



# The Corporation of the Town of Moosonee MOOSONEE AIRPORT

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Date 02/10/2025

## TENDER FOR CONSULTANT SERVICES

**Design, Engineering, Planning and Contract Administrative services**

**For**

**Airfield Electrical and Lighting Systems Upgrade**

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## 1.0 INTRODUCTION

**The Moosonee Airport is inviting qualified engineering consulting firms to submit a Tender for professional services related to the planning, design engineering, and contract administration of an airfield electrical and lighting systems upgrade project at Moosonee Airport.**

**This project will improve airfield safety, ensure regulatory compliance, and modernize lighting and navigational aids to meet current Transport Canada standards.**

### 1.1 Purpose

The Terms of Reference defines the scope of work required from the Consultant for professional engineering services for the preparation of an application which will include engineering design, construction supervision and project management for the project considered eligible on behalf and as agents for the Moosonee Airport.

This request for proposal will be for a period required to implement and complete this project. (1-2 years)

### 1.2 Background

Moosonee Airport is located 3 kilometres northwest of the Town of Moosonee (northern Ontario, Canada, on the Moose River approximately 19 kilometers (12 mi) south of James Bay) and occupies a land area of approximately 212 hectares. The airport serves as a point of call for air carriers offering scheduled passenger service; and services both private and commercial helicopter and fixed-wing aircraft operators located on site.

Moosonee Airport is operational 24 hours per day, 7 days per week; and is capable of supporting both VFR and IFR operations. The critical aircraft for the primary runway is the HS748. The annual number of movements at the Moosonee Airport has been consistent over the past decade at approximately 25,000.

The manoeuvring area consists of two intersecting runways two taxiways, and a public apron. The primary runway (06-24) is 4004 feet long by 100 feet wide asphalt. The secondary runway (14-32) is 3500 feet by 100 feet wide (approximately half paved and half gravel).

Runway rehabilitation and resurfacing projects took place in 1996, 1998, and 2006 at the Moosonee Airport. At the current time, runway 06-24 has major cracking and surface chaffing. Cold patch has been utilized as well as crack sealing compounds in order to seal and maintain, but, the condition of the runway is rapidly deteriorating.

### 1.3 Ownership

This airport is owned and operated by The Corporation of the Town of Moosonee. The Airport Certificate is held on behalf of the town by the Airport Manager; and is maintained in the Airport Manager's office at Moosonee Airport.

## 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 Moosonee Airport.

These services will be broken down into 3 defined areas.

1. Project development and applications which will include standard engineering practices. Which will include:
  - a) Preliminary Design
  - b) Proposed Project Schedule
  - c) Cost Estimates
2. Completion of Required documents
  - a) Final Design
  - b) Tender Specifications and Documents
  - c) Geo Technical investigation if required
  - d) Environmental assessment and approvals
3. Contract Administration and Supervision which includes the tender process.

### 2.2 Current Objectives

The successful consultant will be responsible for delivering the following services:

#### 2.1 Project Planning & Pre-Design

- Site assessment and data collection
- Review of existing electrical systems, duct banks, transformers, cabling, fixtures, and airfield lighting equipment
- Identification of deficiencies and improvement opportunities
- Coordination with regulatory agencies (e.g., Transport Canada, NAV CANADA)
- Preparation of a detailed project plan, schedule, and cost estimates

## 2.2 Design Engineering

- Preliminary and detailed design of:
- Runway and taxiway edge lighting
- Approach lighting systems
- PAPIs, REILs, windsocks, and obstruction lighting
- Constant current regulators, electrical vault systems, and duct banks
- Production of stamped engineering drawings and specifications
- Preparation of tender documents for construction contractors
- Assistance with tendering and contractor selection

## 2.3 Contract Administration & Construction Support

- On-site inspections and quality assurance
- Coordination with airport operations to ensure minimal disruption
- Review of shop drawings, change orders, and progress claims
- Final inspections and deficiency resolution
- As-built drawings and project close-out documentation

# 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:

- Collection of Background Information regarding each objective.
- Meeting with the Moosonee Airport Officials to review details of the project and establish priorities.
- Preparation of
- Application including:
  - Inclusion of mandatory support documentation.
  - Detailed description of project and related deficiencies.
  - Outline of project eligibility.
  - Design.
  - Specifications.
  - Cost Estimates.
  - Scheduling.
  - Conduct necessary survey work including identification of underground utilities.
- Conduct as appropriate, field testing for conditions required in the planning and development phase
- Confirm current status of applicable regulatory requirements with Transport Canada.
- 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 implementations strategies.

- Review of the preliminary Design Brief with the Moosonee Airport.
- Prepare final design all in accordance with TP312 and any other reference material.
- Prepare tender documents and specifications.
- Preparation of cost estimates at various stages during the design process as requested by the Airport.
- Prepare a Plan of Construction Operations, including Transport Canada approval, and liaison/consultation with NAV Canada and the airlines.
- Confirm all land use approval requirements with NAV Canada and complete and administer any applications for the approval process.
- Review Final Design/Tender Documents with the Moosonee Airport.
- Tendering of works in conjunction with the Town of Moosonee Administration Office and the Moosonee Airport Managers Office and organization of pre-bid meeting with all contractors.
- Review of bids received and recommendation of contract award.
- Construction supervision and administration.
- Commissioning and testing.
- As-Built Conformity Analysis and Engineer's Attestation of Compliance.
- Aviation Publication Update including CFS, CAP and AOM. With assistance from airport/Aerodrome Safety.
- Project Close Out Documentation to Transport Canada.
- Assisting the Airport in the preparation of monthly progress payment requests to Transport Canada.

### ***Environment***

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.

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 of the project, it is anticipated that the contract 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 Moosonee Airport.

It should be clearly understood that the Consultant will have extended project management responsibilities.

#### **4.0 PROJECT SCHEDULING**

It is intended that the Consultant retained will enter into a Contract with the Moosonee Airport, for the provision of engineering services.

The Application for this project is to be submitted to Transport Canada in 2026. Construction is anticipated to occur in 2026-2027, subject to the approval of Transport Canada and the Moosonee Airport.

#### **5.0 PROJECT REQUIREMENTS**

Proponents are asked to provide services generally referred to as "Engineering Services" for the purpose of the Tender. The successful proponent will be awarded a Contract and be referred to as "Consultant" to the Moosonee 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 Tendering for Construction Phase**

Working with the Corporation of the Town of Moosonee Administration Department and Airport 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.

##### **5.2 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:

- i) Supervise work in accordance with all applicable safety standards and regulations for this type of work.
- ii) Set out any required control points and benchmarks for the work.
- iii) Review and approve Contractor's work plan including the proposed materials, plant, programs, test certificates, shop drawings and other relevant documents.

Review the Contractor's plan for compliance with any construction safety requirements and contract terms.

- iv) Inspect materials and workmanship to ensure Contractor's work meets the intent of the design and conforms to plans and specifications.
- v) Prepare a Quality Assurance Plan, including field-testing, sampling and laboratory testing, which will provide a check of the Contractor's Quality Control Plan.
- vi) Provide, if necessary, the Moosonee Airport with any calculated distances required for runway displacement (ASDA, TODA, LSDA, TORA) if required.
- vii) Provide and design, if necessary, all markers, flags, lights, and signs as required in accordance with the latest edition of TP312 to meet temporary day/night runway displacement.
- viii) Supervise and review quality assurance testing, initiating corrective action as required to ensure that project objectives are met.
- ix) Monitor the effectiveness of the Contractor's Quality Control Program and recommend adjustments as necessary to ensure that project objectives are maintained.
- x) Monitor the Contractor for compliance with all safety and security requirements. Liaison with Airport Management and issue immediate instructions to the Contractor in the event of any violation against the requirements.
- xi) 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.
- xii) Call and chair regular site meetings with the Owner, Contractor and others as necessary at time intervals to be determined by the owner.
- xiii) Prepare monthly progress claims for airport approval.
- xiv) 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.
- xv) 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 and assurance testing and construction services, explain any variance from budget and schedule. Participate in forecasting processes leading to cost estimates to complete the work and schedule analysis.
- xvi) Preparation of monthly progress reports for submission to Transport Canada by the Airport Manager.

### 5.3 Completion, Commissioning and Post Construction Phase

- i) At project completion, provide the Moosonee Airport for record purposes, one reproducible film and one blackline print of each As-Built Drawing. Also, provide Design and As-Built Drawings on computer disc, in PDF Format and AutoCAD format.
- ii) Perform final inspection and ensure that all deficient items are corrected.

- iii) Review and assist the Moosonee Airport to negotiate any outstanding claims with the contractor, making appropriate recommendations to the airport.
- iv) Provide assistance as required to the Moosonee Airport in obtaining certification of lighting systems in accordance with the latest edition of TP 312.
- v) Prepare all documents related to aviation publication updates including CFS, CAP and AOM.
- vi) 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.
- vii) Submission of all project close out documentation to Transport Canada and the Moosonee Airport.

#### 5.4 Drawing and Specification Production

Consultant will observe the following:

- i) Specifications shall be in National Master Specifications format with modifications agreed to by the Moosonee Airport.
- ii) CAD drawings must be provided in AutoCad format
- iii) Drawings to be consistent with a Drawing Control Procedure.

#### 5.5 Code and Regulation Compliance

Consultant shall review all relevant codes, statutes, 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.

### 6.0 INSTRUCTIONS TO PROPONENTS

#### 6.1 General

Eligible proponents must provide with their proposal:

1. Proof of licence to practice within the Province of Ontario.
2. Letter of good standing with the Workplace Safety & Insurance Board.
3. Letter from Insurance Company stating availability of Professional Liability Insurance.
4. Proof of General Liability and Comprehensive Automobile Insurance for all owned vehicles, non-owned vehicles and leased: \$5,000,000 inclusive per occurrence.
5. Submit proposal to [officeclerk@moosonee.ca](mailto:officeclerk@moosonee.ca) by **January 16<sup>th</sup> at 4:00PM**

6. Submit any queries to the Airport Manager at [apm@moosonee.ca](mailto:apm@moosonee.ca) by January 9<sup>th</sup> at 4:00PM

The information contained in the tender must be organized under the same headings and in the same order as outlined in the following section entitled "Mandatory Components".

## 6.2 Mandatory Components

Please order tender as follows:

### 1.0 *Introduction, including the following:*

- 1.1 Introductory letter describing the proponent's team and indicating the firm's commitment to the project signed and sealed as outlined above.
- 1.2 Letter of good standing with the Workplace Safety and Insurance Board.
- 1.3 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.

1.3 Proof of General Liability and Automobile Liability Insurance.

### 2.0 *Corporate Overview (Proponent and Sub-consultants)*

- 2.1 History of Firm(s) and experience in general.
- 2.2 Size of firm – Number of full time and part time employees, associated sub-consultants.
- 2.3 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:
  - Airports and associated projects (civil/electrical)
  - Familiarity with Transport Canada – Airport Capital Assistance Program
  - 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 five (5) years.

- Non Airport Related 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 five (5) years.

2.4 Statement of ability to handle this work in conjunction with any existing workloads.

**3.0 Project Team Members**

3.1 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). The relevant experience should be limited to work in the areas indicated above. Team leaders must be involved in projects completed in last 5 years.

**4.0 Organization and Methodology**

4.1 Provide a schedule to organize the work and the project.

4.2 Describe the approach during both design and construction phases for:

- Quality Assurance
- Cost Control
- Schedule Control

**5.0 Submission of Price and Terms of Payment**

As exact details of the project have not been yet established, the Moosonee Airport acknowledges that it would be difficult for the Consultant to provide at this stage, a lump sum price for completing the project.

The Consultant is to provide an estimation of the cost of engineering services, based on a percentage of construction for the project identified in these Terms of Reference.

**6.0 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 Moosonee Airport and shall be transferred to the Airport upon completion of the project.

The Consultant must prepare and include a statement which gives the Airport the drawings, plans and specifications for the project. The statement shall also expressly state that the Engineer shall not hold the Airport 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.

Proposals will be evaluated by the Moosonee Airport on the basis of perceived "best value" to the Airport as such, lowest price may not mean award. The Moosonee Airport reserves the right to select and award using its sole discretion and to reject any and all proposals as it sees fit.

The Airport Manager and team (Clerk Treasurer and CAO) will carry out a project assessment and make recommendations to the Town Council. The evaluation will use the criteria set out as outlined below.

<u>Envelope A Technical Portion -</u>	<u>Total Value 80 points</u>
• Proposal Quality -overall organization, quality of proposal	10 points
• Airport and Infrastructure Project Experience	10 points
• Understanding of the Assignment - demonstrated understanding of the assignment	10 points
• Project Team - qualifications and experience of firm and personnel	10 points
• Project Manager - experience, familiarity with issues, time commitment	10 points
• Methodology - depth, detail, clarity of the submission - understanding of local issues	15 points

## The Moosonee Airport

## Tender Consultant Services Design, Engineering, Planning and Contract Administrative Services

- Control 10 points  
- cost control, reporting and quality control
- Local Content 2.5 points

<b>Fee Component</b>	<b>Total Value 20 points</b>
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1. Fee to perform this assignment including the cost of all disbursements should be based on a percentage of the overall project broken down in the following components.
  - I. Planning and design, Environmental Assessment
  - II. Project Management and Contract Administration
  - III. Contingencies
2. Cost of proposed services will be scored in the following manner:
  - a) lowest fee proposal will receive the maximum score of 20 points;
  - b) all other fixed fee will be scored as follows:
 
$$\frac{\text{lowest fee} \times 20}{\text{proponents fee}} = \text{Points awarded for proponents fee}$$
  - c) fee points will be added to technical points to determine winning score

In the event of a tie where the combined technical and fee scores of two proponents are equal, the lower fee proposal will be selected as the winning proposal.