

**Job Class Profile:            Engineering Aide II****Pay Level:                            CG-26                            Point Band:                            490-533**

Factor	Knowledge	Interpersonal Skills	Physical Effort	Concentration	Complexity	Accountability & Decision Making	Impact	Development and Leadership	Environmental Working Conditions	Total Points
Rating	2	3	4	4	2	3	3	3	5	
Points	93	50	25	19	60	65	62	64	54	492

**JOB SUMMARY**

The Engineering Aide II is responsible for field and/or office assignments related to capital construction projects.

**Key and Periodic Activities:**

- Lays out alignment profiles and cross sections for structures/projects, cuts survey lines, sets the grade (elevation) of structures/projects, and uses survey instruments to perform work required
- Measures materials and calculates amounts to perform work and conducts pre-engineering surveys to collect survey data regarding conditions
- Serves as on-the-job inspector performing work of limited complexity, ensuring that contracting firms adhere to the approved specifications and requirements of government construction projects.
- Communicates with supervisors and contractors.
- Directs labourers on jobs
- Conducts post construction surveys

**SKILL****Knowledge****General and Specific Knowledge:**

- Knowledge of:
  - Mathematical calculations and technologies used in survey practices
  - Engineering work and related tools, technologies, processes and procedures

**Formal Education and/or Certification(s):**

- Minimum: High School

**Years of Experience:**

- Minimum: 2-3 years related experience.

**Competencies:**

- Ability to coordinate range of related work.
- Ability to perform mathematical calculations.
- Ability to communicate with others.

### Interpersonal Skills

- A range of interpersonal skills are used to listen to information, ask questions, provide routine information, gain the cooperation of others and may deal with individuals involving conflict and upset.
- Communications occur with employees and supervisors/managers, and with suppliers/contractors. Interactions may occur seasonally with students/trainees and customers/clients/general public.
- Most significant contact is with employees, supervisors/managers and contractors to listen and receive instructions, communicate with others to ensure tasks are completed and resolve issues.

## EFFORT

### Physical Effort

- Work demands occasionally result in considerable fatigue requiring periods of rest.
- Lifts or moves objects up to 50 lbs.
- Physical effort may also include constantly standing and walking, regularly driving, occasionally using hand tools, climbing, and sitting.

### Concentration

- **Visual** concentration is required when using instruments needed to complete tasks, watching for traffic on road-side sites, using hand signals on noisy sites, and when working with materials/tools/equipment.
- **Auditory** concentration may include listening to team, contractors and supervisors/managers, where sites may be noisy, and listening to information being given on a site from labourers (i.e. measurements and numbers).
- Concentration effort is required in conducting highway alignment and grades, measuring material quantities, and using instruments and must be performed with **accuracy/precision** and with some **time pressures**. Must be constantly **alert for the health and safety of others** on the job site.

### Complexity

- Work tasks are similar/related in terms of skills and knowledge used and where tasks are well defined.
- Complexities can typically be solved by following guidelines, have obvious solutions, finding practical solutions and/or working within defined and standard processes. Typical complexities include surveying in difficult locations (i.e. on curves), tasks running behind schedule, and general complexities related to the nature of the work.
- Can reference advice from team members, supervisor, managers and consultants. Regulations, standards/codes (i.e. Departmental Engineering Field Manual) and policies are available for reference.

## RESPONSIBILITY

### Accountability and Decision-Making

- Work tasks are generally monitored and controlled.

- Generally requires approval for most tasks.
- Requires approval for changes to process, changes to equipment and decisions regarding contractors.
- Accountable to complete assigned tasks and duties within required timeframes and can order some engineering supplies.
- Ensures work of the crew is carried out in a safe manner.
- Serves as on-the-job inspector performing work of limited complexity, ensuring that contracting firms adhere to the approved specifications and requirements of government construction projects.

#### **Impact**

- Work activities have impact on work area, department, outside the organization, and on customer/clients/general public.
- Additionally, work activities impact equipment, information, finances, material resources and health and safety.
- The most significant impacts are on the projects being undertaken and related schedules (i.e. financial impacts of being over schedule). However, work tends to be to generally prescribed and controlled, which mitigates the impacts.

#### **Development and Leadership of Others**

- There is no direct supervision of staff. However, may be responsible to provide on-the-job advice, guidance, direction, feedback and training, and may be required to lead a survey crew and organize, coordinate and check the work of others.

### **WORKING CONDITIONS**

#### **Environmental Working Conditions**

- Required to use safety equipment such as safety boots, vests, and hard hats and may be required to wear safety glasses.
- Moderate likelihood of minor injury; limited likelihood of major injury or illness as long as safety precautions are followed.
- May be exposed to undesirable working conditions when on the job-site, which include unusual/distracting noise, dirt, dust, glare, adverse weather conditions and temperature extremes, dangerous heights/depths, and sharp objects. Additionally is required to travel to sites and may have to work close to vehicle traffic.