SCHEDULE "A"
PROJECT DESCRIPTION

1. PROJECT OVERVIEW

The Government of Nunavut Department of Community and Government Services (the GN) is providing a new mechanical Wastewater Treatment Plant (WWTP) to serve the Municipality of Cape Dorset, Nunavut (the Project).

The Project is to be delivered through a modified Design-Build process.

2. SUMMARY OF REQUESTED PROFESSIONAL SERVICES

The successful proponent will provide engineering and architectural services to the GN through the Project's Predesign and Schematic Design phases; will assist the GN in the preparation of Design-Build Tender documents; will assist the GN during the Design-Build Procurement phase; and will act as the GN's professional advisor through the Design-Build Design, Construction Documents, Construction, and Post-construction and Warranty Phases.

Integrated Design Process: Through the Predesign and Schematic Design phases the Consultant will be expected to participate in an integrated design process intended to maximize success of the Project through the expected lifecycle of the WWTP.

> *"Integrated design is a collaborative process between the client group including occupants, operating staff and a multi-disciplinary design team, focusing on the design, construction, operation, and occupancy of a building over its complete life cycle. Functional, environmental, and economic goals are defined and realized by processing from whole building system strategies, through increasing levels of specificity, to achieve more optimally integrated solution." Government of Alberta, Infrastructure- PIMS*
>
> Also see for general reference on the integrated design process see "Integrated Design Process Guide"
>
> http://www.infrastructure.alberta.ca/content/doctype486/production/leed_pd_appendix_7a.pdf

Life Cycle Considerations: The Consultant will be required to evaluate and consider life-cycle considerations such as facility resiliency and reliability, ease and economy of operations, environmental sustainability and capacity of Municipal staff to participate in operations and maintenance activities.

Sustainability and Renewable Energy Design Features: The Consultant will include in the Predesign and Schematic Design phases the investigation and evaluation of potential integrated and distinct sustainability and renewable energy features and systems.

At the **Predesign Phase** the consultant will assist the GN in confirming overall Project goals; will review project background, budget, schedule, community context, site conditions; will review regulatory and technical requirements; will identify applicable project precedents; will prepare a functional facility program; will identify risks and opportunities with respect to environmental

sustainability; will identify possible life-cycle and added value upgrades; and will identify, review and rank potential technical solutions against Project goals.

At the **Schematic Design Phase,** the Consultant will develop up to three preferred Project technical solutions into schematic designs and will evaluate and rank these options in terms of technical performance, construction cost, resiliency, operability, life-cycle cost, sustainability, and other criteria. The Consultant will guide the GN in selecting a preferred option to utilize as the base case for a Design-Build proposal call.

At the **Design-Build Tender Documents Phase** the consultant will provide the owner with a comprehensive Owner's Statement of Requirements (OSR) for the selected base case schematic design. The OSR will fully define the functional, technical performance, cost, schedule, regulatory, construction and other requirements for the project. The OSR will be a key component of the GN's Design-Build Request for Proposal and Design-Build Contract Documents.

At the **Procurement Phase** the Consultant will provide assistance and support as the GN assembles and executes a Design-Build Request for Proposal. It is intended that the successful design-build Proponent will be engaged through the GN's Community and Government Services Design-Build Stipulated Price Contract form.

Through the **Design Build Phases** and the **Post Construction and Warranty Phase** the Consultant will provide services upon request from the GN, in the role of a professional advisor and to monitor Project progress and the Contractor's general conformance with the OSR and Contract Documents.

For a detailed description of required services refer to **Schedule B - Consultant Services.**

3. PROJECT OBJECTIVES

The new Cape Dorset Wastewater Treatment plant is to meet the community's long term wastewater treatment requirements as per the October, 2017 Cape Dorset Wastewater Treatment Feasibility Study and the November 2017 (amended March 2018) Cape Dorset Wastewater Treatment Plant Site Feasibility Study, both prepared by EXP Services Inc.

The Project is to intended to achieve substantial completion by the end of 2021

The WWTP must meet the following technical Performance criteria as per the latest CCME guidelines and updated regulatory requirements:

Volume

2041 Annual Volume of wastewater – 110,000m3

2041 Daily Volume of Wastewater – 300,000L/d

Note this is different than the Annual and Daily Volume presented in the Service Conditions as since the report was finalized Department of Health has increased the minimum daily per capita water that we must try to achieve to 100L/capita/day. Therefore, the RWU increased from 90L/Capita/day to 100L/Capita/day.

Effluent Criteria – based on the Cape Dorset Wastewater Treatment Feasibility Study

BOD – 25mg/L

TSS – 25mg/L

The Project is to be designed in line with construction costs identified in the 2017 Class 'D' Estimate included in the Cape Dorset Wastewater Treatment Feasibility Study, adjusted for inflation. Where "added value" opportunities with associated additional costs or schedule impacts are identified in Pre-Design or Schematic Design Phases, the GN may review and may adjust project scope, construction budget and/or schedule accordingly.

The Project design and delivery shall consider the following objectives:

- Maximized life cycle value and reduced life cycle costs;
- Ease of facility operation;
- Maximized reliability and resiliency appropriate for a remote location, harsh environment and changing climate;
- Maximization of local employment opportunities in the areas of plant operations and general maintenance (O&M);
- Energy efficiency, diesel reduction and greenhouse gas minimization;
- Environmental sustainability and waste Reduction
- Support for the following Inuit Societal Values:
    - Inuuqatigiitsiarniq: Respecting others, relationships and caring for people.
    - Tunnganarniq: Fostering good spirits by being open, welcoming and inclusive.
    - Pijitsirniq: Serving and providing for family and/or community.
    - Aajiiqatigiinniq: Decision making through discussion and consensus.
    - Pilimmaksarniq/Pijariuqsarniq: Development of skills through observation, mentoring, practice, and effort.

- Piliriqatigiinniq/Ikajuqtigiinniq: Working together for a common cause.
- Qanuqtuurniq: Being innovative and resourceful.
- Avatittinnik Kamatsiarniq: Respect and care for the land, animals and the environment

4. PROJECT BACKGROUND

Cape Dorset is located on Dorset Island off the southern tip of Baffin Island in Nunavut (64º 13' 25" N, 76º 32' 25" W) and has a population of approximately 1,520 people (Nunavut Bureau of Statistics). The entire community is serviced by a trucked system of both water delivery and sewage collection. Cape Dorset currently has three sewage treatment facilities; one facility is in use (Three Tier Lagoon), P Lake Lagoon was completed in 2007 but was never commissioned and The Emergency Lagoon. The facility that is currently in use is a primary treatment lagoon system that has been in use for more than 30 years. This facility is located approximately 1 km west of the hamlet and discharges into Telik Inlet. The lagoon system has had stability issues associated with the steep terrain where it was constructed and the steep slopes on the lagoon berms. These conditions have resulted in berm failures and significant untreated sewage discharges.

The unused, P Lake Lagoon was constructed with a 20-year lifespan in 2007 with a capacity of 96,000m^3. A five-meter-high berm is the main structure to retain the wastewater. The lagoon is discharged through an outlet structure that penetrates through the berm and is operated with a High Density Polyethylene (HDPE) access vault which was also constructed in the berm. The P Lake Lagoon has encountered significant problems since its construction in 2007. These concerns include surface run-off into the lagoon due to improperly constructed perimeter ditches, infiltrating leaks assumed to be caused by rock fissures and the uncontrolled seepage from the lagoon through the main southwest berm. It is estimated that the infiltrating leaks and precipitation reduce the capacity of the lagoon by approximately 22,000m^3. There are also major concerns with the safety of the road access to the lagoon and the service road around the lagoon.

The cause of the leak in the southwest berm has not been confirmed; there could be a tear in the liner or improperly installed and/or the deep seasonal thaw may have allowed channeling to develop in the berm foundation. Temperature data from 2009-2012 obtained from three thermistors installed in the berm revealed seasonal thawing to a depth of four meters (which is below the foundation of the berm according to the as-built drawings) in two thermistor boreholes and thawing to nine meters below the surface in one of the boreholes. An active layer of four meters is uncharacteristic in this region and causes concern as the liner should be installed below the permafrost line to ensure freeze back and an impermeable barrier is achieved. To verify past temperature readings new data loggers for the thermistor strings were installed during the fall of 2013, analysis of the new data is required to determine if the previous data is sound.

In 2015, at the request of GN CGS, Nunami Stantec completed a feasibility study to assess options to rehabilitate P Lake Lagoon and to upgrade the access road to P Lake Lagoon. The report discussed numerous options to repair P Lake Lagoon and ultimately recommended bentonite to seal the leaks, as it was thought to be a low cost, low risk solution. However, after more research the costs had risen and it was decided not to pursue any further.

