



## **IDENTIFICATION**

Department	Position Title	
Infrastructure	Director, Design and Technical Services	
Position Number	Community	Division/Region
33-0190	Yellowknife	Yellowknife HQ

## **PURPOSE OF THE POSITION**

The Director, Design and Technical Services leads the provision of facility and transportation infrastructure design and technical services in the planning and design of roads, bridges, airports, ferry and marine facilities, public buildings, works (water/sanitation), and fuel storage and distribution facilities. Technical services areas include architectural, structural, mechanical, electrical, civil/municipal (water and sanitation), quantity surveying/cost estimating, technical and risk assessment, energy conservation, environmental affairs/assessment, and geotechnical services (including granular investigations, forecasting, production and resource management).

This position is responsible for directing technical solutions; it is the lead position in the GNWT for technical matters related to building, transportation and energy related infrastructure and provides leadership guidance and advice to Department staff, GNWT departments, communities, northern boards and agencies, national code development, standards and technical committees, businesses, designers, builders and industry associations.

## **SCOPE**

The Director, Design and Technical Services (Director) position is located in Yellowknife and reports directly to the Assistant Deputy Minister, Asset Management. It works within a Legislative and Policy framework and carries out its responsibilities in accordance with GNWT acts, regulations, policies, and departmental procedures.

The Department of Infrastructure is highly decentralized in the delivery of its programs and services and is responsible for territory-wide government programs such as the operation and maintenance of public buildings and transportation infrastructure and systems, project management, facilities planning, design and technical support services, environmental



assessment and remediation, property management, information technology, information management, disposal of surplus property and goods motor vehicle and mechanical/electrical regulatory services and fleet management.

The department is also responsible for programming aimed at increasing the use of domestic energy resources and reducing energy costs in the NWT, delivering renewable energy solutions, providing energy supply services to non-market communities, and leading efforts in energy conservation and efficiency.

On behalf of the GNWT, the Department of Infrastructure also carries the responsibility for strategic planning for the GNWT's long term investment in the development of public transportation and energy production and distribution systems for the Northwest Territories, as well as the continuity of marine transportation services for the provision of fuel and dry goods to northern destinations.

As the lead GNWT Division for building planning and design, the incumbent requires knowledge of many differing types of public transportation systems, commercial and institutional infrastructure (i.e. health care facilities, correction and education facilities, general purpose office buildings, fuel storage/distribution facilities, and municipal facilities for water and sewage treatment). The position manages the provision of a diverse range of technical support services to a varied clientele that ranges from knowledgeable contacts in other departments to members of community councils. The Director, Design and Technical Services supports the GNWT's interest in providing transportation infrastructure, buildings and facilities which are technically appropriate, consistent, energy efficient and have the most economical life cycle while meeting program department and community needs.

The Director is also accountable for the development, planning, designing, and direction of overall Departmental strategies in environmental and related regulatory affairs, as well as in reaching the GNWT and Department's stewardship objectives in all transportation modes (air, marine, and surface). The Director is also responsible for evaluating the department's environmental performance and for providing expertise in regulatory interpretation, environmental evaluations and assessments relating to Departmental activities.

### **DIMENSIONS**

- Reporting Positions: 5 direct, approximately 22 indirect.
- Compensation & Benefits (\$) 2,357,726
- Operations & Maintenance (\$) 535,652
- Grants & Contributions (\$)
- Capital (\$)
- Total O&M Budget (\$) 2,893,378



- Capital Asset Retrofit Fund (\$) 3,800,000

## **RESPONSIBILITIES**

1. Directs and leads the provision of technical services related to highways, airport runways and public buildings (mechanical, electrical, civil and architectural), including design reviews, technical evaluations, troubleshooting and training, facility commissioning, development of technical standards and guidelines, energy audits and management, operational reviews of water supply systems, feasibility studies, technical publications, and review of construction materials and systems.
2. Directs project planning services to clients in accordance with the Project Management Manual, legislated building codes and standards, and GNWT policies to ensure the capital program – and projects making up that program – are feasible with respect to costing and scheduling.
3. Directs the project initiation, planning and design phases in accordance with the Project Management Manual, legislated building codes and standards, and GNWT policies to ensure the detailed design meets client needs within planning parameters such as available budget, schedule and facility program.
4. Responds to requests from regional departmental staff and other client agencies for assistance with technical problems. Ensures that requests for assistance are completed in a timely manner by routinely reviewing with regional management staff their needs and expectations.
5. Directs and participates in the establishment, promulgation, ongoing review, and periodic updating of technical standards and performance criteria for GNWT buildings and works projects and transportation systems.
6. Directs and participates in actions to inform and educate consultants, community groups, agencies and GNWT clients about experience and knowledge gained and provides advice on technical matters regarding their existing or planned facilities.
7. Directs and leads the coordination and support on projects by providing reports, feasibility studies and project briefs to describe the character size, location, of northern buildings and transportation systems, to ensure new and upgraded infrastructure meet client's operational needs and reflect cultural values at an economical life cycle cost.



