Pay Level:		CG-29			Point Band:			622-675		
						Accountability		Development	Environmental	
		Interpersonal				& Decision		and	Working	Total
Factor	Knowledge	Skills	Physical Effort	Concentration	Complexity	Making	Impact	Leadership	Conditions	Points
Rating	4	4	3	4	3	3	4	3	4	
Points	187	67	19	19	90	65	83	64	43	637

Transportation Traffic Technician

JOB SUMMARY

Job Class Profile:

The Transportation Traffic Technician performs responsible technical and related work related to the design, installation, inspection and maintenance of traffic control and measuring devices, highway lighting and pavement markings. Work includes inspecting traffic light systems under the provincial government to ensure proper operation, overseeing new projects, operating bridge inspection vehicles, and conducting traffic counts.

Key and Periodic Activities

- Maintains provincial traffic light systems to ensure they are working properly.
- Inspects such systems for broken or missing hardware such as burn out bulbs, broken casings, or worn out fasteners.
- Ensures that all work has been completed correctly under the electrical code.
- Maintains traffic count systems located throughout the province to ensure proper operation.
- Monitors counter system to be certain that communication (via fax modem) between counter and
 office are present.
- Performs physical inspections of road sensors for exposure to weather, cracks, or unusual problems that could cause malfunctions.
- Supervises work that is done by contractors such as traffic light, street light, and road sensor installation and maintenance.
- Ensures such work is done in a professional and efficient manner, and is consistent with regulations.
- Ensures contractors billing for work agrees with actual worked labour, materials, and equipment used on such projects.
- Operates articulating man bucket (bridge inspection bucket) to assist professional engineers (either from within the department or hired consultants) to carry out in-service bridge inspections on difficult to reach components under and above bridges.
- Monitors and maintains Weigh in Motion (WIM) systems set up throughout the province to calculate the weight of vehicles as they pass over sensors and take time stamped photos of different parts of the vehicle to help identify it.
- Generates traffic reports. Gathers data from various counters and WIM systems around the province from web based or downloaded telecommunication files and compiles them into more reader friendly summary reports for distribution to public media or corporate inquirers requesting such data.
- Assists with government sign and structure repairs through the use of various inspection and utility vehicles.
- Conducts pedestrian and vehicle counts in different communities to help determine whether

Key and Periodic Activities

cross walks should be put in place. Such counts are often performed for public schools or commercial centres where pedestrian activity is high.

SKILL

Knowledge
General and Specific Knowledge:
— Operation of aerial lift trucks.
— Electronic traffic controllers and monitoring devices such as WIM and counters.
— Operation of asphalt cutters and power tools.

Formal Education and/or Certification(s):

— Minimum: 3 Year Specialized Post-Secondary Diploma in Electronics Engineering Technology with coursework in the operation and troubleshooting of electronic traffic control systems.

Years of Experience:

— Minimum: 2-3 years experience.

Interpersonal Skills

- Interpersonal skills are used to listen to information from other people and provide technical advice when required, ask questions to get information, provide routine information as well as sound economical and feasible solutions to others, and gain the co-operation of others to complete work and solve problems. Also necessary to recognize serious problems and communicate the urgency of reports to appropriate authorities ensuring all parties are informed and up-to-date on any future undertakings.
- The most significant and frequent contacts are manager for final approval on projects prior to commencing them; service contractors; and employees within the department.

EFFORT

Physical Effort

- The demands of the job occasionally result in considerable fatigue, requiring periods of rest.
- There is a constant requirement to lift objects up to 10 lbs., a regular requirement to lift up to 25 lbs., and an occasional requirement to lift in excess of 25 50 lbs.
- Work activities include sitting at a desk using a computer; driving long distances for extended periods of time for various types of inspections and maintenance.
- Required to use delicate controls on the bridge inspection truck, placement of sign stands which weigh up to 35 lbs.; and working in awkward situations.
- Fine finger precision work is required on a regular basis, as is the use of machinery requiring controlled movement and rapid reflexes, maintaining physical balance, walking, climbing, and driving.

Concentration

Visual concentration is constantly required to ensure awareness of surroundings for bridge inspections or trouble shooting a traffic counter; judge how safe the bridge is for heavy equipment; quickly see malfunctions in traffic light systems; and compiling traffic data into summary reports.