The 2015 Feasibility Study also discussed options regarding the improvements to the access road or installing a lift station to limit the use of the road. The road was constructed with steep inclines and an improperly constructed hairpin turn that is a major safety issue for the users of the road. The option of building a lift station to limit access of the road does sound appealing, however, the road requires repairs in order to provide access for maintenance of the lagoons as well as provide access for the sewage trucks while maintenance or repairs are being completed on the lift station.

In 2017, at the request of GN CGS, EXP Services completed a feasibility study that compared sewage lagoon and mechanical treatment. The Feasibility Study reviewed the rehabilitation of P Lake Lagoon, rehabilitating Three Tier Lagoon and the new construction of a mechanical wastewater treatment plant. Although the mechanical wastewater treatment plant had the highest operating costs it was determined that the mechanical wastewater treatment plant was the preferred option. The feasibility study was presented to Hamlet Council and received Council approval to proceed into design and construction of a mechanical wastewater treatment plant.

SCHEDULE "B"
CONSULTANT SERVICES

DEFINITIONS

Whenever used in this Schedule "B" – Consultant Services, the following terms shall have the following respective meanings:

"**Construction Budget**" means the budget for construction representing the total amount of funding allocated to the construction portion of the Project, to be reviewed and updated by the Consultant where called for, and as may be amended by the GN from time to time.

"Contract" means the agreement between the GN and the Contractor for the provision of all labour, materials, and equipment for the execution of the Work; generally, in the form of Government of Nunavut Community & Government Services Design-Build Stipulated Price Contract as modified for this Project.

"Contract Documents" means the executed contract between the GN and the Contractor, together with the general conditions, drawings, specifications, and such other documents as may be identified by the GN as constituting part of the Contract Documents.

"Contractor" means the person, partnership or corporation or contracting with the GN to provide design, labour, materials and equipment for the execution of the Work. “Contractor” and “Design-Builder” have the same meaning.

"**Contractor Performance Verification Plan**" means the full set of activities carried out by the Contractor during all phases of the Work to demonstrate that the Work is being properly performed, tested and inspected in compliance with the Contract Documents, and to ensure that the design performance requirements for the Work are achieved.

"**Contractor Start-Up Programme**" means that full set of pre-planned activities to be carried out by the Contractor to test and inspect the Work, to start up equipment and balance systems, to correct any deficiencies identified as a result of such activities, and in general to demonstrate readiness of the Work for its intended use.

"**Contractor Wrap-Up Programme**" means the activities carried out by the Contractor for static inspections of the Work, system inspections and the sequence and timing of start-up tests for the Project.

“Design Build Contractor” means the same as “Contractor”

"**Substantial Performance**" shall have occurred when the Work is certified by the GN as ready for use or is being used for the purpose intended and is capable of completion or correction at a cost of not more than five percent of the Contract price.

"**Work**" means the total design services, construction and related services required by the Contract Documents to be performed by the Contractor.

1. PRE-DESIGN PHASE

1.1 Consultant and any Sub-consultants shall participate in scheduled bi-weekly project meetings. The Consultant shall be responsible for coordinating meetings and taking and distributing minutes. Except as otherwise noted, meetings in this phase shall be by telephone or web-meeting.

1.2 Review all project background materials including GN functional requirements, and regulatory technical requirements.

1.3 Carry out a geotechnical program as required for the Project and integrate the information and recommendations as required into the Project. Consider guidelines in the Northern Infrastructure Standardization Initiative (NISI), Geotechnical Site Investigations for Building Foundations in Permafrost Zones.

1.4 Carry out a Phase 1 and/or Phase 2 Environmental Site Assessment if required by the Project and integrate the information and recommendations as required into the Project.

1.5 Carry out a topographical site survey of the site as required for the project and to the satisfaction of CGS Lands Administration Division; and integrate the information and recommendations as required into the Project.

1.6 Project start-up and Integrated Design meetings in Iqaluit and Cape Dorset: In addition to any anticipated travel time from Consultant's location of business to Iqaluit, include for three consecutive days of project meetings for each of two senior project personnel.

1.7 Identify and highlight similar project precedents in remote and/or arctic locations

1.8 In collaboration with the GN and the Municipality, review the current capacity of the municipality with respect to long term operation and maintenance of the WWTP facility, and identify options and requirements for recruitment, training and operational support to facilitate a smooth transition at project completion to municipal ownership and operation.

