

## **SENIOR ENGINEER**

### **SUMMARY/PURPOSE**

To perform and to supervise others who perform engineering work in the design, construction, and maintenance for a wide range of engineering projects including but not limited to, transportation road design, geotechnical engineering, building and other structures, and utility modeling & design.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

1. Complete design and preparation of engineering plans, specification, and reports.
2. Provide engineering analysis in support of project development and delivery.
3. Select qualified consultants for projects and prepare consultant contracts.
4. Prepare project cost estimates.
5. Provide plan review, construction inspection and observation for projects for the purpose of determining conformance with plans, specifications, and timely completion.
6. Provide technical engineering support to various departments, management staff and other utilities and agencies, to optimize various system processes and assist with project development activities.
7. Investigate, prepare, and present technical reports, petitions, council resolutions on projects, and presentations both within the City and at public meetings.
8. Lead development of standards related to project development, project management, and other engineering functions.
9. Lead capital improvement projects and prepares necessary reports, presentations, and communicates results.
10. Contract administration for construction improvement projects.
11. Plan, attend and speak at public hearings and meetings.
12. Determine priorities, assign work, and coordinate schedules of personnel to ensure work is completed in a timely manner.
13. Assists in the hiring, transfer, suspension, or discharge of assigned personnel.
14. Establish work standards and conduct employee evaluations.
15. Monitor work sites to ensure compliance with proper methods, guidelines, standards, and procedures.
16. Train personnel in correct and safe methods and procedures necessary to accomplish their assigned work.
17. Recommend adjustments or other actions in employee grievances.
18. Delegate authority and responsibility to others as needed.
19. Attend training sessions as required.
20. Other related duties as assigned.

### **JOB REQUIREMENTS**

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skills, and abilities required.

1. Education & Experience Requirements
  - A. Bachelor's Degree with a major in an engineering field from an accredited college or university followed by four (4) years of full-time equivalent work experience in the field of engineering as an Engineer-In-Training working under the direct supervision of a licensed Professional Engineer.
  - B. Eight (8) years of full-time work experience as a licensed Professional Engineer with at least two (2) years supervising complex engineering projects.

2. License Requirements

- A. Licensure as a Professional Engineer in the State of Minnesota or the ability to become licensed in the state of Minnesota within six (6) months from the date of appointment.
- B. Possession of a valid Minnesota Driver's License or equivalent.

3. Knowledge Requirements

- A. Knowledge of effective supervisory practices and the skill to use them effectively.
- B. Knowledge of recognized and acceptable engineering standards and practice for certification of plans, specifications, and reports.
- C. Knowledge of drafting and mapping principles and techniques and design and layout methods and techniques.
- D. Knowledge of various construction methods, equipment, and materials common to streets and underground utility systems.
- E. Knowledge and skill in the use of engineering equipment, charts, maps and tables.
- F. Knowledge of surveying methods and instruments.
- G. Knowledge of regulatory agencies (local, state, federal) and their rules affecting design and construction.
- H. Knowledge of engineering ethics and duties related to public safety.
- I. Knowledge of contractual law, contract writing, and contract procurement.
- J. Knowledge of safety principles and practices.

4. Skill Requirements

- A. Exhibits leadership qualities of adaptability, dependability, and accountability.
- B. Skill in supervising personnel.
- C. Skill in the use of engineering equipment, charts, maps and tables.
- D. Skill in drafting and mapping.
- E. Strong computer skills, including word processing, database, spreadsheet, presentation GIS and CAD applications.
- F. Skill in communicating clearly and concisely, both verbally and in writing for sound consultation to the public, professionals, and coworkers.

5. Ability Requirements

- A. Ability to prepare specifications, technical reports, resolutions, and petitions.
- B. Ability to perform engineering design and layout work.
- C. Ability to interpret construction plans and specifications and inspect the same during implementation for conformance with plans and specifications.
- D. Ability to apply engineering principles and practices.
- E. Ability to estimate construction costs, including labor and materials for proposed work and project budgets.
- F. Ability to set performance standards and goals.
- G. Ability to direct and supervise work, delegate work assignments, and motivate subordinates.
- H. Ability to gather, analyze, and interpret data, and make recommendations on that basis.
- I. Ability to conduct necessary engineering research and compile comprehensive reports.
- J. Ability to communicate, both orally and in writing.
- K. Ability to understand and implement oral and written instructions.
- L. Ability to establish and maintain effective working relationships with co-workers, project team, outside agencies, contractors, consultants, and the general public.
- M. Ability to work independently without direct supervision.
- N. Ability to operate computers and all associated software programs for communications, design, data analysis, and modeling.
- O. Ability to work independently to complete assignments with minimal information and general instructions.

- P. Ability to create and maintain a positive working environment that welcomes diversity, ensures cooperation, and promotes respect by sharing expertise with team members, fostering safe work practices, and developing trusting work relationships.
6. Physical Ability Requirements
- A. Ability to sit or stand for extended periods of time.
  - B. Fine dexterity of hands and fingers to operate a computer keyboard, calculator and other office equipment.
  - C. Ability to occasionally bend, stoop, and reach overhead to retrieve and store files and supplies.
  - D. Ability to transport (usually by lifting and carrying) materials and equipment weighing up to 25 pounds.
  - E. Ability to hear and speak sufficiently to exchange information in person and by telephone.
  - F. Ability to see to read, prepare, and proofread documents for accuracy.
  - G. Ability to transport oneself to, from, and around work sites of public meetings, projects, and other assignments.
  - H. Ability to attend work on a regular basis.

HR: HD	Union: Supervisory	EEOC: Professionals	CSB:	Class No:
WC:	Pay:	EEOF: Utilities/Transportation	CC:	Resolution: