



## **REQUEST FOR PROPOSAL FOR CONSULTANT SERVICES**

to provide a comprehensive review and support document in direct relations to the rehabilitation of the:

### **High Intensity Approach Lights System for Runway 08**

The consultant's report will provide capital costing, design and tender ready documents and support documentation to meet funding criteria under the Transport Canada Airports Capital Assistance Program ACAP based on the criteria set in TP-312, the Canadian Aviation Regulations and other related documents

North Bay Jack Garland Airport Corporation

March, 2021

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## **1.0 INTRODUCTION**

### **1.1 Purpose**

The Terms of Reference defines;

- The scope of work required from the consultant for professional engineering services for the rehabilitation of Runway 08 High Intensity Approach Light System (SSALR).
- Recommended repair and replacement options, cost estimates, tender and support documents for the required work.
- Additional support documents to meet TC requirements to submit an application for funding under the ACAP Airports Capital Assistance Program based on Transport Canada's requirements.

While the NBJGAC has taken every effort to ensure the accuracy and completeness of the RFP, it is provided solely as a guideline for Proponents. The NBJAGC accepts no responsibility for any information or errors or omissions that may be contained in the RFP. The Proponents are responsible for forming their own opinions and conclusions concerning all matters associated with the RFP.

### **1.2 Location**

North Bay Airport is located approximately 8 km from the North Bay City Centre. The aerodrome elevation is 370m (1215') above sea level. Strategically located near the trans-Canada Highway 17 and Highway 11, and the Ontario Northland Railway, the airport serves not only the City of North Bay itself but the surrounding districts of Nipissing, Parry Sound, Temiskaming, and many other communities within Northern Ontario. Access to the airport from major ground transportation corridors including Highways 11 and 17 is via Airport Road.

### **1.3 Background**

#### **Airport Operating Conditions**

North Bay Airport is operational 24 hours per day, seven days per week, and is capable of supporting both VFR and IFR operations down to Cat 1 precision approach limits and departures in visibilities of RVR 1200 and 1/4, statute miles.

#### **Critical Aircraft**

The critical aircraft for the primary runway is the B767/A310 (reference code D). The secondary runway supports aircraft up to the Dash-8 (reference code C).

## **Airport Operations**

The manoeuvring area consists of two intersecting paved runways, one turf runway, an adjoining taxiway system, and five aprons. The primary runway (08-26) is 10,001 feet long by 150 feet wide with 25 foot paved shoulders on either side, and the secondary runway (18-36) is 4,492 feet by 148 feet wide.

### **1.4 NAVCanada**

Operates a flight Service Station 16 hours per day and all electrical systems are integral to the airport power system.

### **1.5 Air Carrier**

The airport currently offers daily scheduled passenger service by Bearskin Airlines to Sudbury and with departures between 07:00 and 21:00 hours.

### **1.6 Ownership**

The North Bay Airport is certified as a public aerodrome; owned by Corporation of the City of North Bay and operated by North Bay Jack Garland Airport Corporation.

### **1.7 Construction History**

A continuous program of capital improvement has been undertaken at North Bay Airport in response to the needs of the community and the stakeholders of the facility.

### **1.8 Existing Facility**

The North Bay Airport incorporates roughly 770 hectares of land. The airport property is constrained by Airport Road to the south which is the main transportation corridor to/from the City of North Bay. The eastern boundary of the airport is defined by Carmichael Drive and the northern boundary of the airport is bound by Four Mile Lake Road.

To the west, the airport property is defined by a gravel road, and a golf course to the southwest. In addition, natural watersheds that are present to the east and west of the airport limit the site's potential for future development.

### **1.9 Runway Configurations**

The two-runway and multiple taxiway system is configured in a cruciform pattern. The airport was originally configured with three runways in a triangle, the runways

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being 08-26, 18-36 and 13-31, however; the paved portion of Runway 13-31 has been closed. The primary runway is now Runway 08-26.

A 2000' turf runway has been established to the north of the primary runway, parallel to Runway 13-31.

Access to the primary runway is facilitated by a taxiway and apron network on the south side of Runway 08-26.

## **2.0 OBJECTIVES**

### **2.1 General**

In general, the objectives are to provide professional engineering and planning services for the following project as approved by the airport.

