonably and ordinarily be expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances;

“**Governmental Authority**” means any federal, provincial, territorial, regional, municipal or local governmental authority, including the Tłı̨chǫ Government, or any quasi-governmental authority, court, government or self-regulatory organization, commission, board, tribunal, organization, or any regulatory, administrative or other agency, or any political or other subdivision, department or branch of any of the foregoing, having jurisdiction in any way over or in respect of any aspect of the performance of this Agreement or the Project;

“**GST**” means the goods and services tax imposed pursuant to Section IX of the *Excise Tax Act* (Canada);

“**H & S Conviction**” has the meaning set out in Section 13.1 (Project Co Events of Default);

“**Handback Works**” has the meaning set out in Appendix 4C [Handback Specification];

“**Has Knowledge**”, “**Have Knowledge**” or “**Having Knowledge**” means:

- (a) for an individual, when information is acquired by the individual;
- (b) for a corporation, when information has come to the attention of:
 - (i) a director or officer of the corporation; or
 - (ii) a senior employee of the corporation with responsibility for matters to which the information relates, and, in the case of Project Co, including, but not limited to Project Co's Design and Construction Representative or Operating Period Representative,
- (c) for a partnership other than a limited partnership, when any partner Has Knowledge under the other Sections of this definition or under this Section (c) or Section (d) below for any partner that is itself a partnership or when any member of a director-level or officer-level or similar position of the partnerships or a senior employee of the partnership with responsibility for matters to which the information relates; or
- (d) for a limited partnership, when any general partner Has Knowledge under the other Sections of this definition or under this Section (d) or Section (c) above for any partner that is itself a partnership or when any member of a director-level or officer-level or similar position of the partnerships or a senior employee of the partnership with responsibility for matters to which the information relates;
- (e) for the Authority, when information has come to the attention of:
 - (i) a director or officer of the Authority; or
 - (ii) a senior employee of the Authority with responsibility for matters to which the information relates, including but not limited to the Authority's Design and Construction Representative or Operating Period Representative;

in each case under circumstances in which a reasonable person would take cognizance of it;

"Hazardous Substance" means any hazardous waste, hazardous product, contaminant, toxic substance, deleterious substance, dangerous good, pollutant, waste, reportable substance, and any other substance, in respect of which the storage, manufacture, handling, disposal, treatment, generation, use, transport, remediation or release into or presence in the environment is prohibited, controlled or regulated under Environmental Laws, including without limitation:

- (a) oil, flammable substances, explosives, radioactive materials, toxic wastes or toxic substances;
- (b) any such substance which may or could pose a hazard to any real property, or to persons on or about any real property, or causes any real property to be in violation of any Environmental Laws, including without limitation any mixing or combination of any such substance with any other such substance that would cause a breach of any applicable Environmental Laws;

- (c) asbestos in any form which is or could become friable, radon gas, urea formaldehyde foam insulation, transformers or other equipment which contain dielectric fluid containing levels of polychlorinated biphenyls in excess of limits prescribed by any Environmental Laws; and
- (d) any such substance defined as or included in the definitions of “contaminant”, “dangerous goods”, “deleterious substance”, “hazardous substances”, “hazardous wastes”, “hazardous materials”, “extremely hazardous wastes”, “restricted hazardous waste”, “toxic substances”, “special waste”, “waste” or words of similar import under any applicable Environmental Laws, including without limitation the *Canadian Environmental Protection Act, 1999* (Canada), the *Fisheries Act* (Canada), the *Transportation of Dangerous Goods Act, 1992* (Canada), the *Canada Water Act* (Canada) and the *Environmental Protection Act* (Northwest Territories) and any applicable regulations promulgated thereunder.

“**Income Tax**” means any tax imposed on the income of a Person by any Canadian (whether federal, territorial or otherwise) Governmental Authority;

“**Indemnifier**” has the meaning set out in Section 9.2 (Conduct of Third Person Claims);

“**Independent Certifier**” has the meaning set out in Schedule 3 [Design and Construction];

“**Independent Certifier Agreement**” means the agreement to be entered into between the Authority, the Independent Certifier and Project Co in the form set out in Appendix 3A [Independent Certifier Agreement];

“**Index Linked**”, with respect to an amount at any time, means that the amount is adjusted as at each April 1st commencing as of the April 1st following the Effective Date by:

- (a) multiplying it by the Inflation Index as at the immediately preceding April; and
- (b) dividing it by the Inflation Index as at the Base Date;

“**Indirect Losses**” means any loss of revenue, loss of profits, loss of use, loss of contract, loss of goodwill, loss of production, loss of business, loss of business opportunity or any exemplary, punitive or special damages or any consequential or indirect loss or damages of any nature claimed, suffered or allegedly suffered by:

- (a) Project Co or any Project Co Person (other than a Person who is a Project Co Person solely by virtue of being an invitee of Project Co or any Project Co Person); or
- (b) the Authority or any Authority Person (other than a Person who is an Authority Person solely by virtue of being an invitee of the Authority or any of Authority Persons) or an Authority Indemnified Person,

and shall be deemed not to include any loss of Service Payments or other amounts expressly payable by the Authority to Project Co under this Agreement;

“**INF**” means the GNWT Department of Infrastructure or any successor thereof;

“**Inflation Index**” means the Consumer Price Index, as published by the Bank of Canada or, if such index in its present form becomes unavailable, such similar index as may be agreed by the parties, acting reasonably or failing agreement as determined by the Dispute Resolution Procedure;

“**Infrastructure**” has the meaning set out in Schedule 3 [Design and Construction];

“**Initial Tłıchq Operating Labour Requirement**” has the meaning set out in Schedule 20 [Local Content Requirements];

“**Innovation Proposal**” has the meaning set out in Schedule 6 [Changes, Minor Works and Innovation Proposals];

“**Input Tax Recoverability Change in Law**” means a Change in Law, other than a Discriminatory Change in Tax Law, which results in Additional Irrecoverable Tax or Additional Recoverable Tax;

“**Insurance Adjustment**” has the meaning set out in Schedule 5 [Insurance Requirements];

“**Insurance Proceeds**” means the amount of any insurance proceeds received by a Person in respect of a claim made under any policy of insurance required to be maintained under this Agreement other than:

- (a) any policy of insurance maintained by the Authority solely for the benefit of the Authority;
- (b) for the purposes of Sections 6.7 (Insufficient Insurance), 6.10 (Application of Insurance Proceeds if No Termination) and 6.11 (Application of Insurance Proceeds in Case of Termination), insurance proceeds received by Project Co or the Senior Lenders from:
 - (i) the delay in start-up insurance described in Schedule 5 [Insurance Requirements];
 - (ii) the business interruption insurance described in Schedule 5 [Insurance Requirements]; or
 - (iii) third-party liability insurance to the extent paid to any Person other than Project Co or a Project Co Contractor;

“**Insurance Proceeds Account**” has the meaning set out in Schedule 10 [Lenders’ Remedies Agreement];

“**Insurance Receivables**” means the amount of any insurance proceeds which a Person is entitled to receive pursuant to policies of insurance required to be maintained under this Agreement other than:

- (a) any policy of insurance maintained by the Authority solely for the benefit of the Authority;
- (b) for the purposes of Sections 6.7 (Insufficient Insurance), 6.10 (Application of Insurance Proceeds if No Termination) and 6.11 (Application of Insurance Proceeds in Case of Termination), insurance proceeds received by Project Co or the Senior Lenders from:
 - (i) the delay in start-up insurance described in Schedule 5 [Insurance Requirements];

- (ii) the business interruption insurance described in Schedule 5 [Insurance Requirements]; or
- (iii) third-party liability insurance to the extent paid to any Person other than Project Co or a Project Co Contractor;

“Insurance Review Date” has the meaning set out in Schedule 5 [Insurance Requirements];

“Insurance Trust Agreement” means the agreement between the Authority, the Agent, Project Co and the Account Trustee in the form set out in Appendix 5B [Insurance Trust Agreement], as amended, supplemented or replaced from time to time;

“Intellectual Property” means any or all of the following and all rights, arising out of or associated therewith:

- (a) national, international and foreign patents, utility models, mask works, and applications therefor and all reissues, divisions, renewals, extensions, provisionals, continuations and continuations-in-part thereof;
- (b) inventions (whether patentable or not), invention disclosures, improvements, trade secrets, proprietary information, know-how, technology, technical data and customer lists, product formulations and specifications, and all documentation relating to any of the foregoing throughout the world;
- (c) copyrights, copyright registrations and applications therefor, and all other rights corresponding thereto throughout the world;
- (d) industrial designs and any registrations and applications therefor throughout the world;
- (e) rights in any internet uniform resource locators (URLs), domain names, trade names, logos, slogans, designs, common law trade-marks and service marks, trade-mark and service mark registrations and applications therefor throughout the world;
- (f) data bases and data collections and all rights therein throughout the world;
- (g) moral and economic rights of authors and inventors, however denominated, throughout the world; and
- (h) any similar or equivalent rights to any of the foregoing anywhere in the world;

“Intended Use” means a two-lane, all season highway for vehicles;

“Interested Party” has the meaning set out in Schedule 19 [Environmental Obligations];

“ISO 9000:2015 Standard” has the meaning set out in Schedule 2 [Quality Management];

“ISO 9001:2015 Standard” has the meaning set out in Schedule 2 [Quality Management];

“ISO 9004:2009 Standard” has the meaning set out in Schedule 2 [Quality Management];

“ISO 14001:2015 Standard” has the meaning set out in Schedule 2 [Quality Management];

“ISO 19011:2011 Standard” has the meaning set out in Schedule 2 [Quality Management];

“Junior Debt” means indebtedness contracted by Project Co to any of its Partners or Affiliates of Partners, including, for greater clarity, Equity Provider Subordinated Debt, which ranks subordinate in all respects to the Senior Debt, excluding:

- (a) all amounts not actually paid to Project Co by cash advance, rights entitling Project Co to a cash advance, or other consideration;
- (b) all fees, including commitment fees, standby fees or other fees, paid or to be paid by Project Co, other than to any Partner or any Affiliate of a Partner; and
- (c) capitalized interest, and interest on overdue interest;

“Key Individuals” has the meaning set out in Section 2.8 (Key Individuals);

“Key Performance Measures” or **“KPMs”** has the meaning set out in Schedule 4 [OMR and Handback];

“Kiewit GP” means Kiewit North Star Infrastructure Investor Inc.

“Land Use Permit” means the land use permit for the Project to be obtained from the Wek'èezhì Land and Water Board in accordance with Appendix 3B [Permits];

“Lands” has the meaning set out in Schedule 7 [Lands];

“Laws” means all laws (including the common law), statutes, regulations, treaties, judgments and decrees and all official directives, by-laws, rules, consents, approvals, authorizations, guidelines, standards, codes of practice, orders and policies of any Governmental Authority having the force of law from time to time, including, for greater certainty, those related to the issuance of Permits, occupational health and safety, and any building codes;

“Lender Endorsements” means endorsements in the form set out in Appendix 5A [Lenders Endorsements], with such changes and amendments as may reasonably be required in the context of the coverage provided under, and the wording contained in, each relevant insurance policy to which the endorsement applies;

“Lenders’ Remedies Agreement” means the agreement between the Authority, the Senior Lenders and Project Co in the form set out in Schedule 10 [Lenders’ Remedies Agreement], as amended, supplemented or replaced from time to time in accordance with this Agreement;

“Liability Payment” has the meaning set out in Section 9.3 (General Obligation to Pursue Third Person Recovery);

“Licence” has the meaning set out in Schedule 7 [Lands];

“Local Business Construction Requirement” has the meaning set out in Schedule 20 [Local Content Requirements];

“Local Business Operating Requirement” has the meaning set out in Schedule 20 [Local Content Requirements];

“Local Content Requirements” has the meaning set out in Schedule 20 [Local Content Requirements];

“Longstop Date” means the date that is 12 months after the Target Substantial Completion Date, as adjusted in accordance with this Agreement;

“Mackenzie Valley Environmental Impact Review Board” or **“MVEIRB”** has the meaning set out in Schedule 19 [Environmental Obligations];

“Maintenance” has the meaning set out in Schedule 2 [Quality Management];

“Material Contract Party” means a party to a Material Contract, other than Project Co;

“Material Contracts” means:

- (a) the Project Contracts; and
- (b) any agreement for products, services or management to Project Co between Project Co and a current or former Affiliate of Project Co or a current or former Partner of Project Co;

“Material Project Contractor Collateral Agreement” means the agreement to be entered into between the Authority, a Material Contract Party and Project Co in the form set out in Schedule 11 [Material Project Contractor Collateral Agreement], as amended, supplemented or replaced from time to time in accordance with this Agreement;

“Material Project Documents” has the meaning set out in the Credit Agreement.

“Minor Works” has the meaning set out in Schedule 6 [Changes, Minor Works and Innovation Proposals];

“Net Present Value” means the aggregate of the discounted values, calculated as of the estimated date of the Refinancing, of each of the relevant projected Distributions, in each case discounted using the Threshold Equity IRR;

“New Project Agreement” means an agreement on substantially the same terms and conditions as this Agreement (including any agreements entered into pursuant to this Agreement as at the Termination Date) but with the following amendments:

- (a) if this Agreement is terminated prior to the Substantial Completion Date, the extension of the Target Substantial Completion Date, the Target Total Completion Date and the Longstop Date by such reasonable period as is agreed by the Authority and the New Project Co to meet such extended Target Substantial Completion Date, Target Total Completion Date and Longstop Date;

- (b) any accrued Failure Points pursuant to Schedule 8 [Payments] will be cancelled;
- (c) the term of such agreement will be equal in length to the term from the Termination Date until the date on which the Operating Period would otherwise have expired;
- (d) the Authority may not terminate such agreement for reasons which arose prior to the Termination Date so long as the New Project Co is using all reasonable efforts to remedy any breach of this Agreement that arose prior to the Termination Date and which is capable of being remedied; and
- (e) any other amendments as may be specified by the Authority that do not adversely affect any compensation which would otherwise be payable to Project Co pursuant to Schedule 9 [Compensation on Termination];

“New Project Co” means the Person who has entered into or who will enter into the New Project Agreement with the Authority;

“Nominal” means calculated in nominal terms at current prices recognizing adjustment for indexation in respect of forecast inflation;

“Non-Availability Event” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“Nonconformity” has the meaning set out in Schedule 2 [Quality Management];

“Nonconformity Report” or **“NCR”** has the meaning set out in Schedule 2 [Quality Management];

“Nonconformity Reporting Process” has the meaning set out in Schedule 2 [Quality Management];

“Northern Businesses” has the meaning set out in Schedule 20 [Local Content Requirements];

“Northwestel” means Northwestel Corporation;

“Northwestel Fiber Optic Line” means the Northwestel-owned fibre optic cable that runs along the Highway 3 alignment from the junction of Highway 1 and Highway 3 to the community of Edzo.

“Northwestel Work” means any work conducted by Northwestel on the Lands, including, but not limited to, installation, maintenance, removal or relocation of the Northwestel Fiber Optic Line, as may be required from time to time.

“Notice of Uninsurable Risk” has the meaning set out in Section 6.14 (Risks Becoming Uninsurable);

“Notifying Party” has the meaning set out in Schedule 5 [Insurance Requirements];

“Noxious Weed” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“OMR” means Operation, Maintenance and Rehabilitation;

“**OMR Change**” has the meaning set out in Schedule 6 [Changes, Minor Works and Innovation Proposals];

“**OMR Lender**” has the meaning set out in Section 6.8 (Economic Reinstatement Test During Construction);

“**OMR Monthly Report**” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“**OMR Requirements**” means the requirements in respect of Operation, Maintenance and Rehabilitation, as set out in Schedule 4 [OMR and Handback] and the Appendices thereto;

“**Ongoing Tłıchq Operating Labour Requirement**” has the meaning set out in Schedule 20 [Local Content Requirements];

“**Open Nonconformity Report**” has meaning set out in Schedule 2 [Quality Management].

“**Operating Period**” means the period between the Substantial Completion Date and the Termination Date;

“**Operating Period Representative**” means the Authority Operating Period Representative or the Project Co Operating Period Representative, as the context requires, and “**Operating Period Representatives**” means both the Authority Operating Period Representative and the Project Co Operating Period Representative.

“**Operating Year**” means each 12 month period following the Substantial Completion Date (or part thereof in respect of the period after the final anniversary of the Substantial Completion Date leading up to and including the Termination Date);

“**Operation**” has the meaning set out in Schedule 2 [Quality Management];

“**Operation, Maintenance and Rehabilitation Quality Management Plan**” or “**OMRQMP**” has the meaning set out in Schedule 2 [Quality Management];

“**Operation and Maintenance Plan**” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“**Operational Performance Measures**” or “**OPMs**” has the meaning set out in Schedule 4 [OMR and Handback];

“**Outputs Summary Sheet**” means the sheet labelled “Outputs” in the Financial Model;

“**Partial Closure**” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“**Partners**” means Kiewit GP and Tłıchq GP, and “**Partner**” means either one of them;

“**Paying Party**” has the meaning set out in Section 9.3 (General Obligation to Pursue Third Person Recovery);

“**Payment Period**” has the meaning set out in Schedule 8 [Payments];

“Performance Measures” or **“PMs”** has the meaning set out in Schedule 4 [OMR and Handback];

“Permits” means all permissions, consents, approvals, certificates, permits, licences, statutory agreements, zoning and by-law amendments and variances, and authorizations required from any Governmental Authority, and all necessary consents and agreements from any third parties, needed to carry out the Project in accordance with this Agreement;

“Permitted Debt” means:

- (a) trade or other similar indebtedness incurred in the ordinary course of business (unless being contested in good faith and with appropriate proceedings with an adequate reserve therefor in accordance with GAAP having been placed on the Project Co’s books and records);
- (b) Taxes and governmental charges, salaries, related employee payments and trade payables;
- (c) contingent liabilities relating to the endorsement of negotiable instruments received in the normal course of business or incurred with respect to any Permit, Project Contract or this Agreement; and
- (d) Debt incurred by way of Partner Loans, but does not include any Senior Debt;

“Persistent Breach” means a breach or series of breaches by Project Co of any term, covenant or undertaking to the Authority (other than a breach for which Failure Points could be assigned) which, due to the fact that such breach has:

- (a) continued for 60 calendar days or more after notice thereof from the Authority to Project Co; or
 - (b) occurred 3 or more times in the previous 12 months,
- demonstrates either a persistent inability, or a persistent unwillingness, to comply with its obligations under this Agreement;

“Person” means an individual, legal personal representative, corporation, body corporate, firm, partnership, trust, trustee, syndicate, joint venture, limited liability company, association, unincorporated organization, union or Governmental Authority;

“Personal Information” means ‘personal information’ as defined in the *Access to Information and Protection of Privacy Act* (Northwest Territories), which is collected, acquired, obtained by Project Co or the Authority in relation to or in the course of providing the Project Work under this Agreement, and includes any information about an identifiable individual other than contact information, which is the name, position name or title, business telephone number, business address, business email or business fax number of the individual, or as otherwise defined in the *Access to Information and Protection of Privacy Act* (Northwest Territories);

“Preliminary Change Instruction” has the meaning set out in Schedule 6 [Changes, Minor Works and Innovation Proposals];

“Pre-Refinancing Equity IRR” means the Equity IRR calculated immediately prior to the Refinancing but without taking into account the effect of the Refinancing and using the Financial Model as updated (including as to the performance of the Project) so as to be current immediately prior to the Refinancing;

“Prime Rate” means the annual rate of interest announced by The Toronto-Dominion Bank (or its successor), or any other Canadian chartered bank agreed to by the parties, from time to time as its “prime” rate then in effect for determining interest rates on Canadian dollar commercial loans made by it in Canada;

“Principal Insured Risk” means a risk that would be insured against by policies for the insurance referred to in any of Article 2 of Schedule 5 [Insurance Requirements];

“Professional Engineer” has the meaning set out in Schedule 3 [Design and Construction];

“Project” means the Design, Construction, financing, testing, commissioning, OMR and Project Co’s Environmental Obligations of the Tłıçhǫ ASR, any Reinstatement Works and Handback Works, and all other works and ancillary services in accordance with this Agreement;

“Project Co” means North Star Infrastructure GP;

“Project Co Design and Construction Representative” has the meaning set out in Section 2.7 (Representatives);

“Project Co Event of Default” has the meaning set out in Section 13.1 (Project Co Events of Default);

“Project Co Hazardous Substances” means any Hazardous Substances brought onto, or adjacent to, the Project Site by Project Co or any Project Co Person during the Term;

“Project Co Insolvency Event” means any of the following events:

- (a) a receiver, receiver manager or other encumbrance holder taking possession of or being appointed over, or any distress, execution or other process being levied or enforced upon, the whole or any material part of the assets of Project Co; or
- (b) any proceedings with respect to Project Co being commenced under the *Companies’ Creditors Arrangement Act* (Canada) and if such proceedings are commenced against Project Co and are disputed by Project Co, such proceedings are not discontinued, withdrawn, dismissed or otherwise remedied within 30 Business Days; or
- (c) Project Co making an assignment for the benefit of its creditors, being declared bankrupt or committing an act of bankruptcy, becoming insolvent, making a proposal or otherwise taking advantage of provisions for relief under the *Bankruptcy and Insolvency Act* (Canada) or similar legislation in any jurisdiction, or any other type of insolvency proceedings being commenced by or against Project Co under the *Bankruptcy and Insolvency Act* (Canada) or similar legislation in any jurisdiction and, if proceedings are commenced against Project

Co and are disputed by Project Co, such proceedings are not stayed, dismissed or otherwise remedied within 30 Business Days; or

- (d) Project Co ceasing to carry on business;

“Project Co Lead” has the meaning set out in Schedule 17 [Key Individuals];

“Project Co Material Breach” means:

- (a) a failure by Project Co to pay any amount due and owing to the Authority under this Agreement on the due date (which amount is not being disputed in good faith) and Project Co has not remedied such failure to pay within 10 Business Days following notice from the Authority;
- (b) a failure by Project Co to:
 - (i) maintain the policies of insurance required to be maintained by Project Co under this Agreement;
 - (ii) maintain such policies on the terms required under this Agreement (including a failure to comply with its obligation under Schedule 5 [Insurance Requirements] to name the Authority as an insured party); or
 - (iii) provide evidence to the Authority as required by the terms of this Agreement that such policies have been taken out, maintained, paid for and renewed in accordance with the terms of this Agreement;
- (c) a Persistent Breach;
- (d) except as provided for in (a) through (c) above, a breach, or series of breaches, by Project Co of any agreement, covenant or undertaking made to the Authority in this Agreement (other than a breach for which Failure Points could be assigned), or any representation or warranty made by Project Co to the Authority in this Agreement (or any ancillary certificate, statement or notice issued hereto) being incorrect when made, the consequence of which is:
 - (i) a risk to the safety of the public;
 - (ii) a risk of material liability of the Authority to third Persons;
 - (iii) an adverse effect on the performance of any of the Project Work and as a result thereof that the Authority is reasonably likely to be materially deprived of the benefit of this Agreement; or
 - (iv) any material provision of this Agreement being unenforceable against Project Co;
- (e) a breach by Project Co of Article 5 (Financing of the Project), other than a breach described in Section 13.1(i);

- (f) a failure by Project Co to meet a minimum of 90 per cent of the Tłı̨chǫ Construction Labour Annual Forecasts, unless relief is provided under Section 3.3 of Schedule 20 [Local Content Requirements];
- (g) the accumulation of 150 or more Compliance Failure Points in respect of Local Content Requirements during any 12 month consecutive period within the Operating Period; or
- (h) any other fact or circumstance designated as a “Project Co Material Breach” under this Agreement;

“**Project Co Materials**” has the meaning set out in Section 15.5 (Project Co Material);

“**Project Co Operating Period Representative**” has the meaning set out in Section 2.7 (Representatives);

“**Project Co Permits**” has the meaning set out in Section 4.10 (Project Co Permits);

“**Project Co Person**” means:

- (a) any director, officer, employee or agent of Project Co in each case acting as such;
- (b) any Project Contractor, any Sub-Contractor and any representative, advisor (including any legal and financial advisor) or contractor of Project Co, in any such Person’s capacity as a provider of services, work or materials directly or indirectly to Project Co in connection with the Project; or
- (c) any invitee of Project Co or any of the Project Co Persons referred to in (a) or (b) above who enters upon the Lands;

“**Project Co’s Proposal**” means the technical submission and financial submission made by Project Co in response to the RFP;

“**Project Co Representative**” means the Project Co Design and Construction Representative or the Project Co Operating Period Representative, as applicable;

“**Project Co’s Environmental Obligations**” has the meaning set out in Schedule 19 [Environmental Obligations].

“**Project Co’s Rights**” has the meaning set out in Section 8.13 (Equivalent Project Relief);

“**Project Contractor**” means the Design-Builder or the Service Provider and “**Project Contractors**” means both the Design-Builder and the Service Provider;

“**Project Contractor Breakage Costs**” means the amount payable by Project Co to a Project Contractor under the terms of a Project Contract as a direct result of the termination of such Project Contract as a consequence of the termination of this Agreement but reduced (without duplication) to the extent that:

- (a) Project Co, the Project Contractors and any Sub-Contractors fail to take all reasonable steps to mitigate such amount;

- (b) such amount exceeds the amount which Project Co would reasonably have been expected to pay out as the result of the termination pursuant to any agreements or arrangements entered into by Project Co, the Project Contractors or the Sub-Contractors in the ordinary course of business and on commercial arm's length terms;
- (c) such amount is a Distribution; and
- (d) such amount includes any loss of overhead or profit of the Service Providers or their Sub-Contractors relating to any period or costs after the Termination Date (except to the extent they are properly included in any reasonable commercial breakage fee set out in the applicable Project Contract or Sub-Contract);

"Project Contracts" means the Design-Build Agreement and the Services Contract;

"Project Intellectual Property" means the Intellectual Property which is created, brought into existence, acquired, licensed or used by Project Co, any Project Contractor, any Sub-Contractor or any other third party, directly or indirectly, for the purposes of the Design or Construction of the Tłı̨ch̨o ASR, the maintenance, improvement or testing of the Tłı̨ch̨o ASR, or otherwise for the purposes of this Agreement but does not include the Financial Model;

"Project Manager" has the meaning set out in Schedule 17 [Key Individuals];

"Project Safety Plan" has the meaning set out in Schedule 2 [Quality Management];

"Project Schedule" has the meaning set out in Appendix 3C [Project Schedule];

"Project Site" means the Lands plus any other property in the Northwest Territories used by Project Co or any of its Subcontractors in conjunction with the Project;

"Project Work" means all activities of or required of Project Co (and/or any of the Project Co's employees, Project Contractors and Sub-Contractors) in connection with the performance of any obligations of Project Co under this Agreement, and the conduct of all work and operations of Project Co (and/or any of Project Co's employees, Project Contractors and Sub-Contractors) on or in relation to the Project Site and the Infrastructure including, without limitation, the Design, the Construction, the Operation, the Maintenance, the Rehabilitation, any Reinstatement Works and the Handback Works;

"Proposal Extracts (Design and Construction)" means the provisions of Appendix 3F [Proposal Extracts (Design and Construction)];

"Proposal Extracts (OMR)" means the proposal extracts attached as Appendix 4D [Proposal Extracts (OMR)];

"Prospective CC Relief" has the meaning set out in Schedule 22 [Climate Change Risk-Sharing Regime];

"Protest Action" means any civil disobedience, protest action, riot, civil commotion, blockade or embargo, including any action taken or threatened to be taken, by any Person or Persons protesting or demonstrating against:

- (a) the carrying out of any part of the Project (including the construction of the Tłı̄ch̄o ASR); or
- (b) the construction or operation of road infrastructure in general, occurring after the Effective Date,

but excluding any lawful or unlawful strike, lockout, go-slow or labour or other industrial relations dispute or job action and excluding any protest action targeting Project Co, its Affiliates or other Project Co Persons by reason of their business relationships, or other projects, unrelated to the Project;

“Qualified Insurers” means reputable insurers of good standing in Canada, the United States, the United Kingdom, Europe or Australia having a credit rating of (1) A- VIII or better with AM Best or (2) A- or better with Standard & Poors;

“Qualified Person” means a public sector body having the legal capacity, power and authority to become a party to and to perform all of the obligations of the Authority under this Agreement and whose creditworthiness is equal to or greater than that of the GNWT;

“Qualifying Bank Transaction” means:

- (a) the disposition by a Senior Lender to a Qualifying Institution of any of its rights or interests in the Senior Financing Agreements;
- (b) the grant by a Senior Lender to a Qualifying Institution of any rights of participation in respect of the Senior Financing Agreements; or
- (c) the disposition or grant by a Senior Lender to a Qualifying Institution of any other form of benefit or interest in either the Senior Financing Agreements or the revenues or assets of Project Co, whether by way of security or otherwise;

“Qualifying Institution” means any of the following, provided it is not a Restricted Person, and provided none of its Affiliates is a Restricted Person for any reason other than by reason of section (d) of the definition of Restricted Person:

- (a) a bank listed in Schedule I, II or III of the *Bank Act* (Canada);
- (b) a Canadian trust company, insurance company, investment company, pension fund or other institution which manages at least \$500 million in securities, including entities wholly owned by any of the foregoing;
- (c) a bank regulated by the Board of Governors of the Federal Reserve System of the United States, a U.S. bank, saving and loan institution, insurance company, investment company, employee benefit plan or other institution that has or manages at least \$500 million in assets and would be a “qualified institutional buyer” under U.S. securities legislation, including entities wholly owned by any of the foregoing;
- (d) an institution which is recognised or permitted under the law of any member state of the European Economic Area (“EEA”) to carry on the business of a credit institution pursuant

to Council Directive 2000/12/EC relating to the taking up and pursuit of the business of credit institutions or which is otherwise permitted to accept deposits in the United Kingdom or any other EEA member state;

- (e) an institution which is recognized or permitted under the law of any member state of the Organization for Economic Cooperation and Development (in this definition, the “OECD”) to carry on within the OECD member states the business of a credit institution, insurance company, investment company or pension fund and which has or manages at least \$500 million in assets, including entities wholly owned by any such institution; or
- (f) any other institution consented to in writing by the Authority as a “Qualifying Institution”;

“**Qualifying Refinancing**” means any Refinancing that will give rise to a Refinancing Gain greater than zero that is not an Exempt Refinancing;

“**Quality Audit**” has the meaning set out in Schedule 2 [Quality Management];

“**Quality Audit Plans**” has the meaning set out in Schedule 2 [Quality Management];

“**Quality Documentation**” has the meaning set out in Schedule 2 [Quality Management];

“**Quality Management Plan**” or “**QMP**” has the meaning set out in Schedule 2 [Quality Management];

“**Quality Management System**” has the meaning set out in Schedule 2 [Quality Management];

“**Quality Manual**” has the meaning set out in Schedule 2 [Quality Management];

“**Quality Records**” has the meaning set out in Schedule 2 [Quality Management];

“**Reasonably Expected Performance**” means Project Co’s reasonably expected quality of performance, as measured by the number of Failure Points, if any, that Project Co would have been reasonably expected to receive during the relevant Compensation Event or Excusing Event, as applicable, and determined as follows:

- (a) if a period of time equal to or greater than 6 months has elapsed since the Substantial Completion Date, an average of the Failure Points received by Project Co during the previous 6 month period;
- (b) if a period of time greater than 1 month but less than 6 months has elapsed since the Substantial Completion Date, an average of the Failure Points received by Project Co since the Substantial Completion Date; or
- (c) if a period of time equal to or less than 1 month has elapsed since the Substantial Completion Date, zero Failure Points;

“**Receiving Party**” has the meaning set out in Section 9.3 (General Obligation to Pursue Third Person Recovery);

“Recognized Products List” has the meaning set out in Schedule 3 [OMR and Handback];

“Records” has the meaning set out in Schedule 14 [Records and Reports];

“Records Management Protocol” has the meaning set out in Schedule 14 [Records and Reports];

“Recoverable Expenditure” means expenditure incurred, directly or indirectly, by Project Co, which expenditures:

- (a) relate to an asset that:
 - (i) has a physical existence; and
 - (ii) will generate benefits to be received in future years; and
- (b) are not recurring or routine;

“Referee” has the meaning set out in Schedule 13 [Dispute Resolution Procedure];

“Referee Agreement” has the meaning set out in Schedule 13 [Dispute Resolution Procedure];

“Reference Documents” has the meaning set out in Schedule 3 [Design and Construction];

“Refinancing” means:

- (a) Project Co incurring, creating, assuming or permitting to exist any Debt other than Permitted Debt;
- (b) any transaction in which the Authority, with the consent or at the request of agreement of Project Co, grants rights to any Person under an agreement similar to the Lenders’ Remedies Agreement or any other agreement that provides for step-in rights or similar rights to such Person, other than the Lenders’ Remedies Agreement entered into on the Effective Date;
- (c) any amendment, variation, novation, supplement or replacement of any Senior Debt or Senior Financing Agreement;
- (d) the exercise of any right, or the grant of any waiver or consent with any of the Senior Lenders;
- (e) the disposition of any rights or interests in, or the creation of any rights of participation in respect of, the Senior Financing Agreements or Senior Debt or the creation or granting of any other form of benefit or interest in the Senior Financing Agreements, the Senior Debt or the contracts, revenues or assets of Project Co whether by way of security or otherwise; or

- (f) any other arrangement put in place by Project Co or another Person which has an effect which is similar to any of (a) through (e) above or which has the effect of limiting Project Co's ability to carry out any of the actions referred to in (a) through (e) above,

but excluding any financing pursuant to Section 10.2 (Financing of Lump Sum Payment Amounts);

"Refinancing Gain" means an amount equal to the greater of zero and $[(A - B) - C]$, where:

A = the Net Present Value of Distributions (calculated on an after tax basis at the level of Project Co in a manner consistent with the Financial Model) immediately prior to the Refinancing (taking into account all effects (including the costs and expenses of the Authority pursuant to Section 5.8 (the Authority's Expenses)) of the Refinancing and using the Financial Model as updated (including as to the performance of the Project) so as to be current immediately prior to the Refinancing) to be made over the remaining term of this Agreement following the Refinancing;

B = the Net Present Value of Distributions (calculated on an after tax basis at the level of Project Co in a manner consistent with the Financial Model) projected immediately prior to the Refinancing (but taking into account only those effects of the Refinancing that were fully reflected in the Financial Model as of the Effective Date and no other effects (including the costs and expenses of the Authority pursuant to Section 5.8 (the Authority's Expenses)) of the Refinancing, and using the Financial Model as updated (including as to the performance of the Project) so as to be current immediately prior to the Refinancing) to be made over the remaining term of this Agreement following the Refinancing; and

C = any adjustment required to raise the Pre-Refinancing Equity IRR to the Threshold Equity IRR calculated as a single payment to be paid as a Distribution on the date of the Refinancing;

"Rehabilitation" has the meaning set out in Schedule 2 [Quality Management];

"Reinstatement Plan" has the meaning set out in Section 6.4 (Project Co's Obligations – Material Damage or Destruction);

"Reinstatement Works" has the meaning set out in Section 6.4 (Project Co's Obligations – Material Damage or Destruction);

"Relevant Authority" has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

"Relevant Change in Law" means a Change in Law (other than a Discriminatory Change in Tax Law):

- (a) which specifically applies to
 - (i) the Project or road-related projects whose design, construction, financing, maintenance and service provision are procured on a public-private partnership basis similar to that of the Project;
 - (ii) Project Co, its Partners or Project Contractors or Persons that have contracted on similar road-related projects procured and contracted with the Authority or other

statutory or public body on a public-private partnership basis similar to the Project;
or

(iii) Persons holding shares or other evidences of ownership in Persons whose principal business is contracting on other similar road-related projects procured and contracted on a public-private partnership basis similar to the Project and not other Persons; or

(b) which principally affects or principally relates to the provision or operation of road infrastructure,

and compliance with which would require a variation (as applicable) in the design, quality, scope, methodology or cost of the Design, the Construction, the Operation, the Maintenance, the Rehabilitation, any Reinstatement Works or the Handback Works;

“Relevant Works Change in Law” means a Change in Law during the Operating Period (other than a Relevant Change in Law or a Discriminatory Change in Tax Law) which causes Project Co to incur Recoverable Expenditure to perform works affecting the Tłı̨ch̨ ASR (being any work of alteration, addition, demolition or extension or variation in the quality or function of the Tłı̨ch̨ ASR) which is not work which Project Co would otherwise be required to perform under this Agreement;

“Relief Event” means any of the following events or circumstances if and to the extent it interferes adversely with, or causes a failure of, the carrying out of the Design, the Construction, the Operation, the Maintenance, the Rehabilitation, any Reinstatement Works, the Handback Works or causes a Failure Event:

(a) explosion, lightning, bursting or overflowing of water tanks, apparatus or pipes, ionising radiation, earthquake or any act of God similar to the foregoing, in each case to the extent it does not constitute a Force Majeure Event;

(b) during the Construction Period, without limiting Project Co’s obligation to provide stand-by power facilities in accordance with the Design and Construction Requirements,

(i) a shortage of fuel available in Yellowknife and Edmonton; or

(ii) a failure by any utility company, local authority or other like body to perform works or provide services required to be provided by them in a reasonably timely manner or any unreasonable interference with the Construction by any such body as a result of maintenance and other work;

(c) lawful or unlawful strike, lockout, work-to-rule, job action or other labour dispute generally affecting the construction or road maintenance industry or a significant sector thereof;

(d) any delay of more than 3 days in respect or any critical path matter in the Project Schedule caused by compliance by Project Co with an order or direction by police, fire officials, medical health officer or any comparable public authority having the legal authority to make such order or give such direction;

(e) a Change in Law during the Construction Period;

- (f) unreasonable delay in the payment of any Insurance Receivables;
- (g) accidental loss or damage to the Tłı̄chų ASR or any roads servicing the Lands, other than any such loss or damage which is a Compensation Event;
- (h) blockade or embargo to the extent it does not constitute a Force Majeure Event; and
- (i) any other event which is stated in this Agreement to constitute a Relief Event,

except to the extent that any of such events arise or are contributed to, directly or indirectly, as a result of any wilful misconduct, negligent act or omission or non-compliance with the terms of this Agreement by Project Co or any Project Co Person;

“Report of Environmental Assessment and Reasons for Decision” has the meaning set out in Schedule 19 [Environmental Obligations];

“Reporting Error” has the meaning set out in Schedule 8 [Payments];

“Reports” has the meaning set out in Schedule 14 [Records and Reports];

“Representative” means, as the case may be, an Authority Representative or a Project Co Representative;

“Response Measure” has the meaning set out in Schedule 4 [OMR and Handback];

“Restricted Person” means (i) any Person who, or (ii) any member of a group of Persons acting together, any one of whom:

- (a) has, directly or indirectly, its principal or controlling office in a country that is subject to any economic or political sanctions imposed by Canada for reasons other than its trade or economic policies;
- (b) has as any part of its business the illegal manufacture, sale, distribution or promotion of narcotic substances or arms, or is or has been involved in the promotion, support or carrying out of terrorism;
- (c) in the case of an individual, he or she (or in the case of a legal entity, any of the members of the board of directors or its senior executive managers) has been sentenced to imprisonment or otherwise given a custodial sentence (other than a suspended sentence) for any criminal offence (other than minor traffic or motor vehicle offences or misdemeanours) less than 5 years prior to the date at which the determination of whether the Person falls within this definition is being made;
- (d) has as its primary business the acquisition of distressed assets or investments in companies or organizations which are or are believed to be insolvent or in a financial standstill situation or potentially insolvent or are in financial distress;
- (e) is subject to any material claim of the Authority in any proceedings (including regulatory proceedings) which have been concluded or are pending at the time at which the

determination of whether the Person falls within this definition is being made and which would, in the Authority's view, acting reasonably, be likely to materially affect the ability of Project Co to perform its obligations under this Agreement;

- (f) has been convicted of an offence under the *Proceeds of Crime (Money Laundering) and Terrorist Financing Act* (Canada), or has been convicted of the commission of a money laundering offence or a terrorist activity financing offence under the *Criminal Code* (Canada); or
- (g) whose standing or activities, in the Authority's reasonable opinion, are inconsistent with or is reasonably likely to compromise the reputation or integrity of the Authority or the delivery of public services in the Northwest Territories so as to affect public confidence in those services; or
- (h) has an Affiliate that is a Restricted Person for any reason other than by reason of (d) above;

"Retrospective CC Relief" has the meaning set out in Schedule 22 [Climate Change Risk-Sharing Regime];

"Road Safety Audit Certificate" has the meaning set out in Schedule 3 [Design and Construction];

"Roadside" has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

"Roadway Surfaces" has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

"Safety Manager" has the meaning set out in Schedule 17 [Key Individuals];

"Senior Debt" means:

- (a) all amounts outstanding, including principal and interest and default interest accrued, from Project Co to the Senior Lenders under the Senior Financing Agreements, provided that default interest will not include any increased interest, fees or penalty amounts payable by Project Co for any reason other than a failure by Project Co to pay any amount when due;
- (b) cost of early termination of interest rate or currency hedging arrangements and other breakage costs or make-whole amounts payable by Project Co to the Senior Lenders as a result of a prepayment under the Senior Financing Agreements; and
- (c) all other fees, costs and expenses for which Project Co is responsible under the Senior Financing Agreements;

"Senior Debt Service Amount" means, for any period, the principal and interest payable by Project Co to the Senior Lenders or hedging banks in the normal course (which, for greater certainty, does not include breach or default circumstances) under the Senior Financing Agreements;

"Senior Debt Termination Amount" has the meaning set out in Schedule 9 [Compensation on Termination];

“Senior Financing Agreements” means:

- (a) the Credit Agreement;
- (b) the general security agreement dated on or about the date hereof between Project Co, Kiewit GP, the Tłıchq GP, the Tłıchq GP General Partner and the Administrative Agent, whereby Kiewit GP and the Tłıchq GP pledge of all of their respective partnership interests in Project Co and the Tłıchq GP General Partner pledges all of its partnership interests in the Tłıchq GP;
- (c) the limited recourse guarantee and pledge dated on or about the date hereof between Kiewit North Star Capital Corp., Kiewit GP and the Administrative Agent, whereby Kiewit North Star Capital Corp. pledges all its shares in Kiewit GP;
- (d) the limited recourse guarantee and pledge dated on or about the date hereof between the Tłıchq Government, the Tłıchq GP, the Tłıchq GP General Partner and the Administrative Agent, whereby the Tłıchq Government pledges all of its shares in the Tłıchq GP General Partner and all of its partnership interests in the Tłıchq GP;
- (e) the Lenders’ Remedies Agreement;
- (f) the Lenders’ Construction Direct Agreement (as defined in the Credit Agreement);
- (g) the Insurance Trust Agreement; and
- (h) any other document or agreement which the Administrative Agent, Project Co and the Authority agree in writing is a Senior Financing Agreement,

certified copies of each of which have been delivered by Project Co to the Authority, and as amended from time to time in accordance with the terms of this Agreement. For greater clarity, Senior Financing Agreements shall not include any agreements related to Equity Provider Subordinated Debt;

“Senior Lenders” means lenders to whom Senior Debt is owed;

“Service Life” has the meaning set out to that term:

- (a) for the purposes of Schedule 3 [Design and Construction] and its Appendices, in Part 2 of Schedule 3 [Design and Construction]; and
- (b) for the purposes of Schedule 4 [OMR and Handback] and its Appendices, in CAN/CSA-S6-06;

“Service Payment” has the meaning set out in Schedule 8 [Payments];

“Service Provider” means [REDACTED] or any assignee or replacement permitted under this Agreement;

“Service Provider’s Collateral Agreement” means the agreement to be entered into between the Authority, the Service Provider and Project Co in the form set out in Schedule 11 [Material Project Contractor Collateral Agreement], as amended, supplemented or replaced from time to time in accordance with this Agreement;

“Service Provider Lead” has the meaning set out in Schedule 17 [Key Individuals];

“Services Contract” means the agreement between Project Co and the Service Provider, a certified copy of which has been delivered by Project Co to the Authority, as amended, supplemented or replaced from time to time in accordance with this Agreement;

“Sight Distance” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“Sign” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“Structures” has the meaning set out in Schedule 3 [Design and Construction];

“Substantial Completion” means the satisfactory completion, in accordance with the Design and Certification Procedure, of all Project Work required in accordance with all Laws, Permits, applicable Project requirements and other requirements to such extent as is necessary to permit the safe, uninterrupted and unobstructed public use of the T1çhç ASR, including, but not limited, to the following:

- (a) issuance of all Construction Certificates;
- (b) issuance of a stage 3 Road Safety Audit Certificate in accordance with Section 11.4.3 Schedule 3 [Design and Construction];
- (c) satisfactory completion of installation of all regulatory and advisory signage and traffic control devices;
- (d) the T1çhç ASR is fit for Intended Use as a navigable route for vehicles along its entire design length;
- (e) operation and maintenance resources are in place and operational, including monitoring, communication and reporting elements.
- (f) satisfactory completion of all relevant quality assurance audits in accordance with the Design Management Plan, the Quality Documentation and other relevant provisions of this Agreement and provided to the Authority, showing that the Design and Construction have been completed in accordance with all applicable Project requirements and other requirements of this Agreement;
- (g) agreement and acceptance by the Authority and Project Co, or by the Independent Certifier, of Deficiency Lists and rectification timelines;
- (h) Project Co has provided evidence to the Authority that no Charges exist with respect to the Project other than Encumbrances and has provided a written representation that there exist no outstanding claims from Sub-Contractors or materials providers or, if there

are outstanding claims from Project Contractors, Sub-Contractors or materials providers, Project Co will state the nature and amount of the claims, identify the claimant, and indemnify, defend and hold harmless the Authority and each Authority Indemnified Person in accordance with and to the extent provided in Section 9.1 from and against all Direct Losses resulting therefrom;

- (i) Project Co has certified that there is no Project Co Event of Default under this Agreement, or event which, with the giving of notice or the passage of time, would constitute a Project Co Event of Default;
- (j) vacant construction staging areas including camp locations, facilities and equipment no longer in use, located on the Project Site have been returned to their original condition or a condition otherwise acceptable to the Authority, acting reasonably;
- (k) Debris, superfluous materials and equipment have been removed from the Project Site (other than materials and equipment required to remain on the Project Site for purposes of performing OMR and/or seasonal work), and the Project Site has been satisfactorily cleared; and
- (l) Project Co has delivered to the Authority all plans required to have been delivered on or prior to the commencement of the Operating Period;

“Substantial Completion Date” means the date when Project Co has satisfied all the criteria for Substantial Completion for the Tłıçhç ASR, as certified by the Independent Certifier and evidenced by the Certificate of Substantial Completion;

“Substantial Completion Payment” has the meaning set out in Schedule 8 [Payments];

“Sub-Contract” means any contract entered into by a Project Contractor (except Project Contracts), or a sub-contractor of a Project Contractor of any tier, with one or more Persons in connection with the carrying out of Project Co’s obligations under this Agreement, as amended or replaced from time to time;

“Sub-Contractor” means any Person that enters into a Sub-Contract;

“Sub-Contractor Step-In Notice” has the meaning set out in Section 11.2 (Non-Performing Service Provider or Sub-Contractor);

“Suitable Substitute Project Co” has the meaning set out in the Lenders’ Remedies Agreement;

“Supervening Event” means any of a Compensation Event, Relief Event, Excusing Event, Force Majeure Event, Climate Change Event or Eligible Change in Law Event;

“Supervening Event Notice” has the meaning set out in Section 8.2 (Procedures Upon the Occurrence of a Supervening Event);

“Surveillance Quality Audit” has the meaning set out in Schedule 2 [Quality Management];

“Target Substantial Completion Date” means November 30, 2021, as adjusted in accordance with the terms of this Agreement;

“Target Total Completion Date” means the date that is 12 months after the Target Substantial Completion Date;

“Tax” or **“Taxes”** means, from time to time, all taxes, surtaxes, duties, levies, imposts, rates, payments, assessments, withholdings, dues and other charges of any nature imposed by any Governmental Authority (including income, capital (including large corporations), withholding, consumption, sales, use, transfer, goods and services or other value-added, excise, customs, anti-dumping, countervail, net worth, stamp, registration, franchise, payroll, employment, health, education, business, school, property, local improvement, development, education development and occupation taxes, surtaxes, duties, levies, imposts, rates, payments, assessments, withholdings, dues and charges) together with all fines, interest, penalties on or in respect of, or in lieu of or for non-collection of, those taxes, surtaxes, duties, levies, imposts, rates, payments, assessments, withholdings, dues and other charges;

“Technical Requirements” has the meaning set out in Schedule 3 [Design and Construction];

“Term” has the meaning set out in Section 2.1 (Term and Termination) of the Agreement;

“Termination Date” means the earlier of the Expiry Date or the date of earlier termination referred to in Section 2.1 (Term and Termination) of the Agreement;

“Termination Payment” means the amount owing by the Authority to Project Co pursuant to Schedule 9 [Compensation on Termination];

“Termination Payment Date” means the date on which the Authority must make the Termination Payment as provided for in Schedule 9 [Compensation on Termination];

“Tłıçhǫ ASR” means the Tłıçhǫ All Season Road and includes the Infrastructure comprising the Tłıçhǫ All Season Road at the relevant point in time;

“Tłıçhǫ ASR Condition Report” has the meaning set out in Appendix 4C [Handback Specification];

“Tłıçhǫ ASR Executive Committee” has the meaning set out in Schedule 20 [Local Content Requirements];

“Tłıçhǫ Businesses” has the meaning set out in Schedule 20 [Local Content Requirements];

“Tłıçhǫ Construction Labour Annual Forecasts” has the meaning set out in Schedule 20 [Local Content Requirements];

“Tłıçhǫ Construction Labour Ratio” has the meaning set out in Schedule 20 [Local Content Requirements];

“Tłıçhǫ Government” has the meaning set out in Schedule 20 [Local Content Requirements];

“Tłıçhǫ GP” means Tili Geekwi Limited Partnership;

"Tłı̄chq GP General Partner" means Tili Geekwi Ltd., acting in its capacity as general partner of Tili Geekwi Limited Partnership;

"Tłı̄chq Operating Labour Ratio" has the meaning set out in Schedule 20 [Local Content Requirements];

"Threshold Equity IRR" means ■■■%, being the Equity IRR as set out in the Financial Model;

"Total Capital Costs" has the meaning set out in Schedule 20 [Local Content Requirements];

"Total Completion" has the meaning set out in Schedule 3 [Design and Construction];

"Total Completion Date" means the date on which Total Completion occurs in respect of the Infrastructure components, as established by the relevant Certificate of Total Completion;

"Total Operation, Maintenance and Rehabilitation Costs" has the meaning set out in Schedule 20 [Local Content Requirements];

"Traffic Control" has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

"Traffic Management" has the meaning set out in Schedule 2 [Quality Management];

"Traffic Management Plan" or **"TMP"** has the meaning set out in Schedule 3 [Design and Construction];

"Transfer Restriction Date" has the meaning set out in Section 17.1 (Limitations on Assignment of Project by Project Co);

"Unavailable" has the meaning set out in Schedule 17 [Key Individuals].

"Undisclosed Environmental Liabilities" means all Hazardous Substances located in, on, below or adjacent to the Lands, other than Project Co Hazardous Substances;

"Uninsurable" means, in relation to a risk:

- (a) insurance as required under this Agreement is not available in respect of the Project with Qualified Insurers; or
- (b) the insurance premium payable or the terms and conditions for insuring such risk at the levels and on the terms required by this Agreement are such that contractors, concessionaires, owners or others having a substantially similar interest in a project such as the Project in Canada are not generally insuring against such risk with Qualified Insurers;

"Uninsurable Risk" has the meaning set out in Section 6.14 (Risks Becoming Uninsurable);

"Units" means units or other equity interests of any class in the capital of Project Co;

"Valuator" means a firm of chartered accountants as represented by a fully qualified member of the Canadian Institute of Chartered Business Valuators;

“Water Licence” means the water licence for the Project to be obtained from the Wek’èezhì Land and Water Board in accordance with Appendix 3B [Permits];

“Wearing Surface” has the meaning set out in Appendix 4A [Operation and Maintenance Specification];

“Wek’èezhì Land and Water Board” has the meaning set out in Schedule 19 [Environmental Obligations];

“Whatì Winter Road” has the meaning set out in Schedule 21 [Winter Road Output Specifications];

“Winter Road Output Specifications” means the output specifications for the Whatì Winter Road set out in Schedule 21 [Winter Road Output Specifications];

“Works Change” has the meaning set out in Schedule 6 [Changes, Minor Works and Innovation Proposals]; and

“Works Schedule” has the meaning set out in Schedule 3 [Design and Construction].

2. INTERPRETATION

This Agreement will be interpreted according to the following provisions, except to the extent the context or the express provisions of this Agreement otherwise require:

- (a) the parties waive the application of any rule of law which otherwise would be applicable in connection with the construction of this Agreement that ambiguous or conflicting terms or provisions should be construed against the party who (or whose counsel) prepared the executed agreement or any earlier draft of the same;
- (b) the table of contents, headings and sub-headings, marginal notes and references to them in this Agreement are for convenience of reference only, do not constitute a part of this Agreement, and will not be taken into consideration in the interpretation or construction of, or affect the meaning of, this Agreement;
- (c) each reference to an Article, Section, Schedule or Appendix is a reference to an Article or Section of, Schedule to or Appendix to a Schedule to this Agreement; each Appendix is uniquely designated by using the number of the Schedule to which the Appendix is attached following by an alphabetical designator in sequence (for example, Appendix 4A [Operation and Maintenance Specification] means the Appendix attached to Schedule 4 [OMR and Handback]). A Schedule includes all of the Appendices attached to that Schedule. An Appendix includes all the Attachments attached to that Appendix;
- (d) each reference to an agreement, document, standard, principle or other instrument includes (subject to all relevant approvals and any other provision of this Agreement expressly concerning such agreement, document, standard, principle or other instrument) a reference to that agreement, document, standard, principle or instrument as amended, supplemented, substituted, novated or assigned;
- (e) each reference to a statute or statutory provision (including any subordinate legislation) includes any statute or statutory provision which amends, extends, consolidates or

replaces the statute or statutory provision or which has been amended, extended, consolidated or replaced by the statute or statutory provision and includes any orders, regulations, by-laws, ordinances, orders, codes of practice, instruments or other subordinate legislation made under the relevant statute;

- (f) each reference to time of day is a reference to Mountain Standard time or Mountain Daylight Saving time, as the case may be;
- (g) words importing the singular include the plural and vice versa;
- (h) words importing a particular gender include all genders;
- (i) each reference to a public organization is deemed to include a reference to any successor(s) to such public organization or any organization or entity or organizations or entities which has or have taken over the functions or responsibilities of such public organization;
- (j) unless the context otherwise requires, each reference to “parties” means the parties to this Agreement and each reference to a “party” means any one of the parties to this Agreement, provided however that a reference to a third party does not mean a party to this Agreement;
- (k) all monetary amounts are expressed in Canadian Dollars;
- (l) whenever this Agreement obliges a party (the “**Payor**”) to pay any amount to the other party (the “**Payee**”) in respect of any costs, expenses, fees, charges, liabilities, losses, claims or other sums incurred by the Payee:
 - (i) such obligation will be construed as applying only to so much of such sums as have been properly incurred on an arm’s length commercial basis or, where not incurred on an arm’s length commercial basis (including when the payment is made to an Affiliate of the Payee), so much of them as are proper and reasonable; and
 - (ii) the Payee will, when requested by the Payor, provide supporting evidence of such costs, expenses, fees, charges, liabilities, losses, claims or other sums;
- (m) the Authority will not be imputed with knowledge of any fact, matter or thing unless that fact, matter or thing is within the actual knowledge of those individuals referred to in paragraph (e) of the definition of “Has Knowledge” in this Schedule;
- (n) without limiting the extent of its actual knowledge, Project Co will for all purposes of this Agreement be deemed to have such knowledge in respect of the Project Work as is held (or ought reasonably to be held) by those employees or agents of Project Co, or any Project Contractor or Sub-Contractor, who have responsibilities in connection with the carrying out of the Project Work to which the fact, matter or thing relates or is applicable;
- (o) each requirement for a thing or action to be “in accordance with” or “in compliance with” any standard, code or specification or other requirement or stipulation means that such

thing or action is to exceed or at least equal that standard, code, specification or other requirement or stipulation;

- (p) the words “include”, “includes” and “including” are to be construed as meaning “include without limitation”, “includes without limitation” and “including without limitation”, respectively;
- (q) when a party has “discretion”, it means that party has the sole, absolute and unfettered discretion, with no requirement to act reasonably or provide reasons unless specifically required under the provisions of this Agreement;
- (r) any consent contemplated to be given under this Agreement must be in writing;
- (s) general words are not given a restrictive meaning:
 - (i) if they are introduced by the word “other”, by reason of the fact that they are preceded by words indicating a particular class of act, matter or thing; or
 - (ii) by reason of the fact that they are followed by particular examples intended to be embraced by those general words;
- (t) words or abbreviations which have well-known trade meanings are used in accordance with those meanings;
- (u) the expression “all reasonable efforts” and expressions of like import, when used in connection with an obligation of either party, means taking in good faith and with due diligence all commercially reasonable steps to achieve the objective and to perform the obligation, including doing all that can reasonably be done in the circumstances taking into account each party’s obligations hereunder to mitigate delays and additional costs to the other party, and in any event taking no less steps and efforts than those that would be taken by a commercially reasonable and prudent Person in comparable circumstances but where the whole of the benefit of the obligation and where all the results of taking such steps and efforts accrued solely to that Person’s own benefit, provided that the foregoing will not require the Authority to:
 - (i) take any action which is contrary to the public interest, as determined by the Authority in its discretion; or
 - (ii) undertake any mitigation measure that might be available arising out of its status as a public body that would not normally be available to a private commercial party;
- (v) the expressions “by Project Co” and “by or through Project Co” and expressions of like import are synonymous and mean by Project Co or by anyone employed by or through Project Co, including Project Co and all contractors, sub-contractors and suppliers of any tier and their respective officers, employees, consultants and agents;
- (w) all accounting and financial terms used herein are, unless otherwise indicated, to be interpreted and applied in accordance with GAAP, consistently applied;

- (x) where this Agreement requires the calculation of something that is calculated in the Financial Model, including Net Present Value of Distributions and Equity IRR but not including payments and deductions, the calculation will be done in a manner consistent with the calculation methodology in the Financial Model;
- (y) if the time for doing an act falls or expires on a day that is not a Business Day, the time for doing such act will be extended to the next Business Day;
- (z) each provision of this Agreement will be valid and enforceable to the fullest extent permitted by law. If any provision of this Agreement is held to be invalid, unenforceable or illegal to any extent, such provision may be severed and such invalidity, unenforceability or illegality will not prejudice or affect the validity, enforceability and legality of the remaining provisions of this Agreement. If any such provision of this Agreement is held to be invalid, unenforceable or illegal, the parties will promptly endeavour in good faith to negotiate new provisions to eliminate such invalidity, unenforceability or illegality and to restore this Agreement as nearly as possible to its original intent and effect; and
- (aa) each release, waiver of liability and indemnity in this Agreement expressed to be given in favour of a party is and will be interpreted as having been given in favour of and may be enforced by that party and, in the case of the Authority, by the Authority Indemnified Persons, and, in the case of Project Co, by Project Co Persons.

3. PRIORITY OF AGREEMENTS AND SCHEDULES

In the event of ambiguities, conflicts or inconsistencies between or among any of the provisions of this Agreement, the provisions will prevail in the following order of precedence with each taking precedence over those listed subsequently:

- (a) the provisions establishing the higher quality, manner or method of performing the Project Work, using the more stringent standards, will prevail, with the intent that the provisions which produce the higher quality with the higher levels of safety, reliability, durability, performance and service will prevail;
- (b) the provisions of the main body of this Agreement will prevail over any of the Schedules hereto other than Schedule 11 [Material Project Contractor Collateral Agreement] or Schedule 10 [Lenders' Remedies Agreement];
- (c) the provisions of the Schedule 10 [Lenders' Remedies Agreement] will prevail over the provisions of Schedule 11 [Material Project Contractor Collateral Agreement];
- (d) the provisions of this Agreement (other than the provisions of Appendix 3F [Proposal Extracts (Design and Construction)] and Appendix 4D [Proposal Extracts (OMR)]) will prevail over the provisions of Appendix 3F [Proposal Extracts (Design and Construction)] and Appendix 4D [Proposal Extracts (OMR)]; provided however that in determining whether an ambiguity, conflict or inconsistency exists between Appendix 3F [Proposal Extracts (Design and Construction)] and Appendix 4D [Proposal Extracts (OMR)] and any other provisions in this Agreement, to the extent that Appendix 3F [Proposal Extracts

(Design and Construction)] and Appendix 4D [Proposal Extracts (OMR)] include additional requirements for higher standards of quality or performance or additional requirements for more extensive scope of design, work or services than otherwise required, no such ambiguity, conflict or inconsistency will be deemed to exist and Project Co's obligations hereunder will include compliance with all such additional requirements; and

- (e) if the ambiguity, conflict or inconsistency is between a provision of general application and a provision that applies only to a specific part of the Project Work, the provision that applies to the specific part of the Project Work shall prevail for that specific part of the Project Work.

4. FINANCIAL MODEL

Except where expressly referred to, the Financial Model and its contents will not be used to interpret, and will not affect the meaning of, this Agreement.

SCHEDULE 2

QUALITY MANAGEMENT

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SCHEDULE 2

QUALITY MANAGEMENT

DEFINITIONS

1.0 Definitions

In this Schedule, in addition to the terms defined in Schedule 1 [Definitions and Interpretation] to this Agreement:

“Closed Nonconformity Report” means the Nonconformity Report status set out in Section 6.1(h) of this Schedule.

“Construction Quality Management Plan” or “CQMP” means the plan for the quality management of the Construction prepared by Project Co in accordance with Appendix 2C [Construction Quality Management Plan] of this Schedule.

“Corrective Action” means an action to eliminate the cause of an existing Nonconformity to prevent its recurrence.

“Design Data” means all calculations, designs, design or construction information, standards, specifications, plans, drawings, graphs, sketches, models and other materials, including all eye readable or computer or other machine readable data and including all design submissions required under the Project requirements, used, prepared or to be prepared by or on behalf of Project Co and/or any of Project Co’s agents, employees, Project Contractors or Sub-Contractors or the Authority relating to the Project Work or to any Change by the Authority or Project Co Proposal.

“Design Quality Management Plan” or “DQMP” means the plan for the quality management of the Design prepared by Project Co in accordance with Appendix 2B [Design Quality Management Plan] of this Schedule.

“Environmental Quality Management Plan” or “EQMP” means the plan for the quality management of Project Co’s Environmental Obligations prepared by Project Co in accordance with Appendix 2E [Environmental Quality Management Plan] of this Schedule.

“External Quality Audit” means a second party or third party Quality Audit; second party Quality Audits are Quality Audits conducted by parties having an interest in the relevant organization, such as customers; third party Quality Audits are Quality Audits conducted by external independent organizations such as a certification or registration body.

“Inspection and Test Plan” or “ITP” means a detailed spreadsheet of all major on and off Project Site inspection and test activities for Project Work performed by Project Co and that of its Project Contractors and Sub-Contractors.

“Internal Quality Audit” means a first party Quality Audit conducted by or on behalf of the relevant organization of its own processes.

“ISO 9000:2015 Standard” means the ISO 9000:2015 International Standard, Quality Management Systems – Fundamentals and Vocabulary, as revised and updated from time to time,

or, if such standard ceases to be available for any reason, such other replacement and equivalent standard as the Authority may designate, acting reasonably.

“ISO 9001:2015 Standard” means the ISO 9001:2015 International Standard, Quality Management Systems - Requirements, as revised and updated from time to time, or, if such standard ceases to be available for any reason, such other replacement and equivalent standard as the Authority may designate, acting reasonably.

“ISO 9004:2009 Standard” means the ISO 9004:2009 International Standard, Managing for the Sustained Success of an Organization - A Quality Management Approach, as revised and updated from time to time, or, if such standard ceases to be available for any reason, such other replacement and equivalent standard as the Authority may designate, acting reasonably.

“ISO 14001:2015 Standard” means the ISO 14001:2015 International Standard, Environmental Management Systems – Requirements with Guidance of Use, as revised and updated from time to time, or, if such standard ceases to be available for any reason, such other replacement and equivalent standard as the Authority may designate, acting reasonably.

“ISO 19011:2011 Standard” means the ISO 19011:2011 International Standard, Guidelines for Auditing Management Systems, as revised and updated from time to time, or, if such standard ceases to be available for any reason, such other replacement and equivalent standard as the Authority may designate, acting reasonably.

“Maintenance” means:

- (a) the maintenance and repair of the Infrastructure as required to ensure that the Infrastructure is maintained and repaired to meet the Asset Preservation Performance Measures throughout the Term and to meet the requirements set out in Appendix 4C [Handback Specification] as at the Expiry Date;
- (b) the performance of all project management, quality management, environmental management, communications management and other management services and activities required for the carrying out of the foregoing;
- (c) the supply of all plant, construction plant, materials, other property and workers for the carrying out of the foregoing; and
- (d) all other work, services and activities to be provided by Project Co in respect of the foregoing,

all as set out and described in and in accordance with the Project requirements, including the OMR Requirements, and this Agreement.

“Nonconformity” means any failure by Project Co to perform any of its obligations under this Agreement in respect of any aspect of the Project Work.

“Nonconformity Report” or **“NCR”** means a document issued by either the Authority Representative or Project Co pursuant to Section 6.1 of this Schedule detailing the description of an identified Nonconformity and the proposed rectification and action taken or to be taken to deal with such Nonconformity.

“Nonconformity Tracking System” means a system to track Nonconformity Reports issued by the Authority Representative or Project Co as set out in Section 6.2 of this Schedule.

“Open Nonconformity Report” means the Nonconformity Report status set out in Section 6.1(a) to Section 6.1(h) of this Schedule.

“Operation” means:

- (a) the routine operation of the Infrastructure;
- (b) the performance of all project management, quality management, environmental management, communications management and other management services and activities required for the carrying out of the foregoing;
- (c) the supply of all plant, construction plant, materials, other property and workers for the carrying out of the foregoing; and
- (d) all other work, services and activities to be provided by Project Co in respect of the foregoing,

all as set out and described in and in accordance with the Project requirements, including the OMR Requirements, and this Agreement.

“Operation, Maintenance and Rehabilitation Quality Management Plan” or **“OMRQMP”** means the plan for the quality management of the Operation, the Maintenance and the Rehabilitation prepared by Project Co in accordance with Appendix 2D [Operation, Maintenance and Rehabilitation Quality Management Plan] of this Schedule.

“Preventative Action” means an action to eliminate the cause of a potential Nonconformity in order to prevent its occurrence.

“Project Safety Plan” means a safety plan prepared by Project Co in accordance with Appendix 2F of this Schedule.

“QMS 2000 Auditor” means a quality auditor certified by the International Register of Certified Auditors in the “QMS 2000 Auditor” grade of certification.

“Quality Audit” means a systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled.

“Quality Audit Plans” means Project Co’s audit plans defining the Internal Quality Audits and External Quality Audits that Project Co shall perform or cause to be performed on its own processes and the processes of its Project Contractors and Sub-Contractors.

“Quality Documentation” means all documentation required in accordance with Schedule 2 [Quality Management] which together constitutes and describes the Quality Management System, including the Quality Manual, Quality Management Plans and Quality Audit Plans.

“Quality Management Plan” or **“QMP”** means each detailed quality management plan of Project Co detailing which procedures and associated resources shall be applied by whom and when for each aspect of the Project Work required in accordance with this Agreement, including the Design Quality Management Plan, the Construction Quality Management Plan, the Operation, Maintenance and Rehabilitation Quality Management Plan, and the Environmental Quality Management Plan.

“Quality Management System” means Project Co’s management system that establishes the organizational structure, procedures, processes, systems, management plans and resources for determining and implementing the Quality Policy in the performance of the Project Work in accordance with this Agreement.

“Quality Management System Audits” means the Quality Audits conducted by or on behalf of the Authority as contemplated in Section 4.3.3(b) of this Schedule.

“Quality Manager” means the individual appointed under, and fulfilling the functions listed under, Part 2 of this Schedule.

“Quality Manual” means Project Co’s Quality Manual meeting the requirements set out in Appendix 2A [Quality Manual] of this Schedule.

“Quality Objectives” means the objectives related to quality that are measurable and consistent with the Quality Policy and which are to be formally expressed and recorded in the Quality Manual in accordance with this Schedule, provided that, alternatively, each Quality Management Plan may have its own Quality Objectives which are directly related to applicable Quality Policy expressed or recorded in the Quality Manual.

“Quality Policy” means the overall intentions and direction of Project Co related to quality applicable to the overall organization (including Project Co and its Project Contractors and Sub-Contractors) involved in performing the Project Work which are to be formally expressed and recorded in the Quality Manual in accordance with this Schedule, provided that, alternatively, each Quality Manual plan may have its own Quality Policies which are directly related to applicable Quality Objectives expressed or recorded in the Quality Manual.

“Quality Records” means the Quality Records referred to and described in Section 5.8 of this Schedule.

“Rehabilitation” means:

- (a) the rehabilitation of the Infrastructure as required to ensure that the Infrastructure is rehabilitated to meet the Asset Preservation Performance Measures throughout the Term and to meet the requirements set out in Appendix 4C [Handback Specification] as at the Expiry Date;
- (b) all Design, including the preparation of all construction drawings and as-built drawings, required for the carrying out of the foregoing;
- (c) the performance of all project management, quality management, environmental management, communications management and other management services and activities required for the carrying out of the foregoing;
- (d) the supply of all plant, construction plant, materials, other property and workers for the carrying out of the foregoing; and
- (e) all other work, services and activities to be provided by Project Co in respect of the foregoing,

all as set out and described in and in accordance with the Project requirements, including the OMR Requirements, and this Agreement.

“Remedial Work” means any repair, rework, adjustment, replacement or other action required or taken to resolve a Nonconformity, Failure Event or failure to pass any inspection, calibration, sample, test or trial required in accordance with this Agreement, any of the Project requirements, the Design and Certification Procedure or any Quality Documentation.

“Surveillance Quality Audit” means Quality Audits conducted by or on behalf of the Authority as contemplated in Section 4.3.3(a) of this Schedule.

“Traffic Management” means the recognition of the various situations where Traffic Control and guidance are required, and the implementation of effective procedures, including Traffic Control, to safely control and guide traffic with minimal interruptions and delays.

PART 1 QUALITY MANAGEMENT SYSTEM

1.1 Quality Management System

Project Co shall develop and implement a Quality Management System in accordance with the requirements of this Schedule. Project Co acknowledges and agrees that Project Co is solely responsible for the quality of the Project Work and that a comprehensive Quality Management System is critical for the proper and timely completion of the Project Work.

1.2 Project Co's Responsibilities

Project Co is responsible for all quality assurance and quality control activities set out in this Schedule that are required to manage its own processes as well as those of its Project Contractors and Sub-Contractors throughout the Term. Project Co shall throughout the Term ensure that all aspects of the Project are the subject of a Quality Management System that complies with the provisions of this Schedule, and shall comply with and cause each of its Project Contractors and Sub-Contractors and the employees of each of them to comply with the requirements of such Quality Management System. For greater certainty, and without limiting Project Co's ability to contractually assign matching responsibilities and obligations to the Project Contractors and Sub-Contractors in accordance with this Agreement, Project Co shall not be relieved of any of Project Co's responsibilities or obligations set out in this Schedule by the assignment of such responsibilities or obligations to its Project Contractors and Sub-Contractors.

1.3 Quality Management System Requirements

The Quality Management System shall, at a minimum, include the Quality Documentation described in Part 5 [Quality Documentation] of this Schedule and shall comply with:

- (a) the Project requirements;
- (b) the requirements and principles of the ISO 9001:2015 Standard and any other applicable standards specified in this Schedule;
- (c) Good Industry Practice; and
- (d) all other requirements set out in this Schedule and this Agreement.

1.4 Compliance

1.4.1 Performance Measures

PQ1.4.1a The Quality Management System must be compliant with the ISO 9001:2015 Standard.

1.4.2 Specific Requirements

- (a) The scope of the Quality Management System shall be clearly defined to include Design, Construction activities, Traffic Management, Project Co's Environmental Obligations, Operation, Maintenance and Rehabilitation.
- (b) Project Co shall update its Quality Management System and all Quality Documentation as required to ensure that the Quality Management System and all Quality Documentation is, and at all times remains, in full compliance with the ISO 9001:2015 Standard and the requirements of this Schedule.

1.5 Documentation Deliverables

1.5.1 Performance Measures

Without limiting the generality of Section 1.3 of this Schedule, Project Co will prepare and submit to the Authority Representative, by the dates shown in Table 1.5.1, each of the following:

**Table 1.5.1:
Schedule of Plans and Reports (Response Time Measures)**

Performance Measure	Deliverable Name	Due Date	Specification Reference
PQ1.5.1a	Quality Management Plan	45 days from the Effective Date	Appendix 2A
PQ1.5.1b	Design Quality Management Plan	45 days from the Effective Date	Appendix 2B
PQ1.5.1c	Construction Quality Management Plan	60 days from the Effective Date	Appendix 2C
PQ1.5.1d	Operation, Maintenance and Rehabilitation Quality Management Plan	180 days prior to Target Substantial Completion Date	Appendix 2D
PQ1.5.1e	Environmental Quality Management Plan	45 days from the Effective Date	Appendix 2E
PQ1.5.1f	Project Safety Plan	30 days from the Effective Date	Appendix 2F
PQ1.5.1g	Other Quality Management Plans (see below)	45 days from the Effective Date	1.5.2

Performance Measures	Deliverable Name	Due Date	Specification Reference
PQ4.1.1a	Quality Audit Plans	90 days from the Effective Date	4.1
PQ4.1.1b	Quality Audit Plans Updates	At annual intervals (every 12 months)	4.1
PQ5.9.1a	Monthly Quality Management System reports	By 15 th of each following month	5.9
PQ4.2.2b	Quality Audit Reports	Within 14 days of audit completion	4.2

All documents shall be submitted to the Authority Representative.

1.5.2 Specific Requirements

Project Co shall prepare and submit a Quality Management Plan for any other person or entity contracting with Project Co, any Project Contractor or any Sub-Contractor for the purposes of undertaking any material and substantial aspect of the Project Work (but excluding legal and financial advisors and lenders) in each case for undertaking the activities covered by that party's

contract with Project Co, such Project Contractor or such Sub-Contractor (as the case may be) and meeting the requirements of the Quality Manual.

1.6 Timing of Implementation

1.6.1 Performance Measures

PQ1.6.1a The Quality Manual and all Quality Management Plans must be fully implemented within 90 days from the Effective Date.

1.6.2 Specific Requirements

Project Co shall not commence or permit the commencement of any aspect of the Project Work before those parts of the Quality Documentation that concern such aspect of the Project Work have been submitted to and reviewed by the Authority Representative. Such review shall be completed within 10 Business Days of receipt of the complete Quality Documentation. Partially complete submissions will not be reviewed.

1.7 Compliance with Quality Management System

Project Co shall ensure that:

- (a) Project Co and any Project Contractor or any Sub-Contractor complies with the Quality Management System detailed in the Quality Manual;
- (b) the Designer complies with the Design Quality Management Plan in connection with its Design activities;
- (c) the Design-Builder complies with the Design Quality Management Plan, the Construction Quality Management Plan, and the Environmental Quality Management Plan in connection with all activities under the Design-Build Agreement;
- (d) the Service Provider complies with the Operation, Maintenance and Rehabilitation Quality Management Plan, and the Environmental Quality Management Plan in connection with all activities under the Services Contract;
- (e) any person or entity contracting with Project Co, any Project Contractor or any Sub-Contractor complies with the relevant Quality Management Plan prepared and implemented pursuant to Section 1.5.2 of this Schedule in connection with the activities covered by that party's contract with Project Co, such Project Contractor or such Sub-Contractor (as the case may be); and
- (f) any person or entity who performs any portion of the Project Work shall comply with the Quality Management System as it relates to that portion of the Project Work.

1.8 Continuous Improvement in Quality Management System

- (a) Project Co shall implement a program and shall have mechanisms in place, such as management reviews and Quality Audit programs, to allow all identified opportunities for improvement to be recorded, tracked and implemented or closed out.
- (b) The program shall be used to continually improve the effectiveness and efficiency of Project Co's Quality Management System.

- (c) Project Co shall ensure that all of Project Co's employees, Project Contractors and Sub-Contractors are aware of the importance of continuous improvement and are actively engaged in its implementation in connection with the performance of the Project Work.

PART 2 QUALITY MANAGER

2.1 Appointment and General Responsibilities

- (a) At all times during the Term, Project Co shall employ a Quality Manager who shall have defined authority for ensuring the establishment and maintenance of the Quality Management System and auditing and reporting on the performance of the Quality Management System. The Quality Manager will be a full-time role with no other responsibilities (unless agreed to otherwise with the Authority).
- (b) The Quality Manager will report to or have delegation from the Project Co Lead for quality matters with respect to the work, and shall be independent from persons responsible for execution and performance of the Project Work.
- (c) The Quality Manager shall be a certified QMS 2000 Auditor or shall have experience in a similar quality management representative role for a similar project.
- (d) The identity of the Quality Manager (and any replacement) and his/her job specification and responsibilities shall be subject to the approval of the Authority Representative (such approval not to be unreasonably withheld or delayed).
- (e) Project Co will appoint two supporting Quality Managers – one for the Design function (the Design Quality Manager), and another for the Construction function (the Construction Quality Manager).

2.1.1 Specific Responsibilities

Without limiting the generality of the foregoing, the job specification and responsibilities of the Quality Manager shall include the following:

- (a) developing, implementing and maintaining, and ensuring the effective operation of the Quality Management System, including the Quality Manual, the Design Quality Management Plan and the Construction Quality Management Plan;
- (b) initiating management reviews, not less frequently than annually, and taking other actions necessary to ensure the effective operation and continuous improvement of the Quality Management System;
- (c) managing, and if appropriate delegating quality control activities as part of the Quality Manual, Design Quality Management Plan and Construction Quality Management Plan for the Project Work. Any delegation of these activities will be under the direct supervision of the Quality Manager who retains responsibility and authority at all times;
- (d) leading a quality team that is independent from the Project Co team that is responsible for the execution and performance of the work, and ensuring that the personnel on such team are properly qualified and trained for their role and have completely familiarized themselves with all documents necessary to do so;
- (e) preparing Quality Audit Plans and scheduling and coordinating Internal Quality Audits and External Quality Audits of key processes with Project Co's personnel and with the Project Contractors and Sub-Contractors (including the Designer);
- (f) ensuring that all Quality Audits required under Section 4.2 of this Schedule and under the Quality Documentation are conducted, and reporting the findings of such audits to the Authority Representative;

- (g) having the authority to immediately stop any work or activity which is not being performed or carried out in accordance with the Quality Documentation applicable thereto;
- (h) liaising with the Authority Representative and acting as the primary representative for Project Co on all matters relating to quality management;
- (i) coordinating all matters and issues relating to the certification of the Quality Management System;
- (j) preparing and submitting to the Authority Representative monthly Quality Management System reports;
- (k) ensuring that relevant quality records are retained in accordance with the Quality Management System and the Records Management Protocol;
- (l) developing and implementing a program for Corrective Action and Preventative Action for Nonconformities; and
- (m) carrying out any other matters which, in accordance with this Agreement, are the responsibility of the Quality Manager.

PART 3 INSPECTION AND TESTING

3.1 Inspection and Testing Requirements

Where Project Co is required by this Agreement, any of the Project requirements, the Design and Certification Procedure or any Quality Documentation to carry out any inspection, calibration, sample, test or trial, such inspection, calibration, sample, test or trial shall be carried out in accordance with the following provisions of this Part 3 and the provisions of the relevant Quality Documentation.

3.2 Accreditation Standards

- (a) All on and off Project Site calibrations, samples, tests and trials shall be carried out by laboratories that are duly accredited for the carrying out of such calibrations, samples, tests and trials.
- (b) Laboratory accreditation shall be in accordance with ISO/IEC 17025, as amended, updated or replaced from time to time, provided that, for specific activities, the Authority Representative may accept other industry-recognized accreditation in lieu of ISO/IEC 17025, including:
 - (i) concrete and concrete materials: CSA A283-00, "Qualification Code for Concrete Testing Laboratories", to the appropriate category for the tests being done;
 - (ii) structural steel and welding: CSA W178.1-02, "Certification of Welding Inspection Organizations", to the level appropriate for the inspection being carried out; and
 - (iii) aggregates: "Canadian Council of Independent Laboratories", as appropriate to the work being carried out.
- (c) Project Co may request the approval of the Authority Representative to use other industry-recognized accreditations, which approval shall not be unreasonably withheld or delayed if such other accreditation is applicable to the Project Work for which it is proposed and meets the intent of ISO/IEC 17025.

3.3 Remedial Work

Project Co shall be responsible at its own expense for any Remedial Work required as a result of any Nonconformity, Failure Event, failure to pass any inspection, calibration, sample, test or trial required in accordance with this Agreement, any of the Project requirements, the Design and Certification Procedure or any Quality Documentation or as a result of any laboratory not being duly accredited as required by Section 3.2 of this Schedule.

PART 4 QUALITY AUDITS AND MONITORING

4.1 Quality Audit Plans

4.1.1 Performance Measures

PQ4.1.1a Project Co shall provide the Quality Audit Plans to the Authority Representative within 90 days of the Effective Date.

PQ4.1.1b Project Co shall provide updated Quality Audit Plans at annual intervals (every 12 months) thereafter.

4.1.2 Specific Requirements

Quality Audit Plans shall detail the Internal Quality Audits and the External Quality Audits that shall be conducted by Project Co on its own processes and those of its Project Contractors and Sub-Contractors, and the planned dates of such Quality Audits.

4.2 Project Co's Quality Audits

4.2.1 General

Project Co shall conduct Internal Quality Audits and External Quality Audits of its own processes and those of its materials suppliers, Project Contractors and Sub-Contractors (including the Designer) in accordance with the requirements of this Schedule, the Quality Documentation and the Quality Audit Plans referred to therein. The purpose of Project Co's quality auditing process is to confirm that all activities comprising the Project Work are in compliance with those documented in the Quality Manual and Quality Management Plans, to identify all Nonconformities and necessary Corrective Actions and Preventative Actions and to facilitate continuous improvement.

4.2.2 Performance Measures

PQ4.2.2a The Quality Manager shall schedule Internal Quality Audits and External Quality Audits to ensure that all key processes are reviewed regularly (at least annually).

PQ4.2.2b Within 14 days of completion of any Quality Audit, Project Co shall document, or cause to be documented, the results of such Quality Audit in an audit report and make such report available to the Authority Representative upon request.

4.2.3 Specific Requirements

(a) Where necessary, follow-up audits shall be scheduled to ensure that identified Corrective Actions and Preventative Actions are carried out in a timely fashion.

(b) Internal Quality Audits and External Quality Audits shall be scheduled taking into account the status and importance of the processes being audited as well as the results of previous audits.

4.3 Authority's Quality Audits

4.3.1 General

The Authority Representative will, pursuant to the submission of the Quality Documentation in accordance with this Schedule, review the Quality Documentation to identify the critical activities

and processes identified in the Quality Manual and Quality Management Plans on which the Authority's auditing efforts and resources should be directed. The Authority will determine the frequency of auditing through regular and ongoing review of Project Co's performance and management systems. Work procedures and activities that show good audit performance may have the frequency of auditing decreased, while those that show poor performance or increased risk may have the frequency of auditing increased. Project Co shall provide and shall ensure its Project Contractors and Sub-Contractors provide the Authority's auditors with all documentation, records, access, facilities and assistance for the safety and convenience of the Authority Representative.

4.3.2 *Performance Measures*

PQ4.3.2a Project Co shall prepare a Corrective Action plan and submit it to the Authority Representative within 20 Business Days of the closing meeting referred to in Section 4.3.3(b) of this Schedule.

The Authority reserves the right to conduct follow up reviews on reasonable notice to Project Co (but not less than one Business Day), to determine if Project Co's Corrective Action plan has been implemented and completed.

Additional information relating to Authority's Quality Audits with respect to particular Quality Management Plans is identified in the Appendices to this Schedule.

4.3.3 *Types of Quality Audits*

The following two types of Quality Audits may be conducted by, or on behalf of, the Authority in its discretion:

- (a) Surveillance Quality Audits – Scheduled or unscheduled field audits conducted on a random basis or on specific areas of interest throughout the Term. The objective of these surveillance audits is to monitor Project Co's activities involving the Project Work, including but not limited to workmanship, performance measures and general quality of materials; and
- (b) Quality Management System Audits – Scheduled audits conducted at specific times to assess the performance of and compliance with the Quality Management System. The Authority's lead auditor shall contact the Quality Manager and confirm the scope and schedule of the audit. At the opening meeting with Project Co, the Authority's lead auditor shall review the audit scope and objectives. The Authority's auditors shall conduct audit interviews, and document any observations on prepared checklists. At the end of the audit interviews, the Authority's lead auditor shall evaluate the observations and identify observed procedural or performance Nonconformities that require Corrective Action. At the closing meeting with Project Co, the Authority's lead auditor shall discuss the observations and inform Project Co of any observed Nonconformities and audit recommendations.

4.4 **Authority Monitoring**

In addition to carrying out any scheduled and unscheduled External Quality Audits of the Quality Management System (including compliance with all Quality Documentation) as provided in Section 4.3 of this Schedule, the Authority Representative may, at its discretion, monitor and verify the operation of the Quality Management System by, inter alia, carrying out spot checks and making independent inspections and tests of any plant or material including any plant or material which

fails any test or is suspected by the Authority Representative of not complying with the requirements of this Agreement.

4.5 Deficient Quality Audits

If either:

- (a) the Authority Representative reasonably believes that Project Co is failing to conduct Quality Audits of its Quality Management System as required by this Agreement in any material respect or if such Quality Audits are not conducted in accordance with the ISO 9001:2015 Standard by personnel competent to conduct such Quality Audits; or
- (b) any auditing, monitoring or spot checks of the Quality Management Systems reveal material deficiencies in the Quality Management System or the implementation thereof,

the Authority Representative may carry out increased levels of External Quality Audits (whether in number, duration or detail) of all or any aspect of the Quality Management System until such time as the Authority Representative is reasonably satisfied that none of the circumstances described in this Section continue to exist.

4.6 Costs of Audits

If the Authority Representative carries out any audit pursuant to Section 4.3, Section 4.4 or Section 4.5 of this Schedule, and the results of such audit shows any material Nonconformity in respect of the Project Work, then without limiting any other rights and remedies of the Authority, Project Co shall compensate the Authority for all costs reasonably incurred in carrying out such audit (including the relevant administrative expenses of the Authority, including an appropriate sum in respect of general staff costs and overheads). All other audits carried out by the Authority Representative pursuant to Section 4.3, Section 4.4 or Section 4.5 of this Schedule shall be at the Authority's cost.

4.7 Third Party Audits

Third party Quality Audits shall be conducted as required under the ISO 9001:2015 Standard on the Quality Management System by an accredited certification agency acceptable to the Authority and Project Co, each acting reasonably, and these audit reports shall be made available to the Authority Representative upon request.

PART 5 QUALITY DOCUMENTATION

5.1 Principles

The minimum requirements and principles which apply to the Quality Documentation are set out in Appendices 2A to 2F inclusive to this Schedule. Project Co's Quality Management System shall also comply with the requirements and principles of the ISO 9001:2015 Standard, this Schedule, and the principles of the ISO 9004:2009 Standard, including:

- (a) customer focus;
- (b) leadership;
- (c) involvement of people;
- (d) process approach;
- (e) system approach to management;
- (f) continual improvement;
- (g) factual approach to decision making; and
- (h) mutually beneficial supplier relationships.

5.2 ISO Reference Documents

Project Co's Quality Management System shall also incorporate the requirements of the following:

- (a) ISO 9000:2015 Standard;
- (b) ISO 9001:2015 Standard;
- (c) ISO 9004:2009 Standard;
- (d) ISO 14001:2015 Standard; and
- (e) ISO 19011:2011 Standard.

5.3 Quality Documentation Requirements

The minimum documentation requirements for the Quality Management System are:

- (a) the Quality Manual as required pursuant to Section 1.5 of this Schedule;
- (b) Quality Management Plans for all aspects of the Project Work as required pursuant to Section 1.5 of this Schedule;
- (c) that the following are included in each Quality Management Plan:
 - (i) quality system procedures and process flow charts documenting who does the work, what they do, and what evidence shall be generated that they have done the work correctly on quality related activities;

- (ii) the Quality Audit Plans required pursuant to Section 4.1 of this Schedule; and
- (iii) the Quality Records required pursuant to Section 5.8 of this Schedule.

5.4 Submission of Quality Documentation

- (a) Project Co shall prepare and submit all required Quality Documentation to the Authority Representative for review, as the case may be in accordance with Section 1.5 of this Schedule.
- (b) If any Quality Documentation relies on, or incorporates any quality manual, plan, procedure or other document, then such quality manual, plan, procedure or other document or the relevant parts thereof shall (unless the Authority Representative otherwise agrees) be submitted to the Authority Representative at the time that the relevant Quality Documentation or part thereof or change, addition or revision to the Quality Documentation is submitted and the contents of such Quality Manual, plan, procedure or other document shall be taken into account in the consideration of the relevant Quality Documentation or part thereof or change, addition or revision to the Quality Documentation. The Authority Representative may require the amendment of any such Quality Manual, plan, procedure or other document to the extent necessary to enable the relevant Quality Documentation to satisfy the requirements of this Schedule.

5.5 Project Co Obligation to Update

Project Co shall be responsible for proactively updating its Quality Management System and all Quality Documentation from time to time, in accordance with the procedures set forth in this Agreement.

5.6 Changes to Quality Documentation

- (a) Project Co may submit to the Authority any proposed changes or additions to or revisions of any of the Quality Documentation.
- (b) Without limiting the generality of Section 5.6(a) of this Schedule, Project Co shall from time to time submit to the Authority Representative any changes to any of the Quality Documentation required for such Quality Documentation to continue to reflect and comply with the requirements set out in this Schedule.
- (c) If Project Co does not propose any change required pursuant to Section 5.6(b) of this Schedule, then the Authority may propose such change and it shall be dealt with as though it had been proposed by Project Co and shall not therefore be treated as the Authority Change. Any dispute between the parties in respect of any such change shall be resolved in accordance with the Dispute Resolution Procedure.

5.7 Amendment of Quality Documentation

If there is no unresolved objection by the Authority to a part of the Quality Documentation pursuant to Section 5.4 of this Schedule or to a change, addition or revision proposed pursuant to Section 5.6 of this Schedule, then the Quality Documentation shall be amended to incorporate such part, change, addition or revision.

5.8 Quality Records

- (a) Project Co shall establish and maintain complete and accurate quality management records (the “**Quality Records**”).

- (b) The Quality Records shall provide objective evidence of conformance with all requirements of this Schedule.

5.9 Quality Management System Reports

5.9.1 Performance Measures

- PQ5.9.1a** For each month of the Term, Project Co shall prepare, and submit to the Authority Representative within 15 days of the start of the following month, in a format accepted by the Authority, a comprehensive Quality Management System report to cover the previous period.

5.9.2 Specific Requirements

- (a) The monthly Quality Management System report shall address all quality management activities under each of the Quality Management Plans for that month and any outstanding quality issues from prior months.
- (b) The monthly Quality Management System reports shall, as a minimum, include the following information separately identified for the Quality Manual and for each Quality Management Plan:
 - (i) a Nonconformity Report log summarizing the Nonconformity Tracking System and providing the following: “date open”, “date closed”, “status” (open, pending, closed), “disposition” (repair, rework, reject) and “description of status” which describes the current status of the Nonconformity Report, when closed and how it was closed;
 - (ii) Corrective Action and Preventative Action logs providing details of the Corrective Actions and Preventative Actions performed to date and their close-out status;
 - (iii) a summary of any inspection and testing activities conducted during the month and the results of such testing and inspection;
 - (iv) a statement that all Project Work completed in the month complies with this Agreement except as documented through the NCR process;
 - (v) Internal Quality Audits and External Quality Audits, including any third party Quality Audits performed during the month and a four month look-ahead schedule for planned future Quality Audits;
 - (vi) any continual improvement initiatives taken during the month;
 - (vii) any other information required to be included in the monthly Quality Management System reports pursuant to any of the Appendices to this Schedule or the terms of the relevant Quality Management Plan; and
 - (viii) any changes made to the Quality Management System or the Quality Documentation in compliance with the provisions of this Agreement.

5.10 Additional Information

Notwithstanding any other provision of this Schedule, Project Co shall provide the Authority Representative with such information as the Authority Representative may request from time to time to demonstrate compliance with this Schedule.

PART 6 NONCONFORMITIES

6.1 Nonconformity Reporting Process

The Nonconformity Reporting (NCR) process, from initial creation through to closeout, shall follow the process outlined below:

- (a) If Project Co or the Authority discovers a Nonconformity, it shall initiate a Nonconformity Report in accordance with the ISO 9001:2015 Standard as follows:
 - (i) Project Co initiated Nonconformity Reports - Upon discovery of a Nonconformity, Project Co shall provide a Nonconformity Report identifying the problem to the Authority Representative within 2 Business Days; or
 - (ii) The Authority initiated Nonconformity Reports - If at any time the Authority is notified, or otherwise becomes aware, that there is any Nonconformity, the Authority Representative may issue a Nonconformity Report, without prejudice to any other right or remedy available to the Authority, including the assignment of Failure Points.
- (b) The Nonconformity Report is issued to the Quality Manager, thereby activating the Nonconformity Report. The date of issue shall be recorded denoting the commencement of the time period for which the Nonconformity Report has an “Open Nonconformity Report” status.
- (c) Project Co shall investigate and respond to all Nonconformity Reports.
- (d) The Quality Manager shall in response to the Nonconformity Report describe a disposition of the Nonconformity and a Corrective Action in accordance with the ISO 9001:2015 Standard. Acceptable responses are set out in Table 6.1 for various scenarios.

Table 6.1

Nonconformity Status	Disposition	Corrective Action
Physical rectification or Remedial Work has been undertaken	Provide confirmation that the rectification work or Remedial Work has remedied the nonconformity	Describe any improvements to delivery process
Physical rectification or Remedial Work is proposed	Provide a plan committing to scope and timing of rectification works or Remedial Work	Describe any improvements to delivery process
No physical rectification is proposed	Objection	N/A

- (e) Project Co may object to the issuance of any Nonconformity Report by the Authority Representative. If such objection has not been addressed by mutual agreement between the Authority Representative and Project Co within 5 Business Days of delivery by Project Co to the Authority Representative of notice of the objection, then either Project Co or the Authority may refer the matter to the Dispute Resolution Procedure for determination.

- (f) If Project Co fails to object to the issue by the Authority Representative of a Nonconformity Report within 5 Business Days, Project Co is deemed to have accepted that Nonconformity Report.
- (g) The Nonconformity Report is returned to the Quality Manager at which time the Quality Manager records the date of return denoting the end of the time period for which the Nonconformity Report has an 'Open Nonconformity Report' status.
- (h) The Quality Manager shall then change the Nonconformity Report status to 'Closed Nonconformity Report' and shall provide a copy of the Nonconformity Report to the Authority Representative within 2 Business Days thereafter.

6.2 Nonconformity Report Tracking System

Project Co will implement and maintain a Nonconformity Tracking System to monitor the status of all Nonconformity Reports initiated by the Authority and Project Co.

PQ6.2.1a The Nonconformity Tracking System shall be fully operating, with the following minimum requirements, within 90 days from the Effective Date:

- (a) comprise a single repository containing both Project Co and Authority initiated Nonconformity Reports;
- (b) have the ability to attach supporting material such as photos and documents;
- (c) provide real time web based access to the current Nonconformity Report status to both Project Co and Authority;
- (d) automatically apply and record, Compliance Failure Points to each Failure Event in accordance with Section 5.2 of Schedule 8 [Payments]; and
- (e) produce monthly summary Reports, of outstanding Nonconformity Reports, Compliance Failure Points accrued within each performance threshold category in any given month, and the total Compliance Failure Points accrued across all performance threshold categories in any given month.

6.3 Unremedied Nonconformity

The Authority Representative may issue further Nonconformity Reports if a Nonconformity identified in a Nonconformity Report continues unremedied or a disposition of the Nonconformity and a Corrective Action has not been defined within a reasonable time period.

6.4 Nonconformity Records

In addition to the maintenance of the Nonconformity Tracking System under Section 6.2 of this Schedule, Project Co shall maintain records of:

- (a) each Nonconformity;
- (b) the reference numbers of all Nonconformity Reports;
- (c) a description of all Nonconformity Reports;
- (d) the proposed actions by Project Co to rectify each Nonconformity;

- (e) the date and time at which Nonconformities were identified; and
- (f) the date and time at which a Nonconformity specified in a Nonconformity Report was rectified.

APPENDIX 2A QUALITY MANUAL

1.0 QUALITY MANUAL

- 1.1** Project Co shall provide a comprehensive Quality Manual that describes the Quality Management System for all aspects of the Project Work including the Design and Construction and the Operation, Maintenance and Rehabilitation phases of the Project. The Quality Manual shall establish the Quality Policy and Quality Objectives for all aspects of the Project Work and, in accordance with the requirements of the ISO 9001:2015 Standard, shall describe the processes that shall be established, implemented, controlled, and continually improved to achieve the established Quality Objectives.
- 1.2** The Quality Objectives shall be measurable, consistent with the Quality Policy and linked to meeting the needs and performance expectations of the Authority in respect of the Project. The Quality Management System described in the Quality Manual shall include all the activities required to achieve these Quality Objectives, including project controls such as scope, cost, schedule and general document control management activities. All of these activities shall be subject to Internal Quality Audits and External Quality Audits.
- 1.3** The Quality Manual shall describe the nature of Project Co's organization involved in performing the Project Work and how key management activities (such as project controls; Design; Construction; Operation, Maintenance and Rehabilitation; Traffic Management; and environmental obligations) shall interface with each other. The Quality Manual shall also provide the organization chart, names, authority and responsibilities of all key personnel. The Quality Manual shall also show how the various levels of Quality Management System documentation are linked together.
- 1.4** The Quality Manual shall clearly define the reporting function and authority of Project Co's Quality Manager who shall liaise with the Authority Representative and act as the single point representative of Project Co for all matters relating to quality management.
- 1.5** Copies of the Quality Manual shall be provided to all key personnel. Each key person shall provide written acknowledgement of receipt of the Quality Manual to Project Co for inclusion in the Quality Records.

APPENDIX 2B

DESIGN QUALITY MANAGEMENT PLAN

1.0 DESIGN QUALITY MANAGEMENT PLAN

1.1 Project Co shall provide a comprehensive Design Quality Management Plan (DQMP) that describes how it intends to manage the design processes for the Project in accordance with the ISO 9001:2015 Standard, the Quality Management System requirements stated in its Quality Manual, and the provisions of this Agreement.

1.2 The Design Quality Management Plan shall contain an organizational chart identifying key design management personnel by name and the linkage with the Quality Manager for Project Co's overall Quality Management System as documented in Project Co's Quality Manual. It shall also contain a description of the responsibilities, qualifications, and authority of the above personnel and the organizational interfaces between other engineering groups, construction disciplines and environmental disciplines.

1.3 The Design Quality Manager for the DQMP shall:

(a) have experience in a similar role on similar project(s).

1.4 The Design Quality Management Plan shall, at a minimum, include or reference detailed quality system procedures and process flow charts for the following processes:

(a) Design input and output review;

(b) Design verification to ensure that design input requirements have been met;

(c) Design validation to ensure that the final product is capable of meeting its Intended Use;

(d) Design changes;

(e) Designer quality assessment and procurement;

(f) External Quality Audits of design subcontractor(s);

(g) Internal Quality Audits;

(h) Corrective Actions, Preventative Actions and opportunities for improvement;

(i) document management; and

(j) control of Quality Records.

The above procedures and flow charts shall document who does the work, what they do, and what evidence is generated that they have done the work correctly.

APPENDIX 2C

CONSTRUCTION QUALITY MANAGEMENT PLAN

1.0 CONSTRUCTION QUALITY MANAGEMENT PLAN

- 1.1** Project Co shall provide a comprehensive Construction Quality Management Plan (CQMP) that describes how it intends to manage the Construction processes in connection with the Project in accordance with the ISO 9001:2015 Standard, the Quality Management System requirements stated in its Quality Manual and the provisions of this Agreement.
- 1.2** The Construction Quality Management Plan shall contain an organizational chart identifying key Construction quality management personnel by name and the linkage with the Quality Manager for Project Co's overall Quality Management System as documented in Project Co's Quality Manual. It shall also contain a description of the responsibilities, qualifications, and authority of the above personnel and the organizational interfaces between the design and other disciplines such as environmental and Traffic Management.
- 1.3** The Construction Quality Manager for the CQMP shall:
- (a) have experience in a similar role on similar project(s); and
 - (b) report to the Quality Manager.
- 1.4** The Construction Quality Management Plan shall, at a minimum, include or reference detailed quality system procedures and process flow charts for the following processes:
- (a) Construction safety audits;
 - (b) inspection, testing and monitoring;
 - (c) materials identification and traceability;
 - (d) Project Contractors' and Sub-Contractors' quality assessment and procurement;
 - (e) External Quality Audits of Project Contractors and Sub-Contractors;
 - (f) Internal Quality Audits;
 - (g) control of nonconforming product and work;
 - (h) Corrective Actions, Preventative Actions and opportunities for improvement;
 - (i) document management; and
 - (j) control of Quality Records.

The above procedures and flow charts shall document who does the work, what they do, and what evidence is generated that they have done the work correctly.

- 1.5** The Construction Quality Management Plan shall also include or reference Inspection and Test Plans (ITPs) detailing all major on and off Project Site inspection and test activities for work performed by Project Co and that of its Project Contractors and Sub-Contractors and suppliers of any tier. The Inspection and Test Plan shall, at a minimum, include:

- (a) description of the inspection, test and monitoring activity;
- (b) frequency of inspections, tests and monitoring;
- (c) reference to standards, codes, specifications, and acceptance criteria;
- (d) reports and checklists required;
- (e) personnel responsible for inspection, test and monitoring activity;
- (f) personnel responsible for reviewing inspection and test reports and initiating any required action;
- (g) quality assurance review, witness and hold points; and
- (h) description and frequency of geotechnical instrumentation monitoring and adherence to acceptance criteria.

APPENDIX 2D
OPERATION, MAINTENANCE AND REHABILITATION
QUALITY MANAGEMENT PLAN

1.0 OPERATION, MAINTENANCE AND REHABILITATION QUALITY MANAGEMENT PLAN

- 1.1** Project Co shall provide a comprehensive Operation, Maintenance and Rehabilitation Quality Management Plan (OMRQMP) that describes how it intends to monitor and measure its OMR activities in connection with the Project in accordance with the ISO 9001:2015 Standard, the Quality Management System requirements stated in its Quality Manual and the provisions of this Agreement. The Operation, Maintenance and Rehabilitation Quality Management Plan shall be aligned with all relevant Performance Measures and define Project Co's approach to achieving compliance with the requirements of this Agreement relating to the OMR activities.
- 1.2** The OMRQMP shall contain an organizational chart identifying key OMR management personnel by name and the relationship with the Quality Manager for Project Co's Quality Management System as documented in Project Co's Quality Manual. It shall also contain a description of the responsibilities, qualifications, and authority of the above personnel and the organizational interfaces between the OMR management and other disciplines such as design, construction, traffic and environmental management.
- 1.3** The quality coordinator for the OMRQMP shall:
- (a) have experience in a similar role on similar project(s); and
 - (b) report to the Quality Manager.
- 1.4** Project Co shall develop documented quality system procedures and process flow charts to ensure that all performance specifications and requirements in this Agreement in respect of the OMR are met or exceeded. These procedures and flow charts shall document who does the work, what they do, and what evidence is generated that they have done the work correctly.
- 1.5** The Operation, Maintenance and Rehabilitation Quality Management Plan shall detail a Performance Measures compliance monitoring process to track compliance with all Performance Measures. The Performance Measures compliance monitoring process must clearly describe the approach taken in assessing compliance, and define the frequency and method of monitoring and reporting Performance Measures compliance. The Authority Representative shall review Project Co's Performance Measures compliance monitoring process and may request changes that the Authority Representative considers appropriate to facilitate the accurate and appropriate monitoring and reporting of compliance with the Performance Measures and otherwise to meet the requirements of this Agreement. Project Co's Performance Measures compliance monitoring process shall be subject to ongoing review by the Authority.

APPENDIX 2E
PROJECT CO ENVIRONMENTAL
QUALITY MANAGEMENT PLAN

1.0 ENVIRONMENTAL QUALITY MANAGEMENT PLAN

- 1.1** Project Co shall provide a comprehensive Environmental Quality Management Plan (EQMP) that describes how it intends to manage the environmental components of the Project in accordance with ISO 14001:2015 Standard, the Quality Management System requirements stated in its Quality Manual and the provisions of this Agreement. The Environmental Quality Management Plan is to apply throughout all phases of the Project Work including Design, Construction, Operation, Maintenance and Rehabilitation, and shall generally follow ISO 14001:2015 Standard formatting.
- 1.2** The Environmental Quality Management Plan shall contain an organizational chart identifying key environmental management personnel and the linkage with the Quality Manager for Project Co's overall Quality Management System as documented in Project Co's Quality Manual. It shall also contain a description of the responsibilities, qualifications, and authority of the above personnel and the organizational interfaces between the design and other construction, operation, maintenance and rehabilitation disciplines.
- 1.3** The quality coordinator for the EQMP shall:
- (a) have experience in a similar role on similar project(s); and
 - (b) report to the Quality Manager.
- 1.4** The Environmental Quality Management Plan shall include or reference detailed quality system procedures and process flow charts for the following processes:
- (a) satisfying and ensuring compliance with Project Co's Environmental Obligations, including the preparation and implementation of an Environmental Management Plan and specific plans as detailed elsewhere in this Agreement;
 - (b) obtaining and maintaining Project Co Permits relevant to Project Co's Environmental Obligations;
 - (c) environmental monitoring and reporting;
 - (d) environmental incident reporting and tracking;
 - (e) External Quality Audits of Project Contractors and Sub-Contractors;
 - (f) Internal Quality Audits;
 - (g) control of nonconforming services or products;
 - (h) Corrective Actions, Preventative Actions and opportunities for improvement;
 - (i) document management; and
 - (j) control and retention of Quality Records.

The above procedures and flow charts shall document who does the work, what they do, and what evidence is generated that they have done the work correctly.

- 1.5** The Authority Representative, in the course of its Quality Documentation review, shall pay special attention to Project Co's Environmental Quality Management Plan to verify that Project Co has taken full responsibility for all of the environmental requirements as specified in Project Co's Environmental Obligations and elsewhere in the Agreement, including obtaining approvals from relevant Governmental Authorities and other environmental requirements as outlined in the Agreement.

2.0 QUALITY RECORDS

- 2.1** The Quality Records maintained by Project Co shall include records evidencing conformity to ISO 14001:2015 Standard and compliance with Project Co's Environmental Obligations and the other environmental requirements contained in the Agreement, and all applicable Permits, monitoring reports and written correspondence with agencies, the Authority, public consultation, user groups, etc.

3.0 QUALITY MANAGEMENT SYSTEM REPORTING

- 3.1** Project Co's monthly Quality Management System reports shall include a summary of all environmental quality management activities during each month and:
- (a) environmental monitoring reports;
 - (b) copies of any and all environmental Project Co Permits obtained since the previous reporting period, as well as steps taken to obtain any outstanding required environmental permits, approvals and licenses and the results thereof; and
 - (c) steps taken to implement, comply with and satisfy Project Co's Environmental Obligations including compliance with Environmental Laws and the other environmental requirements contained in the Agreement.

APPENDIX 2F

PROJECT SAFETY PLAN

1.0 PROJECT SAFETY PLAN

- 1.1. Project Co shall provide a comprehensive Project Safety Plan that describes how it intends to manage the health and safety components of the Project in accordance with the Certificate of Recognition (COR) program, as enhanced by OHSAS 18001, its Quality Manual and the provisions of this Agreement. The Project Safety Plan is to apply throughout the Term and shall generally follow the COR program required formatting.
- 1.2 The Project Safety Plan shall contain an organizational chart identifying Key Individuals and other key personnel responsible for health and safety management and their relationship with the Quality Manager as documented in Project Co's Quality Manual. It shall also contain a description of the responsibilities, qualifications, and authority of the above personnel and the organizational interfaces between those responsible for health and safety management and other discipline such as management of Project design, construction and operations, maintenance and rehabilitation disciplines.
- 1.3 Project Co shall appoint an Occupational Health and Safety Manager (the "**Safety Manager**") who shall be responsible for the Project Safety Plan and shall functionally report to the Quality Manager.
- 1.4. The Project Safety Plan shall include or reference the core system procedures and process flow charts for the following processes:
 - (a) satisfying and ensuring compliance with Project Co's health and safety obligations, including compliance with the health and safety regulatory requirements;
 - (b) health and safety monitoring and reporting;
 - (c) health and safety incident reporting and tracking;
 - (d) External Quality Audits of Project Co parties responsible for health and safety aspects of the Project;
 - (e) Internal Quality Audits;
 - (f) control of Nonconformities;
 - (g) Corrective Actions, Preventative Actions and opportunities for improvement;
 - (h) document management;
 - (i) control and retention of Quality Records; and
 - (j) Quality Records.

SCHEDULE 3

DESIGN AND CONSTRUCTION

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SCHEDULE 3

DESIGN AND CONSTRUCTION

DEFINITIONS

1.0 Definitions

In this Schedule, in addition to the terms defined in Schedule 1 [Definitions and Interpretation] to this Agreement:

“Advisory Signing Plan” means the sub-plan of the Traffic Management Plan described in Section 18.2.3 of this Schedule.

“Appropriate Persons” has the meaning given in Section 13.1(c) of this Schedule.

“Certificate of Substantial Completion” means the certificate issued by the Independent Certifier in accordance with Article 17 (Construction Certification) of this Schedule confirming the achievement of Substantial Completion.

“Certificate of Total Completion” means the certificate issued by the Independent Certifier in accordance with Article 17 (Construction Certification) of this Schedule confirming the achievement of Total Completion.

“Checking Team” means a group of engineers assigned to independently undertake a design check in accordance with the Design and Certification Procedure.

“Construction” means:

- (a) the performance of all construction, completion, testing, commissioning and other services and activities required to construct and complete the Infrastructure in accordance with the Final Design for the Infrastructure in order to achieve Total Completion of the Infrastructure;
- (b) the performance of all project management, quality management, environmental management, communications management and other management services and activities required for the carrying out of the foregoing;
- (c) the supply of all plant, other property and workers for the carrying out of the foregoing; and
- (d) all other work, services and activities to be provided by Project Co in respect of the foregoing,

all as set out and described in and in accordance with the Project requirements, including the Design and Construction Requirements, the Design and Certification Procedure and this Agreement.

“Construction Certificate” means a certificate in respect of the Construction or any other construction as provided by Project Co pursuant to the Design and Certification Procedure.

“Construction Document Submittals” means the submittals as described in Section 13.4.1 of this Schedule.

“Construction Management Plan” or “CMP” means the Construction Management Plan

submitted by Project Co in accordance with Article 15 (Construction Management Plan) of this Schedule.

“Construction Records” means, for the purposes of this Schedule, all documents of any kind which record the as-built features of the Infrastructure.

“Design” means:

- (a) the design of the Infrastructure components, including the preparation of all construction drawings and as-built drawings for the Infrastructure components;
- (b) the performance of all project management, quality management, environmental management, communications management and other management services and activities required for the carrying out of the foregoing;
- (c) the supply of all plant, other property and workers for the carrying out of the foregoing; and
- (d) all other work, services and activities to be provided by Project Co in respect of the foregoing,

all as set out and described in and in accordance with the Project requirements, including the Design and Construction Requirements, the Design and Certification Procedure and this Agreement.

“Design and Certification Procedure” has the meaning given in Section 13.1(a) of this Schedule.

“Design Certificate” means a certificate in respect of the Design or any other design activities in respect of the other Construction as provided by Project Co pursuant to the Design and Certification Procedure.

“Design and Construction Requirements” means the standards, specifications, procedures, design criteria, design guidelines and other requirements applicable to all design activities included within the Project Work and to all Construction, as set out in this Agreement as at the Effective Date and as amended, supplemented or replaced from time to time after the Effective Date in accordance with this Agreement.

“Design Build Standard Specifications” or **“DBSS”** means the 2013 Design Build Standard Specifications for Highway Construction, Parts 1 and 2, published by the British Columbia Ministry of Transportation & Infrastructure.

“Design Development Submittals” means the submittals as described in Section 13.4.1 of this Schedule.

“Design Life” has the meaning given to that term in CAN/CSA-S6-14.

“Design Management Plan” or **“DMP”** means the Design Management Plan submitted by Project Co in accordance with Section 12.1 of this Schedule.

“Detailed Design” means the detailed design to be developed in compliance with the requirements set out in the Project Agreement in respect of each part of the Project Work so as to allow construction of that part in full compliance with the Design and Construction Requirements.

“Detour Route” means, for the purposes of this Schedule, a route which takes traffic off the

regular route and, using existing or newly made temporary roadways within the construction work zone, guides traffic around the work zone.

“Engineer of Record” or **“EoR”** means the Engineer of Record referred to and described in Section 2.3.1 of this Schedule and a registered Professional Engineer.

“Field Reviewer” means the Field Reviewer (Engineer) referred to and described in Section 2.3.2 of this Schedule.

“Final Design” means the final design in respect of a component of the Project Work produced by Project Co in accordance with Article 13 (Design Submissions, Review and Reports) of this Schedule.

“Final Design Development Submittals” means the submittals as described in Section 13.4.1 [Works Submittals] of this Schedule.

“Implementation Plan” means the sub-plan of the Traffic Management Plan described in Section 18.2.2 of this Schedule.

“Independent Certifier” has the meaning given in Section 3.1 of this Schedule.

“Infrastructure” means all road infrastructure for the Project including roadways, shoulders, access roads, bridges, and other road structures together with all related supporting infrastructure including all fences and barriers, curbs, culverts, drainage systems including outfalls and balancing ponds, planted areas, road traffic signs, road traffic signals, communications installations, pullouts, embankments, retaining walls and cuttings and other appurtenant works.

“Interim Design” means a design that is approximately at a 50% completion stage, as understood by general industry practices, for defined components of the Project, or the entire Project.

“Interim Design Review” means an interim design for a component of the Project Work produced by Project Co in accordance with Article 13 (Design Submissions, Review and Reports) of this Schedule.

“Lane Shift” means, for the purposes of this Schedule, a transfer of traffic along lane(s) of the same route and which, using existing roadway lanes or surfaces, guides traffic around the work zone.

“Pre-final Design Development Submittals” has the meaning given in Section 13.4.1(a) of this Schedule.

“Products Lists” has the meaning given in Section 5.2.1 of this Schedule.

“Professional Engineer” means a person who is registered as a professional engineer with the NAPEG (Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists).

“Proposal Extracts” means, for the purpose of this Schedule, the content in Appendix 3F [Proposal Extracts (Design and Construction)].

“Reference Concept” means the indicative design, as prepared by the Authority, that is provided in the data room.

“Reference Documents” means all applicable references, codes, standards, specifications,

guidelines, policies, reports, publications, manuals, bulletins and other such documents.

“Risk Assessment Plan” means the sub-plan of the Traffic Management Plan described in Section 18.2.4 of this Schedule.

“Road Safety Audit” means an audit carried out in accordance with Article 11 (Road Safety Audit) of this Schedule.

“Road Safety Audit Certificate” has the meaning given in Section 14.4 of this Schedule.

“Road Safety Audit Team” means a group of individuals appointed from time to time in accordance with the Design and Certification Procedure to carry out road safety audits in respect of the Project Work.

“Service Life” has the meaning given to that term:

- (a) for the purposes of this Schedule, in Section 5.3.1.1(b) of this Schedule; and
- (b) for the purposes of Schedule 4 [OMR and Handback], in CAN/CSA-S6-06.

“Site Office” has the meaning given in Section 2.4 of this Schedule.

“Stoppage” means an occasional, temporary interruption of traffic flow caused or directed by Project Co for the purpose of facilitating Construction activities.

“Structures” means any (temporary or permanent):

- (a) bridge or culvert (other than of corrugated metal) having a span of 1.5 metres or more and where the cover to the road surface is less than 1 metre;
- (b) corrugated metal bridge or culvert having a span of 0.9 metres or more (irrespective of cover to the road surface);
- (c) retaining wall, including reinforced earth, anchored earth and cribwall systems with slope between 45° and 90° to the horizontal, where the level of the fill at the back of the wall is greater than 1.5 metre above the finished ground level in front of the wall;
- (d) signs;
- (e) facing panel systems more than 1.5 metres in height; and

forming part of the Infrastructure.

“Technical Appraisal Form” or **“TAF”** means a technical appraisal form substantially in the format attached as Appendix 3E [Sample Contents for a Structural TAF] to this Schedule, and submitted by Project Co to the Authority Representative in accordance with the Design and Certification Procedure.

“Technical Requirements” means the requirements set out in Schedule 2 [Quality Management], Schedule 3 [Design and Construction], Schedule 4 [OMR and Handback], Schedule 19 [Environmental Obligations], and any other standard, specification, or technical requirement referred to or set out in this Agreement, in each case as updated, modified or varied from time to time in accordance with the provisions of this Agreement.

“Temporary Works” means all works and things of a temporary nature of every kind required in

or about the execution and completion of the Project Work.

“Total Completion” means the satisfactory full and final completion, in accordance with the Design and Certification Procedure, of all Project Work required in respect of the Design and Construction of the Infrastructure components in accordance with all Laws, Permits, applicable Project requirements and other requirements applicable to the Infrastructure components referred to or set out in this Agreement. “Totally Completed”, “Totally Completing” and “Totally Complete”

“Traffic Control Plan” means the sub-plan of the Traffic Management Plan described in Section 18.2.1 of this Schedule.

“Traffic Management Plan” or **“TMP”** means the plan prepared by Project Co in accordance with Article 18 (Traffic Management Plan) of this Schedule.

“Works Schedule” means the detailed schedule for design, investigation, construction, testing, commissioning and related activities within the design and construction of the Infrastructure, to be submitted by Project Co pursuant to, and as subsequently amended from time to time in accordance with Section 1.3 of Appendix 3C [Works Schedule] of Schedule 3.

“Works Submittal” has the meaning given in Section 13.4.1 of this Schedule.

PART 1 GENERAL PROVISIONS

1. REFERENCE DOCUMENTS

1.1 Reference Documents

Without limiting any other provision in the Agreement, the Reference Documents shall apply to the Project Work as described in this Schedule.

1.2 Order of Precedence

Unless otherwise expressly provided in this Schedule, if there is any conflict between any of the provisions of this Agreement and any of the Reference Documents, the following shall apply in descending order of precedence:

- (a) the provisions of this Agreement;
- (b) the GNWT Standard Specifications (Division 1 to Division 8 and Standard Drawings);
- (c) Design Build Standard Specifications 2013 (DBSS); and
- (d) any other applicable Reference Documents.

1.3 Application of DBSS

Unless otherwise defined in the Agreement or GNWT Standard Specifications, the Project Work shall be carried out in accordance with the Province of British Columbia's DBSS, subject to Section 1.2 of this Part 1 and with the following amendments to DBSS:

- (a) Section 125 [Value Engineering – Proposal Guidelines] shall not apply;
- (b) any and all reference to “approval by the Authority Representative” in DBSS, in terms of acceptance of materials, work methodology or end product, shall be construed as meaning “approval by the Design Lead”;
- (c) any and all reference in DBSS to submission of material to the Authority Representative “for approval”, “for acceptance”, or other qualifying phrase with similar connotation, shall be construed as the Authority Representative retaining the right to object to the submission material; and
- (d) Project Co shall, when required to submit for approval by the Authority Representative samples of any products proposed by Project Co which are not included in the Products List, submit such samples to the Authority Representative.

1.4 Reference Concept

Any use by Project Co of any or all aspects of the Reference Concept in performing the Project Work shall be entirely at Project Co's own risk. Project Co will be completely responsible for all aspects of the Project Work, whether or not it uses all or any part of the Reference Concept in the Design or other Project Work, and Project Co will independently verify the accuracy or any information contained in or inferred from the Reference Concept if Project Co uses any of such information in the Design or other Project Work.

2. DESIGN AND CONSTRUCTION

2.1 Responsibility for Design and Construction

Project Co shall be responsible for the Design and the Construction including completion, commissioning and testing of the Infrastructure, which shall be carried out in strict accordance with the Design and Construction Requirements and in such a manner as to comply with this Agreement and all other applicable Project requirements.

Project Co shall be responsible for the Design and Construction of all aspects of the Project Work including, but not limited to, works to the Tłıçhǫ ASR, development of gravel sources and access thereto, all geotechnical investigations, thermal analysis, environmental considerations and permits (as outlined in Schedule 19 [Environmental Obligations], topographic surveys, in-stream watercourse surveys, approvals and Project Co Permits, other field investigations and technical analysis required to complete the designs, execute, construct, and operate in a professional, competent manner.

Additionally, Project Co shall be responsible for the ongoing maintenance of the Tłıçhǫ ASR for the balance of the Term from the date of Substantial Completion.

Notwithstanding any other provision of this Agreement, Project Co will:

- (a) have complete responsibility for the Design and Construction of the Tłıçhǫ ASR; and
- (b) perform and complete the Design and the Construction:
 - (1) in accordance with all terms of this Agreement including the terms of this Schedule and all other Design and Construction Requirements;
 - (2) so as to provide a new road that at Substantial Completion:
 - (A) is complete and operational and fit for the Intended Use;
 - (B) is fully integrated with other existing roads;
 - (C) will permit Project Co to provide the OMR in accordance with the requirements of this Agreement; and
 - (D) is fully compliant with the applicable requirements set out in this Schedule and Schedule 4 [OMR and Handback]; and
 - (3) to reflect and capture the intent and benefits to the Authority of the Proposal Extracts.

Each of the obligations above are independent obligations, and the fact that Project Co has satisfied one obligation will be no defense to an allegation that it has failed to satisfy another.

2.2 Key Individuals

The Key Individuals are defined in Schedule 17 [Key Individuals].

2.3 Roles and Supporting Roles

2.3.1 Engineer of Record (EoR)

- (a) An Engineer of Record shall be assigned to each design component of the Project Work

that requires a sealed engineering design.

- (b) Each Engineer of Record shall ensure that all applicable Design Data contained in the Final Design Development Submittal (including any changes made during construction) meets the Technical Requirements and other provisions of the Agreement. During construction, the Engineer of Record shall receive notice of any design changes and keep the Design Lead informed and updated at all times.
- (c) Each Engineer of Record shall review any proposed changes, and make appropriate revisions, to the Design Data or drawings for which it is responsible for submittal under the Design and Certification Procedure.
- (d) Where significant changed conditions are encountered on the Project Site, the respective Engineer of Record shall confirm the applicability of the Design Data for which it is responsible or make consequential revisions to such Design Data for submission under the Design and Certification Procedure.
- (e) Upon the discovery of a Nonconformity, each Engineer of Record shall issue a Nonconformity Report with specific reference number registered in a log that forms part of Project Co's Quality Management System.
- (f) Before Substantial Completion, each Engineer of Record shall sign a Design Certificate in the form given in the Design and Certification Procedure for all Design Data for which it is responsible and contained within the Final Design Development Submittal and any revisions made thereto. Where an Engineer of Record has also been retained as the Field Reviewer, the Engineer of Record will also fulfill the Field Reviewer obligations considering two different responsibilities and tasks independent to each other.

2.3.2 Field Reviewer (Engineer)

The Design team of Project Co shall employ a Professional Engineer as Field Reviewer who shall ensure that the Project Works comply in all respects with the Technical Requirements.

The Field Reviewer role is distinct from any day-to-day inspections that would normally be occurring and from any design services during construction provided by the Engineer of Record to aid in interpretation of the Design Data or to make necessary revisions.

Field reviews will be performed by, or under the direct supervision of, the Field Reviewer. The Field Reviewer can also be the third party consulting engineer, or Engineer of Record.

The Field Reviewer shall:

- (a) Have the same access rights to the Project Site as Project Co has under the Agreement, in order to determine whether or not the Project Work are in compliance with the Design Data;
- (b) Review the reports of any inspection and testing performed by other qualified persons which pertain directly to the work being reviewed;
- (c) Confirm that design changes required in the field have been forwarded to the appropriate Engineer of Record for review and acceptance;
- (d) Record any changed conditions encountered, observations made, and Deficiencies found during Project Site visits;

- (e) Provide the Engineer of Record and the Authority Representative with a written report of any Nonconformities observed and all follow up in this regard; and
- (f) Upon completion of rectification of each and all Nonconformities of any components/items of Construction and in completion of critical path milestones, sign, seal and submit the Construction Certificate to the Authority Representative.

2.4 Site Office

Project Co shall provide a minimum 1,000 square feet of office space on the site (the “**Site Office**”), which desirably shall be co-located with Project Co’s office space, for the Authority Representative’s exclusive use during the carrying out of the Project Work and for an additional 12 months following Substantial Completion.

Project Co shall be responsible for maintenance and operational costs associated with the Site Office during the carrying out of the Project Work and for an additional 12 months following Substantial Completion.

The Site Office shall include the following:

- (a) A partitioned heated space with continuous power that has a walled separation and a lockable door between Project Co and the Authority personnel, including a separate entrance for each of Project Co and the Authority personnel;
- (b) A finished and furnished office area, to accommodate a minimum of three individuals, with specific requirements to be agreed in consultation with the Authority Representative; and
- (c) Internet, IT, and voice connectivity with specific requirements to be agreed in consultation with the Authority Representative.