1.9 Identify opportunities and precedents for maximizing project benefits including: life cycle value; efficiency of operation; reliability and resiliency; contributions to local employment; energy efficiency, diesel reduction and greenhouse gas minimization; environmental sustainability and waste reduction.

1.10 Sustainability and Renewable Energy: The Consultant will investigate, identify, and provide relevant examples of potential integrated and/or standalone sustainability and renewable energy features and systems that may significantly reduce energy and/or diesel consumption and reduce the Project's greenhouse gas emissions.

1.11 The Consultant shall study and review with the GN the Project requirements and initial Construction Budget provided to the Consultant by the GN and where appropriate, shall suggest changes to the GN.

1.12 Investigate sludge management process for the new WWTP and evaluate if the current lagoons can form part of the sludge management process or will the lagoons be restored and abandoned.

1.13 Functional Program: Prepare a detailed functional program document for GN review that identifies all non-process related site and building functional requirements, including:

- Applicable National Building Code and related standards
- Building envelope performance standards
- Physical security requirements
- Accessibility requirements
- Interior and exterior finishes
- Storage requirements
- Parking requirements
- Loading requirements
- Office Space and/or Workroom space requirements
- Health and Safety requirements
- Lighting requirements
- HVAC requirements
- HVAC BAS System and remote Monitoring requirements
- Data and Telephone requirements
- Emergency power requirements
- Programmed Logic Control (PLC) System requirements

1.14 Authorities Having Jurisdiction (AHJ) and GN Approvals: The Consultant will assist the GN in reviewing and identifying requirements for all applicable Authorities having jurisdiction. Listed below are known applicable regulatory agencies:

- Government of Nunavut, Department of Health
- Government of Nunavut, Economic Development and Transportation, Airports Division
- Transport Canada
- Nunavut Water Board
- Nunavut Planning Commission
- Nunavut Impact Review Board
- Environment and Climate Change Canada
- Cape Dorset Municipal Council
- CGS Lands Administration Division

1.15 Pre-Design Brief: As a key part of the integrated design process, and prior to commencement of Schematic Design Phase, provide a comprehensive Pre-Design Brief for GN review and evaluation:

- Summarize all project constraints, background data, technical performance criteria and non-technical project objectives.
- Identify key unknowns, challenges and risks and strategies for risk reduction.
- Identify various potential design strategies and solutions to achieve project technical waste water treatment goals. Identify precedents for each. Include different treatment types (MBR, MBBR, SBR or any suitable option)
- Identify options for different construction methods (i.e. Packaged plants, pre-fabricated, on site erection). Provide relevant examples.
- Identify relevant examples for both integrated and “add-on” sustainability enhancements including waste reduction, energy efficiency, renewable energy, green-house gas and diesel reduction. Provide relevant examples.
- For various options, outline preliminary strategies for facility commissioning, training of local staff, and post commissioning verification that will support a seamless transition to plant operations
- Provide a ranking matrix summarizing the anticipated social and environmental costs and benefits of various alternatives.
- Provide a ranking matrix summarizing the anticipated order-of-magnitude financial (capital and lifecycle) costs of various alternatives.

- Recommend up to three reasonably distinct design alternatives that should be investigated during schematic design phase with up to two variations of each (for example with or without specific environmental or energy upgrades) and map recommended alternatives against suitable project construction methods.
- Provide an overall updated project schedule with key milestones.
- Provide a commentary on project Construction Budget.

1.16 Predesign Phase report presentation in Iqaluit and/or Cape Dorset: In addition to any anticipated travel time from Consultant's location of business to Iqaluit, include for three days of project meetings for one senior project personnel to attend.

1.17 Obtain GN approval prior to proceeding with next Phase.

2. SCHEMATIC DESIGN PHASE

2.1 Consultant and any relevant Sub-consultants shall participate in scheduled bi-weekly project meetings. The Consultant shall be responsible for coordinating meetings and taking and distributing minutes.

2.2 Schematic Design Phase start-up and Integrated Design meeting in Iqaluit: In addition to any anticipated travel time from Consultant's location of business to Iqaluit, include for two days of project meetings for each of two senior project personnel.