These services will be broken down into four defined areas;

- a) Project development and applications which will include standard engineering practices and all requirements under the Transport Canada Airports Capital Assistance Program (ACAP). Which will include:
  - Review of existing light system and condition
  - Geotechnical evaluation of the surfaces
  - Environmental assessment as required for funding programs
  - Recommend options and cost to rehabilitate the SSALR approach light system
  - Recommended options to rehabilitate the light system need to take into consideration the reduction of power usage and to minimise our carbon foot print.
  - Proposed Project Schedule
  - Cost Estimates
  - Completed ACAP application document for the 22/23 application window

The Airport Capital Assistant Program information is available at;  
<https://tc.canada.ca/en/aviation/operating-airports-aerodromes/apply-acap-funding>

- b) Completion of required documents to proceed with the project and ACAP
  - Final Design
  - Tender Specifications and Documents

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- c) Administration of the tender process and recommendation
- d) Contract Administration, Supervision and Quality Assurance.

## **2.2 Current Objectives**

The scope of work intended to be carried out by the North Bay Jack Garland Airport Corporation is subject to financing and the evaluation of various options. The required work by a professional engineering firm would be as follows:

### **08 SSALR Approach Light System**

Re-habilitate the approach light system from the threshold of Runway 08 to the last tower. The work would include replacing towers, confirm support pads will support the new towers and replace where required, replace transformers and light fixtures, primary and secondary cablings.

The project is to be developed to meet the latest version of TP312 and Canadian Aviation Regulations affecting aerodrome operations.

## **3.0 SCOPE OF CONSULTING SERVICES**

### **3.1 General Requirements**

In completing the above noted projects, the following is a brief description of the general requirements of work to be undertaken:

- a) Collection of background information regarding each objective.
- b) Meeting with the airport to review details of the project and establish priorities.
- c) Review eligibility with Transport Canada.
- d) Preparation of ACAP applications including:
  - Inclusion of mandatory support documentation.
  - Detailed description of project and related deficiencies.
  - Outline of project eligibility.
  - Design.
  - Specifications.
  - Cost Estimates.
  - Scheduling.

- Environmental Assessment in accordance with Canadian Environment Assessment Act (CEAA) and other local environmental requirements.
- e) Conduct necessary survey work including identification of underground utilities.
- f) Confirm current status of applicable regulatory requirements with Transport Canada.
- g) Preparation of Design Brief providing details of design methodology. The purpose of this document is to clearly identify all project elements, restraints, solutions, options, costs, scheduling and construction implementation strategies.
- h) Review of the preliminary Design Brief with Airport.
- i) Prepare final design all in accordance with TP312 5<sup>th</sup> edition. National electrical code and any other reference material required to comply with codes and regulations.
- j) Prepare tender documents and specifications.
- k) Preparation of cost estimates at various stages during the design process as requested by the North Bay Jack Garland Airport Corporation.
- l) Prepare a Plan of Construction Operations, including Transport Canada approval, Liaise and consult with stakeholders including NAV Canada and the airlines.
- m) Confirm approval requirements with NAV Canada complete and administer any applications for the approval process.
- n) Review Final Design/Tender Documents with the North Bay Airport.
- o) Tendering of works and organization of pre-bid meeting with all contractors.
- p) Review of bids received and recommendation of contract award.
- q) Construction supervision and administration.
- r) Quality Assurance
- s) Commissioning and testing.
- t) Provide Publication Up-dates including CFS, CAP, AOM and updated geometrical points and drawings.
- u) As-Built Conformity Analysis and Engineer's Attestation of Compliance.
- v) Project Close-out documentation as required by Transport Canada and the NBJGAC.
- w) Assisting the airport in the preparation of monthly progress payment requests to Transport Canada.

### 3.2 ACAP Project Data Required

Reference Manual TP 12313

***Project Specific Data (as appropriate)***

- a) A statement of project requirements and scope of work including a project definition and justification based on the evaluation criteria;
- b) A quality of assurance program before and during project implementation;
- c) A statement of project management services including design, consultant services, construction, field services, quality control and commissioning;
- d) A cost plan incorporating budgeting, estimating, and cost control processes as well as a substantive estimate of cost by major work item for all phases of project delivery (i.e. design, environmental assessment, tendering, construction, etc.,
- e) A project schedule for all phases of project delivery showing anticipated start and finish dates, major milestones and cash flow projection;
- f) A financial plan incorporating the securing of project financing including cost sharing arrangements, payment certification, and project accounting;
- g) A design indicating geometric dimensions, specifications, construction methods, materials, etc.; the source of the design and the name of the engineer/engineering, firm/architect which prepared or reviewed the design;
- h) As evidence of appropriate maintenance of the existing facility and/or equipment, an operational/maintenance plan (i.e. crack filling program, electrical maintenance, vehicle maintenance, etc.), and relevant copies of maintenance records indicating maintenance work undertaken and costs incurred;
- i) Anticipated changes in operating and maintenance costs as a result of the project. The project should be sufficiently developed to enable the applicant to tender the project within a reasonable timeframe after the signing of the contribution agreement.