3. INDEPENDENT CERTIFIER

3.1 Appointment

The parties will cooperate to jointly appoint a person (or firm of persons) (the “**Independent Certifier**”), who is:

- (a) qualified and experienced with respect to the design and construction of projects similar to the Project, and
- (b) independent from both the Authority and Project Co (and who will be impartial to the parties),

to provide certification services for the benefit of the parties during the Construction Period. The parties will enter into an agreement with the Independent Certifier on the terms generally as set out in Appendix 3A [Independent Certifier Agreement]. The parties confirm that Project Co may also appoint the Independent Certifier to provide certification services in respect of the Design-Build Agreement.

3.2 Appointment and Replacement

If within 20 Business Days of the Effective Date the Independent Certifier has not been appointed, or if for any reason during the Construction Period the Independent Certifier is unable or unwilling to continue to perform the Independent Certifier services or if the Independent Certifier’s appointment has been terminated by the Authority and Project Co, then:

- (a) within 5 Business Days of the date that is 20 Business Days after the Effective Date (or within 5 Business Days of the date of termination of the Independent Certifier’s appointment, if applicable), Project Co will provide the names of 3 candidates acceptable to Project Co for consideration by the Authority;
- (b) within 10 Business Days of receiving the candidate names, the Authority will notify Project Co of the candidates acceptable to the Authority, and the parties will cooperate to enter into a contract with an acceptable candidate generally in the form set out in Appendix 3A [Independent Certifier Agreement]; and
- (c) if none of the candidates are acceptable to the Authority, acting reasonably, or if for any reason an Independent Certifier is not appointed within 40 Business Days of the Effective Date (or within 20 Business Days of the date of termination of the Independent Certifier’s appointment, if applicable), then either party may immediately apply to a judge of the Supreme Court of the Northwest Territories for the selection of an Independent Certifier, providing the other party the opportunity to participate in the selection and appointment process.

3.3 Monthly Inspections and Report

The parties will require the Independent Certifier to:

- (a) consult with the Design-Builder, the Authority, and others involved in the Design; and
- (b) conduct inspections of the Construction,

as the Independent Certifier determines to be necessary for purposes of the Independent Certifier’s functions under this Agreement and, no later than the 10th day of each month, prepare and deliver to the Authority and Project Co a monthly written report containing a description of:

- (c) the Design and Construction completed in the previous month; and
- (d) the progress of the Design and Construction relative to the updated Project Schedule, with an overview analysis of variances and an assessment of whether the Project is on-time and on-budget.

3.4 Payment Certification

The parties will require the Independent Certifier to provide payment certification services in respect of the Agreement.

3.5 Application for Certificate of Substantial Completion and for Certificate of Total Completion

The parties will require the Independent Certifier to perform the obligations of the Independent Certifier described in Article 16 (Construction Certification) of this Schedule.

3.6 Permitted Access

Project Co will give the Independent Certifier access to the Design and Construction as the Independent Certifier reasonably requests in order to be fully informed as to the progress of the Design and Construction, including:

- (a) access to drawings, specifications, schedules, records, and other documents or data relating to the Design and Construction, including such information that is being produced by or in the possession of the Design-Builder or others; and
- (b) access to the Lands and the Project Site,

and Project Co will:

- (c) permit the Independent Certifier to attend all Design and Construction meetings during the Construction Period except to the extent Project Co and the Authority expressly otherwise agree; and
- (d) keep the Independent Certifier fully informed as to the progress of the Construction, including giving notice in accordance with Good Industry Practice of any part of the work on the T1çhçq ASR before it becomes covered up and unavailable for inspection.

3.7 No Responsibility for Design or Construction

Nothing in this Agreement (including this Schedule) or in the parties' agreement with the Independent Certifier will be interpreted as giving the Independent Certifier any responsibility or authority for any aspect of the Design or the Construction, or as relieving Project Co of its responsibility for the Design and Construction as set out in this Agreement, and neither Project Co nor the Design-Builder nor any Sub-Contractor will be entitled to rely on any review, acceptance, approval or confirmation that the Independent Certifier may give with respect to Design or Construction.

PART 2 DESIGN AND CONSTRUCTION REQUIREMENTS

4. GEOMETRICS DESIGN CRITERIA

4.1 Order of Precedence

The Design for the geometrics shall be in accordance with the criteria contained in this Article 4 and the following codes and standards, and if there is any conflict between criteria contained in this Article 4 and any of the Reference Documents, the following shall apply in descending order of precedence:

- (a) the criteria contained in this Article 4;
- (b) Government of Northwest Territories Construction Specifications and Standard Drawings;
- (c) Transportation Association of Canada (TAC) Geometric Design Guide (2017 release);
- (d) Alberta Transportation Design Guidelines on Provincial Highways; and
- (e) DBSS.

4.2 General Requirements

- (a) The Infrastructure shall include a new Tłı̄ch̄q All Season Road that begins at approximately km 196 on Highway 3 and ends at the community of Whatì and will be approximately 97 km in length with a cleared driving surface 8.5 m wide to accommodate a two-lane gravel road. The Infrastructure shall include culverts and/or two-lane bridges over water crossings, dry channels and gullies as necessary.
- (b) Project Co's Design for the Infrastructure shall be based foremost on good engineering practices.
- (c) The geometric design criteria for the Infrastructure are set out in this Article.
- (d) Notwithstanding the requirements of the Reference Documents, all blast rock incorporated into the Project shall have a maximum dimension of 300 mm and shall be well graded.

4.2.1 Vertical Curves

Low points in the design profiles shall not occur on bridges and shall be a minimum of 5 m beyond the abutments.

4.2.2 Clear Zone Requirements

Clear zone distances and side slope treatments on new roads within GNWT jurisdiction shall be established in accordance with the Roadside Safety chapter of TAC, and GNWT Specifications.

4.2.3 Wildlife Mitigation Measures

Wildlife crossings and buffers shall be provided in accordance with Schedule 19 [Environmental Obligations].

4.3 Geometric Design Criteria

4.3.1 Tłıchq All Season Road (TASR)

Table 4.3.1 provides the highway geometric design criteria that are to be applied for the design and construction of Tłıchq ASR.

Table 4.3.1: Design Criteria / Standards

ITEM	STANDARD	COMMENT
DESIGN DESIGNATION	RLU 80	<i>Rural Local Undivided</i>
DESIGN SPEED	80 (km/h)	<i>Posted Speed Limit – 70 km/h</i>
DESIGN GUIDELINES AND REFERENCE		<p><i>All design parameters must meet or exceed the national standards established by applicable governing / regulatory bodies. For exemptions to any of the criteria established herein, a technical memo must be submitted to the Authority Representative with substantiation and rationale for the change prior to approval.</i></p> <p><i>Following resources govern the design:</i></p> <ul style="list-style-type: none"> ⌚ TAC Geometric Design Guidelines ⌚ GNWT Transportation Regulatory Authority's requirements for installation of Culverts
ROADWAY DESIGN		
HORIZONTAL ALIGNMENT		
Desirable Curve Radius	500 (metres)	<i>The desirable is applicable for the entire length of roadway.</i>
Minimum Curve Radius	250 (metres)	<i>Minimum radii should be avoided wherever possible.</i>
Minimum Sight Distance	160 (metres)	<i>Horizontal sight distances are to be verified on all curves.</i>
Passing Sight Distance (minimum)	560 (metres)	<i>There is no requirement for continuous passing opportunities for the entire length of roadway. However, the Design Lead should endeavor to allow for passing opportunities as per TAC minimum requirement.</i>
Superelevation (e max)	0.06 m/m	<i>Min fully developed superelevation is 4%</i>
Minimum Spiral Parameter - "A" Value	N/A	<i>Refer to appropriate Superelevation Tables for minimum and desirable "A" Parameters for each curve radius and design speed. Spirals not required on all curves requiring superelevation.</i>
Intersection with Highway 3	WB20 design vehicle for turning	<i>Acceleration and deceleration lanes are required on Highway 3. The lanes do not have to be chipsealed.</i>
VERTICAL ALIGNMENT		
Minimum Stopping Sight Distance	140 (metres)	<i>Where the minimum Stopping Sight Distance is used, the sight should be verified using an object height of 0.38 metres and an eye height of 1.05 metres. Where the minimum Decision Sight Distance is used, the sight should be verified using an object height of 0.15 metres and an eye height of 1.05 metres. Where the minimum Passing Sight Distance is used, the sight should be verified using an object height of 1.30 metres and an eye height of 1.05 metres.</i>
Minimum Decision Sight Distance	245 (metres)	
Minimum Passing Sight Distance	560 (metres)	
Desirable Crest "K" Value	50	
Minimum Crest "K" Value	36	
Desirable Sag "K" Value	40	
Minimum Sag "K" Value	32	
Minimum Length of Vertical Curve	80 (metres)	

Maximum Gradient	6%	
CROSS-SECTION		
Finished Roadway Width	8.5 (metres)	<i>In guardrail installation areas, an additional 1 metre in width shall be added for each side that guardrail is installed.</i>
Travel Lane Cross Slope	4%	
Lane Width	3.50 (metres)	<i>Roadway will accommodate two lanes @ 3.5 metres each</i>
Shoulder Width	0.75 (metres)	<i>Shoulders will be constructed on both sides of the roadway.</i>
Side Slope / Fill Slope Ratio		
Normal	3:1	
Minimum (with Toe of Slope in water area)	3:1	<i>Use only rock fill in the water.</i>
On fills over four (4) metres	2.5:1	
Slope Stabilization Requirements	>4.0 (metres)	<i>Slope stabilization features shall be designed for fills over 4.0 metres in height (i.e. benched embankment, retaining wall, etc.).</i>
Surface Gravel Thickness (Minimum at any time)	200mm	<i>200mm crushed granular base course (20 mm minus material).</i>
DRAINAGE / EQUALIZATION CULVERTS (UPTO 1500 MM DIAMETER)		
Detailed Specifications		
Minimum culvert diameter	800 mm	Refer to GNWT Standard Specifications
GUARDRAIL		
		<i>Guardrail shall be designed for in areas with embankment heights of 4.0 metres or greater and/or areas where water bodies are close enough to the highway to be considered a hazard. In guardrail installation areas, an additional 1 metre in width shall be added for each side that guardrail is installed. The BC MOT Warrant Guide and practical safety considerations will be used for determining barrier installation locations. Type of guardrail shall be selected to minimize snow accumulation or drifting on roadway. In case of discrepancy, the stricter requirement will prevail.</i>
ROADSIDE PULLOUTS		
		<i>Project Co shall construct 2 roadside pullouts approximately equally spaced within the total length of the Tłıchq ASR. One of the pullouts shall be located in Tlıcho land. These pullouts will act as rest areas for travellers, and shall comply with Standards Drawing MS-33-92: Roadside Turnout Type "C" Design. Garbage cans shall be provided at each pullout.</i>

5. STRUCTURAL DESIGN CRITERIA

5.1 Order of Precedence

The Design and Construction of Structures shall be in accordance with the criteria contained in this Article and the following codes and standards, and if there is any conflict between the criteria contained in this Article 5 and any Reference Documents, the following shall apply in descending order of precedence for Design of Structures:

- (a) the criteria contained in this Article 5;
- (b) CAN/CSA-S6-14;
- (c) Alberta Transportation Standard Specifications;
- (d) Transportation Association of Canada (TAC) Guide to Bridge Hydraulics – current edition at Effective Date; and
- (e) DBSS.

5.2 General Requirements

5.2.1 Acceptable Products

For the purpose of this Project, the Authority will defer to the Recognized Product List of the BC Ministry of Transportation & Infrastructure, and that of the Province of Alberta (collectively, the “**Products Lists**”):

- ① The *Recognized Products List* of the BC Ministry of Transportation and Infrastructure; and
- ② The *Products List* of Alberta Transportation.

All products used on the Project shall meet the applicable Project requirements, shall be in accordance with the intent of Products Lists and shall be suitable for the Project environment (including climate). The use of products that are not on the Products Lists requires written acceptance from the Authority Representative. Acceptance shall be subject to Project Co demonstrating sufficient experience with the proposed product, and acceptable performance for the proposed product under conditions and applications similar to those existing for this Project.

5.2.2 Unacceptable Materials and Systems

The following are excluded from use in or under the completed Structures:

- (a) stay-in-place metal formwork;
- (b) metal grid decking;
- (c) sandwich plate decks;
- (d) induced current cathodic protection systems;
- (e) bridge deck heating systems;
- (f) timber components, except timber (if preservative treated) below a known permanent water level;

- (g) proprietary composite steel/concrete girders;
- (h) fibre reinforced polymer deck systems;
- (i) previously used materials; and
- (j) movable bridges, including Maybey, Acrow, Bailey and similar type bridges.

5.3 New Structures

This Section 5.3 includes the requirements for all new Structures including but not limited to new bridges, elevated road ways, retaining walls, sign structures, and bridge-culverts.

5.3.1 Design Criteria

Table 5.3.1 provides the Structures design criteria that are to be applied for the design and construction of the Tłıçhǫ ASR.

Table 5.3.1: Structures Design

BRIDGES & BRIDGE-CULVERTS		
CODES & STANDARDS		
<ul style="list-style-type: none"> ⌚ Canadian Highway Bridge Design Code CAN/CSA Standard S6-current (CHBDC) ⌚ Bridge Welding Code (AWS D1.5) ⌚ Transportation Association of Canada’s Guide to Bridge Hydraulics – current edition ⌚ Alberta Transportation’s Design Guidelines for Bridge Size Culverts ⌚ Alberta Transportation’s Roadside Design Guide and related Design Bulletins 		
BRIDGE-CULVERTS (>1500 mm dia and greater)		
Type		Open - bottomed or closed structures which meet regulatory requirements. Corrugated Steel Pipe (CSP) is not acceptable.
Minimum Cover	1.5 m	As measured vertically from the culvert obvert to the roadway shoulder.
Minimum Clear Roadway	10.0 m	Clear distance between guardrails where present, or embankment shoulder to shoulder where guardrails are not present.
Bedding Camber		All bridge-culverts must be installed with camber suitable for the geotechnical conditions.
Hydrotechnical		Freeboard shall be measured above the high-high water or high-high ice level plus one-sixth the culvert rise to allow for events related to freshet, icing conditions (aufeis), and the dike effect of the new road embankment. The minimum invert burial depth shall equal 10% of the culvert rise to a maximum depth maximum of 500 mm. The structure shall be designed for a 1:100 year flood event and the dike effect caused by the new road embankment. Technical requirements of AT Bridge Conceptual Design Guidelines; Design Bulletin #45; and Bridge Best Practice Guideline #7 shall be satisfied, except for the criteria as specified in this document.
Structural Bedding		Bedding is to be founded on stable, structurally suitable soils: <ul style="list-style-type: none"> ⌚ Poor sub-soils are to be excavated and removed. ⌚ An engineered foundation is required when permafrost is encountered.

BRIDGES & BRIDGE-CULVERTS		
Structural Backfill		Provide source & specifications of material / methods to be used which meet or exceed CHBDC requirements. Engineered GRS backfill is acceptable.
Ends	Required	Must be beveled as per CHBDC.
End Treatments	Required	Must protect against hydraulic uplift, piping, undermining & ice jacking (for example using cut-off walls, impermeable barriers, sufficient load on bridge-culvert ends to prevent uplift, etc.)
Scour Protection	Required	Transportation Association of Canada's Guide to Bridge Hydraulics – current edition requirements must be satisfied or exceeded.
Plate Thickness		Provide engineering rationale for selected metal thickness to meet the design life and to accommodate expected rate of section loss.
Corrosion Protection		Select appropriate bridge-culvert material and coating to suit site conditions (water, soil, and abrasion).
Solarity Effects		At northern latitudes, the sun is lower on the horizon and there are longer daylight hours resulting in differential temperatures across a structure; which requires the application of larger thermal expansion coefficients than provided in CHBDC.
BRIDGES		
Design Loading	CL-800	The minimum highway bridge design live load shall be the CL-800 plus Dynamic Load Allowance.
Highway Class	Class A	As defined in CHBDC.
Minimum clear roadway	10 m	As measured curb to curb.
Approach slabs	Required	Required at all bridges to mitigate loss of fill at bridge / gravel road interface and to avoid grader / plow damage.
Lanes	2	
Geometrics		Where practical, bridges shall be located on tangent horizontal alignments. Max skew < 20 degrees. For deck drainage a minimum longitudinal grade of 1% is desirable and a maximum longitudinal grade on a bridge structure shall not exceed 3%. Bridge decks shall have a 2% cross fall away from crown lines unless the grade line over the bridge structure is super-elevated. The top of abutment seats, pier caps and curbs shall have a wash slope of 3%.
Hydrotechnical		Freeboard shall be measured between the underside of the girder and the high-high water or high-high ice level plus 1.5m to allow for events related to freshet, icing conditions (aufeis), and the dike effect of the new road embankment. The structure shall be designed for a 1:100 year flood event and the dike effect caused by the new road embankment. Technical requirements of AT Bridge Conceptual Design Guidelines; Design Bulletin #45; and Bridge Best Practice Guideline #7 shall be satisfied, except for the criteria as specified in this document.
Additional design considerations	Solarity Effects	At northern latitudes, the sun is lower on the horizon and there are longer daylight hours resulting in differential temperatures across a structure; which requires the application of larger thermal expansion coefficients than provided in CHBDC.
	Integral and Semi-Integral Abutments	Integral abutments shall not be allowed. Semi-Integral abutments shall be supported on foundations that provide required flexibility to accommodate expansion movements of the bridge deck without causing distress to the bridge deck or foundations.

BRIDGES & BRIDGE-CULVERTS		
	Elastomers	<p>Brittleness: Low temperature brittleness shall be tested according to ASTM D746 on the same sample of bearings to satisfy the criteria for Grade 5 Natural Rubber at -57 °C, as described in AASHTO M251</p> <p>Hardness: in addition the low temperature brittleness shall satisfy the criteria for Grade 5 as given in Table X1.1 of AASHTO M251. 1 in every 10 pads shall be tested destructively, in accordance with AASHTO251 Annex A2.</p>
Railing		<p>W-beam not permitted for bridge rail due to snow accumulation.</p> <p>Bridge approaches guardrail end treatments – impact attenuators not permitted.</p> <p>High tension cable barrier or similar flexible restrain systems are not acceptable on bridge approaches.</p>

5.3.1.1 Design and Service Life

- (a) All new Structures shall have a minimum Design Life of 75 years starting from the Substantial Completion Date. The Service Life of all main structural components (foundations, piers, abutments, superstructure, deck, saddles, wall components including but not limited to wall facings and anchorages) shall also be 75 years starting from the Substantial Completion Date.
- (b) “Service Life” shall be the period of time during which the structural component safely performs its design function without significant repairs, rehabilitation or replacement.
- (c) Time dependent design calculations including corrosion, fatigue and creep shall use a Service Life of 75 years.

5.3.1.2 Piers, Abutments, Wing Walls and Return Walls

Except for steel piles and pile caps, all exposed portions of piers, abutments, wing walls and return walls shall be reinforced concrete construction unless otherwise approved by the Authority.

5.3.1.3 Foundations

- (a) Foundations for Structures shall be designed such that all foundation deformations are accommodated over the Design Life of the Structure and meet the performance requirements given.
- (b) For each Structure, driven piles shall require a minimum of one dynamic load test per driven pile type, per pier and per abutment element demonstrating that the required ultimate pile load capacity has been achieved.
- (c) Welding shall be undertaken by a company approved by the Canadian Welding Bureau to the requirements of CAN/CSA-W47.1, Division 3 or better.
- (d) Sufficient lengths of pile above cut-off shall be allowed so that no part of the pile damaged during installation remains in the Infrastructure.

5.3.1.4 Corrosion Protection

The grade for superstructure members shall be 350 AT Category 3 for plate and 350 A Category 2 for rolled sections. Miscellaneous steelwork (including railings, deck joints, restrainer bolts, anchor bolts, drains, embedments in concrete, fence) shall be hot-dipped galvanized in accordance with CAN/CSA-G164-M92. All non-structural steel shall be hot-dipped galvanized.

5.3.1.5 Deck Wearing Surface Systems

- (a) The deck wearing surface system is defined as the replaceable surface and waterproofing elements that protect the bridge deck from abrasion and the ingress of water and chlorides.
- (b) The deck wearing surface system can be either structurally monolithic with the bridge deck or applied as separate components. For a structurally composite deck wearing surface, the design of the bridge deck shall allow for removal and replacement of the wearing surface.
- (c) Deck wearing surface systems shall be provided on all bridges.
- (d) The skid resistance of the deck wearing surface system shall be consistent with that of the rest of the Project.
- (e) Deck wearing surfaces systems shall be designed to minimize water penetration into the structural deck over the Service Life of the deck wearing surface system.
- (f) The Service Life of concrete wearing surface systems shall be 50 years.
- (g) Gravel surfaces over any bridge decks shall not be allowed.

5.3.1.6 Bridge Decks

- (a) Project Co shall ensure that the bridge deck system including the interaction of deck concrete, concrete cover, reinforcement, deck wearing surface system, joints and deck drainage details, is such that the bridge deck meets the Service Life requirements of the Project.
- (b) In particular, the design of concrete bridge decks for durability shall consider the following parameters:
 - i. Seasonal fluctuations in temperature and moisture;
 - ii. Concrete cover;
 - iii. Type of rebar; and
 - iv. Laboratory established concrete properties for chemical composition, porosity, ionic diffusion coefficients, water diffusivity coefficient, compressive strength, air-void ratio, shrinkage, chloride permeability, freeze-thaw durability.
- (c) Using the above noted parameters, ingress of chloride and other contaminants shall be predicted, using generally accepted state-of-the-art software and taking into account concrete cracking, over the Service Life of the bridge deck and time to corrosion of the reinforcement shall be established such that a 75 year Service Life is achieved for the bridge deck and a 50 year Service Life is achieved for concrete wearing surface systems.

5.3.1.7 Bridge Deck Joints

- (a) Bridge deck joints shall be dimensioned and detailed to allow sufficient space for joints to be inspected, maintained and replaced.
- (b) Semi-integral abutments shall make provision for movement at the interface between the approach slab and the approach roadway pavement construction deck.
- (c) Modular expansion joints shall be designed for fatigue and live loads, and such that all components can be individually replaced without damaging the joint.
- (d) In-span and mid-span expansion joints are not acceptable.

5.3.1.8 Deck Drainage

Runoff water from the roadway surface of all bridges shall be discharged in accordance with the drainage and environmental requirements of the Project.

5.3.1.9 Approach Slabs

Approach slabs shall be provided at all abutments and be designed to mitigate anticipated settlements.

5.3.1.10 Slope Protection

Slope protection shall be provided under all end spans.

5.3.1.11 Water Ingress

Water ingress into or onto the substructure or abutment wall backfill from the superstructure above shall be prevented. Joints between the superstructure/end diaphragm and the substructure shall be waterproofed and should provide an engineered way to transport and dispose of water and debris away from the elements under the expansion joints to side drain troughs.

5.3.1.12 Crash Barriers

Structures shall be provided with crash barriers to protect them from vehicular collisions as required by CAN/CSA-S6-14.

5.3.1.13 Bearings

- (a) The bridge bearings shall allow sufficient space for bearings to be inspected, maintained and replaced.
- (b) Bearings shall be restrained from “walking”.
- (c) Steel reinforced elastomeric bearings shall be tested for concentric compression in accordance with paragraph (i) below.
 - i. Concentric Compression Tests

Each bearing shall be tested as follows using a concentric compression load:

- 1) The testing machine used shall have platens at least 20 mm greater in both plan dimensions than the bearing under test.

- 2) At least two dial gauge micrometers shall be positioned at the centres of opposite sides of the bearing to measure deformation. When bearings are tested in single vertical stacks, a steel plate shall separate the bearings and a set of dial gauge micrometers shall be installed for each bearing.
 - 3) The load shall be applied at the rate of 1.5 MPa/minute to a load of 8.0 MPa multiplied by the gross plan area. The deformations shall be recorded.
 - 4) The load shall be reduced at the same rate until the pressure on the bearing is 1.5 MPa, and the deformations shall be recorded.
 - 5) The load on the bearing shall be maintained at 1.5 MPa for fifteen minutes, and the deformations shall be recorded.
 - 6) The bearing shall be reloaded as in step (3), and steps (4) and (5) shall be repeated.
 - 7) The bearing shall be reloaded to 11 MPa with deformations being recorded after each 1 MPa increment.
 - 8) The compressive stress of 11 MPa shall be maintained for one hour. The deformation shall be recorded at 10 minute intervals within this one hour period.
 - 9) A graph of the pressure versus average deformation with data recorded shall be produced.
 - 10) The rates of loading specified in steps (3) and (4) also apply to steps (6) and (7).
- ii. A bearing shall be rejected based on the following Deficiencies:
- 1) if it displays bulging patterns under compression load which indicate laminate placement which does not satisfy design criteria and manufacturing tolerances, or poor laminate bond;
 - 2) if it has more than three surface cracks which are greater than 2 mm long and 2 mm deep;
 - 3) if the compressive deformation exceeds 7% of the total elastomeric thickness of the bearing due to the application of the load of 8.0 MPa multiplied by the gross plan area; and
 - 4) if lack of rubber to steel bond occurs under combined compression and shear tests.

5.3.1.14 Pre-stressed Concrete

Un-bonded pre-stressing is not permitted except that for external tendons inside box girders un-bonded tendons are permitted provided a proven system is included to ensure the tendons are permanently protected from corrosion.

5.3.1.15 Hydraulic Design

- (a) Project Co shall undertake all hydrology/hydraulic analyses and design for Structures.

This shall include all hydrotechnical modeling, analysis and design to ensure that all foundations, adjacent facilities, utilities and watercourse banks are protected from scour.

- (b) Project Co shall identify, design and construct all scour protection, erosion control, and river stabilization necessary to prevent damage to Structures, roadways or property affected by the Project Work.
- (c) Rip-rap material shall be tested for acid rock drainage (ARD) and metal leaching (ML).
- (d) Placement of geofabric under rip-rap shall not be allowed.

5.3.1.16 Wildlife and Bird Access Protection

Project Co shall incorporate features to prevent access to or roosting or habitation in hidden or enclosed spaces.

6. GEOTECHNICAL DESIGN CRITERIA

6.1 Order of Precedence

The geotechnical Design and Construction shall be in accordance with the criteria contained in this Article 6 and the following codes and standards, and if there is any conflict between the criteria contained in this Article 6 and any Reference Documents, the following shall apply in descending order of precedence for Geotechnical Design:

- (a) the criteria contained in this Article 6;
- (b) GNWT Design Specifications and Standard Drawings;
- (c) CAN/CSA-S6-14 – Canadian Highway Bridge Design Code;
- (d) AASHTO LRFD Bridge Design Specifications, 2014, 7th Edition, with 2015 and 2016 Interim Revisions; and
- (e) Publication No. FHWA-NHI-10-024, “Design of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes – Volume 1”, November 2009.

6.2 Slope Stability

- (a) The factor of safety for slope stability analysis of new or modified cut and fill slopes, including approach embankments not near Structures, shall not be less than 1.5 under static loading conditions and shall not be less than 1.1 under seismic loading conditions for all possible failure modes.
- (b) Earth slopes shall not be steeper than 3H:1V for fills up to 4 metres in height.
- (c) Specialized slope stabilization features shall be designed for fills over 4.0 metres in height (i.e. benched embankment, retaining wall, etc.). Project Co will perform geotechnical or thermal studies if needed. Sealed engineering drawings will be required.
- (d) All slopes shall be provided adequate protection against erosion and shallow slope movement.

6.3 Settlement

- (a) Foundations for Structures shall be designed such that their total and differential settlements are compatible with the function and performance requirements of the Structures over their Design Life.
- (b) The total and differential settlements of road embankments following the Substantial Completion Date shall be such that the smoothness and cross-slope requirements are met, ponding and sheeting of water is prevented, roadway structure drainage is maintained and the function of culverts and ditches is preserved.
- (c) In the event that during the Operating Period the settlement of the roadway or part thereof, measured from the design elevations, exceeds 250mm, upon request from the Authority, Project Co shall conduct a topographic survey of the roadway extending 15m either side of the roadway centerline, of vertical and horizontal accuracy of plus or minus 25mm. Upon completion of the survey, Project Co shall provide the Authority with a topographic plan and profile of the roadway at scales 1:2500H, 1:250V showing the then current configuration of the roadway or part thereof within the limits specified by

the Authority. Project Co shall submit with the topographic plan a proposed design to upgrade the roadway to full compliance with the geometric design criteria specified in this Schedule, including minimum k-values for vertical curves.

- (d) In the event that during the Operating Period the settlement of the roadway or part thereof, measured from the design elevations, exceeds 250mm, upon request from the Authority, Project Co shall undertake drainage analysis and design in accordance with drainage design criteria specified in this Schedule, based on topographic survey data as provided for in Section 6.3 (c) of this Schedule, to demonstrate that based on the then current configuration of drainage channels conduits and appurtenances, the drainage system is compliant. In the event that analysis indicates that the drainage system is compromised by the settlement, Project Co shall submit a proposed drainage system upgrade design to restore the drainage system to full compliance with this Schedule.
- (e) Following review of the upgrade designs provided for in Sections 6.3 (c) and 6.3 (d) by the Authority, Project Co shall implement the upgrade designs.
- (f) Project Co shall bear the entire cost of completion of the surveys, plans, upgrade designs and construction of the upgrade designs provided for in this Section 6.3 and all work incidental thereto.

6.4 Lightweight Fills

- (a) All lightweight fills shall be adequately protected from wheel loads, ground water, road salts, weather and fire resistance, flotation under flood conditions and fuel spills.
- (b) Where walls are used to contain flammable lightweight fills, the walls shall provide a 2-hr fire rating.
- (c) Appropriate foundation systems and landscaping must be provided such that protective membrane covers required to protect the lightweight fill are not compromised.
- (d) Flotation forces corresponding to inundation of the fill to the 200-year flood level shall be considered in the design of lightweight fills, regardless of any flood protection provided for the area in which the fill is to be constructed.
- (e) Project Co shall undertake the design with due consideration for the soil types encountered. Project Co shall carry out a detailed geotechnical investigation in sufficient detail to allow for the identification of all soil and water issues for design, construction and OMR aspects.

6.5 Embankment Soil and Rock

Project Co shall carry out a detailed geotechnical investigation in sufficient detail to allow for the identification of all soil and water issues for design, construction and OMR aspects.

Unless lightweight fills are required for construction of roadway embankments, the roadway embankments shall be constructed using approved mineral soil or rock that meets all Metal Leachate and Acid Rock Drainage environmental requirements. Embankment soils classified as “ML”, “MH”, “CL”, “CH”, “OL” or “OH” shall be considered as “unsuitable materials”.

Deformations of the embankment (including settlement and lateral movements) shall be determined using appropriate deformation analyses, with representative soil parameters derived from site specific geotechnical investigations and local experience.

Project Co shall consider the use of geotextiles to assist with reducing fill volumes, reducing settlement issues, and assisting with road structure strength and moisture avoidance.

6.6 Permafrost

The highway design, drainage design and construction methodology shall mitigate where required any permafrost degradation. The geotechnical design and construction techniques shall maintain the permafrost regime beneath and adjacent to the highway, drainage crossings, and borrow sources and shall be based on:

- (a) The actual subsurface conditions encountered;
- (b) Geotechnical and thermal analyses using accepted methods;
- (c) Temporary and permanent grading requirements;
- (d) Seasonal construction periods;
- (e) Site drainage;
- (f) Operation and Maintenance requirements and objectives;
- (g) Seasonal weather (snow cover, snow melt) effects; and
- (h) Climate change.

The road and drainage design and construction methodology shall be carried out and/or developed by a Professional Engineer with demonstrated expertise in permafrost design and construction.

7. DRAINAGE DESIGN CRITERIA

7.1 Order of Precedence

Drainage Design and Construction shall be in accordance with the criteria contained in this Article 7 and the following codes and standards and, if there is any conflict between the criteria contained in this Article 7 and any of the Reference Documents, the following shall apply in descending order of precedence:

- (a) the criteria contained in this Article 7;
- (b) Fisheries and Oceans (DFO) Canada Land Development Guidelines for the Protection of Aquatic Habitat (Sep 1993);
- (c) GNWT Specification Division 4, Section 1 – Culverts;
- (d) GNWT, Department of Transportation – Erosion and Sediment Control Manual (Jan 2013). For the “supply and installation of culverts” refer to NWT Standard Drawings and Specifications;
- (e) US Federal Highway Administration (FHWA) Hydraulic Design of Highway Culverts, Third Edition (FHWA-HIF-12-026); and
- (f) US Federal Highway Administration (FHWA) Hydraulic Engineering Circular No. 14, Third Edition, “Hydraulic Design of Energy Dissipators for Culverts and Channels” (FHWA-NHI-06-086).

7.2 Roadways Drainage

The drainage system shall be designed to minimize the disturbance to the natural hydrology within and surrounding the Project limits. Project Co shall be responsible for obtaining all necessary Permits, other than the Authority Permits. All drainage and ditches must maintain positive drainage flow.

7.3 Culverts and Ditches

The following additional specifications are required in the design of culvert and ditch drainage infrastructure:

- (a) Project Co will design the culverts.
- (b) Design to prevent any water ponding on either side of the roadway.
- (c) All non-bridge culverts shall be designed for a minimum 50-year Service Life.
- (d) At inlets to culverts that cross through the road alignment, the hydraulic grade line shall remain a minimum of 600 mm below the gravel grade top.
- (e) Permanent drainage systems and facilities shall be designed for gravity flow.

8. SIGNING DESIGN CRITERIA

8.1 Order of Precedence

Signing shall be designed and installed in accordance with the criteria contained in this Article 8. If there is any conflict between the criteria contained in this Article 8 and any of the Reference Documents, the following shall apply in descending order of precedence:

- (a) the criteria contained in this Article 8;
- (b) Transportation Association of Canada (TAC) Manual for Uniform Traffic Control Devices for Canada (MUTCDC);
- (c) GNWT Standard Specifications; and
- (d) Alberta Highway Guide and Information Sign Manual.

8.2 Materials

8.2.1 Reflective Sheeting

All signs shall conform to the latest metric edition of the Manual of Uniform Traffic Control Devices (MUTCD) for Canada, unless otherwise specified and will be installed in English and French.

All Signs shall meet or exceed ASTM 4956-09 Type1X Prismatic retro reflective acrylic sheeting, with Class 1 Backing, 4000 Series (DG3) manufactured by 3M Canada Inc., or approved equal.

All lettering on sign faces shall conform to the metric edition of Standard Alphabets for Highway Signs and pavement markings per the most current Standard Highway Signs Supplement to the MUTCD as well as Unicode compliant Dene fonts to be provided by the Authority. The Series EM uppercase lettering size shall be one hundred and fifty (150) mm and the corresponding Series EM lowercase lettering size shall be one hundred (100) mm in size, unless otherwise directed by the Designer.

If required, information signage shall be Blue ASTM 4956-09 Type1X Diamond Grade DG3 reflective sheeting by 3M Canada Inc., or approved equal; with white lettering and border, unless otherwise directed by the Authority.

A fifteen (15) mm wide white border shall not be offset from the edge of the sign. Signs shall be fabricated and supplied with galvanized sign posts, breakaway base posts, bolts and hardware.

Sign material shall be aluminum sheeting, two (2) mm minimum in thickness.

8.2.2 Sign Posts

Signs shall be fabricated and supplied in accordance with the standards set out in the latest edition of the Manual of Uniform Traffic Control Devices for Canada.

Galvanized sign posts, breakaway base posts, bolts and hardware shall be fabricated and supplied in accordance with Standard Drawing [SD-200-02-13] "Breakaway Sign Post".

The posts, bolts and hardware shall be fabricated, supplied and installed in accordance with Standard Drawing SD-200-02-13 "Breakaway Sign Post".

The length of post(s) required for each sign shall be determined by Project Co.

8.3 Guide Signs

(a) Except as noted, the following Guide Signs shall be supplied and installed by Project Co:

- ⌚ Water crossings
 - Name of water crossing x 8 (Tłı̄chǵ language)
 - Slippery when wet x 2 or depending on bridge, Bridge Ices x 2
 - Narrow structure x 2
 - Object Marker x 4

- ⌚ Pullouts (assuming two pullouts)
 - Parking ahead sign with 1km ahead x 4
 - Parking sign x 4
 - Littering prohibited x 2
 - Garbage disposal x 2
 - No Littering x2

- ⌚ Snowmobile crossings
 - Snowmobile crossing sign x 6 (assumes three crossings)

- ⌚ Distance intervals (i.e. km to Whatì)
 - 97 x 2 Distance Markers
 - Destination Direction Signs
 - Whatì x 1
 - Gamètì x 1
 - Wekweètì x 1
 - Yellowknife x1
 - Destination Distance Signs
 - Whatì x 3
 - Edzo (Behchokò) Fort Providence x 3
 - Junction Sign x 3

- ⌚ Highway number
 - Route Marker x 2

- ⌚ Naming (structure plaques, highway naming)
 - Tłı̄chǵ Highway x 2

- ⌚ Services
 - Travelers service sign
 - Fuel sign
 - Food sign
 - Accommodation sign

- Travel Information sign
- ⌚ Next Services km's X 2 Radio station
 - Radio Frequency
- ⌚ Emergency phone numbers
 - Emergency Services Whatì 1-867- ____ - ____ X 1
 - Emergency Services Behchokò 1-867- ____ - ____ X 1
- ⌚ Wildlife (crossings, look out for, etc.)
 - Moose crossing X 4
 - Bison crossing x 4
- ⌚ Land boundaries (entering Tłı̄chq̄ land, entering community Government of Whatì Land)
 - Entering Tłı̄chq̄ Boundaries x 2 (Install only, signs will be supplied by the Authority)
 - Leaving Tłı̄chq̄ Boundaries x 2 (Install only, signs will be supplied by the Authority)
- ⌚ Winter road status (open/closed)
 - Winter Road to Gamètì Open / Closed GVW max allowable weight X 1
 - Winter Road to Wekweètì Open / Closed GVW max allowable weight x 1
- ⌚ Speed fines double when passing workers x 4
- ⌚ Slow down to half the posted speed limit when passing Emergency workers x 2

- (b) Distance markers shall be installed at 1 km intervals. Kilometre 0 shall be the intersection with Highway 3.

8.4 Delineator and Reflectors

Traffic delineators are required on all horizontal radii and shall be spaced appropriately for the design speed and horizontal curvature of the radii. When required, as a minimum, delineators have to be provided on the outsides of curves.

Flexible marker post and reflective tab delineators and galvanized delineator posts shall be fabricated and installed in accordance with the GNWT Standard Drawing (SD-200-02-11) and TAC Manual of Uniform Traffic Control Devices for Canada.

8.4.1 Post Mounted Delineators

The post mounted delineators shall be equipped with reflectors made from ASTM Type 9 sheeting. Flexible post mounted delineators are an acceptable alternative to rigid post mounted delineators.

8.4.2 Reflectors on Barriers

Reflectors shall be mounted on top of barriers and/or guardrails and only reflectors designed for top mounting shall be used. Spacing for reflectors shall be 25.0 m on roadside barrier.

9. LANDSCAPE AND SITE RESTORATION DESIGN CRITERIA

9.1 Order of Precedence

Project Co shall design and implement landscaping and site restoration works in accordance with the criteria contained in this Article 9, the requirements of DBSS and the following codes and standards, and if there is any conflict between the criteria contained in this Article 9 and any of the Reference Documents, the following shall apply, in descending order of precedence:

- (a) the criteria contained in this Agreement; and
- (b) DBSS.

9.2 Landscaping Requirements

The Design and Construction of the landscaping and site restoration works shall comply with the criteria set out in this Article 9 and shall ensure compliance with the applicable Performance Measures set out in Schedule 4 [OMR and Handback].

During clearing and grubbing operations topsoil should scarified and saved. Topsoil to be spread over embankment side slopes after embankment construction. Topsoil material shall be uniformly spread to follow best management practices and guidelines over the prepared areas to facilitate the required seeding and landscaping. In the case of large amounts of surplus topsoil, Project Co shall indicate how the material shall be handled and stored in a manner applicable to relevant regulatory requirements. The handling and storage of topsoil is to be included in Project Co's operational procedures.

Conventional seeding and/or hydro-seeding shall be carried out at Project Co's discretion to meet the requirements of these specifications related to drainage and erosion.

All seed supplied by Project Co shall be certified free of all prohibited Noxious Weed varieties identified by the NWT Invasive Alien Species (IAS) Project, and the Department of Fisheries and Oceans Act.

In order to maintain consistency in vegetation, Project Co shall use an approved seed mixture (as defined in the GNWT Erosion Sediment Control Manual, January 2013) or develop a seed mixture(s) for the Tłı̄ch̄o ASR that is similar to existing adjacent vegetation, unless adjacent vegetation is deemed unacceptable.

9.2.1 Conservation of Existing Vegetation

Project Co shall preserve, to the extent possible, native trees and understory plants in areas outside the actual roadwork that do not present traffic safety concerns or affect Infrastructure integrity. Where trees must be removed in areas adjacent to the roadway, Project Co shall implement 'close cut clearing/no grubbing' practices to retain the vegetation roots, minimize soil disturbance, and encourage re-growth of plants.

10. CLIMATE CHANGE

10.1 Introduction

The vulnerability of infrastructure to impacts associated with climate change is well-documented. Climate warming's influence on precipitation, ice, and permafrost will have implications on the long-term maintenance cost of the Tłı̄ch̄o ASR. If these changes are not considered, there is the risk of having Infrastructure that does not meet its intended level of service by the end of its design life. Good drainage is critical for managing long-term maintenance costs on the Tłı̄ch̄o ASR, and climate resilience should be built into all drainage features and watercourse crossings. Other Infrastructure shall be designed to consider other impacts due to climate change.

The road, structure and drainage designs shall incorporate the long-term effects of climate change including, but not limited to, global warming, extreme weather and changes in precipitation over the Design Life of the Project. The designs should be resilient and use vulnerability assessment methodologies and climatic information from relevant sources and should clearly identify:

- (a) Methodologies used in the assessment(s) and design(s);
- (b) The expected change(s) to the permafrost regime over the Design Life of the Project;
- (c) The expected change(s) to drainage patterns due to forest fires over the Design Life of the Project; and
- (d) Refer to Schedule 22 [Climate Change Risk-Sharing Regime] for baseline climate data.

10.2 Order of Precedence

Project Co shall undertake its design and construction activities in accordance with the criteria set out in this Article 10 and the following guidelines and policies, and if there is any conflict between the criteria contained in this Article 10 and any of the Reference Documents, the following shall apply in descending order of precedence:

- (a) the criteria contained in this Agreement;
- (b) GNWT Climate Change Adaptation Plan 2013; and
- (c) BCMoTI Technical Circular T06-15: Climate Change and Extreme Weather Event Preparedness and Resilience in Engineering Infrastructure Design.

10.3 Climate Change Considerations

Project Co shall demonstrate that it has considered the impacts of climate change in all of its design and construction activities. Some examples of design elements include, but are not limited to:

- (a) Project Co will review the culvert, bridge-culvert and bridge sizing in life cycle assessments. Generally, multiple-culvert crossings cause problems at streams are less resilient to climate change, and are more challenging for fish passage than bridges.
- (b) The effect of climate change (and forest fires) on permafrost and discontinuous permafrost, and potential settlement of the embankment, shall be considered.

10.4 Project Co's Responsibility

At a minimum, the design of watercourse crossings along the road alignment shall address the following

climate-related risk items:

- (a) Non-stationarity of hydrology (and the associated design discharges).
- (b) Potential changes in stream morphology, channel stability, scour, and erosion resulting from climate and hydrologic change. These changes should be considered in the context of road reliability (floods and washouts), as well as fish passage and low flow periods.
- (c) Permafrost thaw in the tributary watersheds, which can affect sediment inputs, floating debris inputs (because of more regular active layer detachments and higher bank erosion rates), and corrosion rates due to changes to water chemistry.
- (d) Thermal interactions between culverts / bridge-culvert / bridges and adjacent permafrost.

The design of all drainage components (including ditches, culverts, watercourse crossings, and bridges) shall consider features that will mitigate risks associated with climate uncertainty, and help to manage the life cycle maintenance costs of the road. To the extent possible, watercourse crossings should minimize the disruption to natural channel processes at all flow magnitudes. Project Co shall explore emerging solutions for climate resilience in this cold region – this may include insulating layers, alternative pipe materials, bioengineered erosion protection, etc.

11. ROAD SAFETY AUDIT

11.1 Order of Precedence

Project Co shall conduct Road Safety Audits in accordance with the criteria set out in this Article 11 and the following codes and standards, and if there is any conflict between the criteria contained in this Article 11 and any of the Reference Documents, the following shall apply in descending order of precedence:

- (a) the criteria contained in this Article 11;
- (b) the TAC Road Safety Audit Guide; and
- (c) BC MoTI Technical Circular T-02/04 and Road Safety Audit Guidelines.

11.2 Road Safety Audit Team

The Road Safety Audit Team shall consist of a minimum of 2 auditors. Each team member must meet the following minimum criteria:

- (a) 5 years of relevant experience in road safety, traffic engineering and geometric design;
- (b) participated in at least 5 Road Safety Audits; and
- (c) completed at least one Road Safety Audit per year in the last 2 years.

11.3 Project Co's Responsibility

Project Co shall be responsible for:

- (a) scheduling, initiating, and managing the Road Safety Audit process at the appropriate times during the course of the Project;
- (b) providing all necessary design drawings and supporting documentation for the Road Safety Audit Team to conduct the audit;
- (c) ensuring that the audit is conducted to a high quality standard;
- (d) receiving and reviewing the audit reports;
- (e) responding to the audit reports and documenting this response;
- (f) conducting any re-design, as a result of the safety audit suggestions;
 - i. highlighting major changes to the required Design drawings; and
 - ii. providing all documentation related to the Road Safety Audit to the Authority Representative. This documentation will be provided before Project Co takes any actions on re-design and/or re-construction, providing the Authority the opportunity to review.
 - (A) All costs associated with the Road Safety Audit, including any re-design and increased Construction costs which result from the Road Safety Audit, are the responsibility of Project Co.
 - (B) After each Road Safety Audit, except as otherwise expressly agreed in

writing by the Authority Representative, Project Co shall address all recommendations made by the Road Safety Audit Team.

11.4 Road Safety Audit Process

- (a) The Road Safety Audit process shall be carried out in accordance with the TAC Road Safety Audit Guide, the BC MoTI Road Safety Audit Guidelines and in accordance with Part 3 [Design and Certification Procedure] of this Schedule.
- (b) The Road Safety Audit Team shall prepare an audit report to document the audit findings. Road Safety Audit reports shall be submitted to Project Co's Design team for the stages identified below. The Road Safety Audit reports shall clearly identify safety hazards that need to be addressed by Project Co along with recommendations for remediation. Project Co shall respond to the identified hazards and recommendations with remediation counter-measures.
- (c) The Road Safety Audits shall be provided to the Authority Representative in accordance with the Design and Certification Procedure for review at three stages as follows:

11.4.1 Stage 1: Interim Design Road Safety Audit

A stage 1 Road Safety Audit shall be conducted immediately before submission of the Interim Design in accordance with Part 3 [Design and Certification Procedure] of this Schedule. The audit shall undertake a detailed review of the Interim Design plans to identify any potential safety-related enhancements that might have an impact on the Infrastructure. Issues considered shall include:

- (a) Design consistency;
- (b) Horizontal and vertical alignment;
- (c) Cross section design;
- (d) Stopping sight distance and turning sight distance;
- (e) Maintenance safety;
- (f) Clear zones to roadside objects; and
- (g) Safety barriers.

11.4.2 Stage 2: Final Design Road Safety Audit

A stage 2 Final Design Road Safety Audit shall be conducted at Final Design in accordance with Part 3 [Design and Certification Procedure] of this Schedule. The audit shall undertake a detailed review of the completed Final Design plans to identify any potential safety-related enhancements that might have an impact on the operational safety of the Infrastructure. Issues considered shall include:

- (a) Signing and pavement markings;
- (b) Drainage;
- (c) Clearances to roadside objects;
- (d) Safety barriers;

- (e) Surface standards;
- (f) Landscaping;
- (g) Accommodation of design vehicles; and
- (h) Any stage 1 items affected by the Final Design.

11.4.3 Stage 3: Post Construction Road Safety Audit

Prior to Substantial Completion, a stage 3 Road Safety Audit shall be carried out to identify potential safety enhancements that may reduce the frequency of collisions.

Stage 3 Road Safety Audits shall take place prior to and as a condition of the issuance of the Certificate of Substantial Completion.

The Road Safety Audit Team shall fully examine such relevant components, including:

- (a) meeting with the Project team to review any Construction related issues, in particular Design changes that may affect the safety;
- (b) checking to ensure that safety issues identified in the Design audit are addressed and the resulting Design changes do not create a further safety problem;
- (c) reviewing any Design changes that occurred during the relevant Construction to ensure they do not create a safety problem; and
- (d) conducting a field review under both daytime and nighttime conditions, to observe its operation from the perspective of the road user.

11.5 Certificates

After each of the three stages of the Road Safety Audit process, Project Co shall submit a Road Safety Audit Certificate in accordance with Section 14.4 of this Schedule.

PART 3 DESIGN AND CERTIFICATION PROCEDURE

12. DESIGN MANAGEMENT PLAN AND TECHNICAL APPRAISAL FORMS

12.1 Submission of Design Management Plan

Within 45 days following Effective Date, Project Co shall submit a Design Management Plan (DMP) to the Authority Representative. Project Co shall provide a comprehensive DMP that describes how it intends to manage the design processes for the Project Work and the provisions of this Agreement. The DMP is to apply from the Effective Date to Total Completion.

The Design Management Plan shall include:

- (a) the organization chart for all design activities;
- (b) a description of the responsibilities, qualifications, and authority of personnel and the organizational interfaces between those responsible for design management and other engineering and construction management disciplines;
- (c) the procedures to be used for designing and checking each of the designs and the form of review to be undertaken;
- (d) the identification of the Checking Team for Structures;
- (e) the contents and format of Interim Design and Final Design submissions;
- (f) a design review indicating dates that Project Co plans to:
 - conduct internal audits of the design verification process
 - Interim Designs and Final Designs; and
 - undertake review meetings in accordance with Section 12.3 of this Schedule;
- (g) the process and schedule for Road Safety Audits;
- (h) Design input and output review;
- (i) Design verification to ensure that design input requirements have been met;
- (j) Design changes;
- (k) Implementation of Road Safety Audit recommendations;
- (l) Corrective Actions, Preventative Actions and opportunities for improvement; and
- (m) Document management.

The DMP shall require all designs, drawings, specifications and similar documents, for all design aspects of the Project Work, to be stamped and signed by respective Engineer of Record as “Design Engineer” in accordance with Northwest Territories & Nunavut Association of Professional Engineers and Geo-Scientists (NAPEG) Authentication of Documents – Use of Professional Seals as posted accordingly.

12.2 Compliance with Design Management Plan

Project Co shall implement and comply with the initial Design Management Plan which has been accepted by the Authority Representative, and any subsequent amendments or updates to the initial Design Management Plan to which there is no objection by the Authority, in connection with all Design Data prepared or adopted in connection with the Design and the Construction.

12.3 Review Meetings and Minutes

- (a) Project Co shall organize review meetings with the Authority Representative for the purpose of reviewing the Design information in accordance with the Design Management Plan.
- (b) Project Co shall prepare minutes of such review meetings, including action items and including recording Authority comments, and promptly address the comments to the satisfaction of the Authority Representative. Copies of the minutes shall be provided to the Authority Representative within 1 calendar week following each review meeting.
- (c) For greater certainty, the minutes of such review meetings, including any Authority comments included and addressed therein, shall not be considered for the purposes of this Agreement as either Authority Changes or Project Co Innovation Proposals.

12.4 TAF Submission Requirements

Each Final Design Development Submittal and Construction Document Submittal package submitted by Project Co for Tłıçhǫ ASR and associated Structure components shall be accompanied by a completed Technical Appraisal Form (TAF).

12.5 TAF Form and Content

Each TAF submitted by Project Co shall be in the format shown in Appendix 3E to this schedule.

13. DESIGN SUBMISSIONS, REVIEW AND REPORTS

13.1 Design and Certification Procedure

- (a) Project Co shall implement and enforce the procedure set out in this Part 3 (the “**Design and Certification Procedure**”), together with the accepted Design Management Plan, throughout the Term.
- (b) The Design and Certification Procedure shall apply to all Design Data prepared or adopted in connection with the Construction and any other Construction taking place during the Term, including any further design development or changes to a design once a TAF has been subjected to the Design and Certification Procedure.
- (c) Project Co shall ensure that all certification procedures referred to in the Design Management Plan and the Design and Certification Procedure are complied with by the appropriate persons referred to therein, including the Design team, the Design Lead and any independent team or engineer within the Design Lead, as the case may be (together, the “**Appropriate Persons**”), and that all Appropriate Persons are at all relevant times duly authorized and qualified to carry out such procedures and to sign the relevant certificates. Any failure by any Appropriate Person to fulfil the obligations required of them under the Design Management Plan or the Design and Certification Procedure shall be a breach of Project Co’s obligations under this Agreement.

13.2 Design and Certification Procedure in Emergency

In the case of an emergency, Project Co may proceed with such measures as are immediately necessary for the protection of persons and/or property prior to complying with the applicable provisions of this Design and Certification Procedure, provided that Project Co shall comply with the provisions of this Design and Certification Procedure otherwise applicable to those measures as soon as reasonably possible under the circumstances.

13.3 No Limitation

A requirement for certification or for any check or review pursuant to, and for purposes of, this Part 3 is in addition to, and does not in any way limit, qualify, replace or relieve Project Co from, the obligation to comply with any other certification, check or review requirement provided elsewhere in this Agreement or any of the Project requirements, or pursuant to any applicable professional standards or practices.

13.4 Works, Submittals and Re-Submittals

13.4.1 Works Submittals

The provisions of Article 13 (Design Submissions, Review and Reports) of this Schedule shall apply to the Design Development Submittals, the Construction Document Submittals, the Design Data, and any and all items, documents and anything else required or specified by this Agreement, including all Works Submittals listed in review including design, redesign and modifications, in respect of the Project Work to be submitted to, reviewed or otherwise processed by the Authority prior to or after Substantial Completion in respect of the completion of minor Deficiencies, including any and all subsequent revisions, amendments and changes thereto (collectively and individually, “**Works Submittal**” or “**Works Submittals**”). All Submittals must be signed by designated engineer and designer of Project Co including signature of their Design Lead(s).

For the purpose of the reviews, design data shall include, but not be limited to:

- (a) design development drawings, reports, schedules and specifications progressed from

Effective Date showing all engineering design information sufficient to allow for the development of working drawing documentation, submitted at conceptual completion (the “**Pre-final Design Development Submittals**”) and at 90% completion (the “**Final Design Development Submittals**”) of the development of the working drawings (collectively, the “**Design Development Submittals**”) or such other levels of completion proposed by Project Co or the Authority and acceptable to the Authority Representative, in its discretion; and

- (b) working drawing documentation, being construction drawings, reports, schedules and specifications progressed from the Design Development Submittals, showing all architectural, engineering and landscape design information in accordance with the requirements of this Agreement, submitted at 100% completion of the construction drawings (the “**Construction Document Submittals**”).

13.4.2 Schedule for Works Submittals

13.4.2.1 The Works Schedule shall provide for a progressive and orderly flow of Works Submittals from Project Co to the Authority Representative to allow sufficient time for review of each Works Submittal by the Authority Representative taking into account both the resources necessary to be available to the Authority Representative to conduct such review and whether delay in the review of the subject matter of the Works Submittal shall have a material impact on Project Co’s ability to progress future anticipated Works Submittals and the Works in accordance with the Works Schedule.

13.4.2.2 The Works Schedule and any amendment to the Works Schedule shall allow a period of 10 Business Days (excluding the period between December 24th and January 2nd inclusive) or such longer period as the parties may agree, from the date of receipt by Authority Representative for review of and response to each Works Submittal, provided that if Project Co has made major changes to the grouping and volume of Works Submittals, such period of time shall be adjusted by Project Co, acting reasonably, taking into account the factors set forth in Section 13.4.2.1 of this Schedule.

13.4.2.3 Project Co shall, in scheduling Works Submittals and in the performance of the Project Work, allow adequate time prior to performing the Project Work that is the subject of the Works Submittals, for review of the Works Submittals and for Project Co to make changes to Works Submittals that may be required if comments are received on the Works Submittals, such review and required changes to be in accordance with Article 13 (Design Submissions, Review and Reports) of this Schedule.

13.4.2.4 If the Works Schedule indicates that a large number of Works Submittals will be made at one time, the Authority Representative may, at the Authority Representative’s discretion, request a longer period for review or a staggering of the Works Submittals, and Project Co shall review and revise the Works Schedule accordingly, taking into account both the resources necessary to be available to the Authority Representative to conduct such review and whether delay in the review of the subject matter of the Works Submittal shall have a material impact on Project Co’s ability to progress future anticipated Works Submittals and the Works in accordance with the Works Schedule.

13.4.2.5 Project Co shall submit all Works Submittals to the Authority in accordance with the then-current Works Schedule.

13.4.3 General Requirements for Work Submittals

13.4.3.1 Unless otherwise specified by the Authority Representative, Project Co shall issue 4 printed copies of all Works Submittals to the Authority, together with electronic copies in PDF and

AutoCAD or in another format agreed by the parties acting reasonably and one printed copy and an electronic copy of each Works Submittal to the Independent Certifier.

- 13.4.3.2** Project Co shall compile and maintain a log register of the date and contents of the submission of all Works Submittals and the date of receipt and content of all returned Works Submittals and comments thereon in order with reference to item number, quantity and cost changes including snap shots of any added or deleted drawing or sketches and notes.
- 13.4.3.3** All Works Submittals shall be in English and shall always reference with log register for each and all submittals and re-submittals.
- 13.4.3.4** Works Submittals required by this Agreement or by applicable Law to be signed or sealed by persons with professional designations licensed to practice in the Northwest Territories (including, where applicable, by registered Professional Engineer) shall, where applicable, be so signed and sealed. Project Co shall comply with the provisions of *The Engineering and Geoscience Professions Act* (NWT) requiring every partnership, association of persons or corporation that engages in the practice of professional engineering or the practice of professional geoscience as its principal or customary function to obtain a certificate of authorization.
- 13.4.3.5** All Works Submittals shall include copies of all documents to be reviewed and shall clearly identify the purpose of the Works Submittal and Project Co's proposed course of action relating to the Works Submittal and the Project Work that is the subject of the Works Submittal.
- 13.4.3.6** All Works Submittals shall, as applicable, always refer to the relevant provisions of the Technical Requirements, any other applicable Schedule / regulation conformance to this Agreement and to any Design Data that has previously been subject to review, revisions, and submittal/ resubmittals.
- 13.4.3.7** All Works Submittals shall be clearly identified as a Works Submittal and shall be delivered with appropriate covering documentation, which shall include a list of all attached Works Submittals and for each Works Submittal:
- (a) the document number(s) or drawing number(s);
 - (b) revision numbers (if applicable);
 - (c) document or drawing title(s);
 - (d) name of entity that prepared the Works Submittal and reference log Number(s) relate to;
 - (e) the Works Submittal history showing date and delivery information and/or log number of all previous submissions of that Works Submittal; and
 - (f) identification of any previous Works Submittal superseded by the current Works Submittal and reference their log numbers relates to. The Authority also requires written confirmation from Project Co in a resubmittal in the event of major design change or redesign.
 - (g) Project Co shall state whether all relevant parties agreed/not agreed for associated cost incurred including quality and quantity changes and also whether Project Co is opting out of the provision of Section 13.4.10.2 of this Schedule specific to such re-submittal if the Authority Representative asks for such written confirmation.

13.4.4 Comments

- 13.4.4.1** The Authority Representative shall review and respond to each Works Submittal in accordance with the time periods specified in clauses of Section 13.4.2 and Section 13.4.3 of this Schedule. The Authority Representative shall return Works Submittals to Project Co with a copy to the Independent Certifier and assign one of the following 3 comments:
- (a) “REVIEWED”;
 - (b) “REVIEWED AS NOTED”; or
 - (c) “REJECTED”.
- 13.4.4.2** The comment “REVIEWED” will be assigned to those Works Submittals that, in the opinion of the Authority Representative, conform to the requirements of this Agreement. Project Co shall comply with and implement such Works Submittals.
- 13.4.4.3** The comment “REVIEWED AS NOTED” will be assigned to those Works Submittals that, in the opinion of the Authority Representative, generally conform to the requirements of this Agreement, but in which immaterial Deficiencies have been found by the Authority Representative’s review. Project Co shall correct these Works Submittals and provide a copy of the corrected Works Submittals to the Authority Representative. Project Co shall comply with and implement such Works Submittals after correction, including in accordance with the comments. If at any time it is discovered that Project Co has not corrected the Deficiencies on Works Submittals stamped “REVIEWED AS NOTED”, then Project Co will be required to modify the Works Submittals and Project Work, as applicable and as required to ensure that the Project Work comply with the Technical Requirements, any other applicable Section/Schedule to this Agreement, and Project Co Proposal Extracts. Project Co may be required, at the Authority Representative’s discretion, to resubmit relevant Works Submittals. In such circumstances the Authority Representative will act promptly in considering whether such Deficiencies have been corrected. No extension of time will be given or additional compensation paid in respect of any such correction or re-submittal.
- 13.4.4.4** The comment “REJECTED” will be assigned to those Works Submittals that, in the opinion of the Authority Representative, contain material Deficiencies and/or do not generally conform with the requirements of this Agreement. Project Co shall correct and re-submit these Works Submittals within 10 Business Days after the comment has been provided to Project Co, or such longer period as the parties may agree. Project Co shall give the Authority Representative not less than 5 Business Days’ notice of when the Works Submittals shall be resubmitted unless the Works Submittal is re-submitted within 5 Business Days after the comment has been provided to Project Co. The Authority Representative will then review such re- submitted Works Submittals and assign a comment to the corrected Works Submittal. The Works Submittals shall be corrected, revised and resubmitted as often as may be required to obtain a “REVIEWED” comment. No extension of time will be given or additional compensation paid in respect of any such correction or re-submittal.
- 13.4.4.5** When the Authority Representative issues a comment “REVIEWED AS NOTED” or “REJECTED”, the Authority Representative shall provide reasons for the comment, referencing the particulars of the Section(s) of this Agreement that the Works Submittal fails to satisfy, and, if requested by Project Co Representative, the Authority Representative will meet with Project Co Representative to discuss the reasons for the comment.
- 13.4.4.6** If, at any time after assigning a comment to a Works Submittal, the Authority Representative or Project Co discovers any significant Deficiencies or any failure to conform to the requirements of this Agreement, the Authority Representative may revise the comment

assigned to any Works Submittal. If the parties agree or it is determined that the revised comment is correct, Project Co shall make all such corrections to the Works Submittals and the Project Work. No extension of time will be given or additional compensation paid in respect of any such correction or re-submittal.

- 13.4.4.7** For the purpose of facilitating and expediting the review and correction of Works Submittals, the Authority Representative and Project Co Representative (or Design Lead) shall meet at the Site Office, or as may be otherwise mutually agreed, to discuss and review any outstanding Works Submittals and any comments thereon. Project Co shall cooperate as and when needed to explaining design, calculations, and analysis to the Authority Representative.
- 13.4.4.8** The Authority Representative at his discretion may elect to add comments to only the cover page or first sheet of the Works Submittal and to individual pages or sheets of the Works Submittal, along with an explanation. Unless otherwise indicated by the Authority Representative, any pages contained in a particular Works Submittal returned without such an explanation as to their status shall be deemed to be "REVIEWED" by the Authority.
- 13.4.4.9** In lieu of returning a Works Submittal, the Authority Representative may, by letter, notify Project Co of the comment assigned to the Works Submittal and if such comment is "REVIEWED AS NOTED" or "REJECTED" the letter will contain comments in sufficient detail for Project Co to identify the correction sought.

13.4.5 Disputes

- 13.4.5.1** If Project Co disputes any act of the Authority or the Authority Representative in respect of a Works Submittal under Section 13.4.4, Project Co shall promptly notify the Authority Representative and the Independent Certifier of the details of such Dispute and shall submit all the reasons in writing why Project Co believes a different comment should be assigned, together with appropriate supporting documentation. The Authority Representative will review the Works Submittal, the reasons and the supporting documentation within 5 Business Days after receipt by the Authority Representative or such longer period as the parties may agree and will either confirm the original comment or notify Project Co of a revised comment. If the Authority Representative confirms the original comment, Project Co may request the Independent Certifier to resolve the Dispute and render a decision within 5 Business Days of such request.
- 13.4.5.2** If either party is not satisfied, acting reasonably, with the resolution of the Independent Certifier, subject to Section 13.4.10.2 of this Schedule, either party may refer the matter for determination in accordance with Schedule 13 [Dispute Resolution Procedure] of this Agreement.
- 13.4.5.3** Notwithstanding the provisions of Sections 13.4.5.1 and 13.4.5.2 of this Schedule, the Authority or Authority Representative may direct Project Co to revise the Works Submittals in accordance with the comments of the Authority or Authority Representative and Project Co shall proceed to perform and complete the Project Work on the basis of such revised Works Submittals. For clarity, such direction shall be considered a Dispute and Project Co may proceed in accordance with Schedule 13 [Dispute Resolution Procedure] of this Agreement.

13.4.6 Effect of Review

- 13.4.6.1** Any review and comment by Authority or the Authority Representative of any Works Submittals is for general conformity to the obligations and requirements of this Agreement and any such review and comment shall not relieve Project Co of the risk and responsibility

for the Project Work and for meeting all of its obligations under and requirements of this Agreement, and shall not create any new or additional obligations or liabilities for the Authority. Without limiting the generality of the foregoing any and all errors or omissions in Works Submittals or of any review and comment shall not exclude or limit Project Co's obligations or liabilities in respect of the Works under this Agreement or exclude or limit the Authority's rights in respect of the Works under this Agreement.

13.4.7 Works Submittal Explanation

13.4.7.1 At any time, the Authority Representative may require Project Co or any Project Co parties, including Project Co's consultants and any other relevant personnel, at no additional cost to the Authority, to explain to the Authority Representative and the Authority's advisors the intent of Project Co's Works Submittals, including in relation to any design and any associated documentation and as to its satisfaction of the Technical Requirements or any other Schedule to this Agreement, as applicable.

13.4.8 Revisions

13.4.8.1 Project Co shall ensure that Works Submittals keep the same, unique reference number throughout the review process, and that subsequent revisions of the same Works Submittal are identified by a sequential revision number. Correspondence related to such Works Submittal shall reference the reference number and revision number.

13.4.8.2 Re-submittals shall clearly show all revisions from the previous Works Submittal. Bound documents, including reports and manuals, shall contain a preface that clearly states how revisions are marked and the previous revision number against which the revisions have been marked. A consistent format, satisfactory to the Authority Representative, acting reasonably, shall be used for mark-ups of documents (e.g. deletions struck out and additions underscored). Revised portions of drawings shall be clearly marked (with appropriate means to visually distinguish between the parts of the drawing that are revised and the parts that are not revised) and the revision number and description of the revision shall be included on the drawing.

13.4.8.3 All revisions on print media shall be initialed by hand by the individual designer, design checker and, where applicable, by the drafter and the drafting checker and shall identify the persons who initialed the Works Submittal. Electronic versions of the Works Submittal shall identify the persons who initialed the revisions to the printed version of the Works Submittal. All such revisions must be able to be integrated into the As Built Drawings.

13.4.8.4 Project Co shall keep all Design Data current. If any Design Data is revised as part of a Works Submittal, all other Design Data relying on or based on that Design Data shall also be revised accordingly. All such revised Design Data shall also be submitted with the Works Submittal to which it relates.

13.4.8.5 If any revisions are required to the Design Data as a result of site or other conditions during any portion of the Construction, Project Co shall either:

- (a) notify the Authority promptly of the site or other conditions that require such revision and submit to the Authority revised Design Data in accordance with Section 13.4.3 of this Schedule, before incorporating the revision into the Project Work and any such action will not derogate from Project Co's obligations under the Agreement including this Design and Certification Procedure, Schedule 3, Technical Requirements, Design and Construction Requirements and other provisions. No extension of time will be given or additional compensation paid in respect of any such revision, correction or re- submittal; or

- (b) notify the Authority promptly of the site or other conditions that require such revision and submit to the Authority in accordance with Section 13.4.3 of this Schedule a sealed memo from the Engineer of Record explaining the proposed revision before incorporating the revision into the Project Work. Submit revised Design Data within 3 Business Days after Project Co becomes aware of the need for the revision. Any such action will not derogate from Project Co's obligations under the Agreement including this Schedule 3 and Technical Requirements, Design and Construction Requirements and other provisions of the Agreement. No extension of time will be given or additional compensation paid in respect of any such revision, correction or re-submittal.

13.4.9 Audit by the Authority Representative

- 13.4.9.1** Without limiting any other right under this Agreement, the Authority Representative shall have the right to audit all Works Submittals and their implementation, including comparing all Works Submittals to previous Works Submittals.
- 13.4.9.2** If during an audit or at any other time it is discovered by the Authority or Project Co (or resolved pursuant to Section 13.4.9.3 of this Schedule) that any Works Submittals were not correctly implemented, Project Co shall at its sole cost immediately take all necessary steps to correct and modify the applicable Works Submittals and the Project Work to which they relate and shall advise the Authority Representative of all such corrections and modifications.
- 13.4.9.3** Any Dispute concerning the implementation of a Works Submittal, subject to Section 13.4.5.1 of this Schedule, shall be referred in the first instance to the Independent Certifier for resolution.

13.4.10 Changes

- 13.4.10.1** No alteration or modification to the design, quality and quantity of the Project Work arising from the development of detailed design or from the co-ordination of the design in connection with any Works Submittal shall be construed or regarded as a Change.
- 13.4.10.2** If, having received comments from the Authority Representative on any Works Submittal, Project Co considers that compliance with those comments would amount to a Change, Project Co shall, within 10 Business Days of receipt of and before complying with the comments, provide written notice to the Authority or Authority Representative of the same and, if it is agreed by the parties that a Change would arise if the comments were complied with, the Authority may, at its election, (a) issue a Preliminary Change Instruction and it shall be dealt with in accordance with Schedule 6 [Changes, Minor Works and Innovation Proposals] or (b) amend its comment on the Works Submittal. If the parties do not agree that a Change would arise if the comments were complied with, either party may proceed to resolve the matter in accordance with Section 13.4.5.3 of this Schedule including for clarity, the exercise by the Authority of its rights under Section 13.4.5.3 of this Schedule.

13.5 Format of Design Submissions

- 13.5.1** Roadway drawings shall be in a format in accordance with the requirements of Section 13.4.3 of this Schedule, the Design and Certification Procedure, and the Authority's drafting standards. Unless mutually agreed to otherwise, the Authority's Standard is the National CADD Standards (NCS). Project Co shall verify with the Authority Representative prior to commencing design drawing production and shall comply as per all Technical Requirements of this Schedule and as per requirements of the Authority. Project Co shall confirm drawing conventions, title block and stationing convention or standards including AutoCAD and Civil3D (only in versions compatible

with the Authority) as required by the Authority.

13.5.2 Design drawings including shop drawings shall be in accordance with the format described in to the satisfaction of Authority Representative, must meet all Technical Requirements in General, Design and Construction, Design and Certification Procedure requirements.

13.5.3 Drawings and Design Data for the Tıçhçø ASR and other Infrastructure to be constructed by Project Co shall be in accordance with the Authority's drafting standards.

13.6 Preparation of Design Data

All Design Data shall be prepared under the supervision of the Design Lead. Prior to the submission of any Design Data to the Authority Representative, the Design Lead and the Checking Team where applicable, shall satisfy themselves that the Design Data meets all Project requirements and otherwise complies with the requirements of this Agreement.

13.7 Interim Design Review

13.7.1 Project Co shall submit to the Authority Representative Interim Designs, including supporting information for, at a minimum, the [Tıçhçø ASR], geotechnical design and any design required in connection with any plans developed by Project Co in accordance with Sections 2.3 and 2.4 of Schedule 19 [Environmental Obligations].

13.7.2 Interim Design submissions shall be informal and shall not be reviewed according to the Design and Certification Procedure. Rather, such informal Interim Design submissions shall be used to inform the Authority Representative on the development of the Design and provide an opportunity for a dialog on compliance with the Project requirements before the Design is complete.

13.7.3 The content of such Interim Design submissions shall be appropriate to the subject and discipline. The information provided shall be adequate to show that the Design is proceeding in compliance with the Project requirements and is taking into consideration the relevant Construction and other Project Work.

13.7.4 In accordance with this Design and Certification Procedure, Project Co and the Authority Representative shall agree on the design information to be submitted for review in the Interim Design submissions, the schedule of such Interim Design submissions, and the scope of each review.

13.8 Pre-final and Final Design Review

Final designs from all design disciplines shall be submitted to the Authority Representative in accordance with the Design and Certification Procedure and shall consist of the relevant TAF(s) together with all final design drawings, supporting Design Data, analysis and calculations (Clearly shown design steps, Design parameters and criteria).

13.9 Final Design Submissions

13.9.1 General

- (a) Final Design Development Submittals shall be prepared in an electronic format and shall have indexes and sectional dividers. The design folders shall contain pertinent correspondence, shall be arranged by subject matter in chronological order, and shall include design, analysis, calculations and backup information including but not limited to the design decision process, criteria and assumptions. Design submissions shall include, without limitation, copies of all agreements, approvals, authorizations, design reports,

correspondence, calculations and comprehensive construction specifications sufficiently detailed to describe the process or end result requirements.

- (b) All Submittals for review must be signed by designated engineer and designer of Project Co's, and their Design Lead.
- (c) Construction Document Submittal drawings and reports shall be signed and sealed by the Engineer of Record after review.

13.9.2 Roadway Design

The Final Design Development Submittals and Construction Document Submittals shall, without limitation:

- (a) contain all signed and sealed drawings where applicable, including complete geometrics, profiles, typical and template cross-sections at 20 m intervals, drainage, design appurtenances and roadside hazards;
- (b) address any comments of the Authority Representative from the Design review meetings, internal design reviews, quality control, and design reports; and
- (c) include revisions, critical constructability considerations, environmental issues and mitigation plans.

13.9.3 Drainage Design

The Final Design Development Submittals and Construction Document Submittals shall, without limitation:

- (a) address any comments of the Authority Representative from the Design review meetings, the Design Development Submittal reviews, Project Co's internal design reviews, quality control, and design reports; and
- (b) include revisions, environmental issues and mitigation plans and compliance and conformity to all applicable Law.

13.9.4 Drainage Structures

The Final Design Development Submittals and Construction Document Submittals shall contain, without limitation, the following:

- (a) all design drawings;
- (b) hydrotechnical report;
- (c) construction and material specifications not contained in Section 13.4.3 of this Schedule and other provisions of this schedule; and
- (d) resolution of all issues identified during Design Development Submittals reviews.

13.10 Geotechnical Design

- (a) For the Final Design Development Submittals and Construction Document Submittals, Project Co shall prepare a comprehensive geotechnical report for the Project that covers existing geotechnical information and known site conditions, new investigations

performed for the Project, geotechnical engineering analysis, geotechnical design assumptions and design parameters (and the basis for these) and geotechnical design recommendations. The report shall be submitted to the Authority Representative at the Pre-Final Design Development Submittal stage and updated and resubmitted with Final Design Development Submittals and Construction Document Submittals stages.

- (b) In addition, the Final Design Development Submittals and Construction Document Submittals shall, without limitation, contain:
- (i) final recommendations for foundation systems;
 - (ii) geotechnical design recommendations for structural components of road sections based on the findings of geotechnical investigations;
 - (iii) a design report that details the geotechnical design recommendations for road design section;
 - (iv) analysis and design of fill embankments;
 - (v) final recommendations for road design and construction procedures demonstrating that Project Co has made effective provisions for all issues relating to the integrity of permafrost during construction and during the 25 year Operating Period such that permafrost degradation shall be mitigated where required. The design should also be resilient so that the functionality of the road will be preserved for the Design Life of the Project;
 - (vi) a monitoring and instrumentation plan along with details of instrumentation to be installed, monitoring requirements, and instrumentation reading threshold values at which construction is halted or resumed if applicable. A long-term monitoring/instrumentation plan shall be provided to confirm performance through to the end of the Term; and
 - (vii) reduced size (11" x 17") drawings showing the road alignment in plan and profile with drill hole locations shown on the plan and simplified summary logs shown on the profile (design notes are to be shown along the bottom of the drawings).

13.11 Environmental Design

The Final Design Development Submittals and Construction Document Submittals shall contain, without limitation, the following:

- (a) applicable construction drawings that include:
- (i) ecological restoration areas including designated species and any environmentally sensitive areas, and all restoration areas;
 - (ii) all compensation plans including without limitation fisheries and wetlands compensation plans areas;
 - (iii) all drainage and storm water management pond areas;
 - (iv) all archaeological features;
 - (v) erosion and sediment control measures and conformances in reference to GNWT's Erosion and Sediment Control Manual; and

- (vi) riparian restoration and terrestrial reclamation/ re-vegetation drawings that, as a minimum, describe timing requirements, seed mixes and applications rates of hydro-seeding and site specific restoration plans, including species type, size and spacing for riparian areas, areas of higher sensitivity, and areas prone to erosion or shallow slope movement in conformance to GNWT's Erosion and Sediment Control Manual;
- (b) environmental design drawings that show environmental mitigation and compensation features and any environmental features to be constructed in conformance to GNWT's Erosion and Sediment Control Manual and applicable other Regulations and Acts of relevant agencies;
- (c) environmental design documentation including:
 - (i) regulatory agency review and acceptance documentation for environmental submissions specific to the work designed;
 - (ii) all licenses, notifications, Permits, authorizations and approvals specific to the work designed; and
 - (iii) all assessments, studies, surveys, monitoring reports, and plans specific to the work designed;
- (d) an environmental design criteria checklist that lists general environmental commitments and assurances, environmental design commitments, site specific environmental features and environmental mitigation/compensation plans including all commitments, assurances and plans relating to archaeological features; and
- (e) resolution of all issues identified during Design Development Submittal reviews.

13.12 Road Safety Audit Design Data

All Design Data shall be subject to Road Safety Audits in accordance with Article 11 (Road Safety Audits) of this Schedule as and where required pursuant to the provisions of the Design Management Plan, the Project requirements and any other provision of this Agreement.

13.13 Objection to Design Data

If the Authority Representative objects to any Design Data on grounds of non-compliance with the Technical Requirements, the Authority Representative shall so notify Project Co and, unless Project Co considers that such Design Data complies with the Technical Requirements of the Project, Project Co shall comply through design modification and adjustment to address the objection. Otherwise, Project Co can proceed in accordance with the Dispute Resolution Procedure to the objection of such Design Data by the Authority Representative and either:

- (a) cause to be made such alterations and additions as may be necessary such that the Design Data accords with the Project requirements and all other requirements of this Agreement; or
- (b) subject to the other provisions of this Agreement, submit an Innovation Proposal or propose a Change.

13.14 Adherence to Design Data

Design Data which has been the subject of a Certificate that has been submitted to the Authority

Representative in accordance with the Design Management Plan and the Design and Certification Procedure shall not be departed from unless the Authority approves such changes.

13.15 Issued for Construction Drawings

Prior to the commencement of the relevant construction Project Work, Project Co shall submit to the Authority Representative and to the Independent Certifier copies of all Design and shop drawings that are “issued for construction”, together with manuals, instructions to the Design-Builder and other relevant information as requested by the Authority and shall cooperate to explain design, calculations, analysis to the reviewer as and when needed. Notwithstanding the other provisions of this Schedule, the “issued for construction” information submitted with the Construction Document Submittals shall be, where appropriate, signed and sealed in accordance with applicable Law and NAPEG.

13.16 No Construction

Project Co shall not commence or permit the commencement of the Construction [or any other Construction] unless and until all Design Data and relevant Certificates required in respect of the relevant part of the Design and Construction [or other Construction] have been submitted by Project Co to the Authority Representative for consideration in accordance with the Design Management Plan and the Design and Certification Procedure.

13.17 Design Lead Review during Construction

During Construction, Project Co shall ensure that the Design Lead, in accordance with the procedures set out in the Design Management Plan and the relevant Quality Documentation and other Project requirements, examines the same and satisfies itself that such Project Work and every part thereof have been designed, constructed, completed, commissioned, tested and maintained in all respects so as to comply with:

- (a) Design Data in respect of which Design Certificates have been issued and to which there has been no objection;
- (b) all applicable Project requirements; and
- (c) all other requirements of this Agreement.

14. DESIGN CERTIFICATION

14.1 General

All parties that sign certificates shall clearly print their name and position held in the organization. All Submittals must be signed by designated engineer and designer of Project Co including signature of their Design Lead and shall accompany required certificates including all essential documents.

14.2 Design Certificates

Project Co shall issue a Design Certificate (General), Design Certificate (Environmental), and Design Certificate (Associated Road Structures) as applicable, for each Final Design Development Submittal and any revision to the Design Data thereto. All Design Certificates shall be on the appropriate form(s) attached as Appendix 3D [Form of Certificates] to this Schedule.

14.3 Submission of Design Certificates

All applicable Certificates together with the Design Data shall be submitted at the same time to the Authority Representative with original signatures, seals and registration numbers where appropriate and in such form as to allow the Authority Representative to perform its function in respect of such Design Certificate without delay. The Authority's review period will not commence until all applicable certificates have been submitted pertaining to the Design Data to be reviewed.

14.4 Road Safety Audit Certificates

- (a) Project Co shall submit to the Authority Representative a certificate (a "**Road Safety Audit Certificate**") in the form attached as Appendix 3D [Form of Certificates] to this Schedule in respect of the interim design (stage 1), final design (stage 2), and post construction (stage 3) Road Safety Audits, respectively. Each Road Safety Audit Certificate shall be signed by the Design team, the Road Safety Audit Team, the Design-Builder and Project Co Representative.
- (b) The post construction Road Safety Audit Certificate shall be provided to the Independent Certifier and the Certificate of Substantial Completion shall not be issued unless a Post Construction Road Safety Audit Certificate has been submitted and signed by the Design team, the Road Safety Audit Team, the Design-Builder and Project Co Representative.

PART 4 – CONSTRUCTION MANAGEMENT

15. CONSTRUCTION MANAGEMENT PLAN

15.1 General

Project Co shall provide a comprehensive Construction Management Plan (“**CMP**”) that describes how it intends to manage the Construction in accordance with its Quality Management Plan and the provisions of this Agreement. The CMP is to apply throughout the Term.

15.2 Key Individuals

The CMP shall contain an organizational chart identifying Key Individuals and other key personnel responsible for construction management. It shall also contain a description of the responsibilities, qualifications, and authority of the above personnel and the organizational interfaces between those responsible for construction management and other disciplines such as design management, OMR work, environmental management and traffic management.

Project Co’s Construction Manager shall be responsible for the CMP.

15.3 Procedures

The CMP shall be developed to include the procedures as detailed in the Quality Management Plan.

The above procedures and flow charts shall document who does the work, what they do, and what evidence is generated that they have done the work correctly.

The CMP shall provide for ensuring that the as-built Project is in conformance with the requirements of the design and construction specifications developed for the Project. Project Co shall implement a methodology to verify compliance of the construction with the design requirements. Changes made to the design during construction shall be stamped and signed by the relevant Engineer of Record.

The CMP shall require that the supplier have full time representation on site during any retaining wall construction (if retaining wall[s] required) and during any ground improvement measures below any such walls, and that the wall designer be given the responsibility of Field Reviewer for the wall.

Witness points shall be identified in the CMP, and the Authority shall be given sufficient notice of all upcoming witness points to allow auditing of the work.

The CMP shall require that notice for concrete pours for the following Business Day be provided by email to the Authority Representative before noon of the previous day, and shall identify the estimated time, location and element to be poured. The CMP shall further require that on the day of the pour, not less than two hours’ notice be given to the Authority by email indicating the actual pour time, and confirming that all work is complete.

The CMP shall require that a completed checklist be signed off by Project Co’s quality control staff, and that this checklist be on site and available to the Authority Representative not less than two hours prior to the planned delivery of concrete. At least one quality control field staff member shall be on site for the full duration of all concrete pours.

For all construction materials and products, the CMP shall detail the testing and acceptance program, including, but not limited to, the following:

- ⌚ Material property or characteristics to be measured or inspected;
- ⌚ test methods and reference standards;

- ⌚ frequency of inspections, tests and monitoring;
- ⌚ reports and checklists required;
- ⌚ personnel responsible for inspection, testing and monitoring activity;
- ⌚ criteria for product acceptance/rejection;
- ⌚ quality assurance review, witness and hold points; and
- ⌚ description and frequency of instrumentation monitoring and adherence to acceptance criteria.

The CMP shall require that monthly fabrication schedules be provided to the Authority Representative for the fabrication of all steel work and precast concrete work, and that updates to these are provided weekly if and when changes are made to them.

The CMP shall require that complete testing/inspection reports be prepared for the Project Work, including all test results and inspection activities for all grade, sub-base, base and surfacing materials, bridge structures, drainage items, signage, and other appurtenances.

15.4 Meetings

The CMP shall require that pre-construction meetings be held prior to:

- ⌚ Mobilization;
- ⌚ Commencement of site grading;
- ⌚ Development of aggregate sources;
- ⌚ fabrication of precast concrete elements;
- ⌚ fabrication of structural steel elements, including sign structures and bridge rail;
- ⌚ construction of retaining walls (if required); and
- ⌚ concrete deck pours.

The CMP shall require Project Co to conduct pre-construction meetings after the relevant shop drawings have been reviewed, but before fabrication commences. Project Co shall provide notice to the Authority Representative by email at least one week prior to the meeting so that the Authority Representative may attend. The meeting shall be held at the fabricator's plant and Project Co shall ensure that the plant superintendent and plant manager responsible for the work and any manufacturer's representative directly involved in the specialized work are in attendance.

16. CONSTRUCTION QUALITY AUDITS

Surveillance Quality Audits may be conducted by the Authority on a random basis or on specific areas of interest during Construction. The objective of these surveillance audits is to monitor Project Co's activities involving its work practices, workmanship and general quality of materials.

The Authority Representative shall, during the performance by the Authority of Surveillance Quality Audits, record any observations and inform Project Co of any Deficiencies that require further evaluation. Any noted Deficiencies shall be resolved to the satisfaction of the Authority Representative through evidence of Project Co's Deficiency evaluation findings or Nonconformity process.

17. CONSTRUCTION CERTIFICATION

17.1 Construction Certificates

Project Co shall, in accordance with the procedures set out in the Design Management Plan, the Construction Management Plan and the Quality Management Plan or other provisions of the Agreement or Technical Requirements, submit Construction Certificates to the Authority Representative. All Construction Certificates shall be signed by Project Co Representative, the Design team and the Design-Builder. Project Co shall always provide a copy of all Construction Certificates to the Independent

Certifier.

17.2 Requirements for Substantial Completion

The requirements for Substantial Completion are defined in Schedule 1 [Definitions and Interpretations].

17.3 Notice of Substantial Completion

Project Co shall issue to the Independent Certifier and the Authority Representative a notice informing them at least 15 Business Days but no more than 35 Business Days prior to the date upon which Project Co expects to achieve Substantial Completion. If Project Co has at any time reason to believe that the said date expected for Substantial Completion shall be delayed or achieved earlier by more than 5 Business Days, it shall issue a fresh notice informing the Independent Certifier and the Authority Representative of the new date expected for Substantial Completion.

17.4 Inspection for Substantial Completion

Upon Project Co issuing a notice contemplated in Section 17.3 of this Schedule, and subject to the delivery to the Independent Certifier and the Authority Representative of Construction Certificates in respect of the Substantial Completion of the Project, and all other relevant Certificates and supporting documentation in accordance with the Design and Certification Procedure, the Authority and Project Co shall cause the Independent Certifier to commence, within 10 Business Days of receipt of such notice, an inspection of the Project, to determine whether Substantial Completion of the Project has been achieved and whether Deficiencies exist.

17.5 Issuance of Certificate of Substantial Completion

The Authority Representative and Project Co shall cause the Independent Certifier, within 25 Business Days of the commencement of the inspection under Section 17.4 of this Schedule, to either:

- (a) issue the Certificate of Substantial Completion for the Project and confirm the Deficiency List, and stating the Substantial Completion Date to the Authority and Project Co; or
- (b) notify Project Co and the Authority Representative of its decision not to issue the applicable Certificate of Substantial Completion and state the reasons in detail for such decision, including what further work may be required to achieve Substantial Completion of the Project.

17.6 Refusal to Issue Certificate of Substantial Completion

The Independent Certifier shall refuse to issue the Certificate of Substantial Completion for the Project, only if the Project is not Substantially Complete, or any other conditions or requirements under the Agreement to the achievement of Substantial Completion of the Project have not been satisfied or complied with in respect to the Project.

17.7 Completion of Further Work for Substantial Completion

In the event of service of a notice by the Independent Certifier under Section 17.5(b) of this Schedule, Project Co shall issue to the Independent Certifier a notice not less than 5 Business Days but no more than 10 Business Days prior to the date upon which Project Co expects to complete such further work or other measures necessary or appropriate to remedy or remove the cause of the Independent Certifier's refusal to issue the relevant Certificate of Substantial Completion. Upon Project Co notifying the Independent Certifier and the Authority Representative that such further work or measures necessary or appropriate have been completed, the Authority Representative and Project Co shall cause the Independent Certifier to commence, within 10 Business Days of receipt of such notice, an inspection of

such further work or measures, and the provisions of Section 17.3 of this Schedule through to this Section 17.7, inclusive, shall thereafter apply to such notice *mutatis mutandis*.

17.8 Outstanding Work for Total Completion

Notwithstanding the issue of a Certificate of Substantial Completion for the Project, Project Co shall promptly complete, within 12 months, all outstanding Project Work required to achieve Total Completion of the Project as soon as practicable.

17.9 Record Documentation

- (a) Prior to Total Completion of the Infrastructure components, Project Co shall compile a complete set of Construction Records, including “as built” drawings.
- (b) All Construction Records compiled by Project Co shall be available to the Authority Representative and the Independent Certifier upon request.
- (c) Project Co shall ensure that all changes to drawings are properly and completely identified for record purposes. The drawing numbers shall remain the same as the originals. All Construction Records shall be stand-alone documents drafted in the format and to the standards of the original Design drawings.

17.10 Requirements for Total Completion of Infrastructure Components

Total Completion of the Infrastructure components shall only be achieved after:

- (a) Project Co has provided to the Authority Representative all required Construction Records for the Infrastructure components, in accordance with Section 17.9 of this Schedule; and
- (b) all Deficiencies have been rectified.

17.11 Notice of Total Completion

Project Co shall issue to the Independent Certifier and the Authority Representative a notice informing them at least 15 Business Days but no more than 30 Business Days prior to the date upon which Project Co expects to achieve Total Completion of the Infrastructure components. If Project Co has at any time reason to believe that such expected date for Total Completion of the Infrastructure components will be delayed or achieved earlier by more than 5 Business Days, it shall issue a fresh notice informing the Independent Certifier and the Authority Representative of the new date expected for Total Completion of the Infrastructure components.

17.12 Inspection for Total Completion

Upon Project Co issuing a notice contemplated in Section 17.11 of this Schedule and subject to the delivery to the Independent Certifier and the Authority Representative of Construction Certificates for the Total Completion of all of the Infrastructure components and all other relevant Certificates and supporting documentation in accordance with the Design and Certification Procedure, Project Co shall cause the Independent Certifier to commence, within 10 Business Days of receipt of such notice, an inspection of the Infrastructure components to determine whether Total Completion has been achieved.

17.13 Issuance of Certificate of Total Completion

The Authority Representative and Project Co shall cause the Independent Certifier, within 20 Business Days of the commencement of the inspection pursuant to Section 17.12 of this Schedule, to either:

- (a) issue the Certificate of Total Completion, stating the Total Completion Date, to the Authority and Project Co; or
- (b) notify Project Co and the Authority Representative of its decision not to issue the Certificate of Total Completion and state the reasons in detail for such decision.

17.14 Refusal to Issue Certificate of Total Completion

The Independent Certifier shall refuse to issue the Certificate of Total Completion for the Infrastructure components only if the Infrastructure components are not Totally Complete, or any other conditions or requirements under the Agreement to the achievement of Total Completion have not been satisfied or complied with in respect of the Infrastructure components.

17.15 Completion of Further Work for Total Completion

In the event of service of a notice by the Independent Certifier under Section 17.13(b) of this Schedule, Project Co shall issue to the Independent Certifier a notice not less than 5 Business Days but no more than 10 Business Days prior to the date upon which Project Co expects to complete such further work or other measures necessary or appropriate to remedy or remove the cause of the Independent Certifier's refusal to issue the Certificate of Total Completion. Upon Project Co notifying the Independent Certifier and the Authority Representative that such further work or measures necessary or appropriate have been completed, the Authority Representative and Project Co shall cause the Independent Certifier to commence, within 10 Business Days of receipt of such notice, an inspection of such further work or measures and the provisions of Section 17.11 through to this Section 17.15 of this Schedule, inclusive, shall thereafter apply to such notice *mutatis mutandis*.

17.16 Submissions by Authority Representative

The Authority Representative may, at any time, following receipt of notice given by Project Co pursuant to Section 17.3 or Section 17.11 of this Schedule and prior to the Independent Certifier issuing or notifying Project Co and the Authority Representative of its decision not to issue a Certificate of Substantial Completion or Certificate of Total Completion, as the case may be, provide the Independent Certifier and Project Co with the Authority Representative's submissions as to whether the conditions for issuance of such Certificate of Substantial Completion or Certificate of Total Completion, as the case may be, have been satisfied and, if applicable, any reasons as to why the Authority Representative considers that such Certificate of Substantial Completion or Certificate of Total Completion, as the case may be, should not be issued. The Independent Certifier shall consider such submissions in determining whether to issue such Certificate of Substantial Completion or Certificate of Total Completion, as the case may be.

17.17 No Limitation

The issuance of any Certificate of Substantial Completion or any Certificate of Total Completion shall be without prejudice to and shall not in any way limit the rights and obligations of the parties under and in accordance with this Agreement.

17.18 Disputed Certificate

If there is any dispute between the parties as to the decision of the Independent Certifier to issue or not to issue any Certificate of Substantial Completion or any Certificate of Total Completion in accordance with this Part 4, then either the Authority Representative or Project Co may refer such dispute for resolution under the Dispute Resolution Procedure (excluding the first stage of the procedure that involves the Independent Certifier).

17.19 Certificate Effective Pending Dispute

Notwithstanding any other provision in this Agreement or Schedule 13 [Dispute Resolution Procedure], if the Independent Certifier has issued any Certificate of Substantial Completion or any Certificate of Total Completion and the Authority Representative or Project Co has referred a dispute in respect thereof for resolution under the Dispute Resolution Procedure pursuant to Section 17.18 of this Schedule, then for all purposes of this Agreement such Certificate of Substantial Completion or such Certificate of Total Completion, as the case may be, shall be deemed to have been issued unless and until it is determined in accordance with the Dispute Resolution Procedure that it was improperly issued by the Independent Certifier in accordance with the terms of this Part 4.

PART 5 TRAFFIC MANAGEMENT

18. TRAFFIC MANAGEMENT PLAN

18.1 General

It is recognized that this Tłıçhǫ ASR will largely be constructed away from public traffic. During the main construction phase, general/public traffic will primarily only be impacted at the Project end points: at the junction with Highway 3 at its southern end point, and at the northern end point near the community of Whatı. After Substantial Completion and before Total Completion, public traffic will likely use the road while Project Co undertakes construction of outstanding elements of the Project Site. Project Co will scale its Traffic Management Plan (“**TMP**”) according to each site scope of work, the site conditions, and anticipated traffic volumes.

Project Co shall provide a comprehensive TMP to the Authority Representative two weeks prior to commencing the Construction. The TMP shall describe how Project Co intends to administer the traffic management processes in connection with the provisions of this Agreement. This TMP applies throughout the Term.

The TMP shall contain a description of the responsibilities, qualifications, and authority of the personnel in charge of managing it.

Project Co shall take all necessary measures to safely and expeditiously accommodate traffic.

If Project Co elects to truck haul materials over roads outside the Site, Project Co shall be responsible for obtaining written approval from the Authority, or other local authority, as the case may be.

Construction shall be carried out so as not to interfere unnecessarily with the convenience of the public and the access of the public to the use of any public or private roads or footpaths or highways or other transportation infrastructure (other than the Tłıçhǫ ASR) whether under the control of the Authority or Whatı community.

Project Co shall be responsible for maintaining all existing accesses on all roadways and for all properties affected by the Construction until alternative access is provided.

30 days prior to any work commencing on a public roadway, Project Co shall submit an initial Traffic Management Plan to the Authority Representative. Following the acceptance of the initial Traffic Management Plan by the Authority Representative, Project Co shall submit all subsequent proposed changes to the Traffic Management Plan to the Authority Representative.

The Traffic Management Plan and all updates thereto shall be consistent with and comply with all of the requirements set forth in this Part 5 and all other relevant provisions of this Agreement.

Project Co’s Traffic Management Plan shall reference and interface with Project Co’s Emergency Response Plan provided in accordance with Schedule 4 [OMR and Handback].

The initial Traffic Management Plan documents how Project Co plans on managing traffic for the Construction of the Tłıçhǫ ASR and associated Infrastructure. Additional Traffic Management Plans shall be prepared and submitted to the Authority Representative for individual review as required for any and all Construction to be carried out on the Project following the Substantial Completion Date.

Project Co shall not conduct any Construction that affects traffic without a current Traffic Management Plan that has also been accepted and sealed by Project Co’s Traffic Engineer.

For development of its Traffic Management Plan(s), Project Co will refer to the BCMoTI Traffic

Management Manual for Work on Roadways (2015, Interim version or later) (the “TMM”). Any Traffic Management Plans prepared by Project Co must comply with the definitions and guidelines provided in the TMM.

Project Co’s Traffic Management Plan shall outline how general traffic, as well as the traffic generated by Construction, is to be managed.

The following sub-plans for Project Co’s Traffic Management Plan are required:

- ⌚ Traffic Control Plan;
- ⌚ Implementation Plan;
- ⌚ Advisory Signing Plan; and
- ⌚ Risk Assessment Plan.

18.2 Traffic Management Sub-Plans

18.2.1 Traffic Control Plans

- (a) Project Co shall prepare Project specific Traffic Control Plans in accordance with the TMM for all activities that affect existing public traffic, including but not limited to:
 - (i) each Construction stage; and
 - (ii) activation of newly constructed roads and Structures.
- (b) Project Co shall continuously measure the effectiveness of Traffic Control Plans and, if those measurements indicate a Traffic Control Plan is non-compliant, Project Co shall immediately adjust the Traffic Control Plan to bring it into compliance.
- (c) The Traffic Control Plan shall include engineered drawings sealed by a Traffic Engineer for each Detour Route, Lane Shift and Closure. Exceptions to this may only be made under authority of the Authority Representative.
- (d) The Traffic Control Plan shall be coordinated with any adjacent construction work to be completed by others.

18.2.2 Implementation Plan

Project Co shall prepare and submit an Implementation Plan in accordance with the TMM. This plan shall also define processes to ensure that the Traffic Control Plans and Emergency Response Plans are developed and implemented efficiently and appropriately, and that they are kept up-to-date with necessary modifications during Construction and during any subsequent Construction.

18.2.3 Advisory Signing Plan

Project Co shall prepare and implement an Advisory Signing Plan. The primary objective of an Advisory Signing Plan is to notify the travelling public in advance of the scheduled Construction, Full Closures, and Stoppages.

18.2.4 Risk Assessment Plan

Project Co shall perform an independent assessment to identify any risks or special conditions that must be addressed through Project Co’s Risk Assessment Plan. Project Co shall identify all risks and state the measures to be implemented to manage or eliminate the risks.

APPENDIX 3A

INDEPENDENT CERTIFIER AGREEMENT

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[Note to Completion: The parties agree to enter into this Agreement within 30 days of Financial Close.]

APPENDIX 3A

INDEPENDENT CERTIFIER AGREEMENT

THIS AGREEMENT is made as of the [■, 2019]

AMONG:

The Government of the Northwest Territories

(the “**Authority**”)

AND:

North Star Infrastructure GP

(“**Project Co**”)

AND:

■

(the “**Independent Certifier**”)

WHEREAS:

- A. the Authority and Project Co have entered into the Project Agreement;
- B. the Authority and Project Co wish to appoint the Independent Certifier, and the Independent Certifier wishes to accept such appointment, to perform certain services in connection with the Project Agreement; and
- C. the Authority, Project Co and the Independent Certifier wish to enter into this Agreement in order to record the terms by which the Independent Certifier will perform such services.

NOW THEREFORE in consideration of the mutual promises and agreements of the Authority, Project Co and the Independent Certifier herein expressed and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Authority, Project Co and the Independent Certifier covenant and agree as follows:

1. GENERAL

1.1 Definitions

In this Agreement, including the recitals and Schedules, unless the context indicates a contrary intention, terms which are defined in the Project Agreement (and not otherwise defined in this Agreement) will have

meanings given to them in the Project Agreement and the following terms will have the following meanings:

“Agreement” means this Independent Certifier Agreement and its Schedules;

“Fee” means the fees payable by the PA Parties to the Independent Certifier for the Functions, as such fees are specified and made payable in Schedule 2 [Fee] of this Agreement;

“Functions” means:

- (a) all of the functions and obligations conferred on the Independent Certifier under the Project Agreement;
- (b) all of the functions and obligations conferred on the Independent Certifier under this Agreement, including the functions described in Schedule 1 [Functions]; and
- (c) all other things or tasks which the Independent Certifier is required to do to comply with its obligations under this Agreement;

“Functions Variation” means any change to the Functions;

“PA Parties” means, collectively, the Authority and Project Co;

“Project Agreement” means that certain agreement entitled “Project Agreement” and made between the Authority and Project Co as of the 13th day of February, 2019 with respect to the design, construction, financing, operation, maintenance and life cycle rehabilitation of the Tłı̄ch̄q ASR, as the same may be amended, supplemented or replaced from time to time; and

“Project Material” means all material:

- (a) provided to the Independent Certifier or created by or required to be created by any PA Party; and
- (b) provided by or created by or required to be created by the Independent Certifier as part of, or for the purpose of, performing the Functions,

including documents, equipment, reports, technical information, plans, charts, drawings, calculations, tables, schedules and data (stored and recorded by any means).

1.2 Interpretation

The division of this Agreement into Sections, the insertion of headings and the provision of a table of contents are for convenience only, do not form a part of this Agreement and will not be used to affect the construction or interpretation of this Agreement. The word “including” will not be construed as limiting the general term or statement immediately preceding. Unless otherwise specified:

- (a) each reference in this Agreement to **“Article”**, **“Section”** and **“Schedule”** is to an Article of, Section of, and a Schedule to, this Agreement;

- (b) each reference to a statute is deemed to be a reference to that statute and any successor statute, and to the regulations made under that statute and any successor statute, as amended or re-enacted from time to time;
- (c) words importing the singular include the plural and vice versa and words importing gender include all genders;
- (d) references to time of day or date mean the local time or date in Yellowknife, Northwest Territories;
- (e) all references to amounts of money mean lawful currency of Canada; and
- (f) an accounting term has the meaning assigned to it, and all accounting matters will be determined, in accordance with GAAP consistently applied.

1.3 Obligations and Exercise of Rights by the PA Parties

The obligations of the PA Parties under this Agreement will be several. Except as specifically provided for in this Agreement, the rights of the PA Parties under this Agreement will be jointly exercised by each of the PA Parties.

2. ROLE OF THE INDEPENDENT CERTIFIER

2.1 Engagement

The PA Parties hereby appoint the Independent Certifier, and the Independent Certifier hereby accepts such appointment, to carry out the Functions in accordance with this Agreement. The Independent Certifier will perform the Functions in accordance with this Agreement.

2.2 Acknowledgement by Independent Certifier

The Independent Certifier hereby acknowledges in favour of the PA Parties that it has received a copy of the Project Agreement and that it has received notice of Section 97 of the *Financial Administration Act* (Northwest Territories).

2.3 Standard of Care

The Independent Certifier will exercise the standard and skill, care and diligence in the performance of the Functions that would be expected of an expert professional experienced in providing services in the nature of the Functions for projects similar to the Project.

2.4 Duty of Independent Judgment

In exercising the Functions, the Independent Certifier will act:

- (a) impartially, honestly and independently;
- (b) reasonably and professionally; and

- (c) in a timely manner:
 - (1) in accordance with the times prescribed in this Agreement or the Project Agreement, as applicable; or
 - (2) where no times are prescribed, within 5 Business Days or such earlier time so as to enable the PA Parties to perform their respective obligations under the Project Agreement.

Although the Independent Certifier should take account of any opinions or representations made by the PA Parties, the Independent Certifier will not be bound to comply with any opinions or representations made by either of them in connection with any matter on which the Independent Certifier is required to exercise its professional judgment.

The Independent Certifier acknowledges that, as set out under the Project Agreement, the Independent Certifier's certifications will be final and binding on the PA Parties in respect of the issuance of the Certificate of Substantial Completion and the Certificate of Total Completion, and that the Independent Certifier will use its best skill and judgment in providing the Functions and making any certifications. A PA Party may dispute any other decision made by the Independent Certifier, including any list of Deficiencies or list of incomplete Design and Construction that must be completed prior to Substantial Completion.

2.5 Authority to Act

The Independent Certifier:

- (a) is an independent consultant and is not, and will not purport to be, a partner, joint venturer or agent of any PA Party;
- (b) other than as may be expressly set out in the Project Agreement, has no authority to give any directions to a PA Party or its officers, employees, contractors, consultants or agents; and
- (c) has no authority to waive or alter any terms of the Project Agreement, nor to discharge or release a PA Party from any of its obligations under the Project Agreement unless jointly agreed in writing by the PA Parties.

2.6 Knowledge of the PA Parties' Requirements

The Independent Certifier warrants that:

- (a) it has and will be deemed to have informed itself fully of the requirements of the Project Agreement;
- (b) it will inform itself fully of the requirements of such other documents and materials as may become relevant from time to time to the performance of the Functions;

- (c) without limiting Sections 2.6(a) or 2.6(b), it has and will be deemed to have informed itself fully of all time limits and other requirements for any Function which the Independent Certifier carries out under the Project Agreement and this Agreement;
- (d) it has and will be deemed to have informed itself fully of the nature of the work necessary for the performance of the Functions and the means of access to the Lands and the Tłıchq ASR, including restrictions on any such access or protocols that are required; and
- (e) it has satisfied itself as to the correctness and sufficiency of its proposal for the Functions and that the Fee covers the cost of complying with all of the obligations under this Agreement and of all matters and things necessary for the due and proper performance and completion of the Functions.

2.7 Co-ordination by Independent Certifier

The Independent Certifier will:

- (a) fully co-operate with the PA Parties;
- (b) carefully co-ordinate the Functions with the work and services performed by the PA Parties;
- (c) without limiting its obligations under Sections 2.4 and 2.7(b), perform the Functions so as to avoid unreasonably interfering with, disrupting or delaying the work and services performed by the PA Parties; and
- (d) provide copies to all PA Parties of all reports, communications, certificates and other documentation that it provides to any PA Party.

2.8 Conflict of Interest

The Independent Certifier warrants that:

- (a) at the date of signing this Agreement, no conflict of interest exists or is likely to arise in the performance of its obligations under this Agreement; and
- (b) if, during the term of this Agreement, any such conflict or risk of conflict of interest arises, the Independent Certifier will notify the PA Parties immediately in writing of that conflict or risk of conflict and take such steps as may be required by each of the PA Parties to avoid or mitigate that conflict or risk.

2.9 Independent Certifier Personnel

- (a) Subject to Section 2.9(b), the Independent Certifier will use the partners, directors or employees described in Schedule 3 [Independent Certifier Personnel] of this Agreement in connection with the performance of the Functions and such persons' services will be available for so long as may be necessary to ensure the proper performance by the

Independent Certifier of the Functions. Such persons will have full authority to act on behalf of the Independent Certifier for all purposes in connection with this Agreement.

- (b) None of the persons listed in Schedule 3 [Independent Certifier Personnel] will be removed or replaced unless he/she ceases to work as a partner in or director or employee of the Independent Certifier or he/she is unable to work because of death or illness. The Independent Certifier will notify the PA Parties of any such circumstances and will be responsible for finding a replacement who will previously have been approved in writing by the PA Parties.

3. ROLE OF THE PA PARTIES

3.1 Assistance

The PA Parties agree to co-operate with and provide reasonable assistance to the Independent Certifier to familiarize the Independent Certifier with all necessary aspects of the Project to enable the Independent Certifier to carry out its obligations under this Agreement.

3.2 Instructions in Writing

All instructions to the Independent Certifier by the PA Parties will be given in writing.

3.3 Information and Services

The PA Parties will each make available to the Independent Certifier, as soon as practicable from time to time, all information, documents and particulars necessary for the Independent Certifier to carry out the Functions, including such information, documents and particulars required in order for the Independent Certifier to determine whether the criteria for Substantial Completion have been achieved, and will provide copies of all such information, documents and particulars to the other PA Party.

3.4 Additional Information

If any information, documents or particulars are reasonably required to enable the Independent Certifier to perform the Functions and have not been provided by Project Co or the Authority, as the case may be, then:

- (a) the Independent Certifier will give notice in writing to Project Co's Design and Construction Representative or the Authority's Design and Construction Representative, as the case may be, of the details of the information, documents or particulars demonstrating the need and the reasons why they are required; and
- (b) Project Co or the Authority, as the case may be, will arrange for the required information, documents or particulars to be provided to the Independent Certifier as soon as practicable.

3.5 Right to Enter and Inspect

Upon giving reasonable notice to Project Co's Design and Construction Representative, the Independent Certifier (and any person authorized by it) may enter and inspect the Lands, the Tłıchq ASR and work in progress at any reasonable time in connection with the exercise or proposed exercise of rights under this Agreement, subject to:

- (a) observance of the reasonable rules of Project Co as to safety and security for the Lands, the Tłıchq ASR and work in progress;
- (b) not causing unreasonable delay to the carrying out of the Construction by reason of its presence at the Lands or the Tłıchq ASR; and
- (c) not causing any damage to the Lands, the Tłıchq ASR or work in progress.

3.6 PA Parties Not Relieved

Neither PA Party will be relieved from performing or observing its obligations, or from any other liabilities, under the Project Agreement as a result of either the appointment of, or any act or omission by, the Independent Certifier.

3.7 PA Parties not Liable

On no account will one PA Party be liable to the other PA Party for any act or omission by the Independent Certifier, whether under or purportedly under a provision of the Project Agreement, this Agreement or otherwise, provided that any such act or omission will not extinguish, relieve, limit or qualify the nature or extent of any right or remedy of either PA Party against, or any obligation or liability of either PA Party to, the other PA Party which would have existed regardless of such act or omission.

4. SUSPENSION

4.1 Notice

The Functions (or any part) may be suspended at any time by the PA Parties:

- (a) if the Independent Certifier fails to comply with its obligations under this Agreement, immediately by the PA Parties giving joint notice in writing to the Independent Certifier; or
- (b) in any other case, by the PA Parties giving 5 Business Days' joint notice in writing to the Independent Certifier.

4.2 Costs of Suspension

The Independent Certifier will:

- (a) subject to complying with Article 7 (Functions Variations), be entitled to recover the extra costs incurred by the Independent Certifier by reason of a suspension directed under Section 4.1(b) valued as a Functions Variation under Article 7 (Functions Variations); and

- (b) have no entitlement to be paid any costs, expenses, losses or damages arising from a suspension under Section 4.1(a).

4.3 Recommencement

The Independent Certifier will immediately recommence the carrying out of the Functions (or any part) on receipt of a joint written notice from the PA Parties requiring it to do so.

5. INSURANCE AND LIABILITY

5.1 Independent Certifier's Professional Indemnity Insurance

- (a) The Independent Certifier will, at its cost, have in place:
 - (1) professional errors and omissions insurance:
 - (A) in the amount of \$5,000,000 per claim and in the aggregate, a deductible of not more than \$100,000 per claim and from an insurer and on terms satisfactory to each of the PA Parties;
 - (B) with a term and extended reporting period from the date of this Agreement until the expiration of 2 years from the cessation of the Functions; and
 - (C) covering liability which the Independent Certifier might incur as a result of a breach by it of its obligations or any breach of a duty owed by the Independent Certifier in a professional capacity to the PA Parties, or either of them, under or in connection with this Agreement or the provision of the Functions; and
 - (2) at all times during the term of this Agreement, comprehensive general liability insurance in the amount of \$5,000,000 per claim and in the aggregate, no deductible for personal injury or bodily injury, a deductible of not more than \$25,000 per occurrence for property damage, naming the Authority as an additional insured and from an insurer and on terms satisfactory to each of the PA Parties.
- (b) The Independent Certifier will:
 - (1) ensure that each of the insurance policies described in Section 5.1(a):
 - (A) bears an endorsement to the effect that the insurer will not effect any adverse material change or amendment to the policy or any cancellation of the policy without first giving at least 30 Business Days' prior written notice by registered mail to the Authority; and
 - (B) is obtained and maintained with reputable and Qualified Insurers licensed in the Northwest Territories; and

- (2) provide copies of each of the insurance policies described in Section 5.1(a) to each of the PA Parties upon request.

5.2 Workers' Compensation Insurance

The Independent Certifier will, at its own cost and at all times during the term of this Agreement, be registered and insure its liability (including its common law liability) as required under any applicable workers' compensation statute or regulation in relation to its employees engaged in the Functions.

6. PAYMENT FOR SERVICES

6.1 Fee

- (a) In consideration of the Independent Certifier performing the Functions in accordance with this Agreement, the PA Parties will pay the Independent Certifier the Fee.
- (b) The Fee includes all taxes (except for GST), disbursements and expenses (including accommodation, car rental, equipment and travel expenses), overheads and profit to perform the Functions.

6.2 Payment of Fee

- (a) The PA Parties will each pay half the Fee to the Independent Certifier in accordance with the payment schedule specified in Schedule 2 [Fee] of this Agreement. The obligation on Project Co and the Authority to each pay half of the Fee to the Independent Certifier is not subject to joint and several liability and neither the Authority nor Project Co will have any liability whatsoever for the non-payment by the other of any fees or costs payable by such other party under this Agreement.
- (b) Project Co acknowledges and agrees that if any amount due and payable by Project Co to the Independent Certifier is outstanding, the Independent Certifier will not have any obligation to Project Co to make any certification under the Project Agreement.

7. FUNCTIONS VARIATIONS

7.1 Notice of Functions Variation

- (a) If the Independent Certifier believes, other than a "Functions Variation Order" under Section 7.3(c), that any direction by the PA Parties constitutes or involves a Functions Variation it will:
 - (1) within 5 Business Days after receiving the direction and before commencing work on the subject matter of the direction, give notice to the PA Parties that it considers that the direction constitutes or involves a Functions Variation; and
 - (2) within 15 Business Days after giving the notice under Section 7.1(a)(1), submit a written claim to each of the Authority's Design and Construction Representative and Project Co's Design and Construction Representative which includes

detailed particulars of the claim, the amount of the claim and how it was calculated.

- (b) Regardless of whether the Independent Certifier considers that such a direction constitutes or involves a Functions Variation, the Independent Certifier will continue to perform the Functions in accordance with this Agreement and all directions, including any direction in respect of which notice has been given under this Section 7.1.

7.2 No Adjustment

If the Independent Certifier fails to comply with Section 7.1, the Fee will not be adjusted as a result of the relevant direction.

7.3 Functions Variation Procedure

- (a) The Authority's and Project Co's Design and Construction Representatives may jointly issue a document titled "Functions Variation Price Request" to the Independent Certifier which will set out details of a proposed Functions Variation which the PA Parties are considering.
- (b) Within 7 Business Days after the receipt of a "Functions Variation Price Request", the Independent Certifier will provide each of the Authority's and Project Co's Design and Construction Representatives with a written notice in which the Independent Certifier sets out the effect which the proposed Functions Variation will have on the Fee.
- (c) Each of the Authority's and Project Co's Design and Construction Representatives may then jointly direct the Independent Certifier to carry out a Functions Variation by written document titled "Functions Variation Order" which will state either that:
 - (1) the Fee is adjusted as set out in the Independent Certifier's notice; or
 - (2) the adjustment (if any) to the Fee will be determined under Section 7.4.

7.4 Cost of Functions Variation

- (a) Subject to Section 7.2, the Fee will be adjusted for all Functions Variations or suspensions under Section 4.1(b) carried out by the Independent Certifier by:
 - (1) the amount (if any) stated in the "Functions Variation Order" in accordance with Section 7.3(c);
 - (2) if Section 7.4(a)(1) is not applicable, an amount determined pursuant to the fee schedule for Functions Variations in Schedule 2 [Fee] of this Agreement; or
 - (3) where such rates or prices are not applicable, a reasonable amount to be agreed between the PA Parties and the Independent Certifier or, failing agreement, determined by the Authority's and Project Co's Design and Construction Representatives jointly, acting reasonably.

- (b) Any reductions in the Fee will be calculated on the same basis as any increases.

8. TERM AND TERMINATION

8.1 Term

Subject to earlier termination, this Agreement will commence on the date first written above and continue in full force until:

- (a) 45 Business Days after the Total Completion Date; or
- (b) such later date as may be mutually agreed upon between the PA Parties and the Independent Certifier.

8.2 Notice of Breach

If the Independent Certifier commits a breach of this Agreement, the PA Parties may give written notice to the Independent Certifier:

- (a) specifying the breach; and
- (b) directing its rectification in the period specified in the notice, being a period not less than 5 Business Days from the date of service of the notice.

8.3 Termination for Breach

If the Independent Certifier fails to rectify the breach within the period specified in the notice issued under Section 8.2, the PA Parties may, without prejudice to any other rights of the PA Parties or either of them, immediately terminate this Agreement.

8.4 Termination for Financial Difficulty

The PA Parties may, without prejudice to any other rights which the PA Parties or either of them may have, terminate this Agreement immediately if:

- (a) events have occurred or circumstances exist which, in the opinion of the PA Parties, may result in or have resulted in insolvency or the control of the Independent Certifier passing to another body or corporation; or
- (b) the Independent Certifier has communications with its creditors with a view to entering into, or enters into, any form of compromise, arrangement or moratorium of any debts whether formal or informal, with its creditors.

8.5 Termination for Convenience

Notwithstanding anything to the contrary in this Agreement, the PA Parties may at any time terminate this Agreement upon 30 days' written notice to the Independent Certifier.

8.6 Independent Certifier's Rights upon Termination for Convenience

Upon a termination under Section 8.5, the Independent Certifier will:

- (a) be entitled to be reimbursed by the PA Parties for the value of the Functions performed by it to the date of termination; and
- (b) not be entitled to any damages or other compensation in respect of the termination and (without limitation) any amount in respect of:
 - (1) the lost opportunity to earn a profit in respect of the Functions not performed at the date of termination; and
 - (2) any lost opportunity to recover overheads from the turnover which would have been generated under this Agreement but for it being terminated.

8.7 Procedure upon Termination

Upon completion of the Independent Certifier's engagement under this Agreement or earlier termination of this Agreement (whether under Sections 8.3, 8.4 or 8.5 or otherwise) the Independent Certifier will:

- (a) co-operate with the PA Parties;
- (b) hand to the PA Parties all Project Material and all other information concerning the Project held or prepared by the Independent Certifier; and
- (c) as and when required by the PA Parties, meet with them and such other persons nominated by them with a view to providing them with sufficient information to enable the PA Parties to execute the Project or the persons nominated to provide the Functions.

8.8 Effect of Termination

Except as otherwise expressly provided in this Agreement, termination of this Agreement will be without prejudice to any accrued rights and obligations under this Agreement as at the date of termination (including the right of Project Co and the Authority to recover damages from the Independent Certifier).

8.9 Survival

Termination of this Agreement will not affect the continuing rights and obligations of Project Co, the Authority and the Independent Certifier under Articles 5 (Insurance and Liability), 6 (Payment for Services) or 9 (Indemnity), Sections 8.6, 8.7, 8.8, 10.7, 10.8 and this Section 8.9 or under any other Section which is expressed to survive termination or which is required to give effect to such termination or the consequences of such termination.

9. INDEMNITY

9.1 Indemnity

The Independent Certifier will indemnify and save harmless the PA Parties, and each of them, and their respective employees, agents, officers and directors from and against any and all losses incurred or suffered by any of them by reason of, resulting from, in connection with, or arising out of:

- (a) the breach of any representation, warranty, covenant, term, duty or obligation of the Independent Certifier set out in or arising under this Agreement or the Project Agreement; or
- (b) any act or omission of the Independent Certifier in connection with the subject matters of this Agreement.

10. GENERAL

10.1 Entire Agreement

This Agreement and the Project Agreement constitute the entire agreement between the PA Parties and the Independent Certifier and supersede all communications, arrangements and agreements, either oral, written, made or entered into prior to the date of this Agreement between the PA Parties and the Independent Certifier with respect to the subject matter of this Agreement.

10.2 Negation of Employment

- (a) The Independent Certifier, its officers, employees, servants and agents and any other persons engaged by the Independent Certifier in the performance of the Functions will not by virtue of this Agreement or the performance of the Functions become in the service or employment of the PA Parties for any purpose.
- (b) The Independent Certifier will be responsible for all matters requisite as employer or otherwise in relation to such officers, employees, servants and agents and other persons who are engaged by the Independent Certifier.

10.3 Waiver

Failure by either PA Party or the Independent Certifier to enforce a provision of this Agreement will not be construed as a waiver by that PA Party or the Independent Certifier of any right in respect of that provision, or any other provisions of this Agreement.

10.4 Notices

Any document which is to be or may be issued or given to or served upon Project Co, the Authority or the Independent Certifier under this Agreement will be deemed to have been sufficiently issued or given to or served if:

- (a) it is delivered or sent by commercial courier, upon receipt;

(b) if delivered by electronic mail during business hours (and in any event, at or before 3:00 pm local time in the place of receipt) on a Business Day, upon receipt, and if not delivered during business hours, upon the commencement of business hours on the next Business Day provided that:

- (1) the receiving party has, by electronic mail or by hand delivery, acknowledged to the notifying party that it has received such notice; or
- (2) within 24 hours after sending the notice, the notifying party has also delivered a copy of such notice to the receiving party by hand delivery,

to the addresses set out below:

(3) if to Project Co:

[Redacted]

Attention:
Email:

[Redacted]

with a copy to:

[Redacted]

[Redacted]

Attention:
Fax:

[Redacted]

(4) if to the Authority:

[Redacted]

Attention:
E-mail:

[Redacted]

(5) if to the Independent
Certifier:

■

Attention:
Email:

■
■

- (c) Any party may change its address for notice by notice given to the other parties in accordance with this Section 10.4.

10.5 Transfer and Assignment

- (a) The Independent Certifier:
 - (1) will not assign, transfer, mortgage, charge or encumber any right or obligation under this Agreement without the prior written consent of the PA Parties, which each PA Party may give or withhold in its absolute discretion; and
 - (2) agrees that any assignment, transfer, mortgage, charge or encumbrance will not operate to release or discharge the Independent Certifier from any obligation or liability under this Agreement.
- (b) For the purposes of this Section 10.5, an assignment will be deemed to have occurred where there is a Change in Control of the Independent Certifier after the date of this Agreement.
- (c) Each of the PA Parties may assign, transfer, mortgage, charge or encumber any right or obligation under this Agreement in accordance with the terms of the Project Agreement.

10.6 Governing Laws and Attornment

This Agreement will be governed by and construed in accordance with the laws of the Northwest Territories and the federal laws of Canada applicable therein without regard to conflicts of law principles that would apply a different body of law, and the Authority, Project Co and the Independent Certifier hereby irrevocably submit and attorn to the exclusive jurisdiction of the courts of the Northwest Territories and all courts competent to hear appeals therefrom with respect to any action, suit, proceeding or dispute in connection with this Agreement.

10.7 Confidentiality

- (a) The Independent Certifier will ensure that:
 - (1) neither it nor any of its officers, employees, servants and agents disclose, or otherwise make public, any Project Material or any other information or material acquired in connection with or during the performance of the Functions without prior written approval of the PA Parties; and
 - (2) no Project Material is used, copied, supplied or reproduced for any purpose other than for the performance of the Functions under this Agreement.
- (b) The PA Parties may at any time require the Independent Certifier to give and to arrange for its officers, employees, servants and agents engaged in the performance of the Functions to give written undertakings, in the form of confidentiality agreements on terms required by the PA Parties, relating to the non-disclosure of confidential information, in

which case the Independent Certifier will promptly arrange for such agreements to be executed and delivered.

10.8 Project Material

- (a) The PA Parties and the Independent Certifier agree that the Independent Certifier does not and will not have any rights, including any Intellectual Property rights, in any Project Material provided to the Independent Certifier or created or required to be created by either PA Party.
- (b) All title and ownership, including all Intellectual Property, in and to the Project Material created or required to be created by the Independent Certifier as part of, or for the purposes of performing the Functions, is hereby assigned jointly to the Authority and Project Co on creation, or where such title, ownership and Intellectual Property cannot be assigned before creation of the Project Material, it will be assigned to the Authority and Project Co on creation. In addition, to the extent that copyright may subsist in such Project Material so created by the Independent Certifier, the Independent Certifier hereby waives all past, present and future moral rights therein and the Independent Certifier will ensure that any agent or employee of Independent Certifier will have waived all such moral rights.
- (c) The Independent Certifier will do all such things and execute all such documents as reasonably requested by either of the PA Parties in order to confirm or perfect the assignment of Intellectual Property in the Project Material referred to in Section 10.8(b).

10.9 Time of the Essence

Time will be of the essence of this Agreement and of the transactions contemplated by this Agreement.

10.10 Amendment

No change or modification of this Agreement will be valid unless it is in writing and signed by each party to this Agreement.

10.11 Severability

If any provision of this Agreement will be declared invalid, unenforceable or illegal by the courts of any jurisdiction to which it is subject, such provision may be severed and such invalidity, unenforceability or illegality will not prejudice or affect the validity, enforceability or legality of the remaining provisions of this Agreement.

10.12 Enurement

Subject to the restrictions on transfer contained in this Agreement, this Agreement will enure to the benefit of and be binding on the parties and their respective heirs, executors, administrators, successors and assigns.

10.13 Counterparts

This Agreement may be executed in any number of counterparts and all counterparts taken together will constitute one and the same instrument.

IN WITNESS WHEREOF the Authority, Project Co and the Independent Certifier have executed this Agreement.

**THE GOVERNMENT OF THE NORTHWEST
TERRITORIES**

By: _____
Name:
Title:

NORTH STAR INFRASTRUCTURE GP,
by its general partners:

KIEWIT NORTH STAR INFRASTRUCTURE INVESTOR INC.

Per: _____
Name:
Title:

Per: _____
Name:
Title:

**TILI GEEKWI LIMITED PARTNERSHIP, by its general
partner TILI GEEKWI LTD.**

Per: _____
Name:
Title:

Per: _____
Name:
Title:

[INDEPENDENT CERTIFIER]

By: _____

Name:

Title:

By: _____

Name:

Title:

SCHEDULE 1

FUNCTIONS

The Independent Certifier will, subject to the provisions of the Project Agreement, provide the services as set out below. In the event of a conflict between any provision of this Agreement, including this Schedule 1, and a provision of the Project Agreement, the Project Agreement will prevail.

- (a) The Independent Certifier will:
 - (1) consult with the Design-Builder and others involved in the Design; and
 - (2) conduct inspections of the Construction,

as the Independent Certifier determines is required for purposes of the Independent Certifier's functions under the Project Agreement and will, no later than the 10th Business Day of each month, prepare and deliver to the Authority and Project Co a monthly written report containing a description of:
 - (3) the Design and Construction completed in the previous month; and
 - (4) the progress of the Design and Construction, with an overview analysis of any variances; and
 - (5) a description of any elements of the Tłı̨ch̨o ASR that for any reason vary from the requirements of the Project Agreement, with particular reference to Schedule 3 [Design and Construction] of the Project Agreement.
- (b) The Independent Certifier will provide payment certification services in respect of the Design-Build Agreement and Sub-Contracts for parts of the Construction. This includes certifying completion of Sub-Contracts for progressive release of lien holdbacks as permitted under the *Mechanics Lien Act* (Northwest Territories).
- (c) The Independent Certifier will, in co-operation with Project Co's Design and Construction Representative and the Authority's Design and Construction Representative with respect to an application for a Certificate of Substantial Completion, review and comment on any proposed list of Deficiencies to be rectified by Project Co following Substantial Completion.
- (d) No later than 5 Business Days after application by Project Co for a Certificate of Substantial Completion, the Independent Certifier will, in co-operation with Project Co's Design and Construction Representative and the Authority's Design and Construction Representative, make an inspection of the Tłı̨ch̨o ASR, review the basis for Project Co's application for Substantial Completion, and then within a further 5 Business Days after such inspection and review:

- (1) if Substantial Completion has been achieved, issue a Certificate of Substantial Completion, together with comments on any list of Deficiencies to be rectified following Substantial Completion; or
 - (2) if Substantial Completion has not been achieved, provide Project Co and the Authority's Design and Construction Representative with a list of all incomplete Design and Construction that must be completed prior to Substantial Completion.
- (e) No later than 5 Business Days after application by Project Co for a Certificate of Total Completion, the Independent Certifier will, in co-operation with Project Co's Design and Construction Representative and the Authority's Design and Construction Representative, make an inspection of the Tłıchq ASR, review the basis for Project Co's application for Total Completion, and then within a further 5 Business Days after such inspection and review:
- (1) if Total Completion has been achieved, issue a Certificate of Total Completion; or
 - (2) if Total Completion has not been achieved, provide Project Co and the Authority's Design and Construction Representative with a list of all Deficiencies that must be rectified prior to Total Completion.

SCHEDULE 2

FEE

SCHEDULE 3

INDEPENDENT CERTIFIER PERSONNEL

APPENDIX 3B

PERMITS

Project Co and Authority Permit Responsibility Table

Permits		Authority Obligation to Obtain	Authority Obligation to Perform	Project Co Obligation to Obtain	Project Co Obligation to Perform	Comments
1.	Limited-Scope Design-Phase Geotechnical Investigations Permit	X			X	During the period between Financial Close and the availability of the Type A Land Use Permit referenced in item 4 of this Appendix 3B [Permits], Project Co may engage in Project work in strict accordance with permit W2016S0009, issued by the by the Wek'èezhìi Land and Water Board to the Authority on January 13, 2017, as reissued on May 2, 2017, and expiring January 12, 2022.
2.	Access Authorization from Tłı̄chǔ Government	X			X	The Authority has obtained access authorization from the Tłı̄chǔ Government for the purposes of the Tłı̄chǔ ASR Project. Project Co is responsible for complying with the terms and conditions of the access authorization provided by the Tłı̄chǔ Government.
3.	Report of Environmental Assessment and Ministerial Decision Letter	X	X		X	The Project is subject to an environmental assessment (Environmental Assessment 1617-01) by the Mackenzie Valley Environmental Impact Review Board. Responsibility for performing commitments and conditions identified in the Report of Environmental Assessment will be shared between the Authority and Project Co in accordance with the allocation set out in Appendix 19B [Environmental Assessment Table of Commitments and Assurances] and Appendix 19C [Environmental Assessment Measures]. The Ministerial decision letter will contain the final measures associated with the environmental assessment, the responsibility for performing commitments and conditions under which will also be shared between the Authority and Project Co.

Permits		Authority Obligation to Obtain	Authority Obligation to Perform	Project Co Obligation to Obtain	Project Co Obligation to Perform	Comments
4.	Type A Land Use Permit (Construction Period) (application W2016E0004)	X			X	<p>The Authority will obtain a Land Use Permit from the Wek'èezhìi Land and Water Board for the construction of the Tłı̄chq̄ ASR. Project Co has a responsibility to participate in the application process as site specific project details are required prior to permit acquisition.</p> <p>Project Co is responsible for complying with the terms and conditions of the Land Use Permit obtained by the Authority in the performance of the Project.</p>
5.	Amendments to / Extension of / Replacement of Land Use Permit (Construction Period) (if applicable)	X			X	<p>In the event that amendment to, extension of or replacement of the Land Use Permit is required, the Authority will be responsible (subject to the following provision) for applying for any amendments to or extension of the Land Use Permit and/or any new land use permit(s) from the Wek'èezhìi Land and Water Board for the construction of the Tłı̄chq̄ ASR.</p> <p>In the event that any amendment to, extension of or replacement of the Land Use Permit requires additional studies and/or information to be submitted to the Wek'èezhìi Land and Water Board, Project Co will be responsible, at its own cost and risk, for performing such additional studies and/or assembling such information and providing a complete package of all required documentation to the Authority for the purposes of the amendment, extension or replacement application, as applicable.</p> <p>Project Co is responsible for complying with the terms and conditions of any amendments to, extension of or replacement of the Land Use Permit in the performance of the Project.</p>
6.	Land Use Permit (Operating Period)			X	X	<p>Project Co is responsible for applying for a Land Use Permit from the Wek'èezhìi Land and Water Board for the operation of the Tłı̄chq̄ ASR and for complying with all terms and conditions thereof.</p>

Permits		Authority Obligation to Obtain	Authority Obligation to Perform	Project Co Obligation to Obtain	Project Co Obligation to Perform	Comments
7.	Amendments to / Extension of / Replacement of Land Use Permit (Operating Period) (if applicable)			X	X	If applicable, Project Co is responsible for applying for any amendments to or extension of the Land Use Permit and/or any new land use permit(s) from the Wek'èezhì Land and Water Board for the operation of the Tłı̨chq̓ ASR and for complying with all terms and conditions thereof.
8.	Water Licence (Construction Period) (application W2016L8-0001)	X			X	The Authority will obtain a Water Licence from the Wek'èezhì Land and Water Board for the construction of the Tłı̨chq̓ ASR. Project Co has a responsibility to participate in the application process as site specific project details are required prior to licence acquisition. Project Co is responsible for complying with the terms and conditions of the Water Licence obtained by the Authority in the performance of the Project.
9.	Amendments to / Extension of / Replacement of Water Licence (Construction Period) (if applicable)	X			X	In the event that amendment to, extension of or replacement of the Water Licence is required, the Authority will be responsible (subject to the following provision) for applying for any amendments to or extension of the Water Licence and/or any new water licence(s) from the Wek'èezhì Land and Water Board for the construction of the Tłı̨chq̓ ASR. In the event that any amendment to, extension of or replacement of the Water Licence requires additional studies and/or information to be submitted to the Wek'èezhì Land and Water Board, Project Co will be responsible, at its own cost and risk, for performing such additional studies and/or assembling such information and providing a complete package of all required documentation to the Authority for the purposes of the amendment, extension or replacement application, as applicable. Project Co is responsible for complying with the terms and conditions of any amendments to, extension of or replacement of the Water Licence in the performance of the Project.

Permits		Authority Obligation to Obtain	Authority Obligation to Perform	Project Co Obligation to Obtain	Project Co Obligation to Perform	Comments
10.	Bathymetric Study			X	X	In accordance with the conditions of the Water Licence, Project Co is responsible to perform a Bathymetric Study, and to comply with the results of said study in the performance of the Project.
11.	Scientific Research Licence			X	X	All research that does not fall under wildlife or archaeologist legislation also requires a scientific research licence under the <i>NWT Scientists Act</i> and administration regulations; this licence is obtained through the Aurora Research Institute in Inuvik
12.	Water Licence (Operating Period) (if applicable)			X	X	If applicable, Project Co is responsible for applying for a Water Licence from the Wek'èezhì Land and Water Board for the operation of the Tłı̄chų ASR and for complying with all terms and conditions thereof.
13.	Amendments to / Extension of / Replacement of Water Licence (Operating Period) (if applicable)			X	X	If applicable, Project Co is responsible for applying for any amendments to or extension of the Water Licence and/or any new water licence(s) from the Wek'èezhì Land and Water Board for the operation of the Tłı̄chų ASR and for complying with all terms and conditions thereof.
14.	Wildlife Management and Monitoring Plan	X	X		X	Following receipt of an environmental assessment approval, the Authority will apply for approval of the Wildlife Management and Monitoring Plan from the Department of Environment and Natural Resources. Responsibility for performing commitments under the approved Wildlife Management and Monitoring Plan will be shared as appropriate between the Authority and Project Co.

Permits		Authority Obligation to Obtain	Authority Obligation to Perform	Project Co Obligation to Obtain	Project Co Obligation to Perform	Comments
15.	Other Permits or Licenses that may be a requirement of the Project			X	X	Project Co is responsible to identify, obtain and comply with any additional permits or licences that may be required for the performance of the Project, such as, but not limited to, explosive permits from Natural Resources Canada, archeology permits, approval to transport dangerous goods (if applicable), Permit to Burn (if applicable) and Fire Preparedness Plan, <i>Navigation Protection Act</i> approval (if applicable), <i>Fisheries Act</i> advice and/or authorization, Wildlife Permit (if applicable), camp sanitation approval (if applicable) and waste disposal agreements.
16.	Approval to upgrade 3 km to Whatì	X			X	The Authority has obtained all necessary access and licence rights. Project Co is responsible for complying with all terms and conditions thereof.
17.	Territorial Quarry Permits	X			X	Project Co is responsible for producing all of the necessary material required to apply for a quarry permit and for complying with the terms and conditions of the permit, including finalization of quarry operations plans, which includes quarry closure and reclamation. The Authority will submit the Territorial quarry permit applications and own the permits.
18.	Whatì Quarry Permit (Source 116)			X	X	Project Co is responsible for applying for a quarry permit with the Community Government of Whatì if there is a desire to utilize Source 116. Project Co is responsible for complying with the terms and conditions of the permit.
19.	Tłı̨chų Quarry Permits			X	X	Project Co is responsible for applying for a quarry permit with the Tłı̨chų Government if there is a desire to utilize sources on Tłı̨chų lands, while also adhering to section 2.3 of the Tłı̨chų ASR Land Exchange, Use and Access Agreement. Project Co is responsible for complying with the terms and conditions of the permit, including finalization of quarry operations plans, which includes quarry closure and reclamation.

APPENDIX 3C

PROJECT SCHEDULE

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Attachment 1 Project Schedule

APPENDIX 3C

PROJECT SCHEDULE

DEFINITIONS

1.0 Definitions

In this Appendix, in addition to terms defined in Schedule 1 of this Agreement:

“Project Schedule” means the schedule of the milestone dates for the Project Work set out in this Appendix as of the Effective Date, and as subsequently amended from time to time in accordance with Section 1.2 of this Appendix.

PART 1 GENERAL PROVISIONS

1.1 Diligent Performance of Project Work

Project Co shall:

- (a) commence the Project Work promptly following the Effective Date;
- (b) pursue the Project Work diligently to ensure that each of the significant milestone events for the completion of the Tłı̄ch̄o ASR components as identified in the Project Schedule, as amended from time to time in accordance with Section 1.2 of this Appendix, is achieved at or before the time specified therefor in the Project Schedule; and
- (c) perform the Project Work in material conformity with the Works Schedule, which is a detailed version of the Project Schedule, as amended from time to time in accordance with Section 1.3 of this Appendix.

1.2 Project Schedule

- (a) The Project Schedule sets out the schedule in accordance with which Project Co is to carry out the Project Work provided for in the Project requirements.
- (b) Project Co may submit to the Authority Representative from time to time an update of the Project Schedule to amend the milestone events for the completion of the relevant Project Work, provided that no such amendment of the Project Schedule shall amend the Target Substantial Completion Date or the Target Total Completion Date (except to reflect any extension of any such dates agreed or determined in accordance with this Agreement).
- (c) If in the reasonable opinion of the Authority Representative or Project Co at any time the actual progress of the Project Work does not conform with the Project Schedule, then, within 10 days of being so advised by the Authority Representative or (if earlier) becoming aware of such nonconformity, Project Co shall:
 - (i) provide the Authority Representative with a report identifying the reasons for such nonconformity with the Project Schedule; and
 - (ii) submit to the Authority Representative for review a revised Project Schedule, which shall:
 - (A) be in accordance with Good Industry Practice;
 - (B) satisfy the Design and Construction Requirements; and
 - (C) provide for the Project Work to be pursued diligently in accordance with Section 1.1 of this Appendix.

1.3 Works Schedule

- (a) Project Co shall prepare and submit to the Authority Representative:
 - (i) within 60 days of the Effective Date, an initial Works Schedule which shall be in all respects consistent with the Project Schedule;
 - (ii) an updated version of the Works Schedule on a monthly basis, by the 15th of each month, for the period from 180 days after the Effective Date until Total Completion;

- (iii) at the same time as a revised Project Schedule is submitted in accordance with Sections 1.2(b) or 1.2(c) of this Appendix, a revised Works Schedule in respect of each such revised Project Schedule which shall be in all respects consistent with such revised Project Schedule; and
 - (iv) as soon as practicable following notification of a change to the Project Schedule required by the Authority, a revised Works Schedule in respect of each such revised Project Schedule which shall be in all respects consistent with such revised Project Schedule.
- (b) Other than in the circumstances referred to in Section 1.3(a) of this Appendix, if Project Co wishes to make any amendment to the Works Schedule or if in the reasonable opinion of the Authority Representative or Project Co at any time the actual progress of the Project Work does not conform with the Works Schedule in any material respect then, prior to making any such amendment or within 15 days of being so advised by the Authority Representative or (if earlier) becoming aware of such nonconformity, Project Co shall:
 - (i) provide the Authority Representative with a report identifying the reasons for such amendment to or nonconformity with the Works Schedule; and
 - (ii) submit to the Authority Representative for review a revised Works Schedule, which shall be in all respects consistent with the Project Schedule.
- (c) The initial Works Schedule and any revised Works Schedules submitted in accordance with this Section shall:
 - (i) be in accordance with Good Industry Practice;
 - (ii) satisfy the Design and Construction Requirements;
 - (iii) be in sufficient detail so as to enable the Authority Representative to resource itself appropriately; and
 - (iv) provide for the Project Work to be commenced and pursued diligently in accordance with Section 1.1 of this Appendix.

1.4 Conflict Between Project Schedule and Works Schedule

The Works Schedule shall be provided for the information of the Authority and the Authority Representative. In the event of any conflict between the Project Schedule and the Works Schedule, the Project Schedule shall, unless otherwise agreed by the Authority Representative in its discretion, prevail.

APPENDIX A

PROJECT SCHEDULE

Project Schedule Milestone	Date
Submissions:	
Quality Management Plan	45 days from the Effective Date
Design Management Plan	45 days from the Effective Date
Construction Management Plan	60 days from the Effective Date
Operation and Maintenance Plan (First Submission)	Submitted 60 days prior to Substantial Completion Date
Environmental Management Plan (First Submission)	45 days from the Effective Date
Project Safety Plan	30 days from the Effective Date
Project Schedule	With Bid Submission
Works Schedule	60 days from the Effective Date
Target Substantial Completion Date	November 30, 2021 (as adjusted in accordance with the terms of this Agreement)
Target Total Completion Date	12 months after Substantial Completion

APPENDIX 3D
FORM OF CERTIFICATES

1. Design Certificate (General)
2. Design Certificate (Associated Road Structures)
3. Design Certificate (Environmental)
4. Road Safety Audit Interim Certificate
5. Road Safety Audit Final Certificate
6. Post Construction Road Safety Certificate
7. Construction Certificate
8. Certificate of Substantial Completion
9. Certificate of Total Completion

Certificate Form 1

Certificate Ref No. []

DESIGN CERTIFICATE (GENERAL)

In respect of:.....(Provide details e.g. Road-System Component/Associated-Road-Structures/ Geotechnical/Drainage/Erosion-Sedimentation-Control etc.)

Agreement between the Authority and Project Co dated ■ relating to the Tl̄chq All Season Road (the “Project Agreement”). Defined terms and expressions used in the Project Agreement have the same meanings in this Certificate.

Form of Certificate to be used by the Design team for certifying the Design Data of the [Project Work] is in accordance with the Technical Requirements and other provisions of the Project Agreement.

1. I certify that I have the requisite professional qualifications, skill and experience to prepare the Design Data referred to herein in accordance with the requirements of the Project Agreement and all relevant Technical Requirements.

2. I certify that I have prepared the Design Data for [.....] listed in the Schedule hereto in accordance with all applicable requirements contained in the Design Management Plan and the Design Quality Management Plan and utilizing the standards of care, skill and diligence that, in accordance with the standards of our profession, are required of experienced professionals undertaking the preparation of such Design Data, and that in my professional opinion such Design Data:
 - (a) complies with all applicable Technical Requirements, as amended by the following:
[List, if any, the changes made by the issue of a Change or Innovation Proposal].
 - (b) complies with all applicable design requirements of the Project Agreement;
 - (c) complies with all applicable standards, codes and current Good Industry Practice; and
 - (d) accurately describes and depicts the work to be undertaken.

SCHEDULE

[Include here drawing numbers, revision numbers and titles, reports, calculations, etc..]

Signed:
Engineer of Record
Name:
Title:
Date:

3. Reviewed by:

Signed:
Design Lead
Name:
Title:
Date:

Signed:
Project Co's Representative
Name:
Date:

4. This Certificate is:

- i. REVIEWED*
- ii. REVIEWED AS NOTED*
- iii. REJECTED*

* delete as appropriate

Signed:
Authority Representative
Name:
Date:

Certificate Form 2

Certificate Ref. No []

DESIGN CERTIFICATE (ASSOCIATED ROAD STRUCTURES)

In respect of :.....(Provide details e.g. Road-System Component/Associated-Road-Structures/ Geotechnical/Drainage/Erosion-Sedimentation-Control etc.)

Agreement between the Authority and Project Co dated ■ relating to the Tl̄chq All Season Road (the “Project Agreement”). Defined terms and expressions used in the Project Agreement have the same meanings in this Certificate.

Form of Certificate to be used by the Design team for certifying the Design Data of the [Project Work] is in accordance with the Technical Requirements and other provisions of the Project Agreement.

1. I certify that I have the requisite professional qualifications, skill and experience to prepare the Design Data referred to herein in accordance with the requirements of the Project Agreement and all relevant Technical Requirements.

2. I certify that I have prepared the Design Data for [.....] including Technical Appraisal Form No. [.....] listed in the Schedule hereto in accordance with all applicable requirements contained in the Design Management Plan and the Design Quality Management Plan and utilizing the standards of care, skill and diligence that, in accordance with the standards of our profession, are required of experienced professionals undertaking the preparation of such Design Data, and that in my professional opinion such Design Data:
 - (a) complies with all applicable Technical Requirements, as amended by the following:
[List, if any, the changes made by the issue of a Change or Innovation Proposal].
 - (b) complies with all applicable design requirements of the Project Agreement;
 - (c) complies with all applicable standards, codes and current Good Industry Practice; and
 - (d) accurately describes and depicts the work to be undertaken.

SCHEDULE

[Include here drawing numbers, revision numbers and titles, reports, calculations, etc..]

Signed:
Engineer of Record
Name:
Title:
Date:

3. Reviewed by:

Signed:
Design Lead
Name:
Title:
Date:

Signed:
Project Co's Representative
Name:
Date:

4. This Certificate is:

- i. REVIEWED*
- ii. REVIEWED AS NOTED*
- iii. REJECTED*

* delete as appropriate

Signed:
Authority Representative
Name:
Date:

Certificate Form 3

Certificate Ref No. []

DESIGN CERTIFICATE (ENVIRONMENTAL)

Agreement between the Authority and Project Co dated ■ relating to the Tl̄chq All Season Road (the "Project Agreement"). Defined terms and expressions used in the Project Agreement have the same meanings in this Certificate.

Form of certificate to be used by the Design team for certifying the Design Data of environmental works incorporated in the [Project Work] is in accordance with the Technical Requirements and other provisions of the Project Agreement.

1. I certify that I have the requisite professional qualifications, skill and experience to prepare the Design Data referred to herein in accordance with the requirements of the Agreement and all relevant Technical Requirements.
2. I certify that I have prepared the Design Data for [.....] [Name and list of all elements of the environmental works] in the Schedule hereto and annexed in accordance with all applicable requirements contained in the Design Management Plan and the Design Quality Management Plan and utilizing the standards of care, skill and diligence that, in accordance with the standards of our profession, are required of experienced professionals undertaking the preparation of such Design Data, and that in my professional opinion:
 - (a) the said Design Data complies with all applicable Technical Requirements, including Technical Appraisal Form No. [.....] dated [.....], as amended by the following:
[List, if any, the changes made by the issue of a Change or Innovation Proposal].
 - (b) the said Design Data complies with all applicable design requirements of the Project Agreement; and
 - (c) the said Design Data complies with all applicable standards, codes and current Good Industry Practice.

SCHEDULE

[Include here drawing numbers, revision numbers and titles, reports, calculations, etc..]

Signed:
Environmental Manager
Name:
Title:
Date:

3. Reviewed by:

Signed:
Design Lead
Name:
Title:
Date:

Signed:
Project Co Representative
Name:
Date:

4. This Certificate is:

- i. REVIEWED*
- ii. REVIEWED AS NOTED*
- iii. REJECTED*

* delete as appropriate

Signed:
Authority Representative
Name:
Date:

Certificate Form 4

Certificate Ref No. []

**ROAD SAFETY AUDIT CERTIFICATE
(INTERIM DESIGN ROAD SAFETY AUDIT)**

Agreement between the Authority and Project Co dated ■ relating to the Tjichq All Season Road (the "Project Agreement"). Defined terms and expressions used in the Project Agreement have the same meanings in this Certificate.

Form of Certificate to be used by the Design team for certifying that an Interim Design Road Safety Audit has been carried out in accordance with all provisions of the Project Agreement and all General and Technical Requirements, Design and Construction Requirements of Schedule 3 thereto.

1. We certify that the preliminary design of [.....] has been the subject of an Interim Design Road Safety Audit in accordance with all Technical Requirements, Design and Construction requirements, provisions of Schedule 3, the Design Management Plan and the Design Quality Management Plan and all other relevant provisions of the Project Agreement.
2. The Road Safety Audit Team's report and statement certifying the Interim Design Road Safety Audit has been carried out are attached.
3. [List of documents and Design Data that has been subject to the Road Safety Audit:]

Signed:
 Audit Team (Principal)
 Name:
 Title:
 Date:
 Professional Registration
 Number:
 Affix Professional Seal

4. We certify that the preliminary design of [.....] has been the subject of an Interim Design Road Safety Audit in accordance with all Technical and General Requirements of Schedule 3 to the Project Agreement and all Design and Construction requirements including the other provisions of the Project Agreement, including the Design Management Plan, the Design Quality Management Plan and all other relevant provisions, and that all observations and recommendations in the Road Safety Audit Team's report have been satisfactorily addressed and resolved.

Signed:
 Design Lead
 Name:
 Title:
 Date:

Signed:
 Design Team (Principal)
 Name:
 Title:
 Date:

Certificate Form 5

Certificate Ref. No. []

**ROAD SAFETY AUDIT CERTIFICATE
(FINAL DESIGN ROAD SAFETY AUDIT)**

Agreement between the Authority and Project Co dated ■ relating to the Tịchq All Season Road (the "Project Agreement"). Defined terms and expressions used in the Project Agreement have the same meanings in this Certificate.

Form of Certificate to be used by the Design Lead for certifying that a Final Design Road Safety Audit has been carried out in accordance with all provisions of the Project Agreement and all General and Technical Requirements, Design and Construction Requirements of Schedule 3 thereto.

1. We certify that the Detailed Design of [.....] has been the subject of a Final Design Road Safety Audit in accordance with Technical Requirements of Design and Construction Schedule 3 to the Project Agreement, the Design Management Plan and the Quality Management Plan and all other relevant provisions of the Project Agreement.
2. The Road Safety Audit Team's report and statement certifying the Final Design Road Safety Audit has been carried out are attached.
3. [List of documents and Design Data that has been subject to the Road Safety Audit:]

Signed:
 Audit Team (Principal)
 Name:
 Title:
 Date:

4. We certify that the Detailed Design of [.....] has been the subject of a Final Design Road Safety Audit in accordance with all Technical and General Requirements of Schedule 3 to the Project Agreement and all Design and Construction requirements including the other provisions of the Project Agreement, the Design Management Plan, the Design Quality Management Plan and all other relevant provisions of the Project Agreement, and that all observations and recommendations in the Audit Team's report have been satisfactorily addressed and resolved.

Signed:
 Design Lead
 Name:
 Title:
 Date:

Signed:
 Design Team (Principal)
 Name:
 Title:
 Date:

Signed:
Design-Builder (Principal)
Name:
Title:
Date:

Signed:
Project Co's Representative
Name:
Date:

5. Receipt of this Certificate is acknowledged.

Signed.....
Authority Representative
Name.....
Date.....

Certificate Form 6

Certificate Ref. No. []

**ROAD SAFETY AUDIT CERTIFICATE
(POST CONSTRUCTION ROAD SAFETY AUDIT)**

Agreement between the Authority and Project Co dated ■ relating to the Tịchq All Season Road (the "Project Agreement"). Defined terms and expressions used in the Project Agreement have the same meanings in this Certificate.

Form of Certificate to be used by the Design team for certifying that a Post Construction Road Safety Audit has been carried out in accordance with Schedule 3 of the Project Agreement.

1. We certify that the [reference relevant works] as constructed, tested and commissioned has been the subject a Post Construction Road Safety Audit in accordance with all applicable safety and others provisions of the Project Agreement, including requirements of the Design and Certification Procedure itself, Design Management Plan and the Design Quality Management Plan, and all Technical and General Requirements of Schedule 3 thereto.
2. The Road Safety Audit Team’s report and statement certifying the audit has been carried out are attached.
3. [List of documents and Design Data that has been subject to the Road Safety Audit:]

Signed:
 Audit Team (Principal)
 Name:
 Title:
 Date:

4. We certify that the [reference relevant works] as constructed, tested and commissioned has been the subject of a Post Construction Road Safety Audit, all observations and recommendations in the Audit Team’s report have been satisfactorily addressed and resolved in accordance with provisions of Project Agreement including the Design Management Plan, Design Quality Management Plan, and all other relevant provisions of Schedule 3 thereto.

Signed:
 Design Lead
 Name:
 Title:
 Date:

Signed:
 Design Team (Principal)
 Name:
 Title:
 Date:

Certificate Form 7

Certificate Ref. No. []

CONSTRUCTION CERTIFICATE

Agreement between the Authority and Project Co dated ■ relating to the Tłchq All Season Road (the "Project Agreement"). Defined terms and expressions used in the Project Agreement have the same meanings in this Certificate.

Form of Certificate to be used by the Design team, Design-Builder and Project Co for certifying the construction of the Project Work is constructed in accordance with the Technical Requirements and other provisions of the Project Agreement.

Design-Builder's and Project Co's Statement

1. We certify that **[name and element of construction]** has been designed, constructed, [Substantially Completed] [Finally Completed], commissioned and tested in all respects in accordance with:
 - (a) the relevant Design Data and Design Certificates, in each case to which there has been no rejection under the Design and Certification Procedure; and
 - (b) the provisions of the Project Agreement including all applicable Technical Requirements **[as amended by the following Changes or Innovation Proposals:]**

Signed.....
 Design-Builder (Lead Construction Project Manager)
 Name.....
 Title.....
 Date.....

Signed.....
 Project Co's Representative
 Name.....
 Date.....

Design Team's Statement

2. We certify on behalf of the Design team that we have examined the [name and element of construction] in accordance with the requirements for examination of the Project Work contained in the Design Management Plan, the Construction Management Plan and in the Design Quality Management Plan and utilizing the standards of care, skill and diligence that, in accordance with the standards of our profession as regulated by the *Engineering and Geoscience Professions Act* (NWT) and regulatory bylaws, and that in our professional opinion the said element of the Project Work or other works has been designed, constructed, [Substantially Completed] [Finally Completed], commissioned and tested in all respects in accordance with:
 - (a) the relevant Design Data and Design Certificates in each case to which there has been no objection under the Design and Certification Procedure; and
 - (b) the provisions of the Project Agreement including all applicable Project requirements **[as amended by the Changes or Innovation Proposals listed in paragraph 1 above].**

Signed.....
Design Team (Design Team Leader)
Name.....
Title.....
Date.....

Signed.....
Field Reviewer Name.....
Title.....
Date.....

3. Reviewed by:

Signed.....
Design Lead
Name.....
Title.....
Date.....

4. Receipt of this Certificate is acknowledged.

Signed.....
Authority Representative
Name.....
Date.....

Signed.....
Independent Certifier
Name.....
Date.....

Certificate Form 8

Certificate Ref No. []

CERTIFICATE OF SUBSTANTIAL COMPLETION

Agreement between the Authority and Project Co dated ■ relating to the Tl̄chq All Season Road (the "Project Agreement"). Defined terms and expressions used in the Project Agreement have the same meanings in this Certificate.

Form of Certificate of Substantial Completion to be used by Independent Certifier in accordance with Section 17.5 of Part 4 of Schedule 3 to the Project Agreement.

1. Confirmation was given on [date] by Project Co that Tl̄chq ASR has been Substantially Completed in accordance with the Project Agreement and that it is suitable and safe for use by members of the public without traffic management restrictions.
2. A Road Safety Audit Certificate (stage 3) was issued on [date].
3. Construction Certificates for the Substantial Completion were issued on [dates].
4. This document shall serve as the Certificate of Substantial Completion.
5. The Substantial Completion Date shall be [date]. [Include only for Substantial Completion of the Project under Section 17.5.]

Signed.....
 Independent Certifier
 Name.....
 Title.....
 Date.....
 Professional Registration Number:
 Affix Professional Seal

Certificate Form 9

Certificate Ref. No. []

CERTIFICATE OF TOTAL COMPLETION

Agreement between the Authority and Project Co dated ■ relating to the Tl̄chq̄ All Season Road (the "Project Agreement"). Defined terms and expressions used in the Project Agreement have the same meanings in this Certificate.

Form of Certificate of Total Completion to be used by Independent Certifier in accordance with Section 17.13 of Part 4 of Schedule 3 to the Project Agreement.

1. Confirmation was given on [date] by Project Co that Total Completion has been achieved in accordance with the Project Agreement.
2. Construction Certificates for the Total Completion were issued on [dates].
3. This document shall serve as the Certificate of Total.
4. The Total Completion Date shall be [date]. [Include only for Total Completion of the Infrastructure components under Section 17.13.]

Signed:
 Independent Certifier
 Name:
 Title.....
 Date.....
 Professional Registration Number:
 Affix Professional Seal

APPENDIX 3E

SAMPLE CONTENTS FOR A COMPONENT OF ROAD SYSTEM TAF

Ref. No.....

1. PROJECT DESCRIPTION

- 1.1 Name and location of component
- 1.2 Permitted traffic speed.

2. PROPOSED ROAD, ROAD SYSTEM COMPONENT OR ASSOCIATED STRUCTURE

- 2.1 Description of component or segment or associated structure
- 2.2 Road Component or Structure type (include reasons for choice)
- 2.3 Base and Stability (Include reasons for choice)
- 2.4 Segment Considered (Include reasons for choice)
- 2.5 If there is any variance from standard design
- 2.6 Proposed arrangements for inspection and maintenance
- 2.7 Specification of materials and finishes.

3. PROPOSED STRUCTURE

- 3.1 All Loading, Clearances
 - 3.1.1 Design code and TAC guide References
 - 3.1.2 Design and Analysis Software
 - 3.1.3 Loading
 - 3.1.4 Provision for exceptional abnormal loads:
 - 3.1.4.1 Gross weight
 - 3.1.4.2 ADT, traffic type variance, axle load and spacing
 - 3.1.4.3 Any special loading not covered above
 - 3.1.5 Minimum Factor of Safety required
 - 3.1.6 Authorities consulted and any special conditions required, (implied or not implied)
 - 3.1.7 List of relevant design documents
 - 3.1.8 Checklist of that clearly shows Technical Requirements those met already and non-applicable Technical Requirements specific to this design submission.

4. ROAD DESIGN AND STRUCTURAL ANALYSIS

- 4.1 Methods of analysis for all road, road component / structural component under review
- 4.3 Assumptions considered for calculation of element
- 4.4 Proposed earth pressure coefficients (k_a , k_o , or k_p) to be used in design of earth retaining elements.

5. GROUND CONDITIONS

- (a) Acceptance of interpretative recommendations of the soils report to be used in the design and reasons for any proposed departures, with clear citation reference of page, paragraph and lines.
- (b) Anticipated ground movements or settlement due to embankment loading, flowing water, and measures proposed to deal with these defects as far as they affect any road section or associated structure
- (c) Results of tests of ground water (e.g. permafrost influence zones, range boundaries, freezing and thawing, pH value, arsenic, chloride or sulphate content) and any counteracting measures proposed (as applicable)
- (d) Anticipated ground movements or settlement due to embankment loading, flowing water, and measures proposed to deal with these defects as far as they affect the road element.

6. CHECKING

Name of proposed Checking Team.

7. DRAWINGS AND DOCUMENTS

List of drawings (including numbers) and documents accompanying the submission. To include (without limitation):

- (a) a location plan;
- (b) a preliminary general arrangement drawing; and
- (c) relevant parts of the ground investigation report.

8. THE ABOVE CONSTRUCTION PROPOSALS ARE SUBMITTED FOR REVIEW.

Signed: _____
Engineer of Record

Name:
Engineering Qualifications:
Date:
Professional Registration Number:
Affix Professional Seal

Signed: _____
Design Lead

Name:
Engineering Qualifications:
Date:
Professional Registration Number:
Affix Professional Seal

Signed: _____
Project Co Representative

Name:
Engineering Qualifications / Position:
Date:

Name:
Engineering Qualifications:
Date:
Professional Registration Number:
Affix Seal

APPENDIX 3F

PROPOSAL EXTRACTS (DESIGN AND CONSTRUCTION)

[Redacted]

SCHEDULE 4
OMR AND HANDBACK
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SCHEDULE 4

OMR AND HANDBACK

DEFINITIONS

1.0 Definitions

In this Schedule, in addition to the terms defined in Schedule 1 [Definitions and Interpretation] to this Agreement:

“Active Construction Zone” means an area in which surveying, construction, maintenance or utility activities take place on or adjacent to a roadway, to the extent that the passage of public traffic may be influenced, and includes:

- (a) prior to the Total Completion Date, the entire Project Site; and
- (b) following the Total Completion Date, those areas of the Project Site within which Project Co is then carrying out any Rehabilitation, Reinstatement Works, Handback Works or other Construction.

“Asset Preservation Performance Measures” or **“APPMs”** has the meaning given in Section 1.4(c)(ii) of this Schedule.

“Condition Measure” means a measure of the limits of asset condition throughout the Term which defines the level of service.

“Drainage Structures” mean the Infrastructure designed to carry water under the road including culverts less than 3m in diameter or span, trash racks at inlets of minor culverts, fish passage features and subsoil systems (pipes or filter layers).

“Key Performance Measures” or **“KPMs”** has the meaning given in Section 1.4(b) of this Schedule.

“Objectives” has the meaning given in Section 1.4(a) of this Schedule.

“Operational Performance Measures” or **“OPMs”** has the meaning set out in Section 1.4(c)(i) of this Schedule.

“Performance Measures” or **“PMs”** has the meaning given in Section 1.4(c) of this Schedule.

“Response Measure” means a time-based measure which defines a level of service.

PART 1 GENERAL PROVISIONS

1.1 Responsibility for Operation, Maintenance and Rehabilitation

Throughout the Term, Project Co shall carry out the Operation, the Maintenance and the Rehabilitation in accordance with the terms of this Agreement and in such a manner as to comply with and ensure satisfaction with the OMR Requirements and all other applicable Project requirements.

1.2 Scope of Operation, Maintenance and Rehabilitation

(a) Table 1.2 sets out a summary list of activities comprising the Operation, the Maintenance and the Rehabilitation with reference to the relevant technical requirements and period of service.

Table 1.2		
Activity	Appendix	Section
OPERATION & MAINTENANCE		
Key Performance Measures	A	3
Documentation Requirements	A	4
Operational Communications	A	5
Surface Maintenance	A	6
Drainage Maintenance	A	7
Winter Operation and Maintenance	A	8
Roadside Operation and Maintenance	A	9
Traffic Operation and Maintenance	A	10
Bridge and Structure Maintenance	A	11
Emergency Operation and Maintenance	A	12
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Outcome Objectives	B	3
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HANDBACK		
Determination of Remaining Service Life and Distribution	C	2
Roadway Surfaces	C	3
Structures	C	4
Drainage Structures	C	5
Minor Assets	C	6
Asset Inventory and Condition Study	C	7
Handback Procedure	C	8

(b) The general principles for establishing the scope of Project Co's Operation, Maintenance and Rehabilitation responsibilities are as follows:

- (i) all roads constructed by Project Co within the right-of-way will be the responsibility of Project Co;
- (ii) all Structures which physically support the Tłıçhǫ ASR or upon which the function of the Tłıçhǫ ASR operates will be the responsibility of Project Co; and
- (iii) roadway surfaces with no direct connection to the Tłıçhǫ ASR main roadway will not be the responsibility of Project Co.

1.3 Allowable Maintenance and Rehabilitation Closures

During the Operating Period, Project Co shall be allowed to close a single lane of the Tłıçhǫ ASR, up to a maximum rolling length of 3,000 m, however, Project Co shall not allow traffic restrictions to result in a travel delay for Maintenance and Rehabilitation exceeding 15 minutes as measured against average travel time for that portion of roadway in that period.

Partial lane or full closure of the Tłıçhǫ ASR shall only be allowed after coordination with, and approval from, the Authority. Requests for closures must be submitted for consideration separately from other submittals, plans and reports. Reasonable requests for closures for safety reasons will not be denied by the Authority. Failure Points may be assigned in accordance with Schedule 8 [Payments] for unapproved closures.

1.4 OMR Performance Measure System Framework

The performance measures for the Operation, the Maintenance and the Rehabilitation are generally structured into three levels of delivery, described as follows:

- (a) Objectives (“**Objectives**”) provide a general description of the required outcome and high-level goals for each service area of Project Co delivery.
- (b) Key performance measures (“**Key Performance Measures**” or “**KPMs**”) are the principal Performance Measures representing the principal outcomes in each service area of Project Co delivery, and are reported monthly.
- (c) Performance measures (“**Performance Measures**” or “**PMs**”) are the minimum performance criteria, set out in auditable outputs, that clearly define the required service level for each service area of Project Co delivery, and consist of the following:
 - (i) Operational performance measures (“**Operational Performance Measures**” or “**OPMs**”) that define the minimum performance criteria for individual assets and corridor management requirements reflecting the expectations of users of the Tłıçhǫ ASR about the day-to-day serviceability in terms of condition and response times, as specified in Appendix 4A [Operation and Maintenance Specification] to this Schedule. The OPMs are classified into Condition Measures and Response Measures.
 - (ii) Asset preservation performance measures (“**Asset Preservation Performance Measures**” or “**APPMs**”) that define the minimum asset preservation criteria for network assets, individual assets and asset components to achieve the desired levels of service and to limit the extent of asset consumption, as specified in Appendix 4B [Asset Preservation Specification] to this Schedule.

The APPMs apply following the Substantial Completion Date, and in each case thereafter for the balance of the Term, except that:

- (A) only those assets on the Tłıchq ASR are to be included in the APPMs;
and
- (B) in the event of the occurrence of any Construction in an Active Construction Zone within the Tłıchq ASR following the Substantial Completion Date, then the APPMs apply in respect of such Active Construction Zone only from and after the Substantial Completion in respect of such Construction.

1.5 Maintenance Standards in Active Construction Zones

Except to the extent that Project Co establishes that the physical disturbance from any Construction or Active Construction Zone prevents the delivery of a specific element of the Maintenance, Project Co shall comply with all of the OMR Requirements, including all applicable Performance Measures, in carrying out Maintenance in any Active Construction Zone.

1.6 Availability of Service Provider Lead or Substitute

Project Co shall ensure that:

- (a) the Service Provider Lead; or
- (b) in the case of any temporary absence or unavailability of the Service Provider Lead, one or more suitable substitutes, each with the qualifications and authority to act in the place and stead of the Service Provider Lead during such absence or unavailability,

is at all times after Substantial Completion available by telephone, email or other appropriate means of communication, 24 hours a day, seven days a week to respond on behalf of Project Co and its applicable Project Contractors to any matters relating to the Operation, the Maintenance or the Rehabilitation.

PART 2 CONSTRUCTION DURING OPERATIONS

2.1 Application of Design and Certification Procedure to Construction

The Design and Certification Procedure will apply, *mutatis mutandis*, to any Construction included within the Project Work and carried out by Project Co following the Substantial Completion Date.

2.2 Traffic Management in Active Construction Zones

In the event of the occurrence of an Active Construction Zone within the Project Site at any time following the Substantial Completion Date, Project Co shall carry out Traffic Management:

- (a) within such Active Construction Zone:
 - (i) in accordance with a Traffic Management Plan prepared and implemented in accordance with Article 18 (Traffic Management Plan) of Schedule 3 [Design and Construction]; and
- (b) throughout the rest of the Project Site in accordance with the OMR Requirements.

2.3 Occupational Health and Safety Requirements for Active Construction Zones

In the event of the occurrence of an Active Construction Zone within the Project Site at any time following the Substantial Completion Date, Project Co shall comply with all health and safety Laws applicable to the Construction taking place in such Active Construction Zone.

2.4 Construction of Detours and Bypasses

Detours and bypasses, constructed for the purpose of Rehabilitation and Maintenance, shall be designed to a design speed of 50 km/hr. Lane and shoulder widths for detours and bypasses shall comply with the requirements of Table 4.3.1 [Design Criteria / Standards] of Schedule 3 [Design and Construction]. Prior to construction of any detour or bypass, a proposal has to be submitted to the Authority for acceptance. The proposal shall, as a minimum, contain the following information:

- (i) Exact location
- (ii) Design speed
- (iii) Construction dates
- (iv) Removal date
- (v) Engineer of Record responsible for the design

PART 3 HANDBACK

3.1 Condition of Infrastructure

Project Co, at its expense, shall ensure that upon the Expiry Date each element of the Infrastructure will:

- (a) comply in all respects with the applicable requirements set out in Appendix 4C [Handback Specification]; and
- (b) otherwise be in the condition in which it is required to be maintained in accordance with the provisions of the Project requirements and the other provisions of this Agreement.

3.2 Structural Inspection Certificates

At the end of the Term, Project Co shall cause the Bridge Engineer to issue a structure inspection certificate for each Structure contained within the Infrastructure in accordance with Section 4.6 of Appendix 4C [Handback Specification]. Any outstanding work or safety issues identified by such inspections shall be completed or rectified, as the case may be, by Project Co prior to the Expiry Date.

APPENDIX 4A

OPERATION AND MAINTENANCE SPECIFICATION

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OPERATION AND MAINTENANCE SPECIFICATION

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APPENDIX 4A

OPERATION AND MAINTENANCE SPECIFICATION

DEFINITIONS

1.0 Definitions

In this Appendix, in addition to the terms defined in Schedule 1 [Definitions and Interpretation] to this Agreement:

“Annual Average Daily Traffic or AADT” means the total number of vehicles that travel past a pre-determined location during an Operating Year, divided by the number of days in that Operating Year. For this Project the pre-determined location is defined as any location within +/- 2.5 kilometres from the midpoint of the road.”

“Bearing” means, for the purposes of Schedule 4 [OMR and Handback], the superstructure support elements between the bridge seats and the bridge superstructure and composed of steel, rubber or other materials and separated into two general categories as follows:

- (a) fixed, allowing only rotational movements; and
- (b) expansion, allowing longitudinal as well as rotational movements,

referring to drawings for specific bridges.

“Bridge Engineer” means a Professional Engineer specializing in bridge structural design, construction, maintenance and rehabilitation.

“Closure” means any partial or full closure, obstruction, blockage or other restriction or interference (howsoever arising) impeding the flow of traffic on the roadway of whatever duration including, without limitation, any partial or full closure, obstruction, blockage, restriction or interference:

- (a) that is instigated by Project Co;
- (b) that is required for any works by the Authority or for any inspection, investigation or survey;
- (c) that results from an incident;
- (d) that is instigated by the RCMP or other Relevant Authority for health, safety or emergency reasons or that results from Protest Action; or
- (e) that materially affects the ability to use that roadway or such part thereof in a safe manner resulting from the buildup of snow or ice or from any other natural event physically affecting the roadway.

“Communications Register” has the meaning given in Section 5.4 of this Appendix.

“Customer Care Plan” means a plan developed by Project Co in accordance with the requirements set out in Section 5.4 of this Appendix.

“Damaged Sign” has the meaning set out in Section 10.2.3(e) of this Appendix.

“Debris” means, for the purposes of Schedule 4 [OMR and Handback], litter, rubbish, vegetation, fallen rocks, dead animals, spilled materials, brush, branches or other tree components or other items or materials, which are not an intended part of the Tłıçhǫ ASR.

“De-icing Chemical” means, for the purposes of Schedule 4 [OMR and Handback], material used to remove or assist, by chemical means, the removal of ice and compacted snow from the Roadway Surfaces.

“Drainage Appliances” means, for the purposes of Schedule 4 [OMR and Handback], parts of the Infrastructure designed to carry water away from the Road Base including ditches, culverts less than 1500 mm diameter, spillways, dyking, flumes and drains.

“Emergency” means the existence or occurrence of any of the following:

- (a) a serious threat or risk to:
 - (i) the health or safety of members of the public as users of the Infrastructure or otherwise;
 - (ii) the environment; or
 - (iii) the safety or integrity of the project Infrastructure or any property adjacent to or in the vicinity of the Project Site;
- (b) any event or circumstance that prevents or unjustifiably restricts the use of the project Infrastructure as a roadway; and
- (c) any event or circumstance in respect of the Infrastructure or the Project Site that prevents Authority from carrying out any function or duty that it is required by Laws to carry out in respect of the Infrastructure or the Project Site.

“Emergency Response” means, for the purposes of Schedule 4 [OMR and Handback], the response to an unforeseen event, including an Emergency, which directly or indirectly affects the Project Site or the Infrastructure and causes or has the potential to cause disruption to the free flow of traffic on the Infrastructure or threatens the safety of the public or is an immediate or imminent threat to the long term integrity of any part of the Project Site or the Infrastructure or to land adjacent to the Project Site or likely to be affected by events on the Project.

“Emergency Response Plan” means the plan prepared by Project Co in accordance with Section 12.1 of this Appendix.

“Full Closure” means a Closure affecting all of the lanes of the roadway.

“Gravel Surfaced Roadways” means the 8.5m wide roadway between the two shoulder breakpoints that also includes a 200mm thick surface gravel.

“Motor Vehicle” means a motor vehicle as defined in the *Motor Vehicle Act* (Northwest Territories).

“Multiplate” means, for the purposes of Schedule 4 [OMR and Handback], a steel bridge culvert three metres or more in diameter, fully or partially factory assembled or field assembled by bolting together a number of corrugated steel plates and provided that, when less than three metres in diameter, it shall be considered to be a culvert.

“Non-Availability Event” means the Closure, for any reason, of a lane.

“Noxious Weed” means plants that are determined to be invasive in the Northwest Territories.

“OMR Monthly Report” means the monthly report produced by Project Co pursuant to Section 4.4 of this Appendix.

“Operation and Maintenance Plan” means the plan prepared by Project Co in accordance with Section 4.3 of this Appendix.

“Partial Closure” means a Closure that allows at a minimum for single lane traffic.

“Relevant Authority” means any entity whose authority is or may be required for the carrying out of all or any part of the Project Work or which has any authority or right in respect of the Project, the Infrastructure, the Project Site or any part thereof under any Laws and includes Governmental Authorities.

“Retaining Structure” means, for the purposes of Schedule 4 [OMR and Handback], a vertical Structure designed to resist the horizontal earth pressures of a fill or other material.

“Road Base” means, for the purposes of Schedule 4 [OMR and Handback], the portion of highway subsurface on which the travelling surface or Wearing Surface is placed.

“Roadside” means, for the purposes of Schedule 4 [OMR and Handback], that part of the public roadway between the edge of the shoulder and the highway right-of-way boundary, excluding the shoulder.

“Roadway Surfaces” means the riding surface between the two shoulder breakpoints.

“Roadway Status Reports” means daily reports provided by Project Co in accordance with Section 5.1 of this Appendix.

“Safety Management and Intervention Plan” means the plan prepared by Project Co in accordance with Section 14.1 of this Appendix.

“Sign” means, for the purposes of Schedule 3 [Design and Construction] and Schedule 4 [OMR and Handback], a lettered board, message or other display which includes all regulatory, warning, guide or informational, advisory, construction and maintenance, route markers and all special or other messages/displays under territorial jurisdiction as defined by the Authority but excluding electronically controlled messages/displays, but including the sign face overlay.

“Sign Deterioration” has the meaning given in Section 10.2.3(d) of this Appendix.

“Sight Distance” means the length of the roadway visible to a driver as defined in TAC Geometric Design Guide.

“Sign Pattern Manual” means the Sign Pattern Manual (2016 or most current) published by the Transportation Association of Canada.

“Sign System” means, for the purposes of Schedule 4 [OMR and Handback], all regulatory, warning, guide or informational, advisory, construction and maintenance, route marker signs, avalanche gates, delineators, hazard markers, Signs, sign face overlays, posts, hardware

(including nuts, bolts, washers and rivets) and all special Signs, under other territorial jurisdictions, as defined by the Authority but excluding electronically controlled signage.

“Third Party Contractor” means any prime contractor that, on behalf of the Authority, is carrying out work after the Effective Date on the Project Site.

“Time Limit” has the meaning given in Section 1.4 of this Schedule.

“Tłıçhǫ ASR Status Reports” means the reports prepared by Project Co in accordance with Section 5.1 of this Appendix.

“Traffic Accident Fatality Report” means a report prepared by Project Co in accordance with Section 4.6 of this Appendix.

“Traffic Crash” means, for the purposes of Schedule 4 [OMR and Handback], vehicle collision which results in damage and/or injury, or loss of control.

“Traffic Crash Report” means a report prepared by Project Co in accordance with Section 4.7 of this Appendix.

“Traffic Control” means the placement or erection of Signs, signals or other installations, or the use of flaggers and other personnel, for the purpose of regulating, warning or guiding traffic.

“Travelled Lane” means the two lanes, one in each direction, 3.5m wide either side of the roadway centerline.

“Wearing Surface” means, for the purposes of Schedule 4 [OMR and Handback], the surface portion of a bridge deck directly in contact with the wheels of vehicles.

“Weather Event” means, for the purposes of Schedule 4 [OMR and Handback], any meteorological condition that permits the development of hazardous conditions which requires intervention measures to maintain or re-establish safe driving conditions.

“Wildlife Collision Report” means a report produced by Project Co pursuant to Section 4.5 of this Appendix.

“Winter Abrasive” means, for the purposes of Schedule 4 [OMR and Handback], the sand or gravel applied to Roadway Surfaces during winter snow and ice conditions to provide traction for vehicles, which may or may not contain De-Icing Chemicals.

“Winter Maintenance” means, for the purposes of Schedule 4 [OMR and Handback], all activities required for the removal of snow and ice and the provision of adequate traction for users of the Tłıçhǫ ASR including but not limited to road snow removal, Winter Abrasive and chemical snow and ice control, blading and ice blading with a motor grader to remove ice and snow packs, and Roadside snow and ice control.

“Work Method Statements” or “WMS” means written management plans for critical and complex activities, processes or plans where the absence of written instructions could have a negative impact on worker safety, quality, consistency, cost or schedule, which constitute commitments of Project Co and describe how work shall be performed, inspected or tested and shall include a checklist to confirm that work is being conducted in accordance with the appropriate standard, code, specification or plan in accordance with this Agreement.

1. INTRODUCTION

1.1 Specification Format

A standardized format has been adopted for the specifications set out in this Appendix:

- (a) Objective
- (b) Performance Measures
- (c) Specific requirements – mandatory items of work that are required to be delivered or are an exception to a stated service
- (d) Notes – supplementary information and cross-references to applicable specifications and Reference Documents.

1.2 Application of Specifications

Whenever more than one specification or more than one part of a specification applies to a particular Tłıçhǫ ASR location, condition, circumstance or activity, Project Co must comply with each and every applicable specification or part thereof. Throughout the Operating Period, Project Co will be responsible to use the most current specifications, standards and guidelines applicable to the work undertaken.

Where level of service changes for any part of the Tłıçhǫ ASR instead, Project Co will apply the most current and appropriate standards for the infrastructure feature(s).

Where work is noted in the specific requirements to be in accordance with a specification, this is recognized as being one method available to achieve the requirements of this specification. It does not imply the only possibility or remove any responsibility of Project Co to achieve the output requirements.

1.3 Materials

Materials must be:

- (a) GNWT Standard Specifications and Standard Drawings;
- (b) in accordance with DBSS;
- (c) in accordance with the Recognized Products List; or
- (d) otherwise as accepted in writing by the Authority Representative.

1.4 Time Limit

- (a) Unless specified otherwise, where Time Limits are referenced herein, they shall be measured from the time that Project Co should have been aware of an item requiring attention (maintenance or repair) and / or a non-conformance.
- (b) The Time Limit for non-conformance shall mean the period of time described in the response sub-sections in each of the following Articles in this Schedule.

- (c) For clarity as stated in this Schedule temporary measures required for durations where Time Limits or response periods cannot be met due to frozen ground conditions shall consist of physical work to substantially make good the relevant non-conformance for the period until a permanent repair can be undertaken. An extended duration of traffic control is not deemed to be a temporary measure.

2. SCOPE

This Appendix defines the required condition and response times related to the provision of the Operation, the Maintenance and associated reporting requirements. The requirements set out in this Appendix reflect the minimum expectations of users of the Tłıchǫ ASR on day-to-day standards and response time performance criteria. Nonconformity reports will be issued only for Operational Performance Measures that include either or both Condition Measures and Response Measures, denoted throughout the schedule by the “PO” Prefix. Details provided in sections titled “Objective,” “Special Requirements” or “Notes” are provided as supplementary information only.

3. KEY PERFORMANCE MEASURES

3.1 General

Project Co is required to develop and implement a performance reporting system conforming to Good Industry Practice that will provide the information to enable review of Project Co performance in terms of the full suite of measures described in the contract documentation. This database system must be able to store monthly data relating to the measures at a level that enables calculation of monthly, year to date and contract to date measures.

Data to populate the system will come from the Authority’s monthly auditing of Project Co, operational records and internal audits incorporated within Project Co’s Quality Management System. It is expected that data fields within the reporting system would include as a minimum, details on the audits performed, targets and results for each KPM (Key Performance Measure) category and individual measures.

The development of the performance reporting system is subject to review by the Authority within the Term, and Project Co shall make changes within the overall performance of the contract. Provision and management of the performance reporting system will be included within the system as well.

3.2 Key Performance Measures

Key Performance Measures provide the ability to monitor higher level trends in Project Co’s Operation and Maintenance performance. Selected Key Performance Measures have been grouped under the following key delivery areas:

- (a) operational communications;
- (b) safety;
- (c) asset service;
- (d) winter service;
- (e) corridor management;

- (f) Emergency Response; and
- (g) Project relationships.

Project Co is required to forecast the results of KPMs detailed in Table 3.2 and report monthly achievement.

The individual Performance Measures selected for the KPMs include both Condition Measures and Response Measures for the Operation and Maintenance activities. Table 3.2 identifies the minimum required KPMs for the Operation and Maintenance.

Table 3.2: Key Performance Measures (KPMs)			
Delivery Areas	Key Performance Measures (KPMs)	Measure Reference (OPM)	Weighting %
a) Operational Communications	1. Daily Roadway Status Reports	PO5.1.2b	■
	2. Report adverse or extreme road surface conditions	PO5.1.2c	
	3. Recording Non-Availability Events	PO5.1.2g	
b) Safety	5. Surface Maintenance	PO6.3.2c	■
	6. Structure Maintenance - Permanent repair of decks	PO11.2.2a	
	7. Safety Management – Remedy hazards	PO14.1.2d	
c) Asset Service	8. Surface Maintenance - Correct gravel overlay deficiencies	PO6.1.2a	■
	9. Bridge and Structure Maintenance – repair, clean, and restore	PO11.1.2a	
d) Winter Service	10. Roadway Snow Removal - accumulations	PO8.1.2a	■
e) Corridor Management	11. Roadway Inspections – respond to reports	PO13.1.2b	■
	12. Roadway Patrols	PO13.2.2a	
	13. Corridor appearance – Litter	PO9.2.2b	
f) Emergency Response	14. Implement Traffic Control	PO12.2.2e	■
	15. Flood Control and Washout Response	PO12.4.2f	
	16. Structure Damage Response	PO12.5.2c	
	17. Incident Response	PO12.3.2e	
g) Project Relationships	18. Project Integration	PO5.3.2a	■
	19. Project Representation	PO5.3.2b	

Notes:

- (a) In general each KPM will be measured in the form of [Number of complying events/ Number of events occurring in the month].
E.g. Safety Management – Remedy hazards = [Number of Safety hazards remedied/ Number of Safety hazards identified in the month]

4. DOCUMENTATION REQUIREMENTS

4.1 Objective

The provision of reports and records to the Authority Representative is an essential requirement of this Agreement to ensure that the Authority can continue to perform its appointed governance duties, and to enable the Authority to provide for future needs of the Tłıçhǫ ASR and road users.

4.2 Plans and Reports

Table 4.2 summarizes the plans and reporting requirements, including deliverables and due dates, set out in this Appendix. The other Appendices to this Schedule contain additional reporting requirements.

Performance Measure	Deliverable Name	Specification Reference	Due Date
PO4.1a	Operation and Maintenance Plan (First Submission)	4.3	Submitted 60 days prior to Substantial Completion Date
PO4.1b	Operation and Maintenance Plan (Updates)	4.3	June 1st annually
PO4.1c	OMR Monthly Reports	4.4	By 10th of each month
PO4.1d	Wildlife Collision Report	4.5	By 10th of each month
PO4.1e	Traffic Accident Fatality Report	4.6	Within 24 hours of the accident
PO4.1f	Traffic Crash Reports	4.7	Within 72 hours of the accident
PO4.1g	Traffic Count Data	4.8	By 10th of each month
PO4.1h	Network Status Videos	4.9	Each 5 years anniversary of Effective Date, plus within one month of end of Project Term or Termination Date
PO5.1.2c	Roadway Status Reports	5.1	As per Section 5.1 of this Appendix
PO5.4.2a	Customer Care Plan	5.4	June 1st annually
PO5.4.2c	Customer Satisfaction Survey	5.4	June 1st of each year or as otherwise specified
PO12.1.2a	Emergency Response Plan	12.1	June 1st of year 1
PO12.1.2b	Staff contact information	12.1	March 31 annually
PO12.2.2d	Incident Reports	12.2	As required

The documents above that are indicated shall be submitted to the Authority Representative.

4.3 Operation and Maintenance Plan

The objective of the Operation and Maintenance Plan (OMP) is to provide the Authority with a plan that demonstrates contract compliance with respect to performance obligations. It should clearly describe Project Co's understanding and detailed approach to delivering all aspects of the Operation and the Maintenance for the entire T1chq ASR relative to the specified Performance Measures.

Overall responsibility of the OMP resides with Project Co and it is critical that its production be coordinated with all parties engaged by Project Co to deliver the Operation and the Maintenance to ensure that it encompasses the complete scope of the Operation and the Maintenance to be delivered by Project Co under this Agreement. Project Co will deliver an Operation and Maintenance Plan which includes as a minimum processes and procedures to:

- (a) ensure compliance with the Project requirements and all other requirements of this Agreement, including the OMR Requirements;
- (b) prepare and deliver complete and comprehensive documentation and Records;
- (c) identify processes for management review of the OMP;
- (d) identify, plan and prioritize all of the work activities required to perform the Maintenance and correct deficiencies;
- (e) document the sequence and interaction of all processes; and
- (f) detail procedures for service delivery.

The OMP and all updates shall be delivered as required in Table 4.2 [Schedule of Plans, Reports and Data (Response Time Measures)] of this Appendix, and shall specifically describe the procedures and work methods for all aspects of delivery of the Operation and the Maintenance services for the entire T1chq ASR as defined within this Schedule and shall include at a minimum:

- (a) Introduction of the service activities and the manner in which they are to be carried out.
- (b) The relationship to the Asset Management Plan developed under Appendix 4B [Asset Preservation Specification].
- (c) Work Method Statements.

Work Method Statements describe Project Co's process of delivery for each activity defined in this operation and maintenance specification.

The following information shall be provided for each Work Method Statement:

- ① Output objective including standards;
- ① Fundamental process steps identified and described including requirements for reporting, communications, environmental, site safety, Traffic Control, and quality;
- ① Functional relationships between each process step defined;
- ① Resources;

- ⌚ References to applicable codes, standards, guides, and manuals;
- ⌚ Documented evidence that all applicable technical leaders have approved the Work Method Statement signifying a collaborative and coordinated approach to the development of the overall delivery process; and
- ⌚ Release date.

The processes and procedures included in the Operation and Maintenance Plan shall conform to, but are not limited to, the following service delivery requirements:

- ⌚ the Project requirements and all other requirements of this Agreement, including the OMR requirements;
- ⌚ work identification and planning;
- ⌚ stakeholder communication;
- ⌚ environmental compliance;
- ⌚ site safety; and
- ⌚ Emergency Response.

The Operation and Maintenance Plan shall also include a work identification program which includes the processes to identify, prioritize, plan, schedule, manage, record and monitor completion of the Operation and Maintenance.

4.4 OMR Monthly Report

The OMR Monthly Report provides the Authority with a status of Project Co's Operation and Maintenance activities each month.

The OMR Monthly Report shall be delivered as required in Table 4.2 [Schedule of Plans, Reports and Data (Response Time Measures)] to this Appendix, and shall include at a minimum, the following content:

- ⌚ Updated maintenance and rehabilitation program for the next rolling 12 month period showing all major activities completed and planned (including resurfacing, bridge rehabilitation and Debris pond cleaning);
- ⌚ Status of audit Reports;
- ⌚ Copies of all relevant media mentions where both positive and negative commentary on the Tıçhçq ASR is noted;
- ⌚ Summary of key events that occurred during the month and planned tasks for the next month;
- ⌚ Results of monthly Key Performance Measures (KPM) assessment, as outlined in Table 3.2 [Key Performance Measures (KPMs)] of this Appendix, and comparison to previous 12 months results;

- ⌚ Monthly and Contract Year to date summaries of Maintenance services, including scheduled and performed Maintenance services allocated among the work activity classifications and identified as to work location (Roadway # and km reference); and
- ⌚ Delivery of the quality work plan, the work accomplishments report and a summary of Project Co's quality audits and dispositions.
- ⌚ Includes the summary Reports requested in Section 6.2(e) in Schedule 2 [Quality Management].
- ⌚ Project Co to provide details of all direct costs of providing OMR, any Reinstatement Works and any Handback Works for the applicable month.

4.5 Wildlife Collision Report

Project Co shall prepare and submit to the Authority Representative a Wildlife Collision Report providing a monthly summary of wildlife collision incidents and indicating the date, time, location, nearby advisory signage, animal type and number killed and otherwise complying with the GNWT's Wildlife Accident Reporting System.

The report shall be prepared in a format acceptable to the Authority.

4.6 Traffic Accident Fatality Report

Project Co shall prepare and submit to the Authority Representative a Traffic Accident Fatality Report within 24 hours of an accident on the Tłıchq ASR resulting in a fatality.

The report shall be prepared in a format agreed to by the Authority.

4.7 Traffic Crash Reports

The purpose of a Traffic Crash Report is to provide the Authority with sufficient information to understand the nature of the Traffic Crash incident within 72 hours of the crash occurring.

The report shall be prepared in a format agreed to by the Authority.

A Traffic Crash Report is required for all:

- (a) Fatal crashes.
- (b) Crashes where there is a possibility or allegation of Project Co initiated actions being associated with the crash, or where there is a possibility or allegation that the road condition was a major contributing factor.
- (c) Serious crashes for which the Authority requests a Report.

The Traffic Crash Report shall be delivered to the Authority Representative as required in Table 4.2 [Schedule of Plans, Reports and Data (Response Time Measures)] to this Appendix, and shall include at a minimum, the following content:

- ⌚ Author name and contact details;
- ⌚ Date, time, location and description of the Traffic Crash incident;

- ① Weather conditions at time of Traffic Crash incident;
- ① Condition of road surface and traffic facilities;
- ① Photos showing relevant features;
- ① Crash history at the site;
- ① Damage caused to the asset;
- ① Possible causes if known;
- ① Suggested improvements;
- ① Timing and nature of next programmed works at the site (including resurfacing);
- ① Copy of any RCMP reports on the Traffic Crash incident if applicable;
- ① Traffic Control requirements; and
- ① Impact on road availability including extent and timing.

This Report is expected to be nominally 2 pages in length, with additional information appended by staple. The Report can be considered a briefing memo, as opposed to a Report and therefore does not require any formal covers, title pages or the like, but must have a clear document reference.

4.8 Traffic Count Data

Traffic count information collected by Project Co needs to be incorporated into the Authority's traffic count database. All traffic count data, supplied to the Authority, shall be delivered as required in Table 4.2 [Schedule of Plans, Reports and Data (Response Time Measures)] of this Appendix, and shall be in electronic format compatible with the latest version of the traffic count database.

The quality and accuracy of the data collected is important as the overall counts are essential for planning needs and for gauging the usage of the roadway.

Traffic counting includes:

- (a) Installation, reading and servicing of a traffic counter within 2.5 km of the midpoint of the Tłı̄ch̄q ASR;
- (b) Physical traffic counts; and
- (c) Compilation of the data collected.

Project Co shall determine the Annual Average Daily Traffic (AADT) at the midpoint of the road from the collected data.

4.9 Network Status Videos

Network status videos to document the condition of the road are to be no more than one month old at the time of delivery to the Authority Representative and be a compatible format with GNWT corporate systems.

5. OPERATIONAL COMMUNICATIONS

5.1 Roadway Status Reporting

5.1.1 Objective

To communicate Tłı̨ch̨o ASR conditions to Relevant Authorities, the RCMP and the Authority.

5.1.2 Performance Measures

Condition

PO5.1.2a Liaise, when appropriate, with all relevant emergency service providers and provide assistance and provide all key personnel contact information.

Response

PO5.1.2b Prepare and deliver an updated Tłı̨ch̨o ASR Status Report to the Authority Representative by 7:00 a.m. daily.

PO5.1.2c Report promptly, upon detection or notification to Project Co, to the Authority Representative any adverse or extreme Roadway Surfaces conditions and changes in weather conditions affecting visibility and/or driving conditions or as specified by the Authority Representative.

PO5.1.2d Prepare and release promptly, upon approval by the Authority Representative, travel advisories as necessary to inform users of the Tłı̨ch̨o ASR of conditions identified in PO5.1.2c above.

PO5.1.2e Report promptly, upon detection or notification to Project Co, to the Authority Representative, through the Regional Superintendent of Infrastructure, all Motor Vehicle crash fatalities and other significant incidents on the Tłı̨ch̨o ASR.

PO5.1.2f Communicate to the Authority Representative, no later than 3:00 p.m. on the day preceding the commencement of the maintenance activity, any plans for maintenance activities which require Full Closures, Partial Closures or other Tłı̨ch̨o ASR traffic delays.

PO5.1.2g Project Co shall implement a system to measure accurately and record all Non-Availability Events occurring on the Tłı̨ch̨o ASR. Project Co shall maintain in electronic format a log recording the start/end times and relevant details for all such Non-Availability Events, which shall be a form that can be audited by the Authority for conformity.

5.1.3 Specific Requirements

- (a) Observe and record weather / road conditions and prepare and submit Tłı̨ch̨o ASR Status Reports electronically using internet technology and in a format prescribed by the Authority.
- (b) Publish names and telephone numbers of key Project Co OMR personnel in a manner accessible for RCMP and other Relevant Authorities.
- (c) Communicate with appropriate Relevant Authorities and RCMP when conditions on the

Tłıçhǫ ASR require the involvement of those Relevant Authorities and/or the RCMP.

5.1.4 *Notes*

The Tłıçhǫ ASR Status Report shall include surface conditions; weather, visibility, maintenance activities, load restrictions, travel advice, Full Closures, Partial Closures and other Tłıçhǫ ASR traffic delays and the reason(s) for such Closures and delays.

5.2 **Stakeholder Communication**

5.2.1 *Objective*

To communicate effectively and efficiently with stakeholders

5.2.2 *Specific Requirements*

Project Co must as a minimum:

- (a) respond in a timely and appropriate manner to public complaints and requests;
- (b) consult with local stakeholders, the RCMP, Relevant Authorities in order to take their needs into consideration when planning the delivery of services;
- (c) ensure optimum and proactive delivery of services to local stakeholders whenever possible;
- (d) prepare and release traffic advisories accepted by the Authority Representative, when Full Closures and/or Partial Closures occur or when weather conditions are unsafe or have the potential to become unsafe for users of the Tłıçhǫ ASR; and
- (e) publish names and telephone numbers of key Project Co O&M personnel for RCMP, Emergency Response services and other appropriate Relevant Authorities.

5.3 **Project Relationships**

5.3.1 *Objective*

The inter relationships between the Project parties is paramount to the overall success of the Project. This further extends to culture, where a “no surprises” environment must exist.

5.3.2 *Performance Measures*

PO5.3.2a Project Integration: Project Co is clearly making effort to keep all parties informed on physical work progress and any Project issues that arise during each month.

PO5.3.2b Project Representation: Project Co is publicly representing the Authority in a positive manner.

PO5.3.2c Culture: Project Co is acting in the best interests of the Project.

5.3.3 *Notes*

The Authority will validate the monthly score as initially determined by Project Co.

5.4 Public Relations - Customer Care

5.4.1 Objective

To provide high quality communications to the public, stakeholders and Relevant Authorities in a courteous, prompt, consistent and professional manner.

5.4.2 Performance Measures

Condition

There are no Condition Measures for this specification.

Response

PO5.4.2a Develop a Customer Care Plan as required in Table 4.2 [Schedule of Plans, Reports and Data (Response Time Measures)] of this Appendix, and implement processes to all of its internal and external relationships for delivery of services throughout the Term.

PO5.4.2b Conduct a customer satisfaction survey that is to be undertaken by an independent certified agency with the questions / results provided to the Authority annually.

5.4.3 Specific Requirements

Questions should be structured to obtain meaningful and relevant feedback, and should also include questions related to maintenance of the Tłıçhǫ ASR, including response times, levels of service, ride and winter performance.

The Customer Care Plan will as a minimum address the following issues:

- (a) Identification of external customers and their interface with the Authority on Tłıçhǫ ASR issues;
- (b) Use of technology to facilitate communication between the customer, Project Co, and the Authority on Tłıçhǫ ASR issues;
- (c) Development of and implementation of a service request system in order to provide a seamless interface with the Authority, others, management of information and customer care;
- (d) Identification of critical Tłıçhǫ ASR issues and appropriate response times;
- (e) Development of procedures for capturing potentially controversial situations in order that the Authority remains informed;
- (f) Customer satisfaction monitoring and reviews;
- (g) Development of corporate standards for customer care; and
- (h) Action plans or operational strategies to enhance customer care.

Implement customer care protocols that include, but are not limited to:

- (a) Voicemail - including greeting style and standard information supplied, acknowledgments and clearance times;
- (b) Email protocols and the production of an internet web site consistent with Schedule 16 [Communication Roles] and in conjunction with existing GNWT initiatives where necessary;
- (c) Correspondence - including the ability to respond within 10 working days, the style of language, jargon avoidance, recording and filing; and
- (d) Field contact protocols - including providing the customer with full attention, accurate information and contact recording.

Implement a Communications Register reporting system that maintains a record of all customer contact by telephone, facsimile, email, personal and written correspondence. As a minimum, the reporting system should include a description of the issue / complaint, time to acknowledge, time to meet on site if required and the time to complete action as appropriate (Note: sometimes a complaint may be unjustified and/or satisfaction may not be possible if territorial policies are not acceptable by the customer. In those cases, a record of the advice provided, in a courteous manner, will be recognized as completeness of the resultant action.). The communications register will be available continuously online to the Authority who will track through a sample of complaints/enquiries for meeting timeliness requirements and customer satisfaction.

Promote Project Co as the key contact with the public for Tłı̄ch̄o ASR related matters. Project Co's contact details are to be widely advertised.

Be available to respond to customers at any time and maintain a 24-hour telephone facility to receive, respond and log calls.

5.4.4 *Notes*

Public Relations - customer care requires determination and/or identification of issues and responding to the customer with information on the intended response. It encompasses answering general and specific enquiries or requests for information.

The Authority will transfer all concession-related enquiries to Project Co for response.

Where inaccurate or untimely messages cause safety concerns or inconvenience to motorists, steps must be promptly taken to correct the misinformation being presented. Full compliance with Section 5.1 [Roadway Status Reporting] of this Appendix is required. Note that Project Co's positive coordination with the Authority is paramount in meeting this task.

5.5 **Development Coordination**

5.5.1 *Objective*

To liaise with Third Party Contractors and other contractors to coordinate access work to development adjacent to or on the Tłı̄ch̄o ASR that may occur by the direction of the Authority.

5.5.2 *Performance Measures*

Condition

There are no Condition Measures for this specification.

Response

PO5.5.2a Report any problems with the performance of Third Party Contractors or other contractors working on behalf of the Authority within 24hrs in relation to safety matters and one week in relation to any other matter to the Authority.

5.5.3 *Specific Requirements*

- (a) The integrity of the Tłıchq ASR must be protected and damage minimized; and
- (b) Development coordination must be conducted in accordance with the Customer Care Plan in dealings with other contractors.

5.6 Telecommunications System

5.6.1 *Objective*

To facilitate communications between Project Co, the Authority and persons undertaking road and bridge maintenance works to provide security for its operations staff along the route. This will also facilitate prompt response for members of the public should assistance by Project Co be required.

5.6.2 *Specific Requirements.*

Project Co shall provide a telecommunications system that allows for the continuous communications along the full length of the Tłıchq ASR. This may include radio, cell phone, satellite phone or otherwise, and shall be for the use of its operations staff. The public is not expected to use this system.

In respect of the telecommunications system:

- (a) Project Co shall provide its own radios for its vehicles.

6. SURFACE MAINTENANCE

6.1 Gravelled Maintenance

6.1.1 *Objective*

To provide a uniform, smooth gravel surface to protect users of the Tłıchq ASR from potentially hazardous conditions and to Infrastructure.

To maintain a safe driving surface on gravel roads by the annual replacement of lost material to avoid major and extensive rehabilitation and preserve the surface in a cost-effective manner.

To maintain the cross section integrity of the gravel road to preserve the original design standard, given available maintenance resources.

Gravel surfacing of continuous sections of gravel surfaced roads by the annual replacement of lost material through normal road use (traffic kick-off, erosion, settlement, grade absorption, snowplowing, etc.) The quantities in the annual gravel replacement program should not be confused with major gravelling that could be required to re-establish a specific section of roadway or upgrade a roadway to a certain level.

The gravel surface shall include all lane and shoulder surfaces.

6.1.2 Performance Measures

Condition

There are no Condition Measures for this specification.

Response

PO6.1.2a The following deficiencies must be repaired within the maximum times shown. Pot-holes are defined as any roadway cavity with a surface area exceeding 0.06 m² and a maximum depth exceeding 75 mm.

Gravel and Shoulder Surface Deficiency	Time Limit
i) Pot-holes / washboard	1 d
ii) Surface soft and/or muddy	3 d
iii) Loss of traction	3 d
iv) Surface softening	1 m
v) Insufficient surfacing aggregate	20 d
vi) Loss of grade or cross fall / superelevation	20 d

Legend: h – hours, d – days, m – months and y-years

6.1.3 Specific Requirements

- (a) Project Co shall test surfaces to establish load Bearing strength. Because this is primarily used for setting load restrictions on the roadway, it is critical that this testing be scheduled to accommodate the load restrictions calendar.
- (b) Where the Road Base to be gravelled is unstable, the area must first be repaired in accordance with Section 6.2 of this Appendix.
- (c) Gravel is to be applied to gravel roadways to ensure a smooth condition with sufficient gravel depth to restore design cross-section including super elevation and proper crown, along with any required strengthening.
- (d) Wet and dry blading will be conducted only when required and not on a repetitious routine schedule. Project Co will pay special attention to completing blading cycles prior to the application of dust palliatives and prior to freeze up. This method is intended to correct deficiencies such as:
 - Ⓢ Inadequate crown or super elevation;
 - Ⓢ Potholed, rutted or corrugated conditions;
 - Ⓢ Windrows or loose gravel; and
 - Ⓢ To recover lost gravel from road side slopes.

Wet blading will be conducted to aid with compaction, to prevent excessive dust and to ensure the fines and binder are not blown away or lost during the blading cycle. The use of a water truck to add moisture to the roadway will be required to complete all wet blading cycles.

Dry blading will be conducted to aid with compaction and to reduce excessive dust. The crew can be assigned to this work to take advantage of wet conditions on days forecasted for rain.

- (a) Spot gravelling will be conducted for short (less than 0.2 km) sections of the Tłıçhǫ ASR way and gravel surfaces to correct such deficiencies as
- ⌚ Localized road depressions;
 - ⌚ Settlement at culverts;
 - ⌚ Potholes and minor unstable areas; and
 - ⌚ Areas lacking gravel.
- (b) Dust treatment shall be applied annually to provide a safer and more comfortable service while preserving the integrity of the road surface. This is undertaken by the use of dust abatement materials. Dust abatement materials are to be industry-proven, will not reduce safety for the travelling public, and will meet environmental specifications.

6.2 Road Base Maintenance

6.2.1 Objective

To repair deficient areas of Road Base and install drainage where required to provide a supporting granular base structure for Roadway Surfaces on the Tłıçhǫ ASR.

6.2.2 Performance Measures

Condition

There are no Condition Measures for this specification.

Response

PO6.2.2a Identify the source of Road Base failure and remedy within the response times required in Section 6.1 of this Appendix.

6.2.3 Specific Requirements

- (a) Repairs are to be identified and carried out in order of priority as determined by Project Co to enhance safety and to protect the roadway Infrastructure.
- (b) Where deemed necessary, correct failures by removing unsuitable materials, by providing free drainage from excavation and backfilling and by compacting with suitable materials.
- (c) Restore roadways in accordance with Sections 6.1 and 11.2 of this Appendix.
- (d) Install Drainage Appliances in accordance with Section 7.2 of this Appendix.

6.3 Surface Cleaning and Debris Removal

6.3.1 Objective

To protect users of the Tłıçhǫ ASR from potentially hazardous surface conditions caused by Debris,

or a build-up of accumulated rocks, organic material, garbage, and/or excessive dirt, sand or gravel on surfaces; and to ensure surface drainage is not hindered by these accumulations of Debris.

This Section 6.3 applies to the entire width of Roadway Surfaces, Roadsides, pullouts and bridges.

6.3.2 *Performance Measures*

Condition

PO6.3.2a No accumulation shall obstruct the free flow of drainage paths.

Response

PO6.3.2b Spring deck surface cleaning should be completed within one month of the last Winter Abrasive application or when the application of Winter Abrasives is no longer anticipated.

PO6.3.2c The removal of Debris should be started within the times shown in the following table and completed as soon as reasonably possible.

Obstruction	Time Limit
a) Debris or spilled material on the Roadway Surfaces	5 h
b) Dead animals on the Roadway Surfaces	4 h

Legend: h – hours, d – days, m – months

PO6.3.2d Roadway Surfaces and Roadsides should be cleaned within 3 days where an accumulation:

- (i) creates a visibility problem for users of the Tłı̄ch̄q ASR, or
- (ii) creates an air quality problem that conflicts with environmental laws.

PO6.3.2e Debris, rocks, organic material, garbage, and/or excessive sand or gravel on Roadway Surfaces which pose a hazard to users of the Tłı̄ch̄q ASR must be removed promptly.

6.3.3 *Specific Requirements*

- (a) If the Debris is too large for immediate removal, secure the area in accordance with Section 10.6 of this Appendix.
- (b) Dispose of dead animals in consultation with, and in a manner acceptable to, the Department of Environment and Natural Resources.

6.3.4 *Notes*

Cleaning of Gravel Surfaced Roadways includes removing accumulations of rocks, trees and garbage, mud from the Roadway Surfaces or bridge deck width, including barriers, to provide a safe, clean, free-draining condition.

Refer to Article 8 (Winter Road Operation and Maintenance) of this Appendix for Winter Operation and Maintenance Requirements.

7. DRAINAGE MAINTENANCE

7.1 Ditch and Watercourse Maintenance

7.1.1 Objective

To provide safe, unobstructed drainage for all Roadway Surface runoff, natural Roadside runoff and ditches; and to create collection areas for Debris and ice and snow.

To maintain a good drainage system that will provide adequate water movement away from the roadway to preserve the integrity of the roadway grade.

7.1.2 Performance Measures

Condition

There are no Condition Measures for this specification.

Response

PO7.1.2a Ensure cross section, grade and capacity of drains and watercourses as originally designed and constructed within the maximum times shown.

	Time Limit
During high water flow	4 h, subject always to maintaining safe working conditions.
At other times	4 m

Legend: min – minutes, h – hours, d – days, m – months

7.1.3 Specific Requirements

- (a) Ensure flow by removing snow and ice from ditches and restoring flow in frozen Drainage Appliances and beneath bridges.
- (b) Notify the Authority Representative of any obstructions to water flow which threaten the integrity of the Tłıçhǫ ASR and Structures; and remove obstructions preventing the free flow of water, including obstructions which may be upstream from the Tłıçhǫ ASR, adjacent to the Tłıçhǫ ASR or immediately downstream.
- (c) Restore and/or correct the cross section, capacity and grade of ditches and watercourses by removing Debris, Debris dams and sloughs from ditches and watercourses and repairing damage to embankments and backslopes caused by erosion.
- (d) Restore ditch elevations below the bottom elevation of the sub-base to ensure free drainage of the Tłıçhǫ ASR.
- (e) Widen and deepen ditches at culvert entrance locations, other drainage appliance or Structure locations, to provide a collection area and prevent the culvert or other drainage appliance or Structures from becoming obstructed.

- (f) When correcting the ditch profile, re-set or replace Drainage Appliances in accordance with Section 7.2 of this Appendix.
- (g) Shoulder widths are not to be reduced or undermined during the provision of the services; Project Co shall correct any such detrimental impacts promptly after ditch maintenance has been completed.
- (h) Ensure Infrastructure protection by constructing new ditches or reconstructing ditches as required.

7.2 Drainage Appliance Maintenance

7.2.1 Objective

To ensure that Roadway Surfaces are safe and efficiently drained; and water is efficiently channeled, contained and/or carried to ditches and watercourses; to prevent any erosion of the Tłıchq ASR and/or adjacent properties; and to ensure that Drainage Appliances continue to operate as design intended and will accommodate peak runoff.

7.2.2 Performance Measures

Condition

There are no Condition Measures for this specification.

Response

PO7.2.2a Remove any obstruction, repair or start (and complete as soon as practicably possible given the conditions) to replace Drainage Appliances within the maximum times shown.

	Time Limit
During high water flow	8 h, subject always to maintaining safe working conditions.

Legend: m - months, h – hours

PO7.2.2b Remove any obstruction and commence repair or replacement of any damaged drainage appliance experiencing reduction in water flow capacity of 50% or more, or where there is a history of drainage problems as identified by the Authority Representative, within 7 days.

PO7.2.2.c Repair and/or replace damaged or non-functional culverts within 2 months of discovery or, if winter conditions are still restrictive, as soon as possible but no later than by July 1st.

7.2.3 Specific Requirements

- (a) All Tłıchq ASR Drainage Appliances and related hardware are to be maintained in working condition.
- (b) Drainage Appliances are to be free of Debris, ice and snow, Winter Abrasive, and

sedimentation.

- (c) Drainage Appliances that are missing or worn, bent, broken, folded, disconnected, unravelled or damaged are to be repaired, or replaced if repair is not practicable.
- (d) Monitor and provide minor repairs to struts in culverts.
- (e) Biofiltration systems are to be maintained where applicable.
- (f) Rip-rap is to be placed to fill scour and erosion of foundation material to prevent future erosion at the inlet and/or outlet of the Drainage Appliance as accepted in writing by the Authority Representative and in accordance with Section 7.4 of this Appendix.

For bevel ends, roofs, sidewalls and culvert floors, any deformation (dimensional change) is limited to within 7% of the design or as-constructed dimensions.

Culverts – Circumferential Seams:

- (a) Circumferential seams shall not be misaligned between adjoining sections.
- (b) There shall be no evidence of infiltration of backfill material caused by improper connections or separation of adjoining sections.
- (c) Circumferential seams shall not have any cracks.

Culverts – Longitudinal Seams:

- (a) Longitudinal seams shall not have any cracks.
- (b) Longitudinal seams shall not have any signs of bolt tipping, distortion, cusping, improper nesting or signs of corrosion.

Steel culvert material may have some superficial rust but no pitting or loss of section.

7.3 Bridge Deck Drainage Systems

- (a) Build-up of gravel or Debris shall not cause any ponding on the bridge deck or impede the flow of water away from the bridge deck.
- (b) Deck drains and pipes shall not be clogged with Debris.
- (c) Down spouts shall be low enough to prevent splashing of water on superstructure and substructure elements.
- (d) There shall be no ponding of water along the shoulders or in the driving lanes.

7.4 Shore, Bank and Watercourse Maintenance

7.4.1 Objective

To repair scour and erosion damage to the Tłıchų ASR and its Structures at banks and shores of watercourses.

7.4.2 Performance Measures

Condition

There are no Condition Measures for this specification.

Response

PO7.4.2a Prepare areas to receive rip-rap and place rip-rap where there has been scour and erosion of natural or man-made shores and their banks within 4 hours during very high flow events, after determining that it is safe to proceed with the work. If Project Co's assessment indicates that the work cannot safely commence within 4 hours, Project Co must notify the Authority Representative and must commence work promptly when Project Co determines that it is safe to do so.

PO7.4.2b Maintenance repairs to shores, erosion protection, banks and watercourses are to be completed within 5 days of the elimination of the obstruction. Environmental protection measures in accordance with appropriate laws and regulations are to be undertaken to minimize impacts to the environment.

PO7.4.2c Upstream obstructions and Debris within 1km of crossing are to be removed annually.

7.4.3 *Specific Requirements*

- (a) All obstructions and Debris that threaten to break open and cause excessive channel flow or Debris flows with resultant damage to the Tłı̄ch̄o ASR and its Structures are to be removed.
- (b) Inspect the Tłı̄ch̄o ASR and Structures during periods of heavy rainfall or rapid melting, to ensure watercourses are contained and shores and banks are not being scoured or eroded, in accordance with Section 13.2 of this Appendix.
- (c) Promptly, when a shore or bank is being eroded, a watercourse is not contained or there is a likelihood it will not be contained, initiate Traffic Control necessary to protect users of the Tłı̄ch̄o ASR and initiate roadway closure procedures, if necessary, in accordance with Section 13.2 of this Appendix.
- (d) Rip-rap is to be of (Class 1-M) 50 kg or greater, sufficient to withstand a water flow representing a flood.

8. WINTER OPERATION AND MAINTENANCE

8.1 Roadway Snow and Ice Removal

8.1.1 Objective

To remove loose snow, slush and compact snow; to protect users of the Tłı̄ch̄o ASR from situations that are hazardous; to ensure the safe and efficient movement of traffic; and to ensure that Project Co utilizes and deploys those resources that are required to comply with this Section, in a manner which anticipates and responds in advance of a snowfall.

Provide a safe driving surface recognizing specific conditions at the time, including snow removal from guardrails, bridge decks and other critical areas where snow cannot be simply bladed off the Roadway Surfaces during the snow plowing operation.

8.1.2 Performance Measures

Condition

- PO8.1.2a Plowing will typically begin when snow reaches a depth on the roadway of 5 centimetres on the gravel driving surface and continues until the surface is bared. Bared surface on gravel is defined as one to two centimetres of loose snow on the gravel driving surface.
- PO8.1.2b Keep pullouts and other areas designated by the Authority Representative free of slush and compacted snow, and ensure that the surface(s) within each pullout are cleared to allow travelers free access, parking and egress.
- PO8.1.2d Glaciation may cause ice build-up on road surfaces and in Drainage Appliances.
- PO8.1.2e Snow drifting may create safety hazard for motorists. Snow drifting also can insulate permafrost from properly dropping in temperature.

Response

- PO8.1.2f Complete removal of loose snow and slush from Roadway Surfaces across the full travelled surface within 2 days of the end of the last measurable snowfall.
- PO8.1.2g At all superelevated curves and other locations where the shoulder edge is higher than the Travelled Lanes, Project Co must push snow and ice beyond the shoulder edge within 5 days of the end of the last measurable snowfall to prevent snowmelt drainage onto the travelled surface. When guardrail prevents the complete removal of the snow from the shoulder edge, Project Co must deal with any resulting condition that is hazardous.
- PO8.1.2h In addition to the maximum allowable accumulations set out in PO8.1.2a, removal of slush and / or broken compact snow from the travelled surface that is hazardous must be completed within 4 hours.
- PO8.1.2i Continue plowing during storms, unless visibility is reduced to less than 200m.
- PO8.1.2j Restore the road to a bare surface as soon as possible and at least within 48 hours after a storm, through the use of all assigned resource suited to the conditions. Travelled Lanes must be kept open and free of ice and packed snow. Shoulders will be winged as required.
- PO8.1.2k Glaciation/overflow control involves all work relating to the problems created by below freezing temperatures which cause ponding of water or a build-up of water either adjacent to or on the roadway or in Drainage Appliances including but not limited to:
- ⌚ Cutting off or diverting the water source.
 - ⌚ Building berms of snow, ice, etc. to prevent or to reduce the build-up of ice in culverts and ditches or on the road surface.

8.1.3 Specific Requirements

- (a) When snowfall is forecast, proactively:
- ⌚ increase snow and weather observations, monitoring and reviewing current weather station information;
 - ⌚ extrapolate from observations and broader weather forecasts to anticipate local road conditions;
 - ⌚ increase patrols as outlined in Section 13.2 of this Appendix;
 - ⌚ notify and deploy resources in advance, which are sufficient to respond to anticipated snowfall; and
 - ⌚ communicate internally and externally of actions to be taken.
- (b) In response to unforeseen snowfall:
- ⌚ notify/deploy resources; and
 - ⌚ commence removal of snow and slush in accordance with the time frames outlined above.

8.1.4 Notes

Maintain travel services that provide driving conditions that are as safe as possible, during and after a snow storm, based on a level of service specific to the road category and recognizing specific conditions.

If plowing is done during a storm the roads and roadways should be kept open to traffic.

Note that in order to protect the Roadway Surfaces, snow plowing activities may leave a snow cushion from one to two centimetres of snow on the Travelled Lanes. Special attention for areas of concern including intersections, bridges, critical hills and corners can become slippery. Project Co shall remove as much snow as possible without unnecessarily scalping the Roadway Surfaces.

8.2 Roadside Snow and Ice Control

8.2.1 Objective

To protect the Tłı̨ch̨o ASR from drifting snow and falling Debris, snow and ice; and maintain the Roadside free of accumulated snow and ice that may be hazardous for users of the Tłı̨ch̨o ASR and/or properties; or threaten the functional integrity of the Tłı̨ch̨o ASR.

8.2.2 Performance Measures

Condition

- PO8.2.2a Where snowfall accumulations exceed one metre in depth, Project Co must form trenches behind snow fences to catch blowing snow.
- PO8.2.2b No accumulations of snow and ice to exceed 30 cm in depth from the top of the road surface and shoulders, barriers or bridge railings within 6m of the outer edge of the shoulder of the roadway.

Response

PO8.2.2c When drainage could be impaired, start removing snow from ditches and/or restoring flow in Drainage Appliances, commencing from the time the deficiency was detected by or reported to Project Co, within 3 days.

8.2.3 Specific Requirements

Remove snow and ice to facilitate drainage. This will involve a number of different methods depending upon the site. Where steaming is applied, this may include:

- (a) Use of a portable steam generator; or
- (b) Installation and maintenance of steam pipes installed in culverts;
- (c) Removal of ice and snow from inside or adjacent to culvert ends; and
- (d) Protect users of the Tłı̄ch̄o ASR from accumulations of snow and ice such as on overhead Signs, bridges, and rock faces that have historically affected the Roadway Surfaces, or in locations identified by the Authority Representative.

8.2.4 Notes

Mitigate environmental effects due to the storage and use of de-icing and anti-icing agents. Compliance with operational requirements specified in present and future territorial and federal laws is required.

Where a Sight Distance obstruction occurs at an intersection of roadways of different Classifications, use the performance timeframe as established in this Appendix for the roadway that is designated at the higher Classification.

9. ROADSIDE OPERATION AND MAINTENANCE

9.1 Roadside Vegetation Control

9.1.1 Objective

To control vegetation along the road corridor including brush, weeds and grass in order to ensure visibility and increase safety for users of the Tłı̄ch̄o ASR, to control the spread of Noxious Weeds; to ensure effective drainage is not compromised; to minimize snowdrifts; and to reduce possible fire hazards.

9.1.2 Performance Measures

Condition

- PO9.1.2a Ensure vegetation beyond the shoulder edge does not:
- i) cause Sight Distance obstructions on curves;
 - ii) obscure the visibility of Signs, delineators, other Roadside features or for users of the Tłı̄ch̄o ASR; and

iii) impede drainage.

- PO9.1.2b Noxious Weeds shall be treated, without the use of herbicides, prior to the development of seed.
- PO9.1.2c The vegetation shall not exceed 25 cm along the roadway shoulders, to a width of 1.8 metres beyond the shoulder edge.
- PO9.1.2d The vegetation shall not exceed 25 cm at pullouts.
- PO9.1.2e There shall be no vegetation control cuttings that represent a hazard, obstruct drainage or create a nuisance.
- PO9.1.2f There shall be no vegetation within a 5 meter perimeter of bridges and other Structures to facilitate inspections and maintenance.

9.1.3 *Specific Requirements*

- (a) Control vegetation from the shoulder edge to the edge of the pavement in accordance with Section 6.2 of this Appendix.
- (b) Mow to the lowest possible height given the terrain, using an industry standard mower.
- (c) Control vegetation as necessary to reduce winter icing and snowdrift problems.
- (d) Remove and control vegetation that obstructs drainage in accordance with Section 7.1 of this Appendix.

9.1.4 *Notes*

Methods of vegetation control may include machine mowing, hand/manual clearing or brushing, or machine brushing (e.g., with an hydraulically operated rotary brush cutter mounted in either a grader or a skidder).

Project Co shall comply with environmental requirements, including observation of bird nesting seasons, when doing vegetation control.

9.2 **Litter Collection and Graffiti Removal**

9.2.1 *Objective*

To keep the Tłı̄ch̄q ASR and associated facilities clean and tidy for public users by the safe and efficient collection and disposal of litter, both loose and in receptacles, and the treating of graffiti. Generally, to ensure that the Tłı̄ch̄q ASR is maintained to an attractive appearance while enhancing the safety of the travelling public and that of maintenance personnel.

9.2.2 *Performance Measures*

Condition

- PO9.2.2a Litter and graffiti present along the Tłı̄ch̄q ASR shall be removed in accordance with the following responses.

Response

- PO9.2.2b Litter from the Tłıchq ASR that is visible from the travelled surface shall be collected a minimum of 5 times each year. These collections shall be completed in May, June, July, August, and September. All litter which is greater than 100mm in least dimension or is visible from the roadway shall be collected.
- PO9.2.2c Large litter, with a total surface area exceeding 0.5m², total volume exceeding 0.25m³, or total mass exceeding 10kg, from the Tłıchq ASR shall be collected and disposed of within 48 hours.
- PO9.2.2d Promptly remove and dispose of litter on the Tłıchq ASR that has the potential to distract the Tłıchq ASR user or creates a safety hazard.
- PO9.2.2e Graffiti shall be removed or covered within 30 days.
- PO9.2.2f Litter receptacles at pullouts 7 days or when they become full, whichever occurs first.

9.2.3 *Specific Requirements*

- (a) Litter along the Tłıchq ASR, both visible on the road surface, and cast aside onto road cut/fill slopes and into ditches are to be regularly removed.
- (b) Graffiti on natural features and Tłıchq ASR inventory should be removed or covered to return the marked surface to the original condition if possible: If the graffiti material cannot be removed, apply covering paint of an appropriate colour in a manner to minimize the aesthetic impacts of the repair and in accordance with the paint manufacturer's specifications.
- (c) Report vehicles or equipment abandoned on the Tłıchq ASR to the Authority.

10. TRAFFIC OPERATION AND MAINTENANCE

10.1 Traffic Signs Systems

10.1.1 Objective

To ensure that Signs are maintained to a high standard.

10.1.2 Performance Measures

- PO10.1.2a There is not more than 1 Sign within any continuous 5km section that remains missing or damaged or dirty or discoloured, for a period of 7 days.
- PO10.1.2b There is not more than 1 Sign within any continuous 5km section, that remains not visible at night from a distance of 160m, with head lights on dipped beam, for a period of 7 days.
- PO10.1.2c There are not more than 5 incorrectly aligned Signs within any continuous 5km section.

PO10.1.2d Any Sign which does not meet the minimum reflectivity level specified in Table 10.1.2 must be replaced within 14 days.

Sign Colour	Criteria	Sheeting Type (ASTM D4956)			
		III	VII	VIII	IX
White on Red	See (1)	35//7	35//7	35//7	35//7
Black on Orange or Yellow	See (2)	50	50	50	50
	See (3)	75	75	75	75
Black on White	-----	50	50	50	50
White on Green	Overhead	*//15	*//25	250//2	250//2
	Shoulder	120//1	120//1	120//1	120//1

Notes:

Levels in table represent legend retroreflectivity / background retroreflectivity (for positive contrast Signs). Units are cd/lx/m² measured at an observation angle of 0.2 and an entrance angle of -4.0

- (1) Minimum Contrast Ratio ≥ 3:1 (white retroreflectivity ÷ retroreflectivity)
- (2) For text Signs measuring 120 cm or more and all bold symbol Signs
- (3) For text Signs measuring less than 120 cm and all fine symbol Signs
- * Sheeting type shall not be used.

10.1.3 Specific Requirements

- (a) Signs and associated equipment operate in accordance with their intended design and performance.
- (b) Identification markers are provided, correctly located, visible, clean and legible.

10.2 Sign System Maintenance

10.2.1 Objective

To regulate and facilitate the safe movement of traffic by use of a signage system that is in good working order, clean and visible, unambiguous and complete and safely installed.

Aspects of sign maintenance may depend upon reasonable and practical seasonal considerations, while maintaining safety as top priority.

10.2.2 Performance Measures

Condition

- PO10.2.2a Sign Systems that are knocked or blown down are to be reset.
- PO10.2.2b Illegal or unauthorized Signs or Sign Systems on the Tłıçhǫ ASR are to be removed and reported to the Authority.
- PO10.2.2c Ensure all Sign face overlays, Signs and Sign Systems, including posts and battens, post mounted delineators, reflectors and other delineators are fully compliant with the specified materials clauses below.

Response

PO10.2.2d Use the following table to establish the maximum time within which Project Co must complete the cleaning, resetting, repair, and/or relocation of Sign Systems, reflectors and post mounted delineators:

Type of Sign marking (In accordance with Standard Roadway Sign Specifications)	Sign Repair	Sign Maintenance
i) Regulatory and warning	24 h	14 d
ii) Delineators and post mounted delineators	3 d	1 m
iii) Barrier/Guardrail reflectors	7 d	1 m
iv) Animal reflectors	7 d	1 m
v) Direction (guide)	7 d	1 m
vi) Information	7 d	1 m
vii) Service and attraction	7 d	1 m
viii) All other Signs and surface reflectors	7 d	1 m

Legend: h - hours, d - days, m - months

PO10.2.2e In addition to PO10.2.2d, make temporary repairs to any regulatory, warning or hazard Sign that is determined to be a Damaged Sign as described in the specific requirements below or if any stop or yield Sign is missing; and initiate installation of temporary signage or provide Traffic Control in accordance with Section 10.6 of this Appendix promptly.

PO10.2.2f Sign Systems and post mounted delineators required to be removed and reinstalled due to policy changes or to seasonal requirements or changing needs or conditions, at those locations determined by the Authority Representative; shall be relocated within 7 days of defect identification.

PO10.2.2g Regulatory, warning or other Sign face overlays, Signs and/or Sign Systems shall be replaced or installed within 24 hours of defect identification.

PO10.2.2h Guide or information Sign face overlays, Signs and/or Sign Systems are to be:

- i) ordered within 24 hours of receiving direction from the Authority Representative; and
- ii) install new or replacement Signs within 24 hours of delivery.

PO10.2.2i Delineators and all other Sign face overlays, Signs and/or Sign Systems shall be installed within 7 days of any major defect identification.

PO10.2.2j Replace, touch up or re-paint all Sign and flexible delineator posts when the surface is discoloured or damaged and re-paint all wood posts a minimum of once every 3 years.

10.2.3 Specific Requirements

(a) Keep all Sign Systems and post mounted delineators clean, legible, adequately reflectorized, erect and correctly located in accordance with the Standard Roadway Sign Specifications and the Sign Pattern Manual.

(b) Additional details regarding Sign System material requirements are as follows:

- Sign face overlays, Signs and Sign Systems must be as specified in the Standard Roadway Sign Specifications and the Sign Pattern Manual.
- Metal posts and battens are made of perforated, galvanized steel square tubing or of other material as accepted in writing by the Authority Representative.
- All wooden posts and battens are pressure-treated wood surfaced four sides (S4S), with dimensions, colour and shape as specified in DBSS.
- Flexible delineators are as specified in the Standard Roadway Sign Specifications and the Sign Pattern Manual and that plastic or fibreglass delineator posts are in accordance with DBSS.
- Oil-base, solid colour stain or oil-base exterior paint, compatible primer paint and standard paint colours are as specified in the Standard Roadway Sign Specifications and the Sign Pattern Manual, with all materials meeting specifications as to quality, coverage and colour in accordance with DBSS.
- All hardware is of non-corrosive material to avoid discolouration of Sign and delineator faces.
- Delineator reflectors and reflective sheeting are in accordance with the Standard Roadway Sign Specifications.
- Concrete and other materials used for production and fabrication of Sign bases are in accordance with Standard Roadway Sign Specifications and the Sign Pattern Manual, DBSS, or as otherwise accepted in writing by the Authority Representative.
- Replace reflectors with the same type, size and quality as existing and in accordance with the Standard Roadway Sign Specifications and the Sign Pattern Manual.
- Guardrail reflectors are as specified in DBSS.

(c) The Authority's policy for roadway Signs is described as follows:

- Poorly maintained Signs and other Sign Systems reduce roadway safety and spoil the appearance of an otherwise well maintained roadway. To be respected by users of the Tłıchǫ ASR and to be useful and effective, Sign Systems must be correctly used and correctly placed.
- Effective Signing requires:
 - selection of the correct Sign System for a particular situation;
 - correct location of the Sign System; and
 - ongoing maintenance to ensure that the Sign and its post(s) are in good condition.

- In order to meet the requirements of the Standard Roadway Sign Specifications and the Sign Pattern Manual, Project Co must engage in practices that ensure that all Signs and other Sign Systems are correctly placed, clearly display the necessary messages to ensure the safe and orderly movement of traffic, and meet other safety, aesthetic and economic benefits. This requires that Project Co carry out its obligations in accordance with this Appendix in a manner that minimizes the overall deterioration of Signs and other Sign Systems.
- (d) The following is a description of “Sign Deterioration” for the purposes of this Appendix:
- Each Sign face will be kept visible and legible under both day and night-time conditions. It should be noted that all Signs will gradually deteriorate to a point where the Signs must be refurbished or replaced. The retro-reflective sheeting of Signs deteriorates from the effects of sunlight, weather, airborne particles, and air pollution. Dirt from road spray, snow and ice removal from the roadway, and air pollution may collect on the Sign sheeting, and, if unchecked, will severely affect the night-time visibility of the Sign; and
 - A Sign face is considered to have lost its retro-reflectivity for night time display when the area of limited retro-reflectivity or blotchy reflectiveness exceeds 25% of the Sign face area. A Sign face is also considered to have lost its retro-reflectivity when the reduced retro-reflectivity overrides the ability of the Sign text, colour, or legend to be effectively presented to users of the Tłıchq ASR or other intended audience.
- (e) A Sign is considered to be a “Damaged Sign” for the purposes of this Appendix, when:
- the Sign is not flat (planar) and properly oriented to the travelling public or other intended audience;
 - either 10 square cm or 1% (whichever is greater) of the Sign face area is damaged, dented, vandalized or otherwise not as new;
 - graffiti has been added to the Sign (refer to Section 9.2 above); or
 - the intended message to users of the Tłıchq ASR or other intended audience is unclear or confusing.

10.3 Post Mounted Delineators

10.3.1 Objective

To maintain and replace post mounted delineators.

10.3.2 Performance Measures

PO10.3.2a Project Co shall supply and install post mounted delineators on open shoulder sections.

PO10.3.2b Reflectors with ASTM Type 9 sheeting shall be used.

10.4 Reflectors on Barriers

10.4.1 *Objective*

To maintain and replace reflectors on barriers.

10.4.2 *Performance Measures*

Condition

PO10.4.2a Reflectors shall be mounted on top of barriers and only reflectors designed for top mounting shall be used.

PO10.4.2b Spacing for reflectors is 25.0 m on Roadside barrier/guardrail.

10.5 Traffic Monitoring Equipment

10.5.1 *Objective*

To ensure the continuous operation of traffic monitoring equipment that is used to collect accurate traffic data for the Tłıçhó ASR corridor. The Authority must be able to retrieve the traffic count data electronically and in a format compatible with the Authority’s corporate traffic data management program, both during the Term and thereafter, with a 12 month retention period.

10.5.2 *Performance Measures*

Condition

PO10.5.2a An annual audit program shall be developed in order to perform manual verification of the effectiveness and accuracy of the traffic monitoring equipment. Project Co shall develop annual maintenance checks based on recommendations from the original equipment manufacturer supplier of the chosen technology. Inspection documentation employed by the Authority will be made available to Project Co for reference purposes.

Measure	Description	Deliverable	Compliance
PO10.5.2b	Count	Count all vehicles correctly	■%

PO10.5.2c Count accuracy shall be determined through independent manual vehicle counts funded by Project Co. These counts shall be accumulated and reported annually on April 1st.

Response

PO10.5.2d Equipment malfunction may be independently identified by the Authority during data retrieval and data management processes. Project Co shall, within 3 months of the Effective Date, establish communication protocols with the Authority to facilitate timely and appropriate maintenance by Project Co.

10.5.3 *Specific Requirements*

(a) Project Co is responsible for all installation, operational and maintenance costs associated

with the Tłı̄ch̄q ASR's traffic monitoring equipment.

10.6 Roadway Traffic Control

10.6.1 Objective

To keep the Tłı̄ch̄q ASR safe; and to minimize delays for, and advise users of the Tłı̄ch̄q ASR of the duration and cause of delays.

10.6.2 Performance Measures

Condition

PO10.6.2a Use Traffic Control persons and Traffic Control devices where appropriate to the situation, and in accordance with GNWT Traffic Management policies and procedures.

Response

PO10.6.2b Project Co must perform Traffic Control promptly, for the following situations:

- i) in response to all situations on the Tłı̄ch̄q ASR (including Structures) that are potentially hazardous or request a Closure of the Tłı̄ch̄q ASR, as appropriate;
- ii) in the event of Structures damage inducing these procedures, contact the Head of Structures or Structures section staff promptly to allow them to assess the situation; and
- iii) complete Closures of the Tłı̄ch̄q ASR.

10.6.3 Specific Requirements

- (a) Where portable lane control signals are warranted, obtain the prior written approval of the Authority Representative for any temporary Traffic Control and portable lane control signals. Monitor traffic flows and adjust the timing to ensure optimum traffic flow and safety.
- (b) The design and timing of temporary signals must also receive prior written approval of the Authority Representative and must comply with the relevant provisions of the *Public Highways Act* (Government of Northwest Territories) and the *Motor Vehicles Act* (Government of Northwest Territories) and of the Regulations pursuant thereto.
- (c) Utilize the Traffic Control Manual as the primary reference for the placement and use of Traffic Control devices and for Traffic Control procedures, and use in conjunction with other Sign manuals.

11. BRIDGE AND STRUCTURE MAINTENANCE

11.1 Roadway Structures Maintenance

11.1.1 Objective

To provide a safe and comfortable driving environment for users of the Tłı̄ch̄q ASR and to maximize the functional life of the Tłı̄ch̄q ASR Structures by way of regular and efficient inspection,

maintenance, rehabilitation, repair, cleaning and replacement.

11.1.2 Performance Measures

Condition

There are no Condition Measures for this specification.

Response

PO11.1.2a Commence repair, clean and restore to a fully functional (as a minimum at least to temporary) condition, any damaged or deteriorated Tłıçhı ASR Structures within the maximum times shown:

Structure and damage type	Time Limit
Culvert collapse	24 h
Culvert damage not affecting road	7 d
Bridge, side railing/barrier including but not limited to concrete, flexbeam etc.	2 d
Bridge deck (depending upon severity and safety condition)	1 -7 d

Legend: h – hours, d – days, m – months

11.1.3 Specific Requirements

- (a) Monitor structures during the normal course of their road inspections and notify the Head of Structures of any problems or anything unusual at a bridge site (e.g., accident damage, deck joint problems, abnormal alignment, etc.).
- (b) Maintain bridge drainage (trough drains at ends of bridge, deck drains, etc.) including drainage of bridge approaches, in accordance with Section 11.14 of this Appendix.
- (c) Repair or replace bridge flexbeam railing (not posts).
- (d) Repair or replace approach road railing (flexbeams and timber posts).
- (e) Maintain all watercourse drainage at the bridge as per Article 7 (Drainage Maintenance) of this Appendix.
- (f) Maintain all Signs in accordance with Sections 10.1, 10.2, 10.3 and 10.4 of this Appendix.
- (g) Wash all exposed and accessible bridge components such as the decks, drains, curbs, railing, signs, abutments, piers, and the splash zones and bottom chords of trusses (de-icing salts should be removed as soon as practical).
- (h) Repair bumps at bridge and culvert approaches to reduce impact on structure. Non-routine, more specialized work to be done under the direction of a Bridge Engineer.
- (i) Specialized maintenance activities like approach slab settlement must be carried out under the direction of the Bridge Engineer.
- (j) Maintain steel and aluminum Structures in accordance with Section 11.9 of this Appendix.

- (k) Maintain bridge pilings and trash racks in accordance with Section 11.10 of this Appendix.
- (l) Maintain Retaining Structures in accordance with Section 11.11 of this Appendix.
- (m) Maintain corrugated steel Roadway Structures in accordance with Section 11.13 of this Appendix.

11.2 Bridge Deck Maintenance

11.2.1 Objective

To provide safe, uniform, smooth, stable and durable surfaces on bridge decks and to maximize the functional life of the Structure.

11.2.2 Performance Measures

Condition

There are no Condition Measures for this specification.

Response

PO11.2.2a Permanent repairs to deteriorated concrete bridge deck systems are to be completed within 6 months.

11.2.3 Specific Requirements

- (a) Ensure the bridge deck systems meet the following condition requirements:
 - i) smooth and safe Wearing Surface;
 - ii) repaired area is not to be restricted to visibly deteriorated area;
 - iii) concrete repairs are to be sound, durable and well bonded to the prepared surface;
 - iv) concrete or patch finish is to be tined or broomed;
 - v) concrete bridge deck cracks sealed to a minimum depth of 6 mm;
 - vi) patch or crack repair is to match existing deck profile; and
- (b) Complete permanent repairs to the bridge deck systems in accordance with this Appendix and the manufacturer's specifications, including but not limited to concrete restoration and concrete crack sealing.
- (c) Unless noted otherwise the bridge deck shall not have any physical defects or chemical deterioration.
- (d) For any approach slabs:
 - i) The grade on the approach slab shall not deviate from the design grade by more than 0.5%.

- ii) There shall be no cracks greater than 0.25 mm in width and a linear measurement of 0.2 m of cracking per square metre of the slab.
- (e) Concrete bridge decks shall not have any cracks greater than 0.25 mm in width and a linear measurement of 0.2 m of cracking per square metre of bridge deck area.
- (f) Any cracking on the deck underside shall be limited to a maximum width of 0.35 mm.
- (g) The underside of all concrete decks shall be free of stains resulting from deterioration, efflorescence and exudation.

11.3 Bridge and Structure Cleaning

11.3.1 Objective

To preserve the bridges and Structures; and to remove dirt, Debris, and deleterious materials that are potentially hazardous for users of the Tłıçhç ASR, to facilitate proper inspection, and to maximize the functional life of the Structure.

11.3.2 Performance Measures

Condition

There are no Condition Measures for this specification.

Response

- PO11.3.2a Clean all surfaces (horizontal and vertical) on bridges, Structures and associated components annually.
- PO11.3.2b Structures must be promptly cleaned when conditions are of an urgent nature such as, but not limited to, storms, Debris accumulation and/or crashes.
- PO11.3.2c Clean and remove foreign objects from any surfaces where free drainage of the surface is impaired or where they cause moisture retention on surfaces, within 14 days.

11.3.3 Specific Requirements

- (a) Structure surface cleaning shall be completed in the spring of each year when reasonable assessment indicates no further Winter Abrasives or chemicals will be applied and within the earliest allowable environmental window, as specified by the appropriate Environmental Authorities, or by June 30th of each year, whichever comes first.

11.4 Bridge Drain and Flume Maintenance

11.4.1 Objective

To provide effective drainage that carries water away as quickly as possible from bridge decks, superstructures, substructures and foundations to prevent damage.

11.4.2 Performance Measures

Condition

- PO11.4.2a There shall be no clogged catchment areas.
- PO11.4.2b Ensure flumes can carry water from drain pipes down fill slopes and away from bridge abutment fills and wing walls.

Response

- PO11.4.2c Any clogged drains, steel grill or drain pipe that causes ponding on bridge decks shall be cleaned and unplugged within one day.
- PO11.4.2d Any grills, drains, drain pipes or flumes that are plugged, but do not cause ponding on bridge decks shall be unplugged within 14 days.
- PO11.4.2e Complete repair, replacement or anchoring of damaged, missing or loose grills, drains, drain pipes or flumes within 14 days or immediately if they are potentially hazardous.

11.4.3 Specific Requirements

- (a) Inspect grills, drains, drain pipes and flumes monthly, or more frequently if required, to identify drainage problems in areas that historically have frequently plugged drains.

11.5 Bridge Joint Maintenance

11.5.1 Objective

To provide a safe, smooth and stable condition for users of the Tłı̄chq̄ ASR and to maximize the functional life of the bridge.

11.5.2 Performance Measures

Condition

There are no Condition Measures for this specification.

Response

- PO11.5.2a Commence maintenance, repairs, or full or sectional replacement to bridge joints, bridge joint armour and joint anchor bolts that are potentially hazardous promptly.
- PO11.5.2b Complete all maintenance, repairs, or full or sectional replacement to bridge joints, bridge joint armour and joint anchor bolts which have the potential to reduce the functional life of the Structure and accelerate the deterioration of elements such as superstructure, substructure, Bearings, bearing seats or ballast walls; from the time of defect identification within the following times.

Temporary repairs may be necessary during winter months, to construct permanent repairs in warmer weather.

	Time Limit
Repair damaged bridge joint components	2 m
Repair concrete and armour	4 m

Legend: m - months, h – hours

PO11.5.2c Complete the replacement of bridge joint seals within the maximum times shown.

	Time Limit
Bridge joint seal replacement	4 m

Legend: m - months, h – hours

11.5.3 Specific Requirements

- (a) Bridge joints that are mis-aligned, cracked, worn, shrivelled, leaking, separated from joint walls or abraded are to be repaired or re-sealed or replaced.
- (b) Joint anchor bolts that are damaged, rusted, loose or missing are to be tightened, repaired or replaced as appropriate.
- (c) Armour that is bent, gouged, loose, separated or missing from the concrete deck is to be tightened, repaired or replaced as appropriate.
- (d) Steel finger joints and sliding plate joints that are loose, cracked, have broken welds or have missing components are to be tightened, repaired or replaced as appropriate.
- (e) Deck joints shall be able to accommodate the thermal movements stated on the Detailed Designs without imposing any additional load on substructure or superstructure components.
- (f) The joints shall be vertically aligned and the variation in the gap along the length of the deck joint shall not exceed 10%.
- (g) There shall be no missing or loose bolts, nor damage to joint anchorages or blockout concrete.
- (h) All deck joints shall capture and manage deck drainage such that it does not come into contact with the concrete and steel surfaces of other bridge elements.
- (i) For finger joints, the fingers shall sit level, have no cracks and the trough system under the joint shall function without signs of leakage or Debris accumulation.
- (j) For gland type joints, there shall be no signs of leakage or holes or damage to the seal or leakage around the joint.
- (k) Steel components shall be free of deformation, cracks and corrosion.
- (l) Cover plate slip resistant surfaces shall be effective over not less than 95% of the original slip resistant surface area.

11.5.4 Notes

Project Co must refer to this Appendix, the manufacturer's specifications, or the Bridge Engineer's design, as applicable.

11.6 Bridge Bearing Maintenance

11.6.1 Objective

To ensure that superstructure loads are properly transmitted and distributed to the substructure and that the superstructure is free to undergo necessary movement without developing damaging stresses that may limit the functional life of the bridge or affect safety.

11.6.2 Performance Measures

Condition

PO11.6.2a There shall be no Bearings and/or associated components that are potentially hazardous or have deteriorated to the condition where maintenance and repair will not restore the original design function of the particular Bearing, as determined by the Bridge Engineer.

Response

PO11.6.2b Promptly start repairs on Bearings that are potentially hazardous, as determined by the Bridge Engineer and complete within a time frame that is appropriate to the nature and urgency of the repair as determined by the Bridge Engineer.

PO11.6.2c Complete re-aligning and repairing Bearings, repairing or replacing anchor bolts and re-grouting concrete pads and Bearing areas within 6 months.

PO11.6.2d Lubricate Bearings once annually or in accordance with the manufacturer's recommendation.

11.6.3 Specific Requirements

- (a) Clean, lubricate, re-align, re-grout and repair Bearings in accordance with the manufacturer's specifications or original design specifications.
- (b) Maintain and clean all Bearings and associated components that are rusty, mis-aligned, or are covered with Winter Abrasives, dirt or Debris.
- (c) Repair or replace all pads that are damaged, crushed, cracked, split, bulging or torn.
- (d) Repair or replace anchor bolts and pins that are damaged or missing.
- (e) Repair or replace concrete pads and Bearing areas that are cracked or spalled.
- (f) Replacement Bearings and associated components shall be as originally designed or as designed by the Bridge Engineer; and shall be installed using an installation and jacking procedure approved in writing by the Bridge Engineer. The procedure is to be prepared by a Professional Engineer retained by Project Co.

Bearings

- (a) Bearings shall be operational and shall be free of all Debris that may impede movement.
- (b) Expansion Bearings shall be able to accommodate the thermal movements stated on the Detailed Designs without imposing any additional load on substructure or superstructure components.
- (c) Coating system on Bearings shall be functioning and intact.
- (d) Component parts shall have proper alignment, proper contact surfaces and minimum resistance.
- (e) Bearing pads and plates shall be in proper position.
- (f) There shall be no physical defects or chemical deterioration in the grout pads.
- (g) Elastomeric components shall be free of cracks and splits along the edges. Minor bulging of the elastomeric components shall be limited to 10% of the component thickness.
- (h) Anchor bolts shall have proper alignment and firm anchorage.
- (i) Steel components shall be free of corrosion, notches, cracks, sheared bolts and cracked welds.

Bearing Seats and Caps

- (a) Caps shall not have any rotation or displacement. Integral abutments shall operate within design limits with no signs of distress.
- (b) There shall be no physical defects or chemical deterioration of concrete components.
- (c) Any cracking shall be limited to a maximum width of 0.3 mm and a linear measurement of 1 m of cracking per square metre.
- (d) The bottoms of Bearing seats shall not be exposed due to soil settlement or other reasons.
- (e) Steel components shall be free of corrosion, notches, cracks, sheared bolts and cracked welds.

11.7 Minor Painting of Bridge Structures

11.7.1 Objective

To prevent corrosion in steel components of bridge Structures, and to present a neat and tidy appearance by maintaining previously coated surfaces or applying new coated surfaces to bridge Structures and associated components.

11.7.2 Performance Measures

Condition

- PO11.7.2a Prepare and coat all surfaces of bridge Structures and steel rail systems to a minimum level consistent with DBSS, where the coating system is deteriorated,

broken or damaged and the steel is corroding and rust is apparent.

Response

There are no Response Measures for this specification.

11.7.3 Specific Requirements

Project Co must use the same type and quality of material as on the existing Structure or an alternate material as proposed by Project Co and acceptable to the Authority Representative.

11.8 Concrete Structure Maintenance

11.8.1 Objective

To restore and maintain the integrity and durability of concrete Structures; to ensure the safety of users of the Tłıchq ASR; and to maximize the functional life of the Structures.

11.8.2 Performance Measures

Condition

PO11.8.2a Tolerances or deviations of concrete are not to exceed the following limits:

- | | | |
|------|------------------------------------|-------|
| i) | Deck surface | 3mm |
| ii) | Patches on other surfaces | 5 mm |
| iii) | Cross-Sectional dimensions | 25 mm |
| iv) | Cover to reinforcing steel minimum | 50 mm |

Response

PO11.8.2b Notify the Authority Representative promptly of any potentially hazardous deterioration or damage to the concrete Structure.

PO11.8.2c If the Bridge Engineer determines that there is a risk of structural failure under loading, promptly notify the Authority Representative and take the following actions:

- i) restrict allowable loading on the Structure;
- ii) close the Structure to all vehicular traffic; or
- iii) close the Structure to all use,

and start repairs promptly as instructed by the Bridge Engineer. Repairs are to be completed within three months, or within a time frame that is appropriate to the nature and urgency of the repair as determined by the Bridge Engineer.

PO11.8.2d All other concrete repairs are to be completed within 6 months.

PO11.8.2e Structural cracks are to be repaired within 6 months.

11.8.3 Specific Requirements

- (a) Repairs are to be completed in a manner that ensures a sound, durable, and well-bonded patch to the prepared surface.
- (b) Remove all deteriorated concrete at the repair site.
- (c) Finish concrete surfaces to match the adjacent finished concrete surface profiles. Concrete finishes in visible areas shall not be stained, chipped or peeling.
- (d) Remove excess epoxy to match existing surface profile.
- (e) Structural cracks are to be repaired by pressure injection of an epoxy material in accordance with the manufacturer's specifications.
- (f) Seal non-structural cracks of concrete Wearing Surfaces in accordance with Section 11.2 of this Appendix.
- (g) The following concrete mixes and patching material specifications are required:

	Minimum compressive strength at 28 days	Maximum nominal size aggregate mm	Maximum Water/Cement ratio by weight	Air content %	Slump maximum mm
1. Deck and Parapet	35 MPa	20	0.42	6 (+/-1)	50
2. Abutments, Piers and Footings	30 MPa	28	0.45	5 (+/-1)	75

- (h) Patching material must be designed by the manufacturer under specifications sheets of the product to achieve a minimum 28 day compressive strength of 35 MPa and must be cementitious, non-shrink, non-metallic grout which may be polymer-modified.
- (i) Prestressed concrete girders shall not have any physical defects or chemical deterioration or staining.
- (j) There shall be no signs of damage or deterioration due to impacts or collisions.

11.8.4 Notes

- The above tolerances or deviations in PO11.9.2a are allowable only if they do not prevent the required fit of structural members.
- Materials of the same type and quality as the existing material shall be used or as referred to in Section 1.3 of this Appendix.

11.9 Steel and Aluminum Structure Maintenance

11.9.1 Objective

To restore and maintain the integrity and durability of steel and aluminum Structures; to ensure the safety of users of the Tłchq ASR; and to maximize the functional life of the Structures.

11.9.2 Performance Measures

Condition

There are no Condition Measures for this specification.

Response

PO11.9.2a If the Bridge Engineer determines that there is a risk of structural failure under loading, promptly notify the Authority Representative and take the following actions:

- i) restrict allowable loading on the Structure;
- ii) close the Structure to all vehicular traffic; or
- iii) close the Structure to all use,

and start repairs promptly as instructed by the Bridge Engineer. Repairs are to be completed within three months or within a time frame that is appropriate to the nature and urgency of the repair as determined by the Bridge Engineer.

PO11.9.2b Complete all other steel and aluminum Structure maintenance within 4 months.

11.9.3 Specific Requirements

- (a) Steel girders shall be free of harmful corrosion, notches and cracks.
- (b) Bolted connections shall be free of deformation, warping and missing, worn, sheared or deformed fasteners.
- (c) Web stiffeners shall not have any evidence of buckling.
- (d) Girders shall not show any evidence of sags, buckling, bowing or twisting.
- (e) All welds shall be free of cracks.
- (f) There shall be no signs of damage or deterioration due to impacts or collisions.
- (g) The deck area shall not be delaminated or debonded as determined by chain drag testing or hammer sounding in accordance with ASTM D4580.

11.9.4 Notes

Steel and aluminum Structure maintenance includes repair and/or replacement of lost, missing, deteriorated, or corroded pins/rivets, bolts and associated components.

Materials of the same type and quality as the existing material shall be used or as referred to in Section 1.3 of this Appendix.

11.10 Bridge Piling Maintenance

11.10.1 Objective

To ensure structural strength, to prevent scour and to maintain the impact resistance of bridge

pilings.

11.10.2 Performance Measures

Condition

PO11.10.2a Deteriorated bridge pilings and associated components where maintenance and repair will not restore the original design function of the particular piling shall be replaced, as determined by the Bridge Engineer.

Response

PO11.10.2b Notify the Authority Representative promptly and the Bridge Engineer shall assess the deficiency and risk of structural failure.

PO11.10.2c If the Bridge Engineer determines that there is a risk of structural failure under loading, promptly notify the Authority Representative and take the following actions:

- i) restrict allowable loading on the bridge;
- ii) close the bridge to all vehicular traffic; or
- iii) close the bridge to all use,

and commence repairs of damaged bridge pilings and associated components as required within 2 days after receiving instructions from the Bridge Engineer.

PO11.10.2d Complete maintenance and repairs to damaged bridge pilings and associated components as required within 6 months.

PO11.10.2e Complete repairs as soon as reasonably possible where structural damage requires complete re-construction of the pile bent or bridge Structure.

PO11.10.2f Complete non-emergency replacement of piles and associated components within 6 months.

PO11.10.2g Remove accumulated Debris as soon as access permits.

11.10.3 Specific Requirements

- (a) Splice piles only if the base of the pile is sound.
- (b) Replacement pilings and associated components shall use pile types and installation procedures prepared by a Professional Engineer retained by Project Co, and acceptable to the Authority Representative.

11.11 Retaining Structure Maintenance

11.11.1 Objective

To ensure the continued safe and stable condition of all Retaining Structures and associated components and maximize functional life.

11.11.2 Performance Measures

Condition

- PO11.11.2a Retaining Structures showing signs of continued movements are to be repaired, as recommended by a Geotechnical Engineer in consultation with a Bridge Engineer and notify the Authority Representative.
- PO11.11.2b Repair or reinforce any portion of a Retaining Structure showing signs of deterioration, deflection, deformation or settlement.

Response

- PO11.11.2c Notify the Authority Representative immediately of hazardous or unstable Retaining Structures.
- PO11.11.2d Commence maintenance repairs within 24 hours of becoming aware of deficiency or as directed by the Authority Representative.
- PO11.11.2e Maintain and repair Retaining Structure deficiencies within the time established below.

	Time Limit
Maximum Response Time	4 m

Legend: m - months, h – hours

- PO11.11.2f Clean out accumulations of Debris behind Retaining Structures annually, or as required to ensure the Structure functions as designed.
- PO11.11.2g Replace Retaining Structure components where maintenance and repair will not restore the original function of the Structure and complete the replacement of Retaining Structure components within six months.

11.11.3 Specific Requirements

Replace concrete Retaining Structure components in accordance with Section 11.8 of this Appendix.

- (a) Embankments shall not show any signs of instability such as slumping, excessive settlement, or cracking.
- (b) Embankments shall not show any signs of erosion such as gulying or erosion or scour along the toe of the sideslope.
- (c) The slope of the embankment shall be as specified in the Detailed Designs.

Headwalls and Collars

- (a) Headwalls and collars shall not have excessive settlement or rotation and must be securely connected to the barrel or bevel section.
- (b) Headwalls and collars shall not show any signs of piping, scour or erosion.

- (c) There shall be no physical defects or chemical deterioration of concrete components.
- (d) Any cracking shall be limited to a maximum width of 0.35 mm and a linear measurement of 1 m of cracking per square metre.
- (e) Steel components shall not have excessive corrosion, loss of section or loose connections.

Wingwalls

- (a) Any gap or void between the wingwall and the barrel section shall be limited to a maximum of 75 mm. There shall not be any loss of fill material.
- (b) Wingwalls shall have proper vertical alignment and be securely connected to the headwall, if applicable.
- (c) There shall be no physical defects or chemical deterioration of concrete components.
- (d) Any cracking shall be limited to a maximum width of 0.3 mm and a linear measurement of 1 m of cracking per square metre.
- (e) Steel components shall not have excessive corrosion, loss of section or loose connections.

Cutoff Walls

- (a) Cutoff walls shall be securely connected to the culvert invert.
- (b) There shall be no undermining, piping or uplift.

11.11.4 Notes

Ensure identified repairs are carried out in order of priority as determined by Project Co to ensure safety and to protect the Infrastructure.

11.12 Multiplate Structure Maintenance

11.12.1 Objective

To allow unimpeded flow through Multiplate Structures and to maximize the functional life of these Structures.

11.12.2 Performance Measures

Condition

- PO11.12.2a Multiplate Structure components and bank and watercourse protection that are potentially hazardous for users of the Tłı̄ch̄o ASR or adversely affect the functional life of the Structure are to be repaired and/or replaced.
- PO11.12.2b The floor area of the Structure shall be protected, as instructed by the Bridge Engineer.

Response

- PO11.12.2c If the Bridge Engineer determines that there is a risk of structural failure under

loading, promptly notify the Authority Representative and take the following actions:

- i) restrict allowable loading on the Multiplate Structure;
- ii) close the Multiplate Structure
 - (a) to all vehicular traffic; or
 - (b) to all use; and
- iii) initiate and make repairs promptly. Complete repairs within a period consistent with the nature and urgency of the repair as determined by the Bridge Engineer. Any loose, damaged or missing bolts shall be tightened or replaced within 10 days, or as soon as conditions allow.

PO11.12.2d Subject to PO11.12.2b, repair Multiplate Structures and protect the Multiplate Structure from scour and erosion to the inlet, outlet and foundation, within 6 months.

11.12.3 Specific Requirements

- (a) Scoured and/or eroded foundation material at the inlet, outlet, shore, bank and watercourse shall be replaced with concrete or angular rock in accordance with Section 7.4 of this Appendix.
- (b) Concrete shall be maintained and repaired in accordance with Section 11.8 of this Appendix.

11.13 Bridge Barrier Maintenance

11.13.1 Objective

To provide a structurally sound and safe barrier between pedestrians, vehicles and hazards and to maximize the functional life of the bridge railing.

11.13.2 Performance Measures

Condition

PO11.13.2a Bridge barrier and rail systems and parapets or any deficiency of any bridge railings that are potentially hazardous for users of the Tłı̄ch̄o ASR are to be maintained, repaired or replaced as required.

Response

PO11.3.2b Temporary railing is to be installed, as required, within 24 hours.

PO11.13.2c Subject to PO11.13.2a, complete maintenance, repairs and/or replacement within 2 months.

11.13.3 Specific Requirements

- (a) Perform concrete repairs in accordance with Section 11.8 of this Appendix.
- (b) Maintain bridge rail systems and parapets to original design.

- (c) Perform minor painting of bridge rail systems in accordance with Section 11.7 of this Appendix.

Bridge and Pedestrian Rails

- (a) Elements shall be free of collision damage, horizontal and vertical misalignment, improper guardrail laps, loose connections and missing nuts and bolts.
- (b) Steel components shall be free of deformation, cracks, and corrosion.
- (c) Anchor bolts shall have proper alignment and firm anchorage.
- (d) There shall be no physical defects or chemical deterioration in the grout pads.

11.13.4 Notes

All fasteners must be hot-dip galvanized.

11.14 Differential Settlement

11.14.1 Objective

To monitor and respond to settlement for structures, embankments and roadways.

11.14.2 Performance Measures

PO11.14.2a Where deformations are found to adversely affect the required performance, Project Co shall design and implement measures to ensure that the required performance and Design Life and Service Life of are achieved.

11.15 Scour Damage

11.15.1 Objective

To monitor and remediate any scour damage, erosion and channel instability around Structures.

11.15.2 Performance Measures

Condition

PO11.15.2a Scour protection, erosion control, and waterway stabilization measures to be maintained, repaired or replaced.

Response

PO11.15.2b Project Co shall undertake detailed hydro technical inspections every 5 years to ensure the original hydrology/hydraulic analyses and design for Structures is not compromised during Term. This shall include ensuring that all foundations are protected from scour and adjacent facilities and river banks are properly protected from scour. These studies will be undertaken with consideration for the most current policies and/or engineering knowledge of the day for climate change adaptation/mitigation.

PO11.15.2c Project Co shall identify, design and construct all scour protection, erosion control, and waterway stabilization necessary to prevent damage to Structures, roadways or property affected.

12. EMERGENCY OPERATION AND MAINTENANCE

12.1 Emergency Response Planning

12.1.1 Objective

To provide effective Emergency Response

12.1.2 Performance Measures

Condition

There are no Condition Measures in this specification.

Response

PO12.1.2a Develop and implement an Emergency Response Plan as required by Table 4.2 [Schedule of Plans, Reports and Data (Response Time Measures)] of this Appendix that provides the basis for how Project Co responds to any and all emergencies, such as but not limited to the following:

- i) floods;
- ii) mud and earth slides;
- iii) extended winter storms;
- iv) toxic spills;
- v) structural damage;
- vi) forest fires; and
- vii) Traffic Crashes.

PO12.1.2b Ensure that staff contact information is continuously available to the Authority, local governments and emergency service providers that notification will take place that may be required to respond to any and all Emergencies.

PO12.1.2c Complete all necessary paperwork and provide all necessary documentation and records (inclusive of taking photographs at Emergency sites), as may be required by the Authority or other Relevant Authorities.

12.1.3 Specific Requirements

(a) As a minimum, the Emergency Response Plan must address the following:

- Understanding of the Authority's Emergency Response policies;

- Project Co's response role and responsibilities;
 - Emergency maintenance in accordance with this Appendix;
 - Responding to other territorial emergencies;
 - Process for ensuring that current and accurate staff contact information is available;
 - Response and recovery training program for staff; and
 - Documentation.
- (b) Train employees in procedures related to response/recovery and other types of emergency training as required by the Authority.
- (c) Cooperate with the Authority and other Relevant Authorities when responding to emergencies.

12.1.4 Notes

- (a) The Emergency Response Plan can be prepared as a stand-alone document or incorporated as part of the Operation and Maintenance Plan.
- (b) Recommended references include:
- Traffic Control Manual;
 - GNWT Emergency Response policies and programs;
- (c) Safety of users of the Tłı̄ch̄o ASR is paramount and Emergency Response must comply with this Schedule and the Territorial Incident Command practices and programs. Emergency Response will receive close public attention and scrutiny and is another critical aspect of management of this Agreement.

12.2 Roadway Spill Response

12.2.1 Objective

To protect users of the Tłı̄ch̄o ASR from conditions that are potentially hazardous; and to restore the movement of traffic in a prompt manner.

Tłı̄ch̄o ASR spill response includes Traffic Control and site management for Tłı̄ch̄o ASR incidents, communicating and reporting to all necessary parties, and re-establishment of normal travel conditions as soon as practicable.

12.2.2 Performance Measures

Condition

- PO12.2.2a Prepare for and respond to spills on the Tłı̄ch̄o ASR in accordance with the specific requirements below.

- PO12.2.2b Evacuate the area if an explosion is possible.
- PO12.2.2c Ensure the safety of users of the Tłıchq ASR in the event of a spill within rights-of-way involving Hazardous Substances in accordance with the requirements given in the specific requirements below.

Response

- PO12.2.2d Document Tłıchq ASR incidents attended by Project Co, i.e. take photographs, diary notes, record Tłıchq ASR conditions and locations relating to the incident; and deliver such documents to the Authority Representative when requested, within 3 days of the date of request.
- PO12.2.2e Promptly implement Traffic Control in accordance with Section 10.6 of this Appendix, in response to incidents on the Tłıchq ASR (e.g., Traffic Crashes, spills) and remain at the scene until normal traffic flow is restored.

12.2.3 Specific Requirements

- (a) Prepare for and respond to spills on the Tłıchq ASR by:
- securing the area as required to ensure the safety of users of the Tłıchq ASR;
 - communicating incidents involving Tłıchq ASR Closures to the Authority Representative in accordance with Section 5.1 of this Appendix;
 - containing spills on the Tłıchq ASR in conjunction with and cooperation with Relevant Authorities, RCMP and the Authority;
 - removing vehicles from the Travelled Lanes and shoulders, as necessary (where this service is not provided by others); and
 - removing and disposing of cargo and Debris from the Travelled Lanes and shoulders, to restore traffic flow.
- (b) Ensure the safety of users of the Tłıchq ASR in the event of a spill within rights-of-way involving Hazardous Substances in accordance with all Environmental Laws and in accordance with the Canutec Emergency Response Guidebook by:
- alerting the Authority Representative, RCMP and Territorial Emergency Program personnel, as required to identify the material and respond to the Emergency, and respond as appropriate and in accordance with all applicable Laws and regulations;
 - training field personnel and field supervisors in accordance with all applicable Laws and regulations for Hazardous Substance material identification and risk assessment; and
 - closing and keeping the Tłıchq ASR closed using, at minimum, Guide 111 of the Canutec Emergency Response Guidebook until the hazard and/or material is identified and appropriate actions have been determined and performed in accordance with all applicable guides, laws and regulations.

- (c) Repair damage to the Tłı̄chų ASR caused by spills in accordance with the appropriate specification set out in this Appendix and its Performance Measures.

12.2.4 Notes

Transport Canada's Response and Operations Division operates CANUTEC to provide a 24-hour Hazardous Substances reference, data bank and expert assistance service.

Establish and record information in accordance with the Transportation of Dangerous Goods Regulation (Canada), Part 8; 8.1- 8.3.

12.3 Incident Response

12.3.1 Objective

To ensure the safe and efficient movement of traffic by the timely detection and removal of incidents and other restrictions affecting traffic on the Tłı̄chų ASR.

12.3.2 Performance Measures

Condition

PO12.3.2a Monitor the Tłı̄chų ASR continuously to:

- i) Detect and verify incidents in accordance with the requirements of this Schedule, including Sections 13.1 and 13.2 of this Appendix;
- ii) Dispatch and communicate with Project Co vehicles attending the incident site;
- iii) Coordinate incident response with Emergency Response agencies, ENR and others as required;
- iv) Monitor response;
- v) Record and log incidents details in the incident management system; and
- vi) Enter incident-related information into the incidents management system.

PO12.3.2b Provide response and clearance of obstructions from the Tłı̄chų ASR by:

- i) Removing all Debris;
- ii) Cleaning up and eliminating any hazards caused by spilled fluids from damaged or disabled vehicles;
- iii) Assisting the RCMP and/or other Emergency Response agencies in Traffic Control or other requested assistance; and
- iv) Provide assistance to users of the Tłı̄chų ASR to address non- recurring or incident-related congestion, including but not limited to:
 - Towing or pushing vehicles stopped on the shoulder or roadway;

- Providing jump starts, gas, water and minor repairs/service, changing flat tires; and
- Providing transportation for stranded motorists or other users of the Tłı̨ch̨o ASR to the first available location in order to make their own arrangements for assistance when initial efforts by the responding vehicle operator to fix the problem or attempts to make cellular calls for assistance are unsuccessful.

PO12.3.2c Perform all services in accordance with the Traffic Control Manual for Work on roadways, and the *Motor Vehicles Act* (Northwest Territories).

Response

PO12.3.2d Provide notice of incidents to the Authority Representative within 2 hours and provide reports on incidents to the Authority Representative upon request within 48 hours.

PO12.3.2e Remove vehicles or other obstructions from the Travelled Lanes of Project Co except where a Traffic Crash requiring the presence of the RCMP authorities or where the nature of the obstruction is such that it is unreasonable or impractical to remove it, and/or where traffic conditions make it physically impossible to clear it.

PO12.3.2f Specific Requirements

- (a) Complete a daily log book for noting all traffic disruption incidents and their circumstances, and make that log book available to the Authority within 48 hours upon request.
- (b) Project Co must ensure that all vehicles used to attend an incident scene are:
 - In compliance with the *Motor Vehicles Act* (Northwest Territories) and Regulations there under regarding towing vehicles;
 - Equipped with fire fighting equipment, basic first aid equipment, safety flares, brooms, shovels, jumper cables, floor jack, tire wrench, basic toolkit, and other equipment as directed by the Authority.
 - flashing arrow board; Stop/Slow paddle; and 20 liters of liquid absorbing compound.
 - Maintained in a clean and tidy condition at all times and the passenger area is clean and available for transport of one passenger.
- (c) Project Co must ensure that all drivers/operators conduct themselves in a polite and courteous manner and are equipped with:
 - Reflectorized rain gear;

- Rubber and leather gloves;
 - Eye protection (safety glasses);
 - Regulation safety toed boots;
 - Regulation hard hats;
 - Clean, reflectorized Type 2 orange coveralls;
 - Name tags and logos on all apparel; and
 - First Aid certification.
- (d) Maintain the security of the Structures and prevent users of the Tłıçhǫ ASR from gaining access to areas other than the Travelled Lanes.

12.4 Flood Control and Washout Response

12.4.1 Objective

To safeguard users of the Tłıçhǫ ASR and adjacent properties; to be proactively prepared for floods and washouts; to prevent damage to the Tłıçhǫ ASRs and bridges; to restore traffic movement and to repair damage caused by flood and washout events.

12.4.2 Performance Measures

Condition

PO12.4.2a Take all actions required to control the flow of water on or adjacent to the Tłıçhǫ ASR and protect and repair the Tłıçhǫ ASR and bridges, including placement of rip-rap in accordance with Section 7.4 of this Appendix if required.

Response

PO12.4.2b Inspect immediately, any potential for damage caused by flooding or washout conditions, and implement Traffic Control as necessary.

PO12.4.2c When a flood or washout affects the Travelled Lanes, promptly establish at least one through lane for traffic when confirmed safe to do so by Emergency Provider personnel, and commence work to restore the Tłıçhǫ ASR.

PO12.4.2d Promptly inform the Authority Representative where floods or washouts result in or necessitate Tłıçhǫ ASR Closures and provide detours where necessary.

PO12.4.2e Within 2 days of the end of a storm or other event, identify any potential for further flooding and/or washout.

PO12.4.2f Perform flood control and washout response as detailed above and reinstate a roadway connection within 72 hours.

12.5 Structure Damage Response

12.5.1 Objective

To ensure the safety of users of the Tłıçhǫ ASR, to restore all affected Structures to their original condition, and to maximize their functional life.

12.5.2 Performance Measures

Condition

PO12.5.2a Notify the Authority Representative where the safety of users of the Tłıçhǫ ASR is potentially compromised and ensure that the Bridge Engineer completes an inspection.

PO12.5.2b Mobilize to reinforce all critical members with temporary bracing or cables if the Bridge Engineer determines that the Structure is sufficiently safe to work on.

Response

PO12.5.2c If the Bridge Engineer determines that there is a risk of structural failure under loading, promptly notify the Authority Representative and take the following actions until repairs have been completed in accordance with the recommendations of the Bridge Engineer.

- i) restrict allowable loading on the bridge;
- ii) close the bridge to all vehicular traffic; or
- iii) close the bridge to all use, and construct a detour route.

PO12.5.2d Start installation of temporary barriers or rail placements within 24 hours.

12.5.3 Specific Requirements

(a) Take photographs of the damage and complete and file a report detailing the damage to the Structure and the costs to repair the damage.

12.6 Temporary Emergency Bridge Installation

12.6.1 Objective

To replace any bridge that has collapsed or has the potential to collapse with a temporary Structure to allow for the continued performance of the Tłıçhǫ ASR.

12.6.2 Performance Measures

Condition

There are no Condition Measures for this specification.

Response

- PO12.6.2a Promptly report to the Authority Representative any collapse or loss of any bridge or Structure, or any damage to a bridge or Structure which may require the installation of a temporary emergency bridge.
- PO12.6.2b Promptly, upon approval by the Authority Representative, start installation of temporary emergency bridge in accordance with the Bridge Engineer's specifications and complete the work as soon as is reasonably possible. Project Co shall, at any given time, be capable of installing a temporary bridge, with a minimum length of 40 feet, within 24 hours to reinstate access.
- PO12.6.2c Schedule dismantling, and complete all dismantling and return emergency material owned by the Authority to the stockpile site within 1 month of receipt of such direction from the Authority Representative.

12.6.3 Specific Requirements

- (a) Haul, load and unload material at the Emergency sites and return material owned by the Authority to the stockpile site when the emergency replacement is required within the Project Site.
- (b) Identify any damaged Authority components during the dismantling procedure by marking such components with fluorescent paint at the damaged section and setting these components aside for repair or disposal.
- (c) Steel Deck where it is supplied by the Authority is to be installed in accordance with Section 11.2 of this Appendix.

12.7 Natural Event Response

12.7.1 Objective

To respond, provide Traffic Control, clean-up, and repair all damage resulting from natural events.

12.7.2 Specific Requirements

The following responsibility matrix in Table 12.7.2 provides a summary of Project Co's responsibilities:

Table 12.7.2: Summary of Responsibility		
Activity	Scope of Responsibility	Description of Responsibility
Incident Response – Cleanup & Repair of Asset Damage	Roadway	Project Co shall be responsible for removing Debris off the road (including shoulders and Roadside benches). Project Co shall be responsible for repairing damage caused by natural events as required in accordance with, and subject to, the terms of this Agreement.
Injury or Death	Roadway	Project Co is responsible for any litigation arising from negligence relating to the implementation of the unstable slope mitigation program and initial response to open the road following natural events.

Notes

- (a) Project Co shall not rely upon the Authority Representative in relation to carrying out their appointed duties.
- (b) The Authority will provide an audit function to ensure general compliance with the program objectives.

12.7.3 *Minor Debris Removal Record*

All instances where Debris is removed, off the road requires an activity record for the purpose of identifying areas of risk.

Project Co is required to record and file all incidents of road Debris removal resulting from natural events, and include these in the OMR Monthly Report. Details include:

- Ⓟ Date and time;
- Ⓟ Author of Report;
- Ⓟ Roadway;
- Ⓟ Location of the event in terms of a route position (Ministry linear referencing methods RFI & LKI) and UTM coordinates;
- Ⓟ Side of the road;
- Ⓟ Weather conditions over preceding 24 hours (rainfall and temperature); and
- Ⓟ Impact on road availability including the time period where the road was affected.

13. **INSPECTION**

13.1 **Roadway Inspection**

13.1.1 *Objective*

To develop a comprehensive knowledge of the Tłı̨ch̨ ASR; to identify deficiencies that require maintenance; and to identify conditions, not covered by the specifications set out in this Appendix, which could affect the Tłı̨ch̨ ASR.

13.1.2 *Performance Measures*

Condition

There are no Condition Measures for this specification.

Response

- PO13.1.2a A full and comprehensive inspection of the Tłı̨ch̨ ASR and components of the Tłı̨ch̨ ASR is to be conducted annually and the results documented.
- PO13.1.2b Additional inspections promptly in response to reports by the public, Relevant Authorities, the RCMP and the Authority of any condition that is potentially hazardous.

PO13.1.2c Promptly report to the Authority Representative any hazardous or deficient condition that is not covered by this Agreement or this Appendix.

13.2 Roadway Patrol

13.2.1 Objective

To identify conditions that are potentially hazardous; to identify conditions that could threaten the Infrastructure; to attend to existing or changing conditions, and provide support to travelers where possible.

13.2.2 Performance Measures

Condition

There are no Condition Measures for this specification.

Response

PO13.2.2a Daily patrols of the Tłı̄ch̄o ASR are to be completed.

PO13.2.2b Take immediate and appropriate action during patrols to protect users of the Tłı̄ch̄o ASR from hazardous situations. This may include limited roadside assistance.

PO13.2.2c Report to the Authority Representative promptly, upon detection or notification, any conditions which affect the Tłı̄ch̄o ASR in performing its designed function.

13.2.3 Specific Requirements

- (a) During periods of high water flow as determined by Project Co, give appropriate attention to areas known to be impacted first by high water flow.
- (b) When temperatures are fluctuating between freezing and thawing, increase patrols to a frequency that will allow Project Co to respond to changing conditions and give appropriate attention to areas known to be impacted first by Weather Events.
- (c) Ensure patrol vehicles are prepared to deal with conditions, by carrying Winter Abrasive or De-Icing Chemical for bridge decks.

14. SAFETY MANAGEMENT

14.1 Safety Management Requirements

14.1.1 Objective

To implement a strong road safety culture based on being both proactive in ensuring construction complies with current safe design standards, guidelines and policies and being reactive to existing known hazards by ensuring that higher risk sites are progressively treated.

14.1.2 Performance Measures

Condition

- PO14.1.2a To the extent possible, keep road conditions in a safe working condition to:
- (i) Perform operations and maintenance so as to mitigate the number and severity of Traffic Crashes (by applying proactive, best practice road safety engineering techniques);
 - (ii) Limit the number of known road safety hazards on the Tłıchq ASR route; and
 - (iii) Minimize serious and fatal crashes and mitigate all significant safety hazards along road sections that are reconstructed under this Agreement.
- PO14.1.2b Provide an appropriate Traffic Control at all maintenance sites, construction sites, planned events, and planned Closures.

Response

- PO14.1.2c Develop and implement a Project Safety Plan as required in Appendix 2F [Project Safety Plan].
- PO14.1.2d Remedy any hazard within 24 hours of becoming aware of the deficiency and complete permanent repair within 30 days.

14.1.3 Specific Requirements

- (a) Implement and maintain a crash database for recording and tracking Traffic Crash incidents which can be used to regularly analyze the crash data to identify safety hazards.
- (b) Stay abreast of and apply technology changes and revisions to safety standards.
- (c) Provide proactive Traffic Management at all work sites and incidents in accordance with Sections 12.2 and 10.6 of this Appendix.
- (d) The Safety Management and Intervention Plan will, as a minimum, address the following issues:
 - Understanding of compliance with respective laws, regulations and the Workers' Safety & Compensation Commission requirements;
 - Applying crash data in association with inspections, to identify safety hazards, determine trends and identify improvements to reduce safety risks;
 - A register of identified hazards; and
 - Working with other stakeholders.
- (e) Respective laws, regulations and the Workers' Safety & Compensation Commission (WSCC) requirements must be respected at all times.

14.1.4 Notes

The Safety Management and Intervention Plan provides the framework to improve the safety of the Tłıchq ASR corridor and to ensure health and safety systems are established and implemented. It can be prepared as a stand-alone document or incorporated as part of the Operation and

Maintenance Plan.

APPENDIX 4B

ASSET PRESERVATION SPECIFICATION

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APPENDIX 4B

ASSET PRESERVATION SPECIFICATION

DEFINITIONS

1.0 Definitions

In this Appendix, in addition to the terms defined in Schedule 1 [Definitions and Interpretation] to this Agreement:

“Asset Management” means, for the purpose of Schedule 4 [OMR and Handback], the provision of the desired level of the Operation, the Maintenance and the Rehabilitation in the most cost effective manner during the Term.

“Asset Management Plan” means the plan prepared by Project Co in accordance with Section 4.4 of this Appendix.

“Bridge Condition Index” means for the purposes of Schedule 4 [OMR and Handback], an Asset Preservation Performance Measure that is determined in accordance with the procedure defined in the Ontario Structure Inspection Manual (OSIM).

“Component Condition Rating” or “Condition Rating” means for the purposes of Schedule 4 [OMR and Handback], the Performance Measure ranging from Excellent, Good, Fair and Poor as defined in the Ontario Structure Inspection Manual (OSIM).

“Maximum Response Time” means for the purposes of Schedule 4 [OMR and Handback], the maximum permissible period of time within which Project Co must complete the remedial action from the earlier of the time of observation of the defect by the Project Co or any of its Project Contractors or Sub-Contractors and the time of notification of the defect by the Authority’s Representative or the public to Project Co or any of its Project Contractors or Sub-Contractors.

“Minimum Condition” means for the purposes of Schedule 4 [OMR and Handback], the least onerous permissible standard in respect of Asset Preservation Performance Measures that Project Co must comply with throughout the Term.

“Preventative Maintenance” means for the purposes of Schedule [OMR and Handback], the proactive care and servicing by Project Co for the purpose of maintaining assets in satisfactory operating condition by providing for systematic inspection, detection, and correction of incipient failures either before they occur or before they develop into major defects.

“Rain Storm Events” means for the purposes of Schedule 4 [OMR and Handback], when a heavy rain event in excess of 85 mm in a 24-hour period occurs, as reported by Environment Canada or recorded at a weather station along the length of the Tłıchq ASR.

“Rehabilitation Strategy” means for the purposes of Schedule 4 [OMR and Handback], the plan developed to ensure that the specified level of service is achieved that considers the management of risks associated with defects (including deterioration and damage), and with physical work remediation possibly including Maintenance, repair, Rehabilitation and replacement.

“Structure Component” means for the purposes of Schedule 4 [OMR and Handback], specific parts of an asset having independent physical or functional identity and having specific attributes

such as different life expectancy, maintenance regimes, risk or criticality.

“Surface Distress” means for the purposes of Schedule 4 [OMR and Handback) a measure of the overall, pavement surface deterioration.

1. INTRODUCTION

1.1 General

This Appendix defines the scope and level of service requirements for the Rehabilitation activities within this Agreement. The objectives of this Appendix are to:

- achieve defined service levels;
- limit asset consumption;
- achieve Design Life expectations; and
- provide sound Asset Management to maintain long-term structural integrity.

2. SCOPE

The scope of this Appendix includes the provision of all products and services associated with the planning, management and delivery of Rehabilitation activities.

The asset preservation process is described as follows:

- (a) GNWT specifies annual Performance Measures;
- (b) Project Co develops an Asset Management strategy that delivers the required annual Performance Measures within its Asset Management Plan;
- (c) Project Co implements the Asset Management strategy;
- (d) Project Co annually monitors asset condition and reports achievement; and
- (e) Project Co adjusts Asset Management strategy accordingly.

3. OUTCOME OBJECTIVES

3.1 General

Project Co is required to develop and implement an Asset Management Plan that limits the extent of asset consumption, of the individual assets, by maintaining structural integrity annually during the Term.

The following objectives provide an overview of the key outcome objectives required from Project Co's Asset Management Plan.

3.2 Roadway Surfaces

The following provide an overview of the key outcome objectives required from Project Co's Asset Management Plan.

Item	Outcome Objectives
a. Roadway Surface	<ul style="list-style-type: none"> • Ensure Roadway Surface is safe (free of hazards) and available. • Ensure minimum surface gravel thickness of 100mm at all times. • Ensure access at all times for all legal and permitted vehicles. • Minimize traffic delays. • Provide two-way access at all times. • Provide acceptable riding comfort for users of the Tłı̄chų ASR.
b. Shoulders	Ensure shoulders are safe and available.
c. Pullouts	Ensure pullouts are safe and available.

3.3 Structures

3.3.1 Bridges and Major Retaining Walls

Item	Outcome Objectives
Bridges (including Decks)	
a. Structure Condition and Function	<ul style="list-style-type: none"> • Ensure that design levels are maintained so that the passage of legal heavy commercial vehicles is not restricted. • Ensure all bridge Structures remain safe and functional at all times for the travelling public.
b. Barriers	Ensure that Barriers have adequate strength and is appropriately positioned to provide safe access over the Bridge throughout the Term.
c. Structure Risk	Manage the probability and consequence of failure throughout the Term.
d. Physical Environment	Maintain or enhance the waterway and fisheries features at each bridge site throughout the Term.
e. Management	<ul style="list-style-type: none"> • Ensure inspection, condition survey and updating of the internal Bridge Management System (BMS) occurs and is complete and accurate. • Ensure programming of physical works is complete and based upon long term focus.

3.3.2 Major Culverts (larger than 1.5m diameter)

Table 3.3.2: Major Culverts	
Item	Outcome Objectives
Major Culverts	
a. Structure Condition and Function	<ul style="list-style-type: none"> • Ensure there are no load limitations, either in terms of weight or speed, which compromise the passage of legal heavy commercial vehicles. • Ensure all Major Culverts remain safe and functional at all times.
b. Structure Risk	Manage the probability and consequence of failure throughout the Term.
c. Physical Environment	Maintain or enhance the waterway/fisheries features and requirements as existing or set in current permits at each major culvert site throughout the Term.
d. Management	<ul style="list-style-type: none"> • Ensure inspection, condition survey and updating of the internal Bridge Management System (BMS) is complete and accurate. • Ensure programming of physical works is complete and based upon long term focus. • Ensure best practices and continual improvement are applied.

3.3.3 Drainage Control Structures

This subset includes culverts less than 1.5 metres diameter, horizontal drains, fish passage features and subsoil systems (pipes or filter layers) to control groundwater.

Table 3.3.3: Drainage Control Structures	
Item	Outcome Objectives
a. On Tłıçhǫ ASR	To minimize the encroachment of surface water (flowing or ponding) on the Roadway Surface ensuring road user safety is not compromised. The level of service existing at the Effective Date is to be maintained or enhanced throughout the Term of this Agreement.
b. Under Tłıçhǫ ASR	To convey surface and ground water under the Tłıçhǫ ASR without putting the Tłıçhǫ ASR and users of the Tłıçhǫ ASR at risk and to meet environmental requirements. The assets in this subset may need to include additional capacity for ice, snow and debris loadings and this is Project Co's responsibility. The level of service existing at the Effective Date is to be maintained or enhanced throughout the Term of this Agreement.
c. Management	<ul style="list-style-type: none"> • Ensure Drainage Structures condition survey inspection and updating of Project Co's internal management information system is complete and accurate. • Ensure programming of physical works is complete and based upon long term focus. • Ensure best practices and continual improvements are applied.

3.4 Key Performance Measures

Key Performance Measures provide the ability to monitor higher level trends in asset condition over time. Project Co is required to report actual annual KPM achievement as part of the annual APPM

Achievement Report in Section 4.5 of this Appendix, and forecast the results over time of KPMs detailed in Table 3.4 below as part of the Asset Management Plan.

Table 3.4 identifies the minimum required KPMs for Asset Preservation (selected KPMs for Operations and Maintenance are included in Table 3.2 in Appendix 4A [Operation and Maintenance Specification]).

Asset Type	Key Performance Measures (KPMs)	Measure Reference (APPM)
a. Roadway Surface	1. Potholing	PARS1
	2. Rutting - Cumulative Distribution	PARS2
	3. Washboarding	PARS3
	4. Dips and Heave (vertical alignment)	PARS4
b. Structures	4. Component Condition (Limit Asset Consumption)	PAS1
	5. Component Condition (Reactive)	PAS2
	6. Structure (Limit Asset Consumption)	PAS3

4. DOCUMENTATION REQUIREMENTS

4.1 General Requirements

This Article 4 describes the plans and reports that are required by the Authority.

The general purpose of the plans is for Project Co to provide documentation that demonstrates to the Authority an understanding of the Asset Management requirements and to present an Asset Management strategy that is based upon rationalized knowledge of asset condition and performance.

The general purpose of the reports is for Project Co to regularly provide information to the Authority for their corporate Asset Management information systems.

4.2 Plans and Reports Summary

Table 4.2 provides a summarized schedule of the plans and reports required from Project Co:

Deliverable Name	Due Date
Initial Asset Management Plan (including initial 5 year Rehabilitation schedule)	30 days prior to Substantial Completion Date
Asset Management Plan Update (including updated 5 year Rehabilitation schedule)	January 30 th annually
Annual APPM Achievement Report	November 30 th annually

4.3 File Formats

Unless specified otherwise, electronic files shall be compatible with the most recent version of either Microsoft Office or Adobe Acrobat Reader. All supplied electronic files shall be prepared in a format agreed to by the Authority. Storage media shall be scanned for viruses (using an industry recognized product with appropriate updates) prior to supply to the Authority Representative.

4.4 Asset Management Plan

4.4.1 Purpose

Project Co shall, at the due dates specified in Table 4.2 of this Appendix, provide to the Authority Representative a written plan (the “**Asset Management Plan**”) which describes the procedures for achieving the specified Performance Measures delivered for the entire Tłıçhǫ ASR during the Term.

4.4.2 Details

The Asset Management Plan and all updates must, as a minimum:

- (a) include a description of and the manner in which the overall performance management reporting will be achieved;
- (b) be aligned with scope of the OMR obligations within this Agreement;
- (c) relate to other obligations and plans related to the OMR activities such as environmental, traffic and quality management;
- (d) identify the intervention criteria for each APPM as well as the requirements set out in Appendix 4C [Handback Specification];
- (e) describe the approach for asset condition inspection;
- (f) describe the approach for assessing the manner in which the APPMs will be achieved;
- (g) identify the deterioration rate and factors affecting the APPMs;
- (h) describe the process for Rehabilitation work identification, programming and prioritization in terms of developing the Asset Management Plan and the 5 year Rehabilitation schedule addressing any APPM non-compliance;
- (i) identify and describe the Asset Management approach in respect to integrating and aligning routine Maintenance activities and Rehabilitation work;
- (j) identify any areas of risk and describe mitigation measures;
- (k) describe the approach for completing the annual work schedule including the resources employed, plant, materials and facilities associated therewith and in delivering any other physical works including labour, plant, materials and facilities;
- (l) describe any processes and innovations to improve performance including optimization of the performance reporting process;
- (m) provide an indication of the expected condition performance of the asset over the remainder of the Term and how Project Co is ensuring full contractual compliance will

be achieved, including providing details of the method used to establish the predicted condition (it is anticipated that some form of asset performance modelling will be required) and in graphical format, the current, worst case, hand back and target condition of the asset group; and

(n) include a 5 year Rehabilitation schedule consisting of a rolling, forward works program that describes the planned Preventative Maintenance and Rehabilitation works (excluding minor routine Maintenance) that Project Co is planning to undertake over following 5 year period, and providing specific details regarding planned Rehabilitation works including but not limited to:

- both the year and quarter for planned Rehabilitation works within the first 2 years, and only the year thereafter;
- advanced technical evaluations completed;
- field investigations completed;
- updated Rehabilitation treatment; and
- design documentation;

It is recognized that, in respect of the 5 year Rehabilitation schedule:

- under a performance based contract, Project Co has the right to alter the schedule, so long as performance is achieved;
- Project Co is required to model and schedule work for a period longer than the 5 year period, but is required to only publish the schedule in respect of the first 5 years;
- the timing of projects in the future is less certain than those in the current year; and
- significant variations from the 5 year Rehabilitation schedule and between successive schedules will be seen as indicative of the lack of Project Co's Asset Management expertise.

The 5 year Rehabilitation schedule shall be of the following format:

(a) for linear assets (such as the roadway and shoulders):

- the plan should be produced to clearly identify the start and end locations and cross-sectional position of all works. Where work is to be undertaken on only part of the cross section (i.e. shoulders, or 1 lane) the plan should be formatted to clearly indicated this;
- indicate the timing and nature of the works to be undertaken; and
- have some indication (code or otherwise) of the level of certainty on the works occurring.

(b) for point assets (such as bridges):

- assets should be grouped firstly on asset type, then by location along

the Tłıchq ASR;

- indicate the timing and nature of the works to be undertaken; and
- have some indication (code or otherwise) of the level of certainty on the works occurring.

4.5 Annual Asset Preservation Performance Measures (APPM) Achievement Report

4.5.1 Purpose

The Annual APPM Achievement Report documents the routine Maintenance, Preventative Maintenance and Rehabilitation work completed in the previous year, reports the results from asset condition surveys and provides a summary of achievement compared to the APPM requirements,

4.5.2 Details

The Annual APPM Achievement Report must include the following as a minimum:

- (a) an annual summary of the preceding year's completed Maintenance (preventative and routine) and Rehabilitation works performed.
- (b) analysis and presentation of the results from the annual data collection program for the Asset Preservation Performance Measures for all assets as generally defined in this Appendix.

4.6 Roadway Surfaces and Structures Condition Data

Project Co is responsible for collecting Roadway Surface and Structure condition data for the purposes of its own Asset Management and for measuring performance achievement.

5. ASSET PRESERVATION PERFORMANCE MEASURES

5.1 General Requirements

Asset Preservation Performance Measures (APPMs) reflect the overall condition of the assets of the maintained corridor. Project Co must comply with these measures at all times throughout the Term.

Table 5.1 provides the major categories and sub-categories for the APPMs.

Number	Measure	Reference
1	Roadway Surfaces	Table 5.2.6
2	Structures including: ⌚ Bridges and Retaining Walls ⌚ Major Culverts ⌚ Drainage Structures	Table 5.3.1
3	Minor Assets including: ⌚ Drainage Structures ⌚ Roadside Barriers	Section 5.4

The APPMs are based on current levels of service set out under the Project Agreement, as determined from road asset condition assessments, performance monitoring, delivery methodologies, and management functions within infrastructure management systems.

APPMs have been developed for each asset category based on the specific requirements associated with each asset type. A standardized format for the measures has been adopted for consistency and presentation purposes. Elements of the measures include:

- (a) feature;
- (b) Asset Preservation Performance Measure;
- (c) Minimum Condition;
- (d) Maximum Response Time; and
- (e) the basis of measure, consisting of the basis of the asset data collection and any associated response parameters required to be met.

5.2 Roadway Surfaces

5.2.1 Road

Consistent with a three level approach, standards and Performance Measures are set to ensure the application of sound asset preservation practices. Given that Roadway Surfaces have a relatively short-term life cycle, measures are targeted to ensure:

- (a) access and functionality; and
- (b) structurally sound and safe asset condition.

The APPMs specified herein, provide the outcome emphasis required and focus on three key measures:

- (a) pot-holes, rutting, ponding and washboarding, permafrost degradation, dips/heaves;
- (b) loss of aggregates; and
- (c) lack of uniform shoulder edge and excessive loose material.

These measures effectively represent investigation levels for monitoring, maintaining, and reporting

asset performance. Asset condition data obtained from annual condition inspections provides the basis for the performance criteria.

The APPMs are applied to the full shoulder width and pullouts.

The Roadway Surface Asset Management cycle includes:

- (a) inspection at the specified interval;
- (b) rating the condition of the surfaces;
- (c) programming treatments;
- (d) undertaking physical remedial works;
- (e) inventory updating; and
- (f) reporting achievements.

These phases are fundamental to maintaining the asset and are consistent with the GNWT-wide approach that is required.

Project Co's delivery of services must be based upon:

- (a) emphasis on the availability of safe driving conditions across a range of relevant Condition Measures;
- (b) outcome based specifications with Project Co given the latitude for treatment selection to control/correct defective condition;
- (c) a life cycle approach to Maintenance and Rehabilitation is encouraged and in conformance with the Performance Measures as set;
- (d) emphasis on program delivery of confirming condition within the prescribed standards and Performance Measures set on an ongoing basis;
- (e) a mechanism for the Authority to correct default if Project Co fails to meet the condition criteria on an ongoing basis; and
- (f) that there is a quality management process underpinning the delivery of services.

5.2.2 *Asset Condition Data Collection*

Project Co is responsible for collecting annual Roadway Surface condition data for the purposes of Asset Management and measuring performance achievement.

As soon as possible following Substantial Completion, Project Co shall conduct a baseline survey of cross fall for the Tłıçhǫ ASR. The measurements are to be made across both travel lanes (median shoulder and outside shoulder not included) and reported at 50 metre intervals.

Project Co shall conduct, and provide to the Authority, a LiDAR survey of the entire Tłıçhǫ ASR once every 3 years. The survey shall be sufficient to determine centerline and shoulder breakpoint elevations to an accuracy of +/- 30 mm.

5.2.3 *Performance Measures*

The roadway cross fall shall be maintained to be within plus 1.5 percent or minus 0.5 percent of the baseline cross fall, provided that in no case shall a cross slope of less than 0.5 percent be allowed, except in super elevation transitions.

In addition, Project Co is required to comply with the measure criteria, including Minimum Condition and Maximum Response Times set out in Table 5.2.6 in accordance with this Section 5.2.3.

The APPMs presented are in addition to the operational condition requirements as set in Article 6 (Surface Maintenance) in Appendix 4A [Operation and Maintenance Specification].

Project Co must demonstrate through its Quality Management System the process to achieve the specified outcome.

The asset preservation measures for the roadway are based on maintaining the condition of the Roadway Surface consistent with other similar roadways.

5.2.4 *Specific Requirements*

No specific requirements identified at this time.

5.2.5 *Notes*

- Rut and pot-hole depths are all in mm.
- Concrete bridge deck wearing surfaces are excluded from the assessment of APPM compliance.

5.2.6 *References and Clarification*

Article 6 (Surface Maintenance) in Appendix 4A [Operation and Maintenance Specification], as relevant to Roadway Surfaces, applies in full.

Performance Measure	Intervention Criteria	Action	Maximum Response Time	Basis of Measure
PARS1	Where Pot-holing averages more than 1 per 20 metres of Roadway	Undertake Rehabilitation works to address non-compliance.	2 weeks	Count of pot-holes per lineal metre of Roadway length.
PARS2	Where Rutting deterioration exceeds 20 mm in depth across rut width, for any 50-metre length of individual wheel path in traffic lanes.	Undertake Rehabilitation works to address non-compliance.	2 months	Transverse profile measurements, expressed as calculated rut depth in millimetres for each wheel path.
PARS3	Where Washboarding averages more than 50mm in depth when measured over a 10-metre length and the full Roadway width.	Undertake Rehabilitation works to address non-compliance.	1 month	Longitudinal profile measurements across the wavelength of the washboarding ridges and transversely across the Roadway width.
PARS4	Where dips and heaves in the vertical alignment, exceed 75 mm when checked with a 4.0m long straight edge placed in any direction.	Undertake Rehabilitation works to address non-compliance	1 month	Dip measurements from a 4.0m long straight edge placed in any direction on the Roadway Surface.

5.3 Structures (including Drainage Structures)

5.3.1 General

The APPMs for Structures are targeted to ensure:

- (a) public and Structure safety;
- (b) Structure functionality is at an acceptable level; and
- (c) Structure asset consumption is limited.

Using these factors as the basis, standards and Performance Measures are set to ensure sound Asset Management practices are applied for:

- (a) bridges;
- (b) retaining walls; and
- (c) major culverts;

Given that the Structures have a relatively long-term life cycle (greater than the Term of this Agreement), it is recognized that some asset consumption may occur. It is also recognized that some components of the bridge Structures have a relatively short-term life cycle and asset preservation practices will need to be applied not only to meet serviceability but also to encourage good custodianship and limit asset consumption.

Asset condition data obtained from Structure condition inspections provide the input to the APPMs. The measures have been categorized into the following intervention types:

- (a) limit asset consumption;
- (b) serviceability; and
- (c) reactive response.

These interventional types represent asset consumption progression and reflect the stages for monitoring, managing and reporting asset performance for Structures to ensure that proactive Asset Management is undertaken.

Table 5.3.1 shows how the APPMs for Structures are applied to the levels of Asset Management.

Table 5.3.1: Structures APPM Hierarchy			
Structure Sub-Category	Structure Feature	Performance Measure	Intervention Type
<ul style="list-style-type: none"> • Bridges • Retaining Walls • Major Culverts 	Components	Component Condition Rating	<ul style="list-style-type: none"> ⌚ Limit Asset Consumption ⌚ Reactive
	Structure	Bridge Condition Index	<ul style="list-style-type: none"> ⌚ Limit Asset Consumption

- a) **Component** – measures reflect the component condition within the Structure (i.e. all deck joints or Bearings for a Structure). The Component Condition Rating (or Condition Rating) is determined, for each component type, in accordance with the Ontario Structure Inspection Manual (OSIM).
- b) **Structure** – measures the Structure condition as a whole (i.e. a bridge or a major culvert), including all associated components. The Bridge Condition Index is calculated, for each Structure, in accordance with the OSIM.

The Structures Asset Management cycle is fundamental to maintaining structural integrity and consistency with the Authority wide approach that is required. Elements of the cycle include:

- (a) inspection at the specified interval;
- (b) rating the condition of the Structure Components;
- (c) inventory updating;
- (d) programming correction of deficiency;
- (e) undertaking Maintenance and Rehabilitation works; and

- (f) reporting achievements.

The delivery of services is based upon:

- (a) emphasis on public and Structure safety for the Term;
- (b) outcome based specification with Project Co given the latitude for treatment selection to control/correct defective condition;
- (c) a life cycle approach to Maintenance and Rehabilitation in conformance with the Performance Measures set is encouraged;
- (d) a preventative rather than reactive Maintenance/repair strategy is encouraged to limit asset consumption with inspections recommended to facilitate this strategy;
- (e) emphasis on program delivery of confirming condition within the prescribed standards and Performance Measures set on an ongoing basis;
- (f) there being a Bridge Engineer nominated to take ownership for the bridge structure assets and the bridge structure management cycle;
- (g) a mechanism for the Authority to correct default if Project Co fails to meet the condition criteria on an ongoing basis; and
- (h) an effective Quality Management System.

Project Co has full responsibility for all the Rehabilitation activities, including Structure replacement should that be required.

Operational standards are detailed in Appendix 4A [Operation and Maintenance Specification] in terms of performance criteria expressed as either intervention levels or response times.

5.3.2 *Structural Inspections*

Structures inspection management involves field inspections which identify and monitor Structure condition. Any observed defects are addressed in relevant Rehabilitation Strategies and subsequently programmed for Rehabilitation (including Preventative Maintenance and replacement). Project Co shall respond to and rectify any urgent items identified during inspections.

The program of Structure inspections must be managed by a suitably qualified Bridge Engineer, who:

- (a) has experience in supervising Structure construction, design, inspection, maintenance and rehabilitation;
- (b) maintains overall management and technical supervision of the Structure inspection and Maintenance / Rehabilitation program;
- (c) accepts responsibility for the technical competence of all personnel;
- (d) accepts responsibility for the structural safety of all Structures; and
- (e) consults with specialist staff when necessary.

While the inspector is tasked with identifying defects, it is the Bridge Engineer who is required to interpret the observations and implement appropriate Structure Rehabilitation Strategies to meet the contract performance requirements.

The APPMs are generally structured to include a two-tier condition intervention criterion for each type of Structure and/or associated Structure Components. The scope of Rehabilitation depends on the extent of non-compliance:

- (a) Tier 1 - Marginally substandard condition requiring a planned Rehabilitation Strategy to be established typically within 12 months; and
- (b) Tier 2 - Substandard condition requiring Rehabilitation works (including Preventative Maintenance and replacement) typically within 12 months.

In order to limit the risks to the Structure and users of the Tłıchq ASR, the acceptance of a higher intervention criteria (i.e. higher state of deterioration) will only occur if the Bridge Engineer undertakes further investigations (such as non-destructive testing and evaluation) to clearly understand the Structure condition. The extent of investigations and analyses is to increase in sophistication and completeness as higher intervention levels are decided. The Bridge Engineer shall plan for this work accordingly.

Specialist staff are to be engaged by Project Co where the defect or deterioration, requires competence outside of the core Structures management team.

There are three types of Structure inspections as indicated in Table 5.3.2.

Type	Description	Maximum Inspection Frequencies
Superficial (maintenance)	Focus on road user safety and Structure functionality, refer to Appendix 4A [Operation and Maintenance Specifications]	Refer to the response times in Article 13 (Inspection) of Appendix 4A [Operation and Maintenance Specifications]
Routine	Focus on a general assessment of condition and developing an annual Rehabilitation program replacement	Once every calendar year
Detailed	Focus on producing a comprehensive assessment of condition and if necessary undertaking physical testing in order to develop an appropriate Rehabilitation program (including Preventative Maintenance and replacement)	Once every 2 years

Structures exhibiting significant displacement, deterioration, defects or damage are required to be inspected and assessed more frequently with the intervals determined by the Bridge Engineer to meet the performance requirements of this Agreement.

Project Co is required to retain files of Structure inspection records and Rehabilitation plans so that a continuous history of each Structure is available throughout the Term.

The Bridge Engineer shall assess the Structure functionality/safety, Structure risk and road user risks to determine an appropriate Rehabilitation Strategy.

5.3.3 *Significant Natural Events Criteria for Additional Structure Inspections*

Scope

In accordance with Section 5.3.2 of this Appendix, Project Co shall also undertake Structure inspections following significant natural events that affect the Structure sub-categories as detailed therein. Significant natural events shall include but not be limited to the following:

- High water flow events, including Rain Storm Events; and
- Iceflows.

5.3.4 *Performance Measures*

Project Co is required to comply with the measures, Minimum Condition, and Maximum Response Times as set in Table 5.3.3.

The APPMs presented are in addition to the operational condition requirements as set in Article 11 (Bridge and Structure Maintenance) of Appendix 4A [Operation and Maintenance Specification].

Project Co must demonstrate through its quality management system, the process to achieve the specified outcomes.

The Minimum Condition criteria apply throughout the Term.

The intervention criteria adopted also reinforce the 'whole of life' approach, encourage proactive Preventative Maintenance and Rehabilitation strategies and require Project Co to monitor the management of the Structures assets.

The actions specified in Table 5.3.3 are to either:

- (a) undertake Rehabilitation works to achieve the performance measure criteria specified; or
- (b) develop a Rehabilitation Strategy reported in the annual Asset Management Plan.

5.3.5 References and Clarification

Appendix 4A [Operation and Maintenance Specification] as relevant to bridges, retaining walls, major culverts, and major Sign Structures applies in full.

Table 5.3.3: Structures				
Asset Preservation Performance Measure		Intervention Criteria (as defined in OSIM)	Action	Maximum Response Time
Component				
Condition (Limit Asset Consumption)	PAS1	For any Structure Component with any portion of it having a Condition Rating of "Fair"	Undertake Rehabilitation works (if required) so the Structure Component has a Condition Rating of at least "Fair" by the time of the next scheduled condition inspection.	12 months
Condition (Reactive)	PAS2	For any Structure Component with any portion of it having a Condition Rating of "Poor"	Undertake Rehabilitation works so the Structure Component has a Condition Rating of "Good".	3 months
Structure				
Condition (Limited Asset Consumption)	PAS3	For any Structure having a Bridge Condition Index of 70 or lower	Undertaken Rehabilitation works by the time of the next scheduled condition inspection so the Bridge Condition Index is greater than 70.	12 months

5.4 Minor Assets

5.4.1 General

To keep minor assets safe, clean, tidy and functional and to develop a Rehabilitation Strategy (including Preventative Maintenance and replacement) by focusing on general assessment of condition.

Minor assets are related supporting Infrastructure which are not Structures and include, without limitation, minor signs, reflectors, roadside barriers, guardrails, ditches, minor culverts, landscape areas, and slope protection.

5.4.2 Performance Measures

Project Co shall conduct a 5 year visual rating condition assessment of minor assets to obtain the current inventory and condition based on the rating methodology described in Table 5.4.2:

Table 5.4.2: Minor Asset Condition Rating

Level	Label	Description	Maintenance or Repair	Maximum Response Time
1	Excellent	New or as good as new	None	None
2	Good	Normal wear and tear, no requirement for repair or maintenance	Ongoing monitoring	12 months
3	Fair	Minor Defects present, no repairs required	Maintenance and rehabilitation	12 months
4	Poor	Advanced defect(s) - Requires maintenance / repair	Maintenance and/or rehabilitation	3 months, with plan of action due within 2 weeks
5	Very Poor	Advanced defect(s) - Requires immediate maintenance / repair	Maintenance and rehabilitation /or	Immediate

Repairs and Rehabilitation are to be completed within the maximum response times indicated in Table 5.4.2.

APPENDIX 4C
HANDBACK SPECIFICATION
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APPENDIX 4C

HANDBACK SPECIFICATION

DEFINITIONS

1.0 Definitions

In this Appendix, in addition to the terms defined in Schedule 1 [Definitions and Interpretation] to this Agreement:

“Expected Life Service” has the meaning given in Section 2.1 of this Appendix.

“Final Tłıchq̓ ASR Condition Report” has the meaning given in Section 8.6 of this Appendix.

“Gravel Condition Index” or **“GCI”** is the combined impact of various contributing factors which provide an overall condition of a section of roadway.

“Handback Rehabilitation Costs” has the meaning given in Section 8.4 of this Appendix.

“Handback Requirements” has the meaning given in Section 8.2 of this Appendix.

“Handback Works” has the meaning given in Section 8.3(a)(iii) of this Appendix.

“Handback Works Costs” has the meaning given in Section 8.3(a)(iv) of this Appendix.

“Independent Inspector” has the meaning given in Section 8.1 of this Appendix.

“Life Adjustment” has the meaning given in Section 2.1 of this Appendix.

“Pre-Existing Environmental Site Conditions” means the environmental condition of the Lands as set out in the Environmental reports.

“Remaining Life Distribution” has the meaning given in Section 2.1 of this Appendix.

“Remaining Service Life” or **“RSL”** has the meaning given in Section 2.1 of this Appendix.

“Revised Tłıchq̓ ASR Condition Report” has the meaning given in Section 8.3(b) of this Appendix.

“Tłıchq̓ ASR Condition Report” has the meaning given in Section 8.3(a) of this Appendix.

1 INTRODUCTION

1.1 General

This Appendix defines the scope and level of the requirements for assets to be returned to the Authority's control at the Expiry Date. The objectives of these requirements are to:

- Define minimum required condition levels at the Expiry Date;
- Ensure a suitable distribution of remaining life expectancy to spread future rehabilitation;
- Achieve remaining Design Life expectations; and
- Ensure there are no outstanding safety issues at the Expiry Date.

1.2 Objective

The intention of the Authority is that, at the Expiry Date, the condition of the Infrastructure must meet a minimum standard being defined as the average condition (half way through the asset lifecycle) across the asset base. Furthermore, there needs to be a balanced distribution of structural condition states to create a manageable and fundable future annual rehabilitation program. The requirements set out in this Appendix are intended to protect the Authority from excessive asset consumption during the Term. The following requirements apply:

- (a) Condition – The criteria for assessing condition is based on comparing Remaining Service Life (as described in Article 2 (Determination of Remaining Service Life and Distribution) of this Appendix) with age as at the Expiry Date. A better than average condition is achieved when the average Remaining Service Life exceeds the average age. This criterion ensures that the asset is not being consumed.
- (b) Remaining Life Distribution – The Remaining Life Distribution (as described in Article 2 (Determination of Remaining Service Life and Distribution) of this Appendix) is intended to ensure a relatively consistent forward workload beyond the Expiry Date.

1.3 Key Performance Measures and other Performance Measures

Notwithstanding the requirements set out in this Appendix, Project Co must also comply with the requirements of the Key Performance Measures, Asset Preservation Performance Measures (APPMs) and the Operational Performance Measures (OPMs). The requirements set out in this Appendix are intended to represent the asset condition resulting from the application of appropriate rehabilitation programs and not to significantly influence Project Co's program for the Rehabilitation.

The requirements set out in this Appendix apply at the Expiry Date in addition to all other requirements of this Agreement, including but not limited to the Key Performance Measures, Asset Preservation Performance Measures and Operational Performance Measures.

2 DETERMINATION OF REMAINING SERVICE LIFE AND DISTRIBUTION

2.1 Remaining Service Life

The “**Remaining Service Life**” (“RSL”) shall be determined in accordance with the following formula:

$$\text{RSL} = (\text{Expected Service Life} \times \text{Life Adjustment}) - \text{Age}$$

Where:

- (a) Expected Service Life = the expected Service Life of the asset component in years taking into account the historic performance of similar construction.
The Expected Service Life will be a function of treatment type, design, materials, and construction workmanship. Table 2.2 below defines typical expected lives.
- (b) Life Adjustment = the adjustment to the Expected Service Life to account for current asset Condition (as defined in (i) below), past Utilization (as defined in (ii) below) and historic performance of the asset component.
 - (i) Condition = typically based on assessment of visual condition. Section 2.3 below provides a calculation for Gravel Condition Index.
 - (ii) Utilization = where the actual traffic loading is less than that assumed in the Design, the asset is theoretically underutilized thereby extending Remaining Service Life (i.e. condition adjustment > 1).
- (c) Age = the age of the asset component, in years, between the date of establishment and the current date.

The “**Remaining Life Distribution**” for the purposes of this Appendix shall consist of a plot showing the distribution of the Remaining Service Life of assets.

2.2 Expected Service Life

Typical expected service lives for a number of typically used treatment types for the Tłıçhǫ ASR are as defined in Table 2.2. These are to be taken into consideration when assessing the Expected Service Life of actual and historical rehabilitated treatment lengths, and any variances are to be justified with historical performance data.

Treatment Type	Typical Expected Service Life (years)
Reconstructed Surface	7
Calcium Chloride Treatment	2

2.3 Gravel Condition Index

The Gravel Condition Index, to be used in Life Adjustment estimation, is to be calculated as follows:

$$CGI = \frac{\sum_{i=1}^n ((w_i)(c_i))}{10 \sum_{i=1}^n w_i}$$

Where: w_i is the relative weighting factor representing the relative weight of each distress to a combined total value of 9. Those distresses that are considered more serious are given larger weighting values.

$n = 9$, the total number of distress types, as listed below.

Cross Section: The adequacy of cross-section elements such as lane and shoulder width, cross-fall/crown, side slopes and fill slopes.

Loose Aggregate: The presence of loose surfacing material within the travel lanes or along the road shoulders. This indicates a loss of gravel and exposure of the subbase or subgrade materials.

Roadside Drainage: Performance of roadside drainage elements such as roadside ditches, culverts, ditch blocks, and interceptor ditches.

Gravel Supply: The availability of quality aggregate to be used for gravel surfacing, taking into consideration stockpile volumes, quality, and haul distance.

Corrugations: Uneven aggregate depths leading to a washboard surface.

Subgrade Condition: Bearing capacity of the subgrade underlying the base and subbase materials, leading to soft spots, rutting and overall subgrade failures.

Dust: The amount of dust the road produces.

Potholes: Failures in the gravel surface leading to groups of irregular shaped holes.

Maintenance Effort: The effort required to maintain the road to an acceptable level of service.

The condition (c) of each distress type is determined on a scale from 1 -10, where 1 is extremely poor and 10 is perfect condition.

The Gravel Condition Index may be applied to any segment length of the road above 200 meters.

Sample Calculation for GCI:

Distress	Weighting Factor (w)	Condition (c)	Extended (w) x (c)
Cross-Section	1	7	7
Loose Aggregate	1.2	8	9.6
Roadside Drainage	1.2	7	8.4
Gravel Supply	0.8	10	8
Corrugations	1.1	7	7.7
Subgrade Condition	1.2	8	9.6
Dust	0.5	6	3
Potholes	1.2	7	8.4
Maintenance Effort	0.8	9	7.2
Sub-totals	9.0		68.9

GCI is thus estimated as $68.9/(9*10) = 0.766$.

3 ROADWAY SURFACES

3.1 Remaining Life Distribution

Calculated on a lane-km basis, the Remaining Life Distribution of the Tıçhç ASR running surfaces at the Expiry Date must exist on or above the limits defined in Table 3.

Repairs (areas less than 400 m²) within the running surface shall be deemed to have a surface age the same as the adjacent surface. Where this is not clearly discernable, then the oldest surface age at the location shall be used in the calculations.

The assessment of Remaining Service Life shall be carried out using the method of calculation specified in Article 2 (Determination of Remaining Service Life and Distribution) of this Appendix or as mutually agreed between Project Co and the Authority Representative at the Expiry Date.

Remaining Service Life (years)	Percentage of Length (Minimum)
> 1	100
> 2	86
> 3	65
> 4	51
> 5	31
> 6	15

In addition to this Remaining Service Life condition requirement, Project Co must comply with the roadway surface table for surface distress as specified in Table 5.2.6 [Roadway Surfaces – Pot-holing, Rutting and Washboarding] of Appendix 4B [Asset Preservation Specification].

Acceptable Condition (Minimum Requirement): The percentage of length from Table 3 above represents the minimum requirement pursuant to this Agreement as determined by the assessment of Remaining Service Life.

4 STRUCTURES

4.1 Concrete Wearing Surfaces

The Remaining Service Life for concrete bridge deck Wearing Surfaces at the Expiry Date must be a minimum of 25 years.

4.2 Structures – Component Condition

The following requirements for the component Condition of Structures apply to all bridges, retaining walls and major culverts at the Expiry Date.

All Structure components, and parts thereof, shall have a Component Condition Rating of better than “Fair” in accordance with the requirements (PAS1 – PAS3) set out in Appendix 4B [Asset Preservation Specification].

4.3 Structures – Bridge Condition Index

The following requirements for the Bridge Condition Index of Structures apply to all bridges, retaining walls and major culverts at the Expiry Date.

The Bridge Condition Index shall be at least 70 in accordance with the requirements (PAS3) set out in Appendix 4B [Asset Preservation Specification].

4.4 Bridges

4.4.1 Inspection and Maintenance Access

At the Expiry Date, Project Co shall provide documentation to the Authority that describes the maintenance and inspection access procedures used for bridges during the Term.

4.4.2 Settlement

Actual bridge foundation deformations shall be measured at the Expiry Date and be consistent with original designed levels. Project Co shall confirm that the required service and ultimate limit states performance of bridge Structures shall not be adversely affected by the actual foundation deformations. Where foundation deformations are found to adversely affect the required performance of a bridge Structure, Project Co shall design and implement measures to ensure that the required Design Life and Service Life of the Structure are achieved.

4.5 Retaining Walls

All retaining walls are to have a minimum Remaining Service Life of 50 years at the Expiry Date.

4.6 Structure Inspections

Project Co shall issue a structure inspection certificate for each Structure. All inspections shall be signed and sealed by a Bridge Engineer. The inspection will be Ontario Structure Inspection Manual (OSIM) compliant for the OSIM version that is current to the date of handback.

There are to be no outstanding safety issues at the Expiry Date. All safety issues are to be rectified by Project Co prior to the end of the Term.

5 DRAINAGE STRUCTURES

At the Expiry Date, the following requirements for drainage structures shall apply:

- (a) A Bridge Condition Index of at least 70 in accordance with the requirements (PAS3) as set out in Appendix 4B [Asset Preservation Specification].
- (b) The condition must be such that no action (i.e. physical works or remediation strategies) is required at the Expiry Date for all T1çhçq ASR Performance Measures in accordance with the requirements (PAS1-PAS3) as defined in Appendix 4B [Asset Preservation Specification].

6 MINOR ASSETS

- (a) All temporary Signs, signals, and fencing in Project Co's possession that are being used to provide the Services / Operations, Maintenance and Rehabilitation shall become the property of the Authority at the end of the Term. Project Co shall provide to Authority, at a time no later than 4 months prior to the end of Term, an inventory listing of all such items.
- (b) Project Co shall arrange, at a time no later than 3 months prior to end of Term, a personal inspection tour with the Authority to allow Authority to review the inventoried items.
- (c) Project Co must demonstrate throughout the Term, via the Asset Management Plan established pursuant to Section 4.4 of Appendix 4B [Asset Preservation Specification] and the Quality Management System established pursuant to Schedule 2 [Quality Management] that all such minor assets shall achieve or exceed at the Expiry Date not less than "Fair", that is, minor defects present but no repairs required within 12 months and no outstanding safety issues.

7 ASSET INVENTORY AND CONDITION STUDY

The purpose of this study is to undertake an independent current assessment of all Project assets inventory and condition at the Expiry Date. In general terms, the scope of these inspections consists of Project Co undertaking the following:

- (a) 100% validation and verification of all inventory;
- (b) identify and document missing, incomplete, or inaccurate Infrastructure inventory information;
- (c) conduct field investigations to ascertain the current condition of all Project inventory;
- (d) compile and summarize the inventory and condition data in a format acceptable to the Authority Representative; and
- (e) document the findings as specified.

The objective of the investigations is to provide the Authority with sufficient information to develop an accurate understanding of the current major assets in order to assess future maintenance and rehabilitation requirements.

8 HANDBACK PROCEDURE

8.1 Independent Inspector

- (a) Not less than 54 months prior to the Expiry Date, the parties shall agree upon and, in accordance with the Authority procurement policies, engage an independent and suitably qualified and experienced professional engineering firm (the “**Independent Inspector**”) to carry out inspections of the Tłıçhǫ ASR pursuant to this Appendix.
- (b) Project Co and the Authority shall share equally the responsibility for the payment of all fees and costs of the Independent Inspector.
- (c) In the event of the Independent Inspector’s engagement being terminated otherwise than for full performance, the parties shall liaise and cooperate with each other in order to appoint a replacement as soon as reasonably practicable, and in any event within 10 Business Days of the termination of the last Independent Inspector’s engagement.
- (d) In the event the parties fail to agree upon the identity of the Independent Inspector either pursuant to Section 8.1(a) or Section 8.1(c) of this Appendix by the specified deadline, then the Independent Inspector shall be selected as follows:
 - (i) each party shall within 10 Business Days thereafter select three independent and suitably qualified and experienced persons that would be acceptable to that party as the Independent Inspector, and shall provide notice thereof to the other party; and
 - (ii) if the parties have both selected a common person, or reach agreement on the use of a person submitted by either party, then such person shall be the Independent Inspector; or
 - (iii) if the parties fail to agree or jointly appoint the Independent Inspector within such 10 Business Day period, either party may apply to a judge of the Supreme Court of the Northwest Territories for the appointment of the Independent Inspector, in which case the court shall appoint the Independent Inspector at the earliest opportunity from the list(s) of potential Independent Inspectors submitted by the parties or, if either or both parties fail to submit their list of potential Independent Inspectors within 7 Business Days, the court may appoint such person as the Independent Inspector who meets the requirements set out in this Appendix for qualifications and experience of the Independent Inspector.

8.2 Condition of Tłıçhǫ ASR on Expiry

- (a) On the Expiry Date:
 - (i) the Tłıçhǫ ASR shall be in a condition which complies with Section 3.1 of Schedule 4 [OMR and Handback] and all Appendices to Schedule 4 [OMR and Handback]; and
 - (ii) the Project Site (including the ground soil located on or under the Project Site) shall be in a condition which is consistent with due performance by Project Co of its obligations under this Agreement, including, without limitation, the Environmental Protection Plan and, in particular, does not deviate from the Pre-Existing Environmental Site Conditions by reason of any Project Co Hazardous Substance,

(collectively, the “**Handback Requirements**”).

8.3 T1çhç ASR Inspections

- (a) The parties shall cause the Independent Inspector to perform an inspection of the T1çhç ASR and to produce and deliver to each of the parties a written report (a “**T1çhç ASR Condition Report**”) not less than 48 months prior to the Expiry Date that:
 - (i) identifies the condition of the T1çhç ASR and each element of the T1çhç ASR;
 - (ii) assesses Project Co’s business case related to capital replacement (which, for greater certainty, will include consideration of energy consumption), and provides the Independent Inspector’s opinion on the adequacy of Project Co’s proposed strategy;
 - (iii) identifies any works required to ensure the T1çhç ASR and each element of the T1çhç ASR will meet the Handback Requirements on the Expiry Date (the “**Handback Works**”), and specifying the Contract Year in which each of those Handback Works would be required;
 - (iv) specifies the Independent Inspector’s estimate of the costs that would be required to perform the Handback Works (the “**Handback Works Costs**”); and
 - (v) details how the Handback Works Costs were calculated.
- (b) The parties shall cause the Independent Inspector to perform another inspection of the T1çhç ASR and produce and deliver to each of the parties an updated T1çhç ASR Condition Report (each a “**Revised T1çhç ASR Condition Report**”) at 24 months, 12 months and 3 months prior to the Expiry Date.
- (c) Within 30 days of delivery of the T1çhç ASR Condition Report and each Revised T1çhç ASR Condition Report, Project Co shall update the Operation and Maintenance Plan and the Asset Management Plan as described in Appendices 4A [Operation and Maintenance Specification] and 4B [Asset Preservation Specification] to include all Handback Works and all Handback Works Costs identified in either the T1çhç ASR Condition Report or any Revised T1çhç ASR Condition Report not already included in the then current Operation and Maintenance Plan and the Asset Management Plan as described in Appendices 4A [Operation and Maintenance Specification] and 4B [Asset Preservation Specification], including a work plan consistent with the Independent Inspector’s recommendations and a schedule of when any required maintenance, rehabilitation or other work shall be completed so as to ensure that the T1çhç ASR is in the required condition at the Expiry Date.
- (d) Inspections by Project Co prior to the Expiry Date may include:
 - (i) examination by excavation to demonstrate that gravel cover meets current standards of the day;
 - (ii) Non-Destructive Testing (NDT) on structures to demonstrate condition as at handback; and
 - (iii) road embankments in key areas to be examined with Ground Penetrating Radar (GPR) to determine consistency and condition.
- (e) Project Co shall carry out the Handback Works at its own cost notwithstanding that the

actual cost of the Handback Works may be higher than the Handback Works Costs.

- (f) Either party may dispute the Tłıçhǫ ASR Condition Report or any Revised Tłıçhǫ ASR Condition Report, including the Handback Works and the Handback Works Costs, in accordance with Schedule 13 [Dispute Resolution Procedure]. In the event that a final determination in accordance with Schedule 13 [Dispute Resolution Procedure] specifies Handback Works or Handback Works Costs which are different than those set out in either the Tłıçhǫ ASR Condition Report or any Revised Tłıçhǫ ASR Condition Report, then either the Tłıçhǫ ASR Condition Report or any Revised Tłıçhǫ ASR Condition Report, as the case may be, shall be deemed to be amended accordingly, [and the Operation and Maintenance Plan and the Asset Management Plan amended pursuant to Section 8.3(c) of this Appendix], and all deductions and payments permitted or required by Section 8.4 of this Appendix shall be adjusted accordingly.

8.4 Provision of a Letter of Credit

Following the date for delivery of the Tłıçhǫ ASR Condition Report, the parties shall review the amount of the Handback Works Costs and the level of capital expenditure Project Co has allocated to spend in the same period pursuant to the Financial Model (the “**Handback Rehabilitation Costs**”). Where the Handback Works Costs are greater than the Handback Rehabilitation Costs, Project Co shall, within 30 days, produce a Letter of Credit, in favour of the Authority, for the difference between the Handback Works Costs and the Handback Rehabilitation Costs.

8.5 Project Co Not Relieved of Obligations

- (a) Notwithstanding:
 - (i) any agreement of the Authority to any Handback Works, Handback Works Costs or Letter of Credit;
 - (ii) any participation of the Authority in any inspection under this Appendix; and/or
 - (iii) the complete or partial carrying out of the Handback Works,

Project Co shall not be relieved or absolved from any obligation to conduct any other inspection or to perform any other works to the extent otherwise required by this Agreement, including without limitation the OMR requirements.

8.6 Final Tłıçhǫ ASR Condition Report

- (a) The parties shall cause the Independent Inspector to perform an inspection of the Tłıçhǫ ASR and to produce and deliver to each of the parties a Final Tłıçhǫ ASR Condition Report within 30 Business Days after the Expiry Date (the “**Final Tłıçhǫ ASR Condition Report**”) that documents whether the Tłıçhǫ ASR met the Handback Requirements on the Expiry Date, as well as identifying any remaining Handback Works and Handback Works Costs.
- (b) If the Final Tłıçhǫ ASR Condition Report identifies any remaining Handback Works, the Authority may call upon the Letter of Credit an amount equivalent to such Handback Works Costs.
- (c) Provided that the funds in the Letter of Credit is adequate to meet Project Co’s obligations in respect of the Handback Works identified in the Final Tłıçhǫ ASR Condition Report, following call upon the Letter of Credit in accordance with Section 8.6(b) of this Appendix,

Project Co shall have no further liability with respect to such Handback Works.

- (d) If no remaining Handback Works are identified in the Final Tłıchq ASR Condition Report, the Authority shall, within 20 Business Days of receipt by the Authority of the Final Tłıchq ASR Condition Report return the Letter of Credit (if any) to Project Co, unless the Authority disputes the Final Tłıchq ASR Condition Report, in which case the Letter of Credit shall be dealt with as determined in accordance with Schedule 13 [Dispute Resolution Procedure].

APPENDIX 4D

PROPOSAL EXTRACTS (OMR)

[Redacted]

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SCHEDULE 5

INSURANCE REQUIREMENTS

1. CONSTRUCTION PERIOD INSURANCE REQUIREMENTS

1.1 “All Risks” Builder’s Risk Insurance

During the Construction Period, Project Co shall, at its own expense, take out, maintain in force and extend or will cause to be taken out, maintained and extended, course of construction insurance against “all risks” of physical loss or damage including boiler & machinery and delay in start-up covering all materials, property, structures and equipment purchased for, entering into or forming part of the Tłı̨ch̨o ASR, while located anywhere within Canada or the United States of America during construction, erection, installation and testing of the Tłı̨ch̨o ASR, and which insurance will include the following terms:

- (a) coverage in an amount not less than the full replacement value of the Tłı̨ch̨o ASR to a minimum of a LEG3 standard subject to the following principle extensions and sublimits:
 - (i) replacement cost valuation (property);
 - (ii) most recent technology replacement cost valuation (equipment);
 - (iii) flood (to policy limit with annual aggregate permitted);
 - (iv) natural or man-made earth movement, including earthquake, landslide or subsidence (to policy limit with annual aggregate permitted);
 - (v) for property insured under the policy and stored at an off-site location or in transit in Canada or the United States of America, a limit of not less than the total of all values stored at any single location, or the value of the largest shipment to be transported by land to the Lands if such transport by land is not covered by marine cargo insurance;
 - (vi) the full value of all materials and equipment forming part of the Tłı̨ch̨o ASR lifted on-site by cranes during Construction;
 - (vii) professional fees – minimum \$5,000,000 sublimit;
 - (viii) fire fighting expenses – minimum \$10,000,000 sublimit;
 - (ix) debris removal and clean up – minimum \$10,000,000 sublimit;
 - (x) extra and expediting expenses – minimum \$10,000,000 sublimit;
 - (xi) by-laws including demolition, increased cost of repairs and replacement – minimum \$15,000,000 sublimit;
 - (xii) valuable papers – minimum \$5,000,000 sublimit;

- (xiii) accounts receivable – minimum \$5,000,000 sublimit;
 - (xiv) contamination clean-up or removal – minimum \$1,000,000 sublimit;
 - (xv) testing and commissioning – minimum 90 days, any one item;
 - (xvi) frost or freezing to concrete – but only resultant damage from a peril not otherwise excluded;
 - (xvii) 100% of recurring soft costs;
 - (xxviii) radioactive contamination caused by sudden and accidental release of radioactive isotopes (resulting from an accident);
 - (xix) margin of profit for contractors;
 - (xx) off premises services interruption (minimum 8 weeks);
 - (xxi) civil authority (minimum 8 weeks);
 - (xxii) prevention of ingress / egress (minimum 8 weeks);
 - (xxiii) underground services, temporary buildings and structures, temporary boilers and pressure vessels, scaffolding, false work, forms, hoardings, excavation, site preparation, landscaping and similar work;
 - (xxiv) electronic data processing equipment and media, including the cost to restore from the application of by-laws or ordinances;
 - (xxv) non-vitiation;
 - (xxvi) waiver of subrogation in favour of all named and unnamed insureds, including but not limited to Project Co, the Authority, the Design Builder, the Finance Parties, the Sub-Contractors, consultants and design professionals, except where a loss is caused by or resulting from any error in Design or any other design professional error or omission;
 - (xxvii) permit use and occupancy of the incomplete Tłıchq ASR by Project Co, the Project Contractors, the Design Builder and the Authority prior to the Substantial Completion Date;
- (b) delay in start-up and soft cost coverage:
- (i) in a combined amount sufficient to compensate Project Co for additional capital payments, additional interest for the extension of financing necessary for the completion of the project, legal and accounting expenses, property taxes, insurance premiums, building permits and other miscellaneous costs, various

incurred fees, fixed operation and maintenance expenses, additional commissions, advertising, margin of profit for Project Co, caused by the delay in reaching Substantial Completion resulting from any perils insured under (a) above;

- (ii) having an indemnity period not less than 12 months in respect of the Tłçhç ASR;
- (iii) having a waiting period of not greater than 30 days;
- (c) deductibles, per occurrence not exceeding the following amounts:
 - (i) flood - \$250,000;
 - (ii) testing and commissioning - \$100,000;
 - (iii) LEG3 - \$250,000;
 - (iv) for earthquakes, 3% of the total insured value of the Tłçhç ASR, minimum of \$100,000 and maximum of \$5,000,000;
 - (v) for all other insured perils - \$100,000; and
 - (vi) if more than one event occurs, only the highest deductible applies;
- (d) include, as named insureds, as their interests may appear the following entities:
 - (i) Project Co;
 - (ii) the Authority;
 - (iii) the Design-Builder;
 - (iv) all Sub-Contractors, sub-subcontractors, consultants and sub-consultants as their interests may appear; and
- (e) include Lender Endorsements substantially in the form set out in Appendix 5A [Lender Endorsements], including, without limitation, naming the Finance Parties as additional insureds and loss payees.

1.2 Wrap-Up Liability Insurance

During the Construction Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, commercial general liability insurance on a wrap-up basis which will include the following terms:

- (a) coverage in an amount of not less than \$100,000,000 per occurrence and \$100,000,000 in the aggregate for bodily injury, death and damage to property including loss of use thereof subject to the following principle extensions and sublimits:

Schedule 5 - Insurance Requirements
Tłçhç All Season Road Project Agreement – Execution Version

- (i) products & completed operations - \$100,000,000 – minimum 36 months after the Substantial Completion Date;
- (ii) non-owned automobile liability - \$50,000,000;
- (iii) sudden and accidental pollution and hostile fire pollution liability - \$50,000,000;
- (iv) “all risks” tenants’ legal liability – minimum \$5,000,000 sublimit;
- (v) prairie or forest fire fighting expenses – minimum \$5,000,000 sublimit;
- (vi) employee benefits administrative errors and omissions – minimum \$5,000,000 sublimit;
- (vii) legal liability for damages to non-owned automobiles (SEF 94) - \$100,000 sublimit;
- (viii) medical payments - \$10,000 per occurrence / \$50,000 aggregate;
- (ix) owners’ and contractors’ protective liability;
- (x) blanket contractual liability (written and oral);
- (xi) direct and contingent employers’ liability;
- (xii) attached machinery;
- (xiii) radioactive contamination caused by sudden and accidental release of radioactive isotopes (resulting from an accident);
- (xiv) personal injury;
- (xv) cross liability and severability of interests;
- (xvi) hoist collision liability;
- (xvii) hazardous operation XCU (blasting / demolition / excavating / underpinning / pile driving / shoring / caisson work / work below ground surface / tunnelling / grading and similar operations);
- (xviii) permission for unlicensed vehicles;
- (xix) permission to occupy incomplete T1çhçq ASR;
- (xx) loss of use without property damage;
- (xxi) broad form property damage;

- (xxii) broad form completed operations;
 - (xxiii) intentional injury;
 - (xxiv) watercraft (not in excess of 10 m) unless insured elsewhere, as applicable;
 - (xxv) drones (not in excess of 5 kg) unless insured elsewhere, as applicable;
 - (xxvi) worldwide territory, subject to suits being brought in Canada or the US;
 - (xxvii) non-vitiation;
 - (xxviii) waiver of subrogation in favour of all named and unnamed insureds, including but not limited to Project Co, the Authority, the Design Builder, the Finance Parties, the Sub-Contractors, consultants and design professionals, except where a loss is caused by or resulting from any error in Design or any other design professional error or omission; and
 - (xxix) contractors' rework coverage of \$500,000;
- (b) a deductible not in excess of \$100,000 per occurrence with the exception of contractors' rework, which may have a deductible not in excess of \$250,000;
 - (c) include, as named insureds the following entities:
 - (i) Project Co;
 - (ii) the Authority;
 - (iii) Project Contractors;
 - (iv) all Sub-Contractors, sub-subcontractors, consultants and sub-consultants as their interests may appear; and
 - (d) include Lender Endorsements substantially in the form set out in Appendix 5A, including, without limitation, naming the Finance Parties as additional insureds.

1.3 Project Specific Professional Liability

During the Construction Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, project specific professional liability insurance which will include the following terms:

- (a) coverage in an amount of not less than \$25,000,000 per claim and in the aggregate (inclusive of defense and related costs and supplementary payments) for all architectural, engineering, land surveying, environmental, landscape architectural, interior design /space planning, soil and material testing services and geotechnical services, including

their replacements and/or sub-consultants of any tier that are performing work solely for the benefit of Project Co subject to the following principle extensions:

- (i) coverage will be on a single project specific basis;
 - (ii) primary insurance extension;
 - (iii) present, former partner, executive officer, director or shareholder of indemnified party while acting within their scope of duties for the named insured;
 - (iv) claim defined as a written or oral demand for money or a written or oral allegation in breach in the rendering or failure to render professional services by a named insured and resulting from a single error, omission or negligent act;
 - (v) lawyer fees and associated expenses incurred in the investigation, defence, settlement, arbitration or litigation of claims;
 - (vi) duty to defend, even if the allegations are groundless, false or fraudulent;
 - (vii) vicarious of liability of Project Co;
 - (viii) extended reporting period – minimum 36 months after the Substantial Completion Date; and
 - (ix) insured versus insured exclusion carveback;
- (b) a deductible not exceeding \$500,000 per claim; and
- (c) include, as named insureds the following entities:
- (i) the Design-Builder; and
 - (ii) all engineers, architects and other professional consultants that provide professional design services in connection with the Project.

1.4 Project Specific Pollution Liability (combined Contractors' Pollution Liability and Pollution Legal Liability)

During the Construction Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, project specific pollution liability insurance (combined contractors' pollution liability and pollution legal liability) which will include the following terms:

- (a) coverage in the amount of not less than \$25,000,000 per claim and in the aggregate inclusive of defense and all costs and expenses subject to the following principle extensions:
 - (i) bodily injury and third party contamination;

- (ii) hazardous substances occurring or emanating from Tłı̄chq̄ ASR or the Lands during the policy period;
 - (iii) microbial matter (including fungus/mould);
 - (iv) underground / above ground storage tanks;
 - (v) first party remediation and clean-up costs;
 - (vi) natural resource damage;
 - (vii) disposal site (reporting required);
 - (viii) contractual liability;
 - (ix) emergency response costs;
 - (x) extended reporting period – minimum 36 months after the Substantial Completion Date; and
 - (xi) waiver of subrogation in favour of all named and unnamed insureds, including but not limited to Project Co, the Authority, the Project Contractors, the Finance Parties, the Sub-Contractors;
- (b) a deductible not exceeding \$250,000 per claim;
 - (c) include, as named insureds the following entities:
 - (i) Project Co;
 - (ii) the Authority;
 - (iii) the Design-Builder; and
 - (iv) all Sub-Contractors, sub-subcontractors, consultants and sub-consultants; and
 - (d) include Lender Endorsements substantially in the form set out in Appendix 5A [Lender Endorsements], including, without limitation, naming the Finance Parties as additional insureds.

1.5 Aircraft Liability

During the Construction Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, aircraft liability insurance (if applicable) which will include the following terms:

- (a) coverage in the amount of not less than \$50,000,000 per occurrence for all owned and non-owned aircraft including \$10,000,000 per occurrence for passenger hazard subject to the following principal extensions:
 - (i) all aviation risks, excluding drones (not in excess of 5 kg.), including the use of fixed or variable winged aircraft and helipads (if applicable);
 - (ii) waiver of subrogation in favour of all named and unnamed insureds, including but not limited to Project Co, the Authority, the Project Contractors, the Finance Parties, the Sub-Contractors; and
 - (iii) include coverage for Project Co, the Project Contractors and all Sub-Contractors, as applicable;
- (b) a deductible not exceeding an amount acceptable to the Authority, acting reasonably; and
- (c) include, as additional insureds the following entities:
 - (i) the Authority; and
 - (ii) the Finance Parties.

1.6 Watercraft Liability

During the Construction Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, watercraft liability insurance (if applicable) which will include the following terms:

- (a) coverage in the amount of not less than \$25,000,000 per occurrence for all owned and non-owned watercraft including passenger hazard subject to the following principal extensions:
 - (i) waiver of subrogation in favour of all named and unnamed insureds, including but not limited to Project Co, the Authority, the Project Contractors, the Finance Parties, the Sub-Contractors; and
 - (ii) include coverage for Project Co, the Project Contractors and all Sub-Contractors, as applicable;
- (b) a deductible not exceeding an amount acceptable to the Authority, acting reasonably; and
- (c) include, as additional insureds the following entities:
 - (i) the Authority; and

- (ii) the Finance Parties.

1.7 “All Risks” Ocean Marine Cargo

During the Construction Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, “all risks” ocean marine cargo insurance (if applicable) for any of the materials, equipment or property supplied under or used during the Project and which are critical to achieve Substantial Completion which will include the following terms:

- (a) coverage in an amount not less than the full replacement value of the shipment;
- (b) coverage for Project Co, the Project Contractors and all Sub-Contractors, as applicable;
- (c) a deductible not exceeding an amount acceptable to the Authority, acting reasonably;
- (d) delay in start-up arising from the loss of a shipment subject to a minimum indemnity period of 12 months, if coverage is applicable;
- (e) include, as additional insureds:
 - (i) the Authority; and
- (f) include, as loss payee:
 - (i) the Finance Parties.

1.8 Automobile Liability

During the Construction Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, automobile liability which will include the following terms:

- (a) coverage in the amount of not less than \$5,000,000 per accident for Project Co and the Design-Builder; and an amount not less than \$2,000,000 per accident for vehicles of any other contractor, Sub-Contractors, sub-subcontractors, consultants and sub-consultants or other persons working on or at the Lands on a standard automobile form.

1.9 “All Risks” Contractors’ Equipment

During the Construction Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, “all risks” contractors’ equipment insurance which will include the following terms:

- (a) If site equipment is three years old or less, the sum insured shall be equal to 100% of the replacement value of all contractors’ equipment. If equipment is greater than three years old, actual cash value basis of loss settlement is acceptable;

- (b) coverage for Project Co (if equipment is owned at Project Co level), the Project Contractors and all Sub-Contractors; and
- (c) a waiver of subrogation in favour of the following entities:
 - (i) the Authority; and
 - (ii) the Finance Parties.

1.10 Employee Dishonesty (Crime)

During the Construction Period, Project Co will take out, maintain in force and extend employee dishonesty insurance against the fraudulent acts of employees of Project Co which will include the following terms:

- (a) Coverage in the amount of not less than \$1,000,000 per claim and will include the following principal extensions:
 - (i) broad form money and securities;
 - (ii) money orders and counterfeit paper;
 - (iii) depositors' forgery;
 - (iv) computer fraud and funds transfer fraud;
 - (v) audit expenses; and
 - (vi) credit card forgery.

1.11 Workers Compensation

During the Construction Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, workers' compensation insurance in accordance with the Project Agreement.

1.12 Coverage for Off-Site Exposures

During the Construction Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, Commercial General Liability insurance for off-site exposures, subject to the following limits:

- (a) Coverage in an amount of not less than \$25,000,000 per occurrence and in the annual aggregate and broad form completed operations with respect to Project Co and the Project Contractors; and
- (b) Coverage in an amount of not less than \$5,000,000 per occurrence and in the annual aggregate and broad form completed operations with respect to any other contractors,

subcontractors, sub-subcontractors, consultants, and sub-consultants, workmen or tradesmen, or other persons involved in the Project.

2. OPERATING PERIOD INSURANCE REQUIREMENTS

2.1 “All Risks” Property Insurance

During the Operating Period Project Co shall, at its own expense, take out, maintain in force and extend or will cause to be taken out, maintained and extended, “all risks” property insurance will include the following terms:

- (a) coverage in an amount not less than the full replacement value of the Tłıchǫ ASR subject to the following principle extensions and sublimits:
 - (i) replacement cost valuation (property);
 - (ii) most recent technology replacement cost valuation (equipment);
 - (iii) flood (to policy limit with annual aggregate permitted);
 - (iv) natural or man-made earth movement, including earthquake, landslide or subsidence (to policy limit with annual aggregate permitted);
 - (v) no co-insurance provisions;
 - (vi) transit – minimum \$5,000,000 sublimit;
 - (vii) unnamed locations – minimum \$5,000,000 sublimit;
 - (viii) professional fees – minimum \$5,000,000 sublimit;
 - (ix) fire fighting expenses – minimum \$10,000,000 sublimit;
 - (x) debris removal and clean up – minimum \$15,000,000 sublimit;
 - (xi) extra and expediting expenses – minimum \$10,000,000 sublimit;
 - (xii) by-laws including demolition, increased cost of repairs and replacement – minimum \$10,000,000 sublimit;;
 - (xiii) valuable papers – minimum \$5,000,000 sublimit;
 - (xiv) accounts receivable – minimum \$5,000,000 sublimit;
 - (xv) contamination clean-up or removal – minimum \$1,000,000 sublimit;
 - (xvi) off premises services interruption (minimum 8 weeks);

- (xvii) prevention of ingress / egress (minimum 8 weeks);
 - (xviii) electronic data processing equipment and media, including the cost to restore from the application of by-laws or ordinances;
 - (xix) non-vitiation;
 - (xx) joint loss agreement (if separate “all risks” property and boiler and machinery policies are arranged); and
 - (xxi) waiver of subrogation in favour of all named and unnamed insureds, including but not limited to Project Co, the Authority, the Service Provider, except where a loss is caused by or resulting from any error in Design or any other professional error or omission;
- (b) business interruption coverage:
- (i) in an amount sufficient to compensate Project Co for loss of revenue (on a gross profits or gross revenue form) less Avoidable Costs resulting from or attributable to any insured perils under the “all risks” property policy;
 - (ii) having an indemnity period not less than 12 months in respect of the Tłıçhǫ ASR; and
 - (iii) having a waiting period of not greater than 30 days;
- (c) deductibles, per occurrence not exceeding the following amounts;
- (i) flood - \$250,000;
 - (ii) for earthquakes, 3% of the total insured value of the Tłıçhǫ ASR, minimum \$100,000 subject to a maximum of \$10,000,000; and
 - (iii) for all other insured perils - \$100,000;
- (d) include, as named insureds the following entities:
- (i) Project Co;
 - (ii) the Authority; and
 - (iii) the Service Provider; and
- (e) include Lender Endorsements substantially in the form set out in Appendix 5A [Lender Endorsements], including, without limitation, naming the Finance Parties as additional insureds and loss payee.

2.2 Boiler & Machinery Insurance

During the Operating Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, boiler and machinery insurance covering all boilers, pressure vessels, electrical and mechanical machines included in the Project on a comprehensive basis which will include the following terms:

- (a) coverage on a replacement cost basis in an amount not less than the maximum probable loss of the T1çhç ASR, as determined by Project Co and agreed by the Authority and the Finance Parties, subject to the following sublimits:
 - (i) ammonia contamination – minimum \$1,000,000 sublimit;
 - (ii) by-laws – minimum \$1,000,000 sublimit;
 - (iii) errors and omissions – minimum \$1,000,000 sublimit;
 - (iv) expediting expenses – minimum \$1,000,000 sublimit;
 - (v) extra expenses – minimum \$1,000,000 sublimit;
 - (vi) hazardous substances – minimum \$1,000,000 sublimit;
 - (vii) professional fees – minimum \$1,000,000 sublimit; and
 - (viii) water damage – minimum \$1,000,000 sublimit;
- (b) business interruption coverage:
 - (i) in an amount sufficient to compensate Project Co for loss of revenue (on a gross profits or gross revenue form) less Avoidable Costs resulting from or attributable to any insured perils under the “all risks” property policy;
 - (ii) having an indemnity period not less than 12 months in respect of the T1çhç ASR; and
 - (iii) having a waiting period of not greater than 30 days.
- (c) a deductible not exceeding \$100,000 per occurrence;
- (d) include, as named insureds the following entities:
 - (i) Project Co;
 - (ii) the Authority; and
 - (iii) the Service Provider; and

- (e) include Lender Endorsements substantially in the form set out in Appendix 5A [Lender Endorsements], including, without limitation, naming the Finance Parties as additional insureds and loss payees.

2.3 Commercial General Liability Insurance

During the Operating Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, commercial general liability insurance which will include the following terms:

- (a) coverage in an amount of not less than \$100,000,000 per occurrence and \$100,000,000 in the aggregate for bodily injury, death and damage to property including loss of use thereof subject to the following principle extensions and sublimits;
 - (i) product and completed operations;
 - (ii) non-owned automobile liability - \$100,000,000;
 - (iii) sudden and accidental pollution and hostile fire pollution liability - \$50,000,000;
 - (iv) "all risks" tenants' legal liability – minimum \$5,000,000 sublimit;
 - (v) prairie or forest fire fighting expenses – minimum \$5,000,000 sublimit;
 - (vi) employee benefits administrative errors and omissions – minimum \$5,000,000 sublimit;
 - (vii) legal liability for damages to non-owned automobiles (SEF 94) - \$100,000 sublimit;
 - (viii) medical payments - \$10,000 per occurrence / \$50,000 aggregate;
 - (ix) owners' and contractors' protective liability;
 - (x) blanket contractual liability (written and oral);
 - (xi) direct and contingent employers' liability;
 - (xii) radioactive contamination caused by sudden and accidental release of radioactive isotopes (resulting from an accident);
 - (xiii) personal injury;
 - (xiv) cross liability and severability of interests;
 - (xv) hazardous operation XCU (blasting / demolition / excavating / underpinning / pile driving / shoring / caisson work / work below ground surface / tunnelling / grading and similar operations;

- (xvi) permission for unlicensed vehicles;
 - (xvii) loss of use without property damage;
 - (xviii) broad form property damage;
 - (xix) broad form completed operations;
 - (xx) intentional injury;
 - (xxi) watercraft (not in excess of 10 m) unless insured elsewhere, as applicable;
 - (xxii) worldwide territory, subject to suits being brought in Canada or the US;
 - (xxiii) non-vitiation; and
 - (xxiv) waiver of subrogation in favour of all named and unnamed insureds, including but not limited to Project Co, the Authority, the Service Provider, and the Finance Parties;
- (b) a deductible not in excess of \$100,000 per occurrence;
 - (c) include, as named insureds the following entities:
 - (i) Project Co;
 - (ii) the Authority; and
 - (iii) the Service Provider; and
 - (d) include Lender Endorsements substantially in the form set out in Appendix 5A [Lender Endorsements], including, without limitation, naming the Finance Parties as additional insureds.

2.4 Pollution Liability Insurance

During the Operating Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, pollution liability insurance which will include the following terms:

- (a) coverage in the amount of not less than \$25,000,000 per claim and in the annual aggregate (multi-year policies will be allowed) inclusive of defense and all costs and expenses subject to the following principle extensions:
 - (i) hazardous substances occurring or emanating from the Project, the Tłı̄chq̄ ASR or the Lands during the policy period;
 - (ii) microbial matter (including fungus/mould);

- (iii) underground / above ground storage tanks;
 - (iv) first party restoration and clean-up costs;
 - (v) disposal site (reporting required);
 - (vi) contractual liability;
 - (vii) emergency response costs
 - (viii) natural resource damage;
 - (ix) extended reporting period – minimum 12 months in the event of termination of the Policy or termination of the Project Agreement; and
 - (x) waiver of subrogation in favour of all named and unnamed insureds, including but not limited to Project Co, the Authority, the Service Provider and the Finance Parties;
- (b) a deductible not exceeding \$100,000 per claim;
 - (c) include, as named insureds the following entities:
 - (i) Project Co;
 - (ii) the Authority; and
 - (iii) the Service Provider; and
 - (d) include Lender Endorsements substantially in the form set out in Appendix 5A [Lender Endorsements], including, without limitation, naming the Finance Parties as additional insureds.

2.5 Automobile Liability

During the Operating Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, automobile liability which will include the following terms:

- (a) coverage in the amount of not less than \$5,000,000 per accident for Project Co and the Service Provider; and an amount not less than \$2,000,000 per accident for vehicles of any other contractor, Sub-Contractors, sub-subcontractors, consultants and sub-consultants or other persons working on or at the Lands on a standard automobile form.

2.6 “All Risks” Contractors’ Equipment

During the Operating Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, “all risks” contractors’ equipment insurance which will include the following terms:

Schedule 5 - Insurance Requirements
Tłıçhǫ All Season Road Project Agreement – Execution Version

- (a) If site equipment is three years old or less, the sum insured shall be equal to 100% of the replacement value of all contractors' equipment. If equipment is greater than three years old, actual cash value basis of loss settlement is acceptable;
- (b) coverage for Project Co (if equipment is owned at Project Co level), the Project Contractors and all Sub-Contractors; and
- (c) a waiver of subrogation in favour of the following entities:
 - (i) the Authority; and
 - (ii) the Finance Parties.

2.7 Employee Dishonesty

During the Operating Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, employee dishonesty insurance against the fraudulent acts of employees of Project Co which will include the following terms:

- (a) Coverage in the amount of not less than \$1,000,000 per claim and will include the following principal extensions:
 - (i) broad form money and securities;
 - (ii) money orders and counterfeit paper;
 - (iii) depositors' forgery;
 - (iv) computer fraud and funds transfer fraud;
 - (v) audit expenses; and
 - (vi) credit card forgery.

2.8 Workers Compensation

During the Operating Period, Project Co will take out, maintain in force and extend or will cause to be taken out, maintained and extended, workers' compensation insurance coverage for all employees of Project Co and any Sub-Contractor engaged in the performance of the OMR, in accordance with applicable Laws and the requirements of any Governmental Authority.

2.9 Other Operating Period Insurance

During the Operating Period when construction, rehabilitation or major repair work in excess of \$25,000,000 is being carried out by or on behalf of Project Co under this Agreement and the risks associated with such work are not insured by the insurance described in the policies described in Article 1 (Construction Period Insurance Requirements) or Article 2 (Operating Period Insurance Requirements) of

this Schedule, Project Co will, subject to Article 1 (Construction Period Insurance Requirements) of this Schedule, take out, maintain in force and renew or will cause to be taken out, maintained and renewed such insurance described in Article 1 (Construction Period Insurance Requirements) in such amounts, as a prudent contractor would reasonably require, as determined by the Authority, acting reasonably, at least 10 Business Days before the commencement of the applicable period during which the insurance is required. To the extent such work is undertaken pursuant to a Change Certificate and such work is not covered in the policies described in Article 1 (Construction Period Insurance Requirements) or Article 2 (Operating Period Insurance Requirements) of this Schedule, the Change Certificate for such work will include such insurance coverage as the Authority, acting reasonably, considers necessary in the circumstances.

3. GENERAL INSURANCE PROVISIONS

3.1 Insurance Representative

Before commencing any Construction, Project Co will appoint an insurance representative who will communicate with the Authority and keep the Authority advised of all material matters of insurance, including claims, possible claims and policy changes or amendments. Project Co will at all times maintain such a representative throughout the Term and Project Co will advise the Authority promptly of any change in such representative during the Term.

3.2 Cooperation with Insurer's Consultants

If an insurer or an insurer's appointed consultant, for underwriting purposes, in connection with a claim or as a term or condition of an insurance policy, needs to review any part of the performance of this Project Agreement, then the Authority and Project Co shall, and each of them shall require the Authority Persons and the Project Co Persons, respectively, to:

- (a) cooperate with the insurer and its consultant, including providing them with such information and documentation as they may reasonably require; and
- (b) allow the insurer and its consultant to attend meetings between Project Co and the Authority (or, as applicable, and if reasonably required by the insurer, between Project Co and those engaged by or through Project Co).

Project Co and the Authority covenant and agree with each other to do all acts, matters and things as may be reasonably necessary or required to expedite the adjustment of any claim for loss or damage covered by insurance hereunder so as to expedite the release and disposition of such insurance in the manner and for the purposes herein contemplated.

3.3 Additional Insurance

None of the insurance coverage amounts or sublimits specified in this Schedule limit the liability of Project Co with respect to any obligations of Project Co to the Authority arising under this Agreement. Project Co will obtain and maintain, or cause to be obtained and maintained, at its cost, all such other policies of insurance required by Law or which Project Co deems necessary having regard for the policies of

insurance which prudent owners and operators of projects of similar scope and magnitude to the Project would maintain and obtain, or cause to be obtained and maintained, including directors and officers liability and corporate indemnification insurance.

3.4 Insurers and Terms of Policies

Project Co will ensure that all policies for the insurance pursuant to this Schedule are obtained and maintained with Qualified Insurers licensed in Canada and, subject to this Schedule, are in such forms and contain such terms and conditions which are equal to or better than those that would be obtained by prudent owners and operators of projects of similar scope and magnitude to the Project and, in addition to the required inclusions or permitted exclusions for each policy specifically described in this Schedule, include such other inclusions and exclusions as such prudent owner or operator would require or permit.

3.5 Particular Requirements of Policies

Without limiting the generality of this Schedule and the provisions of Article 6 (Insurance, Damage and Destruction) of this Agreement:

- (a) each commercial policy of insurance required under this Agreement will:
 - (i) during the Construction Period, bear an endorsement to the effect that the insurer will not effect any adverse material change or material amendment to the policy without first giving at least 60 days' prior written notice by registered mail to the Authority and each of the other named insureds and loss payees. All Construction Period insurances required under Sections 1.1, 1.2, 1.3 and 1.4 of this Schedule will be non-cancellable except for non-payment of premium, material misrepresentation or concealment of facts or material breach of a policy condition. All other insurances required during the Construction Period will provide at least 60 days' notice of cancellation for non-payment of premium;
 - (ii) during the Operating Period, bear an endorsement to the effect that the insurer will not effect any adverse material change or material amendment to the policy without first giving at least 60 days' prior written notice by registered mail to the Authority and each of the other named insureds and loss payees. The policy will provide at least 60 days' notice of cancellation for non-payment of premium;
 - (iii) contain an endorsement to the effect that the policy will not be invalidated and coverage thereunder will not be denied to any insureds by reason of any breach or violation of warranties, representations, declarations or conditions contained in the policy other than as a result of a negligent act, misrepresentation or omission of such insured; and
 - (iv) be primary and not require the sharing of any loss by any insurer of the Authority or any other named insured.

3.6 Evidence of Insurance

In respect of those policies of insurance required to be maintained by Project Co pursuant to this Schedule, upon the issue of and upon every renewal of each such policy, and otherwise upon request by the Authority, Project Co will deliver to the Authority a certificate of insurance or certified copy of each such policy or other satisfactory evidence of adequate insurance. No review or approval of any insurance certificate or insurance policy by the Authority will derogate from or diminish such party's rights under this Agreement.

3.7 Claims

Project Co will:

- (a) maintain a written register of all claims and incidents that might reasonably result in a claim under any of the policies of insurance required by this Agreement and will allow the Authority to inspect such register at any time; and
- (b) notify the Authority and provide full particulars of any incident giving rise to a claim:
 - (i) within 5 Business Days after making any claim under any of the policies for the insurance required by this Agreement where the value of the claim exceeds \$100,000; or
 - (ii) immediately after any claim (regardless of the value of the claim) involving personal injury or death, accompanied by full particulars of the incident giving rise to the claim.

3.8 Deductibles

Project Co will be responsible for the deductible portion of, or waiting period for, any claim made on any policy of insurance described in this Schedule, except to the extent that the loss was caused by the Authority or an Authority Person, in which case the loss will be the responsibility of the Authority to the extent caused by the Authority or such Authority Person.

3.9 No Indemnification for Insured Claims

Project Co will not be entitled to compensation, indemnification or reimbursement from the Authority under this Agreement to the extent that Project Co:

- (a) is entitled to recover any such amounts under any insurance policy that Project Co is required to take out pursuant to Appendix 5A [Lender Endorsements] in force at the time of loss; or
- (b) would have been entitled to recover any such amounts under any insurance if it had complied with its obligation to take out and maintain, or cause to be taken out and maintained, insurance in accordance with this Agreement.

3.10 Compliance

- (a) Project Co will comply with the terms, conditions and requirements of all policies for the insurance required by this Schedule and will not do or omit to do, or permit to be done or omitted by any Project Co Person, anything on or with respect to the Tłıchq ASR or the Lands that could reasonably be expected to result in the cancellation of any insurance described in this Schedule, or that would reasonably be expected to entitle any insurer to refuse to pay any claim under the policy for any such insurance;
- (b) The Authority will not do, or permit to be done by any Authority Person, anything on or with respect to the Tłıchq ASR or the Lands that could reasonably be expected to result in the cancellation of any insurance described in this Schedule, or that would entitle any insurer to refuse to pay any claim under the policy for any such insurance;
- (c) The Authority and Project Co will, and Project Co will cause the Project Contractors and the Sub-Contractors to comply with all insurance policy warranties made known to them.

3.11 Failure to Insure

Subject to Section 6.14 of this Agreement, if Project Co fails or refuses to obtain or maintain in force any insurance required to be effected by it under this Schedule, or to provide evidence of such insurance and renewals in relation thereto as and when required and in accordance with this Schedule, the Authority will, without prejudice to any of its other rights under this Agreement or otherwise, have the right itself to procure such insurance, in which event any amounts paid by the Authority for that purpose together with all reasonable costs incurred by the Authority in procuring such insurance will become due and payable by Project Co to the Authority.

3.12 Increase in Amount of Coverage

The Authority and Project Co will ensure that, throughout the Operating Period, the amounts of coverage in respect of the policies of insurance required to be obtained and kept in force under Article 2 (Operating Period Insurance Requirements) of this Schedule are not less than the greater of the amounts:

- (a) specified in Article 2 (Operating Period Insurance Requirements) of this Schedule; and
- (b) of coverage that would be obtained from time to time by prudent owners and operators of projects of similar scope and magnitude as the Project in respect of such policies of insurance,

(each a **"Prudent Coverage Amount"**).

If, at any time, a party (the **"Notifying Party"**) determines that the amount of coverage then in effect (the **"Actual Coverage Amount"**) in respect of any commercial policy of insurance required to be obtained and kept in force by a party under Article 2 (Operating Period Insurance Requirements) of this Schedule, as applicable, is or will be less than the Prudent Coverage Amount, the Notifying Party will notify the other party in writing of such determination and, if both parties agree, or it is determined under the Dispute Resolution Procedure, that the Actual Coverage Amount is or will be less than the Prudent Coverage

Amount, the party responsible for effecting and maintaining such policy of insurance will forthwith cause the amount of coverage in respect thereof to be increased to an amount equal to at least the Prudent Coverage Amount.

3.13 Project Co Contractors and Sub-Contractors

Project Co will determine the applicable insurance coverage to be obtained by Project Contractors and Sub-Contractors provided that such insurance coverages will be consistent with insurance that prudent Sub-Contractors would be required to maintain for projects of similar scope and magnitude to the Project.

4. BENCHMARKING OF INSURANCE COSTS

4.1 Definitions

For purposes of this Article 4, the following terms shall have the following meanings:

“Actual Principal Insured Risk Insurance Cost” means the aggregate of the annual insurance premiums reasonably incurred by Project Co, or incurred by others on behalf of Project Co, to maintain the Principal Insured Risk insurance during the Insurance Review Period, but excluding Taxes and all broker’s fees and commissions.

“Base Principal Insured Risk Insurance Cost” means \$ [REDACTED], which is the aggregate of the annual insurance premiums projected (as set out, and Index Linked, in the Financial Model), which amounts exclude Taxes and all broker’s fees and commissions.

“Insurance Cost Differential” means an amount, based on the Joint Insurance Cost Report, equal to $(APIRIC - BPIRIC) \pm PIC$ where:

APIRIC is the Actual Principal Insured Risk Insurance Cost;

BPIRIC is the Base Principal Insured Risk Insurance Cost; and

PIC is any Project Insurance Change.

For the purpose of determining the Insurance Cost Differential, in the event that there is a net increase in the APIRIC relative to the BPIRIC, the Project Insurance Change shall have a negative value and, in the event that there is a net decrease in the APIRIC relative to the BPIRIC, the Project Insurance Change shall have a positive value.

“Insurance Review Date” means each anniversary of the Principal Insured Risk Insurance Inception Date, except where such date lies beyond the end of the Term, in which case the Insurance Review Date shall be the last renewal date of the Principal Insured Risk Insurance prior to the Expiry Date.

“Insurance Review Period” means a one year period from the Principal Insured Risk Insurance Inception Date and each subsequent one year period commencing on the first anniversary of the Principal Insured Risk Insurance Inception Date, except where the end of such period lies beyond the

end of the Term, in which case the Insurance Review Period shall be the period from the end of the penultimate Insurance Review Period to the last day of the Term.

“Principal Insured Risk” means all policies of insurance to be obtained by or on behalf of Project Co in Articles 2 (Operating Period Insurance Requirements) of this Schedule.

“Principal Insured Risk Inception Date” means the date on which the Principal Insured Risk is first providing active insurance cover to Project Co, being a date no earlier than the Substantial Completion Date.

“Project Insurance Change” means any net increase or net decrease in the Actual Principal Insured Risk Insurance Cost relative to the Base Principal Insured Risk Insurance Cost, arising from:

- (a) other than in respect of claims or re-ratings arising out of the acts or omissions of the Authority or any Authority Person or claims or re-ratings arising from Supervening Events, the claims history or re-rating of Project Co or any Project Co Person;
- (b) the effect of any change in deductible or self-insured retention unless:
 - (i) such change is attributable to circumstances generally prevailing in the insurance market in the Northwest Territories, British Columbia and Alberta; and
 - (ii) the deductible or self-insured retention, further to such change, is either greater than or equal to the maximum deductibles or self-insured retentions set out in this Schedule; and
- (c) any other issue or factor other than circumstances generally prevailing in the insurance market in the Northwest Territories, British Columbia and Alberta.

4.2 Joint Insurance Cost Report

No later than 60 days prior to the Substantial Completion Date and prior to each Insurance Review Date, Project Co’s insurance broker shall, at Project Co’s sole cost and expense, prepare a report on behalf of both Project Co and the Authority (the **“Joint Insurance Cost Report”**), which contains the following information for the relevant Insurance Review Period:

- (a) a full breakdown of the Actual Principal Insured Risk Insurance Cost;
- (b) an assessment and quantification of each Project Insurance Change, together with the reasons therefor;
- (c) the opinion of Project Co’s insurance broker as to the reasons why the Actual Principal Insured Risk Insurance Cost has varied from the Base Principal Insured Risk Insurance Cost, specifying the impact of each of the factors and quantifying the amount attributable to each factor;
- (d) the calculation of the Insurance Cost Differential; and

- (e) evidence satisfactory to the Authority, acting reasonably, of any changes to circumstances generally prevailing in the Northwest Territories insurance market that are claimed to account for the Insurance Cost Differential.

The Service Payment will be subject to an adjustment in the amount of the Insurance Cost Differential (the “**Insurance Adjustment**”) in accordance with the payment mechanism set out in Schedule 8 [Payments].

APPENDIX 5A

LENDER ENDORSEMENTS

With respect to any policy of insurance noted in Schedule 5 [Insurance Requirements] as requiring these Lender Endorsements, Project Co and the Authority will use all reasonable efforts to have the underwriters of such policies include terms and endorsements substantially similar to those set out in this Appendix with such changes and amendments as may reasonably be required in the context of the coverage provided under, and the wording contained in, each such policy.

Notwithstanding any other provision of this Policy, the following endorsement shall apply:

Section I: Definitions

1. In this endorsement:

Administrative Agent means [REDACTED];

Authority means the Government of the Northwest Territories;

Credit Agreement means the credit agreement dated on or about the date hereof between, among others, the Administrative Agent, Project Co, as borrower, Kiewit GP and Tłı̄chq GP, as general partners, and the Senior Lenders, as the same may be amended, restated, supplemented or otherwise modified from time to time;

Finance Parties means the Senior Lenders and the Administrative Agent;

Insurance Proceeds Account has the meaning given in the Credit Agreement;

Insurance Trust Agreement has the meaning given in the Credit Agreement;

Insured means those parties so described in the policy declarations;

Insurers means the insurer or insurers underwriting this insurance policy;

Project means the project described in the declarations to this Policy;

Project Agreement means the agreement dated February 13, 2019 between Project Co and the Authority relating to the design, construction, financing, maintenance and life cycle rehabilitation of the Tłı̄chq ASR;

Project Co means North Star Infrastructure GP;

Senior Lenders means the financial institutions from time to time party to the Credit Agreement as lenders or hedge providers.

Section II: Policy formation/basis

2. Separate Policy

All the provisions of this Policy (except for those relating to limits of liability) shall operate as if there were a separate policy covering each Insured. Accordingly, the liability of the Insurers under this Policy to any one of the Insured shall not be conditional upon the due observance and fulfilment of any other Insured of the terms of this Policy and of any duties imposed upon it relating thereto and shall not be affected by any failure in such observance or fulfilment of any such other Insured.

3. Interest of the Finance Parties and the Authority

3.1 The Insurers acknowledge that the Finance Parties and (in respect of third party liabilities) their respective officers, directors, employees, secondees and assigns are each additional insureds under this Policy and that the premium specified in this Policy provides consideration for their being insured parties.

3.2 The Insurers acknowledge that the Authority and (in respect of third party liabilities) its officers, directors, employees, secondees and assigns are each additional insureds under the sections of this Policy relating to property damage and third party liability risks and that the premium specified in this Policy provides consideration for their being insured parties.

4. Liability for premium

Neither the Administrative Agent, nor the other Finance Parties shall be liable for the payment of any premium under this Policy although they may choose to pay the premium.

5. Disclosure

5.1 The Finance Parties shall have no duty of disclosure to Insurers in relation to the Policy.

5.2 The Insurers acknowledge to the Finance Parties alone that (i) they have received adequate information in order to evaluate the risk of insuring Project Co in respect of the risks hereby insured on the assumption that such information is not materially misleading, (ii) there is no information which has been relied on or is required by Insurers in respect of their decision to co-insure the Finance Parties or their directors, officers, employees or agents, and (iii) in agreeing to enter into this Policy, they have not relied upon or taken into account any information supplied to them by any Finance Party. The acknowledgements provided by the Insurers in this clause 5.2 shall have no effect on any rights that Insurers might have had under or in relation to the Policy against any party (including Project Co) other than the Administrative Agent and the other Finance Parties and in the absence of such acknowledgements.

5.3 Non-disclosure or misrepresentation by one Insured shall not be attributable to any other Insured who did not actively participate in that non-disclosure or misrepresentation. Without prejudice to the protections afforded to the Insured by this endorsement, no one Insured represents or warrants the adequacy or accuracy of any information provided or representation made by or on behalf of any other Insured.

Section III: Rights to avoid/cancel or change Policy terms

6. Non-vitiation

- 6.1 The Insurers undertake to each Insured that the Policy will not be invalidated as regards the rights and interests of such Insured and that the Insurers will not seek to avoid any liability under this Policy because of any act, neglect, error or omission made by any other Insured, including any failure by any other Insured to disclose any material fact, circumstance or occurrence, any misrepresentation by any other Insured or any breach or non-fulfilment by any other Insured of any condition, warranty or provision contained in the policy.
- 6.2 The Insurers agree that no Insured shall be penalised or prejudiced in any way by any unintentional or inadvertent misrepresentation, non-disclosure, want of due diligence or breach of any declaration, terms, condition or warranty of this Policy (together, the “**Relevant Matter**”), but that this shall not apply as regards the individual Insured responsible for the Relevant Matter if that Insured fails to notify the Insurers or the brokers through whom the Policy was placed as soon as reasonably practicable after the management or managers of that Insured become aware or are made aware of the Relevant Matter.

7. Cancellation

- 7.1 The Insurers agree that they will adhere to the cancellation provisions set out in:
- (i) Section 3.5(a)(i) of Schedule 5 [Insurance Requirements] to the Project Agreement during the Construction Period (as such term is defined in the Project Agreement); and
 - (ii) Section 3.5(a)(ii) of Schedule 5 [Insurance Requirements] to the Project Agreement during the Operating Period (as such term is defined in the Project Agreement).
- 7.2 The Insurers shall promptly notify the Administrative Agent and the Authority in writing of any default in the payment of premium and shall give the Administrative Agent and the Authority at least 30 days’ notice in writing before voiding this Policy for non-payment of premium, in order to give an opportunity for that premium to be paid within the notice period.

8. Changes in cover

The Insurers shall give the Administrative Agent and the Authority at least 30 days’ notice in writing before any reduction in cover or increase in excess or deductible under this Policy takes effect. Nothing in this clause shall give the Insurers any right which they do not otherwise have to reduce cover or increase any excess or deductible under this Policy.

9. Amendments to Endorsement

During the term of this Policy, the provisions of this endorsement may only be amended by written agreement between Project Co, the Insurers and the Administrative Agent, such amendment to be endorsed on the Policy.

Section IV: Claims

10. Notice of claims

10.1 Notice of claim by the Authority or any of the Finance Parties or any other party entitled to indemnity under the Policy shall, in the absence of manifest error, be accepted by Insurers as a valid notification of claim on behalf of all other Insureds subject to the full terms of the Policy.

11. Claim Payments/Loss Payee

Payments made in accordance with this Clause 11 shall, to the extent of the payment, discharge the Insurers' liability to pay Project Co or any other Insured.

11.1 In respect of property and boiler and machinery risks only:

Subject to the provisions of the Insurance Trust Agreement and the Credit Agreement, all claim payments or return premium shall be paid into the Insurance Proceeds Account or to such other account as the Administrative Agent may specify in writing.

11.2 In respect of the insurance under this Policy of third party liability risks only:

All claim payments in respect of a third party liability shall be paid to person(s) whose claim(s) constitute the risk or liability insured against except in the case where the Insured has properly discharged its liability to such person(s), in which case, subject to the provisions of the Insurance Trust Agreement and the Credit Agreement, the claim payment shall be paid to the Insurance Proceeds Account or such account as the Administrative Agent directs in writing.

Subject to the provisions of the Insurance Trust Agreement and the Credit Agreement, any return premiums shall be paid to the Insurance Proceeds Account or such other account as the Administrative Agent directs in writing.

11.3 In respect of the insurance under this Policy of loss of revenue risks only:

Subject to the provisions of the Insurance Trust Agreement and the Credit Agreement, all claim payments or return premiums shall be paid to the Insurance Proceeds Account or such other account as the Administrative Agent directs in writing.

12. Waiver of subrogation

The Insurers waive all rights of subrogation howsoever arising which they may have or acquire against any Insured described within the appropriate Schedules arising out of any occurrence in respect of which any claim is admitted and is insured hereunder for the benefit of such Insured except against any:

- (i) such Insured (or officer, director, employee, agent or assign) who has caused or contributed to such an occurrence or claim by fraud, deliberate misrepresentation, deliberate non-disclosure or deliberate breach of policy condition; or

- (ii) consultant or equivalent professional party to the extent that their professional errors, omissions or activities not covered by this Policy have caused or contributed to a loss covered under this Policy; or
- (iii) supplier or manufacturer to the extent that their errors, omissions or activities not covered by this Policy have caused or contributed to a loss covered under this Policy; or
- (iv) such Insured to the extent that they are entitled to recover in respect of a loss under cover falling within sub-clause 13(a)–(e) below (or would be so insured if cover in the terms set out in this Policy had not been taken out).

13. Primary insurance

The Insurers agree that this insurance provides the primary cover for risks insured under this Policy. In the event that any risk insured under this Policy is also insured under any other policy of insurance effected by any Insured, the Insurers agree to indemnify the Insured as if such other policy of insurance did not exist except in respect of:

- (a) excess layers of third party cover effected specifically for the Project;
- (b) any third party liability claim against the Insured which exceeds the applicable limit of indemnity under this Policy, in which case the liability of the Insurers for additional legal costs and expenses shall be limited to the proportion that the applicable limit of indemnity bears to the total claim against the Insured;
- (c) any claim under this Policy to which a Marine 50/50 Clause applies, if any;
- (d) any claim made under a Contingent Motor Liability extension to this Policy, if any; or
- (e) any claim relating to a loss which is insured against (or would be insured but for a double insurance provision or similar or the application of a deductible) under:
 - (i) any other policy specifically effected for the construction or operational phase(s) of the Project;
 - (ii) a latent or inherent defects policy or engineering or mechanical breakdown policy specifically effected for the Project; or
 - (iii) a related business interruption insurance policy.

Section V: Miscellaneous

14. Notice of Security Interest

The Insurers acknowledge that by an assignment contained in a general security agreement dated on or about February 13, 2019 (the “**Assignment**”), Project Co assigned by way of security to the Finance Parties all benefits and rights in respect of this insurance and all claims and returns of premiums in

Schedule 5 - Insurance Requirements
T1çhçq All Season Road Project Agreement – Execution Version

respect thereof to which the Insured is or may at a future time become entitled. The Insurers confirm that they have not been notified of any other assignment of or security interest in Project Co's interest in this insurance.

15. Notice

15.1 All notices or other communications under or in connection with the Policy will be given by fax and post. Any such notice given by Insurers will be deemed to be given on the earlier of:

15.1.1 if by fax, when transmitted but only if the sender's fax machine confirms successful transmission; and

15.1.2 if by post, within 2 business days of release from the relevant Insurer's office.

15.2 The address and fax number of the Administrative Agent for all notices under or in connection with the Policy are those notified from time to time by the Administrative Agent for this purpose to the insurance broker at the relevant time. The initial address and fax number of the Administrative Agent is as follows:

Address: [Redacted]
[Redacted]
[Redacted]

Fax No: [Redacted]

Attention: [Redacted]

Email: [Redacted]

15.3 The address and fax number of the Authority for all notices under or in connection with the Policy are those notified from time to time by the Authority for this purpose to the insurance broker at the relevant time. The initial address and fax number of the Authority is as follows:

Address: [Redacted]
[Redacted]
[Redacted]
[Redacted]

Fax No: [Redacted]

Attention: [Redacted]

Email: [Redacted]

16. Governing law & Jurisdiction

The Policy shall be governed and interpreted in accordance with the Law of the Northwest Territories.

This endorsement overrides any conflicting provision in this Policy.

**APPENDIX 5B
INSURANCE TRUST AGREEMENT**

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**APPENDIX 5B
INSURANCE TRUST AGREEMENT**

THIS AGREEMENT is made as of ■

AMONG:

The Government of the Northwest Territories
(the “**Authority**”)

AND:

[REDACTED]
(the “**Agent**”)

AND:

North Star Infrastructure GP
(“**Project Co**”)

AND:

■
(the “**Account Trustee**”)

WHEREAS:

- A. The Authority and Project Co have entered into the Project Agreement.
- B. The Authority, the Agent and Project Co have entered into the Lenders’ Remedies Agreement.
- C. The Authority, the Agent and Project Co have agreed that all amounts from time to time contained in the Insurance Trust Account are to be held in trust by the Account Trustee in accordance with the terms of this Insurance Trust Agreement, and that no releases, distributions or transfers of any funds from the Insurance Trust Account shall be made other than in accordance with the terms of this Insurance Trust Agreement.

NOW THEREFORE in consideration of the mutual covenants and agreements of the parties hereinafter contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties covenant and agree as follows:

1. DEFINITIONS

In this Insurance Trust Agreement, unless the context otherwise requires:

- (a) “**Account Trustee**” has the meaning given in the introductory paragraph of this Insurance Trust Agreement.
- (b) “**Agent**” has the meaning given in the introductory paragraph of this Insurance Trust Agreement.
- (c) “**Authority**” has the meaning given in the introductory paragraph of this Insurance Trust Agreement.
- (d) “**Authority Event of Default**” has the meaning given in the Project Agreement.

- (e) **“Bank”** means ■.
- (f) **“Business Day”** has the meaning given in the Project Agreement.
- (g) **“Change of Authorization Event”** has the meaning given in Section 8(a) of this Insurance Trust Agreement.
- (h) **“Change of Authorization Notice”** has the meaning given in Section 8(b)(ii) of this Insurance Trust Agreement.
- (i) **“Construction”** has the meaning given in the Project Agreement.
- (j) **“Default Notice”** means a written notice given by the Agent to the Account Trustee and the Authority that an event of default under the Senior Financing Agreements has occurred and is continuing.
- (k) **“Default Period”** means the period commencing on the date upon which the Account Trustee and the Authority receive a Default Notice and ending on the date upon which the Account Trustee and the Authority receive written notice from the Agent that the event of default which was the subject matter of the applicable Default Notice has been cured.
- (l) **“Design”** has the meaning given in the Project Agreement.
- (m) **“Governmental Authority”** has the meaning given in the Project Agreement.
- (n) **“Insurance Policies”** has the meaning given in Article 4 (Delivery of Insurance Policies) of this Insurance Trust Agreement.
- (o) **“Insurance Proceeds”** has the meaning given in Section 5(a) of this Insurance Trust Agreement.
- (p) **“Insurance Trust Account”** means Insurance Trust Account No. ■ at the Bank.
- (q) **“Insurance Trust Agreement”** means this Insurance Trust Agreement.
- (r) **“Lenders’ Remedies Agreement”** means the Lenders’ Remedies Agreement made on or about the date hereof between the Authority, Project Co and the Agent.
- (s) **“OMR”** has the meaning given in the Project Agreement;
- (t) **“Order”** has the meaning given in Section 7(k) of this Insurance Trust Agreement.
- (u) **“Project”** has the meaning given in the Project Agreement.
- (v) **“Project Agreement”** means the project agreement made on or about February 13, 2019 between the Authority and Project Co.
- (w) **“Project Co”** has the meaning given in the introductory paragraph of this Insurance Trust Agreement.
- (x) **“Senior Financing Agreements”** has the meaning given in the Project Agreement.
- (y) **“Senior Lenders”** has the meaning given in the Project Agreement.

- (z) **“Substantial Completion Date”** has the meaning given in the Project Agreement.
- (aa) **“Tłı̄chq̄ ASR”** has the meaning given in the Project Agreement.
- (bb) **“Trust Property”** means all of the property held in trust by the Account Trustee pursuant to this Insurance Trust Agreement, including, without limitation, the Insurance Trust Account, and all amounts from time to time contained therein, the Insurance Policies and the Insurance Proceeds.

2. CONSTRUCTION AND INTERPRETATION

This Insurance Trust Agreement will be interpreted according to the following provisions, save to the extent that the context or the express provisions of this Insurance Trust Agreement otherwise require:

- (a) The parties waive the application of any rule of law which otherwise would be applicable in connection with the construction of this Insurance Trust Agreement that ambiguous or conflicting terms or provisions should be construed against the party who (or whose counsel) prepared the executed agreement or any earlier draft of the same.
- (b) The table of contents, headings and sub-headings, marginal notes and references to them in this Insurance Trust Agreement are for convenience of reference only, do not constitute a part of this Insurance Trust Agreement, and will not be taken into consideration in the interpretation or construction of, or affect the meaning of, this Insurance Trust Agreement.
- (c) Each reference in this Insurance Trust Agreement to “Article” or “Section” is to an article or section of this Insurance Trust Agreement.
- (d) Each reference to an agreement, document, standard, principle or other instrument includes (subject to all relevant approvals and any other provision of this Insurance Trust Agreement expressly concerning such agreement, document, standard, principle or other instrument) a reference to that agreement, document, standard, principle or instrument as amended, supplemented, replaced, novated or assigned, and a reference to an “amendment” and similar terms (including “amend” and “amended”) include a reference to supplement, alteration, substitute, variation, change and any other modification and similar terms.
- (e) Each reference to a statute or statutory provision (including any subordinate legislation) includes any statute or statutory provision which amends, extends, consolidates or replaces the statute or statutory provision or which has been amended, extended, consolidated or replaced by the statute or statutory provision and includes any orders, regulations, by-laws, ordinances, orders, codes of practice, instruments or other subordinate legislation made under the relevant statute.
- (f) Each reference to time of day is a reference to Mountain Standard time or Mountain Daylight Saving time, as the case may be.
- (g) Words importing the singular include the plural and vice versa.
- (h) Words importing a particular gender include all genders.
- (i) Each reference to a public organization is deemed to include a reference to any successor(s) to such public organization or any organization or entity or organizations or

entities which has or have taken over the functions or responsibilities of such public organization.

- (j) Unless the context otherwise requires, each reference to "parties" means the parties to this Insurance Trust Agreement and each reference to a "party" means any one of the parties to this Insurance Trust Agreement, provided however that a reference to a third party does not mean a party to this Insurance Trust Agreement.
- (k) All monetary amounts are expressed in Canadian Dollars.
- (l) The words "include", "includes" and "including" are to be construed as meaning "include without limitation", "includes without limitation" and "including without limitation", respectively.
- (m) Any consent contemplated to be given under this Insurance Trust Agreement must be in writing.
- (n) General words are not given a restrictive meaning:
 - (i) if they are introduced by the word "other", by reason of the fact that they are preceded by words indicating a particular class of act, matter or thing; or
 - (ii) by reason of the fact that they are followed by particular examples intended to be embraced by those general words.
- (o) All accounting and financial terms used herein are, unless otherwise indicated, to be interpreted and applied in accordance with Canadian generally accepted accounting principles, consistently applied.
- (p) If the time for doing an act falls or expires on a day that is not a Business Day, the time for doing such act will be extended to the next Business Day.
- (q) Each provision of this Insurance Trust Agreement will be valid and enforceable to the fullest extent permitted by law. If any provision of this Insurance Trust Agreement is held to be invalid, unenforceable or illegal to any extent, such provision may be severed and such invalidity, unenforceability or illegality will not prejudice or affect the validity, enforceability and legality of the remaining provisions of this Insurance Trust Agreement. If any such provision of this Insurance Trust Agreement is held to be invalid, unenforceable or illegal, the parties will promptly endeavour in good faith to negotiate new provisions to eliminate such invalidity, unenforceability or illegality and to restore this Insurance Trust Agreement as nearly as possible to its original intent and effect.

3. INSURANCE TRUST ACCOUNT

- (a) Prior to the commencement of a Default Period, the Insurance Trust Account and all amounts from time to time contained therein, including interest thereon, shall be held in trust by the Account Trustee for the benefit of Project Co. During a Default Period, the Insurance Trust Account, and all amounts from time to time contained therein, shall be held in trust by the Account Trustee for the benefit of the Agent and the Senior Lenders, provided that, upon receipt by the Account Trustee of a Change of Authorization Notice, the Insurance Trust Account, and all amounts from time to time contained therein, shall be held in trust by the Account Trustee for the benefit of the Authority.
- (b) The Account Trustee shall not release, distribute or transfer any funds from the Insurance Trust Account other than in accordance with the terms of this Insurance Trust Agreement.

- (c) Notwithstanding any other provision of this Insurance Trust Agreement and subject to Section 3(d), the Agent, the Authority, and Project Co agree that if any of them either receives any Insurance Proceeds from the Insurance Trust Account or has the right to direct the Account Trustee to advance funds in respect of any Insurance Proceeds from the Insurance Trust Account to third parties, such funds shall be directed, used or advanced only for one of the following purposes:
- (i) the repair, reinstatement, restoration or replacement of the T1çhç ASR or any other assets, materials or goods necessary or desirable for the carrying out of the Design and/or the Construction or the OMR in respect of which such Insurance Proceeds have been paid;
 - (ii) the completion of the Project; or
 - (iii) indemnification for any Authority loss for which the subject Insurance Proceeds were paid under the Insurance Policies (as defined below).

For greater certainty, use of any Insurance Proceeds received in respect of a claim by Project Co for delay in start-up, soft costs insurance or business interruption insurance shall be applied in accordance with the terms of the Senior Financing Agreements so as to enable Project Co to carry out the Project.

- (d) Notwithstanding anything in this Insurance Trust Agreement, if the Authority is entitled to indemnification under the Insurance Policies in respect of any loss incurred by the Authority, such related insurance proceeds are to be paid directly to the Authority by the insurer or the Account Trustee and shall not be Insurance Proceeds subject to Section 3(c)(i) or (ii) of this Insurance Trust Agreement. For greater certainty, it is understood and agreed that the Authority shall be required to use such proceeds for carrying out the purposes referred to in Sections 3(c)(i) and (ii) in respect of which such proceeds have been paid.

4. DELIVERY OF INSURANCE POLICIES

Project Co shall deliver, or cause to be delivered, to the Account Trustee all certificates, certified copies or originals of all property and asset related insurance policies that Project Co is required to maintain under the Project Agreement (collectively, the “**Insurance Policies**”), and the Account Trustee shall hold the Insurance Policies in trust for the benefit of each of the beneficiaries and loss payees, as the case may be, thereunder.

5. INSURANCE PROCEEDS

- (a) Subject to Section 3(d), the Account Trustee shall distribute any proceeds of any Insurance Policy that are paid over to it by any insurer, Project Co, the Agent or the Authority (the “**Insurance Proceeds**”) as follows:
- (i) in the case of the all risks course of construction (builders’ risk), boiler and machinery insurance or property insurance policies that Project Co is required to maintain under the Project Agreement:
 - (A) if the Account Trustee has not received a Default Notice and:
 - (1) if the amount of such Insurance Proceeds, together with the aggregate of all Insurance Proceeds in respect of the same loss or claim, is less than \$2,000,000, to Project Co to repair, restore

- or replace the assets in respect of which such Insurance Proceeds have been paid; or
- (2) if the amount of such Insurance Proceeds, together with the aggregate of all Insurance Proceeds in respect of the same loss or claim, is equal to or greater than \$2,000,000, to the Agent to reimburse Project Co for the costs of repairing, restoring or replacing the assets in respect of which such Insurance Proceeds have been paid; or
- (B) if the Account Trustee has received a Default Notice, to the Insurance Trust Account to be distributed by the Account Trustee in such amounts and to such persons as the Agent may at any time or from time to time direct in writing, provided that, if the Account Trustee has received a Change of Authorization Notice, the Account Trustee shall release such Insurance Proceeds from the Insurance Trust Account in such amounts and to such parties as the Authority may at any time or from time to time direct in writing, in each case, to repair, restore or replace the assets in respect of which such Insurance Proceeds have been paid; and
- (ii) in the case of any other Insurance Policies, to the Agent, or, following receipt by the Account Trustee of a Change of Authorization Notice, to the Authority, to be distributed to the parties entitled thereto.
- (b) All losses under (i) all risks course of construction (builder's risk) including boiler and machinery insurance carried by Project Co prior to the Substantial Completion Date; (ii) property insurance carried by Project Co after the Substantial Completion Date; and (iii) the boiler and machinery insurance carried by Project Co after the Substantial Completion Date, which in each case is related to equipment purchased by the Authority, shall be payable solely to the Authority and shall not be payable to the Account Trustee or distributed pursuant to this Insurance Trust Agreement.
- (c) The Account Trustee shall distribute any excess Insurance Proceeds remaining after the distributions contemplated in Section 5(a) have been made, including, without limitation, any Insurance Proceeds held in the Insurance Trust Account:
 - (i) if the Account Trustee has not received a Default Notice, to Project Co; and
 - (ii) if the Account Trustee has received a Default Notice, to such persons as the Agent, or, following receipt by the Account Trustee of a Change of Authorization Notice, the Authority, may at any time or from time to time direct in writing.
- (d) Each of Project Co, the Agent and the Authority shall forthwith deliver, or cause to be delivered, to the Account Trustee, any and all Insurance Proceeds it received from time to time and is not otherwise entitled to in accordance with the terms of this Insurance Trust Agreement.
- (e) The Account Trustee shall deposit to the Insurance Trust Account all amounts that are paid over to it pursuant to the Insurance Policies or otherwise by Project Co, the Authority or the Agent and shall not transfer, release or distribute any such proceeds other than in accordance with this Insurance Trust Agreement.

6. ACCOUNT AGREEMENT

- (a) The Account Trustee hereby agrees to promptly provide to the Agent all monthly statements and other information with respect to the Insurance Trust Account provided to the Account Trustee by the Bank pursuant to the relevant account agreement. The Account Trustee further agrees that it shall make such requests to the Bank for additional information with respect to the Insurance Trust Account as the Agent may from time to time request in writing.
- (b) The Account Trustee hereby agrees to promptly provide to the Authority all monthly statements and other information with respect to the Insurance Trust Account provided to the Account Trustee by the Bank pursuant to the relevant account agreement. The Account Trustee further agrees that it shall make such requests to the Bank for additional information with respect to the Insurance Trust Account as the Authority may from time to time request in writing.

7. THE ACCOUNT TRUSTEE

- (a) The Account Trustee shall not have any duty or obligation to manage, control, use, make any payment in respect of, register, record, insure, inspect, sell, dispose of or otherwise deal with any part of the Trust Property except as expressly provided by the terms of this Insurance Trust Agreement. The Account Trustee shall carry out all written directions given by the Agent, the Authority or Project Co, as applicable, in accordance with this Insurance Trust Agreement and shall not be required to exercise any discretion in exercising any of its duties under this Insurance Trust Agreement in pursuance of such written directions. The Account Trustee shall not be bound to do or take any act, action or proceeding by virtue of the powers conferred on it hereby unless and until it shall have been required to do so under the terms hereof and has received instruction, advice or direction from the Agent, the Authority or Project Co, as applicable, as to the action to be taken (except with respect to actions specifically set out herein to be performed by the Account Trustee).
- (b) The Account Trustee will exercise its powers and carry out its obligations hereunder as account trustee honestly, in good faith and in the best interests of the beneficiaries hereunder and in connection therewith will exercise that degree of care, diligence, and skill that a reasonably prudent professional trustee would exercise in comparable circumstances. Unless otherwise required by law, the Account Trustee will not be required to give bond surety or security in any jurisdiction for the performance of any duties or obligations hereunder. No provision of this Insurance Trust Agreement shall be construed to relieve the Account Trustee from liability for its own dishonesty, fraud, negligence (including, without limitation, negligence in the handling of funds), wilful misconduct, bad faith or reckless disregard of any duty hereunder.
- (c) The Account Trustee will not be subject to any liability whatsoever, in tort, contract or otherwise in connection with the Trust Property or the carrying out of its duties under this Insurance Trust Agreement to the Agent, the Senior Lenders, the Authority, Project Co or any other person for any action taken or permitted by it to be taken, or for its failure to take any action, or for not performing any act or fulfilling any duty, obligation or responsibility hereunder by reason of any occurrence beyond the control of the Account Trustee (including, but not limited to, any act or provision of any present or future law or of any Governmental Authority, any act of God or war, or the unavailability of any wire or communication facility), provided that the foregoing limitation will not apply in respect of any action or failure to act arising from or in connection with wilful misconduct, negligence or reckless disregard of duty by the Account Trustee. The Account Trustee in doing anything or permitting anything to be done in respect of the Trust Property or the carrying

out of its duties under this Insurance Trust Agreement is, and will be conclusively deemed to be, acting as trustee for the beneficiaries hereunder and not in any other capacity. Except to the extent provided in this Section 7(c), the Account Trustee will not be subject to any liability for debts, liabilities, obligations, claims, demands, judgments, costs, charges or expenses against or with respect to the Trust Property, arising out of anything done or permitted by it to be done or its failure to take any action in respect of the execution of its duties hereunder and resort will be had solely to the Trust Property for the payment or performance thereof, and no other property or assets of the Account Trustee, whether owned in its personal capacity or otherwise, will be subject to levy, execution or other enforcement procedure with regard to any obligation under this Insurance Trust Agreement.

- (d) The Account Trustee shall not be required to expend or risk its own funds or otherwise incur financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers hereunder, or in acting at the request or direction of the Agent on behalf of the Senior Lenders or of the Authority or of Project Co, unless it shall have received adequate indemnity or security against such risk or liability satisfactory to it.
- (e) Notwithstanding the foregoing, the Account Trustee shall be liable for any action or failure to act arising from or in connection with the dishonesty, fraud, negligence (including, without limitation, negligence in the handling of funds), wilful misconduct, bad faith or reckless disregard of any duty hereunder by the Account Trustee or any of its directors, officers or employees, or the failure to comply with the standard of care referred to in Section 7(b).
- (f) Except as otherwise provided in Sections 7(c), 7(d) and 7(e):
 - (i) the Account Trustee may rely and shall be protected in acting or refraining from acting upon any signature, resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order or other paper or document reasonably believed by it in good faith to be genuine and to have been signed or presented by the proper party or parties; and
 - (ii) the Account Trustee may exercise its powers and perform its duties by or through such attorneys, representatives, agents and employees as it shall appoint; and may consult with counsel, accountants and other skilled persons selected and employed or retained by it, and the Account Trustee shall not be liable for anything done, suffered or omitted in good faith by it in accordance with the written advice of such counsel, accountants or other skilled persons (provided that such advice pertains to such matters as the Account Trustee may reasonably presume to be within the scope of such person's area of competency) and not contrary to any express provision in this Insurance Trust Agreement.
- (g) Project Co hereby agrees to pay, indemnify and hold harmless the Account Trustee from and against any and all loss, liability, cost, claim and expense incurred by the Account Trustee with respect to the performance of this Insurance Trust Agreement by the Account Trustee or any of the Account Trustee's directors, officers or employees, unless arising from its or their own dishonesty, fraud, negligence (including, without limitation, negligence in the handling of funds), wilful misconduct, bad faith or reckless disregard of any duty hereunder.
- (h) Subject to the terms and conditions set forth in the Account Trustee fee letter, the Account Trustee shall receive from the Trust Property reasonable compensation for its

services hereunder and shall be reimbursed by Project Co for its reasonable fees and expenses (including the disbursements and reasonable fees of counsel).

- (i) The Account Trustee agrees to look solely to Project Co, and not, except as expressly set forth herein, to the Agent, the Senior Lenders or the Authority for any claim for indemnification which may arise under this Insurance Trust Agreement.
- (j) The Account Trustee shall be responsible for keeping all appropriate books and records relating to the receipt and disbursement of all money which it receives hereunder.
- (k) If at any time the Account Trustee is served with any judicial or administrative order, judgment, decree, writ or other form of judicial or administrative process which in any way affects the Trust Property held by it hereunder (including, but not limited to, orders of attachment or garnishment or other forms of levies or injunctions or stays relating to the transfer of Trust Property) (each, an “**Order**”), the Account Trustee is authorized to comply therewith in any manner as it or legal counsel of its own choosing deems appropriate. The Account Trustee shall in no way be bound to call for further evidence (whether as to due execution validity or effectiveness, or the jurisdiction of any court, or as to the truth of any fact), and shall not be responsible for any loss that may be occasioned by its failing to do so. If the Account Trustee complies with any Order, the Account Trustee shall not be liable to any of the parties hereto or to any other person or entity even though such Order may be subsequently modified or vacated or otherwise determined to have been without legal force or effect. If the Account Trustee is served with any Order, it shall forthwith and, in any event, within 3 Business Days, deliver a copy of such Order to each of the Agent, the Authority and Project Co.
- (l) Unless otherwise specifically set forth herein, the Account Trustee shall proceed as soon as practicable to collect any cheques or other collection items at any time deposited hereunder. All such collections shall be subject to the Account Trustee’s usual collection practices or terms regarding items received by the Account Trustee for deposit or collection. Except and to the extent provided herein, the Account Trustee shall not be required, or have any duty, to notify any person of any payment or maturity under the terms of any instrument deposited hereunder, nor to take any legal action to enforce payment of any cheque, note or security deposited hereunder, or to exercise any right or privilege which may be afforded to the holder of any such security.
- (m) In the event that the Account Trustee determines that any direction, instruction, notice or other communication given under this Insurance Trust Agreement by the Agent or, where the Account Trustee has received a Change of Authorization Notice, the Authority, is ambiguous or uncertain, the Account Trustee may, in its sole discretion, refrain from taking any action other than retaining possession of the Trust Property, unless the Account Trustee has received written instructions, signed by the Agent or, if the Account Trustee has received a Change of Authorization Notice, the Authority, which resolve such ambiguity or uncertainty, provided that the Account Trustee shall, forthwith upon determining that such direction, instruction, notice or other communication is ambiguous or uncertain, seek clarification from the Agent, or where the Account Trustee has received a Change of Authorization Notice, the Authority, to resolve such ambiguity or uncertainty.
- (n) Prior to receipt of a Change of Authorization Notice by the Account Trustee, any instruction, notice or other communication delivered to the Account Trustee by the Agent shall be paramount to and supersede any direction, instruction, notice or other communication from any other party to this Insurance Trust Agreement, and the Account Trustee shall comply with such direction, instruction, notice or other communication from the Agent. After the Account Trustee has received a Change of Authorization Notice, any

instruction, notice or other communication delivered to the Account Trustee by the Authority shall be paramount to and supersede any direction, instruction, notice or other communication from any other party to this Insurance Trust Agreement, and the Account Trustee shall comply with such direction, instruction, notice or other communication from the Authority.

- (o) Each of the Agent and the Authority shall provide to the Account Trustee an incumbency certificate setting out the names and sample signatures of individuals authorized to give instructions to the Account Trustee hereunder. The Account Trustee shall be entitled to rely on each such incumbency certificate until a revised or replacement incumbency certificate is provided to the Account Trustee by the Agent or the Authority, as applicable. The Account Trustee shall refuse to act upon any instruction given by the Agent or the Authority which is signed by any person other than an individual named in the incumbency certificate provided to the Account Trustee by the Agent or the Authority, as applicable, pursuant to this Section 7(o), as any such incumbency certificate may be amended, supplemented or replaced from time to time.
- (p) The Account Trustee shall be entitled to rely on, and act upon, any direction, instruction, notice or other communication provided to it hereunder which is sent to it by facsimile transmission, provided that any such direction, instruction, notice or other communication is signed by an individual named in the incumbency certificate delivered to the Account Trustee by the Agent or the Authority, as applicable, pursuant to Section 7(o).
- (q) The Account Trustee shall retain the right not to act and shall not be liable for refusing to act if, due to a lack of information or for any other reason whatsoever, the Account Trustee, in its sole judgment, determines that such act might cause it to be in non-compliance with any applicable anti-money laundering or anti-terrorist legislation, regulation or guideline. Further, should the Account Trustee, in its sole judgment, determine at any time that its acting under this Insurance Trust Agreement has resulted in its being in non-compliance with any applicable anti-money laundering or anti-terrorist legislation, regulation or guideline, then it shall have the right to resign on 10 days' written notice to Project Co and the Authority, or any shorter period of time as agreed to by Project Co and the Authority, notwithstanding the provisions of Section 7(a) of this Insurance Trust Agreement, provided that (i) the Account Trustee's written notice shall describe the circumstances of such non-compliance; and (ii) if such circumstances are rectified to the Account Trustee's satisfaction within such 10 day period, then such resignation shall not be effective.

8. AGENT AND AUTHORITY RIGHTS TO DIRECT

- (a) Until the termination of the Project Agreement in accordance with the Lenders' Remedies Agreement and receipt by Project Co of any amounts to which it is entitled pursuant to Schedule 9 [Compensation on Termination] to the Project Agreement and all Insurance Proceeds to the extent that the value of such Insurance Proceeds was deducted from the amounts payable to Project Co by the Authority (a "**Change of Authorization Event**"), the Agent shall, subject to Articles 3 (Insurance Trust Account) and 5 (Insurance Proceeds) of this Insurance Trust Agreement, have the exclusive right to direct the Account Trustee with respect to the Insurance Trust Account, the Insurance Policies and the Insurance Proceeds.
- (b) Upon the occurrence of a Change of Authorization Event:
 - (i) the Agent shall cease to be entitled, and the Authority shall thenceforth be entitled, to direct the Account Trustee with respect to the Insurance Trust Account, the Insurance Policies and the Insurance Proceeds; and

- (ii) the Agent and the Authority shall jointly provide notice to the Account Trustee (a **"Change of Authorization Notice"**) that the Authority shall, as of the date of such Change of Authorization Event, have the exclusive right to direct the Account Trustee with respect to the Insurance Trust Account, the Insurance Policies and the Insurance Proceeds.
- (c) Notwithstanding the foregoing, no Change of Authorization Event shall occur and no Change of Authorization Notice shall be delivered to the Account Trustee where an Authority Event of Default has occurred. Where an Authority Event of Default has occurred, upon receipt by the Agent and Senior Lenders of all amounts owing by the Authority to the Agent and Senior Lenders under the Lenders' Remedies Agreement, the Account Trustee shall release all amounts in the Insurance Trust Account, the Insurance Policies and the Insurance Proceeds to Project Co or as Project Co may otherwise direct from time to time.

9. TERMINATION

- (a) Subject to the provisions of Section 9(b), this Insurance Trust Agreement shall remain in full force and effect and be binding in accordance with and to the extent of its terms until:
 - (i) the obligations of Project Co to the Agent and the Senior Lenders under the Senior Financing Agreements have been paid and performed in full and the Senior Lenders have no further obligation to make any further advances or other credit accommodations under the Senior Financing Agreements; and
 - (ii) the obligations of Project Co to the Authority have been paid and performed in full.
- (b) The Account Trustee may terminate this Insurance Trust Agreement at any time upon 60 days prior written notice to the other parties hereto, provided that no termination of this Insurance Trust Agreement by the Account Trustee shall be effective until such time as the Agent, the Authority, and Project Co have entered into a replacement Insurance Trust Agreement on the same terms and conditions as this Insurance Trust Agreement with a replacement account trustee satisfactory to the Agent, the Senior Lenders and the Authority.

10. ASSIGNMENT

The Account Trustee shall not assign, transfer or otherwise dispose of any of its rights or obligations under this Insurance Trust Agreement without the prior written consent of the Agent, the Authority and Project Co.

11. AUTHORITY DESIGNATE

At any time and from time to time, the Authority may designate any ministry, branch, agency, division, department or office of the Government of the Northwest Territories to carry out administrative responsibility for the rights and obligations of the Authority under this Insurance Trust Agreement and Project Co, the Account Trustee and Agent may deal exclusively with the designated person in respect of all such matters and each of them is entitled to rely on the actions, directions, requests, notices, consents, approvals, waivers, comments relating to the review of documentation and other administrative matters and decisions determined by such designated person from time to time, until the Authority has notified Project Co, the Account Trustee and the Agent in writing that such designated person is no longer the person designated by the Authority hereunder and such notice shall have effect on the later of the date of delivery of such notice and the date specified in the written notice. The Authority shall advise Project Co, the

Account Trustee and the Agent in writing of any designation hereunder. The rights and obligations of the parties to this Insurance Trust Agreement shall be in no way affected by reason of any such designation. Project Co, the Account Trustee and the Agent acknowledge the right of the Authority to delegate administrative responsibilities hereunder as set forth in this Article 11.

12. NOTICES

Any notice or communication required or permitted to be given under this Insurance Trust Agreement will be in writing and will be considered to have been sufficiently given if delivered by hand or transmitted by electronic transmission to the address or electronic mail address of each party set out below:

if to the Authority:

[Redacted]

Attention: [Redacted]
Email: [Redacted]

if to the Agent:

[Redacted]

Attention: [Redacted]
Fax: [Redacted]
Email: [Redacted]

if to Project Co:

[Redacted]

Attention: [Redacted]
Email: [Redacted]

with copy to:

[Redacted]

Attention: [Redacted]
Fax: [Redacted]

if to the Account Trustee:

■
Attention: ■
Fax: ■

or to such other address or electronic mail address as any party may, from time to time, designate in the manner set out above. Any such notice or communication will be considered to have been received:

- (a) if delivered by hand during business hours (and in any event, at or before 3:00 pm local time in the place of receipt) on a Business Day, upon receipt by a responsible representative of the receiver, and if not delivered during business hours, upon the commencement of business hours on the next Business Day; and
- (b) if delivered by electronic mail during business hours (and in any event, at or before 3:00 pm local time in the place of receipt) on a Business Day, upon receipt, and if not delivered during business hours, upon the commencement of business hours on the next Business Day provided that:
 - (i) the receiving party has, by electronic mail or by hand delivery, acknowledged to the notifying party that it has received such notice; or
 - (ii) within 24 hours after sending the notice, the notifying party has also delivered a copy of such notice to the receiving party by hand delivery.

13. AMENDMENTS

This Insurance Trust Agreement may not be varied, amended or supplemented except by an agreement in writing signed by duly authorized representatives of the parties and stating on its face that it is intended to be an amendment, restatement or other modification, as the case may be, to this Insurance Trust Agreement.

14. WAIVER

- (a) No waiver made or given by a party under or in connection with this Insurance Trust Agreement shall be binding or effective unless the waiver is in writing, signed by an authorized representative of the party giving such waiver, and delivered by such party to the other parties. No waiver made with respect to any right, power or remedy in one instance will be deemed to be a waiver with respect to any other instance involving the exercise of such right, power, or remedy or with respect to any other right, power, or remedy.
- (b) Failure by any party to exercise any of its rights, powers or remedies hereunder or its delay to do so shall not constitute a waiver of those rights, powers or remedies. The single or partial exercise of a right, power or remedy shall not prevent its subsequent exercise or the exercise of any other right, power or remedy.

15. RELATIONSHIP BETWEEN THE PARTIES

The parties are independent contractors. This Insurance Trust Agreement is not intended to and does not create or establish between the parties any relationship as partners, joint venturers, employer and employee, master and servant, or, except as provided in this Insurance Trust Agreement, of principal and agent.

16. ENTIRE AGREEMENT

Except where provided otherwise in this Insurance Trust Agreement, this Insurance Trust Agreement constitutes the entire agreement between the parties in connection with its subject matter and supersedes all prior representations, communications, negotiations and understandings, whether oral, written, express or implied, concerning the subject matter of this Insurance Trust Agreement.

17. ENUREMENT

This Insurance Trust Agreement shall enure to the benefit of, and be binding on, each of the parties and their respective successors and permitted transferees and assigns.

18. GOVERNING LAW AND ATTORNMENT

- (a) This Insurance Trust Agreement will be deemed to be made pursuant to the laws of the Northwest Territories and the laws of Canada applicable therein and will be governed by and construed in accordance with such laws.
- (b) For the purposes of any legal actions or proceedings brought by any party hereto against the other party, the parties hereby irrevocably submit to the exclusive jurisdiction of the courts of the Northwest Territories and acknowledge their competence and the convenience and propriety of the venue and agree to be bound by any judgment thereof and not to seek, and hereby waive, review of its merits by the courts of any other jurisdiction.

19. FURTHER ASSURANCE

Each party shall do all things, from time to time, and execute all reasonable further documents necessary to give full effect to this Insurance Trust Agreement.

20. LANGUAGE OF AGREEMENT

Each party acknowledges having requested and being satisfied that this Insurance Trust Agreement and related documents be drawn in English. Chacune des parties reconnaît avoir demandé que ce document et ses annexes soient rédigés en anglais et s'en déclare satisfaite.

21. COUNTERPARTS

This Insurance Trust Agreement may be executed in one or more counterparts. Any single counterpart or a set of counterparts executed, in either case, by all the parties shall constitute a full, original and binding agreement for all purposes. Counterparts may be executed either in original or faxed form provided that any party providing its signature in faxed form shall promptly forward to such party an original signed copy of this Insurance Trust Agreement which was so faxed.

[signature pages to follow]

IN WITNESS WHEREOF the parties have executed this Insurance Trust Agreement as of the date and year first above written.

**THE GOVERNMENT OF THE NORTHWEST
TERRITORIES**

By:

Authorized Signatory

, as Agent

By:

Authorized Signatory

■, as Account Trustee

By:

Authorized Signatory

NORTH STAR INFRASTRUCTURE GP, by its general partners:

KIEWIT NORTH STAR INFRASTRUCTURE INVESTOR INC.

Per: _____
Name:
Title:

Per: _____
Name:
Title:

**TILI GEEKWI LIMITED PARTNERSHIP, by its general partner
TILI GEEKWI LTD.**

Per: _____
Name:
Title:

Per: _____
Name:
Title:

SCHEDULE 6

CHANGES, MINOR WORKS AND INNOVATION PROPOSALS

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SCHEDULE 6

CHANGES, MINOR WORKS AND INNOVATION PROPOSALS

1. INTERPRETATION

1.1 Definitions

In this Schedule, in addition to the definitions set out in Schedule 1 [Definitions and Interpretation] of this Agreement:

“Change” means a Works Change or an OMR Change as the context requires;

“Change Certificate” means a certificate issued by the Authority describing and authorizing a Change, the value or method of valuation of the Change, and, in the case of a Works Change occurring prior to the Substantial Completion Date and/or the Total Completion Date, the adjustment, if any, to the Project Schedule (including the Target Substantial Completion Date and/or the Target Total Completion Date);

“Change Directive” means a written instruction which is issued on a form designated as a “Change Directive Form” and signed by the Authority’s Representative directing Project Co to immediately proceed with a Change, pending the finalization and issuance of a Change Certificate for that Change;

“Change Mark-Up” has the meaning set out in Section 2.10 of this Schedule;

“Change Report” means a written report prepared by Project Co in response to a Preliminary Change Instruction, containing the information described in Section 2.6 of this Schedule;

“Change Report Costs” has the meaning set out in Section 2.5(b)(3)(A) of this Schedule;

“Climate Change Impact Proposal” has the meaning set out in Section 5.1 of this Schedule;

“Development Change” has the meaning set out in Section 7.1 of this Schedule;

“Development Change Record” has the meaning set out in Section 7.2 of this Schedule;

“Development Change Record Confirmation” has the meaning set out in Section 7.3 of this Schedule;

“Development Change Register” has the meaning set out in Section 7.6 of this Schedule;

“Innovation Proposal” has the meaning set out in Section 4.1 of this Schedule;

“Minor Works” means a Change that is requested by the Authority at any time after the Substantial Completion Date with a value that does not exceed \$100,000, Index Linked, unless otherwise agreed by the Authority;

“Minor Works Rates” has the meaning set out in Section 3.1 of this Schedule;

“Net Change Value” has the meaning set out in Section 2.9(a) of this Schedule;

“**OMR Change**” means a change, including an addition, deletion, alteration, substitution or otherwise, to Project Co’s OMR, Reinstatement Works or Handback Works obligations under this Agreement;

“**Preliminary Change Instruction**” has the meaning set out in Section 2.3 of this Schedule;

“**Preliminary Estimate**” has the meaning set out in Section 2.5(b)(1) of this Schedule; and

“**Works Change**” means a change, including an addition, deletion, alteration, substitution or otherwise, to Project Co’s Design or Construction obligations under this Agreement.

2. CHANGES

2.1 Changes Required by Authority

The Authority may at any time during the Term, without invalidating this Agreement, require Changes in accordance with this Schedule. Except to the extent that a Change Certificate expressly requires otherwise, Project Co will implement a Change in accordance with all the terms of this Agreement, including Schedule 2 [Quality Management], Schedule 3 [Design and Construction] and Schedule 4 [OMR and Handback].

2.2 No Entitlement to Perform a Change

Without prejudice to Project Co’s rights under this Agreement, including Section 8.3, the Authority may, at any time after giving notice to Project Co, perform, or engage any person to perform, any work on the Lands or on the Tłı̨chų ASR that is not included in Project Co’s obligations under this Agreement. None of Project Co, the Project Contractors or the Sub-Contractors will have any right or entitlement to perform any such work. Project Co may submit a proposal to the Authority for the performance of such work, but nothing in this Agreement will obligate the Authority to consider or accept such proposal.

2.3 Preliminary Change Instruction

The Authority may at any time during the Term issue to Project Co an instruction (a “**Preliminary Change Instruction**”) describing a potential Works Change or OMR Change that the Authority is considering. A Preliminary Change Instruction will include sufficient description of the contemplated Change, including any requirements under Section 2.12(b) of this Schedule to permit Project Co to prepare a Change Report.

2.4 Restrictions on Changes

The Authority will not at any time during the Term require, and Project Co may refuse to implement, a Change (including Minor Works) which would:

- (a) be contrary to Law;
- (b) render the insurance policies required under this Agreement void or voidable and the Authority does not agree to provide replacement security satisfactory to Project Co acting reasonably;

- (c) cause the revocation of any Permit required by Project Co to perform its obligations under this Agreement, and such Permit would not, using reasonable efforts, be capable of amendment or renewal;
- (d) require a new Permit for Project Co to perform its obligations under this Agreement, which Permit would not, using reasonable efforts by Project Co or the Authority, as applicable, be obtainable;
- (e) cause Project Co to be unable to obtain a Permit required by Project Co to perform its obligations under this Agreement, provided that such Permit was previously required but at the time of the Preliminary Change Instruction had not been obtained and such Permit would not, using reasonable efforts by Project Co or the Authority, as applicable, be obtainable;
- (f) in combination with prior Changes, have an aggregate value equal to or greater than 25% of the total capital cost of the Project;
- (g) materially and adversely affect the risk allocation and payment regime under this Agreement with respect to Design, Construction, OMR, Reinstatement Works or Handback Works; or
- (h) require Project Co to obtain additional financing for which:
 - (1) Project Co has used reasonable commercial efforts to obtain;
 - (2) Project Co has been unable to obtain on terms acceptable to Project Co and the Authority, each acting reasonably; and
 - (3) the Authority has confirmed in writing that it will not provide such additional funding in advance of the execution of the Change.

If Project Co, acting reasonably, determines that a Change is unacceptable because it contravenes one or more of the above, then Project Co will promptly give notice to the Authority of its objection, with written reasons. If the Authority disagrees then it may deliver a Dispute Notice to Project Co, and the parties will cooperate to have the issue resolved in a timely manner pursuant to the Dispute Resolution Procedure.

2.5 Delivery of Change Report

Subject to Section 2.4 of this Schedule:

- (a) as soon as practicable and in any event, to the extent reasonably possible, within 15 Business Days after receipt of a Preliminary Change Instruction, or such other period as the parties agree acting reasonably, Project Co will at its cost prepare and deliver to the Authority a Change Report, signed by Project Co's Representative, for the contemplated Change described in the Preliminary Change Instruction; or

- (b) notwithstanding Section 2.5(a) of this Schedule if the Net Change Value of the contemplated Change (comprised of a Works Change or an OMR Change or both) is likely to be more than \$100,000, Index Linked, then:
- (1) Project Co may, at its election within 5 Business Days after receipt of the Preliminary Change Instruction for such contemplated Change give notice to the Authority that it intends to first prepare and deliver a preliminary estimate (the “**Preliminary Estimate**”) of the net cost of the contemplated Change;
 - (2) if Project Co has given notice as described in Section 2.5(b)(1) then within 10 Business Days after provision of such notice Project Co will at its cost prepare and deliver to the Authority an order of magnitude estimate of the net cost of the contemplated Change, and the Authority may give notice to Project Co to proceed with Section 2.5(b)(3), or alternatively, to proceed with the preparation of the Change Report for the contemplated Change and Project Co will prepare and deliver the Change Report as soon as practicable and in any event, to the extent reasonably possible, within 15 Business Days after receipt of such notice, or such longer period as the parties agree acting reasonably;
 - (3) if the Authority has given notice as described in Section 2.5(b)(2) to proceed with this Section then within 10 Business Days after receipt of such notice Project Co will at its cost prepare and deliver to the Authority:
 - (A) a reasonable estimate of costs if any (the “**Change Report Costs**”) that Project Co would incur to retain third parties (such as design consultants and construction managers) that Project Co would require to prepare the Change Report, including any incremental costs incurred under management service contracts held by Project Co, but excluding the costs of Project Co’s own staff and employees, and the staff and employees of a Project Contractor, or any of their Affiliates who are normally part of the general management, administration, and supervision of the Project Work; and
 - (B) a Preliminary Estimate of the contemplated Change, in sufficient detail and accuracy to permit the Authority to make an informed decision as to whether to proceed with the contemplated Change, including as appropriate:
 - (i) preliminary cost estimates of the main elements of the contemplated Change;
 - (ii) a preliminary implementation schedule and work plan for the implementation of the contemplated Change; and
 - (iii) a description of the impact of the contemplated Change on the Tłı̨chų ASR during implementation or in the use of the Tłı̨chų ASR; and

- (4) the Authority may within 10 Business Days following receipt of the Preliminary Estimate, or at any time if Project Co fails to comply with the time requirements set out in this Section 2.5(b), give notice to Project Co to proceed with the preparation of the Change Report for the contemplated Change and Project Co will prepare and deliver the Change Report as soon as practicable and in any event, to the extent reasonably possible, within 15 Business Days after receipt of such notice, or such longer period as the parties agree acting reasonably.

If Project Co prepares a Change Report pursuant to Section 2.5(b)(4) of this Schedule, and the Authority elects not to proceed with the contemplated Change, then the Authority will pay Project Co's substantiated Change Report Costs.

2.6 Change Report Contents

A Change Report will include:

- (a) if and to the extent a contemplated Change is a Works Change:
 - (1) a description of the scope of the contemplated Change with respect to Design and Construction;
 - (2) a comparison of the scope of Design and Construction as a result of the contemplated Change as compared to the scope prior to the Change;
 - (3) subject to Section 2.11 of this Schedule, a description of any adjustments to the Project Schedule, including the Target Substantial Completion Date and/or the Target Total Completion Date, which Project Co will require as a result of the implementation of the contemplated Change (including details of any corresponding adjustments required by any Project Contractor or any Sub-Contractors) and any compensation required under Section 2.9(d) of this Schedule; and
 - (4) a description of any impact of the contemplated Change on the performance of the OMR, Reinstatement Works and/or Handback Works;
- (b) if and to the extent a contemplated Change is an OMR Change:
 - (1) a description of the scope of the contemplated Change with respect to the OMR, Reinstatement Works and/or Handback Works; and
 - (2) a comparison of the scope of the OMR, Reinstatement Works and/or Handback Works as a result of the contemplated Change as compared to the scope prior to the Change; and
- (c) for all contemplated Changes (in addition to the requirements of Section 2.6(a) or 2.6(b) of this Schedule, as applicable):

- (1) an estimate of all costs, if any, reasonably necessary for and directly associated with the contemplated Change, including the following (which will be shown separately if requested by the Authority), as applicable:
 - (A) all Design costs (based on the estimated number of hours reasonably required to perform any additional Design);
 - (B) all Construction labour, material and equipment costs, supported as the case may be by quotations from the applicable Project Contractor and Sub-Contractors;
 - (C) all OMR, Reinstatement Works and/or Handback Works, as applicable, labour, material and equipment costs, supported as the case may be by quotations from the applicable Project Contractor and Sub-Contractors;
 - (D) all additional costs of site management, including supervision of trade foremen, site overheads and site establishment including, without duplication, any costs related to Project Co's management and oversight of the Project that should reasonably be included in the contemplated Change;
 - (E) all costs of relevant Permits, including an amendment or renewal of a Permit, a new Permit or a Permit that is in the course of being obtained;
 - (F) all costs associated with services provided by professional advisors;
 - (G) all financing costs;
 - (H) if and to the extent a contemplated Change is a Works Change that also materially affects the cost of the OMR, Reinstatement Works and/or Handback Works, all changes to the cost of the OMR, Reinstatement Works and/or Handback Works; and
 - (I) if and to the extent a contemplated Change is an OMR Change that requires a material change to the Tłı̄chq̄ ASR, all changes to the cost of the Design and/or Construction;
- (2) an estimate of the cost savings, if any, resulting from the contemplated Change;
- (3) any proposal(s) as to how the contemplated Change could be accomplished at no net cost;
- (4) a description of any changes to the Senior Financing Agreements that would be required to reflect a change in the risk profile of the Project arising from the contemplated Change;

- (5) a description of any changes to the Service Payments that are required to reflect the costs and cost savings referred to in Sections 2.6(c)(1) and 2.6(c)(2) above;
- (6) identification of any amounts payable by the Authority to Project Co, if any, other than the Service Payments;
- (7) Project Co's proposal as to how any increased costs to Project Co resulting from the contemplated Change might be funded;
- (8) the value of the loss or reduction of benefits resulting from the contemplated Change;
- (9) a description of any additional consents or approvals required, including amendments, if any, of any Permits required to implement the contemplated Change;
- (10) a description of any impact on the obligations of Project Co under any Material Contracts;
- (11) a description of the extent to which the contemplated Change would interfere with Project Co's ability to comply with any of its obligations under this Agreement, the Material Contracts, any Sub-Contracts and any Permits;
- (12) the name of the Sub-Contractor(s) (if any) which Project Co intends to engage for the purposes of implementing the contemplated Change together with a description of the qualifications of any such Sub-Contractor(s) so as to demonstrate the ability of such Sub-Contractor(s) to implement the contemplated Change;
- (13) a description of any further effects (including benefits and impairments) which Project Co foresees as being likely to result from the contemplated Change;
- (14) a description of any actions that would be reasonably required by the Authority to implement the contemplated Change;
- (15) a description of the steps Project Co will take to implement the contemplated Change, in such detail as is reasonable and appropriate in all the circumstances; and
- (16) a description of any impact on expected usage of utilities for the current Contract Year and subsequent Contract Years.

The cost of the correction of a defect, Deficiency or Nonconformity will not be included in the valuation of a Change.

All of the costs described in this Section 2.6 will be provided in current applicable dollar amounts. If a Change is implemented based on such cost estimates, equivalent dollar amounts as at the Base Date will be calculated for the purposes of indexation.

2.7 Justification and Supporting Documentation for Contemplated Change Estimates

The cost estimates included in a Change Report will be in sufficient detail to allow evaluation by the Authority and will include such supporting information and justification as is necessary to demonstrate that:

- (a) Project Co has used all reasonable efforts, including utilizing competitive quotes or tenders, to minimize the cost of a contemplated Change and maximize potential related cost savings;
- (b) Project Co and its Project Contractors and Sub-Contractors have valued the Change as described in Section 2.8 of this Schedule, and have not included other margins or mark-ups;
- (c) the full amount of any and all expenditures that have been reduced or avoided (including any Recoverable Expenditure) have been fully taken into account; and
- (d) Project Co has mitigated or will mitigate the impact of the contemplated Change, including on the Project Schedule, the performance of the Project Work, the expected usage of utilities, and the direct costs to be incurred.

2.8 Valuation of and Payment for Changes

The value and method of valuation of a Change will be as agreed by the parties and failing agreement will be the net cost (or saving) of implementing the Change, calculated in accordance with Section 2.9(a) of this Schedule (and for greater certainty a Change may have a net cost, or a net saving, or may result in no net cost or saving), and:

- (a) if a Change has a net cost (a positive Net Change Value), the Authority will pay Project Co the Net Change Value plus the Change Mark-Up and any amounts due under Section 2.9(d) of this Schedule; and
- (b) if a Change has a net cost savings (a negative Net Change Value), then Project Co will pay the Authority the Net Change Value.

2.9 Net Change Value

- (a) The value of a Change (the “**Net Change Value**”) is the aggregate of the direct incremental costs (minus the aggregate cost savings) reasonably incurred to implement the Change, supported by invoices, purchase orders, time sheets and other customary industry documentation, as follows:
 - (1) Design: the direct incremental costs (or cost savings) of any Design incurred (or saved) by the entity that retains the design personnel, based on the additional (or

decreased) number of design consultant's hours required to undertake the Change;

- (2) Construction Labour: the direct incremental costs incurred (or cost savings) by the entity that engages the construction labour, based on the additional (or decreased) number of labour and direct labour-supervision hours required to undertake the Change (including allowance for all payroll burdens such as overtime premiums (when paid), vacation pay, pensions, statutory payments, workers' compensation insurance, union dues, tool money, medical insurance, and any other payments directly paid in the ordinary course, and including any severance and termination costs directly resulting from the Change);
- (3) Materials and Equipment: the direct incremental costs incurred (or cost savings) by the entity that procures the materials, consumables and equipment, for the supply and delivery of such materials, consumables and equipment (including the cost of any associated testing, commissioning, spare parts, manuals and software, and including any related design and engineering), except that any changes to the Authority's cost of purchasing Equipment (if any) will not be included in the calculation of Net Change Value;
- (4) Procurement Cost: the direct incremental costs incurred (or cost savings) by the procuring entity to obtain and evaluate tenders and award a contract for work required for the Change that is to be tendered under Section 2.9(c) or Section 2.12(b) of this Schedule, and the supervision and management of such contract;
- (5) OMR: the direct incremental costs incurred (or cost savings) by the entity that retains the OMR, Reinstatement Works and/or Handback Works personnel, based on the number of personnel hours required to undertake the Change; and
- (6) Miscellaneous: all other additional direct costs (or cost savings) pertaining to the Change, including wastage, disposal, insurance, bonding, financing and Permits calculated at the direct cost to the entity that directly incurs such costs;

all without addition of any mark-ups except as otherwise expressly provided for in this Article 2;

- (b) the rates and charges applied in Section 2.9(a) above will be no greater than the market rates, prevailing at the time of the implementation of the Change, paid between arm's length contracting parties;
- (c) unless otherwise agreed by the Authority, Project Co will obtain competitive quotations or tenders for all work, equipment and materials required to implement a Change;
- (d) subject to Section 2.11 of this Schedule, if a Change causes a delay in the Target Substantial Completion Date and if Project Co is entitled to an equitable adjustment of the Project Schedule (including the Target Substantial Completion Date) as a result of a Change, the cost of the Change will include an amount calculated on the basis that Project

Co will be placed in no better or worse position than it would have been in had the Change and the delay in the Target Substantial Completion Date not occurred and taking into consideration the following (without duplication):

- (1) any net increase or decrease in the costs of Project Co performing its obligations under this Agreement resulting solely from the Change and the delay, including any increased financing costs caused by a reduction in the amortization schedule for the Senior Debt;
- (2) the Service Payments that would have otherwise been payable to Project Co; and
- (3) no amount will be payable for Avoidable Costs or Indirect Losses.

For greater certainty, Project Co will not be entitled to any amount under this Section 2.9 if the Change does not cause a delay in the Target Substantial Completion Date; and

- (e) no amount will be payable to Senior Lenders in connection with the consent to any Change unless the consent is required under the Senior Financing Agreements and the amount payable is reasonable.

2.10 Mark-Up on Changes

If a Change has a positive Net Change Value, the Authority will pay a mark-up on the Net Change Value determined in accordance with this Article 2 (the “**Change Mark-Up**”) to cover all indirect, head office and other costs and profit:

- (a) if the Net Change Value is less than or equal to \$ [REDACTED] (and is not Minor Works), the Change Mark-Up will be [REDACTED] % of the Net Change Value;
- (b) if the Net Change Value is more than \$ [REDACTED] and less than or equal to \$ [REDACTED], the Change Mark-Up will be [REDACTED] % of the Net Change Value; or
- (c) if the Net Change Value is more than \$ [REDACTED], the Change Mark-Up will be [REDACTED] % of the Net Change Value.

2.11 Effect on the Project Schedule or Delays to OMR

Project Co will use all reasonable efforts to minimize the effect of a Change on the Project Schedule (including the Target Substantial Completion Date and/or the Target Total Completion Date) and the performance of the OMR, Reinstatement Works and/or Handback Works and subject to the foregoing, Project Co will be entitled to an equitable adjustment of the Project Schedule (including the Target Substantial Completion Date and/or the Target Total Completion Date) and the requirements for performance of the OMR, Reinstatement Works and/or Handback Works as a result of the Change. Without limiting the generality of the foregoing, the implementation of a Change, to the extent Project Co has identified the effect on the OMR, Reinstatement Works and/or Handback Works and such effect has been documented in a Change Certificate, but without duplication of relief that may be provided in a Change Certificate, will constitute an Excusing Event.

2.12 Agreement on a Change

Following receipt by the Authority of a Change Report prepared in accordance with Section 2.6 of this Schedule:

- (a) as soon as practicable, and in any event within 15 Business Days after the Authority receives a Change Report, or such longer period as the parties agree acting reasonably, the Authority will deliver to Project Co any requests for clarifications or amendments, and the parties' Representatives will meet and use all reasonable efforts to agree to the Change Report, including the costs, payments (including payment of direct costs and adjustments to Service Payments, if any) and other information contained in the Change Report;
- (b) if the Authority is required by applicable Law or Governmental Authority to require Project Co to competitively tender any contract in relation to a contemplated Change, Project Co will seek and evaluate competitive tenders for the proposed Change; and
- (c) the Authority may in writing modify a Preliminary Change Instruction at any time prior to the parties reaching an agreement on the Change Report for any matter relating to the Change Report or arising from the discussions in relation thereto, in which case Project Co will, as soon as practicable and in any event not more than 10 Business Days after receipt of such modification (or such longer period as the parties may agree acting reasonably), notify the Authority of any consequential changes to the Change Report.

2.13 Change Certificate

A Change will come into effect by the Authority issuing to Project Co a Change Certificate signed by the Authority's Representative. If the parties have agreed on the Change Report without amendment, it is sufficient for the Change Certificate to be signed by the Authority's Representative. Subject to Section 2.14 of this Schedule, if the Change Report requires amendment the Change Certificate comes into effect when signed by the Authority's Representative and Project Co's Representative. Subject to Section 2.16 of this Schedule, Project Co will not proceed with a Change prior to receiving a signed Change Certificate from the Authority. A Change Certificate issued in accordance with this Section 2.13 will be binding upon the Authority and Project Co. Subject to Section 2.4 and Section 2.14(b) of this Schedule, upon receipt of a Change Certificate Project Co will implement the Change, without prejudice to Project Co's right to refer any question of valuation of the Change to the Dispute Resolution Procedure.

2.14 Disagreement on Change Report

If the parties do not agree on a Change Report, then the Authority may:

- (a) except in connection with a Change required pursuant to Section 2.15 of this Schedule, elect not to proceed with the Change described in the Preliminary Change Instruction; or
- (b) issue a Change Certificate to Project Co stating the Authority's determination of the matters referred to in the Change Report, and if Project Co disagrees with all or any of the determinations set out in the Change Certificate, then Project Co may deliver to the Authority a Dispute Notice, and Project Co will, without prejudice to its rights with respect

to such Dispute, use all reasonable efforts to implement the Change as directed in the Change Certificate.

The Change Certificate referred to in Section 2.14(b) is effective when signed by the Authority's Representative alone.

2.15 Changes in Other Circumstances

The Authority will issue a Preliminary Change Instruction in respect of:

- (a) an Authority decision regarding Tłıchǫ ASR reinstatement pursuant to Section 6.4(b) of this Agreement; and
- (b) a deemed Change pursuant to Section 8.8(a) of this Agreement.

2.16 Change Directive

Subject to Section 2.4 of this Schedule but notwithstanding any other provision of this Schedule, the Authority may at any time issue a Change Directive to Project Co, signed by the Authority's Representative, directing Project Co to proceed with a contemplated Change in which case the following will apply:

- (a) Project Co will proceed with the Change and the valuation and the time extensions and payment of any adjustments will be made as soon as reasonably possible after the implementation thereof in the same manner as a Change for which a Preliminary Change Instruction, Change Report and Change Certificate would be issued hereunder;
- (b) if Project Co has not previously done so, Project Co will within 20 Business Days after the issuance of the Change Directive provide a Change Report in accordance with the requirements of this Schedule for a Change Report and Section 2.12(a) of this Schedule will apply;
- (c) pending a final determination as to any time extensions or valuation and payment of any adjustments for a Change or any other matters in the Change Report delivered by Project Co pursuant to Section 2.16(b) of this Schedule, the Authority will pay Project Co amounts reasonably demonstrated by Project Co in writing from time to time to be payable for the Change, including reimbursement of amounts that Project Co reasonably incurs with respect to the Change. The Authority will fund all Changes implemented by way of a Change Directive as provided for in Section 6.2 of this Schedule; and
- (d) if the parties agree on the Change Report, the Authority will issue a signed Change Certificate stating the parties' agreed determination of the matters referred to in the Change Report. If the parties do not agree on a Change Report, then the Authority will issue a signed Change Certificate stating the Authority's determination of the matters referred to in the Change Report. If Project Co disagrees with all or any of the determinations set out in the Change Certificate, then Project Co may deliver to the Authority a Dispute Notice, and Project Co will, without prejudice to its rights with respect to such Dispute, continue to implement the Change as directed in the Change Directive.

The Authority may issue a Change Directive at any time in its discretion, including in the absence of a Preliminary Change Instruction, at any time following issuance of a Preliminary Change Instruction, if Project Co fails to provide a Change Report, if a Change Report or Change Certificate is not promptly agreed upon by the parties, or if there is a Dispute in relation to a Preliminary Change Instruction, Change Report or Change Certificate (including a Dispute as to whether there is a Change), but not if there is a Dispute as to whether Project Co is entitled to refuse to implement the Change under Section 2.4 of this Schedule.

2.17 Modification of Processes and Procedures

Nothing in this Schedule shall limit the ability of the parties to mutually, in writing, modify, simplify or waive some or all of the processes and procedures outlined in this Schedule in respect of Changes.

3. MINOR WORKS

3.1 Minor Works Rates

Rates for Minor Works will be established and applied as follows:

- (a) Not less than 45 Business Days before the anticipated Substantial Completion Date, and not less than 20 Business Days before the commencement of each subsequent Contract Year, Project Co will submit to the Authority for review and approval by the Authority any amendments to the table of categories and hourly rates set out in Section 3.1(b) (the “**Minor Works Rates**”) to be applied in respect of any request by the Authority for Minor Works to be completed during the next occurring Contract Year.
- (b) For reference purposes, the Minor Works Rates that would apply to the first Contract Year (if Minor Works Rates were to apply in that Contract Year), would be as follows:

Categories	Minor Works Rates
Project Manager	\$ [REDACTED]
Construction Manager	\$ [REDACTED]
General Superintendent	\$ [REDACTED]
Quality Manager	\$ [REDACTED]
Officer Clerk / Coordinator	\$ [REDACTED]
Safety Manager / Officer	\$ [REDACTED]
First Aid Attendant	\$ [REDACTED]
Project Engineer	\$ [REDACTED]

Categories	Minor Works Rates
General Foreman	\$ [REDACTED]
Leadhand	\$ [REDACTED]
Skilled Labourer	\$ [REDACTED]
General Labourer	\$ [REDACTED]
Surveyor	\$ [REDACTED]
Grade Man	\$ [REDACTED]
Bridgeman	\$ [REDACTED]
Mechanic	\$ [REDACTED]
Certified Welder	\$ [REDACTED]
Carpenter	\$ [REDACTED]
Electrician	\$ [REDACTED]

The Authority, acting reasonably, may identify amendments to the categories that may be required for Minor Works in the next applicable Contract Year. For greater certainty, the categories and Minor Works Rates will apply to the Project Contractors and Sub-Contractors unless otherwise agreed by the Authority, and some of the above may be employees of a Project Contractor.

- (c) The Minor Works Rates will be based on the actual hourly cost that will be paid to the individual (including allowance for all payroll burdens such as overtime premiums (when paid), vacation pay, pensions, statutory payments, workers' compensation insurance, union dues, tool money, medical insurance, and any other payments directly paid in the ordinary course), and will include a mark-up of 10% to cover Project Co's head office overhead and profit, except that the Minor Works Rates will not be greater than the prevailing market rates paid by arm's length contracting parties in the Northwest Territories.
- (d) If the parties are unable to agree on the categories and Minor Works Rates as required under Section 3.1(a) of this Schedule then the cost of Minor Works will be valued as described in Section 3.5 of this Schedule.

3.2 Direction for Minor Works

The Authority may at any time following the Substantial Completion Date require Project Co to perform Minor Works as follows:

- (a) within 10 Business Days of a request in writing for Minor Works, Project Co will at its own cost prepare and deliver to the Authority a written price estimate covering the full scope of the requested Minor Works, based on the applicable Minor Works Rates or, if and to the extent the Minor Works Rates are not applicable, at cost plus 5%;
- (b) a Preliminary Change Instruction and a Change Report will not be required for Minor Works;
- (c) upon further written direction from the Authority, Project Co will in a timely manner carry out the Minor Works; and
- (d) the completed Minor Works will be a part of the completed Tłıçhç ASR and accordingly, as required by this Agreement, and without further payment, except for an appropriate adjustment to the Service Payment to reflect the effect, if any, on the cost of the OMR, Reinstatement Works and/or Handback Works, Project Co will be responsible for any defect, Deficiency or Nonconformity, and for all OMR, Reinstatement Works and/or Handback Works related to the completed Minor Works.

Project Co will not be entitled to charge the Authority for preparing a written price quote in accordance with Section 3.2(a) above.

3.3 Project Co to Minimize Inconvenience

Prior to commencing any Minor Works, Project Co will notify the Authority of the estimated duration of the Minor Works so that the Authority and Project Co can agree upon a convenient time for carrying out the Minor Works in a manner that minimizes and mitigates inconvenience and disruption to the use of the Tłıçhç ASR. Project Co will use all reasonable efforts to minimize the duration of any Minor Works, and will schedule Minor Works as reasonably requested by the Authority, including doing works outside normal operating hours.

3.4 Payment for Minor Works

Project Co will as of the end of a calendar month invoice the Authority monthly for Minor Works completed in the calendar month, supported by appropriate invoices and work records, and the Authority will pay Project Co by the later of the 20th day of the next calendar month, or 30 calendar days following receipt of the invoice, for Minor Works performed in the previous calendar month.

3.5 Minor Works Disputes

Any Dispute arising in connection with Minor Works, including the price to be paid for Minor Works and the annual determination of the Minor Works Rates, will be resolved in accordance with the Dispute Resolution Procedure.

4. INNOVATION PROPOSALS

4.1 Innovation and Value Engineering

Project Co may at any time during the Operating Period submit a proposal to the Authority (an “**Innovation Proposal**”) to implement modifications to the T1çhç ASR and/or the OMR, Reinstatement Works and/or Handback Works, including through innovation or value engineering, for the purpose of achieving efficiencies and reducing the Service Payments or the overall cost to the Authority of the T1çhç ASR and the OMR, any Reinstatement Works and/or Handback Works. Project Co must demonstrate to the Authority’s satisfaction that an Innovation Proposal:

- (a) is originated and initiated solely by Project Co (including by Project Co bearing all research and development costs) without the involvement of the Authority or its consultants; and
- (b) offers savings, innovation or efficiency that is not otherwise called for or provided by this Agreement.

4.2 Content of Innovation Proposal

An Innovation Proposal will:

- (a) set out all the information required in a Change Report as required under Section 2.6 of this Schedule, modified to apply to an Innovation Proposal;
- (b) specify Project Co’s reasons and justification for proposing the Innovation Proposal;
- (c) request the Authority to consult with Project Co with a view to the Authority deciding whether to agree to the Innovation Proposal and, if so, what consequential changes the Authority may require;
- (d) indicate any implications of the Innovation Proposal, including a difference between the existing and the proposed requirements of this Agreement, and the comparative advantages of each to Project Co and the Authority;
- (e) indicate whether a payment by the Authority in respect of direct costs or a variation to the Service Payments is proposed and, if so, give a detailed estimate of such proposed payment or variation;
- (f) indicate if there are any dates by which a decision by the Authority must be made; and
- (g) include such other information and documentation as may be reasonably requested by the Authority to fully evaluate and consider the Innovation Proposal.

4.3 Costs of Developing Innovation Proposal

Project Co may deliver to the Authority preliminary information with respect to a proposed Innovation Proposal, but unless the Authority, in its discretion, agrees to pay or share the costs of developing an

Innovation Proposal, the costs of investigating a potential Innovation Proposal will be borne entirely by Project Co.

4.4 Evaluation of Innovation Proposal

The Authority will evaluate and give consideration to an Innovation Proposal taking into account all relevant issues, including whether:

- (a) a change in the Service Payments will occur;
- (b) the Innovation Proposal affects the quality or delivery of the Tłı̄chǫ ASR or the OMR, Reinstatement Works and/or Handback Works;
- (c) the Innovation Proposal will interfere with the relationship of the Authority with any third parties;
- (d) the financial strength of Project Co is sufficient to deliver the changed Tłı̄chǫ ASR or changed OMR, Reinstatement Works and/or Handback Works, as applicable;
- (e) the residual value of the Tłı̄chǫ ASR is affected; and
- (f) the Innovation Proposal materially affects the risks or costs to which the Authority is exposed,

and any other matter the Authority considers relevant. The Authority may request clarification or additional information regarding the Innovation Proposal, and may request modifications to the Innovation Proposal.

4.5 Acceptance and Implementation of Innovation Proposal

Notwithstanding any potential cost savings of an Innovation Proposal, the Authority is under no obligation to accept an Innovation Proposal and may in its discretion elect not to implement an Innovation Proposal. An Innovation Proposal that is accepted by the Authority will be implemented as a Change and Project Co will not implement an Innovation Proposal prior to the issuance of a Change Certificate.

4.6 Sharing Benefits of an Innovation Proposal

If the Innovation Proposal causes or will cause the costs of Project Co or of a Project Contractor or Sub-Contractor to decrease, after taking into account the agreed implementation and reasonably allocated development costs (incurred by Project Co, a Project Contractor or a Sub-Contractor) of the Innovation Proposal (taking into account any other uses of the Innovation Proposal by Project Co), the net savings in the costs of Project Co and such Project Contractor or Sub-Contractor will be shared equally by Project Co and the Authority, and the Authority's share of the net savings will be reflected in a reduction of the Service Payments.

5. CLIMATE RELATED PROPOSALS

5.1 Climate Change Related and Value Engineering

Project Co may at any time during the Operating Period, but not more than once in any six month period during the Operating Period, submit a proposal to the Authority (a “**Climate Change Impact Proposal**”) to implement modifications to the Tłıchq ASR and/or the OMR, Reinstatement Works and/or Handback Works, including through innovation or value engineering, for the purpose of responding to the impact, and cost, in any future 12-month period of the remaining Term, of a Climate Change Event related to Prospective CC Relief, which may involve adjusting the Service Payments or the overall cost to the Authority of the Tłıchq ASR and the OMR, any Reinstatement Works and/or Handback Works. For greater certainty, a Climate Change Impact Proposal may only be submitted with respect to a 12-month period following the 12-month period in which the Climate Change Event occurred.

5.2 Content of Climate Change Impact Proposal

A Climate Change Impact Proposal will:

- (a) set out all the information required in a Change Report as required under Section 2.6 of this Schedule, modified to apply to a Climate Change Impact Proposal;
- (b) specify Project Co’s reasons and justification for proposing the Climate Change Impact Proposal;
- (c) request the Authority to consult with Project Co with a view to the Authority deciding whether to agree to the Climate Change Impact Proposal and, if so, what consequential changes the Authority may require;
- (d) indicate any implications of the Climate Change Impact Proposal, including a difference between the existing and the proposed requirements of this Agreement, and the comparative advantages of each to Project Co and the Authority;
- (e) indicate whether a payment by the Authority in respect of direct costs or a variation to the Service Payments is proposed and, if so, give a detailed estimate of such proposed payment or variation;
- (f) indicate if there are any dates by which a decision by the Authority must be made; and
- (g) include such other information and documentation as may be reasonably requested by the Authority to fully evaluate and consider the Climate Change Impact Proposal.

5.3 Costs of Developing Climate Change Impact Proposal

Project Co may deliver to the Authority preliminary information with respect to a proposed Climate Change Impact Proposal, but unless the Authority, in its discretion, agrees to pay or share the costs of developing a Climate Change Impact Proposal, Project Co’s costs of investigating a potential Climate Change Impact Proposal will be borne entirely by Project Co.

5.4 Evaluation of Climate Change Impact Proposal

The Authority will evaluate and give consideration to a Climate Change Impact Proposal taking into account all relevant issues, including whether:

- (a) a change in the Service Payments will occur;
- (b) the Climate Change Impact Proposal affects the quality or delivery of the Tłı̄chǫ ASR or the OMR, Reinstatement Works and/or Handback Works;
- (c) the Climate Change Impact Proposal will interfere with the relationship of the Authority with any third parties;
- (d) the financial strength of Project Co is sufficient to deliver the changed Tłı̄chǫ ASR or changed OMR, Reinstatement Works and/or Handback Works, as applicable;
- (e) the residual value of the Tłı̄chǫ ASR is affected;
- (f) the Climate Change Impact Proposal materially affects the risks or costs to which the Authority is exposed; and
- (g) any other matter the Authority considers relevant.

For greater clarity, the Authority may request clarification or additional information regarding the Climate Change Impact Proposal, and may request modifications to the Climate Change Impact Proposal.

5.5 Acceptance and Implementation of Climate Change Impact Proposal

The Authority is under no obligation to accept a Climate Change Impact Proposal and may in its discretion elect not to implement a Climate Change Impact Proposal. If the Authority elects not to accept a Climate Change Impact Proposal, or the parties cannot agree to the terms thereof, either party may refer the matter to the Dispute Resolution Procedure. A Climate Change Impact Proposal that is accepted by the Authority, or required pursuant to a final determination under the Dispute Resolution Procedure, will be implemented as a Change and Project Co will not implement a Climate Change Impact Proposal prior to the issuance of a Change Certificate.

6. RESPONSIBILITY AND PAYMENT FOR CHANGES

6.1 Responsibility for Changes, Minor Works and Innovation Proposals

Except as specifically provided in this Agreement, the Authority will bear no risk or liability whatsoever arising from any Change, Minor Works or Innovation Proposal other than the liability to make payment in connection therewith. Notwithstanding the previous sentence, the Authority will pay to Project Co increased costs or any Direct Losses suffered by Project Co as a result of any particular design, materials, goods, workmanship or method of construction which the Authority specifies must be incorporated in a Change

and which is subsequently shown to be defective (other than as a result of the default or negligence of Project Co or any Project Co Person), if:

- (a) Project Co objected in writing to the incorporation of such item prior to the issue of the relevant Change Certificate; and
- (b) such objection was rejected by the Authority.

6.2 Service Payments in Respect of Changes, Minor Works and Innovation Proposals

Payments between the parties and any adjustments to Service Payments in respect of Changes, Minor Works and Innovation Proposals will be made in accordance with any agreed basis for payment set out in the Change Certificate. The basis for payment may at the Authority's discretion include progress draws, milestone payments, lump sum payments, time and materials or maximum amounts. If no basis for payment is included in the Change Certificate, payment will be made in accordance with Section 10 (Lump Sum Payments and Service Payment Adjustments) of this Agreement.

If payments between the parties in respect of Changes, Minor Works and Innovation Proposals include an adjustment to payments (if any) during the Construction Period, Service Payments or otherwise require an update to the Financial Model, Project Co will expeditiously update and will provide such updated Financial Model to the Authority, all in accordance with Article 10 (Lump Sum Payments and Service Payment Adjustments) of this Agreement. The Authority may in its sole discretion waive or defer the requirements for Project Co to make such updates to the Financial Model in respect of Changes, Minor Works and Innovation Proposals. The updates to the Financial Model will be shown as of the relevant current date and, as applicable, the Base Date.

6.3 Consequential Amendments to Appendix 8A

If the Change, Minor Works or Innovation Proposal affects any of the contents of Appendix 8A [Assignment of Compliance Failure Points], the parties will in accordance with Section 5.4 of Schedule 8 [Payments] review and adjust Appendix 8A [Assignment of Compliance Failure Points].

7. ALTERNATE CHANGE PROCESS DURING DESIGN

7.1 Development Changes

The parties may during the Design process agree to utilize an alternate procedure for agreeing on and tracking Changes that:

- (a) on an individual basis, are less than \$100,000 in value, including "no cost" Changes;
- (b) on a cumulative basis over the course of the Construction Period, are less than \$1,000,000 in value;
- (c) do not result in a change in the Target Substantial Completion Date;
- (d) do not result in a change to the Financial Model; and

- (e) would not fall within the scope of Section 2.4 of this Schedule.

In such cases the parties may, on an individual Change basis, agree to utilize the process set out in this Article 7 rather than the process set out in Article 2 (Changes) of this Schedule (“**Development Changes**”).

7.2 Alternate Process

Where a party identifies a potential Development Change, that party may present the potential Development Change to the other party in a form, and with such supporting information, as it considers to be appropriate to the nature and complexity of the potential Development Change.

Where a party presents a potential Development Change, the parties’ respective Design and Construction Representatives will meet as soon as practicable to discuss the proposed Development Change and where:

- (a) the proposed Development Change meets the requirements of Section 7.1 of this Schedule; and
- (b) the parties reach agreement with respect to the value of the proposed Development Change and any contractual amendments required to implement the proposed Development Change,

Project Co will record the terms of the parties’ agreement with respect to the applicable Development Change (a “**Development Change Record**”).

Promptly after preparing a Development Change Record, and in any event prior to implementation of the agreed Development Change, Project Co will deliver a copy of the Development Change Record to the Authority’s Design and Construction Representative.

7.3 Opportunity to Object

If, within 10 Business Days after receipt of a Development Change Record, the Authority’s Design and Construction Representative objects in writing to the Development Change Record on the basis that it is not an accurate representation of the parties’ agreement, the parties will meet to discuss the Development Change and attempt to resolve the objection.

If an objection cannot be resolved, then the proposed Change will be deemed not to be a Development Change and will not be implemented by the parties; provided that either the Authority or Project Co will be permitted to pursue such Development Change in accordance with the Change process in accordance with this Schedule.

If an objection is resolved, then following such resolution, the parties will record the terms of the Development Change (the “**Development Change Record Confirmation**”), and such Development Change Record Confirmation will be signed on behalf of the parties.

7.4 Design and Construction Representatives

The Authority's Design and Construction Representative and Project Co's Design and Construction Representative will have authority to agree on the value of Development Changes and contractual amendments to implement such Development Changes.

7.5 Implementation

Where there is no objection to a proposed Development Change within the 10 Business Day period specified in Section 7.3 of this Schedule, the Development Change Record will become the Development Change Record Confirmation. Following the issue of a Development Change Record Confirmation, the parties will promptly proceed with implementation of the applicable Development Change on the terms set out in the applicable Development Change Record Confirmation.

7.6 Reconciliation

No later than the 10th day of each month, Project Co's Design and Construction Representative will prepare and deliver to the Authority's Design and Construction Representative a register of all Development Changes agreed during the prior month (the "**Development Change Register**").

7.7 Development Change Register

Within 30 days after the issuance of the Final Design Development Submittals pursuant to Schedule 3 [Design and Construction], the Authority will prepare and deliver to Project Co a consolidated Change Certificate encompassing all of the agreed Development Changes, as set out in the applicable Development Change Registers.

7.8 No Dispute

The parties agree that a failure to reach agreement with respect to a proposed Development Change pursuant to the procedure set out in this Article 7 shall not constitute a Dispute, and shall not be referred for resolution to the Dispute Resolution Procedure.

SCHEDULE 7

LANDS

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APPENDIX 7A DESCRIPTION OF LANDS AND ENCUMBRANCES

ATTACHMENT 1 INDICATIVE MAP OF LANDS

SCHEDULE 7

LANDS

1. DEFINITIONS

In this Schedule, in addition to terms defined in Schedule 1 [Definitions and Interpretation] of this Agreement:

“**Charge**” means any charge, mortgage, lien, pledge, judgment, execution, security interest, restriction, claim or encumbrance of any nature whatsoever, including any claims of the Workers’ Safety and Compensation Commission, Canada Revenue Agency, Employment Standards Office or other Governmental Authority;

“**Encumbrances**” means those Charges against title to the Lands described in the land title searches attached as Appendix 7A [Description of Lands and Encumbrances] and any additional Charges against the Lands permitted under this Schedule;

“**Lands**” means the real property interests described in Appendix 7A [Description of Lands and Encumbrances]; and

“**Licence**” has the meaning set out in Section 2.1(a) of this Schedule.

2. AUTHORITY’S OBLIGATIONS AND REPRESENTATIONS

2.1 Grant of Licence Over Lands

- (a) From the Effective Date until the later of:
- (1) the Termination Date; and
 - (2) the date the Authority no longer requires Project Co to provide the transitional services described in Section 15.3(a) of the Agreement,

the Authority hereby grants and will continuously until the applicable date above, grant or cause to be granted to Project Co a non-exclusive licence of use and access to, on and over the Lands and the Tłı̨ch̓ ASR to the extent required by Project Co to allow Project Co to perform the Project Work (the “**Licence**”).

- (b) In consideration for the Licence granted in Section 2.1(a), Project Co will perform the obligations described in Section 4.1 of the Agreement subject to and in accordance with the Agreement.
- (c) Project Co may for the same purposes described in Section 2.1(a), grant sub-licences to any Project Co Person, provided that any such grant will be subject to, and terminate upon, termination of the Licence.

2.2 Terms Affecting Licence Grant

Without limiting the other provisions of this Schedule and this Agreement, the following terms and conditions apply to the Licence:

- (a) no legal demise or other interest in land, and no interest in the Tłıchq ASR or any other improvements, is granted to Project Co or created by this Agreement;
- (b) the Licence is non-exclusive and no right to exclusive possession of the Lands or the Tłıchq ASR is granted to Project Co;
- (c) Project Co's rights are subject to the Encumbrances; and
- (d) subject to complying with Project Co's reasonable standard safety procedures, the Authority will be entitled at any time and from time to time to grant to Authority Persons and any other persons, including contractors and the general public, access to the Lands and the Tłıchq ASR.

2.3 Property Taxes

The Authority will be responsible for property taxes (if any), or payments in lieu of property taxes, payable in respect of the Lands and the Tłıchq ASR or the occupation thereof by the Authority, Project Co or any Project Contractor or Sub-Contractor.

3. PROJECT CO'S OBLIGATIONS AND ACKNOWLEDGMENTS

3.1 "As Is Where Is"

Subject to the provisions of Section 3.4(b) of Schedule 19 [Environmental Obligations] and the provisions of Article 8 of the Agreement, Project Co accepts the Lands and the Licence on an "as is, where is" basis.

3.2 Encumbrances

Project Co acknowledges that it has reviewed the Encumbrances in effect as of the Effective Date, Project Co will fully and punctually observe and perform (to the same extent as if Project Co were the owner of the Lands and bound by the Encumbrances), any limitations, restrictions, obligations, liabilities and other terms and conditions set out in the Encumbrances and Project Co assumes all risks arising therefrom. Project Co will fully and punctually observe and perform all of the terms and conditions of any interest included in the Lands and any Encumbrance. The Authority may without restriction modify, add or remove any Encumbrances, provided that the foregoing will not limit Project Co's entitlements under the Agreement if such modification, addition or removal results in a Change.

3.3 Project Co Not To Encumber

Project Co will not, without the consent of the Authority:

- (a) grant or permit any Charge affecting or against the Lands or the Tłıchq ASR; or

- (b) do or omit to do, or cause, suffer or permit to be done or omitted to be done by any Project Co Person anything that would result in any Charge against or affecting the Lands, the Tłı̨chq ASR or any asset, matter or thing that may be required to be delivered or transferred to the Authority on the Termination Date pursuant to Section 15.2 of this Agreement,

and will at its own expense promptly discharge and remove or cause to be discharged and removed any such encumbrance.

3.4 No Restriction on Authority Use or Development

Project Co acknowledges that the Authority may from time to time without restriction use, develop or re-develop, or permit the use, development or re-development of, the Lands, the Tłı̨chq ASR or any portion thereof (including by way of subdivision) for any purpose and by any Person. To the extent such use, development or re-development adversely interferes with the Licence or adversely interferes with Project Co's ability to carry out the Project Work, the Authority will, to address such interference, initiate a Change.

3.5 No Registration

Project Co will not register in any land title office this Agreement, the Licence or any instrument, claim or notice in respect of the Licence or any other rights of Project Co under this Agreement.

3.6 Builders Liens

Project Co will, at its own cost and expense, cause any and all builders liens and other liens and claims of lien for labour, services or materials furnished or alleged to have been furnished with respect to the Project Work that are registered against or otherwise affect the Lands or the Tłı̨chq ASR or any part thereof, to be paid, satisfied, released or vacated forthwith after the Authority has sent Project Co written notice of any such lien or claim. If there is a bona fide dispute of the validity or correctness of any such lien or claim, Project Co will be entitled to defend against the lien or claim in any proceedings if Project Co first:

- (a) pays into court, or provides sufficient security for, the amount claimed and costs as the court may direct, as may be required to obtain a court order for the discharge of such lien or claim from title to the Lands or the Tłı̨chq ASR, and obtains such discharge and registers such discharge in the relevant land title office to cancel such lien; or
- (b) provides such other reasonable security in respect of such lien or claim as the Authority may in writing, and in its discretion, approve.

3.7 Title to Improvements

Project Co will not acquire any property interest in or title to the Tłı̨chq ASR or any other improvements to the Lands. As between Project Co and the Authority, title to and ownership of the Tłı̨chq ASR and all other improvements to the Lands will at all times be vested in the Authority.

APPENDIX 7A

DESCRIPTION OF LANDS AND ENCUMBRANCES

The “**Lands**” include:

- (a) a continuous corridor, generally located between the geographic coordinates 62°28'54" to 63°10'58.6" N latitude, and 116°29'07" to 117°02'20" longitude, between:
 - (1) a point on the Whati access/winter road; and
 - (2) Highway 3 at Kilometer 196;
being approximately 97 km in length; and
- (b) identified aggregate source areas (excluding Source 116),

as generally illustrated in Attachment 1 [Indicative Map of Lands] hereto and further described in the Land Use Permit, which includes the final Tłı̨ch̓ All Season Road Project Description Report.

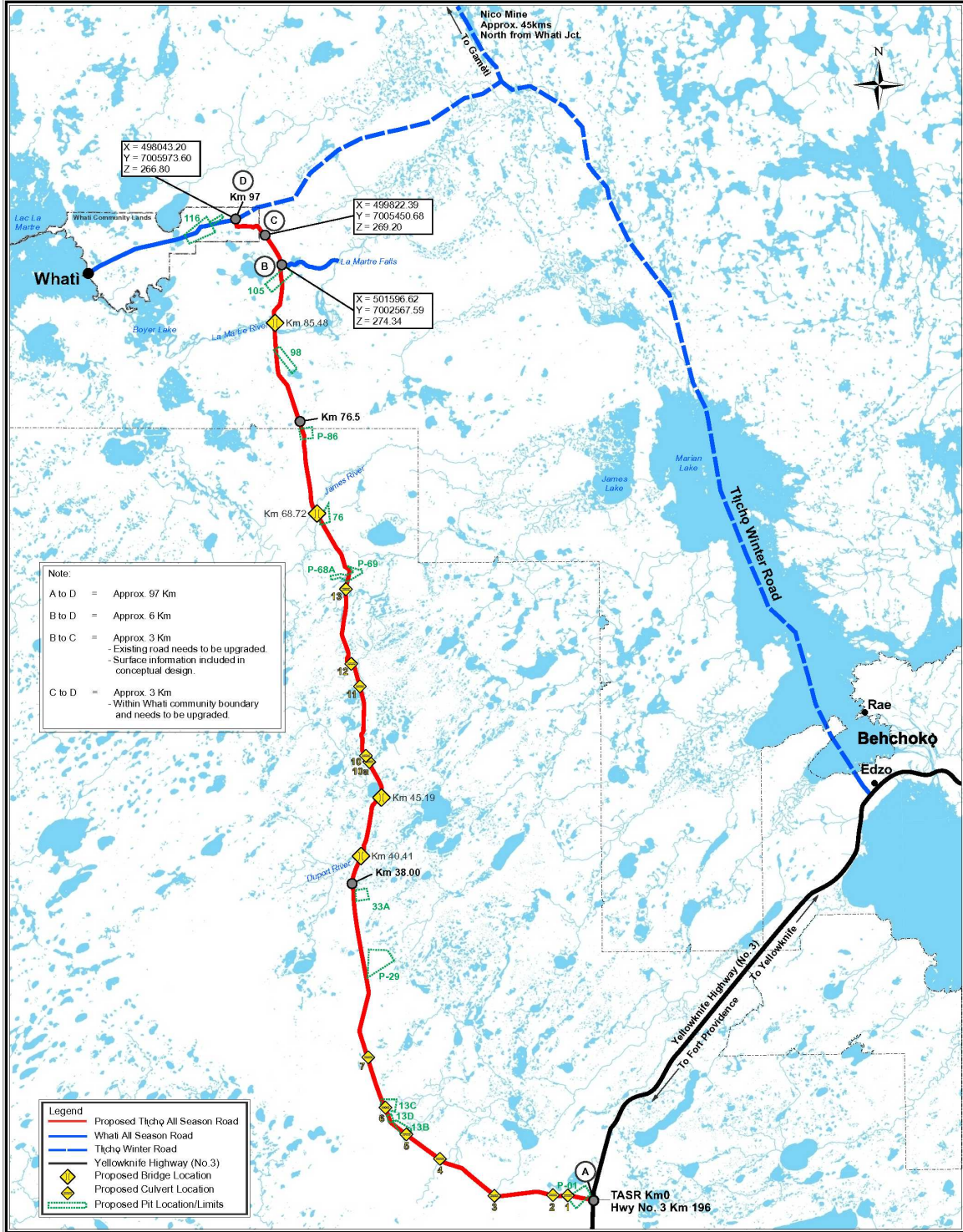
Encumbrances relevant to the Project: None.

ATTACHMENT 1 - INDICATIVE MAP OF LANDS

See attached.

Tłıchq All Season Road Yellowknife Highway (No. 3) to Whati

GNWT INF | May 16, 2018



Appendix 7A – Attachment 1 – Indicative Map of Lands
Tłıchq All Season Road Project Agreement – Execution Version

SCHEDULE 8

PAYMENTS

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APPENDIX 8A - ASSIGNMENT OF COMPLIANCE FAILURE POINTS

APPENDIX 8B - PERIODIC PAYMENTS

SCHEDULE 8

PAYMENTS

1. INTERPRETATION

1.1 Definitions

In this Schedule, in addition to the definitions set out in Schedule 1 [Definitions and Interpretation] of this Agreement:

“Availability Failure Point(s)” means, in respect of any Non-Availability Event, the amount of points assigned to such event in accordance with Section 5.1 of this Schedule.

“Availability Failure Point Amount” means \$ [REDACTED].

“Bypass Long Stop Return Date” has the meaning set out in Section 5.5(i) of this Schedule.

“Compliance Failure Event” means a failure by Project Co to meet a specific performance measure as described in Appendix 8A [Assignment of Compliance Failure Points].

“Compliance Failure Point(s)” means, in respect of any Compliance Failure Event, the amount of points assigned to such event in accordance with Article 5 (Assignment of Failure Points).

“Compliance Failure Point Amount” means \$ [REDACTED].

“Construction Completion Payment” is \$ [REDACTED].

“Deficiencies List” has the meaning set out in Section 2.3(a) of this Schedule.

“Construction Period Performance Criteria” means a description of the level of performance that Project Co must achieve to attain compliance with the criteria set out in Appendix 8A [Assignment of Compliance Failure Points].

“Deduction” means a deduction from the Substantial Completion Payment or a Service Payment, calculated in accordance with this Schedule.

“Excepted Lane Closure” are Closures, Partial Closures or Full Closures arising from any of the following circumstances (unless caused in whole or in part by a breach by Project Co of any of the obligations of Project Co under this Agreement or any act or omission of Project Co or any Project Co Person):

- (a) scheduled maintenance, as defined in Section 1.3 of Schedule 4 [OMR and Handback];
- (b) winter maintenance activities being carried out by Project Co in accordance with Section 8 of Appendix 4A, except any Performance Measures where Responses are greater than 24 hours;
- (c) an Emergency, including without limitation clean-up of a motor vehicle collision;
- (d) an order of the police, fire department, emergency medical services, military, or other similar emergency services providers having jurisdiction;

- (e) approved special events, where the Authority provides prior written consent in respect of a Closure for a special event;
- (f) repairs required as a result of damage to the Tłı̨ch̨o ASR caused by the Authority;
- (g) a direction of Authority to effect such a Closure, which may, for example, occur in the event of forest fires;
- (h) a Protest Action.
- (i) approved closures as provided for in Schedule 4, Section 1.3.

“Failure Event” means a Nonconformity, a Non-Availability Event and/or a Compliance Failure Event.

“Failure Points” refers to Compliance Failure Points or Availability Failure Points.

“Fuel Index” means the Energy product group for Yellowknife, Northwest Territories, included in Table 18-10-0004-13 (*Consumer Price Index by product group, monthly, not seasonally adjusted, Canada, provinces, Whitehorse, Yellowknife and Iqaluit*) published monthly by Statistics Canada.

“Fuel Index Linked” with respect to an amount at any time, means that the amount is adjusted as at each April 1st commencing as of the April 1st following the Effective Date by:

- (a) multiplying it by the Fuel Index as at the immediately preceding April; and
- (b) dividing it by the Fuel Index as at the Base Date;

“Fuel Payment” has the meaning set out in Section 3.2(a) of this Schedule.

“Holdback for Deficiencies” has the meaning set out in Section 2.3 of this Schedule.

“OMR Payment” has the meaning set out in Section 3.2(a) of this Schedule.

“Operating Period Deduction” means the amount calculated in accordance with Section 4.2 of this Schedule.

“Operations Transition Period” has the meaning set out in Section 4.3 of this Schedule.

“Payment Adjustment Report” has the meaning set out in Section 8.2 of this Schedule.

“Payment Period” means a calendar month.

“Payment Report” has the meaning set out in Section 8.1(a) of this Schedule.

“Rectification” means, following occurrence of a Failure Event, a process such that the subject matter affected by the Failure Event complies with the performance specifications in accordance with Schedule 2 [Quality Management] and/or Schedule 4 [OMR and Handback]. Without prejudice to the generality of the foregoing, this shall include restoring functional capability which has been affected or is otherwise not in compliance with the relevant section of this Agreement; repairing any defect, hazard, or other condition which was not in compliance with the relevant section of this Agreement; and formally notifying the Authority that Rectification has been completed; and “Rectify” or “Rectified” shall be construed accordingly.

“Reporting Error” has the meaning set out in Section 8.1(i) of this Schedule.

“Service Payment” means the sum calculated in accordance with Section 3.1 of this Schedule.

“Substantial Completion Payment” has the meaning set out in Article 2 (Substantial Completion Payment) of this Schedule.

“Temporary Bypass” means has the meaning set out in Section 5.5(b) of this Schedule.

“Temporary Bypass Proposal” has the meaning set out in Section 5.5(b) of this Schedule.

“Temporary Bypass Acceptance Date” has the meaning set out in Section 5.5(b) of this Schedule.

“Tłı̨chǫ Incentive Payment” has meaning set out in Sections 6.3 and 6.4 of this Schedule.

“Total Construction Period Deduction” has the meaning set out in Article 2 (Substantial Completion Payment) of this Schedule.

2. SUBSTANTIAL COMPLETION PAYMENT

2.1 Substantial Completion Payment

- (a) The Authority will make a payment to Project Co relating to the Construction Period, in respect of the Construction costs, as follows:

$$\text{SCP} = \text{CCP} - \text{TCPD} + \text{TIP}_C - \text{H}$$

where

SCP = Substantial Completion Payment

CCP = Construction Completion Payment

TCPD = Total Construction Period Deduction, calculated in accordance with Section 2.2 of this Schedule

TIP_C = Tłçhç Incentive Payments, as applicable, calculated in accordance with Sections 6.3 of this Schedule

H = the Holdback for Deficiencies at Substantial Completion Date calculated in accordance with Section 2.3(e) of this Schedule

- (b) upon receipt of the Certificate of Substantial Completion, Project Co will provide the Authority with an invoice in the amount of the Substantial Completion Payment;
- (c) the Authority will, within 15 Business Days, review the invoice and advise Project Co in writing of any disagreements with the amount of the invoice, with reasons;
- (d) the Authority will pay all undisputed portions of such invoice within 30 Business Days of receipt of the invoice; and
- (e) either party may refer any disagreement on any disputed portion of the invoice to be settled under Schedule 13 [Dispute Resolution Procedure].

2.2 Calculation of the Total Construction Period Deduction

- (a) The Total Construction Period Deduction shall be calculated in accordance with the following formula:

$$\text{TCPD} = \sum \text{CPD}_n$$

Where:

- (1) TCPD = Total Construction Period Deduction
- (2) $\sum \text{CPD}_n$ = the sum of monthly Construction Period Deductions during the Construction Period, where the monthly Construction Period Deduction shall be calculated as follows

$$\text{CPD}_n = \sum \text{CFP}_n \times A$$

Where:

- (3) CPD_n = Total Construction Period Deduction for the relevant month of the Construction Period
- (4) $\sum \text{CFP}_n$ = the sum of Compliance Failure Points assigned in accordance with Article 5 (Assignment of Failure Points) of this Schedule in respect of each month of the Construction Period
- (5) A = Compliance Failure Point Amount, Index Linked.
- (b) The maximum Total Construction Period Deduction that the Authority can deduct from Project Co or set off against any payment due to Project Co, under or pursuant to this Agreement (but excluding any Compliance Failure Points and related Deductions in respect of Local Content Requirements), shall not exceed \$ [REDACTED].
- (c) For clarity, subject to Section 2.2(b) of this Schedule, the Authority shall automatically be entitled to set-off or deduct the amount of any Construction Period Deduction against any amount payable by the Authority to Project Co under or pursuant to this Agreement, including the Substantial Completion Payment.
- (d) To the extent that a Failure Event is the result of a Compensation Event, the Authority will not be entitled to assign Failure Points.

2.3 Deficiencies

- (a) In the event that Deficiencies exist when Project Co requests a notice of Substantial Completion, in accordance with Section 17.3 of Schedule 3 [Design and Construction], Project Co, in consultation with the Independent Certifier and the Authority, shall, within 15 Business Days of Project Co's application, prepare a list of all Deficiencies (the "**Deficiencies List**") identified at that time and an estimate of the cost and the time for rectifying such Deficiencies.

- (b) The Deficiencies List will contain the schedule for the completion and rectification of the Deficiencies. In determining the relevant time for rectifying Deficiencies, Project Co shall schedule the completion and rectification of Deficiencies so as to minimize, to the greatest extent reasonably possible, any lane closures, traffic diversions or restrictions or other impairment of the public's use and enjoyment of the Tłıçhǫ ASR or the relevant portion thereof, or disruption of the OMR and otherwise in accordance with the Traffic Management Plan, as approved by the Authority.
- (c) The Independent Certifier must approve the Deficiencies List before the Certificate of Substantial Completion is issued, but shall not withhold the Certificate of Substantial Completion by reason solely that there are Deficiencies.
- (d) The Authority may, in its discretion, waive any pre-requisite for Substantial Completion, provided that the failure to meet any such requirement shall constitute a Deficiency.
- (e) The Authority will withhold from the Substantial Completion Payment a holdback amount ("**Holdback for Deficiencies**") that is twice the amount estimated by the Independent Certifier for Project Co to complete and rectify all such Deficiencies (to the extent then outstanding), where the Holdback for Deficiencies shall be held in an interest bearing account.
- (f) Project Co shall, in consultation with the Authority and so as to minimize, to the greatest extent reasonably possible, any lane closures, traffic diversions or restrictions or other impairment of the public's use and enjoyment of the Tłıçhǫ ASR or the relevant portion thereof, or disruption of the OMR, and otherwise in accordance with the Traffic Management Plan, as approved by the Authority, complete and rectify each Deficiency within the applicable period specified in the Deficiencies List but in any event no later than 12 months of the Substantial Completion Date.
- (g) If Project Co has failed to complete and rectify any Deficiency specified in the Deficiencies List
 - (1) within 30 days after the time for completion and rectification of any Deficiency where such a time has been specified in the Deficiencies List by the Independent Certifier; or
 - (2) within 12 months of the Substantial Completion Date for all Deficiencies where no time for rectification or completion has been specified by the Independent Certifier,
 the Authority may:
 - (3) engage others to perform the work necessary to complete and rectify any such Deficiency, at the risk and cost of Project Co, and the Authority may deduct such cost from the Holdback for Deficiencies amount and interest earned thereon; or
 - (4) convert any unremedied Deficiency to an individual Nonconformity Report.
- (h) Upon completion and rectification of all Deficiencies identified in the Deficiencies List the Authority shall release to Project Co the then remaining amount of the relevant Holdback for Deficiencies, together with all interest accrued thereon. Where the Authority exercises

its rights pursuant to Section 2.3(g)(3) of this Schedule, if the cost of such completion and rectification exceeds the amount of such Holdback for Deficiencies and interest, then Project Co shall reimburse the Authority for all such excess cost.

3. OPERATING PERIOD PAYMENTS

3.1 Monthly Service Payment

From the Substantial Completion Date, the Authority will pay Project Co in respect of each Payment Period a monthly Service Payment calculated as follows:

$$\text{MSP}_n = \text{PP}_n - \text{OPD}_n + \text{AADT Adjustment} + \text{TIP} + \text{IA}$$

Where

- (a) MSP_n = Monthly Service Payment for the applicable Payment Period n .
- (b) PP_n = the Periodic Payment for that Payment Period calculated in accordance with Section 3.2(a) of this Schedule.
- (c) OPD_n = the aggregate of Operating Period Deductions for that Payment Period calculated in accordance with Section 4.2 of this Schedule.
- (d) AADT Adjustment = If the Annual Average Daily Traffic volume for any Operating Year exceeds █ vehicles, a supplement of █% of the aggregate amount of all OMR Payments for that Operating Year for each additional █ vehicles shall be added to the final monthly Service Payment of that Operating Year.
- (e) TIP = Tıççq Incentive Payments, if applicable, calculated in accordance with Section 6.4 of this Schedule.
- (f) IA = the Insurance Adjustment, if applicable, as detailed in Section 3.3 of this Schedule.

3.2 Periodic Payments

- (a) The Periodic Payments will be, in accordance with Appendix 8B [Periodic Payments] from and after the Substantial Completion Date:
 - 1) a fixed amount in accordance with Column A of Appendix 8B [Periodic Payments], which will not be Index Linked (the “**Capital Payment**”),
 - 2) a fixed amount in accordance with Column B of Appendix 8B [Periodic Payments], which will be Index Linked (the “**OMR Payment**”), and
 - 3) a fixed amount in accordance with Column C of Appendix 8B [Periodic Payments], which will be Fuel Index Linked (the “**Fuel Payment**”).
- (b) The Periodic Payments in Section 3.2(a) of this Schedule will be subject to the following adjustments:
 - 1) if the first Payment Period after the Substantial Completion Date is less than a full calendar month, the Periodic Payment will be reduced by the same proportion that such Payment Period is less than a full calendar month; and

- 2) if the last Payment Period of the Term is less than a full calendar month, the Periodic Payment will be reduced by the same proportion that the last Payment Period is less than a full calendar month.

3.3 Insurance Adjustment

- (a) Project Co and the Authority, both acting reasonably, will agree on the Insurance Adjustment to be applied to the Service Payments as of the Substantial Completion Date and on each Insurance Review Date thereafter.
- (b) The Insurance Adjustment will be calculated as set out in Section 4.2 of Schedule 5 [Insurance Requirements]. For clarity, the Insurance Adjustment is calculated on the Substantial Completion Date and on each Insurance Review Date, and is included within the monthly Service Payment for the next Payment Period.

4. DEDUCTIONS FROM SERVICE PAYMENTS

4.1 Entitlement to Make Operating Period Deductions

If at any time during the Operating Period, a Failure Event should occur, the Authority shall be entitled to make an Operating Period Deduction from the relevant monthly Service Payment in respect of that Failure Event, subject to the provisions set out in this Schedule for the relevant Payment Period, except that:

- (a) the aggregate of all Operating Period Deductions that the Authority may make from a monthly Service Payment may not exceed the amount of the monthly Service Payment in respect of a Payment Period before applying the Operating Period Deductions; and
- (b) to the extent that a Failure Event is the result of an Excusing Event or a Compensation Event, the Authority will not be entitled to assign Failure Points.

4.2 Operating Period Deduction

The Operating Period Deduction which may be applied to the Service Payment in respect of a Contract Month shall be calculated in accordance with the following formula:

$$OPD_n = (\sum CF Points_n \times A) + (\sum AF Points_n \times B)$$

Where:

- (a) OPD_n = Operating Period Deduction for the relevant Payment Period
- (b) $\sum CF Points_n$ = the aggregate of Compliance Failure Points assigned in accordance with provisions stated in Section 5.2 of this Schedule and Appendix 8A [Assignment of Compliance Failure Points] in respect of the relevant Payment Period
- (c) A = Compliance Failure Point Amount, Index Linked
- (d) $\sum AF Points_n$ = the aggregate of Availability Failure Points assigned in accordance with Section 5.1 of this Schedule in respect of the relevant Payment Period
- (e) B = Availability Failure Point Amount, Index Linked

4.3 Operations Transition Period – Compliance Failures

There will be a period of 90 days (the “Operations Transition Period”), beginning on the Substantial Completion Date, when the following provisions will apply:

- (a) during the first 60 days of the Operations Transition Period, solely for the purposes of calculating the Operating Period Deduction, the amount of any Deductions resulting from the accumulation of Compliance Failure Points will be reduced by ■%; and
- (b) during the final 30 days of the Operations Transition Period, solely for the purposes of calculating the Operating Period Deduction, the amount of any Deductions resulting from the accumulation of Compliance Failure Points will be reduced by ■%.

This Section 4.3 will not give any relief during the Operations Transition Period in respect of Deductions resulting from the accumulation of Availability Failure Points.

5. ASSIGNMENT OF FAILURE POINTS

5.1 Assignment of Availability Failure Points

- (a) Upon any occurrence of a Non-Availability Event, Project Co must provide the Authority with written notice of such Non-Availability Event no later than 24 hours after the occurrence of such Non-Availability Event, unless otherwise specified in Schedule 2 [Quality Management] and Schedule 4 [OMR and Handback].
- (b) Availability Failure Points shall be assigned in accordance with Section 5.1(c) of this Schedule for every Non-Availability Event, which occurs during the Operating Period of this Agreement, unless such Availability Failure Points are cancelled pursuant to any other provision of this Agreement.
- (c) Availability Failure Points shall be calculated for any Closure, other than for an Excepted Lane Closure, in respect of which no Availability Failure Points shall be assigned, as follows:
 - (1) for a Partial Closure:
 - (A) 1 Availability Failure Point for each hour of Partial Closure exceeding a [REDACTED] rectification period, multiplied by the number of kilometres subject to the Partial Closure, up to 14 consecutive days of Partial Closure, and
 - (B) 2 Availability Failure Points for each hour of Partial Closure beyond 14 consecutive days, multiplied by the number of kilometres subject to the Partial Closure
 - (2) for a Full Closure:
 - (A) 3 Availability Failure Points per each hour for a cumulative period exceeding [REDACTED] but less than 14 days, or
 - (B) 5 Availability Failure Points per each hour for a cumulative period exceeding 14 days.
- (d) Distances are to be rounded up to the nearest whole kilometre, and duration of the Partial Closure will be rounded up to the nearest hour.

5.2 Assignment of Compliance Failure Points for Compliance Failure Event

- (a) Compliance Failure Points shall be awarded in accordance with Article 6, in respect of Local Content Deductions, and Appendix 8A [Compliance Failure Points] for every Compliance Failure Event which occurs during the Term of this Agreement, unless such Compliance Failure Points are cancelled pursuant to any other provision of this Agreement.
- (b) Upon any occurrence of a Compliance Failure Event, Project Co must provide the Authority with written notice of such Compliance Failure Event no later than 2 Business Days after the occurrence of such Compliance Failure Event, unless otherwise specified in Schedule 2 [Quality Management] and/or Schedule 4 [OMR and Handback].

- (c) With respect to Compliance Failure Events:
- (1) that have not been Rectified, or
 - (2) where Compliance Failure Points are assigned on the “per occurrence” basis
- if such Compliance Failure Event subsists for a period of 28 calendar days after the date of the initial occurrence of a Compliance Failure Event, then for each successive 28 calendar day period that such Compliance Failure Event subsists, the applicable number of Compliance Failure Points shall be multiplied by the total number of successive 28 calendar day periods having elapsed since the date of initial occurrence of the Compliance Failure Event.
- (d) A Compliance Failure Event may become or lead to a Non-Availability Event if circumstances change or the Compliance Failure Event continues. In such a circumstance, when the Non-Availability Event occurs, the Compliance Failure Event will have ended (without prejudice to the Compliance Failure Points that have accrued to that point) and a Non-Availability Event will have occurred.
- (e) No Compliance Failure Points will be incurred if the Compliance Failure Event to which the Compliance Failure Points relate arises from circumstances that have previously led to a Non-Availability Event that has yet to be Rectified.

5.3 Assignment of Compliance Failure Points for Nonconformities

For purposes of this Schedule:

- (a) The Nonconformity Reporting process described in Section 6.1 of Schedule 2 [Quality Management] shall be followed from initial creation through to closeout.
- (b) Compliance Failure Points shall be assigned based on the number of Open Nonconformity Reports in accordance with Appendix 8A [Assignment of Compliance Failure Points] (specifically, CFE-15 to CFE-17 for the Construction Period; and CFE-28 to CFE-30 for the Operating Period, for each Payment Period).
- (c) The calculation of Compliance Failure Points is illustrated in the following example which describes a monthly scenario during the Construction Period where the number of Nonconformity Reports exceeds the 15 Open Nonconformity Reports threshold and starts to accumulate Compliance Failure Points. There are also two specific Compliance Failure Events listed for the month which also have Compliance Failure Points assigned to them.

[Table associated with Total Compliance Failure Points Redacted]

5.4 Five Year Review

- (a) The amount of Failure Points for each Failure Event shall be reviewed by the Authority and Project Co at any time if requested by either Party but in any event shall be reviewed no more than once every 5 Operating Years.
- (b) The Authority and Project Co shall act reasonably and diligently in carrying out the reviews.
- (c) For the avoidance of doubt, both Project Co and the Authority intend that any changes made as a result of such a review shall not alter the overall risk profile of the OMR Requirements. Where proposed changes would result in any such alteration, the matter shall be deemed to be a Change and Schedule 6 [Changes, Minor Works and Innovation Proposals] shall apply.
- (d) The Authority and Project Co may, with respect to each matter subject to review, either:
 - 1) agree that the status of the relevant matter shall continue to apply unchanged in the Operating Year immediately following the review; or
 - 2) agree to adjustments to the relevant matter to take effect in the Operating Year immediately following the review.
- (e) Any agreed adjustment pursuant to a review shall be effective from the first Payment Period of the Operating Year immediately following the relevant review carried out in accordance with Section 4.1 of this Schedule.

5.5 Temporary Bypass

- (a) If Project Co is unable to Rectify a Full Closure due to the need for specialized materials or personnel that are not required by this Agreement to be immediately available and are not, and cannot reasonably be expected to be available, then Project Co may propose a Temporary Bypass in accordance with Appendix 4A [O&M Specification].
- (b) The Temporary Bypass shall:
 - 1) provide roadway amounting to at least one lane wide;
 - 2) be a temporary alternative having regard to the facts and the circumstances in existence;
 - 3) be designed to comply with the requirements and facilitate delivery of OMR as set out in Schedule 4 [OMR and Handback] for the duration of its existence; and
 - 4) not result in any additional costs to the Authority, unless such Temporary Bypass is required as a result of an Excepted Lane Closure (other than the Excepted Lane Closure contemplated in paragraph (a) of the definition of "Excepted Lane Closure") or is otherwise the result of a Compensation Event (in both of which cases the Temporary Bypass shall be considered a Compensation Event).

- (c) To the extent that Project Co intends to implement a Temporary Bypass, Project Co shall submit a Temporary Bypass Proposal to the Authority prior to the commencement of any Temporary Bypass development, conforming to the requirements of bypasses defined in Schedule 4 [OMR and Handback].
- (d) The Authority shall, without unreasonable delay, consider the Temporary Bypass Proposal, and Project Co will not carry out the development of the Temporary Bypass until the Temporary Bypass Proposal is accepted by the Authority.
- (e) The Authority will notify Project Co in writing of its acceptance or non-acceptance, acting reasonably, of the Temporary Bypass Proposal as soon as possible following receipt. From the time of Project Co's submission of the Temporary Bypass Proposal until the written response by the Authority to Project Co with respect to its acceptance, Availability Failure Points associated with the Non-Availability Event will not be assigned.
- (f) If the Authority accepts the Temporary Bypass Proposal, Project Co will promptly carry out the development of the Temporary Bypass in accordance with the Temporary Bypass Proposal.
- (g) If the Authority rejects the Temporary Bypass Proposal, Project Co may re-submit an alternative Temporary Bypass Proposal to the Authority.
- (h) If the Temporary Bypass is completed in accordance with the Temporary Bypass Proposal, from the time of acceptance of the Temporary Bypass by the Authority ("**Temporary Bypass Acceptance Date**"), the Full Closure will be deemed to end and a Partial Closure will be deemed to apply until the issue that initially gave rise to the Full Closure is Rectified and the Non-Availability Event ends.
- (i) The Authority and Project Co will agree, both acting reasonably, to a date (the "**Bypass Long Stop Return Date**"), by which the issue that gave rise to the Full Closure is required to be Rectified and the Non-Availability Event ends.
- (j) If Project Co fails to complete such Rectification by the Bypass Long Stop Return Date, a separate Non-Availability Event will be deemed to have occurred, and Project Co will be subject to 1 Availability Failure Point per hour (rounded up to the nearest hour), multiplied by the length of the Bypass rounded up to the nearest kilometre, until the Rectification occurs.

5.6 General provisions

- (a) The Authority expressly reserves the right to refrain from assigning all or any portion of the Failure Points set out in this Schedule and Appendix 8A [Assignment of Compliance Failure Points] in respect of any Failure Event, and Authority may do so without prejudice to any of its other available rights and remedies in respect of that Failure Event, and without prejudice to its right to assign Failure Points, and to exercise any of its other available rights and remedies, in respect of any other Failure Event. Any such refraining by Authority from assigning any Failure Points shall not excuse Project Co from performing, nor otherwise affect Project Co's obligation to perform all of its obligations under this Agreement.

- (b) Project Co shall be entitled to dispute the assignment of any Failure Points only if:
- (1) the number of such Failure Points assigned by the Authority pursuant to this Schedule in respect of a Failure Event is greater than the number of Failure Points identified by Project Co in the relevant monthly report delivered under Article 8 (General Payment Provisions) of this Schedule as being assignable in respect of that Failure Event; or
 - (2) Project Co is disputing the reasonableness of the Authority's determination in respect of assignment of Failure Points, in which case Project Co has 10 Business Days after its receipt from the Authority of notice of such assignment to provide a written notice to the Authority in accordance with Section 18.7 of the Project Agreement. Failure Points assigned by the Authority and not disputed by Project Co within 10 Business Days shall be deemed to have been accepted by Project Co.
- (c) The assignment of Failure Points is in addition to, and not in substitution for or to the exclusion of, any other rights and remedies available to Authority under this Agreement or any of the other Project documents or at law or in equity, and the Authority may have recourse to any one or more of all of such rights and remedies, concurrently or successively, as it shall see fit, without prejudice to any of its other available rights and remedies.

6. LOCAL CONTENT DEDUCTIONS AND INCENTIVE PAYMENTS

6.1 Construction Period Deductions

- (a) At Substantial Completion, to the extent Project Co does not achieve the relevant Local Content Requirements, in accordance with Schedule 20 [Local Content Requirements], the Authority will assign Compliance Failure Points to Project Co, equal to the higher of:
- (1) 300 Compliance Failure Points for each percentage point difference (rounded down to the nearest whole percentage point) between the percentage of total Construction Labour Costs paid to Tł̄chq Citizens and/or workers procured by a Tł̄chq Business before the Substantial Completion Date and the Tł̄chq Construction Labour Requirement (in accordance with Section 2.1(b) of Schedule 20 [Local Content Requirements]);
 - (2) 525 Compliance Failure Points for each percentage point difference (rounded down to the nearest whole percentage point) between Project Co's achieved outcome with respect to percentage of Total Capital Costs paid to Tł̄chq Businesses and/or Northern Businesses over the entire Construction Period, and the Local Business Construction Requirement (in accordance with Section 2.2 of Schedule 20 [Local Content Requirements]). For the purposes of assigning any Compliance Failure Points under this section, Northern Business can only contribute a maximum of 5% to the achievement of the Local Business Construction Requirement, and cannot be used to supplement any shortfall of the Tł̄chq Business Construction Requirement.

6.2 Operating Period Deductions

- (a) To the extent Project Co does not achieve the relevant Local Content Requirements in an Operating Year, in accordance with Schedule 20 [Local Content Requirements], the Authority will assign Compliance Failure Points to Project Co, equal to the higher of:
- (1) 10 Compliance Failure Points for each percentage point difference (rounded down to the nearest whole percentage point) between Project Co's achieved Tł̄chq Operating Labour Percentage during the relevant Operating Year and the Tł̄chq Operating Labour Requirement for that Operating Year (in accordance with Section 2.3 of Schedule 20 [Local Content Requirements]);
 - (2) 10 Compliance Failure Points for each percentage point difference (rounded down to the nearest whole percentage point) between Project Co's achieved outcome with respect to percentage of Total Operation, Maintenance and Rehabilitation Costs paid to Tł̄chq Businesses and/or Northern Businesses during the relevant Operating Year, and the Local Business Operations Requirement (in accordance with Section 2.4 of Schedule 20 [Local Content Requirements]). For the purposes of assigning any Compliance Failure Points under this section, Northern Business can only contribute a maximum of 5% to the achievement of the Local Business Operations Requirement, and cannot be used to supplement any shortfall of the Tł̄chq Business Operating Requirement.

6.3 Construction Period Incentive Payments

- (a) At Substantial Completion, to the extent Project Co exceeds relevant Local Content Requirements, in accordance with Schedule 20 [Local Content Requirements], the Authority will pay to Project Co an amount, up to total maximum of \$ [REDACTED], Index Linked, equal to the higher of:
- (1) \$ [REDACTED], Index Linked, for each percentage point difference (rounded down to the nearest whole percentage point) between Project Co's achieved Tłchq Construction Labour Ratio and the Tłchq Construction Labour Requirement (in accordance with Section 2.1(b) of Schedule 20 [Local Content Requirements]);
 - (2) \$ [REDACTED], Index Linked, for each percentage point difference (rounded down to the nearest whole percentage point) between Project Co's achieved outcome with respect to the percentage of Total Capital Costs paid to Tłchq Businesses and, subject to (A) below, Northern Businesses over the entire Construction Period, and the Local Business Construction Requirement (in accordance with Section 2.2 of Schedule 20 [Local Content Requirements]).
 - (A) Provided that the Local Business Construction Requirement is achieved, each additional percentage point of Northern Business (above 5%) will count for 0.5% when determining any Construction Period Incentive Payment payable to Project Co.

For example, if Project Co pays 25% of Total Capital Costs to Tłchq Businesses and 11% of Total Capital Costs to Northern Businesses, they will be deemed to have exceeded the Local Business Construction Requirements by 3% (25% Tłchq Business + 5% Northern Business + $\frac{1}{2}$ x 6% Northern Business).

6.4 Operating Period Incentive Payments

- (a) To the extent Project Co exceeds relevant Local Content Requirements in an Operating Year, in accordance with Schedule 20 [Local Content Requirements], the Authority will pay to Project Co an amount, up to total maximum of \$ [REDACTED], Index Linked, per Operating Year, \$ [REDACTED], Index Linked, for each percentage point difference (rounded down to the nearest whole percentage point) between Project Co's achieved Tłchq Operating Labour Ratio during the relevant Operating Year and the Tłchq Operating Labour Requirement for that Operating Year (in accordance with Section 2.3 of Schedule 20 [Local Content Requirements]).

7. FAILURE BY PROJECT CO TO MONITOR OR REPORT

7.1 Failure to Monitor or Report

If Project Co fails to monitor or accurately report a Failure Event:

- (a) such failure will be subject to Compliance Failure Points as per Appendix 8A [Assignment of Failure Points];
- (b) the Authority will be entitled to make Deductions in respect of any Compliance Failure Points in the manner prescribed in this Schedule, and the OMR Report(s) and invoice(s) with respect to all Payment Periods affected by such failure will be restated to include any such Deductions; and
- (c) Project Co will forthwith pay to the Authority the amount, if any, by which the amount paid to it for the affected Payment Periods exceeds the amount in the restated invoices for such Payment Periods.

7.2 Misconduct

If the Authority inspection or investigation of records reveals, on the part of Project Co or a Project Co Person:

- (a) fraudulent action or inaction;
- (b) deliberate misrepresentation; or
- (c) gross misconduct or incompetence,

then 20 Compliance Failure Points will be assigned for each Failure Event that has been misreported. The additional 20 Compliance Failure Points will be added to the calculation of Compliance Failure Points for the relevant Payment Period, in addition to the Compliance Failure Points that would have been assigned based on actual performance had there been no misreporting.

7.3 No Prejudice to Other Rights

The provisions of this Article 7 are without prejudice to any rights of the Authority in this Agreement, including pursuant to Section 6 of Schedule 4 [OMR and Handback] and Section 12.1 of this Agreement.

8. GENERAL PAYMENT PROVISIONS

8.1 Invoicing and Payment Arrangements

With respect to invoicing and payment the following will apply.

- (a) By the 10th of each month, following the end of each Payment Period, Project Co will provide the Authority with a “**Payment Report**” in an electronic format in PDF and Excel,

Schedule 8 – Payments
T1çhçq All Season Road Project Agreement – Execution Version

or any other form agreed by the parties, acting reasonably. The Payment Report will include as a minimum:

- (1) the estimated Service Payments for the applicable Payment Period;
 - (2) the Payment Adjustment Report in accordance with Section 8.2 of this Schedule;
 - (3) any adjustments to a previous Payment Period;
 - (4) any amount owing to the Authority under this Agreement;
 - (5) any amount owing to Project Co under this Agreement; and
 - (6) the net amount owing by the Authority to Project Co, or by Project Co to the Authority, as applicable;
- (b) the Authority will:
- (1) review each invoice submitted in accordance with this Section 8.1 within 10 Business Days, and advise Project Co of approval of the invoice, or advise Project Co of any amounts the Authority has not approved and the reasons for non-approval; and
 - (2) pay the amount approved by the Authority within 30 calendar days upon receipt of the invoice;
- (c) Project Co:
- (1) will, after discussion and agreement with the Authority, clarify and resubmit an invoice for any amounts not approved by the Authority in any previously submitted invoice and the Authority will pay such agreed amounts in accordance with Section 8.1(b)(2) of this Schedule; and
 - (2) may refer for resolution pursuant to Dispute Resolution Procedure the amount of any invoice it has not agreed with the Authority;
- (d) the Authority will not be obligated to make any payment unless all conditions of payment in this Agreement have been satisfied;
- (e) Project Co will include with each Payment Report such supporting documentation as is reasonably required to substantiate and confirm the invoiced amounts;
- (f) for the final 3 Payment Periods of the Term, the Authority may withhold from payment a reasonable amount for possible adjustments to the Service Payments, and within 30 days after the expiry of the Term Project Co will provide the Authority with a final invoice setting out Project Co's calculations to reconcile any over-payments or under-payments and the Authority or Project Co, as applicable, will within 30 calendar days pay the amount properly due and payable to the other party;
- (g) no payment will be construed as an acceptance or approval of incomplete, defective or improper Design, Construction, OMR or any other matter provided by Project Co which is

not in conformance with the requirements of this Agreement, and will not operate to relieve Project Co from any of its obligations under this Agreement;

- (h) Project Co shall cooperate with the reasonable requirements of the Authority, and shall submit its invoices and all other documentation relating to this Agreement in a form and with the structure and content as is reasonably required to be compatible with the Authority information systems. At minimum, the following information will be submitted in electronic Excel format, unless otherwise agreed:
 - (1) the Payment Report;
 - (2) calculation of Operating Period Deductions and Tłıçhǫ Incentive Payments for the Payment Period; and
 - (3) any other adjustments to the Service Payment for the Payment Period pursuant to this Agreement;
- (i) If any of the matters contained in a Payment Report are incorrect (“**Reporting Error**”):
 - (1) Project Co will
 - (A) if the Reporting Error occurred other than as a result of fraud, deliberate misrepresentation, gross negligence, incompetence or wilful misconduct, or if the Reporting Error is discovered by Project Co and reported to the Authority prior to its discovery by the Authority, immediately pay to the Authority an amount equal to the amount overpaid by the Authority as a result of the Reporting Error, with interest at the Default Rate from the date of payment by the Authority to the date of repayment to the Authority; or
 - (B) if the Reporting Error occurred as a result of fraud, deliberate misrepresentation, gross negligence, incompetence or wilful misconduct, immediately pay to the Authority an amount equal to twice the amount overpaid by the Authority as a result of the Reporting Error,
 - (2) the Authority will immediately pay to Project Co an amount equal to the amount underpaid by the Authority as a result of the Reporting Error; and
- (j) If at any time either the Authority or Project Co becomes aware of a Reporting Error, the party who discovers the error will immediately advise the other party of its nature and, if possible, its effect.

8.2 Payment Adjustment Report

Project Co shall prepare a Payment Adjustment Report, as part of the Payment Report, in respect of each Payment Period, which will contain, in Excel format or in any other form agreed by the parties, acting reasonably,

- (a) a summary and calculations of any adjustments, including Operating Period Deductions and Tłıçhǫ Incentive Payments, to the Service Payments for that Payment Period, and the

amount of over-payment or under-payment from the amount paid previously by Authority for that Payment Period to the relevant Service Payment;

- (b) the detailed calculation of the estimated amount of the Operating Period Deductions for the relevant Payment Period in Excel format, with necessary supporting documentation, including the appropriate references to sections of the OMR Monthly Report;
- (c) calculation and summary of each of the following (each stated separately), with the appropriate references to sections of the OMR Monthly Report:
 - (1) all Compliance Failure Events, description and duration of each Compliance Failure Event, and associated Compliance Failure Points in respect of that Payment Period;
 - (2) all Non-Availability Events, description and duration of each Non-Availability Event, and associated Availability Failure Points in respect of that Payment Period; and
 - (3) the balance of Open Nonconformity Reports at the end of each day of that Payment Period; and
- (d) a summary and calculation of all Operating Period Deductions and Tłıchǵ Incentive Payments relating to Local Content Requirements, as applicable for the relevant Payment Period, in accordance with the reporting requirements defined in Section 3.2 of Schedule 20 [Local Content Requirements].

8.3 GST

Project Co will not include GST in any of its invoices.