2.3 Update Predesign Facility Functional Program and/or technical performance requirements as required.

2.4 Prepare Schematic Designs for the selected three reasonably distinct mechanical wastewater treatment preferred alternatives, including

- Preferred treatment process options such as MBR, MBBR, SBR or as otherwise identified in Predesign phase.
- Sustainability concepts (i.e. energy efficiency, waste reduction, enhance effluent quality, sludge reuse) and renewable energy options (i.e. wind, solar, and energy storage systems) or as otherwise identified in Predesign phase.
- Construction options i.e. packaged plants, pre-fabricated, on site erection or as otherwise identified in Predesign phase.
- Provide Class D construction cost estimates for each schematic design option, to be completed by a Professional Quantity Surveyor (PQS)

- Provide 30-year Project Life Cycle Cost Analysis (LCCA) projections adjusted for all alternatives and options.
- Provide projections for diesel reduction, GHG reductions, energy savings, and energy cost savings.
- Identify Operations and Maintenance costs or benefits for all options

2.5 In consultation with GN and the Municipality of Cape Dorset, prepare a draft Training and Operational Support Plan for the three schematic Design scenarios. Identify likely pre-completion, warranty period and lifecycle financial, staffing, and external technical support needs to facilitate a smooth transition of the WWTP to Municipal ownership and operation.

2.6 Present schematic design investigations to the GN including analysis, ranking and recommendations with respect to preferred alternative and options. Receive and incorporate GN comments.

2.7 If required, prepare an Abandonment and Restoration draft plan for the Three-Tier Lagoon and the Emergency Lagoon include a Class D cost estimate.

2.8 Summarize approved Schematic Design materials into draft Design Brief with updated financial, social and environmental comparisons and cost-benefit analysis similar to Pre-Design report. Provide recommendations for preferred alternatives based upon analysis.

2.9 Submit to GN for Internal GN Review in accordance with the requirements noted in the Design Review Stages and Submissions, Community and Government Services, Technical Services Division, July 22, 2013. The GN review period for each submission must be taken into account.

2.10 Upon approval, act as GN's agent for preparation, submittal and presentation of materials for the purpose of obtaining Municipal planning approval for the Project.

2.11 Municipal Presentation: At the end of the Schematic Design Phase the Consultant shall attend a Cape Dorset Municipal Council meeting to present the schematic design options and the preferred option and to receive Council comments. If approved by the GN, Council requested adjustments to the design will be integrated into the Design-Build Contract Documents. Translation services for written and verbal communications will be provided by the GN.

2.12 Prepare background materials for the GN to utilize as part of an application to the Nunavut Water Board for an amendment of the existing water license. Materials shall describe the general design, siting and technical performance of the new WWTP and a preliminary A and R (abandonment and restoration) plan for the existing lagoon cells.

2.13 Make available other schematic design materials at request of GN for GN submittal to other Authorities Having Jurisdiction.

2.14 Fees for Authorities Having Jurisdiction submittal fees will be paid by the GN directly or treated as a reimbursable expense

2.15 Schematic Design presentation in Iqaluit and/or Cape Dorset: In addition to any anticipated travel time from Consultant's location of business to Iqaluit, include for two days of project meetings for one senior project personnel to attend.

2.16 Obtain GN approval prior to proceeding with next Phase.

3. DESIGN-BUILD TENDER DOCUMENTS PHASE

3.1 Consultant and any relevant Sub-consultants shall participate in scheduled bi-weekly project meetings. The Consultant shall be responsible for coordinating meetings and taking and distributing minutes.

3.2 Based upon the approved Schematic Design options, the Consultant shall prepare and assemble all relevant Predesign and Schematic Design Phase data, documents and recommendations into a comprehensive draft Owners Statement of Requirements (OSR) to become part of Design-Build tender documents. The OSR shall include, but not necessarily be limited to, the following:

- Project objectives
- Selected schematic design as "base case" for Design-Build bids.
- Outline specifications and/or performance specifications sufficient to ensure that Tender submissions are required to meet project goals.
- Parameters for consideration of alternate Tender proposals.
- Site information including geotechnical, survey and environmental reports
- Building and site Functional Program
- WWTP technical performance specifications
- Renewable Energy and/or Sustainability options
- Training and Operational Support Plan requirements
- Project Schedule Outline
- Class D Construction Budget based upon preferred schematic design
- Regulatory Approvals to be obtained by Contractor
- Contractor Performance Verification Plan
- Commissioning requirements

- Post construction operational support and warranty requirements

3.3 The Consultant shall prepare the construction documents so as to maximize competition among contractors, sub-trades and suppliers while adhering to overall project objectives. Sole sourcing of components will only be permitted with Approval of the GN.

3.4 Prior to Tender the Consultant shall advise the GN of any adjustments to previous estimates of construction cost indicated by changes in requirements.

3.5 The Consultant shall provide all documents necessary to complete the Owner's Statement of Requirements portion of the Tender Documents. The Consultant shall submit to the GN for review at intervals established by the GN one (1) electronic copy in PDF format and where appropriate, one electronic copy (1) in DWG format. The GN reserves the right to request paper copies, the cost of which will be paid by the GN as a reimbursable expense.

3.6 Submit to GN for Internal GN Review in accordance with the requirements noted in the Design Review Stages and Submissions, Community and Government Services, Technical Services Division, July 22, 2013. The GN review period for each submission must be taken into account.

3.7 Provide updated pre-tender Class D construction cost estimates for base bid schematic design option, to be completed by a Professional Quantity Surveyor (PQS)

3.8 Provide updated pre-tender 30-year Project Life Cycle Cost Analysis (LCCA) projections for base bid schematic design option.

4. PROCUREMENT PHASE

4.1 Printing and reproduction of procurement documents will be carried out at the GN's cost and the GN will arrange the issuance of documents to prospective bidders.

4.2 The GN shall post tenders on the Nunavut Request for Tenders/Proposals website and, where it so chooses, make arrangements to have advertisements placed in the relevant newspapers.

4.3 The Consultant shall prepare addenda, in accordance with the GN's direction, which may be necessary to inform all bidders of clarifications, changes, additions or deletions to procurement documents.

4.4 The Consultant shall participate in a bidder's briefing meeting, if required by the GN to do so, and be shall record minutes, which it will forward to the GN. These minutes may be included in an addendum.

4.5 The GN shall receive tenders and/or proposals for procurement of the Work.

4.6 The Consultant shall assist the GN as required in reviewing tenders and/or proposals and, if requested by the GN, submit written recommendations to the GN prior to award of the contract for the Work.

4.7 The GN shall be responsible for the assembly of the applicable documents into a Contract Document package and for the award and execution of the Contract.

5. DESIGN BUILD PHASE - DESIGN DEVELOPMENT

5.1 All services in this Phase are to be provided at GN request and shall be billed on an hourly rate basis.

5.2 Consultant and any relevant Sub-consultants shall participate in scheduled monthly project meetings. The Contractor shall be responsible for coordinating meetings and taking and distributing minutes.

5.3 Periodically at key milestones the Consultant shall review the progress of the Contractor’s work and provide written report to the GN with respect to general conformance with the Owner’s Statement of Requirements (OSR) and Contract Documents.

5.4 The Consultant shall generally review and provide written advice with respect to the Contractor’s Performance Verification Plan and its demonstrated compliance or non-compliance with the OSR and Contract Documents.

6. DESIGN BUILD PHASE – CONSTRUCTION DOCUMENTS

6.1 All services in this Phase are to be provided at GN request and shall be billed on an hourly rate basis.

6.2 The Consultant shall provide any advice to the GN and shall not be required to notify or direct the Contractor. The Consultant's review shall not relieve the Contractor and the Contractor’s consultants of responsibility for the Work.

6.3 Consultant and any relevant Sub-consultants shall participate in scheduled monthly project meetings. The Contractor shall be responsible for coordinating meetings and taking and distributing minutes.

6.4 Periodically at key milestones the Consultant shall review the progress of the Contractor's work and provide written report to the GN with respect to general conformance with the Owner's Statement of Requirements (OSR) and Contract Documents.

6.5 The Consultant shall generally review and provide written advice with respect to the Contractor's Performance Verification Plan and its demonstrated compliance or non-compliance with the OSR and Contract Documents.

6.6 The Consultant shall advise the GN with respect to any Contractor proposals for substitutions to ensure that they are generally consistent with the requirements of the Project design and in compliance with the Contract Documents.

7. DESIGN BUILD PHASE – CONSTRUCTION

7.1 All services in this Phase are to be provided at GN request and shall be billed on an hourly rate basis.

7.2 The Consultant shall provide any advice and recommendations to the GN and shall not be required to notify or direct the Contractor. The Consultant's review shall not relieve the Contractor and the Contractor's consultants of responsibility for the Work.

7.3 The Consultant shall participate in scheduled monthly project meetings. The Contractor shall be responsible for coordinating meetings and taking and distributing minutes.

7.4 The Consultant shall review and provide advice to the GN with respect to financial aspects of the Contract as follows:

- Initial Schedule of Values
- Monthly requests for Payment
- Appropriate value of changes
- Contractor expenditures under Cash Allowances
- Appropriate values of defects or deficiencies

7.5 The Consultant shall generally review and provide written advice with respect to the Contractor's Performance Verification Plan and its demonstrated compliance or non-compliance with the OSR and Contract Documents.

7.6 Providing they have been reviewed and approved by the Contractor, the Consultant shall review key submissions made by the Contractor in connection with the Work, including product data and shop drawings, mock-ups and samples to provide general commentary as to conformity with the OSR and Contract Documents.

7.7 The Consultant shall advise the GN with respect to any Contractor proposals for substitutions to ensure that they are generally consistent with the requirements of the Project design and in compliance with the Contract Documents

7.8 The Consultant shall review and advise the GN with respect to general conformance of the Contractor' training and Support Plan with requirements as described in the OSR and Contract Documents.

7.9 The Consultant shall review and advise the GN with respect to general conformance of submitted Operational and Maintenance information with requirements as described in the OSR or Contract Documents.

7.10 The Consultant shall review the Contractor's submission of a Contractor Wrap-Up Programme and Training Programme, and shall advise of any noted deviation from the OSR or Contract Documents.

7.11 The Consultant shall attend the Project site periodically to generally assess the progress of the Work and shall advise of any significant observed deviation from the OSR or Contract Documents.

7.12 Prior to Substantial Performance the Consultant shall review the Contractor's and/or commissioning agent's submittals including commissioning reports, training reports, Operations and Maintenance Manuals and Warranties and shall review the Contractor's deficiency list, the Contractor's draft Certificate of Substantial Performance and the Contractor's draft as-built record drawings. The Consultant shall advise the GN of any missing items or recommended changes.

8. DESIGN BUILD PHASE –POST-CONSTRUCTION AND WARRANTY

8.1 All services in this Phase are to be provided at GN request and shall be billed on an hourly rate basis.

8.2 The Consultant shall provide any advice and recommendations to the GN and shall not be required to notify or direct the Contractor. The Consultant's review shall not relieve the Contractor and the Contractor's consultants of responsibility for the Work.

8.3 The post-construction construction and warranty phase shall commence upon the date of a letter of completion issued to the Contractor by the GN and continue for a period of two years.

8.4 The Consultant and any relevant Sub-consultants shall participate in scheduled monthly project meetings to review Project performance and any Operations and Maintenance issues relevant to the OSR and the Contract. The Contractor shall be responsible for coordinating meetings and taking and distributing minutes.

8.5 At least thirty (30) days prior to expiration of the warranty period, the Consultant shall attend a site review of the facility with the GN and the Contractor to ensure that all items of Work under the warranty are free of any defects or failure. The Consultant shall submit reports to the GN pursuant to these reviews.

SCHEDULE "C"
ADDITIONAL SERVICES

1. The Consultant shall provide any or all of the following services ("**Additional Services**") if so directed by the GN:

   NOT APPLICABLE

2. If required to perform any or all of the Additional Services, the Consultant shall be compensated in accordance with **Schedule "D" – Compensation**.

SCHEDULE "D"
COMPENSATION

1. GENERAL

1.1 Terms of payment shall be as per the General Conditions of the Contract form.

1.2 The Services described in this Request for Proposal will be provided for a stipulated sum fee of $ _____. plus, applicable GST.

2. COMPENSATION FOR BASIC SERVICES

2.1 The fee for the Basic Services as described in Schedule "B" – Consultant Services shall be as included in the stipulated sum fee.

2.2 The fees for the Basic Services as described in Schedule B *Section 5 - Design Build Phase - Design Development* though *Section 8 - Design Build Phase – Post-Construction and Warranty* shall be billed on a time basis at the hourly rates of personnel involved in the provision of the Services in accordance with the rates set forth herein; against stipulated Hourly Rate Cash Allowances identified below.

The stipulated Hourly Rate Cash Allowances identified below shall be INCLUDED in the stipulated sum fee.

Hourly Rate Cash Allowances are stipulated as follows:

Phase	**Hourly Rate Cash Allowance to be included in Fee**
Design Build Phase - Design Development	$ 50,000
Design Build Phase – Construction Documents	$ 50,000
Design Build Phase - Construction	$ 100,000
Design Build Phase – Post-Construction and Warranty	$ 75,000

3. COMPENSATION FOR ADDITIONAL SERVICES

3.1 The fee for Additional Services as described in **Schedule "C" – Additional Services** shall be determined by agreement between the Parties prior to performance of the

Additional Services. Unless otherwise directed by the GN, invoices for Additional Services will be submitted monthly, complete with supporting documentation to the satisfaction of the GN.

3.2 The fee for any required Additional Services as shall be as EXCLUDED from the stipulated sum fee.

4. REIMBURSABLE EXPENSES

4.1 The stipulated Reimbursable Expense Cash Allowances identified below shall be INCLUDED in the stipulated sum fee.

4.2 Reimbursable expenses are based upon actual expenditures made by the Consultant and the Consultant's personnel with respect to the Services and require the prior Approval of GN. The GN will reimburse the Consultant for Approved reimbursable expenses at cost only and without mark-up. Reimbursable expenses must be accompanied by original receipts for the incurred expense and be submitted to the GN for Approval before payment will be due or made.

4.3 Reimbursable expenses shall be billed against stipulated Cash Allowances.

4.4 Reimbursable expenses shall include the following:

4.4.1 Travel and accommodation costs Approved by the GN shall be paid in accordance with the rates established under the GN Duty Travel and Accommodation Rates Directive, issued by the Financial Management Board.

4.4.2 Long distance telephone calls, facsimiles, courier service, electronic conveyances and postage.

4.4.3 Vehicle rental costs are reimbursable only when the work is done out of town from the Consultant's office.

4.4.4 Geotechnical and Environmental Services as listed herein.

Item	**Reimbursable Expense Cash Allowance to be included in Fee**
Authorized Travel Expenses	$ 100,000
Miscellaneous Reimbursable Expenses	$ 25,000

Topographical Survey	$ 75,000
Geotechnical Investigation	$ 100,000
Environmental Site Assessment Phase 1 and 2	$ 50,000

5. HOURLY RATE SERVICES

5.1 The hourly rates of personnel or positions involved in the provision of the Basic Services or Additional Services shall be billed as listed herein by the Proponent. The rates shall include the cost of mandatory and customary contributions and benefits such as employment taxes, statutory holidays, vacations, and pensions and other similar contributions and benefits; and shall include all applicable overhead and profit.

Person	**Hourly Rate**

5.2 Only time expended in the performance of the Services, whether at the Consultant's office, at GN's premises, or elsewhere, will be charged by the Consultant to GN.

SCHEDULE "E"
PROJECT SCHEDULE

1. PROJECT SCHEDULE

1.1 The project schedule is as follows:

PROJECT MILESTONE	GN PROPOSED DATE	PROPONENT PROPOSED DATE
Consultant Contract Award:	March 22, 2019	
Topographic survey & Geophysical Investigations	July- August 2019	
Schematic Design Brief Issued	October 15, 2019	
GN approves Schematic Design and Design Brief	November 15, 2019	
Consultant Issues Owner's Statement of Requirements	December 15, 2019	
GN Issues Design Build RFP	Feb 1, 2020	
Design Build RFP closes	May 1, 2020	
Contract Award	July 1, 2020	
Construction Substantial completion	July 1 , 2022	
Complete two-year monitoring and warranty period	July 1, 2024	

1.2 The Proponent shall include with proposal submission any proposed adjustments to GN proposed milestone dates.

SCHEDULE "F"
CONSULTANT'S PROJECT TEAM

Key Personnel

The GN and the Consultant having recognized that the following personnel is/are critically important to the successful performance of the Services, agree that the following individuals will remain fully employed in performing the Services and the Consultant will not, without the prior written consent or agreement of the GN, remove or reassign this/these individuals during the term of this Agreement as long as such individual(s) remain(s) in the employ of the Consultant:

Job Function/Classification	Person

Personnel

Job Function/Classification	Person

Key Sub-Contractors

The GN and the Consultant having recognized that the following subcontractor(s) is/ are critically important to the successful performance of the Services, agree that the Consultant will retain the following subcontractor(s) in performing the Services and the Consultant will not, without the prior written consent or agreement of the GN, remove or reassign this/these subcontractor(s) during the term of this Agreement, and shall promptly notify the GN should this/these subcontractor(s) become unavailable to the Consultant:

Job Function/Classification	Person

Sub-Contractors:

Job Function/Classification	Person