### **Environment**

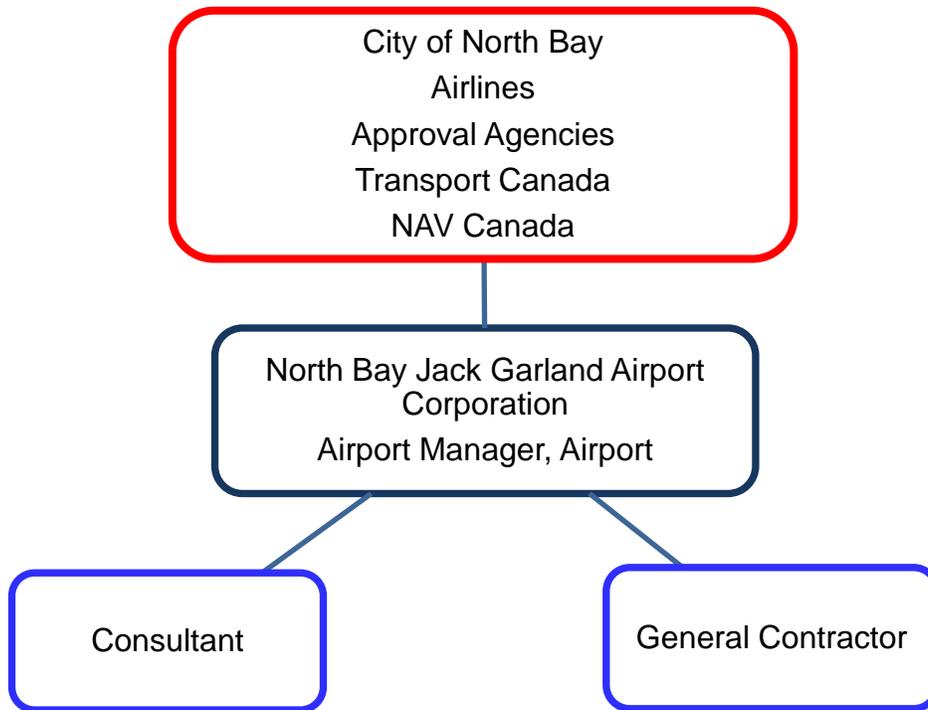
- a) In support of the Government's objective to incorporate sustainable development principles in the management of its programs, whenever possible, the Applicant should demonstrate that environmental considerations have been integrated into the project. For example, this could include seeking cost-effective ways of reducing the use of raw materials and the generation of waste associated with the project or by investigating the feasibility of acquiring heavy mobile equipment that will minimize harmful emissions.
- b) An environmental review must be completed in accordance with the Canadian Environmental Assessment Act and approved by the Regional Office of Transport Canada.

### **3.3 Project Methodology**

To carry out construction for the project, it is anticipated that the contracts will be a unit price based contract and will include quality control responsibilities by the contractor. Quality

assurance, however, will be the responsibility of the consultant acting on behalf of the Airport.

The following organization and responsibility chart indicates the intended contractual and administrative structure for the various contemplated projects.



It should be clearly understood that the consultant will have extended project management responsibilities as a result of this organization.

The consultant will initially work with the Airport in establishing priorities and identifying the scope of the project for submission for ACAP funding.

#### 4.0 SCHEDULING

The Consultant will initially work with the Airport in establishing priorities and identifying the scope of the project for submission for ACAP Funding.

The ACAP Application for this project is to be submitted to Transport Canada by September 1, 2021.

Final design and tender process in 2022 and construction are anticipated to occur in 2022/23.

## **5.0 PROJECT REQUIREMENTS**

Proponents are asked to provide services generally referred to as “Engineering Services” for the purpose of the RFP. The successful proponent will be awarded a contract and be referred to as “consultant” to the Airport.

The scope of required services will be classified generally into five phases and will involve, but may not be limited to, the following:

### **5.1 ACAP Application**

Upon award of the contract to the consultant, meetings will take place between the Airport and Transport Canada as required to identify potential ACAP eligible projects components.

Upon selection of the priority of projects, ACAP Applications are to be prepared, based on the schedule agreed to by all parties.

The ACAP applications generally involve the following:

- a) Review of all background information including existing drawings, surveys and reports.
- b) Carry out field reconnaissance to become fully familiar with the site and the work required. Collection of the background information from the North Bay Airport for the “front end” of the ACAP Application.
- c) Review various rehabilitation options and conduct a cost benefit analysis.
- d) Selection of preferred alternative that meets physical, schedule and operational objectives of the Airport.
- e) Perform any and all design calculation and recommend appropriate construction methods, products and materials.
- f) Summarize scope of work.
- g) Preparation of cost estimates.
- h) Outline of proposed scheduling and cash flow requirements.
- i) Prepare and submit necessary environmental documents to appropriate departments within the Federal and Provincial governments.
- j) Liaison with NAV Canada, Transport Canada and stakeholders, including airlines, regarding the proposed work.
- k) Submission of preliminary ACAP application to the Airport for review and approval.
- l) Submission to Transport Canada on behalf of the Airport.

- m) Address any questions/concerns of Transport Canada, during Transport Canada's review.
- n) Attend meetings as required with the Airport/Transport Canada.

## **5.2 Design Development Phase including Preliminary and Final Design**

As part of the ACAP Application preparation as outlined above, there is a need to complete preliminary and final design for the ACAP project.

The Consultant shall finalize the design documents, based on consultation with Transport Canada in order to meet ACAP Funding requirements.

## **5.3 Tendering for Construction Phase**

During the tender stage, hold Pre-Tender Meetings, prepare responses to bidder's queries and prepare addenda as required. Review tenders received and provide recommendations on award of tender.

## **5.4 Construction Phase**

Upon award of the work, the consultant shall supervise construction so that "best practices" and standards are complied with. The consultant will be responsible for all aspects of the construction administration and supervision. The consultant will be responsible for all management of the project.

The responsibilities of the consultant are briefly outlined below, but are not limited to:

- a) Supervise work in accordance with all applicable safety standards and regulations for this type of work.
- b) Set out any required control points and benchmarks for the work.
- c) Review and approve contractor's work plan including the proposed materials, test certificates, shop drawings and other relevant documents. Review the contractor's plan for compliance with any construction safety requirements and contract terms.
- d) Inspect materials and workmanship to ensure contractor's work meets the intent of the design and conforms to plans and specifications.
- e) Provide, if necessary, the Airport with any calculated distances required for runway displacement (ASDA, TODA, LSDA, TORA) if required.
- f) Provide and design, if necessary, all markers, flags, lights, and signs as required by Transport Canada to meet temporary day/night runway displacement.
- g) Supervise and review quality assurance testing, initiating corrective action as required to ensure that project objectives are met.

- h) Monitor the effectiveness of the contractor's Quality Control Program and recommend adjustments as necessary to ensure that project objectives are maintained.
- i) Monitor the contractor for compliance with all safety and security requirements.
- j) Liaison with Airport Manager and issue immediate instructions to the contractor in the event of any violation against the requirements.
- k) Maintain detailed record daily diaries with appropriate photos, minutes of meeting, amendments to drawings, instructions to contractor, contractor's site activities and other relevant data.
- l) Call and chair regular site meetings with the Airport Manager, contractor and others as necessary at time intervals to be determined by the owner.
- m) Prepare monthly progress claims for airport approval.
- n) Advise immediately of any cost overruns and obtain prior approval of owner before any issuance of Change Orders. Institute a Contemplated Change Order process and other processes to establish cost and schedule control.
- o) Liaison with, receive instructions from, submit documents for approval to and report regularly, both orally and in writing to the Airport Manager. In addition, prepare and submit a written monthly progress report covering all aspects of the work. The format of the reports and their content shall be to the approval of the Airport Manager. Include monthly cost reports, separately for engineering, quality control, assurance testing and construction services, and explain any variance from budget and schedule. Participate in forecasting processes leading to cost estimates to complete the work and schedule analysis.
- p) Preparation of monthly progress reports for submission to Transport Canada by the Airport Manager.

## **5.5 Completion, Commissioning and Post Construction Phase**

- a) At project completion, provide the Airport for record purposes, one reproducible file and one Blackline print of each As-Built and single line drawing. Also, provide design, single line electrical and as-built drawings electronically, in PDF format and AutoCAD Civil 3D 2019 format as per the City of North Bay requirements.
- b) Perform final inspection and ensure that all deficient items are corrected.
- c) Review and assist the North Bay Airport to negotiate any outstanding claims with the contractor, making appropriate recommendations to the airport.
- d) Prepare all documents related to aviation publication updates including CFS, CAP and AOM as required.
- e) Prepare an As-Built Design Conformity Analysis of each project as applicable for geometric compliance with TP312 standards. Submit a Summary Report and Engineer's Attestation of Compliance.

- f) Submission of project close out documentation required by Transport Canada.

## **5.6 Drawing and Specification Production**

Consultant will observe the following:

- a) Specifications shall be in National Master Construction Specifications (NMS) format with modifications agreed to by the North Bay Airport.
- b) CAD drawings must be provided in AutoCAD Civil 3D 2019 format
- c) Drawings to be consistent with a drawing control procedure.

## **5.7 Code and Regulation Compliance**

Consultant shall review all relevant codes, statues, regulations and by-laws applicable to the design, and ensure those authorities having jurisdiction are consulted and approvals as appropriate are secured or complied with. These may include but not be limited to:

- a) National Building Code 2015 or latest issue
- b) Provincial Plumbing Code
- c) Provincial Gas Safety Act
- d) National Fire Code of Canada 2015 or latest issue
- e) Applicable NFPA Codes
- f) Applicable CSA Codes and Standards
- g) Department of Labour, Occupations Environmental Regulations
- h) The Workers Compensation Industrial Health and Safety Regulations
- i) The Power Engineers & Boiler & Pressure Vessel Safety Act
- j) ASME and ANSO Codes
- k) ASHRAE Design Standards
- l) ASPE Design Standards
- m) SMACNA Design Standards
- n) Transport Canada Requirements and Published Standards
- o) Environmental Standards
- p) Canadian Electrical Code
- q) Ontario Electrical Authority

- r) Canadian Aviation Regulations

## 6.0 INSTRUCTIONS TO PROPONENTS

### 6.1 General

Eligible proponents must provide with their proposal:

- a) Proof of licence to practice within the Province of Ontario.
  - i. Letter of good standing with the Workplace Safety & Insurance Board.
  - ii. Letter from Insurance Company stating availability of Professional Liability Insurance.
  - iii. Proof of General Liability and Comprehensive Automobile Insurance for all owned vehicles, non-owned vehicles and leased: \$5,000,000 inclusive per occurrence.
  - iv. The information contained in the proposal must be organized under the same headings and in the same order as outlined in the following section entitled "Mandatory Proposal Components".

### 6.2 Mandatory Proposal Components

Please order proposal as follows:

- a) **Introduction**, including the following:
  - i. Introductory letter describing the proponent's team and indicating the firm's commitment to the project signed and sealed as outlined above.
  - ii. Letter of good standing with the Workplace Safety and Insurance Board.
  - iii. Letter from Insurance Company stating availability of Professional Liability Insurance specific to this job, the successful consultant will be required to carry a minimum of \$2,000,000 per occurrence in professional liability insurance and 5,000,000 in general liability. The insurance coverage cannot be modified without written consent of the owner. Clauses that limit the liability of the consultant or the insurance company to the value of the fees paid/payable will not be considered.
  - iv. Proof of General Liability and Automobile Liability Insurance.
- b) **Corporate Overview** (Proponent and Sub-consultants)
  - i. History of Firm(s) and experience in general.
  - ii. Size of Firm – Number of full time and part time employees, associated sub-consultants.

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- iii. Related Experience – A summary of relevant experience of the proposed project team, including prime and sub-consultants, in completing assignments of this type in a similar size, scope, and complexity. The relevant experience should be limited to work in the following areas:
- iv. Airports, Runway, Electrical and Associated Projects (Civil/Electrical)
- v. Familiarity with Transport Canada
- i. Airport Projects – Provide details of related projects including names, positions and telephone numbers of client references for at least three (3) relevant projects. Consultant must have completed similar services for a minimum of three (3) projects within the last three (3) years.
- ii. Non Airport Related Projects – Provide details of related projects including names, positions and telephone numbers of client references for at least three relevant projects. Consultant must have completed similar services for a minimum of three projects within the last three years.
- iii. Statement of ability to handle this work in conjunction with any existing workloads.

**c) Project Team Members**

- i. A description of the experience and capabilities of each team member, number of years at the firm, and their role and responsibility during this project (limit one page/member).
- ii. The relevant experience should be limited to work in the areas indicated above.
- iii. Team leaders must be involved in projects completed in last three years.

**d) Organization and Methodology**

- i. Provide a schedule to organize the work and the project.
- ii. Describe the approach during both design and construction phases for:
  - Quality Assurance
  - Cost Control
  - Schedule Control

**e) Submission of Price and Terms of Payment**

- i. Consultant to provide at this stage, a fixed price for completing various phases of the project identified in these Terms of Reference broken down into the three components.
- ii. Please see Appendix B Tender Form.

**f) Ownership**

All maps, drawings, photographs, surveys, reports or similar materials prepared or

produced pursuant to these Terms of Reference or the Contract Document will become the property of the North Bay Jack Garland Airport Corporation and the City of North Bay and shall be transferred to the Airport upon completion of the project.

The Consultant must prepare and include a statement which gives the Airport Corporation the drawings, plans and specifications for the project. The statement shall also expressly state that the Engineer shall not hold the Airport Corporation and/or Her Majesty the Queen responsible for any costs incurred in connection with the preparation of such drawings plans and specifications.

## 7.0 PROPOSAL EVALUATION CRITERIA

The Consultant's proposal shall be evaluated in accordance with the following criteria.

- a) Proposals will be evaluated by the North Bay Jack Garland Airport Corporation on the basis of perceived "best value" to the Airport as such, the lowest price may not mean award. The North Bay Jack Garland Airport Corporation reserves the right to select and award using its sole discretion and to reject any and all proposals as it sees fit.
- b) The NBJGAC reserves the right to reject any or all submissions to the RFP process if, in the sole determination of the NBJGAC, proposals do not meet the requirements as outlined in this RFP, or if the submissions are not satisfactory to the NBJGAC. The NBJGAC further reserves the right:
  - At any time, add, delete or modify terms or conditions included in the RFP Process and require each Proponent to advise the NBJGAC as to the effect of any such change on the Proponents' Proposal; and,
  - At any time, delay or terminate the RFP process.

## 8.0 SUBMISSION INSTRUCTIONS

### a) Address for Submission of Proposals

Clearly marked, sealed packages:

***Proposal submission for:  
Runway 08 High Intensity Approach Lights Rehabilitation Planning  
Design, Project Management  
and Contract Administrative Services  
North Bay Jack Garland Airport Corporation  
50 Terminal St. Suite 1  
North Bay, Ontario P1B 8G2***

### b) Closing Time for Submission of Proposals

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Proposals must be received no later than:

***13:00 pm, Eastern Standard Time, May 31, 2021***

***13:30 pm, Public Opening Airport Boardroom May 31, 2021***

**c) Form of Submission**

- i. Three (3) hard copies and one (1) electronic copy.
- ii. Proposals are to be delivered by the closing time noted above to the address noted in above. No late deliveries will be considered.

**d) Enquiries from Consultants**

Consultants are to direct enquiries during the proposal call period to:

Jack Santerre, Airport Manager

Phone: 705-474-3020 ext5304

Email: [jack.santerre@yyb.ca](mailto:jack.santerre@yyb.ca)

North Bay Jack Garland Airport Corporation

50 Terminal St. Suite 1

North Bay, Ontario P1B 8G2



**Appendix B /Areas of Work**



**Appendix C Tender Form**

**08 High intensity Approach Lights Rehabilitation**

- 1. Project development and applications which will include standard engineering practices and all requirements under the Transport Canada Airports Capital Assistance Program (ACAP).

Cost: \_\_\_\_\_

Which includes:

- a) Review of existing lights systems conditions
- b) Geotechnical evaluation of the surfaces
- c) Environmental assessment as required for funding programs
- d) Recommend options and cost to rehabilitate the light system that will provide a 25 year life expectancy.
- e) Preliminary design
- f) Proposed Project Schedule
- g) Cost Estimates
- h) Completed ACAP application document

- 2. Completion of required documents to proceed with the project and ACAP

Cost: \_\_\_\_\_

- a) Final Design
- b) Tender Specifications and Documents

- 3. Tender administration process and recommendation.

Cost: \_\_\_\_\_

- 4. Contract administration, quality assurance, supervision and all components related to the completion of the project.

Cost: \_\_\_\_\_