APPENDIX 8A - ASSIGNMENT OF COMPLIANCE FAILURE POINTS

Table 1 – Construction Period Performance Requirements

Construction Period Performance Requirements			
Ref	Feature	Compliance Failure Event	Compliance Failure Points Assigned
CFE-1	Document Deliverables submitted to Authority deliverables (as specified in Table 3 – Reports and Plans Requirements)	Timeliness – late submission of deliverables (as specified in Table 3 – Reports and Plans Requirements)	[REDACTED]
		Completeness – deliverables (as listed in Table 3 – Reports and Plans Requirements) that have not been compiled to the level of completeness as specified in the Agreement/mutually agreed to by Authority and Project Co.	[REDACTED]
		Deliverables will not be accepted and will be subject to Timeliness Compliance Failure Points until the date when deemed to be compiled to the level of completeness as specified in the Agreement/mutually agreed to by Authority and Project Co. Notwithstanding the above, Project Co is not relieved from adequately completing and submitting all other reports listed in the Project Agreement. Failure to meet the requirements may result in the issuing of a Nonconformity Report.	
CFE-2	Design	Issuing an IFC (Issue for Construction) plan or an IFC document to the Authority that does not meet the Technical Requirements.	[REDACTED]
CFE-3	Construction	Undertaking of construction of a roadway segment, structure or watercourse crossing before the Design Data has been submitted to the Authority as specified in the Agreement.	[REDACTED]
CFE-4	Construction	Commencement of construction of a component prior to the resolution of outstanding Nonconformity Reports of preceding work related to such component.	[REDACTED] per occurrence
CFE-5	Safety	Receipt of a Warning Letter related to safety as issued by a regulatory body with the authority to do so.	[REDACTED]
CFE-6	Safety	Receipt of a Stop Work Order related to safety as issued by a regulatory body with the authority to do so.	[REDACTED]
CFE-7a	Environment	Receipt of a Warning Letter related to the environment as issued by a regulatory body with the authority to do so.	[REDACTED]
CFE-7b	Environment	Receipt of a Stop Work Order related to the environment as issued by a regulatory body with the authority to do so.	[REDACTED]
CFE-8	Environment	Commencement of construction of a watercourse crossing before having environmental approvals in place.	[REDACTED]
CFE-9	OHS Systems	Failure of the Design Builder to be Certificate of Recognition (COR) certified within 180 days following the Commercial Close.	[REDACTED]

Construction Period Performance Requirements			
Ref	Feature	Compliance Failure Event	Compliance Failure Points Assigned
CFE-10	OHS Systems	Following initial certification, failure of the Design Builder to thereafter maintain Certificate of Recognition (COR) certification.	
CFE-11	Quality Management	Failure to complete an external audit during the Construction Period within the specified timeframes.	
CFE-12	Quality Management	Failure to correct within the specified time, any Quality Management rectifications identified by the external auditor.	
CFE-13	Failure by Project Co to Monitor or Report	If Project Co fails to monitor or accurately report any Failure Event, the failure to monitor or report shall be deemed to be a new CFE.	
CFE-14	Key Individuals	For each Event as described under section 2.3(a) of Schedule 17 [Key Individuals].	
CFE-15	Nonconformity register	15 to 20 Nonconformity Reports (NCR) recorded and outstanding in the NCRTS as related to the Construction Period.	
CFE-16	Nonconformity register	21 to 25 Nonconformity Reports (NCR) recorded and outstanding in the NCRTS as related to the Construction Period.	
CFE-17	Nonconformity register	26 or more Nonconformity Reports (NCR) recorded and outstanding in the NCRTS as related to the Construction Period.	

Table 2 – Operating Period Performance Requirements

Operating Period Performance Requirements			
Ref	Feature	Compliance Failure Event	Compliance Failure Points Assigned
CFE-18	Document Deliverables submitted to Authority (as specified in Table 3 – Reports and Plans Requirements)	Timeliness – late submission of deliverables (as specified in Table 3 – Reports and Plans Requirements)	[REDACTED]
		Completeness - deliverables that have not been compiled to the level of completeness as specified in the Agreement/mutually agreed to beforehand.	[REDACTED]
		Notwithstanding the above, Project Co is not relieved from adequately completing and submitting all other reports listed in the Project Agreement. Failure to meet the requirements may result in the issuing of a Nonconformity Report.	[REDACTED]
CFE-19a	Safety	Receipt of a Warning Letter related to safety as issued by a regulatory body with the authority to do so.	[REDACTED]
CFE-19b	Safety	Receipt of a Stop Work Order related to safety as issued by a regulatory body with the authority to do so.	[REDACTED] per occurrence
CFE-20a	Environment	Receipt of a Warning Letter related to the environment as issued by a regulatory body with the authority to do so.	[REDACTED]
CFE-20b	Environment	Receipt of a Stop Work Order related to the environment as issued by a regulatory body with the authority to do so.	[REDACTED]
CFE-21	Environment	Commencement of construction on a watercourse crossing before receiving environmental approval.	[REDACTED]
CFE-22	OHS Systems	Following initial certification, failure to thereafter maintain Certificate of Recognition (COR) certification.	[REDACTED]
CFE-23	Operations and Maintenance	Failure to meet, two times within one winter season, the requirements in Section 8.1 of Appendix 4A [Operation and Maintenance Specification].	[REDACTED]
CFE-24	Quality Management	Failure to complete an external audit during the Operating Period within the specified timeframes.	[REDACTED]
CFE-25	Quality Management	Failure to correct within the specified time, any Quality Management rectifications identified by the external auditor.	[REDACTED]
CFE-26	Failure by Project Co to Monitor or Report	If Project Co fails to monitor or accurately report any Failure Event, the failure to monitor or report shall be deemed to be a new Compliance Failure Event.	[REDACTED]
CFE-27	Key Individuals	For each Event as described under section 2.3(a) of Schedule 17 [Key Individuals].	[REDACTED]

Operating Period Performance Requirements			
Ref	Feature	Compliance Failure Event	Compliance Failure Points Assigned
CFE-28	Nonconformity register	5-10 Nonconformity Reports recorded and outstanding in the NCRTS register as related to the OMR Work.	[REDACTED]
CFE-29	Nonconformity register	11-15 Nonconformity Reports recorded and outstanding in the NCRTS register as related to the OMR Work.	[REDACTED]
CFE-30	Nonconformity register	16 or more Nonconformity Reports recorded and outstanding in the NCRTS register as related to the OMR Work.	[REDACTED]

Table 3 – Reports and Plans Requirements

Reports and Plans	Submission Due Date	Frequency	Project Term
Annual Certificate of Compliance with All Environmental Laws	June 1st annually	Annually	Construction and Operations
Annual Environmental Reports	June 1st annually	Annually	Construction and Operations
Construction Management Plan	60 days from the Effective Date	Once	Construction
Construction Records, including “as built” drawings	Prior to Total Completion of the Infrastructure Components	Once	Construction
Customer Satisfaction Survey	June 1st of each year or as otherwise specified	Annually or as otherwise specified	Operations
Design Management Plan	45 days from the Effective Date	Once	Construction
Emergency Response Plan	June 1st of Year 1 post Service Commencement	Annually	Operations
Environmental Completion Report	Within 60 days of Total Completion Date	Once	Construction
Environmental Management Plan (First Submission)	45 days from the Effective Date	Once	Construction
Independent Environmental Site Assessment	Within 60 days of audit being requested by the Authority	As described	Construction and Operations
Initial Asset Management Plan (including initial 5 year Rehabilitation schedule)	30 days prior to Substantial Completion Date	Once	Construction
Monthly Environmental Reports	Within 14 days of the end of the month for which the report prepared	Monthly	Construction and Operations
Monthly Quality Management System reports	By 15 th of each following month	Monthly	Construction and Operations
Network Status Videos	Each 5 years anniversary of Effective Date, plus within one month of end of Project Term or Termination Date	As described	Construction and Operations
OMR Monthly Reports	By 10th of each month	Monthly	Operations
Operation and Maintenance Plan (First Submission)	Submitted 60 days prior to Substantial Completion Date	Once	Construction
Operation, Maintenance and Rehabilitation Quality Management Plan	180 days prior to the Target Substantial Completion Date	Once	Construction
Project Safety Plan	30 days from the Effective Date	Once	Construction
Quality Audit Plans	90 days from the Effective Date	Once	Construction
Quality Audit Reports	Within 14 days of audit completion	As required	Construction and Operations
Quality Management Plan	45 days from the Effective Date	Once	Construction
Traffic Count Data	By 10th of each month	Monthly	Operations
Works Schedule	60 days from the Effective Date	Once	Construction
Works Schedule (updates)	By 15th of each month	Monthly	Construction
Local Content Requirements Reports (as defined in Schedule 20)			
Tłı̄ch̄o Construction Labour Plan (Final)	60 days from the Effective Date	Once	Construction
Tłı̄ch̄o Construction Labour Monthly Reports	By 10th of each month	Monthly	Construction

Reports and Plans	Submission Due Date	Frequency	Project Term
Delivery of Labour Records and Paid Business Invoices re the percentage of Construction Labour Costs paid to Tłı̨ch̨o Citizens and/or workers procured by a Tłı̨ch̨o Business during the prior 12 months	Within 20 Business Days following each anniversary of the Effective Date	Annually	Construction
Delivery of Labour Records and Paid Business Invoices re Tłı̨ch̨o Construction Labour Requirement	Within 20 Business Days following Substantial Completion Date	Once	Operations
Local Business Construction Plan (Final)	60 days from the Effective Date	Once	Construction
Local Business Construction Annual Reports	Within 20 Business Days following each anniversary of the Effective Date	Annually	Construction
Delivery of Labour Records and Paid Business Invoices re Local Business Construction Requirement	Within 20 Business Days following Substantial Completion Date	Once	Operations
Tłı̨ch̨o Training Plan (Final)	60 days from the Effective Date	Once	Construction
Quarterly Reports re Implementation of Tłı̨ch̨o Training Plan and Delivery of Labour Records and Paid Business Invoices re Tłı̨ch̨o Training	May 1st (in respect of previous Q1) September 1st (in respect of previous Q2) November 1st (in respect of previous Q3) February 1st (in respect of previous Q4)	Quarterly	Construction and Operations
Tłı̨ch̨o Operating Labour Plan (Final)	60 days prior to Substantial Completion Date	Once	Construction
Tłı̨ch̨o Operating Labour Annual Reports and Delivery of Labour Records and Paid Business Invoices Tłı̨ch̨o Operating Labour Requirement (as applicable)	Within 20 Business Days of the completion of each Operating Year	Annually	Operations
Local Business Operations Plan (Final)	60 days prior to Substantial Completion Date	Once	Construction
Local Business Operations Annual Reports and Delivery of Labour Records and Paid Business Invoices re Local Business Operations Requirement	Within 20 Business Days of the completion of each Operating Year	Annually	Operations
Tłı̨ch̨o ASR Executive Committee Report re Compliance with and Performance of Local Content Requirements and Engagement Plan	By 10th of each month or as otherwise specified	Monthly or as otherwise specified	Construction and Operations

Table 4 – Key Individual Changes

Key Individuals Changes		
Key Individual	Basis of Assessment	Compliance Failure Points Assigned
Project Co Overall Lead	Change in Key Individual for any reason other than an Approved Reason between Effective Date and Total Completion.	30 / change
Project Manager		30 / change
Design-Builder Lead		30 / change
Design Lead	Change in Key Individual for any reason other than an Approved Reason within the first two (2) years after the Effective Date.	24 / change
Design Quality Manager		10 / change
Bridge Design Lead		20 / change
Road Design Lead		20 / change
Geotechnical Lead	Change in Key Individual for any reason other than an Approved Reason between Effective Date and Total Completion.	20 / change
Community Coordination Lead		15 / change
Archeological/Environmental Lead		20 / change
Construction Manager		24 / change
Construction Quality Manager		16 / change
Safety Manager		16 / change
Service Provider Lead	Change in Key Individual for any reason other than an Approved Reason between Effective Date and five (5) years after Total Completion.	16 /change
Road Maintenance Manager		24 / change
Lifecycle Lead		10 / change

APPENDIX 8B - PERIODIC PAYMENTS

From	To	Periodic Payment (\$ as at the Base Date)		
		Not Index Linked (Column A)	Index Linked (Column B)	Fuel Index Linked (Column C)
Substantial Completion Date	End of Term	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]

SCHEDULE 9

COMPENSATION ON TERMINATION

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SCHEDULE 9

COMPENSATION ON TERMINATION

1. INTERPRETATION

1.1 Definitions

In this Schedule, in addition to the definitions set out in Schedule 1 [Definitions and Interpretation] to this Agreement:

“Adjusted Estimated Market Value” means the Estimated Market Value:

- (a) less an amount, without duplication, equal to the aggregate of:
 - (1) any Re-Bidding Costs; and
 - (2) any other amounts that the Authority is entitled to set-off or deduct under this Agreement,
- (b) plus an amount, without duplication, equal to the aggregate of:
 - (1) any Insurance Proceeds and Insurance Receivables;
 - (2) any accrued but unpaid amounts owing and payable by the Authority to Project Co under this Agreement;
 - (3) all credit balances on any bank account held by or on behalf of Project Co on the date the Estimated Market Value is calculated; and
 - (4) any other amounts that are owing to Project Co (and that Project Co is entitled to retain),

to the extent that any of the above amounts have not been included in calculating the Estimated Market Value and, in the case of (b)(1) and (b)(3) above, the Authority has received or been assigned such amounts and is entitled to retain them;

“Adjusted Highest Compliant Bid Price” means the Highest Compliant Bid Price:

- (a) less an amount, without duplication, equal to the aggregate of:
 - (1) any Re-Bidding Costs; and
 - (2) any other amounts that the Authority is entitled to set-off or deduct under this Agreement; and
 - (3) the amount by which:

- (A) all reasonable costs and expenses incurred by the Authority, during the period commencing on the day following the Termination Date and ending on the Termination Payment Date (or, as the case may be, the date on which it is agreed or determined that no Termination Payment is payable by the Authority under this Agreement), to carry out and perform (or to procure the carrying out and performance of), in the manner and to the standards contemplated by this Agreement, the obligations, responsibilities, activities and work that would, but for the termination of this Agreement, have been the responsibility and obligation of Project Co under this Agreement (including, without limitation, the rectification and mitigation of all defaults by Project Co occurring prior to such termination); exceeds
 - (B) the amount of the Service Payments, if any, that would have been payable to Project Co but for the termination of this Agreement that relates directly to the provision of OMR;
- (b) plus an amount, without duplication, equal to the aggregate of:
- (1) any Insurance Proceeds and Insurance Receivables;
 - (2) any accrued but unpaid amounts owing and payable by the Authority to Project Co under this Agreement;
 - (3) all credit balances on any bank account held by or on behalf of Project Co on the date that the highest priced Compliant Bid is received or, if no Compliant Bid is received on the final date for submission of bids pursuant to the Re-Bidding Process; and
 - (4) any other amounts that are owing to Project Co (and that Project Co is entitled to retain),

to the extent that any of the above amounts has not been taken into account in the relevant Compliant Bid and, in the case of (b)(1) and (b)(3) above, the Authority has received or been assigned such amounts and is entitled to retain them;

“Compliant Bid” means a bid, proposal or other submission pursuant to a competitive process which meets the reasonable criteria that the Authority requires the party making the submission to meet as part of the Re-Bidding Process, which unless otherwise agreed by Project Co and the Authority will include:

- (a) compliance with the New Project Agreement terms;
- (b) the financial ability to pay the proposed capital sum as a single, lump sum payment to be made as of the date of the New Project Agreement and the financial ability to comply with the New Project Agreement terms for the price proposed;

- (c) such party is experienced in maintaining and operating transportation infrastructure similar to the Tłıçhǫ ASR or providing services similar to the Design and Construction, and/or OMR, as applicable;
- (d) the technical solution proposed by such party is capable of delivery and such party is technically capable of delivering and maintaining the Project or the remainder thereof, as the case may be;
- (e) such party is not a Restricted Person; and
- (f) such party is not Project Co or any of its Affiliates;

“Employee Information” means written details related to employees employed by Project Co or any of the Project Contractors or Sub-Contractors whose work (or any part of it) is work undertaken for the purposes of the Project, including:

- (a) the staffing plan and total number of such employees;
- (b) the employment costs for such employees;
- (c) the amount of severance payable to such employees used in the calculation of any Employee Payment and all relevant information used in determining such amounts; and
- (d) any other information that the Authority may reasonably require in relation to the calculation of Employee Payments in respect of Project Co or any relevant Project Contractor or Sub-Contractors;

“Estimated Market Value” means the amount (calculated as at the day following the Termination Date) determined to be the Fair Market Value of a New Project Agreement pursuant to Section 4.2 or 4.3 of this Schedule;

“Highest Compliant Bid Price” means the price offered by the Person making the Compliant Bid (if any) with the highest bid price;

“Liquid Market” means that there are sufficient willing parties (being at least two parties each of whom is capable of submitting a Compliant Bid in a Re-Bidding Process and each of whom deals with the Authority at arm’s length) in the market for agreements in Canada for the provision of services under public private partnerships or other basis similar to this Agreement for the price that is likely to be achieved through a competitive process to be a reliable indicator of the Fair Market Value of a New Project Agreement, provided that any entity controlled and established by the Senior Lenders specifically for the purposes of this Project will not be counted for the purpose of determining whether there are sufficient willing bidders in the market;

“Project Risk Premium” means [REDACTED]%, being the difference between (i) [REDACTED]% (equal to the Base Case Equity IRR) and (ii) [REDACTED]% (being the yield as determined by the parties at Financial Close on the Government of Canada [REDACTED]% Bond maturing December 2048);

“Re-Bidding Costs” means the reasonable costs incurred by the Authority in connection with the Re-Bidding Process or the calculation of the Estimated Market Value;

“Re-Bidding Process” means the process by which the Authority requests bids from parties interested in entering into a New Project Agreement, evaluates the responses from such of those parties that submit Compliant Bids and enters into a New Project Agreement with a New Project Co in accordance with Section 3 of this Schedule;

“Re-Bidding Process Monitor” means a third party appointed by Project Co pursuant to Section 3.10 of this Schedule;

“Senior Debt Termination Amount” has the meaning set out in Section 2.1(b)(1) of this Schedule;

“Termination Date Benchmark Canada Bond Yield” means the yield to maturity on a benchmark Government of Canada Bond of the same maturity as the average life of the outstanding Senior Debt, Junior Debt and equity on the Termination Date, provided however that if there is no benchmark Government of Canada Bond with the same maturity the relevant yield will be calculated from the interpolated yield of the two most relevant and liquid benchmark Government of Canada Bonds; and

“Termination Date Discount Rate” means a discount rate equal to the Project Risk Premium plus the Termination Date Benchmark Canada Bond Yield.

2. TERMINATION FOR AUTHORITY EVENT OF DEFAULT OR AT AUTHORITY’S OPTION

2.1 Calculation

If either the Authority or Project Co terminates this Agreement pursuant to Section 2.1(a), Section 6.6 or Article 14 (Authority Events of Default) of the Agreement, the Authority will pay to Project Co on the Termination Payment Date a Termination Payment equal to the greater of:

- (a) the amount which would be determined under Section 5.1 of this Schedule if it applied; and
- (b) the aggregate amount, without duplication, of:
 - (1) the Senior Debt as at the Termination Date with per diem interest on amounts falling within paragraph (a) of the definition of Senior Debt calculated at the non-default interest rate provided for such amounts in the Senior Financing Agreements for the period from (but excluding) the Termination Date until (and including) the Termination Payment Date (the **“Senior Debt Termination Amount”**);
 - (2) the Employee Payments and the Project Contractor Breakage Costs;
 - (3) any accrued but unpaid amounts owing and payable by the Authority to Project Co under this Agreement;

- (4) any Insurance Receivables, if and to the extent Project Co has assigned them to the Authority; and
- (5) an amount which when taken together with Distributions made on or before the Termination Date, including Distributions paid on or in respect of Units and fees, principal, interest and breakage costs paid or repaid on Junior Debt taking account of the actual timing of all such Distributions, gives a real internal rate of return on the equity capital subscribed and contributed in respect of then outstanding Units and principal amounts advanced under then outstanding Junior Debt equal to the Threshold Equity IRR;

LESS, to the extent it is a positive amount, the aggregate amount, without double counting, of:

- (6) the aggregate of all credit balances on any bank accounts held by or on behalf of Project Co on the Termination Date that are secured in favour of the Senior Lenders;
- (7) the value of any amounts due and payable from third parties (but only when received from third parties) but excluding any claims under a Project Contract or claims against other third parties which have not been determined or have been determined but not yet paid provided that in such case Project Co will assign any such rights and claims under the Project Contracts or claims against other third parties to the Authority and give the Authority reasonable assistance in prosecuting such claims;
- (8) to the extent not taken into account in calculating the amount under (b) above, the amount of any Contingent Funding Liabilities that are triggered as a result of or in relation to a termination of this Agreement;
- (9) the market value of any other assets and rights of Project Co (other than those transferred to the Authority pursuant to this Agreement) less liabilities of Project Co properly incurred in carrying out its obligations under this Agreement as at the Termination Date to the extent realised before the Termination Payment Date provided that no account will be taken of any liabilities and obligations of Project Co arising out of:
 - (A) agreements or arrangements entered into by Project Co to the extent that such agreements or arrangements were not entered into in connection with Project Co's obligations in relation to the Project; or
 - (B) agreements or arrangements entered into by Project Co to the extent that such agreements or arrangements were not entered into in the ordinary course of business and on commercial arm's length terms.

- (10) any amounts, including hedging termination amounts and other breakage costs, payable by the Senior Lenders to Project Co as a result of a prepayment under the Senior Financing Agreements;
- (11) any amounts received by the Senior Lenders (or on their behalf) on or after the Termination Date and before the Termination Payment Date as a result of enforcing any other rights or security the Senior Lenders may have under the Senior Financing Agreements in respect of Senior Debt (net of the reasonable and proper costs incurred in such enforcement); and
- (12) any other amounts that the Authority is entitled to set-off or deduct under this Agreement.

To the extent that the assets and rights referred to in Section 2.1(b)(9) above are not realised and applied pursuant to that Section, Project Co will on payment of the amount due under this Section 2.1 assign such assets and rights to the Authority.

2.2 Notice to the Authority

As soon as practicable after termination of this Agreement pursuant to Section 2.1(a), Section 6.6, Section 6.7 or Section 14.3, Project Co will, acting reasonably, notify the Authority of the Termination Payment as of an estimated Termination Payment Date and include in such notice the details and calculations of each component thereof, including a revised and up to date Financial Model and certificates from the Senior Lenders as to the amounts owed to them. Project Co will provide to the Authority all such documents and information as may be reasonably required by the Authority to confirm the amount of the Termination Payment including Employee Information.

3. TERMINATION FOR PROJECT CO EVENT OF DEFAULT: RE-BIDDING PROCESS

3.1 Authority Election

If the Authority terminates this Agreement in accordance with Section 13.4, the Authority may, within 20 Business Days after the Termination Date, give notice to Project Co electing to have this Article 3 of this Schedule apply if:

- (a) there is a Liquid Market as at the Termination Date; and
- (b) the Senior Lenders:
 - (1) either (i) have not exercised their rights under Article 4 of the Lenders' Remedies Agreement and have no further right to exercise such rights; or (ii) if they have exercised such rights, they have subsequently exercised their rights under Section 3.4 of the Lenders' Remedies Agreement or their rights under Article 4 of the Lenders' Remedies Agreement have otherwise terminated in accordance with the Lenders' Remedies Agreement; or

- (2) have not transferred Project Co's rights and obligations under this Agreement to a Suitable Substitute Project Co in accordance with the Lenders' Remedies Agreement and have no further right to do so, and have not demonstrated to the Authority's satisfaction, acting reasonably, that they have used all reasonable efforts to do so,

but otherwise the Authority will require a determination in accordance with Article 4 (Project Co Event of Default: No Re-Bidding Process) of this Schedule and the provisions of that Article will apply.

3.2 Re-Bidding Process

If this Article 3 applies, the Authority will:

- (a) use all reasonable efforts to:
 - (1) conduct the Re-Bidding Process so as to obtain the maximum Highest Compliant Bid Price; and
 - (2) implement and complete the Re-Bidding Process as soon as practicable after making the election under Section 3.1 of this Schedule; and
- (b) notify, as soon as practicable and acting reasonably, Project Co of the requirements and terms of the Re-Bidding Process, including the timing of the Re-Bidding Process and the criteria for a Compliant Bid and other matters which will be required to be taken into account by a Compliant Bid. Information provided to bidders during the Re-Bidding Process will include similar information to that provided to bidders in the original procurement process for the Project taking into consideration the relevance of such information and the status of the Project at the time of the Re-Bidding Process. All such references to bids and bidders include references to proposals and proponents and similar terms under other competitive projects.

3.3 Release of Information

Project Co hereby authorizes the Authority to release any information that is reasonably required under the Re-Bidding Process which would otherwise be subject to the restrictions in Sections 18.1 and 18.2 of the Agreement.

3.4 Determination and Payment of Termination Payment

If this Article 3 applies and:

- (a) the Adjusted Highest Compliant Bid Price is a positive amount, the Authority will pay to Project Co on the Termination Payment Date a Termination Payment equal to the Adjusted Highest Compliant Bid Price; or
- (b) the Adjusted Highest Compliant Bid Price is less than zero, an amount by which the Adjusted Highest Compliant Bid Price is less than zero will be due and payable by Project

Co to the Authority on the earliest to occur of the dates referred to in Sections 7.1(a)(1) and 7.1(a)(2) of this Schedule.

3.5 Notice to Project Co

As soon as practicable after receipt of the bids, the Authority will, acting reasonably, determine the Compliant Bids and will notify Project Co of the Adjusted Highest Compliant Bid Price and include in such notice the details and calculations of each component thereof.

3.6 New Project Agreement

Notwithstanding any Dispute relating to the Highest Compliant Bid Price, the Adjusted Highest Compliant Bid Price or the Re-Bidding Process, the Authority will be entitled to enter into a New Project Agreement with the New Project Co in accordance with the Re-Bidding Process.

3.7 Subsequent Authority Election

At any time prior to receipt by the Authority of a Compliant Bid or at any time thereafter with the consent of Project Co, acting reasonably, the Authority may, by notice to Project Co, elect for the provisions of Article 4 (Project Co Event of Default: No Re-Bidding Process) of this Schedule to apply and on such notice:

- (a) the provisions of Article 4 (Project Co Event of Default: No Re-Bidding Process) of this Schedule will apply; and
- (b) the Authority will have no liability to Project Co in respect of any breach of the provisions of this Article 3 or in respect of making such election.

3.8 Authority Decision Not to Complete

The Authority will not be obligated to accept the Compliant Bid with the Highest Compliant Bid Price or to enter into any New Project Agreement with the New Project Co, however if the Authority has received a Compliant Bid but decides not to accept it or to enter into a New Project Agreement, the Authority will notify Project Co of this decision, Section 3.4 of this Schedule will continue to apply and the Termination Payment Date will be 20 Business Days after the Authority so notifies Project Co.

3.9 Time Limit For Re-Bidding Process

Subject to Section 3.8 of this Schedule, if the Authority makes an election under Section 3.1 of this Schedule but the Authority has not signed a New Project Agreement with a New Project Co as contemplated by this Article 3 within 18 months after the Termination Date, the provisions of Article 4 (Project Co Event of Default: No Re-Bidding Process) of this Schedule will apply.

3.10 Appointment of Re-Bidding Process Monitor

Project Co may, at its own cost, appoint a Re-Bidding Process Monitor for the purpose of monitoring and reporting to Project Co and the Senior Lenders on the Authority's compliance with the Re-Bidding Process.

3.11 Role of Re-Bidding Process Monitor

The Re-Bidding Process Monitor will be entitled to attend all meetings relating to the Re-Bidding Process, inspect copies of all relevant documentation and make submissions to the Authority as to compliance with the Re-Bidding Process. The Authority will not be bound to consider or act upon such submissions. The Re-Bidding Process Monitor will not disclose Confidential Information to Project Co or the Senior Lenders or take any action which might materially delay or interfere with the Re-Bidding Process but will be entitled to advise Project Co and the Senior Lenders on whether it considers that the Authority has acted in accordance with the Re-Bidding Process and determined the Highest Compliant Bid Price.

3.12 Post-Termination Date Payment

If this Agreement is terminated in accordance with Section 13.4, during the period from the Termination Date to the Termination Payment Date the Authority will, on or before the later of:

- (a) 2 Business Days prior to each interest payment date under the Senior Financing Agreements; and
- (b) 20 calendar days after the Authority has received written notice from Project Co of the amount of interest payable by it on such interest payment date,

as an advance against the payment to be made pursuant to this Article 3, pay to Project Co the interest payable on that interest payment date by Project Co to the Senior Lenders in the normal course (which, for greater certainty, does not include breach or default circumstances) under the Senior Financing Agreements. The Authority may withhold payment if the Authority has reasonable grounds to believe that the aggregate of that payment and all such previous payments would exceed the Termination Payment otherwise payable under this Article 3. All payments under this Section 3.12 will be deducted from the Termination Payment and any over-payment will be re-paid by Project Co no later than the Termination Payment Date.

4. PROJECT CO EVENT OF DEFAULT: NO RE-BIDDING PROCESS

4.1 Application for No Re-Bidding Process

The provisions of this Article 4 will apply if:

- (a) the Authority terminates this Agreement in accordance with Section 13.4 and does not, or is not entitled to, make an election under Section 3.1 of this Schedule;
- (b) the Authority so elects under Section 3.7 of this Schedule; or
- (c) Section 3.9 of this Schedule requires it.

4.2 Determination of Adjusted Estimated Market Value

Project Co and the Authority will act reasonably in agreeing on the Adjusted Estimated Market Value which will be calculated as at the day following the Termination Payment Date, provided that in determining the

Estimated Market Value (which will be determined by deducting the aggregate of the amounts referred to in Section 4.2(d) of this Schedule from the aggregate of the amounts referred to in Section 4.2(c) of this Schedule):

- (a) this Agreement will be assumed not to have been terminated and neither party is in default under its terms;
- (b) all forecast amounts will be calculated on a Nominal basis;
- (c) each of the following will be calculated and discounted at the Termination Date Discount Rate:
 - (1) all future Service Payments which according to the Financial Model Project Co expected to receive from the Termination Date to the Expiry Date; and
 - (2) all amounts payable by the Authority to Project Co in respect of a Supervening Event or Authority Change and all other payments, other than any such amounts and payments that are reflected in the Service Payments as set out in (1) above, which the Authority is required to make to Project Co prior to the Expiry Date which Project Co has not been paid in accordance with this Agreement, including the Substantial Completion Payment, if applicable;
- (d) the total of all costs forecast to be reasonably incurred by the Authority as a result of termination and related to providing the Project Work itself or by others from the Termination Date to the Expiry Date will be calculated and discounted at the Termination Date Discount Rate, such costs to include (without double counting):
 - (1) all reasonable costs required to put the Tłıçhǫ ASR in the condition required by this Agreement (including, in the case of termination prior to Total Completion, the reasonable costs required to be expended to achieve Total Completion) and to meet the level of performance for the OMR, any Reinstatement Works and, to the extent applicable at such time and net of any letter of credit provided in respect thereof, the Handback Works, that will deliver the Service Payments referred to in Section 4.2(c)(1) of this Schedule;
 - (2) an amount equal to all Taxes deemed paid by Project Co to achieve the Base Case Project IRR; and
 - (3) the projected cost of operating, maintaining and performing life cycle rehabilitation for the Tłıçhǫ ASR from the Termination Date to the Expiry Date, such costs to be determined on the basis that:
 - (A) the costs referred to in Section 4.2(d)(1) of this Schedule put the Tłıçhǫ ASR in the condition required by this Agreement and that the Tłıçhǫ ASR meets the said level of performance for the OMR, any Reinstatement Works and, to the extent applicable at such time and net of any letter of credit provided in respect thereof, the Handback Works; and

- (B) in the case of termination prior to the Substantial Completion Date, costs in respect of OMR, Reinstatement Works and Handback Works will be in amounts contemplated by the Financial Model at the Effective Date,

in each case such costs to be in substantially similar categories to those set out in the Financial Model at the Effective Date, but not (subject to (B) above) necessarily of the same amounts as those costs set out in the Financial Model at the date of this Agreement, and to be forecast at a level that will deliver the Service Payments referred to in Section 4.2(c)(1) of this Schedule, with such costs to include a reasonable risk margin to cover a realistic and reasonable risk assessment of likely cost overruns; and

- (e) if Section 182 of the *Excise Tax Act (Canada)* is applicable to the Termination Payment payable under this Section, the Estimated Market Value will be increased by an amount such that after remitting the applicable GST Project Co will be in the same position as it would have been if Section 182 of the *Excise Tax Act (Canada)* were not applicable.

The above determined amount will be adjusted to the extent required under Section 6.1 of this Schedule.

4.3 Determination by Valuator

If the Authority and Project Co cannot agree on the Adjusted Estimated Market Value within 20 Business Days after the date on which the Authority elected for the provisions of this Article 4 to apply or they were deemed to apply, then either party may require, by notice to the other party, that the Adjusted Estimated Market Value be determined by a Valuator as of an estimated Termination Payment Date. If the parties cannot agree on the appointment of a Valuator within 5 Business Days of such notice, the appointment of the Valuator will be a Dispute and resolved, with a Valuator appointed, pursuant to the Dispute Resolution Procedure. The Authority and Project Co will each pay one-half of the fees of, and any costs and expenses incurred by, the Valuator. The parties will cooperate with, and provide all such information as may reasonably be required by, the Valuator to assist in the Valuator's determination of the Adjusted Estimated Market Value.

4.4 Determination and Payment of Termination Payment

If this Article 4 applies and:

- (a) the Adjusted Estimated Market Value is a positive amount, the Authority will pay to Project Co on the Termination Payment Date a Termination Payment equal to the Adjusted Estimated Market Value; and
- (b) the Adjusted Estimated Market Value is less than zero, an amount equal to the amount by which the Adjusted Estimated Market Value is less than zero will be due and payable by Project Co to the Authority by the earliest of:
- (1) 40 Business Days after the parties have agreed or been deemed to have agreed the Adjusted Estimated Market Value; and

- (2) 30 Business Days after the amount of the Adjusted Estimated Market Value is determined under the Dispute Resolution Procedure.

5. NO-FAULT TERMINATION

5.1 Calculation

If Project Co or the Authority terminates this Agreement pursuant to Sections 6.7, 6.8, 6.9, 6.15, 8.4 or 8.7 of this Agreement, the Authority will pay to Project Co on the Termination Payment Date a Termination Payment equal to the aggregate of:

- (a) the Senior Debt Termination Amount;
- (b) any accrued but unpaid amounts owing and payable by the Authority to Project Co under this Agreement;
- (c) the amount, if any, by which the Junior Debt exceeds the amount of all Distributions made in respect of Junior Debt;
- (d) the amount, if any, by which the amount of capital contributed to Project Co by the Partners exceeds the amount of Distributions made by Project Co to its Partners; and
- (e) the Employee Payments and the Project Contractor Breakage Costs,

less:

- (f) the amount of any Distributions other than those referred to in (c) and (d) above; and
- (g) any other amounts that the Authority is entitled to set-off or deduct under this Agreement.

If the aggregate of the amount calculated above is less than the Senior Debt Termination Amount plus the amount referred to in (e) above, then the Termination Payment will be increased so that it is equal to the aggregate of the Senior Debt Termination Amount plus the amount referred to in (e) above.

5.2 Notice to the Authority

As soon as practicable after termination of this Agreement as contemplated by this Article 5, Project Co will, acting reasonably, notify the Authority of the Termination Payment as of an estimated Termination Payment Date and include in such notice the details and calculations of each component thereof, including a revised and up to date Financial Model and certificates from the Senior Lenders as to the amounts owed to them and will also provide to the Authority all such documents and information reasonably required by the Authority to confirm the amount of the Termination Payment including Employee Information.

6. ADJUSTMENTS AND DISPUTES

6.1 Income Tax Gross-Up - Partnership Project Co

For the purpose of this Section 6.1:

“Deemed Corporate Project Co” means a fictional fully taxable single purpose Northwest Territories resident corporation that (i) is, and has since the date of this Agreement been, a subsidiary of a public corporation carrying on an active business with the same fiscal year end as Project Co; and (ii) has had the same revenues and expenses as Project Co and has taken all exemptions, relief, allowances, deductions, set offs and credits permitted under laws relating to Income Taxes (including any that would be available in relation to the Project) since the date of this Agreement so as to minimize its Income Tax payable; and

“Taxable Shareholder Portion” means:

- (a) 100% if Project Co is a taxable entity with respect to Income Tax; or
- (b) that percentage, measured as at the Termination Date, of the total equity interests of Project Co that are not owned, directly or indirectly, by persons (1) described in Section 149 of the *Income Tax Act (Canada)*, or the equivalent section if there are changes to the *Income Tax Act (Canada)*, and (2) not subject to the payment of Income Tax in respect of payments by Project Co from proceeds of the Termination Payment.

If a Termination Payment is payable by the Authority under Article 2 (Termination for Authority Event of Default or at Authority’s Option) or Article 5 (No-Fault Termination) of this Schedule and such Termination Payment would, in the hands of a Deemed Corporate Project Co (if the Deemed Corporate Project Co were being paid the Termination Payment), be subject to Income Tax payable to a Governmental Authority within Canada that would not have been payable but for the fact that such amount is payable as compensation on termination, then the Authority will pay to Project Co the Taxable Shareholder Portion of the additional amount that would be required to be paid to the Deemed Corporate Project Co (if the Deemed Corporate Project Co were being paid the Termination Payment) to put it in the same position after Income Tax as it would have been in had the Termination Payment (or portion thereof) not been subject to any such Income Tax, taking account of any exemption, relief, allowances, deduction, setting off or credit in respect of Income Tax (whether available by choice or not) which would be available to the Deemed Corporate Project Co to reduce the Tax to which the Termination Payment, or any portion thereof, would be subject.

6.2 Time Related Adjustments

It is understood that the calculations of the Termination Payment pursuant to Articles 2 (Termination for Authority Event of Default or at Authority’s Option), 4 (Project Co Event of Default: No Re-Bidding Process) and 5 (No-Fault Termination) of this Schedule are as of an estimated Termination Payment Date and that such estimated date may not be the actual Termination Payment Date for reasons including the existence of a Dispute. The parties will act reasonably in adjusting the amount of such calculated Termination Payment to reflect the actual Termination Payment Date.

6.3 Senior Debt

The Authority will be entitled to rely on one or more certificates of officers of the Senior Lenders or their agent(s) as conclusive evidence of the amount of the Senior Debt Termination Amount. The receipt of this amount by Project Co, the Senior Lenders or their agent(s) will discharge the Authority’s obligation to pay any portion of compensation due to Project Co that is attributable to the Senior Debt.

6.4 Disputes

If:

- (a) the Authority does not agree with Project Co's determination of the Termination Payment under Articles 2 (Termination for Authority Event of Default or at Authority's Option) or 5 (No-Fault Termination) of this Schedule, the Authority may, within 20 Business Days of the notice referred to in Section 2.2 or Section 5.2 of this Schedule as the case may be, refer the matter to the Dispute Resolution Procedure; or
- (b) Project Co does not agree with the Authority's determination of the Adjusted Highest Compliant Bid Price under Article 3 (Termination for Project Co Event of Default: Re-Bidding Process) of this Schedule or the Valuator's determination of the Adjusted Estimated Market Value under Article 4 (Project Co Event of Default: No Re-Bidding Process) of this Schedule, Project Co may, within 20 Business Days of the notice referred to in Section 3.5 of this Schedule or the Valuator's determination under Section 4.3 of this Schedule, refer the matter to the Dispute Resolution Procedure.

If either party does not refer the matter to the Dispute Resolution Procedure within the periods provided for in (a) or (b) above, as applicable, such party will be deemed to have agreed to the amount of the applicable determination of the Termination Payment as of the estimated Termination Payment Date.

7. PAYMENTS

7.1 Termination Payment Date

The Termination Payment Date will be determined as follows:

- (a) if the Termination Payment is determined pursuant to Articles 2 (Termination for Authority Event of Default or at Authority's Option), 4 (Project Co Event of Default: No Re-Bidding Process) or 5 (No-Fault Termination) of this Schedule, the Termination Payment Date will be:
 - (1) if the amount thereof is agreed to or deemed agreed to by the Authority and Project Co on the earliest of:
 - (A) the date advised by the Authority; and
 - (B) 40 Business Days after such agreement or deemed agreement, as the case may be; or
 - (2) if the amount thereof is the subject of a Dispute, 30 Business Days after the amount of the Termination Payment is determined under the Dispute Resolution Procedure; and

- (b) if the Termination Payment is determined pursuant to Article 3 (Termination for Project Co Event of Default: Re-Bidding Process) of this Schedule, the Termination Payment Date will be the earliest of:
 - (1) 30 Business Days after the Adjusted Highest Compliant Bid Price has been agreed or determined pursuant to the Dispute Resolution Procedure; and
 - (2) 20 Business Days after the New Project Co has executed and delivered the New Project Agreement.

7.2 Tax Allocations

The Authority and Project Co will:

- (a) act reasonably and will co-operate with each other to determine the Income Tax treatment resulting from a Termination Payment and to allocate the Termination Payment to each of the non-fixed assets transferred to the Authority pursuant to Section 15.2 of the Agreement so as to minimize the amount of Taxes payable on such transfer;
- (b) failing agreement on such treatment or allocation, use the treatment or allocation determined by the Authority unless and until such time as a different treatment or allocation is determined under the Dispute Resolution Procedure or by Canada Revenue Agency (after all appeals have been exhausted); and
- (c) use the allocation agreed to in (a) above or determined in accordance with (b) above in their respective Tax filings and returns.

7.3 Liability for Sales Taxes

The Authority will be responsible for all applicable sales Taxes payable in connection with the transfers referred to in Section 15.2 and will either pay all such sales Taxes directly or reimburse Project Co for such sales Taxes if Project Co is required to and does remit such sales Taxes.

7.4 GST Filings

If Section 182 of the *Excise Tax Act (Canada)* applies to a Termination Payment, the Authority and Project Co will submit their respective GST filings in respect of any period in which a Termination Payment was made on the basis that Section 182 of the *Excise Tax Act (Canada)* will apply to any such Termination Payment.

7.5 Full Settlement

Any and all amounts paid by the Authority to Project Co under this Schedule or any agreement or determination that the Authority has no obligations to make any payment to Project Co under this Schedule will be in full and final settlement of each party's rights and claims against each other for termination of this Agreement and any Project Contract, whether under contract, tort, restitution or otherwise, but without prejudice to:

- (a) any antecedent liability of either party to the other that arose prior to the date of termination of this Agreement (but not from the termination itself) to the extent such liability has not already been taken into account in determining the Termination Payment; and
- (b) any liability of either party to the other that may arise after the date of termination of this Agreement (but not from the termination itself), including, for greater certainty, liabilities arising under the provisions of this Agreement which are intended by Section 18.11 to survive termination, to the extent any such liability has not already been taken into account in determining the Termination Payment.

SCHEDULE 10
LENDERS' REMEDIES AGREEMENT

for the Tłı̨chǫ All Season Road Project

between:

THE GOVERNMENT OF THE NORTHWEST TERRITORIES

- AND -



- AND -

NORTH STAR INFRASTRUCTURE GP

Dated: ■

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SCHEDULE 10


LENDERS' REMEDIES AGREEMENT

THIS AGREEMENT is dated as of ■

BETWEEN:

The Government of the Northwest Territories
(the "**Authority**")

AND:


(the "**Agent**"), as agent for the Finance Parties

AND:

North Star Infrastructure GP
("Project Co")

WHEREAS:

- A. The Authority and Project Co have entered into the Project Agreement (defined below);
- B. Pursuant to the Credit Agreement (defined below), the Senior Lenders have agreed, subject to the terms and conditions contained therein, to make available to Project Co the senior construction facility specified therein to finance certain costs to be incurred and expenditures to be made by Project Co in connection with the Project Agreement;
- C. It is a condition precedent to the obligations of the Finance Parties under the Senior Financing Agreements that this Agreement be executed and delivered by the parties; and
- D. The Authority and Project Co have agreed under the terms of the Project Agreement to execute and deliver this Agreement.

NOW THEREFORE in consideration of the mutual promises and agreements of the parties herein expressed and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties covenant and agree as follows:

1. DEFINITIONS AND INTERPRETATION

1.1 Definitions

Unless otherwise specified or the context otherwise requires, capitalized but otherwise undefined terms in this Agreement will have the respective meanings given to such terms in the Project Agreement, and:

"**Agent's Withdrawal Notice**" has the meaning set out in Section 3.4;

“Agreement” means this agreement, including any recitals to this agreement, as amended, supplemented or restated from time to time;

“Antecedent Liabilities” means, as at any time:

- (a) all amounts due and payable by Project Co to the Authority under the Project Agreement at such time; and
- (b) all obligations which should have, but have not, been performed and outstanding liabilities of Project Co under the Project Agreement, in each case at such time;

“Appointed Representative” means the Senior Lenders’ Representative identified in a Step-In Notice;

“Credit Agreement” means the credit agreement dated on or about the date hereof between, among others, the Agent, Project Co, as borrower, Kiewit GP and T1çhç GP, as general partners, and the Senior Lenders, as the same may be amended, restated, supplemented or otherwise modified from time to time;

“Discharged Obligations” has the meaning set out in Section 6.4;

“Discharged Rights” has the meaning set out in Section 6.4;

“Event of Default” has the meaning set out in the Credit Agreement;

“Finance Parties” has the meaning set out in the Credit Agreement;

“Indicative Notice” means either an Indicative Step-In Notice or an Indicative Transfer Notice given in accordance with Section 3.3;

“Indicative Notice Period” means:

- (a) where an Indicative Step-In Notice has been given, the period commencing on the date of delivery of such Indicative Step-In Notice and ending on the earlier of:
 - (i) the Step-In Date;
 - (ii) the date of delivery of an Agent’s Withdrawal Notice; and
 - (iii) 45 Business Days following the date of delivery of such Indicative Step-In Notice;
- (b) where an Indicative Transfer Notice has been given, the period commencing on the date of delivery of such Indicative Transfer Notice and ending on the earlier of:
 - (i) the date on which any transfer in accordance with Section 6.1 becomes effective;
 - (ii) the date of delivery of an Agent’s Withdrawal Notice; and

45 Business Days following the date of delivery of such Indicative Transfer Notice;

“Indicative Step-In Notice” has the meaning given to it in Section 3.3;

“Indicative Transfer Notice” has the meaning given to it in Section 3.3;

“Insolvency Law” means any of the *Bankruptcy and Insolvency Act (Canada)*, the *Companies’ Creditors Arrangement Act (Canada)* and the *Winding-Up and Restructuring Act (Canada)* and any other applicable insolvency or other similar law of any jurisdiction, including any applicable law of any jurisdiction permitting a debtor to obtain a stay or a compromise of the claims of its creditors against it;

“Insolvency Officer” means any trustee, receiver, receiver and manager, liquidator, sequestrator, administrator or other custodian in connection with the insolvency of Project Co or any of its assets;

“Insolvency Proceedings” means:

- (a) any:
 - (i) formal step (including petition, proposal, application, convening of a meeting or other proceeding) taken with a view to or for the purpose of considering;
 - (ii) appointment of an Insolvency Officer in connection with;
 - (iii) order or resolution passed in connection with; or
 - (iv) formal agreement reached regarding,

a dissolution, bankruptcy, receivership, winding-up, liquidation, administration or other similar proceedings or any other proceeding seeking a stay of proceedings, reorganisation, debt arrangement, compromise of the claims of creditors or any distribution of assets in respect of Project Co (whether voluntary or involuntary) made or commenced by any party under any Insolvency Law; or
- (b) any distress, attachment, sequestration or execution or other similar process affecting any of the assets of Project Co or any other similar process or event occurring in relation to Project Co’s assets in any other jurisdiction;

“Insurance Proceeds Account” has the meaning given to it in the Credit Agreement;

“Lenders’ Step-In Notice” has the meaning given in Section 9.1(a);

“Liability Report” has the meaning given in Section 3.5;

“Material Antecedent Liabilities” means Antecedent Liabilities that are:

- (a) financial liabilities; or
- (b) non-financial liabilities, the breach of which will trigger any remedy of the Authority under Section 9.1 or Article 13 (Project Co Events of Default) of the Project Agreement;

“Notice Period” means:

- (a) in respect of a Project Co Event of Default, the Termination Notice Period; and
- (b) in respect of an Event of Default, the Indicative Notice Period;

“Project Agreement” means the agreement dated February 13, 2019 between Project Co and the Authority relating to the design, construction, financing, maintenance, operation and life cycle rehabilitation of the Tłıchq ASR;

“Project Documents” means, collectively, the Project Agreement and any other agreement (other than this Agreement) entered into from time to time by the Authority and Project Co (with or without other parties) in connection with the Project; and **“Project Document”** means any one of the foregoing;

“Reported Antecedent Liabilities” means the Antecedent Liabilities identified in the Liability Report;

“Revocation of Termination Notice” means a written notice from the Authority to the Agent revoking a Termination Notice;

“Security Documents” has the meaning as set out in the Credit Agreement;

“Senior Debt Deficiency” means the amount, if any, by which the Termination Payment is less than the Senior Debt Termination Amount;

“Senior Debt Discharge Date” means the date on which all amounts due and owing to the Senior Lenders under the Senior Financing Agreements have been fully and irrevocably paid or discharged (whether or not as a result of enforcement) and the Senior Lenders are under no further obligation to advance under the relevant Senior Financing Agreement;

“Senior Lenders” means the lenders and hedge providers party to the Credit Agreement from time to time;

“Senior Lenders’ Representative” means:

- (a) the Agent or any Senior Lender;
- (b) a receiver or receiver and manager of Project Co appointed under or in connection with the Security Documents; or
- (c) any other Person approved by the Authority (such approval not to be unreasonably withheld or delayed);

“Step-In Date” means 5 Business Days after delivery of a Step-In Notice;

“Step-In Notice” means a notice given by the Agent to the Authority pursuant to Article 4 (Step-In);

“Step-In Period” means, subject to Section 4.3, the period from the Step-In Date up to and including the earliest of:

- (a) the Step-Out Date;

- (b) the date of any transfer under Article 6 (Senior Lender Replacement of Project Co);
- (c) the date of any termination under Section 4.5; and
- (d) the Expiry Date;

“Step-Out Date” means the date that is 20 Business Days after the date of a Step-Out Notice;

“Step-Out Notice” means a notice from the Agent or Appointed Representative to the Authority pursuant to Article 5 (Step-Out);

“Suitable Substitute Project Co” means a Person approved by the Authority in accordance with Sections 6.2 and 6.3 as:

- (a) having the legal capacity, power and authority to become a party to and perform the obligations of Project Co under the Project Agreement; and
- (b) employing or contracting for the services of Persons having the appropriate qualifications, experience and technical competence and having the resources available to it (including committed financial resources and sub-contracts) which are sufficient to enable it to perform the obligations of Project Co under the Project Agreement, provided that such Person is not a Restricted Person;

“Termination Notice” means a notice given by the Authority to the Agent under Article 3 (Notices); and

“Termination Notice Period” means the period beginning on the date of giving of a Termination Notice and ending on the earlier of:

- (a) the Step-In Date;
- (b) the date of service of a Revocation of Termination Notice; and
- (c) the proposed Termination Date (subject to the minimum notice requirements under Section 3.1(a)) set out in the Termination Notice.

1.2 Construction and Interpretation

This Agreement will be interpreted according to the following provisions, save to the extent that the context or the express provisions of this Agreement otherwise require:

- (a) the parties waive the application of any rule of law which otherwise would be applicable in connection with the construction of this Agreement that ambiguous or conflicting terms or provisions should be construed against the party who (or whose counsel) prepared the executed agreement or any earlier draft of the same;
- (b) the table of contents, headings and sub-headings, marginal notes and references to them in this Agreement are for convenience of reference only, do not constitute a part of this

Agreement, and will not be taken into consideration in the interpretation or construction of, or affect the meaning of, this Agreement;

- (c) each reference in this Agreement to “Section” is to a section of this Agreement;
- (d) each reference to an agreement, document, standard, principle or other instrument includes (subject to all relevant approvals and any other provision of this Agreement expressly concerning such agreement, document, standard, principle or other instrument) a reference to that agreement, document, standard, principle or instrument as amended, supplemented, replaced, novated or assigned, and a reference to an “amendment” and similar terms (including “amend” and “amended”) include a reference to supplement, alteration, substitute, variation, change and any other modification and similar terms;
- (e) each reference to a statute or statutory provision (including any subordinate legislation) includes any statute or statutory provision which amends, extends, consolidates or replaces the statute or statutory provision or which has been amended, extended, consolidated or replaced by the statute or statutory provision and includes any orders, regulations, by-laws, ordinances, orders, codes of practice, instruments or other subordinate legislation made under the relevant statute;
- (f) each reference to time of day is a reference to Mountain Standard time or Mountain Daylight Saving time, as the case may be;
- (g) words importing the singular include the plural and vice versa;
- (h) words importing a particular gender include all genders;
- (i) each reference to a public organization is deemed to include a reference to any successor(s) to such public organization or any organization or entity or organizations or entities which has or have taken over the functions or responsibilities of such public organization;
- (j) unless the context otherwise requires, each reference to “parties” means the parties to this Agreement and each reference to a “party” means any one of the parties to this Agreement, provided however that a reference to a third party does not mean a party to this Agreement;
- (k) all monetary amounts are expressed in Canadian Dollars;
- (l) the words “include”, “includes” and “including” are to be construed as meaning “include without limitation”, “includes without limitation” and “including without limitation”, respectively;
- (m) any consent contemplated to be given under this Agreement must be in writing;
- (n) general words are not given a restrictive meaning:
 - (i) if they are introduced by the word “other”, by reason of the fact that they are preceded by words indicating a particular class of act, matter or thing; or

- (ii) by reason of the fact that they are followed by particular examples intended to be embraced by those general words;
- (o) the expression “all reasonable efforts” and expressions of like import, when used in connection with an obligation of the Senior Lenders, the Agent, the Appointed Representative or any other Senior Lenders’ Representative, means taking in good faith and with due diligence all commercially reasonable steps to achieve the objective and to perform the obligation, including doing all that can reasonably be done in the circumstances, and in any event taking no less steps and efforts than those that would be taken by a commercially reasonable and prudent Person in comparable circumstances but where the whole of the benefit of the obligation and where all the results of taking such steps and efforts accrued solely to that Person’s own benefit;
- (p) all accounting and financial terms used herein are, unless otherwise indicated, to be interpreted and applied in accordance with Canadian generally accepted accounting principles, consistently applied;
- (q) if the time for doing an act falls or expires on a day that is not a Business Day, the time for doing such act will be extended to the next Business Day; and
- (r) each provision of this Agreement will be valid and enforceable to the fullest extent permitted by law. If any provision of this Agreement is held to be invalid, unenforceable or illegal to any extent, such provision may be severed and such invalidity, unenforceability or illegality will not prejudice or affect the validity, enforceability and legality of the remaining provisions of this Agreement. If any such provision of this Agreement is held to be invalid, unenforceable or illegal, the parties will promptly endeavour in good faith to negotiate new provisions to eliminate such invalidity, unenforceability or illegality and to restore this Agreement as nearly as possible to its original intent and effect.

1.3 Governing Law

This Agreement will be deemed to be made pursuant to the laws of the Northwest Territories and the laws of Canada applicable therein and will be governed by and construed in accordance with such laws.

1.4 Attornment

For the purposes of any legal actions or proceedings brought by any party hereto against the other party, the parties hereby irrevocably submit to the exclusive jurisdiction of the courts of the Northwest Territories and acknowledge their competence and the convenience and propriety of the venue and agree to be bound by any judgment thereof and not to seek, and hereby waive, review of its merits by the courts of any other jurisdiction.

2. CONSENT TO SECURITY

2.1 Consent

The Authority acknowledges notice of, and consents to, the security interest granted by Project Co in favour of the Finance Parties under the Credit Agreement and Security Documents over:

- (a) Project Co's rights under the Project Agreement and all other Project Documents;
- (b) Project Co's assets; and
- (c) Project Co's rights to Insurance Proceeds and Insurance Receivables.

2.2 No Notice of Other Security

The Authority confirms that as of the date of this Agreement it has not received written notice of any other security interest granted over Project Co's rights described in Sections 2.1 other than pursuant to the Credit Agreement and Security Documents.

2.3 Authority Obligations

Except as specifically provided for in this Agreement or the Insurance Trust Agreement, the Authority has no obligations (whether express, implied, collateral or otherwise) to the Agent or the Finance Parties in connection with this Agreement, the Project Agreement or the Project. All of the obligations and liabilities given, undertaken or arising on the part of the Authority under this Agreement are given solely to the Agent on behalf of the Finance Parties and do not confer any rights on or in favour of Project Co or any Affiliate of Project Co or any other Person.

2.4 Authority's Rights not Prejudiced

The parties acknowledge that nothing in the Senior Financing Agreements, this Agreement or any other agreement between any of them (including any giving by the Agent of a notice hereunder) will, except as between the Finance Parties, the Agent and the Authority as expressly set out in this Agreement, affect the rights of the Authority under the Project Agreement (but an exercise by the Authority of those rights will not preclude a proper exercise by the Agent of its rights under this Agreement). For greater certainty and without limiting the generality of the foregoing, nothing in this Agreement will limit, and the Authority will be entitled at all times in accordance with the provisions thereof to exercise the Authority's rights under Section 12.1(a) of the Project Agreement and the related exercise of its rights under Section 12.2 of the Project Agreement.

3. NOTICES

3.1 Termination Notice

The Authority will not terminate or deliver any notice terminating the Project Agreement without giving to the Agent written notice (a "**Termination Notice**") stating:

- (a) that a Project Co Event of Default has occurred and the proposed Termination Date, which will be not sooner than 60 Business Days after the Termination Notice; and

- (b) the grounds for termination in reasonable detail.

3.2 Notice of Event of Default

Concurrently with delivery by it to Project Co of any notice of an Event of Default, the Agent will provide a copy of such notice to the Authority, together with reasonable details of such Event of Default.

3.3 Indicative Notice

Without prejudice to the Agent's rights under the Security Documents, at any time upon the occurrence of an Event of Default, and where relevant to such Event of Default the continuance of such Event of Default, the Agent may give notice to the Authority of its intention to nominate a Senior Lenders' Representative to step-in in accordance with Section 4.1 (an "**Indicative Step-In Notice**") or to effect a transfer in accordance with Section 6.1 (an "**Indicative Transfer Notice**").

3.4 Agent's Withdrawal Notice

If at any time after the giving of an Indicative Notice or a Termination Notice, the Agent has determined that it is not, or is no longer, considering appointing a Senior Lenders' Representative or effecting a transfer of Project Co's rights and liabilities under the Project Agreement to a Suitable Substitute Project Co in accordance with this Agreement, the Agent will give notice (an "**Agent's Withdrawal Notice**") to the Authority and thereafter the provisions of this Agreement will not be applicable with respect to the event that led to such Indicative Notice or Termination Notice and the Authority will be at liberty to take any and all action available to it under the Project Agreement and other Project Documents.

3.5 Notice of Antecedent Liabilities

Unless an Agent's Withdrawal Notice has been given, not later than 20 Business Days after the date of delivery by the Authority of a Termination Notice or the date of delivery by the Agent of an Indicative Notice, as the case may be, the Authority will give the Agent a notice (the "**Liability Report**") containing details of:

- (a) any Material Antecedent Liabilities accrued and outstanding as of the date of delivery of the Termination Notice or Indicative Notice, as the case may be; and
- (b) any financial liabilities of which the Authority is aware (after reasonable enquiry) that will fall due under the Project Agreement on or after the date of delivery of the Termination Notice or Indicative Notice, as the case may be, and on or prior to:
 - (i) in the case of a Termination Notice, the proposed Termination Date set out in that notice; and
 - (ii) in the case of an Indicative Notice, 40 Business Days after the date of delivery of the Indicative Notice.

3.6 Subsequent Authority Notice of Liabilities

After the delivery of the Liability Report, unless an Agent's Withdrawal Notice has been given, the Authority will, promptly upon becoming aware of them, notify the Agent in writing of any additional Material

Antecedent Liabilities arising on or after the date of delivery of the Termination Notice or Indicative Notice, as the case may be, and prior to the end of the Termination Notice Period or the Indicative Notice Period, as the case may be.

3.7 No Right to Terminate

The Authority will not terminate or deliver any notice terminating the Project Agreement during any Notice Period, provided however that until the expiry of that period the Authority will be entitled to require Project Co to remedy any Project Co Event of Default and will be entitled to exercise all rights under the Project Agreement other than termination of the Project Agreement.

4. STEP-IN

4.1 Step-In Notice

Subject to Section 4.3 and without prejudice to the Agent's rights under the Security Documents, the Agent may give the Authority a notice (a "**Step-In Notice**") at any time during an Indicative Notice Period or a Termination Notice Period, as the case may be.

4.2 Contents of Step-In Notice

In the Step-In Notice, the Agent will:

- (a) state that it intends to exercise its step-in rights under this Agreement; and
- (b) identify the Appointed Representative.

4.3 One Step-In Period

There will be not more than one Step-In Period following any one Indicative Notice or Termination Notice.

4.4 Appointed Representative Rights

On the Step-In Date, the Appointed Representative will assume jointly and severally with Project Co the rights of Project Co under the Project Agreement, which rights are conditional on and may be exercised subject to performance of Project Co's obligations under the Project Agreement. During the Step-In Period, the Authority will deal with the Appointed Representative and not Project Co. No Appointed Representative will be liable to the Authority or Project Co for any liabilities or obligations of Project Co. An Appointed Representative who is also an Insolvency Officer will not, and will not be required to, assume or have any personal liability for any liabilities or obligations of Project Co.

4.5 Authority Right to Terminate

The Authority will not terminate the Project Agreement in whole or in part during the Step-In Period except as set out in this Section 4.5. The Authority will be entitled to terminate the Project Agreement during the Step-In Period by written notice to Project Co, the Agent and the Appointed Representative:

- (a) if the Reported Antecedent Liabilities that are financial liabilities have not been paid to the Authority on or before the Step-In Date or, if the due date for payment thereof is after the Step-In Date, have not been paid by the due date;
- (b) if amounts, of which the Authority was not aware (having made reasonable enquiry) at the time of the Liability Report, subsequently become payable and are not discharged by:
 - (i) if notice of the liability is given to the Agent at least 20 Business Days prior to the Step-In Date, the Step-In Date or, if the due date for payment thereof is after the Step-In Date, the due date;
 - (ii) if notice of the liability is given to the Agent within 20 Business Days before the Step-In Date and such liability is material (as stated by the Authority, acting reasonably, when it gives such notice or as stated by the Agent, acting reasonably, by notice to the Authority within 5 Business Days of receipt of the notice from the Authority), 20 Business Days after the Step-In Date or, if later, the due date; or
 - (iii) otherwise, 20 Business Days after delivery of the notice or, if later, the due date;
- (c) on grounds arising after the Step-In Date in accordance with the terms of the Project Agreement (other than a Project Co Insolvency Event), provided that for the purposes of termination under the Project Agreement, any Failure Points that were assigned prior to the Step-In Date will not be taken into account during the Step-In Period;
- (d) on grounds arising prior to the Step-In Date (whether or not continuing at the Step-In Date) in accordance with the terms of the Project Agreement but only if the Appointed Representative is not using all reasonable efforts to remedy the relevant Antecedent Liabilities which are non-financial liabilities; or
- (e) if the Substantial Completion Date does not occur on or before the date that is 6 months after the Longstop Date.

5. STEP-OUT

5.1 Step-Out Notice

The Agent or the Appointed Representative may at any time during the Step-In Period deliver to the Authority a Step-Out Notice which specifies the Step-Out Date.

5.2 Expiry of Step-In Period

Upon the termination or expiry of the Step-In Period:

- (a) the rights of the Authority against the Appointed Representative and the rights of the Appointed Representative against the Authority will be cancelled; and
- (b) the Authority will no longer deal with the Appointed Representative and will deal with Project Co in connection with the Project Agreement.

5.3 Project Co Remains Bound

Subject to Section 6.4, Project Co will continue to be bound by the terms of the Project Agreement notwithstanding the occurrence of an Indicative Notice, a Step-In Notice, a Step-In Period, a Step-Out Notice, a Step-Out Date, any action by the Agent, the Appointed Representative or the Senior Lenders or any provision of this Agreement, and for greater certainty Project Co will be liable for any obligations and liabilities arising prior to the expiry of the Step-In Period from actions or inactions of the Agent, the Appointed Representative or the Senior Lenders. Project Co will remain liable for any unpaid amounts due and payable to the Authority by Project Co under the Project Agreement provided that Project Co will not be required to discharge such liability during the Step-In Period.

6. SENIOR LENDER REPLACEMENT OF PROJECT CO

6.1 Project Co Transfer Notice

Subject to Section 6.2, at any time:

- (a) during a Termination Notice Period;
- (b) during an Indicative Notice Period; or
- (c) during a Step-In Period,

the Agent may, on 30 Business Days' notice to the Authority and any Appointed Representative, take any action available to it to cause the transfer of Project Co's rights and liabilities under the Project Agreement to a Suitable Substitute Project Co in accordance with the provisions of Section 6.4.

6.2 Authority Consent

The Authority will notify the Agent as to whether any Person to whom the Agent proposes to transfer Project Co's rights and liabilities under the Project Agreement is a Suitable Substitute Project Co, not later than 20 Business Days after the date of receipt from the Agent of all information reasonably required by the Authority to decide whether the proposed transferee is a Suitable Substitute Project Co and if the Authority fails to notify the Agent within such period, the proposed transferee will be deemed to be a Suitable Substitute Project Co.

6.3 Withholding of Consent

The Authority will not unreasonably withhold or delay its decision on whether the proposed transferee is a Suitable Substitute Project Co and it will, without limitation, be reasonable for the Authority to withhold its consent:

- (a) if there are unremedied breaches under the Project Agreement and there is no remedial program reasonably acceptable to the Authority in respect of the breaches; or
- (b) based on any of the factors set out in Section 17.3 of the Project Agreement with respect to any transfer, including any assignment, to such Person or Change in Control resulting from the transfer.

6.4 Terms of Transfer

Upon the transfer referred to in Section 6.1 becoming effective:

- (a) Project Co and the Authority will be released from their obligations under the Project Agreement to each other, including with respect to indemnification under the Project Agreement whether arising prior to or after such transfer (the “**Discharged Obligations**”);
- (b) the Suitable Substitute Project Co and the Authority will assume obligations which are substantially similar to the Discharged Obligations, but owed to or assumed by the Suitable Substitute Project Co instead of Project Co;
- (c) the rights of Project Co against the Authority under the Project Agreement and vice versa (the “**Discharged Rights**”) will be cancelled;
- (d) the Suitable Substitute Project Co and the Authority will acquire rights against each other which differ from the Discharged Rights only insofar as they are exercisable by or against the Suitable Substitute Project Co instead of Project Co;
- (e) any subsisting ground for termination of the Project Agreement by the Authority will be deemed to have no effect and any subsisting Termination Notice will be automatically revoked;
- (f) the Authority will enter into a lenders’ remedies agreement with the Suitable Substitute Project Co and a representative of Senior Lenders lending to the Suitable Substitute Project Co on substantially the same terms as this Agreement; and
- (g) any Failure Points that were assigned prior to that time will not be taken into account after the transfer for the purposes of Sections 11.1(a), 11.2, 12.1(b) or 13.1(h) of the Project Agreement.

7. INSURANCE

7.1 Release of Insurance Proceeds

Notwithstanding the other provisions of this Agreement and the terms and conditions of the Senior Financing Agreements, the Agent will only permit amounts to be released from the Insurance Proceeds Account in accordance with Article 6 (Insurance, Damage and Destruction) and Schedule 5 [Insurance Requirements] of the Project Agreement and will not exercise any rights under the Senior Financing Agreements or take any other steps to prevent amounts being released from the Insurance Proceeds Account in accordance with Article 6 (Insurance, Damage and Destruction) and Schedule 5 [Insurance Requirements] of the Project Agreement.

8. COVENANTS

8.1 Authority Covenants

The Authority agrees with the Agent that the Authority will:

- (a) as soon as is reasonably practicable, at Project Co's or the Agent's expense, take whatever action the Agent, an Appointed Representative or a Suitable Substitute Project Co taking a transfer in accordance with Article 6 (Senior Lender Replacement of Project Co) may reasonably require for perfecting any transfer or release under this Agreement, including the execution of any transfer or assignment, and the giving of any notice, order or direction and the making of any registration which, in each case, the Agent or Appointed Representative or Suitable Substitute Project Co reasonably requires;
- (b) not, prior to the Senior Debt Discharge Date, unless the Agent has (acting reasonably) consented in writing:
 - (i) appoint an Insolvency Officer;
 - (ii) commence any Insolvency Proceedings;
 - (iii) sanction, by voting or failing to vote, any Insolvency Proceedings and will, if requested to do so by the Agent, vote against any Insolvency Proceedings;
 - (iv) without prejudice to its rights of set-off under the Project Agreement, including rights to take amounts owing by Project Co into account in calculating termination compensation payable, claim or prove as creditor or otherwise in competition with any Finance Party in respect of any monies owing to it by Project Co for or on account of Project Co's liabilities under the Project Documents in the event of any Insolvency Proceedings; or
 - (v) take any action authorising, or which might result in or is in furtherance of, any of the prohibited matters referred to in Sections (i), (ii), (iii) or (iv) above;
- (c) not take or fail to take any action (including amendments, waivers and enforcement action) with respect to any material agreement between the Authority and a third party, the effect of which would be reasonably likely to render the Authority unable to satisfy its obligations under the Project Agreement; and
- (d) not issue a Step-In Notice or Proposed Transfer Notice (as defined in the applicable Material Project Contractor Collateral Agreement) under any Material Project Contractor Collateral Agreement at any time that the Finance Parties are validly exercising under any Senior Financing Agreement any step-in rights with respect to the relevant Material Contract.

8.2 Agent Covenants

The Agent will promptly:

- (a) notify the Authority when it believes the Senior Debt Discharge Date will occur or has occurred, and in any event will so notify no later than 20 Business Days after its occurrence;

- (b) a reasonable time prior to the taking of any such action, notify the Authority of any decision by the Senior Lenders to take action under any acceleration rights, security enforcement rights, step-in rights or transfer rights provisions of the Credit Agreement, together with reasonable details of any such action;
- (c) unless notice is already provided under the above provisions, notify the Authority of any decision by the Senior Lenders to:
 - (i) appoint an Insolvency Officer;
 - (ii) commence any Insolvency Proceedings;
 - (iii) sanction, by voting or failing to vote, any Insolvency Proceedings; or
 - (iv) take any action authorizing, or which might result in or is in furtherance of, any of the matters referred to in Sections (i), (ii) or (iii) above; and
- (d) upon request by the Authority, cause all security on any real or personal property comprised in the T1chq ASR to be promptly discharged and released on the date requested by the Authority (which will be on or after the Termination Date).

8.3 Project Co Covenant

Project Co acknowledges and consents to the arrangements set out in this Agreement and agrees not to do or omit to do anything that may prevent any party from enforcing its rights under this Agreement.

9. STEP-IN RIGHTS UNDER MATERIAL CONTRACTS

9.1 Priority of Step-In Rights under Material Contracts

Subject to Sections 9.2 and 9.4, notwithstanding any provision in any Material Project Contractor Collateral Agreement, the Authority will not exercise any right it may have pursuant to a Material Project Contractor Collateral Agreement to step-in and assume or otherwise enforce (or cause a third party designated by the Authority to step-in and assume or otherwise enforce) Project Co's rights and obligations under any of the Material Contracts (including the issuance of a step-in notice by the Authority pursuant to any Material Project Contractor Collateral Agreement), or to transfer or assign a Material Contract, unless:

- (a) within 40 Business Days of delivery by the relevant Project Contractor to the Authority of a Termination Notice as contemplated in Section 2.1 of the relevant Material Project Contractor Collateral Agreement, the Authority has not received a copy of a step-in notice delivered under the terms of the lenders' direct agreement in respect of such Material Contract (a "**Lenders' Step-In Notice**"); or
- (b) if (i) within 40 Business Days of delivery by the relevant Project Contractor to the Authority of a Termination Notice as contemplated in Section 2.1 of the relevant Material Project Contractor Collateral Agreement, the Authority has received a copy of a Lenders' Step-In Notice but (ii) within 70 Business Days of delivery by the relevant Project Contractor to the Authority of a Termination Notice as contemplated in Section 2.1 of the relevant Material

Project Contractor Collateral Agreement, the Agent has not completed either a step-in and assumption of Project Co's rights and obligations under the relevant Material Contract or a transfer or assignment thereof.

9.2 Step-In from Termination Date

Subject to Section 9.4, from the Termination Date, provided that the Authority has (if applicable) complied with Section 3.7 and Section 4.5 in terminating the Project Agreement, the Authority will be free to exercise its rights under any Material Project Contractor Collateral Agreement to step-in and assume (or cause a third party designated by the Authority to step-in and assume) Project Co's rights and obligations under, or to transfer or assign, any Material Contract in accordance with a Material Project Contractor Collateral Agreement.

9.3 Release of Security

Subject to Section 9.4, the Agent will release and discharge (or cause to be released and discharged) at no cost to the Authority, and as soon as reasonably possible, all security in respect of each of the Material Contracts in respect of which any of Project Co's rights or obligations thereunder are assumed, transferred or assigned by or to the Authority (or by or to a third party designated by the Authority) pursuant to a Material Project Contractor Collateral Agreement.

9.4 Retention of Security for Senior Debt Deficiency

If, in the reasonable opinion of the Agent, there is likely to be a Senior Debt Deficiency, then until such time as an amount equal to the Senior Debt Deficiency has been recovered by the Finance Parties, the Finance Parties will be entitled to retain the benefit of the security in respect of claims and losses that Project Co has as against the Project Contractor under the relevant Material Contract (or as against any guarantor of such Material Contract) that arose prior to the date of the assumption, transfer or assignment of the relevant Material Contract (or guarantee in respect of such Material Contract) by or to the Authority (or by or to a third party designated by the Authority) provided that:

- (a) the Finance Parties will not, and will not be entitled to, exercise any rights or enforce any security in respect of any such claim during the period from the date on which such assumption, transfer or assignment occurs to the Termination Date; and
- (b) the rights in relation to the security retained by the Finance Parties pursuant to this Section 9.4 may only be exercised if and to the extent that there is a Senior Debt Deficiency determined after the Authority has paid the Termination Payment pursuant to Article 3 or Article 4 of Schedule 9 to the Project Agreement.

Any amounts recovered by the Finance Parties pursuant to claims referred to in this Section 9.4, from the Termination Date to the date on which the Termination Payment and the amount of the Senior Debt Deficiency, if any, have been determined, will be held by the Agent in a segregated account on terms satisfactory to the Agent and the Authority, each acting reasonably, and, upon determination of the Termination Payment and the amount of the Senior Debt Deficiency, if any, such funds will be distributed to the Agent, to the extent of the Senior Debt Deficiency, if any, and the balance of such funds will be paid to the Authority. The Finance Parties will in accordance with Section 9.3 release and discharge all security

in respect of the Material Contracts upon such distribution of funds, upon the Finance Parties not making or pursuing claims referred to in this Section 9.4 within a reasonable time, or upon a final determination pursuant to court or to binding arbitration of the claims.

9.5 Assignment of Material Contracts by Finance Parties

The Finance Parties will not transfer or assign any Material Contract except to a Suitable Substitute Project Co in conjunction with a permitted transfer or assignment of the Project Agreement to that Suitable Substitute Project Co in accordance with Article 6 (Senior Lender Replacement of Project Co).

9.6 No Enforcement Action

Subject to Section 9.1 of this Agreement, during the period commencing either (i) on the date on which a Project Contractor delivers to the Authority a Termination Notice as contemplated in Section 3.1 of the relevant Material Project Contractor Collateral Agreement; or (ii) on the date on which the Authority delivers a Step-In Notice pursuant to Section 4.1 of any Material Project Contractor Collateral Agreement and, in the case of either (i) or (ii), ending on the date on which the Authority receives an Indicative Step-In Notice or Indicative Transfer Notice referred to in Section 3.3 of this Agreement, the Senior Lenders shall not exercise any rights or take any enforcement action in respect of any of the Material Contracts, other than in respect of the claims and losses referred to in Section 9.4 of this Agreement (and then only in accordance with the provisions of that Section), if such action would materially prejudice the ability of the Authority to exercise any of its rights under a Material Project Contractor Collateral Agreement in respect of any Material Contract and/or any performance securities (and/or any guarantee in respect of such Material Contract) or would materially impair the ongoing performance under any of the Material Contracts.

10. ASSIGNMENT

10.1 Restriction on Assignment

No party to this Agreement may assign or transfer all or any part of its rights or obligations under this Agreement except as provided in this Article 10.

10.2 Assignment by Agent

The Agent, in its own capacity and not as agent for the Senior Lenders, may assign or transfer its rights and obligations under this Agreement to a successor Agent, in its own capacity and not as agent for the Senior Lenders, in accordance with the Senior Financing Agreements without the consent of the Authority provided that the Agent delivers to the Authority not less than 10 Business Days prior to such assignment or transfer a notice setting out such contact information regarding the assignee or transferee as the Authority may reasonably require and provided the assignee or transferee is not a Restricted Person. For the purposes of this Section 10.2, sub-paragraph (d) of the definition of Restricted Person shall not apply after a Project Co Event of Default.

10.3 Assignment by Finance Parties

Any Finance Party may assign or transfer its rights and obligations under the Senior Financing Agreements in accordance with the terms of the Senior Financing Agreements without the consent of the Authority

provided the assignee or transferee is not a Restricted Person. For the purposes of this Section 10.3, subparagraph (d) of the definition of Restricted Person shall not apply after a Project Co Event of Default.

10.4 Assignment by Authority

The Authority will assign or transfer its rights and obligations under this Agreement to any permitted assignee of its interest in the Project Agreement concurrently with the assignment of the Project Agreement to such assignee and the Agent and the Finance Parties will co-operate with the Authority in completing the formalities of any transfer or assignment including by executing any additional documents as may be reasonably required by the Authority.

10.5 New Agreement

If Section 10.2 applies in relation to the Agent, the Authority and Project Co will, upon request by the new Agent, enter into a new lenders' remedies agreement with the new Agent on substantially the same terms as this Agreement.

11. GENERAL

11.1 Term

This Agreement will remain in effect until the earlier of:

- (a) the Senior Debt Discharge Date; and
- (b) subject to compliance with Section 6.4(f) above, the date of transfer of Project Co's rights and liabilities under the Project Agreement to a Suitable Substitute Project Co pursuant to Article 6 (Senior Lender Replacement of Project Co).

11.2 Conflict or Inconsistency

If there is any conflict or inconsistency between the provisions of this Agreement and the Project Agreement, as between the Agent and the Authority the provisions of this Agreement will prevail.

11.3 Entire Agreement

Unless otherwise stated in this Agreement, this Agreement constitutes the entire agreement between the parties in connection with its subject matter and supersedes all prior representations, communications, negotiations and understandings concerning the subject matter of this Agreement. No party has relied on any representation except as expressly set out in this Agreement.

11.4 Waiver

The failure of any party to exercise any contractual right or remedy will not constitute a waiver thereof and no waiver will be effective, unless it is communicated in writing to the other party. A waiver of any right or remedy arising from a breach of this Agreement will not constitute a waiver of any right or remedy arising from any other breach of this Agreement.

11.5 Counterparts

This Agreement may be executed in any number of counterparts, all of which when taken together will constitute one and the same instrument.

11.6 Confidentiality

The Agent will be bound to comply with the confidentiality obligations on the part of Project Co contained in the Project Agreement in relation to all information matters obtained from any other party under or in connection with the Project.

11.7 Notices

Any notice or communication required or permitted to be given under this Agreement will be in writing and will be considered to have been sufficiently given if delivered by hand or transmitted by electronic transmission to the address or electronic mail address of each party set out below:

if to the Authority:

[Redacted address block]

Attention: [Redacted]
Email: [Redacted]

if to the Agent:

[Redacted address block]

Attention: [Redacted]
Fax: [Redacted]
Email: [Redacted]

if to Project Co:

[Redacted address block]

Attention: [Redacted]
Email: [Redacted]

with a copy to:

[REDACTED]

Attention: [REDACTED]
Fax: [REDACTED]

or to such other address or electronic mail address as any party may, from time to time, designate in the manner set out above. Any such notice or communication will be considered to have been received:

- (a) if delivered by hand during business hours (and in any event, at or before 3:00 pm local time in the place of receipt) on a Business Day, upon receipt by a responsible representative of the receiver, and if not delivered during business hours, upon the commencement of business hours on the next Business Day; and
- (b) if delivered by electronic mail during business hours (and in any event, at or before 3:00 pm local time in the place of receipt) on a Business Day, upon receipt, and if not delivered during business hours, upon the commencement of business hours on the next Business Day provided that:
 - (i) the receiving party has, by electronic mail or by hand delivery, acknowledged to the notifying party that it has received such notice; or
 - (ii) within 24 hours after sending the notice, the notifying party has also delivered a copy of such notice to the receiving party by hand delivery.

11.8 No Partnership or Agency

Nothing in this Agreement will be construed as creating a partnership or as constituting the Senior Lenders, the Agent, the Appointed Representative, any other Senior Lenders' Representative or a Suitable Substitute Project Co as an agent of the Authority. No such person will hold itself out as having any authority or power to bind the Authority in any way.

11.9 Remedies Cumulative

The rights and remedies under this Agreement are cumulative and are in addition to and not in substitution for any other rights and remedies available at law or in equity or otherwise. No single or partial exercise by a party of any right or remedy precludes or otherwise affects the exercise of any other right or remedy to which that party may be entitled.

11.10 Disputes

Any dispute between any of the parties with respect to any of the subject matters of this Agreement will be resolved in accordance with, and the parties will comply with, the Dispute Resolution Procedure, and Schedule 13 [Dispute Resolution Procedure] of the Project Agreement is deemed to be incorporated, *mutatis mutandis*, in this Agreement.

IN WITNESS WHEREOF the parties have executed this Agreement as of the day and year first above written.

**THE GOVERNMENT OF THE NORTHWEST
TERRITORIES**

By: _____
Authorized Signatory

, as Agent

By: _____
Authorized Signatory

By: _____
Authorized Signatory

**NORTH STAR INFRASTRUCTURE GP, by its
general partners,**

**KIEWIT NORTH STAR INFRASTRUCTURE
INVESTOR INC.**

Per: _____
Name:
Title:

Per: _____
Name:
Title:

**TILI GEEKWI LIMITED PARTNERSHIP, by its
general partner TILI GEEKWI LTD.**

Per: _____
Name:
Title:

Per: _____
Name:
Title:

SCHEDULE 11

MATERIAL PROJECT CONTRACTOR COLLATERAL AGREEMENT

for the Tłı̄chǫ All Season Road Project

**GOVERNMENT OF THE NORTHWEST TERRITORIES
[MATERIAL PROJECT CONTRACTOR]
NORTH STAR INFRASTRUCTURE GP**

**[NTD to Completion: This Agreement will be customized for each material Project Contractor,
including the Design-Builder.]**

Dated: ■

SCHEDULE 11

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MATERIAL PROJECT CONTRACTOR COLLATERAL AGREEMENT

THIS AGREEMENT is dated as of ■

AMONG:

■

(the “**Material Project Contractor**”)

AND:

The Government of the Northwest Territories

(the “**Authority**”)

AND:

North Star Infrastructure GP

(“**Project Co**”)

WHEREAS:

A. The Authority and Project Co have entered into an agreement dated as of February 13, 2019 (the “**Project Agreement**”) whereby Project Co has agreed to design, construct, finance, operate, maintain and perform life cycle rehabilitation on the Tłı̨ch̨o All Season Road (the “**Project**”), all as more particularly described in the Project Agreement;

B. Project Co and the Material Project Contractor have entered into an agreement dated as of ■ (the “**Material Contract**”) whereby the Material Project Contractor has agreed to carry out **[the Design and Construction/detail of works to be performed]**;

C. It is a condition of the Material Contract that the Material Project Contractor enter into this Agreement with the Authority and Project Co; and

D. The Authority and Project Co have agreed under the terms of the Project Agreement to execute and deliver this Agreement.

NOW THEREFORE in consideration of the mutual promises and agreements of the parties herein expressed and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties covenant and agree as follows:

1. DEFINITIONS AND INTERPRETATION

1.1 Definitions

Unless otherwise specified or the context otherwise requires, capitalized but otherwise undefined terms in this Agreement will have the respective meaning given to such terms in the Project Agreement, and:

“**Agreement**” means this agreement, including any recitals to this agreement, as amended or restated from time to time;

“**Material Contract**” has the meaning set out in Recital B;

“No Suspension Period” has the meaning set out in Section 2.3(b)(2);

“Parties” means the Authority, Project Co and the Material Project Contractor;

“Project” has the meaning set out in Recital A;

“Project Agreement” has the meaning set out in Recital A;

“Proposed Step-In Date” has the meaning set out in Section 3.1;

“Proposed Substitute” has the meaning set out in Section 4.1;

“Proposed Transfer Date” has the meaning set out in Section 4.1;

“Proposed Transfer Notice” has the meaning set out in Section 4.1;

“Step-In Date” means the date the Authority delivers the Step-In Undertaking;

“Step-In Notice” has the meaning set out in Section 3.1;

“Step-In Period” means the period commencing on the Step-In Date and ending on the earliest of:

- (a) the Step-Out Date;
- (b) the Transfer Effective Date; and
- (c) the termination date of the Material Contract as permitted under Section 3.8.

“Step-In Undertaking” has the meaning set out in Section 3.5;

“Step-Out Date” has the meaning set out in Section 3.9;

“Suspension Notice” has the meaning set out in Section 2.3(a);

“Suspension Notice Date” has the meaning set out Section 2.3(b)(1);

“Termination Notice” has the meaning set out in Section 2.1;

“Transfer Agreement” has the meaning set out in Section 4.5(b); and

“Transfer Effective Date” means the effective date of the Transfer Agreement.

1.2 Construction and Interpretation

Unless otherwise defined in this Agreement or to the extent the context requires, this Agreement will be interpreted according to the provisions set out in Article 2 (Termination Notice and Authority Termination) and Section 3(b) of Schedule 1 [Definitions and Interpretation] to the Project Agreement, except that references in such section to Project Co will be also deemed to be references to the Material Project Contractor.

1.3 Governing Law

This Agreement will be deemed to be made pursuant to the laws of the Northwest Territories and the laws of Canada applicable therein and will be governed by and construed in accordance with such laws.

1.4 Attornment

For the purposes of any legal actions or proceedings brought by any party hereto against the other party, the parties hereby irrevocably submit to the exclusive jurisdiction of the courts of the Northwest Territories and acknowledge their competence and the convenience and propriety of the venue and agree to be bound by any judgment thereof and not to seek, and hereby waive, review of its merits by the courts of any other jurisdiction.

2. TERMINATION NOTICE AND AUTHORITY TERMINATION

2.1 Termination Notice

The Material Project Contractor will not terminate the Material Contract without first giving the Authority at least ■ **[NTD to Completion: insert same notice period required under the Material Contract]** Business Days' notice specifying the grounds for such termination (the "**Termination Notice**").

2.2 Survival of Material Contract

Notwithstanding any provision of the Material Contract to the contrary, on termination of the Project Agreement by the Authority, the parties agree that the Material Contract will not come to an end except in accordance with the terms of this Agreement.

2.3 Suspension Notice

[NTD to Completion: To be included only in the Design-Build Collateral Agreement and only if such agreement contains rights for the Design-Builder to suspend its performance thereof.] The Material Project Contractor will not exercise any right it may have under the Material Contract to temporarily suspend its performance thereunder, unless:

- (a) the Material Project Contractor first delivers a notice (a "**Suspension Notice**") to the Authority detailing the event that has occurred that entitles it to exercise such right and stating that it intends to exercise such right, together with details of any sums which are due and payable but unpaid by Project Co and of any other material obligations or liabilities which should have been performed or discharged by Project Co under the Material Contract, in each case as at the date of such Suspension Notice; and
- (b) both:
 - (1) the Material Project Contractor has confirmed in writing to the Authority that the Senior Lenders have not agreed to pay the Material Project Contractor in accordance with the Material Contract for work performed by it during the period commencing on the date (the "**Suspension Date**") when it, but for the provisions of this Section, would have been entitled to suspend its performance under the Material Contract **[and ending no sooner than ■]**; and **[NTD to Completion: To be customized based on lender requirements.]**
 - (2) within 5 Business Days of receipt of confirmation from the Material Project Contractor pursuant to Section 2.3(b)(1), the Authority has not agreed, by written notice to the Material Project Contractor, to pay the Material Project Contractor in accordance with the Material Contract for work performed by it during the period (the "**No Suspension Period**") commencing on the Suspension Date and ending on the earliest to occur of:

- (A) the date on which the Senior Lenders exercise any of their step-in or transfer rights pursuant to and in accordance with, respectively, Article 4 or Article 6 of the Lenders' Remedies Agreement;
- (B) the date from which the Senior Lenders agree to pay the Material Project Contractor as contemplated under Section 2.3(b)(1); and
- (C) the Step-In Date.

except that, if the Authority provides a written notice to the Material Project Contractor pursuant to Section 2.3(b)(2) and thereafter fails to make payment to the Material Project Contractor of any undisputed amount payable pursuant to and in accordance with the Material Contract for work performed by the Material Project Contractor during the No Suspension Period, the No Suspension Period will terminate and the Material Project Contractor may thereafter exercise any right it may have to temporarily suspend its performance under the Material Contract.

3. STEP-IN AND STEP-OUT

3.1 Step-In Notice

Subject to Section 3.2, if the Authority has terminated the Project Agreement in accordance with its terms or if the Authority has received a Termination Notice, the Authority may give notice to the Material Project Contractor (a "**Step-In Notice**") of the intention of the Authority to issue a Step-In Undertaking on a specified date (the "**Proposed Step-In Date**") provided that such Proposed Step-In Date is:

- (a) no later than 10 Business Days after termination of the Project Agreement if the Project Agreement was terminated by the Authority; and
- (b) no later than 10 Business Days after delivery of the Termination Notice to the Authority.

3.2 Lenders' Step-In Rights

The Authority will not issue a Step-In Notice at any time that the Senior Lenders are validly exercising any step-in rights with respect to the Project under:

- (a) the Lenders' Remedies Agreement;
- (b) any Senior Financing Agreement; or
- (c) any direct agreement entered into between the Material Project Contractor and the Senior Lenders with respect to the Material Project Contract,

and the running of all notice periods and timelines set out in Section 3.1 will be suspended until such time as the Senior Lenders are no longer exercising, or are no longer permitted to exercise, such rights under the Lenders' Remedies Agreement, any Senior Financing Agreement or any such direct agreement. The Material Project Contractor will provide copies of all relevant notices delivered by it to, or to it by, the Senior Lenders in respect of the exercise of such rights so as to enable the Authority and the Material Project Contractor to determine, in accordance with this Section 3.2 the notice periods and timelines set out in Section 3.1.

3.3 Notice of Obligations and Step-In Undertaking

Not less than 5 Business Days prior to the Proposed Step-In Date, the Material Project Contractor will give notice to the Authority of any sums that are due and payable but unpaid by Project Co and of any other

material obligations or liabilities that should have been performed or discharged by Project Co under the Material Contract, in each case as at the date of the Step-In Notice.

3.4 Update of Obligations

Not less than 2 Business Days prior to the Proposed Step-In Date, the Material Project Contractor will give notice to the Authority of any change in such sums, obligations or liabilities referred to in Section 3.3.

3.5 Delivery of Step-In Undertaking

On or before the Proposed Step-In Date, the Authority may deliver to the Material Project Contractor a written undertaking to the Material Project Contractor (the “**Step-In Undertaking**”) undertaking to the Material Project Contractor to:

- (a) pay or procure the payment to the Material Project Contractor, within 15 Business Days of demand by the Material Project Contractor, of any sum due and payable or accruing due and payable but unpaid by Project Co to the Material Project Contractor under the Material Contract before the Step-In Date, provided that the Material Project Contractor has notified the Authority of such amounts in accordance with Sections 3.3 and 3.4;
- (b) perform or discharge or procure the performance or discharge of any unperformed or undischarged obligations of Project Co under the Material Contract that will have fallen due for performance or discharge before the Step-In Date and of which the Authority has been notified by the Material Project Contractor in accordance with Sections 3.3 and 3.4;
- (c) pay or procure the payment of any sum due and payable by Project Co under the Material Contract as a result of either any work or services performed during the Step-In Period or any act or omission occurring during the Step-In Period that arises from any act or omission occurring after the Step-In Date; and
- (d) perform or discharge or procure the performance or discharge of any obligations of Project Co under the Material Contract as a result of any act or omission occurring during the Step-In Period that arises from any act or omission occurring after the Step-In Date.

3.6 Limits on Authority Liability on Step-In

The Authority will not be required to assume any liability under a Step-In Undertaking for any outstanding obligations or liabilities of Project Co to the Material Project Contractor:

- (a) that existed as at the Step-In Date; and
- (b) of which the Authority has not been notified pursuant to Sections 3.3 and 3.4.

3.7 Non-Delivery of the Step-In Undertaking

If the Authority does not deliver the Step-In Undertaking on or before the Proposed Step-In Date, the Step-In Notice will be deemed to have been withdrawn and the rights and obligations of the parties will be construed as if the Step-In Notice had not been given.

3.8 Effect of Step-In Undertaking

During any Step-In Period, the Material Project Contractor will continue to observe and perform its duties and obligations under the Material Contract and will only be entitled to exercise its rights of termination under the Material Contract:

- (a) by reference to a default under the Material Contract arising during the Step-In Period (other than to the extent that a Project Co Insolvency Event constitutes such a default), provided that no event of default by Project Co under the Project Agreement will entitle the Material Project Contractor to exercise such rights of termination during the Step-In Period;
- (b) if the Authority fails to pay when due any amount owed to the Material Project Contractor or fails to perform or discharge when falling due for performance or discharge any obligation under the Step-In Undertaking; or
- (c) if such rights of termination arise in circumstances where there is no default under the Material Contract by the Authority or the Material Project Contractor.

3.9 Step-Out

The Authority may, at any time, terminate the Step-In Period by giving the Material Project Contractor at least 20 Business Days' notice specifying the date on which the Step-In Period will terminate (the "**Step-Out Date**").

3.10 Effect of Step-Out

The Authority will be released from the Step-In Undertaking on the expiry or termination of the Step-In Period, provided that the Authority has performed and discharged in full or procured the performance and discharge in full of any of the Authority's obligations under the Step-In Undertaking arising on or before the expiry or termination of the Step-In Period.

3.11 Payment by Project Co

Project Co will pay to the Authority on demand any amounts of which the Authority has been notified by the Material Project Contractor pursuant to Sections 3.3 and 3.4 and that were paid by the Authority or a Proposed Substitute to the Material Project Contractor pursuant to this Agreement. Any such amounts will constitute amounts due and payable by Project Co to the Authority under the Project Agreement, and the Authority will have all the same rights and remedies under the Project Agreement (including any rights of set-off) in respect of payment or non-payment of any such amounts as the Authority would have for any payment or non-payment by Project Co of any other amounts that are due and payable by it to the Authority under the Project Agreement.

4. TRANSFER

4.1 Proposed Substitute

At any time that the Authority is entitled to give a Step-In Notice pursuant to Section 3.1 or at any time during the Step-In Period, the Authority may give notice (a "**Proposed Transfer Notice**") to the Material Project Contractor that it wishes itself or another person (a "**Proposed Substitute**") to assume, by way of sale, assignment, transfer or other disposal, the rights and obligations of Project Co under the Material Contract and specifying a date (the "**Proposed Transfer Date**"):

- (a) if the Authority has terminated the Project Agreement but has not given a Step-In Notice, no later than 15 Business Days after termination of the Project Agreement;
- (b) if the Material Project Contractor has given a Termination Notice but the Authority has not given a Step-In Notice, no later than expiry of the Termination Notice; and
- (c) if the Authority has given a Step-In Notice (whether or not the Step-In Period has commenced), no later than 20 Business Days after the date of the Proposed Transfer Notice.

Subject to Article 3 (Step-In and Step-Out), the Material Project Contractor will not be entitled to terminate the Material Contract during the notice period specified in a Proposed Transfer Notice.

4.2 Consent to Transfer

If the Proposed Transfer Notice specifies the Authority as the Proposed Substitute, the Material Project Contractor's consent to the transfer will be deemed to have been given. If the Proposed Substitute is not the Authority, a transfer in accordance with a Proposed Transfer Notice will only be effective if the Material Project Contractor consents to that transfer in writing in accordance with Section 4.3, and the Authority will (as soon as practicable) supply the Material Project Contractor with the following information:

- (a) the name and registered address of the Proposed Substitute;
- (b) the names of the shareholders in the Proposed Substitute and the share capital owned by each of them;
- (c) the names of the directors and the secretary of the Proposed Substitute;
- (d) details of the means by which it is proposed to finance the Proposed Substitute (including the extent to which such finance is committed and any conditions precedent as to its availability for drawing); and
- (e) details of the technical competence of the Proposed Substitute and the resources (including contractual arrangements) which are to be available to the Proposed Substitute to enable it to perform its obligations under the Material Contract.

4.3 Grant of Consent

The Material Project Contractor may withhold or delay consent to a transfer only if the Proposed Substitute is not the Authority and the Authority has failed to show to the Material Project Contractor's satisfaction (acting reasonably) that:

- (a) the Proposed Substitute has the legal capacity, power and authority to become a party to and perform the obligations of Project Co under the Material Contract; and
- (b) the technical competence and financial standing of, and the technical and financial resources available to, the Proposed Substitute are sufficient to perform the obligations of Project Co under the Material Contract.

Within 5 Business Days of the receipt of a Proposed Transfer Notice and all information required under Section 4.2, the Material Project Contractor will notify the Authority in writing that it has consented to the transfer or, if the Material Project Contractor has not consented, will provide to the Authority an explanation of its reasons to withhold its consent.

4.4 Consent Withheld

If the Material Project Contractor withholds its consent to a Proposed Transfer Notice, the Authority may give one or more subsequent Proposed Transfer Notices, pursuant to the provisions of Section 4.1, containing changed particulars relating to the same Proposed Substitute or particulars relating to another Proposed Substitute that the Authority reasonably believes would fulfil the requirements of Sections 4.3, provided that only one Proposed Transfer Notice may be outstanding at any one time, and provided further that:

- (a) if a Step-In Notice has not been issued, any revised Proposed Transfer Date will be a date falling no later than the date specified in Section 4.1(a) or 4.1(b), as the case may be; and

- (b) if a Step-In Notice has been issued, any revised Proposed Transfer Date will be a date falling no later than the date specified in Section 4.1(c).

4.5 Implementation of Transfer

If the Material Project Contractor consents or is deemed to have consented to a transfer pursuant to a Proposed Transfer Notice, then on the Proposed Transfer Date:

- (a) the Proposed Substitute will become a party to the Material Contract in place of Project Co and, thereafter, will be treated as if it was and had always been named as a party to the Material Contract in place of Project Co; and
- (b) the Material Project Contractor, Project Co and the Proposed Substitute will enter into a transfer agreement (the "**Transfer Agreement**") and any other requisite agreements, in form and substance satisfactory to the Material Project Contractor, acting reasonably, pursuant to which:
 - (1) the Proposed Substitute will be granted all of the rights of Project Co under the Material Contract; and
 - (2) the Proposed Substitute will assume all of the obligations and liabilities of Project Co under the Material Contract.

4.6 Effect of Transfer

On and after the Transfer Effective Date:

- (a) the Material Project Contractor will owe its obligations under the Material Contract, whether arising before, on or after such date, to the Proposed Substitute; and
- (b) if the Authority has entered into a Step-In Undertaking, the Authority will be released from the Step-In Undertaking, provided that all obligations of the Authority under the Step-In Undertaking that have accrued up to the Transfer Effective Date have been fully and unconditionally discharged.

The Authority and the Material Project Contractor will use reasonable efforts to agree to any amendments to the Material Contract reasonably necessary to reflect the fact that the Project Agreement may have terminated at the time of the Transfer Effective Date.

4.7 Termination After Transfer

After the Transfer Effective Date, the Material Project Contractor will only be entitled to exercise its rights of termination under the Material Contract:

- (a) in respect of any **[Project Co Event of Default] [NTD to Completion: Use term in Material Contract]** arising after that date in accordance with the Material Contract; or
- (b) if the Proposed Substitute does not discharge the obligations and liabilities referred to in Section 4.5(b)(2) assumed by it under the Transfer Agreement that relate to matters arising prior to the end of any Step-In Period within 15 Business Days following the Transfer Effective Date.

5. RIGHTS AND OBLIGATIONS UNDER THE MATERIAL CONTRACT

5.1 Rights of Termination

If:

- (a) no Step-In Notice or Proposed Transfer Notice is given before a Termination Notice expires or within 15 Business Days after termination of the Project Agreement by the Authority;
- (b) a Step-In Undertaking is not issued on or before the Proposed Step-In Date;
- (c) the Step-In Notice is withdrawn or, pursuant to Section 3.7, is deemed to have been withdrawn;
- (d) the Step-In Period ends before the occurrence of the Transfer Effective Date;
- (e) in the absence of a Step-In Undertaking, the Material Project Contractor reasonably withholds its consent to a transfer pursuant to a Proposed Transfer Notice, in accordance with Section 4.3, and does not subsequently grant consent to a transfer in accordance with Section 4.4 on or before the Proposed Transfer Date;
- (f) in the absence of a Step-In Undertaking, a Transfer Agreement is not entered into on the Proposed Transfer Date;
- (g) the Material Project Contractor is entitled to terminate the Material Contract under Section 3.8 or 4.7; or
- (h) the Authority exercises its right to Step-Out under Section 3.9, then on the Step-Out Date, the Material Project Contractor may:
 - (i) exercise all of its rights under the Material Contract and act upon any and all grounds for termination available to it in relation to the Material Contract whenever occurring; and
 - (j) pursue any and all claims and exercise any and all rights and remedies against Project Co.

5.2 Project Co's Obligations to Continue

Until completion of a transfer pursuant to Section 4.5, Project Co will continue to be liable for all its obligations and liabilities, whenever occurring, under or arising from the Material Contract notwithstanding:

- (a) the service of a Step-In Notice or the issue of a Step-In Undertaking or the expiry of the Step-In Period or the release of a Step-In Undertaking;
- (b) the service of a Proposed Transfer Notice; or
- (c) any other provision of this Agreement.

6. REVOCATION OF NOTICES

A Termination Notice and a Step-In Notice may each be revoked (in writing to the recipient) by the party giving them before the expiry of their respective notice periods. Upon any such revocation, the rights and obligations of the parties will be construed as if the relevant notice had not been given.

7. ASSIGNMENT

7.1 Binding on Successors and Assigns

This Agreement will be binding on and will enure to the benefit of the parties and their respective successors and permitted assigns.

7.2 Restriction on Assignment

No party will assign or transfer any part of its respective rights or obligations under this Agreement without the prior consent of the others (such consent not to be unreasonably withheld or delayed), provided that:

- (a) the Authority will be entitled, without the consent of any other party, to transfer all its rights and obligations hereunder to any person to whom it assigns or otherwise disposes of the benefit of the Project Agreement in accordance with the Project Agreement; and
- (b) the Material Project Contractor will assign or transfer all its rights and obligations under this Agreement to any person to whom it assigns or transfers all its rights and obligations under the Material Contract in accordance with the terms of the Material Contract and the Project Agreement.

8. GENERAL

8.1 Notices

Any notice or communication required or permitted to be given under this Agreement will be in writing and will be considered to have been sufficiently given if delivered by hand or transmitted by electronic transmission to the address or electronic mail address of each party set out below:

if to the Material Project Contractor:

■

Attention: ■
Email: ■

if to the Authority:

[Redacted]

Attention: [Redacted]
Email: [Redacted]

if to Project Co:

[Redacted]

Attention: [Redacted]
Email: [Redacted]

with a copy to:



Attention:

Fax:



or to such other address or electronic mail address as any party may, from time to time, designate in the manner set out above. Any such notice or communication will be considered to have been received:

- (a) if delivered by hand during business hours (and in any event, at or before 3:00 p.m. local time in the place of receipt) on a Business Day, upon receipt by a responsible representative of the receiver, and if not delivered during business hours, upon the commencement of business hours on the next Business Day; and
- (b) if delivered by electronic mail during business hours (and in any event, at or before 3:00 p.m. local time in the place of receipt) on a Business Day, upon receipt, and if not delivered during business hours, upon the commencement of business hours on the next Business Day provided that:
 - (1) the receiving party has, by electronic mail or by hand delivery, acknowledged to the notifying party that it has received such notice; or
 - (2) within 24 hours after sending the notice, the notifying party has also delivered a copy of such notice to the receiving party by hand delivery.

8.2 Entire Agreement

Unless otherwise stated in this Agreement, this Agreement constitutes the entire agreement between the parties in connection with its subject matter and supersedes all prior representations, communications, negotiations and understandings concerning the subject matter of this Agreement. No party has relied on any representation except as expressly set out in this Agreement.

8.3 Waiver

The failure of any party to exercise any contractual right or remedy will not constitute a waiver thereof, and no waiver will be effective unless it is communicated in writing to the other party. A waiver of any right or remedy arising from a breach of this Agreement will not constitute a waiver of any right or remedy arising from any other breach of this Agreement.

8.4 No Partnership or Agency

Nothing in this Agreement will be construed as creating a partnership or as constituting the Material Project Contractor as an agent of the Authority. The Material Project Contractor will not hold itself out as having any authority or power to bind the Authority in any way.

8.5 Conflicting Agreements

If there is any conflict or inconsistency between the provisions of this Agreement and the Project Agreement, the provisions of the Project Agreement will prevail.

8.6 Remedies Cumulative

The rights and remedies under this Agreement are cumulative and are in addition to and not in substitution for any other rights and remedies available at law or in equity or otherwise. No single or partial exercise by a party of any right or remedy precludes or otherwise affects the exercise of any other right or remedy to which that party may be entitled.

8.7 Counterparts

This Agreement may be executed in any number of counterparts, all of which when taken together will constitute one and the same instrument.

8.8 Delivery by Fax

Any party may deliver an executed copy of this Agreement by fax but that party will immediately dispatch by delivery in person to the other parties an originally executed copy of this Agreement.

8.9 Joint and Several

If the Material Project Contractor is comprised of more than one legal entity, the obligations and liabilities of the Material Project Contractor under this Agreement will be the obligations and liabilities of each legal entity comprising the Material Project Contractor, jointly and severally with each other such legal entity.

8.10 Disputes

Any dispute between any of the parties with respect to any of the subject matters of this Agreement or any disagreement between any of the parties with respect to any matter that, by the express terms of this Agreement, is to be agreed upon by the parties will be resolved in accordance with, and the parties will comply with, the Dispute Resolution Procedure, provided that, for greater certainty, the parties acknowledge that, during a Step-In Period or after the Transfer Effective Date, any dispute with respect to any of the subject matters of the Material Contract will be resolved in accordance with the applicable dispute resolution procedure thereunder.

IN WITNESS WHEREOF the parties have executed this Agreement as of the day and year first above written.

[MATERIAL PROJECT CONTRACTOR]

Per:

Authorized Signatory

THE GOVERNMENT OF THE NORTHWEST TERRITORIES

Per:

Authorized Signatory

NORTH STAR INFRASTRUCTURE GP, by its general partners

KIEWIT NORTH STAR INFRASTRUCTURE INVESTOR INC.

Per:

Authorized Signatory

**TILI GEEKWI LIMITED PARTNERSHIP, by its general partner TILI
GEEKWI LTD.**

Per:

Authorized Signatory

SCHEDULE 12

PROJECT CO'S OWNERSHIP INFORMATION

Project Co Information:

Project Co represents and warrants that the following information regarding Project Co is true and complete as of the date of the Agreement:

- 1. Name: North Star Infrastructure GP
- 2. Date of Registration: January 25, 2019
- 3. Registered number: [REDACTED]
- 4. Executive Committee Members:

Name

Address

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- 5. Subsidiaries at the date of this Agreement: None

- 6. Percentage of Interest in Project Co at the date of this Agreement:

Name and address of registered holder

Percentage held

Kiewit North Star Infrastructure Investor Inc.
Address:

[REDACTED] %

[REDACTED]

[REDACTED]

Tili Geekwi Limited Partnership
Address:

[REDACTED] %

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- 7. Loans at the date of this Agreement issued as follows: see Credit Agreement.

8. Other outstanding securities (including description of type of securities, name and address of holder and amount): N/A.
9. Summary of any constitutional, contractual or other special voting rights, restrictions on powers of directors or similar matters relevant to the control of Project Co: see Amended and Restated Partnership Agreement.

SCHEDULE 13

DISPUTE RESOLUTION PROCEDURE

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APPENDIX 13A REFEREE AGREEMENT

SCHEDULE 13

DISPUTE RESOLUTION PROCEDURE

1. INTERPRETATION

1.1 Definitions

In this Schedule, in addition to the definitions set out in Schedule 1 [Definitions and Interpretation] of this Agreement:

“**Dispute Notice**” has the meaning set out in Section 2.2 of this Schedule;

“**Dispute Resolution Procedure**” has the meaning set out in Section 2.1 of this Schedule;

“**Initiating Party**” has the meaning set out in Section 2.6(b)(2) of this Schedule;

“**Notice of Intention to Arbitrate**” has the meaning set out in Section 2.6(a) of this Schedule;

“**Notice of Objection to Arbitration**” has the meaning set out in Section 2.6(b) of this Schedule;

“**Notice of Objection to the Referee Process**” has the meaning set out in Section 2.4 of this Schedule;

“**Referee**” has the meaning set out in Section 2.4 of this Schedule;

“**Referee Agreement**” has the meaning set out in Section 2.4(c) of this Schedule;

“**Referee Notice**” has the meaning set out in Section 2.4 of this Schedule; and

“**Responding Party**” has the meaning set out in Section 2.6(b)(2) of this Schedule.

2. DISPUTE RESOLUTION

2.1 Procedure

Unless both parties otherwise agree, all Disputes will be resolved in accordance with the provisions of this Schedule (the “**Dispute Resolution Procedure**”), provided that a decision of the Independent Certifier as to whether Substantial Completion has been achieved will be final and binding on the parties, and such decision will not be the subject of a Dispute and will not be subject to the Dispute Resolution Procedure. Except for the foregoing decisions as to achievement of Substantial Completion, all other decisions of the Independent Certifier, including as to any Deficiencies, may be the subject of a Dispute and may be subject to the Dispute Resolution Procedure.

2.2 Dispute Notice

The Dispute Resolution Procedure may be commenced by either party by giving notice to the other party (the “**Dispute Notice**”) briefly setting out the pertinent facts, the remedy or relief sought and the grounds on which such remedy or relief is sought.

2.3 Negotiation

Within 5 Business Days of one party receiving a Dispute Notice from the other, or such longer period as the parties may agree, a Representative of each party will meet and make good faith efforts to resolve the Dispute by without prejudice negotiations.

2.4 Fast Track Referee Process

If the Dispute is not resolved pursuant to Section 2.3 of this Schedule to the mutual satisfaction of the parties within 5 Business Days (or such longer period as the parties may agree) following the receipt of the Dispute Notice by the receiving party, either party may by notice to the other (a “**Referee Notice**”), request the appointment of a referee (“**Referee**”) as provided under the terms of this Section 2.4. Either party may object to the resolution of the Dispute by a Referee on the basis that the Dispute is not appropriate for resolution by the referee process by delivering a notice of objection (a “**Notice of Objection to the Referee Process**”) within 2 Business Days of the delivery of the Referee Notice. If either party delivers a Notice of Objection to the Referee Process, then the Dispute shall be resolved in accordance with Section 2.5. If neither party delivers a Notice of Objection to the Referee Process within 2 Business Days of the delivery of the Referee Notice, the Referee will be appointed as an expert to resolve the Dispute and will participate in the resolution of the Dispute as set out below:

- (a) if the Referee Notice is given during the Construction Period, then the Independent Certifier will as of the end of the 3rd Business Day following the delivery of the Referee Notice be deemed the Referee unless:
 - (1) within 3 Business Days of the delivery of the Referee Notice, either (i) the parties agree that another person would be more suitable considering the nature of the Dispute, or (ii) either party gives written notice that it objects to the Independent Certifier acting as Referee in relation to the Dispute; or
 - (2) for any reason the Independent Certifier is unable to perform the duties of the Referee,and in either such case the Referee will be appointed in the manner described in Section 2.4(b) of this Schedule;
- (b) if the Dispute Notice is given during the Operating Period or Section 2.4(a) of this Schedule requires that this Section 2.4(b) applies, the parties will appoint a Referee in the following manner:
 - (1) within 3 Business Days of the delivery of a Referee Notice, each party will submit in writing to the other party, the names of no more than 2 candidates for Referee who are independent of the parties, experienced in the resolution of similar disputes and immediately available to perform the role of Referee in respect of the Dispute at hand;
 - (2) if a party has an objection to a proposed candidate, it will give written notice of such objection with reasons to the other party;

- (3) if for any reason within 4 Business Days of the delivery of a Referee Notice, a Referee has not been appointed, then either party may apply to a judge for an arbitrator to be promptly appointed in accordance with the *Arbitration Act* (Northwest Territories) to act as a Referee under this Agreement in relation to the Dispute;
- (c) the parties will enter into an agreement with the Referee to act as Referee generally in the form attached as Appendix 13A (the “**Referee Agreement**”), such agreement to be entered into no later than 2 Business Days after the Referee’s appointment. The Referee’s fees and expenses will be shared equally by the Authority and Project Co. The Authority will pay the full amount of the Referee’s fees and expenses on the day that such fees and expenses are due (including any advances on fees and expenses) in accordance with the Referee Agreement and Project Co will reimburse the Authority, for Project Co’s share of all such fees and expenses within 5 Business Days of receipt of a written demand from the Authority, failing which the Authority will be entitled to deduct the amount of Project Co’s share of the Referee’s fees and expenses from amounts otherwise due to Project Co under the provisions of this Agreement;
- (d) the Referee will conduct an impartial review of the Dispute in such manner as the Referee thinks fit, including carrying out on-site inspections and interviews with any persons that the Referee thinks fit. The parties will comply with all reasonable requests from the Referee for additional information, documents and access to personnel which the Referee considers necessary for the review. Any submission or documentation in respect of the Dispute provided to the Referee by a party will also be provided to the other party;
- (e) the Referee may, with the written approval of both parties, retain other professional persons or experts to assist with the review and will pay due regard to any request by either party for him to retain such other professional persons or experts;
- (f) the Referee will not be obliged to conduct his enquiries in the presence of the parties or receive submissions from the parties, except to the extent that the Referee thinks fit, and may render his decision notwithstanding the failure of a party to participate in the proceedings;
- (g) the Referee will render a brief, written, reasoned and impartial decision on the Dispute, with copies to both parties within 5 Business Days of the signing by the Referee and both parties of the Referee Agreement referred to in Section 2.4(c) of this Schedule, or such longer period as agreed to in writing by both parties. The Referee’s decision will be in the form of a proposed determination of the rights of the parties having regard to the Referee’s understanding of the relevant contractual provisions, the applicable law and the facts as agreed by the parties or as best the Referee is able to determine them;
- (h) each party acknowledges the value of having the Referee render a timely decision regarding the Dispute. If the Referee is unable to render his decision within the time set or as extended by mutual agreement of the parties, then the parties will request that the Referee provide to the parties within such time such analysis of the Dispute as the Referee

is able to make within that time and describe the further work the Referee recommends would be required in order to arrive at a reasoned decision;

- (i) subject to the provisions of Section 3.3 of this Schedule, a decision of a Referee is not binding on the parties but is intended to assist the parties to reach agreement with respect to the Dispute;
- (j) the proceedings under this Section 2.4 will be confidential and all information, data or documentation disclosed or delivered by either party to the Referee as a result or in connection with his duties as Referee will be treated as confidential and neither the parties nor the Referee will, except as would be permitted under Article 18 (General) of this Agreement, disclose to any Person any such information, data or documentation unless the parties otherwise agree in writing. Nothing contained in this provision will prevent the submission in any subsequent proceedings of any evidence other than evidence that came into existence for the express purpose of submission to, or assistance of, the Referee; and
- (k) the proceedings by or before a Referee will be confidential and without prejudice in any subsequent proceedings.

2.5 Commencement of Proceedings

If the Dispute is not completely resolved by agreement between the parties within 10 Business Days of the receipt of the Referee's decision or analysis pursuant to Section 2.4 of this Schedule (or such longer period as the parties may agree) or within 10 Business Days of the date on which the Referee's decision or analysis ought to have been received under Section 2.4 of this Schedule or either party serves a Notice of Objection through the Referee Process then either party may commence proceedings to have the Dispute finally settled, either by arbitration under Section 2.6 of this Schedule or by litigation as contemplated in Section 2.7 of this Schedule. In any such proceedings the scope of issues will not be limited strictly to the terms of the Dispute Notice but may extend to include directly related matters for the purpose of completely resolving the Dispute.

2.6 Arbitration

If a party is entitled under Section 2.5 of this Schedule to commence proceedings to have a Dispute finally resolved, then:

- (a) the party may give the other party notice ("**Notice of Intention to Arbitrate**") of its intention to submit the Dispute to binding arbitration; and
- (b) if the other party does not deliver a notice of objection (the "**Notice of Objection to Arbitration**") within 5 Business Days of receipt of the Notice of Intention to Arbitrate then either party may refer the Dispute to be finally resolved by arbitration as follows:
 - (1) the *Arbitration Act* (Northwest Territories) will apply to the arbitration, as modified by this Schedule or as otherwise agreed by the parties;

- (2) arbitration proceedings will be commenced by a party (the “**Initiating Party**”) giving notice to the other party (the “**Responding Party**”);
- (3) the arbitrator(s) will have the authority to award any remedy or relief that a court or judge of the Supreme Court of the Northwest Territories could order or grant in accordance with the Agreement, including specific performance of any obligation created under the Agreement, the issuance of an interim, interlocutory or permanent injunction, or the imposition of sanctions for abuse or frustration of the arbitration process;
- (4) in the case of a Dispute relating to Schedule 22 [Climate Change Risk-Sharing Regime], the arbitrator(s) may, with the written approval of both parties, retain climate change, engineering, design, and/or other professional persons or experts to assist with the review and will pay due regard to any request by either party for retention of such other professional persons or experts;
- (5) meetings and hearings of the arbitrator(s) will take place in the City of Yellowknife or in such other place as the parties agree and such meetings and hearings will be conducted in the English language unless otherwise agreed by such parties;
- (6) the arbitrator(s) may at any time fix the date, time and place of meetings and hearings in the arbitration, upon reasonable notice to the parties;
- (7) subject to any adjournments permitted by the arbitrator(s) the final hearing will be continued on successive Business Days until it is concluded;
- (8) all meetings and hearings will be in private unless the parties agree otherwise and either party may be represented at any meetings or hearings by legal counsel;
- (9) either party may examine, and re-examine, all its own witnesses at the arbitration and may cross-examine all of the other party’s witnesses;
- (10) the arbitration will be kept confidential and the existence of the proceeding and any element of it (including any pleadings, briefs or other documents submitted or exchanged, and testimony or other oral submission and any awards) will not be disclosed to any party other than the arbitrators, the parties (and their respective directors, officers, shareholders and legal counsel), the Senior Lenders and such other persons as may be necessary to the conduct of the proceeding or required by law; and
- (11) the arbitrator(s) will deliver a decision in writing within 15 Business Days after the conclusion of the hearing and, unless the parties agree otherwise, will set out reasons for the decision.

2.7 Litigation

If either party is entitled under Section 2.5 of this Schedule to commence proceedings to have a Dispute finally resolved and:

- (a) no Notice of Intention to Arbitrate has been delivered by one party to the other; or
- (b) a Notice of Objection to Arbitration has been delivered by one party to the other in response to a Notice of Intention to Arbitrate;

then either party may commence proceedings in respect of the Dispute in the courts of the Northwest Territories and for purposes of certainty, the provisions of Section 18.5 of this Agreement will apply to such litigation. If a party has commenced such proceedings but has not served the other party as required for such proceedings prior to the other party delivering a Notice of Intention to Arbitrate, the party commencing such proceedings will either give the Notice of Objection to Arbitrate or serve such party the required notice within the time required under Section 2.6(b) of this Schedule, failing which the Dispute will be resolved by arbitration under Section 2.6 of this Schedule.

3. GENERAL

3.1 Other Remedies

Nothing contained in this Schedule will preclude a party from initiating a proceeding in a court of competent jurisdiction for the purpose of obtaining an effective emergency or provisional remedy to protect its rights as necessary in the circumstances, including obtaining temporary and preliminary injunctive relief and other orders, whether before or after the Dispute has been initiated by a Dispute Notice.

3.2 Strict Compliance with Time Limits

The parties acknowledge that timely resolution of Disputes is mutually beneficial and the time limits set out in this Schedule, or as otherwise agreed by the parties, will therefore be strictly complied with and enforced.

3.3 Interim Decision

If a Dispute occurs then the Authority and Project Co will in good faith carry out their respective obligations under this Agreement pending resolution of the Dispute pursuant to the Dispute Resolution Procedure. Prior to resolution of the Dispute, the Authority may in its discretion by notice to Project Co direct Project Co to proceed in respect of the matter in Dispute or any related matter and Project Co will comply with and implement the direction. Such direction will be without prejudice to Project Co's rights to compensation or other rights under the Agreement. Nothing in this Schedule will limit the Authority's right to require a Change.

APPENDIX 13A

REFEREE AGREEMENT

BETWEEN:

[Name and address of Referee]
(the “**Referee**”)

AND:

Government of the Northwest Territories
(the “**Authority**”)

AND:

North Star Infrastructure GP
(“**Project Co**”)

We write to confirm your appointment as a Referee under the Project Agreement dated _____, 2019 between the Authority and Project Co (the “Project Agreement”). The terms of your appointment are as contained in Section 2.4 of Schedule 13 [Dispute Resolution Procedure] to the Project Agreement.

We confirm our agreement for you to review the Dispute(s) described in the Dispute Notice in accordance with the provisions of the Project Agreement, and to perform the functions of a Referee as described in Section 2.4 of Schedule 13 [Dispute Resolution Procedure] to the Project Agreement. A copy of the Project Agreement and related materials, will be forwarded to you shortly.

We confirm that your daily/hourly rate for fees is \$ _____. In addition to your invoiced fees, the Authority will pay any and all reasonable disbursements incurred in providing your services.

Please submit your invoices on a monthly basis directly to _____ **[Insert name of Authority’s Construction or Operating Period Representative as applicable]** (the “**Authority’s Representative**”). The Authority will make payment within 30 calendar days of receipt.

Please confirm your agreement to the terms as set out in this letter by signing a copy of the enclosed letter and returning it to the Authority’s Representative.

Yours truly,

Authorized Signatory of the Authority

Date

Authorized Signatory of Project Co

Date

Referee

Date

SCHEDULE 14
RECORDS AND REPORTS
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SCHEDULE 14

RECORDS AND REPORTS

1. INTERPRETATION

1.1 Definitions

In this Schedule, in addition to the definitions set out in Schedule 1 [Definitions and Interpretation] of this Agreement:

“Authority Records Description” has the meaning in Section 2.8 of this Schedule.

“Records” has the meaning given in Section 2.1 of this Schedule.

“Records Management Protocol” means the protocol developed by Project Co pursuant to Section 2.3 of this Schedule.

“Reports” has the meaning given in Section 3.1 of this Schedule.

2. RECORDS

2.1 Project Co Records

Project Co shall produce, maintain and update in accordance with this Agreement and the Records Management Protocol all documents, information and data required by this Agreement (including by Good Industry Practice) to be produced, maintained or updated by Project Co, in connection with the Project, the Project Work, the Infrastructure and the Project Site (collectively, the “**Records**”).

2.2 Management of Records

- (a) The requirements set out in this Schedule and the Records Management Protocol include the minimum requirements to be complied with, and are without prejudice to any Laws or Good Industry Practice which require the keeping of specified Records for a longer period or the production and maintenance of additional Records.
- (b) All Records produced and maintained by Project Co in accordance with this Agreement must be accurate, complete, legible, readily identifiable, readily retrievable, reliable, authentic, secure and in English.
- (c) All financial Records produced and maintained by Project Co in accordance with this Agreement must provide sufficient detail to identify all revenue and expenditures in respect of the Project on a gross basis.
- (d) The text of all documents, except drawings, shall be prepared using MS Word and archived in .pdf format.
- (e) Project Co shall comply promptly and at its own expense with:
 - (i) all Laws relating to information, records and other documentation relating to or acquired, obtained or produced in connection with the Project, the Project Work, the Infrastructure or the Project Site or any part thereof; and
 - (ii) all requests or requirements of the Authority from time to time for the purpose of enabling the Authority, or any other Governmental Authority, to comply with its obligations under any Laws relating to information, records and other documentation relating to or acquired, obtained or produced in connection with the Project, the Design, Construction and/or OMR the Project Work, the Infrastructure or the Project Site or any part thereof.
- (f) Project Co and the Authority shall cooperate to develop documentation to support each party’s compliance requirements under Laws, including the Excise Tax Act (Canada).