- 8.** Oversees large capital projects from project brief, the completion of the conceptual alternatives, schematic alternatives and final design to ensure that the project is done in an efficient, cost effective and timely manner. Ensures design review is done for appropriateness, accuracy and adherence to applicable technical standards and codes.
- 9.** Assists GNWT client departments in completing infrastructure planning studies for peer review and consideration in the GNWT's infrastructure Acquisition Plan.
- 10.** Establishes civil, architectural and technical standards for government infrastructure that meet program delivery requirements in a manner that is consistent with the GNWT's priorities and vision.
- 11.** Directs departmental energy consumption management programs and activities to ensure energy efficiency is maintained and/or improved in GNWT owned and leased facilities to deal with the high-energy costs and to reduce greenhouse gases emitted into the atmosphere from burning fossil fuels and implement and enhance energy efficiency activities in planning, designing, building, maintaining and operating government funded buildings and facilities.
- 12.** Directs staff to provide technical support and work with other government departments to provide safe drinking water and effective sewage systems in NWT communities.
- 13.** Directs staff to provide professional expertise in the acquisition, development and management of granular materials in the NWT to establish a coordinated approach to granular acquisition for Territorial Governments and potentially other stakeholders to be used as a basis for consultation to obtain granular materials where required at a reasonable price through multi-user partnerships, and to prepare and maintain a GNWT granular resource information directory available to all users.
- 14.** Develops, promotes, and maintains long-term priorities and strategies for the environmental sustainability of the Department's mandated activities in all modes (air, marine and surface), including the identification, planning, and coordination of research and environmental management projects related to the department's practices and facilities. This responsibility includes monitoring and assessing the effectiveness of these strategies in fulfilling the Department's vision of a sustainable transportation system.
- 15.** Directs, coordinates, and monitors the acquisition of environmental regulatory approvals and assessments to facilitate the implementation of proposed and existing departmental activities and facilities, whether capital or O&M, and monitors the administration of these instruments to ensure that developments and activities satisfy federal and territorial environmental requirements.



- 16.** Maintains effective relationships with senior federal and territorial environmental regulators, environmental management colleagues in the transportation sector, and relevant territorial stakeholders and partners. Represents the department at various inter-departmental, territorial and national committees where the Department's environmental perspectives can be promoted and advanced.
- 17.** Directs and monitors internal environmental audits and site assessments and remediation plans for the Department facilities to minimize the Department's environmental costs and liabilities. Work with regions and program staff to ensure environmental impacts from operations and projects are mitigated and remediated when necessary.
- 18.** Promotes environmental awareness within the Department by directing and coordinating the development of manuals, workbooks and training sessions about environmentally responsible design, construction and maintenance practices.
- 19.** Directs and guides the technical staff in monitoring and implementing the Environmental Remediation Program related projects.
- 20.** Provides advice and coordination for the temporary or permanent acquisition of land required for transportation infrastructure to ensure appropriate land tenure is obtained. Coordinates and monitors the department's inventory and management of land assets to protect the Department's interests.
- 21.** Develops departmental positions about proposed changes to federal and territorial regulatory legislation, guidelines, and policy; land use plans or land disposition initiatives; and resource management programs, and represent those positions on various territorial and federal land and resource management committees or working groups.
- 22.** Oversees the preparation of necessary technical reports, annual work plans, promotional technical brochures, briefing notes, FMB submissions, business plan, papers for Ministerial use to support the mandate of the department, and oversees arrangement of departmental conferences and workshops relating to DTS areas of responsibility.
- 23.** Functions as the Chief Engineer of the GNWT in reviewing construction and renovation plans for their conformance with codes and standards for public buildings, works and transportation related infrastructure and in overseeing professional in-house design services.
- 24.** Upholds and consistently practices personal diversity, inclusion, and cultural awareness, as well as safety and sensitivity approaches in the workplace. Practices and ensures that



any subordinate management and supervisory roles also prioritize staff mentorship and on-the-job training, including staff development in annual general objectives.

## **WORKING CONDITIONS**

### **Physical Demands**

No unusual demands.

### **Environmental Conditions**

No unusual conditions.

### **Sensory Demands**

No unusual demands.

### **Mental Demands**

No unusual demands.

## **KNOWLEDGE, SKILLS AND ABILITIES:**

- Engineering/architectural principles and professional practices, including contracting practices
- Northern construction techniques and project management
- Facilities Planning for public infrastructure
- Environmental Protection Legislation and Practices
- GNWT Capital Planning and Budget processes
- Cold climate utilities design and best operational practices
- Energy management and alternative energy practices in northern environments
- GNWT contract regulations and policies
- Supervision and team leading
- Coordination of diverse functions
- Strong communications skills both written and verbal and proficiency in public speaking on technical subject matters
- Dispute resolution
- Work planning
- Managing change
- Managing politically sensitive/high profile issues
- Communicating technical information to non-engineers/architects





- Ability to commit to actively upholding and consistently practicing personal diversity, inclusion, and cultural awareness, as well as safety and sensitivity approaches in the workplace.

**Typically, the above qualifications would be attained by:**

A university degree in Engineering and:

- 10 years of experience in the management and direction of complex functions related to technical assessment and design of buildings, facilities planning, project management, energy management and environmental remediation, which includes the following:
  - 5 years' experience in energy management, including the successful implementation of energy conservation and alternative-energy programs.
  - 3 years' experience in the management of environmental remediation projects
  - 3 years' experience in northern communities
  - 5 years' management experience

Equivalent combinations of education and experience will be considered.

**ADDITIONAL REQUIREMENTS**

Must be eligible for registration as a Professional Engineer with the Northwest Territories Association of Professional Engineers and Geoscientists (NAPEG).

**Position Security**

- 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

**Indigenous language:** Choose a language

- Required
- Preferred