



IDENTIFICATION

Department	Position Title	
Infrastructure	Project Technician	
Position Number	Community	Division/Region
33-0173	Inuvik	Beaufort Delta Region

PURPOSE OF THE POSITION

The Project Technician provides technical expertise in the surveying, planning, design, construction, repair and maintenance of highways, winter roads and ice crossings, airports, marine facilities and related infrastructure.

SCOPE

This position is located in Inuvik and reports to the Regional Manager, Highway Operations.

The incumbent provides technical review of projects such as identifying vehicles, equipment and supplies required for performance of the work, and determining and certifying quantities of material incorporated in work for purposes of verifying contract payments.

The Project Technician provides recommendations which are integral to the work of the Division including commenting on design alternatives for projects, award of minor construction work, payment of contract progress claims, change orders to contracts to accommodate unforeseen circumstances, and resolution of complaints from contractors, the public, and other affected parties.

The Project Technician has authority to administer small construction contracts to ensure work is completed on schedule and in accordance with approved plans and specifications, and makes technical and administrative decisions within terms established by the Supervisor.

RESPONSIBILITIES

- 1. Obtains all field engineering data necessary for projects planning, design and implementation by:**

- Reviewing topographical maps and aerial photos to identify features affecting the work.
- Collecting community data, traffic data, and construction history environmental data.
- Assigning work to survey crews, training new members and supervising work.
- Conducting surveys using precision electronic and optical survey equipment to define existing terrain and establish horizontal and vertical controls.
- Investigating soil and rock conditions.
- Locating, classifying and identifying potential construction materials.
- Assembling field data and preparing plans, profiles and cross-sections of existing conditions either manually or by use of computer-based design.

2. Manages the delivery of the Highway Maintenance Management System (HMMS) which defines the highway maintenance performance standards for the highway system and local airport to enable safe travelling conditions by:

- Administering the formal contract document.
- Approving weekly schedules of the contractor and instructing the contractor on requirements, personnel and equipment in accordance with the schedule.
- Inspecting field activities of the contractor to ensure maintenance standards are met.
- Patrolling highway to monitor effectiveness of work and taking any remedial action upon observing a deficiency.
- Maintaining records of work done and work remaining and reporting on personnel, finances and performance in the manner prescribed.
- Maintaining a personal written diary of each day's activities and observations.
- Reviewing workload and priorities and making recommendations for any corrective action required.
- Reviewing and verifying equipment recording devices and contractor's time cards, and reviewing the contractor's progress claim and making recommendations regarding payment.
- Monitoring productivity of the camp based on activity reports, comparison to productivity and performance standards.

3. Provide technical expertise in the administration of construction contracts by:

- Training new members, assigning work, and supervising survey and inspection crews.
- Conducting construction surveys to inspect the quality of the project and measure the quantities of materials used.
- Recording daily progress of project to inspector's diary indicating work accomplished, quantities of material used, quantity of workmanship, hours worked, etc.
- Completing project reports itemizing engineering and supervision expenses and other charges to the project.
- Preparing final report upon completion of the project.
- Recording all pertinent data to enable Drafting Technician to prepare "as built" drawings upon completion of the projects.
- Investigating and reporting on complaints received from the public, the contractor or other affected parties.

4. Administers small construction contracts to ensure all work is completed on schedule and in accordance with approved plans and specifications by:

- Arranging for tendering process through the contracts section.
- Responding to enquiries on project design from potential contractors during tendering process.
- Chairing pre-tender meetings when required.
- Attending tender opening, reviewing bids submitted by contractors, assessing capabilities of contractors, recommending contract award to Supervisor.
- Explaining contract terms and conditions and all applicable Department regulations and procedures to successful contractor at pre-construction meetings.
- Reviewing and assessing contractor's proposed schedule and other requirements. Identifying manpower and equipment requirements to adequately survey and inspect construction progress (e.g. administration clerk, inspector, surveyors, weighman, etc.); hiring personnel and assigning work.
- Arranging for accommodation, vehicles, equipment and supplies for engineering crews, setting up camps if required.
- Conducting and inspections of projects to ensure work is acceptable quality and is progressing in accordance with plans and specifications, interpreting plans and specifications.
- Conducting progress, interim and final inspections to identify any deficiencies and to turn project over to client.
- Preparing progress, interim and final certificates certifying work has been completed in accordance with the terms of the contract.
- Negotiating and preparing contract change orders and recommending approval to supervisor.
- Recording all commitments and charges against project in project ledger, checking all invoices and recommending payment to Project Officer/Engineer.
- Checking monthly claims submitted by contractor, recording in project ledger, certifying that work being claimed has been completed and recommending payment of claims to the Project Engineer/Officer.
- Investigation and reporting on complaints received from municipal authorities, the public or the contractor.
- Completion of monthly and year end project management reports indicating financial and physical status of the project.
- Monitoring the production of "as built" drawings.
- Prepares contractor and consultant performance evaluations.

5. Performs other related duties such as:

- Undertaking special assignments (e.g. research, feasibility studies, technical reports).
- Preparing reports and documentation for other projects.
- Drafting of plans and drawings.
- Making presentations at divisional and departmental or public meetings regarding technical or project related matters.

WORKING CONDITIONS

Physical Demands

Field work will involve routine physical exertion.

Environmental Conditions

Field work may be in communities or along the highway system and will involve exposure to severe weather conditions, bugs and wildlife in some cases. Extensive driving and flying periods are required to travel to projects. Flying required in small aircraft. Road conditions may be severe.

Sensory Demands

No unusual demands. Office work may involve extensive use of computer.

Mental Demands

Field postings may involve up to four weeks travel status living in construction camps or lower standard accommodations. Extended work hours are expected.

KNOWLEDGE, SKILLS AND ABILITIES

- Field experience in civil engineering (highways and airport work) design, construction and maintenance procedures.
- Ability to apply technical theory and principals in surveying, planning, design and construction of civil engineering works.
- Knowledge of construction, maintenance and contract administration.
- Knowledge of construction material characteristics, testing procedures and survey procedures.
- Survey skills and construction inspection skills.
- Field work requires physical abilities to work in an outdoor environment to observe, survey, inspect, travel, direct staff and contractors and construct work.
- Capable of understanding and demonstrating proper use of equipment.

Typically, the above qualifications would be attained by:

- Diploma in Civil Engineering or related field experience of 10+ years.
- Class #5 NWT Driver's License.
- Design, construction and maintenance experience of 2 years or longer depending on knowledge and skills acquired.
- Contract administration experience of 1 year or longer depending on knowledge and skills acquired.
- Supervision experience on design and construction projects of 1 year or longer.

ADDITIONAL REQUIREMENTS

Position Security (check one)

- No criminal records check required
- Position of Trust – criminal records check required
- Highly sensitive position – requires verification of identity and a criminal records check

French language (check one if applies)

- French required (must identify required level below)

Level required for this Designated Position is:

ORAL EXPRESSION AND COMPREHENSION

Basic (B) Intermediate (I) Advanced (A)

READING COMPREHENSION:

Basic (B) Intermediate (I) Advanced (A)

WRITING SKILLS:

Basic (B) Intermediate (I) Advanced (A)

- French preferred

Aboriginal language: Choose a language

- Required
- Preferred