2.3 Records Management Protocol

- (a) Within 90 days following the Effective Date, Project Co shall submit to the Authority Representative, an initial protocol (the “**Records Management Protocol**”) which complies with all requirements set forth in this Agreement (including compliance with Good Industry Practice and Laws) and any other policies and requirements that would from time to time be applicable to the creation, maintenance, management, holding, transfer, retention

preservation and disposal of the Records if they were maintained by the Authority or the Authority, including that:

- (i) the Records Management Protocol must be consistent with and comply with Project Co's Quality Management System and Quality Documentation and Schedule 2 [Quality Management];
- (ii) the Records Management Protocol shall set forth minimum retention periods consistent with Section 2.4 of this Schedule and otherwise satisfactory to the Authority Representative for each class of Records produced and maintained by Project Co;
- (iii) the Records Management Protocol shall set forth records management practices and procedures sufficient to ensure that the Records are organized, classified and retained in formats that enable Project Co to meet all of its obligations in respect of the management of the Records under this Agreement, including the requirements set out in Section 2.2 of this Schedule;
- (iv) the Records Management Protocol shall include procedures (consistent with the Project requirements and in accordance with Good Industry Practice) for backing-up and storage in safe custody of all Records that are generated by or maintained on a computer or in any other machine readable format;
- (v) Project Co shall keep all Records in safekeeping in such a manner as to ensure the integrity of the Records and at a location within Yellowknife, Northwest Territories;
- (vi) Any software, hardware, system, warehouse or other facility used to store Records must meet the storage and security standards established by the Archives Act of the Authority, and all associated regulations;
- (vii) Project Co shall retain any records of the Authority to be retained by Project Co pursuant to Section 2.8(d) of this Schedule;
- (viii) notwithstanding any other terms of this Agreement, no Records shall be destroyed or otherwise disposed of without the express written consent of the Authority Representative;
- (ix) any Records authorized for disposition shall be disposed of only in accordance with disposition standards established by the Authority;
- (x) Project Co shall ensure that there is a designated and appropriately qualified person at all times responsible for the management of the Records and for liaison with the Authority Representative in connection with all matters relating thereto;
- (xi) Project Co shall keep on the Project Site at all times during Construction one copy of all drawings for such Construction;

- (xii) Project Co shall not sell, transfer or relocate any Records to the custody, physical or otherwise, of another jurisdiction or person other than to the Project Contractors and Sub-Contractors; and
 - (xiii) Project Co shall not disclose any of the Records or contents thereof except subject to and in accordance with the provisions of this Agreement, including Section 18.1 of this Agreement.
- (b) Project Co shall:
- (i) where necessary;
 - (ii) following the expiry of the 180 day period referred to in Section 2.8(a) of this Schedule (to confirm whether any Authority Records were delivered to Project Co pursuant to Section 2.8(a) of this Schedule); and
 - (iii) as otherwise reasonably required by the Authority Representative from time to time,
- submit updates to the Records Management Protocol to the Authority Representative from time to time, for review, in accordance with the Review Procedure to ensure that the Records Management Protocol continues to meet the requirements of this Part 1 and Good Industry Practice.
- (c) Project Co shall comply with, and shall cause the Project Contractors and Sub-Contractors to comply with, the then current Records Management Protocol, as submitted and updated from time to time in accordance with this Part 1, in connection with all Records maintained or required to be maintained by Project Co under this Agreement.

2.4 Retention of Records

- (a) Without prejudice to any longer retention periods required under Laws (which shall be complied with by Project Co), all Records shall be retained in accordance with the retention policies of the Authority, Good Industry Practice and Laws, and in any event for no less than the following periods:
- (i) all as-built drawings shall be retained for a period of at least seven years after the Termination Date, or such longer period of time as required under Laws, and shall be systematically and periodically updated, named and filed so as to be readily retrievable; and
 - (ii) all Records relating to the subject matter of any dispute between the parties must be retained for at least seven years after the resolution of such dispute; and
 - (iii) all other Records shall be retained until the Termination Date, following which they shall be delivered to the Authority in accordance with Section 2.5 of this Schedule.
- (b) Where the required period set out in the Records Management Protocol for the retention of any Records has expired, Project Co shall notify the Authority as to what it intends to do with such Records. If Project Co intends then or subsequently to dispose of such Records,

Project Co shall so notify the Authority and, if the Authority elects within 40 days of receipt of such notice to receive such Records or any part thereof, then Project Co, at its own cost, shall deliver such Records to the Authority in the manner and at such location in Yellowknife, Northwest Territories as the Authority reasonably specifies.

2.5 Procedure on Termination

- (a) On or promptly after the Termination Date, Project Co will, at its own cost, deliver up to the Authority, in the manner and at such location in Yellowknife, Northwest Territories as the Authority reasonably specifies, such Records as are in existence at the Termination Date and specified by the Authority or, where any such specified Records are required by Law to remain with Project Co, copies thereof.
- (b) The Authority, so long as it retains possession thereof, shall allow Project Co to inspect all Records delivered to the Authority pursuant to Section 2.5(a) of this Schedule on reasonable notice.

2.6 Audit and Inspection

All Records shall be kept in good order and in such form as to be capable of audit and inspection (including by electronic means to the extent that such Records were delivered by the Authority or otherwise are maintained in an electronic format) by the Authority Representative. Project Co shall make all Records available at all reasonable times for audit or inspection by or on behalf of the Authority, the Authority Representative, or any of their authorized representatives. Without limiting the foregoing or any other provisions of this Agreement, the Authority may require any Records, in whole or in part, to be audited from time to time.

2.7 Copies

Subject to the provisions of Section 18.1 of this Agreement, the Authority, the Authority Representative and any of their authorized representatives shall be entitled to take copies of the Records or any part thereof at Project Co's cost and for that purpose to use such copying facilities as are maintained at the place where the Records are kept.

2.8 Authority Records

- (a) The Authority shall be entitled at its own cost within 180 days after the Effective Date to deliver up to Project Co all or any of the existing records (or copies thereof) of the Authority in respect of the Project, the Project Work, the Infrastructure and the Project Site or any part thereof, together with a written description of the state of such records (the "**Authority Records Description**").
- (b) Project Co shall be deemed to have agreed with the Authority Records description unless, within 20 Business Days of receipt thereof by Project Co, Project Co notifies the Authority Representative of any discrepancies between the Authority Records description and the actual state of the Authority's records delivered to Project Co pursuant to Section 2.8(a) of this Schedule.
- (c) The parties shall, within 15 Business Days of receipt by the Authority Representative of any notice served by Project Co in accordance with Section 2.8(b) of this Schedule, use all

reasonable efforts to agree on any necessary amendments to the Authority Records Description, and failing such agreement within such period a party may refer the matter to the Dispute Resolution Procedure.

- (d) Project Co shall, at its own cost, retain the Authority's records delivered to Project Co pursuant to Section 2.8(a) of this Schedule in safe storage and in the state described in the Authority Records Description, and such Authority Records shall be treated for all purposes of this Agreement as though they were part of the Records referred to in Section 2.1 of this Schedule, provided that:
- (i) Project Co shall not be required to retain such Authority Records in any other state or condition than that described in the Authority Records Description; and
 - (ii) such Authority Records shall be kept separate from other Records, shall be clearly identified as records of the Authority, and shall not be marked, altered, destroyed, or disposed of without prior written authorization from the Authority Representative.

3. REPORTS AND INFORMATION

3.1 Required Reports

Project Co shall submit all reports provided for or specified in or required under the provisions of this Agreement, the Project requirements or under Laws (collectively, the “**Reports**”), to the Authority Representative, in accordance with this Agreement.

3.2 Number and Time

All Reports shall be submitted in such number and by such times as required by this Agreement or the applicable Project requirements or, where no such number or time is so specified, in such number and by such time as may be reasonably required by the Authority Representative. Incomplete Reports and submissions shall be deemed as not submitted until complete.

3.3 Form

- (a) Unless otherwise specified in this Agreement or the applicable Project requirements, the Reports shall be in such form as reasonably required by the Authority Representative or, where a Report is required to be submitted periodically, in the same form as such Report was previously submitted until otherwise required by the Authority Representative.
- (b) At the request of the Authority Representative, each Report shall be accompanied by a copy of such Report or any part thereof on an electronic storage device in such form and compatible with such software as the Authority Representative reasonably requires.

3.4 Further Information

Project Co shall at any time and from time to time at its own cost provide the Authority Representative with such further or other information with respect to the Project, the Project Work, the Infrastructure and the Project Site as the Authority Representative may reasonably require.

3.5 Objections to Reports

- (a) If the Authority Representative considers that any Report either has not been compiled in accordance with the provisions of this Agreement or has been based on erroneous information or data, then the Authority Representative may serve a notice objecting to such Report on Project Co within 20 Business Days of receipt of such Report.
- (b) If any objection under Section 3.5(a) of this Schedule has not been resolved by agreement between the Authority Representative and Project Co within 15 Business Days after the service of such notice, then either party may refer the matter to the Dispute Resolution Procedure for determination.

3.6 Revisions to Reports

If the resolution (whether by agreement or determination under the Dispute Resolution Procedure) of any objection made by the Authority Representative pursuant to Section 3.5 of this Schedule requires any revision or adjustment to any Report, then Project Co shall, as soon as practicable, issue revised versions

of each affected Report and such revised Report shall for all purposes of this Agreement take the place of the original Report.

3.7 Financial Reporting

- (a) Project Co shall provide to the Authority Representative:
 - (i) as soon as possible and in any event within 60 days after the end of the first 6 months of each of its financial years, certified true copies of the unaudited financial statements of Project Co and the Partners and, if appropriate, consolidated financial statements of Project Co and its subsidiaries as at the end of and for that 6 month period; and
 - (ii) as soon as they shall have been finalized and in any event no later than 120 days after the end of each of its financial years, certified true copies of the audited financial statements of Project Co and unaudited financial statements of the Partners and, if appropriate, consolidated financial statements of Project Co and any subsidiaries in respect of that period (prepared in accordance with GAAP), together with copies of all related directors' and auditors' reports.
- (b) If at any time after the provision to the Authority of the documents referred to in Section 3.7(a) of this Schedule the Authority Representative notifies Project Co of any matter of concern to the Authority Representative arising in connection with such documents, Project Co shall instruct its auditors to prepare as soon as reasonably practicable a report on such matter, giving such further information, amplification or explanation as is reasonable having regard to the contents of the Authority Representative's notification and shall provide the Authority Representative with a copy of such report within seven days of Project Co's receipt of it from its auditors.

SCHEDULE 15
FINANCIAL MODEL

See attached.

SCHEDULE 15
FINANCIAL MODEL

[Redacted]

SCHEDULE 16
COMMUNICATION ROLES

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SCHEDULE 16

COMMUNICATION ROLES

The Authority and Project Co will, throughout the Term, share responsibilities for communications, including community relations, stakeholder engagement, media relations and emergency communications on the terms set out in this Schedule.

1. GENERAL

- 1.1 Project Co will consult in advance and cooperate with the Authority regarding all communications activities relating to the Project.
- 1.2 Project Co will ensure that Project Contractors and Sub-Contractors do not issue public communications in respect of the Project.
- 1.3 The desired outcome of communications activities is to inform and involve the public and other stakeholders about the progress, value and benefits of the Project and to develop and maintain support for the Project.
- 1.4 Communications strategies and plans involving the interests of both parties are to be prepared on a joint basis, with one party taking a lead role and the other a supporting role, as described in this Schedule.
- 1.5 Where communications strategies and plans involve the interests of both parties, each party will give the other a reasonable opportunity (taking into account the need for timely communications) to consider communications strategies and plans initiated by the other and, if information is supplied by a party, it should include or be accompanied by sufficient explanatory or other material to enable the information to be properly considered.
- 1.6 Project Co will consider and, acting reasonably, take into account, public and other stakeholder input in regard to its plans for the Project Work.
- 1.7 This Schedule is a guideline and may be amended by mutual agreement in writing. Except for non-compliances with this Schedule by Project Co that constitute Persistent Breach, non-compliance with this Schedule by Project Co will not constitute a Project Co Material Breach and non-compliance with this Schedule by the Authority will not constitute an Authority Material Breach.
- 1.8 No communication regarding the subject matter of a Dispute, including one resolved under the Dispute Resolution Procedure, will be made public or shared beyond the parties without the prior written consent of the Authority or Project Co, as the case may be, unless otherwise ordered under the Dispute Resolution Procedure.
- 1.9 Project Co acknowledges that the *Access to Information and Protection of Privacy Act* (Northwest Territories) applies to the Authority, that nothing in this Schedule limits any requirements for

compliance with that Act and that the Authority may be required to make disclosure of information under that Act.

- 1.10 Project Co acknowledges that the Authority will be free to disclose (including on websites) this Agreement and any and all terms hereof, except for those portions that would not be required to be disclosed under the *Access to Information and Protection of Privacy Act* (Northwest Territories). The Authority will consult with Project Co prior to such disclosure.
- 1.11 Except for Section 1.10, this Schedule is subject to the parties' obligations in respect of Confidential Information and Personal Information pursuant to Sections 18.1, 18.2 and 18.3 of this Agreement.

2. CATEGORIES OF COMMUNICATION

The following categories of communications are covered by this Schedule and each category applies during the Construction Period and the Operating Period:

- (a) **Communications Planning:** developing plans and strategies in support of the Project, including integrating the categories of communication listed in Article 6 (Allocation of Lead and Supporting Roles) of this Schedule;
- (b) **Community Relations:** keeping all key audiences (as identified in communications plans) informed, including providing overall Project information, including information about schedule, design, construction (including traffic management), facilities management and other services, using any and all appropriate communications tools and tactics;
- (c) **Engagement:** engaging in discussions with Project stakeholders throughout each period;
- (d) **Media Relations:** providing media with Project updates and responding to issues raised by the media; and
- (e) **Emergency Communications:** preparing and implementing crisis communications planning and preparedness.

3. LEAD AND SUPPORTING ROLES

- 3.1 Within each category of communications set out in Article 6 (Allocation of Lead and Supporting Roles) of this Schedule, Project Co will play either a lead or a supporting role, working with the Authority to achieve the desired communications outcomes. These roles may be different for the different periods of the Project.
- 3.2 For all categories of communication, and whether communication occurs as part of a lead or supporting role, no advertising that involves payment by Project Co to a third party may include the Authority or the Project unless Project Co obtains the prior consent of the Authority, not to be unreasonably withheld or delayed.

4. LEAD RESPONSIBILITIES

The following is an overview of the responsibilities associated with lead roles:

- (a) developing a communications plan to include all activities for which the party is identified as lead (communications plans should be updated annually, or more frequently as reasonably required);
- (b) having regard for the input of the supporting party, approving communication plans and tactics in response to specific circumstances, unless otherwise indicated in this Schedule;
- (c) implementing its role in approved plans;
- (d) achieving the outcomes set out in the annual strategic communication plans;
- (e) maintaining constructive and positive relationships with the public and other stakeholders;
- (f) providing information, as required by the supporting party and its team members, to support communication and engagement activities;
- (g) as relevant to its lead role, organizing, attending and participating in community and other stakeholder engagement meetings and carrying out other communication activities to engage with and report back to the community and other stakeholders, including open houses, information updates, public displays, advertising, website creation, maintenance updates, construction notices, milestone celebration events, news releases and tours, and directing inquiries to the supporting party as appropriate;
- (h) assuming responsibility for costs related to carrying out lead responsibilities, in the amounts and in the manner outlined in approved plans;
- (i) monitoring whether the Project Work is conducted in a manner consistent with strategic communication plans and advising the parties of any material inconsistency; and
- (j) having a local, trained media relations spokesperson available to respond to media requests.

5. SUPPORTING RESPONSIBILITIES

The following is an overview of the responsibilities associated with supporting roles:

- (a) obtaining approval for plans and tactics before implementation;
- (b) assisting with the development and implementation of plans, including drafting of initial plans and other communication documents, such as detailed maps and other presentation material for public communications, as directed by the lead party;
- (c) implementing its role in approved plans;

- (d) maintaining constructive and positive relationships with the public and other stakeholders;
- (e) providing information, as required by the lead party and its team members, to support communication and engagement activities;
- (f) as relevant to its supporting role, organizing, attending and participating in community and other stakeholder engagement meetings and carrying out other communication activities to engage with and report back to the community and other stakeholders, including open houses, information updates, public displays, advertising, website creation, maintenance updates, construction notices, milestone celebration events, news releases and tours, and directing inquiries to the lead party as appropriate;
- (g) assuming responsibility for costs related to carrying out supporting responsibilities, in the amounts and in the manner outlined in approved plans; and
- (h) having a local, trained media relations spokesperson available to respond to media requests.

6. ALLOCATION OF LEAD AND SUPPORTING ROLES

The lead and supporting roles will be allocated as set out in the following table, unless otherwise required by the Authority in consultation with Project Co.

PERIOD	CATEGORY	LEAD	SUPPORTING
Construction Period	Communications Planning	Authority	Project Co
	Community Relations	Authority	Project Co
	Stakeholder Engagement	Authority	Project Co
	Media Relations	Authority	Project Co
	Emergency Communications	Authority	Project Co
	Construction	Project Co	Authority
	Traffic	Project Co	Authority
	Noise	Project Co	Authority
Operating Period	Communications Planning	Authority	Project Co
	Community Relations	Authority	Project Co
	Stakeholder	Authority	Project Co

	Engagement		
	Media Relations	Authority	Project Co
	Emergency Communications	Authority	Project Co
	Traffic	Authority	Project Co

7. AUTHORITY RIGHT TO STEP IN AT PROJECT CO'S COST

If Project Co is required to take a lead role in accordance with Article 6 (Allocation of Lead and Supporting Roles) of this Schedule but fails to comply with its obligations under this Schedule in any material respect, the Authority may give reasonable notice to Project Co that it intends to undertake and assume the lead role obligations of Project Co, at the expense of Project Co, including all direct costs of engaging third party assistance with communication responsibilities and all Direct Losses of the Authority in connection with fulfilling Project Co's obligations under this Schedule.

SCHEDULE 17
KEY INDIVIDUALS

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1. DEFINITIONS

In this Schedule, in addition to terms defined in Schedule 1 [Definitions and Interpretation] of this Agreement:

“Approved Reason” means:

- (a) termination of the Key Individual for cause;
- (b) serious illness of the Key Individual;
- (c) death of the Key Individual or an immediate family member;
- (d) the replacement of the Key Individual, with the prior approval of the Authority, in order to remedy material performance issues of the Key Individual; or
- (e) in the discretion of the Authority and with the Authority’s prior approval, in case of (i) retirement, permanent move, or family reasons of the Key Individual, or (ii) Project Co desiring to promote a Tłıchǫ Citizen trained by Project Co to serve as a replacement;

“Bridge Design Lead” has the meaning set out in Section 3.6 of this Schedule;

“Community Coordination Lead” has meaning set out in Section 3.9 of this Schedule;

“Construction Manager” has meaning set out in Section 3.11 of this Schedule;

“Construction Quality Manager” has meaning set out in Section 3.12 of this Schedule;

“Design-Builder Lead” has meaning set out in Section 3.3 of this Schedule;

“Design Lead” has meaning set out in Section 3.4 of this Schedule;

“Design Quality Manager” has meaning set out in Section 3.5 of this Schedule;

“Environmental Lead” has meaning set out in Section 3.10 of this Schedule;

“Geotechnical Lead” has meaning set out in Section 3.8 of this Schedule;

“Lifecycle Lead” has meaning set out in Section 3.16 of this Schedule;

“Operating Period Environmental Lead” has meaning set out in Section 3.10 of this Schedule;

“Project Co Lead” has meaning set out in Section 3.1 of this Schedule;

“Project Manager” has meaning set out in Section 3.2 of this Schedule;

“Road Design Lead” has meaning set out in Section 3.7 of this Schedule;

“Road Maintenance Manager” has meaning set out in Section 3.15 of this Schedule;

“Safety Manager” has meaning set out in Section 3.13 of this Schedule;

“**Service Provider Lead**” has meaning set out in Section 3.14 of this Schedule; and

“**Unavailable**” means if, for any reason other than an Approved Reason, a Key Individual:

- (a) resigns; or
- (b) is otherwise unavailable to perform his or her duties described in this Schedule (other than for vacation or other reasonable temporary absences, provided there is sufficient coverage of the Key Individual’s responsibilities during such vacation or other reasonable temporary absences).

2. KEY INDIVIDUALS

2.1 General Provisions

- (a) Attached in Appendix 17A [List of Key Individuals] is a list of the Key Individuals that Project Co will utilize in undertaking the Project Work.
- (b) Within 5 Business Day of Project Co Having Knowledge that a Key Individual is or will be Unavailable, Project Co will:
 - (i) notify the Authority; and
 - (ii) immediately commence the process to retain a replacement in accordance with Section 2.2 of this Schedule, prior to such Key Individual becoming Unavailable or promptly thereafter and will replace the Key Individual no later than 10 Business Days after such Key Individual becomes Unavailable.
- (c) No later than 3 months prior to the start of the Operating Period, Project Co will notify the Authority of the name and qualifications of the person designated by Project Co to be the “General Manager” or equivalent as of the start of the Operating Period, and such person will from the date of such notice also be a Key Individual for the purposes of this Schedule and Section 2.8 of the Project Agreement.

2.2 Replacement Process

- (a) If either the Authority or Project Co reasonably considers that a replacement will not reasonably be retained within 10 Business Days, Project Co will, on or prior to the 10th Business Day after the relevant Key Individual becomes Unavailable, deliver to the Authority a reasonable program (set out, if appropriate, in stages) for retaining his or her replacement. The program will specify in detail the manner in which, and the latest date by which, the replacement will be retained.
- (b) The Authority will have 10 Business Days from receipt of the program to notify Project Co that the Authority, acting reasonably, does not accept the program, failing which the Authority will be deemed to have accepted the program.
 - (i) If the Authority notifies Project Co that it does not accept the program as being reasonable, the parties will use all reasonable efforts within the following 5 Business Days to agree to any necessary amendments to the program put forward.
 - (ii) In the absence of an agreement within such 5 Business Days, the question of whether the program (as it may have been amended by agreement) will result in the retainer of a replacement in a reasonable manner and within a reasonable

time period (and, if not, what would be a reasonable program) may be referred by either party for resolution in accordance with the Dispute Resolution Procedure.

- (c) For clarity, if a proposed replacement Key Individual is not satisfactory to the Authority, acting reasonably, the Authority has the discretion to either:
 - (i) consent to the replacement Key Individual, with the imposition of Compliance Failure Points pursuant to Section 2.3 of this Schedule; or
 - (ii) refuse to consent to such replacement and require Project Co to identify a new proposed replacement Key Individual within 10 Business Days.

2.3 Compliance Failure Points and Authority Costs

- (a) If:
 - (i) any Key Individual position remains unfilled for more than 20 Business Days after the applicable Key Individual has become Unavailable, and:
 - (A) the Authority has not accepted a program under Section 2.2 of this Schedule; or
 - (B) the Authority has accepted a program under Section 2.2 of this Schedule and Project Co at any time fails to comply with any part of that program; or
 - (ii) the Authority has consented to the use of an unsatisfactory replacement Key Individual, subject to the imposition of Compliance Failure Points, in accordance with Section 2.2(c)(i) of this Schedule,

then, unless the matter has been referred to the Dispute Resolution Procedure, Project Co shall be subject to Compliance Failure Points in accordance with the relevant provisions of Appendix 8A [Assignment of Compliance Failure Points].

- (b) In addition to the assignment of Compliance Failure Points in accordance with Section 2.3(a) of this Schedule, Project Co will pay the Authority's reasonable internal administrative and personnel costs and all reasonable out-of-pocket costs related to any measures the Authority considers are reasonably required in relation to a Key Individual position being unfilled, including the costs to ensure that Project Co meets its requirements for Design, Construction and OMR and for the Authority to review and consider any replacement under this Schedule, provided that the maximum liability of Project Co under this Section 2.3(b) will be \$2,500 (Index Linked) per week or part thereof.

3. KEY INDIVIDUAL DUTIES

3.1 Project Co Lead

The Project Co lead (the "**Project Co Lead**") shall be the individual responsible for leading Project Co.

3.2 Project Manager

The Project manager (the "**Project Manager**") shall be the individual responsible for managing the Project and shall report to the Project Co Lead.

3.3 Design-Builder Lead

- (a) Project Co shall engage or cause to be engaged a single design-builder lead (the “**Design-Builder Lead**”). The Design-Builder Lead may also be the Project Co Lead and/or the Project Manager. The Design-Builder Lead shall be responsible for performance of the Design and the Construction, and any commissioning work and handover to the Service Provider.
- (b) The Design-Builder Lead shall coordinate the engineering aspects of the design work, and shall ensure that the design work has been performed by or under the direction of appropriate registered professionals and that the interrelationships between the involved engineering disciplines have been fully assessed and issues have been addressed. The Design-Builder Lead will be coordinating all aspects of Project Co’s project management from preliminary project planning to final design, construction, execution, finance, operation, maintenance, and project commissioning until hand back of the Project to the Authority. The Design-Builder Lead will be the primary contact from Project Co to all parties involved.
- (c) In some cases, where qualifications and experience are appropriate, the Design-Builder Lead may also be an Engineer of Record for the Project.
- (d) The Design-Builder Lead will be responsible for ensuring that:
 - (i) designs between the interrelated engineering disciplines are coordinated;
 - (ii) designs are performed by or under the direct supervision of a Professional Engineer;
 - (iii) designs and design reports are signed and sealed by the Engineer(s) of Record;
 - (iv) practical field reviews are carried out for each and every design as required;
 - (v) record drawings are produced and signed and sealed by the Engineer(s) of Record and other required signatories and the originals submitted to the Authority Design and Construction Representative; and
 - (vi) all registered professionals shall have signed and submitted their respective assurances to the Design-Builder Lead.
- (e) Upon completion of each and all components/items of Construction and in completion of critical path milestones, the Design-Builder Lead shall organize and submit necessary documents, and sign and seal the Construction Certificate as stated in Design and Certification Procedure.

3.4 Design Lead

- (a) Project Co shall engage or cause to be engaged a single design lead (the “**Design Lead**”), appointed from the Designer’s firm.
- (b) The Design Lead shall report to the Design-Builder Lead, and shall be responsible for the overall Design of the Project.

3.5 Design Quality Manager

- (a) Project Co shall engage or cause to be engaged a single design quality manager (the “**Design Quality Manager**”).
- (b) The Design Quality Manager shall be responsible for the Design Quality Management Plan to be developed and implemented by Project Co.
- (c) The Design Quality Manager shall have full authority over the Design Lead for aspects related to quality.

3.6 Bridge Design Lead

- (a) Project Co shall engage or cause to be engaged a single registered Professional Engineer as bridge design lead (the “**Bridge Design Lead**”).
- (b) The Bridge Design Lead shall be the Engineer of Record for structural design, responsible for all structural design including bridges and bridge-culverts.

3.7 Road Design Lead

- (a) Project Co shall engage or cause to be engaged a registered Professional Engineer as its road design lead (the “**Road Design Lead**”).
- (b) The Road Design Lead shall be the Engineer of Record for, and assume all professional responsibility for, all roadway design.

3.8 Geotechnical Lead

- (a) Project Co shall engage or cause to be engaged a single geotechnical lead (the “**Geotechnical Lead**”).
- (b) The Geotechnical Lead shall be a registered Professional Engineer specializing in geotechnical engineering for road and bridge construction.
- (c) The Geotechnical Lead will be the Engineer of Record for geotechnical designs.

3.9 Community Coordination Lead

- (a) Project Co shall engage or cause to be engaged a single community coordination lead (the “**Community Coordination Lead**”). While the Community Coordination Lead will take the lead for communications with stakeholders and the local communities on behalf of Project Co, the Community Coordination Lead will not take the lead on behalf of the Authority. The Authority will lead the Project for strategizing messaging and directing communications with stakeholders and other government representatives.
- (b) The Community Coordination Lead will be responsible for:
 - (i) taking direction from the Authority for strategizing on messaging to the public and stakeholders; and
 - (ii) acting as Project Co’s direct liaison with local communities for the purposes of coordinating community involvement in the Project. Examples include human resources/labour hires, training coordination, local business involvement with the Project, and the application of local knowledge to the Project.

3.10 Environmental Lead

- (a) Project Co shall engage or cause to be engaged a single environmental lead (the “**Environmental Lead**”), who shall be a registered professional biologist (P.Biol. or equivalent) or an equivalent qualified professional in good standing, with relevant experience.
- (b) The Environmental Lead will be responsible for, without limitation:
 - (i) monitoring all environmental and archaeological aspects of the Project Work, including compliance with applicable Permits and Laws;
 - (ii) overseeing the development and execution of the Environmental Management Plan in accordance with Schedule 19 [Environmental Obligations];
 - (iii) implementing the operation of the Environmental Management Plan;
 - (iv) preparing and submitting to the Authority and/or any applicable regulatory agency all reports required under the Environmental Management Plan;
 - (v) auditing and reporting on the performance of the Environmental Management Plan, the Report of Environmental Assessment and Decision Letter, and any terms and conditions associated with environmental Permits;
 - (vi) directing all aspects of Project Co’s environmental program for the Project Work and managing all environmental issues associated with the Project, including overseeing the environmental auditing program;
 - (vii) ensuring environmental issues and requirements are addressed in accordance with this Agreement;
 - (viii) establishing and maintaining working relationships with relevant Environmental Authorities, the Tłıchǵ Government, any applicable special inter-agency committee, and Interested Parties;
 - (ix) taking a lead role in internal environmental design reviews including development of mitigation and compensation proposals acceptable to the Authority’s Representative and Environmental Authorities; and
 - (x) liaising with the Authority’s Representative and acting as the single point representative for Project Co on all matters relating to environmental management.
- (c) During the Operating Period, the Key Individual in this position (the “**Operating Period Environmental Lead**”) is only required to be available on an as-needed basis.

3.11 Construction Manager

- (a) Project Co shall engage or cause to be engaged a single construction manager (the “**Construction Manager**”), who shall report to the Design-Builder Lead.
- (b) The Construction Manager will be responsible for ensuring the delivery of the Construction of the Project on schedule, and duties will include (but not be limited to):
 - (i) developing the Project Schedule and the Works Schedule;

- (ii) coordinating all resources (human and material) to construct the Project in compliance with the Design;
- (iii) ensuring that the Construction adheres to all Permits;
- (iv) managing the aggregate sources;
- (v) ensuring that the Construction adheres to the Project Safety Plan; and
- (vi) reporting on Construction progress.

3.12 Construction Quality Manager

- (a) Project Co shall engage or cause to be engaged a single construction quality manager (the “**Construction Quality Manager**”).
- (b) The Construction Quality Manager will be solely responsible for Project Co’s Construction Quality Plan and will have full authority over the Construction Manager for aspects related to quality.

3.13 Safety Manager

- (a) Project Co shall engage or cause to be engaged a single safety manager (the “**Safety Manager**”).
- (b) The Safety Manager will be responsible for the implementation of Project Co’s Project Safety Plan and will have full authority over the Construction Manager for all aspects related to safety.

3.14 Service Provider Lead

- (a) Project Co shall engage or cause to be engaged a single service provider lead (the “**Service Provider Lead**”).
- (b) The Service Provider Lead will represent Project Co’s operations and maintenance business in accordance with the Agreement.

3.15 Road Maintenance Manager

- (a) Project Co shall engage or cause to be engaged a road maintenance manager (the “**Road Maintenance Manager**”), which may be the same person as the Service Provider Lead.
- (b) If the Road Maintenance Manager is a different person than the Service Provider Lead, the Road Maintenance Manager shall be based full-time in the community of Whatì and will lead the Maintenance team on a daily basis.

3.16 Lifecycle Lead

- (a) Project Co shall engage or cause to be engaged a single lifecycle lead (the “**Lifecycle Lead**”).
- (b) The Lifecycle Lead will be responsible for developing and managing the Rehabilitation requirements in accordance with the Agreement.

APPENDIX 17A

LIST OF KEY INDIVIDUALS

Name of Key Individual	Capacity	Applicable Period of Term
Project Co:		
██████████	Project Co Lead	Construction Period Operating Period
██████████	Project Manager	Construction Period
██████████		Operating Period
██████████	Project Co Design and Construction Representative	Construction Period
To be designated 1 year before target Substantial Completion as per section 2.7 of PA	Project Co Operating Period Representative	Operating Period
Design-Builder:		
██████████	Design-Builder Lead	Construction Period
██████████	Design Lead	Construction Period
██████████████████	Design Quality Manager	Construction Period
██████████	Bridge Design Lead	Construction Period
██████████	Road Design Lead	Construction Period
██████████	Geotechnical Lead	Construction Period
██████████████████	Community Coordination Lead	Construction Period
██████████	Environmental Lead	Construction Period
██████████	Construction Manager	Construction Period
██████████████████	Construction Quality Manager	Construction Period
██████████	Safety Manager	Construction Period
Service Provider:		
██████████	Service Provider Lead	Operating Period
██████████	Road Maintenance Manager	Operating Period

[REDACTED]	Lifecycle Lead	Operating Period
[REDACTED]	Community Coordination Lead	Operating Period
[REDACTED]	Operating Period Environmental Lead	Operating Period

SCHEDULE 18

COMPLETION DOCUMENTS

1. GENERAL

In this Schedule “certified” will mean that the relevant document is certified (for and on behalf of the relevant corporation or other entity and without personal liability) by an officer, director or authorized signatory of the relevant entity as a true and complete copy in full force and effect and unamended as of the date of the relevant certificate.

2. DOCUMENTS TO BE DELIVERED BY PROJECT CO

Unless an original document is specifically referred to below, Project Co will deliver to the Authority a certified copy of each of the following documents in accordance with Section 2.2(a) of this Agreement:

- (a) an original of this Agreement executed by Project Co;
- (b) the general partnership agreement or agreements between the Partners of Project Co relating to Project Co, any agreements relating to subscriptions of equity, contributions of capital or other funding by such parties in Project Co, and any other agreements relating to the parties providing an equity commitment to Project Co or the Senior Lenders in respect of Project Co, including the equity contribution agreement, executed by the parties to such agreements;
- (c) the Senior Financing Agreements, executed by the parties to such agreements;
- (d) certification from Project Co that:
 - (1) the agreement or agreements referred to in item 2(b) are unconditional in accordance with their terms, accompanied by evidence of the same and that the subscriptions of equity (and other funding) to be made as of the Effective Date under such agreement or agreements have been made, accompanied by evidence of the same;
 - (2) the Senior Financing Agreements are unconditional; and
 - (3) all conditions to the availability of funds to Project Co under the Senior Financing Agreements have been satisfied or waived, accompanied by evidence of the same;
- (e) an original of the Lenders’ Remedies Agreement, executed by the parties to such agreement (other than the Authority);
- (f) an original of the Insurance Trust Agreement, executed by the parties to such agreement (other than the Authority);
- (g) the Design-Build Agreement, executed by the parties to such agreement;
- (h) the following documents executed by the parties thereto:
 - (1) Design-Builder:

- (A) letter of credit as security for the Design-Builder's obligations; and
- (B) guarantee from the Design-Builder's parent with respect to the Design-Build Agreement.

In each case the performance and other security will provide for a novation or assignment to the Authority if the Authority exercises its rights under the Design-Builder's Collateral Agreement provided that the Authority's interest in the performance and other security will remain subject to the security interest granted in favour of the Lenders until the Senior Debt has been repaid;

- (i) an original of the Design-Builder's Collateral Agreement, executed by the parties to such agreement (other than the Authority);
- (j) an original of the opinion of counsel to the Design-Builder in respect of the Design-Build Agreement and the Design-Builder's Collateral Agreement, such opinion to be in a form acceptable to the Authority and its counsel, acting reasonably;
- (k) an original of the opinion of counsel to the parent of the Design-Builder in respect of the guarantee given in support of the Design-Build Agreement, such opinion to be in a form acceptable to the Authority and its counsel, acting reasonably;
- (l) [intentionally deleted];
- (m) a certificate of an officer of Project Co and an officer of each of Project Co's Partners certifying true copies of the following:
 - (1) an authorizing resolution of the Partners of Project Co and an authorizing resolution of the board of directors of each of its Partners;
 - (2) incumbency of the officer of Project Co and each of the officers of its Partners;
 - (3) the constating documents of Project Co or each of Project Co's Partners; and
 - (4) the management services agreement of Project Co (if applicable);
- (n) a certificate of an officer of the Design-Builder and the parent company of the Design-Builder certifying true copies of the following:
 - (1) an authorizing resolution of the board of directors of the Design-Builder and its parent company;
 - (2) incumbency of the officers of the Design-Builder and its parent company; and
 - (3) the constating documents of the Design-Builder and its parent company;
- (o) certificate of good standing (or its equivalent) for Project Co;
- (p) a government certified copy of any applicable partnership registration;
- (q) statement of extra-territorial registration in the Northwest Territories for Project Co;

- (r) a copy of an insurance binder or certificates, certified copies or originals for all policies of insurance required to be taken out by or on behalf of Project Co for the Construction Period in accordance with this Agreement;
- (s) an original notice of appointment of Representatives to be appointed by Project Co under this Agreement;
- (t) an original of the opinion from counsel to Project Co that Project Co and its Partners exist, have the power and capacity to enter into this Agreement, the Senior Financing Agreements, the Lenders' Remedies Agreement, the Independent Certifier Agreement, the Design-Builder Collateral Agreement and the Insurance Trust Agreement, and that such documents have been duly authorized, executed and delivered by Project Co, create valid and binding obligations, and are enforceable against Project Co in accordance with their terms, in a form acceptable to the Authority and its counsel, acting reasonably, and including originals of relevant certificates and other documents relied upon by Project Co's counsel;
- (u) a certificate from Project Co certifying Schedule 15 [Financial Model], and the electronic version of the same, are true and correct copies of the Financial Model;
- (v) an independent audit of the Financial Model (to be delivered after the rate set procedure associated with Financial Close); and
- (w) such other documents as the parties may agree, each acting reasonably.

3. DOCUMENTS TO BE DELIVERED BY THE AUTHORITY

Unless an original document is specifically referred to below, the Authority will deliver to Project Co a certified copy of each of the following documents in accordance with Section 2.2(b) of this Agreement:

- (a) an original of this Agreement executed by the Authority;
- (b) an original of the Lenders' Remedies Agreement, executed by the Authority;
- (c) an original of the Insurance Trust Agreement, executed the Authority;
- (d) an original of the Design-Builder's Collateral Agreement, executed by the Authority;
- (e) [intentionally deleted];
- (f) a certificate of an officer of the Authority certifying:
 - (1) the Authority has taken all necessary action to authorize the execution and delivery of, and the performance of its obligations under, this Agreement, the Lenders' Remedies Agreement, the Independent Certifier Agreement, the Design-Builder's Collateral Agreement and the Insurance Trust Agreement;
 - (2) the Financial Management Board of the Authority has approved the entering into of this Agreement, and the Lenders' Remedies Agreement, the Independent Certifier Agreement, the Design-Builder Collateral Agreement and the Insurance Trust Agreement in the forms appended to this Agreement or provided to the Financial Management Board; and
 - (3) the identity and signature of the authorized delegate of the Authority;

- (g) an original notice of appointment of the Representatives to be appointed by the Authority under this Agreement;
- (h) an original of an opinion (or originals of opinions, as applicable) from internal and/or external counsel to the Authority that the Authority exists, has the power and capacity to enter into this Agreement, the Lenders' Remedies Agreement, the Independent Certifier Agreement, the Design-Builder Collateral Agreement and the Insurance Trust Agreement, and that such documents have been duly authorized, executed and delivered by the Authority, create valid and binding obligations, and are enforceable against the Authority in accordance with their terms, in a form acceptable to Project Co and its counsel, acting reasonably, and including originals of relevant certificates and other documents relied upon by the Authority's counsel; and
- (i) such other documents as the parties may agree, each acting reasonably.

SCHEDULE 19
ENVIRONMENTAL OBLIGATIONS
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DEFINITIONS

1.0 Definitions

In this Schedule, in addition to terms defined in Schedule 1 [Definitions and Interpretation] of this Agreement:

“Adaptive Management Framework” means, a framework which is a necessary part of the overall mitigation strategy needed to prevent significant adverse impacts on the environment as directed by Appendix B of the Report of Environmental Assessment.

“Best Management Practices” means, for the purposes of this Schedule, the environmental best management practices applicable for highway construction, maintenance and operations, including but not limited to Good Industry Practice.

“Decision Letter” means the decision provided by the responsible ministers on the Report of Environmental Assessment for the Project and attached as Appendix 19A [Decision Letter] hereto.

“Environmental Assessment Table of Commitments and Assurances” means the commitments, obligations and requirements identified during the Tłı̨ch̨o ASR environmental assessment (MVEIRB, EA1617-01) and which are set out in Appendix 19B [Environmental Assessment Table of Commitments and Assurances].

“Environmental Authority” means a Governmental Authority exercising its authority under Environmental Laws.

“Environmental Laws” means:

- (a) all requirements and provisions under or prescribed by any and all applicable Laws;
- (b) all applicable rules, regulations, orders-in-council, codes, protocols, guidelines, policies, procedures, concessions, grants, franchises, licences, permits, approvals, plans, authorizations, agreements and any other governmental requirements, promulgated under or pursuant to any Laws; and
- (c) all applicable judicial, administrative or regulatory judgments, orders, decisions, certificates and exemptions, including without limitation those rendered by any Governmental Authority,

all as may be amended from time to time, relating to environmental assessment, the protection of the natural environment, the protection of plant, animal and human health, and the protection of land, water and air resources, including those relating to occupational health, management of waste, safety and transportation of dangerous goods, and the safety requirements and procedures that would, in the ordinary and usual course of the operation, management, repair, maintenance and rehabilitation of similar facilities in the Northwest Territories by any person, be recognized, followed and implemented by such person, and includes without limitation the *Canadian Environmental Protection Act, 1999* (Canada), the *Fisheries Act* (Canada), the *Transportation of Dangerous Goods Act, 1992* (Canada), the *Canada Water Act* (Canada), the *Mackenzie Valley Resource Management Act, 1998* (Canada) and the *Environmental Protection Act* (Northwest Territories).

“Environmental Management Plan” or **“EMP”** means the plan described in Section 2.3(b).

“Environmental Plans” means the Environmental Quality Management Plan, the Environmental Management Plan and all other environmental plans required in conjunction with the Project.

“Interested Parties” means those persons who may be affected by the carrying out of the Project Work or who are duly authorized by Law to review or otherwise take an interest in the Project Work, including the Relevant Authorities.

“Mackenzie Valley Environmental Impact Review Board” or **“MVEIRB”** means the co-management board responsible for the environmental impact assessment process in the Mackenzie Valley.

“Project Co’s Environmental Obligations” means:

- (a) the obligations of Project Co under this Agreement to comply with and carry out all requirements of Environmental Laws and applicable Permits in connection with the Project Work; and
- (b) the obligations of Project Co under this Schedule, including but not limited to those obligations identified as obligations of Project Co in the Report of Environmental Assessment, Decision Letter, and Appendix 19B [Environmental Assessment Table of Commitments and Assurances].

“Release” includes any spill, leak, deposit, pumping, pouring, emission, emptying, discharging, injecting, escape, leaching, migration, disposal, dumping or other form of release of a Hazardous Substance, or permitting of any of the foregoing.

“Report of Environmental Assessment” means the Report of Environmental Assessment and Reasons for Decision – GNWT Tłı̄ch̄o All-Season Road Project (MVEIRB, EA1617-01) dated March 29, 2018, available through the public registry at the following link: <http://reviewboard.ca/upload/project_document/Final%20TASR%20REA%20April%2003.pdf>.

“Tłı̄ch̄o ASR Corridor Working Group” means a multi-stakeholder working group, which will include Project Co, that will provide a forum for information exchange that meets the overall commitment made by the Government of the Northwest Territories’ Department of Infrastructure (GNWT-INF) during the Mackenzie Valley Review Board environmental assessment (EA1617-01) and meets the details outlined in Measure 14-3. The draft terms of reference for this group, which will be further developed after Financial Close, are attached to this Schedule 19 as Appendix 19D [Draft Tłı̄ch̄o ASR Corridor Working Group Terms of Reference].

“Wek’èezhìi Land and Water Board” means a regional regulatory panel whose members are appointed by the federal and Tłı̄ch̄o Government to provide for the conservation, development and utilization of land and water resources for all Canadians and in particular for residents of the Wek’èezhìi management area.

PART 1 GENERAL PROVISIONS

1.1 Environmental Compliance

Project Co shall ensure that the Project Work at all times during the Term complies with all Laws and Permits of an environmental nature applicable to the Project and the Project Work.

1.2 Project Co’s Environmental Obligations

Throughout the Term, Project Co shall be responsible for managing all environmental issues associated with the obligations of Project Co contained in this Agreement, other than those environmental issues specifically identified in this Agreement as being the responsibility of the Authority, and shall comply with, observe, satisfy and perform all of Project Co’s Environmental

Obligations. Project Co shall perform the Project Work in full compliance with Project Co's Environmental Obligations, including compliance with the following:

- (a) all relevant requirements under any applicable Laws;
- (b) all applicable Reference Documents that are current at the time of the relevant Project Work;
- (c) all applicable Permits, including but not limited to the Permits set out in Appendix 3B [Permits], and all conditions and commitments thereunder or arising out of any amendments thereto; and
- (d) the commitments, responsibilities and information set forth in this Schedule and the Appendices hereto.

Project Co shall also be responsible, in cooperation with the Authority, for implementing and adhering to the mitigation, monitoring and follow up measures identified in the Report of Environmental Assessment and Decision Letter. Allocation of responsibility for such measures, as between Project Co and the Authority, is set out in Appendix 19C [Environmental Assessment Measures]. If unanticipated material adverse environmental effects or additional requirements for mitigation of environmental effects are identified during the Term, Project Co will ensure that further mitigation measures are undertaken as may be necessary in accordance with Environmental Laws and all other applicable Laws through the Adaptive Management Framework.

1.3 Environmental Assessment Table of Commitments and Assurances

- (a) Without limiting the generality of Section 1.2 of this Schedule, Project Co shall at all times comply with, and will be responsible for, the commitments, obligations and requirements set forth in the Environmental Assessment Table of Commitments and Assurances, with the exception only of those commitments, obligations and requirements that are expressly identified in the Environmental Assessment Table of Commitments and Assurances as being the responsibility of the Authority or not the responsibility of Project Co.
- (b) In the case of any conflict, ambiguity or inconsistency between the Environmental Assessment Table of Commitments and Assurances and any other provision within this Agreement, the Project Agreement provision will prevail over the Environmental Assessment Table of Commitments and Assurances.

1.4 Best Management Practices

Project Co shall perform Project Co's Environmental Obligations in accordance with Best Management Practices and will not do or omit, or permit to be done or omitted, anything which is inconsistent with such Best Management Practices.

1.5 Submissions to the Authority and/or Environmental Authorities

- (a) Project Co shall promptly forward to the Authority's Representative a copy of any information requested by the MVEIRB or Wek'èezhii Land and Water Board or other Environmental Authority.
 - (i) All such information related to Authority Permits will be submitted by Project Co to the Authority, and the Authority may submit such information directly to the relevant Environmental Authority or direct Project Co to do so.

- (ii) For all such information related to Project Co Permits, Project Co will provide advance notice to the Authority of the information requested by the Environmental Authority and, if requested by the Authority, shall first provide such information to the Authority for its review and comment. If the Authority does not request advance review and comment, such information may be submitted concurrently by Project Co to the Authority and the relevant Environmental Authority.
- (b) Project Co shall promptly forward to the Authority's Representative a copy of any report, submission, application or other document relating to environmental matters on or at or affecting the Project Site that is to be filed or lodged with or otherwise provided to any Environmental Authority.
 - (i) All such reports, submissions, applications and other documents related to Authority Permits will be submitted by Project Co to the Authority, and the Authority may submit such reports, submissions, applications and other documents directly to the relevant Environmental Authority or direct Project Co to do so.
 - (ii) For all such reports, submissions, applications and other documents related to Project Co Permits, Project Co will provide advance notice to the Authority of any such report, submission, application and other document to be submitted to an Environmental Authority and, if requested by the Authority, shall first provide such report, submission, application or other document to the Authority for its review and approval. If the Authority does not request advance review and approval, such report, submission, application or other document may be submitted concurrently by Project Co to the Authority and the relevant Environmental Authority.
- (c) Project Co shall, promptly on request, provide the Authority's Representative with such written authorizations as the MVEIRB or Wek'èezhìì Land and Water Board or other Environmental Authority may require from time to time to make inquiries of any other Environmental Authorities regarding Project Co or Project Co's compliance with Environmental Laws or Permits.
- (d) Project Co shall promptly provide the Authority's Representative with copies of all environmental site assessments, audits, reports and test results relating to the Project Site, including all assessments, audits, reports and tests conducted by or on behalf of or coming into the possession of Project Co at any time whether before or after the Effective Date.

1.6 Environmental Records

Project Co shall maintain in accordance with the Records Management Protocol all environmental documents and records (including copies of all applicable Permits) relating to the Project Site and the performance of the Project Work relating to environmental matters, including all records required to be maintained pursuant to the Environmental Management Plan.

PART 2 ENVIRONMENTAL MANAGEMENT

2.1 General Environmental Management

Project Co shall:

- (a) have available during the Term, with the exception of the requirement stated in Schedule 17 Section 3.10(c), an Environmental Lead and a multi-disciplinary team of qualified environmental specialists as required to perform Project Co's Environmental Obligations;
- (b) ensure that the Project Work is carried out in compliance with all Environmental Plans;
- (c) develop, implement, maintain, and update (i) all environmental plans, reports and certifications set out in Table 3 (Reports and Plans Requirements) of Appendix 8A [Assignment of Compliance Failure Points] in accordance with the timelines set out therein and (ii) any additional environmental plans, reports and certifications as required by any Environmental Authorities;
- (d) comply with all environmental requirements as set out in the Report of Environmental Assessment, Decision Letter and the Environmental Assessment Table of Commitments and Assurances;
- (e) prepare environmental submissions as set out in Part 3 (Design and Certification Procedure) of Schedule 3 [Design and Construction];
- (f) issue and sign the Design Certificate (Environmental) in accordance with the procedures set out in Part 3 (Design and Certification Procedure) of Schedule 3 [Design and Construction];
- (g) be responsible for planning, scheduling and performing the Project Work in such a manner that the quality and quantity of water flowing from the Project Site is acceptable to all relevant Environmental Authorities, and take immediate action to correct any deficiency in water quality caused by performance of the Project Work or any Project Co act or omission;
- (h) undertake turbidity monitoring at watercourses on the Lands flowing at the time of Construction up and downstream of the Project; and
- (i) at the request of the Authority, participate with the Authority in public consultation, including organizing and holding field reconnaissance meetings with Interested Parties from time to time.

2.2 Environmental Certification

- (a) At the request of the Authority's Representative from time to time where there are reasonable grounds for making such request and in any event not less frequently than annually, Project Co shall provide the Authority's Representative with a certificate signed by Project Co's Environmental Lead certifying that Project Co has complied with all Environmental Laws and with all of its obligations under this Agreement in respect of environmental matters, providing detailed particulars of such compliance and all documentation in connection therewith (or if any occurrence of non-compliance has taken place, providing full and complete particulars thereof and all documentation in connection therewith). The certificate shall confirm that, to the best of the knowledge, information and belief of the Environmental Lead, having made reasonable inquiry, no adverse environmental occurrence has taken place on or at or affecting the Project Site or any part thereof (or, if any such occurrence has taken place, the certificate shall provide full and complete particulars thereof and all documentation in connection therewith).
- (b) Project Co shall, at the request of the Authority's Representative from time to time where there are reasonable grounds for making such request, obtain and submit to the Authority's Representative, from an independent environmental consultant (the identity of which has been accepted by the Authority's Representative, acting reasonably), an environmental

site assessment of the Project Site (or any part or parts thereof), such compliance with any such request to be at Project Co's own cost, including obtaining any additional investigations recommended by the environmental consultant.

2.3 Environmental Plans

- (a) Project Co shall prepare an Environmental Quality Management Plan in accordance with Schedule 2 [Quality Management];
- (b) Project Co shall develop, implement, maintain and update an "**Environmental Management Plan**", which will, among other things:
 - (i) identify the roles and responsibilities of Project Co's environmental team;
 - (ii) identify Project Co's procedures to satisfy its environmental monitoring and reporting requirements; and
 - (iii) outline how drivers and equipment operators will be engaged in idling reduction practices.

Project Co shall submit the initial Environmental Management Plan to the Authority's Representative for review and comment prior to submitting such initial Environmental Management Plan to any applicable Environmental Authorities.

Project Co shall expand and update the Environmental Management Plan throughout the Term to reflect the Project Work scheduling, Project Site conditions and weather-dependent contingency measures. Project Co shall submit all such updates to the Authority's Representative for review and comment prior to submitting such updates to any applicable Environmental Authorities.

- (c) The Authority has prepared drafts of various environmental plans for the purpose of the environmental assessment of the Project, including but not limited to the following:
 - (i) Tłıchq ASR Quarry Operations Plan(s);
 - (ii) Tłıchq ASR Spill Contingency Plan;
 - (iii) Tłıchq ASR Wildlife Management and Monitoring Plan;
 - (iv) Tłıchq ASR Waste Management Plan;
 - (v) Tłıchq ASR Erosion and Sediment Control Plan;
 - (vi) Tłıchq ASR Fish and Fish Habitat Protection Plan;
 - (vii) Tłıchq ASR Archaeological Site Chance Find Protocol;
 - (viii) Tłıchq ASR Emergency Response Plan;
 - (ix) Tłıchq ASR In-field Water Monitoring Plan;
 - (x) Tłıchq ASR Engagement Plan;
 - (xi) Tłıchq ASR Permafrost Management Plan;

- (xii) Tłıchq ASR Closure and Reclamation Plan;
- (xiii) Tłıchq ASR Geochemical Analysis Plan; and
- (xiv) Adaptive Management Framework.

Project Co is required to finalize the draft environmental plans listed above and create and finalize any other/outstanding applicable environmental plans and submit the proposed final drafts to the Authority for review and comment prior to the Authority submitting them to the relevant Environmental Authorities for permitting.

- (d) Project Co shall prepare environmental work plans for protecting against environmental damage for specific defined locations within the Project Site for defined Construction and shall submit such plans to the Authority's Representative for review and comment.

2.4 Environmental Reporting

In addition to Project Co's reporting requirements under all applicable Permits, Project Co shall prepare and submit to the Authority's Representative:

- (a) weekly environmental monitoring reports during the Construction Period, which shall include, at a minimum, the following information:
 - (i) Project area;
 - (ii) name(s) of environmental monitor(s);
 - (iii) period covered by report;
 - (iv) date report submitted;
 - (v) overall weather conditions;
 - (vi) report recipient(s);
 - (vii) contractor(s) undertaking work;
 - (viii) description, photos and status of Construction by area, including within environmentally sensitive areas (photos will be accompanied by a plan view sketch showing angle and location of photos);
 - (ix) environmental meetings and key issues discussed;
 - (x) key communications with Environmental Authorities, including but not limited to all charges, orders, investigations or notices of violation or non-compliance issued against Project Co or relating to the performance of the Project Work or the Project Site under any Environmental Laws;
 - (xi) status of current sediment/erosion and drainage management plans;
 - (xii) description of outstanding environmental issues and/or non-compliances and corrective actions required with associated expected timelines; and

- (xiii) water sampling data completed during reporting period, including but not limited to results of in-situ turbidity, dissolved oxygen and other water quality parameters as required by Environmental Authorities;
- (b) monthly environmental reports in respect of any months during the Term in which Construction is undertaken, which monthly environmental reports shall:
 - (i) outline the Design and Construction undertaken as part of the Project Work during the period, as well as future activities, key environmental issues, monitoring activities, mitigation measures (successes and failures), resolutions to environmental impacts, and how Project Co intends to comply with all applicable Permits; and
 - (ii) include in an appendix thereto all relevant Project meeting notes, including action items, environmental sub-consultant reports, environmental incident reports, specific mitigation plans, and sediment and drainage plans for that period;
- (c) annual environmental reports, which shall summarize environmental conditions and issues with respect to the entire Project throughout the Construction Period and the Operating Period submitted to the Authority no sooner than one month and no later than two weeks prior to the next scheduled Tłıchq ASR Corridor Working Group meeting;
- (d) an environmental Construction completion report, to be submitted 60 days prior to the Target Total Completion Date; and
- (e) Project Co, along with the Design-Builder during the Construction Period and along with the Service Provider during the Operating Period, will attend the Tłıchq ASR Corridor Working Group in order to communicate Project Co related environmental issues and compliance.

PART 3 HAZARDOUS SUBSTANCES

3.1 Restrictions on Use of Hazardous Substances

Unless otherwise expressly required or permitted under this Agreement, Project Co will not install, use or store on the Project Site or adjacent property any materials, equipment or apparatus, the installation, use or storage of which is likely to cause or in fact causes the generation, accumulation or migration of any Hazardous Substance in contravention of any applicable Laws. Without limiting the generality of the foregoing, Project Co will not use the Project Site to dispose of, handle or treat any Hazardous Substances in a manner that would cause the Project Site or adjacent property to become a contaminated site under applicable Laws.

3.2 Dealing with Hazardous Substances

Project Co shall:

- (a) manage any Hazardous Substances on the Project Site in accordance with all applicable Laws and Permits, the Tłıchq ASR Spill Contingency Plan and the Tłıchq ASR Waste Management Plan;
- (b) report, as per <http://www.enr.gov.nt.ca/en/services/spills>, all Releases and potential Releases of Hazardous Substances at or from the Project Site to the Authority, the 24-Hour Northwest Territories Emergency Spill Report Line (867-920-8130) and all applicable Environmental Authorities in accordance with Environmental Laws, applicable Permits and the Tłıchq ASR Spill Contingency Plan;

- (c) report any deposit of a deleterious substance into waters frequented by fish to Environment Canada's Pollution Prevention enforcement branch promptly, and in accordance with applicable Laws;
- (d) fully remediate any Release of Project Co Hazardous Substances to the satisfaction of all applicable Environmental Authorities; and
- (e) submit any and all Hazardous Substances managed by Project Co under the Authority's registered generator of hazardous waste number NTG027.

3.3 Notification to the Authority

In addition to the reporting requirements set out in Section 3.2(b) of this Schedule, Project Co shall promptly notify the Authority Representative of:

- (a) any Release or other occurrence or condition involving Hazardous Substances at or affecting the Project Site, together with full particulars of such Release, occurrence or condition, including the location, time, agencies involved, damages suffered or caused and remedial action taken; and
- (b) any notice, claim, action or other proceeding by any person against Project Co or relating to the performance of the Project Work or the Project Site concerning the Release or alleged Release of any Hazardous Substance.

3.4 Project Co Hazardous Substances

- (a) Notwithstanding any Laws or any other provision in this Agreement to the contrary, Project Co shall remain responsible for all Project Co Hazardous Substances, notwithstanding their incorporation into or affixation to the Project Site or the Project Work and notwithstanding any termination or expiration of the Term.
- (b) Notwithstanding any other provision of this Agreement or this Schedule, Project Co will not be responsible for any Hazardous Substances in, on, below or adjacent to the Lands or any cost, expense or claim arising therefrom, other than Project Co Hazardous Substances.

**APPENDIX 19A
DECISION LETTER**

See Attached.

See attached.



OCT 25 2018

VIA EMAIL

Ms. Joanne Deneron
Chairperson
Mackenzie Valley Environmental Impact Review Board
200 Scotia Centre
BOX 938, 5202-50th AVENUE
YELLOWKNIFE NT X1A 2N7

Dear Ms. Deneron:

Final Wording of Measures and Reasons for Decision for the Government of the Northwest Territories' Tłıchǫ All-Season Road Project (EA1617-01)

As the delegated federal Minister under the *Mackenzie Valley Resource Management Act* (the *Act*) and on behalf of the other responsible ministers, I am writing to convey our final decision on the recommendations contained in the Mackenzie Valley Environmental Impact Review Board's (Review Board) *Report of Environmental Assessment and Reasons for Decision* (the Report of EA) for the Tłıchǫ All-Season Road, dated March 29, 2018. For certainty, the other responsible ministers for this decision are the territorial Minister of Environment and Natural Resources and the federal Minister of Natural Resources Canada as consolidated by the Minister of Crown-Indigenous Relations and Northern Affairs and the Minister of Intergovernmental and Northern Affairs and Internal Trade. All responsible ministers have jurisdiction in relation to the Government of the Northwest Territories' (GNWT, the developer) proposed Tłıchǫ All-Season Road Project (the Project).

In the Report of EA, the Review Board recommended, pursuant to sub-paragraph 128(1)(b)(ii) of the *Act*, that the Project be approved subject to the implementation of 23 measures and the developer commitments as recorded in the Report. These measures and commitments are to prevent significant adverse impacts on the environment, and include cumulative impacts.

As part of the analysis of the Report of EA, the responsible ministers from the GNWT and the Government of Canada (Canada) consulted with Indigenous governments and organizations (IGOs) regarding whether the Report of EA addressed potential adverse impacts of the proposed Project on asserted or established Aboriginal and/or Treaty rights.

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In this process, GNWT and Canada consulted with the Tłı̨chǫ Government, Yellowknives Dene First Nation, North Slave Métis Alliance, Northwest Territories Métis Nation, all Dehcho First Nations, and Nahanni Butte Dene Band. In addition the GNWT also consulted Łutselk'e Dene First Nation, Deninu Kue First Nation, and Mountain Island Métis.

After carefully considering the Report of EA, and the post-Report of EA letter from the North Slave Métis Alliance, responsible ministers, under section 130(1)(b)(ii) of the *Act*, entered into a consult-to-modify procedure with the Review Board. Concurrently, responsible ministers also consulted IGOs on proposed modifications to measures 6-1, 6-2 and 6-3 as well as measures 5-2, 5-6, 8-1, 9-1, and 9-2, as modified by the Tłı̨chǫ Government.

The responsible ministers' collective final decision was made after careful consideration of:

- the March 29, 2018 Report of Environmental Assessment for EA 1617-01;
- comments made by parties to the environmental assessment at the April 17, 2018 Review Board meeting, presenting the Review Board members' findings and measures;
- the April 18, 2018 meeting between Environment and Climate Change Canada, Environment and Natural Resources, and Infrastructure on Measure 10-1;
- the April 30, 2018 letter from the North Slave Métis Alliance to government regarding whether the Report of EA addressed the concerns relating to potential adverse impacts of the Project on the North Slave Métis Alliance's asserted Aboriginal rights;
- the April 30, 2018 letter from GNWT's Department of Infrastructure;
- the June 22, 2018 letter from the Tłı̨chǫ Government to the Review Board outlining the proposed modifications to five measures and the rationale behind the changes;
- the information attached to the letter from responsible ministers to the Review Board on June 22, 2018 initiating consultation with the Review Board on the proposed modifications to measures 6-1, 6-2 and 6-3;
- the June 2018 comments from Environment and Climate Change Canada on the proposed modifications to measures 6-1, 6-2, and 6-3;
- the *Conference of Management Authorities Species at Risk Consensus Agreement Respecting Implementation of the Recovery Strategy for Boreal Caribou in the Northwest Territories* (posted to the Review Board registry July 5, 2018);
- the *Framework for Boreal Caribou Range Planning Discussion Document* (posted to the Review Board registry July 5, 2018);
- comments made by parties to the environmental assessment at the Review Board hosted July 6, 2018 meeting to discuss the proposed modifications to measures made by responsible ministers and the Tłı̨chǫ Government;

- comments in letters on the proposed modifications to the measures made by Yellowknives Dene First Nation (July 17, 2018), Environment and Climate Change Canada (July 18, 2018), North Slave Métis Alliance (July 23, 2018), Wek'èezhì Renewable Resources Board (July 19, 2018), GNWT's Department of Infrastructure (July 23, 2018), and the Tłıchǫ Government (July 23, 2018). The letters were addressed to either the GNWT, the GNWT and Canada, and/or the GNWT, Canada, and Review Board;
- the August 15, 2018 response from the Review Board to the GNWT regarding the consult-to-modify measures; and
- the August 15, 2018 response from the Review Board to the Tłıchǫ Government regarding the consult-to-modify measures.

On September 17, 2018 responsible ministers wrote again to IGOs to consult on the final wording of the proposed modifications to the measures to determine whether the final modifications had the potential to adversely impact Aboriginal and/or Treaty rights. Follow-up phone calls were made to those IGOs who were party to the EA; no responses were received.

The responsible ministers have given full and fair consideration to the views expressed by the IGOs, the Review Board, and all other parties during the environmental assessment and in all correspondence post-release of the Review Boards' Report of EA. Responsible ministers have concluded that all points raised relating to potential adverse impacts from the proposed Project on asserted or established Aboriginal and/or Treaty have been meaningfully and completely consulted on and will be adequately accommodated, as required, through the implementation of the measures and developer's commitments.

Pursuant to sub-paragraph 130(1)(b)(ii) of the *Act*, the responsible ministers have agreed to adopt the recommendation of the Review Board with modifications.

The attached table contains the final approved wording for measures 6-1, 6-2, and 6-3 as modified by responsible measures, and measures 5-2, 5-6, 8-1, 9-1, and 9-2, as modified by the Tłıchǫ Government. The final measures were determined subsequent to consultation with the Review Board, IGOs, and other parties. Also attached is a document that sets out the rationale for modifications to the three measures modified by responsible ministers. For clarity, all other measures are accepted with the original wording as per the March 29, 2018 Report of EA.

I confirm that in making this decision, the responsible ministers have considered the importance of the conservation of the lands, waters, and wildlife in the Mackenzie Valley on which the Project might have an impact, as required under section 131.2 of the *Act*. The well-being of communities was also considered.

The responsible ministers and I also note that the Tłıchǫ Government has made a separate, concurrent decision on the Review Board's Report of EA and modified measures.

The implementation of the measures and commitments will be further discussed in detail during the Wek'èezhìi Land and Water Board land use permitting and water licensing process, review and approval of management plans as required in the Report of EA, public review of the Wildlife Management and Monitoring Plan, and the developer's implementation of the Project. Letters will also be sent to IGOs encouraging their participation in regulatory and other processes as the responsible ministers note that consultation, engagement, and accommodation with respect to potential impacts of the Project on asserted or established Aboriginal and/or Treaty rights does not end with the decision to adopt the Review Board's recommendation with modifications. The above noted regulatory and other processes associated with the Project will allow for IGOs to offer input to help ensure the potential adverse impacts to asserted or established Aboriginal and/or Treaty rights from the Project are addressed.

The responsible ministers have noted the suggestions in the Review Board's Report of EA. I encourage the WLWB, the Department of Infrastructure, and IGOs, as applicable, to give due consideration to these suggestions; the responsible ministers commit to doing the same.

I wish to thank the Review Board for effectively and efficiently discharging its duties under the *Act* in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Louis Sebert', with a long, sweeping flourish extending to the right.

Louis Sebert
Minister, Lands

c. See Distribution List

Distribution List:

The Honourable Robert C. McLeod, Minister of Environment and Natural Resources

The Honourable Carolyn Bennett, Minister of Crown-Indigenous Relations Canada

The Honourable Dominic LeBlanc, Minister of Intergovernmental and Northern Affairs and Internal Trade

The Honourable Amarjeet Sohi, Minister of Natural Resources Canada

The Honourable Wally Schumann, Minister of Infrastructure

Mr. Gary Bohnet, Principal Secretary, Office of the Premier of the Northwest Territories

Grand Chief George Mackenzie, Tłı̨chǫ Government

Grand Chief Gladys Norwegian, Dehcho First Nations

Chief Edward Sangris, Yellowknives Dene First Nation

Chief Ernest Betsina, Yellowknives Dene First Nation

Chief Louis Balsillie, Deninu Kue First Nation

Chief Darryl Boucher-Marlowe, Łutselk'e Dene First Nation

Chief Peter Marcellais, Nahanni Butte Dene Band

President Bill Enge, North Slave Métis Alliance

President Clem Paul, Mountain Island Métis

President Gary Bailey, Northwest Territories Métis Nation

Chief Gerald Antoine, Áı́ıdlı̨ Kəç First Nation

Chief Maurice Moses, Pehdzéh Kı́ First Nation

Chief Stanley Sanguéz, Jean Marie River First Nation

Chief Joachim Bonnetrouge, Deh Gah Got'ie Band

President Danny Peterson, Fort Simpson Métis Local

President Clifford McLeod, Fort Providence Métis Local

Chief Dolphus Jumbo, Sambaa K'e Dene Band

Chief Lloyd Chicot, Ka'a'gee Tu First Nation

Chief Peter Marcellais, Nahanni Butte Dene Band

Chief Becky Cayen, West Point First Nation

President Ken Hudson, Fort Smith Métis Nation

President Trevor Beck, Hay River Métis Council

President Arthur Beck, Fort Resolution Métis Council

Mr. Mark Cliffe-Phillips, Executive Director, Mackenzie Valley Environmental Impact Review Board

Mr. Ryan Fequet, Executive Director, Wek'èzhii Land and Water Board

Measure #5-2 (Parts 1,2,3) Original Wording Measure 5-2: Tłchq monitoring, engagement and reporting of adverse health and well-being impacts	Final Approved Wording Measure 5-2: Tłchq monitoring, engagement and reporting of adverse health and well-being impacts
<p>5-2, Part 1: Tłchq monitoring of adverse health and well-being impacts</p> <p>The Tłchq Government and Community Government of Whatì, with the support of the developer, and in collaboration with the Tłchq Community Services Agency, will establish and implement a framework to monitor and evaluate health and well-being impacts associated with the road, and will adaptively manage health and well-being impacts as described in Measure 5-1 and following guidance in Appendices B and C, for each year of construction and for a minimum of ten years of operations.</p> <p>Following ten years of Project operations, the Community Government of Whatì and Tłchq Government in collaboration with the developer, will re-evaluate the need for, and frequency of, monitoring, engagement, reporting and adaptive management.</p> <p>If the monitoring of harvest success rates and availability of country foods in Whatì (in Measure 5-1, Part 1, above) indicates a declining trend in harvest success and the consumption of country foods, the Tłchq Government and the Community Government of Whatì will develop and implement a strategy to improve availability of country foods for those most affected.</p>	<p>5-2, Part 1: Tłchq monitoring of adverse health and well-being impacts</p> <p>The Tłchq Government, Government of the Northwest Territories, Tłchq Community Services Agency and Community Government of Whatì, with the support of the developer, will establish and implement a framework to monitor and evaluate health and well-being impacts associated with the road, and will adaptively manage health and well-being impacts as described in Measure 5-1 and following guidance in Appendices B and C, for each year of construction and for a minimum of ten years of operations.</p> <p>Following ten years of Project operations, the Community Government of Whatì, Government of the Northwest Territories, Tłchq Community Services Agency and Tłchq Government in collaboration with the developer, will re-evaluate the need for, and frequency of, monitoring, engagement, reporting and adaptive management.</p> <p>If the monitoring of harvest success rates and availability of country foods in Whatì (in Measure 5-1, Part 1, above) indicates a declining trend in harvest success and the consumption of country foods, the Tłchq Government and the Community Government of Whatì will develop and implement a strategy to address the decline in the availability of country foods for those most affected.</p>
<p>5-2, Part 2: Public engagement The Tłchq Government and Community Government of Whatì, with the participation of the</p>	<p>5-2, Part 2: Public engagement The Tłchq Government, Government of the Northwest Territories, Tłchq Community Services</p>

<p>developer, the P3 operator and the Tłchq Community Services Agency, will meet with the residents of Whatì at least once per year to discuss:</p> <ul style="list-style-type: none"> a) priority health and well-being impacts at the individual, family and community level related to the Project; b) the effectiveness of programs or mitigations used to address these impacts; and, c) the need to adjust programs or implement additional mitigations. 	<p>Agency and Community Government of Whatì, with the participation of the developer, and the P3 operator, will meet with the residents of Whatì at least once per year to discuss:</p> <ul style="list-style-type: none"> a) priority health and well-being impacts at the individual, family and community level related to the Project; b) the effectiveness of programs or mitigations used to address these impacts; and, c) the need to adjust programs or implement additional mitigations
<p>5-2, Part 3: Reporting</p> <p>The Tłchq Government and Community Government of Whatì, with the support of the developer, will prepare and make publicly available an annual progress report on their efforts to mitigate impacts on health and well-being to the Community of Whatì. The report will describe engagement, current management and plans for future adaptive management.</p> <p>The findings of the report will be presented to the residents of Whatì, provided to the Whatì Inter-Agency Committee and provided to the Tłchq All-Season Road Corridor Working Group (see Measure 14-3).</p>	<p>5-2, Part 3: Reporting</p> <p>The Tłchq Government, Government of the Northwest Territories, Tłchq Community Services Agency and Community Government of Whatì, with the support of the developer, will prepare and make publicly available an annual progress report on their efforts to mitigate impacts on health and well-being to the Community of Whatì. The report will describe engagement, current management and plans for future adaptive management.</p> <p>The findings of the report will be presented to the residents of Whatì, provided to the Whatì Inter-Agency Committee and provided to the Tłchq All-Season Road Corridor Working Group (see Measure 14-3).</p>
<p>Measure #5-6 Original Wording</p> <p>Measure 5-6 Include Behchokò in accident response planning</p>	<p>Final Approved Wording</p> <p>Measure 5-6: Include Behchokò in accident response planning</p>
<p>The Government of the Northwest Territories will develop and implement an effective ground ambulance and highway rescue action plan along the road that will be designed in collaboration with the Tłchq Government, Community</p>	<p>The Government of the Northwest Territories will develop and implement an effective ground ambulance and highway rescue action plan along the road that will be designed in collaboration with the Tłchq Government, Tłchq Community Services</p>

Government of Whatì, and Community Government of Behchokò.	Agency, Community Government of Whatì, and Community Government of Behchokò.
Measure #6-1 Original Wording	Final Approved Wording
Measure 6-1: Implementation of the Recovery Strategy for the Boreal Caribou in the NWT, and required range plans, for boreal caribou affected by the Project	Measure 6-1: Implementation of the Recovery Strategy for the Boreal Caribou in the NWT, and required range plans, for boreal caribou affected by the Project
6-1, Part 1: Develop and implement range plans The GNWT-ENR will develop and implement a range plan for boreal caribou (tòdzı) in the North Slave region, as required by the Recovery Strategy for the Boreal Caribou in the NWT. The GNWT-ENR will also develop and implement a range plan for any other region where boreal caribou (tòdzı) may experience impacts related to the Project. The range plan(s) will be developed collaboratively with Aboriginal groups and co-management partners. The range plan(s) will be completed before the Project is opened for public use. The GNWT-ENR will manage the amount of undisturbed habitat in the North Slave region to achieve the National Recovery Strategy recommended threshold for critical habitat, or a threshold proposed by the GNWT-ENR and approved by Environment and Climate Change Canada.	6-1, Part 1: Develop and implement range plans The GNWT-ENR will develop and implement a range plan for boreal caribou (tòdzı) in the North Slave portion of the NT1 range, as required by the <i>Recovery Strategy for the Boreal Caribou in the NWT</i> . The GNWT-ENR will also develop and implement a range plan for any other region where boreal caribou (tòdzı) may experience impacts related to the Project. The range plan(s) will be developed collaboratively with Aboriginal groups and co- management partners. GNWT-ENR will complete and submit a range plan for the North Slave portion of the NT1 range to the Wek'èezhì Renewable Resources Board for review under section 12.5.1 of the Tłıchò Agreement a minimum of 90 days before the Project is opened for public use. The GNWT will work collaboratively with the Tłıcho Government and other relevant Aboriginal and federal land management authorities to manage habitat to achieve the habitat disturbance threshold set out in this range plan to the greatest extent possible. The GNWT will consult with applicable Aboriginal groups as required.
6-1, Part 2: Information and adaptive	6-1, Part 2: Information and adaptive

<p>management requirements</p> <p>For the area identified by the range plan(s) in measure 6-1, part 1 the following must be included in the development and implementation of the Recovery Strategy for the Boreal Caribou in the NWT and range plan(s):</p> <ul style="list-style-type: none"> • monitoring of population trends, abundance and distribution; • determination of population thresholds and triggers to inform adaptive management; • harvest monitoring and reporting including Aboriginal harvesting and non- Aboriginal hunting; • determining sustainable harvest levels; • identifying critical habitat; • ongoing habitat disturbance monitoring; • setting and meeting critical habitat objectives for each range; and, • monitoring predator populations including densities, movements and predation rates. <p>Monitoring will meet the requirement of Appendix C. GNWT-ENR will work with the developer to adaptively manage Project impacts on boreal caribou (t̄qdz̄ı) (following guidance in Appendix B).</p>	<p>management requirements</p> <p>For the area identified by the range plan(s) in measure 6-1, part 1 the following must be included in the development and implementation of the <i>Recovery Strategy for the Boreal Caribou in the NWT</i> or range plan(s):</p> <ul style="list-style-type: none"> • monitoring to determine population trends, abundance and distribution; • determination of population thresholds and triggers to inform adaptive management; • harvest monitoring and reporting; • determining sustainable harvest levels; • identifying critical habitat; • ongoing habitat disturbance monitoring; • setting disturbance thresholds for critical habitat and, to the greatest extent possible, managing habitat towards meeting these disturbance thresholds for each range planning region; and, • monitoring predator populations including densities, movements and predation rates. <p>Monitoring will meet the requirements of Appendix C. GNWT-ENR will work with the developer to adaptively manage Project impacts on boreal caribou (t̄qdz̄ı) (following guidance in Appendix B).</p>
<p>Measure #6-2 Original Wording</p> <p>Measure 6-2: Temporary no-hunting corridor for boreal caribou (t̄qdz̄ı)</p>	<p>Final Approved Wording</p> <p>Measure 6-2: Determine sustainable harvest levels for boreal caribou (t̄qdz̄ı) and implement measures to ensure harvest is sustainable if required</p>
<p>To mitigate significant adverse impacts from the project on boreal caribou (t̄qdz̄ı), the GNWT-ENR and T̄ıch̄q Government</p>	<p>To mitigate significant adverse impacts from the project on boreal caribou (t̄qdz̄ı), the GNWT-ENR in collaboration with Aboriginal</p>

<p>will submit a wildlife management proposal under section 12.5.1 of the Tłıchǵ Agreement to the Wek'èezhì Renewable Resources Board. The proposal will establish a temporary no-hunting corridor to reduce the take of boreal caribou (tǵdzı) along the Project route. Only individuals exercising section 35 rights will be allowed to harvest boreal caribou (tǵdzı) in this corridor.</p> <p>The corridor will be established prior to the road being opened to the public. At a minimum, this hunting restriction will remain in place until the Recovery Strategy for Boreal Caribou in the Northwest Territories is fully implemented in the area of the range plan(s) required by measure 6-1, and sustainable harvest levels for the North Slave region are determined.</p>	<p>groups and in accordance with the requirements of the Tłıchǵ Agreement, will determine sustainable harvest levels for boreal caribou in the North Slave portion of the NT1 range prior to the road being opened to the public.</p> <p>In that same period, if current harvest levels are determined to exceed sustainable levels, management action will be undertaken in conjunction with the Tłıchǵ Government.</p> <p>If harvest levels are observed to increase towards unsustainable levels once the road is opened to the public, GNWT-ENR and the Tłıchǵ Government will submit a wildlife management proposal under section 12.5.1 of the Tłıchǵ Agreement to the Wek'èezhì Renewable Resources Board for the timely implementation of any measures necessary to ensure boreal caribou harvest in the region is kept within sustainable levels.</p> <p>Such measures may include the establishment of a no-hunting corridor along the Project route.</p>
<p>Measure 6-3 Original Wording</p> <p>Measure 6-3: Habitat offset and restoration plan</p>	<p>Final Approved Wording</p> <p>Measure 6-3: Habitat offset and restoration plan</p>
<p>The developer will offset effective boreal caribou (tǵdzı) habitat lost because of disturbance from the Project. The offset calculation will, at a minimum, be based on the area of the right of way with a 2500 m buffer on each side.</p> <p>The developer, with the involvement of GNWT-ENR, will prepare and implement a habitat offset plan. This plan will describe how the required habitat offset area (calculated as set out above) will be achieved. In preparing the plan, the</p>	<p>The developer will offset effective boreal caribou (tǵdzı) habitat lost because of disturbance from the Project.</p> <p>The developer, with the involvement of GNWT-ENR, will prepare and implement a habitat offset plan. This plan will describe how the required habitat offset area will be determined and how it will be achieved. In preparing the plan, the developer will collaborate with Tłıchǵ Government and the Wek'èezhì Renewable Resources Board, and consult with the following participants</p>

<p>developer will collaborate with Tłchq Government and the Wek'èezhì Renewable Resources Board, and consult with the following participants to this environmental assessment:</p> <ul style="list-style-type: none"> • Environment and Climate Change Canada; • Yellowknives Dene First Nation; and, • North Slave Métis Alliance. <p>The developer will make funding available to the parties to support this consultation and collaboration.</p> <p>The developer will submit a draft and a final plan as described below. Once approved, the developer will operate in accordance with the plan.</p> <p>The developer will submit a draft plan to the Wek'èezhì Renewable Resources Board for review under section 12.5.1 of the Tłchq Agreement, a minimum of 90 days prior to commencement of construction. The developer will submit the final habitat offset plan to the Wek'èezhì Renewable Resources Board for review under section 12.5.1 of the Tłchq Agreement, as soon as possible, and no later than 90 days prior to public use of the road. This final plan will include, at a minimum:</p> <ul style="list-style-type: none"> • the goals and objectives of the plan; • a discussion on the expected effectiveness of mitigations and offsets; • a decision framework to prioritize restoration areas, mitigations, and offsets, including references to the research on which the decision framework was based; • a discussion of how any proposed mitigations or offsets align with the Recovery Strategy for the Boreal Caribou in the NWT and range 	<p>to this environmental assessment:</p> <ul style="list-style-type: none"> • Environment and Climate Change Canada; • Yellowknives Dene First Nation; and, • North Slave Métis Alliance. <p>The developer will make funding available to the parties to support this consultation and collaboration.</p> <p>The developer will submit a draft and a final plan as described below. Once approved, the developer will operate in accordance with the plan.</p> <p>The developer will submit a draft plan to the Wek'èezhì Renewable Resources Board a minimum of 30 days prior to commencement of construction. The developer will submit the final habitat offset plan to the Wek'èezhì Renewable Resources Board for review under section 12.5.1 of the Tłchq Agreement, as soon as possible, and no later than 90 days prior to public use of the road. This final plan will include, at a minimum:</p> <ul style="list-style-type: none"> • the goals and objectives of the plan; • a discussion on the expected effectiveness of mitigations and offsets; • a decision framework to prioritize restoration areas, mitigations, and offsets, including references to the research on which the decision framework was based; • a discussion of how any proposed mitigations or offsets align with the Recovery Strategy for the Boreal Caribou in the NWT and range plans; • details of proposed ways to offset habitat disturbance including restoration sites, mitigation measures, offsets, forest fire fighting
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<ul style="list-style-type: none"> plans; • details of proposed ways to offset habitat disturbance including restoration sites, mitigation measures, offsets, forest fire fighting policies, or habitat management approaches; • a description of the spatial scale of the proposed offset, the habitat quality and type, site specific restoration activities, and any challenges; • a timeline for offsetting; • a quantitative and qualitative assessment of the total area of boreal caribou habitat proposed for restoration and the timeframe required for restoration; • a summary of consultation feedback that was integrated into the draft and final plans; a description of any Traditional Knowledge that was considered in the development of the plan, and how it was incorporated; and, • a description of any resources provided to Aboriginal groups to support their involvement in the drafting of the final plan, and for any involvement in the implementation of the plan. 	<ul style="list-style-type: none"> policies, or habitat management approaches; • a description of the spatial scale of the proposed offset, the habitat quality and type, site specific restoration activities, and any challenges; • a timeline for offsetting; • a quantitative and qualitative assessment of the total area of boreal caribou habitat proposed for restoration and the timeframe required for restoration; • a summary of consultation feedback that was integrated into the draft and final plans; • a description of any Traditional Knowledge that was considered in the development of the plan, and how it was incorporated; and, • a description of any resources provided to Aboriginal groups to support their involvement in the drafting of the final plan, and for any involvement in the implementation of the plan.
<p>Measure #8-1 Original Wording</p> <p>Measure 8-1: Integrated Fisheries Management Plan</p>	<p>Final Approved Wording</p> <p>Measure 8-1: Fisheries Management Plan</p>
<p>Fisheries and Oceans Canada and the Tłıchǵ Government, with the support of the developer, will develop and implement an Integrated Fisheries Management Plan for fisheries in the project area. This will prevent significant adverse impacts from additional fishing pressure that will likely result from increased access via the Project. In designing the plan, Fisheries and Oceans Canada and the Tłıchǵ Government will</p>	<p>Fisheries and Oceans Canada and the Tłıchǵ Government, with the support of the developer, will develop and implement Fisheries Management Plan for fisheries in the project area. This will prevent significant adverse impacts from additional fishing pressure that will likely result from increased access via the Project. In designing the plan, Fisheries and Oceans Canada will engage with the Tlıcho</p>

<p>engage the Wek'èezhì Renewable Resources Board, the Community of Whatì and other affected Aboriginal groups. Fisheries and Oceans Canada and the Tłchq Government will submit the plan to the Wek'èezhì Renewable Resources Board for review under section 12.5.1 of the Tłchq Agreement.</p> <p>As part of this plan, Fisheries and Oceans Canada and the Tłchq Government, along with the above organizations, will complete the following work:</p> <ul style="list-style-type: none"> a) Complete work to understand baseline fishery and harvest conditions. This work will include, at a minimum: <ul style="list-style-type: none"> i. assessing yield and harvest; ii. identifying management issues; iii. establishing fisheries objectives; and, iv. clarifying management and stewardship arrangements. b) Design and implement, with support of the developer, mitigation to prevent or manage project impacts (which may include a regulatory and compliance plan). c) Design and implement monitoring plans, meeting the requirements of Appendix C. d) Design and implement an adaptive management plan (following guidance in Appendix B). <p>Fisheries and Oceans Canada and the Tłchq Government will provide opportunity for the working group (required by Measure 14-3) and other interested parties to review and comment</p>	<p>Government, the Wek'èezhì Renewable Resources Board, the Community of Whatì and other affected Aboriginal groups. Fisheries and Oceans Canada and the Tłchq Government will submit the plan to the Wek'èezhì Renewable Resources Board for review under section 12.5.1 of the Tłchq Agreement.</p> <p>As part of this plan, the following work will be by completed Fisheries and Oceans Canada, and Tlıcho Government:</p> <ul style="list-style-type: none"> a) Complete work to understand baseline fishery and harvest conditions. This work will include, at a minimum: <ul style="list-style-type: none"> i. assessing yield and harvest; ii. identifying management issues; iii. establishing fisheries objectives; and, iv. clarifying management and stewardship arrangements. b) Design and implement, with support of the developer, mitigation to prevent or manage project impacts (which may include a regulatory and compliance plan). c) Design and implement monitoring plans, meeting the requirements of Appendix C. d) Design and implement an adaptive management plan (following guidance in Appendix B). <p>Fisheries and Oceans Canada and the Tłchq Government will provide opportunity for the working group (required by Measure 14-3) and other interested parties to review and comment on this plan.</p>
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on this plan.	
Measure #9-1 Original Wording	Final Approved Wording
Measure 9-1: Monitoring harvest and managing wildlife to maintain successful harvest	Measure 9-1: Monitoring harvest and managing wildlife to maintain successful harvest
<p>9-1, Part 1: Aboriginal harvest monitoring and reporting program</p> <p>To mitigate impacts on Aboriginal harvesters and to effectively inform management of wildlife populations in the area of the Project, GNWT-ENR will work together with the Tłıchǫ Government and Wek'èezhì Renewable Resources Board to develop and implement an Aboriginal harvest monitoring and reporting program.</p> <p>The harvest monitoring and reporting program will:</p> <ul style="list-style-type: none"> a) focus on boreal caribou, barren-ground caribou and moose population trends in areas accessed by winter roads and trails from the Project; b) be community-based and involve collaboration between Tłıchǫ Government and the developer; c) involve Traditional Knowledge holders and harvesters in monitoring wildlife harvesting trends; and, d) report on wildlife harvesting numbers and trends from monitoring checkpoints and/or other harvest monitoring methods annually to the Tłıchǫ Government, Wek'èezhì Renewable Resources Board, GNWT-ENR and other wildlife co-management partners. <p>The developer will fund this harvest monitoring and reporting related to the project. The harvest monitoring will meet</p>	<p>9-1, Part 1: Aboriginal harvest monitoring and reporting program</p> <p>To mitigate impacts on Aboriginal harvesters and to effectively inform management of wildlife populations in the area of the Project, GNWT-ENR will work together with the Tłıchǫ Government and Wek'èezhì Renewable Resources Board to develop and implement a non-mandatory Aboriginal harvest monitoring and reporting program.</p> <p>The harvest monitoring and reporting program will:</p> <ul style="list-style-type: none"> a) focus on boreal caribou, barren-ground caribou and moose population trends in areas accessed by winter roads and trails from the Project; b) be community-based and involve collaboration between Tłıchǫ Government and the developer; c) involve Traditional Knowledge holders and harvesters in monitoring wildlife harvesting trends; and, d) report on wildlife harvesting numbers and trends from monitoring checkpoints and/or other harvest monitoring methods annually to the Tłıchǫ Government, Wek'èezhì Renewable Resources Board, GNWT-ENR and other wildlife co-management partners. <p>The developer will fund this harvest monitoring and reporting related to the project. The harvest monitoring will meet</p>

the requirements of Appendix C.	the requirements of Appendix C.
<p>9-1, Part 2: Use monitoring to inform management</p> <p>GNWT-ENR, in collaboration with the Tłıchǵ Government and Wek'èezhì Renewable Resources Board, will consider wildlife management actions and mitigations based on the results of the monitoring above and the information collected by the GNWT's existing Resident Hunting Reporting Program, to help ensure sustainable Aboriginal harvesting of wildlife and report on monitoring results and management actions in the annual reviews of the Wildlife Management and Monitoring Plan.</p>	<p>9-1, Part 2: Use monitoring to inform management</p> <p>GNWT-ENR, in collaboration with the Tłıchǵ Government and Wek'èezhì Renewable Resources Board, will consider wildlife management actions and mitigations based on the results of the monitoring above and the information collected by the GNWT's existing Resident Hunting Reporting Program, to help ensure sustainable Aboriginal harvesting of wildlife and report on monitoring results and management actions in the annual reviews of the Wildlife Management and Monitoring Plan.</p>
Measure #9-2 Original Wording	Final Approved Wording
Measure 9-2: Cultural sensitivity in work camps and communities	Measure 9-2: Cultural sensitivity in work camps and communities
<p>To mitigate the Project's impact on Tłıchǵ culture and well-being of Tłıchǵ residents, the developer will require that the P3 operator has culturally appropriate and specific policies in accordance with those set out by the Tłıchǵ Government, GNWT departments and federal government. The P3 operator will have policies and programs in place for employee cultural orientation, developed by the Tłıchǵ Government, for all non-Tłıchǵ residents, including awareness of special cultural norms and practices.</p>	<p>To mitigate the Project's impact on Tłıchǵ culture and well-being of Tłıchǵ residents, the developer will require that the P3 operator has culturally appropriate and specific policies in accordance with those set out by the Tłıchǵ Government, GNWT departments and federal government. The P3 operator will have policies and programs in place for employee cultural orientation, approved by the Tłıchǵ Government, for all non- Tłıchǵ workers, including awareness of special cultural norms and practices.</p>

APPENDIX 19B
ENVIRONMENTAL ASSESSMENT TABLE OF COMMITMENTS AND ASSURANCE

See Attached.

Appendix 19B – Table of Commitments

Table 1. GNWT Commitments Related to Th̄ch̄q All Season Road Construction.

No.	Discipline	Subject	Source	Commitment Description – Construction Phase	Responsible Party
1	Aquatic Environment	Blasting	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Blasting is not likely to be needed to clear the route. Should explosives be required for blasting within borrow sources or along the proposed corridor in close proximity to fish-bearing waters, blasting plans designed to avoid or minimize blasting impacts to fish and fish habitat will be provided to the appropriate authorities.	Project Co
2	Aquatic Environment	Blasting	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Blasting operations will avoid or minimize impacts to fish by following DFO Measures to Avoid Causing Harm to Fish and Fish Habitat Including Aquatic Species at Risk and DFO Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters, including setback distances from fish-bearing water bodies and avoiding use of explosives in or near water. No explosive will be detonated in or near fish habitat that produces, or is likely to produce, an instantaneous pressure change greater than 50 kPa in fish-bearing water in efforts to avoid direct impacts to fish.	Project Co
3	Aquatic Environment	Blasting	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	To reduce the potential for introducing nutrients into water bodies or watercourses, ammonia management best practices will be implemented during storage and transport of ammonia explosives, should ammonium nitrate explosives be used.	Project Co
4	Aquatic Environment	Blasting	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	To reduce the potential for introducing blasting residue into fish habitat, only the required amount of explosive will be used as necessary for the amount of rock or borrow material to be blasted. The use of ammonium nitrate-fuel oil mixtures will not occur in or within 30 m of fish bearing water (FFHPP 2016 [PR#7, Appendix X]).	Project Co
5	Aquatic Environment	Camps	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	For large camps, erosion and sediment control structures will be installed where needed to avoid impacts to fish habitat (FFHPP 2016 [PR#7, Appendix X]).	Project Co
6	Aquatic Environment	Camps	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Sewage waste generated from large camp construction/use will be stored in a leak-free container before being transported to an approved disposal facility to avoid impacting fish and fish habitat (FFHPP 2016 [PR#7, Appendix X]).	
7	Aquatic Environment	Camps	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	All materials brought to camp sites will be removed at camp closure to avoid impacts to fish and fish habitat. Some materials may be incinerated (FFHPP 2016 [PR#7, Appendix X]).	
8	Aquatic Environment	Erosion and Sediment Control	WLWB Preliminary Screening	GNWT will be using the ESC Manual as guidance in the development of an ESC plan, including monitoring, reporting and adaptive management. These plans will be finalized by the contractor ensuring the contractor is fully aware and capable of the requirements in that plan, while GNWT provides oversight while remaining accountable	Project Co
9	Aquatic Environment	Erosion and Sediment Release	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Sediment releases into watercourses will be mitigated by using isolation methods when completing in-stream construction. Isolation methods will be used for work below the high water mark for streams with flowing water at the time of construction (DFO Measures to Avoid Causing Harm to Fish and Fish Habitat).	Project Co
10	Aquatic Environment	Erosion and Sediment Release	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Where isolations are required for construction in flowing watercourses, bypass pumps will pump water through or onto a diffuser to disperse the force of the pumped water and avoid scour of the watercourse bed and banks. Any grey water removed from the isolation will be pumped away from the watercourse and onto a vegetated area to prevent sediment from reaching the watercourse (DFO Measures to Avoid Causing Harm to Fish and Fish Habitat). Where an adequate vegetated area is not available, grey water will be filtered before returning to the watercourse or pumped into a container and removed from site.	Project Co
11	Aquatic Environment	Erosion and Sediment Release	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Additional erosion mitigation (i.e., rock reinforcement or armouring) will be applied at watercourse crossings where needed to minimize future erosion, as per the GNWT Erosion and Sediment Control Manual (PR#7, Appendix W).	Project Co
12	Aquatic Environment	Erosion and Sediment Release	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Materials installed below the high water mark (i.e., riprap) will be clean to avoid adding deleterious substances to watercourses (DFO Measures to Avoid Causing Harm to Fish and Fish Habitat).	Project Co
13	Aquatic Environment	Erosion and Sediment Release	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Disturbed areas along the streambanks will be stabilized and allowed to re-vegetate upon completion of work to minimize future erosion (FFHPP 2016 [PR#7, Appendix X]).	Project Co
14	Aquatic Environment	Erosion and Sediment Release	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Environmental Monitors will be onsite during construction to monitor the installation of crossing structures. Turbidity monitoring will be conducted at crossings with flowing water at the time of construction as per the In-Field Water Analysis Plan to meet regulatory requirements (PR#7, Appendix AA).	Project Co
15	Aquatic Environment	Erosion and Sediment Release	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Removed vegetation/debris will be removed from site to prevent them entering the watercourse, and will be managed according to the Erosion and Sediment Control Plan.	Project Co
16	Aquatic Environment	Erosion and Sediment Release	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Debris and excess materials resulting from construction will be removed from the work site to prevent them reaching water bodies, as per the GNWT Erosion and Sediment Control Manual (PR#7, Appendix W).	Project Co
17	Aquatic Environment	Erosion and Sediment Release	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	To reduce potential for sediment release, areas for cleaning equipment will be a minimum of 30 m away from watercourses and will not drain into or toward watercourses.	Project Co
18	Aquatic Environment	Erosion and Sediment Release	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Excess soils resulting from construction will be removed from the work site to prevent them reaching water bodies and impacting fish and fish habitat.	Project Co
19	Aquatic Environment	Erosion and Sediment Release	WLWB Preliminary Screening	The In-Field Analysis Plan can be updated to indicate the management actions that would be implemented depending on the difference between the upstream and downstream turbidity levels (including immediate response triggers such as more frequent monitoring and assessment of mitigation measure). The In-Field Water Analysis Plan will be updated to include an appendix with the locations of the watercourse crossings and associated station numbers to be set up at the commencement of construction. The In-Field Water Analysis Plan will be updated to include one set of confirmatory TSS (during construction around immediate water crossing) to identify the ballpark relationship of TSS and turbidity at each site.	Project Co
20	Aquatic Environment	Erosion and Sediment Release	WLWB Preliminary Screening	Water quality grab samples upstream and downstream of the four major water crossings can be added to the In-Field Water Analysis Plan to demonstrate best water quality management practices. The plan will be updated to include grab samples of TSS at select sites/time periods over the course of construction to ensure turbidity testing remains comparable. Baseline data will be collected upstream of the construction activity at the same time as the downstream samples to provide surety of any difference in turbidity levels.	Project Co
21	Aquatic Environment	Fisheries	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	In-stream works where water is present will be conducted to avoid critical periods for spring-spawning fish, such as Arctic Grayling. In-stream work completed during the open water season will only take place between July 16 and September 14 as identified in the DFO Fish Timing Windows for the NWT to avoid impacting fish during critical life stages. In-stream works will be conducted when watercourses are dry or frozen to bed where possible.	Project Co
22	Aquatic Environment	Fisheries	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Disturbance of fish and fish habitat below the high water mark will be minimized by using snow bridges/ice fills or temporary bridges (with no fill below the high water mark) as construction access and work platforms instead of fording (DFO Measures to Avoid Causing Harm to Fish and Fish Habitat).	Project Co

23	Aquatic Environment	Fisheries	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Pumping rates will be matched to watercourse flow rates in order to maintain fish habitat upstream and downstream of isolations (DFO Measures to Avoid Causing Harm to Fish and Fish Habitat). Backup pumps will be kept available to ensure flows and fish habitat are maintained in the event of a malfunction of the primary pump(s).	Project Co
24	Aquatic Environment	Fisheries	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	To avoid fish entrainment/impingement, fish screens on pumps will be designed according to DFO guidelines, kept clean and free of ice and debris, and inspected for damage prior to each withdrawal. A backup fish screen will be kept available to be used if the primary screen is frozen or damaged (DFO Measures to Avoid Causing Harm to Fish and Fish Habitat).	Project Co
25	Aquatic Environment	Fisheries	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Culverts will be designed and installed to avoid creating fish movement barriers and to meet normal flow velocities for all seasons; culvert slopes will be optimized during construction to reduce velocities at the outlet (FFHPP 2016 [PR#7, Appendix X]).	Project Co
26	Aquatic Environment	Fisheries	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Temporary snowfill/ice bridge crossings will be constructed to not restrict or block flow at any time to maintain fish habitat and ensure fish passage. Prior to spring break-up, ice bridges will be physically v-notched in the middle to allow it to melt from the centre (FFHPP 2016 [PR#7, Appendix X]).	Project Co
27	Aquatic Environment	Fisheries	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Project staff will not be allowed to hunt or fish during construction or operations while on their work rotation to minimize overexploitation of fish populations.	Project Co
28	Aquatic Environment	Fisheries	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Only water sources identified using DFO Protocol for Winter Water Withdrawal in the Northwest Territories will be used for winter withdrawal to avoid impacts to fish and fish habitat. Withdrawal volumes and rates will not exceed guidelines in order to maintain fish habitat.	Project Co
29	Aquatic Environment	Fisheries	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	All water use will be monitored and tracked and, if required, regulated through a water license to avoid impacts to fish habitat (FFHPP 2016 [PR#7, Appendix X]).	Project Co
30	Aquatic Environment	Seepage	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Runoff from quarry areas will be directed away from fish habitat and sediment control measures will be installed. Where natural topography is modified for quarry areas, natural contours will be reconstructed and the area will be revegetated upon closure.	Project Co
31	Aquatic Environment	Seepage	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	The GNWT commits to avoid using borrow sources that have been characterized as having high or moderate acid rock drainage or metal leaching potential to avoid impacting fish habitat with deleterious substances; testing will verify acid rock drainage and metal leaching potential.	Project Co
32	Aquatic Environment	Seepage	WLWB Preliminary Screening	Should concrete be required (and cannot be precast), un-cured/partly cured concrete will be isolated from watercourses.	Project Co
33	Aquatic Environment	Seepage	WLWB Preliminary Screening	The Quarry Operations Plan will follow Lands' Guidelines. Should pit drainage be planned, appropriate management techniques will be utilized. This includes designing and constructing the quarry to drain naturally without ponding or the requirement for pumping, ensuring water exists naturally through diffuse flow back into the natural environment with the avoidance of distinct run-off channels and ensuring buffer zones of undisturbed land and vegetation for water to flow exists.	Project Co
34	Aquatic Environment	Seepage	WLWB Preliminary Screening	A consultant will be hired to analyze laboratory results and will indicate what parameters should be analyzed prior to sending samples to the laboratory during in-field geotechnical investigations.	Project Co or their consultant
35	Aquatic Environment	Spills	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Spill Contingency Plan (PR#7) will be developed and implemented, including ready access to an emergency spill clean-up kit for cleaning up any spills during construction or maintenance of the TASR. Drivers and construction crews on site will be familiar with the spill contingency plan and appropriately qualified to minimize impacts resulting from spills and leaks.	Project Co
36	Aquatic Environment	Spills	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Fuels, lubricants and hydraulic fluids for equipment used will be carefully handled to prevent spillage, properly secured against unauthorized access or vandalism, provided with spill containment and disposed of in accordance with the Waste Management Plan to avoid spillage impacts on fish and fish habitat. Fuel caches will be located on flat stable terrain or in natural depressions away from slopes to water bodies, and caches will be clearly marked and drums will be placed on their sides and spaced to facilitate inspections (FFHPP 2016 [PR#7, Appendix X]).	Project Co
37	Aquatic Environment	Spills	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Construction equipment, machinery, and vehicles will be regularly maintained to avoid accidental spills.	Project Co
38	Aquatic Environment	Spills	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Machinery used for work below the high water mark will use only biodegradable hydraulic fluid, and drip pans/trays will be placed under all equipment while not in use (FFHPP 2016 [PR#7, Appendix X]).	Project Co
39	Aquatic Environment	Spills	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	All stationary fuel storage containers will have integrated 110% secondary containment, and refueling and servicing of machinery and storage of fuel and other materials for the machinery will occur a minimum of 30 m away from any water body, where possible, to avoid impacts to fish and fish habitat (FFHPP 2016 [PR#7, Appendix X]).	Project Co
40	Aquatic Environment	Spills	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Equipment used in or near water will be clean and free of oil, grease or other deleterious substances. Vehicles travelling on the road will be properly loaded and loads appropriately covered where necessary (FFHPP 2016 [PR#7, Appendix X]).	Project Co
41	Aquatic Environment	Spills	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Accidental spill impacts will be minimized by posting and enforcing speed limits on the road.	Project Co
42	Aquatic Environment	Spills	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Any spills will be reported immediately to the NWT Spill Line to minimize spillage impacts, as per the Spill Contingency Plan (FFHPP 2016 [PR#7, Appendix X]).	Project Co
43	Aquatic Environment	Spills	WLWB Preliminary Screening	In instances where fuel storage does not already incorporate 110% containment (such as drums and jerry cans vs. the larger double-walled storage tanks), containment pads will be provided for all fuel storage, dispensing and transfer sites	Project Co
44	Aquatic Environment	Spills	WMMP	Construction and Maintenance vehicles will be equipped with spill kits and fuelled at least 30 m away from water bodies unless otherwise specified by the Inspector.	Project Co
45	Aquatic Environment	Water crossings	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Culverts will be embedded as appropriate to maintain species and habitat present, and will be installed parallel to the existing channel to minimize changes to channel morphology.	Project Co
46	Aquatic Environment	Water crossings	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Water crossing structures (e.g., culverts, bridges, ice bridges/snow fills) will be installed and maintained using best management practices (DFO Measures to Avoid Causing Harm to Fish and Fish Habitat) and following environmental approval conditions to minimize impacts to fish and fish habitat.	Project Co
47	Aquatic Environment	Water crossings	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Permanent bridges will not contact water bodies to minimize impacts below the ordinary high water mark, bridge abutment installation will be outside of the active channel. Pier installation will be outside the active channel and within the floodplain (1 in 5 year flood).	Project Co
48	Aquatic Environment	Water crossings	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Impacts to riparian vegetation at temporary crossings will be minimized by using structures such as snow fills and single-span bridges instead of fording, especially where banks are susceptible to erosion.	Project Co

49	Socio-Economics and Land Use	Culture	ASR Section 5 Assessment of Socio-Economic effects	Implement the Archaeological Site Find Protocol to provide guidance to employees and contractors conducting ground disturbing operations	Project Co
50	Socio-Economics and Land Use	Labour	ASR Section 5 Assessment of Socio-Economic effects	Project construction and operations will be funded through the P3 procurement process, and so will be exempt from the GNWT Business Incentive Policy requirements. However, the GNWT will include conditions in bid contracts that include a requirement for Tłı̨chǫ and Northern hires. Contractors should demonstrate how local labour and businesses will be sourced, plans to provide and maximize on-the-job training for local residents, and an approach to communicating and collaborating with local governments and Aboriginal organizations regarding local involvement in construction and operations.	GNWT/Project Co
51	Socio-Economics and Land Use	Labour	Section 5 Assessment of Socio-Economic effects	In the event that incidental Project activities are funded extra to the P3 process, the GNWT Business Incentive Policy will be applied, as appropriate.	Project Co
52	Socio-Economics and Land Use	Land Use	Section 5 Assessment of Socio-Economic effects	The GNWT, in collaboration with the Tłı̨chǫ Government and other planning partners, is in the process of working towards the development of a land use plan for public lands in the Wek'èezhì Management Area.	GNWT/Project Co
53	Socio-Economics and Land Use	Land Use	PDR, Section 5.1.2	During final design phase, consideration will be taken to ensure a safe snowmobile crossing is established near bridge near km 45.2.	Project Co
54	Socio-Economics and Land Use	Land Use	PDR, Section 7.1.2	Verify that the cabin sites near the Project footprint are at least 50 m away. May need to double check coordinate locations with Tłı̨chǫ Government prior to construction and ensure that the two cabins that will be rebuilt (burnt as a result of 2014 fire) are far enough away.	GNWT/Project Co
55	Socio-Economics and Land Use	Land Use	PDR, Section 5.1.2	Maintain safe access to T'ooohdeèhoteè, an important portage site at the La Martre River.	Project Co
56	Socio-Economics and Land Use	Land Use	PDR, Section 10.9	An Emergency Response Plan will be produced and provided by the successful contractor. It will include details of how to deal with various emergency situations such as a fire, vehicle or mobile equipment incident, serious medical incidents, camp evacuation and wildlife encounters.	Project Co
57	Terrestrial Environment	Disturbance to Wildlife	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Destruction of bat roosts will be avoided by managing, to the extent possible, the incremental removal of vegetation so that it occurs outside of spring through fall. If vegetation clearing is required within this time, pre-clearing surveys and no-work zones for identified active maternity roost sites will be conducted to avoid disturbance.	Project Co
58	Terrestrial Environment	Disturbance to Wildlife	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Avoid disturbance of hibernating bats by surveying for sites of hibernacula potential (i.e., abandoned buildings and mines and caves) within 200 m of ROW for bat use prior to construction.	Project Co
59	Terrestrial Environment	Disturbance to Wildlife	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Avoid disturbance of bird nests and eggs by clearing land outside of the bird nesting and fledging season (May to mid-August); however, if vegetation clearing is required within this time, pre-clearing nest surveys will be completed and no-work zones will be observed for identified active nests. Through consultation with ENR and ECCC, bird nests will be protected by a buffer that protects the nest while allowing construction to continue, and will be included in the weekly wildlife monitoring reports.	Project Co
60	Terrestrial Environment	Disturbance to Wildlife	WMMP	Boreal caribou collar locations will be used to notify construction crews of their proximity to active construction areas during the late-winter and calving season, and increased mitigation measures will be triggered as described in Appendix E.	GNWT-ENR
61	Terrestrial Environment	Disturbance to Wildlife	WMMP	If any big game species are observed within the cleared right of way adjacent to active construction areas, speed limits will be reduced to 30 km/h within 1 km on either side of the sighting. If bison are present on roads, Environmental Monitors will be contacted. Environmental Monitors should be aware that groups of bison with more than 5 individuals are likely to be nursery groups containing calves and juveniles.	Project Co
62	Terrestrial Environment	Disturbance to Wildlife	WMMP	Fixed-wing and helicopter flights associated with highway construction will consider the minimum altitude guidelines outlined in the brochure "Flying Low? Think Again..." where safety permits. Flight paths will follow the cleared highway right of way to the extent feasible.	Project Co
63	Terrestrial Environment	Disturbance to Wildlife	WMMP	If available, generalized calving locations of collared boreal caribou will be provided to pilots indicating areas to avoid during the calving season. Pilots will be expected to complete a visual scan for large mammals prior to landing.	GNWT-ENR
64	Terrestrial Environment	Disturbance to Wildlife	WMMP	If caribou, bison, or moose are observed during helicopter flights, they will not be approached, followed, hovered above, or circled around.	Project Co
65	Terrestrial Environment	Disturbance to Wildlife	WMMP	Pilots will increase altitude and follow flight paths that veer away from caribou, bison, and moose if the animals are observed running, panicking, or exhibiting other startled response.	Project Co
66	Terrestrial Environment	Invasive Plants	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Cleaning and inspection of Project vehicles and equipment prior to entering the NWT to avoid introducing noxious and invasive plants.	Project Co
67	Terrestrial Environment	Invasive Plants	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Re-cleaning Project vehicles and equipment if an area of weed infestation is encountered, prior to advancing to a weed-free area to minimize the spread of noxious and invasive plants.	Project Co
68	Terrestrial Environment	Invasive Plants	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Locating and managing cleaning locations on the Project site to avoid the spread of noxious and invasive plants.	Project Co
69	Terrestrial Environment	Invasive Plants	WMMP	Herbaceous plant surveys of the Project footprint will be completed during the growing season by a qualified botanist in advance of construction, one year following construction and again after five years of operations. If rare plants and/or invasive species are found, ENR will be consulted to determine next steps.	GNWT
70	Terrestrial Environment	Spills	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Hazardous materials and fuel will be stored according to regulatory requirements to avoid contamination to the environment and workers.	Project Co
71	Terrestrial Environment	Spills	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	An approved Spill Contingency Plan will be followed by Project staff to prevent spills and if they were to occur as a result of an accident, that they will be controlled to minimize the area impacted.	Project Co
72	Terrestrial Environment	Spills	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Emergency spill kits will be available wherever toxic materials or fuel are stored and transferred during construction to minimize effects to vegetation and wildlife habitat.	Project Co
73	Terrestrial Environment	Spills	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Spill response and containment will be completed expeditiously in accordance with the approved site specific Spill Contingency Plan to reduce the area impacted. Spills will be reported in a timely manner.	Project Co

74	Terrestrial Environment	Spills	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Construction equipment, machinery, and vehicles will be regularly maintained to avoid accidental spills.	Project Co
75	Terrestrial Environment	Spills	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Domestic and recyclable waste and dangerous goods will be stored on site in appropriate containers, as per the Waste Management Plan, to avoid exposure until they are shipped off site to an approved facility, and to prevent spills or leakage into the surrounding environment that would cause habitat degradation.	Project Co
76	Terrestrial Environment	Spills	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Fuel storage areas will be equipped with spill kits, will be located at least 30 m away from water bodies. Large fuel storage tanks (2,000 to less than 80,000 litres) will be double walled as per the regulations	Project Co
77	Terrestrial Environment	Wildlife Habitat	WMMP	Dust suppression techniques (as per the GNWT Guideline for Dust Suppression and the GNWT-INF Erosion and Sediment Control Manual) will be utilized as required and feasible to reduce dust emissions onto vegetation outside of the right of way.	Project Co
78	Terrestrial Environment	Wildlife Habitat	ASR Section 4 Effects to Wildlife and Wildlife Habitat	The current layout of the Project footprint will minimize the amount of new disturbance by primarily following the existing Old Airport Road route to Whatl and intersecting areas previously burned.	Project Co
79	Terrestrial Environment	Wildlife Habitat	ASR Section 4 Effects to Wildlife and Wildlife Habitat	Lights will be positioned to shine downwards and/or will be fixed with shielding to minimize the distribution of peripheral light and shut off when not in use.	Project Co
80	Terrestrial Environment	Wildlife Habitat	WMMP	Limit the cleared TASR corridor to 60 m wide (not including the borrow sites and access corridors).	Project Co
81	Terrestrial Environment	Wildlife Habitat	WMMP	Borrow source areas will be minimized and will be located close to the TASR right of way so that access roads are short. Most of the borrow sources also overlap the TASR alignment so additional disturbance to access these areas will be limited.	Project Co
82	Terrestrial Environment	Wildlife Habitat	WMMP	If borrow pits and quarries are no longer required during the operations phase, reclamation will be conducted in consideration of the Northern Land Use Guidelines for Pits and Quarries. Once reclamation activities are complete, access will be blocked to quarries and borrow sources that are no longer required.	Project Co
83	Terrestrial Environment	Wildlife Habitat	WMMP	Birds will be deterred from nesting on infrastructure by placing covers/screens on vents, holes, and crevices where birds could potentially nest, and if necessary through active (but non-lethal) disturbance of birds to discourage them from establishing a nest on a construction site. If bird nesting occurs, the nest will not be disturbed until after the birds have left the area, with clearance to be discussed in consultation with GNWT-ENR and ECCC.	Project Co
84	Terrestrial Environment	Wildlife Habitat	WMMP	If any reclamation activities are planned for the terrestrial portions of the existing Tłı̄chq winter road, it will be managed and addressed jointly by the Tłı̄chq Government and the GNWT by way of a bilateral agreement.	GNWT/TG
85	Terrestrial Environment	Wildlife Habitat	WMMP	Operating machinery on highly saturated soil (primarily during freshet) outside of the highway alignment, borrow sources and borrow source access roads will be avoided where practical. Where it is unavoidable, suitable ground equipment will be used to prevent unnecessary soil damage through rutting, etc.	Project Co
86	Terrestrial Environment	Wildlife Habitat	WMMP	Layout and location of quarries will consider the Northern Land Use Guidelines for Pits and Quarries.	Project Co
87	Terrestrial Environment	Wildlife Habitat	WMMP	Reduced speed limits (50 km/h) during construction will reduce dust production.	Project Co
88	Terrestrial Environment	Wildlife Habitat	WMMP	Quarries will be operated in accordance with the ECCC brochure Bank Swallows in Sandpits and Quarries.	Project Co
89	Terrestrial Environment	Wildlife Safety	WMMP	Construction activities will consider sensitive periods. For example, vegetation clearing is planned to occur outside of the nesting season for migratory birds.	Project Co
90	Terrestrial Environment	Wildlife Safety	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Wildlife will have the right-of-way on all roads during construction.	Project Co
91	Terrestrial Environment	Wildlife Safety	WMMP	In the event that an active mammal den or bird nest is identified during construction, GNWT-ENR will be consulted to determine an appropriate strategy to avoid or minimize disturbance. A protocol for pre-clearing den surveys will be developed once the final TASR alignment and borrow source locations are determined.	Project Co
92	Terrestrial Environment	Wildlife Safety	WMMP	Observations of caribou, moose, bison, and other big game and species at risk will be reported to Environmental Monitors. Observations of species at risk will be reported to GNWT-ENR through weekly reports.	Project Co
93	Terrestrial Environment	Wildlife Safety	WMMP	Harassment, feeding or approaching wildlife by Project staff will be prohibited.	Project Co
94	Terrestrial Environment	Wildlife Safety	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Project staff will be provided with environmental awareness training.	Project Co
95	Terrestrial Environment	Wildlife Safety	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Environmental Monitors will be on site to document wildlife and manage and minimize risks to wildlife and workers.	Project Co
96	Terrestrial Environment	Wildlife Safety	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	Exposure of wildlife to contaminants will be avoided by use of appropriate deterrents (e.g., temporary fencing, noise makers) to discourage wildlife from entering an affected area.	Project Co
97	Terrestrial Environment	Wildlife Safety	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	No hunting or fishing by Project staff will be permitted.	Project Co
98	Terrestrial Environment	Wildlife Safety	WMMP	Development and implementation of a Waste Management Plan to avoid access to food waste by wildlife. This will include: <ul style="list-style-type: none"> · Waste products will be stored in secured containers and transported to approved facilities to avoid access by wildlife. · Food waste will be collected in bear proof containers that minimize attraction or impact to wildlife. · Littering and feeding of wildlife will be prohibited to avoid wildlife attraction to the site. · All workers and visitors will be educated on waste management practices for the Project site to avoid wildlife attraction. 	Project Co
99	Terrestrial Environment	Wildlife Safety	WMMP	Workers will not travel off of Project site unless there is a specific requirement.	Project Co

100	Terrestrial Environment	Wildlife Safety	WMMP, Section 5.2.3 and 5.2.4 GNWT response to WRRB questions on fish and wildlife (PR#211)	The GNWT is committed to supporting, subject to availability of additional resources, the Tłı̨çhǫ Government in the design and implementation of a program that uses Tłı̨çhǫ harvesters' traditional knowledge and methods to monitor the health of boreal caribou (tǫdǫ) and the state of their habitat, and the state of barren-ground caribou (sekwǫ) winter habitat, during and after the completion of the TASR Project. Further details of the program, including monitoring questions and approach, will be determined following discussion with traditional harvesters and elders through engagement with Tłı̨çhǫ Government, with a view it be included as a component of the Wildlife Management and Monitoring Plan (WMMP) to be finalized and approved during the regulatory phase for this Project. The expertise and advice of the WRRB will also be sought in the design of the program.	GNWT/TG
101	Terrestrial Environment	Wildlife Safety	WMMP	Project staff will communicate relevant observations of wildlife to other drivers via radio.	Project Co
102	Terrestrial Environment	Wildlife Safety	WMMP	Blasting may only proceed if no large mammals (e.g.) caribou, moose, bison are detected in the blast radius identified by Blast Supervisor. The Blast Supervisor or Environmental Monitor will conduct a visual scan of the blast radius prior to blasting to ensure no large mammals are present. All blasting will be preceded by air horn signals, which should deter wildlife from the area. Specific mitigation measures that apply to blasting during the late-winter and calving season for collared boreal caribou are included in Appendix E.	Project Co
103	Terrestrial Environment	Wildlife Safety	WMMP	The presence of large mammals (caribou, moose, and bison) and other wildlife will be communicated to construction workers, which will minimize risks of physical hazards through site-wide awareness. Project staff will communicate relevant observations of wildlife to other drivers via radio. If bison, caribou or moose are observed within construction areas, and their safety, or the safety of workers or equipment, are at imminent risk, operations at that particular work site will be temporarily suspended by the Project Supervisor to allow wildlife to move away from the area of their own accord. If they do not leave the area within 15 minutes, they will be gently encouraged to move away from construction activities, and an incident report will be completed. This will involve the slow approach of Environmental Monitors towards the caribou/moose/bison to encourage them to move. It is possible that females may be unwilling to leave the area if they have a calf hiding nearby. In these cases, operations in the area may be suspended by the Project Supervisor.	Project Co
104	Terrestrial Environment	Wildlife Safety	WMMP	An appropriately designated supervisor will provide field workers with Bear Aware training and general wildlife awareness.	Project Co
105	Terrestrial Environment	Wildlife Safety	WMMP ASR Section 4 Effects to Wildlife and Wildlife Habitat	To avoid wildlife harvest, firearms will not be allowed on-site during construction except for firearms in the possession and control of authorized Environmental Monitors or law enforcement officers.	Project Co
106	Terrestrial Environment	Wildlife Safety	WMMP	Camps and buildings will be designed to prevent wildlife interactions, including appropriate storage of non-waste wildlife attractants (e.g. food and petroleum products) and use of adequate lighting will be installed in areas where it is essential to detect bears that may be in the vicinity.	Project Co
107	Terrestrial Environment	Wildlife Safety	WMMP	In case of wildlife exposure to contaminants, territorial (GNWT-ENR) or federal (ECCC) authorities will be contacted immediately to determine appropriate course of action, which may include capturing, relocating or treating contaminated wildlife.	Project Co
108	Socio-Economics and Land Use	Land Use	PDR, Section 4.12	A Closure and Reclamation Plan will be produced and provided by the successful contractor. It will include details of how the temporary access roads and work camps will be closed.	Project Co

Table 2. GNWT Commitments Related to Tłı̨çhǫ All Season Road Operations.

No.	Discipline	Subject	Source	Commitment Description - Operations	Responsible Party
1	Aquatic Environment	Erosion and Sediment Control	WLWB Preliminary Screening	GNWT will be using the ESC Manual as guidance in the development of an ESC plan, including monitoring, reporting and adaptive management. These plans will be finalized by the contractor ensuring the contractor is fully aware and capable of the requirements in that plan, while GNWT provides oversight while remaining accountable	Project Co
2	Aquatic Environment	Erosion and Sediment Control	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Dust entering fish habitat will be minimized by enforcing speed and load limits to preserve the road bed, and regular road maintenance will be conducted to suppress dust production (as per the GNWT Guideline for Dust Suppression).	Project Co
3	Aquatic Environment	Erosion and Sediment Control	ASR Section 3 Assessment of Effects to Fish and Fish Habitat WMMP	Riparian areas will be maintained whenever possible to minimize erosion and impacts to fish habitat, with vegetation removal limited to the width of the right of way. At watercourse crossings, a riparian buffer will be maintained along the width of the right of way except at the actual crossing location (FFHPP 2016 [PR#7, Appendix X]).	Project Co
4	Aquatic Environment	Erosion and Sediment Control	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Watercourses will be inspected upstream and downstream of the crossings for erosion, scour, and flow blockages during the spring freshet and through the open water season, as required. Impacts will be minimized by culvert maintenance, including removal activities of debris (e.g., ice, beaver dams), following DFO guidance (i.e., gradual removal such that flooding downstream, extreme flows downstream, release of suspended sediment, and fish stranding can be avoided).	Project Co
5	Aquatic Environment	Erosion and Sediment Control	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Snow will be ploughed off of the road in such a manner that it melts into vegetated areas in the spring to filter out sediment, minimizing downstream sedimentation impacts to fish and fish habitat (FFHPP 2016 [PR#7, Appendix X]).	Project Co
6	Aquatic Environment	Erosion and Sediment Control	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Drainage from quarries will not flow directly into any water bodies or watercourses and a minimum of 30 m of undisturbed land will be maintained between a quarry and any fish bearing water body to avoid impacts to fish habitat (FFHPP 2016 [PR#7, Appendix X]).	Project Co
7	Aquatic Environment	Spills	WLWB Preliminary Screening	In instances where fuel storage does not already incorporate 110% containment (such as drums and jerry cans vs. the larger double-walled storage tanks), containment pads will be provided for all fuel storage, dispensing and transfer sites.	Project Co
8	Aquatic Environment	Spills	WLWB Preliminary Screening	GNWT will be using the ESC Manual as guidance in the development of an ESC plan, including monitoring, reporting and adaptive management. These plans will be finalized by the contractor ensuring the contractor is fully aware and capable of the requirements in that plan, while GNWT provides oversight while remaining accountable.	Project Co
9	Aquatic Environment	Spills	ASR Section 3 Assessment of Effects to Fish and Fish Habitat	Road maintenance equipment will be regularly maintained and inspected to ensure it is free of leaks to avoid impacts to fish and fish habitat (FFHPP 2016 [PR#7, Appendix X]).	Project Co
10	Aquatic Environment	Water Crossings	ASR Section 3 Assessment of Effects to Fish and Fish Habitat WMMP	Disturbed areas along the streambanks will be stabilized and allowed to revegetate upon completion of work to minimize erosion.	Project Co
11	Aquatic Environment	Water Crossings	WMMP	Culverts will be embedded as appropriate to maintain species and habitat present, and will be installed parallel to the existing channel to minimize changes to channel morphology.	Project Co
12	Socio-Economics and Land Use	Health and Well-Being	ASR Section 5 Assessment of Socio-Economic effects	Speed limits aimed at maintaining safe driving speeds for vehicles.	Project Co
13	Socio-Economics and Land Use	Health and Well-Being	ASR Section 5 Assessment of Socio-Economic effects	There are no shelters in the Tłı̨çhǫ region, however the TCSA and the GNWT are engaging with the communities to create community specific family violence protocols and response teams. This is done via a contribution agreement between the Department of Health and Social Services and the TCSA to cover the costs associated with community engagement and development of the protocols by a consultant.	GNWT

14	Socio-Economics and Land Use	Labour	ASR Section 5 Assessment of Socio-Economic effects	Project construction and operations will be funded through the P3 procurement process, and so will be exempt from the GNWT Business Incentive Policy requirements. However, the GNWT will include conditions in bid contracts that include a requirement for Tłı̄chǰo and Northern hires. Contractors should demonstrate how local labour and businesses will be sourced, plans to provide and maximize on-the-job training for local residents, and an approach to communicating and collaborating with local governments and Aboriginal organizations regarding local involvement in construction and operations.	Project Co
15	Socio-Economics and Land Use	Labour	ASR Section 5 Assessment of Socio-Economic effects	In the event that incidental Project activities are funded extra to the P3 process, the GNWT Business Incentive Policy will be applied, as appropriate.	Project Co
16	Socio-Economics and Land Use	Labour	ASR Section 5 Assessment of Socio-Economic effects	Planning for employment and local opportunity catchment is expected to reduce a surge in the required out-of-territory labour force during construction, reducing the potential for in-migration into the region. (PR#96 Tłı̄chǰo Government IR 1).	Project Co
17	Socio-Economics and Land Use	Land Use	ASR Section 5 Assessment of Socio-Economic effects	The GNWT, in collaboration with the Tłı̄chǰo Government and other planning partners, is in the process of working towards the development of a land use plan for public lands in the Wek'èezhì Management Area.	GNWT
18	Socio-Economics and Land Use	Land Use	PDR, Section 5.1.2	Maintain safe access to T'ooohdeèhotèè, an important portage site at the La Martre River.	Project Co
19	Socio-Economics and Land Use	Land Use	ASR Section 5 Assessment of Socio-Economic effects	GNWT-ENR will enforce the NWT's hunting regulations which are in place to ensure that wildlife is conserved for future generations and that hunting is done safely.	GNWT-ENR
20	Terrestrial Environment	Invasive Plants	WMMP	Herbaceous plant surveys of the Project footprint will be completed during the growing season by a qualified botanist in advance of construction, one year following construction and again after five years of operations. If rare plants and/or invasive species are found, ENR will be consulted to determine next steps.	GNWT
21	Terrestrial Environment	Invasive Plants	NSMA Technical Report Response PR#239	One more survey will be added to the Non-Native/Invasive Species Monitoring Plan. This will be done by a qualified botanist, 10 years after the start of road operations, as northern invasive species can be slow to establish.	GNWT
22	Terrestrial Environment	Wildlife Habitat	WMMP ASR, Section 4 Effects to Wildlife and Wildlife Habitat	Signs indicating the daily wildfire risk will be posted by GNWT at the TASR junctions at Highway 3 and the existing Whati community access road to minimize the risk of accidental fires.	*GNWT
23	Terrestrial Environment	Wildlife Habitat	WMMP	Dust suppression techniques (as per the GNWT Guideline for Dust Suppression and the GNWT-INF Erosion and Sediment Control Manual) will be utilized as required and feasible to reduce dust emissions onto vegetation outside of the right of way.	Project Co
24	Terrestrial Environment	Wildlife Habitat	WMMP, Section 5.2.3 and 5.2.4 GNWT response to WRRB questions on fish and wildlife (PR#211)	The GNWT is committed to supporting, subject to availability of additional resources, the Tłı̄chǰo Government in the design and implementation of a program that uses Tłı̄chǰo harvesters' traditional knowledge and methods to monitor the health of boreal caribou (tòdzı) and the state of their habitat, and the state of barren-ground caribou (zekwò) winter habitat, during and after the completion of the TASR Project. Further details of the program, including monitoring questions and approach, will be determined following discussion with traditional harvesters and elders through engagement with Tłı̄chǰo Government, with a view it be included as a component of the Wildlife Management and Monitoring Plan (WMMP) to be finalized and approved during the regulatory phase for this Project. The expertise and advice of the WRRB will also be sought in the design of the program.	GNWT/TG
25	Terrestrial Environment	Wildlife Safety	WMMP	Speed limits will be established, posted, and enforced to reduce the risk of vehicle-wildlife collisions.	GNWT
26	Terrestrial Environment	Wildlife Safety	WMMP	GNWT has the ability to install temporary portable signage and temporarily lower speed limits on parts of the TASR if a localized wildlife collision hazard is present. This mitigation will be applicable to areas where groups of bison, caribou, or moose are seen or reported along the right of way, in areas where wildlife-vehicle collisions repeatedly occur, or where caribou are known to be nearby based on collar data.	**GNWT
27	Terrestrial Environment	Land Use	WMMP	As the operational phase will require gravel, borrow pits will remain only accessible to Project Co. staff and blocked to unauthorized personnel. Protocols to follow the Quarry Operations Plan.	Project Co
28	Terrestrial Environment	Land Use	WWMP Public Hearing Transcripts Day 2	There will be a winter checkpoint station for barren-ground caribou on the TASR between Highway 3 and Whati.	GNWT-ENR

Notes:
No. = number; TG = Tłı̄chǰo Government; NSMA = North Slave Metis Alliance; ECCC = Environment and Climate Change Canada; WRRB = Wek'èezhì Renewable Resources Board; DFO = Fisheries and Oceans Canada; NRCan = Natural Resources Canada; MVEIRB = Mackenzie Valley Environmental Impact Review Board; WLWB = Wek'èezhì Land and Water Board; GNWT = Government of Northwest Territories; ENR = Environment and Natural Resources; TK = Traditional Knowledge; WMMP = Wildlife Management and Monitoring Plan; TASR = Tłı̄chǰo All-Season Road; ASR = Adequacy Statement Response; km = kilometre.

**APPENDIX 19C
ENVIRONMENTAL ASSESSMENT MEASURES**

See attached.

Appendix 19C Environmental Assessment Measures

Categories:

There are four classifications identified under this column. Pre-application equates to activities that need to be completed or be well on their way prior to submitting Authority WL/LUP applications to WLWB. Pre-construction equates to activities that need to be initiated prior to beginning construction. Construction equates to activities that are completed during construction. OMR equates to activities that need to be completed during Project Co's operation, maintenance and rehabilitation period; not all activities classified in this category are necessarily for the full 25 year operating period. Some activities fall under multiple classifications as the tasks need to occur over multiple years.

Various Acronyms:

CGW = Community Government of Whatì

Developer = GNWT/Authority

DFO = Fisheries and Oceans Canada

ECCC = Environment and Climate Change Canada

ENR = GNWT – Environment and Natural Resources

INF = GNWT – Infrastructure

OMR = Operation, Maintenance and Rehabilitation

REA = Report of Environmental Assessment

TG = Tłıchł Government

TK = traditional knowledge

WL/LUP = Authority's water licence and land use permit

WLWB = Wek'èezhì Land and Water Board

WMMP = Wildlife Management and Monitoring Plan

MEASURE		MEASURE SPECIFICS	REMARKS TO PROJECT CO	CATEGORY
Community well-being				
Measure 5-1	<p>Developer's support of monitoring and adaptive management of adverse health and well-being impacts</p> <p><i>Part 1 Monitor adverse health and well-being impacts to the Community of Whatì</i></p> <p><i>Part 2 Reporting</i></p> <p><i>Part 3 Adaptive</i></p>	<p><u>5-1, Part 1: Monitoring adverse health and well-being impacts to the Community of Whatì</u></p> <p><i>To inform mitigation of significant cumulative and project-specific adverse impacts on the health and well-being of the Community of Whatì, the developer will support the Tłıchł Government and Community Government of Whatì in the monitoring and evaluation of direct and indirect impacts of the Project on the health and well-being of the Community of Whatì. These will include:</i></p> <ul style="list-style-type: none"> • <i>the anticipated initial spike in harmful behaviours associated with increased access to drugs and alcohol;</i> • <i>traffic accidents on the road;</i> • <i>change in safety of young women and other vulnerable groups; and,</i> • <i>change in harvest success rates and availability of country foods in Whatì.</i> <p><i>Monitoring will meet the requirements of Appendix C.</i></p> <p><u>5-1, Part 2: Reporting</u></p> <p><i>The developer will support the Tłıchł Government and Community Government of</i></p>	<p>*The Authority will be the primary party responsible for this measure.</p> <p>*Project Co responsibility will be limited to subject expertise, provision of data to support reporting requirements, and attending meetings, all as required.</p>	<p>• Construction, OMR</p>

	<i>management and re-evaluation</i>	<p><i>Whati in preparing an annual progress report on their efforts to mitigate impacts on health and well-being to the Community of Whati.</i></p> <p><u>5-1 Part 3: Adaptive management and re-evaluation</u> <i>The developer, in collaboration with the Tłıchł Government and Community Government of Whati, will support the adaptive management of health and well-being impacts, following guidance in Appendix B.</i></p> <p><i>The developer will support the Tłıchł Government and Community Government of Whati, in the monitoring, engagement, reporting and adaptive management described in this measure for each year of construction and for a minimum of ten years of Project operations.</i></p>		
Measure 5-2	<p>Tłıchł monitoring, engagement and reporting of adverse health and well-being impacts</p> <p><i>Part 1 Tłıchł monitoring of adverse health and well-being impacts</i></p> <p><i>Part 2 Public engagement</i></p> <p><i>Part 3 Reporting</i></p>	<p><u>5-2, Part 1: Tłıchł monitoring of adverse health and well-being impacts</u> <i>The Tłıchł Government, Government of the Northwest Territories, Tłıchł Community Services Agency and Community Government of Whati, with the support of the developer, will establish and implement a framework to monitor and evaluate health and well-being impacts associated with the road, and will adaptively manage health and well-being impacts as described in Measure 5-1 and following guidance in Appendices B and C, for each year of construction and for a minimum of ten years of operations.</i></p> <p><i>Following ten years of Project operations, the Community Government of Whati, Government of the Northwest Territories, Tłıchł Community Services Agency and Tłıchł Government in collaboration with the developer, will re-evaluate the need for, and frequency of, monitoring, engagement, reporting and adaptive management.</i></p> <p><i>If the monitoring of harvest success rates and availability of country foods in Whati (in Measure 5-1, Part 1, above) indicates a declining trend in harvest success and the consumption of country foods, the Tłıchł Government and the Community Government of Whati will develop and implement a strategy to address the decline in the availability of country foods for those most affected.</i></p> <p><u>5-2, Part 2: Public engagement</u> <i>The Tłıchł Government, Government of the Northwest Territories, Tłıchł Community Services Agency and Community Government of Whati, with the participation of the developer, and the P3 operator, will meet with the residents of Whati at least once per year to discuss:</i></p> <p><i>a) priority health and well-being impacts at the individual, family and community level related to the Project;</i> <i>b) the effectiveness of programs or mitigations used to address these impacts; and,</i></p>	<p>*This measure is currently a part of the consult to modify process.</p> <p>*The Authority will be the primary party responsible for this measure.</p> <p>*Project Co responsibility will be limited to subject expertise, provision of data to support reporting requirements, and attending meetings, all as required.</p>	<p>· Construction, OMR</p>

		<p>c) the need to adjust programs or implement additional mitigations</p> <p><u>5-2, Part 3: Reporting</u> The Tłıchł Government, Government of the Northwest Territories, Tłıchł Community Services Agency and Community Government of Whatı, with the support of the developer, will prepare and make publicly available an annual progress report on their efforts to mitigate impacts on health and well-being to the Community of Whatı. The report will describe engagement, current management and plans for future adaptive management.</p> <p>The findings of the report will be presented to the residents of Whatı, provided to the Whatı Inter-Agency Committee and provided to the Tłıchł All-Season Road Corridor Working Group (see Measure 14-3).</p>		
Measure 5-3	Safety of young women in relation to work camps	<p>To mitigate the Project's impact on the physical and mental health and safety of women, the developer will require that the successful P3 operator has gender appropriate and gender-specific policies in place that promote a safe, respectful and inclusive environment for women at work and in communities near work camps. The developer will consult with the Tłıchł Government and Community Government of Whatı in establishing core elements of these policies.</p>	<p>*Project Co is the primary party responsible for this measure.</p> <p>*The Authority, Tłıchł Government and Community Government of Whatı will offer a supporting role for this measure.</p> <p>*Project Co will need to develop appropriate gender-specific policies prior to construction.</p>	· Pre-construction, Construction
Measure 5-4	Employee awareness training and policies	<p>To promote a positive, safe and inclusive work environment, the developer will ensure that the P3 operator:</p> <ul style="list-style-type: none"> • establishes a workplace environment that prevents assault, harassment and racism; • has a zero-tolerance harassment policy for racial or sexual discrimination; and, • requires employees to take a training course designed to promote cultural and gender awareness. <p>The developer will develop appropriate training materials, in consultation with the Tłıchł Government and the Tłıchł Community Services Agency, that reflect the factors that increase risks of sexual assaults on Aboriginal women. The developer, the Tłıchł Government and the Tłıchł Community Services Agency will coordinate course delivery. The developer will fund the training course.</p>	<p>*Project Co is the primary party responsible for this measure.</p> <p>*The Authority and Tłıchł Government will offer a supporting role for this measure.</p> <p>*Project Co will need to establish a workplace environment that prevents assault, harassment and racism, ensure that it has a zero-tolerance harassment policy for racial or sexual discrimination, and require employees to take a training course designated to promote cultural and gender awareness; these requirements can likely be managed through Project Co policies.</p>	· Pre-construction, Construction
Measure 5-5	Community engagement and grievance mechanisms	<p>The developer will hold public engagement sessions with the Communities of Whatı and Behchokı to discuss project-related community concerns.</p> <p>The developer will have a camp grievance mechanism and a community grievance mechanism that allow individuals and communities to raise concerns in a timely and open manner. These will be in place before the start of Project construction.</p>	<p>*Project Co is the primary party responsible for this measure.</p> <p>*Community engagement has already been captured in the current procurement documents.</p> <p>*Project Co will have a camp grievance mechanism and community grievance mechanism in place prior to construction. These mechanisms should follow industry best practices.</p>	· Pre-construction, Construction

Measure 5-6	Include Behchok in accident response planning	<i>The Government of the Northwest Territories will develop and implement an effective ground ambulance and highway rescue action plan along the road that will be designed in collaboration with the Tłıchł Government, Tłıchł Community Services Agency, Community Government of Whatı, and Community Government of Behchok.</i>	*This measure is currently a part of the consult to modify process. *The Authority will be the primary party responsible for this measure.	· Pre-construction, Construction, OMR
Measure 5-7	Prioritize Northern hiring	<i>The developer will prioritize Northern hiring, and Tłıchł citizen hiring in particular, in its contract with the P3 operator.</i>	*This requirement has already been incorporated into the current procurement documents.	· In progress · Pre-construction, Construction, OMR
Boreal caribou				
Measure 6-1	Implementation of the Recovery Strategy for the Boreal Caribou in the NWT, and required range plans, for boreal caribou affected by the Project <i>Part 1 Develop and implement range plans</i> <i>Part 2 Information and adaptive management requirements</i>	<u><i>6-1, Part 1: Develop and implement range plans</i></u> <i>The GNWT-ENR will develop and implement a range plan for boreal caribou (tłıdzı) in the North Slave portion of the NT1 range, as required by the Recovery Strategy for the Boreal Caribou in the NWT. The GNWT-ENR will also develop and implement a range plan for any other region where boreal caribou (tłıdzı) may experience impacts related to the Project.</i> <i>The range plan(s) will be developed collaboratively with Aboriginal groups and co-management partners. GNWT-ENR will complete and submit a range plan for the North Slave portion of the NT1 range to the Wek'èezhı Renewable Resources Board for review under section 12.5.1 of the Tłıchł Agreement a minimum of 90 days before the Project is opened for public use.</i> <i>The GNWT will work collaboratively with the Tłıcho Government and other relevant Aboriginal and federal land management authorities to manage habitat to achieve the habitat disturbance threshold set out in this range plan to the greatest extent possible. The GNWT will consult with applicable Aboriginal groups as required.</i> <u><i>6-1, Part 2: Information and adaptive management requirements</i></u> <i>For the area identified by the range plan(s) in measure 6-1, part 1 the following must be included in the development and implementation of the Recovery Strategy for the Boreal Caribou in the NWT or range plan(s):</i> <ul style="list-style-type: none"> • <i>monitoring to determine population trends, abundance and distribution;</i> • <i>determination of population thresholds and triggers to inform adaptive management;</i> • <i>harvest monitoring and reporting;</i> • <i>determining sustainable harvest levels;</i> • <i>identifying critical habitat;</i> • <i>ongoing habitat disturbance monitoring;</i> • <i>setting disturbance thresholds for critical habitat and, to the greatest extent</i> 	*This measure is currently a part of the consult to modify process. *The Authority is the party responsible for this measure.	· Pre-construction, Construction, OMR

		<p>possible, managing habitat towards meeting these disturbance thresholds for each range planning region; and,</p> <ul style="list-style-type: none"> • monitoring predator populations including densities, movements and predation rates. <p>Monitoring will meet the requirements of Appendix C. GNWT-ENR will work with the developer to adaptively manage Project impacts on boreal caribou (tł̄dzı) (following guidance in Appendix B).</p>		
Measure 6-2	Temporary no-hunting corridor for boreal caribou (tł̄dzı)	<p>To mitigate significant adverse impacts from the project on boreal caribou (tł̄dzı), the GNWT-ENR in collaboration with Aboriginal groups and in accordance with the requirements of the Tł̄ch̄ Agreement, will determine sustainable harvest levels for boreal caribou in the North Slave portion of the NT1 range prior to the road being opened to the public.</p> <p>In that same period, if current harvest levels are determined to exceed sustainable levels, management action will be undertaken in conjunction with the Tł̄cho Government.</p> <p>If harvest levels are observed to increase towards unsustainable levels once the road is opened to the public, GNWT-ENR and the Tł̄cho Government will submit a wildlife management proposal under section 12.5.1 of the Tł̄cho Agreement to the Wek'èezhì Renewable Resources Board for the timely implementation of any measures necessary to ensure boreal caribou harvest in the region is kept within sustainable levels.</p> <p>Such measures may include the establishment of a no-hunting corridor along the Project route.</p>	<p>*This measure is currently a part of the consult to modify process.</p> <p>*The Authority is the party responsible for this measure.</p>	<p>• Pre-construction, Construction, OMR</p>
Measure 6-3	Habitat offset and restoration plan	<p>The developer will offset effective boreal caribou (tł̄dzı) habitat lost because of disturbance from the Project.</p> <p>The developer, with the involvement of GNWT-ENR, will prepare and implement a habitat offset plan. This plan will describe how the required habitat offset area will be determined and how it will be achieved. In preparing the plan, the developer will collaborate with Tł̄ch̄ Government and the Wek'èezhì Renewable Resources Board, and consult with the following participants to this environmental assessment:</p> <ul style="list-style-type: none"> • Environment and Climate Change Canada; • Yellowknives Dene First Nation; and, • North Slave Métis Alliance. <p>The developer will make funding available to the parties to support this consultation and collaboration. The developer will submit a draft and a final plan as described</p>	<p>*This measure is currently a part of the consult to modify process.</p> <p>*The Authority is the party responsible for this measure.</p>	<p>• Pre-construction, Construction, OMR</p>

		<p><i>below. Once approved, the developer will operate in accordance with the plan.</i></p> <p><i>The developer will submit a draft plan to the Wek'èezhì Renewable Resources Board a minimum of 30 days prior to commencement of construction. The developer will submit the final habitat offset plan to the Wek'èezhì Renewable Resources Board for review under section 12.5.1 of the Tłıchł Agreement, as soon as possible, and no later than 90 days prior to public use of the road. This final plan will include, at a minimum:</i></p> <ul style="list-style-type: none"> • <i>the goals and objectives of the plan;</i> • <i>a discussion on the expected effectiveness of mitigations and offsets;</i> • <i>a decision framework to prioritize restoration areas, mitigations, and offsets, including references to the research on which the decision framework was based;</i> • <i>a discussion of how any proposed mitigations or offsets align with the Recovery Strategy for the Boreal Caribou in the NWT and range plans;</i> • <i>details of proposed ways to offset habitat disturbance including restoration sites, mitigation measures, offsets, forest fire fighting policies, or habitat management approaches;</i> • <i>a description of the spatial scale of the proposed offset, the habitat quality and type, site specific restoration activities, and any challenges;</i> • <i>a timeline for offsetting;</i> • <i>a quantitative and qualitative assessment of the total area of boreal caribou habitat proposed for restoration and the timeframe required for restoration;</i> • <i>a summary of consultation feedback that was integrated into the draft and final plans;</i> • <i>a description of any Traditional Knowledge that was considered in the development of the plan, and how it was incorporated; and,</i> • <i>a description of any resources provided to Aboriginal groups to support their involvement in the drafting of the final plan, and for any involvement in the implementation of the plan.</i> 		
Barren-ground caribou				
Measure 7-1	Incorporate Traditional Knowledge into monitoring of barren-ground caribou (ᑕᑦkwᑦ)	<p><i>To improve and inform mitigation of significant adverse impacts to barren-ground caribou (ᑕᑦkwᑦ) resulting from increased access due to the Project, the developer will include Traditional Knowledge in barren-ground caribou (ᑕᑦkwᑦ) monitoring and management. Prior to operations, the developer will:</i></p> <p><i>a) support the Tłıchł Government in the design and implementation of a program that uses Tłıchł harvesters' traditional knowledge and methods to monitor the state of barren-ground caribou (ᑕᑦkwᑦ) winter habitat, during and after the construction of the Project;</i></p> <p><i>b) fund the implementation of the program in paragraph a); and,</i></p> <p><i>c) incorporate the findings of the program in paragraph a) into the Wildlife</i></p>	*The Authority is the party responsible for this measure.	• Construction, OMR

		<i>Management and Monitoring Plan while it is in place, and into any other barren-ground caribou (ᐃᓄᓄᓄ) management if the Wildlife Management and Monitoring Plan is not extended.</i>		
Measure 7-2	Barren-ground caribou mitigation and policy changes	<p><i>To manage significant adverse impacts to barren-ground caribou (ᐃᓄᓄᓄ) resulting from the Project, GNWT-ENR and Tłıchł Government, along with their co-management partners in the Wek'èezhì area, will:</i></p> <p><i>a) complete the Bathurst Caribou Range Plan as soon as possible and prior to the expiry of the Wildlife Management and Monitoring Plan; and,</i></p> <p><i>b) consider protecting barren-ground caribou (ᐃᓄᓄᓄ) historic winter habitat from fires when determining where and when fires are fought, to offset effective habitat loss from the Project.</i></p>	*The Authority is the party responsible for this measure.	· Pre-construction, Construction, OMR
Fish and water				
Measure 8-1	Integrated Fisheries Management Plan	<p><i>Fisheries and Oceans Canada and the Tłıchł Government, with the support of the developer, will develop and implement Fisheries Management Plan for fisheries in the project area. This will prevent significant adverse impacts from additional fishing pressure that will likely result from increased access via the Project. In designing the plan, Fisheries and Oceans Canada will engage with the Tłıchł Government, the Wek'èezhì Renewable Resources Board, the Community of Whati and other affected Aboriginal groups. Fisheries and Oceans Canada and the Tłıchł Government will submit the plan to the Wek'èezhì Renewable Resources Board for review under section 12.5.1 of the Tłıchł Agreement.</i></p> <p><i>As part of this plan, the following work will be by completed Fisheries and Oceans Canada, and Tłıchł Government:</i></p> <ul style="list-style-type: none"> <i>a) Complete work to understand baseline fishery and harvest conditions. This work will include, at a minimum:</i> <ul style="list-style-type: none"> <i>i. assessing yield and harvest;</i> <i>ii. identifying management issues;</i> <i>iii. establishing fisheries objectives; and,</i> <i>iv. clarifying management and stewardship arrangements.</i> <i>b) Design and implement, with support of the developer, mitigation to prevent or manage project impacts (which may include a regulatory and compliance plan).</i> <i>c) Design and implement monitoring plans, meeting the requirements of Appendix C.</i> <i>d) Design and implement an adaptive management plan (following guidance in Appendix B).</i> <p><i>Fisheries and Oceans Canada and the Tłıchł Government will provide opportunity for the working group (required by Measure 14-3) and other interested parties to review and comment on this plan.</i></p>	<p>*This measure is currently a part of the consult to modify process.</p> <p>*DFO and TG are the primary parties responsible for this measure.</p>	· Construction, OMR

Cultural well-being				
Measure 9-1	<p>Monitoring harvest and managing wildlife to maintain successful harvest</p> <p><i>Part 1 Aboriginal harvest monitoring and reporting program</i></p> <p><i>Part 2 Use monitoring to inform management</i></p>	<p><u>9-1, Part 1: Aboriginal harvest monitoring and reporting program</u> <i>To mitigate impacts on Aboriginal harvesters and to effectively inform management of wildlife populations in the area of the Project, GNWT-ENR will work together with the Tłıchł Government and Wek'èezhì Renewable Resources Board to develop and implement a non-mandatory Aboriginal harvest monitoring and reporting program.</i></p> <p><i>The harvest monitoring and reporting program will:</i></p> <p><i>a) focus on boreal caribou, barren-ground caribou and moose population trends in areas accessed by winter roads and trails from the Project;</i> <i>b) be community-based and involve collaboration between Tłıchł Government and the developer;</i> <i>c) involve Traditional Knowledge holders and harvesters in monitoring wildlife harvesting trends; and,</i> <i>d) report on wildlife harvesting numbers and trends from monitoring checkpoints and/or other harvest monitoring methods annually to the Tłıchł Government, Wek'èezhì Renewable Resources Board, GNWT-ENR and other wildlife co-management partners. The developer will fund this harvest monitoring and reporting related to the project. The harvest monitoring will meet the requirements of Appendix C.</i></p> <p><u>9-1, Part 2: Use monitoring to inform management</u> <i>GNWT-ENR, in collaboration with the Tłıchł Government and Wek'èezhì Renewable Resources Board, will consider wildlife management actions and mitigations based on the results of the monitoring above and the information collected by the GNWT's existing Resident Hunting Reporting Program, to help ensure sustainable Aboriginal harvesting of wildlife and report on monitoring results and management actions in the annual reviews of the Wildlife Management and Monitoring Plan.</i></p>	<p>*This measure is currently a part of the consult to modify process.</p> <p>*The Authority is the party responsible for this measure.</p>	<p>· Construction, OMR</p>
Measure 9-2	<p>Cultural sensitivity in work camps and communities</p>	<p><i>To mitigate the Project's impact on Tłıchł culture and well-being of Tłıchł residents, the developer will require that the P3 operator has culturally appropriate and specific policies in accordance with those set out by the Tłıchł Government, GNWT departments and federal government. The P3 operator will have policies and programs in place for employee cultural orientation, approved by the Tłıchł Government, for all non- Tłıchł workers, including awareness of special cultural norms and practices.</i></p>	<p>*This measure is currently a part of the consult to modify process.</p> <p>*Project Co is the primary party responsible for this measure.</p> <p>*Project Co will need to have policies and programs in place for an employee cultural orientation for all non-Tłıchł workers prior to construction.</p> <p>*The policies and programs related to cultural sensitivity will need to be approved by the Tłıchł Government.</p>	<p>· Pre-construction</p>
Measure 9-3	<p>Include Traditional Knowledge from all</p>	<p><i>To mitigate impacts from the Project to culture and harvesting, the developer will incorporate Traditional Knowledge into the Project design and management from all Aboriginal groups that traditionally use the area. The developer will:</i></p>	<p>*The Authority is the primary party responsible for this measure.</p> <p>*Project Co responsibility will be limited to incorporating design changes as per</p>	<p>· Pre-application, Pre-construction,</p>

	relevant groups	<p>a) support the collection of Traditional Knowledge related to traditional use, and compile it with information already acquired;</p> <p>b) thoroughly consider any Traditional Knowledge that is made available, and, where applicable, incorporate Traditional Knowledge into Project design, mitigations, monitoring and adaptive management; and,</p> <p>c) do this in a culturally-appropriate way that respects applicable Traditional Knowledge policies and protocols.</p> <p>The GNWT-ENR and Wek'èezhìi Land and Water Board will consider these findings in the Wildlife Management and Monitoring Plan and in permitting.</p>	<p>the Authority's direction and applying mitigations, monitoring and adaptive management, as required.</p> <p>*The Authority has received both NSMA's and TG's TK reports. The Authority should be receiving YKDFN's TK report at the end of August 2018. Additional TK information from a March 2018 ground truthing trip by TG was recently provided. The Authority will demonstrate how the TK reports' recommendations are reflected in the Project.</p>	Construction, OMR
Species at risk and wildlife, other than caribou				
Measure 10-1	<p>Bird species at risk and migratory bird data, mitigation, monitoring and adaptive management</p> <p><i>Part 1 Pre-construction bird surveys</i></p> <p><i>Part 2 Mitigation</i></p> <p><i>Part 3 Monitoring and reporting</i></p> <p><i>Part 4 Adaptive management</i></p>	<p><u>10-1, Part 1: Pre-construction bird surveys</u> The developer will conduct pre-construction field surveys of bird species at risk and migratory birds prior to disturbing potential habitat, including any clearing of the right-of way, quarry sites, camps, access routes, or other project infrastructure. The developer will consult with Environment and Climate Change Canada (ECCC) and GNWT-ENR about methods and timing for a field survey(s). The developer will conduct the survey using methods derived from peer-reviewed scientific literature and best practices.</p> <p><u>10-1, Part 2: Mitigation</u> The developer will use the results from surveys in 10-1 Part 1 to inform mitigations. The mitigations will help protect bird species at risk and migratory birds and ensure habitats and nesting sites are protected. For all project-related infrastructure and activities during the construction and operations phase, the developer will:</p> <p>a) use the information from the survey(s) to inform and adjust proposed mitigations;</p> <p>b) implement mitigations as described in its commitments table and its Wildlife Management and Monitoring Plan;</p> <p>c) implement additional mitigations to eliminate or reduce impacts, if warranted based on surveys;</p> <p>d) halt all disruptive activities, in consultation with ECCC, in an area if nests or young are discovered; and;</p> <p>e) determine and implement, in consultation with ECCC and GNWT-ENR, appropriate species-specific buffer zones or setbacks, until the young have naturally and permanently left the vicinity of the nest taking into consideration the intensity of the disturbance and the surrounding habitat.</p> <p><u>10-1, Part 3: Monitoring and reporting</u> The developer will:</p> <p>a) implement monitoring in section 5 and Appendix C of the Wildlife Management and</p>	<p>*The Authority is the primary party responsible for this measure.</p> <p>*Project Co responsibility will be limited to subject expertise, monitoring, provision of data to support reporting requirements, and attending meetings, all as required.</p> <p>*INF, ENR, ECCC have been meeting in order to develop an appropriate field program which will satisfy part 1 of the measure. Development of this field program is still underway. It is expected that it will be a collaborative program with ECCC loaning INF some field audio recording units. The fieldwork will occur along the entire length of the proposed road and will take place during spring/early-summer 2019. This fieldwork is required prior to disturbing potential habitat (such as right-of-way clearing).</p> <p>*The Authority is currently completing a smaller field program at the southern end of the project in order to provide advanced data, which should assist in preserving construction timelines.</p> <p>*The remaining parts for this measure primarily involve updating the Wildlife Management and Monitoring Plan with additional bird mitigations. The results from the spring/summer 2019 field program may produce additional mitigations, which Project Co will need to adopt; any changes would be dealt with through the Project Agreement's change order and adaptive management processes.</p>	<p>· Pre-application, Pre-construction, Construction, OMR</p>

		<p><i>Monitoring Plan and Chapter 14 of this report;</i> <i>b) monitor nests using non-intrusive search methods at quarry sites immediately prior to commencing any disruptive activities during the nesting period; and,</i> <i>c) report weekly and annually as described in section 6 of the Wildlife Management and Monitoring Plan, including findings of baseline surveys in 10-1 Part 1.</i> <i>Monitoring will meet the requirements of Appendix C.</i></p> <p><u>10-1, Part 4: Adaptive management</u> <i>The developer will implement adaptive management as described in section 6 of the Wildlife Management and Monitoring Plan and following guidance in Appendix B of this report.</i></p>		
Measure 10-2	<p>Wildlife Management and Monitoring Plan approval, annual review and reporting</p> <p><i>Part 1 WMMP update prior to permitting</i></p> <p><i>Part 2 WMMP update during permitting</i></p> <p><i>Part 3 Annual review of the WMMP during construction and operations.</i></p>	<p><u>10-2, Part 1: Wildlife Management and Monitoring Plan update prior to permitting</u> <i>The developer will update its Wildlife Management and Monitoring Plan prior to permitting to include the developer’s commitments and Review Board’s measures from this Report of Environmental Assessment.</i></p> <p><i>Prior to permitting, the developer will, where appropriate, include Traditional Knowledge from all Aboriginal groups that harvest in the area on ways to mitigate, monitor and adaptively manage impacts from the Project to wildlife.</i></p> <p><u>10-2, Part 2: Wildlife Management and Monitoring Plan update during permitting</u> <i>During permitting, the developer will involve Environment and Climate Change Canada, GNWT-ENR, Wek’èezhìi Renewable Resources Board, Tłı̄ch̄ Government and Aboriginal groups that harvest in the area, in developing an updated Wildlife Management and Monitoring Plan. Monitoring will meet the requirements of Appendix C.</i></p> <p><i>When updating the Wildlife Management and Monitoring Plan, the developer will, where appropriate, include Traditional Knowledge from all Aboriginal groups that harvest in the area on ways to mitigate, monitor, and adaptively manage impacts from the Project to wildlife. The Wildlife Management and Monitoring Plan will be updated based on the results of available surveys and monitoring, such as caribou, bird (Measure 10-1), and moose surveys.</i></p> <p><i>The Wildlife Management and Monitoring Plan will require that construction activities, including clearing, consider sensitive wildlife periods, for example nesting periods of migratory birds.</i></p> <p><u>10-2, Part 3: Annual review of the Wildlife Management and Monitoring Plan during construction and operations</u> <i>GNWT-ENR will require annual public review of the Wildlife Management and</i></p>	<p>*The Authority is the primary party responsible for this measure.</p> <p>*The WMMP has already been incorporated into the current procurement documents.</p>	<p>· Pre-application, Pre-construction, Construction, OMR</p>

		<p><i>Monitoring Plan and make publicly viewable:</i></p> <ul style="list-style-type: none"> • recommendations from parties; • responses on how recommendations were incorporated; and, • reasons for recommendations which were not incorporated. 		
Permafrost				
Measure 11-1	Permafrost Management Plan	<p><i>To minimize permafrost degradation and prevent associated significant adverse impacts on the environment from the Project during construction and operation of the Project, the developer will develop and implement a permafrost management plan for construction and maintenance of the Project. The plan will be submitted for review and approval to the Wek'èezhìi Land and Water Board prior to construction.</i></p> <p><i>This plan will include monitoring (following the requirements in Appendix C) and adaptive management (following the requirements in Appendix B). It will incorporate the recommendations made by Natural Resources Canada during the environmental assessment process as well as recommendations from the working group (Measure 14-3).</i></p> <p><i>The developer will incorporate any relevant information from the permafrost management plan into ongoing monitoring and adaptive management during Project operations.</i></p>	<p>*The Authority is the primary party responsible for this measure.</p> <p>*The permafrost management plan has already been incorporated into the current procurement documents.</p> <p>*Project Co responsibility will be limited to subject expertise, provision of data to support reporting requirements, and attending meetings, all as required.</p>	<p>· Pre-application, Pre-construction, Construction, OMR</p>
Adaptive management, follow-up, and monitoring				
Measure 14-1	Annual reporting from the developer	<p><i>To demonstrate how measures are being implemented and to evaluate the effectiveness of the developer's efforts to prevent or minimize impacts on the environment, the developer will, throughout all phases of the development, prepare an annual report on the implementation of measures. The report will address the measures that the developer is responsible for and will:</i></p> <p><i>a) describe the actions, including actions implemented through adaptive management, being undertaken to implement the measures; and,</i></p> <p><i>b) evaluate how effective the implementation actions are in reducing or avoiding the impact (considering the results of monitoring programs and adaptive management frameworks). Where applicable, provide references to further information contained in other management plans or monitoring reports.</i></p> <p><i>The developer will provide its annual report to the Review Board one year from the date of the final approval of this Report of Environmental Assessment, and annually thereafter.</i></p>	<p>*The Authority is the primary party responsible for this measure.</p> <p>*Project Co responsibility will be limited to subject expertise, provision of data to support reporting requirements, and attending meetings, all as required up until the end of the OMR.</p> <p>*The annual report template would likely be written by the Authority; however, Project Co will be required to provide the bulk of the subject content for this report.</p>	<p>· Construction & OMR</p>
Measure 14-2	Annual reporting from government	<p><i>To help evaluate the effectiveness of mitigation measures for the protection of the environment, each regulatory authority or government that is wholly or partly</i></p>	<p>*The Authority is the party responsible for this measure.</p>	<p>· Pre-construction,</p>

	and regulatory authorities	<p>responsible for implementation of any measure in this Report of Environmental Assessment will prepare an annual report on implementation of measures. The report will:</p> <p>a) describe the actions being undertaken to implement the measures or the part(s) of the measures for which the regulatory authority or government is responsible; and, b) explain how these actions, including those implemented through adaptive management, fulfill the intent of the EA measures, including consideration of the following questions:</p> <p>i. How are implementation actions addressing a likely significant adverse impact on the environment? ii. How effective are implementation actions at reducing or avoiding the impact or its likelihood?</p> <p>Government and regulators are only responsible for reporting on the implementation actions they take, not actions taken by the developer. For example, if a regulator does not issue an authorization, provide direction to the developer, approve a management plan, or take other actions that relate to an EA measure(s) in a given year, the regulator will not need to submit a report for that year.</p> <p>The governments and regulators will provide their annual reports to the Review Board one year from the date of the final approval of this Report of Environmental Assessment, and annually thereafter.</p>		Construction, OMR
Measure 14-3	Project working group	<p>The developer will establish the Tłı̨ch̨ All-Season Road Corridor Working Group by:</p> <ul style="list-style-type: none"> • funding the Tłı̨ch̨ Government, Wek'èezhì Renewable Resources Board, Yellowknives Dene First Nation and North Slave Métis Alliance to participate in twice annual working group meetings, one of which will annually take place in Whatì; • requiring the participation of the P3 operator; and, • inviting Tłı̨ch̨ Elders to participate. <p>The developer will make meeting minutes publicly available. The developer will maintain the working group throughout the Project construction phase and for five years of Project operations, unless an extended term is agreed to by parties.</p>	<p>*The Authority will be the primary party responsible for this measure.</p> <p>*The corridor working group has already been incorporated into the current procurement documents.</p> <p>*Project Co responsibility will be limited to subject expertise, provision of data to support reporting requirements, and attending meetings, all as required.</p>	<p>· Pre-application, Pre-construction, Construction, OMR</p>
Measure 14-4	P3 operator agreement	<p>To ensure that all applicable and relevant commitments of the developer and measures directed at the developer are carried out during the construction and operation phases of the Project, the developer will formalize and include these commitments and measures in its final contract with the P3 operator.</p>	<p>*This requirement has already been incorporated into the current procurement documents.</p>	<p>· Pre-construction · In progress</p>

APPENDIX 19D
DRAFT TĪĶĶĶ ASR CORRIDOR WORKING GROUP TERMS OF REFERENCE

See attached.

APPENDIX 19D
TŁIÇHÇQ ASR CORRIDOR WORKING GROUP DRAFT TERMS OF REFERENCE
To be finalized by: March 2019

PURPOSE

Provide a forum for information exchange that meets the overall commitment made by the Government of the Northwest Territories' Department of Infrastructure (GNWT-INF) during the Mackenzie Valley Review Board environmental assessment (EA1617-01) and meets the details outlined in Measure 14-3.

GNWT-INF Commitment:

- Forum will provide advice on monitoring and mitigation results that will inform adaptive management;
- May also serve as a forum to exchange information with academic parties and researchers;
- Will include the Authority, regulatory boards and government departments, Indigenous governments and organizations, interested parties, and contractor representatives; and,
- Will be modeled off the Inuvik to Tuktoyaktuk Corridor Working Group.

Measure 14-3:

- The Developer (GNWT-INF) will establish the Tłıçhçq All-Season Road Corridor Working Group by:
 - Funding the Tłıçhçq Government, Wek'èezhì Renewable Resources Board, Yellowknives Dene First Nation and North Slave Métis Alliance to participate in twice annual working group meetings, one of which will annually take place in Whatì;
 - Requiring the participation of the P3 operator; and,
 - Inviting Tłıçhçq Elders to participate.
- The Developer will make meeting minutes publicly available.
- The Developer will maintain the working group through the Project construction phase and for five years of Project operations, unless an extended term is agreed to by parties.

Principles

In keeping with the commitment GNWT-INF made during the Mackenzie Valley Review Board environmental assessment (EA1617-01), and Measure 14-3, the Tłıçhçq All-Season Road Corridor Working Group (TASRCWG) will function in accordance with the following principles:

- a) The TASRCWG is an information sharing mechanism for GNWT-INF to report on the Project and to review outcomes of the multiple environmental management and monitoring plans with invited interested parties.
- b) The GNWT-INF will use this forum as a means to communicate and report broadly to the interested parties on the Project on a semi-annual basis (at least once per year in Whatì).
- c) Tłıçhçq Elders will be invited to participate.
- d) Key areas of interest for the TASRCWG are as follows:
 - i. Environmental Assessment commitments and measures (other than socio-economic)
 - ii. Authority construction land use permit
 - iii. Authority construction water license
 - iv. Wildlife management and monitoring plan

- v. Fisheries protection program advice
 - vi. Annual reports, management plans review and adaptive management
 - vii. Project Co annual reports and commitments
 - viii. Project Co current and forthcoming activities, and
 - ix. Additional subjects added at the discretion of the Chair.
- e) TASRCWG representatives should be selected for their expertise and strategic insight in the relevant traditional knowledge, scientific area or user needs and expectations.
 - f) Project Co will attend the TASRCWG in order to communicate Project Co related issues and compliance associated with this groups purpose.
 - g) The TARCWG does not replace the legal authorities of the Tłı̨chǫ, federal or territorial regulators or co-management bodies.
 - h) Meetings of the TASRCWG will not replace any Project-specific sub-working group meeting requirements.

OBJECTIVES

The objectives of the TASRCWG are to:

- a) review and provide comments to the GNWT-INF on the design of Project-specific monitoring programs;
- b) review Project-specific annual and other monitoring reports and provide comments to the GNWT-INF for the following year's Project-specific monitoring and mitigation program; and
- c) provide advice to the GNWT-INF on Tłı̨chǫ ASR monitoring and mitigation results that may contribute to adaptive management and/or regional cumulative effects monitoring programs.

COMPOSITION

In addition to the GNWT – INF Chair and Administrative Coordinator, the TASRCWG will be comprised of at least one representative from each of the following:

- ☉ Community Government of Whatı (CGW)
- ☉ Tłı̨chǫ Government
- ☉ North Slave Métis Alliance
- ☉ Yellowknives Dene First Nation
- ☉ Wek'èezhıı Renewable Resources Board
- ☉ Wek'èezhıı Land and Water Board
- ☉ GNWT – Department of Infrastructure (Project specialists)
- ☉ GNWT – Department of Lands (Inspector)
- ☉ GNWT – Department of Environment and Natural Resources
- ☉ Fisheries and Oceans Canada
- ☉ Natural Resources Canada
- ☉ Environment and Climate Change Canada
- ☉ Canadian Northern Economic Development Agency (CanNor)
- ☉ Project Co

ROLES AND RESPONSIBILITIES

GNWT-INF's Role

- a) The GNWT-INF will chair the meetings.
- b) The Administrative Coordinator will prepare agendas and issue notices for meetings and ensure all documentation for discussion or comment is attached to the agenda.

- c) The Administrative Coordinator will distribute the agenda one (1) month prior to each meeting, which will be held in the spring and fall of each year.
- d) GNWT – INF will fund the Tłıchq Government, Wek'èezhì Renewable Resources Board, Yellowknives Dene First Nation and North Slave Métis Alliance to participate in twice annual working group meetings, one of which will annually take place in Whatì, through the provision of a charter flight from Yellowknife the day of the meetings in Whatì, and the provision of hospitality/meals during these meetings. Alternate travel arrangements are outside the funding umbrella.
- e) The Administrative Coordinator will take notes of proceedings and prepare draft meeting minutes/Action items for circulation to members for review.
- f) The Administrative Coordinator will post meeting minutes/action items on GNWT-INF's Tłıchq ASR webpage within two (2) months of each meeting.
(<https://www.inf.gov.nt.ca/en/t%C5%82%C4%B1%CC%A8ch%C7%AB-all-season-road-project>)
- g) The Administrative Coordinator will also perform all necessary preparatory administrative duties such as booking the venue and catering, arranging transportation, teleconference setup (if required).

Invited Representatives' Role

- a) Review documents and data circulated prior to each meeting.
- b) Contribute experience and ideas.
- c) Have experts within respective organizations verify and analyse the data collected and provide recommendations or modifications.
- d) Cooperate in issue resolution.

DURATION OF MEETINGS

Length of meetings will vary based on the agenda. At each meeting there will be a standard agenda as per Attachment A, recognizing different needs between the Construction, OMR and transition phases. Travel to and from the meeting is additional time. Longer meetings are expected earlier in the Project's Construction Period.

MEETING MINUTES

Meeting minutes will include action items if required and will be formatted in a similar fashion to the template found in Attachment B.

DURATION OF WORKING GROUP

The TASRCWG will be established by March 2019 and will operate for the Construction Period and for five (5) years of the Operating Period, unless an extended term is agreed to by its parties.

REVIEW PERIOD

This Terms of Reference will be reviewed and updated as required.

Attachment A – Agenda Template

Attachment B – Meeting Minutes Template

Attachment A

AGENDA

At each meeting there will be a standard agenda consisting of:

- a) Review of Construction process.
- b) Review of key areas of interest.
- c) Regulatory reporting and observations
- d) Review of adaptive management measures that were implemented, if any, and information regarding the need for future adaptive management.
- e) Other items of business.

Example of Agenda:



PROPOSED MEETING AGENDA
INUVIK TUKTOYAKTUK HIGHWAY
CORRIDOR WORKING GROUP



Date: 22 November 2016

Location: Aurora Research Institute, 191 Mackenzie Rd. Inuvik
 Teleconference (1-800-303-7189, Participant Code 3049594)

ITEM	TIME	TOPIC	PRESENTER
1	09:00	Welcome and Opening Prayer	
2		Introduction of Participants	
3		Review of Agenda <i>Reminder that the meeting is being recorded for minute taking and there may be a photographer</i>	Chair
4		Review of June 15, 2016 Minutes and Action Items	Chair
5		Review of Summer 2016 Construction Activities and Erosion and Sediment Control	EGTNW
6	10:15	BREAK	
7	10:30	Regulatory Compliance <ul style="list-style-type: none"> o Incidents and Reporting Overview By Regulators <ul style="list-style-type: none"> ▪ Inuvialuit Water Board ▪ Inuvialuit Land Administration ▪ Environment & Climate Change Canada ▪ Fisheries and Oceans Canada ▪ Lands ▪ ENR o Review of Regulatory Tracking and Responses 	Various DOT ITH
8		Review of Wildlife Mitigation and Monitoring <ul style="list-style-type: none"> o Wildlife and Wildlife Habitat Protection o Wildlife Effects Monitoring Program o Update on Draft Operational Plans 	ENR
9	12:00	BREAK - Lunch provided	
10	12:45	Review of Aquatic Mitigation and Monitoring <ul style="list-style-type: none"> o Fisheries Management Plan o SNP-Aquatic Effects Monitoring Program 	TIWG DOT ITH
11		Review of Geotechnical Mitigation and Monitoring <ul style="list-style-type: none"> o Granular Resources and Pit Development o Research & Development 	EGTNW DOT H&M
12	2:30	Overview of Winter 2017 Construction Activities and Schedule	EGTNW
13	3:00	BREAK	
14	3:15	Lessons Learned/Roundtable Discussion	
15		Summary of Meeting and What to Expect Going Forward	Chair
16		Set Date for Spring 2017 Meeting	Chair / All
17	5:00	Closing Prayer	

Attachment B

[Note to Completion: Example Corridor Working Group Meeting Minutes to be inserted.]

DRAFT

SCHEDULE 20

LOCAL CONTENT REQUIREMENTS

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SCHEDULE 20

LOCAL CONTENT REQUIREMENTS

1. DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Schedule, in addition to the definitions set out in Schedule 1 [Definitions and Interpretation] of this Agreement:

“Community Coordination Lead” means the Key Individual identified by such title in Appendix 17A [List of Key Individuals], or such replacement as may be designated by Project Co pursuant to Schedule 17 [Key Individuals] to the Agreement.

“Construction Labour Costs” means the amounts paid directly by the Design-Builder, or indirectly by Sub-Contractors, to individuals for labour, consulting services, management services or other services performed in the Northwest Territories, whether performed on the Lands or in other parts of the Northwest Territories, to complete the Tłı̨chǝ ASR.

“Local Business Construction Plan” has the meaning set out in Section 2.6(b) of this Schedule.

“Local Business Construction Requirement” means a requirement for Project Co to pay at least 30% of the Total Capital Costs to Tłı̨chǝ Businesses and Northern Businesses, in aggregate, before the Substantial Completion Date, of which at least 25% of the Total Capital Costs are required to be paid to Tłı̨chǝ Businesses pursuant to the Tłı̨chǝ Businesses Construction Requirement.

“Local Business Operations Plan” has the meaning set out in Section 2.6(e) of this Schedule.

“Local Business Operations Requirement” means a requirement for Project Co to pay at least 25% of Total Operation, Maintenance and Rehabilitation Costs to Tłı̨chǝ Businesses and Northern Businesses, in aggregate, during each Operating Year, of which at least 20% of the Total Operation, Maintenance and Rehabilitation Costs are required to be paid to Tłı̨chǝ Businesses pursuant to the Tłı̨chǝ Business Operations Requirement.

“Local Content Engagement Plan” means the plan created by Project Co, as described in Section 2.6 of this Schedule, comprised of five integrated components: the Tłı̨chǝ Construction Labour Plan, the Tłı̨chǝ Operating Labour Plan, the Local Business Construction Plan, the Local Business Operations Plan and the Tłı̨chǝ Training Plan.

“Local Content Requirements” include:

- (a) the Tłı̨chǝ Construction Labour Requirement;
- (b) the Tłı̨chǝ Operating Labour Requirement;
- (c) the Local Business Construction Requirement (including the Tłı̨chǝ Business Construction Requirement);
- (d) the Local Business Operations Requirement (including the Tłı̨chǝ Business Operations Requirement); and
- (e) the Tłı̨chǝ Training Requirement.

“Northern Business” means a business, other than a Tłıchq Business, that (i) holds a current business licence issued by either a municipal corporation within the Northwest Territories or the Government of the Northwest Territories; and (ii) operates from a *bona fide* place of business owned or leased from year to year (or for a longer term of years) in the Northwest Territories and has done so for at least the 12 months immediately prior to the Effective Date, or such shorter period of time as approved by the Authority in its sole discretion. Where services are procured from a Northern Business, only the value of Project services performed by employees of that business who reside and work within the Northwest Territories may be used for the purpose of determining compliance with the Local Business Construction Requirement and Local Business Operations Requirement. Where goods are procured from a Northern Business, the value of all Project goods may be used for the purpose of determining compliance with the Local Business Construction Requirement and Local Business Operations Requirement.

“Operation, Maintenance and Rehabilitation Labour Costs” means, for any period, the amount paid directly by the Service Provider, or indirectly by Sub-Contractors, to individuals for labour, consulting services, management services or other services performed in the Northwest Territories, whether performed on the Lands or in other parts of the Northwest Territories to perform the OMR, any Reinstatement Works and any Handback Works;

“RFP” means the request for proposals dated December 4, 2017 in respect of the Project;

“TIC” means the Tłıchq Investment Corporation, which is the economic development arm of the Tłıchq Government created to act in the business interests of the Band Councils of Behchokq, Gamèti, Wekweèti and Whatì as well as the Treaty 11 Council.

“Tłıchq ASR Executive Committee” means the following individuals, as may be replaced from time to time:

- (a) 2 or more Authority Persons, as appointed by the Authority;
- (b) 2 individuals representing the Tłıchq Government, as appointed by the Tłıchq Government; and
- (c) the Project Co Representative for the Construction Period or the Operating Period, as applicable.

“Tłıchq Business” means a business entity that:

- (a) operates under the umbrella of TIC or a TIC subsidiary; or
- (b) has been designated in writing by either of TIC or the Tłıchq Government as a Tłıchq Business.

“Tłıchq Business Construction Requirement” means a requirement for Project Co to pay at least 25% of Total Capital Costs to Tłıchq Businesses before the Substantial Completion Date.

“Tłıchq Business Operations Requirement” means a requirement for Project Co to pay at least 20% of the Total Operation, Maintenance and Rehabilitation Costs to Tłıchq Businesses during each Operating Year.

“Tłıchq Citizens” means those individuals who are on the Tłıchq citizens register maintained by the Tłıchq Government.

“Tłıchq Construction Labour Annual Forecasts” has the meaning set out in Section 2.6(a)(i) of this Schedule.

“**Tłı̄chq Construction Labour Plan**” has the meaning set out in Section 2.6(a) of this Schedule.

“**Tłı̄chq Construction Labour Requirement**” means a requirement for Project Co to pay at least 35% of total Construction Labour Costs to Tłı̄chq Citizens and/or workers procured by a Tłı̄chq Business before the Substantial Completion Date.

“**Tłı̄chq Government**” means the elected government of the Tłı̄chq First Nation.

“**Tłı̄chq Operating Labour Plan**” has the meaning set out in Section 2.6(d) of this Schedule.

“**Tłı̄chq Operating Labour Percentage**” means, for any period, the percentage of Total Operation Maintenance and Rehabilitation Costs paid to Tłı̄chq Citizens and/or workers procured by a Tłı̄chq Business during any period, calculated as follows:

$$\text{TOLP}_n = \frac{\text{TOMRLC}_n}{\text{OMRLC}_n}$$

where:

TOLP_n = Tłı̄chq Operating Labour Percentage for period n

n = period over which ratio is calculated

TOMRLC_n = Operations, Maintenance and Rehabilitation Labour Costs paid to Tłı̄chq Citizens and workers procured by a Tłı̄chq Business for period n

OMRLC_n = Operations, Maintenance and Rehabilitation Labour Costs for period n

“**Tłı̄chq Operating Labour Requirement**” means a requirement for Project Co to achieve a Tłı̄chq Operating Labour Percentage of:

- (a) 55% for each of the first 5 Operating Years;
- (b) 60% for each of the 6th to 10th Operating Year, inclusive;
- (c) 65% for each of the 11th to 15th Operating Year, inclusive;
- (d) 70% for each of the 16th to 20th Operating Year, inclusive; and
- (e) 75% for each of the 21st to 25th Operating Year, inclusive.

“**Tłı̄chq Training Committee**” means a training committee to be designated by the Authority, in consultation with the Tłı̄chq Government, within 60 days following the Effective Date.

“**Tłı̄chq Training Plan**” has the meaning set out in Section 2.6(c) of this Schedule.

“**Tłı̄chq Training Requirements**” has the meaning set out in Section 2.5 of this Schedule.

“**Total Capital Costs**” means all hard construction costs (including any holdbacks) related to the Design and Construction of the Tłı̄chq ASR, as set out in the Financial Model, and including, without limitation, all Construction Labour Costs, but excluding financing costs, interest, insurance costs, design costs, project management costs and special purpose vehicle costs.

“Total Operation, Maintenance and Rehabilitation Costs” means all direct costs of providing OMR, any Reinstatement Works and any Handback Works, as set out in the OMR Monthly Reports to be provided by Project Co, and including, without limitation, all Operations, Maintenance and Rehabilitation Labour Costs, but excluding financing costs, interest, insurance costs, amortized capital costs, design costs, project management costs and special purpose vehicle costs.

1.2 Interpretation

For clarity, in this Schedule and the Project Agreement, the terms “Local Content” and “Local Business” have the meanings set out in Section 1.1 of this Schedule and do not have any relation to the definition of “Local Content” as set out in the GNWT’s Business Incentive Policy (from which the Project is exempt). In addition, words importing the singular include the plural and vice versa.

2. LOCAL CONTENT REQUIREMENTS

2.1 Tłı̨chq Construction Labour Requirement

Project Co shall satisfy the Tłı̨chq Construction Labour Requirement over the course of the Construction Period. Project Co shall use reasonable commercial efforts to ensure that, to the extent qualified resources are available, the Tłı̨chq Construction Labour Requirement is satisfied by offering labour opportunities first to Tłı̨chq Citizens, second to other residents of Northwest Territories, and third to other individuals.

2.2 Tłı̨chq Operating Labour Requirement

Project Co shall satisfy the Tłı̨chq Operating Labour Requirement for each Operating Year during the Operating Period. Project Co shall use reasonable commercial efforts to ensure that, to the extent qualified resources are available, the Tłı̨chq Operating Labour Requirement is satisfied by offering labour opportunities first to Tłı̨chq Citizens, second to other residents of Northwest Territories, and third to other individuals.

2.3 Local Business Construction Requirement

Project Co shall satisfy the Local Business Construction Requirement over the course of the Construction Period.

2.4 Local Business Operations Requirement

Project Co shall satisfy the Local Business Operations Requirement for each Operating Year during the Operating Period.

2.5 Tłı̨chq Training Requirements

Project Co must satisfy the following minimum Tłı̨chq training requirements (the **“Tłı̨chq Training Requirements”**):

- (a) abiding by the following training principles:
 - (i) facilitate training opportunities for Tłı̨chq Citizens, paying particular attention to creating opportunities for women and youth;
 - (ii) provide training opportunities for a range of positions including, but not limited to, skilled trades, labour, administration, management and environmental monitoring;

- (iii) work collectively with responsible parties to eliminate or reduce the barriers that Tłıchq̓ people face in accessing training, including but not limited to the challenges of single parenting, existing criminal records, and low literacy skills;
 - (iv) identify, for trainee positions, an on-ramp into the workforce, in order that training opportunities are followed reasonably soon with employment;
 - (v) work with regional and local authorities and existing training institutions to identify practical training options;
 - (vi) complement, support and partner with existing training programs and strategies, while maintaining Project Co input into training programs;
 - (vii) create opportunities for training for Tłıchq̓ Citizens of varying education levels, including those without high school diplomas;
 - (viii) focus training opportunities in the Tłıchq̓ communities of Whatì, Behchok̓, Gamètì and Wekweètì;
 - (ix) wherever possible, support training projects that will support equipment and/or infrastructure capacity in Tłıchq̓ communities;
 - (x) create opportunities for leadership training and advancement by developing training opportunities for a range of positions, including management and leadership roles; and
 - (xi) adopt a continual training approach, in order that Tłıchq̓ Citizens have ongoing access to training during employment on the Project and are able to progress in their careers;
- (b) training Tłıchq̓ Citizens, through apprenticeship positions and other “on-the-job” training programs, for positions including, but not limited to, those listed in Appendix 20A [Tłıchq̓ Training Positions];
 - (c) implementing monitoring, reporting and auditing protocols of the Tłıchq̓ Training Plan, which shall include delivery of quarterly reports pursuant to Section 3.2(b) of this Schedule; and
 - (d) meeting semi-annually with the Tłıchq̓ Training Committee to assess Project Co’s success in achieving the Tłıchq̓ Training Requirements and to determine what changes, if any, need to be implemented.

2.6 Local Content Engagement Plan

Project Co shall submit to the Authority and the Tłıchq̓ ASR Executive Committee the 5 components of an integrated plan (the “**Local Content Engagement Plan**”), each component being submitted by the dates provided herein:

- (a) Within 60 days following the Effective Date, a final Tłıchq̓ Construction Labour Plan (the “**Tłıchq̓ Construction Labour Plan**”) based on the draft Tłıchq̓ Construction Labour Plan submitted by Project Co in response to the RFP and reflecting all commercially reasonable feedback received from the Authority.

The Tłıchq Construction Labour Plan must include details on how Project Co intends to achieve the Tłıchq Construction Labour Requirement. The Tłıchq Construction Labour Plan shall address:

- (i) details on what work will be carried out by Tłıchq Citizens;
 - (ii) annual forecasts detailing the percentage of Construction Labour Costs to be paid to Tłıchq Citizens and/or workers procured by Tłıchq Businesses, and the residency of such worker, on an annual basis, including a forecast for the partial year between the applicable anniversary of the Effective Date and the Substantial Completion Date (the “**Tłıchq Construction Labour Annual Forecasts**”);
 - (iii) strategies for the successful recruitment of Tłıchq Citizens;
 - (iv) strategies for the successful retention and promotion of Tłıchq Citizens;
 - (v) career progression planning through promotions/advancement for Tłıchq Citizens;
 - (vi) effective management of all staff;
 - (vii) cultural awareness training for non-Tłıchq workers;
 - (viii) monitoring, monthly reporting, annual presentations and auditing protocols; and
 - (ix) how the Community Coordination Lead will work to monitor and achieve successful implementation of the Tłıchq Construction Labour Plan.
- (b) Within 60 days of the Effective Date, a final Local Business Construction Plan (the “**Local Business Construction Plan**”) based on the draft Local Business Construction Plan submitted by Project Co in response to the RFP and reflecting all commercially reasonable feedback received from the Authority.

The Local Business Construction Plan must include details on how Project Co intends to achieve the Local Business Construction Requirement. The Local Business Construction Plan shall:

- (i) identify the work intended to be carried out by Tłıchq Businesses, as well as the dollar value of such work (and, if applicable, the work intended to be carried out by Northern Businesses, as well as the dollar value of such work);
- (ii) detail how qualified Tłıchq Businesses (and, if applicable, Northern Businesses) will be identified and integrated into the Project;
- (iii) detail any preferential policies with regards to contracting with Tłıchq Businesses (and, if applicable, Northern Businesses);
- (iv) describe how relationships with Tłıchq Businesses (and, if applicable, Northern Businesses) will be managed;
- (v) detail monitoring, annual reporting and presentations, and auditing protocols; and
- (vi) detail how the Community Coordination Lead will work to monitor and achieve successful implementation of the Local Business Construction Plan.

- (c) Within 60 days of the Effective Date, a final Tłıchq Training Plan (the “**Tłıchq Training Plan**”) based on the draft Tłıchq Training Plan submitted by Project Co in response to the RFP and reflecting all commercially reasonable feedback received from the Authority.

The Tłıchq Training Plan must include details on how Project Co intends to achieve the Tłıchq Training Requirement in the Construction Period and the Operating Period. The Tłıchq Training Plan shall:

- (i) identify ongoing specific training strategies and programs to achieve the training principles set out in Section 2.5(a) of this Schedule;
- (ii) discuss how training opportunities will be provided in Tłıchq communities to maximize participation by Tłıchq Citizens;
- (iii) identify how positions from Appendix 20A [Tłıchq Training Positions] will be filled;
- (iv) detail how Tłıchq Citizens will be identified and recruited, as well as in which geographic locations;
- (v) identify Project Co’s staff to supervise, monitor, support and coordinate trainees;
- (vi) identify human resource monitoring protocols and clearly defined targets and indicators;
- (vii) discuss partnerships with educational institutions and other training organizations;
- (viii) discuss how training programs will be coordinated with existing programs and organizations;
- (ix) discuss how trainees will be moved into employment positions on completion of, or during, training activities; and
- (x) address monitoring, quarterly reporting, annual presentations and auditing protocols.

- (d) Not less than 60 days prior to the Substantial Completion Date, a final Tłıchq Operating Labour Plan (the “**Tłıchq Operating Labour Plan**”) based on the draft Tłıchq Operating Labour Plan submitted by Project Co in response to the RFP and reflecting all commercially reasonable feedback received from the Authority.

The Tłıchq Operating Labour Plan must include details on how Project Co intends to achieve the Tłıchq Operating Labour Requirement. The Tłıchq Operating Labour Plan shall address:

- (i) details on what work will be carried out by Tłıchq Citizens;
- (ii) strategies for successful recruitment of Tłıchq Citizens;
- (iii) strategies for successful retention and promotion of Tłıchq Citizens;
- (iv) approach to how escalating levels of Tłıchq labour will be achieved;
- (v) succession planning;

- (vi) effective management of all staff;
 - (vii) cultural awareness training for non-Tłıchq workers;
 - (viii) monitoring, annual reporting and presentations, and auditing protocols; and
 - (ix) how the Community Coordination Lead will work to monitor and achieve successful implementation of the Tłıchq Operating Labour Plan.
- (e) Not less than 60 days prior to the Substantial Completion Date, a final Local Business Operations Plan (the “**Local Business Operations Plan**”) based on the draft Local Business Operations Plan submitted by Project Co in response to the RFP and reflecting all commercially reasonable feedback received from the Authority.

The Local Business Operations Plan must include details on how Project Co intends to achieve the Local Business Operations Requirement. The Local Business Operations Plan shall:

- (i) identify the work intended to be carried out by Tłıchq Businesses, as well as the dollar value of such work (and, if applicable, the work intended to be carried out by Northern Businesses, as well as the dollar value of such work);
- (ii) detail how qualified Tłıchq Businesses (and, if applicable, Northern Businesses) will be identified and integrated into the Project;
- (iii) detail any preferential policies with regards to contracting with Tłıchq Businesses (and, if applicable, Northern Businesses);
- (iv) describe how relationships with Tłıchq Businesses (and, if applicable, Northern Businesses) will be managed;
- (v) detail monitoring, annual reporting and presentations, and auditing protocols; and
- (vi) detail how the Community Coordination Lead will work to monitor and achieve successful implementation of the Local Business Operations Plan.

The monitoring, reporting and auditing protocols contained in the Local Content Engagement Plan shall be designed to include specific identification of Tłıchq Citizens and Tłıchq Businesses (and, if applicable, Northern Businesses) participating in the Project, detailed reporting of the level of involvement and achievement, and shall include the creation of an auditable record of Local Content Engagement Plan achievements.

The parties agree that the final plans in items (a) to (e) above shall be, in each case, substantively consistent to each corresponding draft plan in Project Co’s Proposal.

2.7 Failure to Meet Minimum Local Content Requirements

In the event that Project Co fails to meet any of the minimum Local Content Requirements, Project Co and the Authority shall meet to determine an appropriate remedial strategy to address such failure. If Project Co fails to satisfy:

- (a) any minimum Local Content Requirements other than Tłıchq Training Requirements, Project Co will be assigned Compliance Failure Points in accordance with Schedule 8 [Payments]; or

(b) the Tłıchq Training Requirements, this will constitute a Project Co Material Breach, unless relief has been granted to Project Co pursuant to Section 3.3 of this Schedule.

2.8 Incentives to Exceed Minimum Local Content Requirements

In the event that Project Co exceeds any of the minimum Local Content Requirements, Project Co will be eligible to receive incentive payments in accordance with Schedule 8 [Payments].

3. OVERSIGHT

3.1 Tłıchq ASR Executive Committee

- (a) Within 60 days of the Effective Date, the Authority shall establish the Tłıchq ASR Executive Committee, which will perform the following functions:
- (i) meet on at least a quarterly basis during the Construction Period and a semi-annual basis during the Operating Period to discuss issues related to the Project and to identify solutions;
 - (ii) provide information, advice and guidance to Project Co on how to achieve the Local Content Requirements, including assisting Project Co in finding ways to overcome challenges;
 - (iii) review the initial drafts of each component of the Local Content Engagement Plan and the monthly reports required under Section 3.2(a) of this Schedule, providing comments and non-binding recommendations to Project Co and the Authority as required;
 - (iv) meet with Project Co at least annually during the Construction Period and at least bi-annually during the Operating Period to assess Project Co's adherence to the Local Content Requirements and the relevant components of the Local Content Engagement Plan, with additional ad hoc meetings to be held upon the request of the Authority, the Tłıchq Government and/or Project Co;
 - (v) provide non-binding recommendations to the Authority related to Project Co requests for relief under Section 3.3 of this Schedule, taking into account the factors listed in Section 3.3(f) of this Schedule; and
 - (vi) consult with the Tłıchq Training Committee as required to facilitate effective implementation of the Tłıchq Training Plan.
- (b) The Tłıchq ASR Executive Committee will be required to carry out its intended functions even if a non-Authority body fails to appoint a representative to the Tłıchq ASR Executive Committee or if one or more Tłıchq ASR Executive Committee members fail to attend a scheduled meeting, provided that at least one Authority committee member is present at such meeting.
- (c) Meetings shall be held at such location(s) as may be decided by the committee. Meetings may be held by conference call or video call provided each committee member can hear and be heard. The Project Co Representative will take minutes for each meeting of the Tłıchq ASR Executive Committee and will circulate such minutes to all committee members within 5 Business Days. The Tłıchq ASR Executive Committee may invite to its meetings or exclude from any meeting or from any part of any meetings any individuals not on the

Tłıçhǫ ASR Executive Committee as may be decided by the majority of the committee members present.

3.2 Reporting

- (a) Project Co shall provide the Authority Representative and the Tłıçhǫ ASR Executive Committee with:
 - (i) a monthly report, or otherwise as may periodically be requested by the Authority or the Tłıçhǫ ASR Executive Committee, acting reasonably, on the status of Project Co's compliance with and performance of the Local Content Requirements and the Local Content Engagement Plan in such form and with such content as acceptable to the Authority Representative and the Tłıçhǫ ASR Executive Committee, acting reasonably;
 - (ii) labour records and paid business invoices, as applicable:
 - A. within 20 Business Days following each anniversary of the Effective Date with respect to the percentage of Construction Labour Costs paid to Tłıçhǫ Citizens and/or workers procured by a Tłıçhǫ Business during the prior 12 months;
 - B. within 20 Business Days following the Substantial Completion Date with respect to the Tłıçhǫ Construction Labour Requirement and the Local Business Construction Requirement;
 - C. within 20 Business Days following the end of each Operating Year with respect to the Tłıçhǫ Operating Labour Requirement and the Local Business Operations Requirement; and
 - D. at the same time as the quarterly reports required in accordance with Section (b)(i)3.2(b)(i) in respect of the implementation of the Tłıçhǫ Training Plan and the Tłıçhǫ Training Requirement;
 - (iii) such other documentation and information in respect of the Local Content Requirements as the Authority Representative or the Tłıçhǫ ASR Executive Committee may reasonably request; and
 - (iv) copies of any proposed revisions to the Local Content Engagement Plan or any of its constituent plans.
- (b) Project Co shall provide the Authority Representative, the Tłıçhǫ ASR Executive Committee and the Tłıçhǫ Training Committee with:
 - (i) quarterly reports by the dates indicated in Table 3 (Reports and Plans Requirements) of Appendix 8A [Assignment of Compliance Failure Points] on the implementation of the Tłıçhǫ Training Plan, with the following information included for each trainee, as applicable:
 - A. name;
 - B. year of apprenticeship;
 - C. length of employment; and/or

- D. confirmation of enrollment;
- (ii) such additional information as reasonably requested by the Authority Representative, the Tłıchq ASR Executive Committee and/or the Tłıchq Training Committee; and
- (iii) copies of any proposed revisions to the Tłıchq Training Plan.

3.3 Requests for Relief from Minimum Local Content Requirements

- (a) To the extent that Project Co is unable to satisfy the Tłıchq Construction Labour Requirement, Project Co may request relief if Project Co can demonstrate that it has diligently carried out its Tłıchq Construction Labour Plan and that the failure to satisfy the Tłıchq Construction Labour Requirement is due to factors outside Project Co's reasonable control.

To seek relief under this Section 3.3(a), Project Co must convene a meeting with the Authority and the Tłıchq ASR Executive Committee and, 10 Business Days before the meeting, distribute materials to the Authority and the Tłıchq ASR Executive Committee that address the following:

- (i) evidence of Tłıchq Construction Labour Plan efforts;
- (ii) evidence of Tłıchq Construction Labour Plan achievements;
- (iii) challenges to Tłıchq Construction Labour Plan;
- (iv) adjustments to implementation of Tłıchq Construction Labour Plan attempted and results; and
- (v) proposed level of relief to the Tłıchq Construction Labour Requirement.

Any relief granted with respect to the Tłıchq Construction Labour Requirement shall be decided in the Authority's discretion, or, if Project Co disputes the Authority's decision, according to a final determination reached through the Dispute Resolution Procedure.

- (b) To the extent that Project Co is unable to satisfy the Local Business Construction Requirement, Project Co may request relief from the Local Business Construction Requirement if Project Co can demonstrate that it has diligently carried out its Local Business Construction Plan and that the failure to satisfy the Local Business Construction Requirement is due to factors outside Project Co's reasonable control.

To seek relief under this Section 3.3(b), Project Co must convene a meeting with the Authority and the Tłıchq ASR Executive Committee and, 10 Business Days before the meeting, distribute materials to the Authority and the Tłıchq ASR Executive Committee that address the following:

- (i) evidence of Local Business Construction Plan efforts;
- (ii) evidence of Local Business Construction Plan achievements;
- (iii) challenges to Local Business Construction Plan;

- (iv) adjustments to implementation of Local Business Construction Plan attempted and results; and
- (v) proposed level of relief to the Local Business Construction Requirement.

Any relief granted with respect to the Local Business Construction Requirement shall be decided in the Authority's discretion, or, if Project Co disputes the Authority's decision, according to a final determination reached through the Dispute Resolution Procedure.

- (c) To the extent that Project Co is unable to satisfy the Tłıchq Operating Labour Requirements, Project Co may request relief from the Tłıchq Operating Labour Requirement if Project Co can demonstrate that it has diligently carried out its Tłıchq Operating Labour Plan and that the failure to satisfy the Tłıchq Operating Labour Requirement is due to factors outside Project Co's reasonable control.

To seek relief under this Section 3.3(c), Project Co must convene a meeting with the Authority and the Tłıchq ASR Executive Committee and, 10 Business Days before the meeting, distribute materials to the Authority and the Tłıchq ASR Executive Committee that address the following:

- (i) evidence of Tłıchq Operating Labour Plan efforts to date;
- (ii) evidence of Tłıchq Operating Labour Plan achievements to date;
- (iii) challenges to the Tłıchq Operating Labour Plan;
- (iv) adjustments to implementation of the Tłıchq Operating Labour Plan already attempted and results;
- (v) proposed level of relief to the Tłıchq Operating Labour Requirement; and
- (vi) future adjustments to implementation of the Tłıchq Operating Labour Plan.

Any relief granted with respect to the Tłıchq Operating Labour Requirement shall be decided in the Authority's discretion, or, if Project Co disputes the Authority's decision, according to a final determination reached through the Dispute Resolution Procedure. Any relief granted under this Section 3.3(c) shall be limited to one year unless further relief is requested and granted.

- (d) To the extent that Project Co is unable to satisfy the Local Business Operations Requirement, Project Co may request relief from the Local Business Operations Requirement if Project Co can demonstrate that it has diligently carried out its Local Business Operations Plan and that the failure to satisfy the Local Business Operations Requirement is due to factors outside Project Co's reasonable control.

To seek relief under this Section 3.3(d), Project Co must convene a meeting with the Authority and the Tłıchq ASR Executive Committee and, 10 Business Days before the meeting, distribute materials to the Tłıchq ASR Executive Committee and the Authority that address the following:

- (i) evidence of Local Business Operations Plan efforts to date;
- (ii) evidence of Local Business Operations Plan achievements to date;
- (iii) challenges to the Local Business Operations Plan;

- (iv) adjustments to implementation of the Local Business Operations Plan already attempted and results;
- (v) proposed level of relief to the Local Business Operations Requirement; and
- (vi) future adjustments to implementation of the Local Business Operations Plan.

Any relief granted with respect to the Local Business Operations Requirement shall be decided in the Authority's discretion, or, if Project Co disputes the Authority's decision, according to a final determination reached through the Dispute Resolution Procedure. Any relief granted under this Section 3.3(d) shall be limited to one year unless further relief is requested and granted.

- (e) To the extent that Project Co is unable to satisfy the Tłı̄ch̄o Training Requirement, Project Co may request relief from the Tłı̄ch̄o Training Requirement if Project Co can demonstrate that it has diligently carried out their Tłı̄ch̄o Training Plan and that the failure to satisfy the Tłı̄ch̄o Training Requirement is due to factors outside Project Co's reasonable control.

To seek relief under this Section 3.3(e), Project Co must convene a meeting with the Authority, the Tłı̄ch̄o ASR Executive Committee and the Tłı̄ch̄o Training Committee and, 15 Business Days before the meeting, distribute materials to the Authority, the Tłı̄ch̄o ASR Executive Committee and the Tłı̄ch̄o Training Committee that address the following:

- (i) evidence of Tłı̄ch̄o Training Plan efforts to date;
- (ii) evidence of Tłı̄ch̄o Training Plan achievements to date;
- (iii) challenges to the Tłı̄ch̄o Training Plan;
- (iv) adjustments to implementation of the Tłı̄ch̄o Training Plan already attempted and results;
- (v) proposed level of relief to the Tłı̄ch̄o Training Requirement; and
- (vi) future adjustments to implementation of the Tłı̄ch̄o Training Plan.

Any relief granted with respect to the Tłı̄ch̄o Training Requirement shall be decided in the Authority's discretion, or, if Project Co disputes the Authority's decision, according to a final determination reached through the Dispute Resolution Procedure. Any relief granted under this Section 3.3(e) shall be limited to one year unless further relief is requested and granted.

- (f) In considering any application from Project Co for relief pursuant to this Section 3.3, the Authority may take into consideration, without limitation, the following:
 - (i) the non-binding recommendations of the Tłı̄ch̄o ASR Executive Committee and, if applicable, the Tłı̄ch̄o Training Committee;
 - (ii) Project Co's demonstrated effort in meeting the relevant plan's requirements;
 - (iii) Project Co's adaptation of the plan to changed circumstances;
 - (iv) Project Co's effort in making adaptations;
 - (v) Project Co's level of success achieved during prior periods;

- (vi) local labour market conditions; and
- (vii) Project Co resources dedicated to achieving plan success.

4. OTHER MATTERS

4.1 Cooperation with Consultation

Project Co, at the request of the Authority, shall co-operate with and provide reasonable assistance to the Authority in connection with any consultations by the Authority with any Tłıchq Citizen and/or Tłıchq Business on issues pertaining to the Project.

4.2 Tłıchq Community Updates

Project Co shall host in-person community update sessions to provide community members with information regarding the status of the Project and to answer any questions from community members. Such update sessions shall be held according to the following schedule:

- (a) in the community of Whatı, on at least a semi-annual basis during the Construction Period and on at least an annual basis during the Operating Period;
- (b) in the community of Behchokq, on at least a semi-annual basis during the Construction Period and on at least an annual basis during the Operating Period;
- (c) in the community of Gameti, on at least an annual basis during both the Construction Period and the Operating Period; and
- (d) in the community of Wekweeti on at least an annual basis during both the Construction Period and the Operating Period.

The above schedule indicates minimum requirements. Project Co shall host additional in-person community update sessions throughout the Term as required by the Authority and/or the Tłıchq ASR Executive Committee to provide updates to and/or address concerns of community members.

4.3 Designated Community Coordination Lead

Project Co shall designate a Community Coordination Lead, who shall be an employee or contractor of Project Co, the Design-Builder (during the Construction Period) or the Service Provider (during the Operating Period). The Community Coordination Lead shall be a Key Individual and shall have responsibility for the matters described in this Schedule. The Community Coordination Lead shall be available at all times to confer and consult with the Authority and a designated representative of the Tłıchq Government at the request of the Authority or the Tłıchq Government from time to time.

APPENDIX 20A

TŁJCHQ TRAINING POSITIONS

Training Position	Category
Project Manager	Administrative
Logistics coordinator	Administrative
Procurement coordinator	Administrative
Draftsman	Administrative
Tower operator - crusher	Civil Works
Aggregate QC tester	Civil Works
Batch plant operator	Civil Works
Heavy equipment operator - dozer	Civil Works
Heavy equipment operator - packer	Civil Works
Heavy equipment operator - grader	Civil Works
Heavy equipment operator - loader	Civil Works
Heavy equipment operator - excavator	Civil Works
Heavy equipment operator - haul truck	Civil Works
Heavy equipment operator - mobile crane	Civil Works
Blaster	Civil Works
Surveyor	Civil Works
Archaeologist assistant	Environment
Environmental monitor (including skills in respect of water quality, land use, air quality and wildlife monitoring)	Environment
Heavy duty mechanic	Trades
Welder	Trades
Machinist	Trades
Partsperson	Trades
Cook	Trades

APPENDIX 20B

TŁIČHQ ASR EXECUTIVE COMMITTEE CODE OF CONDUCT

See attached.

Tłı̨chǫ ASR Executive Committee Confidentiality Code of Conduct

("Confidentiality Code")

TO: The Government of the Northwest Territories (the "Authority")

AND TO: North Star Infrastructure GP ("Project Co")

AND TO: The Tłı̨chǫ Government

(the "Stakeholders")

All capitalized terms not otherwise defined herein shall have the meaning given to them in the project agreement entered into between the Authority and Project Co on {{Month}} {{Day}}, {{Year}} (the "**Project Agreement**").

Pursuant to the Project Agreement for the Tłı̨chǫ All-Season Road project (the "**Project**"), certain individuals will be appointed by the Stakeholders to serve on the Tłı̨chǫ ASR Executive Committee (the "**Committee**") to fulfill functions set out in Schedule 20 of the Project Agreement (the "**Purpose**"). Each Committee member acknowledges that the purpose of this Confidentiality Code is to ensure that Stakeholder Confidential Information disclosed to the Committee over the life of the Project is handled appropriately. While serving on the Committee, Committee members may receive Confidential Information from Stakeholders such as, but not limited to, Personal Information, Project Co proprietary information and information that is politically sensitive. As a result, Committee members must ensure that they do not share information in a manner that could unfairly jeopardize the rights and interests of the Stakeholders.

Each Committee member commits to the Stakeholders that he/she will at all times abide by the following requirements:

1. Committee Member Obligations. The Committee members shall not disclose any Confidential Information to anyone outside the Committee, subject to the following exceptions:
 - (a) to the extent disclosure is required to achieve the Purpose (in which case Committee members will disclose only the portion of Confidential Information that is required to be disclosed, and shall anonymize such Confidential Information before disclosure, to the extent it is practical to do so); and
 - (b) subject to any restrictions on the Confidential Information which are imposed by a third party that may own any Confidential Information, any of the following situations apply:
 - (i) the Stakeholder that disclosed the Confidential Information confirms in writing it is not required to be treated as Confidential Information;
 - (ii) the Confidential Information is or comes into the public domain otherwise than through any disclosure prohibited by this Confidentiality Code;
 - (iii) the Committee is required to disclose such Confidential Information by Law, including, without limitation, a disclosure required under the *Access to Information and Protection of Privacy Act* (Northwest Territories); or
 - (iv) to the extent disclosure is consistent with any Authority policy concerning the Authority's Confidential Information, the details of which have been

provided to Project Co and the Tłı̨chǫ Government in writing prior to the disclosure.

Committee members shall protect the Confidential Information from unauthorized use, access or disclosure using no less than a reasonable degree of care.

2. Return or Destruction of Confidential Information. Upon the request of any Stakeholder, each Committee member shall promptly return to the applicable Stakeholder or destroy all of the Confidential Information in his/her possession, other than any Confidential Information that he/she is required to keep to achieve the Purpose or for record-keeping purposes, provided, however, that each Committee member may retain copies of the Confidential Information that are stored on the Committee member's information technology backup and disaster recovery systems until the ordinary course deletion thereof. Notwithstanding the return or destruction of such Confidential Information, each Committee member shall continue to be bound by the terms and conditions of this Confidentiality Code with respect to such retained Confidential Information.
3. Term and Termination. The term of this Confidentiality Code shall commence on the date set out below and shall continue for as long as the Committee member serves on the Committee. Notwithstanding anything to the contrary herein, each Stakeholder's rights and each Committee member's obligations under this Confidentiality Code shall survive indefinitely, even after the return or destruction of the Stakeholders' Confidential Information.
4. Reporting of Breach: To the extent a Committee member learns of any breach or potential breach of this Confidentiality Code, the Committee member shall report such finding to the Committee, and the Committee shall thereafter notify the Stakeholders. The relevant contact information for the Stakeholders is as follows:

Government of the Northwest Territories

[Redacted]

Project Co

[Redacted]

and

[Redacted]

Tłı̨chǫ Government

[Redacted]

Committee members will cooperate in any investigation of misconduct or potential misconduct initiated by any of the Stakeholders.

[SIGNATURE PAGE FOLLOWS]

Dated this ____ day of _____, 20____.

By:

Name:

SCHEDULE 21

WINTER ROAD OUTPUT SPECIFICATIONS

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SCHEDULE 21

WINTER ROAD OUTPUT SPECIFICATIONS

DEFINITIONS

1.0 Definitions

In this Schedule, in addition to the terms defined in Schedule 1 [Definitions and Interpretation] to this Agreement:

“Approved Route” has the meaning set out in Section 1.5(a) of this Schedule.

“DFO Operational Statement for Ice Bridges and Snow Fills” means the Fisheries and Oceans Canada operational statement available through the following link:
<<http://registry.mvlwb.ca/Documents/MV2010L1-0001/MV2010L1-0001%20-%20Ice%20Bridges%20and%20Snow%20Fills%20-%20May12-10.pdf>>

“Environmental Guidelines for the Construction of Winter Roads in the Northwest Territories” means the guidelines available through the following link:
<http://reviewboard.ca/upload/project_document/EA03-004_Environmental_Guidelines_for_Ice_Roads.pdf>.

“Guidelines for Safe Ice Construction 2015” means the guidelines produced by the Department of Transportation (now INF) dated February 2015, and available through the following link:
<https://www.inf.gov.nt.ca/sites/inf/files/resources/0016-001_norex_ice_road_constr._web.pdf>.

“Pre-Construction Meeting” has the meaning set out in Section 2.1(b) of this Schedule.

“The Northern Land Use Guidelines – Roads & Trails” means the guidelines available through the following link: <<http://publications.gc.ca/site/eng/9.693034/publication.html>>.

“Whati Winter Road” means the winter road to be designed, constructed, operated, maintained and rehabilitated by Project Co in accordance with the requirements of this Schedule.

PART 1 PROJECT REQUIREMENTS

1.1 Description of Work

The requirements of this Schedule will apply if Project Co exercises its right of first opportunity to construct and maintain the Whatì Winter Road in accordance with Section 9.1 of the Agreement. All costs associated with this Schedule shall be borne by Project Co.

The work to be carried out shall generally consist of, but not be limited to, the following:

- (a) Ice thickness testing and data recording for ice road construction;
- (b) The design and construction of ice roads and snow roads, including all signing along the Approved Route;
- (c) Design and implementation of Traffic Management Plans in accordance with Schedule 3 [Design and Construction];
- (d) The mobilization, installation, de-commissioning and de-mobilization of equipment and materials deemed necessary for the environmental protection and safe operation of the Whatì Winter Road; and
- (e) De-mobilization of all construction equipment and supplies from the Whatì Winter Road.

All work will be accomplished in accordance with the Project Agreement, to a standard acceptable to the INF, adhering to the standards & guidelines as set forth within the INF current publications, the Guidelines for Safe Ice Construction 2015 and the Environmental Guidelines for the Construction of Winter Roads in the Northwest Territories. In the case of conflict, the more stringent requirement shall apply.

Project Co shall supply and pay for all required materials, labour, equipment, fuel, lodging and transportation to construct and maintain the Whatì Winter Road.

1.2 Key Safety Considerations

- (a) Project Co shall perform ice measuring/testing and recording of data as required by the Guidelines for Safe Ice Construction 2015. In particular, ice thickness measurements are to be conducted using ground penetrating radar (GPR) equipment. Upon request by the Authority Representative, Project Co shall provide copies of the GPR profile records to INF.
- (b) Project Co shall adhere to ice bearing capacities when choosing and deploying equipment for the Whatì Winter Road work. Project Co shall use the INF operating level of routine for all ice sections of the Whatì Winter Road, unless specifically approved in advance by INF. Section 5.1 and tables 3, 4, 5, and 6 in the Guidelines for Safe Ice Construction 2015 shall apply. Note: The guidelines give no special consideration to equipment capable of floating. Overall gross vehicle weight of equipment is to be used when determining appropriate minimum ice thickness for loading.
- (c) If the natural ice is not thick enough to safely support the construction, Project Co shall flood the deficient areas to obtain the desired thickness, or, in extreme cases, Project Co shall suspend activities until sufficient ice thickness has developed.

- (d) All personnel, while working on ice road construction, shall wear an appropriate floatation suit, as described in the Guidelines for Safe Ice Construction 2015.
- (e) Project Co shall not at any time authorize public travel, or open any section of the Whatì Winter Road to the public, without prior written consent from the Authority Representative.

1.3 Workers Safety & Compensation Commission Orders

- (a) Ice Road Construction Orders issued by the Workers Safety and Compensation Commission to the GNWT with regard to Ice Construction Safety dated December 2006, shall be reviewed by Project Co and strictly adhered to for the duration of work on the Whatì Winter Road.
- (b) GNWT Ice Construction Action Items, implemented in response to the Workers Safety and Compensation Commission Orders dated January 5, 2007, shall be reviewed by Project Co and strictly adhered to for the duration of work on the Whatì Winter Road.

1.4 Output Specifications

Project Co shall construct and perform the OMR of the Whatì Winter Road in a manner that meets the following requirements:

- (a) Minimum width of road over ice: 30 metres from the toe of one snow bank to the toe of the opposite snow bank;
- (b) Minimum width of road for overland portage: 10 metres from the toe of one snow bank to the toe of the opposite snow bank;
- (c) Minimum opening weight capacity for light traffic of 8,000 Kg;
- (d) Minimum of 10 cm of ice/snow on top of the ground surface for the driving surface. Additional snow fill shall be used on over land sections to fill holes, dips and ruts to create a flat running surface free of significant crossfall; and
- (e) Public traffic shall be accommodated at all times with minimal delays of 15 minutes or less under normal circumstances.

1.5 Location

- (a) Project Co shall use the route identified in Appendix 21A [Whatì Winter Road Map] (the “**Approved Route**”). The Approved Route begins at its junction with Highway No. 3, Km 238.5 (approximately) near Edzo. This entrance area is considered Km 0 of the Whatì Winter Road, which extends to the Whatì/Gamètì Junction (Km 66.5 approximately), and then continues on to the community of Whatì another 34 km (approximately), for a total of approximately 100.5 kilometers.
- (b) It shall be the responsibility of Project Co to familiarize itself with the Approved Route, access to the area, and with the availability of transportation and other services. The Authority Representative shall assist Project Co with any inquiries regarding these matters.

1.6 Co-ordination and Deviations from Approved Route

- (a) No deviation in alignment from the Approved Route identified in Appendix 21A [Whati Winter Road Map] will be permitted without the written approval of the Authority Representative.

1.7 Schedule

- (a) Upon receipt of a notice from the Authority to Project Co to construct the Whati Winter Road as provided under Section 9.1 of the Agreement, Project Co shall commence work as soon as climatic and environmental conditions make it possible, and as directed by the Authority Representative.
- (b) Project Co shall commence construction as soon as safe working conditions exist, and shall make every reasonable effort to have the Whati Winter Road open to commercial and public use by January 21st, or such other target date for the winter road opening set by the Authority in the applicable year based on environmental and climatic conditions in the area.

1.8 Construction

- (a) Project Co must adhere to The Northern Land Use Guidelines – Roads & Trails.
- (b) The apparent omission of specifications or plans as to any detail or detailed description concerning any point shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the highest quality are to be used.
- (c) Prior to commencing any work on the Whati Winter Road, Project Co representatives shall attend a training session on the Guidelines for Safe Ice Construction 2015, and shall certify that they understand and agree to abide by its contents. Original signed copies of paperwork confirming attendance shall be presented to the Authority Representative upon request.
- (d) Prior to commencing construction of the Whati Winter Road, Project Co shall supply a training session on the Guidelines for Safe Ice Construction 2015 to all employees, and Sub-Contractors scheduled to work on the Whati Winter Road and have its staff certify that they understand and agree to abide by its contents. Original signed copies of paperwork confirming participation shall be presented to the Authority Representative.
- (e) As part of the Whati Winter Road work, Project Co shall construct a public ice road across Marian Lake separate from any other private road.
- (f) Construction shall include rebuilding sections of the Whati Winter Road where the required compacted snow or ice condition is less than the specified requirements of INF and applicable Law.
- (g) Construction shall include the leveling of rough areas such as wash boarding, where the normal vehicle operating speed cannot be maintained due to rough surface conditions.
- (h) Water trucks will be used in conjunction with the other equipment to aid in the construction of the Whati Winter Road by freezing the compacted snow cover on the over land portage sections of the route to the minimum standard for opening to traffic and as approved by the Authority Representative. Project Co shall water all sections

of overland portions during Construction and OMR of the Whatì Winter Road, as required.

- (i) Regular construction inspections with the Authority Representative and Project Co shall take place as warranted upon either party providing 24 hours' notice to the other party.
- (j) No material other than clean snow and ice shall be used to fill river or stream crossings. Where flow requirements dictate that snow fills only are inadequate, approved drainage structures shall be installed and de-commissioned on Whatì Winter Road close out.
- (k) The *Fisheries Act* partially prohibits the placement of deleterious material (i.e. any material that is not snow, ice or water) in or upstream of fish habitat. Project Co shall at all times abide by the DFO Operational Statement for Ice Bridges and Snow Fills.
- (l) At any instance during construction of Whatì Winter Road where Project Co withdraws water from lakes, rivers, streams, or ponds, it shall be the Project Co's responsibility to complete daily water withdrawal log sheets. Completed log sheets shall be submitted to the Authority Representative weekly, or upon request.
- (m) A communications and reporting system protocol between Project Co and the Authority shall be in place through all phases of the work. During Construction of the Whatì Winter Road, Project Co's Whatì Winter Road site supervisor(s) and all operators shall communicate via mobile radio and/or satellite phone. The details of this information will be agreed upon at the Pre-Construction Meeting, and updated as circumstances warrant. A list of Authority contacts will be provided at the Pre-Construction Meeting.
- (n) Throughout the Whatì Winter Road Construction period, Project Co's Whatì Winter Road site supervisor(s), Project Co employees and any Sub-Contractors are to maintain regular radio communication between each other, utilizing standard safety protocol. Radio communication shall also be maintained with the Authority Representative and Authority Representative staff while on site. To allow this communication, Project Co shall authorize the Authority Representative and the Authority Representative staff to utilize Project Co's private radio frequencies, or Project Co shall utilize public radio channels at all times.

PART 2 GENERAL REQUIREMENTS

2.1 Meetings

- (a) Project Co shall attend a start-up (kick-off) meeting with the Authority Representative, INF representatives, a GNWT Department of Lands Inspector and other stakeholders, at a mutually agreed upon date to discuss construction of the Whatì Winter Road. The meeting shall be held well in advance of commencing field operations. Topics to be discussed will include the type and quantity of equipment to be used, sequence of work, environmental impacts, safety and other pertinent topics related to the the Whatì Winter Road.
- (b) Project Co shall attend a meeting (the “**Pre-Construction Meeting**”), to be held just in advance of mobilization, at a mutually agreed upon date to discuss final preparations for the Whatì Winter Road construction, safety, submittal of required documents, and other pertinent topics related to the Whatì Winter Road. This meeting shall include Project Co’s site supervisor for the Whatì Winter Road, the Authority Representative, and any other pertinent stakeholders.
- (c) Project Co shall schedule regular weekly construction meetings with the Authority Representative. Construction meetings may be held via teleconference, unless the Authority Representative is on site, in which case the meetings will be held in person.
- (d) Project Co shall hold daily “Toolbox” meetings with all construction staff, and document minutes which shall be submitted weekly to the Authority Representative.
- (e) Project Co shall hold weekly safety meetings, and other meetings as identified in Contractor Safety Orientation & Information Guideline. Minutes from these meetings shall be submitted to the Authority Representative weekly, or upon request.

2.2 Labour Requirements – Supervisor, Operators

- (a) Project Co shall provide all the necessary qualified personnel to supervise, operate, and maintain equipment and to perform all the work required for construction of the Whatì Winter Road.
- (b) Project Co shall assign an experienced and competent supervisor for the adequate supervision of all work to be performed by Project Co within this Schedule. The supervisor’s duties shall include but not be limited to, regular meetings with the Authority Representative (often on a daily basis) to
 - (i) provide detailed records of daily activities;
 - (ii) provide records of employee tasks, and associated risk assessments upon request;
 - (iii) plan and schedule daily and weekly work required;
 - (iv) confirm work progress, including any updates;
 - (v) advise the Authority Representative of any irregularities or complications that may affect the Whatì Winter Road schedule;
 - (vi) receive directions from the Authority Representative or the Authority Representative’s designate;

- (vii) provide electronic GPR ice profile data for any ice tests pertaining to the Whatì Winter Road Construction;
 - (viii) patrol the Whatì Winter Road and provide daily road condition reports;
 - (ix) prepare and submit regular work schedules and reports; and
 - (x) be available 24 hours a day in case of an emergency situation (i.e. vehicle accidents, fuel spills, etc.).
- (c) Project Co shall, upon the request of the Authority Representative, remove any supervisor who, in the opinion of the Authority Representative, is incompetent or has been conducting him/herself improperly, and shall replace a supervisor so removed with another supervisor.
- (d) The supervisor's duties shall not include the operation of heavy equipment on a full-time basis. The supervisor may operate heavy equipment on a temporary basis only, as approved by the Authority Representative.
- (e) Project Co shall ensure that all substitute supervisors will be identified to the Authority Representative prior to the absence of the supervisor.
- (f) Project Co shall only assign competent, experienced operators for the equipment required for the work within this Schedule.
- (g) Project Co shall, upon request of the Authority Representative, remove any operator who is operating equipment in an incompetent or unproductive manner, and shall replace the operator with a qualified operator.
- (h) Project Co shall identify in advance to the Authority Representative any Sub-Contractors that Project Co desires to use to perform the work described in this Schedule. Written notification from Project Co, followed by written approval by the Authority Representative, shall be completed prior to authorizing Sub-Contractors to engage in this work.
- (i) All Project Co costs associated with this Schedule will be included for the purposes of assessing compliance with Local Content Requirements, as outlined in Schedule 20 [Local Content Requirements].

2.3 Materials

Signage shall be developed in conjunction with, and be approved by, the Authority.

2.4 Construction Equipment

- (a) Prior to mobilization, Project Co shall supply the Authority Representative with a complete list, including equipment weights (tare and GVW) in kilograms, of plant and equipment intended for use in the construction of the Whatì Winter Road.
- (b) Due to global warming and unpredictable weather patterns, Project Co shall make all reasonable efforts to utilize new technologies and lighter equipment, to allow for earlier starts and faster completion of the Whatì Winter Road Construction and OMR.
- (c) All equipment used on the Whatì Winter Road shall be posted with the tare and GVW weights in a visible location both on the exterior and interior of each piece of

equipment for the operator's reference. The minimum ice thickness for each piece of equipment will be posted inside the vehicle.

- (d) The equipment to be used shall be made available for inspection to the Authority Representative upon request, prior to the mobilization, and prior to commencement of work.
- (e) The equipment to be used during construction of the of the Whatì Winter Road will be subject to approval by the Authority, shall be in satisfactory working condition, free of leaks and so maintained for the duration of the work. The Authority Representative will have access to the equipment at all times for purposes of inspection.
- (f) Equipment blades attached to any equipment shall be fitted with shoes to minimize ground surface damage while working on overland sections or constructing river and stream crossings.
- (g) Project Co shall supply a minimum of one or more self-loading tandem water truck(s) with an insulated tank of 11,000 liter minimum capacity. The truck(s) shall be winterized to be capable of normal operations at temperatures of minus forty (-40) degrees Celsius. Each water truck shall be equipped with a rear discharge apparatus capable of dispersing the discharge flow over a width of no less than 2.6 meters, and at a minimum average flow rate of 800 litres per minute.
- (h) Water trucks will be used in conjunction with the other equipment to aid in the construction of the road by freezing the compacted snow cover on the over land portage sections of the route to the minimum standard for opening to traffic and as approved by the Authority Representative. Project Co shall water all sections of overland portions.

2.5 GNWT Lands Division

Project Co shall comply with the following GNWT Lands Division supplementary requirements for construction of the Whatì Winter Road:

- (a) Project Co shall provide minimum 48 hours' advance notice of commencement of works to the Project Authority;
- (b) A spill kit shall be present on site at all times;
- (c) Project Co shall construct and maintain the overland portion of winter roads with a minimum of 10 cm of packed snow and/or ice at all times during this land-use operation;
- (d) Project Co shall not erect camps or store material other than that required for immediate use on the ice surface of a watercourse;
- (e) Project Co shall not operate off-road vehicle travel in areas without snow-covered surfaces;
- (f) Project Co shall prepare the site in such a manner as to prevent rutting of the ground surface. Project Co shall suspend overland travel of equipment or vehicles at the first sign of rutting;
- (g) Project Co shall not use any materials other than clean snow and water in the construction of snow fills;

- (h) Project Co shall maintain a record of all spills. For all reportable spills, as defined in the NT-NU Spill Report Form, Project Co shall:
 - (i) immediately report each spill to the 24-hour Spill Report Line (867) 920-8130;
 - (ii) report each spill to the Authority Representative within 24 hours; and
 - (iii) submit, to the Authority, a detailed report on each spill within 30 days;
- (i) Project Co shall dispose of all combustible waste petroleum products by removal to an approved disposal facility;
- (j) Project Co shall not place any fuel storage containers or tanks within 100 metres of the ordinary high water mark of any watercourse, unless otherwise authorized in writing by the Authority Representative;
- (k) Project Co shall set up all refuelling points with secondary containment;
- (l) Project Co shall not allow petroleum products to spread to surrounding lands or watercourses;
- (m) Prior to commencement of operations, Project Co shall ensure that spill-response equipment is in place to respond to any potential spills;
- (n) All equipment that may be parked for two hours or more, shall have a haz-mat/drip tray under it or be sufficiently diapered. (Leaky equipment should be repaired immediately); and
- (o) Project Co shall clean up all leaks, spills, and contaminated material.

2.6 The Authority's Representative Access to the Work

- (a) Project Co shall provide the Authority Representative with suitable and safe access to the Whatì Winter Road site at all times for the purposes of inspection and measurement, and when such work is being carried out at night, suitable lighting shall be provided so that all operations are plainly and safely visible.
- (b) Project Co shall provide all labour, staging, ladders and other equipment, information and assistance required by the Authority Representative and the Authority Representative staff for inspecting, measuring and monitoring of the Whatì Winter Road.
- (c) The Authority Representative will arrange for a photographic record of the progress of the Whatì Winter Road work by taking photographs at regular intervals. Project Co shall provide access and all reasonable facilities for the Authority Representative to conduct photographic surveys.

2.7 Inspection by the Authority Representative

Project Co shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labour, materials and suitably qualified and experienced staff as are necessary to carry out the quality assurance (QA) tests efficiently.

2.8 Acceptance of Construction

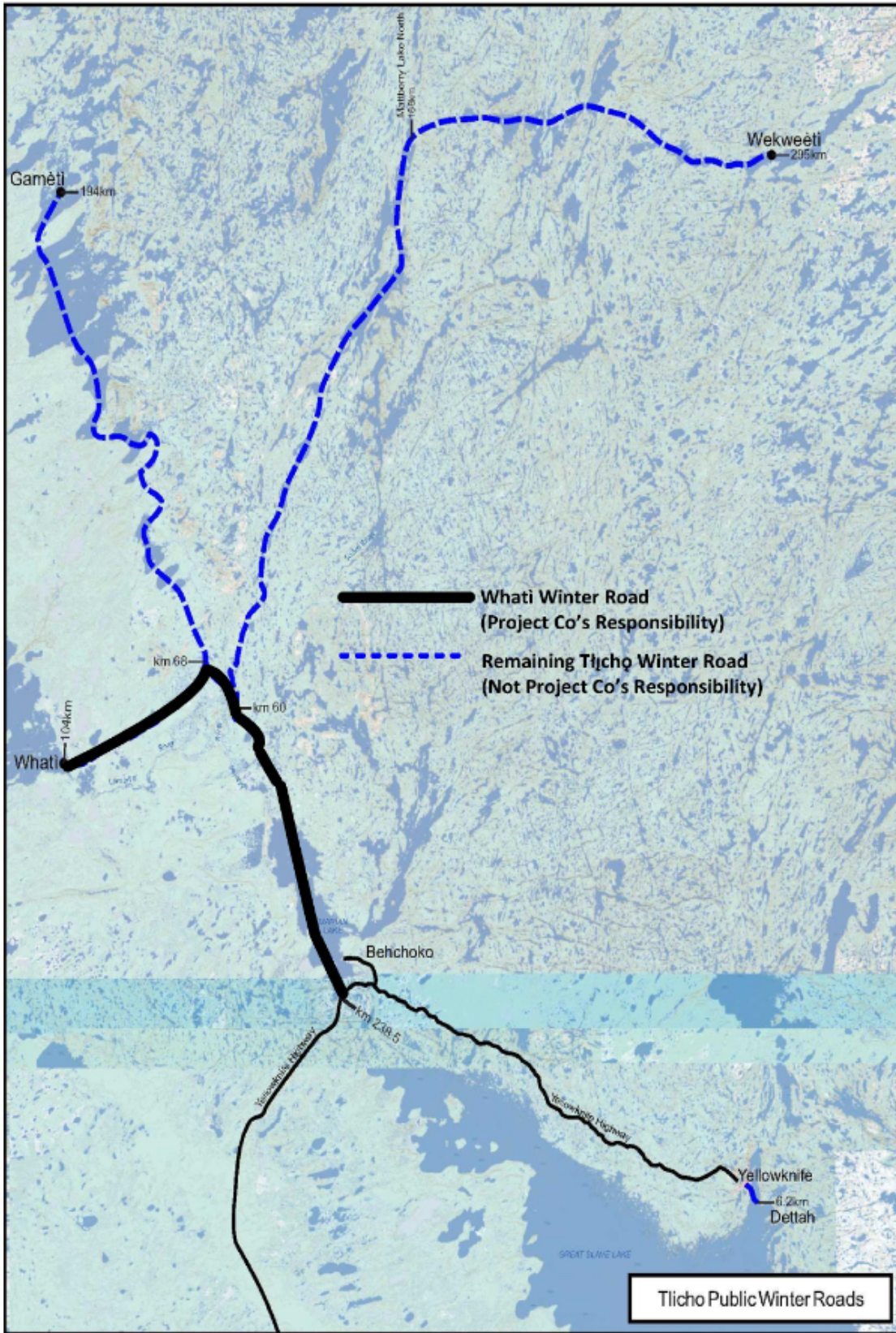
Project Co shall advise the Authority Representative when it considers the Whati Winter Road built to the standards set out in this Schedule. The Authority Representative and Project Co shall examine the Whati Winter Road together. Project Co shall give to the Authority Representative at minimum 24 hours' advance notice, so a joint inspection may be arranged.

The construction phase of the Whati Winter Road will be complete when:

- (a) The Whati Winter Road can be opened to the minimum operating weight capacity of 8,000 Kg, in accordance with INF procedures for ice bearing assessment, and the ice capacity testing and data recording meets or exceeds INF standards;
- (b) The full width and length is adequately plowed, compacted and leveled to allow a two-wheel drive pickup truck to travel from one end of the section to the other, without difficulty, at the minimum specified speed of 50 km/h;
- (c) The full width and length is adequately plowed, compacted and leveled with a maximum allowable fresh snow coverage of no greater than 5 cm snow thickness at any one point along either section;
- (d) The full width and length of all overland portions (portages) are constructed, compacted, watered, leveled, and groomed, in such a manner to allow the Authority Representative's inspection vehicle to travel from one end of each section to the other without sinking or leaving tire depressions on the snow road surface;
- (e) Roadside furniture, such as traffic control devices and signage, are in place;
- (f) Project Co has cleaned up all staging areas used for temporary camps, equipment and materials storage (except as such resources are required for OMR), adhering to all Permit requirements;
- (g) all deficiencies previously identified by the Authority Representative, if applicable, have been corrected; and
- (h) all deficiencies previously identified by the regulatory authorities have been corrected.

Project Co will be informed verbally, and in writing, of any outstanding deficiency in the construction of the Whati Winter Road that must be corrected prior to acceptance by the Authority Representative. Project Co will be advised verbally, and in writing, when the Whati Winter Road has been constructed to an acceptable standard. For greater clarity, the Whati Winter Road will be accepted only when its entire length of road section meets all the minimum construction requirements and specifications set out in this Schedule.

APPENDIX 21A - WHATÌ WINTER ROAD MAP



H:\Technical Services\DESIGN\Tlìchò\Tlìchò Public Winter Roads (May 2017)

SCHEDULE 22

CLIMATE CHANGE RISK-SHARING REGIME

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1. INTERPRETATION

1.1 Definitions

In this Schedule, in addition to the definitions set out in Schedule 1 [Definitions and Interpretation] of this Agreement:

“30-Year Smoothed Climate Observation” has the meaning set out in Appendix 22A [Calculation of Climate Data].

“Accepted Proposal Value” means the total amount of compensation owed by the Authority to Project Co for Retrospective CC Relief and/or Prospective CC Relief, to the extent agreed by the parties or determined under the Dispute Resolution Procedure.

“Climate Change Risk-Sharing Regime” has the meaning set out in Section 4(b) of this Schedule.

“Climate Change Event” has the meaning set out in Article 2 of this Schedule.

“De Minimis Amount” has the meaning set out in Section 4(a) of this Schedule.

“Prospective CC Relief” means relief that is potentially available to Project Co pursuant to Section 3.2 of this Schedule.

“Retrospective CC Relief” means relief that is potentially available to Project Co pursuant to Section 3.1 of this Schedule.

“Threshold Projection” has the meaning set out in Appendix 22A [Calculation of Climate Data].

2. CLIMATE CHANGE EVENTS

A Climate Change Event occurs when, in any month during the Operating Period, a 30-Year Smoothed Climate Observation exceeds the Threshold Projection for that month.

3. RELIEF FOR CLIMATE CHANGE EVENT

3.1 Retrospective CC Relief

- (a) If a Climate Change Event occurs, and Project Co asserts a previously incurred Direct Loss in respect of such Climate Change Event, Project Co may serve a Supervening Event Notice in accordance with Section 8.2 of this Agreement.
- (b) Project Co may submit no more than one Supervening Event Notice related to Climate Change Events in any six-month period following Substantial Completion.
- (c) The reimbursement of any such Direct Losses previously incurred shall be subject to the Climate Change Risk-Sharing Regime.

3.2 Prospective CC Relief

- (a) If a Climate Change Event occurs, and Project Co asserts that, as a consequence, it will suffer a Direct Loss between the date it makes its claim for Prospective CC Relief and the end of the Term, Project Co may serve a Climate Change Impact Proposal pursuant to Article 5 of Schedule 6 [Changes, Minor Works and Innovation Proposals] of this Agreement. The cost of implementing any Climate Change Impact Proposal shall be subject to the Climate Change Risk-Sharing Regime.

- (b) Project Co may submit no more than one Climate Change Impact Proposal in any six-month period following Substantial Completion.

3.3 Climate Change Event Disputes

Any Dispute related to this Schedule may be referred by either party to the Dispute Resolution Procedure.

4. SHARING OF RISK

- (a) If the Direct Losses of any discrete Climate Change Event agreed by the parties or determined pursuant to the Dispute Resolution Procedure is less than \$ [REDACTED] (the “De Minimis Amount”), Project Co shall not be entitled to claim any compensation from the Authority. [REDACTED]
- (b) If a Climate Change Event occurs with an Accepted Proposal Value in excess of the De Minimis Amount, the Direct Losses from the Climate Change Event will be shared between the parties, subject to Section 4(a) of this Schedule, according to the following sliding scale (the “Climate Change Risk-Sharing Regime”):

\$ Amount	% Paid by Project Co	Amount Paid by Project Co
First \$ [REDACTED]	100%	\$ [REDACTED]
>\$ [REDACTED] - \$ [REDACTED]	75%	\$ [REDACTED]
>\$ [REDACTED] - \$ [REDACTED]	50%	\$ [REDACTED]
>\$ [REDACTED] - \$ [REDACTED]	25%	\$ [REDACTED]
\$ [REDACTED] +	0%	\$ [REDACTED]
Aggregate Project Co Share		\$ [REDACTED]

For greater clarity:

- (c) Project Co will only be entitled to make a claim for compensation from the Authority for Accepted Proposal Values once it has been determined, through agreement of the parties or pursuant to the Dispute Resolution Procedure, that Project Co has sustained or will sustain \$ [REDACTED] in Direct Losses under the Climate Change Risk-Sharing Regime;
- (d) an Accepted Proposal Value may reflect Retrospective CC Relief and/or Prospective CC Relief; and
- (e) if the aggregate cost to Project Co of all Climate Change Events in respect of which compensation is paid during the Operating Period is greater than \$ [REDACTED], then the excess costs of any Climate Change Events over such aggregate maximum amount shall be borne by the Authority.

5. PROOF OF DIRECT LOSSES UNDER THE DE MINIMIS AMOUNT

To the extent Project Co asserts that Direct Losses it has sustained or will sustain under the De Minimis Amount count toward Project Co's share of risk under the Climate Change Risk-Sharing Regime, Project Co shall submit proof of such Direct Losses to the Authority within 12 months of the occurrence of any Climate Change Event in accordance with the relevant provisions of Section 8.2 of the Agreement.

APPENDIX 22A – CALCULATION OF CLIMATE DATA

See attached.

APPENDIX 22A

CALCULATION OF CLIMATE DATA

1. INTERPRETATION

1.1 Definitions

In this Appendix, in addition to the definitions set out in Schedule 1 [Definitions and Interpretation] of this Agreement:

“2 Climate Scenarios” means RCP45 and RCP8.5. These two Climate Scenarios are associated with the Coupled Model Intercomparison Project 5 (CMIP5, Taylor et al. 2012) and are widely used for climate adaptation planning. They are adopted in this Appendix as likely bounding Climate Scenarios for future climate change (Fyke and Matthews, 2015). Each scenario was considered equally probable for the purposes of statistical calculations over the Operating Period (for example, of mean, P5 and P95 values).

“30-Year Smoothed Basis” refers to the use of 30-year windows to quantify long-term climate trends. Statistics referenced to a particular year include the climate assessed over the 30 years up to and including the referenced year. For example, 30-year smoothed January temperature for the year 2020 refers to mean monthly-averaged January temperature over the 1991-2020 period.

“30-Year Smoothed Climate Observation” means, for any month during the Operating Period, an actual observed Climate Metric, calculated as a monthly mean value for the 30-Year Smoothed Basis utilizing actual observed Climate Metrics for the prior 30 years. An averaging period of 30 years is used to smooth the impact of year-on-year climate fluctuations associated with natural internal climate variability and obtain the long-term climate change signal.

“Base Period” means 2017, constituting the year from which a 30-Year Smoothed Climate Observation can be calculated.

“Climate Metric” means any one, and **“Climate Metrics”** means all three, of the following climate criteria for which long-term change can be calculated or estimated using Climate Model Data and measured or estimated from Weather Station Data:

- (a) ***average monthly temperature:*** monthly average of daily-frequency temperature data (units of °C). Climate Model Data for temperature are available in the form of minimum and maximum daily temperatures. Daily mean temperatures are therefore calculated as the average of minimum and maximum temperatures under the assumption that the diurnal cycle of temperature follows a symmetrical sinusoidal curve. Observed temperatures are available from the Weather Station as mean values and are used directly as such.
- (b) ***precipitation as rain:*** monthly average of daily potential fractionation of precipitation into snow versus rain (units of percent, with 0% being all snow and 100% being all rain). Climate Model Data for precipitation is available in the form of total daily precipitation that does not differentiate between rain and snow. Daily simulated rain/snow ratios are therefore estimated via analysis of daily minimum and maximum temperatures as follows:
 - (i) $tasmin < tasmax < 0^{\circ}C$: 100% precipitation as snow;
 - (ii) $tasmin < 0^{\circ}C < tasmax$: mixed snow and rain, with fraction calculated by linear weighting between $tasmin$ and $tasmax$ relative to the $0^{\circ}C$ freezing point; and

- (iii) 0°C<tasmin<tasmax: 100% precipitation as rain.

Weather Station rain/snow ratios are in principle directly obtainable from Weather Station Data. However, given practical difficulties in differentiating snow from rain in Weather Station Data Weather Station Data for temperature is used to estimate the Weather Station rain/snow ratios, as outlined above.

- (c) accumulated monthly precipitation: monthly accumulated precipitation (units of mm of water equivalent). Climate Model Data is directly used, as is Weather Station Data.

Monthly-resolved values are calculated based on aggregation of daily-frequency data, for both Climate Model Data and Weather Station Data. This results in 12 values per year, from an initial set of 365 values (366 values for leap years in Weather Station Data and Climate Model Data for models that consider a leap year calendar). 30-year Smoothed Data are subsequently constructed by averaging monthly values across the 30-year window.

"Climate Model" means a numerical computer model of the climate system, that when used allows for simulated future projections of climate to be made.

"Climate Model Data" refers to data derived from the following ensemble of global Climate Model simulations (a computer-based representation of future climate made with a Climate Model) of historical climate and future climate projections:

- (a) CCSM4
- (b) CanESM2
- (c) ACCESS1-0
- (d) Inmcm4
- (e) CNRM-CM5
- (f) MRI-CGCM3
- (g) MPI-ESM-LR
- (h) CSIRO-Mk3-6-0
- (i) GFDL-ESM2G
- (j) MIROC5

These simulations were performed by climate modelling agencies in multiple countries and provided via the CMIP5 project. Prior to use for the purposes of this Appendix, all Climate Model Data was downscaled to 10 km resolution and bias corrected using the BCCAQ procedure by the Pacific Climate Impacts Consortium (Wood et al., 2004; Werner and Cannon, 2016). Downscaled and bias-corrected data was extracted from the Pacific Climate Impacts Consortium in May 2018. Downscaling and bias correction provides higher resolution climate data with similar location-specific statistical properties (mean state and variance) to available location-specific observations. Bias correction utilizes CANGRD, a 10 km resolution gridded dataset of estimated historical conditions based on optimal interpolation of the ECCC Adjusted and Homogenized Canadian Climate Data dataset. Future projections from all models were considered equally probable, meaning that output from all models was weighted evenly for the purposes of statistical calculations over the Operating Period. The 2 Climate Scenarios were assessed for each Climate Model.

While updated Climate Model projections will be produced in the future as part of regular international climate science progress (for example as represented by Coupled Model Inter-comparison Projects, Intergovernmental Panel on Climate Change reports, and ECCC climate projection efforts), only Climate Model Data available as of the Effective Date will be considered valid for the purposes of assessing Climate Change Event occurrence throughout the Operating Period.

"Climate Scenario" means a climate projection based on a defined set of future climate change drivers, with the most important driver being global human-caused carbon emissions.

“ECCC” means Environment and Climate Change Canada.

“Mean Base Period State” means the monthly average conditions simulated by the Climate Model Data for the distribution of monthly-resolved values in the Base Period, where the distribution is the same as defined in clauses (a) and (b) of the below definition of P₁₀₀.

“P₁₀₀” means a metric by which Climate Change Events are defined, with Climate Model Data calculated as follows:

- (a) for a given 30-year Smoothed Data window, all monthly-averaged Climate Model Data points are aggregated by month, across all years in the window and all climate model simulations and all Climate Scenarios;
- (b) the resulting distribution of values for each month of each year is 600 data points, corresponding to 30 years of data from the Climate Model Data (10 models) and the 2 Climate Scenarios; and
- (c) percentiles of this distribution of month-specific values are calculated and the P₁₀₀ () is identified.

Resulting from this definition, year-and-month-specific P₁₀₀ Projection values reflect an upper bound of a full distribution of values, where the distribution of values results from year-and-month-specific natural variability in monthly-averaged conditions, Climate Scenario projection uncertainty and model-based Climate Model Data climate sensitivity.

“P₁₀₀” definition follows the P₁₀₀ definition, but replaces the [REDACTED] with the [REDACTED].

“P₁₀₀ Projected Change” means the projected change in P₁₀₀ Projection values relative to the monthly Mean Base Period State and is calculated by subtracting the monthly Mean Base Period State for each Climate Metric from the P₁₀₀ Projection value for the same Climate Metric for a given future period. Subtracting the Mean Base Period State quantifies the magnitude of P₁₀₀ change for all Climate Metrics relative to initial Base Period conditions.

“P₁₀₀ Projected Change” follows the P₁₀₀ Projected Change definition, but replaces P₁₀₀ with P₁₀₀.

“Temperature P₁₀₀ Projected Change” reflects the P₁₀₀ Projected Change definition applied to monthly temperature.

“Temperature P₁₀₀ Projection” reflects the P₁₀₀ definition applied to Climate Model-simulated monthly temperature.

“Precipitation P₁₀₀ Projected Change” reflects the P₁₀₀ Projected Change definition applied to Climate Model-simulated monthly precipitation.

“Precipitation P₁₀₀ Projection” reflects the P₁₀₀ definition applied to Climate Model-simulated monthly temperature.

“Precipitation as Rain P₁₀₀ Projected Change” reflects the P₁₀₀ Projected Change definition applied to Climate Model-simulated precipitation as rain.

Precipitation as Rain P₁₀₀ Projection” reflects the P₁₀₀ definition applied to precipitation as rain.

“RCP45” means Representation Concentration Pathway 4.5, a Climate Scenario of strong climate mitigation.

“**RCP**” means Representative Concentration Pathway 8.5, A Climate Scenario of continual increases in global carbon emissions.

“**Threshold Projection**” means, for any month of any year in the Operating Period, the sum of the P \blacksquare Projected Change or P \blacksquare Projected Change and its corresponding Climate Metric and the 30-Year Smoothed Climate Observation for the same month and Climate Metric in the Base Period. Threshold Projections for selected years are demonstrated graphically in Appendix 22B [Threshold Projections] and monthly-resolved Threshold Projections for each year in the Operating Period are included in Appendix 22B [Threshold Projections]. By this approach, 30-year Smoothed Climate Observations may be directly compared to Threshold Projection values to determine if a Climate Change Event has occurred pursuant to the process set out in Article 4 of this Appendix. Threshold Projections have been rounded:

- (a) To one decimal place, in the case of Temperature and Precipitation; and
- (b) To the nearest whole percentage point in the case of Precipitation as Rain.

These Climate Metric-specific levels of rounding must be applied to 30-Year Smoothed Climate Observations for the basis of assessing Climate Change Event occurrence.

“**Weather Station**” means the Environment Canada/NavCan weather station at the Yellowknife Airport (ECCC Station name: YELLOWKNIFE A; TC ID: YZF, 62.46°N 114.44°W). Official meteorological records collected at this weather station can currently be obtained from the Environment and Climate Change Canada online Historical Data archive. This Weather Station provides temperature and precipitation data at daily frequency from 1980, with less than 2% data loss assessed across all months. Data from this weather station is split between two official ECCC station designations (1706 and 51058), with switchover between the two occurring in mid-January 2013.

“**Weather Station Data**” means meteorological data obtained from the Weather Station.

2. THRESHOLD PROJECTIONS

2.1 Purpose

Threshold Projections quantify an upper expected bound of future climate conditions by adding the upper bound of change simulated by the Climate Models (P \blacksquare Projected Changes or P \blacksquare Projected Changes) onto 30-Year Smoothed Climate Observations measured at the Weather Station over the Base Period. As such, they represent the measure of future climate change to which future Weather Station Data can be compared against for the purposes of assessing Climate Change Event occurrence.

2.2 Calculation

Threshold Projections for the Operating Period, as shown in Tables 1-3 of Appendix 22B [Threshold Projections], are calculated according to the following procedure (also summarized in the Threshold Projection definition):

- (a) For each year during the Operating Period, Climate Model Data is used to generate 12 monthly values of Temperature P \blacksquare Projected Change, Precipitation P \blacksquare Projected Change and Precipitation as Rain P \blacksquare Projected Change; and
- (b) Temperature P \blacksquare Projected Change, Precipitation P \blacksquare Projected Change and Precipitation as Rain P \blacksquare Projected Change are added to the 30-year Smoothed Climate Observations from the Base Period for the same Climate Metrics to arrive at Climate Metric-specific Threshold Projection values.

3. CALCULATION OF SMOOTHED CLIMATE OBSERVATIONS

3.1 Purpose

30-year Smoothed Climate Observations are calculated:

- (a) for the Base Period as part of the production of Threshold Projections; and
- (b) throughout the Operating Period to determine if a Climate Change Event has occurred.

3.2 Calculation

30-year Smoothed Climate Observations throughout the Operating Period shall be calculated as follows:

- (a) 30-year Smoothed Climate Observations must be made according to the 30-Year Smoothed Basis by aggregating daily-frequency meteorological data from the previous 30 years into monthly 30-Year Smoothed Climate Observations for the defined Climate Metrics.
- (b) The weather station from which future meteorological data is obtained must be the same location as the Weather Station.
- (c) Interpretation of measured precipitation amounts must be demonstrated to follow the same methodology as original measurement and processing methodologies (those specified by ECCC and within this Appendix, respectively) to avoid erroneous interpretations based on a shift in methodology rather than a shift in climatology.
- (d) Weather Station Data must exhibit less than 10% daily data loss on a per-month basis over the previous 30 years to be considered valid for determining Climate Change Event occurrence.
- (e) 30-Year Smoothed Climate Observations must be rounded in the same manner as the Threshold Projections (i.e., Temperature and Precipitation to one decimal place, and Precipitation as Rain to the nearest whole percentage point).

4. CALCULATION OF CLIMATE CHANGE EVENTS

At each month of each future year during the Operating Period, a comparison may be made between Threshold Projections and 30-Year Smoothed Climate Observations to determine if a Climate Change Event has occurred. Pursuant to Article 2 of Schedule 22 [Climate Change Risk-Sharing Regime], a Climate Change Event occurs if a monthly 30-Year Smoothed Climate Observation occurs above the Threshold Projection value for the equivalent Climate Metric. This threshold exceedance indicates that the actual realized climate change of any Climate Metric has surpassed the P \blacksquare (for temperature and precipitation) or P \blacksquare (for precipitation as rain) expected windows of climate change derived from Climate Model Threshold Projections.

REFERENCES

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Wood, A.W., L.R Leung, V. Sridhar, and D.P. Lettenmaier, 2004: Hydrologic implications of dynamical and statistical approaches to downscaling climate model outputs. *Climatic Change*, 62, 189–216.

APPENDIX 22B – THRESHOLD PROJECTIONS

See attached.

APPENDIX 22B

THRESHOLD PROJECTIONS

Temperature (°C. P [Redacted] Threshold Projection)

[Redacted]

Precipitation as Rain (% P Threshold Projection)

[Redacted]

Precipitation (mm, P█ Threshold Projection)

[Redacted]

Temperature (°C, P█ Threshold Projection)

Table 1: Data values indicate monthly temperature threshold projection values for each year

[Redacted]

Precipitation as Rain (% P Threshold Projection)

Table 2: Data values indicate monthly precipitation threshold projection values for each year

[Redacted]

Precipitation (mm, P Threshold Projection)

Table 3: Data values indicate monthly precipitation as rain threshold projection values for each year

[Redacted]