- Auditory concentration or strain is regularly experience when listening to hydraulic valves on the bridge inspection truck for strain applied indicating the boom is about to move; use of two way radios and when listening to vehicles pass by while watching counts on the counter screen in traffic cabinets.
- Alertness to ensure the health and safety of others is required on a constant basis for extended periods of time driving and when operating the bridge inspection truck.
- Other sensory concentration such as smell is used regularly to identify hydraulic or fuel leaks or smelling load switches in traffic light controller cabinets to see if the electronics inside have been burned.
- **Repetition requiring alertness** is experienced when driving for extended periods.
- Time pressures/deadlines/interruptions are experienced on a regular basis for tender call dates; to complete work within the fiscal year; or to meet a contract completion date for a construction project.
- Lack of control over the work pace is experienced as work is sometimes dependent upon the weather; repairs to street lights may be delayed while waiting on ballasts from suppliers or contractor equipment failure; and responding to emergency/urgent issues such as traffic light failures.
- Eye/hand co-ordination is required for using controls on lift trucks; programming traffic counters and controllers; conducting traffic reports on computers; handling small to medium sized bolts and nuts for sign repair.
- Exact results and precision are constantly required when placing basket of the bridge inspection truck exactly where the person inside it wants to go. Moving controls by inches means a difference of several feet in the basket. Tight maneuvering is required under and above bridges.

Complexity

- Work tasks are diverse involving a wide variety of responsibilities and situations, and are generally different but related.
- Challenges/problems are generally resolved by following procedures and guidelines but may require that practical solutions be found.
- A typical problem/challenge is determining why a set of traffic lights have gone into flash mode. This occurs whenever the Malfunction Monitoring Unit (MMU) detects an unusual event in the operation of the whole traffic control system, sending the intersection into "flash" mode. The MMU keeps a history of events that have occurred to cause this and this is normally how the problem is resolved. This occurs once a month and is likely caused by surges or drops in line voltage. A simple reset is usually enough however, recurring problems at an intersection are a problem and must be resolved. They vary in scope and sometimes require hours of troubleshooting.
- When addressing typical challenges or problems reference can be made to traffic control manuals, controller manuals, counter manuals, contractors, manager, coworkers, suppliers, support lines, and the internet.

RESPONSIBILITY

Accountability and Decision-Making

- Work tasks are moderately prescribed or controlled.
- Supervisory approval is not required for routine maintenance of traffic lights. This includes changing burnt out bulbs, broken housings, calling electrical contractors to respond to traffic

light outages, deciding how to set up bridge inspection trucks for routine inspections, and closing lanes of traffic.

- When working in the field supervising a crew, has authority to determine if work is satisfactory and to have the work changed until it is satisfactory. If it is determined that a bridge is not fit to support a truck, or the person in the basket could cause an accident, has the authority to stop work.
- Has authority to force a traffic intersection into a flash or pre-program mode if it sees fit to do so. This may be due to a failed road detector or sensor.
- Supervisory approval is required for large equipment purchases (i.e. traffic structures and controllers, electrical equipment) and for travel.
- Confidentiality and discretion must be exercised when reviewing tender documents, deciding where to route traffic and set up signage to close lanes for work and bridge inspections.

Impact

- Generally has impact (positive or negative) on the immediate work area, the department, outside the organization, on contractors, the general public.
- Resources impacted include equipment, processes and systems, material resources, human resources, and health and safety.
- Errors made when entering values into traffic count reports may impact decisions made by outside contractors or consulting groups making decisions based on inaccurate information.
 Poor setup for bridge inspections in the road could cause delays in traffic or accidents.
- An intersection at an interchange is controlled by traffic lights. A power surge may trip the traffic controller causing it to drop its program and lock into flash mode. The controller is then reset with older values stored in the controller. These values can cause delays in traffic and frustrations for the general public. The controller must then be reprogrammed using proper data for that intersection.
- Errors/mistakes are normally identified and resolved within 24 hours of identification.

Development and Leadership of Others

- Not responsible for the supervision of staff.
- Oversees work performed by contractor crews, provides direction on what needs to be completed and responds to questions/issues they may have. Performs inspection of work to ensure it is of good quality.

WORKING CONDITIONS

Environmental Working Conditions

- Safety precautions and equipment are required and include hard hat, safety footwear, safety vest, personal flotation device, fall arrest harness, and communication via two way radio on bridge inspection truck.
- There is a moderate likelihood of minor cuts, bruises, fractures or other injuries.
- There is an occasional likelihood of injury resulting in partial or full disability.
- Regular exposure to glare, odours, isolation, heavy machinery, adverse weather conditions, and travel.
- Occasional exposure to unusual/distracting noise, dirt/dust/filth, fumes, limited lighting, vibration, hazardous chemicals or poisonous substances, dangerous heights, wet or slippery surfaces, electrical shocks, awkward or confining work spaces, and sharp objects.